Western Pacific
Country Health Information Profiles

World Health Organization
Western Pacific Region

2011 REVISION

CHiPS

WESTERN PACIFIC

Country Health Information Profiles

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Western Pacific Country Health Information Profiles: 2011 Revision

1. Health status indicators 2. National health programs 3. Health priorities

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Contents

Introduction

Country health information profiles (CHIPS) was first published in 1974 by the WHO Regional Office for the Western Pacific, and was intended primarily for use as a reference document for WHO staff responsible for briefing others, writing reports, drafting plans of action and verifying statistical data. Over the years, CHIPS has evolved from a purely statistical report to a more comprehensive description of each of the 37 countries and areas in the WHO Western Pacific Region and it has now become a resource tool used by other United Nations agencies, international organizations, government agencies and the general public.

CHIPS comprises ***country profiles*** and ***health databanks*** for each country and area of the WHO Western Pacific Region. It contains mostly crude data that are supplied either by health ministries/departments or compiled from national surveys, reports, policy documents and databases. Estimates and adjusted data from various published sources are also used. Every effort is made to update the information in CHIPS annually in response to ever-growing demands for current data, and clearance by the respective governments is also sought prior to publication. However, data reliability and data coverage may vary for each indicator and from country to country.

In this 2011 edition, the ***country profiles*** provide readers with background on each country's demographic, political and socioeconomic situation as related to health-seeking behaviour and prevailing health conditions. Trends in major disease conditions afflicting specific age groups and the population as a whole are also illustrated. The health system is detailed to provide information as to the country's priorities, policies, strategies and resources to address health problems and improve the health and lives of its people. Specifically, the country profiles provide information as to:

- **Country context** – Provides a picture of the country's population size and distribution, as well as its rate of population growth and movement. The political structure and situation are also described to show how major government initiatives and political events impact on health. Major economic determinants of health, such as economic performance, level of poverty, employment and working conditions, as well as government spending on health, are also explained and quantified. There is an overview of the environmental conditions and prevailing gender and human-rights issues affecting health, and the country's major vulnerabilities, which may be natural, biological, technological or societal, are illustrated.
- **Health situation and trend** – Illustrates the major communicable and noncommunicable diseases afflicting the country, its health transition experience and the leading causes of morbidity and mortality. Maternal health conditions, as well as diseases specifically affecting children and infants, are discussed. Burden-of-disease estimates are also presented, as well as results of national surveys on health risk factors.
- **Health system** – Orients readers on the mission, vision and objectives of the Ministry or Department of Health. The organization of the country's health services and delivery systems, such as the public and private sector

set-up, the public health administrative levels and the health facility network, are described. In addition, the framework for health policy, planning and regulation is presented. The Government's long-term objectives for the health sector are outlined, highlighting policies and directions, legislation recently passed or pending, health reform proposals and health system strengthening strategies. An overview is given of the health care financing system and major financing issues, and key areas and priorities in relation to human resources for health are presented.

- **Major information sources** – Lists key resources for additional information on the country. Includes websites, major publications and policy documents, surveys and databases.
- **Contact information for the Ministry/Department of Health and the WHO Representative or Country Liaison Officer for WHO** (if applicable)
- **Health ministry/department organizational chart** (if available)

A country ***health databank*** is annexed to each country profile and is more detailed in its content in that it provides different sets of indicators to reflect the country's:

- demographic and socioeconomic conditions;
- health status regarding leading causes of morbidity and mortality, and the number of cases and deaths from selected diseases;
- health system, as regards health care financing, health workforce and infrastructure;
- health service coverage, such as immunization of infants; and
- status in relation to the health-related Millennium Development Goals.

The ***statistical annex*** at the end of the publication summarizes most of the information in the health databanks and includes other indicators on selected health conditions: HIV, lymphatic filariasis and obesity. Information on child care practices and other health behaviours, such as smoking, drinking, diet and physical inactivity, is included, and the annex also contains human-rights, poverty and gender-related development indicators, as well as details of major emergencies occurring in the Region over the last two years. However, as previously mentioned, data reliability and data coverage may vary for each indicator and from country to country. Thus, intercountry comparisons may not always be possible due either to varying reference years, variations in data sources and/ or methodological issues.

Individual country profiles and the CHIPS volume as a whole are accessible on the website of the WHO Regional Office for the Western Pacific (http://www.wpro.who.int/).

Note on title. As in previous editions, the year of publication has been used (rather than the year of most recent data). This brings CHIPS into line with other WHO publications, such as the *World Health Report.*

Acronyms

ADB	Asian Development Bank
AFB	Acid-fast bacillus
AIDS	Acquired immunodeficiency syndrome
APEC	Asia-Pacific Economic Cooperation
API	Annual parasite incidence
ARI	Acute respiratory infection
ART	Antiretroviral therapy
AusAID	Australian Agency for International Development
BBV	Bloodborne viruses
BMI	Body mass index
CCS	Country cooperation strategy
CEDAW	Convention for the Elimination of all Forms of Discrimination Against Women
CFR	Case fatality rate
CNS	Central nervous system
COPD	Chronic obstructive pulmonary disease
CRC	Convention on the Rights of the Child
CRS	Congenital rubella syndrome
CVD	Cardiovascular disease
DALY	Disability-adjusted life years
DHF	Dengue haemorrhagic fever
DHS	Demographic health survey
DOTS	Directly observed treatment, short-course
ELF	Elimination of lymphatic filariasis
ENT	Ear, nose and throat
EPI	Expanded programme on immunization
EU	European Union
FAO	Food and agriculture organization
GAVI	Global Alliance for Vaccine and Immunization
GBD	Global burden of disease
GDI	Gender-related development index
GDP	Gross domestic product
GEM	Gender empowerment measure
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GII	Gender inequality index
GNI	Gross national income
GNP	Gross national product
HDI	Human development index
HFMD	Hand, food and mouth disease

Hib	Haemophilus influenza type b
HIS	Health information system
HIV	Human immunodeficiency virus
HMN	Health metrics network
HPV	Human papillomavirus
HRH	Human resources for health
ICD	International classification of diseases
ICT	Information and communication technology
IDU	Injecting drug users
ILI	Influenza-like illness
IMCI	Integrated management of childhood illness
IMR	Infant mortality rate
JAPR	Joint annual performance review
JICA	Japan International Cooperation Agency
JMP	Joint Monitoring Programme
LDC	Least developed countries
MCH	Maternal and child health
MDA	Mass drug administration
MDG	Millennium Development Goals
MDR TB	Multidrug resistance Tuberculosis
MICS	Multiple Indicator Cluster Survey
MMR	Maternal mortality ratio
MSM	Men having sex with men
NCD	Noncommunicable disease
NGO	Non-governmental organization
NGPES	National growth and poverty eradication strategy
NHA	National health accounts
NIP	National immunization programme
NZAID	New Zealand Agency for International Development
OCHA	Office for the Coordination of Humanitarian Affairs
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
PHC	Primary health care
PIHOA	Pacific Island Health Officers Association
POLHN	Pacific Open Learning Health Network
PPHSN	Pacific Public health surveillance network
PLWHA	People living with HIV/AIDS
PPP	Purchasing power parity
PRISM	Pacific Regional Information System
PYLL	Potential years of life lost

RERF	Revenues equalising reserve funds
RHS	Reproductive health survey
SARS	Severe acute respiratory syndrome
SDR	Standardized death rate
SIDS	Sudden infant death syndrome
SPC	Secretariat of the Pacific Community
STEPS	STEPwise approach to chronic disease risk factor surveillance
STI	Sexually transmitted infection
TB	Tuberculosis
TBA	Traditional birth attendants
TCM	Traditional Chinese Medicine
TFR	Total fertility rate
TT	Tetanus toxoid
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNDAF	United Nations Development Assistance Framework
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIFEM	United Nations Development Fund for Women
UNTAC	United Nations Transitional Authority in Cambodia
USAID	United States Agency for International Development
U5MR	Under-five mortality rate
VCT	Voluntary counselling and testing
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization
YLD	Years lost due to disability
YLL	Years of life lost

AMERICAN SAMOA

1. CONTEXT

1.1 Demographics

In 2010, American Samoa had an estimated population of 65 896. Based on 2010 population estimates, around 35% of the population is below 15 years of age, while 4% is above 65 years. Life expectancy at birth for men is estimated to be 69.3 years, while for women it is 75.9 years. The crude birth rate of 30.0 per 1000 population in 2000 was estimated to drop to 23.5 per 1000 population in 2010, with a crude death rate of 4.5 per 1000 population.

1.2 Political situation

American Samoa was defined by an 1899 treaty between the United States of America, the United Kingdom of Great Britain and Northern Ireland, and Germany, which gave the United States of America control of all Samoan islands east of 171°W. In 1978, the first popularly elected Samoan governor was inaugurated. Governor Togiola Tulafono, who was re-elected in November 2008, has been serving as Governor of American Samoa since April 2003. He has a cabinet made up of 12 department directors. There is a bicameral legislature (*Fono*), consisting of a senate (18 members chosen by county councils) and a house of representatives (20 members elected by popular vote, plus one non-voting member from Swains Island, which is privately owned). The next elections will be held in November 2012.

1.3 Socioeconomic situation

American Samoa has a small developing economy that depends on two main sources of income: the United States Government and tuna canning. Federal expenditures and the canning business together account for 93% of the economy. The remaining 7% comes from the small tourism industry and the service sector. Transfers from the United States Government add substantially to the country's economy, and annual budget revenues of US$ 121 million comprise grants from the United States of America (63%) and local revenue (37%). The United States is also the main trading partner. Gross domestic product (GDP) per capita was estimated at US$ 9041 in 2005.

Water supplies and sanitation systems are well organized and maintained, and 99% of the population have access to safe water. Water is increasingly supplied from deep bores, with a smaller portion from reservoirs, and is chlorinated. However, although 99% of the population have adequate excreta disposal facilities, solid waste disposal is still a problem. Waste collection systems have improved significantly, but space for solid waste landfill operations is very limited.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The most serious health issues relate to the increase in chronic diseases associated with lifestyle, with their roots in improper nutrition and physical inactivity. Significant increases in the prevalence of obesity, in both sexes and at increasingly younger ages, are associated with a number of these conditions. Hypertension, cardiovascular diseases, cerebrovascular diseases, type II diabetes mellitus and its complications, arthritis, gout and some forms of cancer are among the most important chronic diseases.

American Samoa reported one positive HIV infection in 2001. The Government is taking the issue of HIV/AIDS seriously and has developed a national policy and a prevention programme.

Filariasis is a major endemic problem. The mass drug administration (MDA) campaign in 2001 reported a coverage rate of 52% for the target population, an improvement compared with the 19% coverage rate of the 1999 MDA. In 2008, MDA coverage among the total population at risk was 52.9%. Blood survey results for filariasis were 2.6% (microfilaria) and 11.5% (immunochromatographic test) in 2001.

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

The morbidity pattern has shifted significantly over the past three decades from infectious diseases to a predominance of noncommunicable diseases related to modernization and lifestyle changes. Based on hospital discharge data and notifiable disease records, the leading causes of morbidity in 2001 were dengue fever, chickenpox, dog bites, road traffic injuries and food poisonings. Heart diseases and malignant neoplasms remained the leading causes of mortality in 2005. Other common causes of death are diabetes mellitus, cerebrovascular diseases, chronic obstructive pulmonary and allied conditions, pneumonia and influenza, hypertension, accidents, perinatal conditions and septicaemia.

2.4 Maternal, child and infant diseases

There has been considerable progress in primary health care in recent years. The total fertility rate for women aged 15-49 years was 4.0 in 2000, while the maternal mortality ratio was 123 per 100 000 live births in 2002.

The infant mortality rate dropped from 15.2 per 1000 live births in 2004 to 11.3 per 1000 live births in 2006-2008. The under-five mortality rate was 4.9 per 1000 live births in 2002.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Department of Health and the Hospital Division continue to co-exist as two separate systems. The Department of Health is responsible for public health issues, communicable disease control (including tuberculosis and HIV/AIDS) and health dispensaries at district and community levels. The national hospital in Pago Pago is under the management of the Hospital Board, designated by the Governor, and is subject to the federal rules and regulations of the United States of America (i.e. the hospital does not have to report to the Department of Health). Nevertheless, coordination between the Department of Health and the hospital is generally well conducted at the technical level. Most public health programmes continue to be funded by federal grants.

The territorial health priorities are as follows:

(1) Increase the capacity of the health system to meet the health challenges of the 21st century by:
- improving health policy development mechanisms,
- developing the health workforce,
- improving management processes at all levels, and
- strengthening long-range health planning and programme planning.

(2) Identify emerging and re-emerging diseases and implement effective interventions.
(3) Implement effective interventions to decrease the burden of chronic diseases related to unhealthy lifestyles, especially cardiovascular disease, cancer and diabetes mellitus.
(4) Actively implement the Healthy Islands concepts of health promotion, health protection and primary health care in priority settings, particularly through community health centres and school-linked programmes.

Increase the effectiveness of public investment in health through development of decision-oriented information systems, applied research, effective deployment of the health workforce, application of appropriate technology, and increased allocation of funding for health promotion, health protection and primary health care.

3.2 Organization of health services and delivery systems

See Section 3.1.

3.3 Health policy, planning and regulatory framework

See Section 3.1.

3.4 Health care financing

Financial management of public health programmes is mainly grant-driven rather than programme-driven. The hospital generates financial resources from user fees, local government appropriations and federal health care financing through the Medicaid and Medicare programmes. The total government health budget amounts to 14% of the territory's total budget, the bulk going towards curative care, with only about 10% going to public health. Total health expenditures amount to around US$ 32.3 million, which corresponds to per capita health expenditure of US$ 500.

The United States Health Care Financing Administration provides about US$ 3 million per year to the hospital, the LBJ Tropical Medical Center (16% of its funding), most of which is used to purchase medicines and medical supplies used at the centre. Pharmaceuticals and vaccines are purchased from the United States of America as United States Federal Drug Administration regulations prevent the territory from purchasing pharmaceuticals from foreign sources. There are frequent shortages due to problems with ordering logistics and financial shortfalls.

A planned project to build a new acute care hospital to replace the LBJ Tropical Medical Center has been deferred due to cost. An alternative plan to renovate and expand the existing facility is being implemented.

3.5 Human resources for health

The health infrastructure consists of one hospital (LBJ Tropical Medical Center) and five primary health centres. The LBJ Tropical Medical Center, a 128-bed general acute-care hospital, is the only hospital in the territory. It provides a reasonable range of general inpatient and outpatient services covering: medicine; surgery; obstetrics and gynaecology; ear, nose and throat (ENT) problems; eye problems; paediatrics; mental health; and renal dialysis.

The 2003 health workforce included 49 physicians (American doctors, Fiji School of Medicine graduates and foreign doctors), 15 dentists, 2 pharmacists, 127 nurses, 1 midwife, 98 other nursing/auxiliary staff, 146 paramedical personnel, and 13 other health personnel. However, the absence of an available health workforce pool in a small island population, along with severe government financial difficulties, make long-range health workforce planning uncertain, and recruitment and retention problematic. Both the Hospital Division and the Department of Health have inadequate resources to fund continuing education for their staff members. This leaves the Department of Health with a rapidly growing gap between evolving professional responsibilities and existing workforce competencies. The long-standing problem of health workforce deficiencies is one of the greatest challenges to health development. Human resource development for health has therefore been identified as a priority area for national health development, particularly for WHO collaboration.

Training of nurses takes place both locally and through overseas education in the American system and, as recognition of qualifications requires certification and/or registration by American professional associations, much undergraduate and postgraduate training is also undertaken in that system. Adequate numbers of licensed practical nurses are produced this way, but the supply of registered nurses is insufficient to meet the quality standards required for United States federal health care financing programmes.

Specialized training courses and workshops sponsored by WHO and American sources are also conducted, and help to improve the quality of health services, particularly those related to public health. The telecommunications capability at the LBJ Tropical Medical Center provides additional opportunities for distance learning through the telemedicine/telehealth system housed in that facility.

Medical and dental officers are trained at the Fiji Schools of Medicine and Dentistry, and postgraduate training through short-term courses and attachments is arranged in Australia and New Zealand. In addition, a number of medical students are attending medical schools in the United States of America, although this practice does not provide any assurance that these individuals will return to the island to practise as doctors after their training.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Statistical yearbook 2006* *American Samoa Factsheet*
Operator	:	Statistics Division, American Samoa Department of Commerce
Web address	:	http://www.asdoc.info/statistics/statshp.htm
Title 2	:	*Reports*
Operator	:	Department of Health, American Samoa
Title 3		*Basic indicators (Country Statistics- American Samoa)*
Operator	:	Pacific Regional Information System, Secretariat of the South Pacific
Web address	:	http://www.spc.int/prism/Country/AS/ASindex.html
Title 4	:	*American Samoa population: 2007*
Operator	:	ASG Department of Commerce, Statistics Division
Web address	:	http://www.asdoc.info/2007_Mid-year_population_estimate.pdf
Title 5	:	*Pacific Island Populations - Estimates and projections of demographic indicators for selected years (updated April 2010)* *Population 2000-2015 by 1 and 5 year age groups, February 2010*
Operator	:	Secretariat of the Pacific Community (SPC), Statistics and Demography Programme
Web address	:	http://www.spc.int/sdp/
Title 6	:	*CIA – The World Factbook*
Web address	:	https://www.cia.gov/library/publications/the-world-factbook/geos/aq.html

5. ADDRESSES

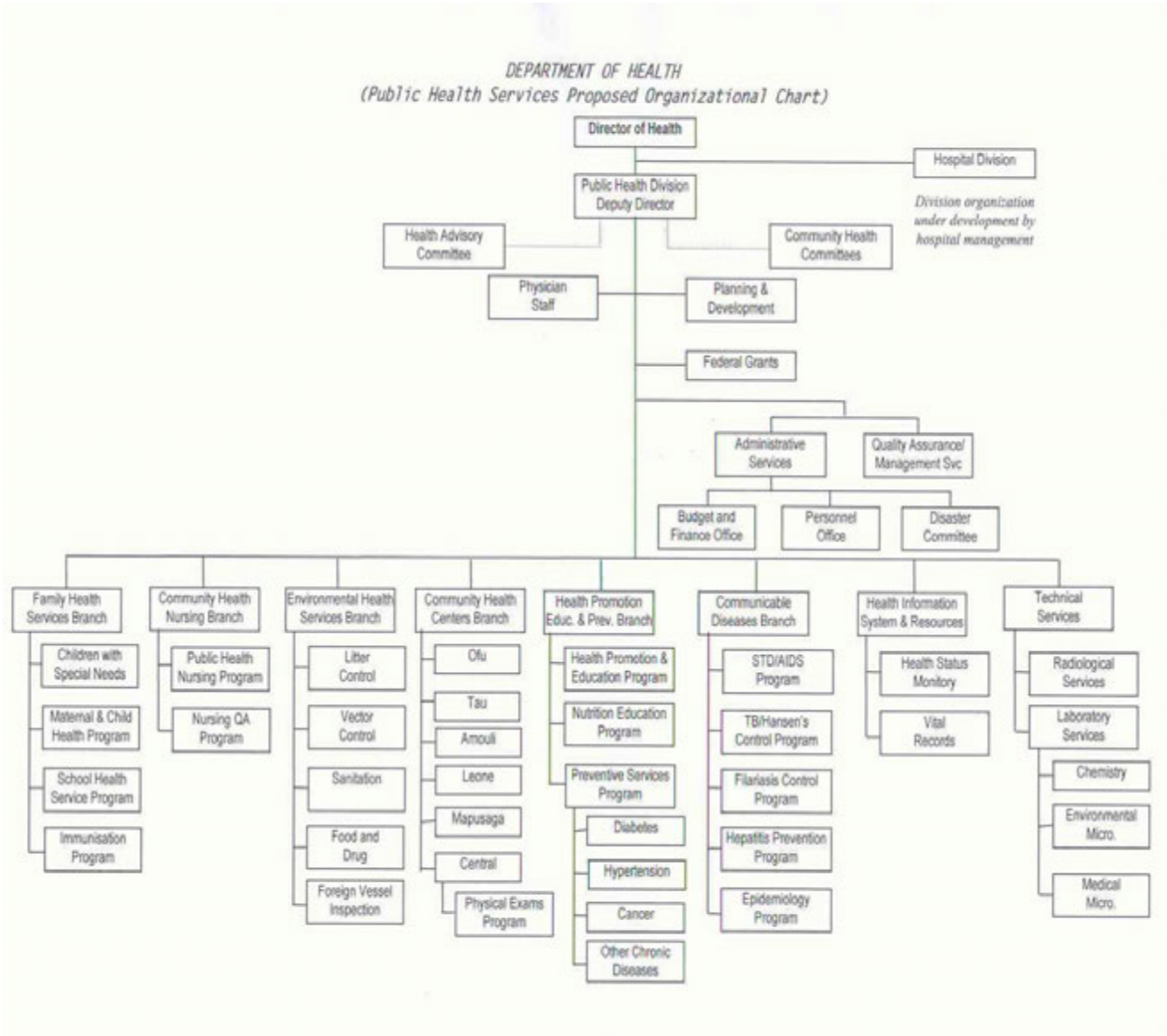
MINISTRY OF HEALTH

Office Address	:	Pago Pago, American Samoa 96799
Postal Address	:	American Samoa Government Territory of American Samoa, Pago Pago, AS 96799
Telephone	:	(684) 633 4606
Fax	:	(684) 633 5379

WHO REPRESENTATIVE IN SAMOA

Office Address	:	Office of the WHO Representative 4th Floor Ioane Viliamu Building Beach Road, Tamaligi, Apia, Western Samoa
Postal Address	:	P.O. Box 77 Apia, Western Samoa
Official Email Address	:	who@sma.wpro.who.int
Telephone	:	(685) 23756
Fax	:	(685) 23765

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

AMERICAN SAMOA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	0.20			2006	1
2	**Estimated population ('000s)**	65.90	33.63	32.26	2010 est	2
3	**Annual population growth rate (%)**	…	…	…		
4	**Percentage of population**					
	- 0–4 years	11.52 [a]	11.74 [a]	11.31 [a]	2010 est	2
	- 5–14 years	23.68 [a]	23.96 [a]	23.40 [a]	2010 est	2
	- 65 years and above	4.46 [a]	4.11 [a]	4.84 [a]	2010 est	2
5	**Urban population (%)**	93.00	…	…	2010 est	3
6	**Crude birth rate (per 1000 population)**	23.50	…	…	2011 est	4
7	**Crude death rate (per 1000 population)**	4.50	…	…	2011 est	4
8	**Rate of natural increase of population (% per annum)**	1.90 [a]	…	…	2011 est	4
9	**Life expectancy (years)**					
	- at birth	…	…	…		
	- Healthy Life Expectancy (HALE) at age 60	…	…	…		
10	**Total fertility rate (women aged 15–49 years)**	…				
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	…	…	…		
12	**Per capita GDP at current market prices (US$)**	9041.00			2005 est	5
13	**Rate of growth of per capita GDP (%)**	…				
14	**Human development index**	…				
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	…	…	…		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**								
	Hepatitis viral								
	- Type A	<5	…	…	0	0	0	2003	6
	- Type B	<5	…	…	0	0	0	2003	6
	- Type C	<5	…	…	0	0	0	2003	6
	- Type E	…	…	…	…	…	…		
	- Unspecified	0	0	0	0	0	0	2003	6
	Cholera	0	0	0	0	0	0	2003	6
	Dengue/DHF	419	…	…	…	…	…	2009	7
	Encephalitis	0	0	0	0	0	0	2003	6
	Gonorrhoea	41	30	11	0	0	0	2003	6
	Leprosy	0	0	0	…	…	…	2010	7
	Malaria	…	…	…	…	…	…		
	Plague	0	0	0	0	0	0	2003	6
	Syphilis	3	1	2	0	0	0	2003	6
	Typhoid fever	<5	…	…	0	0	0	2003	6
17	**Acute respiratory infections**	…	…	…	11	…	…	2002	6
	- Among children under 5 years	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	0	0	0	2002	6
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	4	...	...	0	0	0	2009	7
	- New pulmonary tuberculosis (smear-positive)	0	0	0	...	...	...	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	58	...	...	37	...	...	2002	6
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	7	...	...	3	...	...	2002	6
	- Cervix			7			4	2002	6
	- Leukaemia	2	...	...	2	...	...	2002	6
	- Lip, oral cavity and pharynx	4	...	...	0	0	0	2002	6
	- Liver	2	...	...	6	...	...	2002	6
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	7	...	...	5	...	...	2002	6
	- Trachea, bronchus, and lung	2	...	...	7	...	...	2002	6
21	**Circulatory**								
	All circulatory system diseases	...	...	...	88	...	...	2002	6
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	17	...	...	2002	6
	- Hypertension	...	...	...	9	...	...	2002	6
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	2417	1119	1298	29	...	...	2002	6
23	**Mental disorders**	135	...	...	0	0	0	2003	6
24	**Injuries**								
	All types	1500	...	...	26	...	...	2002	6
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	130	...	...	10	...	...	2002	6
	- Occupational injuries	101	...	...	5	...	...	2002	6
	- Road traffic accidents	...	...	...	1	...	...	2002	6
	- Suicide	35	...	...	4	...	...	2002	6
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Dengue fever	3196	...	...	5380.47	...	...	2001	8
	2. Chickenpox	325	...	...	547.14	...	...	2001	8
	3. Dog bites	319	...	...	537.04	...	...	2001	8
	4. Road traffic injuries	182	...	...	306.40	...	...	2001	8
	5. Food poisoning	79	...	...	132.99	...	...	2001	8
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

AMERICAN SAMOA

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Heart diseases	45	...	...	68.70	...	...	2005	8
	2. Malignant neoplasm	36	...	...	54.96	...	...	2005	8
	3. Diabetes mellitus	33	...	...	50.38	...	...	2005	8
	4. Cerebrovascular diseases	25	...	...	38.17	...	...	2005	8
	5. Chronic obstructive pulmonary and allied conditions	21	...	...	32.06	...	...	2005	8
	6. Pneumonia and influenza	12	...	...	18.32	...	...	2005	8
	7. Hypertension	12	...	...	18.32	...	...	2005	8
	8. Accidents	11	...	...	16.79	...	...	2005	8
	9. Perinatal conditions	7	...	...	10.69	...	...	2005	8
	10. Septicaemia	5	...	...	7.63	...	...	2005	8
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					...			
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					...			
29	**Percentage of pregnant women with anaemia**					32.00		2002	6
30	**Neonatal mortality rate (per 1000 live births)**	6.20		...		...		2007	9
31	**Percentage of newborn infants weighing less than 2500 g at birth**	2.85 [b]		...		...		2006	8
32	**Immunization coverage for infants (%)**								
	- BCG	...		...		...			
	- DTP3	94.00		...		...		2008	7
	- Hepatitis B III	89.00		...		...		2008	7
	- MCV2	...		...		...			
	- POL3	92.00		...		...		2008	7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2008	7
	- Diphtheria	0	0	0	...	...	...	2008	7
	- Measles	0	0	0	...	...	...	2010	7
	- Mumps	0	0	0	...	...	...	2008	7
	- Neonatal tetanus	0	0	0	...	...	...	2008	7
	- Pertussis (whooping cough)	0	0	0	...	...	...	2008	7
	- Poliomyelitis	0	0	0	...	...	...	2010	7
	- Rubella	0	0	0	...	...	...	2008	7
	- Total Tetanus	0	0	0	...	...	...	2008	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	128	2003	6
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	5	0	2003	6
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			32.30	2003	10
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			500.00	2003	10
	Government expenditure on health					
	- amount (in million US$)			31.80	2003	10
	- general government expenditure on health as % of total expenditure on health			98.00	2003	10
	- general government expenditure on health as % of total general government expenditure			14.00	2003	10
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			70.00	2003	10
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			2.00	2003	10
	- out-of-pocket expenditure on health as % of total expenditure on health			...		
	Exchange rate in US$ of local currency is: 1 US$ =			...		
38	**Health insurance coverage as % of total population**					

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	49	36	13	...	...	...	...	2003	6
		- Ratio per 1000 population	0.78	0.58	0.21	...	...	...	...	2003	6
	Dentists	- Number	15	8	7	...	...	...	...	2003	6
		- Ratio per 1000 population	0.24	0.13	0.11	...	...	...	...	2003	6
	Pharmacists	- Number	2	2	0	...	...	...	...	2003	6
		- Ratio per 1000 population	0.03	0.03	0.00	...	...	...	...	2003	6
	Nurses	- Number	127	4	123	...	...	...	...	2003	6
		- Ratio per 1000 population	2.03	0.06	1.96	...	...	...	...	2003	6
	Midwives	- Number	1	0	1	...	...	...	...	2003	6
		- Ratio per 1000 population	0.02	0.00	0.02	...	...	...	...	2003	6
	Paramedical staff	- Number	146	63	83	...	...	...	...	2003	6
		- Ratio per 1000 population	2.33	1.01	1.33	...	...	...	...	2003	6
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	11.30	...	...	2006-08	4
44	Under-five mortality rate (per 1000 live births)	4.90	...	...	2002	6
45	Proportion of 1 year-old children immunised against measles	86.00	...	...	2008	7
46	Maternal mortality ratio (per 100 000 live births)	123.00			2002	6
47	Proportion of births attended by skilled health personnel	100.00			2002	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	1.00			2002	6
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.00			2002	6
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	70.00			2002	6
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	6.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	0.00	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	290.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	...	...	...		
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	99.00	99.00	99.00	2004	6
64	Proportion of population using an improved sanitation facility	99.00	99.00	99.00	2004	6
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
est	Estimate
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Figure refers to birthweight less than 2501 grams

Sources:	
1	American Samoa Factsheet. ASG Department of Commerce, Statistics Division, American Samoa [www.adsoc.info/AS%20Factsheet.htm].
2	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=158&Itemid=&lang=en]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	2011 Population and Demographic indicators. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=344&Itemid=&lang=en]
5	American Samoa basic indicators, Pacific Regional Information System - Country Statistics, Secretariat of the South Pacific. Accessed on August 2011 [http://www.spc.int/prism/Country/AS/ASindex.html]
6	Department of Health, American Samoa.
7	WHO Regional Office for the Western Pacific, data received from the technical units.
8	Statistical Yearbook 2006. Health Information System, ASG Department of Health, American Samoa.
9	American Samoa Population: 2007 [http://www.asdoc.info/2007_Mid-year_population_estimate.pdf]
10	ASG Department of Commerce, Statistics Division, American Samoa [www.asdoc.info/Statistics/statshp.htm].

AUSTRALIA

1. CONTEXT

1.1 Demographics

In 2010, Australia had a population of 22 342 398: 11 124 254 males and 11 218 144 females. Most of the population is concentrated along the eastern seaboard and the south-eastern corner of the continent. It is one of the world's most urbanized countries, with around 89% of Australians living in urban areas. Australia's population density of 2.9 people per square kilometre varies greatly across the country, being very low in remote areas and very high in inner-city areas.

Australia's population grew by 1.7% between June 2009 and June 2010, with 57% of that increase due to net overseas migration and 43% due to natural increase (302 200 births and 140 600 deaths). Between 1961 and 2001, Australia's total fertility rate declined from 3.6 babies per woman to 1.7. The fertility rate for Australian women in 2009 was 1.9 babies per woman. Australia's population is ageing, with the number of people aged 65 years or more projected to increase from 3 million in 2010 to 8.1 million in 2050; an increase from 13.5% to 22.7% of the total population.

Life expectancy at birth is 81.6 years (79.3 for men and 83.9 for women), one of the highest in the world. Gains in Australia have been primarily due to reduced child and maternal mortality in the early decades of the last century, and improved longevity for other ages, particularly for older people with chronic diseases.

Despite the ageing of the population over the last 20 years, crude death rates have declined overall. In 1989, the crude death rate was 7.4 deaths per 1000 population, decreasing to 6.4 deaths per 1000 population in 2009. After adjusting for changes in the age structure of the population, the standardized death rate (SDR) has shown consistent decreases over the past 20 years. In 1999, the SDR was 9.1 deaths per 1000 standard population, decreasing to 5.7 deaths per 1000 standard population in 2009 (an overall decrease of 37%). However, the overall mortality rate for Aboriginal and Torres Strait Islanders is twice the rate for non-Indigenous Australians.

1.2 Political situation

The Commonwealth of Australia was formally established in 1901 when the six Australian colonies agreed to The Australian Constitution, creating a federal system of government. Under this system, powers are distributed between the federal Government (the Commonwealth or Australian Government) and the six states and two territories. The written constitution defines the responsibilities of the Australian Government, which include foreign relations and trade, defence and immigration. Governments of the states and territories are responsible for all matters not assigned to the Australian Government. State parliaments are subject to the National Constitution as well as their own State Constitutions. A federal law overrides any state/territory law not consistent with it.

The system of government is based on the liberal democratic tradition, which includes religious tolerance, freedom of speech and freedom of association. Its institutions and practices reflect the British and North American models of government, but are uniquely Australian. The Australian Parliament sits at the centre of the Australian Government. It consists of the Queen (represented by the Governor-General) and two Houses (the Senate and the House of Representatives). These three elements make Australia a constitutional monarchy and parliamentary democracy.

1.3 Socioeconomic situation

The recent natural disasters in Australia (flooding and cyclone), combined with the earthquakes in Japan and New Zealand, are expected to detract around ¾ of a percentage point from Australia's economic growth in 2010-2011. The negative impacts of these events on Australia's economic growth are expected to be temporary, however, with the resumption of activity and commencement of reconstruction expected to add to real growth in gross domestic product (GDP) from 2011-2012.

More broadly, the Australian economy is in a strong position and the outlook is favourable, with above-trend real GDP growth forecast over the next two years. Beyond the short-term impact of the natural

disasters, Australia's real GDP growth is forecast to strengthen to 4% in 2011-2012 and 3.75% in 2012-2013, led by record levels of investment in the resources sector.

Employment has grown strongly, with over 300 000 jobs created over the past year. For 2011 (April quarter), the labour force participation rate was 65.6% and the unemployment rate remained steady at 4.9%. The labour market has held up well during the global recession, with Australia having one of the lowest unemployment rates among the advanced economies.

The favourable outlook for the Australian economy is supported by improving global conditions. Strong growth in China (now Australia's largest export market), India and the other emerging economies of Asia is expected to underpin strong demand for Australian exports. This will continue to boost demand for Australia's non-rural commodities and further support Australia's terms of trade.

Approximately 2.1 million Australians were estimated to be living in poverty in 2006 (11.7% of the population), that figure reflecting the population with below 50% of median disposable household income. In 2007-2008, the lowest income quintile of households was receiving 7.6% of total income, while the highest income quintile was receiving 39.4%.

1.4 Risks, vulnerabilities and hazards

Australia faces risks from a range of biological hazards, such as pathogenic microorganisms with pandemic potential. The country is well prepared and used the Australian Health Management Plan for Pandemic Influenza during its response to the pandemic (H1N1) 2009 virus. The Australian Government's Department of Health and Ageing coordinates with state and territory government partners response plans for a variety of communicable diseases under the National Health Emergency Response Arrangements. The Department is currently evaluating the heath sector's response to the pandemic to further strengthen its preparedness to respond to emerging threats.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Australia's level of health continues to improve overall and, in most aspects, matches or leads other comparable countries, such as those forming the Organisation for Economic Co-operation and Development (OECD). Between 1987 and 2005, Australia's ranking among OECD countries improved markedly for mortality rates from coronary heart disease, stroke, lung and colon cancer, and transport accidents and, in 2005, Australia had the lowest death rates from accidental falls. Smoking rates have continued to fall, with the ranking improving from middle third to 'best' third. The ranking for lower alcohol consumption has also improved a little. The dental health of 12 year-olds has slipped in rank since 1987, although it has remained in the 'best' third.

Since 1987, Australia's ranking has fallen in relation to death rates for respiratory diseases, diabetes and, to a lesser extent, prostate cancer. Although there has been a small improvement in ranking for adult obesity rates since 1987, Australia remains in the 'worst' third of all OECD countries on this measure. However, the country is among a small number that provide bodyweight estimates based on actual measurement of people's heights and weights, rather than self-reporting. This difference in methodology limits data comparability.

Although most Australians now enjoy good health, there are still inequalities in the distribution of health and its determinants according to socioeconomic situation. Specifically, mental health problems, cardiovascular disease and diabetes are the greatest contributors to the socioeconomic gap in disease burden. Some population groups continue to suffer poor health, particularly Indigenous Australians. Life expectancy for this group is around 9.7 to 11.5 years lower than the Australian average for females and males, respectively. Australians living in regional and remote areas also generally experience poorer health than their counterparts in major cities.

An example of the Australian Government's response to communicable disease is the framework of national strategies for bloodborne viruses (BBV) and sexually transmittted infections (STI): (1) the Sixth National HIV Strategy; (2) the First National Hepatitis B Strategy; (3) the Second National Sexually Transmissible Infections Strategy; (4) the Third National Hepatitis C Virus (HCV) Strategy; and (5) the Third National Indigenous Blood Borne Viruses and Sexually Transmissible Infections Strategy. The strategies identify at-risk population groups

and priority areas for action, and provide performance indicators for monitoring purposes. Through to 2013, these documents will guide Australian, state and territory government responses to BBV and STI, including activities for prevention and for testing and treatment.

In contrast to comparable countries, Australia has low HIV/AIDS prevalence rates in all populations. The country's achievements in relation to HIV/AIDS have been largely attributed to the cooperative partnership between all levels of government; community organizations; the medical, health care and scientific communities; and people living with or affected by HIV/AIDS.

Each year, smoking kills 15 000 Australians and costs Australia A$ 31.5 billion (US$ 32.8 billion). Some 3 million Australians, about 19% of the adult population, still smoke daily. The Australian Government is committed to reducing that rate to 10% by 2018. To achieve this, the excise on tobacco products has been increased by 25%, because higher cigarette prices are one of the most effective ways to cut smoking. Australia is also introducing plain packaging legislation and prohibiting tobacco advertising on the Internet to reduce the impact of tobacco advertising, particularly on young people. The Government is making record investments in anti-smoking, social-marketing campaigns to educate Australians about the health impacts of smoking. To help Australians quit smoking, the Government has also subsidised a range of smoking cessation aids and nicotine replacement therapy products as part of the Pharmaceutical Benefits Scheme.

2.2 Outbreaks of communicable diseases

The Australian Government coordinates surveillance activities and provides expert advice to support communicable disease (including foodborne diseases) monitoring and response, both nationally and internationally.

There are 65 nationally notifiable diseases in Australia (as defined by the National Notifiable Diseases List), including bacterial infections and bloodborne, sexually transmissible, quarantinable, gastrointestinal, vaccine-preventable and zoonotic diseases. The notifiable diseases most frequently notified during 2010 included chlamydial infections (74 292 notifications), pertussis (34 479 notifications), campylobacteriosis (16 923 notifications) and laboratory-confirmed influenza (13 309 notifications).

Australia is working to ascertain and minimize the impact of foodborne illnesses in the country. This is being achieved by collaborating with government agencies, state and territory health and primary industry portfolios, consumers and the food industry to facilitate improved food-safety practices and to assess the effectiveness and impact through active surveillance, such as OzFoodNet, and applied research projects.

Pandemic preparedness is also a significant area of health protection being addressed by the Australian Government. During the response to pandemic (H1N1) 2009 influenza, Australia utilized the Australian Health Management Plan for Pandemic Influenza (AHMPPI), adapting it to suit the characteristics of the circulating virus. The Government purchased 21 million doses of vaccine, with 9.3 million doses being delivered to immunization providers across the country during the national pandemic vaccination programme, the largest single vaccination campaign ever undertaken in Australia. The country also donated 3.8 million doses of the vaccine to WHO for use among priority groups in developing countries in the Region.

A review of the health sector's response to pandemic (H1N1) 2009 will be used to revise the AHMPPI to further strengthen Australia's ability to respond to pandemics. A public "lessons identified" report will outline recommendations for the Australian national health sector on aspects of planning and response arrangements.

The universal vaccination programmes funded under the national immunization programme target the following vaccine-preventable diseases in children and adolescents: measles, mumps, rubella, poliomyelitis, pneumococcal, pertussis (whooping cough), haemophilus influenza type B (Hib), rotavirus, varicella (chickenpox), diphtheria, tetanus, hepatitis B, hepatitis A (for Indigenous children in high-risk areas), human papillomavirus and meningococcal C virus. Incentives are available to both parents and general practices to maximize children's vaccination. The national immunization coverage rate for infants between 12 and 15 months of age has now reached 91.4% (as at 31 March 2010), compared with immunization coverage rates as low as 53% 20 years ago.

2.3 Leading causes of mortality and morbidity

The leading underlying cause of death in 2009 was ischaemic heart disease, with 22 523 deaths (16% of all deaths registered in that year; in 2000 the disease accounted for 21% of all deaths. The second most common cause of death was cerebrovascular disease, with 11 220 deaths. Dementia and Alzheimer's disease was the third leading cause of death in 2009, with deaths due to this cause increasing 126.5% from 3655 in 2000 to 8277 in 2009. Collectively, malignant neoplasms accounted for 40 988 registered deaths in 2009. Seven of the 20 leading underlying causes of death were attributable to a form of malignant cancer, cancer of the trachea and lung being the fourth major cause of death, with 7786 deaths. Colorectal cancer and breast cancer ranked seventh and twelfth, respectively. There are two national screening programmes in Australia that aim to reduce mortality rates from breast and colon cancer, BreastScreen Australia and the National Bowel Cancer Screening Program. Injuries accounted for 8884 deaths in 2009, transport accidents and suicides being the major contributors, with 1501 and 2130 deaths, respectively. Males were more likely to commit suicide than females, with 1631 male deaths compared with 499 for females.

Many of the health conditions that significantly affect Australians are associated with lifestyle and health-risk factors, often with their roots in improper nutrition and lack of physical activity. Significant increases in the prevalence of obesity, in both sexes and at increasingly younger ages, are associated with cardiovascular disease, diabetes mellitus and its complications, and arthritis. In the 2007-2008 National Health Survey, cardiovascular disease was reported by 16% of the population, while 4% reported diabetes mellitus and 15% arthritis.

The proportions of the population reporting arthritis, asthma and hypertension remained reasonably steady over the period from 1995 to 2007-2008, while the proportions reporting diabetes mellitus, high cholesterol and osteoporosis increased. Reported mental and behavioural problems increased between 1995 and 2001, but remained steady between 2001 and 2007-2008. In 2007-2008, asthma was reported by 9.9% of the population, while hypertension, high cholesterol, osteoporosis and mental and behavioural problems affected 9%, 6%, 3% and 11%, respectively.

2.4 Maternal, child and infant diseases

In 2009, the neonatal mortality rate was 3.0 deaths per 1000 live births; the infant mortality rate was 4.3 deaths per 1000 live births; and the under-five mortality rate was 5.0 deaths per 1000 live births. Although infant and child deaths form only a small proportion (less than 1%) of all deaths, they nevertheless have important public health policy significance.

Despite the continuing high rate of infant mortality among Indigenous Australians compared with other infants, the gap is narrowing. Between 1991 and 2009, the Indigenous infant mortality rate declined by around 48%, compared with a reduction of 44% for other infants in Western Australia, South Australia and the Northern Territory.

There has also been a dramatic decline in mortality rates for women during childbirth. Improved nutrition, better general health, the advent of medical interventions like antiseptic procedures, a decrease in the number of pregnancies (due to contraception and family planning), use of blood transfusions and the professional training of those attending births have all contributed to a sustained decrease in maternal deaths following childbirth.

2.5 Burden of disease

In its 2007 report, *The Burden of Disease and Injury in Australia 2003*, the Australian Institute of Health and Welfare (AIHW) reported that cancer and cardiovascular disease were the leading causes of disease in Australia in 2003, with cancer (19.0% of the total disease burden) and cardiovascular diseases (18.0%) together accounting for 37% of the total disease burden. Mental illness (13.3%) and neurological and sense disorders (11.9%) were the next largest contributors, together accounting for a further 25% of the total disease burden.

The ageing of Australia's population is expected to result in increasing numbers of people with disability from diseases more common in older ages, such as dementia, Parkinson's disease, hearing and vision loss, and osteoarthritis. Cancer is expected to retain its share of the total health disease burden. Age-standardized rates of death and disability are expected to fall, but it is anticipated that cancer will remain the largest contributor to the disease burden in 20 years' time.

A risk driven largely by the ageing of the population is that the prevalence of adult Australians with hearing impairment will rise from the current 16.6% to an expected 25% by 2050. The Australian Government supports hearing-impaired Australians (adults and children) through the provision of subsidized hearing services to certain eligible groups through a network of private and public hearing service providers.

The burden of disease suffered by Indigenous Australians is estimated to be two-and-a-half times greater than that for the total Australian population. Long-term health conditions responsible for much of the ill-health experienced by Indigenous Australians include circulatory diseases, diabetes, mental disorders and chronic lung disease. For most of these conditions, Indigenous Australians also experience an earlier onset of disease than other Australians.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Australia's health care system is a partnership between the federal, state and territory governments. Through the Health and Ageing portfolio, the Australian Government works to provide a health care system to meet the health care and ageing needs of all Australians by providing national leadership, determining national policies and outcomes, improving programme management, research, regulation and working in partnership with state and territory governments, stakeholders and consumers.

The vision of the Department of Health and Ageing is of better health and active ageing for all Australians. The Department's priorities include to:

- support the Government in its reform of the health and hospital system;
- increase the focus of primary health care on people's needs and prevention/early intervention, to help reduce the incidence of chronic illness;
- improve the capacity of the health workforce through education and training and by expanding the roles of non-medical health professionals;
- improve the delivery of health care and early intervention measures for Indigenous Australians, to help close the gap in life expectancy rates between Indigenous and non-Indigenous Australians;
- support people living with mental illness, their families and their carers through integrated, effective and evidence-based mental health care;
- reconfigure health service delivery to achieve better health outcomes for people living in rural and remote communities; and support older Australians with a national health and ageing system responsive to their needs and improved governance arrangements and reforms.

3.2 Organization of health services and delivery systems

The organization of the public health system is strongly influenced by the federal system, where responsibility and funding for health is shared between the Australian Government and the governments of the states and territories. The system is complex, with delivery provided by both the public and private sectors.

The Australian Government funds medical and pharmaceutical benefits, private health insurance subsidies, hearing services, and university training places for health workers, it shares responsibility with the states and territories for funding of public hospital services. The Australian Government also has a national leadership role in strategies to tackle significant health issues, as well as regulatory responsibilities. The state and territory governments provide public hospital services and community and public health services, assist with training of health workers through clinical training in public hospitals, and regulate private hospitals. Private practitioners provide most medical and dental services, as well as a range of allied health services.

The aim of the Australian health system is to give universal access to health care under what is known as 'Medicare', while allowing choice for individuals through substantial private sector involvement in delivery and financing. The three pillars of Medicare, funded by the Australian Government, are:

(1) The Medicare Benefits Schedule – a universal programme that provides consumers with access to privately provided medical services and may include co-payments by users where the cost of services is not fully covered by the rebate.

(2) The Pharmaceutical Benefits Scheme – subsidization of a wide range of prescription medications supplied by community pharmacies.

(3) Funding provided to states and territories to assist them in providing access to free public hospital services.

The Australian Government also funds a system of private health insurance rebates that subsidize the cost of premiums for private health insurers. Every Australian can elect to be treated as a private patient in a public hospital in order to have a choice of doctor. In addition, private hospitals provide an alternative to the public hospital system for many procedures. A large proportion of the health workforce is employed by the private sector, and corporatization is increasingly becoming a key organizing factor in the delivery of services such as general medicine, pathology and diagnostic imaging.

Australia has a well developed health technology assessment system to inform decisions about public and private health care funding for pharmaceuticals and new medical technologies.

3.3 Health policy, planning and regulatory framework

The core values of the Australian health system are ensuring the affordability and accessibility of health care, as well as equitable access to necessary care, and reducing disparities in health outcomes. Providing consumers with choice in their health care is also a key principle of the system.

Since 2007, the Australian Government has embarked on a major process of reform in the health system.

In February 2011, at the Council of Australian Governments (COAG), the Commonwealth and all states and territories signed the Heads of Agreement on National Health Reform. The Heads of Agreement is the basis to negotiate a new National Health Reform Agreement, to be agreed by COAG.

Under the Heads of Agreement on National Health Reform, COAG has agreed to the establishment of a national approach to activity-based funding of public hospital services, to be funded, wherever possible, on the basis of a national efficient price for each public hospital service provided to public patients. An Independent Hospital Pricing Authority will be established to determine the efficient price of hospital services. A National Health Performance Authority will also be established to develop and produce reports on the performance of hospitals and health care services, including primary health care services. Under the agreement, the Commonwealth will increase its contribution to efficient growth funding for public hospitals to 45% from 1 July 2014, increasing to 50% from 1 July 2017.

All governments, federal, state and territory, will contribute funding for hospitals into a single national pool that will be administered by an independent national funding body. There will be complete transparency and visibility of government contributions into the pool and from the pool through state and territory accounts to Local Hospital Networks (LHNs), which will be responsible for the local governance and management of public hospitals. As well as amounts paid to LHNs, funds will flow from the pool to the states and territories for block funding for small regional and rural hospitals and to fund teaching, training and research undertaken in public hospitals.

Additionally, the Australian Commission on Safety and Quality in Health Care has been legislatively established as a permanent, independent authority to develop, monitor and implement national standards for improving clinical safety and quality in hospitals and health care settings.

Supporting the reform package, the National Primary Health Care Strategy was released in May 2010. The strategy represents the first comprehensive national policy statement for primary health care in Australia and provides a road map to guide current and future policy and practice in the Australian primary health care sector. The National Preventative Health Strategy was also released in May 2010 and focuses on addressing the growing economic and health burden associated with obesity, tobacco and alcohol.

The Australian Government is taking action under the National Health Reform to build a national, secure e-health system. The Australian Government will provide funding of A$466.7 million (US$ 487.2 million) over two years from July 2010 to establish a personally controlled electronic health record system. Commencing in

2012-2013, consumers and their authorized health care providers will be able to securely access their own personally controlled e-health records via the Internet.

3.4 Health care financing

Currently, the Australian Government is the major funder of health services, while the state and territory governments have a major role in health service delivery. Medicare is a compulsory insurance system financed largely by general taxation revenue, some of which is raised by an income-related levy collected by the Australian Government.

In 2008-09, Australia's total expenditure on health goods and services amounted to A$113.5 billion (US$95.4 billion). Total health expenditure has been growing faster than the economy over the last decade, increasing from 7.8% of GDP in 1996-1997 to 9.0% of GDP in 2008-2009. Over two-thirds of total health expenditure is funded by the public sector; in 2008-2009, 69% of total health expenditure was funded by governments. The remaining one-third (31%) was funded by the private sector. Average annual real growth in total health expenditure over the decade to 2008-2009 was 5.5%. In 2008-2009, hospitals, medical services and medications were the three largest areas of health expenditure in the country, accounting for two-thirds of total health expenditure (public hospitals 29%, private hospitals 8%, medical services 17% and medications 13%).

3.5 Human resources for health

Australia's health workforce is influenced by a number of complex and interrelated factors. These include an increase in life expectancy, a greater number and a greater proportion of people aged over 65 years, medical and technical advances that create a need for new specialist knowledge and skills, and increasing consumer awareness and demand for a more sophisticated mix of services.

Although the overall number of health professionals is increasing, growth in workforce demand has partly offset, and in some cases outstripped growth in supply. For example, the increase in general practitioner numbers has barely kept pace with population growth. Reduced working hours have also counteracted the perceived growth in workforce supply.

Although precise quantification of workforce shortages is difficult, there are currently shortages in general practice, various medical specialty areas, dentistry, nursing and some key allied health areas. Health workforce shortages are more acute in rural and remote areas. Future health workforce supply will be influenced by developments in the broader labour market, the level of workforce re-entry, retention rates, overseas recruitment and supply pressures internationally, as well as how effectively the existing workforce is deployed.

The demand for health services will be strongly stimulated by increasing incomes and community expectations, technological advances and changes in disease burdens. An affluent Australian lifestyle and an ageing population have dramatically moved the burden of disease from acute, episodic conditions to chronic disease, which is expected to impose heavier burdens on the demand for health services, even as new threats emerge.

To address current workforce shortages and better equip the health system to meet future demands for health care services, Australia is investing in training more doctors and providing education and support to nurses and allied health professionals. In 2010, Health Workforce Australia was established to manage and oversee research and planning into the country's long-term health workforce requirements.

In addition, a national registration and accreditation scheme for health professions has been agreed upon by all Australian governments. The National Registration and Accreditation Scheme (NRAS) was implemented on 1 July 2010, the objectives of the scheme being to: provide greater safeguards for the public; facilitate workforce mobility; streamline registration processes for practitioners; and facilitate the provision of education, training and assessment of overseas-trained practitioners.

Currently, 10 health professions are registered under the NRAS. These are chiropractors, dental care practitioners (dentists, dental therapists, dental hygienists, dental prosthetists), medical practitioners, nurses and midwives, optometrists, osteopaths, pharmacists, physiotherapists, podiatrists and psychologists. An additional four professions will be regulated under the Scheme starting on 1 July 2012. These are: Aboriginal and Torres Strait Islander health practitioners; Chinese medicine practitioners; medical radiation practitioners; and occupational therapists.

3.6 Partnerships

Australia manages relationships with international bodies such as WHO, the Organisation for Economic Co-operation and Development (OECD) and the Asia Pacific Economic Cooperation (APEC). The country also has a number of bilateral health agreements and partnerships with other countries, primarily within the Asia Pacific Region.

3.7 Challenges to health system strengthening

Australia's health care system is a complex combination of public and private sectors, with services provided by a wide range of professions. It needs to provide care to all members of the community, from the very young to the very old, and to address the health needs of the chronically ill and people from diverse backgrounds and places of origin.

Overall, Australians experience good health, but they suffer from the major health burdens of the developed world, such as cancer, mental illness, musculoskeletal diseases, obesity and diabetes. At the same time, in some communities, most notably many Indigenous communities, diseases of the developing world are still prevalent.

There are a number of issues that are currently influencing decisions on health priorities to some extent and are likely to take on greater significance in coming years. These include: demographic changes, such as population ageing; changes in service delivery models, including a move to a greater emphasis on community care and coordinated care; changing disease patterns; advances in medical technologies; and increasing consumer expectations. Other challenges include finding ways for disadvantaged groups to more equitably share the achievements of the health system through targeted programmes, such as Aboriginal and Torres Strait Islander health and hospital services. These challenges will put governments around the country under increasing fiscal pressure.

The reforms agreed at the February 2011 COAG meeting are aimed at ensuring that Australia's health system can better cope with future demands and pressures.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Australia's Health 2010
Operator	:	Australian Institute of Health and Welfare
Specification	:	Biennial report on patterns of health and illness, determinants of health, the supply and use of health services, and health services expenditure.
Web address	:	http://www.aihw.gov.au
Title 2	:	Annual Report 2009-2010
Operator	:	Department of Health and Ageing
Web address	:	http://www.health.gov.au
Title 3	:	Health expenditure Australia 2008-09
Operator	:	Australian Institute of Health and Welfare
Web address	:	http://www.aihw.gov.au
Title 4	:	Various National Health Surveys, from 1995 to 2007-08
Operator	:	Australian Bureau of Statistics
Web address	:	http://www.abs.gov.au
Title 5	:	The State of our Public Hospitals, June 2010 Report
Operator	:	Department of Health and Ageing
Web address	:	http://www.health.gov.au
Title 6	:	Webpage
Operator	:	Department of Health and Ageing
Web address	:	http://www.yourhealth.gov.au
Title 7	:	National Aboriginal and Torres Strait Islander Health Survey 2004-05
Operator	:	Australian Bureau of Statistics
Web address	:	http://www.abs.gov.au

Title 8	:	National Health Aboriginal and Torres Strait Islander Social Survey 2008
Operator	:	Australian Bureau of Statistics
Web address	:	http://www.abs.gov.au
Title 9	:	The Aboriginal and Torres Strait Islander Health Performance Framework Report 2008
Operator	:	Australian Health Ministers' Advisory Council
Web address	:	http://www.health.gov.au/internet/main/publishing.nsf/Content/health-oatsih-pubs-framereport
Title 10	:	The burden of disease and injury in Aboriginal and Torres Strait Islander Peoples 2003
Operator	:	University of Queensland
Web address	:	http://www.uq.edu.au/bodce/index.html?page=68411

5. ADDRESSES

AUSTRALIAN GOVERNMENT DEPARTMENT OF HEALTH AND AGEING

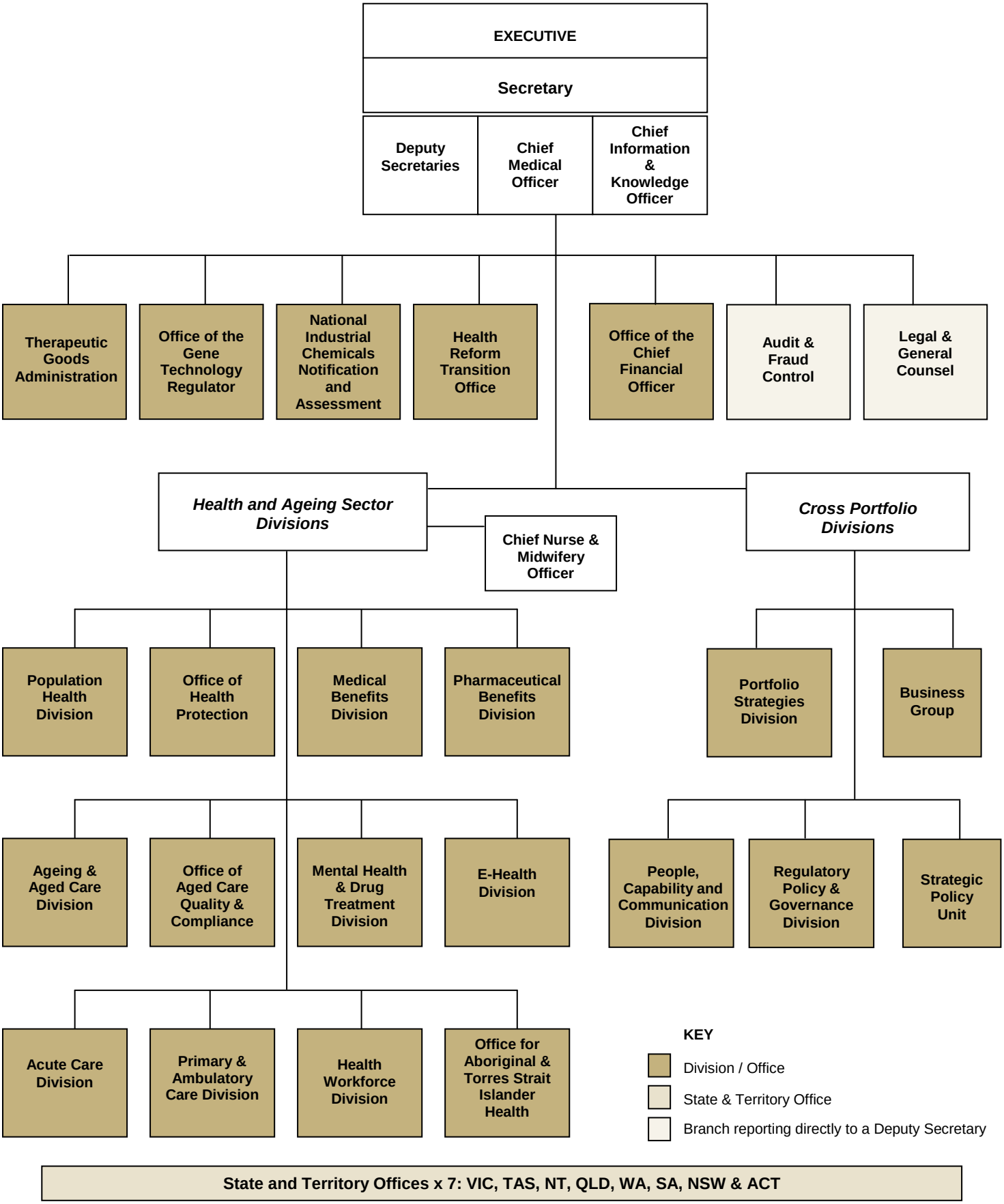
Office Address	:	The Secretary Australian Government Department of Health and Ageing Attention: Assistant Secretary International Strategies Branch, Scarborough House, Woden ACT, Australia
Postal Address	:	GPO Box 9848, MDP 85 Canberra ACT 2601, Australia
Official Email Address	:	enquiries@health.gov.au
Telephone	:	(612) 6289 8019
Fax	:	(612) 6289 7087
Office Hours	:	Mon-Fri 0830-1700
Website	:	www.health.gov.au

WHO REPRESENTATIVE

There is no WHO Representative in Australia. Queries about the WHO programme of collaboration with Australia should be directed to Director, Programme Management, WHO Regional Office for the Western Pacific

Office Address	:	World Health Organization Regional Office for the Western Pacific
Postal Address	:	United Nations Avenue, P.O. Box 2932, 1000, Manila, The Philippines
Official Email Address	:	postmaster@wpro.who.int
Telephone	:	(63 2) 528 8001/ 303 1000
Fax	:	(63 2) 526 0279
Office Hours	:	7:00 -15:30
Website	:	http://www.wpro.who.int

6. ORGANIZATIONAL CHART: Department of Health and Ageing



COUNTRY HEALTH INFORMATION PROFILE

AUSTRALIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	7692.02						2010	1
2	**Estimated population ('000s)**	22 342.40 [a]		11 124.25 [a]		11 218.14 [a]		2010	2
3	**Annual population growth rate (%)**	1.72		1.71		1.73		2010	2
4	**Percentage of population**								
	- 0–4 years	6.50		6.70		6.30		2010	2
	- 5–14 years	12.40		12.80		12.00		2010	2
	- 65 years and above	13.60		12.30		14.50		2010	2
5	**Urban population (%)**	89.10		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	13.46		13.90		13.03		2009	4
7	**Crude death rate (per 1000 population)**	6.41		6.61		6.21		2009	5
8	**Rate of natural increase of population (% per annum)**	0.74		...		...		2010	2
9	**Life expectancy (years)**								
	- at birth	81.60		79.30		83.90		2009	5
	- Healthy Life Expectancy (HALE) at age 60	18.90		17.10		20.50		2003	6
10	**Total fertility rate (women aged 15–49 years)**	1.90						2009	4
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	...		...		...			
12	**Per capita GDP at current market prices (US$)**	39 975.00 [c]						2009-10	7
13	**Rate of growth of per capita GDP (%)**	0.34						2009-10	8
14	**Human development index**	0.94						2010	9
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	...	...	...	...	...	...		
	- Type A	261 [d]	132	128	0	0	0	C:2010p D:2007	10,11
	- Type B	7678 [d,e]	4071 [e]	3504 [e]	19	11	8	C:2010p D:2007	10,11
	- Type C	12 206 [e,f]	7570 [e]	4493 [e]	85	52	33	C:2010p D:2007	10,11
	- Type E	37	26	11	0	0	0	C:2010p D:2007	10,11
	- Unspecified	0	0	0	3	2	1	C:2010p D:2007	10,11
	Cholera	3	2	1	0	0	0	C:2010p D:2008	10,11
	Dengue/DHF	1171	...	...	0	0	0	2010	12
	Encephalitis	...	...	...	40	13	27	2007	10,11
	Gonorrhoea	10 041 [d]	6884	3138	18	11	7	C:2010p D:2007	10,11
	Leprosy	9	7	2	...	...	...	2010	12
	Malaria	401 [g]	279 [g]	122 [g]	0	0	0	C:2010p D:2007	10,11
	Plague	0	0	0	0	0	0	C:2010p D:2009	10,11
	Syphilis	2280 [d,h]	1757 [h]	517 [h]	2	0	2	C:2010p D:2007	10,11
	Typhoid fever	95	54	41	0	0	0	C:2010p D: 2009	10,11
17	**Acute respiratory infections**	26 237 596	12 310 741	13 926 855	2778	1240	1538	C:2003est D:2007	6,11
	- Among children under 5 years	844 139	429 926	414 213	21	16	5	C:2003est D:2007	6,11

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	17 457 098	7 867 069	9 590 029	80 [i]	29 [i]	51 [i]	C:2003est D:2009	6, 11
	- Among children under 5 years	342 264	158 289	183 975	1 [i]	1	0	C:2003est D:2007	6,11
19	**Tuberculosis**								
	- All forms	1217	…	…	41 [aa]	…	…	2009	12
	- New pulmonary tuberculosis (smear-positive)	267	…	…	…	…	…	2009	12
20	**Cancers**								
	All cancers (malignant neoplasms only)	108 368	62 019	46 349	40 988	23 192	17796	C:2007 D:2009	11,13
	- Breast	12 670	103	12 567	2799	27	2772	C:2007 D:2009	11,13
	- Colon and rectum	14 234 [j]	7804 [j]	6430 [j]	4004 [j]	2228 [j]	1776 [j]	C:2007 D:2009	11,13
	- Cervix			739			240	C:2007 D:2009	11,13
	- Leukaemia	2800	1712	1088	1596 [ab]	961	636	C:2007 D:2009	11,13
	- Lip, oral cavity and pharynx	2999	2121	878	737	522	215	C:2007 D:2009	11,13
	- Liver	1169	835	334	1327	887	440	C:2007 D:2009	11,13
	- Oesophagus	1264	865	399	1177	820	357	C:2007 D:2009	11,13
	- Stomach	1897	1212	685	1102	677	425	C:2007 D:2009	11,13
	- Trachea, bronchus, and lung	9703	5948	3755	7786	4761	3025	C:2007 D:2009	11,13
21	**Circulatory**								
	All circulatory system diseases	…	…	…	46 106	21 935	24171	2009	11
	- Acute myocardial infarction	…	…	…	10 335	5194	5141	2009	11
	- Cerebrovascular diseases	19 627	9129	10 498	11 220	4514	6706	C:2003est D:2009	6, 11
	- Hypertension	…	…	…	1627 [ab]	552	1202	2009	11
	- Ischaemic heart disease	38 675	24 651	14 024	22 523	12 047	10476	C:2003est D: 2009	6, 11
	- Rheumatic fever and rheumatic heart diseases	1925	635	1290	255	88	167	C:2003est D:2007	6, 11
22	**Diabetes mellitus**	97 027	50 004	47 023	4170	2120	2050	C:2003est D:2009	6, 11
23	**Mental disorders**	494 618 [k]	308 668 [k]	185 950 [k]	6522	2392	4130	C:2003est D:2009	6, 11
24	**Injuries**								
	All types	309 026	183 853	125 173	8884	5886	2998	C:2003est D:2009	6, 11
	- Drowning	76	54	22	182	141	41	C:2003est D:2009	6, 11
	- Homicide and violence	16 986 [l]	13 356	3631	210	149	61	C:2003est D:2009	6, 11
	- Occupational injuries	130 875 [m]	88 645 [m]	42 230 [m]	232 [m]	218 [m]	14 [m]	2007–08p	26
	- Road traffic accidents	25 381 [l]	17 618	7 764	1155	859	296	C:2003est D:2007	6, 11
	- Suicide	24 385	9533	14 852	2130	1631	499	C:2003est D:2009	6, 11
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Care involving dialysis	1 050 675 [n]	627 769	422 906	4742.29	5690.98	3801.58	2009-10	14
	2. Other medical care	323 888 [n]	146 277	177 611	1461.89	1326.06	1596.58	2009-10	14
	3. Care involving use of rehabilitation procedures	219 473 [n]	94 571	124 902	990.61	857.32	1122.77	2009-10	14
	4. Other cataract	133 959 [n]	55 718	78 241	604.63	505.11	703.32	2009-10	14
	5. Abdominal and pelvic pain	120 479 [n]	40 392	80 087	543.79	366.17	719.92	2009-10	14
	6. Pain in throat and chest	114 313 [n]	57 734	56 579	515.96	523.38	508.60	2009-10	14
	7. Other malignant neoplasms of the skin	85 002 [n]	50574	34 428	383.66	458.47	309.48	2009-10	14
	8. Embedded and impacted teeth	75 120 [n]	30736	44 384	339.06	278.63	398.98	2009-10	14
	9. Type 2 diabetes mellitus	68 241 [n]	37302	30 939	308.01	338.16	278.12	2009-10	14
	10. Adjustment of implanted device	68 089 [n]	32 483	35 606	307.32	294.47	320.07	2009-10	14

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Ischaemic heart diseases (I20-I25)	22 523	...	...	102.60	...	...	2009	11
	2. Cerebrovascular diseases (Strokes) (I60-I69)	11220	...	...	51.10	...	...	2009	11
	3. Dementia and Alzheimer disease (F01-F03, G30)	8277	...	...	37.70	...	...	2009	11
	4. Trachea and lung cancer (C33-C34)	7786	...	...	35.50	...	...	2009	11
	5. Chronic lower respiratory diseases (J40-J47)	5978	...	...	27.20	...	...	2009	11
	6. Diabetes (E10-E14)	4170	...	...	19.00	...	...	2009	11
	7. Colon and rectum cancer (C18-C21)	4065	...	...	18.50	...	...	2009	11
	8. Blood and lymph cancer (including leukaemia) (C81-C96)	3810	...	...	17.40	...	...	2009	11
	9. Diseases of the kidney and urinary system (N00-N39)	3312	...	...	15.10	...	...	2009	11
	10. Heart failure (I50-I51)	3214	...	...	14.60	...	...	2009	11
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					65.00 [o]		2001	15
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					...			
29	**Percentage of pregnant women with anaemia**					6.20 [p]		2005	16
30	**Neonatal mortality rate (per 1000 live births)**	3.01		3.36		2.65		2009	4, 5
31	**Percentage of newborn infants weighing less than 2500 g at birth**	6.10		5.60		6.70		2008	17
32	**Immunization coverage for infants (%)**								
	- BCG	...		...		...			
	- DTP3	92.10 [q]		...		...		2009	18
	- Hepatitis B III	91.60 [q]		...		...		2009	18
	- MCV2	...		...		...			
	- POL3	92.00 [q]		...		...		2009	18
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			0	2008	11
	- Eclampsia			...			0	2008	11
	- Haemorrhage			...			1	2007	11
	- Obstructed labour			...			0	2007	11
	- Sepsis			...			0	2007	11
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	0	0	0	C:2009p D:2007	10,11
	- Diphtheria	0	0	0	0	0	0	C:2009p D:2007	10,11
	- Measles	105	66	39	0	0	0	C:2009p D:2007	10,11
	- Mumps	165	99	66	1	1	0	C:2009p D:2007	10,11
	- Neonatal tetanus	0	0	0	0	0	0	C:2009p D:2007	10,11
	- Pertussis (whooping cough)	29 656 [d]	12 803	16 813	0	0	0	C:2009p D:2007	10,11
	- Poliomyelitis	0	0	0	12	4	8	C:2009p D:2007	10,11
	- Rubella	26	16	10	0	0	0	C:2009p D:2007	10,11
	- Total Tetanus	3	2	1	1	1	0	C:2009p D:2007	10,11
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	737	54 338	2008-09	14
		- Specialized hospitals	19 [r]	2140 [r]	2008-09	14
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	...	...		
	Private health facilities	- Hospitals	561	27 466	2008-09	14
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			95 378.20	2008-09	19
	- total expenditure on health as % of GDP			9.03	2008-09	19
	- per capita total expenditure on health (in US$)			4387.40	2008-09	19
	Government expenditure on health					
	- amount (in million US$)			66 034.45	2008-09	19
	- general government expenditure on health as % of total expenditure on health			69.00	2008-09	19
	- general government expenditure on health as % of total general government expenditure			17.81	2008-09	19,27
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			31.00	2008-09	19
	- out-of-pocket expenditure on health as % of total expenditure on health			17.20	2008-09	19
	Exchange rate in US$ of local currency is: 1 US$ =			1.19	2008-09	28
38	**Health insurance coverage as % of total population**			100.00 [s]	2010	20

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	74 061 [t]	45 075	28 986	...	...	...	...	2010	21
		- Ratio per 1000 population	3.31 [t]	2.02 [z]	1.30 [z]	...	...	...	...	2010	21
	Dentists	- Number	11 473 [t]	7 203	4 270	...	...	...	...	2010	21
		- Ratio per 1000 population	0.51 [t]	0.32 [z]	0.19 [z]	...	...	...	...	2010	21
	Pharmacists	- Number	19 237 [t]	8 194	11 043	...	...	...	...	2010	21
		- Ratio per 1000 population	0.86 [t]	0.37 [z]	0.49 [z]	...	...	...	...	2010	21
	Nurses	- Number	216 338 [t, u]	19 922	196 416	...	...	...	...	2010	21
		- Ratio per 1000 population	9.68 [t,u]	0.89 [z]	8.79 [z]	...	...	...	...	2010	21
	Midwives	- Number	14 108 [t]	0	14 108	...	...	...	...	2010	21
		- Ratio per 1000 population	0.63 [t]	0.00	0.63 [z]	...	...	...	...	2010	21
	Paramedical staff	- Number	106 348 [t,v]	38 230	68 118	...	...	...	...	2010	21
		- Ratio per 1000 population	4.76 [t,v]	1.71 [z]	3.05 [z]	...	...	...	...	2010	21
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	2361	1052	1309	...	...	...	...	2009	22
		Dentists	469	207	262	...	...	...	...	2009	22
		Pharmacists	1793	...	...	...	...	...	...	2009	22

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	9008	1078	7930	...	...	...	...	2009	22
		Midwives	741	...	...	...	...	...	...	2009	22
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	4.26	4.79	3.71	2009	5
44	Under-five mortality rate (per 1000 live births)	5.04	5.65	4.40	2009	4, 5
45	Proportion of 1 year-old children immunised against measles	94.00 [w]	...	...	2010	18
46	Maternal mortality ratio (per 100 000 live births)	8.40			2003-05	23
47	Proportion of births attended by skilled health personnel	...				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.10			2008	17
48	Contraceptive prevalence rate	...	...	65.00	2001	15
49	Adolescent birth rate	4.20			2008	17
50	Antenatal care coverage - At least one visit	98.30			2008	17
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	<0.08	<0.15	<0.02	2009	24
53	Estimated HIV prevalence in adults	0.09 [x]	0.16	0.02	2009	24
54	Percentage of people with advanced HIV infection receiving ART	55.00 [y]	...	...	2009est	24
55	Malaria incidence rate per 100 000 population	1.80	2.50	1.10	2010p	10
56	Malaria death rate per 100 000 population	NR [g]	NR	NR		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	NR [g]	NR	NR		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	NR [g]	NR	NR		
59	Tuberculosis prevalence rate per 100 000 population	8.00	...	...	2009	12
60	Tuberculosis death rate per 100 000 population	0.00	...	...	2009	12
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	12
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	80.00	...	...	2008	12
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	100.00	2008	25
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2008	25
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:

…	Data not available
P	Provisional
est	Estimate
NR	Not relevant
a	Estimated figure includes Other Territories comprising Jervis Bay Territory, Christmas Island and the Cocos (keeling) Islands
b	Average of male and female life expectancy
c	Revised figure refers to current prices based on Purchasing Power Parities (PPP) from <http://stats.oecd.org/Index.aspx?datasetcode=SNA_TABLE4> (accessed 31st March 2011)
d	Totals may not tally due to some reported cases with no gender breakdown
e	Includes both newly acquired cases less than 24 months and where period of infection is unknown
f	Figure includes records where sex was unknown/not reported and may be an underestimate as Queensland did not report Hepatitis C (incident) in 2010
g	Not endemic, absence of local transmission
h	Includes infectious syphilis, and syphilis where duration is > 2yrs or unknown duration, excludes congenital syphilis
i	Includes deaths due to Intestinal infectious diseases (A00-A09)
j	The number of cases and deaths is based on those coded to ICD-10 C18–C20.
k	Includes substance use disorders, schizophrenia, anxiety and depression, bipolar disorder, personality disorders, eating disorders, dementia, ADHD and autism
l	Total does not always equal the sum of its components due to rounding
m	Data refer to worker's compensation claims accepted for a workplace accident or injury ('new cases' refer to non-fatal claims and 'deaths' refer to fatal claims). The number of claims (excluding fatals) have been rounded to the nearest 5 to maintain confidentiality, therefore total claims may not equal the sum of males and females.
n	Data refer to episodes of admitted patient care (separations). Separations can be overnight or same-day
o	Percentage of women aged 18-49 (or their partners) reporting using contraceptive methods (including hysterectomy, tubal ligation and partner vasectomy)
p	Estimate based on South Australia
q	At 12–15 months
r	Number refers to psychiatric hospitals
s	Under the Medicare Scheme introduced in 1984, all residents became eligible for free in-patient care and obtain a universal rebate on the cost of ambulatory medical services
t	These data are subject to sampling error and may not directly correspond to other Australian labour force data. Figures here are based on an average of four quarters.
u	Registered nurses
v	Includes dieticians, medical imaging specialists, occupational health therapists, chiropracters & osteopaths, complementary health therapists, physiotherapists, podiatrists, speech therapists, occupational and environmental health workers, optometrists and orthoptists
w	At 24-27 months (age calculated at 31 December 2010)
x	Based on all persons living with HIV (rather than just adults)
y	The estimate is for all people living with diagnosed HIV infection rather than for people with advanced HIV infection.
z	Computed by Health Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
aa	Estimated number of deaths
ab	Male-female breakdown do not tally to total figure because the data is sourced from mortality data cubes provided by the Australian Bureau of Statistics (ABS). To protect the confidentiality of individuals, cells with small values are randomly assigned.

Sources:

1	Australian Bureau of Statistics (ABS) 2010. Year Book Australia 2009-10. Cat. No. 1301.0. Canberra: ABS.
2	ABS 2011. Australian Demographic Statistics, June Quarter 2010. Cat. No. 3101.0. Canberra: ABS.
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM
4	ABS 2010. Births Australia 2009. Cat. No. 3301.0. Canberra: ABS.
5	ABS 2010. Deaths Australia 2009. Cat. No. 3302.0. Canberra: ABS.
6	Begg S, Vos T, Barker B, Stevenson C, Stanley L & Lopez A 2007. The burden of disease and injury in Australia 2003. AIHW Cat. No. PHE 82. Canberra: AIHW.
7	ABS 2010. Australian system of national accounts, 2009-10. Cat. No. 5204.0. Canberra: ABS.
8	Unpublished ABS analysis of national accounts.
9	United National Development Programme 2010. Human Development Report 2010:The real wealth of nations: pathways to human development. <http://hdr.undp.org/en/media/HDR_2010_EN_Complete_reprint.pdf> (Accessed 5 April 2011).
10	Department of Health and Ageing, Surveillance Branch, Office of Health Protection. National Notifiable Diseases Surveillance System. Available from: <http://www.health.gov.au/nndssdata > (Accessed 5 April 2011)
11	ABS 2011. Causes of death, Australia, 2009. Cat. no. 3303.0 (and associated data cubes). Deaths for 2008 are based on the same publication for 2008. Deaths for 2007 are based on AIHW analysis of the AIHW National Mortality Database.
12	WHO Regional Office for the Western Pacific, data received from technical units
13	AIHW 2009. ACIM (Australian Cancer Incidence and Mortality) Books. AIHW: Canberra. Except for cases of leukaemia and lip, oral cavity and pharynx cancer which are based on AIHW analysis of the Australian Cancer Database
14	AIHW 2010. Australian hospital statistics 2009-10. Health Services Series no. 34. Cat. No. 84. Canberra: AIHW
15	ABS. National Health Survey Australia 2001.Cat. No. 4364.0. Canberra: ABS, and unpublished.
16	Chan A, Scott J, Nguyen A.M, Sage L 2006. Pregnancy outcome in South Australia 2005. Adelaide: Pregnancy Outcome Unit, South Australian Department of Health.
17	Laws P, Li Z & Sullivan EA 2010. Australia's mothers and babies 2008. Cat. No. PER 50. Canberra: AIHW.
18	Australian Childhood Immunisation Register (ACIR) statistics as of 31 December 2010. Available from: <http://www.medicareaustralia.gov.au/provider/patients/acir/statistics.jsp> (Accessed 28 March 2011).
19	AIHW 2011. AIHW Health expenditure data cubes <http://www.aihw.gov.au/expenditure-data-cube/?id=10737418690&libID=10737418689> (Accessed 12 September 2011).
20	Medicare Australia 2010. About Medicare Australia: what we do. Available from: <www.medicareaustralia.gov.au/about/whatwedo/medicare.jsp>. (Accessed 8 April 2011).

Sources:	
21	ABS 2011. Labour Force, Australia, detailed, quarterly, February 2011. Cat. No. 6291.0.55.003, Table E08. Canberra: ABS.
22	Department of Education, Employment and Workplace Relations. Award course completions 2007: selected higher education statistics. Available from: <http://www.dest.gov.au/sectors/higher_education/publications_resources>. Except for pharmacy and midwifery graduates which are based on unpublished data from DEEWR.
23	Sullivan EA, Hall B & King JF (eds) 2008. Maternal deaths in Australia 2003–2005. Cat. No. PER 42. Sydney: AIHW National Perinatal Statistics Unit (NPSU).
24	National Centre in HIV Epidemiology and Clinical Research (NCHECR) 2010. HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: Annual Surveillance Report 2010. Sydney: NCHECR.
25	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
26	The Safe Work Australia Online Statistics Interactive National Workers' Compensation Statistics Databases: <http://www.safeworkaustralia.gov.au/Pages/default.aspx>. (Report created 28 April 2011).
27	ABS 2011. Government Finance Statistics, Australia, 2008-09. Cat. No. 5512.0 (and associated data cubes) <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5512.02008-09?OpenDocument> (Accessed 12 September 2011).
28	WHO 2011. Global health expenditure database. <http://apps.who.int/nha/database/StandardReport.aspx?ID=REP_WEB_MINI_TEMPLATE_WEB_VERSION&COUNTRYKEY=84685> (Accessed 12 September 2011).

BRUNEI DARUSSALAM

1. CONTEXT

1.1 Demographics

The population of Brunei Darussalam is estimated to have been 406 200 in 2009, and is increasing at a rate of 2.0% per annum. With an area of 5765 square kilometres, the country's population density is 70 persons per square kilometre, although 75.2% of the population are considered urban.

The population comprises 215 000 (52.9%) males and 191 200 (47.1%) females, giving a gender ratio of 112 males per 100 females. The demographic structure is essentially that of a young population; about 8.5% are under five years of age, 26.1% are under 15 years, and only 3.4% are 65 years or over.

Brunei Darussalam has a multi-ethnic population, with Malays, comprising 66.3%, the predominant ethnic community, and Chinese, with 11.0%, the next major group. Other races and expatriates make up the rest of the population.

In 2009, life expectancy at birth was 77.1 years for males and 78.3 years for females. The crude birth rate had increased slightly from 16.1 in 2008 to 16.3 per 1000 population in 2009, and the crude death rate was 2.9 per 1000 population, increasing from 2.7 in 2008. The total fertility rate had remained at 1.7 children per woman of reproductive age since 2007.

1.2 Political situation

Brunei Darussalam is an independent sovereign sultanate governed on the basis of a written constitution, and achieved full independence on 1 January 1984. The Head of State, the Head of Government and the Supreme Executive Authority is His Majesty, the Sultan and Yang Di-Pertuan, who also holds the Defence and Finance portfolios in the Cabinet and is the Supreme Commander of the Royal Brunei Armed Forces, the Inspector-General of the Royal Brunei Police Force, and the supreme head of religious affairs in the sultanate.

Brunei's first written constitution came into force in 1959, and was subject to important amendments in 1971 and 1984. The 1959 Constitution provides the Sultan, as the Head of State, with full executive authority. The Sultan is assisted and advised by five councils—the Religious Council, the Privy Council, the Council of Ministers (the Cabinet), the Legislative Council and the Council of Succession.

The Council of Cabinet Ministers is appointed and presided over by the Sultan and handles executive matters. The Religious Council advises on religious matters, the unicameral Legislative Council, or *Majlis Mesyuarat Negeri*, handles constitutional matters (legislative branch), and the Council of Succession determines the succession to the throne if the need arises. For the judicial branch, the Sultan swears in a Supreme Court (Chief Justice and judges) for a three-year term.

1.3 Socioeconomic situation

Brunei Darussalam's economy, which is growing at a slow and steady rate, has been dominated by the oil and gas industry for the past 80 years. The economy, which has remained stable, with an average inflation rate of 1.5% over the past 20 years, encompasses a mixture of foreign and domestic entrepreneurship, government regulation, welfare measures and village tradition. Crude oil and natural gas production account for nearly half gross domestic product (GDP). Per capita GDP is far above most developing countries (US$26 423 in 2009), and the substantial income from overseas investments supplements income from domestic production. The Government provides all medical services and subsidizes rice and housing.

There is rising awareness in the country of the depletion of natural resources and the subsequent need to diversify the economy away from its over-reliance on oil and gas. Plans for the future include upgrading the labour force, reducing unemployment, strengthening the banking and tourism sectors, and further widening the economic base beyond oil and gas.

In its efforts to stimulate economic growth, the Brunei Government is actively promoting the development of various target sectors through its five-year national development plans. The current 9th National Development Plan (2007-2012) marks a strategic shift in the planning and implementation of development projects, as it is the first to have been formulated in line with the objectives of Brunei Darussalam's long-term development plan, *Wawasan* Brunei 2035 (Brunei's Vision 2035).

A large percentage of the budget is allocated to the Ministry of Health each year as a measure towards creating a proper infrastructure for the health system and health services. In the 9th National Development Plan (2007-2012), a total of B$149 152 000 (US$ 102 383 300) is allocated to medical and health services, 1.6% of the Plan's total allocation. Emphasis is on several areas, such as national health emergency preparedness; improvement of health service quality and management and staff proficiency; improvement of hospital facilities and services; and improvement of primary health care services.

1.4 Risks, vulnerabilities and hazards

Natural hazards, such as typhoons, earthquakes and severe flooding, are very rare in Brunei Darussalam. However, the country has not been exempt from the impacts of climate change. The incessant and heavy rains during the Northeast Monsoon season have caused floods in low-laying areas and landslides in several areas. In recent years, the country has also been affected by seasonal smoke/haze resulting from forest fires in neighbouring countries.

Recent events, such as emerging infectious diseases and natural disasters, have led the Government to take steps towards emergency preparedness. A National Committee on Disaster Management has been formed to strengthen the country's preparedness and planned response to any possible disaster.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The trend in the major causes of death has changed over the past 30 years from infectious diseases to chronic, degenerative diseases related to sedentary lifestyles. The five leading causes of death in 2009 were cancer, heart disease, diabetes mellitus, cerebrovascular disease, and septicaemia. Most of these noncommunicable diseases involve similar modifiable behavioural risk factors, namely unhealthy diet, obesity, lack of physical activity, and smoking—all of which can be addressed through health-promotion strategies, as well as legislation.

Brunei Darussalam has an enviable record in being almost entirely free from major communicable diseases. WHO declared the country malaria-free in 1987 and, in 2000, along with other countries in the WHO Western Pacific Region, it was declared poliomyelitis-free.

Notification of infectious diseases is required by law under the Infectious Diseases Order 2003. To date, a total of 57 infectious diseases are listed as notifiable in the country. All notifications must be reported to the Disease Control Division at the Department of Health. Authorities have been vigilant in detecting and preventing the invasion of newly emerging infectious diseases, such as severe acute respiratory syndrome (SARS) and highly pathogenic influenza A (H5N1).

Brunei Darussalam has a comprehensive child immunization programme to protect against vaccine-preventable diseases. All such services are free. Medical advances in vaccines have been made widely available through the Expanded Programme on Immunization, which is incorporated into Child Health Services and School Health Services. The country's health services are monitoring developments to ensure immunization measures and facilities continue to be in line with best practice for disease prevention.

Overall improvements in general sanitation, housing and food hygiene, regular screening, counselling of food handlers, availability of safe drinking water and health education measures have successfully kept foodborne and waterborne diseases under control.

2.2 Outbreaks of communicable diseases

Brunei Darussalam recognizes the threats of emergence and outbreaks of new and existing diseases, such as influenza A (H1N1) and highly pathogenic influenza A (H5N1). Hence, major investments have been made in capacity-building, disease surveillance and prevention, as well as education, to address potential health threats and strengthen disaster-preparedness capacity. International collaboration and participation have also been strengthened and heightened.

In preparedness for pandemic influenza, the Influenza Pandemic Plan has been activated, involving multisectoral agencies. National pandemic preparedness plans include surveillance; prevention and disease control; management of patient treatment; logistics and technical assistance; laboratory assistance; media and communications; human resource development; and disease control. The country has also commenced a vaccination programme against influenza A (H1N1), making the vaccine available to all residents in the country.

2.3 Leading causes of mortality and morbidity

Data on the main diseases affecting health status (morbidity) are derived from hospital discharge summaries, outpatient morbidity reports and notifiable disease returns. The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision (ICD10) has been used since 1 January 1998 to code inpatient morbidity data.

The five leading causes of morbidity in 2009 were: acute lower respiratory infection; pregnancy with abortive outcome; non-inflammatory disorders of the female genital tract; diarrhoea and gastroenteritis of presumed origin; and asthma. As regards mortality, the leading causes were: cancer; heart disease; diabetes mellitus; cerebrovascular disease; and septicaemia.

In 2009, there were 1171 deaths registered, with males accounting for 79 more deaths than females. Cancer, the prime cause of mortality, constituted 18.4% of total deaths. Second was heart disease, accounting for 15.8%, followed by diabetes mellitus (8.5%). The most common types of cancer are of the trachea, lung and bronchus; liver and intrahepatic bile ducts; colon and rectum; cervix uteri; and stomach. The most common type of heart disease is ischaemic heart disease.

2.4 Maternal, child and infant diseases

Infant mortality has been reduced as a result of higher standards of living, improved sanitation, improved levels of education and literacy, increasing empowerment of women, and the rising standard of infant care services. Brunei Darussalam has achieved high immunization coverage of above 95% for all vaccinations included in the national immunization schedule. Maternal health has also improved dramatically and, in 2009, there was only one maternal death, giving a maternal mortality ratio of 15.1 per 100 000 live births. To maintain these outcomes, Brunei Darussalam is striving to ensure the availability and practice of antenatal care, skilled care during childbirth and postnatal care, and quality health services. Currently, 99.8% of all births are delivered in hospitals and 99.9% of all deliveries are attended by skilled health personnel.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health is responsible for all aspects of health care in the country, and its vision is to become a highly reputable health service organization that is comparable to the best in the Region and that enables every citizen and resident of the nation to attain a high quality of life by being socially, economically and mentally productive throughout the life span. The Ministry's mission is to improve the health and well-being of the people of Brunei Darussalam through a high quality and comprehensive health care system that is effective, efficient, responsive, affordable, equitable and accessible to all in the country.

The Government is fully committed to continuously improving the health status of the people, and considers government funding for health care a major public investment in human development. It is the aspiration of the Government that the Ministry of Health's agenda for the 21st century should focus on health improvement for people-centred development. Health policies and programmes will, therefore, continue to be reviewed constantly in the context of changing economic, social and technological environments and health situations. In looking ahead to the future, the following four principles are observed in the provision of health services for all citizens:

- ensuring universal access to better health care;
- enabling equity of access to comprehensive health services;
- promoting partnership and public participation in the concept of co-production of efficient and effective health services for all; and
- ensuring that the health service system is sustainable within the institutional capacity and financial resources of the Ministry of Health.

The Government recognizes that it needs to continue its broad involvement in the provision of health care and, wherever possible, policy decision-making and proposed programmes will be strongly evidence-based. In that respect, the Ministry of Health will continue to pursue the following set of goals, or 'policy objectives', derived from careful analysis of the strategic issues and themes. These goals and their implementation measures are classified into two categories, strategic goals and instrumental goals, based on their logical relationships.

Strategic goals:

- to promote primary health care;
- to focus on the management of priority chronic diseases;
- to pursue high quality in health care;
- to achieve a more equitable allocation of funds for diverse health services and to venture into alternative sources of health care financing; and
- to promote selected areas of excellence in health services.

Instrumental goals:

- to develop comprehensive health databases and information management systems that support operational, professional and managerial functions;
- to improve the quality of policy-making and management decisions at higher levels of the organization so that the Ministry becomes an effective enterprise and its administrators effective managers;
- to create and promote a disciplined workforce with positive work attitudes, through teamwork, a sense of belonging and responsibility, to achieve the organizational mission, goals and objectives;
- to improve competency and standards among all health care professionals;
- to enhance cost-effectiveness in the delivery of all aspects of health services; and
- to improve the management of support services in order to contribute to the overall quality of health services.

With noncommunicable diseases the dominating causes of morbidity and mortality, health promotion was identified as a major initiative in the National Health Care Plan 2000-2010. That strategy provided the basis for a more integrated health programme. In recognition of the need to promote positive health measures, a multidisciplinary committee, the National Committee on Health Promotion, has been established with the aim of increasing public awareness about health problems, as well as developing strategies to modify public behaviour in favour of healthier lifestyles through community participation and intersectoral collaboration. The Committee has identified seven priority areas for action: nutrition; food safety; tobacco control; mental health; physical activity; healthy environments/settings; and women's health. These priorities are promoted through special events, publicity about major health issues, and appropriate measures to modify lifestyles.

3.2 Organization of health services and delivery systems

The people of Brunei Darussalam enjoy free medical and health care provided via government hospitals, health centres and health clinics. A large network of health centres and clinics, located throughout the country, provides

primary health care services, including those for mothers and children. In remote areas that are not accessible or are difficult to access by land or water, primary health care is provided by Flying Medical Services.

As of 2009, there were four government general hospitals, 16 health centres, 15 health and maternal and child health clinics, six travelling health clinics and four Flying Medical Services teams for remote areas. The Ministry of Defence also operates nine medical centres that mainly provide services for its personnel and their families. In addition to the government hospitals in each district, there are two private hospitals.

The main referral government hospital in the country is Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, situated on a 32-acre site about 0.8 km from the heart of the capital. The hospital was officially opened in August 1984 and is equipped with modern, cutting-edge medical technology. The hospital also offers a very wide and comprehensive range of medical and surgical services, currently totalling 28 different specialties and subspecialties.

Public Health Services is the main division in the Ministry of Health responsible for providing community-based preventive and promotive primary health care services in the country. As a result of its monitoring and surveillance activities and preventive programmes, such as immunization, the country is free from major communicable diseases.

The decentralization programme, started in 2000, is a concerted and ongoing effort by the Ministry of Health to provide access to primary health care for the general population throughout the country. Through decentralization, primary health care is being further strengthened by the provision of more comprehensive services. In addition, patients with chronic illnesses can now be followed up by primary care services. Thus, decentralization has resulted in better access to care, with primary care services serving as a 'gatekeeper' for secondary and tertiary care.

The Ministry of Health has categorized the respective health care services available in Brunei Darussalam into two main areas. The Directorate of Medical Services is responsible for hospital, nursing, laboratory, pharmaceutical, dental and renal services, while the Directorate of Health Services oversees community health, environmental health and scientific services.

3.3 Health policy, planning and regulatory framework

The provision of a comprehensive health care system for the people is a government priority. The Ministry of Health formulates the National Health Policy, which is designed to provide the highest level of health care that is cost-effective and to provide a high quality of life for the whole population in a clean and healthy environment.

To attain the target of health for all, emphasis has been given to the development of a health care system that is based on primary health care, aimed at providing a wide range of preventive, promotive, curative and rehabilitative health care and support services to meet the needs of the population. The main policy objectives are: reduction of infant mortality, diseases and disabilities, as well as premature deaths, thereby increasing life expectancy; improvement of the environment; and control of communicable diseases.

3.4 Health care financing

Health care services are primarily funded by the General Treasury. The budget for health care is allocated by the Ministry of Finance and administered by the Ministry of Health. User fees currently constitute a very small percentage of the total funds available to health care. Data regarding private health care spending are very limited. However, an estimate in 2000 stated that the ratio of public to private spending was approximately 97.2% public versus 2.8% private. Private insurance is offered in several markets. Since the Government provides and pays for comprehensive health care services, there is a limited market for private insurance for citizens and permanent residents. Employers of foreign nationals typically purchase health insurance locally, unless the employer is a multinational company (e.g. banks, oil companies), in which case the corporation will provide health insurance through an international insurance company.

3.5 Human resources for health

In 2009, a total of 445 physicians and 72 dentists were registered to practise. The doctor-to-population ratio was 1:913. A comprehensive manpower development programme for the community, as well as hospital-based health

personnel, is to be extended to strengthen health care services throughout the country, with emphasis on the primary health care approach.

The Ministry of Health, in its effort to provide quality health care, puts great emphasis on the continuous skill and professional development of its health care workforce. Upgrading professionalism, skills, credibility and quality of services in pursuit of excellence is one of the strategic themes in the National Health Care Plan 2000-2010. Towards that end, the Ministry of Health has made a long-term plan for development of more professionals in various specialities through training courses, workshops and seminars, both local and overseas. Efforts are also being made to develop postgraduate training programmes, including sending local doctors to undergo further highly specialized training overseas. This has progressed to provide such training locally with the accreditation of RIPAS Hospital by the University of Queensland, Australia; the Royal College of Physicians, United Kingdom; the Royal College of Surgeons of Edinburgh, United Kingdom; the Royal College of Obstetrics and Gynaecology, United Kingdom; and the Royal College of Paediatrics and Child Health, United Kingdom.

In 2000, the Ministry of Health, in collaboration with the Institute of Medicine, University of Brunei Darussalam (UBD) and St. George's Hospital Medical School, started a part-time postgraduate diploma course in Primary Health Care. Since 2004, it has been run by the Institute of Medicine, UBD. With the increase in local expertise and the number of graduates in health care, the Ministry has been able to expand the scope of its medical services.

To support capacity-building initiatives, the Primary Health Care Orientation and Training Centre was established in 1986, primarily to provide training courses on the primary health care concept for health personnel. The Centre has conducted many training programmes for community health nurses, including refresher courses, seminars and workshops providing continuing professional development to increase the knowledge and skills of nurses in the community, including nurses from Outpatient Services, School Health Services and other services in the Department of Health.

3.6 Partnerships

The Government continues to forge stronger partnerships among various stakeholders to provide the synergy necessary to reach the shared vision of improved health, including other government agencies, academic institutions and other organizations, both local and international. Government agencies provide support to many national health programmes. For some health programmes, the Ministry of Health works very closely with international organizations and global initiatives to strengthen priority health programmes. Assistance for the health sector comes mainly in the form of grants and technical assistance. At present, a sectorwide development approach between the Government and partners is being initiated to ensure maximization of investment and generation of necessary resources, not just for the health sector, but also for other sectors.

3.7 Challenges to health system strengthening

The Ministry of Health has embarked on several health care reforms that present a challenge to the nation's health system. These have been necessitated by the rising cost of health care, changing disease patterns and lifestyles, changing population demography, advancements in health technology and increased public expectation of receiving better quality health care. Over time, the role of the Ministry will evolve from that of a provider of health services to that of a facilitator and regulator. Delivery of services will be enhanced to improve the quality and efficiency of care.

Regarding the challenges faced by the Ministry of Health, six aspects may be highlighted: fiscal problems relating to escalating health costs; the paradigm shift in health care (formal and informal activities to preserve and maintain health status); the epidemiological transition (from communicable to noncommunicable diseases and the relationship to lifestyle); and the demographic transition (the increasing number of older people with different needs and demands for health care services). Others include the paradigm shift in public sector management (innovations in the style of managing public services) and the technological revolution.

Critical success factors include the priority given by the Government to the importance of health, as manifested through: the recurrent and development budget; comprehensive health care that is of high quality and is cost-effective in the areas of prevention, health promotion and education, treatment and rehabilitation; the control of major communicable diseases; the potential development of the information and communication system; effective and committed leadership; and the availability of highly qualified and competent staff to provide high quality,

comprehensive and cost-effective services. Other success factors include collaboration with other government and nongovernmental organizations, as well as the private sector; support and participation from the public in improving services and health status; and establishment of the RIPAS Hospital as a centre of medical excellence and a referral hospital, as well as a centre for the treatment of more complicated diseases.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Statistics Unit, Research and Development Section,
Operator	:	Ministry of Health
Title 2	:	Disease Control Division, Environmental Health Services,
Operator	:	Ministry of Health
Title 3:	:	*Health Information Booklet 2008*
Operator	:	Department of Policy and Planning, Ministry of Health
Website	:	http://www.moh.gov.bn/satisticshealthguidelines/download/HIB_2008c.pdf

5. ADDRESSES

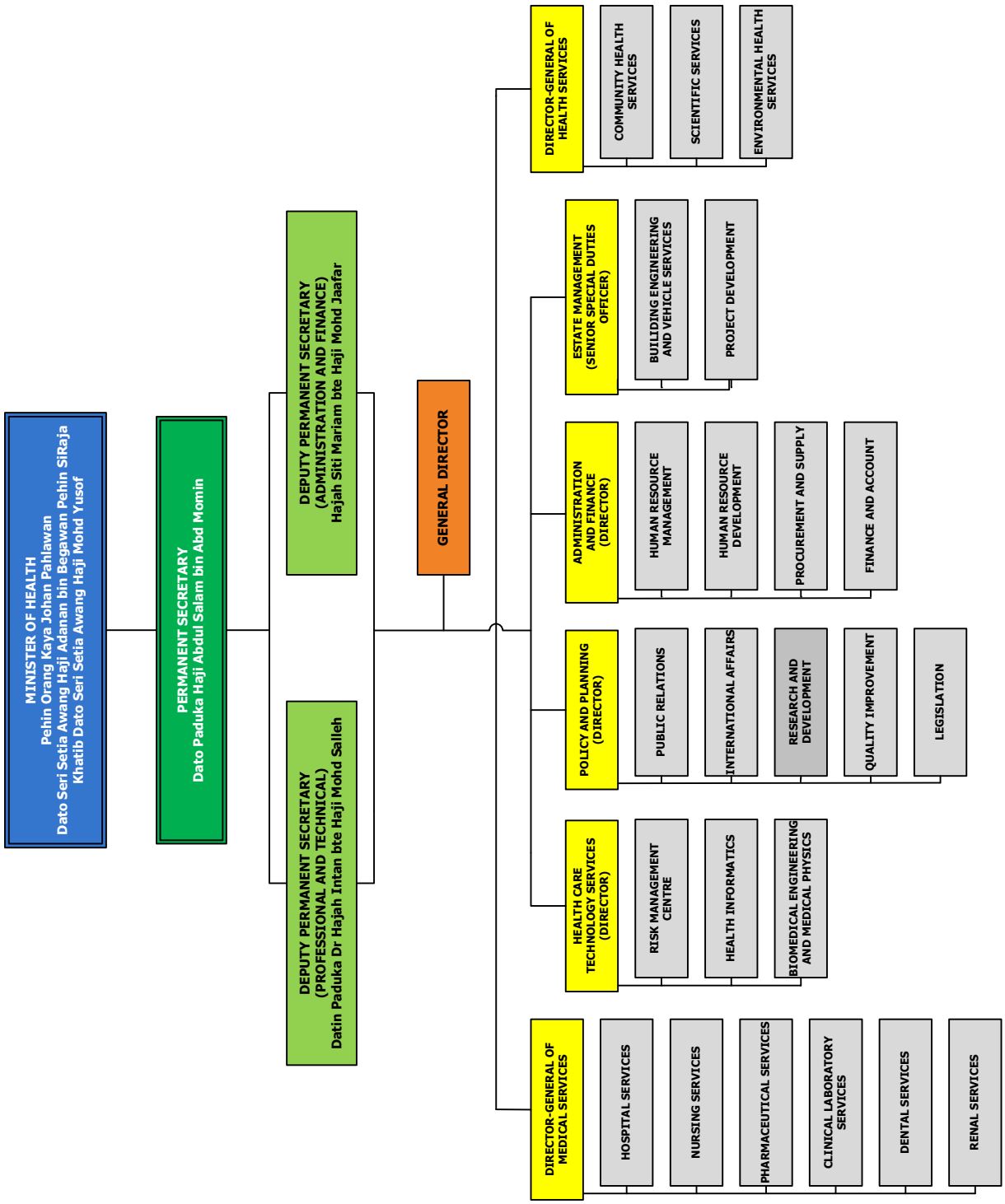
MINISTRY OF HEALTH

Office Address	:	Jalan Menteri Besar Bandar Seri Begawan BB3910 Brunei Darussalam
Telephone	:	(673) 238 1640
Fax	:	(673) 238 1440 / 238 0128
Website	:	http://www.moh.gov.bn

WHO REPRESENTATIVE IN MALAYSIA, BRUNEI DARUSSALAM AND SINGAPORE

Office Address	:	1st Floor, Wisma UN, Block C, Komplek Pejabat Damansara, Jalan Dungun, Damansara Heights, 50490 Kuala Lumpur, Malaysia
Postal Address	:	P. O. Box 12550 50782 Kuala Lumpur, Malaysia
Official Email Address	:	who@maa.wpro.who.int
Telephone	:	(603) 209 39908 / 2092 1184
Fax	:	(603) 209 37446

6. ORGANIZATIONAL CHART: Ministry of Health



BRUNEI DARUSSALAM

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	5.77						2009	1
2	**Estimated population ('000s)**	406.20		215.00		191.20		2009	1
3	**Annual population growth rate (%)**	2.02		...		...		2009	1
4	**Percentage of population**								
	- 0–4 years	8.50		8.70		8.40		2009	1
	- 5–14 years	17.60		18.00		17.20		2009	1
	- 65 years and above	3.40		3.10		3.70		2009	1
5	**Urban population (%)**	75.70		...		...		2010 est	2
6	**Crude birth rate (per 1000 population)**	16.30		...		...		2009	3
7	**Crude death rate (per 1000 population)**	2.90		...		...		2009	3
8	**Rate of natural increase of population (% per annum)**	1.34		...		...		2009	1
9	**Life expectancy (years)**								
	- at birth	77.70		77.10		78.30		2009	1
	- Healthy Life Expectancy (HALE) at age 60	...		13.10		13.30		2002	4
10	**Total fertility rate (women aged 15–49 years)**	1.70						2009	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	...		97.30		94.60		2009	1
12	**Per capita GDP at current market prices (US$)**	26 423.40						2009	1
13	**Rate of growth of per capita GDP (%)**	-25.00						2009	1
14	**Human development index**	0.81						2010	5
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	6	4	2	...	...	...	2009	6
	- Type B	26	15	11	...	...	...	2009	6
	- Type C	7	5	2	...	...	...	2009	6
	- Type E	0	0	0	...	...	...	2009	6
	- Unspecified	0	0	0	...	...	...	2009	6
	Cholera	0	0	0	0	0	0	2009	6
	Dengue/DHF	298	...	...	2	...	...	2010	7
	Encephalitis	0	0	0	0	0	0	2009	6
	Gonorrhoea	444	367	77	0	0	0	2009	6
	Leprosy	3	2	1	...	...	...	2010	7
	Malaria	18	...	...	0	0	0	2010	7
	Plague	0	0	0	0	0	0	2009	6
	Syphilis	22	12	10	0	0	0	2009	6
	Typhoid fever	5 [a]	3	1	0	0	0	2009	6
17	**Acute respiratory infections**	3883	2136	1747	99	58	41	2009	3
	- Among children under 5 years	1676 [a]	1017	658	2	0	2	2009	3

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	590	330	259	1	1	0	2009	6
	- Among children under 5 years	321	...	...	0	0	0	2009	6
19	**Tuberculosis**								
	- All forms	213	...	...	7 [d]	...	...	2009	7
	- New pulmonary tuberculosis (smear-positive)	140	...	...	...	...	...	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	395	146	249	215	115	100	2009	3
	- Breast	33	0	33	8	0	8	2009	3
	- Colon and rectum	41	26	15	22	9	13	2009	3
	- Cervix			80			14	2009	3
	- Leukaemia	2	1	1	8	3	5	2009	3
	- Lip, oral cavity and pharynx	13	6	7	6	3	3	2009	3
	- Liver	21	12	9	24	18	6	2009	3
	- Oesophagus	1	1	0	2	1	1	2009	3
	- Stomach	23	15	8	10	7	3	2009	3
	- Trachea, bronchus, and lung	36	25	11	37	23	14	2009	3
21	**Circulatory**								
	All circulatory system diseases	1458	732	726	333	175	158	2009	3
	- Acute myocardial infarction	35	26	9	81	50	31	2009	3
	- Cerebrovascular diseases	141	76	65	97	37	60	2009	3
	- Hypertension	664	305	359	41	19	22	2009	3
	- Ischaemic heart disease	154	94	60	135	86	49	2009	3
	- Rheumatic fever and rheumatic heart diseases	6	1	5	4	2	2	2009	3
22	**Diabetes mellitus**	644	254	390	100	50	50	2009	3
23	**Mental disorders**	42	25	17	2	0	2	2009	3
24	**Injuries**								
	All types	1311	897	414	78	53	25	2009	3
	- Drowning	3	1	2	5	3	2	2009	3
	- Homicide and violence	58	36	22	26	15	11	2009	3
	- Occupational injuries	142	...	...	...	...	...	2009	3
	- Road traffic accidents	342	239	103	37	29	8	2009	3
	- Suicide	52	24	28	2	0	2	2009	3
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Acute lower respiratory infections	1227	654	573	302.10	304.20	299.70	2009	3
	2. Pregnancy with abortive outcome	1065		1065	262.20		557.00	2009	3
	3. Non-inflammatory disorders of female genital tract	1039		1039	255.80		543.40	2009	3
	4. Diarrhoea and gastroenteritis of presumed infectious origin	1032	578	454	254.10	268.80	237.40	2009	3
	5. Asthma	953	529	424	234.60	246.00	221.80	2009	3
	6. Acute upper respiratory infections	893	508	385	219.80	236.30	201.40	2009	3
	7. Fever of unknown origin	759	400	359	186.90	186.00	187.80	2009	3
	8. Hypertensive diseases	664	305	359	163.50	141.90	187.80	2009	3
	9. Maternal diseases classifiable but complicating pregnancy, childbirth and the puerperium (indirect obstetric causes)	661		661	162.70		345.70	2009	3
	10. Diabetes mellitus	644	254	390	158.50	118.10	204.00	2009	3

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Cancer	215	115	100	52.90	53.50	52.30	2009	3
	2. Heart Diseases (including Acute Rheumatic Fever)	185	111	74	45.50	51.60	38.70	2009	3
	3. Diabetes Mellitus	100	50	50	24.60	23.30	26.20	2009	3
	4. Cerebrovascular Diseases	97	37	60	23.90	17.20	31.40	2009	3
	5. Septicaemia	52	32	20	12.80	14.90	10.50	2009	3
	6. Bronchitis, Chronic & Unspecified Emphysema & Asthma	43	26	17	10.60	12.10	8.90	2009	3
	7. Hypertensive Diseases	41	19	22	10.10	8.80	11.50	2009	3
	8. Transport Accidents	37	29	8	9.10	13.50	4.20	2009	3
	9. Certain Conditions Originating In The Perinatal Period	26	12	14	6.40	5.60	7.30	2009	3
	10. Congenital Malformations, Deformations and Chromosomal Abnormalities	25	14	11	6.20	6.50	5.80	2009	3
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					…			
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					75.60		2010	7
29	**Percentage of pregnant women with anaemia**					…			
30	**Neonatal mortality rate (per 1000 live births)**	5.30		…		…		2009	3
31	**Percentage of newborn infants weighing less than 2500 g at birth**	11.20		…		…		2009	3
32	**Immunization coverage for infants (%)**								
	- BCG	95.40		…		…		2010	7
	- DTP3	95.40		…		…		2010	7
	- Hepatitis B III	95.80		…		…		2010	7
	- MCV2	93.00		…		…		2010	7
	- POL3	99.00		…		…		2010	7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			1065			0	2009	3
	- Eclampsia			…			…		
	- Haemorrhage			9			0	2009	3
	- Obstructed labour			7			1 [b]	2009	3
	- Sepsis			…			…		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	…	…	…	2010	7
	- Diphtheria	0	0	0	…	…	…	2010	7
	- Measles	0	0	0	…	…	…	2010	7
	- Mumps	12	…	…	…	…	…	2010	7
	- Neonatal tetanus	0	0	0	…	…	…	2010	7
	- Pertussis (whooping cough)	1	…	…	…	…	…	2010	7
	- Poliomyelitis	0	0	0	…	…	…	2010	7
	- Rubella	1	…	…	…	…	…	2010	7
	- Total Tetanus	0	0	0	…	…	…	2010	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**					…			

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	571	2009	3
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	3	366	2009	3
		- Primary health care centres	16	...	2009	3
	Private health facilities	- Hospitals	2	130	2009	3
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			307.46 [c]	2009p	8
	- total expenditure on health as % of GDP			2.91	2009p	8
	- per capita total expenditure on health (in US$)			769.25 [c]	2009p	8
	Government expenditure on health					
	- amount (in million US$)			269.75 [c]	2009p	8
	- general government expenditure on health as % of total expenditure on health			87.74	2009p	8
	- general government expenditure on health as % of total general government expenditure			6.79	2009p	8
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00 [c]	2009p	8
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			12.26	2009p	8
	- out-of-pocket expenditure on health as % of total expenditure on health			12.13 [c]	2009p	8
	Exchange rate in US$ of local currency is: 1 US$ =			1.45	2009p	8
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	445	305	140	...	...	365	80	2009	3
		- Ratio per 1000 population	1.10	0.75	0.34	...	...	0.90	0.2	2009	3
	Dentists	- Number	72	38	34	...	...	56	16	2009	3
		- Ratio per 1000 population	0.18	0.09	0.08	...	...	0.14	0.04	2009	3
	Pharmacists	- Number	42	6	36	...	...	28	14	2009	3
		- Ratio per 1000 population	0.1	0.01	0.09	...	...	0.07	0.03	2009	3
	Nurses	- Number	1 432	...	...	...	...	1 386	46	2009	3
		- Ratio per 1000 population	3.53	...	...	...	...	3.41	0.11	2009	3
	Midwives	- Number	534	0	534	...	...	534	...	2009	3
		- Ratio per 1000 population	1.31	0.00	1.31	...	...	1.31	...	2009	3
	Paramedical staff	- Number	27	19	8	...	...	...	...	2008	3
		- Ratio per 1000 population	0.07	0.05	0.02	...	...	...	...	2008	3
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	65	32	33	...	...	...	...	2008	3
		Dentists	5	0	5	...	...	...	...	2008	3
		Pharmacists	2	0	2	...	...	...	...	2008	3

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	40	7	33	...	...	...	...	2008	3
		Midwives	6	0	6	...	...	...	...	2008	3
		Paramedical staff	0	0	0	...	...	...	...	2008	3
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	37	21	16	...	...	...	...	2008	3
		Dentists	1	0	1	...	...	...	...	2008	3
		Pharmacists	0	0	0	...	...	...	...	2008	3
		Nurses	28	5	23	...	...	...	...	2008	3
		Midwives	4	0	4	...	...	...	...	2008	3
		Paramedical staff	1	1	0	...	...	...	...	2008	3
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	7.40	...	...	2009	3
44	Under-five mortality rate (per 1000 live births)	8.20	...	...	2009	3
45	Proportion of 1 year-old children immunised against measles	94.40	...	...	2010	7
46	Maternal mortality ratio (per 100 000 live births)	15.10			2009	3
47	Proportion of births attended by skilled health personnel	99.90			2009	3
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.10			2009	3
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.80			2009	3
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	19.45			2009	3
50	Antenatal care coverage - At least one visit	100.00			2009	3
	- At least four visits	100.00			2009	3
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	<0.10	...	...	2005	7
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	0.00	0.00	0.00	2008	3
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	72.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	1.70	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	87.00	...	...	2008	7
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	99.90	...	...	2008	1
64	Proportion of population using an improved sanitation facility	80.00	...	...	2002	3
65	Proportion of population with access to affordable essential drugs on a sustainable basis	100.00	...	...	2008	3

Notes:	
…	Data not available
est	Estimate
a	Totals may not tally due to some reported cases with no gender breakdown
b	Maternal cause due to pulmonary embolism
c	Computed by Health Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
d	Estimated number of deaths

Sources:	
1	Department of Economic Planning and Development (DEPD), Prime Minister's Office.
2	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM
3	Statistics Unit, Research and Development Section, Ministry of Health.
4	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
5	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
6	Disease Control Division, Environmental Health Services, Ministry of Health.
7	WHO Regional Office for the Western Pacific, data received from the technical units.
8	National health accounts: country information. Geneva, World Health Organization. Accessed in July 2011 from http://www.who.int/nha/country/brn/en/

CAMBODIA

1. CONTEXT

1.1 Demographics

The General Population Census of 2008 put Cambodia's population at 13.4 million by March 2008. The population density is 75 per square kilometre. The male-to-female ratio is gradually normalizing after the distortions caused by 30 years of war during the last century. The average household size is 4.7 people, with 80% of the population living in rural areas. The median age in 2008 was 21 years, about four years more than in 1998.

Mainly due to a decline in early mortality, life expectancy increased in the period from 1998 to 2008 from 52.0 to 60.5 years for males and from 56.0 to 64.3 for females. The total fertility rate dropped from 4.0 births per woman in 2000 to 3.4 in 2005 and decreased further to 3.0 in 2010, achieving the Cambodian Millennium target for 2010, predominantly as a result of a decline in fertility among rural women. The annual population growth rate between 1998 and 2008 declined from 2.5% to 1.5%. Overall, one in every two currently married women use contraceptives, with 35% using modern methods. However, over half currently married women are in need of family planning. The Cambodian Demographic Health Survey (CDHS) 2005 concluded that both education and wealth have an effect on fertility. The interval between births is relatively long, at a median of 36.8 months. The preliminary results of the CDHS 2010 show a decrease in the infant and child mortality rates and continued progress in maternal care, exclusive breastfeeding and immunization, but almost unchanged nutrition rates, compared with 2005.

1.2 Political situation

Since completion of the United Nations Transitional Authority in Cambodia (UNTAC) mission and promulgation of the 1993 Constitution of the Kingdom of Cambodia, increased political stability has allowed economic growth, improvements in human development indicators and reintegration of the country into the international community. Parliamentary elections are held every five years, with the most recent in 2008. A policy of decentralization and deconcentration resulted in the first indirect election of commune representatives at district and provincial levels in 2009. Poverty alleviation and governance are increasingly important items on the Government's agenda.

In September 2008, the Government issued phase two of its 'Rectangular Strategy', with reforms focusing on corruption, the judiciary, public administration and the military as core priorities. The National Strategic Development Plan 2006-2010 was updated until 2013 to align with the governing cycle. Drafted in collaboration with development partners, it combines previous poverty-reduction strategy papers and socioeconomic development plans, and specifies prioritized goals, targets and actions, including the Cambodian Millennium Development Goals.

1.3 Socioeconomic situation

Cambodia has successfully maintained macroeconomic stability since 1993, allowing for an average annual growth rate of 7.1% for the period from 1994 to 2004; increasing to 13.5% in 2005; 10.4% in 2006; 10.2% in 2007; 6.7% in 2008; -2.0% in 2009, when the global economic crises struck; rebounding to an estimated 6.7% in 2010. This growth, while reducing poverty by at least 10%-15%, has increased inequality, as reflected in a Gini coefficient of 42.0 in 2004. Over 85% of the labour force is in the informal sector, with employment in industry (mainly the garment industry) growing substantially during the period from 1998 to 2004, stimulated by preferential trade status with the United States of America. Although the ending of that status did not affect growth, the global economic crisis in 2008-2009 reduced the labour force substantially. The other drivers of recent economic growth, tourism and construction, have also been affected. Agriculture, mainly rice production, accounts for 40% of gross domestic product (GDP) and employs more than 70.0% of the workforce. Annual flooding and drought, however, result in year-to-year fluctuations in agricultural production. Diversifying the rather narrow income base and strengthening rural development are government priorities.

Thirty years of war and serious internal conflict at the end of the last century left Cambodia severely impoverished, with a significant depletion of skilled, educated professionals. In 1990, the Human Development Index (HDI) was 0.51, but by 2007 it had increased to 0.59, moving Cambodia from the low to the medium human-development category. Despite that achievement, however, the country still has some of the worst human development indicators in South-East Asia. In 2010, per capita GDP was US$ 776. In 2009, approximately 28% of the total population are living below the official rural and urban poverty.

The Constitution guarantees women and men the same legal protection. However, women are disproportionately vulnerable in economic terms. While labour-force participation for both is about 60%, over 60% of working women are in unpaid family work, and women head more than 25% of households.

1.4 Risks, vulnerabilities and hazards

Like many developing countries, Cambodia faces a range of vulnerabilities and risks, including traditional, modern and emerging health and environmental risks. These risks emanate from unsafe water and inadequate sanitation; unsafe food supplies, especially from street vendors; indoor air pollution and solid fuel use; and disease-vector transmission. However, the country is also subject to emerging issues, including health risks related to changes in the global environment (e.g. climate change and loss of biodiversity); development, consumption and production of new products and technologies; consumption and production of more energy sources; and the increasing number and use of chemicals. There are also increasing health risks related to changes in lifestyle, urbanization and working conditions. In September 2009, the country was hit by Typhoon Ketsana, causing damage and loss. The typhoon affected 50 000 families, leaving 43 people dead and 67 severely injured.

According to the latest WHO/UNICEF Joint Monitoring Programme (JMP) Report on Drinking Water and Sanitation, published in 2010, only 61% of the total population have sustainable access to an improved water source (81% in urban and 56% in rural areas) and only 29% to improved sanitation (67% in urban and 18% in rural areas). Other environmental health hazards include bacteriological contamination of drinking-water, the most important health-related concern; arsenic in groundwater, which poses a health threat in seven provinces, exposing around 2.24 million people; indoor and urban air pollution, which is a serious health threat due to almost 98% of the population using biomass fuels for cooking or heating; use of banned pesticides and fertilizers, which has the potential to contaminate food and water; and finally, the serious environmental health impacts of solid and hazardous wastes, including health care waste.

Increasingly, the Government is recognizing the risks, vulnerability and hazards posed to the health of the Cambodian people by counterfeit and substandard medicines. Besides wasting the meagre resources available, they deprive people of effective treatment and cause the development of antimicrobial resistance to commonly used antibiotics, antiretroviral drugs and medicines used to treat malaria and tuberculosis. In 2010, a United States Pharmacopeia (USP)/prescription-only-medicine (POM) report that noted results from various sources indicated that the prevalence of counterfeit and substandard medicines in the country was continuing to decline, and had fallen from about 10.3% in 2005 to 3.7% in 2009.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

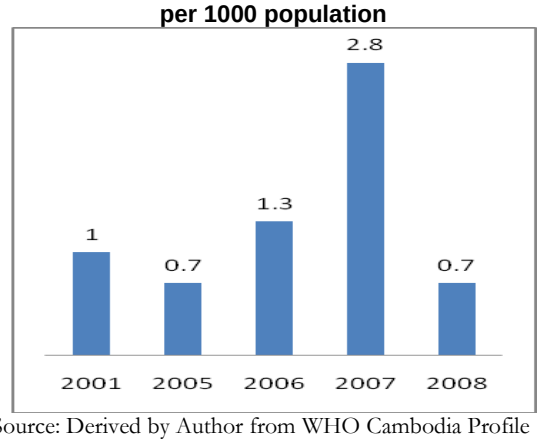
The Cambodian surveillance system includes an indicator-based, passive, zero-reporting weekly surveillance system that reports morbidity and mortality from 12 reportable diseases and syndromes, and a 'rumour-based' system that detects outbreaks and unusual health events in a timely manner. Training in surveillance is ongoing at all levels of the health care system. In addition, there has been a major push to develop cross-cutting policy frameworks for infection control in health care settings,and a laboratory policy was formulated in 2009. The leading reportable diseases remain unchanged, being acute respiratory infections (ARI) and acute watery and/or bloody diarrhoea.

Malaria continues to affect mostly the poorer communities living in forested areas, where over 3 million people are at risk. The total number of treated malaria cases in public health facilities decreased in 2010 to 49 356, following a year of rise. It has been noted that the overall trend since 2000 (129 167 cases) is downward, but during years when the La Niña climate phenomenon is experienced and rainfall is increased, such as in 2003, 2006

and 2009, the number of malaria cases spikes. When La Niña ends, the long-term downward trend continues. In addition, capacity for early diagnois and appropriate treatment by village malaria workers (VMW) and mobile malaria workers (MMW) in around 1400 villages, out of the total 3908 villages at risk, has been maintained. This has resulted in a significant number of cases being diagnosed by VMW among patients who would otherwise have sought care in the private sector, which has been underreporting. The number of reported malaria deaths in public health facilities has followed a similar long-term downward trend. The management of severe malaria has also improved, and the case-fatality rate (CFR) among severe malaria patients at referral hospitals continued to decrease from 10.4% in 2005 to 5.3% in 2010. The proportion of confirmed malaria cases among all cases treated in public health facilities increased from 54% in 2003 to 82% in 2010, indicating better diagnosis; 100% of cases treated by VMWs are now confirmed as malaria. The malaria incidence rate was 407 per 100 000 population in 2010, a reduction from 616 per 100 000 population in 2009. The country is right at the centre of the global multidrug-resistant malaria problem because of the presence of artemisinin-tolerant malaria parasites, especially in the Cambodia-Thailand border area. At the moment, an intensified containment effort, with the aim of eliminating the tolerant parasites, is a priority objectives for Cambodia; a short-term containment project (2009-2011) is being implemented and there is a medium-term plan (2011-2015) to sustain and scale up containment activities. In March 2011, the Government formally committed itself to elimination of malaria over the next 15 years.

Dengue fever (both simple and severe) has become a serious public health problem in the last two decades, the latter being the number one cause of mortality in paediatric wards during the dengue transmission season. The national dengue incidence rate from hospitalized cases was 0.9 per 1000 population in 2003, 0.7 in 2005 and 0.9 per 1000 in 2009. In 2006, however, the rate increased to 1.3 per 1000 due to outbreaks in several provinces, characteristic of the three-to-five-year cyclical pattern of dengue disease. The worst year for dengue on record was 2007, when 39 851 cases, with 407 deaths, were reported (CFR = 1.03%) and the incidence rate was 2.8 per 1000. As a result of the rise in herd immunity against DEN-3, the number of reported dengue cases decreased significantly in 2008 to 9542 cases with 65 deaths (CFR=0.68%). Due to improved clinical management of severe dengue and increasing awareness among the general population, the case-fatality rate declined steadily from more than 4% in 1995 to 0.3% in 2010, with 12 500 cases and 38 deaths. Therefore, while further prevention and treatments efforts are still needed to maintain targets, they appear to be in reach.

Figure 1. Evolution of dengue fever cases per 1000 population



Source: Derived by Author from WHO Cambodia Profile 2008

The national immunization programme continues to improve its coverage. For 2009, the Ministry of Health continued to apply the 2008 census data for the demominator. The official DPT-HepB3 coverage rate increased to 95% and measles coverage to 92%. A pentavalent Hib-containing vaccine was successfully introduced into the national immunization programme in 2010 with support from GAVI until 2015. This is expected to reduce mortality due to pneumonia and meningitis. The Government has continued to promote fixed-site immunization at health centres, while maintaining outreach activities to outlying villages.

Despite a decrease in tuberculosis incidence of 1% per year, Cambodia has the highest incidence in the Western Pacific Region, at 442 cases/100 000 population/year (2009). In 2009, 39 202 new cases were notified under the national TB programme. A treatment success rate of over 90% has been maintained consistently for over a decade. The estimated HIV prevalence among incident TB patients decreased from 11.8% in 2003 to 6.4% in 2009. The identification and treatment of multidrug-resistant (MDR) TB has begun on a small scale, and programmatic management of MDR-TB is expected to begin in 2011.

The HIV prevalence rate among adults aged 15-49 years decreased from 2% in 1998 to 0.7% in 2010 due to strong prevention activities among entertaiment workers since the beginning of the epidemic. Prevention programmes have been expanded to other most-at-risk populations (injecting drug users [IDU] and men who have sex with men [MSM]). Voluntary and confidential counselling and testing services have been scaled up to 246

sites (521 097 people aged 15 and older were tested for HIV in 2010 and told their results), while home-based care has been scaled up to 356 teams, covering 848 health centres. Services for people living with HIV (PLHIV) are provided through a continuum-of-care package, available in 44 operational districts in 20 provinces, with 42 799 patients on antiretroviral treatment in December 2010. Universal access to antiretroviral treatment has been achieved. The percentage of pregnant women tested for HIV and given their results increased from 49.8% in 2002 to 81.1% in 2010, and the percentage of HIV-positive pregnant women receiving ARV prophylaxis to reduce mother-to-child transmission jumped from 11.2% in 2007 to 50% in 2010. For TB/HIV, the 3Is approach (Intensified TB case-finding among PLHIV, Isoniazid preventive therapy for PLHIV, and TB Infection control) was adopted in 2010. In 2009, 70% of notified TB patients had a known HIV test result.

A national survey in 2006 found hepatitis B virus among 3.4% of five-year-old children. In 2008, among blood donors there was a 0.6% prevalence rate for HIV, 7.1% for hepatitis B, 1.2% for hepatitis C and 1.5% for syphilis. In the same year, 24.1% of blood collected was donated by voluntary, non-remunerated blood donors, the remainder being collected from family replacement donors (72.5%) and paid donors (3.4%). Some progess was made in 2009 in quality assurance systems for blood safety, but this needs to be sustained, as well as efforts to increase voluntary blood donation.

Although Cambodia suffered several decades of war and civil unrest, as well as more recent rapid socioeconomic development, there is little information on the prevalence of mental illness, although several small studies have shown high levels of depression among adults and behavioural problems among children and adolescents. Mental health services are available at 35 health centres nationwide and at 25 outpatient departments; there is one psychosocial rehabilitation centre in operation and two psychiatric inpatient units have been established. In 2005, 8800 psychiatric cases were assisted and 56 000 consultations provided by the Government's national programme for mental health, which does not include the more substantial services offered by NGOs around the country.

Increasing use of illicit drugs, especially amphetamine-type stimulant use by young people, sex workers, MSM and those in labour-intensive activities, are putting such people at risk of contracting HIV/AIDS, with a prevalence rate of 1.1% among non-injecting drug users in 2006 and 24% among injectors, as well as increasing their risk for other health problems, especially TB and hepatitis B and C. Currently, there are only two Government-approved needle/syringe programmes, both of which are in Phnom Penh and are being implemented through NGOs. In July 2010, the first methadone maintenance therapy (MMT) programme for opiate-dependent people, especially IDU, began a one-year pilot phase through the Ministry of Health in collaboration with two local NGOs, with 100 people expected to be enrolled in the service by mid-2011. A comprehensive approach to community-based drug-use issues, including prevention, harm reduction, treament and aftercare, has been developed by the Government and its United Nations and civil society partners, with initial implementation in Banteay Meanchey province, to scale up the national response through the health and social sectors.

Cambodia has a significant and growing burden of noncommunicable disease (NCD). A STEPS survey in 2010 found that 2.9% of adults aged between 25 to 64 years had diabetes, with prevalence twice as high in urban areas (5.6% urban vs 2.3% rural). At the same time, 11.2% of adults had high blood pressure, prevalence being higher in men than in women (12.8% vs 9.6%) an in urban than rural areas (16% vs 10%). Eight out every 10 people in the surveyed population had one or two risk factors for devloping a noncommunicable disease, and one in every 10 had three or more risk factors.

A nationwide survey of adult tobacco use (18 years and older) in 2010 found that 42.5% of men (1 313 000) and 3.5% of women (135 000) were cigarette smokers, while 13.8% of women and 0.8% of men chewed tobacco. Those data indicate that, during the past five years, the total number of tobacco users (approximately 2 million) has remained constant (National Adult Tobacco Survey of Cambodia, 2011). It is hoped that the recently passed Sub-decree on measures for the banning of tobacco product advertising can reverse the alarming trend in the Cambodian media, where promotion of tobacco exceeds public education about tobacco harm.

Alcohol consumption is rampant and is on the increase. The STEPS survey in 2010 revealed that almost two-thirds of total respondents (aged between 25-64 years) were alcohol drinkers; over half were reportedly current drinkers(in the previous 30 days) and one in every 10 had been drinking in the previous 12 months. It was also reported that men are 2.4 times more likely to be current drinkers than women, and men are around 10 times more likely than women to be engaged in heavy episodic drinking in the past 30 days, in both urban and rural areas (STEPS survey country report, September 2010). The number of violent incidents, traffic accidents and

domestic violence incidents due to alcohol is alarming. Deaths and injuries due to road traffic accidents are among the highest in the Region. In 2010, there were 6941 road crashes resulting in 1816 fatalities, 6718 severe injuries and 9170 minor injuries with a mortality rate of 12.8 per 100 000 population.

Due to rapid economic growth and changes in lifestyle, the burden of environment-related diseases is an increasing concern, accounting for 26% of the total burden of disease, according to recent WHO estimates. In 2009, WHO reported that the environmental burden of disease due to unsafe drinking-water and poor sanitation and hygiene was 10 900 deaths per year and 26 DALYs/1000 population/year. Compared with other countries in the Region, Cambodia has the second-highest environmental disease burden. While environmental risk factors are generally associated with noncommunicable diseases and injuries, in Cambodia they are also strongly associated with communicable diseases.

2.2 Outbreaks of communicable diseases

In 2010, the most important communicable disease outbreak was due to cholera, which affected almost every province in the country. The outbreak started in late 2009 and continued until October 2010. It peaked in February and again in June 2010. The total number of confirmed cases in 2010 was in excess of 580, with many thousands more probable cases. There was also a concomitant increase in the number of people complaining of acute watery diarrhoea thoughout the country. A combination of outbreak control measures, local media communciations and increasing rainfall eventually brought the outbreak under control.

There was also the usual seasonal increase in influenza activity from September to December 2010. Such activity occurs every year but, unlike many other countries, there has been a shift in the influenza virus subtype circulating in the country. Where, until August 2010, the predominant virus type was the A (H1N1) pandemic strain, by the end 2010, influenza B had replaced it and accounted for 85% of the circulating subtype in the country.

In 2010, there was only one case of highly pathogenic influenza A (H5N1) reported in humans. The case was Cambodia's tenth confirmed human case since 2005, a 27-year-old man from Prey Veng province, who died on 17 April. Like the previous case in 2009, there was a close relationship between the case and contact with sick birds confirmed as H5N1-positive. Laboratory investigations showed that no contacts were infected with H5N1.

The Cambodian dengue situation was much better in 2010 than in 2009 and better than in neighbouring countries, with fewer cases being identified by the surveilance system.

A number of localized sporadic measles outbreaks were identified in 2010. The outbreaks primarily occurred in hard-to-reach communities, indicating suboptimal routine immunization coverage in those communities. In addition to outbreak response activities in affected areas, a national measles supplementary immunization campaign is planned for 2011 to try to eliminate the disease.

2.3 Leading causes of mortality and morbidity

Infectious diseases still constitute the main causes of mortality and morbidity, although Cambodia is facing an epidemiological transition. Currently, acute respiratory infections are the leading cause of both mortality and morbidity, with gastroenteric infections contributing substantially to the morbidity burden and dengue outbreaks exacerbating the situation. In addition, the country is still classified as one of the 22 high-burden countries for tuberculosis worldwide. Notably, HIV prevalence has decreased substantially and a high proportion of people living with HIV/AIDS are receiving antiretroviral therapy.

Preventing and treating noncommunicable diseases and injuries will be the challenge in the future. The number of road accidents is rising very rapidly as a leading cause of mortality due to improved infrastructure and rapid socioeconomic development. In addition, surveys have indicated high levels of diabetes (2.3%-5.6%) and hypertension (10%-16%) in rural and urban areas, both major risk factors for ischemic heart disease and stroke. As 42% of the male population smokes and alcohol consumption is rising, the composition of the table for leading causes of morbidity and mortality is expected to change in the near future.

2.4 Maternal, child and infant diseases

The maternal mortality ratio (MMR) is high, at 472 per 100 000 live births, and remained unchanged between the last two CDHS in 2000 and 2005. The 2008 Census further confirmed that high rate with its finding of an MMR

of 461. Postpartum haemorrhage is the leading cause of maternal death, followed by eclampsia, infections and complications of abortions. Maternal death contributes 17% to overall mortality in women aged 15-49 years. Weaknesses in vital registration statistics and the routine health information system make it difficult to monitor changes in MMR between surveys, but there are indications of improvement. Renewed attention to maternal health and the introduction, in 2008, of performance incentives for facility-based deliveries have resulted in a sharp increase in the proportion of births assisted by trained health professionals. In 2010, 52% of the expected number of births took place in a public health facility, compared with 39% in 2008 and 26% in 2007. Trained health staff assisted 70% of expected births, compared with 58% in 2008 and 46% in 2007, a figure that includes private service providers. There are multiple reasons for the high MMR, of which inadequate access to emergency obstetric and newborn care (EmONC), the low level of knowledge and competency among health professionals, the low facility-delivery rate, the low level of modern contraceptive use (28% in 2009) and the high rate of unsafe abortions are the most important. Barriers to good quality delivery services include official and unofficial fees, limited physical access for rural populations, and the sometimes unprofessional conduct of staff. Limitations in access to EmONC, including emergency blood transfusions and Cesearean sections, are of particlular concern, the latter being less than half the minimum 5% recommended by WHO. A national EmONC assessment, followed by development of an EmONC Improvement Plan were undertaken in 2009 and began implementation in 2010. The Safe Motherhood protocols for health centres and referral hospitals are under revision and will be based on the latest best practice and evidence. There is a chronic shortage of midwives, which has led to raising of the intake at the five public midwife training institutions. A new direct-entry, three-year midwifery course began in 2008 and will see around 400 new midwives graduating in 2011. Of note, since late 2009, there has been at least one midwife in every health centre, although about 60% are primary midwives with only 12 months of training. This is a major achievement considering that, in 2008, there were still 79 health centres without a midwife and, in 2005, there were 146 health centres without a midwife. A High-level Midwifery Taskforce has been charged with developing a plan for a comprehensive reform of midwifery services, and the Reproductive Maternal, Newborn and Child Health (RMNCH) Taskforce has been charged with developing a fast-track initiative for improving reproductive, maternal, newborn and child health, focusing particularly on interventions with the potential to rapidly decrease maternal and neonatal death rates.

Infant and under-five mortality rates have both declined significantly over the past 25 years, with the most dramatic declines happening since the late 1990s; comparison between the two most recent five-year periods in the preliminary results for CDHS 2010 show infant and under-five mortality declining by 20% and 29%, respectively, to 45 and 54 deaths per 1000 live births, bringing Cambodia on track to meet its MDG 4 target in 2015. Socioeconomic characteristics, such as living in an urban environment, the mother's educational level and the mother's household wealth, influence infant and child survival substantially.

Respiratory infection remains the leading cause of death among children under five years of age (30%), followed by diarrhoea (27%), dengue haemorrhagic fever (11%), severe acute malnutrition and measles. The proportion of deaths in the neonatal period now accounts for 54% of the total under-five deaths. One quarter of children who die in the neonatal period have a history of poor feeding after initially feeding well, indicating sepsis, while 7% have symptoms suggestive of neonatal tetanus. There are ongoing efforts to improve the quality of child health services. Coverage of integrated management of childhood illnesses (IMCI) services reached 100% of health centres in 2010.

Infant and young child feeding practices have improved. The rate of exclusive breastfeeding for the first six months of life rose significantly from 11% in 2000 to 60% in CDHS 2005, 65.9% in the 2008 CAS and 74% in the preliminary results of CDHS 2010. An important step towards full adherence to the International Code of Marketing of Breastmilk Substitutes was taken in 2005 when the Government issued a Sub-Decree on the implementation of the Code. The anaemia rate among woman of reproductive age (15-49 years) decreased from 58% in 2000 to 47% in 2005, and from 66% to 57%, and further to 44% in 2010 (CDHS preliminary results), among pregnant women. Anaemia in children aged 6-59 months decreased from 62% (2000, 2005) to 55% (2010). The first National Nutrition Strategy (NNS 2009-2015), with the overall goal of reducing maternal and child morbidity and mortality by improving nutritional status, was approved by the Ministry of Health in 2009.

The prevalence of child undernutrition, which has been retrospectively recalculated based on the new WHO growth standards, decreased between 2000 and 2005 from 17% to 8% for weight-for-height, from 39% to 28% for weight-for-age and from 49% to 43% for height-for-age (stunting). However, the Cambodia Anthropometric Survey (CAS) 2008, undertaken to assess the impact of increased food prices and the current economic crisis,

reveals that the improvements seen in the earlier part of the decade have stagnated and possibly worsened, with chronic child malnutrition one of the highest in the Region, at 40%, and an underweight rate of 29% and wasting rate of 8.9% in children under five years of age. Those rates are not appreciably different in the preliminary results of the 2010 CDHS. The rate of wasting has reached 10% or greater in nine provinces and some urban poor areas. Only four out of 10 newborn babies are weighed at birth, and the proportion of low-birth-weight babies is 8%.

There are indications of increasing disparities in both health outcomes and service utilization between the rich and the poor, and between urban and rural populations. The Government is committed to improving maternal and child health and to achieving MDGs 4 and 5, but the available government and external resources are insufficient to meet the challenges. The Ministry of Health has taken important steps to reduce child mortality at the policy and planning level, but it will take substantially larger investments to achieve universal coverage of the 12 Child Survival Score Card interventions of the Cambodia Child Survival Strategy by 2015 and the Fast-track Initiative Road Map for Reducing Maternal and Newborn Mortality (2010 -2015).

2.5 Burden of disease

The main risks factors affecting health are still posed by exposure to communicable diseases, facilitated by environmental circumstances (especially the lack of safe drinking-water and poor sanitation and hygiene). A high prevalence of diabetes, hypertension and tobacco use has been recognized and, in combination with changing lifestyles and increased traffic accidents, points to an epidemiological transition. Annually, possibly 1600 women die due to pregnancy-related complications, and almost 20 000 children die before the age of five.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The first national Health Sector Strategic Plan, approved in 2002, was reviewed in 2007 and resulted in the Health Strategic Plan 2008-2015 (HSP2). It presents the vision as: "To enhance sustainable development of the health sector for better health and well-being of all Cambodia, especially of the poor, women and children, thereby contributing to poverty alleviation and socio-economic development." The mission of the Ministry of Health is: "To provide stewardship for the entire health sector and to ensure a supportive environment for increased demand and equitable access to quality health services in order that all the peoples of Cambodia are able to achieve the highest level of health and well-being", based on values of equity and the right to health.

The building blocks of HSP2 are three main health programme areas to:

- reduce maternal, newborn and child morbidity and mortality, with increased reproductive health;
- reduce morbidity and mortality due to HIV/AIDS, malaria, TB and other communicable diseases; and
- reduce the burden of noncommunicable diseases and other health problems,

which implement the following set of five cross-cutting health strategies:

- health service delivery;
- health care financing;
- human resource for health;
- health information system; and
- health system governance.

The HSP2 implementation plan identifies an initial three-year consolidation phase to decide key policies in relation to health financing and health system governance requirements under decentralization and deconcentration, followed by a scaling-up phase. A monitoring and evaluation process has been established, including indicators to measure performance, refine existing health policies and determine the effectiveness of interventions. Annual targets are monitored at the National Health Congress and Joint Annual Performance Review, and directives for the next Annual Operational Plan issued. Three-year Rolling Plans provide medium-term guidance. A mid-term review of HSP2 will take place in 2011 to determine progress and prepare for the scaling up phase.

3.2 Organization of health services and delivery systems

The Ministry of Health initiated a health sector reform process in the early 1990s and, in 1996, approved the Health Coverage Plan, formulated with WHO support, which divides the country into 73 operational districts within the 24 provinces. Each operational district covers a population of 100 000-200 000 and comprises 10-20 health centres, each covering populations of about 10 000, and a referral hospital. Health centres are expected to deliver a 'minimum package of activities' that includes basic curative, preventive and promotional services, provided both in the facility and through outreach. Community participation is obtained through health centre management committees. Referral hospitals provide a 'complementary package of activities'. National institutes, national hospitals, national programmes and training institutions provide the third level of services. As of 2010, there were eight national hospitals, 77 operational districts, 81 referral hospitals, 997 functional health centres and 117 health posts. The Ministry of Health comprises three directorates at central level—health services, finance and administration, and inspection—with the Minister of Health as chief executive. The structure, roles and functions are being reviewed as part of an institutional strengthening process.

The private health sector has been expanding rapidly in the past decade, absorbing a substantial part of out-of-pocket expenditure. Many public health civil servants have initiated private activities to complement their official government salaries to earn a living wage. In addition, not-for-profit NGO providers supply a significant volume of hospital and diagnostic services. Enforcement of private practice regulation needs to become a more prominent aspect of the Ministry of Health's work.

3.3 Health policy, planning and regulatory framework

In order to strengthen its stewardship over the health sector, the Ministry of Health has been developing tools to apply sectoral resources where they are most needed, through direct allocation as well as through advocacy, influence and regulation. The Ministry developed a comprehensive system of sectoral operational planning to support implementation of the Health Strategic Plan. Strategic planning, aligned with the National Strategic Development Plan, is operationalized through Annual Operational Plans, forming the basis for three-year Rolling Plans that link mid-term operational and investment planning. This is consolidated planning, encompassing the entire public health sector. It is bottom-up, with each facility or administrative unit preparing annual plans based on sectorwide priorities, but accounting for its own specific goals, capacities and challenges. The year 2009 marked the fifth year of the Annual Operational Plans, which are becoming an increasingly useful tool for resource allocation as the links between planning and budgeting processes are strengthened. The Ministry of Health has introduced the Joint Annual Plan Appraisal for review of resource allocation with health partners to facilitate such linkages.

Implementation of strategic and operational plans is monitored through the Ministry of Health's health information systems, which inform the Joint Annual Performance Review (JAPR) and the National Health Congress. That consultative event reviews performance toward strategic goals and identifies priorities for action during the coming year. At the 2009 Joint Annual Performance Review, key bottlenecks to improvement of sector performance were identified, and a set of priority interventions was recommended for which resource allocations within individual operational plans should increase. Health facility development is guided by the Health Coverage Plan, which will become an important strategic management tool for the health sector once linkages with human resource planning and national capital investment planning are strengthened.

Regulation of the rapidly growing private pharmacy and medical services sector is a priority for the Ministry of Health. However, the Ministry's enforcement ability is constrained by weaknesses in the Police and Judiciary systems. Nevertheless, registration, as well as development and approval of codes of practice, are proceeding. As most private practitioners are also civil servants, such steps are expected to have some impact.

3.4 Health care financing

The government budget for health has been increasing steadily over recent years, reaching US$ 9.4 per capita for the recurrent budget of the Ministry of Health in 2009. The challenge, however, lies, not only in adequate finances, but also in allocation and management. Although overall disbursement at the end of budget execution is acceptable (around 95%), provinces and districts face irregular and untimely disbursement. Cambodia is also still highly dependant on donor funding (US$ 9.5 per capita in 2009), and the challenge is to coordinate action to cover national priorities.

Despite the increasing investment in health from government and external sources, the largest portion of health expenditure comes from out-of-pocket sources and goes towards unregulated private health care. The World Bank Poverty Assessment 2006 estimates out-of-pocket expenditure to be US$ 15 per capita per year (secondary analysis of the Cambodian Socio-Economic Survey [CSES] 2004). CDHS 2005 reports even higher out-of-pocket spending, almost US$ 25 per capita per year, with potential underreporting in the CSES and overreporting in the CDHS. Analysis of CSES 2007 seems to indicate an increase in out-of-pocket spending for all quintiles except the richest, which points again towards increased inequities despite overall positive progress. The underlying reasons for these findings still need further investigation.

The Ministry's Health Financing Charter was introduced in 1996 and allows establishment of user-fee schemes in health facilities. Of this income, 60% is redistributed as incentives for staff, while 39% is used for operating costs and quality improvement (1% is paid in tax to the Treasury). One positive impact of user fees on access has been to reduce under-the-table payments, but the cost of health care remains a substantial obstacle for a large portion of the population. In this context, Cambodia has, in recent years, developed several alternative financing mechanisms for health, such as contracting and community-based health insurance. At the same time, health equity funds have been scaled up to cover 55 districts (out of 77) and six national hospitals. Lessons from these experiments were the basis for the formulation of Cambodia's strategic Framework for Health Financing. It proposes a set of interventions to achieve the following five objectives:

(1) Increase the government budget and improve the efficiency of government resource allocations for health.
(2) Align donor funding with Ministry of Health strategies, plans and priorities and strengthen the coordination of donor funding.
(3) Remove financial barriers at the point of care and develop social health protection mechanisms.
(4) Ensure efficient use of all health resources at the service delivery level.
(5) Improve the production and use of evidence and information in health financing policy development.

3.5 Human resources for health

The strategic vision for human resources for health in the Health Workforce Development Plan (HWDP) 2008-2015 outlines the key issues for health staffing; 2010 will see a mid-term review of the HWDP. Initial findings suggest a focus on strategies for rural recruitment and retention, a need for an increase in recruitment numbers and a refocusing on the quality of health workforce production.

While the war years decimated the educated population, Cambodia has made great strides in replacing its health workforce, particularly doctors, although production of secondary midwives has been slow. The total number of health workers in the Cambodian public sector remains low, with only 1.4 secondary midwives and 2.4 doctors per 10 000 population, and these are largely deployed in urban centres. Staff compensation is one of the key challenges. Although base salaries have been increasing annually by 20%, with over 17 000 staff members, the Ministry of Health salary budget for 2010 allowed for an average monthly salary of only US$ 65. Low salaries are a major contributing factor to the serious maldistribution of staff, as most graduates are from urban areas and prefer working in cities, and the low compensation is not sufficient to offset the opportunity costs of working in rural locations. Recruitment and training of new staff from remote areas is therefore a Ministry of Health priority and has led to contract commitments being signed with all student primary nurse midwives. Similar strategies are being considered for secondary grades.

All civil servants, including health staff, need to source additional income, and many clinical health staff have opportunities to more than double their civil service salaries through user fees and dual practice. Dual practice is a burden on the poor and is often unsupervised, leading to poor quality. The civil service package is designed and managed by the Council of Ministers and the Ministry of Health is tasked with adapting it for health, but within very limited parameters. Recent health system developments offer some opportunities for health-specific compensation, to cover the opportunity costs of dual practice. The new internal contracting mechanism, Special Operating Agencies (SOAs), can allow some local flexibility in staff compensation and may be a strategy for future scaling up, especially with the temporary Priority Operating Cost scheme finishing in June 2012. The 60% allocation for staff from user fees is becoming an increasingly significant part of public sector income.

The Ministry of Health continues to prioritize the health workforce in efforts to achieve progress towards MDG 5. The new associate degree course in midwifery should produce four times the number of secondary midwife graduates for the public sector in 2011, available for recruitment in 2012. There continues to be one primary midwife per health centre and that strategy will continue to be closely monitored in future recruitment rounds.

3.6 Partnerships

Cambodia's health sector is a crowded field where the Ministry of Health is joined by some 20 bilateral and multilateral donors, development agencies and global health partnerships, as well as more than 100 international and national NGOs. The Ministry generally welcomes the contribution of health partners and the Health Strategic Plan explicitly promotes public and private partnerships for basic and specialist care. However, sectorwide management, introduced and led by the Ministry of Health, as the primary mechanism for sector dialogue, has been reviewed in order to strengthen coordination and implementation of the new Strategic Plan. With the multidonor Health Sector Support Programme being the only significant example of a coordinated direct partnership with the Government, coordination of partners and their activities has taken on an increasingly important role in the sector. In its efforts to achieve more effective stewardship, including through the creation of a Department of International Cooperation, the Ministry is finding it difficult to manage aid as it is delivered (mostly project-based). More broadly, the Government is taking greater ownership of its development processes, assisted by a global agenda for greater harmonization and alignment under the Paris Declaration, to which Cambodia contributes as a pilot country for progress monitoring. These efforts are also embedded in the National Strategic Development Plan 2008-2013 and were reflected in the move to a more Government-led Cambodia Development Cooperation Forum in mid-2007. While the general contribution of partners to improving health status is unquestioned, their support to Cambodia's health system could be increased considerably if donors were to adapt to more harmonized and efficient modes of cooperation that take into account existing systems at country level. To enable such an in-country process, the Ministry of Health signed the International Health Partnership Compact in 2007, as one of the seven first-wave countries globally.

3.7 Challenges to health system strengthening

The formulation process of the Health Strategic Plan 2008-2015 identified a number of key challenges for the health sector that remain valid or have become more pressing:

(1) Increasing the utilization of cost-effective health services: The overall utilization of public health facilities is around 0.6 visits per person per year. Except in a few areas where additional resources and semiautonomous management have been provided, utilization rates are not increasing substantially and, to date, the underresourced, publicly funded health services have had little to offer the rural poor. Most people are choosing to use the private sector for treatment, particularly private pharmacies.

(2) Improving the quality of care in both the public and private health sectors: The low utilization of health services may be affected by unfavourable staff attitudes and practices in the public sector, an irregular and inadequate flow of funds to service delivery, limited management and leadership capacity, uncertainty about user charges, and a lack of knowledge about available services. To address such issues, the Ministry of Health published the National Policy for Quality in Health in 2005, the Operational Guidelines for Clients' Rights and Providers' Rights-Duties in 2007, and the Masterplan for Quality Improvement in Health in 2010. A number of initiatives have been introduced to promote a 'client-centred' approach to service delivery in training programmes for health staff, and the newly established Medical Council is introducing a code of medical ethics in an attempt to improve professionalism among medical practitioners.

(3) Improving the distribution of staff, particularly midwives, in the health sector: The persistence of a high maternal mortality ratio in CDHS 2005 confirms the pertinence of this challenge. Currently, many referral hospitals and health centres, particularly in rural areas, have insufficient numbers of midwives to provide safe coverage for emergency obstetric care. A continuing functional analysis process, initiated in 2002, has focused attention on the need to develop policy to address the maldistribution of staff, and there has been an increase in the number of midwifery trainees in recent years. However, a comprehensive midwifery review in 2006 indicated serious gaps in the skills of the current midwifery workforce. In 2011, the first cohort of more than 400 midwives will be graduating from a new three-year midwifery training course to enable closing of those gaps.

(4) Improving reproductive and adolescent health services: Cambodia has a recently declining fertility rate and a youthful population, with half under 21 years of age. The main focus of reproductive health services is fertility control and antenatal care. Establishing a continuum of quality care for adolescent and maternal and child health, including a functional referral system, will become increasingly important in continuing to improve the indicators, which until now have been substantially influenced by an improving socioeconomic situation.

The Government has recently introduced a policy to improve public service delivery through a split purchaser-provider approach. The Ministry of Health/provincial health departments can now contract operational districts or health facilities to provide services, a strategy that, combined with improved staff remuneration, can create an environment to address the listed key challenges.

A new challenge has gradually become more apparent: prevention and treatment of noncommunicable diseases and injuries. The 2010 STEPs survey revealed that 82.4% of the surveyed population had one or two risk factors and about 10% had three or more risk factors for developing noncommunicable diseases, such as diabetes, cardiovascular disease, cancer and chronic respiratory disease. The fact that about 50% of men smoke and almost two-thirds of the population drink alcohol, coupled with the rapid increase in life expectancy, are indicators that an epidemiological transition is imminent. Health staff will need to be trained and provided with the means to promote healthy lifestyles and treat chronic diseases or disabilities. Rapid socioeconomic development is constantly changing the social determinants of health, and improved road infrastructure has resulted in a steeply rising number of deaths and injuries due to traffic accidents. In addition, the burden of environment-based diseases is an increasing concern for the country, mainly related to unimproved drinking-water and sanitation, indoor and outdoor air pollution and occupational health risks (occupational carcinogens and particulates). Such problems require multisectoral collaboration and cooperation among all relevant agencies, including health, environment and agriculture, among others.

Another multipronged challenge will be to improve effectiveness and efficiency in allocation and disbursement of scarce financial and human resources. As an Organisation for Economic Co-operation and Development (OECD) pilot country for Aid Effectiveness, Cambodia is assuming a growing leadership role and is taking forward an action plan to facilitate harmonization and alignment processes. These include improved governance procedures, public financial management reforms and decentralization and deconcentration policies, requiring the involvement of a multitude of government institutions. The international funding institutions need to determine how to move from the current situation of coordinated, but fragmented support for the health sector, to more policy coherence and balanced funding of country priorities. Engaging global health programmes meaningfully and managing the institutional burden will be a particularly demanding undertaking for the Ministry of Health, and improved management information systems are essential to guide analysis of its efficiency and effectiveness.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Cambodia Demographic and Health Survey 2005 and Preliminary Report CDHS 2010*
Operator	:	National Institute of Public Health, Ministry of Health and National Institute of Statistics, Ministry of Planning
Specification	:	Contains information on demographics, family planning, maternal mortality, infant and child mortality, domestic violence, women's status and health-related information such as breastfeeding, antenatal care, child immunization, childhood diseases and HIV/AIDS
Web address	:	http://www.measuredhs.com
Title 2	:	*National Health Statistics 2007*
Operator	:	Health Information Bureau, Department of Planning and Health Information, Ministry of Health
Specification	:	Provides health data, tables and graphs based on statistics generated from the nationwide Health Information System (HIS)
Web address	:	http://www.nis.gov.kh
Title 3	:	*Cambodia Census Survey 2008*
Operator	:	National Institute of Statistics, Ministry of Planning
Features	:	Includes information on population characteristics, household facilities and amenities.

Title 4	:	*Cambodia-Halving Poverty by 2015-Poverty Assessment 2006*
Operator	:	The World Bank
Specification	:	Lays out the key facts on the nature of poverty, poverty trends, education, health and wealth based on the Cambodia Socio-Economic Survey (CSES).
Web address	:	http://www.worldbank.org

5. ADDRESSES

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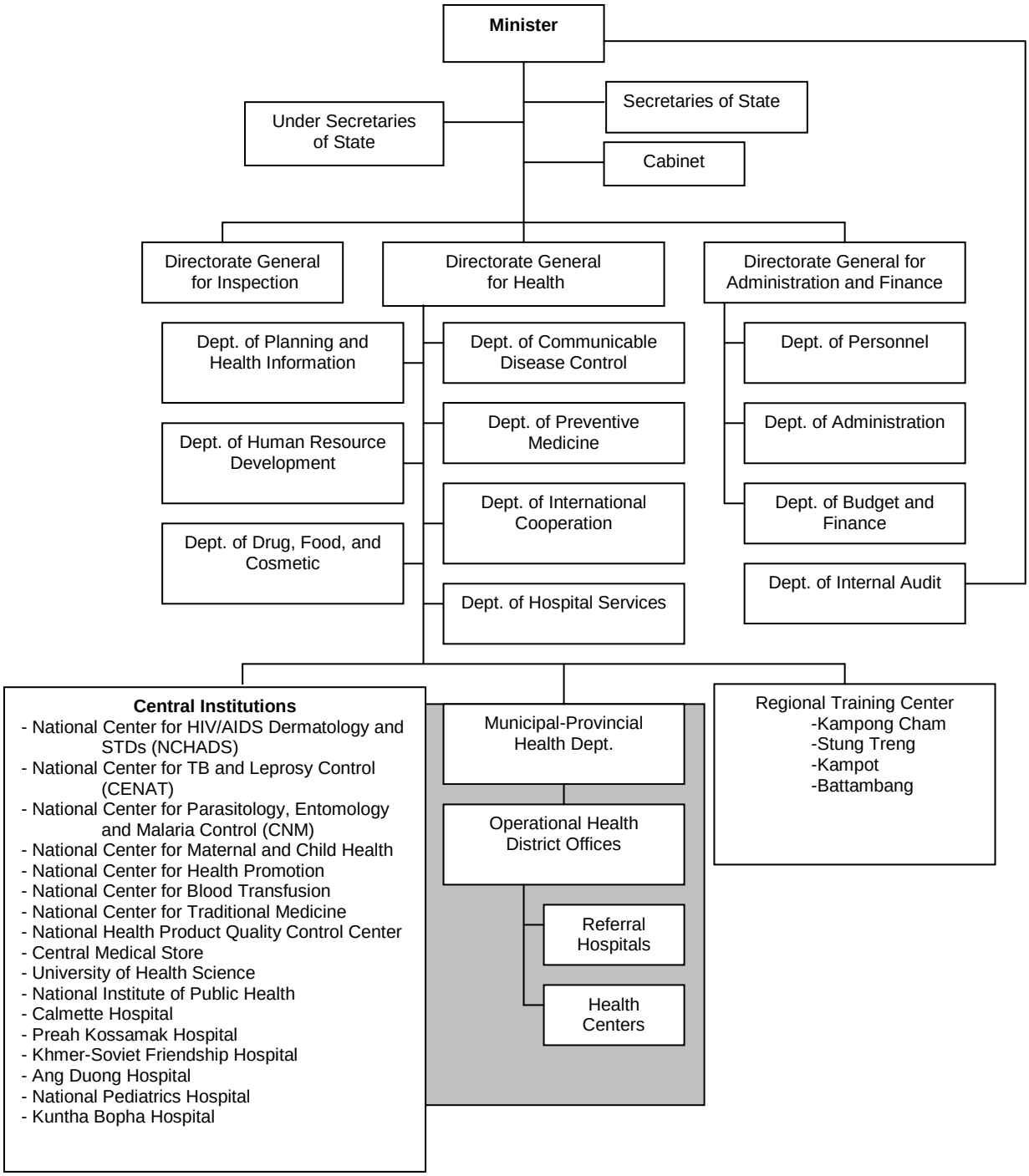
6. ORGANIZATIONAL CHART: Ministry of Health



CAMBODIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	181.04				1
2	**Estimated population ('000s)**	13 395.68	6516.05	6879.62	2008	2
3	**Annual population growth rate (%)**	1.54	…	…	2008	2
4	**Percentage of population**					
	- 0–4 years	10.25	10.79	9.73	2008	2
	- 5–14 years	23.45	24.74	22.23	2008	2
	- 65 years and above	4.30	3.54	4.96	2008	2
5	**Urban population (%)**	20.10	…	…	2010 est	3
6	**Crude birth rate (per 1000 population)**	25.00	…	…	2004	4
7	**Crude death rate (per 1000 population)**	6.70	…	…	2004	4
8	**Rate of natural increase of population (% per annum)**	1.83 [a]	…	…	2004	4
9	**Life expectancy (years)**					
	- at birth	…	60.50	64.30	2008	2
	- Healthy Life Expectancy (HALE) at age 60	…	9.70	11.00	2002	5
10	**Total fertility rate (women aged 15–49 years)**	3.00			2010	6
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	77.60	85.10	70.90	2008	2
12	**Per capita GDP at current market prices (US$)**	776.00			2010	7
13	**Rate of growth of per capita GDP (%)**	6.70			2010	7
14	**Human development index**	0.49			2010	8
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	690-1602	…	…	2008	9

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	…	…	…	…	…	…		
	- Type B	502	…	…	15	…	…	2010	10
	- Type C	…	…	…	…	…	…		
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		
	Cholera	586 [b]	…	…	0	0	0	2010	11
	Dengue/DHF	12 500	…	…	38	….	….	2010	12, 13
	Encephalitis	2629	…	…	72	…	…	2010	11
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	262	206	56	…	…	…	2010	13
	Malaria	49 356	…	…	151	…	…	2010	13
	Plague	…	…	…	…	…	…		
	Syphilis	58	…	58	…	…	…	2010	14
	Typhoid fever	…	…	…	…	…	…		
17	**Acute respiratory infections**	903 899	…	…	151	…	…	2010	11
	- Among children under 5 years	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
		Total	**Male**	**Female**	**Total**	**Male**	**Female**		
18	**Diarrhoeal diseases**	364 307	...	...	73	...	...	2010	10
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	39 202	...	...	10 000 [d]	...	...	2009	13
	- New pulmonary tuberculosis (smear-positive)	17 863	...	...	...	...	...	2009	13
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	182	...	...	2	...	...	2010	10
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			375			2	2010	10
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	349	...	...	17	...	...	2010	10
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	176	...	...	9	...	...	2010	10
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	1856	...	...	57	...	...	2010	10
23	**Mental disorders**	2639	...	...	5	...	...	2010	10
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	18 287	...	...	1816	...	...	2010	15
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	**Number of cases**			**Rate per 100 000 population**				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections	78 288	...	...	555.23	...	...	2010	10
	2. Diarrhoea	49 347	...	...	349.98	...	...	2010	10
	3. Tuberculosis	28 384	...	...	201.30	...	...	2010	10
	4. Typhod fever	15 252	...	...	108.17	...	...	2010	10
	5. Dengue	12 500	...	...	89.10	...	...	2010	10
	6. Genecological Pathology	11 190	...	...	79.36	...	...	2010	10
	7. Traffic accident	10 591	...	...	75.11	...	...	2010	10
	8. High blood pressure	10 036	...	...	71.18	...	...	2010	10
	9. Cataract	6092	...	...	43.21	...	...	2010	10
	10. AIDS	5038	...	...	35.73	...	...	2010	10

CAMBODIA

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections	1135	...	...	8.05	...	...	2010	10
	2. Traffic accident	495	...	...	3.51	...	...	2010	10
	3. High blood pressure	468	...	...	3.32	...	...	2010	10
	4. AIDS	280	...	...	1.99	...	...	2010	10
	5. Tuberculosis	261	...	...	1.85	...	...	2010	10
	6. Cardiopath	256	...	...	1.82	...	...	2010	10
	7. Meningitis	196	...	...	1.39	...	...	2010	10
	8. Dengue	38	...	...	0.30	...	...	2010	10
	9. Other tetanus	32	...	...	0.23	...	...	2010	10
	10. Liver cancer	17	...	...	0.12	...	...	2010	10
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					35.00		2010	6
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					62.20		2009	13
29	**Percentage of pregnant women with anaemia**					44.00		2010	6
30	**Neonatal mortality rate (per 1000 live births)**	27.00		...		...		2010	6
31	**Percentage of newborn infants weighing less than 2500 g at birth**	8.00 [c]		...		...		2005	16
32	**Immunization coverage for infants (%)**								
	- BCG	94.50		...		...		2010	13
	- DTP3	91.80		...		...		2010	13
	- Hepatitis B III	91.80		...		...		2010	13
	- MCV2	...		...		...			
	- POL3	91.90		...		...		2010	13
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			2960 [e]			...	2008	9
	- Eclampsia			549 [b]			...	2008	9
	- Haemorrhage			1668			...	2008	9
	- Obstructed labour			1268			...	2008	9
	- Sepsis			79			...	2008	9
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	3	...	...	...	...	...	2010	13
	- Measles	1156	...	...	...	...	...	2010	13
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	19	...	...	...	...	...	2010	13
	- Pertussis (whooping cough)	372	...	...	...	...	...	2010	13
	- Poliomyelitis	0	0	0	...	...	...	2010	13
	- Rubella	85	...	...	...	...	...	2010	13
	- Total Tetanus	...	...	...	...	...	...		
	Health facilities								
35	**Facilities with HIV testing and counseling services**						246	2010	17

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	...	...		
		- Specialized hospitals	8	...	2010	18
		- District/first-level referral hospitals	81	...	2010	18
		- Primary health care centres	997	...	2010	18
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			639.20 [a]	2009p	19
	- total expenditure on health as % of GDP			5.92	2009p	19
	- per capita total expenditure on health (in US$)			43.17 [a]	2009p	19
	Government expenditure on health					
	- amount (in million US$)			135.96 [a]	2009p	19
	- general government expenditure on health as % of total expenditure on health			21.27	2009p	19
	- general government expenditure on health as % of total general government expenditure			7.46	2009p	19
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			41.58 [a]	2009p	19
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			78.73	2009p	19
	- out-of-pocket expenditure on health as % of total expenditure on health			73.10 [a]	2009p	19
	Exchange rate in US$ of local currency is: 1 US$ =			4139.33	2009p	19
38	**Health insurance coverage as % of total population**					

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	3294	...	...	...	...	...	...	2010	20
		- Ratio per 1000 population	0.24	...	...	...	...	...	...	2010	20
	Dentists	- Number	242	...	...	...	...	...	...	2010	20
		- Ratio per 1000 population	0.02	...	...	...	...	...	...	2010	20
	Pharmacists	- Number	548	...	...	...	...	...	...	2010	20
		- Ratio per 1000 population	0.04	...	...	...	...	...	...	2010	20
	Nurses	- Number	8493	...	...	...	...	...	...	2010	20
		- Ratio per 1000 population	0.63	...	...	...	...	...	...	2010	20
	Midwives	- Number	3758	...	...	...	...	...	...	2010	20
		- Ratio per 1000 population	0.28	...	...	...	...	...	...	2010	20
	Paramedical staff	- Number	659	...	...	...	...	...	...	2010	20
		- Ratio per 1000 population	0.04	...	...	...	...	...	...	2010	20
	Community health workers	- Number		...	...	...	...	...	...		
		- Ratio per 1000 population		...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	92	...	...	...	...	...	...	2010	21
		Dentists	47							2010	21
		Pharmacists	84	...	...	...	...	...	...	2010	21

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	499 [d]	...	...	...	...	...	...	2010	21
		Midwives	149	...	...	...	...	...	...	2010	21
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	93	...	...	...	...	...	...	2010	20
		Dentists	6.6	...	...	...	...	...	...	2010	20
		Pharmacists	21	...	...	...	...	...	...	2010	20
		Nurses	222	...	...	...	...	...	...	2010	20
		Midwives	93	...	...	...	...	...	...	2010	20
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	28.00	...	...	2010	6
43	Infant mortality rate (per 1000 live births)	45.00	...	...	2010	6
44	Under-five mortality rate (per 1000 live births)	54.00	...	...	2010	6
45	Proportion of 1 year-old children immunised against measles	92.70	...	...	2010	6
46	Maternal mortality ratio (per 100 000 live births)	461.00			2008	2
47	Proportion of births attended by skilled health personnel	71.00			2010	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	17.00			2010	6
	- Percentage of deliveries in health facilities (as % of total deliveries)	54.00			2010	6
48	Contraceptive prevalence rate	35.00	...	...	2010	6
49	Adolescent birth rate	5.20			2005	16
50	Antenatal care coverage - At least one visit	89.00			2010	6
	- At least four visits	27.00			2005	16
51	Unmet need for family planning	25.00	...	...	2005	16
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	0.70	...	...	2010	22
54	Percentage of people with advanced HIV infection receiving ART	90.00	...	...	2010	14
55	Malaria incidence rate per 100 000 population	324.20	...	...	2010	13
56	Malaria death rate per 100 000 population	0.99	...	...	2010	13
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	82.00	...	...	2010	23
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	0.33	...	...	2010	23
59	Tuberculosis prevalence rate per 100 000 population	693.00	...	...	2009	13
60	Tuberculosis death rate per 100 000 population	71.00	...	...	2009	13
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	60.00	...	...	2009	13
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	95.00	...	...	2008	13
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	61.00	81.00	56.00	2008	24
64	Proportion of population using an improved sanitation facility	29.00	67.00	18.00	2008	24
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Based on data reported by Ministry of Health as part of their outbreak report
c	Among 40% of the infants who were weighed at birth
d	Estimated number of deaths

Sources:	
1	Information furnished by the WHO Representative for Cambodia, 09 March 2004.
2	General Population Census of Cambodia 2008, National Institute of Statistics, Ministry of Planning.
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM
4	Cambodia Inter-Censal Population Survey 2004, General Report, Ministry of Planning, Department of Demographic Statistics, Censuses and Survey, November 2004.
5	Demographic Estimates and Revised Population Projections 2007, National Institute of Statistics, Ministry of Planning.
6	Cambodia Demographic and Health Survey 2010 Preliminary Report, March 2011, National Institute of Statistics MoPL, Directorate General for Health MoH and ICF Macro.
7	Emerging Stronger from the Crisis. World Bank East Asia and Pacific Economic Update 2010, Volume 1. The Word Bank
8	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
9	Diaz,L. (2008), Draft Mission Report on Integrated Health Care Waste Management in Cambodia, World Health Organization (WPRO)
10	National Health Statistics 2010, Ministry of Health
11	Communicable Disease Control Database (CAM EWARN), Ministry of Health.
12	Annual Report of the National Centre for Parasitology, Entomology and Malaria Control.
13	WHO Regional Office for the Western Pacific, data received from technical units.
14	Monitoring and Reporting on Health Sector Response to HIV/AIDS. Ministry of Health's Report to WHO, UNAIDS and UNICEF, April 2011.
15	Government of Cambodia National Road Safety Committee (2010): Annual Report on Cambodia Road Crash and Victim Information System (RCVIS).
16	Cambodia Demographic and Health Survey 2005, National Institute of Public Health, National Institute of Statistics (Cambodia) and ORC Macro, 2006. Phnom Penh, Cambodia and Calverton, Maryland, USA. National Institute of Statistics and ORC Macro. <http://www.measuredhs.com>.
17	Fourth Quarterly Comprehensive Report, 2010: HIV/AIDS & STI Prevention and Care Programme, National Center for HIV/AIDS, Dermatology and STD, Ministry of Health.
18	Annual Health Financing Report 2009, Ministry of Health
19	National health accounts: country information. Geneva, World Health Organization. Accessed in July 2011 from [http://www.who.int/nha/country/en/index.html]
20	Personnel Department, Ministry of Health.
21	Human Resources Department, Ministry of Health.
22	HIV Estimates and Projections for Cambodia 2006-2012, the National Center for HIV/AIDS, Dermatology and STD, Ministry of Health.
23	Malaria Database, National Centre for Parasitology, Entomology and Malaria Control (CNM), Cambodia.
24	World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special focus on Sanitation. UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/40_mdg2008.html].

CHINA

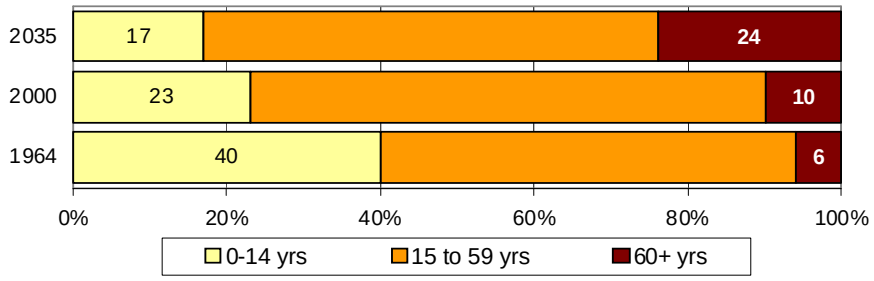
1. CONTEXT

1.1 Demographics

China is the most populous country in the world, with 1.37 billion people in 2010. However, its population growth rate has slowed and life expectancy has risen in recent decades. While a child born in China in the 1950s could expect to live for 46 years, the life expectancy of one born in 2010 is over 73 years.[1]

China's population is ageing rapidly. In 2010, the population aged 65 years old and above accounted for 8.87% of the total population.[2] In 2035, it is expected that one in four people will be 60 years or older (Figure 1).[3] Population ageing is leading to a shift towards a disease pattern dominated by more chronic diseases and disabilities, which will exert greater pressures on the health system, and more complex health conditions that generate higher costs. In addition, the tradition of providing long-term care at home for elderly parents and grandparents will be challenged in the light of the one-child policy.

Figure 1. Population of China by age group (%), 1964, 2000, 2035



In line with the its policy to accelerate urbanization, the Government is shifting the population to urban areas. In 2010, 49.7% of people lived in cities.[4] The 12th Five Year Plan targets an increase in the urban population to 51.5% by 2015, placing great pressure on water, air and electricity resources.

1.2 Political situation

China's 12th Five Year Plan (2011-2015) forms the basis of the Government's current economic and social development efforts. In continuity with the 11th Five Year Plan, the 12th Plan aims to sustain the rapid and steady development of China's 'socialist market economy', while aiming to achieve three key targets:

- Rebalance the economy: The Government's commitment to transforming the country's previous GDP-oriented development model into a more balanced model that seeks to address a whole range of increasingly important concerns. The targets of the new model include economic growth, structural adjustment, social services development, carbon mitigation and environmental protection, as well as transparency and governance reforms.
- Reduce social inequality: Policies to reduce the gap between urban and rural areas include increasing social safety nets, closing the income gap through minimum wage hikes, encouraging employment, building public housing, and increasing coverage of basic and medical insurance, as well as continuing to develop the western regions through preferential policies.

[1] Government of China. http://www.gov.cn/
[2] Statistical Communique of the People's Republic of China on the 2010 National Economic and Social Development. National Bureau of Statistics of China
[3] Population Reference Bureau
[4] Statistical Communique of the People's Republic of China on the 2010 National Economic and Social Development. National Bureau of Statistics of China

- Protect the environment: Policies include reducing pollution, increasing energy efficiency and ensuring a stable, reliable and clean energy supply through a range of energy-efficient conservation, utilization and development strategies, as well as setting up tougher targets for environment protection by increasing the number of major pollutants from three to five.

The 12th Five Year Plan includes a series of quantitative targets, such as controlling total population increase below 1.39 billion, increasing life expectancy by one year to 74.5 years on average, constructing 36 million new housing units, increasing both rural and urban income steadily, reducing energy intensity and carbon emissions, decreasing water consumption and improving the efficient use of water.

The 12th Plan focuses on strengthening the implementation of health care reform. It also includes a number of strategic priorities and major tasks, including: deepening reforms and opening up further to the outside world; constructing a 'new socialist countryside'; promoting more balanced development among the different regions; establishing a basic public service system; and increasing capacity for science and technology innovation.

1.3 Socioeconomic situation

China has made impressive gains in improving living standards, reducing poverty and maintaining strong economic growth since initiating market reforms in 1979. During 1979-1984, economic growth was driven by the labour shift from agriculture to rural industry. Between 1985 and 1992, growth benefited from the improved efficiency in capital allocation stemming from price liberalization and opening up to foreign trade. Further opening up of the economy to foreign direct investment in the 1990s stimulated technological progress. China's economy has been growing at an average rate of nearly 10% annually for the past 10 years, and the Government hopes to raise gross domestic product (GDP) from approximately US$ 1 trillion in 2000 [1] to 7.5 trillion by 2015[2].

China's earlier high health standards have played a pivotal role in the country's economic success. Impressive growth performance has been correlated with reductions in poverty and advancements in social development. Using the standard international poverty line of US$ 1 per day, an estimated 400 million people in China have been lifted out of poverty over the past 30 years. This is primarily a result of the liberalization of agriculture and other rural industries. At China's official poverty line, the rural population living in absolute poverty with an annual per capita net income below 1196 Yuan (US$ 87) decreased from 250 million in 1978 (31% of the rural population) to 14.79 million in 2007 (1.6% of the rural population). The Government is targeting a reduction in poverty and ensuring basic living standards for the general population by 2020.[3]

In March 2009, as a result of the global economic downturn in late 2008, the Government put forward an economic stimulus package of 4 trillion Yuan (US$ 585 billion) for 2010-2011, for 10 key sectors. Of that total, 1.2 trillion Yuan was from the Central Government, and the remainder from local governments, state-owned enterprises or the private sector. Some 63% of the total has been dedicated to infrastructure (public and post-quake reconstruction). In addition to the stimulus package, the Central Government invested substantial resources in alleviating the impact of the economic crisis in 2009, including investing 293 billion Yuan (US$ 43 billion) to improve the social safety net, offering 5 trillion Yuan in additional loans, and investing 42 billion Yuan (US$ 6.2 billion) to stimulate employment. As a result of the large stimulus packet, combined with policies that encouraged consumption, China's economy grew by 8.7% in 2009. Per capita GDP in 2009 was US$ 3677. [4]

1.4 Risks, vulnerabilities and hazards

The Government is focused on maintaining employment and economic growth, and public health policies may be considered less important than encouraging consumption. Emerging health threats related to the environment, workplace and lifestyle are becoming more evident. Air pollution and water contamination by industrial and municipal waste, as well as overuse of chemical fertilizers and pesticides, annually cost China over 400 000 lives.[5]

[1] China Statistical Yearbook 2010. National Bureau of Statistics of China. http://www.stats.gov.cn/tjsj/ndsj/2010/indexeh.htm
[2] China 12th Five Year Plan
[3] The State Council Leading Group Office of Poverty Alleviation and Development www.gov.cn
[4] China Statistical Yearbook 2010. National Bureau of Statistics of China. http://www.stats.gov.cn/tjsj/ndsj/2010/indexeh.htm
5 Guang X. An estimate of the economic consequences of environmental pollution in China. Smil V, Yushi M, eds. Project on environmental scarcities, state capacity and civil violence. Committee on International Security Studies, 1997.

The 12th Five-Year Plan also includes many ambitious environmental and energy efficiency targets that would make an important contribution to protecting the environment.

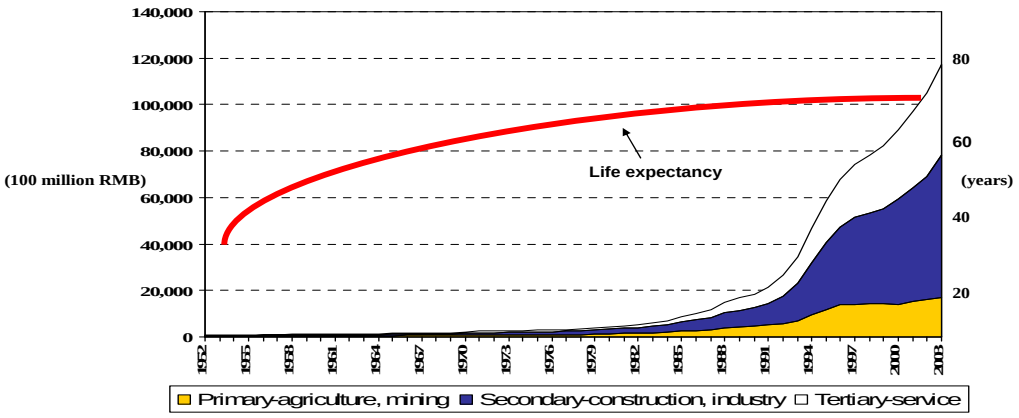
The benefits of growth have, however, not been shared equally across geographic regions, rich and poor households, urban and rural residents, and migrant and resident populations within cities. The major health threats in underdeveloped areas of rural China include unsafe water, lack of sanitation, undernutrition, vitamin and mineral deficiencies, and indoor pollution. Many people, especially in the remote and resource-poor areas in the western and interior regions, still have consumption levels below a dollar a day, often without access to clean water, arable land, or adequate health and educational services. Efforts to move from a fee-for-service to a prepaid system with a comprehensive benefits package are underway. However, ill-health continues to be a contributor to poverty, and out-of-pocket medical expenses remain high.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Publicly financed health programmes provided access to basic care during the 1960s and 1970s, especially in rural areas. Health outcomes continued to improve between 1980 and 2005, although at a slower pace. Figure 2 shows the increase in life expectancy over almost 50 years in comparison with economic growth. Other health indicators improved as well. By 2009, the maternal mortality ratio (MMR) had declined to 38 per 100 000 live births, and the infant and under-five mortality rates to 17 and 19 per 1000 live births, respectively. The prevalence of underweight children under five years of age decreased to 4.5% in 2000-2009[1]. Coverage of measles-containing vaccine 2nd dose (MCV2) was 99.2% in 2010.[2] A critical health challenge relates to inequality in health outcomes. Life expectancy is also generally lower in rural provinces and among those with higher poverty rates.

Figure 2. Life expectancy and GDP, 1952-2003



Source: China Statistical Yearbook 2004 and UNIDO analysis

2.2 Outbreaks of communicable diseases

China is one of 22 high-burden countries for tuberculosis, with the prevalence for all forms of the disease estimated at 138 per 100 000 people in 2009[3]. WHO estimates that each year there are approximately 1 million new cases, of which 500 000 are infectious, smear-positive pulmonary disease.[4] Multidrug-resistant tuberculosis (MDR-TB) and extensively drug-resistant tuberculosis (XDR-TB) are becoming critical public health threats. Based on a 2007 national baseline survey on drug-resistant tuberculosis, 5.7% of new cases (95% CI: 4.6-7.1) and 25.6% of previously treated cases (95% CI: 21.7-30.0); 0.68% (CI: 04-1.1) had XDR-TB. In addition, it

[1] WHO World Health Statistics 2011
[2] WHO Regional Office for the Western Pacific, data received from technical units
[3] China :health profile, World Health Organization. http://www.who.int/en/
[4] *Global tuberculosis control, A short update to the 2009 report.* Geneva, World Health Organization, 2009.

has been estimated that there are approximately 84 000 new cases of MDR-TB per year.[1] In April 2009, the Government hosted a high-level meeting on MDR/XDR-TB, and initiated WHO Resolution WHA 62.15 on prevention and control of multidrug-resistant tuberculosis and extensively drug-resistant tuberculosis, urging all Member States to achieve universal access to diagnosis and treatment of MDR-TB and XDR-TB.

Although HIV prevalence in adults is currently low (0.06%)[2], several provinces in central, southern and western areas of the country face serious concentrated epidemics, with the epidemic spilling into the general population in some areas. Yunnan, Sichuan, Guangxi, Xinjiang and Guangdong provinces are the worst affected, with over 33 000 HIV infections reported in 2009. Sexual transmission is now the main mode of transmission. Among those living with HIV reported in 2009, 44.9% of infections were through heterosexual transmission, 10.2% through homosexual transmission, and 27% via injecting drug use.[3]

Emerging disease threats are important because of their epidemic potential, and recent epidemics that originated in China, such as severe acute respiratory disease syndrome (SARS) and highly pathogenic avian influenza A (H5N1), as well as and pandemic influenza A (H1N1), have caused social instability and considerable financial and economic loss. New emerging and re-emerging vectorbome diseases have also provoked outbreaks and raised concerns in China, including a Chikunggunya-virus-related disease that appeared for the first time in 2006, and severe fever with thrombocytopenia syndrome (SFTS) caused by a novel bunyavirus discovered in 2009 in the country. Hand, foot and mouth disease (HFMD), mainly caused by enterovirus 71, also generated in China, has resulted in annual epidemics in the country since 2000 (~1.8 million clinically diagnosed cases and 905 deaths in 2010).

While China remains vulnerable to the health threats posed by emerging and re-emerging infectious diseases, known and preventable diseases, such as malaria, cholera and schistosomiasis, continue to occur in the country, despite the availability of effective treatment and preventive measures. The large-scale national malaria control programme, launched in 1955, successfully reduced the 30 million malaria cases that had been occurring annually before 1949. However, China still faces major malaria control issues in the border areas of the country's tropical south, and in the central area of the country, where malaria has re-emerged since 2001. Malaria has been identified in 20 of the 31 provinces, municipalities and autonomous regions. However, in 2010, most reported cases were located in Anhui, Hainan and Yunnan provinces. Of those, indigenous transmission by *Plasmodium Falciparum* was only reported in Yunnan and Hainan. China reported 14 098 laboratory-confirmed malaria cases and 10 deaths, in 2009 and 7389 cases and 14 deaths in 2010.

2.3 Leading causes of mortality and morbidity

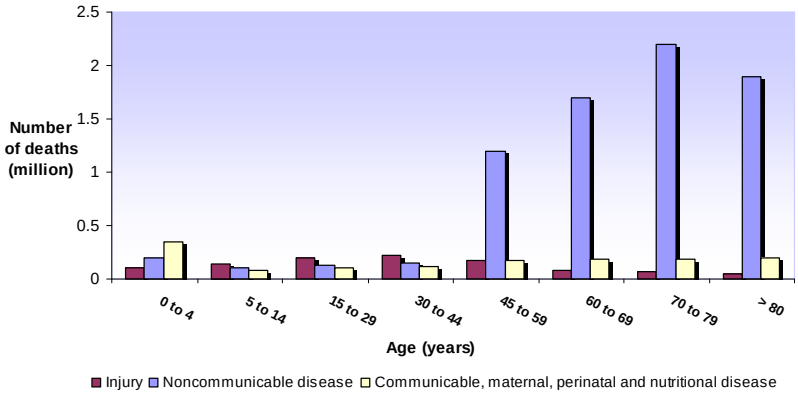
According to the survey conducted in 2003, a decline in infectious diseases was seen between 1998 and 2008, while noncommunicable disease conditions rose continually over the same period. The disease profile resembles that of a developed country, with some 80% of total deaths due to noncommunicable diseases and injuries. Figure 3 shows causes of death, by age, in 2003. Among the remaining infectious diseases, hepatitis B, tuberculosis and lower respiratory infections still account for significant mortality and lost disability-adjusted life years (DALYs).

[1] *M/XDR-TB surveillance and response: 2010 global update(draft).* Geneva, World Health Organization, *2010*

[2] 2010 UNGASS. This figure includes mainly VCT sites established in CDC system or inside Hospital.

[3] *Joint assessment of HIV/AIDS prevention, treatment and care in China.* Beijing, United Nations China, State Council AIDS Working Committee Office and United Nations Theme Group on AIDS in China, 2009.

Figure 3. Number of deaths, by cause and age, 2003



Source: WHO World Health Report (2005)

In 2008, the leading causes of morbidity were diseases of the circulatory system; diseases of the respiratory system; diseases of the digestive system; diseases related to pregnancy, childbirth and postpartum complications; injuries and poisonings; cerebrovascular diseases; diseases of the genito-urinary system; hypertension; malignant neoplasms; and musculoskeletal conditions. The major causes of death in 2009 were: malignant neoplasms; heart diseases; cerebrovascular diseases; diseases of the respiratory system; injuries and poisonings; endocrine, nutritional and metabolic diseases; diseases of the digestive system; diseases of the genito-urinary system; diseases of the nervous system; and mental disorders.

2.4 Maternal, child and infant diseases

The country has remained polio-free since 1994 and the incidence of immunization-targeted diseases, such as measles and diphtheria, has declined significantly. The goal of measles elimination by 2012 has been adopted by the Government. Currently the Expanded Programme on Immunization also includes hepatitis B vaccine, with coverage of 92.2% for timely hep B birth-dose delivery in 2010[1]. The Government recently expanded the immunization programme to include vaccines to prevent a total of 12 diseases (TB, poliomyelitis, diphtheria, tetanus, pertussis, measles, hepatitis B, Japanese encephalitis, meningococcal meningitis, hepatitis A, rubella and mumps) in all children, as well vaccines to prevent leptospirosis, anthrax and epidemic haemorrhagic fever in selected populations. Vaccines now exist that can help to prevent pneumonia and diarrhoea; the Government will be considering whether and how to introduce these vaccines in the future. The 11th Five Year Plan stipulated that immunization coverage should reach more than 90% by 2010. The Plan also set 2010 targets for infant mortality (17 per 1000 live births) and the maternal mortality ratio (40 per 100 000 live births). All of those targets have been achieved. The 12th Five-Year Plan sets 2015 targets for infant mortality (12 per 1000 live births) and the maternal mortality ratio (22 per 100 000 live births).

China has been remarkably successful in achieving its maternal and child health goals, exceeding national targets. While regional disparities exist, since the mid-1980s, the infant and under-five mortality rates in the country as a whole have continued to fall.[2] National statistics show that the MMR decreased from 80 to 38 per 100 000 live births between 1996 and 2009[3] and reductions also occurred in the infant mortality rate (IMR) and the under-five mortality rate (U5MR) to 17 and 19 per 1000 live births, respectively, in 2009[4]. Like other health indicators, the MMR, IMR and U5MR are higher in western China compared with coastal areas.

2.5 Burden of disease

Global burden-of-disease estimates produced by WHO indicate that 80% of deaths in China are due to noncommunicable diseases and injuries. The share of deaths made up by NCD increased from 53% to 85%

[1] China :health profile, World Health Organization. http://www.who.int/en/
[2] *Chinese health statistical digest 2006, 2007, 2008, 2009*, and online statistics Ministry of Health, http://www.moh.gov.cn/publicfiles/business/htmlfiles/mohwsbwstjxxzx/s8208/201004/46556.htm
[3] National Maternal and Child Health Surveillance System
[4] *World health statistics 2011*. Geneva, World Health Organization, 2011.

during the period of 1973 to 2009. According to the findings of the Third National Death Survey, the top four causes of death were cerebrovascular diseases, cancer, respiratory system diseases and heart diseases, and the mortality rate for NCD has reached 503/100 000. Cerebrovascular diseases, malignant neoplasms and heart diseases account for more than 50% of all deaths.[1] The rankings based on disability-adjusted life years (DALYs)[2] also highlight the emergence of noncommunicable chronic diseases and injuries as the predominant health conditions. Much of the disability and death attributable to chronic diseases, particularly among working-age adults, could be reduced through a reduction in risk factors, including improvements in the quality of air, water and sanitation; reductions in tobacco and alcohol use; improvements in diet and nutrition; and increases in exercise. It is projected that disabilities and deaths related to chronic diseases will result in a US$ 550 billion loss in productivity between 2005 and 2015. In addition to the longstanding challenges of curtailing infectious disease, this double burden of disease places enormous strains on the resource-deficient health system.[3]

The disease burden varies by age group. It is estimated that 70% of deaths among children less than five years of age are attributable to maternal, perinatal or nutritional conditions, including sepsis, pneumonia, diarrhoea, measles and tetanus, many of which could be addressed through high quality health care. Among children aged five to 14 years, the number of deaths is a very small part of the total disease burden; however, most of these deaths are attributable to injuries and accidents, including drowning and road accidents. For those between the ages of five and 44 years, injuries and violence account for an even larger share of deaths, at over 50%. Some 69% of disabilities and 80% of deaths among adults and older people are due to NCD, which account for two out of three deaths each year. Four-fifths of these deaths are in low-income and middle-income counties, and one-third are in people younger than 60 years.[4]

Among the remaining infectious diseases, hepatitis B, tuberculosis and lower respiratory infections still account for significant mortality and lost DALYs, particularly among children. While infectious diseases attract enormous interest both domestically and internationally, injuries and violence contribute about 11% of total mortality each year, compared with 8.6% attributed to infectious diseases. In 2007, most injury deaths were attributed to suicide (28%), road traffic accidents (25%) and drowning (11%), with the suicide rate for women estimated to be 25% higher than that for men, and traffic injury mortality rates twice as high for males as females.[5] Mental and neurological disorders are responsible for about 20% of the overall disease burden in China. More than 30 million children and adolescents under 17 years of age have behavioural and emotional problems, of which about 50%-70% need mental health services but remain untreated.[6]

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Health Care Reform Leading Group was established in 2006. It is currently composed of 20 ministries and chaired by Vice Premier Li Keqiang of the State Council, with the Ministers of Health and the National Development and Reform Commission (NDRC) as Vice-Chairs.

After three years of deliberation, in 2009, the Chinese Government announced its national health reform plan. The main objective is to provide universal health care coverage by 2020. Reforms are proposed in five areas: the public health system, the medical care delivery system, the health security system, the pharmaceutical system, and pilot hospital reform. The initial three-year implementation plan for 2009-2011 emphasizes several programmes, including improving the social health security system (urban employees, urban residents, rural cooperative medical services, and medical assistance programmes); establishing an essential medicines system; strengthening primary-level health care facilities; reducing disparities in public health care between regions; and piloting reforms in public hospital financing by reducing the reliance on drug sales for operational costs and salaries.

[1] Chinese health statistics digest 2010 and online statistics Ministry of Health.
http://www.moh.gov.cn/publicfiles//business/htmlfiles/zwgkzt/ptjty/digest2010/index.html
[2] DALY is a statistical formulation widely used to put a specific number on the combined loss of health and loss of years of life due to disability from disease or injury.
[3] Priority actions for NCD.www.thelancet.com.Published online April 6,2011
[4] *Mortality and burden of disease estimates for WHO Member States in 2004*.Geneva,World Health Organization,2009.
[5] *Turning the tide: injury and violence prevention in China*. Beijing, World Health Organization, 2006.
[6] *National Project on Mental Health (2002-2010)*. Beijing, China Department for Disease Control and Prevention, Ministry of Health, 2002.

In 2009, the Government committed to spending 850 billion Yuan (US$ 124 billion) on fulfilling the three-year plan (est 0.8% annual increase in [2008] GDP), 39% from Central Government, although the total investment has increased to 1134.2 billion Yuan (US$ 177.8 billion) and the government investment to 365.9 billion Yuan (US$ 57.4 billion) . The Central Government allocation to implementing health reform in 2009 amounted to 118 billion Yuan, including 30.4 billion Yuan (US$ 4.4 billion) dedicated to insurance, 24.6 billion Yuan (US$ 3.6 billion) for public health and disease control, and 6.5 billion Yuan (US$ 2.4 billion) for construction . In 2010, 126.8 billion Yuan (US$ 19.9 billion) was allocated to implement the health reform.

After two years of implementation, the Government has announced a series of achievements by end of 2010, including:

- The new rural cooperative medical system: 96% of the rural population (836 million people) covered by health insurance[1].
- The pharmaceutical system: about 86% of government-run primary-level health care facilities adopting the essential medicines list.
- The public health system: 30 million children aged below 15 receiving free hepatitis B vaccine, 8.85 million rural women subsidized for hospital delivery, 473 thousand rural women screened for breast cancer, 4.89 million rural women screened for cervical carcinoma. [7]
- Primary-level health care: 32 700 township health centres, 37 800 urban community health centres and 648 400 village clinics built. [8,2]
- The public hospital reforms pilot: 16 national-level and 31 provincial-level pilot cities have carried out public hospital reforms; and nearly 100 hospitals in 22 provinces have launched an electronic medical record (EMR) pilot test.[7]

There are many targets for 2011. They include[3]: maintaining 90% or higher health insurance coverage for both urban and rural areas; increasing to 200 Yuan the per person government subsidy to urban residents' basic medical insurance and new rural coooperative health insurance; and rebuilding 300 county hospitals, 1000 township health centres and 13000 community health stations.

3.2 Organization of health services and delivery systems

Since 2003, dramatic increases in insurance coverage have been accompanied by increased service utilization, particularly in rural areas. Between 2003 and 2011, national insurance coverage increased from 23.1% to 90%. [4,5] By the end of 2010, the participation rate for the rural cooperative medical system had reached 96%.[5]

Changes in health financing have also led to changes in utilization patterns. Increasing rates of Caesarean section, particularly in urban areas, and frequent use of injections and infusions in primary care settings illustrate the unnecessary use of certain treatment measures. Cesarean section rates have increased overall from 16.3% to 26.8%, and urban rates were 50.9% in 2008. An assessment of 121 471 prescriptions for patients diagnosed with a noncommunicable condition in 218 primary care facilities was conducted as part of the National Health Services Survey (NHSS) 2008.[6] In village clinics and township health centres, 66% and 61% of patients were prescribed antibiotics, respectively. Intramuscular and intravenous injection rates were also very high at 30% and 35% of rural prescriptions, respectively, and 13% and 32% of urban prescriptions, respectively. These high figures correspond to other smaller-scale studies conducted in China. Such treatment patterns are striking given the prevalance of noncommunicable disease treatment.

While health insurance coverage is increasing, especially in rural areas, many people are underinsured and continue to face high out-of-pocket costs, with such costs accounting for 37.5% of total health expenditure until 2009.[4] Households continue to face financial barriers in accessing health care, and household health expenditures remain high: 17.4% of patients failed to be hospitalized after referral for financial reasons in 2008, a decline from 21.8%

[1] Chinese health enterprise development situation statistics bulletin, 2010. Center for Health Statistics and Information, Ministry of Health.
[2] Health statistics abstract, 2011. Center for Health Statistics and Information, Ministry of Health.
[3] The annual main work schedule in the five key areas of health system reform, 2011. General Office of the State Council.
[4] *National Health Services Survey 2003 and 2008*. Center for Health Statistics and Information, Ministry of Health.
[5] The Minister of Health routine press conference, 2011.6.10 http://www1.china.com.cn/info////2011-06/10/content_22753659.htm
[6] Center for Health Statistics and Information, Ministry of Health.
[7] *Mortality and burden of disease estimates for WHO Member States in 2004*.Geneva,World Health Organization,2009.
[8] Priority actions for NCD.www.thelancet.com.Published online April 6,2011

in 2003. An increase was seen in the percentage of households with catastrophic expenses (5.0% to 5.6%), although fewer households became impoverished because of medical care (6.1% to 4.8%) between 2003 and 2008.

Employee health insurance, medical insurance for urban residents and rural cooperative medical and hospitalization cost insurance have increased their reimbursement levels to approximately 75%, 60% and 70% respectively.[1,2] Benefits are not portable across regions, however, which is a concern for migrant populations and migrant workers. In 2009, one estimate suggested that 48.7% of migrant populations were participating in health insurance[2]. However, issues remain in identifying migrant populations and accurately measuring their numbers and movements.

While major progress has been observed in expansion of rural insurance schemes and in some indicators of service use and expenditures, gaps remain between the poorest and better-off and, for some indicators, between eastern, central and western China. National Health Services Survey data show the need for policies to promote equitable access and risk protection, particularly for the urban and rural poor. The current health reform investments should be monitored closely to determine their impact on trends in service utilization, health-seeking behaviour, quality of care, risk protection and, ultimately, health.

Since expenditure on medicines remains an important component of out-of-pocket expenditure, increasing the availability and affordability of generic essential medicines is an important policy. The Government is in the process of outlining reforms to improve access to quality, safe essential medicines, modifying the pricing system and strengthening medicine production and distribution systems.

3.3 Health policy, planning and regulatory framework

A major component of the health reforms aims to better define government roles in the health sector. Important efforts have been made to reduce ambiguity and redundancy in responsibilities, as well as the competing interests among departments and in government roles in health across agencies.

Regulations relating to public health and health care delivery systems are underdeveloped and poorly enforced, and monitoring capacity is weak. Most health facilities lack clinical governance systems, and important gaps exist in the regulatory system to ensure the quality of care. Deficiencies in clinical quality have resulted from financial incentives in the delivery system, combined with difficulties in: posting qualified human resources to peripheral facilities, gaining sufficient government resource allocation, and the supervision and regulatory systems for the delivery systems. Safety standards and health regulations, as well as their enforcement, could be strengthened, particularly in rural areas. With the implementation of the health reform in 2009, the Ministry of Health established the National Center for Health Quality Management and Control, which aims to designate and guide regional centres in strengthening health quality management. Performance evaluation also focuses on quality evaluation, as a main part of public hospital reform.

The overwhelming majority of the Chinese population seek out traditional Chinese medicine (TCM) to address their health problems. The Government promotes the development of a modern TCM industry, as well as the integration of TCM into the national health care system and integrated training of health care practitioners. In 2009, the State Administration of Traditional Chinese Medicine (SATCM) implemented TCM Hospital Management Year actions in order to highlight the special advantage of TCM, strengthen its management in terms of quality and safety, and improve quality, safety and efficiency. In 2010, the Minister of Health identified several key priorities for TCM development, including increasing policy support for TCM; strengthening research on key TCM issues and building capacity for TCM research; establishing well-known TCM hospitals and departments; promoting a culture of TCM; and strengthening international cooperation and communication on TCM.[3] In addition, the Ministry of Health intends to promote TCM legislation and standardization, as well as innovation in the field, in 2011.[4]

However, a number of challenges to further development of TCM remain. There is a lack of unified, systematic regulations to assess the safety and efficacy and ensure the quality of TCM products. In addition, there are no

[1] The opinion of State Council on deepening the reform of medical and health system, 2011. State Council. http://www.moh.gov.cn/publicfiles/business/htmlfiles/mohbgt/s6717/201104/51214.htm
[2] Wu ZH,Chen DY.The review of floating population social security situation in China. *Theory Journal*,2011(1):65-70.
[3] Report by Minister Chen Zhu at the Annual Health Conference, 2010.
[4] The Minister of Health routine press conference, 2011.6.10 http://www1.china.com.cn/info////2011-06/10/content_22753659.htm

national TCM standards or guidelines for TCM clinical trials, and evidenced-based TCM product testing and research are still needed. In view of the vast differences in the qualifications of TCM practitioners, the quality of TCM education needs to be strengthened, and the management and supervision of TCM institutions need to be regulated.

3.4 Health care financing

Total health expenditures rose from 3% of GDP in 1978 to 5.15% of GDP, or US$ 192.4 per person in 2009. Of that total, the Government contributed 27.5% and private expenditure 37.5%.[1] The contribution from public financing has increased and the proportion coming from personal health spending has fallen, leading to a reduction in the burden of difficulty associated with getting medical services and an increase in the satisfaction levels of both urban and rural residents.

Public resource allocation is highly decentralized.[2,3] Under the current health system, local health departments and other health care providers are expected to generate a significant share of their own operating budgets,[4] with township, county, prefecture and provincial governments administering about 90% of all government spending on health. While localities are given the responsibility to finance health care, however, local governments are unable to raise revenue through taxes to finance basic public services, especially in resource-poor communities. This provides an incentive to focus on more profitable curative care and medicines to generate larger profit margins.[5] Government spending on health tends to be lower in provinces with higher numbers of rural poor. Thus, poor localities have access to fewer and lower quality services for public health. The health reform plan aims to resolve the problem by increasing public spending on basic health services, as well as reducing the reliance on medicines and service sales to fund facility operating costs. The Government is committed to spending 25 Yuan (US$ 3.9) per person on a basic public health package[6]. Central government allocation of resources for the public health package varies according to local economic development capacity.

3.5 Human resources for health

Key challenges in improving human resources for health include: improving the human resource strategy for health development; increasing capacity and technical qualifications; distributing staff more evenly nationwide; and creating a more rational balance among the different health care professions.

Over the last several decades, the Government has prioritized increasing the quality and technical capacity of health personnel with two to six years of professional training. However, capacity issues remain: in 2009, 75.7% of health professionals had only technical secondary school diplomas and only 24.3% had bachelor degrees or above.[7] In addition, qualified staff are not well distributed across the country.[8] As in many other countries, poor and rural areas have not been able to attract and retain qualified medical staff. After economic reforms were initiated, many experienced health professionals moved to hospitals in cities and areas with well-paying clinics. This poses an enormous barrier to the delivery of quality basic health services in remote and rural regions.

3.6 Partnerships

The Government has made many international commitments to a wide range of health targets, best exemplified by its acceptance of the Millennium Development Goals (MDGs). Supporting China's achievement of the MDGs provides an important organizational framework for donor coordination in the country, and the majority of donors have reflected this in their country assistance plans. China is ahead of schedule in achieving most of its MDGs, benefiting from the positive effects of both rapid economic growth and targeted government programmes. It may be an appropriate time to develop indicators that reflect the current health challenges,

[1] China national health accounts report 2010
[2] In China, subnational governments are responsible for 70% of government expenditures. In contrast, in most industrialized countries, subnational governments are responsible for less than 30% of the government budget.
[3] National development and sub-national finance: review of provincial expenditures. Washington DC, World Bank, 2002.
[4] Liu XZ, Xu LZ. Evaluation of the reform of public health financing in China. *Chinese health resource*, 1998,1(4):151-154.
[5] Liu XZ, Liu YL, Chen NS. Chinese experience of hospital price regulation. *Health policy and planning*, 2003,15:157-63.
[6] The Minister of Health special press conference,2011.5.24
http://www.moh.gov.cn/publicfiles/business/htmlfiles/mohbgt/s3582/201105/51785.htm

[7] China health statistics yearbook 2010.
[8] Wu XL, Rao KQ. An analysis of health resource development in China since 1980. *China health economics*, 2001,11:38-41.

including for the control of noncommunicable diseases, and stronger health policies and systems that could address inequalities in health outcomes.

The United Nations Theme Group on Health (UNTGH) is a Government-donor forum for cooperation on health issues in China. WHO chairs and acts as Secretariat for the UNTGH, which comprises United Nations agencies, bilateral and multilateral donors, government agencies and nongovernmental organizations.

The country has been taking a leading role in improving public health in the Region and the world, and has organized several important regional and global health events, promoting both multilateral and bilateral partnerships. In 2005, China initiated a United Nations resolution on public health, recommending that public health be further integrated into national economic and social development schemes as a basis for promoting sustainable growth with equity around the world.

China also made an important commitment to better health by signing the Framework Convention on Tobacco Control in November 2003. Ratified by China's National People's Congress in August 2005, the convention became effective in January 2006. China's Ministry of Health has taken further steps to improve public awareness of the health risks related to smoking and inhaling second-hand smoke, and to reduce smoking in public areas.

3.7 Challenges to health system strengthening

In April 2009, the Government announced its blueprint for health system reform and development for the next decade in an official policy document entitled *Guidelines for Deepening Health Systems Reform*. The aim of the reform is to establish universal coverage (UC) that provides "safe, effective, convenient, and affordable basic health services" to all urban and rural residents.

China has made a promising start in its efforts to construct a universal health care system. However, attempts to achieve universal coverage in such a vast and diversified country are bound to face challenges. It is not easy to realize UC in a short period because of the big gaps in health care coverage between regions, urban and rural areas, and population groups. The following specific challenges need to be taken into consideration[1]:

- China is a big country characterized by varied levels of economic and health development. Determinants of health and health care often lie outside the health sector. Efforts to reduce disparities need to be made by all relevant sectors.
- Despite the fact that the Central Government supports the development of a people-centred ideology in governance, local governments are still focused on economic development. As a result, health and health care are not always at the top of the political agenda in many areas of the country. This may lead to proposed health reform policies and actions not being sufficiently and effectively implemented.
- China is still poor in terms of its average per capita resources. UC requires increased investment from both the Government and individuals. Health care services delivered by the UC system cannot exceed the availability of resources. Thus the Government is faced with the perennial problem of how to mobilize and sustain resources for the health care system.
- UC in China emphasizes the provision of primary and cost-effective health care mainly supported by public funding. This involves a shift in the allocation of health resources from tertiary hospitals to community health systems and from expensive pharmaceuticals to generic drugs. Such reallocation may be resisted by some strong stakeholders.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	China's 12th Five-Year Plan
Web address	:	http://www.china.org.cn
Title 2	:	*2007 NPC & CPPCC Sessions*
Features	:	National People's Congress (NPC) approved reports on government work, economic and social development, the central and local budgets, the work of the NPC Standing Committee, and the work of the Supreme People's Court and the Supreme People's Procuratorate

[1] Meng Q, Tang S. *Universal coverage of health care in China: challenges and opportunities*. Geneva, World Health Organization, 2010 (World Health Report (2010) Background paper 7).

Title 3	:	*Report on China's Economic and Social Development Plan*
Features	:	Report on the Implementation of the 2006 Plan for National Economic and Social Development and on the 2007 Draft Plan for National Economic and Social Development, delivered at the Fifth Session of the Tenth National People's Congress on March 5, 2007
Web address	:	http://www.china.org.cn
Title 4	:	Building a new socialist countryside
Features	:	China's central Government recently released an important policy document on "building a new socialist countryside," and established it as one of the primary objectives of the 11th Five-Year Guidelines for National Economic and Social Development (2006-10)
Web address	:	http://www.china.org.cn
Title 5	:	The outline of the Eleventh Five-Year Plan
Web address	:	http://en.ndrc.gov.cn/
Title 6	:	Health, poverty and economic development
Operator	:	WHO and China State Council Development Research Center. Beijing. 2006.
Web address	:	http://www.wpro.who.int/china
Title 7	:	A health situation assessment of the People's Republic of China.
Operator	:	United Nations Health Partners Group in China, July 2005.
Web address	:	http://www.wpro.who.int/china
Title 8	:	China's Progress Towards the Millennium Development Goals 2008 Report
Operator	:	Ministry of Foreign Affairs of the People's Republic of China and United Nations System in China
Web address	:	http://planipolis.iiep.unesco.org/upload/China/China_MDG_progress_report_2008.pdf

5. ADDRESSES

MINISTRY OF HEALTH

Office Address	:	1, Xi Zhi Men Wai Nan Lu Beijing, PR China 100044
Website	:	http://www.moh.gov.cn
Office Address	:	1, Xi Zhi Men Wai Nan Lu Beijing, PR China 100044

WHO REPRESENTATIVE IN THE PEOPLE'S REPUBLIC OF CHINA

Office Address	:	World Health Organization China Office 401 Dongwai Diplomatic Office Building No. 23 Dongzhimenwai Dajie Chaoyang District, Beijing 100600, PR China
Official Email Address	:	who.chn@.wpro.who.int
Telephone	:	(8610) 65327189 to 92
Fax	:	(8610) 65322359
Website	:	http://www.wpro.who.int/china

COUNTRY HEALTH INFORMATION PROFILE

CHINA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	9600.00						2010	1
2	**Estimated population ('000s)**	1370537.00		686853.00		652872.00		2010	2
3	**Annual population growth rate (%)**	0.57		...		....		2010	2
4	**Percentage of population**								
	- 0–4 years	5.16		...		...		2009	5
	- 5–14 years	11.71		...		...		2009	5
	- 65 years and above	8.87		...		...		2010	2
5	**Urban population (%)**	49.68		...		...		2010	2
6	**Crude birth rate (per 1000 population)**	12.13		...		...		2009	2
7	**Crude death rate (per 1000 population)**	7.08		...		...		2009	2
8	**Rate of natural increase of population (% per annum)**	0.51		...		...		2009	2
9	**Life expectancy (years)**								
	- at birth	73.50		...		...		2010	1
	- Healthy Life Expectancy (HALE) at age 60	...		13.10		14.70		2002	3
10	**Total fertility rate (women aged 15–49 years)**	1.80						2009	4
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	92.90		96.24		89.55		2009	5
12	**Per capita GDP at current market prices (US$)**	3677.00 [a]						2009	5
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	0.66						2010	6
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	1 317 982	...	...	884	...	...	2010	7
	- Type A	35 277	...	...	4	...	...	2010	7
	- Type B	1 060 582	...	...	689	...	...	2010	7
	- Type C	153 039	...	...	128	...	...	2010	7
	- Type E	23 682	...	...	35	...	...	2010	7
	- Unspecified	45 402	...	...	28	...	...	2010	7
	Cholera	157	...	...	0	0	0	2010	7
	Dengue/DHF	223	...	...	0	0	0	2010	7
	Encephalitis	2541	...	...	92	...	...	2010	7
	Gonorrhoea	105 544	...	...	1			2010	7
	Leprosy	1324	905	419	...	...	...	2010	8
	Malaria	7389	...	...	14	...	...	2010	7
	Plague	7	...	...	2	...	...	2010	7
	Syphilis	358 534	...	...	69	...	...	2010	7
	Typhoid fever	14 041 [b]	...	...	3	...	...	2010	7
17	**Acute respiratory infections**	...	...	...	213 900 [c]	...	...	2004-05	9
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	39 202	...	...	160 000 [p]	...	...	2009	C: 20 D: 8
	- New pulmonary tuberculosis (smear-positive)	17 863	...	...	...	...	...	2009	20
20	**Cancers**								
	All cancers (malignant neoplasms only)	2 740 000	...	...	1885 500 [c]	...	...	2004-05	9
	- Breast	...	...	...	...	...	32 668	2004-05	9
	- Colon and rectum	...	...	...	85 719 [c]	52 397 [c]	33 322	2004-05	9
	- Cervix			...			16 020	2004-05	9
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	314 266 [c]	235 446 [c]	78 820 [c]	2004-05	9
	- Oesophagus	...	...	...	185 319 [c,d]	134 055 [c]	51 265	2004-05	9
	- Stomach	...	...	...	298 020 [c]	209 588 [c]	88 432 [c]	2004-05	9
	- Trachea, bronchus, and lung	...	...	...	373 083 [c]	266 068 [c]	107 015 [c]	2004-05	9
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	13 160 000	...	...	1 895 800 [c]	...	...	2004-05	9
	- Hypertension	73 100 000	...	...	...	...	...	2004-05	9
	- Ischaemic heart disease	23 140 000	...	...	1 252 000 [c]	...	...	2004-05	9
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	13 360 000	...	...	...	...	...	2004-05	9
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	857 800 [c]	...	...	2004-05	9
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	...	...	...		
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Disease of the circulatory system	...	...	...	1370.00	...	...	2008	5
	2. Diseases of the respiratory system	...	...	...	1020.00	...	...	2008	5
	3. Diseases of the digestive system	...	...	...	910.00	...	...	2008	5
	4. Pregnancy, childbirth, and postpartum complications	...	...	...	900.00	...	...	2008	5
	5. Injury and poisoning	...	...	...	620.00	...	...	2008	5
	6. Cerebrovascular diseases	...	...	...	410.00	...	...	2008	5
	7. Diseases of the genito-urinary system	...	...	...	390.00	...	...	2008	5
	8. Hypertension	...	...	...	320.00	...	...	2008	5
	9. Malignant cancers	...	...	...	290.00	...	...	2008	5
	10. Musculo-skeletal conditions	...	...	...	270.00	...	...	2008	5

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malignant neoplasms	...	...	...	167.57 [e]	204.92 [e]	129.36 [e]	2009	5
	2. Heart diseases	...	...	...	128.82 [e]	133.18 [e]	124.37 [e]	2009	5
	3. Cerebrovascular diseases	...	...	...	126.27 [e]	135.41 [e]	116.93 [e]	2009	5
	4. Diseases of respiratory system	...	...	...	65.40 [e]	74.72 [e]	55.86 [e]	2009	5
	5. Injury and poisoning	...	...	...	34.66 [e]	43.61 [e]	25.50 [e]	2009	5
	6. Endocrine, nutritional and metabolic disease	...	...	...	20.33 [e]	18.24 [e]	22.47 [e]	2009	5
	7. Diseases of the digestive system	...	...	...	16.58 [e]	19.31 [e]	13.78 [e]	2009	5
	8. Disease of the genitourinary system	...	...	...	7.34 [e]	7.86 [e]	6.80 [e]	2009	5
	9. Disease of the nervous system	...	...	...	6.89 [e]	7.57 [e]	6.20 [e]	2009	5
	10. Mental disorders	...	...	...	3.60 [e]	3.35 [e]	3.85 [e]	2009	5
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						89.60	2006	10
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						...		
29	**Percentage of pregnant women with anaemia**						18.45	2006	11
30	**Neonatal mortality rate (per 1000 live births)**	8.30 [f]		...		...		2010	7
31	**Percentage of newborn infants weighing less than 2500 g at birth**	2.40		...		...		2009	5
32	**Immunization coverage for infants (%)**								
	- BCG	99.60		...		...		2010	8
	- DTP3	99.50		...		...		2010	8
	- Hepatitis B III	99.50		...		...		2010	8
	- MCV2	99.20		...		...		2010	8
	- POL3	99.60		...		...		2010	8
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			499 [g]	2008	12
	- Haemorrhage			...			1852 [g]	2008	12
	- Obstructed labour			...			708 [g]	2008	12
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	0	0	0	...	...	...	2010	8
	- Measles	38 159	...	...	...	...	...	2010	8
	- Mumps	298 932	...	...	...	...	...	2010	8
	- Neonatal tetanus	1057	...	...	...	...	...	2010	8
	- Pertussis (whooping cough)	1764	...	...	...	...	...	2010	8
	- Poliomyelitis	0	0	0	...	...	...	2010	8
	- Rubella	43 117	...	...	...	...	...	2010	8
	- Total Tetanus	...	...	...	...	...	...		
	Health facilities								
35	**Facilities with HIV testing and counseling services**						9475 [h]	2010	13

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	13 681	2 449 509	2010	12
		- Specialized hospitals	6734 [i]	883 705 [i]	2010	12
		- District/first-level referral hospitals	105 410 [j]	2 024 572 [j]	2009	12
		- Primary health care centres	186 759 [k]	161 833 [k]	2009	12
	Private health facilities	- Hospitals	3887	163 829	2008	12
		- Outpatient clinics	126 089	135	2008	12
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			256799.00	2009	14
	- total expenditure on health as % of GDP			5.15	2009	14
	- per capita total expenditure on health (in US$)			192.40	2009	14
	Government expenditure on health					
	- amount (in million US$)			70506.00	2009	14
	- general government expenditure on health as % of total expenditure on health			24.73	2009	14
	- general government expenditure on health as % of total general government expenditure			6.31	2009	14
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			47.50	2009	14
	- out-of-pocket expenditure on health as % of total expenditure on health			37.46	2009	14
	Exchange rate in US$ of local currency is: 1 US$ =			6.86	2009	14
38	**Health insurance coverage as % of total population**			90.00	2009	1

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	1 972 840 [l]	...	...	...	...	...	...	2010	12
		- Ratio per 1000 population	1.47	...	...	...	...	...	...	2010	12
	Dentists	- Number	51 012 [m]	...	...	...	...	...	...	2005	12
		- Ratio per 1000 population	1.38 [n]	...	...	...	...	...	...	2005	12
	Pharmacists	- Number	353 916	...	...	...	...	...	...	2010	12
		- Ratio per 1000 population	0.25	...	...	...	...	...	...	2010	12
	Nurses	- Number	2 048 071	...	...	...	...	...	...	2010	12
		- Ratio per 1000 population	1.49	...	...	...	...	...	...	2010	12
	Midwives	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	435 870 [o]	...	...	...	...	...	...	2010	12
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	40 863	...	...	...	...	...	...	2005	15

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	130 426	…	…	…	…	…	…	2005	15
		Midwives	…	…	…	…	…	…	…		
		Paramedical staff	…	…	…	…	…	…	…		
		Community health workers	…	..	..	..	..	..	..		
41	Workforce losses/ Attrition	Physicians	…	…	…	…	…	…	…		
		Dentists	…	…	…	…	…	…	…		
		Pharmacists	…	…	…	…	…	…	…		
		Nurses	…	…	…	…	…	…	…		
		Midwives	…	..	..	..	..	..	..		
		Paramedical staff	…	…	…	…	…	…	…		
		Community health workers	…	..	..	..	..	..	..		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	4.50	…	…	2000-09	16
43	Infant mortality rate (per 1000 live births)	9.00	…	…	2009	20
44	Under-five mortality rate (per 1000 live births)	17.20	…	…	2009	20
45	Proportion of 1 year-old children immunised against measles	99.40	…	…	2010	8
46	Maternal mortality ratio (per 100 000 live births)	31.90			2009	20
47	Proportion of births attended by skilled health personnel	…				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	…				
	- Percentage of deliveries in health facilities (as % of total deliveries)	96.30			2009	12
48	Contraceptive prevalence rate	89.74	…	…	2007	17
49	Adolescent birth rate	…				
50	Antenatal care coverage - At least one visit	94.10			2010	12
	- At least four visits	…				
51	Unmet need for family planning	…	…	…		
52	HIV prevalence among population aged 15-24 years	…	…	…		
53	Estimated HIV prevalence in adults	0.06	0.04	0.02	2009	18
54	Percentage of people with advanced HIV infection receiving ART	62.4	…	…	2009	18
55	Malaria incidence rate per 100 000 population	0.38	…	…	2010	8
56	Malaria death rate per 100 000 population	0.01 [q]	…	…	2010	8
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	…	…	…		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	100.00	100.00	100.00	2009	7
59	Tuberculosis prevalence rate per 100 000 population	138.00	…	…	2009	8
60	Tuberculosis death rate per 100 000 population	12.00	…	…	2009	8
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	75.00	…	…	2009	8
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	94.00	…	…	2008	8
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	89.00	98.00	82.00	2008	19
64	Proportion of population using an improved sanitation facility	55.00	58.00	52.00	2008	19
65	Proportion of population with access to affordable essential drugs on a sustainable basis	…	…	…		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Current market prices 2009
b	Figure refers to paratyphoid
c	The number of death is calculated according to the rates but not reported data
d	Totals may not tally due to some reported cases with no gender breakdown
e	Data refers to certain region (data from city, not county)
f	Figure refers to Surveillance Region (per 1000 live births)
g	Based on cause-specific death rates per 100,000, and 16.1 million livebirths in 2008 from registry of the Ministry of Public Security, and included correction for underreporting based on a yearly surveillance report. Amniotic flu embolism reported as obstructed labor
h	Figure includes mainly VCT sites established in CDC system or inside hospital
i	Figure include TCM hospitals and and other specialized hospitals
j	Figure include health service centre for community, urban health centre and tonwhsip health centre
k	Figure include outpatient department, clinic MCH centre and specialised disease prevention and treatment institute
l	Licensed doctors
m	Revised data for registered dentists
n	Computed by Health System Development team of WHO China Office
o	Source of original data: Chinese Education Statistical Yearbook
p	Estimated number of deaths
q	Actual figure is 0.007

Sources:	
1	Government of China. [http://www.gov.cn/]
2	Statistical Communique of the People's Republic of China on the 2009 and 2010 National Economic and Social Development. National Bureau of Statistics of China [http://www.stats.gov.cn/english/].
3	World health report 2004. Changing history. Geneva, World Health Organization, 2004.
4	2006 National sample survey of population and family planning
5	China Statistical Yearbook 2010. National Bureau of Statistics of China.
6	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
7	Ministry of Health of the People's Republic of China [http://www.moh.gov.cn/]
8	WHO Regional Office for the Western Pacific, data received from technical units
9	The 3rd National Cause-of-Death Survey, Centre for Health Statistics and Information, Ministry of Health of the People's People's Republic of China.
10	Information furnished by National Population and Family Planning Commission of China, 2000-2006.
11	Midterm Evaluation report on the Implementation of the National Programme of Action for Child Development in China (2001-2005), NWCCW.
12	Chinese Health Statistical Digest 2006, 2007, 2008, 2009, 2010 and 2011, and online statistics Ministry of Health, [http://www.moh.gov.cn/publicfiles/business/htmlfiles/mohwsbwstjxxzx/s8208/201004/46556.htm]
13	2010 Universal Access report on monitoring the Health Sector response to HIV/AIDS: WHO, UNICEF, UNAIDS
14	China national health accounts report 2010
15	China Health Personnel Report 2006
16	World health statistics 2011. Geneva, World Health Organization, 2011. Available at [http://www.who.int/whosis/whostat/en/index.html]
17	National Health Services Survey 2008. Center for Health Statistics and Information, Ministry of Health.
18	2010 UNGASS. This figure includes mainly VCT sites established in CDC system or inside Hospital.
19	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
20	Information furnished by WHO Representative in China dated 21 October 2011.

Cook Islands

1. CONTEXT

1.1 Demographics

The population of Cook Islands decreased between 1996 and 2001 due to outmigration, but then began to increase again, with an estimated 23 300 people in 2010. Around 28.6% are below 15 years of age and about 7.9% are 65 years and above.

In 2009, overall life expectancy at birth was estimated at 72 years: 70 years for men and 73 years for women. The crude birth rate was 23.8 per 1000 population, and the crude death rate 8.1 per 1000 resident population in 2010.

1.2 Political situation

Cook Islands has a unicameral, democratic parliament with 24 elected members who serve parliamentary terms of five years. However, there have been four government changes since 1999. The current Prime Minister, Henry Puna, was elected in November 2010S. The Government has given priority to education, health, human resources and outer island development.

1.3 Socioeconomic situation

The country went through some economic difficulties during the period from 1996 to 1997. Since then, there have been public sector reforms, the sale of state assets and the stimulation of the private sector, all of which have led to the growth and strengthening of financial and economic management. The four leading generators of income are tourism, fishing, agriculture and financial services. Tourism is the main industry and accounts for around 54% of gross domestic product (GDP).

GDP was estimated at almost 330 million New Zealand dollars (approximately US$ 237 million) and 14 623 New Zealand dollars (approximately US$ 10 520) per capita in 2009. The country's focus on development has been affected by various challenges, such as the emigration of skilled workers to New Zealand, an unstable political situation, and the insufficient and inequitable distribution of resources. Of central importance is the delivery of health services to all the islands.

In 2008, about 98% of the urban population had access to a clean, safe water supply and 100% had adequate sanitation facilities in both urban and rural areas.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Infectious diseases are rarely seen and usually occur as imported cases. A water supply and sanitation improvement programme, with the building of flush toilets in all schools and health centres on the outer islands, has helped to reduce the burden of such diseases and probably also of septic skin disease, rheumatic fever and obstructive airways disease. Parasitic intestinal worm disease has been greatly reduced by improved water and sanitation. There has been no case of leprosy in the last ten years. The incidence of sexually transmitted infections (STI) varies. Syphilis is rare, while gonorrhoea, candidiasis, trichomoniasis and chlamydial infection are relatively common. The prevalence of condom use is low. The mass drug administration (MDA) programme for elimination of filariasis continues as part of the WHO Filariasis Elimination Programme. A small-scale blood survey was conducted before the 2001 MDA, in which 460 people from four different islands were randomly tested using ICT test kits. MDA coverage in 2001 was 91.3%, but dropped to 79.2% in 2008.

Noncommunicable diseases, such as hypertension, diabetes, cancer, coronary heart disease, obesity, and injuries and poisonings, continue to be major public health problems. According to a WHO consultancy report in 2001, the prevalence of diabetes was 11.8% for males and 3.8% for females (not including patients with well controlled pre-existing diabetes). The prevalence of obesity was 48.4% for males and 36.2% for females. According to hospital records, 63% of registered patients in 1980-2009 were reported to have hypertension, 16% both hypertension and diabetes and 21% diabetes only.

2.2 Outbreaks of communicable diseases

The two main infectious disease outbreak since the dengue outbreaks in 1991 were the dengue outbreaks in 1995 (779 cases), 1997 (1652), 2001-02 (2277), 2006 (468), 2007, (1224), 2008 (89) and 2009 with (1335). In addition, a short mumps outbreak occurred in 2007, with 562 cases reported.

2.3 Leading causes of mortality and morbidity

The leading causes of morbidity and mortality are noncommunicable diseases. Disease of the circulatory system continued to be the leading cause of mortality in the last three years, accounting for 36% of deaths in 2009.

2.4 Maternal, child and infant diseases

There has been no case of maternal mortality since 1993. The infant mortality rate was 7.1 per 1000 live births in 2009. During the 2008-2009 financial year, the country's Expanded Programme on Immunization aimed to achieve 100% coverage.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

To achieve the vision of "accessible quality health for all Cook Islanders", the following health issues are being targeted for priority action.

(1) Sexually transmitted infections, including HIV/AIDS: The prevalence of trichomoniasis and chlamydial infection is relatively high, while the prevalence of condom use is low. The objective is to develop a strategy on STI control, intensify sexual health education and promotion of condom use, and explore the need for qualified counsellors.

(2) Communicable disease surveillance and response: This programme focuses on increasing awareness and formulating and developing a protocol on dengue management to avoid future epidemics of dengue fever, as well as improving vector control and surveillance.

(3) Healthy settings and environment: A healthy environment will be created and promoted through a multisectoral approach and partnerships to encouragee healthy lifestyles, minimize the risk of disease and reduce the need for hospital and other health services through:

- evaluation of the effectiveness of health education and promotion activities and strengthening of the concepts approach; and
- provision of special training for health personnel and other stakeholder agencies to enable them to deliver services satisfactorily.

(4) Child and adolescent health and development: Child and adolescent health will be further strengthened through increasing awareness of risky behaviours, reducing teenage pregnancy, and reducing STI, with emphasis on:

- conducting seminars that target adolescents to enhance their knowledge of safer sexual practices; and
- increasing knowledge on risky behaviours through awareness programmes on television and radio and in newspaper articles.

(5) Reproductive health: There are insufficient trained and skilled personnel to provide quality reproductive health services at various levels of the health care system. At present, there is only one family planning nurse, assisted by a retired staff nurse. There is an immediate need to train younger nurses in technical and management skills.

The responsibilities of husbands or male partners will be emphasized. Through training, their awareness and understanding of the reproductive health needs of women during pregnancy, childbirth and after delivery, and of family planning, will be enhanced.

(6) Noncommunicable diseases and dental health: A more vigorous effort will be made to change the attitudes of people through health education and promotion. Technical training of health educators in healthy living (e.g. diet, exercise) is part of this programme. Monitoring and management of noncommunicable diseases will be strengthened.

Properly trained dental personnel are required for each island to strengthen preventive dental care and the treatment of common dental diseases. There is also a need to upgrade facilities, including rooms and dental equipment.

(7) Tobacco Free Initiative: The Global Youth Tobacco Survey, conducted in 2002, needs to be extended to examine smoking prevalence among adults. The results of the survey will determine and guide the development of the tobacco control programme and strengthen the nationwide promotion of healthy lifestyles, and will reduce the toll of tobacco-related mortality and associated diseases.

(8) Human resource development: Workforce planning has been identified as the key strategy to meet the need for skilled health workers. An increase in the number of qualified health workers with skills tailored towards specific needs of the population is critical if health objectives are to be met.

Developing leadership and management skills will be essential in the transformation of the quality of care currently being delivered to the people of Cook Islands. Training is needed to help health personnel communicate with, inform and educate their patients.

3.2 Organization of health services and delivery systems

While the population on the main island, Rarotonga, has access to the best health care in the country, those on the outer islands, especially the Northern Islands, do not. There is an urgent need to address and rectify this disparity. It is therefore of vital importance that the delivery of health services to the outer islands be addressed, especially the availability of drugs, the deficiency in equipment and the provision of properly trained health staff to provide services.

In 2001, the Ministry of Health opened a new hospital wing that provides ample room for laboratory services, maternal health care, and statistics. There is also a library and a conference room to assist in continuous medical education. A telehealth venture is also being established, which will provide distance-learning education for doctors, nurses and other health staff in Rarotonga and some of the outer islands to improve human resource development and strengthen health services. At the same time, telehealth will be used to consult specialists overseas in regard to problematic cases. Efforts are also being concentrated on continuing medical education and health staff training, both in-country and overseas.

3.3 Health policy, planning and regulatory framework

No available information.

3.4 Health care financing

In 2009, total health expenditure amounted to 14 million New Zealand dollars (US$ 10 million), with per capita expenditure on health of US$ 503.6.

3.5 Human resources for health

During recent years, the Ministry of Health has concentrated on providing sufficient general practitioners to provide health services in the outer islands. To date, there are only two islands, Palmerston and Rakahanga, without a resident doctor. However, there are health officers on the two islands. The Ministry of Health has also

provided extra doctors at the Rarotonga Hospital so that services are provided 24 hours a day without any doctor having to work more than eight hours a day.

In the absence of resident dental personnel, the Ministry of Health recently employed two flying dentists to visit the outer islands. Currently, on most of the islands, there are no dental personnel, a lack of proper dental planning, and a lack of oral health promotion and education, preventive care and constant review. There are also no proper facilities or equipment. The high level of "decayed, missing or filled (DMF)" reports clearly shows the lack of diagnosis of dental caries and the absence of restorative treatment for tooth decay. There is also a need to review and improve oral health safety procedures to maintain the provision of quality health care services.

The health infrastructure is well developed. There is a general hospital with 70 beds in Rarotonga and six primary health care centres. As of 2004, there were 22 physicians, 11 midwives, 52 nurses and 20 dentists.

3.6 Partnerships

New Zealand remains the largest donor, while Australia and the Asian Development Bank provide significant inflows geared towards capacity-building, outer island development and human resource development. WHO is the fourth largest donor and provides support for human development for health, health care delivery and outer island devolution. Other United Nations agencies, agencies based in the Pacific region, and two bilateral donors make up the remaining donor support to the country. Cook Islands has received ad hoc grants and technical support from the governments of China and Japan and has progressed significantly in aid discussions with the European Union.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*2007 and 2009 Annual statistical bulletin.*
Operator	:	Ministry of Health Medical *Records* Unit
Web address	:	http://www.health.gov.ck
Title 2	:	*Population Estimates and Vital Statistics*
Operator	:	Cook Islands Statistics Office
Web address	:	http://www.stats.gov.ck/
Title 3	:	*Cook Islands statistical bulletin, Census of Population and Dwellings 2006: Preliminary result*
Operator	:	Cook Islands Statistics Office
Web address	:	http://www.stats.gov.ck
Title 4	:	*Cook Islands Millennium Development Goals Report 2009*
Operator	:	Office of the Prime Minister, Central Planning and Policy Office
Web address	:	http://www.spc.int/prism/MDG/Countries_natrpts/CK_MDGReport_2009.pdf

5. ADDRESSES

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Official Email Address	:	who@sma.wpro.who.int
Telephone	:	(685) 23756/ 23757
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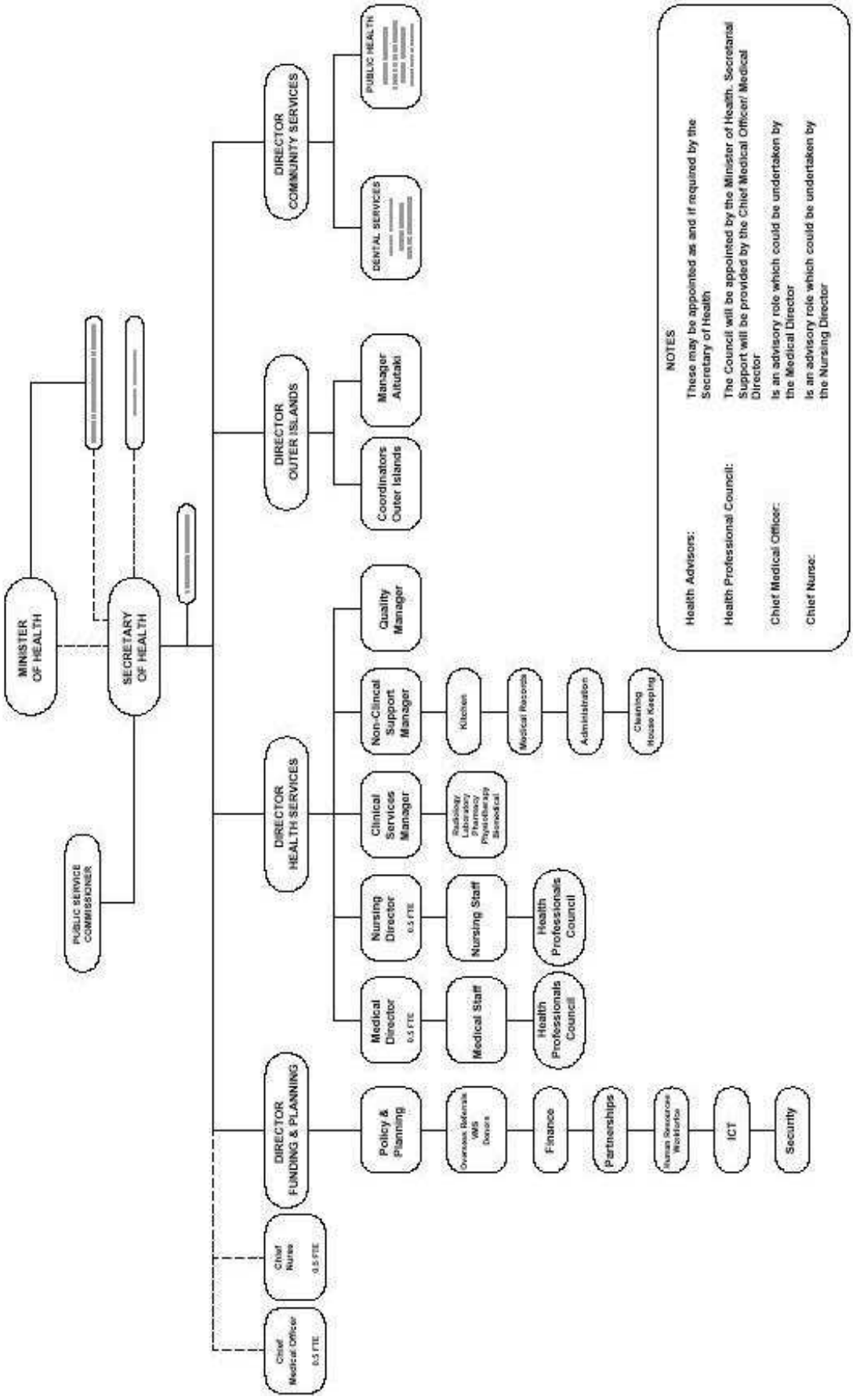
6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

COOK ISLANDS — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.24						2006	1
2	**Estimated population ('000s)**	23.30 [a]		...		...		2010 est	2
3	**Annual population growth rate (%)**	1.70		...		...		2006	3
4	**Percentage of population**								
	- 0–4 years	8.55		8.69		8.40		2010 est	4
	- 5–14 years	19.39		19.69		19.07		2010 est	4
	- 65 years and above	8.23		7.71		8.78		2010 est	4
5	**Urban population (%)**	75.30		...		...		2010 est	5
6	**Crude birth rate (per 1000 population)**	23.85 [b]		...		...		2010p	2
7	**Crude death rate (per 1000 population)**	8.12 [b]		...		...		2010p	2
8	**Rate of natural increase of population (% per annum)**	2.30 [b]		...		...		2010p	2
9	**Life expectancy (years)**								
	- at birth	72.00 [c]		70.00 [c]		73.00 [c]		2009 est	6
	- Healthy Life Expectancy (HALE) at age 60	...		11.50		12.60		2002	7
10	**Total fertility rate (women aged 15–49 years)**	2.60						2009	6
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	100.00		...		...		2009	6
12	**Per capita GDP at current market prices (US$)**	10 298.00 [b]						2009p	8
13	**Rate of growth of per capita GDP (%)**	-2.70						2009	8
14	**Human development index**	...							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	6 [d]	...	...	...	...	...	2009	6
	- Type C	0 [d]	0 [d]	0 [d]	...	...	...	2009	6
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0 [d]	0 [d]	0 [d]	0	0	0	2005	1
	Dengue/DHF	0	0	0	0	0	0	2010	9
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	16 [d]	...	...	...	...	...	2007	3
	Leprosy	0	0	0	...	...	...	2010	9
	Malaria	0 [d]	0 [d]	0 [d]	...	...	...	2009	6
	Plague	0	0	0	0	0	0	2005	1
	Syphilis	2 [d]	...	...	...	...	...	2009	6
	Typhoid fever	0 [d]	0 [d]	0 [d]	0	0	0	2009	6
17	**Acute respiratory infections**	6776	...	...	...	...	...	2009	6
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
		Total	**Male**	**Female**	**Total**	**Male**	**Female**		
18	**Diarrhoeal diseases**	127	...	...	...	...	...	2009	6
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	2	...	...	1 [s]	...	...	2009	9
	- New pulmonary tuberculosis (smear-positive)	1	...	...	...	...	...	2009	9
20	**Cancers**								
	All cancers (malignant neoplasms only)	9	3	6	19	10	9	2009	6
	- Breast	1	0	1	5	1	4	2009	6
	- Colon and rectum	0	0	0	0	0	0	2009	6
	- Cervix			1			0	2009	6
	- Leukaemia	0	0	0	0	0	0	2009	6
	- Lip, oral cavity and pharynx	0	0	0	0	0	0	2009	6
	- Liver	0	0	0	0	0	0	2009	6
	- Oesophagus	0	0	0	3	1	2	2009	6
	- Stomach	0	0	0	0	0	0	2009	6
	- Trachea, bronchus, and lung	0	0	0	3 [e]	2 [e]	1 [e]	2009	6
21	**Circulatory**								
	All circulatory system diseases	...	...	...	30	14	16	2009	6
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	19	11	8	6	4	2	2009	6
	- Hypertension	106	...	...	15	4	11	2009	6
	- Ischaemic heart disease	...	...	...	5	2	3	2009	6
	- Rheumatic fever and rheumatic heart diseases	18	...	...	...	...	...	2009	6
22	**Diabetes mellitus**	67	...	...	8	5	3	2009	6
23	**Mental disorders**	...	...	...	0 [f]	0 [f]	0 [f]	2009	6
24	**Injuries**								
	All types	...	...	...	7 [g]	6 [g]	1 [g]	2009	6
	- Drowning	...	...	...	0	0	0	2009	6
	- Homicide and violence	5 [h]	...	...	...	...	...	2007	3
	- Occupational injuries	0	0	0	0	0	0	2005	9
	- Road traffic accidents	42 [i]	...	...	3 [i]	2 [i]	1 [i]	2009	6
	- Suicide	...	...	...	3 [j]	3 [j]	0 [j]	2009	6
	Leading causes of mortality and morbidity	**Number of cases**			**Rate per 100 000 population**				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the circulatory system	386 [k]	215 [k]	171 [k]	1829.38 [b,k]	...	...	2007	3
	2. Injury, poisoning and certain other consequences of external causes	274 [k]	174 [k]	100 [k]	1298.58 [b,k]	...	...	2007	3
	3. Diseases of the respiratory system	240 [k]	118 [k]	122 [k]	1137.44 [b,k]	...	...	2007	3
	4. Certain infectious and parasitic diseases	163 [k]	72 [k]	91 [k]	772.51 [b,k]	...	...	2007	3
	5. Diseases of the genitourinary system	134 [k]	50 [k]	84 [k]	635.07 [b,k]	...	...	2007	3
	6. Diseases of the digestive system	130 [k]	82 [k]	48 [k]	616.11374 [b,k]	...	...	2007	3
	7. Endocrine, nutritional and metabolic diseases	128 [k]	67 [k]	61 [k]	606.63507 [b,k]	...	...	2007	3
	8. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	110 [k]	62 [k]	48 [k]	521.32701 [b,k]	...	...	2007	3
	9. Diseases of the musculoskeletal system and connective tissue	107 [k]	72 [k]	35 [k]	507.109 [b,k]	...	...	2007	3
	10. Diseases of the eye and adnexa	73 [k]	37 [k]	36 [k]	345.97156 [b,k]	...	...	2007	3

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the circulatory system	30	14	16	131.00 [b]	...	...	2009	6
	2. Neoplasms	19	10	9	82.97 [b]	...	...	2009	6
	3. Endocrine, nutritional and metabolic diseases	9	6	3	39.30 [b]	...	...	2009	6
	4. Injury, poisoning & certain other consequences of external cause	7	6	1	30.57 [b]	...	...	2009	6
	5. Symptoms, signs & abnormal clinical & laboratory findings	5	3	2	21.83 [b]	...	...	2009	6
	6. Diseases of the respiratory system	5	3	2	21.83 [b]	...	...	2009	6
	7. Diseases of the digestive system	4	3	1	17.47 [b]	...	...	2009	6
	8. Certain infectious and parasitic diseases	2	1	1	8.73 [b]	...	...	2009	6
	9. Diseases of the blood & bloodforming organs	1	1	0	4.37 [b]	...	...	2009	6
	10. Certain conditions originating in the perinatal period	1	0	1	4.37 [b]	...	...	2009	6
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					29.00 [l]		2007	3
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					100.00		2010	9
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	7.10		...		...		2009	6
31	**Percentage of newborn infants weighing less than 2500 g at birth**	3.90		...		...		2009	6
32	**Immunization coverage for infants (%)**								
	- BCG	100.00		...		...		2010	9
	- DTP3	100.00		...		...		2010	9
	- Hepatitis B III	100.00		...		...		2010	9
	- MCV2	96.00		...		...		2010	9
	- POL3	100.00		...		...		2010	9
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			21			...	2007	3
	- Eclampsia			6 [l,m]			...	2007	3
	- Haemorrhage			22 [l,n]			...	2007	3
	- Obstructed labour			42 [l,o]			...	2007	3
	- Sepsis			4 [l,p]			...	2007	3
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	9
	- Diphtheria	0	0	0	...	...	...	2010	9
	- Measles	0	0	0	...	...	...	2010	9
	- Mumps	0	0	0	...	...	...	2010	9
	- Neonatal tetanus	0	0	0	...	...	...	2010	9
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	9
	- Poliomyelitis	0	0	0	...	...	...	2010	9
	- Rubella	0	0	0	...	...	...	2010	9
	- Total Tetanus	0	0	0	...	...	...	2010	9
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	70	2005	12
		- Specialized hospitals	0	0	2005	12
		- District/first-level referral hospitals	7	57	2005	12
		- Primary health care centres	70 [q]	...	2007	3
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	5	...	2005	12
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			10.07 [b]	2009p	10
	- total expenditure on health as % of GDP			4.50	2009p	10
	- per capita total expenditure on health (in US$)			503.60 [b]	2009p	10
	Government expenditure on health					
	- amount (in million US$)			9.35 [b]	2009p	10
	- general government expenditure on health as % of total expenditure on health			93.80	2009p	10
	- general government expenditure on health as % of total general government expenditure			10.60	2009p	10
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			7.69 [b]	2009p	10
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			6.20	2009p	10
	- out-of-pocket expenditure on health as % of total expenditure on health			7.14 [b]	2009p	10
	Exchange rate in US$ of local currency is: 1 US$ =			1.39	2009p	10
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	22	...	...	...	...	22	0	2004	11
		- Ratio per 1000 population	1.08	...	...	...	...	1.08	0	2004	11
	Dentists	- Number	20	...	...	...	...	20	0	2004	11
		- Ratio per 1000 population	0.99	...	...	...	...	0.99	0.00	2004	11
	Pharmacists	- Number	1	1	0	...	...	1	0	2004	11
		- Ratio per 1000 population	0.05	0.05	0.00	...	...	0.05	0.00	2004	11
	Nurses	- Number	52	0	52	...	...	52	0	2004	11
		- Ratio per 1000 population	2.56	0	2.56	...	...	2.56	0.00	2004	11
	Midwives	- Number	11	0	11	...	...	11	0	2004	11
		- Ratio per 1000 population	0.54	0.00	0.54	...	...	0.54	0.00	2004	11
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	7.10	...	...	2009	6
44	Under-five mortality rate (per 1000 live births)	7.10	...	...	2009	6
45	Proportion of 1 year-old children immunised against measles	100.00	...	...	2010	9
46	Maternal mortality ratio (per 100 000 live births)	0.00			2009	6
47	Proportion of births attended by skilled health personnel	100.00			2009	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.40			2009	6
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.60			2009	6
48	Contraceptive prevalence rate	29.00 [r]	...	...	2007	3
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	100.00			2005	12
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	2.00	...	...	2007	9
56	Malaria death rate per 100 000 population	0.00	...	...	2007	9
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	54.00	...	...	2009	9
60	Tuberculosis death rate per 100 000 population	7.00	...	...	2009	9
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	37.00	...	...	2009	9
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	50.00	...	...	2008	9
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	...	98.00	...	2008	13
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2008	13
65	Proportion of population with access to affordable essential drugs on a sustainable basis	100.00	100.00	100.00	2009	6

Notes:	
…	Data not available
p	Provisional
est	Estimate
a	Estimated population at June Quarter
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Figures were estimated using complete life table method - health stats.
d	Figure refers to registered positive cases.
e	Figure refers to deaths due to malignant neoplasm of bronchus and lung.
f	Deaths caused by mental and behavioral disorders due to use of alcohol.
g	Figure refers to hospital admissions due to injury, poisoning and certain other consequences of external causes (ICD10 S00-T98).
h	Figure refers to hospital admissions due to assault (ICD10 X85-Y09).
i	Figure refers to hospital admissions due to transport accidents (ICD10 V01-V99).
j	Figure refers to hospital admissions due to intentional self-harm (ICD10 X60-X84).
k	Figure refers to Rarotonga only.
l	Figure refers to percentage of women of child-bearing ages (15-44 years old) who are current users of any type of family planning contraceptive.
m	Figure refers to hospital admissions due to edema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium (ICD10 O10-O16).
n	Figure refers to hospital admissions classified under maternal care related to the fetus and amniotic cavity and possible delivery problems (ICD10 O30-O48).
o	Figure refers to hospital admissions due to complications of labor and delivery (ICD10 O60-O75).
p	Figure refers to complications predominantly related to the puerperium (ICD10 O85-O92).
q	Figure includes 9 out-patient clinics, 5 dental clinics, 6 health centres and 50 child welfare clinics.
r	Figure refers to women currently practicing any type of family planning contraceptives.
s	Estimated number of death

Sources:	
1	Census of Population and Dwellings 2006, Preliminary Result. Cook Islands Statistical Bulletin. [http://www.spc.int/prism/Country/CK/stats/].
2	Population Estimates and Vital Statistics. Cook Islands Statistics Office. [http://www.stats.gov.ck/Statistics/Demography/popn_estimate.htm]
3	Annual Statistical Bulletin 2007. Cooks Islands Ministry of Health. http://www.health.gov.ck/docs/annual/2007%20Annual%20Bulletin.pdf
4	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=158&Itemid=&lang=en]
5	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
6	Annual Statistical Bulletin 2009. Cooks Islands Ministry of Health.
7	World health report 2004. Changing history. Geneva, World Health Organization, 2004.
8	Economic Statistics [http://www.stats.gov.ck/Statistics/Economic/National%20Account/gdp_summary.htm]
9	WHO Regional Office for the Western Pacific, data received from technical units
10	National health accounts: country information. Geneva, World Health Organization. Accessed in September 2011 from http://www.who.int/nha/country/en/index.html
11	Annual Bulletin 2004. Cooks Islands Ministry of Health. http://www.health.gov.ck/default.asp.
12	Annual Statistical Bulletin 2005. Cooks Islands Ministry of Health. Http://www.health.gov.ck/default.asp
13	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

FIJI

1. CONTEXT

1.1 Demographics

Fiji has the largest population of all the South Pacific island countries, with an estimated 2010 population of 854 000: 433 000 males and 421 000 females. The average annual growth rate stands at 0.8%, the slow growth being due to a moderately low level of fertility and a high level of emigration, especially among Indo-Fijians. Fiji's Economic Exclusive Zone contains 332 islands covering a total land area of 18 333 square kilometres in 1.3 million square kilometres of the South Pacific Ocean. The population occupies around one-third of the 332 islands and is concentrated on the two largest, Viti Levu (10 429 square kilometres) and Vanua Levu (5556 square kilometres), with the nation's capital, Suva, located on Viti Levu. People in Fiji are living longer, with life expectancy standing at 68 years for males and 72 years for females.

1.2 Political situation

Since the coup d'etat of 5 December 2006, Fiji has been governed by a military-led government. In April 2009, the constitution was abrogated, and the Government is now being run by special presidential decrees. There is a proposed amendment to the current constitution, with an emphasis on electoral reform. The new timeline for a newly elected government is 2014.

1.3 Socioeconomic situation

Fiji, endowed with forest, mineral and fish resources, is one of the most developed of the Pacific island economies, although there is still a large subsistence sector. Sugar exports, remittances from Fijians working abroad and a growing tourist industry —with 300 000 to 400 000 tourists annually—are the major sources of foreign exchange. Fiji's sugar has special access to European Union (EU) markets, but will be harmed by the EU's decision to cut sugar subsidies. Sugar processing makes up one-third of industrial activity, but is inefficient.

The volatile political situation has had some adverse impact on the country's economy, particularly on tourism numbers and foreign investor confidence. Additionally, the EU has suspended all aid until the interim administration is able to hold a democratic election. Fiji's economy has been dependent on foreign exchange provided by remittances from Fijians working in the British Army, the United Nations, Iraq and Kuwait, and this has increased significantly over the years. The current global financial crisis is also expected to have a significant impact on the local economy and the Fiji dollar has been devalued to cushion some of the effects.

Fiji has a gross domestic product (GDP) of FJD 4761.1 million (US$ 2511.0 million) and a GDP per capita of FJD 5654.5 (US$ 2978.6), with a per capita GDP growth rate of -2.6%. Government income comes largely from customs duties and port dues, as well as taxation.

1.4 Risks, vulnerabilities and hazards

With the continuing rule of the interim administration and the many international pressures, Fiji is vulnerable to suffer economically, especially when the main income earner, tourism, is one of the industries being affected significantly. The sugar industry should be undergoing reform in an effort to improve its efficiency and production level, but this too remains vulnerable due to the current prevailing political situation.

2. HEALTH SITUATION AND TREND

Fiji generally has a good standard of health and compares well with other Pacific island nations. The country's health status met or exceeded most of the WHO goals for 2000. Such a status is due to improved health standards, sound comprehensive health care programmes and the untiring efforts of the Ministry of Health in promoting healthy living for the population.

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Like many developing countries, Fiji is still undergoing an epidemiological transition and is faced with a double burden of communicable and noncommunicable disease. In addition, however, the alarming rise in injuries and accidents is producing a third burden that is projected to become a real concern in terms of both intentional and unintentional injuries.

The national health indicators compare favourably with other developing countries. Infant and child mortality rates, the maternal mortality ratio and the incidence of low birth weight have all shown gradual decreases over the last decade.

Noncommunicable diseases (NCD) such as diabetes, heart disease, high blood pressure, respiratory diseases and cancers, have now replaced infectious and parasitic diseases as the principal causes of mortality and morbidity. The revelation of the magnitude of NCD risk factors by the 2002 NCD STEPS survey highlighted the reasons: around 65% of population were taking only one or less servings of fruit a day and there is a low rate of physical activity (25%). This information led to the formulation of the National NCD Strategy 2004-2008 to scale up efforts to curb the growing epidemic, which resulted in an excellent commitment from the Government (a 300% increase in the national NCD budget in the first year). The plan has been reviewed and one for 2010–2014 has been formulated.

HIV/AIDS is still a major challenge for Fiji. As of December 2009, there were 333 HIV-positive individuals, a large proportion of them between the ages of 20 and 29. With a window of five to 10 years from the time of infection to detection, it is clear that many are becoming infected while still in their teens. A strategic plan to prevent and control the spread and impact of HIV/AIDS and sexually transmitted infections (STIs) has been developed, and is being supported through a dedicated government budget, under the coordination of the National Advisory Committee on AIDS.

The threat of emerging and re-emerging communicable diseases, such as tuberculosis, severe acute respiratory syndrome (SARS) and highly pathogenic influenza A (H5N1), which pose international threats and would have socioeconomic impacts on Fiji, has highlighted the need for vigilance in surveillance, border control, detection capacity, investigation capacity and capacity to respond in a timely and coordinated manner.

Regional elimination initiatives include those for lymphatic filariasis (Pac ELF) and measles. Control of hepatitis B is also being addressed. Fiji is a committed partner in these initiatives, which are being coordinated by WHO.

2.2 Outbreaks of communicable diseases

The persistence of typhoid fever, especially in the north of the country, is warranting greater attention. In addition, the threat of dengue infection and outbreaks will continue, given the many factors that could introduce the virus. To reduce the disease burden and the case-fatality rate, epidemiological and entomological surveillance must continue to improve, including better emergency preparedness to prevent and control epidemics, effective case management through sensitive diagnostics, infrastructure improvements and strengthened vector-control activities in an integrated vector-management mode.

Leptospirosis represents an underdiagnosed, underreported and misdiagnosed zoonotic infection that continues to spread to humans, with evidence showing shifts in clinical presentations and human pathogenic serovars. With the advent of eco-tourism, people are facing increased risk of acquiring the pathogenic organisms in the environment. Research and identification of animal reservoirs is planned.

2.3 Leading causes of mortality and morbidity

In 2009, the leading causes of mortality were diseases of the circulatory system, at about 40.5%, followed by endocrine, nutritional and metabolic diseases, at about 18%. Neoplasms constituted about 10.2% of mortalities. The other leading causes, which comprised about 31% of total mortalities included: infectious and parasitic disease; diseases of the respiratory system; injuries and poisonings; diseases of the digestive system; genitourinary diseases; and conditions of the perinatal period.

2.4 Maternal, child and infant diseases

Maternal, child and infant diseases are continuing to decline. The infant mortality rate has fallen by 62% in the past 20 years and is now about 15.2 per 1000 live births. Good obstetrical services are contributing to a lower number of infant deaths, with about 98.8% of births being attended by trained medical personnel. The existence of protein-energy malnutrition among children less than five years of age, although minimal, remains a public health concern, especially when these few are infected with diarrhoea and other infectious diseases that could make them vulnerable to fatality. The introduction of the integrated management of childhood illness (IMCI) strategy has strengthened what used to be the vertical ARI/CDD programme, and a similar integrated approach has been adopted for antenatal care.

2.5 Burden of disease

Although no proper burden-of-disease studies have been carried out, it is clear that the triple burden of communicable diseases, noncommunicable diseases and injuries is plaguing the health system. The prematurity of NCD deaths especially is becoming an economic and development issue, as the age of men dying from cardiovascular disease falls every year. In a 2002 study carried out by the World Bank and the Secretariat of the Pacific Community (SPC), it was revealed that 38.8% of all treatment costs could be attributed to NCD and 18.5% to communicable diseases.

3. HEALTH SYSTEM

The Ministry of Health acknowledges that it is the right of every citizen of the Republic of Fiji, irrespective of race, sex, colour, creed or socioeconomic status, to have access to a national health system that provides a high quality health service.

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health Strategic Plan 2011-15 has as its vision:

> "A healthy population in Fiji that is driven by a caring health care delivery system"

and as its mission:

> "To provide high quality health care delivery services by a caring and committed workforce with strategic partners, through good governance, appropriate technology and appropriate risk management, facilitating a focus on patient safety and best health status for all of the citizens of Fiji."

The Plan focuses on three strategic goals namely:

- Communities are served by adequate primary and preventive health services, thereby protecting, promoting and supporting their well-being (through localized community care).
- Communities have access to effective, efficient and quality clinical health care and rehabilitation services.
- Health Systems strengthening is undertaken at all levels in the Ministry of Health

The Ministry of Health Strategic Plan 2011-15 aims to achieve seven health outcomes:

- a reduced noncommunicable disease burden;
- a start in reversing the spread of HIV/AIDS and preventing, controlling or eliminating other communicable diseases;
- improved family health and reduced maternal morbidity and mortality;
- improved child health and reduced child morbidity and mortality;
- improved adolescent health and reduced adolescent morbidity and mortality;
- improved mental health; and
- improved environmental health through safe water and sanitation.

The work of the Ministry is based on the following values: customer focus (being genuinely concerned that customers receive quality health care, respecting the dignity of all people); equity (striving for an equitable health system and being fair in all dealings, irrespective of ethnicity, religion, political affiliation, disability, sex or age); quality (pursuing high quality outcomes in all facets of activities); integrity (committing to the highest ethical standards in all activities); responsiveness (responsive to the health needs of the population, noting the need for

speed in delivery of urgent health services); and faithfulness (upholding the principles of love, tolerance and understanding in all dealings with the people served).

3.2 Organization of health services and delivery systems

The Ministry of Health provides services to two types of user: internal (provision of health care to citizens); and external (monitoring of compliance with statutes and regulation; issue of permits, certificates and reports; professional board functions; provision of health care to visitors; provision of accommodation and meals for staff; provision of training to health staff of the region).

Health services are delivered through 900 village clinics, 103 nursing stations, 78 health centres, 17 sub-divisional medical centres, three divisional hospitals and two speciality hospitals with TB, leprosy and medical rehabilitation units at Tamavua Hospital and St. Giles Mental Hospital. There is also a private hospital located in Suva.

HIV/AIDS laboratory testing in Fiji has undergone assessment and validation testing and has commenced confirmatory testing under the guidance of the National Reference Laboratory (Melbourne, Australia)-WHO Collaborating Centre for HIV/AIDS and with funding from the Global Fund. Testing will be for diagnosis, surveillance and monitoring of patients on antiretroviral treatment.

3.3 Health policy, planning and regulatory framework

The Ministry of Health Strategic Plan 2011-2015 was developed through extensive consultation with major stakeholders, including the private sector, nongovernmental organizations, central government agencies and senior staff of the Ministry of Health. The Strategic Plan has been developed in recognition of the Government's international commitments, the Government's Strategic Development Plan 2007 to 2011, the major health priorities for the people of Fiji and the planning requirements of the Ministry of Finance and National Planning. The Strategic Plan forms the framework for the development of annual corporate plans for the Ministry of Health for each successive year, from 2011-2015 inclusive.

3.4 Health care financing

The public health care system is heavily dependent on general taxation. The increasing demand for and cost of health care, coupled with limited resources, requires the Ministry of Health to place a greater focus on health care financing and cost-recovery strategies. The Ministry is examining a range of health-financing options, including social insurance. Moreover, the proposed financial management reform is expected to provide opportunities for revenue generation and retention. Hospital fees and charges for services, as determined in the Public Hospital and Dispensary Act, need to be reviewed. However, any cost-recovery strategies and fee structures introduced must ensure that disadvantaged groups in the community are not adversely affected.

The Government's immediate priority is to facilitate patient flow by shortening queues and reducing waiting lists and turnaround times. The Ministry hopes to rise to the occasion and continue to provide quality health care to improve the health status of all citizens through: implementation of the Clinical Services Plan; improved planning and delivery of effective public health and promotion activities; performance budgeting; identification of appropriate financing/resource options to complement the health budget; and implementation of appropriate prevention strategies. However, this may be hampered further by the current political situation and the effects of the global economic crisis.

3.5 Human resources for health

The 2008 ratios of health workers to population were 1:2609 for doctors, 1:493 for nurses and 1:4580 for dentists. Increasing demand for services has led to an expansion in the number of private general practitioners and specialists practising in the country under Fiji Medical Council certification.

Emigration of health professionals, including doctors, nurses and paramedics, has increased over the last few years. The Ministry of Health is reviewing the health workforce plan to ensure that training of doctors and nurses is aligned with the requirements of the health system. A review of the various professional structures in health is being undertaken, and appropriate strategies will be put in place. A focus will also be placed on retaining existing staff, training nurse practitioners, employing part-time, highly skilled staff, and increasing the training opportunities for health professionals.

Implementation of the Government's policy of reducing the retirement age for civil servants from 60 years to 55 years has greatly affected the human resource capacity within the Ministry of Health and will have a negative impact on the efficient delivery of health care services to the people of Fiji for some time.

3.6 Partnerships

With the idea of health being a collective responsibility, the Ministry of Health engages with other partners in delivering the best possible health care services to the population. For noncommunicable diseases (NCD), health promotion, HIV/AIDS and suicide prevention there are national multisectoral committees that oversee and coordinate national implementation of the respective strategic plans developed by the same multi-stakeholders. These three committees are usually chaired by the Minister of Health, and members are from the permanent secretary or directorate level of government, non-state actors and civil society groups, including faith-based groups.

The Ministry also works in close partnership with the autonomous Fiji School of Medicine, the University of the South Pacific, Fiji Institute of Technology and other academic institutions for training of its staff members. At the regional level, WHO and the SPC are the main partners.

3.7 Challenges to health system strengthening

Fiji's health system compares relatively well with other Pacific island countries, but inadequate health financing and a shortage of health workers are hampering health care efforts. About 70%-80% of the population has access to health services, but only 40% have access to quality health services. Better government policy is needed to achieve health for all.

The country has a relatively well developed health system with an infrastructure of base hospitals in three geographical divisions, supported by area and subdivisional hospitals, health centres and nursing stations in the smaller towns and rural and remote areas. However, clinical services for surgery, medicine, paediatrics, obstetrics and gynaecology, orthopaedics, ENT and emergency medicine, as well as relevant support services, need to be strengthened.

Maintenance of appropriate levels of infrastructure and facility is vital for the delivery of health services. Over recent years, new facilities have been built and are in full operation in Nadi, Levuka, Vunidawa, and Taveuni. New infrastructure development is completed for Labasa Hospital, relocation of Navua Hospital, construction of a new hospital in Ba Nausori and the relocation of St Giles Hospital. As an ongoing activity, the Ministry of Health will continue to concentrate on maintaining and improving existing facilities. The safety of hospitals and health facilities in and during emergencies and disasters will be a challenge, especially in the face of changing weather patterns. During the course of the Health Strategic Plan 2011-2015, clinical services in the areas of cardiology, oncology, nephrology and hyperbaric medicine will be strengthened.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : *Fiji today 2006/2007*
Operator : Ministry of Information & communications
Web address : http://www.fiji.gov.fj

Title 2 : *Ministry of Health Annual report 2009*
Operator : Ministry of Health
Web address : http://www.health.gov.fj/files/reports/Annual%20Report%202009.pdf

Title 3 : *Key Statistics: March 2011*
Operator : Fiji Islands Bureau of Statistics

Title 4 : *Strategic Plan 2011-2015:* Ministry of Health
Operator : Ministry of Health

Title 5 : *Pacific Regional Information System (PRISM), SPC,*
Operator : Secretariat of the Pacific Community
Web address : http://www.spc.int/prism

5. ADDRESSES

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FIJI

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	18.33			2010	1
2	**Estimated population ('000s)**	854.00	433.00	421.00	2010 est	2
3	**Annual population growth rate (%)**	0.82	...	...	2005-10	2
4	**Percentage of population**					
	- 0–4 years	10.07	10.16	9.98	2010 est	2
	- 5–14 years	20.84	21.25	20.67	2010 est	2
	- 65 years and above	4.92	4.16	5.70	2010 est	2
5	**Urban population (%)**	51.90	...	...	2010 est	3
6	**Crude birth rate (per 1000 population)**	21.40	...	...	2009	4
7	**Crude death rate (per 1000 population)**	7.50	...	...	2009	4
8	**Rate of natural increase of population (% per annum)**	1.40	...	...	2009	4
9	**Life expectancy (years)**					
	- at birth	...	68.00	72.00	2007	5
	- Healthy Life Expectancy (HALE) at age 60	...	10.40	11.90	2002	6
10	**Total fertility rate (women aged 15–49 years)**	2.60			2003	7
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	94.40 [a]	...	...	2005	8
12	**Per capita GDP at current market prices (US$)**	2978.65 [b]			2009	9
13	**Rate of growth of per capita GDP (%)**	-2.60			2009	9
14	**Human development index**	0.67			2010	10
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**								
	Hepatitis viral								
	- Type A	7	...	...	...	...	...	2009	4
	- Type B	146	...	...	...	...	...	2008	4
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	51	...	...	...	...	...	2009	4
	Cholera	0	0	0	...	...	...	2009	4
	Dengue/DHF	430	...	...	...	...	...	2009	4
	Encephalitis	2	...	...	...	...	...	2009	4
	Gonorrhoea	1261	...	...		...	...	2009	4
	Leprosy	2	2	0	...	...	...	2009	4, 11
	Malaria	5	...	...	...	...	...	2009	4
	Plague	0	0	0	...	...	...	2009	4
	Syphilis	997	...	...	...	...	...	2009	4
	Typhoid fever	408	...	...	...	...	...	2009	4
17	**Acute respiratory infections**	36 084	...	...	...	...	...	2009	4
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	7428	...	...	...	...	...	2007	12
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	144	...	...	17 [f]	...	...	2009	11
	- New pulmonary tuberculosis (smear-positive)	83	...	...	...	...	...	2009	11
20	**Cancers**								
	All cancers (malignant neoplasms only)	453	345	108	...	...	...	2009	13
	- Breast	78	1	77	...	...	...	2009	13
	- Colon and rectum	28	17	11	...	...	...	2009	13
	- Cervix			105			...	2009	13
	- Leukaemia	9	2	7	...	...	...	2009	13
	- Lip, oral cavity and pharynx	18	11	7	...	...	...	2009	13
	- Liver	5	2	3	...	...	...	2009	13
	- Oesophagus	6	4	2	...	...	...	2009	13
	- Stomach	10	2	8	...	...	...	2009	13
	- Trachea, bronchus, and lung	1	3	9	...	...	...	2009	13
21	**Circulatory**								
	All circulatory system diseases	3524	1876	1648	...	...	...	2009	4
	- Acute myocardial infarction	294	240	54	542	403	139	2009	4
	- Cerebrovascular diseases	344	163	181	167	87	80	2009	4
	- Hypertension	1242	507	735	626	246	380	2009	4
	- Ischaemic heart disease	612	448	164	996	738	258	2009	4
	- Rheumatic fever and rheumatic heart diseases	158	64	94	22	12	10	2009	4
22	**Diabetes mellitus**	208	92	116	1190	603	587	2005	14
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	12	7	5	52	44	8	2009	4
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	376	273	103	45	38	7	2009	4
	- Suicide	46	9	37	92	64	28	2009	4
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Diabetes mellitus	4683	2435	2248	554.93 [c]	565.65 [c]	543.77 [c]	2009	4
	2. Injury	3534	2642	892	418.78 [c]	613.74 [c]	215.77 [c]	2009	4
	3. Intestinal infectious disease	2468	1542	926	292.46 [c]	358.21 [c]	223.99 [c]	2009	4
	4. Infection of skin and subcutaneous tissues	1940	1115	825	229.89 [c]	259.01 [c]	199.56 [c]	2009	4
	5. Hypertension	1242	507	735	147.18 [c]	117.78 [c]	177.79 [c]	2009	4
	6. Influenza and pneumonia	801	436	365	94.92 [c]	101.28 [c]	88.29 [c]	2009	4
	7. Other forms of heart disease	738	400	338	87.45 [c]	92.92 [c]	81.76 [c]	2009	4
	8. Other conditions originating in the perinatal period	537	260	277	63.63 [c]	60.40 [c]	67.00 [c]	2009	4
	9. Chronic lower respiratory disease	502	279	223	59.49 [c]	64.81 [c]	53.94 [c]	2009	4
	10. Ischaemic heart disease	492	357	135	58.30 [c]	82.93 [c]	32.66 [c]	2009	4

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the circulatory system	2595	1518	1077	307.51 [c]	352.63 [c]	260.52 [c]	2009	4
	2. Endocrine, nutritional and metabolic diseases	1153	547	606	131.89 [c]	127.07 [c]	146.59 [c]	2009	4
	3. Neoplasm	652	250	402	77.26 [c]	58.07 [c]	97.24 [c]	2009	4
	4. Certain infectious and parasitic diseases	397	213	184	47.04 [c]	49.48 [c]	44.51 [c]	2009	4
	5. Diseases of the respiratory system	357	210	147	42.30 [c]	48.78 [c]	35.56 [c]	2009	4
	6. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	312	151	161	36.97 [c]	35.08 [c]	38.94 [c]	2009	4
	7. Injury, poisoning and certain other consquences of external causes	310	220	90	36.73 [c]	51.11 [c]	21.77 [c]	2009	4
	8. Diseases of the digestive system	156	99	57	18.49 [c]	23.00 [c]	13.79 [c]	2009	4
	9. Diseases of the genitourinary system	152	91	61	18.01 [c]	21.14 [c]	14.76 [c]	2009	4
	10. Certain conditions originating in the perinatal period	150	89	61	17.77 [c]	20.67 [c]	14.76 [c]	2009	4
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					28.90		2009	4
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					28.70		2009	11
29	**Percentage of pregnant women with anaemia**					11.10		2009	4
30	**Neonatal mortality rate (per 1000 live births)**	9.90		…		…		2009	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	9.00		…		…		2005	14
32	**Immunization coverage for infants (%)**								
	- BCG	98.70		…		…		2010	11
	- DTP3	87.20		…		…		2010	11
	- Hepatitis B III	87.20		…		…		2010	11
	- MCV2	84.60		…		…		2010	11
	- POL3	86.20		…		…		2010	11
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			…			0	2009	17
	- Eclampsia			0			0	2009	17
	- Haemorrhage			0			1	2009	17
	- Obstructed labour			0			0	2009	17
	- Sepsis			…			0	2009	17
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	…	…	…	2010	11
	- Diphtheria	…	…	…	…	…	…		
	- Measles	0	0	0	…	…	…	2010	11
	- Mumps	0	0	0	…	…	…	2010	11
	- Neonatal tetanus	0	0	0	…	…	…	2010	11
	- Pertussis (whooping cough)	0	0	0	…	…	…	2010	11
	- Poliomyelitis	0	0	0	…	…	…	2010	11
	- Rubella	0	0	0	…	…	…	2010	11
	- Total Tetanus	0	0	0	…	…	…	2010	11
	Health facilities								
35	**Facilities with HIV testing and counseling services**						31	2008	11

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	3	1743 [d]	2009	4
		- Specialized hospitals	2	...	2009	4
		- District/first-level referral hospitals	17	...	2009	4
		- Primary health care centres	78	...	2009	4
	Private health facilities	- Hospitals	1	...	2009	4
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			110.71 [e]	2009p	15
	- total expenditure on health as % of GDP			3.60	2009p	15
	- per capita total expenditure on health (in US$)			130.40 [e]	2009p	15
	Government expenditure on health					
	- amount (in million US$)			81.63 [e]	2009p	15
	- general government expenditure on health as % of total expenditure on health			73.60	2009p	15
	- general government expenditure on health as % of total general government expenditure			9.30	2009p	15
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			4.38 [e]	2009p	15
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			26.40	2009p	15
	- out-of-pocket expenditure on health as % of total expenditure on health			16.13 [e]	2009p	15
	Exchange rate in US$ of local currency is: 1 US$ =			1.96	2009p	15
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	337	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.38 [e]	...	...	...	...	...	...	2008	16
	Dentists	- Number	192	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.22 [e]	...	...	...	...	...	...	2008	16
	Pharmacists	- Number	40	...	...	...	...	...	...	2006	18
		- Ratio per 1000 population	0.05 [e]	...	...	...	...	...	...	2006	18
	Nurses	- Number	1 784	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	2.03 [e]	...	...	...	...	...	...	2008	16
	Midwives	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Paramedical staff	- Number	444	...	...	...	...	...	...	2006	18
		- Ratio per 1000 population	0.52 [e]	...	...	...	...	...	...	2006	18
	Community health workers	- Number	115	...	...	...	...	...	...	2006	18
		- Ratio per 1000 population	0.13 [e]	...	...	...	...	...	...	2006	18
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	6.00	...	...	2009	4
43	Infant mortality rate (per 1000 live births)	15.20	...	...	2009	4
44	Under-five mortality rate (per 1000 live births)	23.20	...	...	2009	4
45	Proportion of 1 year-old children immunised against measles	73.00	...	...	2010	11
46	Maternal mortality ratio (per 100 000 live births)	27.50			2009	4
47	Proportion of births attended by skilled health personnel	99.80			2009	4
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	Contraceptive prevalence rate	28.90	...	...	2009	4
49	Adolescent birth rate	5.11			2009	4
50	Antenatal care coverage - At least one visit	100.00			2005	14
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	0.10	...	...	2007	10
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	26.00	...	...	2009	11
60	Tuberculosis death rate per 100 000 population	2.00	...	...	2009	11
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	91.00	...	...	2009	11
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	90.00	...	...	2008	11
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	...	43.00	51.00	2008	4
64	Proportion of population using an improved sanitation facility	...	87.00	55.00	2008	4
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Figure should be interpreted with caution as it refers to estimates for 2005 from UNESCO Institute for Statistics (2003), based on outdated census or survey information.
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific using 2009 exchange rate=FJD 1.89 per USD
c	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific using estimated population for 2009=843 888, males=430 478; and females=413 410
d	Figure includes beds in specialized and district hospitals
e	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
f	Estimated number of deaths

Sources:	
1	*Fiji facts and Figures as at 1st July 2010* . Fiji Islands Bureau of Statistics. [http://www.statsfiji.gov.fj/Releases/FFF2010.pdf]
2	World Population Prospects: The 2008 Revision. Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, [http://esa.un.org/unpp] Accessed on June 2010.
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	Ministry of Health Annual Report 2009. Ministry of Health, Fiji. Accessed on August 2011 at [http://www.health.gov.fj/files/reports/Annual%20Report%202009.pdf]
16	Ministry of Health Annual report 2008. Ministry of Health, Fiji. Accessed from [http://www.health.gov.fj/-annual-reports.html]
5	Information furnished by WHO Representative in the South Pacific, 16 May 2008.
6	The world health report 2004: changing history. Geneva, World Health Organization, 2004
7	*Fiji Facts and Figures as at July 2007* . Fiji Island Statistics Bureau. Accessed from [http://www.statsfiji.gov.fj/Fiji%20Facts%20%20Figures%20As%20At%20Jul%2007.pdf]
8	Human Development Report 2009: Overcoming barriers: Human mobility and development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2009/]
9	Fiji National Accounts Summary table. Fiji Islands Burea of Statistics. Accessed on 29 August 2011 from [http://www.statsfiji.gov.fj/Key%20Stats/National%20Income/2.1_GDP%20Summary.pdf]
10	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
11	WHO Regional Office for the Western Pacific, data received from the technical units
12	Ministry of Health Annual report 2007. Ministry of Health, Fiji. Accessed from [http://www.health.gov.fj/Annual%20Report/annualReport.html]
13	Cancer Registry, Ministry of Health.
14	Ministry of Health Annual report 2005. Ministry of Health, Fiji.
15	National health accounts: country information. Geneva, World Health Organization. Accessed in August 2011 from http://www.who.int/nha/country/en/index.html.
16	Ministry of Health Staff Establishment in 2008.
17	Maternal Death Report 2009, Ministry of Health Fiji.
18	Information furnished by the WR South Pacific Office dated June 2007.

FRENCH POLYNESIA

1. CONTEXT

1.1 Demographics

Located about 6000 kilometres east of Australia, French Polynesia is a group of five archipelagos covering an area of 4167 million square kilometres, with a land area of 3521 square kilometres. The country comprises 35 volcanic islands and about 183 low-lying coral atolls. Its closest neighbours are Kiribati to the north-west and Cook Islands to the west.

According to annual estimations, the population was 268 767 as of 1 July 2010. Around 88% are concentrated in the Society Islands, which constitute about one-half of the land area. The most populated (82% of the population) and biggest island is Tahiti. Administrative services are centralized in Tahiti within the city of Papeete.

The population is characterized by its youth: 34% are below 20 years of age and 6% above 65 years. Life expectancy at birth in 2010 was 72.8 for males and 77.8 for females. The majority of the population is Polynesian.

1.2 Political situation

Since the passing of the organic law of February 2004, reinforcing its autonomy, French Polynesia has become a French overseas country within the French Republic. Freely and democratically governed by its representatives and by local referendum, French Polynesia constitutes an overseas collectivity, where autonomy, guaranteed by the Republic, is ruled by article 74 of the French Constitution. French Polynesia can dispose representations towards any countries recognized by the French Republic (non-diplomatic representations). In addition, the status gives French Polynesian authorities competences in several fields, particularly civil rights, employment and fiscal rights.

The state core functions, such as justice, security and public order, defence and foreign policy are still under the authority of France, which is represented by a High Commissioner.

1.3 Socioeconomic situation

In 2006, the gross domestic product (GDP) was US$ 16 803 per capita.

French Polynesia has reached a high level of health and socioeconomic development, as shown by the principal indicators, with 13% of GDP being spent on health in 2008. This favourable situation may be attributed to significant socioeconomic development and to the gradual implementation of an efficient health care system.

1.4 Risks, vulnerabilities and hazards

The main challenges facing French Polynesia and its health system are linked to its geography; the spread of its atolls and islands over a vast ocean area; differences between urban and rural areas in terms of social, economic and cultural activities; and the high density of the population on Tahiti island. All these factors make achievement of a really equitable system difficult. The challenges are also linked to the rapid mutation towards a society based on consumption, but with economic and social inequalities, leading to important differences in living standards.The consequences are an increasing number of environmental issues (habitat, waste management, air, drinking-water, water quality, resources and pollution of the lagoons) for which policies are currently being developed. The main risk factors for health are therefore linked to environmental health factors, smoking, sedentary lifestyles and poor diets, as well as mental health in its broader context.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

French Polynesia is facing challenges related to the evolution of the population's health. There has been a general decrease in the incidence of communicable diseases during recent decades thanks to the development of the

health care system and the immunization policy. In parallel, however, there has been an alarming increase in cases of noncommunicable disease, such as obesity, diabetes, cardiovascular diseases and cancers, caused by changes in lifestyles and the emergence of unfavourable social behaviours, such as use of tobacco and alcohol, drug abuse, unbalanced diets and sedentary lifestyles. In years to come, these health problems will predominate, along with their consequences on morbidity and mortality.

Added to these risk factors is an increase in the precariousness of some population groups in urban areas, the increasing fragility of the traditional family solidarity and social structure, and insufficiently controlled environmental health problems.

2.2 Outbreaks of communicable diseases

French Polynesia often faces outbreaks of dengue fever. The severity of the outbreaks has been increasing for the last 30 years and the disease has become an important cause of hospitalization and childhood death. The last outbreak, in 2009, was due to serotype 4, which had not been circulating in the country since 1985. The outbreak lasted 32 weeks, from March to October, and affected all archipelagos, with a total of 2473 laboratory-confirmed cases (44% 10 to 19 years, 30% more than 30 years) and around 25 000 estimated clinical cases, 105 hospitalized cases, three cases of dengue haemorrhagic fever and no death.

The influenza A H1N1 pandemic affected the country during three months in 2009. The first confirmed case was imported from the United States on 2 June (fever detected by thermal imaging camera at the airport), and the first clusters of cases were detected among young persons coming back from study in New Zealand. The epidemic peak was reached in week 34, three weeks after the onset of community circulation of the virus and one week after the return to school. A rapid decrease in the number of cases was observed over the four following weeks, and the end of the epidemic wave was confirmed in week 39. Approximately 35 000 consultations for influenza-like illness (ILI) were reported, corresponding to an estimated 42 000-48 000 cumulative cases of ILI. Thirteen infected patients were hospitalized in intensive care units. A total of seven deaths were reported, with a mean age of 37 years (range: 1.5 months-73 years).

Leptospirosis and lymphatic filariasis are still endemic. A more intensive surveillance system targeting these diseases has been organized, and a stronger vector-control programme is ongoing.

There is also a specific programme and surveillance system for tuberculosis, which is at an intermediate incidence rate.

2.3 Leading causes of mortality and morbidity

While morbidity due to acute respiratory infections remains fairly high, especially in rural and poor urban districts, improvements in medical care have resulted in very low mortality rates for these conditions. At the same time, morbidity due to noncommunicable diseases has been increasing in recent decades; obesity prevalence is high among adults (42%) and children (10%) and is the major risk factor for chronic diseases.

Like many European countries, the leading causes of mortality are chronic diseases, especially cardiovascular disease and cancer, which are responsible for half of all deaths. The main causes of premature mortality (before 65 years) are attributable to cardiovascular disease, cancer (men: lung; women: breast) and injuries.

2.4 Maternal, child and infant diseases

Almost the entire population have ready access to quality health care, resulting in good immunization coverage levels of over 95%, a low infant mortality rate (5.0 per 1000 live births) and a very low maternal mortality ratio (1 maternal death out of 4434 births).

2.5 Burden of disease

Noncommunicable diseases (NCD) represent an important burden. In addition to the impact of NCD on premature mortality and the high morbidity of chronic diseases (cancer, cardiovascular disease, asthma, etc.), however, there is still considerable morbidity due to communicable diseases. There is a real need for specific and specialized long-term care and treatment programmes. The current disease trend has been taken into account in construction of the new hospital, which will provide modern oncology and cardiology services. However, this will bring about an automatic increase in hospital expenses, causing an overload for the country's health budget.

Chronic diseases also have an economic impact, with an increase in health expenditure, loss of productivity at work, the cost of social insurance coverage for incapacities and handicaps, and decreased family incomes for those concerned. The focus needs to be on prevention aimed at reduction and control of the multiple risk factors causing the rising NCD incidence, including obesity, lifestyles changes, sedentary lifestyles, tobacco use and unhealthy diets. There is currently an imbalance between the resources dedicated to prevention activities and those to curative interventions, and public awareness has still not been raised to a level where substantial changes can take place.

Excessive alcohol and drug consumption represent an important burden because they are linked to mental health problems, suicides, juvenile delinquency, violence within families, insecurity and road accidents.

The epidemic threats due to emerging infectious diseases, such as vectorborne diseases and influenza, are also a public health concern.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

According to the organic law, health is of the responsibility of the French Polynesian Government. The Health Directorate, the health authority under the Health Minister, is one of the most important administrative services in the country.

The mission and organization of the Health Directorate are defined by 1992 and 2004 regulations. The Directorate's mission is to implement, by any means at its disposal, public health objectives determined by public policies. It is in charge of health programme monitoring, coordination, implementation, control and evaluation, which contribute to public health objectives.

Through the documents defining health policy and health system organization, the main objectives of the Health Ministry are:

- to maintain and improve equity in access to care by strengthening local-level health care services;
- to reconcile the accessibility and quality of care services, ensuring sustainability and promoting quality control in all hospital and non-hospital health facilities;
- to develop care channels and networks;
- to combine curative interventions and prevention by reinforcing prevention activities, health education and promotion, and by making users more responsible; and
- to strengthen the role of the health authority in piloting the health system and adapting governance to address the reality in the field through an efficient system of information.

3.2 Organization of health services and delivery systems

Both the private and the public health systems deliver curative care.

The hospital system includes five public and four private hospitals, including one for ambulatory treatment and one for physiotherapy. The public hospitals include: the Main Hospital of French Polynesia (Centre Hospitalier de Polynésie Française), which is the referral hospital offering emergency services, neurosurgery, oncology and cardiovascular surgery, including intensive care services; and four hospitals managed by the Health Direction : one general hospital in the Leeward Islands (Uturoa, Raiatea); one hospital in the Marquesas islands with surgical, emergency and medical wards (Taioahe, Nuku Hiva); one hospital with a medical ward, an emergency ward and a long-stay ward in Taravao (Tahiti, Windward Islands); and one hospital with medical and emergency wards in Moorea (Windward Islands).

Primary health care is also delivered through the private and public systems. The private system is mainly concentrated on the Windward Islands and the Leeward Islands. However, the number of health professionals working in the private sector (medical practitioners, nurses, physiotherapists, dentists) whose services are refunded under the Social Health Insurance scheme, based on agreed fares, is limited. Primary health care is also delivered through the public sector; 115 public health facilities (dispensaries, medical centres, aid posts) are spread across all

archipelagos and are managed by the Health Directorate. On the majority of islands, the public sector is the only one present, especially in remote and isolated areas.

The whole public health system is under the authority of the Health Directorate, except the Main Hospital of French Polynesia, which is under the direct authority of the Ministry of Health.

3.3 Health policy, planning and regulatory framework

The latest health plan defining the health policies and priorities of the Ministry of Health was evaluated in 2005 by the Health Directorate and a number of recommendations were formulated. However, a new health plan has not yet been prepared.

In terms of planning and regulation of care services, the implementation period for the most recent health organization scheme has been extended for a further five years, from 2008.

3.4 Health care financing

In 2008, total expenditure on health amounted to US$ 884 million. The government contribution represented 55% of that expenditure, 29% of the country's total expenditure.

Thanks to a generalized health plan run by social security insurance, the whole population is covered.

The budget for the development of prevention activities comes essentially from the funds for prevention, supplied by sugar and alcohol taxation, created in 2001. This US$ 13-15 million budget is attributed to prevention activities implemented by the ministries of health, solidarity, family, youth, sports, transports and education.

3.5 Human resources for health

Human resources for health are distributed throughout three large sectors in the health care system:

- the public hospital (French Polynesia Hospital Centre), which employs close to 1060 workers in Papeete, including 143 doctors and 508 nurses;
- the Health Directorate, which represents 1200 workers disseminated throughout the country, including 116 doctors and 340 nurses; and
- the private sector (three private clinics, private medicine), with 230 doctors and 255 nurses.

In order to strengthen health services, one to two nurses have been assigned to each isolated island and given responsibility for local coordination of the various public health programmes. They are also the liaison persons for the programme managers and are responsible for implementation and evaluation. These nurse coordinators are regularly recalled to share their experiences and be informed on the status of the different public health programmes and their outcomes. Nurses work in about 20 isolated communities where there is no doctor.

3.6 Partnerships

French Polynesia had signed partnership conventions with various governmental health organizations in France, particularly:

- the *Direction Générale de la Santé* (French Health General Directorate), under the Health Ministry of France ,
- the *Institut de Veille Sanitaire* (INVS), in charge of surveillance and alert management,
- the *Agence Française de Sécurité Sanitaire des Produits de Santé* (AFSSAPS),
- the *Institut National de Prévention et d'Education pour la Santé* (INPES), in charge of health development and evaluation programmes),
- the *Centre d'Epidémiologie sur les causes médicales de décès* (CépiDC – INSERM), in charge of mortality data analysis.

The cancer registry of French Polynesia is linked to the IARC (*Association Internationale des Registres des Cancers*), FRANCIM (*France Cancer-Incidence et Mortalité*) and the INVS.

French Polynesia also has significant collaboration in health with WHO and with the Secretariat of the Pacific Community (SPC) in regional and international development of strategic plans in many areas.

3.7 Challenges to health system strengthening

French Polynesia is currently facing a number of challenges (see 3.1), the major one being related to gaining better control over the cost of curative services while improving the accessibility and quality of care, mainly primary health care, in the most remote and isolated areas. Defining the level of care appropriate to each geographical area is another challenge.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Direction de la Santé en Polynésie française
Title 2	:	Institut de la Statistique de Polynésie française
Web address	:	http://www.ispf.pf
Title 3	:	Centre hospitalier de la Polynésie française
Title 4	:	*Pacific Island Populations - Estimates and projections of demographic indicators for selected years*, Updated April 2010.
Operator	:	Secretariat of the Pacific Community – Statistics and Demography Programme

5. ADDRESSES

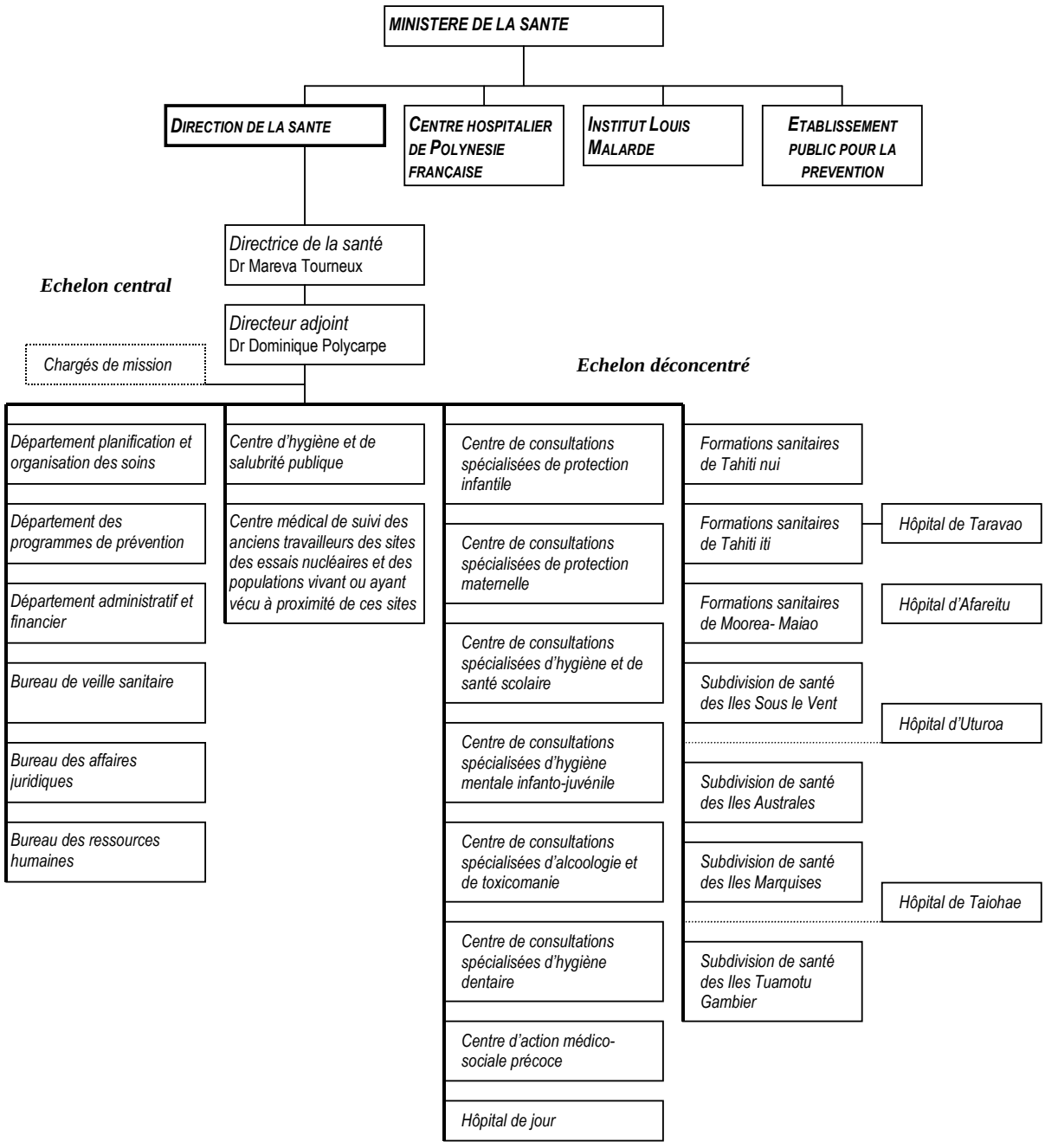
MINISTRY OF HEALTH

Office Address	:	Direction de la Santé Rue des Poilus Tahitiens, Papeete – Tahiti, Polynésie Française
Postal Address	:	B.P. 611, 98713 Papeete – Tahiti
Official Email Address	:	Directrice de la santé : mareva.tourneux@sante.gov.pf Secrétariat : secretariat@sante.gov.pf
Telephone	:	(689) 46 00 02
Fax	:	(689) 43 00 74
Office Hours	:	7:30 am – 15:30 pm

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT

Office Address	:	Level 4 Provident Plaza One Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	P.O. Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 166; 3234 177
Office hours	:	0800 – 1700
Website	:	http://www.wpro.who.int/southpacific

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

FRENCH POLYNESIA

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	3.52			2010	1
2	**Estimated population ('000s)**	268.77 [a]	137.47 [a]	131.30 [a]	2010 est	2
3	**Annual population growth rate (%)**	1.20	1.20	1.30	2002-07	3
4	**Percentage of population**					
	- 0–4 years	7.89 [b]	7.94 [b]	7.83 [b]	2010 est	2
	- 5–14 years	16.84 [b]	16.81 [b]	16.86 [b]	2010 est	2
	- 65 years and above	6.19 [b]	5.84 [b]	6.55 [b]	2010 est	2
5	**Urban population (%)**	51.40	...	...	2010 est	4
6	**Crude birth rate (per 1000 population)**	17.00	...	...	2010	5
7	**Crude death rate (per 1000 population)**	4.30	...	...	2010	5
8	**Rate of natural increase of population (% per annum)**	1.27	...	...	2010	5
9	**Life expectancy (years)**					
	- at birth	75.20	72.80	77.80	2010 est	6
	- Healthy Life Expectancy (HALE) at age 60	20.10	18.20	22.00	2008	7
10	**Total fertility rate (women aged 15–49 years)**	2.18			2008	8
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	94.70 [c]	93.70 [c]	95.60 [c]	2007	9
12	**Per capita GDP at current market prices (US$)**	16803.36			2006	10
13	**Rate of growth of per capita GDP (%)**	-1.20			2005-06	10
14	**Human development index**	0.87			2007	11
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	...	...	...	0	0	0	2007	12
	- Type B	...	...	...	0	0	0	2007	12
	- Type C	...	...	...	0	0	0	2007	12
	- Type E	...	...	...	0	0	0	2007	12
	- Unspecified	...	...	...	0	0	0	2007	12
	Cholera	0	0	0	0	0	0	2009	12,13
	Dengue/DHF	250	...	...	0	0	0	2010	14
	Encephalitis	...	...	...	0	0	0	2007	12
	Gonorrhoea	...	...	...	0	0	0	2007	12
	Leprosy	6	0	6	...	...	...	2010	14
	Malaria	1	0	0	0	0	0	2009	13, 14
	Plague	0	0	0	0	0	0	2007	6
	Syphilis	...	...	...	0	0	0	2007	6
	Typhoid fever	0	0	0	0	0	0	2009	13
17	**Acute respiratory infections**	...	...	...	37	17	20	2007	12
	- Among children under 5 years	...	...	...	4	2	2	2007	12

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	26 000 [d]	...	...	6	5	1	C:2009, D:2007	12,16
	- Among children under 5 years	11 680 [d]	...	...	1	1	0	C:2009, D:2007	12,16
19	**Tuberculosis**								
	- All forms	41	20	21	4	3	1	2010	16
	- New pulmonary tuberculosis (smear-positive)	15	8	7	2	2	0	2010	16
20	**Cancers**								
	All cancers (malignant neoplasms only)	415	216	199	307	174	133	C:2008 D:2007	C:17, D:12
	- Breast	86	0	86	35	0	35	C:2008 D:2007	C:17, D:12
	- Colon and rectum	22	10	12	10	5	5	C:2008 D:2007	C:17, D:12
	- Cervix			10			4	C:2008 D:2007	C:17, D:12
	- Leukaemia	2	1	1	10	4	6	C:2008 D:2007	C:17, D:12
	- Lip, oral cavity and pharynx	19	18	1	10	7	3	C:2008 D:2007	C:17, D:12
	- Liver	5	4	1	23	16	7	C:2008 D:2007	C:17, D:12
	- Oesophagus	3	3	0	11	10	1	C:2008 D:2007	C:17, D:12
	- Stomach	7	4	3	8	6	2	C:2008 D:2007	C:17, D:12
	- Trachea, bronchus, and lung	52	36	16	67	50	17	C:2008 D:2007	C:17, D:12
21	**Circulatory**								
	All circulatory system diseases	...	...	...	292	178	114	2007	12
	- Acute myocardial infarction	...	...	...	51	35	16	2007	12
	- Cerebrovascular diseases	...	...	...	96	51	45	2007	12
	- Hypertension	...	...	...	25	10	15	2007	12
	- Ischaemic heart disease	...	...	...	77	57	20	2007	12
	- Rheumatic fever and rheumatic heart diseases	...	...	...	6	2	4	2007	12
22	**Diabetes mellitus**	...	...	...	36	24	12	2007	12
23	**Mental disorders**	...	...	...	0	0	0	2007	12
24	**Injuries**								
	All types	...	...	...	132	98	34	2007	12
	- Drowning	...	...	...	13	11	2	2007	12
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	38	29	9	2007	12
	- Suicide	188	67	131	31	23	8	C:2008 D:2007	12,18
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Acute respiratory infections	12906 [e]	...	...	5069.13 [b]	...	...	2005	19
	2. Infections of the skin and subcutaneous tissues	12235 [e]	...	...	4805.58 [b]	...	...	2005	19
	3. Acute otitis media	5581 [e]	...	...	2192.06 [b]	...	...	2005	19
	4. Pharyngitis	4706 [e]	...	...	1848.39 [b]	...	...	2005	19
	5.	...	...	...	...	...	...		
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

FRENCH POLYNESIA

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Neoplasms	307	174	133	118.21	130.72	105.06	2007	12
	2. Diseases of the circulatory system	292	178	114	112.43	133.72	90.05	2007	12
	3. Injuries and external causes	132	98	34	50.83	73.62	26.86	2007	12
	4. Diseases of the respiratory system	101	58	43	38.89	43.57	33.97	2007	12
	5. Endocrine, nutritional and metabolic diseases	51	32	19	19.64	24.04	15.01	2007	12
	6. Infectious and parasitic diseases	42	23	19	16.17	17.28	15.01	2007	12
	7. Diseases of the digestive system	38	23	15	14.63	17.28	11.85	2007	12
	8. Diseases of the genitourinary system	31	18	13	11.94	13.52	10.27	2007	12
	9. Diseases of the nervous system	20	10	10	7.70	7.51	7.90	2007	12
	10. Affections of which l' origin is during the perinatal time	11	7	4	4.24	5.26	3.16	2007	12
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					62.00 [f]		2005	20
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					...			
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	3.00		...		...		2008	21
31	**Percentage of newborn infants weighing less than 2500 g at birth**	6.20		...		...		2004	22
32	**Immunization coverage for infants (%)**								
	- BCG	99.00		...		...		2010	14
	- DTP3	98.00		...		...		2010	14
	- Hepatitis B III	99.00		...		...		2010	14
	- MCV2	84.00		...		...		2010	14
	- POL3	98.00		...		...		2010	14
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			0	2007	12
	- Eclampsia			...			0	2007	12
	- Haemorrhage			...			0	2007	12
	- Obstructed labour			...			0	2007	12
	- Sepsis			...			0	2007	12
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	0	0	0	2010	13,14
	- Diphtheria	0	0	0	0	0	0	2010	13,14
	- Measles	0	0	0	0	0	0	2010	13,14
	- Mumps	0	0	0	0	0	0	2010	13,14
	- Neonatal tetanus	0	0	0	0	0	0	2010	13,14
	- Pertussis (whooping cough)	12	...	...	0	0	0	2010	13,14
	- Poliomyelitis	0	0	0	0	0	0	2010	13,14
	- Rubella	0	0	0	0	0	0	2010	13,14
	- Total Tetanus	0	0	0	0	0	0	2010	13,14
	Health facilities								
35	**Facilities with HIV testing and counseling services**						9 [g]	2009	13

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	396	2009	23
		- Specialized hospitals	…	…		
		- District/first-level referral hospitals	4	150	2009	23
		- Primary health care centres	115	0	2009	23
	Private health facilities	- Hospitals	4	247	2009	23
		- Outpatient clinics	2	0	2009	23
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			884.45	2008	24
	- total expenditure on health as % of GDP			13.09	2008	24
	- per capita total expenditure on health (in US$)			3361.57	2008	24
	Government expenditure on health					
	- amount (in million US$)			259.57	2008	32
	- general government expenditure on health as % of total expenditure on health			55.00	2008	24
	- general government expenditure on health as % of total general government expenditure			29.00	2008	32
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			1.17	2008	32
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			…		
	- out-of-pocket expenditure on health as % of total expenditure on health			6.00	2008	32
	Exchange rate in US$ of local currency is: 1 US$ =			…		
38	**Health insurance coverage as % of total population**			98.00	2008	25

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	565	408	157	429	136	276	289	2009	26
		- Ratio per 1000 population	2.13 [b]	1.54 [b]	0.59 [b]	3.14 [b]	1.06 [b]	1.04 [b]	1.09 [b]	2009	26
	Dentists	- Number	112	91	21	70	42	31	81	2009	26
		- Ratio per 1000 population	0.42 [b]	0.34 [b]	0.08 [b]	0.51 [b]	0.33 [b]	0.12 [b]	0.30 [b]	2009	26
	Pharmacists	- Number	146	77	69	101	45	18	128	2009	26
		- Ratio per 1000 population	0.55 [b]	0.29 [b]	0.26 [b]	0.74 [b]	0.35 [b]	0.07 [b]	0.48 [b]	2009	26
	Nurses	- Number	1 111	287	824	850	261	818	293	2009	26
		- Ratio per 1000 population	4.18 [b]	1.08 [b]	3.10 [b]	6.21 [b]	2.03 [b]	3.08 [b]	1.10 [b]	2009	26
	Midwives	- Number	129	11	118	103	26	82	47	2009	26
		- Ratio per 1000 population	0.49 [b]	0.04 [b]	0.44 [b]	0.75 [b]	0.20 [b]	0.31 [b]	0.18 [b]	2009	26
	Paramedical staff	- Number	436	180	256	338	98	191	245	2009	26
		- Ratio per 1000 population	1.64 [b]	0.68 [b]	0.96 [b]	2.47 [b]	0.76 [b]	0.72 [b]	0.92 [b]	2009	26
	Community health workers	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
40	**Annual number of graduates**	Physicians	0	0	0	0	0	0	0	2009	26
		Dentists	0	0	0	0	0	0	0	2009	26
		Pharmacists	0	0	0	0	0	0	0	2009	26

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	24	7	17	...	...	...	...	2009	27
		Midwives	2	0	2	...	...	...	...	2009	28
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	5.50	...	...	2010	5
44	Under-five mortality rate (per 1000 live births)	6.48	...	...	2008	12
45	Proportion of 1 year-old children immunised against measles	99.00	...	...	2010	14
46	Maternal mortality ratio (per 100 000 live births)	22.55 [h]			2007	12
47	Proportion of births attended by skilled health personnel	100.00			2004	22
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	1.00			2004	22
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.00			2004	22
48	Contraceptive prevalence rate	62.00 [f]	...	...	2005	21
49	Adolescent birth rate	50.08			2008	29
50	Antenatal care coverage - At least one visit	100.00 [h]			2004	22
	- At least four visits	95.00			2004 est	22
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	0.01	0.00	0.02	2010	30
53	Estimated HIV prevalence in adults	0.06	0.08	0.05	2010	30
54	Percentage of people with advanced HIV infection receiving ART	83.00	89.00	71.00	2010	30
55	Malaria incidence rate per 100 000 population	0.00	0.00	0.00	2010	13,14
56	Malaria death rate per 100 000 population	0.00	0.00	0.00	2010	13,14
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	NR	NR	NR	2009	13
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	NR	NR	NR	2009	13
59	Tuberculosis prevalence rate per 100 000 population	15.78	15.02	16.59	2010	16
60	Tuberculosis death rate per 100 000 population	1.54	2.25	0.79	2010	16
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	100.00	100.00	100.00	2010	16
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	100.00	100.00	100.00	2010	16
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	100.00	2008	31
64	Proportion of population using an improved sanitation facility	98.00	99.00	97.00	2008	31
65	Proportion of population with access to affordable essential drugs on a sustainable basis	99.97	100	99.95	2007	29

Notes:	
...	Data not available
est	Estimate
NR	Not relevant
a	Estimated population as of 1 July 2010
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Figure refers to French as official language
d	Estmation of cases extrapolated from syndromic surveillance sentinel network data
e	Figure provided by dispensaries and isolated aid posts only. It does not represent the whole public and private data
f	Figure refers to women aged 15-39 years old.
g	Figure refers to free and anonymous testing and counselling centres or CDAG.
h	Figure refers to 1 maternal death out of 4434 births
i	Totals may not tally due to some reported cases with no gender breakdown

Sources:	
1	Institut de la Statistique de la Polynésie française. Les chiffres essentiels de l'économie polynésienne - Edition 2007.
2	Population 2000-2015 by 1 and 5 year age groups, February 2010. Secretariat of the Pacific Community (SPC) - Statistics and Demography (SDP) Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_details&gid=158]
3	Institut de la Statistique de la Polynésie française. Recensement de la population de la Polynésie française. Points forts de la Polynésie française, n°2/2008.
4	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Tuesday, June 01, 2010; 10:28:05 PM
5	Institut de la Statistique de la Polynésie française. La Polynesie francaise en bref [http://www.ispf.pf/ISPF/Publications.aspx]
6	Institut de la Statistique de la Polynésie française. Points forts de la Polynesie francaise. [http:// www.ispf.pf]
7	Institut de la Statistique de la Polynésie française. Espérance de vie en Polynésie française de 1984 à 2008 et table de mortalité abrégé pour la génération 2008; Etat civil, mai 2009 (www.ispf.pf)
8	Institut de la Statistique de la Polynésie française. Etat civil - Taux général de fécondité et taux de fécondité par âge en Pf; février 2009.
9	Institut de la Statistique de la Polynésie française. www.ispf.pf : Accueil > Recensement 2007 > Thèmes > Langues.
10	Institut de la Statistique de la Polynésie française. Comptes économiques de la Polynésie française, 2006 (www.ispf.pf : Accueil > Grands indicateurs > Comptes économiques).
11	Agence française de développement
12	Direction de la Santé (Observatoire Polynésien de la Santé). Base de données des causes de décès en Polynésie française.
13	Direction de la Santé (Bureau de Veille Sanitaire). Réseau de surveillance des maladies infectieuses.
14	WHO Regional Office for the Western Pacific, data received from technical units
15	Institut Louis Malardé. Centre d'Investigation Epidémiologique
16	Direction de la Santé (Bureau de Veille Sanitaire). Registre de surveillance de la tuberculose en Polynésie française.
17	Direction de la Santé (Departement des Programmes de Prevention - Registre des cancers de Polynésie française)
18	Bilan de l'enquête START régionale de l'OMS sur les tentatives de suicide et suicides en Polynésie française- Année 2008.
19	Direction de la Sante (Departement des Programmes de Prevention)
20	Direction de la Santé. Comportements sexuels et prévention du Sida en Polynésie française. Rapport d'enquête, décembre 2007.
21	Institut de la Statistique de la Polynesie francaise. Etat-civil - Indicateurs demographiques annuels de la Pf - Annees 1994 a 2008; mail 2009 (www.ispf.pf).
22	Direction de la Santé. Certficats de santé du 8ème jour. Résultats de l'année 2004. BISES n°5/2006, décembre 2006.
23	Direction de la santé (Département Planification et Offre de Soins) - Bilan de la carte sanitaire, mai 2008
24	Etats généraux de la Polynésie français, documents proviroires de la Présidence de la Polynésie française.
25	Caisse de Prévoyance Sociale, ministère de la solidarité et de la famile.
26	Direction de la santé (Département Planification et Offre de Soins - Bureau des Professions de santé) - Registre des professions de santé (avril 2010).
27	Direction de la Santé (Institut de Formations en Soins Infirmiers de Polynésie française).
28	Ecole de Sages-Femmes de Papeete.
29	Direction de la Santé. Observatoire Polynésien de la Santé.
30	Direction de la Santé (Bureau de Veille Sanitaire). Registre de surveillance du VIH/Sida en Polynésie française.
31	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
32	Information furnished by the WHO Representative for South Pacific, 22 April 2010.

GUAM

1. CONTEXT

1.1 Demographics

The population of Guam was estimated at 180 692 in 2010, with 103 males for every 100 females. Population density is 335 per square kilometre. Total life expectancy for both sexes is 79.4 years; men are expected to live to 77 years of age and women to 82.1 years. The crude birth rate decreased slightly from 20.6 in 2004 to 19.7 in 2008. The crude death rate in 2008 was 4.4 per 1000 population, a slight increase from 4.2 in 2004.

1.2 Political situation

The political situation on Guam remains stable, with elections for the mayors of municipal civil districts (villages) and the unicameral legislature last held in 2004. Cooperation between the Executive Branch and the Legislative Branch is growing.

1.3 Socioeconomic situation

The economy of Guam is largely dependent on the tourism industry. In the late 1990s, the Asian and global economic downturn and other unforeseen events, such as super typhoons, greatly affected tourist arrivals, causing a financial crisis that lasted more than a decade. In 2005, however, tourism started to stabilize and Guam's economy started to recover. Economic growth was due to an increase in construction projects. From 2006 to 2009, construction of military infrastructure and private housing projects increased. The number of tourist visitors remained constant, however. Thus, hotel construction was limited to expansion, renovation and upgrading of existing facilities as there was still substantial vacant capacity. Despite this, rising hotel expenditures have contributed to the country's economic growth and recovery. In 2005, the reported per capita gross island product was US$ 22 661.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

No available information.

2.2 Outbreaks of communicable diseases

There were two food poisoning outbreaks in 2006. The first occurred in September 2006 among over 100 students and four adults at Chief Brodie Elementary School. Victims complained of abdominal cramps, diarrhoea and vomiting, but none required hospitalization. The definite cause of the outbreak was not determined. However, the rapid onset and recovery from symptoms experienced by those affected suggests that it may have been due to *Bacillus cereus* or *Staphylococcus aureaus* intoxication, problems that may be facilitated when transporting food.

The Department of Public Health and Social Services was notified of another food poisoning outbreak in October 2006 among 49 tourists staying in a local hotel. Investigation revealed that tourists complained of nausea, vomiting, diarrhoea and headache, but no hospitalization was required. The affected persons had eaten at a number of regulated establishments prior to their illnesses; no significant food establishment violations that might have contributed to the outbreak were identified.

2.3 Leading causes of mortality and morbidity

Based on inpatient data, the leading causes of morbidity in 2007 were diseases of pregnancy, childbirth and the puerperium; other forms of heart disease; diabetes mellitus; ischaemic heart disease; influenza and pneumonia;

certain infectious and parasitic diseases; malignant neoplasms; cerebrovascular diseases; asthma; and other chronic obstructive pulmonary diseases.

The leading causes of death in 2003 were: cardiovascular diseases (119.4 per 100 000 population), malignant neoplasms (68.4), cerebrovascular diseases (31.2), accidents (17.4) and bacterial diseases, such as septicaemia (16.2).

2.4 Maternal, child and infant diseases

In 2003, there was no maternal death. About 87% of total deliveries in 2004 occurred in health facilities. The infant mortality rate declined from 12.3 per 1000 live births in 2004 to 11.7 in 2005-2007. In 2006, the coverage rate for poliomyelitis and measles immunization was 85%, while it was 89% for DTP3 and 91% for hepatitis B3.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Guam is dedicated to the attainment of health for all by 2010. In 1992, the Guam Health Planning and Development Agency identified 13 health service priority areas to be strengthened:

- human resource development;
- health planning;
- wellness promotion;
- health information systems;
- communicable disease control;
- disposal of hazardous and toxic materials;
- availability and accessibility of health services;
- environmental protection;
- drug and alcohol abuse;
- chronic disease prevention and control;
- injury prevention;
- maternal and child health; and
- vector control.

Although some improvement has been seen in the area of health information systems, wellness promotion and communicable disease control, the remaining areas continue to be top priorities.

3.2 Organization of health services and delivery systems

No available information.

3.3 Health policy, planning and regulatory framework

See Section 3.1.

3.4 Health care financing

Total health expenditure amounted to US$ 159.8 million in 2000, with per capita total expenditure on health of US$ 1032.4. As of 30 September, government expenditure on public health for 2005 was US$ 64 million, about 9% of total government expenditure.

3.5 Human resources for health

Guam is experiencing health workforce shortages due to the early retirement of its most experienced professionals. Human resources for health are still lacking in critical areas and must be developed locally to the greatest extent possible. The following training needs are priorities: environmental studies, with an emphasis on

environmental law, policy, management, and planning and analysis; and short-term training on retail hazard analysis critical control point (HACCP), as well as on drugs, medical devices and controlled substances.

The Guam Environmental Protection Agency (GEPA) relies heavily on its professional staff to provide technical expertise at all areas of environmental resource protection, management and policy. At the same time, this technical expertise is needed for the young professionals within GEPA, as the fields of environmental protection and science are constantly changing. However, due to early retirement and voluntary separation, all personnel with over 10 years of professional and technical experience have left GEPA, leaving half (two out of four) of the remaining personnel with less than four years of professional GEPA experience. Combined with the local hiring freeze, it is anticipated that no new professionals will be hired within the next two to three years. The lack of well educated and technically trained personnel is severely undermining the professional credibility of GEPA. To further complicate matters, GEPA also serves as the primary regulatory agency for all environmental issues and policies on Guam, and takes the lead for most other islands in Micronesia.

The Division of Environmental Health of the Department of Public Health and Social Services is also greatly understaffed. Over half the Division's staff have fewer than five years experience, and staff generally lack specialized training. Training in retail HACCP is lacking. The United States Federal Drug Administration is urging all locales, states and territories to explore HACCP as a requirement in retail and food service establishments, and to develop a model food code that incorporates HACCP principles.

All health care products, from toothbrushes to prescription medications, are regulated and monitored by the Drug and Medical Device Programme. Due to Guam's geographical location and the ethnic diversity of its people, various drugs and medical devices of foreign origin are imported, distributed and marketed. These include many poorly labelled, misbranded and adulterated drugs, as well as hazardous medical devices. Training in the area of drug and medical devices is therefore necessary for staff of the Division of Environmental Health. Forged prescriptions, lack of accountability of controlled substances by businesses, and illegal dispensing of controlled substances are estimated to be significant problems. However, because of the lack of human resources, only urgent cases are pursued and investigated.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

Guam is faced with the challenge of maintaining a health care system that will adequately meet the needs of a predominantly young and growing population. At the same time, it is also facing the added challenge of addressing the problems of the rapidly increasing number of older people, estimated to have increased from 3.9% of the total population in 1990 to 7.5% in 2010.

A reduction in human and financial resources has severely impacted the health system. An early retirement programme, instituted at the end of 1999, led many experienced health workers to retire. While the vacated positions have continued to be funded, there is not a large enough resource pool to fill all of them. Tightening government budgets have left some less critical positions vacant, and these vacancies have reduced the overall amount of services available to the uninsured and underinsured population. The vacancies have also affected progress in strengthening other health service priority areas, such as disposal of hazardous and toxic materials, environmental protection, vector control, and drug and alcohol abuse services.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Guam statistical yearbook 2006 and 2008* *Guam cancer facts and figures 2003-2007*
Operator	:	Bureau of Statistics and Plans, Office of the Governor
Web address	:	http://bsp.guam.gov/

Title 2	:	Office of Vital Statistics, Guam Department of Health and Social Services
Web address	:	http://dphss.guam.gov/
Title 3	:	United States of America Bureau of the Census
Web address	:	http://www.census.gov/
Title 4	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int/prism/

5. ADDRESSES

DEPARTMENT OF PUBLIC HEALTH AND SOCIAL SERVICES

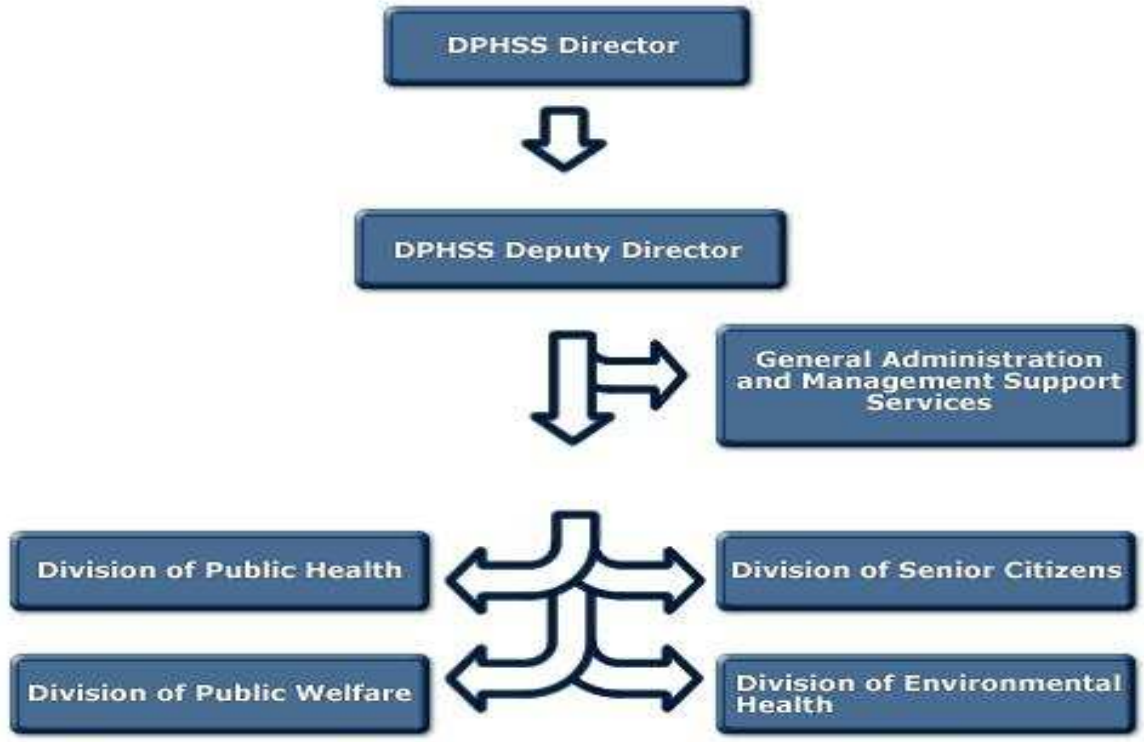
Postal Address	:	123 Chalan Kareta Mangilao, Guam 96913-6304
Website	:	http://dphss.guam.gov/

WHO REPRESENTATIVE

There is no WHO Representative in Guam. Queries about WHO's programme of collaboration with Guam should be directed to the Director (Programme Management):

Office Address	:	World Health Organization Regional Office for the Western Pacific, United Nations Avenue, Manila, Philippines 1000
Postal Address	:	P.O. Box 2932, Manila, Philippines 1000
Telephone	:	(632) 528-8001 (trunk line)
Office Hours	:	0700H-1530H
Website	:	http://www.wpro.who.int

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

GUAM — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.54						2008	1
2	**Estimated population ('000s)**	180.69 [a]		91.82 [a]		88.87 [a]		2010 est	1
3	**Annual population growth rate (%)**	…		…		…			
4	**Percentage of population**								
	- 0–4 years	8.87 [b]		8.98 [b]		8.77 [b]		2010 est	1
	- 5–14 years	18.48 [b]		18.88 [b]		18.07 [b]		2010 est	1
	- 65 years and above	7.39 [b]		6.80 [b]		8.00 [b]		2010 est	1
5	**Urban population (%)**	93.20		…		…		2010 est	2
6	**Crude birth rate (per 1000 population)**	19.71 [b]		…		…		2008	1
7	**Crude death rate (per 1000 population)**	4.41 [b]		…		…		2008	1
8	**Rate of natural increase of population (% per annum)**	1.53 [b]		…		…		2008	1
9	**Life expectancy (years)**								
	- at birth	79.35		76.95		82.08		2010 est	1
	- Healthy Life Expectancy (HALE) at age 60	…		…		…			
10	**Total fertility rate (women aged 15–49 years)**	2.54						2009	3
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	…		…		…			
12	**Per capita GDP at current market prices (US$)**	22 661.00						2005	4
13	**Rate of growth of per capita GDP (%)**	…							
14	**Human development index**	…							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	…		…		…			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	0	…	…	…	…	…	2007	1
	- Type B	3	…	…	…	…	…	2007	1
	- Type C	1	…	…	…	…	…	2007	1
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		
	Cholera	1	…	…	…	…	…	2007	1
	Dengue/DHF	3	0	0	0	0	0	2010	5
	Encephalitis	2	…	…	0	0	0	2003	5
	Gonorrhoea	142	…	…	…	…	…	2007	1
	Leprosy	10	8	2	…	…	…	2010	5
	Malaria	1 [c]	…	…	…	…	…	2007	1
	Plague	0	0	0	0	0	0	2003	5
	Syphilis	38	…	…	…	…	…	2007	1
	Typhoid fever	0	0	0	…	…	…	2007	1
17	**Acute respiratory infections**	…	…	…	…	…	…		
	- Among children under 5 years	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	102	...	...	7 [o]	...	...	2009	5
	- New pulmonary tuberculosis (smear-positive)	31	...	...	...	...	...	2009	5
20	**Cancers**								
	All cancers (malignant neoplasms only)	1580	886	694	720	439	281	2003-07	7
	- Breast	...	...	202	...	...	57	2003-07	7
	- Colon and rectum	165	98	67	82	50	32	2003-07	7
	- Cervix			31			15	2003-07	7
	- Leukaemia	42	27	15	21	11	10	2003-07	7
	- Lip, oral cavity and pharynx	63	47	16	29	23	6	2003-07	7
	- Liver	66	55	11	50	40	10	2003-07	7
	- Oesophagus	17	16	1	11	10	1	2003-07	7
	- Stomach	23	16	7	12	8	4	2003-07	7
	- Trachea, bronchus, and lung	272	181 [d]	91	206	141	65	2003-07	7
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	....	....	....	....	....	....		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	...	...	...	19	...	...	2001	8
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	...	...	...		
	- Suicide	...	...	...	30	25	5	2005	1
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Pregnancy, childbirth and the puerperium	3700 [e]	....	....	2133.10 [f]	....	....	FY 2007	1
	2. Other forms of heart disease	1117 [e]	....	....	643.96 [f]	....	....	FY 2007	1
	3. Diabetes mellitus	567 [e]	....	....	326.88 [f]	....	....	FY 2007	1
	4. Ischaemic heart disease	547 [e]	....	....	315.35 [f]	....	....	FY 2007	1
	5. Influenza and pneumonia	529 [e]	....	....	304.97 [f]	....	....	FY 2007	1
	6. Certain infectious and parasitic diseases	516 [e]	...	...	297.48 [f]	...	...	FY 2007	1
	7. Malignant neoplasm	435 [e]	...	...	250.78 [f]	...	...	FY 2007	1
	8. Cerebrovascular disease	318 [e]	...	...	183.33 [f]	...	...	FY 2007	1
	9. Asthma	262 [e]	...	...	151.04 [f]	...	...	FY 2007	1
	10. Other chronic obstructive pulmonary disease	207 [e]	...	...	119.33 [f]	...	...	FY 2007	1

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the heart	199	...	...	119.45	...	...	2003	9
	2. Malignant neoplasm	114	...	...	68.43	...	...	2003	9
	3. Cerebrovascular disease	52	...	...	31.21	...	...	2003	9
	4. All other accidents	29	...	...	17.41	...	...	2003	9
	5. Bacterial diseases (septicaemia)	27	...	...	16.21	...	...	2003	9
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					...			
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					NR		2006	5
29	**Percentage of pregnant women with anaemia**					1.20		2001	6
30	**Neonatal mortality rate (per 1000 live births)**	4.33		...		...		2008p	1
31	**Percentage of newborn infants weighing less than 2500 g at birth**	8.46 [g]		...		...		2004	11
32	**Immunization coverage for infants (%)**								
	- BCG	...		...		...		2006	5
	- DTP3	89.00		...		...		2006	5
	- Hepatitis B III	91.00		...		...		2006	5
	- MCV2	...		...		...		2006	5
	- POL3	85.00 [h]		...		...		2006	5
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	5
	- Diphtheria	0	0	0	...	...	...	2010	5
	- Measles	0	0	0	...	...	...	2010	5
	- Mumps	502	...	...	...	...	...	2010	5
	- Neonatal tetanus	0	0	0	...	...	...	2010	5
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	5
	- Poliomyelitis	0	0	0	...	...	...	2010	5
	- Rubella	0	0	0	...	...	...	2010	5
	- Total Tetanus	0	0	0	..	...	...	2010	5
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	2 [i]	172 [d]	2007-08	1
		- Specialized hospitals	…	…		
		- District/first-level referral hospitals	…	…		
		- Primary health care centres	77 [j]	0	2008	1
	Private health facilities	- Hospitals	…	…		
		- Outpatient clinics	…	…		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)		…			
	- total expenditure on health as % of GDP		…			
	- per capita total expenditure on health (in US$)		…			
	Government expenditure on health					
	- amount (in million US$)		64.07 [k]		2005	9
	- general government expenditure on health as % of total expenditure on health		…			
	- general government expenditure on health as % of total general government expenditure		8.71 [l]		2005	9
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health		…			
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health		…			
	- out-of-pocket expenditure on health as % of total expenditure on health		NA			
	Exchange rate in US$ of local currency is: 1 US$ =		…			
38	**Health insurance coverage as % of total population**		76.6 [m]		2005	1

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	141 [n]	…	…	…	…	…	…	2007	1
		- Ratio per 1000 population	0.84 [b]	…	…	…	…	…	…	2007	1
	Dentists	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
	Pharmacists	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
	Nurses	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
	Midwives	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
	Paramedical staff	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
	Community health workers	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
40	**Annual number of graduates**	Physicians	…	…	…	…	…	…	…		
		Dentists	…	…	…	…	…	…	…		
		Pharmacists	…	…	…	…	…	…	…		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	11.70	...	...	2005-07est	11
44	Under-five mortality rate (per 1000 live births)	10.00	...	...	2005 est	12
45	Proportion of 1 year-old children immunised against measles	85.00	...	...	2006	5
46	Maternal mortality ratio (per 100 000 live births)	0.00			2003	13
47	Proportion of births attended by skilled health personnel	...				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.60			2004	9
	- Percentage of deliveries in health facilities (as % of total deliveries)	87.22			2004	9
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	92.05			2001	6
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	85.00	...	...	2009	5
60	Tuberculosis death rate per 100 000 population	4.00	...	...	2009	5
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	5
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	90.00	...	...	2008	5
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	100.00	2008	14
64	Proportion of population using an improved sanitation facility	99.00	99.00	98.00	2008	14
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Mid-year projected population using 2000 Census percentages
b	Computed by the Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific.
c	Disease contracted "off-island"
d	Revised data
e	Figure refers to inpatients in Guam Memorial Hospital
f	Revised data was computed by the Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific.
g	Figure refers to birth weight less than 2501 grams
h	Given as inactivated polio vaccine (IPV)
i	Figure includes one civilian hospital and one naval hospital
j	Figure refers to clinics which includes specialized services but excludes eye and dental clinics
k	Figure refers to total expenditure on public health as of 30 Septermber 2005 (audited)
l	Figure refers to percentage total expenditure on public health as to total government expenditure
m	Figure refers to percentage with healthcare coverage which pertains to private health insureance, either individual or group health insurance obtained throught employer or as private individual plan.
n	Figure refers to physicians in Guam Memorial Hospital and includes licensed military physicians working on part-time basis
o	Estimated number of deaths

Sources:	
1	Guam Statistical Yearbook 2008. Bureau of Statistics and Plans, Office of the Governor, Guam, 2008. [http://www.bsp.guam.gov/content/view/94/144/]
2	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
3	US Census Bureau [www.census.gov].
4	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=236&Itemid=&lang=en]
5	WHO Regional Office for the Western Pacific, data received from the technical units.
6	Information furnished by the Department of Health and Social Services, Guam 16 June 2003.
7	Guam Cancer facts and figures 2003-2007. Department of Public Health and Social Services and University of Guam. June 2009.
8	Guam Statistics. Guam Department of Public Health and Social Services [http//dphss.guam.gov/diabetes/about/guam_stats.htm.
9	Guam Statistical Yearbook 2005. Bureau of Statistics and Plans, Office of the Governor, Guam, 2006.
10	Guam Bureau of Statistics and Plans [www.spc.int/prism].
11	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated April 2010. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed on June 2010 [http://www.spc.int/sdp/index.php?option=com_docman&task=cat_view&gid=28&dir=ASC&order=name&limit=5&limitstart=0]
12	Demographic Tables for the Western Pacific 2005-2010. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
13	Information furnished by the Department of Health and Social Services, Guam 21 June 2004.
14	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

HONG KONG (CHINA)

1. CONTEXT

1.1 Demographics

Hong Kong (China) had an estimated mid-year population of 7 067 800 in 2010, representing an increase of 0.9% over mid-2009. There were 881 males for every 1000 females. The population density was 6540 persons per square kilometre, and about 94.8% of the population were city dwellers. Both births and the inflow of one-way permit holders from mainland China were important constituents of the overall population increase. The population are 95% ethnic Chinese, the major non-Chinese ethnic groups being Filipinos and Indonesians.

In 2010, life expectancy at birth was 80.0* years for males and 85.9* years for females, while the registered crude birth rate was 12.5 per 1000 population and the registered crude death rate was 6.0* per 1000. The total fertility rate was 1.1* known live births per woman.

As a result of increasing life expectancy, Hong Kong's population has been ageing steadily. In 2010, 12.9% were aged 65 years and above (10.9% in 2000), while those aged 14 and below made up 12.1% of the population (16.9% in 2000).

There was one* registered maternal death in 2010. The number of registered infant deaths was 140* and the infant mortality rate was 1.6* per 1000 registered live births. The under-five mortality rate was 2.2* per 1000 registered live births.

Note: * Provisional figure.

1.2 Political situation

Hong Kong is a Special Administrative Region of the People's Republic of China. Under the Basic Law, Hong Kong (China) has a high degree of autonomy, except in defence and foreign affairs, and enjoys executive, legislative and independent judicial power, including that of final adjudication. The main administrative and executive functions of government are carried out by 12 policy bureaux in the Government Secretariat, and 61 departments and agencies, mostly staffed by civil servants. The 12 bureaux, each headed by a director, formulate policies and initiate legislative proposals, while departments implement laws and policies and provide direct services to the community. The Government introduced an accountability system for principal officials on 1 July 2002. Under that system, the politically appointed principal officials are held accountable for matters occurring within their respective portfolios.

1.3 Socioeconomic situation

The gross domestic product (GDP) grew at an average annual rate of 4.0%* in real terms during the 10 years to 2010. Per capita GDP increased by 2.3%* in money terms over the same period, reaching US$ 31,836* (HK$ 247,332*) in 2010.

The major source of government income is taxation. In the financial year 2009-2010, about 39% of government revenue was collected from direct taxes and 27% from indirect taxes. Other sources of revenue include fines; forfeitures and penalties; utilities; fees and charges; income from properties and investments; reimbursements and contributions; loan repayments; net proceeds from issuance of bonds and notes; land premiums; and capital revenue.

Based on the results of the General Household Survey, the size of the total labour force in 2010 was 3.7 million, of whom 53% were male. This represents 60% of the total land-based non-institutional population aged 15 and over. A total of 3 492 500 persons were employed, of whom 53% were male. The unemployment rate was 4.4%, lower than the 5.4% rate in 2009, while the underemployment rate was 2.0%.

In the past decade, the share of the services sector in total employment has risen from 79% to 88%. As for individual services, "public administration, social and personal services" accounted for 25% of the total in 2010.

This was followed by "financing, insurance, real estate, professional and business services" with a share of 18%; "retail, accommodation and food services", 16%; "import/export trade and wholesale", 16%; and "transportation, storage, postal and courier services and information and communication", 12%. In contrast, there has been a significant decline in the number of workers in the manufacturing sector, with its share decreasing from 10% in 2000 to 4% in 2010.

In 2010, nearly 100% of the population had sustainable access to an improved water source, while 99% had access to improved sanitation.

Note: * Provisional figure.

1.4 Risks, vulnerabilities and hazards

Hong Kong (China) is geologically stable. It is occasionally hit by tropical cyclones between June and October, which can bring strong winds and heavy rain. The resultant landslips and flooding sometimes cause considerably more damage than the winds.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Hong Kong takes pride in having achieved health indices that rank among the best in the world.

Like many other developed economies, Hong Kong has gone through an epidemiological transition in mortality from communicable to noncommunicable diseases (NCD). With gradual urbanization, adoption of more affluent lifestyles and medical advances over the past few decades, the proportion of registered deaths due to infectious and parasitic diseases dropped from 15.3% in 1961 to less than 2.9%* in 2010. In 2010, the four major chronic NCD—cancer, heart diseases, stroke and chronic lower respiratory diseases—accounted for about three-fifths (59.1%*) of all registered deaths. The age-standardized mortality rates for these four major NCD, for both males and females, have declined gradually over recent decades, although there has been an increase in the absolute number of registered deaths as a result of population ageing and population growth. The number of new cancer cases has shown an increasing trend, while the age-standardized incidence rate has shown a decreasing trend over recent decades.

Many NCD are closely related to behavioural risk factors, such as overweight and obesity, unhealthy diet, physical inactivity, smoking and consumption of alcohol. A periodic telephone survey in 2010, which interviewed around 2000 people aged 18-64, reported that about two-fifths (39.2%) of those in that age group were overweight/obese. A significantly higher proportion of males (48.3%) than females (31.4%) were classified as overweight/obese, and about four-fifths (80.3%) of the population failed to meet the WHO recommendation of having at least five servings of fruit and vegetables per day (86.1% for males and 75.4% for females). As regards physical activity, around one-fifth (21.5%) of the population were classified as having a low level of physical activity (19.9% for males and 22.9% for females). About one in 14 (7.2%) were binge drinkers (12.8% for males and 2.4% for females). Furthermore, according to the Thematic Household Survey conducted from November 2009 to February 2010, 12.0% of people aged 15 years and above were daily cigarette smokers (20.8% for males and 3.7% for females).

In terms of communicable diseases, the Prevention and Control of Disease Ordinance provides the legal framework for their management and defines a list of infectious diseases that are of public health importance and are required to be reported to the Director of Health. In 2010, there were 47 infectious diseases on the list. A total of 21 369* cases of notifiable disease were reported in 2010, 55.6%* fewer than in 2009. The decrease in 2010 was mainly due to the drop in the number of cases of pandemic influenza A (H1N1) 2009 and its removal from the list of notifiable diseases in October 2010. The top three most commonly reported diseases were chickenpox (11 614* cases), tuberculosis (5132* cases) and pandemic influenza A (H1N1) 2009(2722* cases), constituting 91.1%* of all notifications among the 47 listed conditions.

The 5132* tuberculosis notifications in 2010 equate to a notification rate of 72.6* per 100 000 population. For HIV/AIDS, by the end of 2010, a cumulative total of 4832 HIV infections and 1185 AIDS patients had been reported.

Note: * Provisional figure.

2.2 Outbreaks of communicable diseases

Schools, residential care homes and other community institutions are strongly encouraged to report any suspected communicable disease outbreak to the Department of Health for investigation and early intervention. In 2010, the most commonly reported outbreaks were influenza-like illness, hand-foot-mouth disease and acute gastroenteritis. Throughout the year, 260* confirmed influenza outbreaks occurred in institutions, affecting 2311* persons. There were 75* acute gastroenteritis outbreaks in institutions, confirmed to be caused by norovirus, affecting 783* persons, and 851* institutional outbreaks of hand-foot-mouth disease or herpangina, affecting 5025* persons.

Note: * Provisional figure.

2.3 Leading causes of mortality and morbidity

There were 41 047 registered deaths in 2009, with NCD-related causes predominating. Among the top 10 leading causes of death, six were NCD, including cancer, heart disease, stroke, injury and poisoning, chronic lower respiratory disease and diabetes. They contributed to a total of 27 038 registered deaths (cancer: 12 839; heart disease: 6414; stroke: 3443; injury and poisoning: 1938; chronic lower respiratory disease: 1912; and diabetes: 492) and accounted for 65.9% (cancer: 31.3%; heart disease: 15.6%; stroke: 8.4%; injury and poisoning: 4.7%; chronic lower respiratory disease: 4.7%; and diabetes: 1.2%) of all registered deaths.

In terms of morbidity, there were 1 724 203 episodes of hospital discharge and death in all hospitals in 2009. Similar to the mortality data, a substantial proportion of hospitalizations were due to NCD, including cancer, heart disease, stroke, injury and poisoning, chronic lower respiratory disease and diabetes. In total, they accounted for 22.6% (389 392 episodes) of hospitalizations, while infectious and parasitic diseases accounted for only 2.9% (50 845 episodes).

2.4 Maternal, child and infant diseases

Infant and under-five mortality rates continue to be consistently low, as does the maternal mortality ratio.

Maternal and child health services provided by the Department of Health are delivered through a network of 31 easily accessible maternal and child health centres (MCHCs) located throughout the territory. In 2010, 50% of newborn babies were delivered in public hospitals and 50% in private hospitals. About 90% of babies born to local mothers patronize the MCHCs.

Children are immunized against tuberculosis, hepatitis B, poliomyelitis, diphtheria, tetanus, pertussis, pneumococcal infection, measles, mumps and rubella. A cross-sectional survey conducted in 2009 for children aged two to five years revealed that the immunization coverage rates for all vaccines for local-born children were over 98%. Due to the high immunization coverage, diseases such as diphtheria and poliomyelitis have been virtually eradicated, and the incidence of preventable infectious disease among children is relatively low.

The Department of Health has all along monitored the trend in the local "ever-breastfed" rate through monthly reports from all public and private maternity units. The ever-breastfed rate on discharge from hospital increased from 10% in 1981 to 80% in 2010. Breastfeeding surveys conducted regularly in MCHCs show that the ever-breastfed rate increased from 50% for babies born in 1997 to 74% for those born in 2008. The exclusive breastfeeding rate for those over four to six months increased from 6% to 13% over the same period.

2.5 Burden of disease

Apart from mortality and hospitalization data, the prevalence rates for diseases or risk factors can also reflect the disease burden in the community. The Heart Health Survey 2004-2005, which involved over 1200 people aged 15-84, showed that 6.9% had diabetes and 33.3% had high blood cholesterol levels. Another survey, the Population Health Survey 2003-2004, which interviewed more than 7000 people aged 15 and above, showed that

more than one-quarter (27.2%) of the population had hypertension. Diabetes, high blood cholesterol and hypertension are important risk factors for many NCD, such as heart disease and stroke.

The Population Health Survey 2003-2004 also revealed the prevalence rates for coronary heart disease, chronic obstructive pulmonary disease, cancer and stroke as 1.6%, 1.4%, 1.3% and 1.1%, respectively. As regards injuries, 14.3% of the population reported that they had sustained injuries (either intentional or unintentional) that were serious enough to curtail their normal activities in the 12 months preceding the survey. A more recent survey, the Injury Survey 2008, with the sample covering all ages, revealed that 6.2% of the population reported sustaining at least one unintentional injury that was serious enough to limit normal activity in the 12 months before enumeration.

In terms of potential years of life lost (PYLL) at age 75, which provides a good estimate of the overall level of premature death in the population, cancer accounted for over two-fifths (42.5%) of total PYLL in 2009. Although injury and poisoning only ranked fifth as the leading cause of death in 2009, it accounted for around one-sixth (16.6%) of the total PYLL. This indicates that injuries and poisonings constitute an important health problem, especially among young people. For heart disease, stroke and chronic lower respiratory disease, the proportions of PYLL were 10.6%, 5.1% and 1.6%, respectively. In total, these five NCD accounted for 76.3% of all PYLL in 2009.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The mission of the Food and Health Bureau is to enhance the well-being of every member of the community and to build a healthy and caring society, seeking to ensure a good quality, equitable, efficient, cost-effective and accessible health care system, and to organize the infrastructure for coordinated health care delivery through the interface of public and private systems.

The Government's goal is to provide a health care system that is able to protect and promote health and to provide quality health care services to citizens at reasonable prices.

3.2 Organization of health services and delivery systems

Primary health care services, which include a range of health-promotion, preventive and curative services, are provided by the Department of Health, the Hospital Authority and the private sector.

Most health-promotion and preventive services are provided by the public sector. For curative services, private practitioners of Western medicine accounted for more than half (56.1%) of consultations in 2009/2010. Most private practitioners are in solo practices and usually work on a fee-for-service basis. The traditional Chinese medicine practitioner is the principal alternative primary care provider outside the mainstream Western medical system. Many patients use both systems in parallel, taking Western medicine to suppress symptoms and Chinese medicine to restore the body to its natural balance.

In contrast to curative primary care services, the public sector is the dominant provider of secondary and tertiary services. Hospital services are subsidized by the Government to a large extent.

The Department of Health provides a wide range of health-promotion and disease-prevention services, covering programmes on maternal and child health, student health, elderly health, dental health and port health. The Department also operates a number of specialized clinics, including 20 methadone clinics, 19 tuberculosis and chest clinics, seven social hygiene clinics, four dermatology clinics, two integrated treatment centres, four clinical genetics clinics, six child-assessment centres, two travel-health centres and other clinical services. The Centre for Health Protection was set up under the Department of Health to strengthen the prevention and control of communicable diseases and other public health hazards, while the Primary Care Office was established to support and coordinate the development of primary care.

The Hospital Authority provides medical treatment and rehabilitation services to patients through public hospitals, general outpatient and specialist clinics, and outreach services. The Authority was managing a total of 26 981 hospital beds in 38 public hospitals at the end of 2010, which represents around 3.8* public hospital beds

per 1000 population. The Hospital Authority also operates 74 general outpatient clinics throughout the territory, targeted primarily at serving low-income families, patients with chronic diseases and other vulnerable groups.

The private sector plays a complementary role in providing health care, and there were around 3840 private clinics providing primary and specialist medical care in 2010. The Thematic Household Survey, conducted from November 2009 to February 2010, showed that, of a total of 2 088 700 medical consultations (based on up to the last three consultations with doctors made by the persons concerned) during the 30 days before enumeration, 71% (or 1 476 500 consultations) were with local private medical practitioners (including practitioners of Western medicine and Chinese medicine). There were 13 private hospitals, operating a total of 3900 hospital beds, at the end of 2010. Their market share in terms of inpatient discharges and deaths on attendance was 21.0% in 2009. There were also 41 nursing homes, providing about 3800 beds, at the end of 2010.

With regard to pharmaceutical services, public hospitals and clinics provide the more essential medicines to patients at a nominal cost. Private hospitals and clinics supply a broader range of medicines, which are paid for by the patients themselves. All medicines available in Hong Kong must first be registered with the Pharmacy and Poisons Board, a statutory body whose membership comprises mainly doctors, academics and pharmacists. All manufacturers of medicines must meet the requirements of the good manufacturing practices (GMP) guidelines promulgated by the Pharmacy and Poisons Board, which are adopted from the GMP guidelines recommended by WHO. Medicines are classified into three broad categories in terms of control of sale: prescription-only medicines, pharmacy medicines and general-sale medicines. There are currently about 19 000 registered medicines in total, of which about 46% are prescription-only medicines, 12% are pharmacy medicines and 42% are general-sale medicines.

Note: * Provisional figure.

3.3 Health policy, planning and regulatory framework

The Government's health care policy is that no one in Hong Kong is deprived of medical care because of lack of means.

The Food and Health Bureau is the policy-making body responsible for health. It oversees the Department of Health and the Hospital Authority. The Department of Health is the Government's health adviser and the agency responsible for executing health care policies and statutory functions. The Hospital Authority is the statutory body responsible for the management of all public hospitals.

3.4 Health care financing

Total health care expenditure in 2006/2007 amounted to 5.0% of GDP, including the public share (49.9%) and the private share (50.1%). Public expenditure on health reached US$ 4.8 billion. As there are no social security funds, all public finances for health care services come from general government funds.

The health services provided by the public sector are heavily subsidized, with subsidy levels at about 97% of total cost for inpatient services and 84% for general outpatient services in 2009/2010. Health-promotion and disease-prevention activities, such as treatment of tuberculosis and childhood immunization, are provided free of charge.

The private health care sector was financed largely by household out-of-pocket payments (70%) and, to some extent, private insurance (11%) and employer-provided group medical benefits (15%) in 2006/2007.

3.5 Human resources for health

Health care manpower is monitored regularly through surveys to ensure that workforce planning is in line with the needs of the community.

The Hong Kong Government also makes projections on health care manpower demand from time to time. When making manpower projections, the views of major employers from both the public and private sectors are taken into account. Advice is given to the University Grants Committee in relation to publicly-funded places on health care programmes, which serves as a reference for institutions in formulating their academic plans.

On the regulatory front, various statutory boards and councils, such as the Medical Council, the Chinese Medicine Council, the Dental Council, and the Pharmacy and Poisons Board, have been established under relevant

ordinances to handle the registration, conduct and discipline of their respective health care professionals. Under existing legislation, 13 types of health care professional are required to be registered/enrolled with their respective boards or councils before being allowed to practise in Hong Kong. In addition, an independent statutory body, the Hong Kong Academy of Medicine, has the authority to approve, assess and accredit specialist training within the medical and dental professions.

The medical and health care professionals registered with respective statutory boards and councils are encouraged to enrol in continuing medical education and/or continuous professional development (CME/CPD) programmes to update their knowledge and promote the development of competencies relevant to their practice. It is a statutory requirement for registered Chinese medicine practitioners to fulfil the CME programmes of the Chinese Medicine Council in order for them to renew their practising certificates. In 2010, there were a total of 6241 registered Chinese medicine practitioners. Medical practitioners and dentists on the Specialist Register must fulfil the CME/CPD requirements of their respective councils in order to maintain their specialist status. By end of 2010, there were 5019 medical practitioners on the Specialist Register maintained by the Medical Council, while 203 dentists were on the Specialist Register maintained by the Dental Council.

3.6 Partnerships

Locally, the Government maintains good working relationships and collaborates with various partners, including professional and community associations, in health-promotion activities for the prevention and control of communicable and noncommunicable diseases. For instance, a comprehensive disease notification system is maintained with health care providers and institutions from the public and private sectors. The latest outbreak news and surveillance results are shared and dialogue is maintained among health care providers and professional associations. The Government also partners with the Hospital Authority and voluntary agencies in handling public health emergencies.

On the regional front, close alliances with regional authorities, including the Ministry of Health of the People's Republic of China, the Health Department of Guangdong Province and the Macao Health Bureau, facilitate regular exchanges of information on selected diseases. Bilateral and multilateral meetings, forums and emergency response exercises are held from time to time to strengthen cooperation and communication among regional authorities. Internationally, the Government liaises closely with WHO and engages in collaborative projects with overseas health-protection agencies and academic institutions.

3.7 Challenges to health system strengthening

Over the years, Hong Kong has built an enviable health care system that provides high quality services. However, that system is now facing major challenges due to the ageing population and the need to keep pace with rapid developments in medical technology. The ratio of working-age (between 15 and 64) to elderly populations (65 or above) was 5.8:1 in 2010, and it is estimated that it will be 4.1:1 in 2019, 2.6:1 in 2029 and 2.2:1 in 2039. On the other hand, overall public health expenditure is projected to increase to about US$ 10.0 billion in 2015 and about US$ 16.3 billion in 2025 (at constant 2005 prices).

In 2008, the Government of Hong Kong launched the first stage of a consultation exercise on health care reform and supplementary financing options, aimed at building a consensus to reform the health care system and make it sustainable and more responsive to the increasing needs of the community. The first stage of the consultation revealed general support for health care service reforms and a preference for voluntary private health insurance. In October 2010, the Government put forward a voluntary, government-regulated Health Protection Scheme for the second stage of the consultation. Following public consultation, the Government is working on a voluntary, Government-regulated health insurance scheme. The Government will consider deploying the HK$50 billion (US$6.5 billion) set aside to support health care reform to provide subsidies and incentives to encourage the public to join the proposed scheme.

The Government has formulated an overall strategy for developing primary care with the involvement of health care professionals and other stakeholders. It has also embarked on a territorywide campaign, in partnership with health care professionals, to raise public awareness regarding the benefits of primary care in disease prevention and management, facilitate the public in making fuller use of primary care services, and encourage the adoption of a preventive approach towards improving health. When making manpower projections, the Government will take

into consideration the potential health care workforce demands arising from the expansion of the private health care sector and the implementation of health care reform.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Statistics on demographic and socioeconomic situation*
Operator	:	Census and Statistics Department
Web address	:	http://www.censtatd.gov.hk/home/index.jsp
Title 2	:	*Statistics on mortality, morbidity, healthcare professionals and services, and communicable diseases*
Operator	:	Department of Health
Web address	:	http://www.dh.gov.hk/eindex.html
	:	
Title 3	:	*Behavioural Risk Factor Survey*
Operator	:	Department of Health
Specification	:	The survey collected information on health-related behaviours of the Hong Kong adult population. Results were obtained from samples of at least 2000 randomly selected land-based, non-institutionalized persons aged 18 to 64 years
Web address	:	http://www.chp.gov.hk/behavioural.asp?lang=en&pid=10&id=280
Title 4	:	*Population Health Survey*
Operator	:	Department of Health
Specification	:	The survey collected information on general health status, the prevalence and incidence of major health conditions, mental health status, health behaviour relating to major causes of mortality and morbidity, preventive health practices, health-promoting behaviours, health service utilization, social and financial support, and the quality of life of the population. Results were obtained from over 7000 land-based, non-institutionalized persons in Hong Kong aged 15 and over, representing 5.68 million persons, after applying population weights. The household response rate was 72%.
Web address	:	http://www.chp.gov.hk/en/epidemiology/134/362/363.html
Title 5	:	*Thematic Household Survey*
Specification	:	The series of surveys collected information on the pattern of smoking and doctor consultation of Hong Kong residents. Some 10 000 households within a scientifically selected sample were successfully enumerated, constituting a response rate of 75%
Web address	:	http://www.censtatd.gov.hk/products_and_services/products/publications/statistical_report/social_data/
Title 6	:	*Statistics on health expenditure*
Operator	:	Food and Health Bureau
Specification	:	It presents the estimates of domestic health expenditure in Hong Kong between the fiscal years 1989/90 and 2006/2007 based on the latest OECD guidelines, with a breakdown by financing source, provider and function over time.
Web address	:	http://www.fhb.gov.hk/statistics/en/dha.htm
Title 7	:	*Injury Survey 2008*
Operator	:	Department of Health
Specification	:	This survey collected pertinent information on the characteristics and the burden of unintentional injuries in Hong Kong of all ages including foreign and local domestic helpers (excluding persons living on board vessels, and inmates of institutions e.g. elderly homes).
Web address	:	http://www.chp.gov.hk/files/pdf/Injury_Survey_2008_Eng_20100913.pdf

5. ADDRESSES

DEPARTMENT OF HEALTH

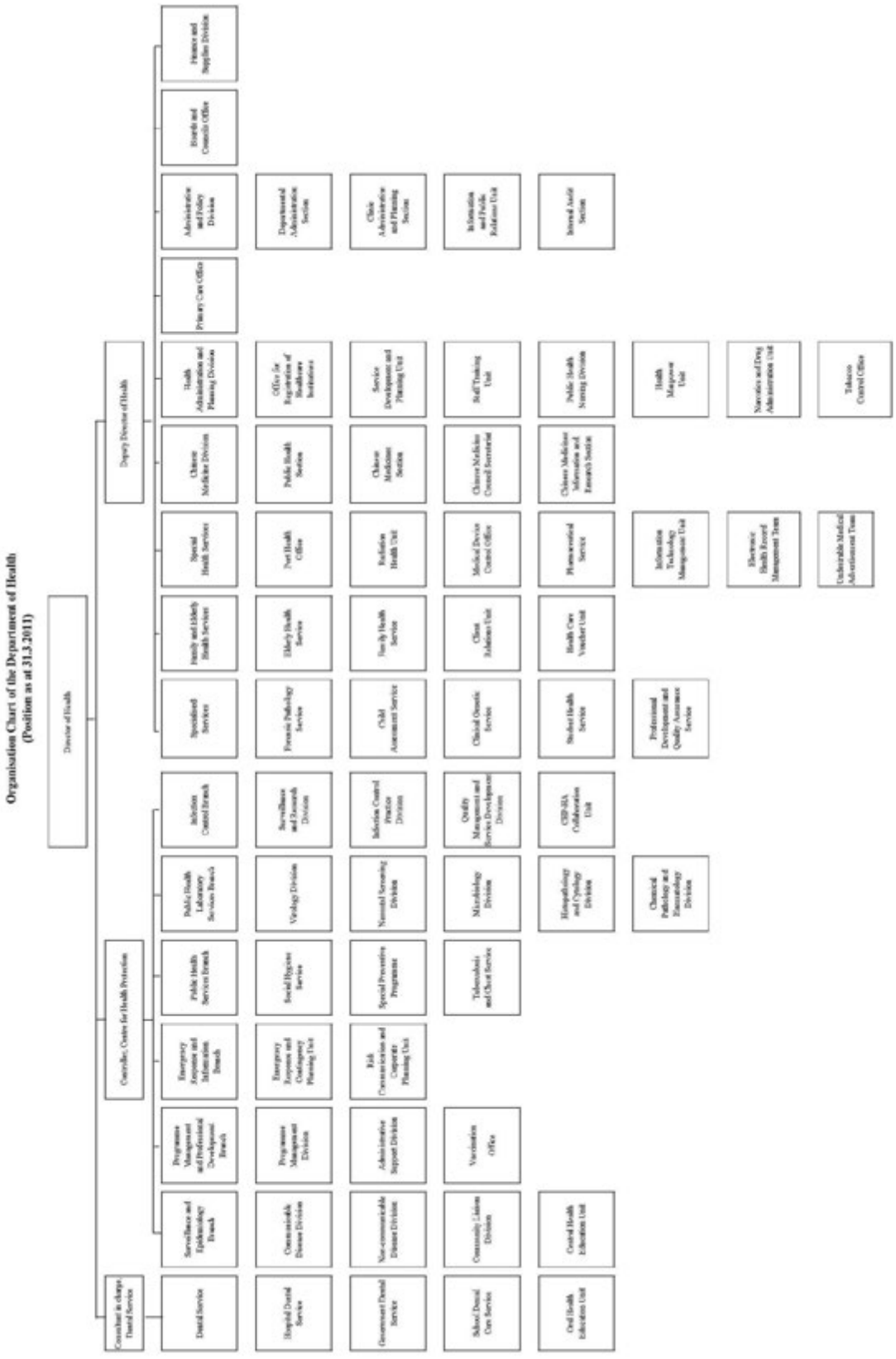
Office Address	:	21/F Wu Chung House, 213 Queen's Road East, Wan Chai, Hong Kong
Postal Address	:	21/F Wu Chung House, 213 Queen's Road East, Wan Chai, Hong Kong
Official Email Address	:	enquiries@dh.gov.hk
Telephone	:	(852) 29618989
Fax	:	(852) 28360071
Office Hours	:	Mon to Fri: 9am-5:45pm; Sat, Sun & Public Holidays off
Website	:	http://www.dh.gov.hk

WHO REPRESENTATIVE

There is no WHO Representative in Hong Kong (China). Queries about WHO's programme of collaboration with Hong Kong (China) should be directed to the Director, Programme Management, WHO Regional Office for the Western Pacific.

Office Address	:	Director, Programme Management World Health Organization Regional Office for the Western Pacific
Postal Address	:	United Nations Avenue, P.O. Box 2932, 1000 Manila, Philippines
Official Email Address	:	postmaster@wpro.who.int
Telephone	:	+632 528 8001
Fax	:	+632 521 1036
Office Hours	:	0700 – 1530 M-F
Website	:	http://www.wpro.who.int

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

HONG KONG (CHINA)

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	1.10			2010	1
2	**Estimated population ('000s)**	7067.80	3310.50	3757.30	2010	2
3	**Annual population growth rate (%)**	0.92	0.43	1.34	2010	2
4	**Percentage of population**					
	- 0–4 years	3.46	3.86	3.11	2010	2
	- 5–14 years	8.68	9.55	7.92	2010	2
	- 65 years and above	12.91	12.77	13.03	2010	2
5	**Urban population (%)**	94.77	…	…	2010	3
6	**Crude birth rate (per 1000 population)**	12.48 [a]	14.28 [a]	10.89 [a]	2010	2,4
7	**Crude death rate (per 1000 population)**	6.04 [a,b]	7.2 [a]	5.02 [a]	2010p	2,4
8	**Rate of natural increase of population (% per annum)**	0.66	0.73	0.61	2010p	2
9	**Life expectancy (years)**					
	- at birth	…	79.98	85.85	2010p	2
	- Healthy Life Expectancy (HALE) at age 60	…	22.75	27.60	2010p	2
10	**Total fertility rate (women aged 15–49 years)**	1.09			2010p	2
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	94.62 [c]	97.14 [c]	92.46 [c]	2010	2
12	**Per capita GDP at current market prices (US$)**	31 835.76			2010p	2,4
13	**Rate of growth of per capita GDP (%)**	6.78			2010p	2,4
14	**Human development index**	0.86			2010	5
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	2689.00	…	…	2010 est	6

	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	266 [d]	175 [d]	91 d	3 [a]	3 a	0 [a]	2010p	2,4
	- Type A	63 [d]	28 [d]	35 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	- Type B	74 [d]	61 [d]	13 [d]	1 [a]	1 [a]	0 [a]	2010p	2,4
	- Type C	11 [d]	8 [d]	3 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	- Type E	118 [d]	78 [d]	40 [d]	2 [a]	2 [a]	0 [a]	2010p	2,4
	- Unspecified	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Cholera	9 [d]	1 [d]	8 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Dengue/DHF	83 [d]	44 [d]	39 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Encephalitis	…	…	…	12 [a]	9 [a]	3 [a]	2010p	2,4
	Gonorrhoea	968 [e]	849 [e]	119 [e]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Leprosy	2 [d]	0 [d]	2 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Malaria	34 [d]	24 [d]	10 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Plague	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
	Syphilis	1032 [e]	528 [e]	504 [e]	3 [a]	2 [a]	1 [a]	2010p	2,4
	Typhoid fever	28 [d]	8 [d]	20 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4
17	**Acute respiratory infections**	…	…	…	7 [a]	5 [a]	2 [a]	2009	2,4
	- Among children under 5 years	…	…	…	1 [a]	0 [a]	1 [a]	2009	2,4

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	…	…	…	16 [a]	11 [a]	5 [a]	2009	2,4
	- Among children under 5 years	…	…	…	1 [a]	1 [a]	0 [a]	2009	2,4
19	**Tuberculosis**								
	- All forms	5132 [d]	3253 [d]	1879 [d]	191 [a]	143 [a]	48 [a]	2010p	2,4
	- New pulmonary tuberculosis (smear-positive)	1530 [d]	1026 [d]	504 [d]	…	…	…	2010p	4
20	**Cancers**								
	All cancers (malignant neoplasms only)	24 635	13 139	11 496	12 839 [a]	7682 [a]	5157 [a]	C: 2008 D: 2009	2,4,7
	- Breast	2633	17	2616	555 [a]	0 [a]	555 [a]	C: 2008 D: 2009	2,4,7
	- Colon and rectum	4031	2267	1764	1752 [a]	999 [a]	753 [a]	C: 2008 D: 2009	2,4,7
	- Cervix			358			128 [a]	C: 2008 D: 2009	2,4,7
	- Leukaemia	421	226	195	270 [a]	144 [a]	126 [a]	C: 2008 D: 2009	2,4,7
	- Lip, oral cavity and pharynx	1456	1018	438	557 [a]	415 [a]	142 [a]	C: 2008 D: 2009	2,4,7
	- Liver	1745	1319	426	1488 [a]	1072 [a]	416 [a]	C: 2008 D: 2009	2,4,7
	- Oesophagus	458	369	89	328 [a]	269 [a]	59 [a]	C: 2008 D: 2009	2,4,7
	- Stomach	1058	654	404	656 [a]	414 [a]	242 [a]	C: 2008 D: 2009	2,4,7
	- Trachea, bronchus, and lung	4236	2793	1443	3692 [a]	2465 [a]	1227 [a]	C: 2008 D: 2009	2,4,7
21	**Circulatory**								
	All circulatory system diseases	…	…	…	10596 [a]	5503 [a]	5093 [a]	2009	2,4
	- Acute myocardial infarction	…	…	…	1932 [a]	1125 [a]	807 [a]	2009	2,4
	- Cerebrovascular diseases	…	…	…	3443 [a]	1764 [a]	1679 [a]	2009	2,4
	- Hypertension	…	…	…	736 [a]	310 [a]	426 [a]	2009	2,4
	- Ischaemic heart disease	…	…	…	4360 [a]	2455 [a]	1905 [a]	2009	2,4
	- Rheumatic fever and rheumatic heart diseases	…	…	…	117 [a]	43 [a]	74 [a]	2009	2,4
22	**Diabetes mellitus**	…	…	…	492 [a]	214 [a]	278 [a]	2009	2,4
23	**Mental disorders**	…	…	…	647 [a]	261 [a]	386 [a]	2009	2,4
24	**Injuries**								
	All types	…	…	…	1938 [a,f]	1189 [a,f]	749 [a,f]	2009	2,4
	- Drowning	…	…	…	40 [a,f]	30 [a,f]	10 [a,f]	2009	2,4
	- Homicide and violence	…	…	…	39 [a,f]	14 [a,f]	25 [a,f]	2009	2,4
	- Occupational injuries	39 579	24 223	15 356	165 [a]	139 [a]	26 [a]	2009	8
	- Road traffic accidents	14 316 [g]	…	…	162 [a,f]	102 [a,f]	60 [a,f]	2009	2,4,9
	- Suicide	…	…	…	1024 [a,f]	626 [a,f]	398 [a,f]	2009	2,4
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Diseases of the genitourinary system (ICD10: N00-N99)	202 790 [h]	…	…	2906.26 [h]	…	…	2008	2,4,7
	2. Neoplasms (ICD10: C00-D48)	157 740 [h]	…	…	2260.63 [h]	…	…	2008	2,4,7
	3. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (ICD10: R00-R99)	152 847 [h]	…	…	2190.51 [h]	…	…	2008	2,4,7
	4. Diseases of the digestive system (ICD10: K00-K93)	144 827 [h]	…	…	2075.57 [h]	…	…	2008	2,4,7
	5. Diseases of the respiratory system (ICD10: J00-J99))	141 113 [h]	…	…	2022.34 [h]	…	…	2008	2,4,7
	6. Factors influencing health status and contact with health services (ICD10: Z00-Z99)	140 135 [h]	…	…	2008.33 [h]	…	…	2008	2,4,7
	7. Diseases of the circulatory system (ICD10: I00-I99)	134 639 [h]	…	…	1929.56 [h]	…	…	2008	2,4,7
	8. Pregnancy, childbirth and the puerperium (ICD10: O00-O99)	122 858 [h]	…	…	1760.72 [h]	…	…	2008	2,4,7
	9. Injury, poisoning and certain other consequences of external causes (ICD10: S00-T98)	77 602 [h]	…	…	1112.14 [h]	…	…	2008	2,4,7
	10. Diseases of the musculoskeletal system and connective tissue (ICD10: M00-M99)	53 997 [h]	…	…	773.85 [h]	…	…	2008	2,4,7

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malignant neoplasms (ICD10: C00-C97)	12 839 [a]	7682 [a]	5157 [a]	183.32 [a]	233.06 [a]	139.10 [a]	2009	2,4
	2. Diseases of heart (ICD10: I00-I09, I11, I13, I20-I51)	6414 [a]	3344 [a]	3070 [a]	91.58 [a]	101.45 [a]	82.81 [a]	2009	2,4
	3. Pneumonia (ICD10: J12-J18)	5312 [a]	2876 [a]	2436 [a]	75.85 [a]	87.25 [a]	65.70 [a]	2009	2,4
	4. Cerebrovascular diseases (ICD10: I60-I69)	3443 [a]	1764 [a]	1679 [a]	49.16 [a]	53.52 [a]	45.29 [a]	2009	2,4
	5. External causes of morbidity and mortality (ICD10: V01-Y89)	1938 [a,f]	1189 [a,f]	749 [a,f]	27.67 [a,f]	36.07 [a,f]	20.20 [a,f]	2009	2,4
	6. Chronic lower respiratory diseases (ICD10: J40-J47)	1912 [a]	1372 [a]	540 [a]	27.30 [a]	41.62 [a]	14.57 [a]	2009	2,4
	7. Nephritis, nephrotic syndrome and nephrosis (ICD10: N00-N07, N17-N19, N25-N27)	1448 [a]	717 [a]	731 [a]	20.67 [a]	21.75 [a]	19.72 [a]	2009	2,4
	8. Septicaemia (ICD10: A40-A41)	736 [a]	367 [a]	369 [a]	10.51 [a]	11.13 [a]	9.95 [a]	2009	2,4
	9. Dementia (ICD10: F01-F03)	638 [a]	257 [a]	381 [a]	9.11 [a]	7.80 [a]	10.28 [a]	2009	2,4
	10. Diabetes mellitus (ICD10: E10-E14)	492 [a]	214 [a]	278 [a]	7.02 [a]	6.49 [a]	7.50 [a]	2009	2,4
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						…		
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						…		
29	**Percentage of pregnant women with anaemia**						2.60 [i]	2010	4
30	**Neonatal mortality rate (per 1000 live births)**	1.07 [a,b]		1.23 [a]		0.86 [a]		2010p	2,4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	5.22 [b,j]		4.44 [j]		6.11 [j]		2009	2,4
32	**Immunization coverage for infants (%)**								
	- BCG	> 95.00 [k]		…		…		2009	4
	- DTP3	> 95.00 [k]		…		…		2009	4
	- Hepatitis B III	> 95.00 [k]		…		…		2009	4
	- MCV2	> 95.00 [k,l]		…		…		2009	4
	- POL3	> 95.00 [k]		…		…		2009	4
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			…			0 [a]	2009	2,4
	- Eclampsia			…			0 [a]	2009	2,4
	- Haemorrhage			…			2 [a]	2009	2,4
	- Obstructed labour			…			0 [a]	2009	2,4
	- Sepsis			…			0 [a]	2009	2,4
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Diphtheria	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Measles	13 [d]	8 [d]	5 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Mumps	168 [d]	107 [d]	61 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Neonatal tetanus	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Pertussis (whooping cough)	5 [d]	2 [d]	3 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Poliomyelitis	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Rubella	38 [d]	22 [d]	16 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	- Total Tetanus	0 [d]	0 [d]	0 [d]	0 [a]	0 [a]	0 [a]	2010p	2,4,13
	Health facilities								
35	**Facilities with HIV testing and counseling services**						…		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	38 [m,n]	26 981' [m,n]	2010	7
		- Specialized hospitals	…	…		
		- District/first-level referral hospitals	…	…		
		- Primary health care centres	291 [m,o]	792 [m,o]	2010	4,7
	Private health facilities	- Hospitals	13 [m,q]	3949 [m,q]	2010	4
		- Outpatient clinics	3840 [m]	…	2010	2
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)		9661.22 [r]		FY2006/07	2,4,10
	- total expenditure on health as % of GDP		5.00 [s]		FY2006/07	2,4,10
	- per capita total expenditure on health (in US$)		1408.94 [t]		FY2006/07	2,4,10
	Government expenditure on health					
	- amount (in million US$)		4816.86 [u]		FY2006/07	2,4,10
	- general government expenditure on health as % of total expenditure on health		49.86 [v]		FY2006/07	2,4,10
	- general government expenditure on health as % of total general government expenditure		15.28 [w]		FY2006/07	2,4,10
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health		…			
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health		50.14 [x]		FY2006/07	2,4,10
	- out-of-pocket expenditure on health as % of total expenditure on health		35.25 [y]		FY2006/07	2,4,10
	Exchange rate in US$ of local currency is: 1 US$ =		7.77		2006	2
38	**Health insurance coverage as % of total population**		42.70 [z]		2009-10	2

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	12 620 [aa]	8972 [aa]	3648 [aa]	12620 [aa]	…	…	…	2010	4
		- Ratio per 1000 population	1.78 [aa]	1.26 [aa]	0.51 [aa]	1.78 [aa]	…	…	…	2010p	2,4
	Dentists	- Number	2179 [aa]	1547 [aa]	632 [aa]	2179 [aa]	…	…	…	2010	4
		- Ratio per 1000 population	0.31 [aa]	0.22 [aa]	0.09 [aa]	0.31 [aa]	…	…	…	2010p	2,4
	Pharmacists	- Number	1954 [ab]	923 [ab]	1031 [ab]	1954 [ab]	…	…	…	2010	4
		- Ratio per 1000 population	0.28 [ab]	0.13 [ab]	0.15 [ab]	0.28 [ab]	…	…	…	2010p	2,4
	Nurses	- Number	40 011 [ac]	4709 [ac]	35 302 [ac]	40 011 [ac]	…	…	…	2010	4
		- Ratio per 1000 population	5.64 [ac]	0.66 [ac]	4.97 [ac]	5.64 [ac]	…	…	…	2010p	2,4
	Midwives	- Number	4595 [ab]	0	4595 [ab]	4595 [ad]	…	…	…	2010	4
		- Ratio per 1000 population	0.65 [ab]	0.00	0.65 [ab]	0.65 [ad]	…	…	…	2010p	2,4
	Paramedical staff	- Number	10 403 [ae]	5346 [ae]	5057 [ae]	10403 [ae]	…	…	…	2010	4
		- Ratio per 1000 population	1.47 [ae]	0.75 [ae]	0.71 [ae]	1.47 [ae]	…	…	…	2010p	2,4
	Community health workers	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
40	**Annual number of graduates**	Physicians	266 [af]	…	…	…	…	…	…	2010	11
		Dentists	52 [af]	…	…	…	…	…	…	2010	11
		Pharmacists	35 [af]	…	…	…	…	…	…	2010	11

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	638 [af]	...	...	...	...	...	...	2010	11
		Midwives	78 [ag]	...	...	...	...	...	...	2010	4
		Paramedical staff	260 [af]	...	...	...	...	...	...	2010	11
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	104	...	...	...	...	...	...	2010	4
		Dentists	16	...	...	...	...	...	...	2010	4
		Pharmacists	10	...	...	...	...	...	...	2010	4
		Nurses	503	31	472	...	...	...	...	2010	4
		Midwives	9	...	9	...	...	...	...	2010	4
		Paramedical staff	107	51	56	...	...	...	...	2010	4
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	1.62 [a,b]	1.8 [a]	1.39 [a]	2010p	2,4
44	Under-five mortality rate (per 1000 live births)	2.19 [a,b]	2.37 [a]	1.96 [a]	2010p	2,4
45	Proportion of 1 year-old children immunised against measles	>95.00 [k]	...	...	2009	4
46	Maternal mortality ratio (per 100 000 live births)	1.13 [a]			2010p	2,4,12
47	Proportion of births attended by skilled health personnel	About 100.00			2010	4
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	About 0.00 [ah]			2010	4
	- Percentage of deliveries in health facilities (as % of total deliveries)	About 100.00 [ai]			2010	4
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	3.54			2009	2,4
50	Antenatal care coverage - At least one visit	...				
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	<0.10	<0.10	<0.10	2010	4
54	Percentage of people with advanced HIV infection receiving ART	97.30 [aj]	97.10 [aj]	98.40 [aj]	2010	4
55	Malaria incidence rate per 100 000 population	0.48 [d,ak]	0.72 [d,ak]	0.27 [d,ak]	2010p	2,4
56	Malaria death rate per 100 000 population	0.00 [a]	0.00 [a]	0.00 [a]	2010p	2,4
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	72.61 [d]	98.26 [d]	50.01 [d]	2010p	2,4
60	Tuberculosis death rate per 100 000 population	2.65 [a]	4.35 [a]	1.14 [a]	2010p	2,4
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	13
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	78.52	...	...	2008	4
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	...	...	2010	14
64	Proportion of population using an improved sanitation facility	99.00	...	...	2010	6
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:

…	Data not available
est	Estimate
FY	Fiscal year
p	provisional
a	The figure is compiled based on registered deaths and/or registered births.
b	The figure includes unknown sex.
c	The figure refers to the percentage of population aged 15 and above with primary or above education attainment.
d	The figure refers to the cases reported to the Department of Health for the listed Statutory Notifiable Infectious Diseases.
e	The figure refers to the number of new cases seen in public Sexually Transmitted Diseases clinics and those in prisons.
f	According to the ICD 10th revision, when the morbid condition is classifiable under Chapter XIX as "injury, poisoning and certain other consequences of external causes", the codes under Chapter XX for "external causes of morbidity and mortality" should be used as the primary cause of death.
g	The accidents included are those personal injury accidents reported to the Police and do not include damage-only accidents.
h	The figure refers to the number of in-patient discharges including deaths on attendances basis by disease from public hospitals, private hospitals and correctional institutions.
i	The figure refers to the cases who had Hb<10g/dl and attending the maternal and child health centres for ante-natal checkups.
j	The figure excludes those with unknown birth weight.
k	Immunization coverage rates, an official estimate mainly based on the latest survey results of the immunization coverage survey, refer to the percentages of local live births in the year who have received the vaccinations.
l	Under the Hong Kong Childhood Immunisation Programme, the second dose of measles vaccine is given as measles, mumps and rubella vaccine at Primary 1.
m	The figure is as at end of the year.
n	The figure includes both general and specialized hospitals.
o	The figure covers the out-patient clinics, health education centres and travel health centres under the Department of Health, general out-patient clinics under the Hospital Authority and the out-patient clinics/hospitals in the correctional institutions.
q	The figure covers the institutions licensed under the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance (Cap.165).
r	The figure refers to the summation of public health expenditure and private health expenditure in the financial year 2006/07.
s	The figure is compiled based on the summation of public health expenditure and private health expenditure in the financial year 2006/07 as percentage of GDP in the financial year 2006/07.
t	The figure is compiled based on the summation of public health expenditure and private health expenditure in the financial year 2006/07 per mid-2006 population.
u	The figure refers to the public health expenditure.
v	The figure refers to public health expenditure as percentage of the summation of public health expenditure and private health expenditure in the financial year 2006/07.
w	The figure refers to public health expenditure as percentage of overall public expenditure.
x	The figure refers to private health expenditure as percentage of the summation of public health expenditure and private health expenditure in the financial year 2006/07.
y	The figure refers to private household out-of-pocket expenditure as percentage of the summation of public health expenditure and private health expenditure in the financial year 2006/07.
z	The figure refers to the percentage of the population who were entitled to medical benefits provided by employers/companies or covered by medical insurance purchased by individuals, or had both kinds of medical protection. Medical benefits provided by employers/companies referred to medical benefits provided to employees, irrespective of whether they were currently employed or retired, and their eligible dependants by their employers/companies in the private sector or by the Government in whatever form.
aa	Figure refers to the number of doctors/dentists, regardless of whether they are actually working in the profession or not, with full registration on the local and overseas lists and are assumed all to be in urban area.
ab	The number of healthcare professionals regardless of whether they are actually working in the profession or not, and are assumed all to be in urban area.
ac	Figure refers to the number of registered nurses and enrolled nurses, regardless of whether they are actually working in the profession or not, assumed all to be in urban area.
ad	Assume all health workforce in Hong Kong, regardless of whether they are actually working in the profession or not, and are in urban area.
ae	Paramedical staff include Medical Laboratory Technologists, Occupational Therapists, Physiotherapists, Optometrists, Radiographers and Chiropractors, regardless of whether they are actually working in the profession or not, and are assumed all to be in urban area.
af	The figure only covers graduates of full-time sub-degree and undergraduate programmes funded by the University Grants Committee at the end of the graduation year 2010. Graduates may not be engaged in work areas directly related to their discipline of study after graduation.
ag	The figure refers to the number of midwives newly registered in the Midwives Council of Hong Kong.
ah	Nearly all newborns were delivered in health facilities.
ai	The figure refers to the cases known to public and private hospitals.
aj	Revised figure only reflects those attending Department of Health's specialist clinic.
ak	All are imported cases

Sources:

1	Lands Department, Hong Kong Special Administrative Region Government (HKSARG)
2	Census and Statistics Department, HKSARG
3	Planning Department, HKSARG
4	Department of Health, HKSARG
5	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. UNDP. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
6	Environmental Protection Department, HKSARG
7	Hospital Authority, HKSARG
8	Labour Department, HKSARG
9	Transport Department, HKSARG
10	Food and Health Bureau, HKSARG
11	University Grants Committee, HKSARG
12	Immigration Department, HKSARG
13	WHO Regional Office for the Western Pacific, data received from technical units
14	Water Supplies Department, HKSARG

JAPAN

1. CONTEXT

1.1 Demographics

As of 1 October 2010, the total population of Japan was estimated to be 128 056 000, comprising 62 360 000 males and 65 697 000 females. With regard to distribution by age group, 13.2% of the population are aged 0-14 years, 63.7% 15-64 years and 23.1% 65 years and over.

The average life expectancy remains the highest in the world. In 2009, it was 86.4 years for women and 79.6 years for men. In 2009, the crude birth rate was 8.5 per 1000 persons and the crude death rate was 9.1 per 1000 persons.

1.2 Political situation

The Japanese Government, a constitutional monarchy, is based on a parliamentary cabinet system. Executive power is vested in the Cabinet, which consists of the Prime Minister and not more than 17 Ministers of State, who are collectively responsible to the Diet (legislature).

In June 2010, Mr Naoto Kan assumed the office of the 94th Prime Minister of Japan. He is a member of the Democratic Party, which currently holds the largest block of representation in the House of Representatives.

1.3 Socioeconomic situation

In 2009, Japan had the third largest economy in the world in terms of gross domestic product (GDP). GDP per capita in 2009 was US$ 39.530. This economic scale was achieved largely due to high economic growth from 1955 to the late 1960s.

The jobless rate was 5.1% in 2010, the same as in 2009. The active ratio of jobs to applicants in the same period increased 17.4%, to 0.56:1.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The health situation in Japan remains one of the best in the Region. The majority of health-related statistics, such as life expectancy and under-five mortality rate, continue to improve. The health disparities within the country are also relatively small compared with those in other industrialized nations.

Due to the increasingly complex social environment created by a high-tech, competitive society, it is said that the stress levels felt by all age groups are rising. There were 30 707 suicides in 2009; the number has remained stable at approximately 30 000 since 1998.

Tuberculosis, infectious and difficult-to-treat diseases, such as HIV infection and new types of influenza are still serious threats to public health in Japan.

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

With the ageing of the population, disease patterns have shifted to lifestyle-related diseases, such as cancer, heart disease, cerebrovascular disease and diabetes. These diseases account for 60% of mortality and this trend is expected to continue.

2.4 Maternal, child and infant diseases

The infant mortality rate was 2.4 per 1000 live births and the maternal mortality ratio was 5.0 per 100 000 live births in 2009.

Activities carried out by municipalities include distribution of the *Maternal and Child Health Handbook*, health care guidance, home visits and health check-ups for pregnant women. They also operate maternal and child health programmes, including parenting classes.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The basic principle governing the delivery of health care services is that all citizens should be able, at any time and place, to receive the care they require, with an affordable personal contribution.

The Ministry of Health, Labour and Welfare announced a health promotion programme, the National Health Promotion Movement in the 21st Century (Healthy Japan 21), in 2000. The movement, unlike traditional programmes, emphasizes 'primary prevention', aimed at early detection and treatment of diseases. Under the campaign, particular areas that are going to be important for the health and medical care of nationals are selected, and concrete numerical targets are set. These targets function as indicators for evaluation of the population's health status. The goal of the programme, which is to be completed in 2012, is to realize a society where all Japanese nationals live healthy and happy lives, free from disease.

- Improving healthy dietary habits: The Ministry of Health, Labour and Welfare has carried out the National Health and Nutrition Survey every year since 1945. The recommended dietary allowances (Dietary Reference Intakes) are revised every five years. In 2009, they underwent their eighth revision. Dietary guidelines for Japanese, the benchmark for dietary improvement, were established in 2000.
- Promoting physical activities and exercise: Healthy Japan 21 encourages people to take physical exercise. In 2006, the Ministry of Health, Labour and Welfare drew up *Exercise Criteria for Health Promotion 2006*, describing the amount of physical activity and exercise needed to prevent lifestyle diseases, with updated evidence.
- Promoting appropriate rest and sleep: The need for relaxation and the part it plays in maintaining and improving health is well recognized. Therefore, 'relaxation and health of the mind' is one of the targets in Healthy Japan 21. In 2003, the Ministry of Health, Labour and Welfare drew up guidelines for good sleep as a tool for achieving the sleep target in Healthy Japan 21.
- Smoking and health: The Ministry of Health, Labour and Welfare publicizes accurate information about smoking and its harm to human health, not only for smokers but also generally. The Ministry tries to prevent juveniles being tempted to smoke through health education, has presented basic direction on smoke-free policies in public places or offices in order to reduce second-hand smoking, and assists smokers who want to quit smoking through support programmes. Medical insurance covers treatment for nicotine-dependent patients.

3.2 Organization of health services and delivery systems

No available information.

3.3 Health policy, planning and regulatory framework

With increasing financial constraints, the Government is planning to introduce structural reforms in the heath system to increase efficiency while maintaining the equity and quality of services. These reforms are closely associated with the ongoing demographic transition—longer life expectancy and lower birth rate—that has resulted in a rapid increase in the percentage of elderly citizens.

Japanese society is ageing at an unprecedented rate compared with other developed countries. In 2005, Japan's ageing rate reached 22.7%, showing that the country is still ageing at a high speed. According to population

projections, the ageing trend will continue and the ageing rate will exceed 35% in 2040. This ageing population will need to pay attention to lifestyle-related diseases. Maintaining healthy lifestyles and the early detection of disease could help to reduce the incidence of the three major killer diseases: malignant neoplasms, cardiovascular diseases and cerebrovascular diseases. The new Health Promotion Law (2002) emphasizes the importance of establishing an environment conducive to healthier lifestyles as a key strategy for the ageing society.

3.4 Health care financing

National expenditure on health has been rising year after year. In 2009, total health expenditure reached US$ 423138.21 million, about 8.3% of GDP. The rapidly growing number of senior citizens has resulted in a sharp rise in medical costs for the elderly and is a major reason for the upward trend in medical care expenditure. Average per capita total expenditure on health amounted to US$ 3321.00 in 2009.

3.5 Human resources for health

As of 2008, there were 286 699 doctors and 1 295 670 nurses, public health nurses and assistant nurses in Japan. Due to population ageing, along with the growing sophistication and specialization of medical services, among other factors, it is presumed that the demand for health, medical and welfare service personnel will increase in the future.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

The health insurance system in Japan maintains universal coverage and there is free access to all health institutions. While this system has ensured equitable health care delivery across different socioeconomic groups and different areas of the country, it has given rise to an inefficient supply of services. Under the free-access system, patients have a tendency to skip general practitioners and go directly to hospitals for even relatively common illnesses. At the same time, the current fee-for-service payment scheme tends to invite overtreatment. For example, the average length of a hospital stay in Japan is about five weeks, more than double that in the majority of developed countries.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : *Summary of vital statistics*
Operator : Ministry of Health Labour and Welfare
Web address : http://www.mhlw.go.jp/english/index.html

Title 2 : *Japan in figures; Japan statistical yearbook*
Operator : Statistics Bureau, Ministry of Internal Affairs and Communications
Web address : http://www.stat.go.jp/english/index.htm

5. ADDRESSES

MINISTRY OF HEALTH, LABOUR AND WELFARE

Office Address : l-2-2, Kasumigaseki, Chiyoda-ku, Tokyo 100-8916, Japan
Website : http://www.mhlw.go.jp/english/index.html

WHO REPRESENTATIVE

There is no WHO Representative in Japan. Queries about the WHO programme of collaboration with Japan should be directed to Director, Programme Management, WHO Regional Office for the Western Pacific.

Office Address : Director, Programme Management, World Health Organization, Regional Office for the Western Pacific
Postal Address : United Nations Avenue, P.O. Box 2932, 1000, Manila, the Philippines
Official Email Address : postmaster@wpro.who.int
Telephone : (63 2) 5288001/ 303 1000
Fax : (63 2) 526 0279
Office Hours : 7:00-15:30
Website : http://www.wpro.who.int/

COUNTRY HEALTH INFORMATION PROFILE

JAPAN — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	377.94			2008	1
2	**Estimated population ('000s)**	128 056.00 [a]	62 360.00 [a]	65 697.00 [a]	2010	2
3	**Annual population growth rate (%)**	...	...	...		
4	**Percentage of population**					
	- 0–4 years	4.23 [a]	4.46 [a]	4.02 [a]	2010	2
	- 5–14 years	9.00 [a]	9.47 [a]	8.56 [a]	2010	2
	- 65 years and above	23.10 [a]	20.30 [a]	25.80 [a]	2010	2
5	**Urban population (%)**	66.80	...	...	2010 est	3
6	**Crude birth rate (per 1000 population)**	8.50	9.00	8.10	2009	4
7	**Crude death rate (per 1000 population)**	9.10	9.90	8.30	2009	4
8	**Rate of natural increase of population (% per annum)**	-0.60 [b]	-1.00 [b]	-0.20 [b]	2009	4
9	**Life expectancy (years)**					
	- at birth	...	79.59	86.44	2009	4
	- Healthy Life Expectancy (HALE) at age 60	...	17.50	21.70	2002 est	5
10	**Total fertility rate (women aged 15–49 years)**	1.37			2009	4
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	...	...	...		
12	**Per capita GDP at current market prices (US$)**	39 530.00			2009	2
13	**Rate of growth of per capita GDP (%)**	...				
14	**Human development index**	0.88			2010	6
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	...	...	...	5666	2762	2904	2009	4
	- Type A	115	66	49	8	6	2	2009	4
	- Type B	...	...	...	633	399	234	2009	4
	- Type C	...	...	...	4725	2190	2535	2009	4
	- Type E	56	42	14	...	...	...		4
	- Unspecified	...	...	...	243	141	102	2009	4
	Cholera	16	13	3	...	...	...	2009	4
	Dengue/DHF	93	59	34	...	...	...	2009	4
	Encephalitis	526	296	230	103	56	47	2009	4
	Gonorrhoea	9272	7345	1927	...	...	...	2009	4
	Leprosy	2	1	1	...	...	...	2009	4
	Malaria	56	33	23	1	1	...	2009	4
	Plague	0	0	0	...	...	...	2009	4
	Syphilis	692	520	172	16	14	2	2009	4
	Typhoid fever	29	19	10	...	...	...	2009	4
17	**Acute respiratory infections**	...	...	...	168	78	90	2009	4
	- Among children under 5 years	...	...	...	2	2	...	2009	4

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
		Total	**Male**	**Female**	**Total**	**Male**	**Female**		
18	**Diarrhoeal diseases**	…	…	…	2108	904	1204	2009	4
	- Among children under 5 years	…	…	…	35	24	11	2009	4
19	**Tuberculosis**								
	- All forms	24 170	15 003	9167	2159	1357	802	2009	4
	- New pulmonary tuberculosis (smear-positive)	9675	…	…	…	…	…	2009	4
20	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	344 105	206 352	137 753	2009	4
	- Breast	…	…	…	12 008	90	11 918	2009	4
	- Colon and rectum	…	…	…	42 434	22 762	19 672	2009	4
	- Cervix			…			2519	2009	4
	- Leukaemia	…	…	…	7896	4765	3131	2009	4
	- Lip, oral cavity and pharynx	…	…	…	6546	4687	1859	2009	4
	- Liver	…	…	…	32 725	21 637	11 088	2009	4
	- Oesophagus	…	…	…	11 713	9908	1805	2009	4
	- Stomach	…	…	…	50 017	32 776	17 241	2009	4
	- Trachea, bronchus, and lung	…	…	…	67 583	49 035	18 548	2009	4
21	**Circulatory**								
	All circulatory system diseases	…	…	…	329 731	157 862	171 869	2009	4
	- Acute myocardial infarction	…	…	…	43 209	23 913	19 296	2009	4
	- Cerebrovascular diseases	…	…	…	122 350	59 293	63 057	2009	4
	- Hypertension	…	…	…	6223	2266	3957	2009	4
	- Ischaemic heart disease	…	…	…	75 481	41 795	33 686	2009	4
	- Rheumatic fever and rheumatic heart diseases	…	…	…	2318	740	1578	2009	4
22	**Diabetes mellitus**	…	…	…	13 987	7399	6588	2009	4
23	**Mental disorders**	…	…	…	7085	2365	4720	2009	4
24	**Injuries**								
	All types	…	…	…	73 598	47 796	25 802	2009	4
	- Drowning	…	…	…	6435	3546	2889	2009	
	- Homicide and violence	…	…	…	479	249	230	2009	4
	- Occupational injuries	…	…	…	…	…	…		
	- Road traffic accidents	…	…	…	6519	4368	2151	2009	4
	- Suicide	…	…	…	30 707	22 189	8518	2009	4
	Leading causes of mortality and morbidity	**Number of cases**			**Rate per 100 000 population**				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. NA								
	2. NA								
	3. NA								
	4. NA								
	5. NA								
	6. NA								
	7. NA								
	8. NA								
	9. NA								
	10. NA								

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malignant neoplasms	344 105	206 352	137 753	273.50	336.40	213.60	2009	4
	2. Heart disease	180 745	85 543	95 202	143.70	139.50	147.60	2009	4
	3. Cerebrovascular diseases	122 350	59 293	63 057	97.20	96.70	97.80	2009	4
	4. Pneumonia and bronchitis	112 600	60 128	52 472	89.50	98.00	81.40	2009	4
	5. Accidents and adverse effects	37 756	22 588	15 168	30.00	36.80	23.50	2009	4
	6. Senility	38 670	9301	29 369	30.70	15.20	45.50	2009	4
	7. Suicide	30 707	22 189	8518	24.40	36.20	13.20	2009	4
	8. Renal failure	22 743	10 716	12 027	18.10	17.50	18.70	2009	4
	9. Diseases of the liver	15 969	10 463	5506	12.70	17.10	8.50	2009	4
	10. Chronic obstructive pulmonary disease	15 359	11 940	3419	12.20	19.50	5.30	2009	4
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					44.40 [d]		2005 est	7
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					42.90		2007	8
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	1.20		1.30		1.10		2009	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	9.60		8.50		10.80		2009	4
32	**Immunization coverage for infants (%)**								
	- BCG	99.00		...		...		2008	4
	- DTP3	100.00		...		...		2009	4
	- Hepatitis B III	...		...		...			
	- MCV2	92.30		...		...		2009	4
	- POL3	90.40		...		...		2009	4
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			2	2009	4
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	2	2	0	...	...	...	2009	4, 8
	- Diphtheria	0	0	0	...	...	...	2009	4, 8
	- Measles	739	370	369	...	...	...	2009	4
	- Mumps	104 568	55 967	48 601	...	...	...	2009	4, 8
	- Neonatal tetanus	...	...	...	...	...	...		
	- Pertussis (whooping cough)	5208	2163	3045	...	...	...	2009	4, 8
	- Poliomyelitis	0	0	0	...	...	...	2009	4, 8
	- Rubella	148	98	50	...	...	...	2009	4, 8
	- Total Tetanus	113	68	45	...	...	...	2009	4, 8
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	5878 [e]	462 646 [e]	2009	4
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	...	...		
	Private health facilities	- Hospitals	7168	1 144 160	2009	4
		- Outpatient clinics	95 328	136 487	2009	4
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			423 138.21	2009p	9
	- total expenditure on health as % of GDP			8.30	2009p	9
	- per capita total expenditure on health (in US$)			3321.47	2009p	9
	Government expenditure on health					
	- amount (in million US$)			338 441.73	2009p	9
	- general government expenditure on health as % of total expenditure on health			80.00	2009p	9
	- general government expenditure on health as % of total general government expenditure			17.90	2009p	9
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00	2009p	9
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			18.50	2009p	9
	- out-of-pocket expenditure on health as % of total expenditure on health			14.91	2009p	9
	Exchange rate in US$ of local currency is: 1 US$ =			93.57	2009p	9
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA						Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**	
	Physicians	- Number	286 699	234 702	51 997	...	...	...	...	2008	4
		- Ratio per 1000 population	2.25	1.84	0.41	...	...	...	...	2008	4
	Dentists	- Number	99 426	79 305	20 121	...	...	...	...	2008	4
		- Ratio per 1000 population	0.78	0.62	0.16	...	...	...	...	2008	4
	Pharmacists	- Number	267 751	104 578	163 173	...	...	...	...	2008	4
		- Ratio per 1000 population	2.1	0.82	1.28	...	...	...	...	2008	4
	Nurses	- Number	1 295 670 [f]	68 599 [f]	1 227 071 [f]	...	...	...	...	2008	4
		- Ratio per 1000 population	10.15	0.54	9.61	...	...	...	...	2008	4
	Midwives	- Number	27 789	...	27 789	...	...	...	...	2008	4
		- Ratio per 1000 population	0.22	...	0.22	...	...	...	...	2008	4
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

INDICATORS			DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

INDICATORS		DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	2.40	2.60	2.10	2009	4
44	Under-five mortality rate (per 1000 live births)	3.20	3.50	2.90	2009	4
45	Proportion of 1 year-old children immunised against measles	93.60	...	...	2009	4
46	Maternal mortality ratio (per 100 000 live births)	5.00			2009	4
47	Proportion of births attended by skilled health personnel	99.95 g			2009	4
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.18 g			2009	4
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.77 g			2009	4
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	5.00			2009	4
50	Antenatal care coverage - At least one visit	...				
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	0.00	...	...	2009	10
53	Estimated HIV prevalence in adults	0.01	...	...	2009	10
54	Percentage of people with advanced HIV infection receiving ART	95.90	...	...	2009	10
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	14.80	...	...	2009	4
60	Tuberculosis death rate per 100 000 population	1.70	...	...	2009	4
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	8
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	48.00	...	...	2008	8
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	100.00	2008	11
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2008	11
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NA	Not applicable
a	Revised estimates as of 1 October 2010.
b	Rate of natural increase of population=(Live Birth－Death)/Population×1,000
c	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
d	Figure refers to woman married or in union
e	Figure refers to public health facilities (hospitals and clinics)
f	Figure includes nurses, public nurses and assistant nurses
g	Figure refers to the percentage of live births (except fetal deaths).

Sources:	
1	Statistical Handbook of Japan 2008. Statistics Bureau, Ministry of Internal Affairs and Communications, Japan. [http://www.stat.go.jp/english/data/handbook/index.htm].
2	Ministry of Internal Affairs and Communications Statistics Bureau and the Director- General for Policy Planning(Statistical Standards). [http://www.stat.go.jp/data/jinsui/new.htm]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
4	Ministry of Health, Labour and Welfare, Japan. [http:www.mhlw.go.jp/english/index.html].
5	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
6	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
7	United Nations, Department of Economic and Social Affairs, Population Division. World Contraceptive Use 2011. [http://www.un.org/esa/population/publications/contraceptive2011/contraceptive2011.htm]
8	WHO Regional Office for the Western Pacific, data received from the technical units.
9	National health accounts: country information. Geneva, World Health Organization. Accessed in July 2011 from [http://www.who.int/nha/country/en/index.html].
10	Information furnished by the Ministry of Health, Labour and Welfare dated 14 June 2010.
11	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

KIRIBATI

1. CONTEXT

1.1 Demographics

The Republic of Kiribati, located in the Pacific, consists of 32 low-lying atolls and one volcanic island in three main groups, the Gilbert, Phoenix and Line Islands. The country spreads over 3.5. million kilometres of ocean, but has a total land area of only 811 square kilometres.

The 2010 census counted a population of 103 466. The average population density is 128 per square kilometre, but this varies widely between islands. Between 1995 and 2000, there was significant in-migration of people from the outer islands to South Tarawa, resulting in an urban growth rate of 5.2%, compared with a national growth rate of 1.7%. In-migration plateaued during the period from 2000 to 2005, when the overall growth rate in South Tarawa fell to 1.9%. However overcrowding in South Tarawa persists, as the 2010 census (not yet officially released) revealed that around 50% of the population is now living on the capital island, putting extreme stress on the environment and infrastructure. New 'urban' settlements have emerged since 2000, especially in Northern Tarawa and Kiritimati Island. Between 2000-2010, North Tarawa's growth rate was 4.8% and Kirimati Island's 8%, compared with 2.2.% and 1.2 %, respectively, during the period from 1995 to 2000.

The total fertility rate was 4.1 in 2010, representing a decline from the 1990s, when it was reported to be about 4.5. Kiribati has a young population, with 35.9% under 15 years of age and only 3.6 % over 65 years. The sex ratio was 98 males to 100 females in 2009.

There has been a steady improvement in health indicators over the last decade, but people in Kiribati still have a shorter life span than those in most other Pacific islands. In 2009, life expectancy at birth was estimated at 65 for males, 70 for females and 68 for both.

1.2 Political situation

Kiribati has a two-tier system of government at central and local levels. The central Government (*Maneaba ni Maungatabu*) consists of 42 democratically elected members, led by the President. The local level consists of 23 elected and appointed councils, three in urban areas and 20 in the outer islands. Kiribati has enjoyed political stability since the election of the *Boutokaan to Koaua* Party in 2003.

The guiding development document of the Government, the National Development Plan for 2008-2011, sets out the main policy areas, and strategies are operationalized through respective line ministries. A new plan for 2012-2015 is under development.

While, politically, administration and service delivery is decentralized, line ministries and councils appear to have few decision-making powers and little authority. A project to strengthen governance in the outer islands has been launched by the United Nations Development Programme (UNDP).

The Government places considerable importance on its international commitments to health and is a signatory to the Framework Convention on Tobacco Control and the International Health Regulations. At the national level, food safety legislation was approved by Parliament in 2006. Tobacco legislation has been drafted, but has not yet been put before Parliament.

1.3 Socioeconomic situation

Kiribati graduated recently from being categorized as a least-developed country (LDC) as its per capita gross national product (GNP) has increased over the limit of US$ 1000 defined by the World Bank. However, the issues of limited human resources and high vulnerability to external forces still remain. During the 1990s, the buoyant global economy, use of the Australian Dollar as domestic currency, access to external assistance and sound fiscal management of the Revenues Equalising Reserve Funds (RERF), derived from previous phosphate deposits, allowed achievement of relative macroeconomic stability.

The Kiribati economy remains relatively resilient due to government reserve funds, which had a market value of US$ 336 million in 2003, and domestic income from fishing licences (approximately 23%), grants and loans (approximately 30%), remittances and a narrow domestic production base of marine products and copra (approximately 10%-20%). In 2006, there was a decline in GNP per capita from US$ 1040 in 1999 to US$ 653, largely due to a decline in the number of fishing licences issued.

The 2005 Census found that 64% of people above the age of 15 were "economically active", but only 23% had regular paid employment; 53% of those employed were in public administration, while the remainder were employed mainly as subsistence farmers or fishermen. Subsidies to public entities are thought to reduce opportunities for private job creation. The lack of regular paid employment, particularly in urban settlements, is associated with an increase in youth violence and alcohol abuse.

Kiribati is a signatory to the Convention for the Elimination of All Forms of Discrimination Against Women and there is evidence that gender equality is improving. A new Gender Policy was endoresed by the Government in early 2011. Since 2007, women have comprised more than 50% of the workforce, and girls outnumber boys in secondary and tertiary education. Women, however, are still underrepresented at all levels of decision-making, and domestic violence, linked to alcohol abuse, is an increasing problem.

In 2006, 65% of the population had access to an improved water source. South Tarawa and Kiritimati Island have public water supply infrastructures, with over 3500 households in South Tarawa and 400 in Kirimati connected to a reticulated, treated water system. The remaining population rely on rainwater supplies and well-water. Protection of well-water and water sources from pollution, mainly from nearby sanitation systems, is a constant public health concern.

In 2006, 33% of the population had access to improved sanitation. According to the 2005 Census, approximately 2000 premises are connected to a waterborne sewage system in the main settlements of South Tarawa, but most of the population reported using the beach, sea or bush for toileting facilities. Two solid-waste landfill sights have been developed to dispose of solid waste, although one is facing problems of seawater seepage. A solid-waste collection service is now operating in South Tarawa. Despite these developments, sanitation in South Tarawa is inadequate and the environment unhealthy.

1.4 Risks, vulnerabilities and hazards

The low-lying atolls of Kiribati, rising no higher than three metres above sea-level, make the country very vulnerable to climate change and rises in sea-level. It is estimated (World Bank Regional Economic Report 2000) that, without appropriate adaptation measures, 25%-54% of the land in areas of South Tarawa and 55%-80% in North Tarawa will be inundated by 2050.

The natural environment in urban areas is under pressure due to groundwater depletion, marine-life and sea-water contamination from human and solid waste, over-fishing of the reefs and lagoons, ad hoc construction of seawalls, coastal erosion and illegal beach mining. The country is also facing considerable socioeconomic difficulities due to the ad hoc management of urban growth.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

A number of environmental factors are increasing the risk of communicable diseases in Kiribati. High-density housing and overcrowding in urban areas, such as South Tarawa, is facilitating the transmission of infectious diseases. For instance, tuberculosis incidence in Kiribati has now surpassed that of other Pacific island countries, and most reported cases are found in the urban settlement of Betio in South Tarawa. Other health indicators suggest that the health status of people living in South Tarawa is now worse than that of people living in the outer islands. In the 2005 Census, for example, the infant mortality rate in South Tarawa was higher than that in the outer islands.

Inadequate water supplies, unsafe drinking-water, variable standards of personal hygiene, poor food handling and storage, and poor sanitation are all contributing to the high number of cases of diarrhoeal, respiratory, eye and skin infections. Diarrhoeal diseases and respiratory infections are major causes of mortality among children.

There is a high prevalence of STI, with a surveillance study in 2004 showing that approximately 15% of pregnant women were infected. HIV was first confirmed in Kiribati in 1991, and the number of people infected continues to rise. At the end of 2010, Kiribati had a cumulative total of 54 HIV/AIDS cases, of whom 24 were known to have died (follow-up is a problem). Since 2006, eight people living with HIV/AIDS have been enrolled in a care and treatment programme. One has since died.

Kiribati achieved leprosy elimination status in 2000, but has since reverted to pre-elimination status. In 2010, a new campaign was launched for the elimination of the disease, with daily TV spots etc. raising awareness and reducing stigma, which led to a surge of patients coming forward, at least in Tarawa. The situation in the outer islands is less clear.

Data suggest that the prevalence of noncommunicable diseases is increasing. Around 70% of males between the ages of 30 and 54 are regular smokers, compared with less than 50% of the adult female population, while 32% of young males aged 15-19 smoke (2005 census). This puts Kiribati in the first rank worldwide. The gift of tobacco (*Mweaka*) remains closely tied to spiritual beliefs in the outer islands and, in urban areas, a gift of tobacco is still considered polite.

Economic development and modernization has increased reliance on imported, processed food, such as rice and noodles, and on motorized transport. Such changes, together with a strong tradition of feasting, have led to overnutrition (overweight and obesity among women >80%) and reduced activity in adults, increasing the risk of noncommunicable disease. Results from the 2004-2005 STEPs survey showed approximately 22% of the adult population had diabetes (second highest worldwide), and disease of the circulatory system is now the second leading cause of mortality.

Kiribati faces a double-edged health problem related to diet and nutrition: overnutrition in adults and undernutrition in children. Although nationally representative nutrition data are scarce, infant mortality and routine health facility data suggest undernutrition and vitamin and mineral deficiencies are major factors contributing to under-five mortality. The STEPs survey in 2004-2005 showed an anaemia prevalence rate of 17% for non-pregnant women and 22% for women aged 15-24. Vitamin A deficiency was also highly prevalent in an assessment in 1989. Morbidity due to diarrhoeal disease and pneumonia among children suggests vitamin A deficiency remains a public health problem.

In the late 1990s, the infection rate for chronic hepatitis B was 27.4% among students aged 10-13 years, increasing the burden of chronic liver disease and cancer. The introduction of hepatitis B vaccination in 2002 will reduce this burden of disease in the future.

2.2 Outbreaks of communicable diseases

Anecdotal reports of outbreaks of diarrhoea are common, but few official reports are available. No outbreak of a vaccine-preventable disease has been reported since 2004. After intensive training and with close supervision and support, weekly data on four syndromes are being collected and reported to the Pacifc Disease Surveillance Network, which will in turn lead to early outbreak detection and response activities.

2.3 Leading causes of mortality and morbidity

The causes of mortality and morbidity remained fairly consistent between 2002 and 2010. Acute respiratory infections and diarrhoeal diseases are the two major causes of morbidity and are among the five leading causes of mortality. There was an increase in reported cases of respiratory disease between 2002 and 2010.

There have been increases in mortality from diseases of the circulatory and respiratory systems and from cancer. Over 70% of reported cancers affect women (cervical and breast cancer).

Perinatal conditions are still a leading cause of mortality among infants.

2.4 Maternal, child and infant diseases

Maternal health is improving, and approximately 82% of all births are now attended by skilled health personnel. The maternal mortality ratio, based on hospital records, is 0 (2010 Census Report), a significant reduction from the previously reported ratio and consistent with (1) the reduction in the total fertility rate, and (2) the continued high percentage of women attended by trained staff.

Infant mortality has also improved. The infant mortality rate was estimated at 52 per 1000 live births in the 2005 census, significantly lower than the 67 reported in 1995, but still high compared with many other Pacific island countries. Perinatal conditions, diarrhoeal diseases and pneumonia are the main causes of infant mortality and morbidity. Malnutrition, iron and vitamin A deficiency, and worm infestation among children are contributing factors.

2.5 Burden of disease

Kiribati faces a double burden of disease, with high mortality and morbidity from both communicable and noncommunicable diseases.

Data on the burden of disease caused by injury, disability and mental health are scarce. A recent national survey on disabilities found 3840 people with 4358 disabilities. Physical disabilities accounted for 32% of all disabilities; blindness and vision impairment 27%; deafness and hearing impairment 23%; and intellectual disability, epilepsy or psychiatric illness approximately 17%. Twenty three per cent of disabilities are in the under-20 age group. The number of these disabilities that are due to birth injuries and childhood infections is unknown.

Data on consumption of alcohol and its impact on the burden of disease are also very limited, but alcohol consumption among young people is seen as a "common social problem faced by society". Excessive alcohol consumption is commonly linked to road traffic accidents and domestic violence.

An expanded immunization programme, introduced in the early 1980s, as well as supplementary measles campaigns in 1997 and 1998, have resulted in few reported outbreaks of vaccine-preventable diseases. Kiribati was declared poliomyelitis-free in 2002.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The strategic objectives set out in the National Development Plan for the period 2008-2011 guide the formulation of the annual operational plans of the Ministry of Health and Medical Services.

The objectives are to: (1) improve health status in priority areas; (2) improve access to and utilization of curative health services that are efficient, effective, responsive to patients needs and delivered to a high standard nationwide; (3) improve the quality, sustainability and coverage of public health services through increased responsiveness, efficiency and effectiveness nationwide; (4) improve, manage and maintain appropriate legislation, plans, policies, protocols, systems and structures within the Ministry of Health and Medical Services; (5) improve the quality of health information and data in terms of accuracy, timeliness and dissemination, for better planning, decision-making, allocation of resources and monitoring and evaluation of performance; and (6) develop a well performing, highly skilled and supported workforce to enhance the delivery of quality health services.

3.2 Organization of health services and delivery systems

Kiribati has a well established, publicly funded, formal health system administered by the central Ministry of Health and Medical Services. A parallel traditional health system exists, provided by traditional healers and offering local medicines, massage and antenatal, childbirth and postnatal care. Most people use both traditional and formal health services, but there is no coordination between the two systems.

A national referral hospital, situated in South Tawara, provides a comprehensive range of secondary curative services, while Kiritimati Island has a hospital providing basic surgical, medical and maternity services. A new hospital has been constructed in North Tabiteuea to serve the Southern District of the Gilbert Islands. In addition, there is a small hospital providing basic medical services in Betio, South Tarawa. These hospitals and

one health centre in South Tarawa are the only facilities with medical doctors present. People requiring tertiary curative services are referred overseas for treatment if they fulfil the clinical criteria set out by the Ministry of Health and Medical Services.

Comprehensive primary health care services are offered through a network of 92 health centres and dispensaries. Health centres are headed by a medical assistant—a registered nurse who has undertaken additional training—who also supervises up to eight dispensaries staffed by nurses and nurse aides employed by the Island Council. Six Principal Nursing Officers, based in Tarawa, are responsible for the support and oversight of health services in each district and for selected national programmes.

The Ministry of Health and Medical Services faces a number of challenges related to the quality of health service delivery, the availability of supplies and equipment and the maintenance of equipment.

3.3 Health policy, planning and regulatory framework

The Ministry of Health and Medical Services works within a comprehensive framework of policies, plans and legislation, the implementation and enforcement of which is variable. The Government has introduced an annual performance-based planning process that requires all line ministries to develop annual output-based operational plans.

Public health legislation mostly falls under the Environmental Health Ordinance, which is over 30 years old and primarily covers water and sanitation issues. The Ordinance and other legislation, including the Medicines Act and mental health legislation, are in need of review to meet current public health requirements.

3.4 Health care financing

Kiribati has a publicly funded, publicly provided health system. Government spending on health amounted to US$ 13.28 million in 2009, approximately 85% of total government expenditure. Most government expenditure is on curative services, pharmaceuticals and staff.

A total of AUS$ 26.9 million (US$ 23 million) in development assistance was approved for health in 2006, including AUS$ 12 million (US$ 10.2 million) to strengthen outer island health services over a period of four years. A further AUS$ 34 741 (US$ 29 738) was approved to extend hospital facilities in the main referral hospital. Public health services are mainly reliant on donor support.

3.5 Human resources for health

Kiribati has an ageing health workforce and relies on retired health staff employed on contract to fill some nursing and medical positions. The current intake of health workforce trainees is unlikely to meet future requirements. A total of 330 locally trained nurses and midwives made up 70% of the health workforce in 2010, with doctors making up the next largest group of health workers. The number of doctors increased to 41 with the recruitment of 9 doctors from Cuba in 2010.

Basic nursing training is provided locally through a three-year, hospital-based training programme. Approximately 25 nurses are enrolled in the programme each year. Post-basic training is offered in midwifery and public health. In 2007, about 20 school-leavers were recruited for training as first-level nurses in Australia. These nurses will be able to work in Australia and those who are able will be given the opportunity to undertake second-level nursing training. It is anticipated that some of those trained nurses will return to Kiribati and will be available for employment in the health sector in the future.

Locally recruited medical students are usually trained in the Fiji School of Medicine. In 2007, an additional 23 medical students were recruited to undertake medical training in Cuba. Once graduated, doctors in Kiribati receive additional training through short courses and workshops, provided mainly through regional health programmes.

There is a serious shortage of paramedical and support staff. Most staff employed in laboratory and radiography services, health promotion, environmental health and health information units lack basic qualifications, relying on local in-service training and short courses overseas to learn their skills. There is no pathologist or radiologist employed by the Ministry of Health and Medical Services. In addition, the maintenance of medical equipment is almost non-existent due to the lack of a qualified biomedical engineer.

The Ministry of Health and Medical Services has a workforce training plan to guide the awarding of overseas fellowships, but there is no systematic process in place to ensure the ongoing competency of health workers, and no routine clinical supervision or support. Absenteeism and attrition is thought to impact on productivity, and staff motivation is reported to be a human resource management problem.

3.6 Partnerships

The Ministry of Health receives significant technical and financial support from development partners.

WHO provides funding and technical support for: epidemic alert and response; HIV care and treatment; health promotion, including tobacco control; environmental health; essential health technologies and medicines; health information; and health system development. The United Nations Population Fund (UNFPA) supports reproductive health activities and the United Nations Children's Fund (UNICEF) supports the expanded programme on immunization (EPI), nutrition and infant feeding, and implementation of the integrated management of childhood illness (IMCI) strategy. The Secretariat for the Pacific Community (SPC) supports the control of tuberculosis, HIV/STIs, noncommunicable diseases, disease surveillance and pandemic preparedness. Considerable support is also provided by the Australian Agency for International Development, the New Zealand Agency for International Development, through its High Commission, and the governments of Cuba and Taiwan (China).

A large outer island project, funded by the European Union, is refurbishing outer island health facilities, providing in-country training courses from the Fiji School of Medicine and developing primary health care capacity in the outer islands.

3.7 Challenges to health system strengthening

Kiribati has a well established health system. It faces many of the challenges faced by other Pacific island countries, but its geography, isolation and extremely small population exacerbate those challenges, which include:

- developing logistical systems that ensure adequate essential medicines and medical supplies are available and accessible at all times;
- recruiting, coordinating, rationalizing and ensuring the quality of basic health worker training and in-service training, be it local or overseas;
- improving staff competency and performance;
- increasing the utilization and responsiveness of curative and public health services to reduce child mortality, improve maternal health, reduce the incidence of NCDs and reduce the transmission of tuberculosis, STIs and HIV;
- ensuring there is sufficient accurate, timely and relevant health information to inform planning, policy development and monitoring of health sector performance;
- ensuring that there is a responsive disease surveillance and response system in place and that reporting meets international requirements;
- managing health sector resources more efficiently to impact on health status, improve planning and donor coordination and strengthen the monitoring of health plans and interventions; and
- updating legislation, regulations and policies.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Kiribati 2010 Census (preliminary report)*
Operator	:	Ministry of Finance and Economic Development
Title 2	:	*Kiribati Development Plan: 2008 – 2011*
Operator	:	Ministry of Finance and Economic Development, April 2008
Title 3	:	*Corporate Strategic Plan for the Health Sector 2008 – 2011*
Operator		Ministry of Health and Medical Services, November 2008
Title 4	:	*Monitoring and Evaluation Framework, 2008 – 2011*
Operator		Ministry of Health and Medical Services, December 2007

5. ADDRESSES

MINISTRY OF HEALTH AND MEDICAL SERVICES

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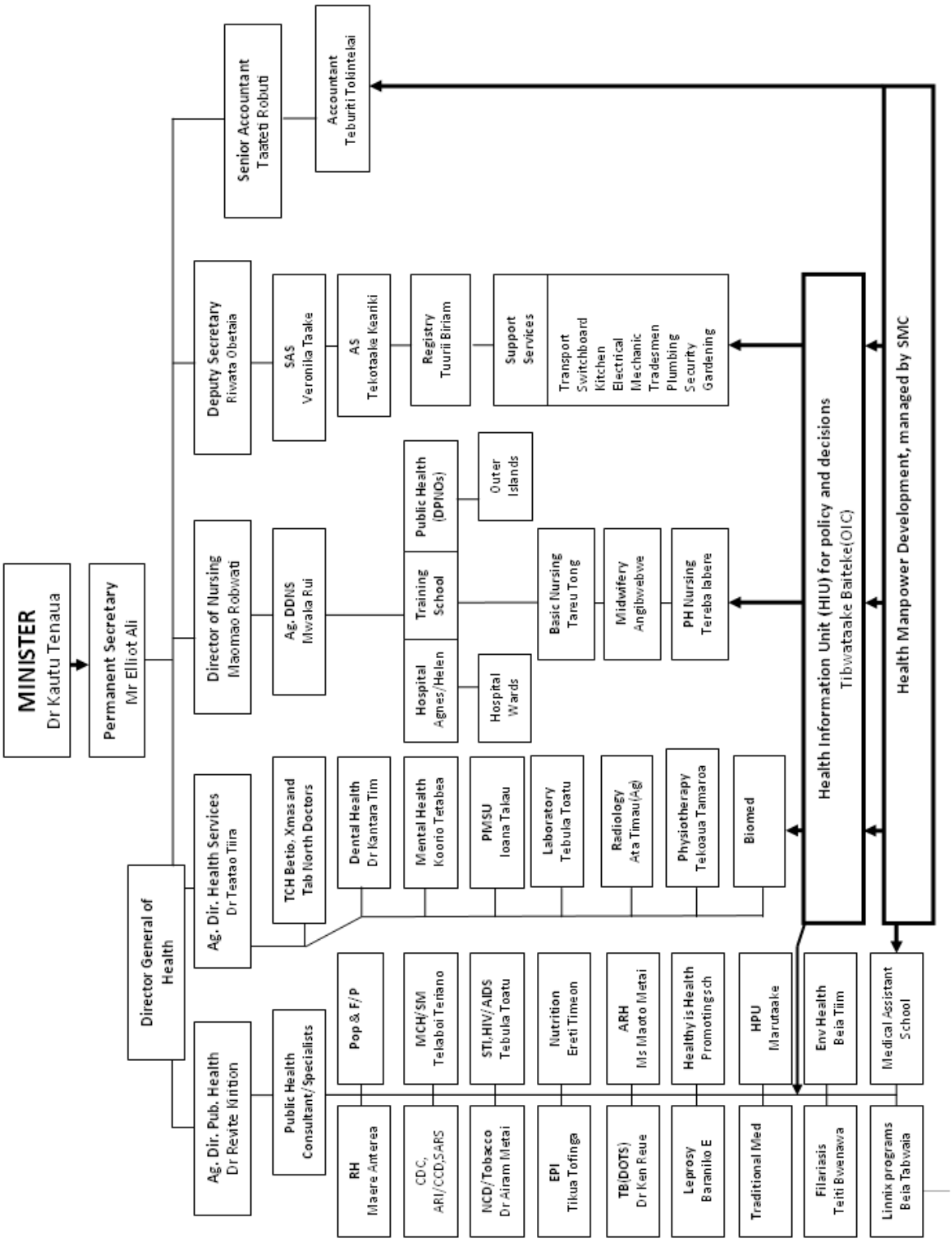
Postal Address	:	PO Box 268, Bikenibeu (Nawerewere), Tarawa, Kiribati
Official Email Address	:	mhms@tskl.net.ki
Telephone	:	(686) 28100
Fax	:	(686) 28152
Office Hours	:	08h00 – 12h30 & 13h30 – 16h15

WHO COUNTRY LIAISON OFFICER IN KIRIBATI

Office Address	:	World Health Organization, Bikenibeu , Tarawa, Kiribati
Postal Address	:	PO Box 210, Bikenibeu, Tarawa, Kiribati
Official Email Address	:	who.kir@wpro.who.int
Telephone	:	(686) 28231
Fax	:	(686) 28188
Office Hours	:	08h00-12h30 & 12h30-17h00
Website	:	www.wpro.who.int

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

KIRIBATI — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.81						2010	1
2	**Estimated population ('000s)**	103.47		51.00		52.46		2010	2
3	**Annual population growth rate (%)**	2.23		...		...		2010	2
4	**Percentage of population**								2
	- 0–4 years	13.36		13.74		12.99		2010	2
	- 5–14 years	22.57		23.49		21.68		2010	2
	- 65 years and above	3.57		2.83		4.30		2010	2
5	**Urban population (%)**	48.33		23.29		25.04		2010	2
6	**Crude birth rate (per 1000 population)**	10.72		...		...		2010	3
7	**Crude death rate (per 1000 population)**	6.03		...		...		2010	3
8	**Rate of natural increase of population (% per annum)**	0.47 [a]		...		...		2010	3
9	**Life expectancy (years)**								
	- at birth	68.00		65.00		70.00		2009 est	4
	- Healthy Life Expectancy (HALE) at age 60	...		11.50		11.60		2002	5
10	**Total fertility rate (women aged 15–49 years)**	4.10						2010	3
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	91.00		...		...		2005	6
12	**Per capita GDP at current market prices (US$)**	1307.40 [b]						2010p	7
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	...							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	0	0	0	...	...	...	2010	3
	- Type B	26	0	0	0	0	0	2010	3
	- Type C	0	0	0	0	0	0	2010	3
	- Type E	...	...	...	...	...	...		
	- Unspecified	51	25	26	4	4	0	2010	3
	Cholera	0	0	0	0	0	0	2010	3
	Dengue/DHF	20	...	...	...	...	...	2010	3
	Encephalitis	1	0	1	0	0	0	2010	3
	Gonorrhoea	1272	723	549	0	0	0	2010	3
	Leprosy	182	99	83	...	...	...	2010	8
	Malaria	...	...	...	...	...	...		
	Plague	...	...	...	...	...	...		
	Syphilis	1	1	0	...	...	...	2010	3
	Typhoid fever	3	2	1	0	0	0	2010	3
17	**Acute respiratory infections**	53 966	26 627	27 339	9	4	5	2010	3
	- Among children under 5 years	26 381	13 865	12 516	6	3	3	2010	3

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	12 172	6382	5790	...	...	...	2010	3
	- Among children under 5 years	7885	4268	3617	3	1	2	2010	3
19	**Tuberculosis**								
	- All forms	278	...	...	12 [e]	...	...	2009	8
	- New pulmonary tuberculosis (smear-positive)	145	...	...	...	...	...	2009	8
20	**Cancers**								
	All cancers (malignant neoplasms only)	30	7	23	10	3	7	2010	3
	- Breast	5	0	5	0	0	0	2010	3
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			14			4	2010	3
	- Leukaemia	6	4	2	1	0	1	2010	3
	- Lip, oral cavity and pharynx	...	...	...	3	2	1	2010	3
	- Liver	5	4	1	3	1	2	2010	3
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	...	...	...	1	0	1	2010	3
	- Trachea, bronchus, and lung	2	1	1	0	2	0	2010	3
21	**Circulatory**								
	All circulatory system diseases	698 [c]	338	339	8	7	1	2010	3
	- Acute myocardial infarction	6	5	1	0	0	0	2010	3
	- Cerebrovascular diseases	12	9	3	3	3	0	2010	3
	- Hypertension	673 [c]	322	330	4	4	0	2010	3
	- Ischaemic heart disease	3	1	2	1	0	1	2010	3
	- Rheumatic fever and rheumatic heart diseases	4	1	3	0	0	0	2010	3
22	**Diabetes mellitus**	842	377	465	8	4	4	2010	3
23	**Mental disorders**	72	38	34	...	...	...	2010	3
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	1	0	1	0	0	0	2010	3
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	70	53	17	...	...	...	2010	3
	- Road traffic accidents	60	...	...	1	...	...	2010	3
	- Suicide	0	0	0	5 [c]	5	2	2010	3
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Communicable diseases	83 922	41 743	42 179	81 110.70	81 849.02	80 402.21	2010	3
	2. Acute respiratory infections	53 966	26 627	27 339	52 158.20	52 209.80	52 113.99	2010	3
	3. Diarrhoeal diseases	12 172	6382	5790	11 764.25	12 513.73	11 036.98	2010	3
	4. Eye diseases	11 354	5548	5806	10 424.68	10 878.43	11 067.48	2010	3
	5. Skin diseases	4889	2381	2508	4725.22	4668.63	4780.79	2010	3
	6. Nutrition and related diseases	2936	1572	1364	2837.65	3082.35	2600.08	2010	3
	7. Noncommunicable diseases	2216	1056	1160	1789.96	2070.59	2211.21	2010	3
	8. Injury and posioning	667	337	330	644.66	660.78	629.05	2010	3
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Disease of the circulatory system	130	94	36	125.65 [a]	184.31 [a]	68.62 [a]	2010	3
	2. Symtoms, signs and ill-defined conditions	81	46	35	79.25 [a]	90.20 [a]	66.72 [a]	2010	3
	3. Endocrine,nutrional and metabolic	73	41	32	72.49 [a]	80.39 [a]	61.00 [a]	2010	3
	4. Infectious and parasitic system	57	26	31	52.19 [a]	50.98 [a]	59.09 [a]	2010	3
	5. Diseases of the respiratory system	49	30	19	47.36 [a]	58.82 [a]	36.22 [a]	2010	3
	6. Disease of digestive system	31	20	11	29.96 [a]	39.22 [a]	20.97 [a]	2010	3
	7. External causes of mortality	14	5	9	23.20 [a]	9.80 [a]	17.16 [a]	2010	3
	8. Certain conditions originating in the perinatal	13	9	4	22.23 [a]	17.65 [a]	7.62 [a]	2010	3
	9. Neoplasms	13	5	8	12.56 [a]	9.80 [a]	15.25 [a]	2010	3
	10. Diseases of the blood & blood-forming organs	9	4	5	8.70 [a]	7.84 [a]	9.53 [a]	2010	3
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						18.46	2005	9
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						56.30	2010	3
29	**Percentage of pregnant women with anaemia**						...		
30	**Neonatal mortality rate (per 1000 live births)**		...		...		...		
31	**Percentage of newborn infants weighing less than 2500 g at birth**		22.10		....		...	2010	3
32	**Immunization coverage for infants (%)**								
	- BCG		87.00		...		...	2010	3, 8
	- DTP3		91.00		...		...	2010	3, 8
	- Hepatitis B III		91.00		...		...	2010	3, 8
	- MCV2		89.00		...		...	2010	3, 8
	- POL3		95.00		...		...	2010	3, 8
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			39			...	2010	3
	- Eclampsia			9			...	2010	3
	- Haemorrhage			15			1	2010	3
	- Obstructed labour			1			...	2010	3
	- Sepsis			15			2	2010	3
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	3, 8
	- Diphtheria	0	0	0	...	...	...	2010	3, 8
	- Measles	0	0	0	...	...	...	2010	3, 8
	- Mumps	0	0	0	...	...	...	2010	3, 8
	- Neonatal tetanus	0	0	0	...	...	...	2010	3, 8
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	3, 8
	- Poliomyelitis	0	0	0	...	...	...	2010	3, 8
	- Rubella	0	0	0	...	...	...	2010	3, 8
	- Total Tetanus	0	0	0	...	...	...	2010	3, 8
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	3	144	2010	3
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	105 [d]	...	2010	3
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	1	...	2010	3
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			15.62 [a]	2009p	7
	- total expenditure on health as % of GDP			12.20	2009p	7
	- per capita total expenditure on health (in US$)			204.08 [a]	2009p	7
	Government expenditure on health					
	- amount (in million US$)			13.28 [a]	2009p	7
	- general government expenditure on health as % of total expenditure on health			84.70	2009p	7
	- general government expenditure on health as % of total general government expenditure			8.70	2009p	7
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			29.41 [a]	2009p	7
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			15.30	2009p	7
	- out-of-pocket expenditure on health as % of total expenditure on health			0.00 [a]	2009p	7
	Exchange rate in US$ of local currency is: 1 US$ =			1.28	2009p	7
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	41	19	22	...	...	...	...	2010	3
		- Ratio per 1000 population	0.40 [a]	0.18 [a]	0.21 [a]	...	...	...	...	2010	3
	Dentists	- Number	4	0	4	...	...	...	...	2010	3
		- Ratio per 1000 population	0.04 [a]	0.00 [a]	0.04 [a]	...	...	...	...	2010	3
	Pharmacists	- Number	4	1	3	...	...	...	...	2010	3
		- Ratio per 1000 population	0.04 [a]	0.01 [a]	0.03 [a]	...	...	...	...	2010	3
	Nurses	- Number	330	39	291	...	...	...	...	2010	3
		- Ratio per 1000 population	3.19 [a]	0.38 [a]	2.81 [a]	...	...	...	...	2010	3
	Midwives	- Number	74	6	68	...	...	...	...	2010	3
		- Ratio per 1000 population	0.72 [a]	0.06 [a]	0.66 [a]	...	...	...	...	2010	3
	Paramedical staff	- Number	118	34	41	...	...	...	...	2010	3
		- Ratio per 1000 population	1.14 [a]	0.33 [a]	0.4 [a]	...	...	...	...	2010	3
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	2	1	1	...	...	...	...	2010	3
		Dentists	0	0	0	0	0	0	0	2010	3
		Pharmacists	2	0	2	0	0	0	0	2010	3

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	15	3	12	...	...	...	...	2010	3
		Midwives	6	0	6	...	...	...	...	2010	3
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	1	1	0	...	...	...	...	2010	2
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	....	....	....	....	...	...	...		
		Nurses	3	1	2	...	...	...	...	2010	2
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	52.00	42.00	55.00	2010	3
44	Under-five mortality rate (per 1000 live births)	61.00	54.00	66.00	2010	3
45	Proportion of 1 year-old children immunised against measles	89.00	...	...	2010	3, 8
46	Maternal mortality ratio (per 100 000 live births)	0.00			2010	3
47	Proportion of births attended by skilled health personnel	98.25			2010	3
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	16.40			2010	3
	- Percentage of deliveries in health facilities (as % of total deliveries)	81.85			2010	3
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	100.00			2005	10
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	288.00	...	...	2009	8
60	Tuberculosis death rate per 100 000 population	12.00	...	...	2009	8
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	81.00	...	...	2009	8
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	96.00	...	...	2008	8
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	65.00	77.00	53.00	2006	11
64	Proportion of population using an improved sanitation facility	33.00	46.00	20.00	2006	11
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
a	Computed by Information, Evidence and Research (IER) Unit of the WHO Regional Office for the Western Pacific
b	Computed by IER Unit of the WHO Regional Office for the Western Pacific using the exchange rate of AUD 1.28 = US$1 from NHA
c	Totals may not tally due to some reported cases with no gender breakdown
d	Figure refers to health centers and dispensaries
e	Estimated number of deaths

Sources:	
1	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated April 2010. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed on June 2010.
2	National Statistics, Ministry of Finance & Economic Development, Kiribati, 2010, (Census preliminary data)
3	Health Information Centre, Ministry of Health.
4	The Global Health Observatory. World Health Organization. Accessed on July 2011 at http://apps.who.int/ghodata/
5	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
6	Kiribati 2005 Census Volume 2: Analytical Report January 2007. Ministry of Finance and Economic Development.
7	National health accounts: country information. Geneva, World Health Organization. Accessed in July 2011 from [http://www.who.int/nha/country/en/index.html]
8	WHO Regional Office for the Western Pacific, data received from technical units
9	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. [http://www.spc.int/demog/en/index.html].
10	Millennium Development Goals Indicators. United Nations Statistics Division. Accessed on August 2010 at http://unstats.un.org/unsd/mdg/Data.aspx
11	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

Lao People's Democratic Republic

1. CONTEXT

1.1 Demographics

The Lao People's Democratic Republic was projected to have a population of 6.1 million in 2009, based on the 1995-2005 population growth rate of 2.1%. It has a sparse population density (26 per square kilometre) with large interprovincial variations, and an average household size of 5.9 persons. The topography breaks into lowland areas along the Mekong River that depend predominantly on paddy rice, and highland areas that depend on upland rice and the gathering of non-timber forest products for a livelihood. The population is young, but there are signs of changes in the demographic structure: the percentage of the population under 15 years of age decreased from 43.6% to 37.9% between 1995 and 2009. The nation is rural, with the beginnings of a rural-to-urban shift, as indicated by the increase in urban areas: the estimated percentage of the population living in rural areas decreased from 72.9% to 66.8% between 2005 and 2010.

The latest census identified 47 distinct ethnic groups. The ethnic Lao comprise 52.5% of the total population and predominate in the lowlands, while ethnic minorities predominate in the highlands, although mixing is common. The highlands have more poverty, worse health indicators and fewer services, the reasons including remoteness, lower educational levels, less agriculturally productive land and increasing land pressure, and limited rural health care services. Ethnic diversity presents a major challenge in health service delivery and education due to cultural and linguistic barriers. Women have lower literacy rates than men and girls have lower school-completion rates. These gaps are accentuated in the rural and highland areas, where poverty is worst. There is some evidence of decreased treatment-seeking behaviour for women when ill.

Despite recent efforts, statistics are still relatively weak and major capacity strengthening is still necessary in the area of surveillance data, collection of official statistics and vital registration. National health indicators have been improving steadily over the past three decades but, despite the efforts of the national authorities, they remain below international standards, being some of the lowest in the Region. The crude death rate declined from 15.1 to 8.4 deaths per 1000 inhabitants between 1995 and 2009, while the total fertility rate (average number of children per woman) fell from 5.6 to 3.9 and the crude birth rate (number of births per 1000 inhabitants) from 41.3 to 30.7. At the same time, life expectancy at birth rose by 13 years in a decade, from 51 years in 1995 to 63.9 in 2009.

1.2 Political situation

The Lao People's Democratic Republic was founded in 1975. The organs of government are the President, the Prime Minister and the National Assembly. The Government operates under the guidance of the Lao Peoples' Revolutionary Party (LPRP) through five-yearly Party Congresses, the Politburo and the Central Committee. The IXth Party Congress was held in March 2011 and a National Assembly election in April 2011, The National Assembly, the main legislative organ, currently comprises 115 members, of which 29 are women; 113 members are LPRP members. The National Assembly elected a new President, Lt. Gen. Choummaly Sayasone, in June 2006. In December 2010, a new Prime Minister, Mr Thongsing Thammavong, was appointed by the President, with the approval of the Assembly. The rule of law has continuously been strengthened by new laws, including several health sector laws in respect of public health, curative services, food safety, drugs and medical devices, HIV/AIDS, health worker incentives, etc. The Government reports to the National Assembly on the implementation of the 7th National Social and Economic Development Plan (NSEDP) (2011-15), within the 20-year national strategy on growth and poverty eradication (2000-2020). The last report to the National Assembly was made in 2010.

The country consists of 17 provinces and the Capital, Vientiane. The security situation is considered stable.

1.3 Socioeconomic situation

The Lao People's Democratic Republic ranked 122 out of 169 nations on the Human Development Index in 2010. Literacy has improved in the last decade, attaining 73% in the population above 15 years of age in 2005, compared with 60% in 1995. Schooling has also improved for children aged from six to 16 years, but boys still have a higher attendance rate than girls: 75% for boys and 68% for girls in 2005 compared with 66% for boys and 56% for girls in 1995.

The official poverty rate fell from 46% in 1992/1993 to 27% in 2007/2008. Poverty is higher in remote and highland areas and inversely correlates with road or river access. Based on international purchasing power parity (PPP) standards, 24.8% of the population were living on less than US$ 2 a day and 33.9% on less than US$ 1.25 a day in 2008. Inequalities remain important, with the share of the national economy of the lowest and the highest quintiles being 7.6% and 45%, respectively. Proxy indicators of poverty, such as access to sanitation and electricity, also point to the vulnerability of the population. The latest Lao Reproductive Health Survey found that, in 2005, 50% of households had no toilet and over 40% had no electricity. Disparities between urban and rural areas are still pronounced. For example, while 90% of urban households have electrical power, only 43% of rural households have access to electricity, and 11% in rural areas have no road access, according to the National Statistics Centre.

The World Bank estimated that per capita gross national income was US$ 880 in 2009, with a 7.5% economic growth rate. Revenue collection has been rising slowly in recent years but remains very low, estimated at 14.6% of gross domestic product (GDP) in 2008. The budget deficit has therefore declined and the fiscal space has widened. Major public management reforms are ongoing, but implementation is still below desirable targets. One persisting major issue is the management of customs and taxes. In 2007, collection of taxes and revenues was recentralized by Prime Ministerial decree. However, new budget and state audit laws still need to be fully implemented.

In its official efforts to provide better services to the rural population and eradicate slash-and-burn agriculture and opium cultivation, the Government has strengthened its policy on resettlement of villagers from the highlands to lowland areas closer to roads and essential public facilities. The resettlement policy has brought with it tremendous challenges in delivering social services to resettled communities. International NGOs and, more recently, the World Food Programme have pointed out that the vulnerability of the resettled populations is a major source of concern. The traditional cultivation techniques of highland populations are inadequate to enable them to access subsistence crops and their traditional reliance on non-timber products, combined with increased environmental pressure, has contributed to deterioration in their nutritional and health status. The situation may have been accelerated by the need to resettle villages and populations in areas affected by the building of new hydropower projects and other programmes exploiting natural resources.

1.4 Risks, vulnerabilities and hazards

Locked between China, Myanmar, Thailand and Viet Nam, the Lao People's Democratic Republic is facing major challenges as the country opens up to external influences and, despite its current low prevalence, the HIV/AIDS epidemic is gaining attention in the country. Surveillance in 2004 showed an accelerated rate of transmission among sex workers in two of the 17 provinces. With the recent trend in opening of offshore trade zones with China and Viet Nam, the important investment in casinos throughout the country and the easing of migration formalities, the country faces important challenges with regard to the spread of HIV/AIDS and other communicable diseases, including emerging diseases like highly pathogenic influenza A (H5N1).

The economy continues to rely heavily on natural resources (hydropower, timber and minerals) and concern has been raised by international environmental agencies that biodiversity and resources are being overexploited, particularly timber.

In 1998, the Lao People's Democratic Republic ranked as the third largest illicit opium producer in the world, after Afghanistan and Myanmar, and had one of the highest opium addiction rates. Through its high-level commitment to fighting drug production and abuse, the Government managed, in less than a decade from 1998 to 2005, to reduce opium cultivation by 93% and opium addiction by 68%. These changes have, however, brought new challenges for the authorities as there is a need for sustainable economic alternatives for highland former opium farmers. In addition, new synthetic drugs have emerged, raising concern for public health, with amphetamine-type stimulants posing the most serious and fastest-growing drug threat in the country.

The country ranks among the least-developed in the world and, despite a steadily increasing GDP, growth is still slow and inequalities serious. Major challenges are also being faced in addressing transparency and corruption issues; in 2009, it was classified by *Transparency International* as 158th on the Corruption Perception Index of 180 countries. As a comparison, in 2005 it ranked 77th of 158 countries.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Health indicators from the routine health information system are neither robust nor universal. Many of the most reliable indicators are, therefore, from national surveys, most of which were conducted in 2000 and reported in 2001. A national census was conducted in 2005 and official results, published in 2006, showed important improvements in the maternal mortality ratio, the crude death rate, the total fertility rate, the crude birth rate and other macro-indicators. The methodologies used in the calculation of these indicators have, however, been criticized by international development partners, particularly those concerning maternal mortality; the actual numbers may be underestimated. A multiple-indicator cluster survey (MICS) was conducted in early 2006 and its results published in 2008. A new combined national reproductive health and multiple-indicator cluster survey is underway and will be published in 2011/2012.

The Lao People's Democratic Republic remains a low-HIV-prevalence country, with an estimated adult prevalence rate of 0.2%. At the end of 2007, the official cumulative number of people identified with HIV since 1993 was 2630, of whom 1675 were known to be living with AIDS. Of the reported HIV cases, 55% were male. Based on cumulative HIV case reports, the majority of those infected are between the ages of 20 and 39 years. Of those whose mode of transmission is known, 85% had been infected through heterosexual sexual contact, 3.5% from mother to child, 0.7% through homosexual sexual contact, 0.3% through blood products and 0.2% through use of unsterilized needles (the remainder are unknown). Preliminary results from a second round of second-generation surveillance have shown the HIV-positive seroprevalence rate in female sex workers increasing from 0.9% in 2001 to 2% in 2005. Chlamydial infection and gonorrhoea are common in sex workers, with an estimated combined infection rate of 37.6%. A total of 375 individuals are currently receiving antiretroviral treatment at a single treatment site.

2.2 Outbreaks of communicable diseases

Dengue fever incidence has increased in recent years, with 96.9 cases per 100 000 inhabitants in 2006. In the same year, outbreaks of dengue accounted for a total 6356 cases (5556 cases of dengue fever and 800 cases of dengue hemorrhagic fever/shock syndrome) and six resultant deaths were reported, representing an increase to an incidence of 110.6 cases per 100 000 inhabitants using the 2005 census population projections at mid-year. Dengue appears to be moving peripherally, with cases recorded in smaller population centres in recent years. In 2010, 22 929 cases of dengue fever and dengue haemorrhagic fever were reported.

Until early 2007, there were only limited reported outbreaks of avian influenza in poultry and no human cases of infection with the A (H5N1) influenza virus in the country. However, in February 2007, the Ministry of Agriculture confirmed an outbreak in commercial poultry farms and backyard poultry in the capital city, Vientiane. Since then, other outbreaks in poultry were reported and confirmed from four other provinces in the north, centre and south of the country. Control activities targeted at poultry were conducted successfully and passive surveillance was reinforced. In early 2008, several new outbreaks in poultry were reported in the northern region bordering China and Myanmar. The first two human cases were confirmed in early 2007, both resulting in death. Public health activities targeting highly pathogenic influenza A (H5N1) have intensified since the first case was confirmed. There is now a health-care-facility-based avian-influenza-surveillance system in place. At the national level, as well as in several provinces, there are alert telephone numbers for reporting suspected human cases. The National Influenza Laboratory (NIL), based at the National Centre for Laboratory and Epidemiology (NCLE), has been operational since the beginning of January 2007.

In December 2007, a cholera outbreak was reported in Sekong province in the south of the country, with more than 350 cases and three fatalities.

A substantial number of measles outbreaks occurred in 2007, accounting for 1678 cases, mostly in the north of the country. A national measles immunization campaign was conducted in November 2007 for children aged nine months to 15 years; a coverage rate of 96% was achieved and more than 2 million children were vaccinated. The campaign was carried out with the support of WHO and other international partners. Although it is expected that the campaign will lower the incidence of measles for the next two to three years, large outbreaks will occur again unless routine immunization coverage improves or a follow-up campaign is conducted.

In May 2009, when WHO Headquarters declared Pandemic Alertness Level Phase 5 due to an international outbreak of influenza A (H1N1) 2009 virus, the country prepared itself, with a focus on enhanced surveillance systems and risk communication. Effective chains of communication have been established between the Lao Government and development partners.

2.3 Leading causes of mortality and morbidity

Malaria is still considered an important contributor to morbidity and mortality, with 70% of the population at risk, although recent efforts to combat the disease (with Global Fund support) have had a positive impact. In 2008, the total number of confirmed malaria cases fell to 17 648, corresponding to an incidence rate of 296 cases per 100 000 population.

Programme data showed 75.5% of those at risk using preventive measures in 2006. A total of 2 702 339 people (population at risk 3.6 million) were being protected with bednets as of the end of 2005. The number of probable and confirmed malaria deaths in hospitals decreased from 187 in 2001 to 14 in 2007, while the annual incidence of confirmed malaria cases per 1000 population decreased from 5.5 in 2003 to 3.25 in 2007. Artemesinin-based combination treatment was introduced in 2004 following increasing malaria-drug resistance.

2.4 Maternal, child and infant diseases

The maternal mortality ratio (MMR) fell from 656 to 405 deaths per 100 000 live births between 1995 and 2005, the infant mortality rate (IMR) from 104 to 70 deaths per 1000 live births, and the under-five mortality rate (U5MR) from 170 to 98 deaths per 1000 live births. Based on the 2005 data, the estimated IMR and U5MR for 2009 were 59.2 per 1000 live births and 80.4 per 1000 live births, respectively. However, those numbers are probably underestimates. The 2005 IMR varied a great deal between provinces, with the lowest rate in Vientiane Capital (18) and the highest in Sekong (122). While the mortality rate in Vientiane Capital was only 26% of the national rate, Sekong had a mortality rate that was 183% higher than the average for the country. The latest National Health Survey shows that children have a two-week fever incidence rate of 2.9%, an ARI incidence rate of 3%, and a diarrhoea incidence rate of 6.2%.

The preliminary results of the Lao Reproductive Health Survey, disseminated in late 2007, revealed that progress in antenatal care and skilled birth attendance had not been significant in the general population, despite some improvements among younger women. The survey showed that only 28.5% of women were seeking antenatal care; 18.5% of deliveries were taking place with the participation of a trained birth attendant; 84.8% of women were still delivering at home, compared with 89% in 2000; and only 32% of children aged 12 to 23 months were fully immunized. However, the survey also showed a slow but significant improvement in intermediary health outcomes related to reproductive health: progress was observed in usage of modern contraceptive methods (28.9% in 2000 to 36.6% in 2005) among married women, and the total fertility rate showed a decline (4.88 between 1995 and 1999 to 4.07 between 2002 and 2005). This highlights the improvements in family planning over the period.

2.5 Burden of disease

Tuberculosis prevalence (all forms) was estimated at 260 per 100 000 population in 2008. In the same year, 3079 smear-positive cases were reported. The directly observed treatment, short-course (DOTS) programme reaches 100% of districts. The estimated smear-positive case-detection rate was 67% in 2008 and the treatment success rate was 92% in 2007.

The most recent data show an intestinal helminth prevalence rate of 62% (2002) among schoolchildren. De-worming for children aged 12-59 months has now been established, with child-health days and a national measles campaign reaching more than 500 000 children (>80%) in 2007. There is evidence that schistosomiasis has been re-emerging in southern parts of the country since control programmes ended.

Road accidents are a growing problem as the volume of traffic and the travelling speed of vehicles due to road improvements increase. Between 2006 and 2007, for instance, fatalities due to road traffic accidents more than doubled nationwide.

Mental health issues, particularly drug abuse, are also a growing concern, although currently poorly reported. Other mental health and neurological diseases issues include management of seizure disorders and psychoses.

Nutrition is a neglected area, although 41% of children are stunted and 48.2% of children and 31.3% of females have haemoglobin levels below 11 g/dl. Universal salt iodization misses at least 7% of children, and vitamin A supplementation in the past has been far from universal. A new bi-annual child-health-day approach has been used recently, however, achieving >80% of the target 600 000+ children aged six to 59 months, for both rounds, in 2007. The rate for exclusive breastfeeding at three months of age is only 28.1%.

The food insecurity situation in the country has also been pointed out as alarming by international partners like the World Food Programme (WFP). In 2006, WFP conducted a comprehensive food security and vulnerability study. The initial conclusions of the study pointed out that …"*the chronic malnutrition in the Lao People's Democratic Republic is at an alarmingly high level. Every second child in the rural areas is chronically malnourished, affecting not only their physical development but also their cognitive capacity*"…"*Chronic malnutrition is as high today as it was 10 years ago. 30% of the rural households have either poor or borderline food consumption.*"…"*Sino-Tibetan ethnic groups are the most disadvantaged and food-insecure followed by the Hmong-Mien and the Austro-Asiatic.*"

There are very few official national data available on risk factors for noncommunicable diseases (NCD). National authorities are currently conducting a survey using a STEP-wise approach to assess national NCD risk factors, with WHO support.

Tobacco and alcohol consumption remains a concern, although no actual figures on consumption and effects on public health are available. However, the Government has taken note of the risks related to their abuse and has made important efforts regarding control of alcohol and tobacco use. In 2006, major legal steps were taken: the country ratified the International Framework Convention on Tobacco Control and a series of regulations was passed concerning health warnings on cigarette packs, importation of tobacco and smoke-free areas in the National University. In 2007, a law was drafted for national implementation of the Framework Convention. The 1st National Anti-tobacco Law was endorsed in the Lao National Assembly in December 2009.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The national health priorities are articulated in: (1) the 20-year Health Strategy to the Year 2020 (2000); (2) the Lao Health Master Planning Study (2002); and (3) the National Growth and Poverty Eradication Strategy (NGPES, 2001). The principles and visions of these documents have been included in the current sixth five-year NSEDP (2006-10) as well as the sixth National Health Sector Development Plan (NHSDP) (2006-10), which was shared in English with development partners in November 2008. The sectorwide coordination mechanism for health and other sectors has since been further improved and a draft seventh NHSDP (2011-15) has been developed by the Ministry of Health in consultation with development partners.

The Health Strategy to the Year 2020 was promulgated by the VIIth Party Congress in 2001 and has four basic concepts: full health care service coverage and health care service equity; development of early integrated health care services; demand-based health care services; and self-reliant health services. This then leads to six health-development policies:

- strengthening the ability of providers;
- community-based health promotion and disease prevention;
- hospital improvement and expansion at all levels, including remote areas;
- promotion of traditional medicine, integration of modern and traditional care, rational use of quality and safe food and drugs, and national pharmaceutical product promotion;
- operational health research; and
- effective health administration and management, self-sufficient financial systems, and health insurance.

The health sector is project- and donor-dependent, which has often led to competing and overlapping donor demands. The Minister of Health has called for more integrated approaches, particularly for maternal and child health and immunization; decentralized service delivery methods; improved methods of health care financing; a unified and simplified health information system; and an emphasis on quality improvement in the next five years, rather than quantity improvement, which was emphasized previously.

3.2 Organization of health services and delivery systems

The public health system is predominant, although a private alternative is growing. There are no private hospitals, but there are around 1865 private pharmacies and 254 private clinics, mainly in urban areas. The state system is underutilized, especially in the peripheral areas. In its efforts to increase access through village volunteers and village revolving drug funds, the Government has managed to reach 5226 villages.

There are four administrative strata in the health system: central (Ministry, College of Health Technology and reference/specialized centres); provincial (provincial health offices, provincial and regional hospitals, and auxiliary nursing schools); district (district health offices and district hospitals); and village (health centres) levels.

The main network for provision of health care services remains the public system. In 2010, its health facilities consisted of four central teaching and referral hospitals; three specialized centres; 16 provincial hospitals; 130 district hospitals; and about 862 health centres. District hospitals are further classified as category A or B, category A meaning that the facilities have surgical capacity, unlike category B. A total of 4426 hospital beds were available in 2010, giving a ratio of 0.7 beds per 1000 inhabitants.

No private hospital is currently in operation in Lao though the issue is being discussed. A new private wing is being established in one of the central hospitals. There were 222 private clinics exist in the country in 2010.

3.3 Health policy, planning and regulatory framework

The National Growth and Poverty Eradication Strategy (NGPES) focuses on poverty and the poorest districts, of which 72 poor, 47 poorest and 10 for initial activities have been identified. The health priorities in the NGPES are:

- information, education and communication for health;
- expansion of the service network for health promotion among people in rural areas;
- improvement and upgrading of the capacity of health workers from village to postgraduate level, with an emphasis on ethnic minorities, gender balance, and incentives for retaining health workers in areas of shortage;
- promotion of maternal and child health (MCH);
- immunization;
- water supply and environmental health;
- communicable disease control;
- control of sexually transmitted infections, including HIV/AIDS;
- development of village revolving drug funds;
- food and drug safety;
- promotion of traditional medicine, integrated with modern medical treatment; and
- strengthened sustainability, including financing, management, quality assurance and legal framework.

The 20-year NGPES is currentlty being operationalized by the 7th NSEDP (2011-15), which was promulgated by the VIIIth Party Congress and the National Assembly in 2006. The NGPES has been fully integrated into the 7th NSEDP and serves as its core. The NSEDP 2011-15 has been presented to and discussed widely with both internal and external partners, but there remains a large funding gap for implementation in all sectors, including health. Despite the constant fall in the share of health expenditure in the public budget and as a percentage of GDP, the Government has pledged to increase health spending within the framework of it policy dialogue with the Bretton-Woods institutions (World Bank and International Monetary Fund).

A new constitutional article (2004) obligates the Government to improve and extend the health network; improve disease prevention; create conditions so all people receive health care, especially mothers, children and the poor; and legalize private investment in health services.

In August 2007, the 6th National Health Conference (NHC) reviewed the achievements and implementation of the 2001-2005 National Health Plan and provided recommendations for the 2006-2010 five-year national plan. The actual strategy of the Ministry of Health is based on a 'healthy village model' that will include the eight components of primary health care (PHC), as expressed in national PHC policy, and will provide health for all. It is aimed at enabling development from the grassroots level up. The 6th National Health Conference called for: (1) a general increase in funding for health; (2) establishment of the University of Health Sciences under the direct supervision of the Ministry of Health; (3) implementation of the Complex of Hospital-Insituto-Projecto-University (CHIPU); (4) creation of new posts; and (5) increased incentives for health workers in rural areas.

To accelerate progress toward achievement of Millennium Development Goals 1, 4 and 5, and in support of NHSDP 2006-2010, the following policy and strategy documents have been developed and endorsed by the Ministry of Health and other government authorities:

- National Nutrition Policy (2008)
- National Food Safety Policy (2009)
- Skilled Birth Attendance Development Plan 2008-2015 (2008)
- Strategy for Integrated Package of Maternal Neonatal and Child Health Services 2009-2015 (2009)
- Health Information Systems Strategic Plan 2009-15
- Human Resources of Health Strategic Plan 2009-20
- Draft Health Financing Strategic Plan 2011-15.

3.4 Health care financing

Current estimated per capita health expenditure is US$ 35.8, about 61% coming from households and 19.1% from the Government. Hospitals are highly dependent on user fees for recurrent expenditure. There are four different social heath protection schemes in the country. Out of the four, two focus on the formal sector (for civil servants and private sector employees) while the remaining schemes cover the informal sector on a voluntary basis and the poor through equity funds, which are funded by donors and partially by the Government. These funds use a third-party management mechanism that pays for health services used by the poor and they are being expanded. The Government plans to create a National Health Insurance Agency that will contribute to improved equity and increased efficiency.

Total health expenditure made up 4.1% of GDP in 2009. Donor spending is estimated to have made up 30% of total public sector health spending in 2007. Salaries account for the bulk of domestic public expenditure on health (75.3%).

3.5 Human resources for health

The Lao People's Democratic Republic faces challenges similar to those in all low-income countries as regards issues of human resources for health (HRH): underfunding of salaries and wages, maldistribution of qualified staff among geographic areas and health system levels, limited numbers of qualified health workers, and low staff productivity. The country has a general shortage of qualified health workers. The total health workforce in 2005 numbered 18 017, corresponding to a ratio of 3.21 per 1000 inhabitants. That included regular staff (civil servants) under the Ministry of Public Health, as well as contractual staff. It also included the health workers under the two other Ministries that manage non-public health facilities: the Ministry of Defence and the Ministry of Public Security. Around 70% of all health workers are under the Ministry of Health. High- and mid-level medical staff under the Ministry of Health, defined as physicians, nursing staff and midwives with more than two years of formal training, account only for 23% (4123, i.e. 0.74 workers per 1000 inhabitants).

Less than 50% of all health workers are in public health facilities managed by the Ministry of Health. The 8942 regular health workers under the Ministry work in hospitals, health centres and district health offices/hospitals, with district-level facilities accounting for the majority. However, the bulk of the staff at district level are mid- and low-level (88%) health workers, with physicians representing only 6% of district-level staff. Health centres are almost totally served by low-level (81%) and mid-level (18%) staff. There are only eight doctors working in health centres.

Maldistribution of staff, both geographically and by facility level, exacerbates the crisis. There are only 2992 regular high- and mid-level medical staff at health-facility level, corresponding to 0.53 per 1000 inhabitants, far below the recommended WHO target of 2.5. Those staff tend to be concentrated in socioeconomically better-off

regions to cope with the limitations of their salaries and wages. Rural areas, where living conditions are difficult, are not attractive to newly trained, competent workers.

Compared with international standards, the productivity of health workers could be considered low, mainly due to the lack of financial and material incentives available to them. In 2005, the average annual salary for health workers was estimated to be US$ 405, forcing them to rely on coping strategies and secondary occupations to ensure their livelihoods. That situation, combined with the limited number of new posts created in recent years (the workforce has grown more slowly than the population in the last decade) is limiting the development of the health system and its response to the needs of the population.

In 2007, with WHO support, a national HRH database was designed and tested, a national conference on HRH was held and the drafting of a framework for the development of HRH was initiated. The HRH database has been installed in all Provincial Health Offices. However, there are problems in its expansion due to limited capacity of the application and software used.

In 2010, the Government endorsed a Degree on Financial Incentives for Rural Civil Servants and currently the Ministry of Health is working on a non-financial incentives package for health workers in rural areas.

3.6 Partnerships

The Global Fund has, for many years, been a major contributor to the country, with more than US$ 45.5 million in grants allocated between 2003 and 2006. The majority of that funding was allocated to activities to reduce the malaria disease burden (US$ 27.2 million). In total, at the actual approved state of proposals, the Global Fund has made available more than US$ 62 million of the US$ 95 million requested. In 2007, the country applied for grants as part of Round 7 of the Global Fund call for proposals, and two of its proposals were assessed positively by the Fund's Technical Review Panel. The requested funds amounted to US$ 25.6 million to fight malaria and US$ 10.9 million to fight tuberculosis. In 2008, the country successfully applied for further support from Round 8 for HIV/AIDS and health system strengthening, up to a total of US$ 24.6 million, and, in 2010, was successful again in applying for Round 10 funding to fight tuberculosis.

Since 2002, the Global Alliance for Vaccination and Immunization (GAVI) has given support to immunization services and introduction of new vaccines. GAVI's five-year estimated commitment to the country (2002-2007) currently stands at US$ 7.1 million.

Other major health sector development partners and donors include: the Asian Development Bank, the World Bank, and the governments of Japan, Luxembourg and France. Avian influenza preparation and laboratories are also benefitting from the important support of the European Union and the governments of Australia and the United States of America.

Most United Nations funds and specialized agencies are represented in the country. In 2006, the United Nations Country Team, with the national authorities, finalized the 2007-2011 United Nations Development Assistance Framework (UNDAF), based on the Common Country Assessment (CCA) conducted in 2005. WHO led the health working group in preparation of the document. The new draft Lao UNDAF CCA and Action Plan 2012-15 is expected to be finalized in 2011. It will be the leading guideline for actions carried out by the United Nations Country Team in future years.

The WHO Country Cooperation Strategy (CCS) 2009-11, operational since 2009, is currently under revision for the period of 2011/2012-2015. The new CCS will be complemented for the first time by a Country Strategic Framework (CSF) and corresponding Technical Strategic Frameworks (TSF), providing more operational details of WHO support by outcomes and outputs.

3.7 Challenges to health system strengthening

Underfinancing of the health sector is placing a major burden on the management and implementation of national policies for prevention and care. The efforts begun in recent decades to improve primary health care and respond to the demands of those populations most in need are still ongoing. In May 2009, the first national workshop on sustainable health financing was organized, with high-ranking national (vice-ministers and vice-governors) and international participants attending and support from WHO and the World Bank. In 2011, the 1st National Health Financing Strategic Plan (2011-15) will be finalized.

Financial barriers to service access are important, which is not surprising in a country where around 70% of the population live on less than US$ 0.4 a day. Risk-pooling and prepayment have been introduced through social security for the formal sector and health insurance for the public sector. Voluntary community schemes have been implemented and are part of the national instruments for health care financing. However, all these instruments cover only a small part of the population. A road map to universal coverage has been developed and implementation is planned to start in 2011. However, expansion of coverage will require subsidies to the poor and nearly poor, resulting in the need for an increased contribution from the Government as well as development partners. In order to achieve its target of universal coverage by 2020, the Government will have to show much greater commitment to investing in health than it has shown thus far. In the interim, the Government and its partners will continue to support health equity funds that were introduced to replace the former exemption policy, which has proved to be inefficient.

The main network for health care service provision remains the public system. There were a total of 4426 hospital beds in 2010, or 0.7 beds per 1000 inhabitants. The shortage of health workers is evident when the ratio of health workers per bed is analysed. The situation is exacerbated by the uneven distribution of staff among different types of health facility and the shortage of non-medical staff to implement essential administrative and support tasks. Central hospitals have high ratios of high- and mid-level medical staff (see paragraph 3.5) compared with other types of facility. In central hospitals the ratio of high- and mid-level medical staff per bed is 0.9, which could be considered good if there were not a very high doctor-to-nurse ratio (0.63 at central hospitals), which raises concerns that inefficiency in hospitals may have structural origins.

Health-worker productivity is low in most national hospitals for various reasons. At the moment only one province provides a comprehensive incentive system. Such a system at the national level might ensure health workers' best performances and attract new staff to remote and difficult regions. Moving towards such an approach would, however, require a significant increase in the health budget and a reorientation of expenditure towards recurrent costs for national and donor funding sources, which would only be possible if transparency and accountability were to be reinforced and clear mechanisms for performance and quality assessment of the provided services established. Such efforts have been initiated by the Ministry of Health, but much still remains to be done.

Coordination among sector donors and partners has improved in recent years, as shown through exercises like avian influenza pandemic and outbreak preparation and response. Following the 2005 Paris Declaration on Aid Effectiveness, donors and partners in the Lao People's Democratic Republic signed the local Vientiane Declaration on Aid Effectiveness (VD) in November 2006. A task force was created to elaborate a country action plan for implementation of this declaration and to ensure harmonization and alignment among the signatories. The country action plan (CAP) was developed and approved by the Government and its partners in early 2007 and a first local survey for the Paris Declaration Monitoring Survey was conducted in parallel.

The survey was a challenging process because of the complexity of the task and the scarcity of reliable data, even at individual development-partner level. In addition, a significant number of development partners did not participate in the process, putting the collected information in question. The findings of the survey showed that much remained to be done to achieve the objectives of the Paris Declaration. Only 16% of capacity-development interventions in the country were being carried out in a coordinated fashion, compared with the targeted 50%, and only 17% of total overseas development aid (ODA) had been disbursed following national procurement systems and procedures. On bilateral disbursement for the fiscal year 2005/2006, of US$ 223 million, only US$ 14 million was reported to be for the health sector. The multilateral situation was little better, with only US$ 22 million of US$ 245 million. The health sector therefore accounted for only 7.6% of the ODA disbursements. In 2007, the former Committee on Planning and Investment was converted into the Ministry for Planning and Investment (MPI) and the Directorate of International Cooperation (DIC) was transferred from the Ministry of Foreign Affairs to this newly created structure. The DIC is now responsible for supervising ODA in all sectors and for monitoring implementation of the CAP. A further global monitoring survey of the Paris Declaration in countries is underway and will published soon.

In order to operationalize the VD in the health sector, the Ministry of Health has been engaged in developing a sectorwide coordination mechanism, according to the CAP. In November 2007, the structure of the new coordination mechanism for the health sector, which includes multiple layers of technical and policy dialogue between development partners and the Government, was presented by the Ministry. The yearly monitoring

process of the VD CAP (2008 and 2009) indicates that substantial progress has been made in aid effectiveness in most CAP areas.

Health information from surveillance and surveys still needs to be framed by national policy. WHO, and recently the Health Metrics Network (HMN), have supported the Government in developing a new health information system extending from village to district and provincial levels. The system was discussed widely with major donors and project implementers nationwide, and has been adopted by the World Bank and the Asian Development Bank as a part of their support actions in the south and north of the country. However, nationwide implementation of the system still needs to be carried out and evaluated. Furthermore, other aspects of the health information system still need to be reinforced, such as vital registration and information collection and analysis. Towards that goal, WHO and other development partners facilitated the formulation of the 1st Lao Health Information Strategic Plan (2009-15), using the HMN methodology, in late 2008.

Hospital financial management systems are being reinforced as part of the 'good-governance' efforts of the Government and the Ministry of Health, but they also need to be integrated into a broader information system to ensure timely, evidence-based decision-making.

Prevention activities, such as vaccinations, have been the centre of a major focus by the Ministry of Health in recent years. Immunization rates had been falling and corrective actions were needed. The trend has been reversed, but this has brought up certain questions about the adequacy of the health system in providing regular basic services to the population. The traditional outreach approach has been questioned and the primary barrier to the effective delivery of services is thought to be the absence of routine vaccination services at health centres and district hospitals (fixed sites). Integrating vaccination activities and other essential primary prevention and health care services for mother and child has been advocated as a solution to improve the situation. This is now one of the priorities of the Ministry of Health. A comprehensive package of services and the cost of providing it to the population in a constant and regular way still need to be defined. Several United Nations agencies, including WHO, are working on these issues. However, implementation of the package will also need a change in the current financial-incentive approach, which relies on payment for outreach activities rather than on performance.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Population Census 2005*
Operator	:	National Statistics Centre
Specification	:	Includes the latest available official demographic data for Lao PDR
Web address	:	http://www.nsc.gov.la/PopulationCensus2005.htm
Title 2	:	*Lao Info 4.1*
Operator	:	National Statistics Centre
Specification	:	Provides a key statistical tool for monitoring the Millennium Development Goals (MDGs)
Web address	:	http://www.nsc.gov.la/Lao_Info.htm
Title 3	:	World Bank country website
Specification	:	Includes most recent links and documents produced by the World Bank on Lao PDR
Web address	:	www.worldbank.org/lao
Title 4	:	Asian Development Bank country website
Features	:	Includes most recent links and documents produced by the ADB on Lao PDR
Web address	:	http://www.adb.org/LaoPDR/
Title 5	:	Sixth National Socio Economic Development Plan (2006-2010)
Operator	:	Committee for Planning and Investment
Title 6	:	United Nations Common Country Assessment for the Lao People's Democratic Republic 2005
Operator	:	Government of Lao PDR and the United Nations System
Web address	:	http://www.undplao.org/

Title 7	:	United Nations Common Country Assessment for the Lao People's Democratic Republic 2005
Operator	:	Government of Lao PDR and the United Nations System
Web address	:	http://www.undplao.org/
Title 8	:	Lao Reproductive Health Survey 2005
Operator	:	National Statistics Centre and UNFPA
Features	:	Includes the latest available data on reproductive health in Lao PDR
Web address	:	http://www.nsc.gov.la/
Title 9	:	Nam Saat Central website
Operator	:	Nam Saat Central, MoH
Features	:	Includes a repository of the main national regulations and legislation
Specification	:	Web Site form the National Centre for Environmental Health and Water Supply
Web address	:	http://www.nsc.gov.la/
Title 10	:	National Round Table Process website
Operator	:	Department for International Cooperation, Ministry of Planning and Investment; United Nations Development Programme
Features	:	Includes a repository of the main national regulations and legislation
Specification	:	Web Site form the National Centre for Environmental Health and Water Supply
Web address	:	http://www.nsc.gov.la/

5. ADDRESSES

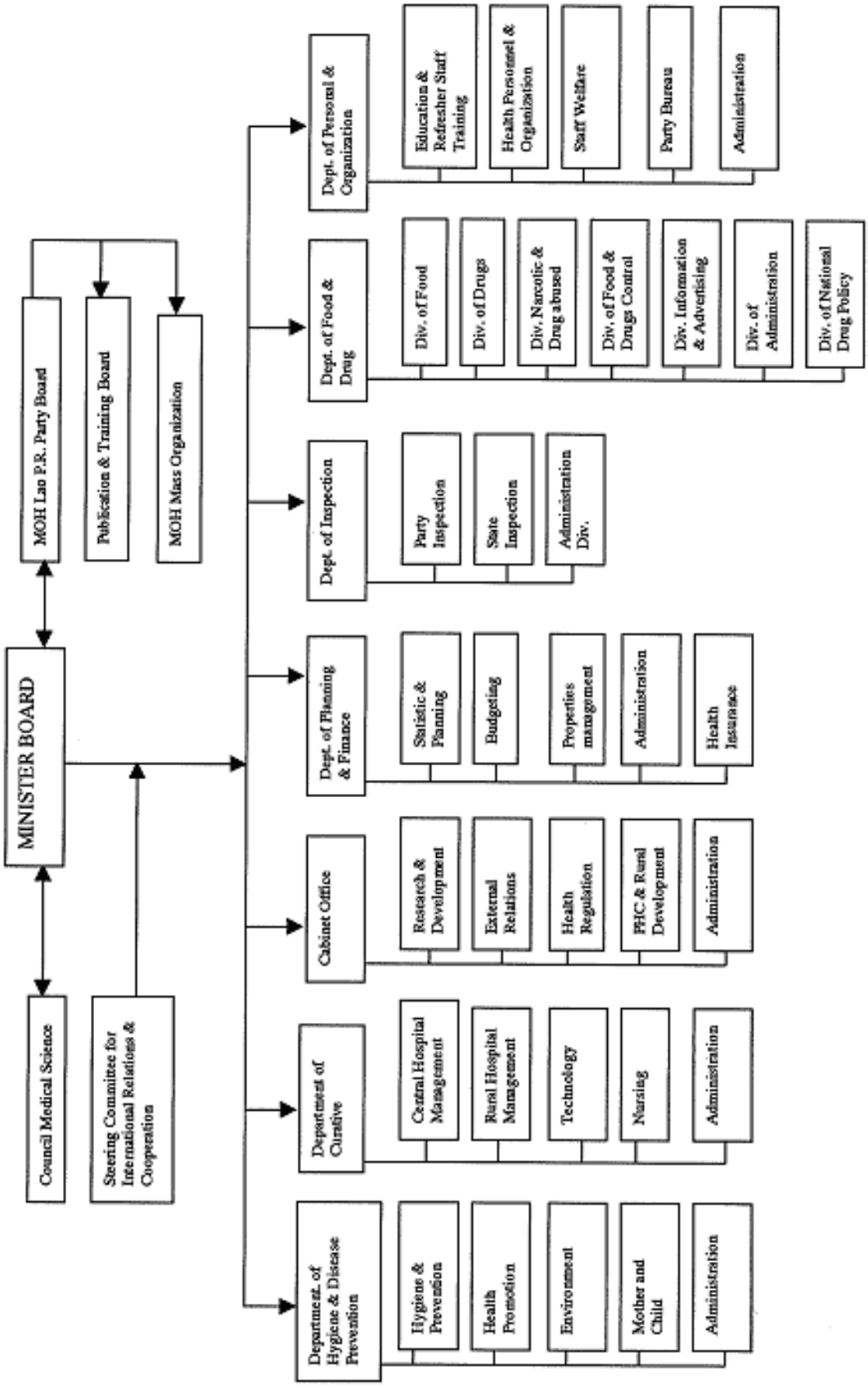
MINISTRY OF HEALTH

Office Address	:	Simuang Road, Vientiane, Lao People's Democratic Republic
Official Email Address	:	pomdohp@laotel.com (for Department of Prevention and Hygiene)
Telephone	:	856 (0)21 217607
Fax	:	856 (0)21 214003
Office Address	:	Simuang Road, Vientiane, Lao People's Democratic Republic
Office Address	:	Simuang Road, Vientiane, Lao People's Democratic Republic
Official Email Address	:	pomdohp@laotel.com (for Department of Prevention and Hygiene)

WHO REPRESENTATIVE IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

Office Address	:	125 Saphanthong Rd, Unit 5 Ban Saphanthongtai, Sisattanak District, Vientiane
Postal Address	:	P.O. Box 343, Vientiane, Lao People's Democratic Republic
Official Email Address	:	who@laos.wpro.who.int
Telephone	:	(856)21 353 902, 353 903, 353 904
Fax	:	(856) 21 353 905
Office Hours	:	08:00 a.m. – 05:00 p.m.

6. ORGANIZATIONAL CHART: Ministry of Health



LAO PEOPLE'S DEMOCRATIC REPUBLIC

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	236.80			2009	1
2	**Estimated population ('000s)**	6128.00 [a]	3058.00 [a]	3070.00 [a]	2009 est	1
3	**Annual population growth rate (%)**	2.10	...	...	1995-2005	2
4	**Percentage of population**					
	- 0–4 years	14.20	14.40	13.90	2009 est	1
	- 5–14 years	23.70	24.00	23.40	2009 est	1
	- 65 years and above	3.70	3.40	4.10	2009 est	1
5	**Urban population (%)**	33.20			2010 est	3
6	**Crude birth rate (per 1000 population)**	30.70 [a]	...	...	2009 est	1
7	**Crude death rate (per 1000 population)**	8.40 [a]	...	...	2009 est	1
8	**Rate of natural increase of population (% per annum)**	2.35 [b]	...	...	2009 est	1
9	**Life expectancy (years)**					
	- at birth	63.90 [a]	...	...	2009 est	1
	- Healthy Life Expectancy (HALE) at age 60	...	...	...		
10	**Total fertility rate (women aged 15–49 years)**	3.90 [a]			2009 est	1
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	73.00	...	...	2005	2
12	**Per capita GDP at current market prices (US$)**	914.00			2009 est	1
13	**Rate of growth of per capita GDP (%)**	7.30			2008	4
14	**Human development index**	0.50			2010	5
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	632	...	...	0	0	0	2002	6
	- Type A	10	...	...	0	0	0	2002	6
	- Type B	61	...	...	0	0	0	2002	6
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	622	...	...	0	0	0	2010	7
	Cholera	1272	...	...	...	...	...	2002	6
	Dengue/DHF	22 929	...	...	46	...	...	2010	6
	Encephalitis	50	...	...	3	0	0	2010	7
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	86	66	20	...	...	...	2010	6
	Malaria	22 800	...	...	24	...	...	2010	6
	Plague	0	0	0	0	0	0	2010	7
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	3975	...	...	6	...	...	2010	7
17	**Acute respiratory infections**	7176	...	...	21	...	...	2008	7
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
		Total	**Male**	**Female**	**Total**	**Male**	**Female**		
18	**Diarrhoeal diseases**	19 604	...	...	20	...	...	2010	7
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	3848	...	...	740 [i]	...	...	2009	6
	- New pulmonary tuberculosis (smear-positive)	3034	...	...	...	...	...	2009	6
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	...	...	...	...	...	...		
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	...	...	...		
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	**Number of cases**			**Rate per 100 000 population**				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malaria	104 434	...	...	4083.17	...	...	2000	8
	2. Pnuemonia	18 096	...	...	728.00	...	...	2000	8
	3. Gastritis	17 132	...	...	690.00	...	...	2000	8
	4. Influenza	12 987	...	...	523.00	...	...	2000	8
	5. Diarrhoea	12 334	...	...	496.49	...	...	2000	8
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malaria	996	...	...	40.09	...	...	2000	8
	2. Pneumonia	83	...	...	3.34	...	...	2000	8
	3. Diarrhoea	34	...	...	1.36	...	...	2000	8
	4. Heart failure	34	...	...	1.36	...	...	2000	8
	5. Injury	33	...	...	1.32	...	...	2000	8
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					36.60 [c]		2005	9
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					31.00		2010	6
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	26.00		...		...		2005	9
31	**Percentage of newborn infants weighing less than 2500 g at birth**	...		...		...			
32	**Immunization coverage for infants (%)**								
	- BCG	72.00		...		...		2010	6
	- DTP3	74.00		...		...		2010	6
	- Hepatitis B III	74.00		...		...		2010	6
	- MCV2	64.00		...		...		2010	6
	- POL3	76.00		...		...		2010	6
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	34			...	...	...	2010	6
	- Measles	153	...		...	...	...	2010	6
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	7	...	...	...	...	...	2010	6
	- Pertussis (whooping cough)	6	...	...	...	...	...	2010	6
	- Poliomyelitis	0			...	...	...	2010	6
	- Rubella	31	...	...	...	...	...	2010	6
	- Total Tetanus	14	...	...	...	...	...	2010	6
	Health facilities								
35	**Facilities with HIV testing and counseling services**						91	2008	6

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	20 [d]	4426	2010	11
		- Specialized hospitals	3 [e]	...	2010	11
		- District/first-level referral hospitals	130	...	2010	11
		- Primary health care centres	862	...	2010	11
	Private health facilities	- Hospitals	0	0	2010	12
		- Outpatient clinics	222	...	2010	11
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			226.75 [b]	2009p	13
	- total expenditure on health as % of GDP			4.10	2009p	13
	- per capita total expenditure on health (in US$)			35.83 [b]	2009p	13
	Government expenditure on health					
	- amount (in million US$)			43.38 [b]	2009p	13
	- general government expenditure on health as % of total expenditure on health			19.10	2009p	13
	- general government expenditure on health as % of total general government expenditure			3.80	2009p	13
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			80.90	2009p	13
	- out-of-pocket expenditure on health as % of total expenditure on health			61.30 [b]	2009p	13
	Exchange rate in US$ of local currency is: 1 US$ =			8516.04	2009p	13
38	**Health insurance coverage as % of total population**			9.00	2008	14

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	1283	...	...	...	...	...	...	2005	10
		- Ratio per 1000 population	0.23	...	...	...	...	...	...	2005	10
	Dentists	- Number	83	...	...	...	...	...	...	2005	10
		- Ratio per 1000 population	0.02	...	...	...	...	...	...	2005	10
	Pharmacists	- Number	276	...	...	...	...	...	...	2005	10
		- Ratio per 1000 population	0.049	...	...	...	...	...	...	2005	10
	Nurses	- Number	5 291 [f]	...	...	...	...	...	...	2005	10
		- Ratio per 1000 population	0.93	...	...	...	...	...	...	2005	10
	Midwives	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	53	...	...	...	...	...	...	2005	10

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	30 [g]	...	...	...	...	...	...	2005	10
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	37.10	...	...	2006	8
43	Infant mortality rate (per 1000 live births)	59.20 [a]	...	...	2009 est	1
44	Under-five mortality rate (per 1000 live births)	80.40 [a]	...	...	2009 est	1
45	Proportion of 1 year-old children immunised against measles	64.00	...	...	2010	6
46	Maternal mortality ratio (per 100 000 live births)	405.00			2005	2
47	Proportion of births attended by skilled health personnel	18.50			2005	9
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	5.70 [j]			2005	9
	- Percentage of deliveries in health facilities (as % of total deliveries)	12.80 [j]			2005	9
48	Contraceptive prevalence rate	38.40	...	...	2005	9
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	28.50			2005	9
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	0.20	...	...	2007	6, 15
54	Percentage of people with advanced HIV infection receiving ART	100.00	100.00	100.00	2007	15
55	Malaria incidence rate per 100 000 population	369.35	...	...	2010	6
56	Malaria death rate per 100 000 population	0.39	...	...	2010	6
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	81.20	...	...	2010	6
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	87.00	...	...	2010	6
59	Tuberculosis prevalence rate per 100 000 population	131.00	...	...	2009	6
60	Tuberculosis death rate per 100 000 population	12.00	...	...	2009	6
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	68.00	...	...	2009	6
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	93.00	...	...	2008	6
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	57.00	72.00	51.00	2008	16
64	Proportion of population using an improved sanitation facility	53.00	86.00	38.00	2008	16
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...	...	

Notes:	
...	Data not available
est	Estimate
a	Results from the Population and Housing Census 2005
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific.
c	Figure refers to married women
d	Figure refers to four central teaching and referral hospitals and 16 district hospitals
e	Figure refers to specialized centres
f	Includes medical assistants
g	Includes only nurses trained at university. Due to a reformulation of the curricula there has not been any graduate from the nursing schools for the past two years
h	Revised data
i	Estimated number of deaths

Sources:	
1	Ministry of Planning, Department of Statistics of Lao PDR [http://www.nsc.gov.la/Selected_Statistics.htm]
2	National Population Census 2005. National Statistical Centre, 2006 - [http://www.nsc.gov.la/PopulationCensus2005.htm]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
4	Lao PDR Economic Monitor Issue 14, 2009
5	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
6	WHO Regional Office for the Western Pacific, data received from technical units
7	National Centre for Laboratory and Epidemiology, Vientiane 2008
8	Lao National Health Survey. National Statistical Centre and NIOPH, January 2001. 6a MICS 2006
9	Lao Reproductive Health Survey 2005. National Statistical Centre 2007.
10	Information furnished by National Ministry of Health, Department of Personal and Organization.
11	Statistical report, 2010. Department of Planning and Finance, Lao People's Democratic Republic.
12	Information furnished by WR Office in the Lao People's Democratic Republic dated 29 July 2011.
13	National health accounts: country information. Geneva, World Health Organization. Accessed in July 2011 from [http://www.who.int/nha/country/en/index.html]
14	World Bank. Poverty Reduction Support Operation. Vientiane, April 2008
15	National Centre for HIV/AIDS, Vientiane 2007
16	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

MACAO (CHINA)

1. CONTEXT

1.1 Demographics

With an annual growth rate of 1.9%, the end-year estimated population of Macao (China) was 552 300 in 2010, with 52.0% female and 48.0% male. Those aged 0-14 years account for 12.2% of the total population and those aged 65 and above for 8.0%. Population density is 18 300 per square kilometre and the entire population are city-dwellers.

In 2010, there were 5114 live births, up by 7.3% compared with 2009, while mortality increased by 6.6% to 1774. The natural growth rate for the same year was 6.1‰, with a crude birth rate of 9.4 and a crude death rate of 3.3 per 1000 population. The infant mortality rate was 2.9 per 1000 live births and the under-five mortality rate was 3.5 per 1000 live births, while the total fertility rate was 1.1 birth per woman (aged 15-49), with no recorded maternal mortality. Life expectancy at birth for male was 79.5 years in 2007-2010, and 85.4 years for female.

Besides natural increases, migration flow is another important factor in determining population growth. In 2010, an estimated net inflow of 7800 persons was recorded, including Chinese immigrants with "one-way exit permits" from Mainland China, persons authorized to reside in Macao and non-resident workers.

1.2 Political situation

Macao became a Special Administrative Region of the People's Republic of China on 20 December 1999. The constitutional document, the Basic Law of the Macao Special Administrative Region, came into force on the same day. It stipulates the system to be practised in Macao, and lays down the political and administrative framework for 50 years from 1999.

Under the Basic Law, Macao is entitled to a high degree of autonomy in all areas except defence and foreign affairs. The principles of "One country, two systems", "Macao people governing Macao" and "a high degree of autonomy" have passed their initial tests with flying colours, and are now broadly recognized in Macao and infused into its social and political culture.

Fernando Chui Sai On is currently serving his third term as Chief Executive of Macao. The Chief Executive's cabinet comprises five policy secretaries. He is advised by an Executive Council that has 11 members. The Legislative Assembly is a 29-member body comprising 12 directly elected members, 10 appointed members representing functional constituencies, and seven members appointed by the Chief Executive.

1.3 Socioeconomic situation

With the support of Mainland China, the economy of Macao has remained positive. Gross domestic product (GDP) for 2010 expanded by 26.2% in real terms, and per capita nominal GDP (US$) increased by 30.7% year on year. An increase in private consumption expenditure has been spurred on by the favourable performance of the tourism and gaming sectors, as well as rising employment earnings; however, a weakening external demand in the United States of America and the Euro Zone has led to a significant decrease in exports of merchandise.

Expenditure on health accounted for 2.4% of GDP in 2009, with government expenditure accounting for 72.9%.

Macao has sound economic and trade relations with more than 120 countries and regions, particularly with the United States of America, the European Union and the Portuguese-speaking countries.

In 2010, the total labour force was 327 600, of which 318 300 were employed, giving an unemployment rate of 2.8%, down by 0.8% compared with 2009; the underemployment rate decreased by 0.1% to 1.8% year on year.

1.4 Risks, vulnerabilities and hazards

Macao is occasionally hit by tropical storms, tropical cyclones and typhoons during summer and autumn, causing traffic disruption and, on occasions, major floods and landslips, but seldom casualties.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Having gone through the process of demographic and epidemiological transition, the population of Macao enjoys a fairly low mortality rate and a long life expectancy. They also enjoy a high standard of health, as reflected by the general decline in the incidence of communicable diseases and the increase in life expectancy, as well as the improvement in health indices. Noncommunicable diseases are the main causes of morbidity and mortality. However, like other developed areas, the threat from re-emerging and newly emerging infectious diseases continues. In addition, the HIV/AIDS incidence rate is slowly increasing and tuberculosis is still a significant public health problem

2.2 Outbreaks of communicable diseases

Outbreaks of influenza, enterovirus infection and norovirus gastroenteritis in schools and residential institutes occur most commonly, contributing 59.1% of all outbreaks of communicable diseases in 2010. During 2010, there were 19 outbreaks of influenza, 15 of enterovirus infection and five of norovirus gastroenteritis. Efforts have been put into infection control measures to halt and prevent such outbreaks.

2.3 Leading causes of mortality and morbidity

Among the 1774 deaths in 2010, 33.0% were attributable to neoplasms, 25.8% to diseases of the circulatory system and 14.8% to diseases of the respiratory system.

Since 2001, cancer has been one of the leading causes of death, claiming more than 500 deaths every year. In 2010, cancers of the colorectum, bronchus and lung, breast, prostate, and liver were the five most common, contributing 13.9%, 13.7%, 10.2%, 6.8% and 6.8% of all new cancer cases, respectively. The top five leading causes of cancer deaths were cancers of the bronchus and lung, colon and rectum, liver, stomach and nasopharynx, accounting respectively for 25.1%, 13.4%, 11.5%, 6.5% and 6.2% of total cancer deaths in 2010.

In terms of causes of morbidity, the three most common notifiable diseases in 2010 were seasonal influenza (35.7%), enterovirus infection (22.4%) and chickenpox (13.8%).

In 2006, Macao launched the WHO new Stop TB Strategy, with DOTS as the core of the strategy. The proportion of tuberculosis cases of the lung detected under DOTS was 89.0 per 100 000 population in 2009. The incidence rate for tuberculosis in 2010 was 63.0 per 100 000 population, with a treatment success rate of 91.3% (2009).

The Population Health Survey 2006 described the prevalence of major health conditions and the general health status of the population, as well as behaviour related to major causes of mortality and morbidity. Among other finds, it showed that the risk factors related to noncommunicable diseases were the major prevalent causes of morbidity. The prevalence of dyslipidemia was 24.3%, that of diabetes was 27% and the adjusted rate for hypertension was 28.8% (44.5% of people with high blood pressure were newly discovered).

Morbidity and mortality from most vaccine-preventable communicable diseases have remained very low for many years. There is no risk of malaria, but small clusters of dengue fever occur occasionally. The hepatitis B carrier rate among adults is around 11.5%, but is less than 1% among vaccinated children. HIV/AIDS prevalence remains low, estimated at less than 0.1% (4.89 cases per 100 000 inhabitants).

2.4 Maternal, child and infant diseases

Maternal, child and infant care services are available in all highly accessible health centres, all of them equipped with ultrasound examination equipment. More than 95% of pregnant women receive antenatal care and almost 100% deliver in hospital. No maternal death was recorded during the period from 1992 to 2010. Diarrhoea among infants and children is common, but is not usually life-threatening.

2.5 Burden of disease

A study in 2001 indicated injury and intoxication and cancer as the leading causes of potential years of life lost (PYLL).

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

In line with the Government's policy of building a quality society, a long-term objective of Macao's health authorities is to enhance the quality of medical and health care, thus safeguarding and improving the public's health.

The Health Bureau is tasked with coordinating the activities of public and private organizations in the domain of public health and assuring the health of citizens through specialized and primary health care services, as well as disease-prevention and health-promotion activities.

3.2 Organization of health services and delivery systems

Medical and health service providers in Macao are classified as either governmental or nongovernmental. The former mainly include government health centres that provide primary health care, as well as Conde S. Januário Hospital, which provides specialist medical services. Nongovernmental providers include medical entities subsidized by the Government and other institutions, such as Kiang Wu Hospital, the University Hospital, the Workers' Clinic and Tung Sin Tong Clinic, as well as various private clinics and laboratories.

The departments of Conde S. Januário Hospital include Inpatient, Outpatient, Emergency, Surgery, Intensive Care, Coronary Intensive Care, Burns Service, Physiotherapy and Rehabilitation Medicine, Haemodialysis and Peritoneal Dialysis, Medical Imaging, Laboratory, and Haematological Oncology. The 73 types of service offered by the Outpatient Department include anaesthesiology, cardiology, chest clinic, surgery, plastic and reconstructive surgery, dermatology, stomatology, gynaecology and obstetrics, haematological oncology, physiotherapy and rehabilitation, internal medicine, general medicine, nephrology, neurosurgery, ophthalmology, orthopaedics, otorhinolaryngology, paediatrics, psychiatry and urology.

With regard to the private sector, two nongovernmental hospitals play complementary roles in providing health care services. Founded in 1871, Kiang Wu Hospital has three departments: Emergency, Outpatient and Inpatient. It is a modern general hospital that integrates treatment, prevention, teaching and research. The University Hospital, sharing a close collaborative relationship with the Macau University of Science and Technology, was established on 25 March 2006. It integrates clinical services, teaching and scientific research, and is Macao's first hospital dedicated to both Chinese and Western medicine.

To realise the objective of "Health for all", the health authorities have established a primary health care network, with health centres as the operational units offering all residents easy access to primary health care services in their own neighbourhoods. There are six health centres and two health stations distributed throughout the various districts of Macao. Two of the health centres, Fai Chi Kei Health Centre and Areia Preta Health Centre, also have traditional Chinese medicine clinics. The primary health care network provided services to 525 619 outpatients during 2010. Most outpatients attended the adult health care, children's health care and women's health care services, which accounted for 62.5%, 11.4% and 13.2%, respectively, of total outpatient visits.

3.3 Health policy, planning and regulatory framework

"A sound health care system and putting prevention first" is the Government's policy. In recent years, it has focused particularly on enhancing prevention and control capacity in the areas of emergency rescue response and public health.

The Health Bureau is a public entity endowed with administrative, financial and patrimonial autonomy, under the supervision of the Secretary for Social Affairs and Culture. The Bureau's task is to assure the health of citizens, prevent disease, provide health care and rehabilitation services, train professional health workers, supervise and support entities in the health sector, and provide forensic services.

3.4 Health care financing

The health system is financed mainly by the Macao Government, which accords high priority to the resources allocated to medical services and health care. In 2009, spending on relative services totalled US$ 356.2 million, up by 31.3% from US$ 271.2 million in 2008.

Medical services provided by health centres and Tung Sin Tong Clinic are basically free of charge. All legal residents, regardless of their ages or occupations, are entitled to free medical services at health centres and to supplementary check-ups at Conde S. Januário Hospital by referral from health centres. Non-residents pay for such services according to rates established by the Health Bureau.

3.5 Human resources for health

To acquire medical knowledge and techniques from other regions and countries, the Health Bureau has continued to dispatch specialists to Sichuan and Xi'an in Mainland China , as well as to Singapore and Australia, to undertake advanced studies in otolaryngology, maxillofacial surgery, obstetrics and gynaecology, medicine, orthopaedics and urology. In addition, to elevate the professional competence of departments of orthopaedics, cardiology, anaesthesiology and general surgery, experienced professors have been invited from Portugal, Beijing (China), Guangzhou (China), Nanjing (China) and Hong Kong (China) to guide operations.

On 12 August 2010, the Legislative Assembly approved bills on the rank and grade system for doctors, hospital administrators, diagnostic and therapeutic technicians, pharmacists and senior health technical officers, and sanitary inspectors, as well as medical helpers. Amendments to the rank and grade system will help in planning the development of various professions in the health sector by identifying their interactive relationships, and will therefore facilitate the implementation of health policy in the long term, as well as optimizing the overall structure of the health care system.

3.6 Partnerships

In January 2010, the Cooperation Agreement on Entry-Exit Sanitary Inspection and Quarantine between the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China and the Secretary for Social Affairs and Culture of the Macao Special Administrative Region was signed; the agreement regulates both parties in efforts to establish a mechanism for regular meeting and direct communication, strengthen the cooperation of the sanitary inspection and quarantine services, implement food-safety management policy, formulate relevant standards and legislation, as well as notify each other of any major food-safety incidents or false or inferior food incidents.

In May 2010, an agreement on a Life Support Training Programme was signed between Conde de S. Januário Hospital and the Hong Kong College of Emergency Medicine with the aim of providing courses on basic life support (BLS), advanced cardiac life support (ACLS) and paediatric advanced life support (PALS) that are recognized by the American Heart Association.

In July 2010, a service agreement on a cardiologists and oncologists training programme was signed between the Health Bureau and the Hospital Authority of Hong Kong (China); under the agreement, specialists from the Hong Kong Hospital Authority will come to Macao on a regular basis to provide training to local specialists.

3.7 Challenges to health system strengthening

The Health Bureau continues to follow policies and plans to create a favourable environment and conditions for medical consultation and to ensure that residents receive a satisfactory and convenient community health care service, hence strengthening public health and improving the quality of life of the population. However, factors such as the increasing population and population ageing, as well as the rising demand for medical services, are serious concerns for the Government of Macao.

Statistics from Conde de S. Januário Hospital indicate that hospital admissions increased by 35% from 12 748 in 2001 to 17 228 in 2010, while outpatient and emergency consultations rose by 82.8% and 37.5%, respectively. In 2010, the bed occupancy rate increased to 89.4%, with patients staying in hospital for an average of 9.3 days.

In November 2010, the Health Bureau initiated an extension project for the emergency ward in Conde S. Januario Hospital. The total area of the emergency ward will be increased from 1330 square metres to 4000 square metres.

To raise the level of medical services, keep in line with the patient safety goals, strengthen strategies for continuous quality improvement and ensure residents enjoy medical benefits, Conde de S. Januário Hospital has appointed the Australian Council on Healthcare Standards (ACHS), an independent organization, to conduct an accreditation programme to improve its services continuously. The accreditation will be divided into three phases: evaluation,

training & education, and periodic review assessments. The first phase commenced in July 2010 with an invitation to ACHS experts to visit Macao to conduct the evaluation; phases two and three, including an organizationwide survey, are expected to be conducted within two years.

To provide convenient and efficient psychological counselling and therapy to people with emotional disorders, particularly the elderly, and to reduce their waiting times in hospital outpatient departments, mental health care outpatient clinics have been set up in Fai Chi Kei Health Centre and Hac Sa Wan Health Centre since September 2010.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Health statistics*
Operator	:	Statistics and Census Service
Specification	:	Contains analyses and tables in relation to health care in Macao
Web address	:	http://www.dsec.gov.mo/Statistic/Social/HealthStatistics.aspx?lang=en-US
Title 2	:	*Yearbook of statistics*
Operator	:	Statistics and Census Service
Specification	:	Includes latest general information
Web address	:	http://www.dsec.gov.mo/Statistic/General/YearbookOfStatistics.aspx
Title 3	:	*Macao yearbook 2010*
Operator	:	Government Information Bureau
Specification	:	Outlines major events, progress and changes on a yearly basis
Web address	:	http://yearbook.gcs.gov.mo

5. ADDRESSES

HEALTH BUREAU

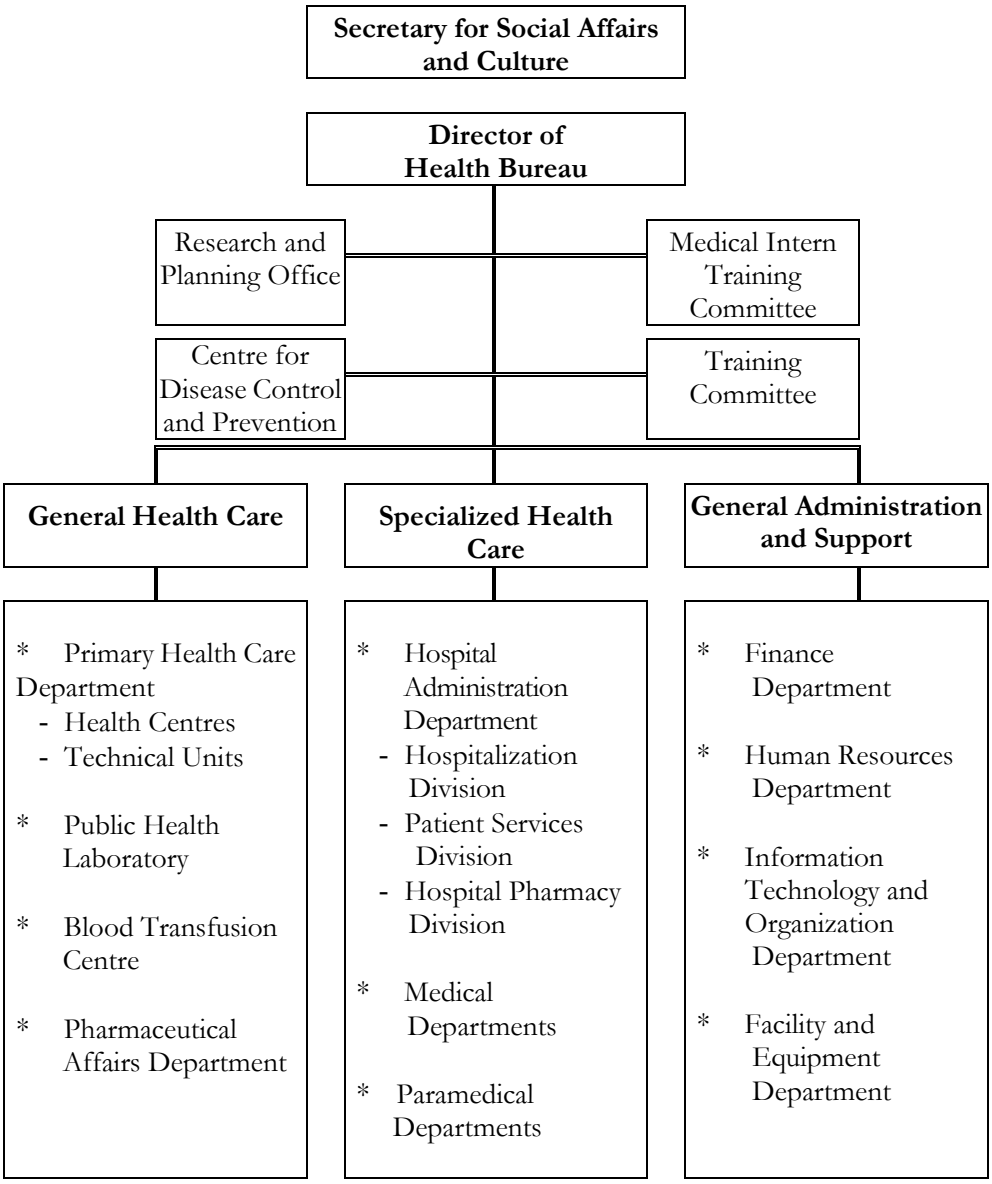
Office Address	:	Estrada do Visconde de S. Januário, Macau
Postal Address	:	Caixa Postal 3002 – Macau
Official Email Address	:	info@ssm.gov.mo
Telephone	:	(853) 28313731
Fax	:	(853) 28713105

WHO REPRESENTATIVE

There is no WHO Representative in Macao (China). Queries about the WHO programme of collaboration with Macao (China) should be directed to:

Office Address	:	Director, Programme Management World Health Organization Regional Office for the Western Pacific United Nations Avenue P.O. Box 2932, 1000 Manila, Philippines
Postal Address	:	P.O. Box 2932, 1000 Manila, Philippines
Official Email Address	:	postmaster@wpro.who.int
Telephone	:	(632) 528 8001 (632) 3031000
Fax	:	(632) 5260279
Office Hours	:	7:00–15:30
Website	:	http://www.wpro.who.int

6. ORGANIZATIONAL CHART: Health Bureau



COUNTRY HEALTH INFORMATION PROFILE

MACAO (CHINA) — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.03						2010	1
2	**Estimated population ('000s)**	552.30 [a]		265.30 [a]		287.00 [a]		2010	1
3	**Annual population growth rate (%)**	1.90		1.60		2.20		2010	1
4	**Percentage of population**								
	- 0–4 years	4.20		4.60		3.90		2010	1
	- 5–14 years	8.00		8.60		7.40		2010	1
	- 65 years and above	8.00		7.50		8.40		2010	1
5	**Urban population (%)**	100.00		100.00		100.00		2010 est	1, 2
6	**Crude birth rate (per 1000 population)**	9.40		...		...		2010	1
7	**Crude death rate (per 1000 population)**	3.30		...		...		2010	1
8	**Rate of natural increase of population (% per annum)**	0.61		...		...		2010	1
9	**Life expectancy (years)**								
	- at birth	82.50		79.50		85.40		2007-10p	1
	- Healthy Life Expectancy (HALE) at age 60	...		...		...			
10	**Total fertility rate (women aged 15–49 years)**	1.10						2010	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	95.87 [b]		97.97 [b]		93.98 [b]		2010	1
12	**Per capita GDP at current market prices (US$)**	49 745.00						2010	1
13	**Rate of growth of per capita GDP (%)**	25.50						2010	1
14	**Human development index**	0.84 [c]						2009	1
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	214615.60 [d]		...		...		2010	1
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	6	4	2	0	0	0	2010	3
	- Type B	12	7	5	1	0	1	2010	3
	- Type C	3	3	0	0	0	0	2010	3
	- Type E	16	8	8	0	0	0	2010	3
	- Unspecified	0	0	0	0	0	0	2010	3
	Cholera	0	0	0	0	0	0	2010	3
	Dengue/DHF	6	6	0	0	0	0	2010	3, 4
	Encephalitis	2	2	0	0	0	0	2010	3
	Gonorrhoea	13	9	4	0	0	0	2010	3
	Leprosy	0	0	0	0	0	0	2010	3, 4
	Malaria	1	1	0	0	0	0	2010	3
	Plague	0	0	0	0	0	0	2010	3
	Syphilis	34	21	13	0	0	0	2010	3
	Typhoid fever	1	1	0	0	0	0	2010	3
17	**Acute respiratory infections**	...	...	...	12	6	6	2010	3
	- Among children under 5 years	...	...	...	0	0	0	2010	3

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	347	212	135	23	16	7	2010	3
	- New pulmonary tuberculosis (smear-positive)	123	82	41	3	3	0	2010	3
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	581	354	227	2010	3
	- Breast	...	...	...	26	0	26	2010	3
	- Colon and rectum	...	...	...	78	39	39	2010	3
	- Cervix	...	...	...	13	0	13	2010	3
	- Leukaemia	...	...	...	13	8	5	2010	3
	- Lip, oral cavity and pharynx	...	...	...	36	23	13	2010	3
	- Liver	...	...	...	67	49	18	2010	3
	- Oesophagus	...	...	...	23	19	4	2010	3
	- Stomach	...	...	...	38	23	15	2010	3
	- Trachea, bronchus, and lung	...	...	...	146	97	49	2010	3
21	**Circulatory**								
	All circulatory system diseases	...	...	...	457	239	218	2010	3
	- Acute myocardial infarction	...	...	...	41	30	11	2010	3
	- Cerebrovascular diseases	...	...	...	48	28	20	2010	3
	- Hypertension	...	...	...	172	84	88	2010	3
	- Ischaemic heart disease	...	...	...	91	55	36	2010	3
	- Rheumatic fever and rheumatic heart diseases	...	...	...	8	2	6	2010	3
22	**Diabetes mellitus**	...	...	...	64	31	33	2010	3
23	**Mental disorders**	...	...	...	4	3	1	2010	3
24	**Injuries**								
	All types	11 753	6920	4833	99	65	34	2010	3
	- Drowning	10	7	3	9	5	4	2010	3
	- Homicide and violence	938	613	325	2	2	0	2010	3
	- Occupational injuries	2603	1680	923	0	0	0	2010	3
	- Road traffic accidents	3242	1837	1405	10	7	3	2010	3
	- Suicide	106	52	54	50	31	19	2010	3
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1.	...	...	...	...	...	...		
	2.	...	...	...	...	...	...		
	3.	...	...	...	...	...	...		
	4.	...	...	...	...	...	...		
	5.	...	...	...	...	...	...		
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Essential (primary) hypertension (I10)	172	84	88	31.14	31.66	30.66	2010	1,3
	2. Malignant neoplasm of bronchus and lung (C34)	146	97	49	26.43	36.56	17.07	2010	1,3
	3. Pneumonia, organism unspecified (J18)	137	71	66	24.81	26.76	23.00	2010	1,3
	4. Malignant neoplasm of liver and intrahepatic bile ducts (C22)	67	49	18	12.13	18.47	6.27	2010	1,3
	5. Non-insulin-dependent diabetes mellitus (E11)	57	33	24	10.32	12.44	8.36	2010	1,3
	6. Chronic ischaemic heart disease (I25)	57	32	25	10.32	12.06	8.71	2010	1,3
	7. Hypertensive heart disease (I11)	56	28	28	10.14	10.55	9.76	2010	1,3
	8. Other chronic obstructive pulmonary disease (J44)	55	25	30	9.96	9.42	10.45	2010	1,3
	9. Malignant neoplasm of colon (C18)	52	40	12	9.42	15.08	4.20	2010	1,3
	10. Malignant neoplasm of stomach (C16)	41	21	20	7.42	7.92	6.97	2010	1,3
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					…			
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					…			
29	**Percentage of pregnant women with anaemia**					…			
30	**Neonatal mortality rate (per 1000 live births)**	2.50		2.30		2.80		2010	1,3
31	**Percentage of newborn infants weighing less than 2500 g at birth**	6.90		6.80		7.00		2010	1
32	**Immunization coverage for infants (%)**								
	- BCG	99.60		…		…		2010	3
	- DTP3	93.20		…		…		2010	3
	- Hepatitis B III	88.70		…		…		2010	3
	- MCV2 (MMR1)	…		…		…			
	- POL3 (VAP3)	93.20		…		…		2010	3
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			…			0	2010	1
	- Eclampsia			…			0	2010	1
	- Haemorrhage			…			0	2010	1
	- Obstructed labour			…			0	2010	1
	- Sepsis			…			0	2010	1
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	0	0	0	2010	1,3
	- Diphtheria	0	0	0	0	0	0	2010	1,3
	- Measles	0	0	0	0	0	0	2010	1,3
	- Mumps	81	49	32	0	0	0	2010	1,3
	- Neonatal tetanus	0	0	0	0	0	0	2010	1,3
	- Pertussis (whooping cough)	0	0	0	0	0	0	2010	1,3
	- Poliomyelitis	0	0	0	0	0	0	2010	1,3
	- Rubella	4	1	3	0	0	0	2010	1,3
	- Total Tetanus	0	0	0	0	0	0	2010	1,3
	Health facilities								
35	**Facilities with HIV testing and counseling services**					…			

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	661	2010	3
		- Specialized hospitals	0	0	2010	3
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	8 [f]	0	2010	3
	Private health facilities	- Hospitals	2	704	2010	1,3
		- Outpatient clinics	658	...	2010	3
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			488.38	2009	1
	- total expenditure on health as % of GDP			2.36	2009	1
	- per capita total expenditure on health (in US$)			897.30	2009	1
	Government expenditure on health					
	- amount (in million US$)			356.17	2009	1
	- general government expenditure on health as % of total expenditure on health			72.93	2009	1
	- general government expenditure on health as % of total general government expenditure			8.45	2009	1
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			27.07	2009	1
	- out-of-pocket expenditure on health as % of total expenditure on health			...		
	Exchange rate in US$ of local currency is: 1 US$ =			7.98	2009	5
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	1330	763	567	...	...	385	945	2010	3
		- Ratio per 1000 population	2.41	1.38	1.03	...	...	0.70	1.71	2010	1, 3
	Dentists	- Number	201 [g]	138 [g]	63 [g]	...	...	16 [g]	185 [g]	2010	3
		- Ratio per 1000 population	0.36 [g]	0.25 [g]	0.11 [g]	...	...	0.03 [g]	0.33 [g]	2010	1, 3
	Pharmacists	- Number	276	...	...	...	...	...	...	2010	3
		- Ratio per 1000 population	0.5	...	...	...	...	...	...	2010	1, 3
	Nurses	- Number	1536	103	1433	...	...	845	691	2010	3
		- Ratio per 1000 population	2.78	0.19	2.59	...	...	1.53	1.25	2010	1, 3
	Midwives	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Paramedical staff	- Number	1643	514	1129	...	...	...	...	2009	1
		- Ratio per 1000 population	2.97	0.93	2.04	...	...	...	...	2009	1
	Community health workers	- Number	1277	431	846	...	...	...	...	2009	1
		- Ratio per 1000 population	2.31	0.78	1.53	...	...	...	...	2009	1
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	2.90	2.60	3.30	2010	1
44	Under-five mortality rate (per 1000 live births)	3.50	3.00	4.10	2010	1
45	Proportion of 1 year-old children immunised against measles	91.40	...	...	2010	3
46	Maternal mortality ratio (per 100 000 live births)	0.00			2010	1
47	Proportion of births attended by skilled health personnel	100.00			2010	1
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.00			2010	1
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00			2010	1
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	3.00			2010	1
50	Antenatal care coverage - At least one visit	99.30 [h]			2010	3
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	0.16	0.03	0.29	2010	1, 3
53	Estimated HIV prevalence in adults	0.05	0.09	0.02	2010	1, 3
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	0.00	0.00	0.00	2010	1, 3
56	Malaria death rate per 100 000 population	0.00	0.00	0.00	2010	1, 3
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	129.80	168.60	94.30	2010	1, 3
60	Tuberculosis death rate per 100 000 population	2.40	2.60	2.10	2010	1, 3
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	3
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	91.30	89.60	94.60	2009	3
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	...	...	2010	1
64	Proportion of population using an improved sanitation facility	100.00	...	...	2010	1
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
p	Provisional
~	No figure provided
..	Not applicable
a	Refers to Macao population as of 31st December 2010
b	Data derived from the Employment Survey of Statistics and Census Service, Macao SAR, referring to land-based non-institutionalized population
c	According to the methodology of the Human Development Report 2010
d	Figure includes 8671.1 metric tons of general solid waste, 257.5 metric tons pathological solid waste and 205 687 m^3 liquid effluent from hospital
e	Refers to the first dose of MMR Vaccine (Measles, Mumps & Rubella)
f	Figure includes six health centres and two health stations
g	Figure include odontologists
h	Figure refers to services provided by public health facilities

Sources:	
1	Statistics and Census Service, Macao SAR.
2	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM
3	Health Bureau, Macao SAR.
4	WHO Regional Office for the Western Pacific, data received from the technical units
5	Macao Monetary Authority.

MALAYSIA

1. CONTEXT

1.1 Demographics

In 2010, the population of Malaysia was estimated to be 28 250 500. Covering an area of 329 959 square kilometres, the population density is 86 persons per square kilometre. Malaysia is a multiracial country consisting of Malays, Chinese, Indians and other ethnic groups. In 2010, an estimated 2 473 700 non-Malaysians were living in the country. It has a young population, with 7 690 500 (27.2%) below the age of 15 years, while those aged 15-64 years account for 19 230 100 (68.1%) and those 65 years or older for about 1 329 800 (4.7 %).

Life expectancy at birth for both sexes has increased over the years, rising from 56 years for males and 58 for females in 1957 to 71.7 years for males and 76.6 years for females in 2010. Over the same period, the crude death rate fell from 12.4 per 1000 population to 4.9. The crude birth rate in 2010 was 18.8 per 1000 population and the crude rate of natural increase was 13.9 per 1000 population.

1.2 Political situation

Malaysia practises parliamentary democracy based on the federal system of government. The country is a constitutional monarchy with three branches of government: the legislative, judiciary and executive. Under the Federal Constitution, the states of Perlis, Kedah, Pulau Pinang, Perak, Selangor, Negeri Sembilan, Melaka, Johor, Pahang, Terengganu, Kelantan, Sarawak and Sabah agreed to the concept of the formation of Malaysia, whereby the powers of state governments are defined by the Federal Constitution.

The constitutional monarch is the Yang Di-Pertuan Agung (Paramount Ruler), who is elected from among and by the sultans (hereditary rulers) of the nine states for a five-year term. The Yang Di-Pertuan Agung is empowered to safeguard the customs and traditions of the Malays. Islam, the official religion of the country, is safeguarded by Yang Di-Pertuan Agung and the sultans of the respective states. The monarch is also the Commander-in-Chief of the Federation's Armed Forces. Since early 2007, the Yang Di-Pertuan Agung has been Sultan Mizan Zainal Abidin, the Sultan of Terengganu.

The head of government is the Prime Minister, who appoints the Cabinet from among the members of Parliament with the consent of the Yang Di-Pertuan Agung. The current Prime Minister is Y.A.B Dato' Seri Mohd Najib Tun Razak.

1.3 Socioeconomic situation

Malaysia's aspiration to become a developed and high-income economy was laid out in the 2010 budget with the introduction of the New Economic Model (NEM) and the Tenth Malaysia Plan (10MP). The National Transformation Programme is further strengthened in the 2011 budget through revitalized private investment, strengthened human capital development and improved productivity, including the well-being of the people. The four pillars of the National Transformation Programme are the '1Malaysia: People First, Performance Now' concept, the Government Transformation Programme (GTP), the Economic Transformation Programme (ETP) and 10MP.

These initiatives will contribute to a higher per capita gross national income (GNI) of between US$15 000.0 and US$20 000.0 by 2020. Furthermore, stimulus packages amounting to RM67 billion (US$ 22 billion) or 9.9% of gross domestic product (GDP) in 2009 have stimulated the economy, leading to 9.5% growth in 2010. Fiscal consolidation can contain the Government's deficit at 5.6% of GDP from domestic sources.

In 2010, Federal Government's total revenue collection was expected to increase 2.2% to RM162.1 billion (US$ 20.8 billion) or 20.9% of GDP. The highest contribution is from tax revenue, amounting to RM107.1 billion (US$ 35.8 billion) or 66.1% of total revenue. Meanwhile total expenditure in 2010 remained high at RM206.2 billion (US$69.0 billion).

The '1Malaysia' concept of improving income and quality of life, especially expanding public health facilities, has

seen a large sum of money being allocated. In 2010, a total of RM3.6 billion (US$ 1.2 billion) was spent in upgrading hospitals and clinics. In addition, RM1.7 billion (US$ 0.56 billion) was allocated for the expansion of the National Heart Institute (IJN) and construction and upgrading of hospitals. Furthermore, 51 premises were converted into 1Malaysia clinics, where a total of 808 831 patients were treated.

The country was rated 0.7 on the Human Development Index in 2010. In 2007, the poverty rate declined to 0.7%, compared with 6.9% in 1985, while the percentage of the population below the poverty line in 2007 fell to 3.6%, compared with 32.1% in 1980. The inflation rate, as measured by the Consumer Price Index (CPI) only increased by 2.03% between January and December 2010. In an effort to increase income and raise living standards, the 2010 Budget, among other measures, continued to provide resources to eradicate extreme and urban poverty; assist the poor and vulnerable groups; increase home ownership; expand public health facilities; and enhance the social safety net. It is hoped that human capital expenditure directed towards the community will stimulate economic growth and eventually reduce the poverty rate.

Total employment was estimated at 11.8 million for 2010 and the unemployment rate at 3.6%; the total labour force numbered 12.2 million. The unemployment rate averaged 3.4% from 1998 to 2010, the highest rate being in March 1999 at 4.5% and the lowest at 2.9% in March 1998. The percentage of the total labour force in the informal sector was 86.1% or 10.5 million in 2010.

Life expectancy, based on nutritional and socioeconomic status, has increased to 71.7 years for men and 76.6 years for women. The Gender Related Development Index (GDI) has been replaced by the Gender Inequality Index (GII). In calculating the GII, Malaysia's Gender Gap Index (MGGI) is measured, which takes into consideration health, education and economic activity, as well as political and economic empowerment. Under the Health section, there are two main indicators: life expectancy at birth; and under-five mortality rate. In 2008 female life expectancy was 76.4 years and male 71.6 years. The under-five mortality rate (deaths/1000 live births) was 7.2 for females and 8.7 for males. The Education section traces past trends in female and male achievements in education, divided into two categories: adult literacy; and combined gross enrolment ratios. In 2004, the literacy rate was 88.1% for females, while it was 94.7% for males. The combined gross enrolment ratio for males was 65.7% and for females 67.2%. Indicators of economic activity can be divided into two categories: the labour force participation rate (LFPR); and the proportion of the population in non-agricultural employment. The labour force participation rate was 47.3% for females in 2004, and 80.9% for males, with 0.89% of females and 0.83% of males in non-agricultural employment..

Environmental health is defined by WHO as addressing all the physical, chemical and biological factors external to a person, and all related factors impacting behaviour. It is targeted towards preventing disease and creating health-supportive environments. In Malaysia, many environment- and health-related problems have been solved, but some things remain to be done, especially as regards the health implications of chronic exposure.

1.4 Risks, vulnerabilities and hazards

As a whole, Malaysia did not face any major catastrophes in 2010, except for a few incidences of flash flooding and landslides that affected certain parts of the country during heavy downpours.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Malaysia is at an epidemiological transition stage, with communicable and noncommunicable diseases both presenting as disease burdens. The top five diseases are dominated by noncommunicable diseases, as in most developed nations. However, some communicable diseases persist along with the rising incidence of noncommunicable disease. Mental illness has also become an increasing problem.

The underlying causes of the noncommunicable disease (NCD) epidemic are demographic changes and an increase in the level of population risk factors resulting from social and economic development. Based on data and information gathered by the National Health Morbidity Survey (NHMS) for the Malaysian population aged ≥30 years, which is conducted every 10 years (1986, 1996 and 2006), the prevalence of diabetes increased drastically in the last 10-year period, almost doubling in 2006 compared with 1996 (from 8.3% to 14.9%). The

prevalence of undiagnosed diabetes (or newly diagnosed) also increased, from 1.8% in 1996 to 5.4% in 2006. The majority of diabetes patients still opt for conventional or modern treatment, but there is a huge difference between the sexes as regards seeking traditional or alternative treatment for diabetes (males > females). The percentage of patients receiving insulin is also relatively low if compared with more developed countries; insulin is underutilized in Malaysia. As it is clinically advocated to 'treat-to-target', there is a need to be more aggressive in treating diabetes patients and to seek an increase in insulin use as time progresses.

The prevalence of hypertension also increased from 33% in 1996 to 43% in 2006. In terms of awareness, an individual knowing that he or she has hypertension, there was only a slight increase in the 10-year period. The most startling difference was in the prevalence of Malaysians receiving treatment once diagnosed with hypertension (88% in 2006 vs. only 23% in 1996). Despite this, there was no difference in the prevalence of hypertensive patients who were being well controlled on treatment and overall.

There was an increasing trend of being overweight among Malaysians from 1996 to 2006, and the prevalence of obesity increased three-fold over the same period. Smoking prevalence showed a slight decrease from 1996 to 2006 (24.8% to 21.5%).

In 2010, the top five notifiable diseases were dengue fever, tuberculosis, hand food and mouth disease (HFMD), food poisoning and HIV. The notification rates per 100 000 population were 149.2 for dengue fever, 68.4 for tuberculosis, 47.4 for HFMD, 44.3 for food poisoning, and 12.9 for HIV infection.

Malaysia has been classified by WHO as an intermediate-TB-burden country. In the last 20 years, the tuberculosis (TB) notification rate has stagnated. In 2010, 19 337 cases were notified; 18 108 (93.2%) were new cases and the case detection rate was 82.1% (11 135 new sputum-positive cases notified). Tuberculosis-related deaths numbered 1557 (5.5/100 000 population). Of the 9981 new smear-positive cases detected in 2009, 7739 were cured (cure rate was 77.6%).

From 1986 until the end of 2010, a cumulative total of 91 362 HIV infections and 16 352 AIDS cases were reported, with 14 298 AIDS-related deaths. A total of 3652 new HIV infections, 1035 news AIDS cases and 904 AIDS-related deaths were reported in 2010. Case analysis shows that 88.8% of the new cases in 2010 were in the 20-49 age group. The Ministry of Health has introduced a harm-reduction strategy as a new initiative to curb the spread of HIV among drug users. This strategy consists of two components: the Needle and Syringe Exchange Programme and drug substitution therapy.

Viral hepatitis is still a public health problem in Malaysia. In 2010, about 1415 cases were reported, giving an incidence rate of 5.0 per 100 000 population. Among those, there were 51 reported deaths. Hepatitis C occured most frequently, with 724 cases, followed by hepatitis B (640 cases), hepatitis A (39 cases) and others specified types of viral hepatitis (12 cases).

Cholera and typhoid fever are among the five foodborne and waterborne diseases occurring in the country, and require mandatory notification under the Infectious Diseases Prevention and Control Act 1988. The occurrence of such diseases is sporadic in certain areas. In 2010, 443 cases of cholera were reported, with an incidence rate of 1.57 per 100 000 population. For typhoid, 210 cases were reported, with an incidence rate of 0.7 per 100 000 population. Improving environmental conditions and access to safe water, and ensuring adequate sanitation, food safety and an appropriate level of personnel hygiene have helped in controlling of the disease.

The Ministry of Health has a long history of providing free immunization to prevent major childhood diseases. The introduction of the National Immunization Programme (NIP) in the early 1950s and the Expanded Programme for Immunization in 1972 has brought about improvements in the quality of life of children in the country. Immunization has also contributed significantly to the reduction of mortality rates among children. From 1979 to 2010, the number of reported diphtheria cases dropped from 98 to 3, neonatal tetanus from 53 to 10 cases, pertussis from 105 to 41 cases, measles from 6352 to 73 cases and poliomyelitis from 4 cases to zero.

Leptospirosis is endemic in Malaysia and has been resurgent in recent years. The upward trend in the number of cases could be due to several factors, such as a true increase in cases, better awareness among clinicians, the availability of more diagnostic facilities or a result of more exposure to ecotourism activities. Currently available data from the morbidity and mortality reports from Ministry of Health hospitals show the incidence of leptospirosis to have risen from 2 per 100 000 population in 2006 to 5 per 100 000 in 2009. Following reports of

several cases and outbreaks in 2010, most notably in Lubuk Yu, Maran, in Pahang, leptospirosis has been made a notifiable disease in Malaysia.

In 2010, 951 943 foreign workers were screened, 29 999 (3.15%) being found to be unsuitable to work in Malaysia. Those numbers were slightly higher than in 2009 when, out of 1 021 542 foreign workers screened, 2.92% or 29 839 were found to be unsuitable. Communicable diseases were the most common diseases found, with 16 904 cases (55.7%), followed by noncommunicable diseases with 10 277 (33.8%). Among the communicable diseases found, tuberculosis (abnormal chest X-ray findings) was the most common, with 9221 cases (54.5%), followed by hepatitis B, with 5375 cases (31.8%); sexually transmitted infections, with 1721 cases (10.2%); HIV infection, with 479 cases (2.8%); and malaria, with 108 cases (0.6%).

From the most recent National Cancer Registry (NCR) for new cases diagnosed in 2007 and reported to the NCR, the age-standardized incidence rates for all cancers in 2007 were 85.1/100 000 for males and 94.4/100 000 for females, while the cumulative rate to age 75 was 10.1 for males and 10.5 for females. The cumulative risk of developing cancer before the age of 75, in the absence of other causes of death, was 9.6 for males and 9.9 for females. Cancer occurs at all ages and increases with age. The incidence rate in males exceeded the incidence rate in females after the age of 60 years.

In 2007, the five most common cancers among the population, regardless of sex, were those of the breast (18.1%), colorectum (12.3%), lung (10.2%), nasopharynx (5.2%) and cervix (5.2%). The five most frequent cancers among Malaysian males were of the lung (16.3%), colorectum (14.6%), nasopharynx (8.4%), prostate (6.2%) and lymphoma (5.5%), while the five most common cancers in females were of the breast (32.1%), colorectum (10.0%), cervix (8.4%), ovary (6.5%) and lung (5.4%). The five most common cancers in children (0-14 years old) were leukaemia (48.0%), cancers of the brain (15.0%), lymphoma (9.1%), bone cancer (6.0%) and cancer of the eye (3.8%). Staging was reported for 48.7% of the new cases reported and registered at NCR. Of those, 17.0% were reported as stage I, 25.3% as stage II, 25.0% as stage III and 32.7% as stage IV. Therefore, at diagnosis, of those staged, 57.6% were already at an advanced stage.

2.2 Outbreaks of communicable diseases

Since the year 2000, Malaysia has been experiencing an increased number of dengue cases being reported annually. In 2009, there were 41 486 cases reported, equivalent to an incidence rate (IR) of 146 cases per 100 000 population, slightly lower than the 49 335 cases (IR 178 cases per 100 000 pop) in 2008. However, in 2010, the number of dengue cases reported increased to 46 171 cases or an IR of 163.44 cases per 100 000 population. In 2010, Selangor had the highest IR, at 309 cases per 100 000 population, followed by Wilayah Persekutuan Kuala Lumpur-Putrajaya, with 250; Kelantan, with 213; Melaka, with 189; and Sarawak, with 166. The number of dengue deaths also increased, from 88 (case fatality rate = 0.21%) in 2009 to 134 (0.29%) in 2010.

There has been a trend towards increasing numbers of food poisoning cases reported from various states, with the majority of outbreaks occurring in schools. The major factor contributing to the outbreaks is unsafe food-handling practices, which accounts for more than 50%. A committee within the Ministry of Education has been set up to overcome the problem.

2.3 Leading causes of mortality and morbidity

The 10 principal causes of admission to Ministry of Health hospitals in 2010 were complications of pregnancy, childbirth and the puerperium, which constituted 13.27% of total admissions; normal deliveries (12.52%); diseases of the respiratory system (9.55%); accidents (7.95%); certain conditions originating in the perinatal period (7.34%); diseases of the circulatory system (6.87%); diseases of the digestive system (5.07%); diseases of the urinary system (3.52%); ill-defined conditions (symptoms and signs)(2.97%) and malignant neoplasms (2.92%).

The 10 most common causes of death in Ministry of Health hospitals in 2010 were heart disease and disease of the pulmonary system (16.05%); septicaemia (13.82%); pneumonia (11.52%); malignant neoplasms (11.35%); cerebrovascular diseases (8.63%); diseases of the digestive system (4.76%); accidents (4.72%); certain conditions originating in the perinatal period (3.85%); nephritis, nephrotic syndrome and nephrosis (3.59%); and chronic lower respiratory diseases (2.05%).

2.4 Maternal, child and infant diseases

Socioeconomic development, together with efforts to promote health, have resulted in a decline in maternal mortality. The total fertility rate among Malaysian women is also declining and was estimated to be 2.4 per woman aged 15 to 49 years in 2010. Urbanization, late marriage and increased access to education and health care services, as well as more employment opportunities and family planning programmes, have contributed significantly to the decline in fertility.

The national maternal mortality ratio showed a reduction from 280 per 100 000 live birth in 1957 to 27.3 in 2008. There has also been gradual improvement in the infant mortality rate (from 13.1 per 1000 live births in 1990 to 6.2 in 2008), the perinatal mortality rate (from 13.0 per 1000 births in 1990 to 7.3 in 2008) and the toddler mortality rate (from 0.9 per 1000 population aged 1-4 years in 1990 to 0.4 in 2008).

2.5 Burden of disease

The 2000 Burden of Disease Study showed that the total burden of disease and injury in Malaysia was 2.8 million years, with more than two-thirds due to noncommunicable diseases. Men contributed most of the burden (57%). More than half of the total burden was contributed by premature death, at 64% in men and 57% in women.

The absolute number of years of life lost (YLL) in males peaks in those less than five years of age, then drops to a minimum in the 5-14 age group, before rising sharply in the 15-29 age group, reaching a maximum in the 45-59 age group and then declining gradually. A similar pattern can be seen in women: from 0-14 years, gradually increasing from 15 years onwards, reaching a maximum in the 45-59 age group and declining gradually thereafter.

The top 20 leading causes of disability-adjusted life years (DALYs) account for 63% in men and 64% in women. Ischemic heart disease (IHD) is the leading cause (9.8%), followed by other cardiovascular diseases (CVD) (6.4%), road traffic accidents (5.7%) and septicaemia (4.5%). IHD and other CVD account for 10% and 7% of the total burden of disease in the 30-59 age group and 21% and 12% of total burden of disease in the 60+ age group, respectively.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health's Vision for Health is of a nation working together for better health. The Mission of the Ministry is to build partnerships for health to facilitate and support the people to attain their full potential in health and to motivate them to appreciate health as a valuable asset and take positive action to improve further and sustain their health status to enjoy a better quality of life.

3.2 Organization of health services and delivery systems

The Malaysian population is served by both public and private health sectors, which complement each other. While the Ministry of Health continues to play a pivotal role as the main provider of health services, there is a need to harness the collective involvement of all stakeholders in health to improve the health of the nation. With growth, development and maturity, it is expected that greater demands will be made on the health system. In response, health care delivery by the public and private sectors must be sustainable and affordable to their clientele, as well as responsive to public expectations. Quality, efficiency and integration in all health matters must be the byword of all health care providers. To enable the nation to deliver and meet heightened expectations, greater commitment and cooperation between the public and private sectors is required. The health care delivery system is monitored through a number of approaches, including periodic discussions with service providers, feedback from clients and inspection of services.

3.3 Health policy, planning and regulatory framework

Currently, Malaysia is implementing the 10th Malaysia Plan (2011-2015) (10MP), which will be reviewed on a two-yearly basis. The health planning process has evolved from a purely top-down, pragmatic approach towards a mixed top-down, bottom-up process that is rational and evidence-based. The planning and implementation of 10MP is pivotal to the philosophy of 1Malaysia. This concept is the guiding thrust of the National Mission and the

basis of the National Development Direction, with the focus on building a united and progressive nation in the 21st Century.

In 10MP, the Government has set the target of achieving the status of a high-income nation by 2020. To achieve that target, Malaysia would have to have an annual growth rate of at least 5.5 %. The major outcome set for the health sector is to ensure the provision of and increased accessibility to quality health care and public recreational and sports facilities to support active, healthy lifestyles. The 10MP strategies identified to assist in achieving that outcome include establishing a comprehensive health care system and recreational infrastructure, encouraging health awareness and healthy lifestyle activities, empowering the community to plan or implement individual wellness programmes (responsible for own health) and transforming the health sector to increase the efficiency and effectiveness of the delivery system to ensure universal access.

In the next few years, the Ministry of Health will facilitate the transformation of the health care system via the concept of '1Care for 1Malaysia', where 1Care is a restructured national health system that is responsive and provides a choice of quality health care, ensuring universal coverage to meet the health care needs of the population based on solidarity and equity.

3.4 Health care financing

Although various plans to reform health financing had been discussed previously, the Government had not undertaken any commitment to major change. Two years ago, however, drawing from lessons of the last two decades and supported by the overall ethos of change and development towards Malaysia becoming a high-income country, the Ministry of Health proposed a comprehensive health system transformation concept called '1Care for 1Malaysia', which involves restructuring of service delivery as well as changes to the financing mechanism. Currently, the Ministry and the Government, together with various stakeholders in the public, private and NGO sectors, are working on a blueprint for the proposed implementation of these major reforms. This work is backed up by evidence of best practice and data, such as health expenditure information.

The Malaysia National Health Accounts (MNHA) Unit, established in 2005, continues to gather and analyse health expenditure data using an internationally accepted framework. The second and third reports on national health expenditure for the years 1997–2006, and 2007-2008 were published and distributed to the main stakeholders of the health system, especially the data sources for MNHA.

In 2009, data showed that private health expenditure, at RM18.0 billion (US$ 5.1 billion), was greater than public health expenditure, at RM14.6 billion (US$ 4.2 billion). The Ministry of Health, federal agencies and the Ministry of Higher Education together contribute to more than 90% of public sector expenditure, all of which are funded mainly through general taxation. The main source of health financing in the private sector is out-of-pocket expenditure, which accounts for 40%. The recent growth in private sector expenditure compared with that in the public sector has been of concern to national policy-makers.

3.5 Human resources for health

There is a need to formulate and implement strategic human resource planning and management mechanisms in terms of capacity and capability-building. Research shows that investment in health-promotion, education and disease-prevention services is more efficient and effective in improving health status than investment solely in curative treatment. Therefore, in 10MP, priority in human resource establishment and distribution is given to health-promotion and prevention activities, involving strengthening of divisions and including an increased number of personnel being allocated to various programmes (Public Health, Medical, Pharmacy, Dental Health, Research and Technical Support, Food Safety and Quality, as well as Management).

In line with 10MP, the optimal utilization of available resources for delivery of health services requires, among others, enhancement of human capital, strengthening of primary health care, improvement of quality services, and enhancement of the stewardship and governance role of the Ministry of Health. Emphasis is being given to various development programmes designed to produce a competent health workforce that can deliver quality services and is able to compete locally and globally. Efforts to consolidate and increase the supply of human resources for health, especially those implemented during 9MP, are continuing and are enhanced in 10MP, based on the optimization of resources to ensure the well-being and quality of life of the Malaysian population through equitable access to community health services.

As of 31 December 2010, the Ministry of Health had 185 997 personnel, with 114 scheme of services. Among the factors affecting health care service delivery, particularly in the field of human resources, is the supply of medical specialists or personnel with specialized qualifications. Efforts to enhance the supply of quality health workforce personnel have been initiated through the following activities: increasing the number of health care specialists at all levels through a structured scholarship programme; consistently reviewing health workforce needs at the operational level; and strengthening the quality and standard of training by reviewing and upgrading training curricula. Better remuneration, incentives and career development are provided by the Ministry of Health to attract and retain health personnel. The Workforce Competency Development programme focuses on improving the quality of health care services by developing competency through short courses, continuous medical education and continuous professional development.

In addition, sufficient and competent human resources are required for research and development. Financial allocation is therefore required for development of research personnel, encompassing competency development as well as specialty and subspecialty training.

3.6 Partnerships

The health system consists of various stakeholders: the Ministry of Health, local government, the academic community, professional organizations, the private sector and others. The Ministry works very closely with all stakeholders to strengthen its health priority areas. Effective collaboration and coordination minimizes the gaps between agencies.

Considering the marked improvement in the health status of the nation and the existing issues and challenges, it is inevitable that great commitment and effort will be required to achieve better health.

3.7 Challenges to health system strengthening

The numerous issues and challenges faced by the nation have created a need for change and reform. The main challenges are increasing demand and changing disease patterns, leading to increasing health care costs. A more educated and affluent public with easy access to information, coupled with demographic changes and rapid advances in medical technology, has led to rising consumer demand for better health care and expensive new technology. Prioritization is vital if significant changes are to be achieved.

Changes in the disease burden and disease pattern due to lifestyle are among the challenges facing the nation. Others include the need to enhance human capital; research and development, including research into vaccines and biotechnology; and crisis and disaster management. The threats versus the opportunities of globalization, the liberalization of health, the harnessing of health technology and ICT, the strengthening of the health management information system, intersectoral coordination and collaboration and maximization of the role of the private sector and nongovernmental organizations are also important challenges that need to be addressed.

Realizing these issues and challenges, and to ensure that national health care provision meets required international standards, the Ministry of Health strongly advocates the implementation of various quality assurance initiatives. Guided by the Vision for Health, the Mission of the Ministry of Health and the 1Malaysia concept, Malaysia is striving to achieve a healthy and developed nation.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Social Statictics Bulletin, Malaysia*
Operator	:	Department of Statistics, Malaysia
Specification	:	Includes Information on population, socioeconomic indicators
Web address	:	www.statistics.gov.my
Title 2	:	*Economic Report 2010/2011*
Operator	:	Treasury department Ministry of Finance, Malaysia
Specification	:	Chapter 1, Economic Management and Outlook
Web address	:	www.treasury.gov.my
Title 3	:	*Country Health Plan, 10th Malaysia Plan 2011-2015*
Operator	:	Planning and Development Division, MOH

Title 4	:	The 3rd National Health and Morbidity Survey (NHMS III)
Operator	:	Ministry of Health, Malaysia
Title 5	:	-
Operator	:	Disease Control Division, Ministry of Health
Specification	:	Information on communicable and non communicable disease report, outbreaks of diseases
Web address	:	www.dph.gov.my
Title 6	:	*Burden of disease, Malaysia*
Operator	:	Public Health Institute
Specification	:	Findings on Borden of Disease study base on 2000 data
Title 7	:	*Second report of the National Cancer Registry, Cancer incidence in Malaysia, 2003*
Operator	:	Clinical Research Centre (CRC)
Specification	:	Findings on the incidence of Cancer in Malaysia
Web address	:	http://www.crc.gov.my
Title 8	:	*Pelan Strategik Pengurusan Sumber Manusia (Tahun 2006 - 2010)*
Operator	:	Human Resource Division, MOH
Title 9	:	*Laporan Pelaksanaan Pelan Strategik Pengurusan Sumber Manusia (Tahun 2006 - Tahun 2010)*
Operator	:	Human Resource Division, MOH

5. ADDRESSES

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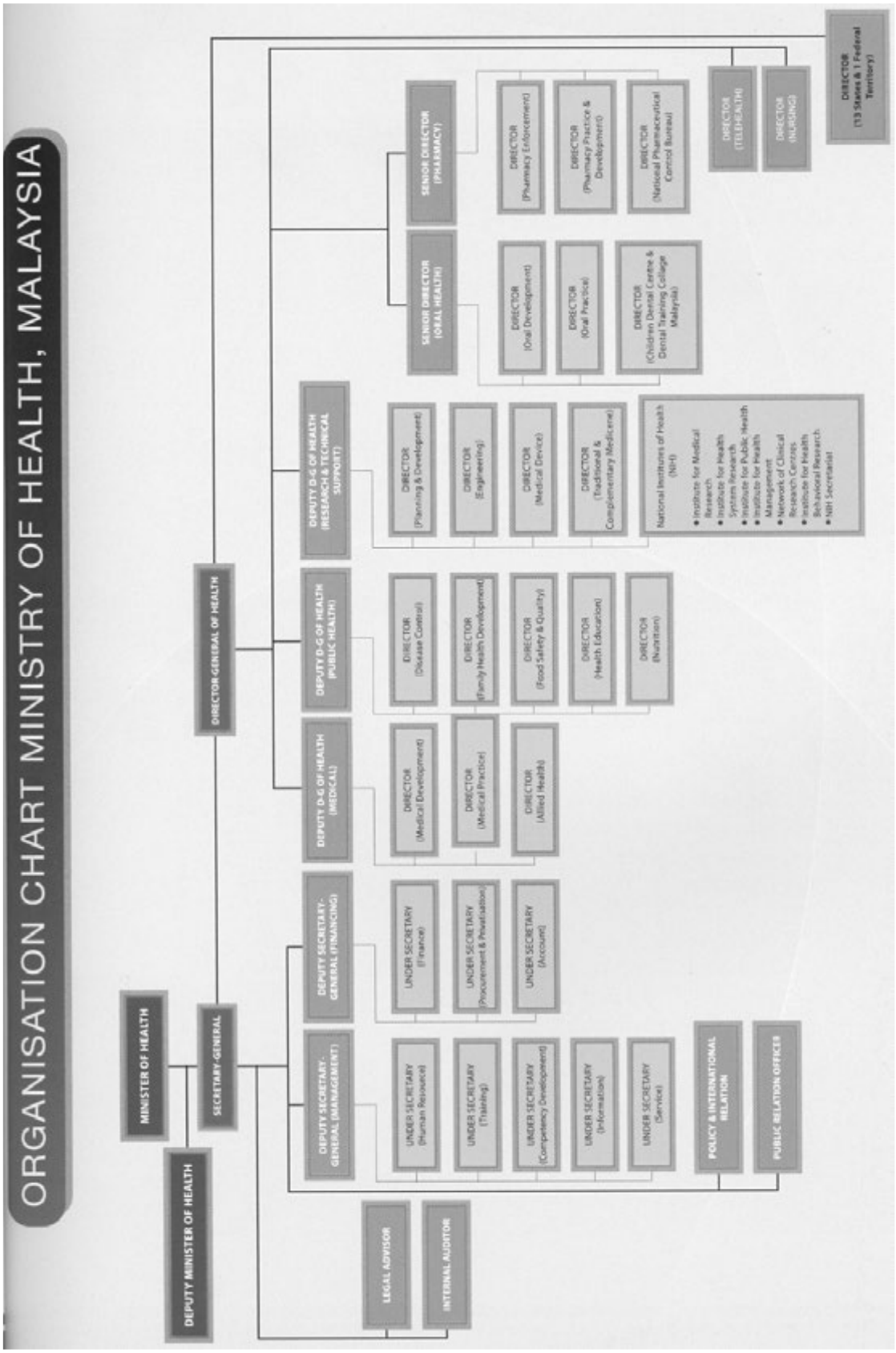
6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

MALAYSIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	329.96						2010	1
2	**Estimated population ('000s)**	28 250.50		14 379.90		13 870.60		2010	2
3	**Annual population growth rate (%)**	1.30		1.20		1.30		2010	2
4	**Percentage of population**								
	- 0–4 years	8.60		8.70		8.60		2010	2
	- 5–14 years	18.60		18.70		18.40		2010	2
	- 65 years and above	4.70		4.40		5.10		2010	2
5	**Urban population (%)**	72.20		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	18.80		...		...		2010	4
7	**Crude death rate (per 1000 population)**	4.90		...		...		2010	4
8	**Rate of natural increase of population (% per annum)**	1.39		...		...		2010	4
9	**Life expectancy (years)**								
	- at birth	...		71.70		76.60		2010 est	2
	- Healthy Life Expectancy (HALE) at age 60	...		...		...			
10	**Total fertility rate (women aged 15–49 years)**	2.40						2010 est	2
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	92.70		95.20		90.20		2009	5
12	**Per capita GDP at current market prices (US$)**	7689.18 [a]						2010	4
13	**Rate of growth of per capita GDP (%)**	7.20						2010	4
14	**Human development index**	0.74						2010	6
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	1415	...	...	51	...	...	2010	7
	- Type A	39	...	...	0	...	...	2010	7
	- Type B	640	...	...	22	...	...	2010	7
	- Type C	724	...	...	29	...	...	2010	7
	- Type E	...	...	...	...	...	...	2010	7
	- Unspecified	12	...	...	0	...	...	2010	7
	Cholera	443	...	...	0	...	...	2010	7
	Dengue/DHF	46 171	...	...	134	...	...	2010	7, 8
	Encephalitis	58	...	...	3	...	...	2010	7
	Gonorrhoea	1181	...	...	0			2010	7
	Leprosy	194	134	60	...	...	...	2010	7, 8
	Malaria	6650	...	...	33	...	...	2010	7
	Plague	0			0			2010	7
	Syphilis	847	...	...	1	...	...	2010	7
	Typhoid fever	210	...	...	0	...	...	2010	7
17	**Acute respiratory infections**	51 880	28 636	23 244	30	21	9	2010	9
	- Among children under 5 years	32 465	19 174	13 291	2	1	1	2010	9

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	41 781	21 895	19 886	39	23	16	2010	9
	- Among children under 5 years	20 992	12 143	8849	13	9	4	2010	9
19	**Tuberculosis**								
	- All forms	17 341	...	...	2400 [e]	...	...	2009	8
	- New pulmonary tuberculosis (smear-positive)	9981	...	...	...	...	...	2009	8
20	**Cancers**								
	All cancers (malignant neoplasms only)	62 120	28 818	33 302	5349	2923	2426	2010	9
	- Breast	7575	45	7530	504	5	499	2010	9
	- Colon and rectum	9190	5483	3707	475	282	193	2010	9
	- Cervix			2863			142	2010	9
	- Leukaemia	5365	2813	2552	333	194	139	2010	9
	- Lip, oral cavity and pharynx	4166	2742	1424	270	186	84	2010	9
	- Liver	2265	1633	632	412	304	108	2010	9
	- Oesophagus	640	422	218	90	60	30	2010	9
	- Stomach	1450	890	560	160	100	60	2010	9
	- Trachea, bronchus, and lung	5588	3909	1679	935	666	269	2010	9
21	**Circulatory**								
	All circulatory system diseases	146 433	86 451	59 982	11 957	7051	4906	2010	9
	- Acute myocardial infarction	14 385	11 000	3385	1950	1288	662	2010	9
	- Cerebrovascular diseases	25 326	14 549	10 777	4070	2276	1794	2010	9
	- Hypertension	26 998	12 245	14 753	219	124	95	2010	9
	- Ischaemic heart disease	52 145	35 987	16 158	4750	2961	1789	2010	9
	- Rheumatic fever and rheumatic heart diseases	2119	1205	914	74	35	39	2010	9
22	**Diabetes mellitus**	37 530	17 608	19 922	384	188	196	2010	9
23	**Mental disorders**	24 813	16 171	8642	2	2	0	2010	9
24	**Injuries**								
	All types	190 745	135 136	55 609	2510	2013	497	2010	9
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	82 480	64 111	18 369	1505	1250	255	2010	9
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Complications of pregnancy, childbirth and the puerperium	282 789 [b]			1001.01 [b]			2010	9
	2. Normal delivery (single spontaneous delivery)	266 689 [b]			944.02 [b]			2010	9
	3. Diseases of the respiratory system	203 449 [b]	113 543 [b]	89 906 [b]	720.16 [b]	789.60 [b]	648.18 [b]	2010	9
	4. Accidents (accidental injury)	169 295 [b]	123 162 [b]	46 133 [b]	599.26 [b]	856.49 [b]	332.60 [b]	2010	9
	5. Certain conditions originating in the perinatal period	156 463 [b]	84 295 [b]	72 168 [b]	553.84 [b]	586.20 [b]	520.29 [b]	2010	9
	6. Diseases of the circulatory system	146 433 [b]	86 451 [b]	59 982 [b]	518.34 [b]	601.19 [b]	432.44 [b]	2010	9
	7. Diseases of the digestive system	108 028 [b]	63 754 [b]	44 274 [b]	382.39 [b]	443.35 [b]	319.19 [b]	2010	9
	8. Diseases of the urinary system	75 001 [b]	38 010 [b]	36 991 [b]	265.49 [b]	264.33 [b]	266.69 [b]	2010	9
	9. Ill-defined conditions (symptoms and signs)	63 298 [b]	34 581 [b]	28 717 [b]	224.06 [b]	240.48 [b]	207.04 [b]	2010	9
	10. Malignant neoplasms	62 120 [b]	28 818 [b]	33 302 [b]	219.89 [b]	200.4 [b]	240.09 [b]	2010	9

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Heart diseases and diseases of pulmonary circulation	7564 [c]	4551 [c]	3013 [c]	26.77 [c]	31.65 [c]	21.72 [c]	2010	9
	2. Septicaemia	6514 [c]	3663 [c]	2851 [c]	23.06 [c]	25.47 [c]	20.55 [c]	2010	9
	3. Pneumonia	5432 [c]	3237 [c]	2195 [c]	19.23 [c]	22.51 [c]	15.82 [c]	2010	9
	4. Malignant neoplasms	5349 [c]	2923 [c]	2426 [c]	18.93 [c]	20.33 [c]	17.49 [c]	2010	9
	5. Cerebrovascular diseases	4070 [c]	2276 [c]	1794 [c]	14.41 [c]	15.83 [c]	12.93 [c]	2010	9
	6. Diseases of the digestive system	2244 [c]	1522 [c]	722 [c]	7.94 [c]	10.58 [c]	5.21 [c]	2010	9
	7. Accident	2224 [c]	1808 [c]	416 [c]	7.87 [c]	12.57 [c]	3.00 [c]	2010	9
	8. Certain conditions originating in the perinatal period	1813 [c]	1046 [c]	767 [c]	6.42 [c]	7.27 [c]	5.53 [c]	2010	9
	9. Nephritis, ephritic syndrome and nephrosis	1690 [c]	954 [c]	736 [c]	5.98 [c]	6.63 [c]	5.31 [c]	2010	9
	10. Chronic Lower Respiratory Diseases	968 [c]	714 [c]	254 [c]	3.43 [c]	4.97 [c]	1.83 [c]	2010	9
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					1.14		2009	10
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					74.90		2010	8
29	**Percentage of pregnant women with anaemia**					9.54		2010	11
30	**Neonatal mortality rate (per 1000 live births)**	3.90		4.40		3.40		2008	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	10.80		9.90		11.70		2008	4
32	**Immunization coverage for infants (%)**								
	- BCG	98.00		...		...		2010	8
	- DTP3	95.00		...		...		2010	8
	- Hepatitis B III	95.00		...		...		2010	8
	- MCV2	95.00		...		...		2010	8
	- POL3	95.00		...		...		2010	8
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			35737			6	2010	9
	- Eclampsia			846			7	2010	9
	- Haemorrhage			8804			11	2010	9
	- Obstructed labour			3259			0	2010	9
	- Sepsis			245			2	2010	9
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	8
	- Diphtheria	3	...	...	...	...	...	2010	8
	- Measles	73	...	...	...	...	...	2010	8
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	10	...	...	...	...	...	2010	8
	- Pertussis (whooping cough)	41	...	...	...	...	...	2010	8
	- Poliomyelitis	0	0	0	...	...	...	2010	8
	- Rubella	104	...	...	...	...	...	2010	8
	- Total Tetanus	28	...	...	...	...	...	2010	8
	Health facilities								
35	**Facilities with HIV testing and counseling services**					1095		2008	8

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	131	33 211	2010	1
		- Specialized hospitals	6	4582	2010	1
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	3054	...	2010	1
	Private health facilities	- Hospitals	254	13 576	2010	1
		- Outpatient clinics	6442	...	2010	1
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			9278.69 [a]	2009p	12
	- total expenditure on health as % of GDP			4.80	2009p	12
	- per capita total expenditure on health (in US$)			337.80 [a]	2009p	12
	Government expenditure on health					
	- amount (in million US$)			4152.84 [a]	2009p	12
	- general government expenditure on health as % of total expenditure on health			44.80	2009p	12
	- general government expenditure on health as % of total general government expenditure			7.10	2009p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			55.20	2009p	12
	- out-of-pocket expenditure on health as % of total expenditure on health			40.47 [a]	2009p	12
	Exchange rate in US$ of local currency is: 1 US$ =			3.52	2009p	12
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	32979	...	...	...	...	22429	10550	2010	1
		- Ratio per 1000 population	1.17	...	...	...	...	0.79	0.38	2010	1
	Dentists	- Number	3810	...	...	...	...	2055	1755	2010	1
		- Ratio per 1000 population	0.13	...	...	...	...	0.07	0.06	2010	1
	Pharmacists	- Number	7759	...	...	...	...	4610	3149	2010	1
		- Ratio per 1000 population	0.27	...	...	...	...	0.16	0.11	2010	1
	Nurses	- Number	69 110	...	...	...	...	47 992	21118	2010	1
		- Ratio per 1000 population	2.45	...	...	...	...	1.7	0.75	2010	1
	Midwives	- Number	21089	...	...	...	...	20922	167	2010	1
		- Ratio per 1000 population	0.75	...	...	...	...	0.74	0.01	2010	1
	Paramedical staff	- Number	...	...	...	...	...		...		
		- Ratio per 1000 population	...	...	...	...	...		...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	4.64	...	...	2010	11
43	Infant mortality rate (per 1000 live births)	6.20 [d]	6.90	5.60	2008	5
44	Under-five mortality rate (per 1000 live births)	8.00	8.70	7.20	2008	5
45	Proportion of 1 year-old children immunised against measles	95.00	...	...	2010	8
46	Maternal mortality ratio (per 100 000 live births)	27.30			2008	5
47	Proportion of births attended by skilled health personnel	98.65			2010	11
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.53			2010	11
	- Percentage of deliveries in health facilities (as % of total deliveries)	98.12			2010	11
48	Contraceptive prevalence rate	0.93	...	...	2010	10
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	83.43			2010	10
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	0.10	...	...	2009	8
53	Estimated HIV prevalence in adults	0.50	...	...	2009	8
54	Percentage of people with advanced HIV infection receiving ART	23.00	...	....	2009	8
55	Malaria incidence rate per 100 000 population	23.82	...	...	2010	8
56	Malaria death rate per 100 000 population	0.12	...	...	2010	8
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	109.00	...	...	2009	8
60	Tuberculosis death rate per 100 000 population	9.00	...	...	2009	8
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	76.00	...	...	2009	8
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	78.00	...	...	2008	8
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	99.00	2008	13
64	Proportion of population using an improved sanitation facility	96.00	96.00	95.00	2008	13
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Figure refers to leading causes of hospitalization in Ministry of Health (MOH) hospitals
c	Figure refers to leading causes of mortality in Ministry of Health (MOH) hospitals
d	Revised data
e	Estimated number of deaths

Sources:	
1	Health Facts 2010 (Draft), Ministry of Health, Malaysia.
2	Population and Demographic Division, Department of Statistics Malaysia
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
4	Malaysia at a Glance. Department of Statistics. Accessed 23 July 2011 [http://www.statistics.gov.my/portal/]
5	Vital Statistics, 2009. Department of Statistics, Malaysia [http://www.statistics.gov.my].
6	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
7	Disease Control Division, Ministry of Health, Malaysia.
8	WHO Regional Office for the Western Pacific, data received from the technical units.
9	HIMS Subsystem - Medical Care 2010, Health Informatics Centre (HIC), Planning & Development Division, Ministry of Health, Malaysia.
10	HIMS Subystem - Family Planning, Health Informatics Centre (HIC), Planning & Development Division, Ministry of Health, Malaysia.
11	HIMS Subystem - Family Health 2010, Health Informatics Centre (HIC), Planning & Development Division, Ministry of Health, Malaysia.
12	National health accounts: country information. Geneva, World Health Organization. Accessed in March 2010 from http://www.who.int/nha/country/en/index.html.
13	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

MARSHALL ISLANDS

1. CONTEXT

1.1 Demographics

The Republic of the Marshall Islands covers an area of 181 square kilometres and comprises 29 atolls and five major islands that form two parallel groups: the Ratak (sunrise) chain and the Ralik (sunset) chain. The Marshallese are of Micronesian origin. The matrilineal culture revolves around a complex system of clans and lineages tied to land ownership. The last census took place in 1999 and the next is currently under way. Available demographic data are, therefore, either from the 1999 census or are estimates derived from it. The estimated population in 2010 was 54 440.

In the area of gender equality in primary and secondary education, the Marshall Islands is essentially on target to meet the Millennium Development Goals, with enrolment rates indicating a roughly 50:50 female-to-male ratio. However, at both primary and secondary levels, female drop-out rates are higher than male, resulting in a higher proportion of males completing Grades 6, 8 and 12 than females. General consensus suggests that the increasing drop-out rates for females are due to the following:

- the rise in teenage pregnancy rates;
- sociocultural expectations requiring females to be at home to help their parents take care of younger children and other family members;
- the high mobility of parents and families between islands, resulting in students being unable to complete the school year (both male and female); and
- cultural and familial expectations of young women requiring them to assist in events such as funerals, resulting in many students missing school for lengthy periods of time, often more than once during the school year (Unable to catch up, many students will simply drop out of school.).

The Marshall Islands is fortunate not to have extreme poverty or hunger. However, current surveys and socioeconomic indicators suggest that poverty and hardship are on the rise, giving rise to concern as to whether the country has been developing, implementing and monitoring poverty-reduction strategies and programmes appropriately.

1.2 Political situation

The legislative branch of the Government consists of the *Nitijela* (Parliament), with an advisory council of high chiefs. The *Nitijela* has 33 members from 24 districts, elected for concurrent four-year terms. Members are called Senators. The President is elected by the *Nitijela* from among its members and the President appoints his cabinet members from the *Nitijela*. The Minister of Health is currently the Honourable Amenta Matthew.

The judicial system comprises the Supreme Court, the High Court, the district and community courts, and the traditional-rights courts. Trial is by jury or judge. The jurisdiction of the traditional-rights court is limited to cases involving titles or land rights, or other disputes arising from customary law and traditional practices.

Citizens of the Marshall Islands live with a democratic political system combined with a hierarchical traditional culture.

1.3 Socioeconomic situation

Government assistance from the United States of America is the mainstay of the small island economy. Agricultural production, primarily subsistence, is concentrated on small farms, the most important commercial crops being coconuts and breadfruit. Small-scale industry is limited to handicrafts, tuna processing and copra. The tourist industry, now a small source of foreign exchange employing less than 10% of the labour force, remains the best hope for future added income. The islands have few natural resources, and imports far exceed exports. Under the terms of the Amended Compact of Free Association, the United States will provide millions of dollars per year to the Marshall Islands (RMI) until 2023, at which time a Trust Fund made up of United States and RMI contributions will begin perpetual annual payouts. Government downsizing, drought, a drop in construction, a

decline in tourism, and reduced income from the renewal of fishing licenses have held gross domestic product (GDP) growth at an average of 1% over the past decade.

1.4 Risks, vulnerabilities and hazards

The country is affected by rising sea levels, desertification, pollution from ships, coral reef erosion and infrequent typhoons. The Department of Defense of the United States conducted a series of nuclear tests in the Republic of the Marshall Islands in the 1940s and 1950s. Among the most famous and devastating of those tests was the Bravo test conducted in March 1954 at Bikini Atoll. That test devastated the atoll and resulted in its population having to disperse to remote atolls and islands due to the resulting levels of radiation. Residents of Rongelap, Utrik and Enewetak were similarly affected due to wind dispersal of the radiation cloud. Most of the population remains dispersed today.

The United States Government, through the Compact of Free Association sought to provide reparation, including the provision of health care services, by creating the 177 Health Care Plan (HCP) for citizens of the Marshall Islands affected by the nuclear tests and later, including their descendants. In September 2003, however, the First Compact of Free Association ended and the source of funding became an issue. While the 177 HCP is not a clearly defined entity in the succeeding compact, the Congress of the United States has been able to fund the programme from other sources on the basis of an annual grant. In 2009, the 177 Health Care Plan received US$985 000 in funding.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

High population growth and crowded conditions in urban areas have caused the re-emergence and/or rise of certain communicable diseases, such as tuberculosis and leprosy. In addition, exposure to modern culture has brought about a rise in levels of adult obesity, noncommunicable disease, teenage pregnancy, suicide, alcoholism and tobacco use.

The Government focuses on training native Marshallese health professionals, strengthening community health care programmes, upgrading the quality of health care services, and improving the dissemination of health care information to its citizens. Other health-related issues include the need to reduce population growth, urban population density and malnutrition, and to strengthen the capacity of the health sector. Recent initiatives have included training basketball players in reproductive health issues so they can lead advocacy programmes.

2.2 Outbreaks of communicable diseases

Communicable diseases continue to be a major cause of morbidity and mortality. An epidemiological investigation revealed a total of 10 cases of multidrug-resistant tuberculosis (MDR TB) between 2004 and 2009, indicating a serious problem with that emerging infectious disease. A multifaceted approach has been taken to combat the problem, involving multiple government, nongovernmental and international partners. Contact-tracing was conducted in 2010 with support from the Global Fund.

One case of infection with the pandemic influenza A (H1N1) 2009 virus has been recorded in the Marshall Islands, but the disease has thus far not caused a considerable degree of morbidity or mortality. However, preparedness and response may be a significant challenge to the health care system.

In June 2010, with WHO's assistance, the country started issuing a syndromic surveillance report. Majuro Hospital and Ebeye Hospital reported on surveillance for diarrhoea, influenza-like illness, acute fever and rash, and prolonged fever to the focal person in the Ministry of Health on a weekly basis. A weekly syndromic surveillance report is submitted to WHO and the Ministry of Health to monitor any possible outbreak.

2.3 Leading causes of mortality and morbidity

Noncommunicable diseases are emerging as the leading cause of mortality. Diabetes-related diseases and cancer (all types) are the leading causes of death.

2.4 Maternal, child and infant diseases

Four maternal deaths were recorded in 2009. Two occurred in the outer islands due to postpartum haemorrhaging, one was in Majuro Hospital and was due to pre-eclampsia, and the other one occurred in Ebeye Hospital, where the cause was gestational hypertension. In 2010, there were two maternal deaths, one in Majuro Hospital and the other in the outer islands, both due to postpartum haemorrhage.

Sepsis, malnutrition, pneumonia, drowning and prematurity were the major causes of mortality among children less than 12 months of age in 2010, while severe malnutrition, bacterial meningitis, gastroenteritis, and pneumonia accounted for deaths among children aged one to four years.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The overarching principle guiding the activities of the Ministry of Health can be found in its mission statement: "To provide high quality, effective, affordable and efficient health services to all peoples of the Marshall Islands, through a primary health care programme to improve health status and build the capacity of each community, family and individual to care for their own health. To the maximum extent possible, the Ministry of Health pursues these goals using the national facilities, staff and resources of the Republic of the Marshall Islands."

3.2 Organization of health services and delivery systems

Medical and health services in the Marshall Islands are delivered in three distinct settings: two hospitals—in the urban areas of Majuro and Ebeye—and 60 health centres on the outer islands.

3.3 Health policy, planning and regulatory framework

In April 2000, the Ministry of Health and Environment (the title changed to the Ministry of Health in 2002) prepared a pivotal document to guide health policies: the *Fifteen Year Strategic Plan 2001-2015*. The document encompasses the *Fifteen Year Plan 2001 to 2015*, the *Strategic Five Year Plan 2001 to 2005* and the *Operational Plan 2001 to 2005*.

The national health priorities remain the same as in 2004 and are to:

- develop and strengthen the capabilities of indigenous personnel;
- institutionalize primary health care strategies, decentralize health care, promote community-based health care and take steps to make community-based health care systems as self-reliant as possible;
- strengthen and develop the health information system;
- secure a sustainable financial base from the Government, the community and the private sector for health care delivery;
- reduce the transmission of sexually transmitted diseases and develop HIV/AIDS/STI prevention programmes;
- reduce population growth and urban densities;
- address and manage the causes and effects of malnutrition;
- address, prevent and manage the rising number of cases of diabetes and their health and social impact;
- coordinate and strengthen the provision of health education; and
- coordinate all aspects of the health care delivery system through the National Health Services Board of the Ministry of Health.

3.4 Health care financing

In 2007, total health expenditure amounted to US$ 22 million, 97.4% from the Government and only 2.6% from the private sector. Government expenditure on health represented 14.6% of the nation's total government expenditure. In line with its mission statement, the Ministry of Health continues to explore avenues to provide

the best quality health care possible to the population despite its meagre funding and limited human and capital resources. A significant proportion of health services are funded under external aid or grant programmes, including United States Federal Health Grants and grants under the Compact of Free Association between the Republic of the Marshall Islands and the United States of America.

3.5 Human resources for health

To review and develop a strategic plan for human resources for health and related aspects, the Cabinet approved the establishment of a Task Force on Human Resources for Health. The Task Force has carried out a situational analysis of the current situation as regards human resources for health and has identified key issues. They have also developed short- and medium-term recommendations for initial strategies aimed at ensuring a sufficient, balanced, skilled, productive and cost-efficient health workforce to promote equitable access to quality and safe health services and support improved health outcomes.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

The reliability of data, staff turnover and migration, and donors' multiple reporting requirements are current challenges.

One of the barriers to delivering health services in the outer islands is the unpredictable flights of Air Marshall Islands. Outreach teams visiting the outer islands deliver all primary health care services, such as immunization clinics, diabetes clinics, TB and leprosy clinics, prenatal services, and health promotion services.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Fifteen Year Strategic Plan 2001-2015*
Operator	:	Ministry of Health and Environment, April 2000
Title 2	:	*Ministry of Health annual report 2004-"Health is a shared responsibility"* *Ministry of Health statistical abstract 1999-2001*
Operator	:	Ministry of Health and Environment
Title 3	:	*Statistical yearbook 2003.*
Operator	:	Economic Policy Planning and Statistics Office
Title 4	:	Economic Policy, Planning and Statistics Office (EPPSO) interview
Web address	:	http://www.spc.int/prism
Title 5	:	*CIA world fact book*
Web address	:	http://www.cia.gov

5. ADDRESSES

MINISTRY OF HEALTH

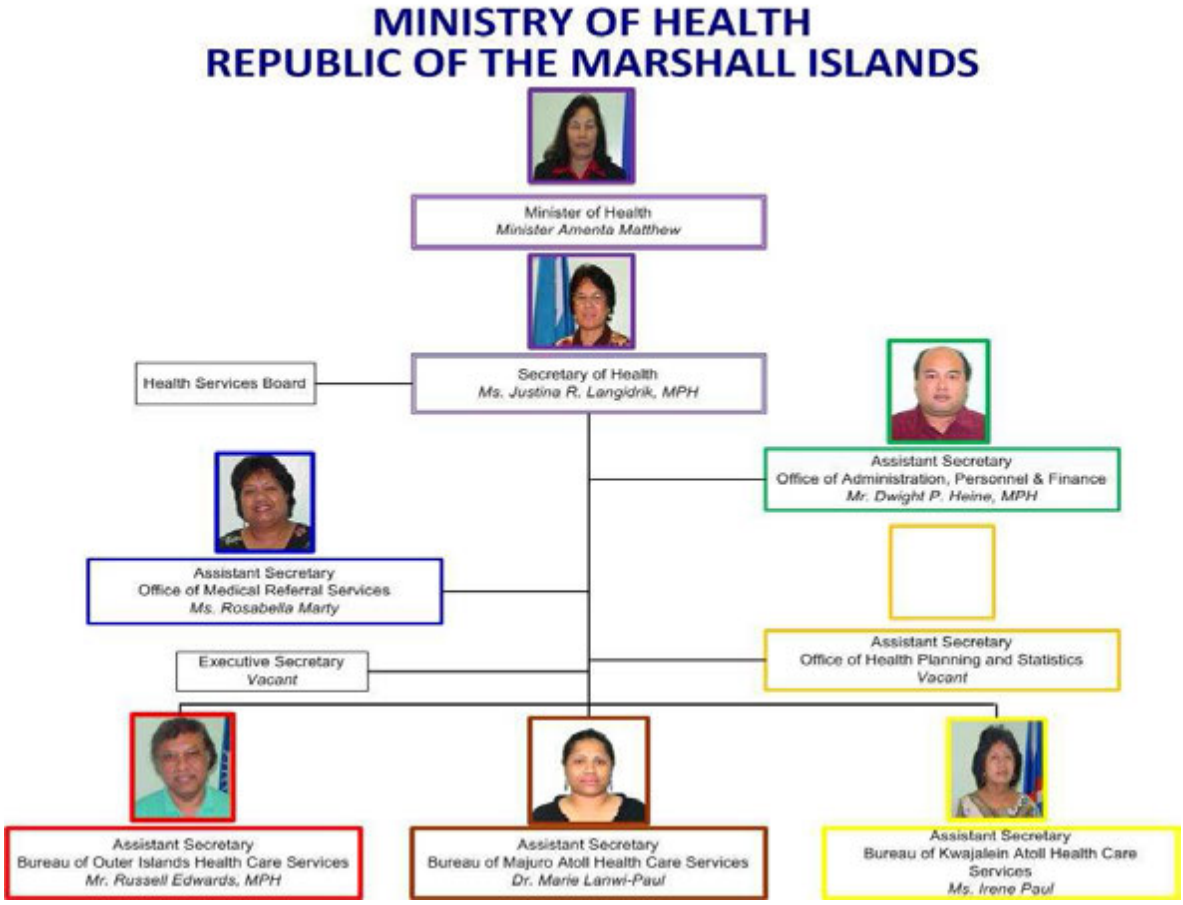
Postal Address	:	P.O. Box 16, Majuro, Marshall Islands
Official Email Address	:	rmimohe@ntamar.net
Telephone	:	+ (692) 625 7246/5660/5661
Fax	:	+ (692) 625 3432/4543/4372
Office Hours	:	8:00 – 12:00 and 13:00 – 17:00

WHO COUNTRY LIAISON OFFICE FOR NORTHERN MICRONESIA

Office Address	:	The Federated States of Micronesia National Government Department of Health and Social Affairs 1/F Mogethin Building, Palikir, Pohnpei
Postal Address	:	P.O. Box PS70, Palikir, Pohnpei FM 96941 Federated States of Micronesia
Official Email Address	:	who.fsm@wpro.who.int
Telephone	:	(619) 320-2619
Fax	:	(619) 320-5263
Office Hours	:	0800 – 1700 Mon. – Fri.

6. ORGANIZATIONAL CHART: Ministry of Health

6.



COUNTRY HEALTH INFORMATION PROFILE

MARSHALL ISLANDS

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.18						2010	1
2	**Estimated population ('000s)**	54.44		27.94		26.50		2010	2
3	**Annual population growth rate (%)**	1.00		...		...		2009	2
4	**Percentage of population**								
	- 0–4 years	15.00		15.00		15.00		2010	2
	- 5–14 years	27.00		27.00		27.00		2010	2
	- 65 years and above	2.00		2.00		3.00		2010	2
5	**Urban population (%)**	71.80		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	26.00		...		...		2010	4
7	**Crude death rate (per 1000 population)**	5.00		...		...		2010	4
8	**Rate of natural increase of population (% per annum)**	2.10 [a]		...		...		2010	4
9	**Life expectancy (years)**								
	- at birth	59.00		58.00		60.00		2009	5
	- Healthy Life Expectancy (HALE) at age 60	...		9.80		10.70		2002	6
10	**Total fertility rate (women aged 15–49 years)**	3.18						2010	2
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	...		...		...			
12	**Per capita GDP at current market prices (US$)**	2851.00						2007	1
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	...							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	12	...	...	...	...	...	2002	4
	- Type B		...	...	6	5	1	2010	4
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2010	4
	Dengue/DHF	0	0	0	0	0	0	2010	4
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	116	54	62	0	0	0	2010	4
	Leprosy	98	71	27	0...	0	0	2010	4
	Malaria	0	0	0	0	0	0	2010	4
	Plague	0	0	0	0	0	0	2010	4
	Syphilis	332	106	226	0	0	0	2010	4
	Typhoid fever	29	...	...	...	...	...	2009	4
17	**Acute respiratory infections**	3703	...	...	...	...	...	2002	4
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	0	0	0	2010	4
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	135	...	...	5 [c]	...	...	2009	7
	- New pulmonary tuberculosis (smear-positive)	52	29	23	...	...	...	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	82	38	44	26	12	14	2010	4
	- Breast	10	0	10	2		2	2010	4
	- Colon and rectum	0	0	0	0	0	0	2010	4
	- Cervix			18			8	2010	4
	- Leukaemia	5	2	3	1	1	...	2010	4
	- Lip, oral cavity and pharynx	2	2	0	2		2	2010	4
	- Liver	2	2	0	2	2	0	2010	4
	- Oesophagus	0	0	0	0	...	...	2010	4
	- Stomach	2	0	2	1	...	1	2010	4
	- Trachea, bronchus, and lung	0	4	0	2	2	0	2010	4
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	10	9	1	2010	4
	- Cerebrovascular diseases	...	...	...	0	0	0	2010	4
	- Hypertension	...	...	...	13	8	5	2010	4
	- Ischaemic heart disease	...	...	...	1	0	1	2010	4
	- Rheumatic fever and rheumatic heart diseases	...	...	...	3	1	2	2010	4
22	**Diabetes mellitus**	...	...	...	53	23	30	2010	4
23	**Mental disorders**		...	...	...	...	...	2010	4
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	5	4	1	2010	4
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	138	86	52	1	1	0	2009	4
	- Suicide	30	...	...	16	...	...	2009	4
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Pregnancy, childbirth and the puerperium	2989		2989	5528.02		...	2009	4
	2. Broncho pneumonia	328	...	...	606.62 [a]	...	...	2009	4
	3. Pneumonia, organism unspecified	291	...	...	538.19 [a]	...	...	2009	4
	4. Diabetes mellitus	284	...	...	525.25 [a]	...	...	2009	4
	5. Urinary tract infection	163	...	...	301.46 [a]	...	...	2009	4
	6. Vaginitis	130	...	...	240.43 [a]	...	...	2009	4
	7. Acute gastroenteritis	124	...	...	229.33 [a]	...	...	2009	4
	8. Asthma	123	...	...	227.48 [a]	...	...	2009	4
	9.	...	...	...	...	...	...		
	10.	..	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diabetes-related disease	53	23	30	97.36	82.33	113.20	2010	4
	2. Pneumonia	29	16	13	53.27	57.27	49.05	2010	4
	3. Cancer (all types)	26	12	14	47.76	42.95	52.83	2010	4
	4. Malnutrition	16	8	8	29.39	28.63	30.19	2010	4
	5. Cerebrovascular accident	14	10	4	25.72	35.79	15.09	2010	4
	6. Hypertension	13	8	5	23.88	28.63	18.87	2010	4
	7. Tuberculosis	11	7	4	20.21	25.06	15.09	2010	4
	8. Myocardial infarction	10	9	1	18.37	32.21	3.77	2010	4
	9. Prematurity	7	5	2	12.86	17.90	7.55	2010	4
	10. Hepatitis B	6	5	1	11.02	17.90	3.77	2010	4
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					18.00		2010	4
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					39.00		2010	7
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	9.00		9.00		8.00		2010	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	13.00		12.00		15.00		2010	4
32	**Immunization coverage for infants (%)**								
	- BCG	99.27		...		...		2010	4, 7
	- DTP3	94.15		...		...		2010	4, 7
	- Hepatitis B III	97.13		...		...		2010	4, 7
	- MCV2	90.24		...		...		2010	4, 7
	- POL3	95.24		...		...		2010	4, 7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			0	2010	4
	- Eclampsia			...			0	2010	4
	- Haemorrhage			...			2	2010	4
	- Obstructed labour			...			0	2010	4
	- Sepsis			...			0	2010	4
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	7
	- Diphtheria	...	...	...	...	...	...		
	- Measles	0	0	0	...	...	...	2010	7
	- Mumps	0	0	0	...	...	...	2010	7
	- Neonatal tetanus	1	...	..	...	...	...	2010	7
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	7
	- Poliomyelitis	0	0	0	...	...	...	2010	7
	- Rubella	0	0	0	...	...	...	2010	7
	- Total Tetanus	0	0	0	...	...	...	2010	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**						2	2010	4, 7

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	2	146	2010	4
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	60	...	2010	4
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	1	...	2010	4
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			26.00 [a]	2009p	8
	- total expenditure on health as % of GDP			16.50	2009p	8
	- per capita total expenditure on health (in US$)			419.35 [a]	2009p	8
	Government expenditure on health					
	- amount (in million US$)			25.00 [a]	2009p	8
	- general government expenditure on health as % of total expenditure on health			97.50	2009p	8
	- general government expenditure on health as % of total general government expenditure			20.10	2009p	8
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			60.00 [a]	2008p	8
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			2.50	2009p	8
	- out-of-pocket expenditure on health as % of total expenditure on health			3.85 [a]	2009p	8
	Exchange rate in US$ of local currency is: 1 US$ =			1.00	2009p	8
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	32	24	8	...	...	...	...	2010	4
		- Ratio per 1000 population	0.59	0.44	0.15	...	...	...	...	2010	4
	Dentists	- Number	4	2	2	...	...	...	...	2010	4
		- Ratio per 1000 population	0.07	0.04	0.04	...	...	...	...	2010	4
	Pharmacists	- Number	2	1	1	...	...	...	...	2010	4
		- Ratio per 1000 population	0.04	0.02	0.02	...	...	...	...	2010	4
	Nurses	- Number	115	38	77	...	...	...	...	2010	4
		- Ratio per 1000 population	2.11	0.70	1.41	...	...	...	...	2010	4
	Midwives	- Number	12	0	12	...	...	...	...	2010	4
		- Ratio per 1000 population	0.22	0.00	0.22	...	...	...	...	2010	4
	Paramedical staff	- Number	6	6	0	...	...	...	...	2010	4
		- Ratio per 1000 population	0.11	0.11	0.00	...	...	...	...	2010	4
	Community health workers	- Number	53	42	11	...	...	...	...	2010	4
		- Ratio per 1000 population	0.97	0.77	0.20	...	...	...	...	2010	4
40	**Annual number of graduates**	Physicians	0	0	0	...	...	...	...	2010	4
		Dentists	0	0	0	...	...	...	...	2010	4
		Pharmacists	0	0	0	...	...	...	...	2010	4

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	19.00	...	...	2010	4
44	Under-five mortality rate (per 1000 live births)	28.00	...	...	2010	4
45	Proportion of 1 year-old children immunised against measles	90.24	...	...	2010	4
46	Maternal mortality ratio (per 100 000 live births)	143.00			2010	4
47	Proportion of births attended by skilled health personnel	99.00			2010	4
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	2.00			2010	4
	- Percentage of deliveries in health facilities (as % of total deliveries)	97.00			2010	4
48	Contraceptive prevalence rate	16.00	...	...	2010	4
49	Adolescent birth rate	67.00			2010	4
50	Antenatal care coverage - At least one visit	2.00 [b]			2004-07p	9
	- At least four visits	77.10 [b]			2004-07p	9
51	Unmet need for family planning	2.36	...	...	2009	4
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	0.03	0.02	0.02	2009	4
54	Percentage of people with advanced HIV infection receiving ART	75.00	67.00	80.00	2010	10
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	231.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	8.00	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	110.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	97.00	...	...	2008	7
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	94.00	92.00	99.00	2008	11
64	Proportion of population using an improved sanitation facility	73.00	83.00	53.00	2008	11
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Figure applies to births in the last three years
c	Estimated number of deaths

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/]
2	Economic Planning, Policy and Statistics Office, Marshall Islands [http://spc.int/prism/country/mh/stats/Index.htm].
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
4	Ministry of Health, Marshall Islands.
5	*World health statistics 2011* . Geneva, World Health Organization, 2011.
6	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
7	WHO Regional Office for the Western Pacific, data received from the technical units
8	National health accounts: country information. Geneva, World Health Organization. Available from: [http://www.who.int/nha/country/en/index.html].
9	Marshall Islands 2007 Demographic and Health Survey Report. [http://www.spc.int/sdp/index.php?option=com_docman&task=cat_view&gid=46&Itemid=42].
10	UNGASS Report
11	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

MICRONESIA, FEDERATED STATES OF

1. CONTEXT

1.1 Demographics

The Federated States of Micronesia contains 607 volcanic islands and atolls scattered over 1 million square miles of the Pacific Ocean. The land area totals 704.6 square kilometres, with 7192 square kilometres of lagoon area.

Based on the preliminary results of the 2010 Census, the Federated States of Micronesia has a population of 102 624, 35.7% below 15 years old, and 3.3% 65 years and over. The average age of the population is estimated to be 21.5 years, and for every 100 females, there are about 103 males. There has been a decrease in the population due to substantial outmigration over the past decade. Approximately 49% of the population lives in Chuuk, 32% in Pohnpei, 11% in Yap and 8% in Kosrae, with almost 23% living in urban areas.

1.2 Political situation

The Federated States of Micronesia is a constitutional federation of four states: Chuuk, Kosrae, Pohnpei and Yap. The capital is located in Palikir, Pohnpei. The constitution provides for three separate branches of government at the national level: executive, legislative and judicial. It has a Declaration of Rights, similar to the Bill of Rights of the United States of America, specifying basic human rights standards consistent with international norms.

The Congress is unicameral and has 14 senators, one from each state, elected for a four-year term, and 10 who serve two-year terms, whose seats are apportioned by population. There are no formal political parties. The President and Vice-President are elected to four-year terms by the Congress. Elections were last held in March 2007 and May 2007. Congress elected Emmanuel Mori as president and Alik L. Alik as Vice-President.

The Division of Health is part of the Department of Health and Social Affairs. The Secretary of the Department of Health and Social Affairs is a cabinet-level position, nominated by the President and requiring congressional confirmation.

1.3 Socioeconomic situation

Economic activity consists primarily of subsistence farming and fishing. Primary farm products include black pepper, tropical fruits and vegetables, coconuts, cassava, betel nuts, sweet potatoes, pigs and chickens. The islands have few mineral deposits worth exploiting, except for high-grade phosphate. The potential for a tourist industry exists, but the remote location, lack of adequate facilities and limited air connections hinder development.

In November 2002, the country experienced a further reduction in future revenues from the Compact of Free Association, the agreement with the United States of America by which Micronesia received US$ 1.3 billion in financial and technical assistance over a 15-year period until 2001. Under the new compact, the country will receive approximately US$ 92 million a year until 2023, including contributions to a jointly managed trust fund. Additional funding from the United States totalled US$ 57 million in 2004.

Employment declined from 16 119 in 2000 to 15 897 in 2005. Pohnpei had the highest number of employed, at 7060, and Kosrae had the lowest, at 1366. The three largest employers were the private sector, state government, and government agencies. Around 43% were in the public sector, 19.8% in wholesale trade and repair and 7% in education. The unemployment rate is 16% and the average real wage is US$ 6037.

The country has a severe trade deficit. In 2005, total imports were valued at US$ 117.5 million and exports were valued at only US$ 1.3 million (exclusive of long-liner and purse seiner catches). The tourism sector is small, with only 13 415 tourists reported for 2005. Private remittances are also limited, especially compared with other Pacific island countries.

The gross domestic product (GDP) for 2008 was estimated to be US$ 304 million, with nominal GDP per capita estimated to be US$ 2223.

1.4 Risks, vulnerabilities and hazards

The country's medium-term economic outlook appears fragile due, not only to the reduction in assistance from the United States of America, but also to the slow growth of the private sector. Geographical isolation and a poorly developed infrastructure remain major impediments to long-term growth.

While telecommunication costs have fallen, Internet access is still expensive and most residential Internet access is provided via dial-up accounts. This lack of affordable broadband Internet access is a significant barrier to business growth and to improving education.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The overall health situation remained unchanged between 2000 and 2009, with the population showing continuing susceptibility to both communicable and noncommunicable diseases. Noncommunicable diseases have been on the rise and have taken their toll on the population in the past 24 years. Citizens of the Federated States of Micronesia, however, continue to enjoy a level of health care that is high in comparison with the rest of the Pacific region. Micronesian doctors are taking the place of United States doctors in the health system as a result of such programmes as the, now defunct, Medical Officer Training Programme in Pohnpei.

2.2 Outbreaks of communicable diseases

The number of vaccine-preventable diseases has declined considerably. However, waterborne and foodborne diseases are major causes of hospital admission. Strategies need to be developed to improve the coverage of immunization and other health programmes that address disease. The highest immunization coverage (84.1%) was in 1992 and was the result of heavy campaigning at that time due to outbreaks of measles and a hepatitis B immunization campaign. There have been sporadic outbreaks of zika virus, dengue fever and hepatitis A in recent years, and multidrug-resistant (MDR) tuberculosis has been detected. Leprosy is still highly prevalent and the country failed to reach the elimination target in 2000. There have been no major outbreaks of sexually transmitted infections, including HIV/AIDS. However, the country is fertile ground for these conditions as behaviours leading to acquiring such infections exist. Some cases of influenza A (H1N1) have been reported, but have not constituted an outbreak. No cholera outbreak has been reported for the last five years. A strategic plan is needed to continue improving health services, public health surveillance and information systems.

2.3 Leading causes of mortality and morbidity

The reporting of mortality and morbidity in the Federated States of Micronesia is still problematic due mainly to late reporting and the lack of a standardized reporting system. The problem with mortality data concerns late filing of death certificates for mortality coding. This function is performed at the national level by the health information system. However, current information (2009) collected from the four states with respect to mortality and morbidity indicate that the leading causes of mortality are heart disease, diabetes mellitus, chronic obstructive pulmonary disease, cerebrovascular accidents and unknown (R99) types of death. As for morbidity, the following conditions top the list: essential (primary) hypertension, diarrhoea/gastroenteritis, diabetes mellitus, skin disorders and urinary tract infections. The 10 leading causes of both outpatient visits and inpatient care, in all four states, are listed in Table 1 below:

Table 1. FSM 2009 morbidity – 10 leading causes (outpatient and inpatient) by body system

Outpatient visits, by system	Inpatient care, by system
Diseases of the respiratory system	Diseases of the respiratory system
Certain infectious and parasitic diseases	Diseases of the circulatory system
Diseases of the skin and subcutaneous tissue	Endocrine, nutrition and metabolic diseases
Diseases of the musculoskeletal system and connective tissue	Certain infectious and parasitic diseases
Diseases of the circulatory system	Diseases of pregnancy, childbirth and the puerperium
Diseases of the digestive system	Diseases of the genitourinary system
Endocrine, nutrition and metabolic diseases	Diseases of the digestive system
Diseases of the genitourinary system	Diseases of the skin and subcutaneous tissue
Diseases of the ear and mastoid process	Diseases of the musculoskeletal system and connective tissue
Symptoms, signs and abnormal clinical and laboratory findings, NEC	Certain conditions originating in the perinatal period

2.4 Maternal, child and infant diseases

National health statistics indicate that the leading causes of death in recent years among infants and young children were prematurity, newborn sepsis, respiratory infections, undernutrition and multiple congenital anomalies, including congenital heart disease. With the addition of diarrhoeal diseases, these health problems are also the leading causes of child morbidity, measured by outpatient visits and hospitalizations. Among older children, teenagers and young adults, injuries have become the predominant cause of death. Among unintentional injuries, the number of water-associated deaths is about equal to motor-vehicle-related deaths.

Prenatal care is slowly improving in the state centres and is being expanded to remote areas. Death and illness due to diarrhoea and acute respiratory infections still account for a large proportion of infant mortality and morbidity. In 2006, the country started implementing the integrated management of childhood illness (IMCI) strategy as a way to strengthen the skills and capacity of health care workers, particularly those attending to maternal and child health, to reduce childhood illness. The maternal death rate cannot be calculated due to underreporting or missing data. However, the maternal mortality ratio is currently estimated at 0 per 100 000 live births. Child and infant diseases continue to be seen mostly in the form of respiratory diseases, diarrhoeal conditions and nutritional disorders. The estimated infant mortality rate (IMR) for 2009 was 13.5 per 1000 live births.

2.5 Burden of disease

Although certain infectious and parasitic diseases are prevalent, the disease burden also includes chronic and noncommunicable diseases, with diabetes and endocrine, nutritional and metabolic diseases constituting major health problems. Contributing factors are believed to be changes in diet, lack of exercise, sex, age, occupation and, in some cases, drug abuse.

Intentional (violence) injury and the high suicide rate are particularly notable and are thought to be due to the burden of cultural and economic dislocation, particularly among young adult males. Suicide rates for young adult males in the Micronesia region are among the highest in the world. Alcohol is often a contributing factor in violent incidents.

Among adults, heart disease and stroke have become the leading causes of death, with rates for adults aged 25 to 55 years double those for their counterparts in the United States of America. This suggests that a combination of lifestyle (high fat/sodium/calorie diet, lack of exercise, and tobacco and alcohol use) and genetics has created an unusual burden on the population that otherwise would follow a disease pattern similar to other developing countries.

Indeed, the fact that these high rates of noncommunicable disease exist in the Federated States of Micronesia in the face of the continued high incidence of tuberculosis, leprosy, rheumatic fever, rheumatic heart disease, etc., indicates that, in a situation similar to other Pacific island countries, the country has not completed an

epidemiological transition, but rather, is in the unenviable position of being doubly afflicted by the disease patterns of both a developing and a developed country.

The leprosy prevalence rate of 40 per 10 000 populations is among the highest in the Pacific.

Since the first case was detected in 1989, a total of 37 HIV infections and/or AIDS cases have been reported in the country, with the number of confirmed HIV infections slowly increasing; only two cases of infection were reported between 1989 and 1997, three were confirmed in 1998 and 1999, six in 2000, three each year from 2001 to 2003, two in 2004, three in 2005, none in 2006, three in 2007, one in 2008, and one in 2009. As in many developing countries, many factors influence the reporting of HIV/AIDS and thus figures may deviate somewhat from actual counts. By the end of 2009, of the cumulative total of 37 confirmed HIV patients, 28 had died from AIDS-related illnesses and three had left the country. Thus, there were six known people living with HIV/AIDS, all adults, residing in the country. Five of these persons are on treatment, two males and three females.

One case of malaria was reported in 2009. In general, the mosquito vector is absent in the environment. However, a few nationals have been infected when travelling to malaria-endemic countries.

Like many developing countries, the Federated States of Micronesia has a high prevalence of tuberculosis (TB). In 2009, the TB incidence rate was 157 per 100 000 population and the prevalence rate was 168 per 100 000 and rising. In response to the situation, a national plan for the prevention and control/elimination of tuberculosis was developed and adapted in 1989, with revision in 1990. In 1992, full implementation commenced. In 1995, the plan was reviewed and revised, with assistance from WHO. In 2009, the plan was revisited and a revision is now being drafted.

The TB situation is similar to that in other developing countries. The disease continues to increase and remains a major cause of preventable morbidity and mortality. A shortage of skilled staff, medication and funding have resulted in generally inadequate treatment for most cases that are identified. Few people complete a full course of treatment, close contacts are evaluated in only two states, and only a few people have started on and/or finished a course of preventive therapy with isoniazid (INH). Laboratory confirmation of suspected TB cases by culture was almost impossible in the past, but that situation has changed dramatically in the past six years. Although training and human resource needs are considered critical, capacity-building of physician assistants (community health assistants) has been improving.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The mission of the Department of Health and Social Affairs is to promote and protect the health status and the social welfare of citizens and residents. The vision is a healthy island nation. The Division of Health has established five health-related strategic goals with the objective of improving health services. These are:

- improvement of primary health care services;
- improvement of secondary health care services;
- prioritization of health promotion and services for major health problems;
- development of a sustainable health care financing mechanism; and
- improvement of capacity and accountability systems.

A total of 10 outcome measures were developed and used during the period from 2003 to 2005 to indicate progress in meeting these goals. In 2005, however, modifications were proposed involving the addition of four new measures. These modifications, also known as the 14 Health Indicators and endorsed by all four state Directors, the Secretary, the Assistant Secretary and programme managers, remained in effect until 2010, and will be reviewed and modified in 2011.

The proposed outcome measures involve increasing access to health services, improving immunization coverage, improving the availability of essential drugs, increasing the functionality of biomedical equipment, reducing the length of the average hospital stay, reducing infant mortality, reducing mental illness, increasing the number of individuals enrolled in health insurance plans, reducing off-island medical referral costs, increasing the number of children under seven years receiving protective tooth sealant, reducing the incidence of diarrhoeal disease,

reducing the incidence of diabetic hospitalization, and implementing a functioning quality assurance system in all states. Baseline data were collected in each of these areas and specific goals established to measure progress.

3.2 Organization of health services and delivery systems

Each state government maintains its own health services. Although similar in many aspects, each system is also unique autonomously. Each state maintains a centrally located hospital that provides a minimum range of primary- and secondary-level services, both preventive and curative. There are six private health clinics in the country and one private hospital. Health services are highly subsidized by the state governments, except in the private clinics.

The Division of Health of the Department of Health, Education and Social Affairs does not have a direct role in the provision of health services. The Department of Health Services in each state has primary responsibility for curative, preventive and public health services. This responsibility includes the main hospital, peripheral health centres, and dispensaries (primary health centres). Only residents of urban centres have direct access to the main hospital in each state. Transportation issues between islands often prevent residents who live on the outer islands from accessing these hospitals.

Dispensaries (similar to health clinics) are located in municipalities and outlying islands and are part of the state health departments. Their location is based on population, need and political considerations. Local mayors and the dispensary supervisors are responsible for day-to-day operations. Diagnosis and treatment of common ailments are the primary services provided, with more advanced cases being referred to central hospitals.

The Secretary of the Department of Health and Social Affairs is responsible for overseeing all health programmes and ensuring compliance with all laws and executive directives. Major mandates are coordination, monitoring, technical assistance and capacity-building. In addition, the Department:

- provides overall supervision for the Division;
- sets priorities within financial, manpower and material constraints, as approved by the Secretary;
- conducts annual programme and staff performance audits and evaluations;
- enforces department and national policies;
- improves accountability within the Division of Health;
- implements national health strategies and the Strategic Development Plan in accordance with the Secretary's directives;
- works to increase external funding to support implementation of health strategies;
- develops and implements property inventory systems; and
- coordinates financial support and assistance to the states.

Table 2. Health facilities in the Federated States of Micronesia

Facility Type	FSM Total	Kosrae	Pohnpei	Chuuk	Yap
I. Total health facilities in country	**122**	**6**	**19**	**71**	**26**
Hospitals	5	1	2	1	1
Community health centres	5	0	1	0	4
Dispensaries	92	0	9	64	19
Aid posts	6	5	0	0	1
Health clinics	6	0	3	3	0
Pharmacies	6	0	2	3	1
Dental clinics	2	0	2	0	0

Facility Type	FSM Total	Kosrae	Pohnpei	Chuuk	Yap
II. Government-owned health facilities	**107**	**6**	**11**	**65**	**25**
Hospitals	4	1	1	1	1
Licensed beds	326	35	116	125	50
Operating beds	312	45	92	125	42
Occupancy rate	65.5	83	62	58	59
Health centres (CHC)	5	0	1	0	4
Dispensaries	92	0	9	64	19
Aid posts	6	5	0	0	1
III. Privately-owned health facilities	**15**	**0**	**8**	**6**	**1**
Hospital	1	0	1	0	0
Licensed beds	36	0	36	0	0
Operating beds	36	0	36	0	0
Private health clinics	6	0	3	0	0
Private pharmacies	6	0	2	3	1
Private dental clinics	2	0	2	3	0

The state-based delivery system is an effective way of administering health. Given the geographical dispersal, remote nature and cultural diversity of the many island communities, the system has the best chance of developing more responsive and effective services to meet the needs of the community. In the environment of politically independent states, however, there are constraints on implementation of national policies.

3.3 Health policy, planning and regulatory framework

The Division of Health of the Department of Health and Social Affairs provides health planning, donor coordination, and technical and training assistance. It also coordinates and manages the preventative medicine and public health programmes funded by the United States Department of Health and Human Services. While the Division of Health does not have a direct role in the provision of health services, it has significant influence in the provision of health services as a result of its managerial responsibilities. Most state Departments of Health Services have very limited planning and programming capabilities. This area needs support and improvement.

3.4 Health care financing

Total expenditure on health goods and services and capital formation in the Federated States of Micronesia in 2008 was estimated as US$ 32.7 million (see Table 3), representing an increase of US$ 2.1 million over the preceding year, and equivalent to an annual growth rate of 6.7% in nominal terms and 4.6% in real terms.

Table 3: Total health expenditure, current and constant prices (2008), and annual growth rates, 2005 to 2008

	Amount (US$ '000)		Growth rate over previous year (%)	
Fiscal year	Current	Constant[(a)]	Current	Constant
2005	30 307	33 159		
2006	29 912	31 347	-1.3	-5.5
2007	30 674	31 284	2.5	-0.2
2008	32 739	32 739	6.7	4.6
Average annual growth rate			2.6	-0.4

(a) Constant price health expenditures are expressed in terms of 2008 prices
Source: FSM Health Accounts Database

The ratio of the country's health expenditure to gross domestic product (health to GDP ratio) provides an indication of the proportion of overall economic activity contributed by the health sector. Total health expenditure grew at an average annual rate of 2.6%, while GDP grew at a lower rate of 1.1% between 2005 and 2008 (Table 4). Consequently, the trend in the ratio of health spending to GDP increased slightly from 13.1% to 13.6% (see Table 4).

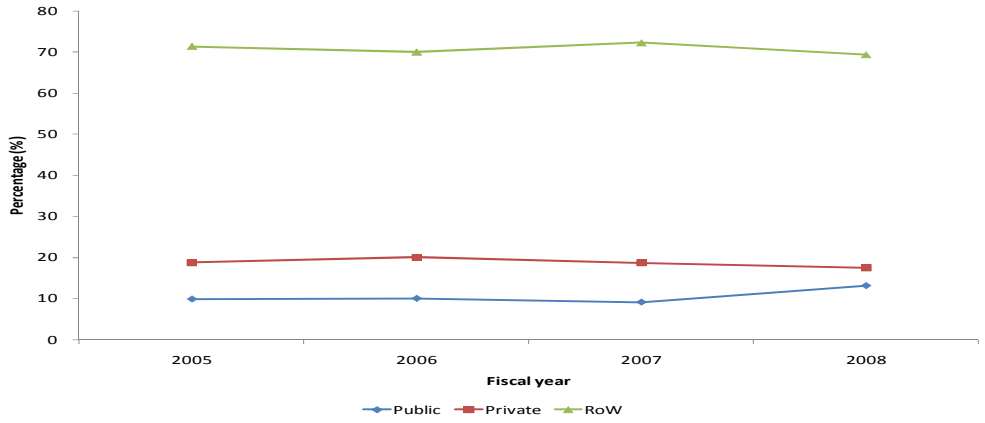
Table 4: Total health expenditure, GDP, annual growth rates and ratio of health spending to GDP, 2005 to 2008

	Total Health Expenditure		GDP		Ratio of health expenditure to GDP (%)
Fiscal year	Amount (US$ '000)	Nominal growth rate (%)	Amount (US$ '000)	Nominal growth rate (%)	
2005	30 307		232 200		13.1
2006	29 912	-1.3	236 900	2.0	12.6
2007	30 674	2.5	235 900	-0.4	13.0
2008	32 739	6.7	240 140	1.8	13.6
Average annual growth rate		2.6		1.1	

Source: FSM Health Accounts Database

In 2008, local financing of health expenditure amounted to US$ 10.0 million, compared with US$ 22.7 million from external funds. Of the local funds, US$ 4.3 million were government funds, while US$ 5.7 million came from private sources. Relative shares of public, private and external financing were largely stable during the period from 2005 to 2008 (see Figure 1). External donor funds dominated total health financing, with public and private funds accounting for about 30%.

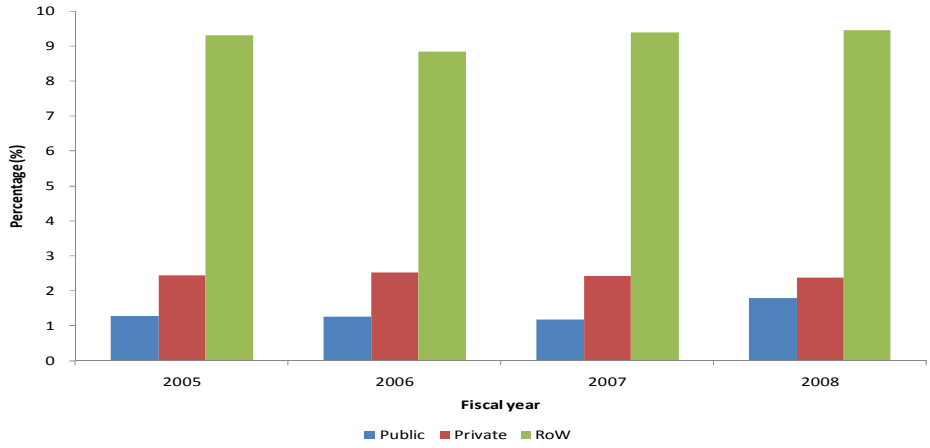
Figure 1: Share of public, private and external funding (%), 2005 to 2008



Source: FSM NHA

Public sector financing of health surged from 1.2%-1.3% of GDP in 2005-2007 to 1.8% by 2008, while private sector financing stayed at 2.4%-2.5% of GDP over the same period. Meanwhile, external financing ranged from 8.8% to 9.5% of GDP (see Figure 2).

Figure 2: Public, private and external spending as a share of GDP (%)



3.5 Human resources for health

Human resources is a critical area in the health care setting nationally, as many of the current workforce will be retiring in five to 10 years and their replacement is not imminent. Development of the health workforce therefore remains a government priority. The need has been partially met through overseas fellowship training and by the several dozen graduates of the Pacific Basin Medical Officer Training Programme from 1991 to 1996, but serious constraints remain. These include the lack of a nursing school and gaps in speciality training for both nurses and physicians. However, the Government, especially the Department of Health and Social Affairs, is very concerned about the shortages of health personnel manning the state hospitals and community health facilities and, in collaboration with the College of Micronesia, has started a certificate course in public health and is planning to establish a nursing school. In addition, Yap state has established a partnership with Palau Community College for the training of nurses. At present most doctors, nurses and allied health workers pursue their education in institutions like the Fiji School of Medicine, the Republic of the Marshall Islands Nursing School and the University of Guam.

Government health services also lack specialized allied health professional workers, particularly hospital administrators, epidemiologists, medical record administrators, pharmacists, laboratory technicians, radiologists and environmentalists. However, due to limited resources, medical and nursing fellowships have been prioritized, based on the states' requests.

Four Pacific Open Learning Health Network (POLHN) Centres have been established, one in each of the four states, and are providing access to online courses and resources. A full-time coordinator is being hired to provide support for local health professionals in accessing and participating in online courses and continuing education.

3.6 Partnerships

Apart from the usual hospital-based health care, community participation in health promotion and disease prevention is critical to successful partnership in the Federated States of Micronesia. Local civil societies, nongovernment organizations and church groups have all played key roles in increasing public awareness on important health issues. The national Department of Health and Social Affairs is working in partnership with the four state Departments of Health Services on policy direction, coordination, monitoring and technical assistance.

External partnerships with the United States Federal Government through various health agencies (Centers for Disease Control and Prevention, Health Resources and Services Administration, Department of Interior) largely take the form of funding assistance for programme activities in public health and preventive health services. With the exception of funding through the Amended Compact, infrastructure and capacity development have been on an ad-hoc basis.

The loan funded by the Asian Development Bank (ADB), Basic Social Services, has now ended. The project was set up to assist the Government in providing capacities in health and education. Activities included training in primary health care and medical coding. Capacity-building in continuous quality initiative training is still seen as a priority for health personnel to stay abreast of new developments in health care delivery services. Partnership with the Department of Education is also essential for scholarships to prospective students in health careers.

As a Member State, the Federated States of Micronesia is also in partnerships with United Nations agencies, such as WHO, the United Nations Children's Fund (UNICEF), and the United Nations Development Programme (UNDP), as well as other regional organizations, such as the Secretariat of the Pacific Community (SPC) and the Pacific Island Health Officers Association (PIHOA). In partnerships with all these international and regional health organizations, the goal is to improve the health status of small island communities.

3.7 Challenges to health system strengthening

Strengthening primary health care services is among the many challenges facing the Department of Health and Social Affairs, and enhancing local health departments with specialized medical services continues to be a priority. At present, and for years to come, there are 10 key health system issues confronting the Federated States of Micronesia. These are:

- improving health status;
- setting clear priorities to ensure the most efficient use of resources;

- addressing the shortage of staff (health workers due to retirement and outmigration)
- establishing new health system funding and financial management approaches;
- building managerial capacity;
- testing innovative approaches in every aspect of the system to increase quality, including improving both access for the community and responsiveness to its needs;
- introducing cost-effective new technologies;
- focusing on functions that constitute public goods;
- establishing national policies, measurable outputs and standards to be met, including their monitoring and regulation, and developing the private health sector; and
- improving primary health care services, including community environmental health conditions in remote areas and the outer islands (accessing the Internet, using solar power to acquire health information and sharing of health data through satellite links).

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	National Health Statistics Office, Department of Health and Social Affairs
Title 2	:	Federated States of Micronesia Statistics Division, Department of Economic Affairs
Web address	:	http://www.spc.int/prism/
Title 3	:	*2010 FSM-Wide Census Population and Housing- Preliminary Counts.*
Operator	:	Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management. Federated States of Micronesia.
Web address	:	http://www.sboc.fm/index.php
Title 4	:	Secretariat of the Pacific Community (SPC)
Web address	:	http://www.spc.int

5. ADDRESSES

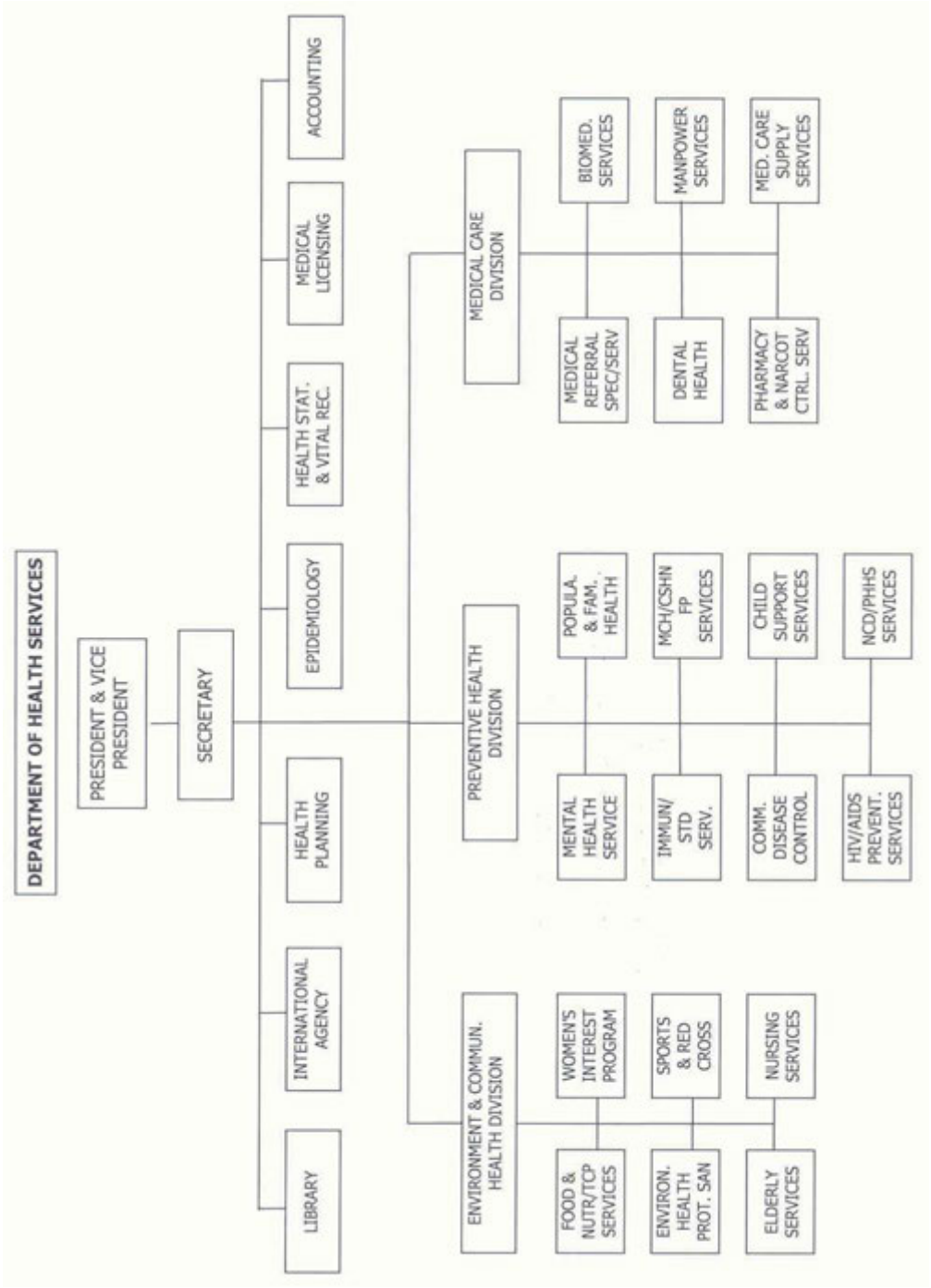
DEPARTMENT OF HEALTH AND SOCIAL AFFAIRS

Postal Address	:	P.O. Box PS 70, Palikir, Pohnpei FM 96941, Federated States of Micronesia
Official Email Address	:	health@fsmhealth.fm
Fax	:	(691) 3205263
Office Hours	:	0800 – 1700 Mon. – Fri.

WHO COUNTRY LIAISON OFFICE FOR NORTHERN MICRONESIA

Office Address	:	The Federated States of Micronesia National Government Department of Health and Social Affairs 1/F Mogethin Building Palikir, Pohnpei
Postal Address	:	P.O. Box PS70 Palikir, Pohnpei FM 96941 Federated States of Micronesia
Telephone	:	(619) 320-2619
Fax	:	(619) 320-5263
Office Hours	:	0800 – 1700 Mon. – Fri.

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

MICRONESIA, FEDERATED STATES OF

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	0.70			2010	1
2	**Estimated population ('000s)**	102.62	52.06	50.57	2010p	2
3	**Annual population growth rate (%)**	0.25	...	...	2009 est	3
4	**Percentage of population**					
	- 0–4 years	11.73 [a]	11.77 [a]	11.69 [a]	2010p	2
	- 5–14 years	23.98 [a]	24.32 [a]	23.63 [a]	2010p	2
	- 65 years and above	3.33 [a]	2.72 [a]	3.95 [a]	2010p	2
5	**Urban population (%)**	22.70	...	...	2010 est	3
6	**Crude birth rate (per 1000 population)**	19.90	...	...	2009 est	4
7	**Crude death rate (per 1000 population)**	3.80	...	...	2009 est	4
8	**Rate of natural increase of population (% per annum)**	1.61 [a]	...	...	2009 est	4
9	**Life expectancy (years)**					
	- at birth	69.00	68.00	70.00	2010 est	5
	- Healthy Life Expectancy (HALE) at age 60	9.76	10.90	11.50	2002 est	6
10	**Total fertility rate (women aged 15–49 years)**	3.90			2009	4
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	92.40	92.90	91.90	2009	4
12	**Per capita GDP at current market prices (US$)**	2223.00	...	...	2008	4
13	**Rate of growth of per capita GDP (%)**	1.10			2008	4
14	**Human development index**	0.61			2010	17
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**								
	Hepatitis viral								
	- Type A	1	0	1	0	0	0	2009	7
	- Type B	2	2	0	0	0	0	2009	7
	- Type C	1	0	1	0	0	0	2009	7
	- Type E	0	0	0	0	0	0	2009	4
	- Unspecified	1	0	1	0	0	0	2009	7
	Cholera	0	0	0	0	0	0	2009	4
	Dengue/DHF	23	...	...	1	...	...	2010	8
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	20	9	11	0	0	0	2009	9
	Leprosy	117	76	41	...	...	...	2010	8
	Malaria	1	...	...	0	0	0	2010	8
	Plague	5	3	2	0	0	0	2009	4
	Syphilis	7	2	5	0	0	0	2009	9
	Typhoid fever	36	14	22	0	0	0	2009	4
17	**Acute respiratory infections**	13 420	6102	7318	0	0	0	2009	9
	- Among children under 5 years	4599	2479	2120	1	0	1	2009	9

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	7186	3420	3766	2	2	0	2009	9
	- Among children under 5 years	2373	1312	1061	...	...	...	2009	9
19	**Tuberculosis**								
	- All forms	206	101	105	5	5	0	2009	4
	- New pulmonary tuberculosis (smear-positive)	56	26	30	...	...	...	2009	4
20	**Cancers**								
	All cancers (malignant neoplasms only)	125	29	96	40	23	17	2009	9
	- Breast	22	1	21	5	0	5	2009	9
	- Colon and rectum	24	12	12	3	1	2	2009	9
	- Cervix			54			2	2009	9
	- Leukaemia	4	1	3	2	1	1	2009	9
	- Lip, oral cavity and pharynx	1	1	0	1	1	0	2009	9
	- Liver	1	1	0	13	12	1	2009	9
	- Oesophagus	1	1	0	1	1	0	2009	9
	- Stomach	5	3	2	2	0	2	2009	9
	- Trachea, bronchus, and lung	14	10	4	11	7	4	2009	9
21	**Circulatory**								
	All circulatory system diseases	9022	4180	4842	74	36	38	2009	9
	- Acute myocardial infarction	52	37	15	43	27	16	2009	9
	- Cerebrovascular diseases	147	84	63	1	1	0	2009	9
	- Hypertension	7304	3363	3941	16	5	11	2009	9
	- Ischaemic heart disease	924	483	441	10	2	8	2005	9
	- Rheumatic fever and rheumatic heart diseases	595	213	382	2	1	1	2009	9
22	**Diabetes mellitus**	8451	4685	3766	89	41	48	2009	9
23	**Mental disorders**	644	355	289	1	0	1	2009	9
24	**Injuries**								
	All types	98	45	53	14	2	12	2009	9
	- Drowning	1	0	1	5	0	5	2009	9
	- Homicide and violence	5	2	3	1	0	1	2009	9
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	90	43	47	4	1	3	2009	9
	- Suicide	9	7	2	9	7	2	2009	9
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Essential (primary) hypertension	921	380	541	852.99	700.14	1007.49	2009	7
	2. Diarrhoea/ Gastroenteritis	859	432	427	795.57	795.95	795.19	2009	7
	3. Diabetes Melitus	643	266	377	595.52	490.10	702.07	2009	7
	4. Skin Disorder	625	355	270	578.85	654.08	502.81	2009	7
	5. Urinary Tract Infection	603	428	175	558.47	788.58	325.90	2009	7
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Myocardial Infarction	42	27	15	38.90 [a]	49.75	27.93	2009	7
	2. Diabetes Melitus	30	15	15	27.78	27.64	27.93	2009	7
	3. Chronic Obstructive Pulmonary Disease	22	16	6	20.38	29.48	11.17	2009	7
	4. Cerebro Vascular Accident	15	10	5	13.89	18.42	9.31	2009	7
	5. Other ill-defined and unspecified causes of mortality	15	11	4	13.89	20.27	7.45	2009	7
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					66.00		2009	4
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					...			
29	**Percentage of pregnant women with anaemia**					26.60		2009	10
30	**Neonatal mortality rate (per 1000 live births)**	9.30		...		...		2009	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	11.10		...		...		2009	10
32	**Immunization coverage for infants (%)**								
	- BCG	70.00		...		...		2010	8
	- DTP3	85.00		...		...		2010	8
	- Hepatitis B III	88.00		...		...		2010	8
	- MCV2	75.00		...		...		2010	8
	- POL3	85.00		...		...		2010	8
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			89			0	2009	9
	- Eclampsia			2			0	2009	9
	- Haemorrhage			187			0	2009	9
	- Obstructed labour			2			0	2009	9
	- Sepsis			4			0	2009	9
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	0	0	0	2009	3,8
	- Diphtheria	0	0	0	0	0	0	2009	3,8
	- Measles	0	0	0	0	0	0	2009	3,8
	- Mumps	17	8	9	1	0	1	2009	3
	- Neonatal tetanus	0	0	0	0	0	0	2009	3,8
	- Pertussis (whooping cough)	0	0	0	0	0	0	2009	3,8
	- Poliomyelitis	0	0	0	...	...	...	2010	8
	- Rubella	0	0	0	0	0	0	2009	3,8
	- Total Tetanus	0	0	0	0	0	0	2009	3,8
	Health facilities								
35	**Facilities with HIV testing and counseling services**					...			

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	...	...		
		- Specialized hospitals	0	0	2009	11
		- District/first-level referral hospitals	4	312	2009	11
		- Primary health care centres	5	0	2009	11
	Private health facilities	- Hospitals	1	36	2009	11
		- Outpatient clinics	6	...	2009	11
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			37.00 [a]	2009p	16
	- total expenditure on health as % of GDP			13.80	2009p	16
	- per capita total expenditure on health (in US$)			333.33 [a]	2009p	16
	Government expenditure on health					
	- amount (in million US$)			34.00 [a]	2009p	16
	- general government expenditure on health as % of total expenditure on health			90.70	2009p	16
	- general government expenditure on health as % of total general government expenditure			20.60	2009p	16
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			76.47 [a]	2009p	16
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			9.30	2009p	16
	- out-of-pocket expenditure on health as % of total expenditure on health			8.11 [a]	2009p	16
	Exchange rate in US$ of local currency is: 1 US$ =			1.00	2009p	16
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	63	...	...	...	...	...	...	2009	7
		- Ratio per 1000 population	0.58 [a]	...	...	...	...	...	...	2009	7
	Dentists	- Number	13	...	...	...	...	...	...	2009	7
		- Ratio per 1000 population	0.12 [a]	...	...	...	...	...	...	2009	7
	Pharmacists	- Number	14	...	...	...	...	...	...	2009	7
		- Ratio per 1000 population	0.13 [a]	...	...	...	...	...	...	2009	7
	Nurses	- Number	229	...	...	...	...	...	...	2009	7
		- Ratio per 1000 population	2.12 [a]	...	...	...	...	...	...	2009	7
	Midwives	- Number	20	...	...	...	...	...	...	2009	7
		- Ratio per 1000 population	0.19 [a]	...	...	...	...	...	...	2009	7
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	1	...	...	...	...	...	...	2009	4
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	0	0	0	...	...	...	...	2009	9
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	13.50 [b]	...	...	2009	4
44	Under-five mortality rate (per 1000 live births)	39.00	...	...	2009	4
45	Proportion of 1 year-old children immunised against measles	80.00	...	...	2010	8
46	Maternal mortality ratio (per 100 000 live births)	0.00			2009	7
47	Proportion of births attended by skilled health personnel	100.00 [a]			2009	12
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	20.00			2009	12
	- Percentage of deliveries in health facilities (as % of total deliveries)	80.00			2009	12
48	Contraceptive prevalence rate	55.00	...	...	2009	13
49	Adolescent birth rate	22.00			2009	4
50	Antenatal care coverage - At least one visit	...				
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	31.00	...	...	2009	4
53	Estimated HIV prevalence in adults	34.60	...	...	2009	4
54	Percentage of people with advanced HIV infection receiving ART	8.30	...	...	2009	4
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	168.00	...	...	2009 est	4
60	Tuberculosis death rate per 100 000 population	15.00	...	...	2009	4
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	150.00	...	...	2009	8
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	47.00	...	...	2008	8
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	...	95.00	...	2008	14
64	Proportion of population using an improved sanitation facility	25.00	61.00	14.00	2006	15
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
est	Estimate
NA	Not applicable
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Hospital-reported infant deaths

Sources:	
1	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated April 2010. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed on June 2010.
2	2010 FSM-Wide Census Population and Housing- Preliminary Counts. Office of Statistics, Budget and Economic Management, Overseas Development Assistance, and Compact Management. Federated States of Micronesia. Accessed on September 2011 at [http://www.sboc.fm/index.php]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	Health Information and Planning Unit, Department of Health and Social Affairs, The Federated States of Micronesia.
5	World Health Statistics 2011. Geneva, World Health Organization, 2011.
6	The World Health Report 2004: Changing history. Geneva, World Health Organization, 2004.
7	National Health Statistics Office, Department of Health and Social Affairs.
8	WHO Regional Office for the Western Pacific, data received from technical units
9	The Federated States of Micronesia Statistics Division, Department of Economic Affairs [http://www.spc.int/prism]
10	Department of Health and Social Affairs.
11	PRISM - Federated States of Micronesia, Basic Indicators. Pacific Regional Information System, Secretariat of the Pacific Community.
12	Maternal and Child Health, Department of Health Services. The Federated States of Micronesia.
13	Family Planning, Department of Health Services. The Federated States of Micronesia.
14	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
15	WHO and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). 2008. Progress on Drinking Water and Sanitation, New York/ Geneva: UNICEF/WHO. Available from: <http://www.wssinfo.org/en/40_mdg2008.html> (Accessed 20 April 2009).
16	National health accounts: country information. Geneva, World Health Organization. Accessed in September 2011 from http://www.who.int/nha/country/en/index.html.
17	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]

MONGOLIA

1. CONTEXT

1.1 Demographics

Mongolia is the fifth largest country in Asia, covering a total area of 1.6 million square kilometres. In 2010, the population reached 2.78 million, giving an overall population density of 1.7 persons per square kilometre, and making it the least densely populated country in the world.

Of the total population, 27.3% are under the age of 15 years, 68.8% between 15-64 years of age and only 3.9% are aged 65 years and above. Males comprise 48.6% of the population, and 63.3% of the total population live in urban areas. The adult literacy rate is reported to be 97.8%.

Since 1990, Mongolia has been undergoing a demographic transition defined by reductions in fertility and death rates. The population growth rate decreased from 2.7% in 1990 to 1.2% in 2003-2006, and reached 1.96% in 2009, increasing by 0.3%-0.8% between 2007 and 2009 compared with the rate in the previous three years. However, in 2010, the rate decreased to 1.7, to compare with 2009.

The crude birth rate per 1000 population fell by half between 1990 and 2003, from 35.3 to 18. It then remained fairly stable before increasing to 23.7 in 2008 and 25.3 in 2009. The crude birth rate decreased to 23.8 in 2010.

The total fertility rate fell by half during the period from 2000-2003 compared with the rate of 4.3 in 1990. The rate remained stable at 1.9 from 2004-2006 then, because of the increased number of births in 2007-2009, increased to 2.3 in 2007 and 2.7 in 2009. The total fertility rate reached 2.3 in 2010, decreasing by 0.4 compared with the previous year.

Due to increased urbanization and socioeconomic development in recent years, migration from rural to urban and suburban areas has been increasing. In 2010, only 36.7% of the population were residing in rural areas.

1.2 Political situation

Mongolia is a democratic parliamentary country. The centralized governmental structure is divided into three branches: the executive, which is the Government, chaired by the Prime Minister; the legislative, represented at the national level by the *Ikh Khural* (the Parliament); and the judicial, led by the Supreme Court.

The President of Mongolia is a figurehead for the country and is directly elected for a four-year term. Political parties that have seats in Parliament are eligible to nominate their candidates to the presidential election. Although most political power is held by the Prime Minister and Parliament, the President is Commander-in-Chief of the armed forces and heads the National Security Council, as well as appointing all the judges, the Prosecutor General, the Deputy Prosecutor General and ambassadors. The last parliamentary election was held in 2008. Presidential elections take place once every four years; the last was held in mid-May 2009, when the Democratic Party candidate was elected as the fourth President of Mongolia.

1.3 Socioeconomic situation

The *Mongolian Statistical* Yearbook 2009 shows total budget revenue and grants, at preliminary estimates, have been rising in recent years, increasing by 46.5% in 2009 compared with 2006. There was a budget surplus amounting 3.3% in 2006, and 2.9% in 2007. However, the overall budget deficit as a percentage of GDP was 4.9% in 2008, and 5.4% in 2009, based on preliminary estimations.

The preliminary gross domestic product (GDP) for 2009, 6055.8 billion Tugriks (US$ 4.97 billion) at current prices and 3564.3 billion Tugriks (US$2.93 billlion) at constant prices, shows an increase of 0.6% at current prices and a decrease of 1.6% at constant prices compared with the previous year. The increase was due mainly to a decrease in the value of the wholesale, retail, financial intermediation and construction sectors, and a decrease in the total amount of taxes on products.

The *Mongolian Statistical Yearbook 2009* indicates that, according to the World Bank Atlas method, the preliminary estimate for per capita GDP in 2009 reached US$ 1669, an increase of US$ 6 compared with 2008, while the monthly average income per household increased by 10.7% compared with 2008, reaching 402 525 Tugriks (US$ 330.62).

Based on Household Socio Economic Survey results for 2009, the poverty headcount reached 38.7%, increasing by 3.5%, while the poverty gap increased by 0.5% and poverty severity by 0.1% compared with 2007-2008 survey results.

The main indicator of labour-market development and economic activity among the population is the labour-force participation rate. The rate decreased slightly in 2006-2008; it reached 63.5% in 2008, a 0.7%-0.9% decline from 2006 and 2007. In 2009, the labour-force participation rate increased to 66.8% from 63.5% in 2008, and 38 100 people were registered as unemployed, a 27.8% increase from the previous year. The male and female shares of the economically active population and employed population are close, while more females are registered as unemployed.

1.4 Risks, vulnerabilities and hazards

Mongolia has a unique geographical structure, with steppes, semi-deserts and deserts, high mountain ranges and dry, lake-dotted basins. The climatic conditions are predominantly reflected by its desert steppe, with diverse soil and vegetation patterns, by its range of natural biological features, and by its geomorphological structure. The climate is defined as semi-arid continental, with dry and very dry and cool-to-warm ranges. The average altitude is 1580 metres above sea level and the average rainfall is 203 millimetres per year. A surface water inventory conducted in 2007 revealed that 852 rivers and streams out of 5128 had dried up.

The country is prone to natural hazards, including drought, flood, steppe and forest fires, and human and animal epidemic diseases. The large herder population has a greater chance of contacting zoonotic diseases; the livestock population was 44 million in 2009. In 2010, it was 32.7 million, a reduction of 25.7% or 11.3 million compared with the previous year.[1] As the Mongolian economy is heavily reliant on herding and agriculture, harsh winters and periodic droughts, not only have adverse effects on livestock and agriculture, but also on the health status of the disaster-affected population.

The annual report of the National Emergency Management Agency indicates that, in 2010, a total of 104 steppe and forest fires were registered, causing losses amounting to 938.0 million Tugriks (US$ 0.77 million). In the same year, 85 natural hazards, including storms, flood, heavy rains, thunderstorms and earthquakes occurred, resulting in the deaths of 14 people and 9.7 million head of livestock.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Since the beginning of the 1990s, the morbidity and mortality patterns have shown rapid epidemiological transition. Cardiovascular diseases, cancer and injuries and poisonings have increased, while deaths from communicable and respiratory diseases have declined. The end of the 1990s saw injuries and poisonings exceed respiratory diseases as a cause of death.

The first and second Mongolian STEPS Survey on the Prevalence of Non-Communicable Disease Risk Factors, carried out by the Ministry of Health in 2005 and 2009, respectively, revealed that risk factors contributing to noncommunicable diseases, including smoking, alcohol consumption, overweight and obesity, are still prevalent among the population.

[1] Presentation at the Mongolian Food Safety Forum 2011, Ulaanbaatar, 24 June 2011 by Mr J. Saule, Vice-Minister for Food, Agriculture and Light Industry.

2.2 Outbreaks of communicable diseases

In 2010, 41 373 cases of infectious disease were registered, with an incidence rate of 151.2 per 10 000 population, an increase from 146.2 in 2009. Sexually transmitted infections (34.6%), viral hepatitis (22.0%), tuberculosis (10.2%) and respiratory infections (10.7%) are the most common infections.

The HIV epidemic in Mongolia is classified by WHO as low-prevalence. Although HIV/AIDS prevalence is low, however, the country is at high risk of an epidemic due to its relatively young population, the steady increase in cases of STI in recent years, increased population migration, and growing HIV/AIDS epidemics in neighbouring countries, China and Russia. The number of registered cases has been increasing in recent years; 92% of reported HIV/AIDS cases have been registered in the last five years. The first HIV infection was reported in 1992 and, by 2010, 83 HIV/AIDS cases had been reported, of which 21 were registered in 2010.

A National Committee on HIV/AIDS Prevention, chaired by the Deputy Prime Minister, has been established, and will contribute to MDG achievements by ensuring integrated coordination and management of HIV/AIDS prevention measures and facilitating intersectoral collaboration.

Mongolia is among the seven countries in the WHO Western Pacific Region with the highest tuberculosis (TB) incidence. The TB incidence rate per 100 000 population increased by 1.5 times in 2000 (125) and by 2-2.3 times in 2004-2006 compared with the rate (79) in 1990. Since 2007, the rate has decreased, to 159 in 2008, 156 in 2009 and 154 in 2010. The number of new TB cases, which comprise 10.0% of all reported communicable diseases, reached 15.4 per 10 000 population in 2010, a decrease of 0.5 compared with the rate in 2008 (15.9). The country has succeeded in reducing the TB case fatality rate as a result of directly observed treatment, short-course (DOTS) implementation since the 1990s, with the proportion of TB cases cured under DOTS increasing from 80.0% in 2000 to 84.5% in 2010. The TB mortality rate has decreased in recent years. In 1992-1995, on average, the number of deaths was 121; in 2004-2009, the number was estimated at 80, although the number increased to 154 in 2010.

2.3 Leading causes of mortality and morbidity

Mongolia has been experiencing a gradual epidemiological transition in morbidity and mortality patterns since 1990. Consequently, lifestyle- and behaviour-dependent diseases, such as circulatory system diseases, cancer and injuries, have become the leading causes of morbidity and mortality. Common risk factors associated with unhealthy lifestyle behaviour, such as smoking, alcohol abuse, unhealthy diet and lack of physical activity, are becoming highly prevalent and are major causes of premature death in the productive age group.

As of 2010, the leading causes of morbidity per 10 000 population were diseases of the respiratory (1157.21), digestive (881.89), genito-urinary (737.57), and circulatory (708.52) systems, and injuries and poisonings (470.32). The rates for these diseases, and injuries and poisonings, have increased since 2000. However, compared with 2009 rates, digestive and genito-urinary systems diseases per 10000 population decreased by 18.62 and 18.83, respectively, in 2010. When the incidence of the five leading causes of population morbidity are stratified by place of residence, urban vs rural, overall morbidity for respiratory, digestive and genito-urinary diseases can be seen to be higher in rural settings, while the incidence rates for injuries and respiratory and digestive diseases are higher in urban areas.

Diseases of the circulatory system, neoplasms and injuries have remained the leading causes of mortality since 1995. In 2010, the leading causes of mortality per 10 000 population were diseases of the circulatory system (23.61), neoplasms (13.02), injuries and poisonings (10.11), diseases of the digestive system (5.30), and diseases of the respiratory system (2.72). The gender-specific mortality rates are 76.78 per 10 000 for males and 49.17 for females. The health statistics for 2010 shows cardiovascular diseases (37.7%), cancer (20.8%) and injuries and poisonings (16.1%) accounted for 75% of all the registered deaths.

Each year, 6000-6500 people (one in every three deaths) die due to diseases of the circulatory system, which remain the leading cause of mortality among the population. The gender-specific mortality rates are 27.12 per 10 000 for males and 20.27 for females.

Neoplasms have remained the second most common cause of mortality since 1990. Among males, the leading types of cancer are of the liver, stomach, lung, oesophagus and prostate. Among females they are of the liver, stomach, cervix and oesophagus.

Mortality due to injuries and poisonings has increased sharply in recent years. It was ranked the fifth leading cause of mortality in 1990, but has been ranked third since 2000. The mortality rate per 10 000 population rose from 7.6 in 2000 to 9.33 in 2008 then, for the first time in 10 years, decreased to 8.71 in 2009. However, it increased to 10.11 in 2010. By age group, mortality is highest among males aged 20-24 years.

2.4 Maternal, child and infant diseases

The national maternal mortality ratio (MMR) per 100 000 live births for 1990-2000 was considered high compared with regional and developed countries (170 per 100 000 in 1996) but, by 2006, it had fallen to 69.7. However, due to the dramatic increase in the number of births in 2007, from 47 361 to 55 634, the MMR per 100 000 live births increased to 89.6. In 2008, the ratio reached 49.0, a decrease of 40.6 compared with 2007. However, in 2009, the MMR increased to 81.4, to compare with 2008, owing to 17 deaths from pregnancy complications caused by the pandemic influenza A (H1N1) 2009 virus. In 2010, the MMR per 100 000 live births decreased to 45.5. The number of births also decreased in 2010 to 65 660, a decrease of 2884 compared with 2009.

Of the maternal deaths registered in 2010, 13.3% were due to pregnancy-related complications, 20.0% to delivery complications and 10.0% to post-delivery complications. Pregnancy-related and other health problems accounted for 56.6% of maternal mortality. Among the deaths, 73.3% were women aged 20-34 and the remainder were aged 35 years and above.

The under-five mortality rate per 1000 live births decreased almost fourfold from 87.5 in 1990 to 24.6 in 2010. In addition, the rate decreased to 20.2 in 2009 from 63.4 in 1990. However, it increased to 24.6 in 2010 compared with 23.6 in 2009.

The infant mortality rate per 1000 live births decreased to 19.4 in 2010, a decrease of 0.8 compared with 2009. Neonatal deaths represent 60.1% of infant deaths. The three leading causes of infant mortality were perinatal disorders (51.1%), diseases of the respiratory system (21.6%), and congenital malformations/disorders and chromosome disorders (12.0%).

2.5 Burden of disease

Mongolia has been experiencing an epidemiological transition over the last decade. The prevalence of lifestyle-related chronic diseases is increasing and has become a public health issue. Currently, circulatory diseases, cancer, injuries and accidents are the leading causes of mortality. The major contributors to DALYs in Mongolia are perinatal conditions, cerebrovascular diseases and road traffic accidents, according to WHO estimates for 2004.

Liver cancer stands out as one of the most common causes of morbidity and mortality that require special attention. Hepatitis B and V viruses are the most common causes of chronic liver disease and hepatocellular carcinoma in the country. The high intake of alcohol accelerates the course of chronic disease from these two viruses, leading to the development of chronic hepatitis and liver cancer at a much younger age than is seen in other countries.

In the last few years, an increasing number of deaths have occurred as a result of suicide, homicide and traffic accidents. According to the statistics for 2010, the suicide rate is 5.5 times higher among men than women and the homicide rate 3.6 times higher. In addition, men are 3.4 times more likely than women to die as a result of traffic accidents.

The First Mongolian STEPS Survey on the Prevalence of NCD Risk Factors, conducted in 2005, showed that the surveyed population were exposed to many risk factors leading to noncommunicable diseases. The overall prevalence of current smokers was 28.0%, of which 24.2% were daily smokers and 3.4% non-daily smokers. The survey also showed that, over the preceding 12 months, about 60.8% (±0.02) of the population (65.1% of males and 56.2% of females) had been drinking occasionally, 5.0% had consumed alcohol in moderation (8.8% of males and 1.0% of females) and only 0.7 (±0.04)% had been drinking frequently (1.1% of males and 0.2% of females). In addition, about 23% of the surveyed population reported low levels of physical activity.

According to results of the 2009 Second Mongolian STEPS Survey on the Prevalence of NCD Risk Factors, 27.5% of the population now smoke, 62.7% have high blood pressure, 58.5% consume alcohol, 53.6% are overweight or obese, and 40.5% have raised levels of cholesterol. In addition, around 70% of Mongolians drink salted tea and the average daily intake of salt (15.1 grams) is more than twice that recommended by WHO.

Comparative analysis of the STEPS surveys in 2005 and 2009 reveals that, over the intervening four years, although there was an increase in the median time spent in physical activity on average per day (181.4 mins vs. 347.1 mins) and in the percentage with a high level of physical activity (70.4% vs.81.8%), no change was observed in the percentage of the population who were not fulfilling the minimum recommendations for physical activity. The mean body mass index of the adult population increased, as well as the prevalence of obesity (by 2.7%) and overweight and obesity (by 8.3%). Mean blood cholesterol and the percentage with or at risk of increased total cholesterol remained stable.

The summary of combined NCD risk factors demonstrates that one in five (26.4%) Mongolian adults and one in two (53.8%) adults aged 45-64 years have three or more common modifiable NCD risk factors. Twice as many young men (aged 15-44 years) as women (26.0% vs.12.4%) have three or more risk factors.

In an effort to combat the increasing burden of disease due to chronic and noncommunicable diseases, as reflected in the five leading causes of morbidity and mortality, the Government has launched a national programme on prevention and control of noncommunicable diseases for 2006-2013, and has also begun implementing a health project supported by the Millennium Challenge Account. The objectives of the project are: prevention and early detection of noncommunicable diseases; provision of effective, affordable and long-time treatment for noncommunicable diseases, following international best practices in the field; and improvement of the quality and accessibility of health care for noncommunicable diseases and injuries.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health is the Government's central administrative body responsible for health policy formulation, planning, regulation and supervision, and for ensuring implementation of health-related activities and standards by its implementing institutions and agencies.

The vision of the Ministry is to strive to ensure the availability, accessibility, affordability and equity of quality health care services for all Mongolians. Health care will be provided through a needs-based health system that will specifically address the health issues affecting vulnerable groups (particularly the poor), and regulate and enhance the health sector's human resource capacity. The ultimate goal of the Ministry is to promote social and economic development through poverty alleviation.

The Ministry's mission is to build favourable living conditions for people by upgrading the quality of health care, public health services and health care preventive actions to international standards.

Within the scope of its mission, the Ministry of Health aims to fulfil the following strategic objectives:

- To develop health laws, policies, and long- and mid-term strategies and programmes, and provide policy guidelines;
- to ensure leadership of public administration and human resources management and create effective, accountable and transparent work conditions;
- to administer and coordinate public health policy implementation to support health-promoting settings;
- to administer and coordinate health care and service policy implementation;
- to provide financial management for the health sector;
- to carry out monitoring and evaluation of the implementation and output of health laws, policies, programmes and projects, and provide information for clients;
- to administer and coordinate pharmaceutical and medical supply policy implementation; and
- to develop and coordinate international cooperation in line with health sector policies, priorities and strategies.

3.2 Organization of health services and delivery systems

The health care system is characterized by three levels of care and its prevailing principle is to deliver an equitable, accessible and quality health care service to every person. Primary health care is provided mainly by family group

practices in Ulaabaatar, the capital city, in *aimag* centres, and in *soum* and inter-*soum* hospitals in *aimag*s. Secondary care takes place in district general hospitals in Ulaanbaatar and in *aimag* general hospitals. Tertiary care is provided in major hospitals and specialized centres in Ulaanbaatar.

By 2010, 16 specialized hospitals, 4 regional diagnostic and treatment centres, 17 *aimag* general hospitals, 12 district general hospitals, 6 rural general hospitals, 37 inter-*soum* hospitals, 274 *soum* hospitals, 218 family group practices and 1113 private hospitals and clinics were delivering health care and services to the population.

3.3 Health policy, planning and regulatory framework

Numerous laws, policies and national public health programmes are being implemented in the health sector. The State Public Health Policy, approved in November 2001, is an important policy document that clearly defines policy principles, directions and implementation mechanisms. With the support of the Government of Japan, the Ministry of Health has developed the Health Sector Master Plan, a long-term policy framework for 2006-2015, which represents the Ministry's first comprehensive documentation of its future direction and incorporates the Government's commitment to the Millennium Development Goals.

The Mid-Term Implementation Framework of the Health Sector Master Plan for the period of 2007-2010 was approved by Health Minister's Order #43 of 2007. Seven key areas and 24 strategies have been incorporated to facilitate the delivery of socially responsive, equitable, accessible and quality services to all. The overall outcomes to be achieved by 2015 include: increased life expectancy; a reduction in the infant mortality rate; a reduced child mortality rate; a reduced maternal mortality ratio; improved nutritional status, particularly micronutrient status among children and women; improved access to safe drinking water and basic sanitation; prevention of HIV/AIDS; sustainable population growth; reduced household health expenditure, especially among the poor; a more effective, efficient and decentralized health system; and an increase in the number of client-centred and user-friendly health facilities and institutions.

In 2010, policy documents, including the National Programme on Health, the Strategy on Health Financing, the National Programme on Emergency Care, the Strategy on Laboratory Development for 2010-2015, the Strategy on Combating Viral Hepatitis, the Strategy on Information, Education and Communication for Healthy Behaviour, the Strategy on Traditional Medicine Development, the Strategy on Maternal and Child Health for 2010-2015, the Strategy on Combating Counterfeit Drugs, were approved. In addition, the Law on Health and the Law on Health Insurance were revised.

3.4 Health care financing

Statistics for 2000-2010 show that there has been an increase in health expenditure in recent years, with total health expenditure increasing by 5.3 times in 2010 compared with 2000. In 2010, health expenditure reached 250.3 billion Tugriks (US$ 0.21 billion) increasing by 43.9 billion Tugriks (US$ 0.031 billion), compared with 2009. Health expenditure as a percentage of GDP remained stable at 3.3% in 2005-2006, and increased from 3.5% in 2007 to 3.6% in 2009.

An overview of the health sector budget for 2010 by its main sources reveals the Government (73.1%) and the Health Insurance Fund (23.6%) as the major contributors, followed by revenues from fees for services and supplementary activities (3.3%). The percentage of health financing from the government budget decreased by 2.2%, while the percentage from the Health Insurance Fund increased by 1.6% in 2010.

Health insurance coverage (introduced in 1994) reached 82.6% of the population in 2010, an increase of 5.0% from 77.6% in the previous year. Health Insurance Fund income and expenditure have been increasing, year by year, since 2000. In comparison with the previous year, the Health Insurance Fund's income increased by 24.4% and expenses by 35.4% in 2010.

In 2010, the health expenditure breakdown by level of care was: 21.2% to tertiary care, 31.6% to secondary care and 21.8% to primary health care.

3.5 Human resources for health

Despite government efforts to protect the health of the population, improve health care services, enhance health systems, create a favourable legal environment, increase the efficiency of public financing and improve the social

protection of health workers, many challenging human resource issues remain. In particular, there is a shortage of health professionals in rural areas owing to great discrepancies in distribution. As of 2010, there were 2.6 physicians per 1000 population in urban areas, while there were 2.9 physicians per 1000 in rural areas. In 2010, the number of physicians per 10 000 population at the *aimag* level was 18.0, 2.2 higher than in Ulaanbaatar. In addition, the continued overproduction of physicians has resulted in a high physician-nurse ratio of 1:1.2, which is very distorted compared with international standards.

Most health sector human resource issues require the involvement and cooperation of multiple sectors. In that regard, a high-level Intersectoral Coordinating Committee on Health Sector Human Resources, comprising representatives of the Government, ministries and international donors, has been established with a view to improving political commitment and donor support and funding to coordinate the implementation of health sector human resource policies and strategies at the national level. Priority areas and a strategy for action for the Committee have been approved by the Prime Minister and the Committee Chairman. Within the action plan, priority actions have been identified, including, among others: introducing a separate and independent labour-norm- and performance-based salary system for health professionals, varying according to differences in responsibility and geographical location; developing multiple-choice incentive packages to encourage specialists to work in rural, remote areas; and revising and renewing the accreditation criteria for medical training institutions. Moreover, in 2010, the Ministry of Health, approved a revised Human Resources Development Policy for 2010-2014.

3.6 Partnerships

The Government has begun implementing a health project supported by the Millennium Challenge Account. The project aims to decrease mortality and morbidity due to noncommunicable diseases and injuries and to increase the length and quality of life of Mongolians by decreasing behavioural risk factors among the population; supporting prevention and early detection of arterial hypertension, myocardial infarction, stroke, diabetes, and cervical and breast cancer; and improving the quality and accessibility of NCD care.

3.7 Challenges to health system strengthening

The Government Plan of Action for 2008-2012 aims to expand the inter-hospital network and telemedicine diagnosis and treatment. General hospitals and specialized centres (15 health organizations) in Ulaanbaatar have been connected to an inter-hospital network that will serve as a basis for the expansion of the network to *aimag* and district hospitals. The use of e-medical records for patients is considered to be one of the important advantages of the network, which will help in ensuring timely, quality and accessible health services for the population and create a population health database. To ensure the network of health organizations functions well, certain issues need to be resolved in the coming years, including training and capacity-building of information technology specialists; supply of equipment and devices to health organizations; use of e-hospital software for e-medical records and patient databases; expansion of the network into *aimags*; and the legal framework for confidentiality and security of patient records.

Information technology contributes greatly to the health sector in terms of upgrading health service quality, providing patient-friendly health services, easing the workloads of health professionals, and improving the efficiency and quality of health information. In recent years, there has been an intensive programme to introduce the latest information and communication technologies into the health sector to keep up with current e-health development. Unfortunately, because of a lack of proper coordination and standardization, instead of making things simpler and easier, some efforts have led to additional workload and have made matters more complicated. As a developing country, donor support is required to develop e-health, and a number of projects are under implementation. There is a rising need to define priority action areas to develop e-health, as well as rational and efficient resource allocation.

On the basis of the above-mentioned needs, the Ministry of Health has developed the E-Health Strategy for 2010-2014, which will play a central role in defining the direction for the renewal and development of e-health; defining its structure and content; defining the direction for use of information communication and technology; and providing coordination for implementation. The E-Health Strategy has defined priority action areas for e-health in the field of developing the health workforce, improving the quality of health care services through the use of telemedicine and other e-health applications; developing e-information systems and an infrastructure for e-health; creating an enabling environment for e-health; and promoting health education for the population.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : *Health Sector Strategic Master Plan 2005*
Operator : Ministry of Health
Specification : Contains analyses, tables and graphs depicting the patterns of health care spending in the country

Title 2 : *Health indicators book 2010*
Operator : Government Implementing Agency- Department of Health
Specification : Trends in population mortality and morbidity, provides health statistics and financial indicators
Web address : http://doh.gov.mn

Title 3 : *Mongolian Steps Survey on the Prevalence of Non-Communicable Disease Risk Factors, 2009*
Operator : Ministry of Health
Specification : The national representative survey on the prevalence of NCD risk factors, supported by WHO./unpublished/
Web address : http://www.moh.mn/

Title 4 : *Statistical year book 2009*
Operator : National Statistics Office
Specification : Includes information on the social and economic indicators of the country.

Title 5 : *Memorandum of understanding on health sector human resource development in Mongolia*
Operator : Ministry of Health, 2006
Specification : Health and non-health sectors, including education, social welfare, justice and economy, as well as international organizations, have agreed to collaborate on health sector human resource development issue to collectively fulfil action strategies

Title 6 : *Priority areas and strategy for action for the Intersectoral Coordinating Committee on Health Sector Human Resource Development*
Operator : Ministry of Health, 2007
Specification : Plan of action in human resources development in the health sector approved by the Prime Minister of Mongolia and Chairman of the Committee

Title 7 : *Introduction to the Ministry of Health, Mongolia*
Operator : Ministry of Health, 2007, 2009
Specification : Brochure published in Ulaanbaatar in 2007 & 2009 with information on mission and functions of Ministry of Health, departmental duties and organizational structure, as well as listing principal health policy documents etc.

Title 8 : *Approval of strategic objectives, structural changes and organizational structure of Ministries*
Operator : Cabinet Secretariat of Mongolia, 2008
Specification : Resolution of the Government of Mongolia which approved strategic objectives, organizational structures and functions as well as staff of Ministries

Title 9 : *Annual report of the National Emergency Management Agency for 2010* (unpublished report)
Operator : National Emergency Management Agency
Specification Report on the numbers and types of emergencies that occurred, losses due to emergency situations and responses taken

Title 10 : Brief introduction of the Health project, Millennium Challenge Account-Mongolia
Operator : Ministry of Health
Features : Unpublished briefing
Specification : The report prepared for hearing at Session of the Parliament of Mongolia

Title 11 : *WHO Country Cooperation Strategy for 2010-2015*
Operator : Ministry of Health, Mongolia and WPRO, WHO
Specification : Strategic document defining the framework for WHO's work with the Government of Mongolia over the period of 2010-2015

Title 12 : Policy on human resources development for health sector in 2010-2014
Operator : Ministry of Health, Mongolia
Features : Published policy
Specification : Current situation of health sector human resources, development policy, human resources planning up to 2020

5. ADDRESSES

MINISTRY OF HEALTH

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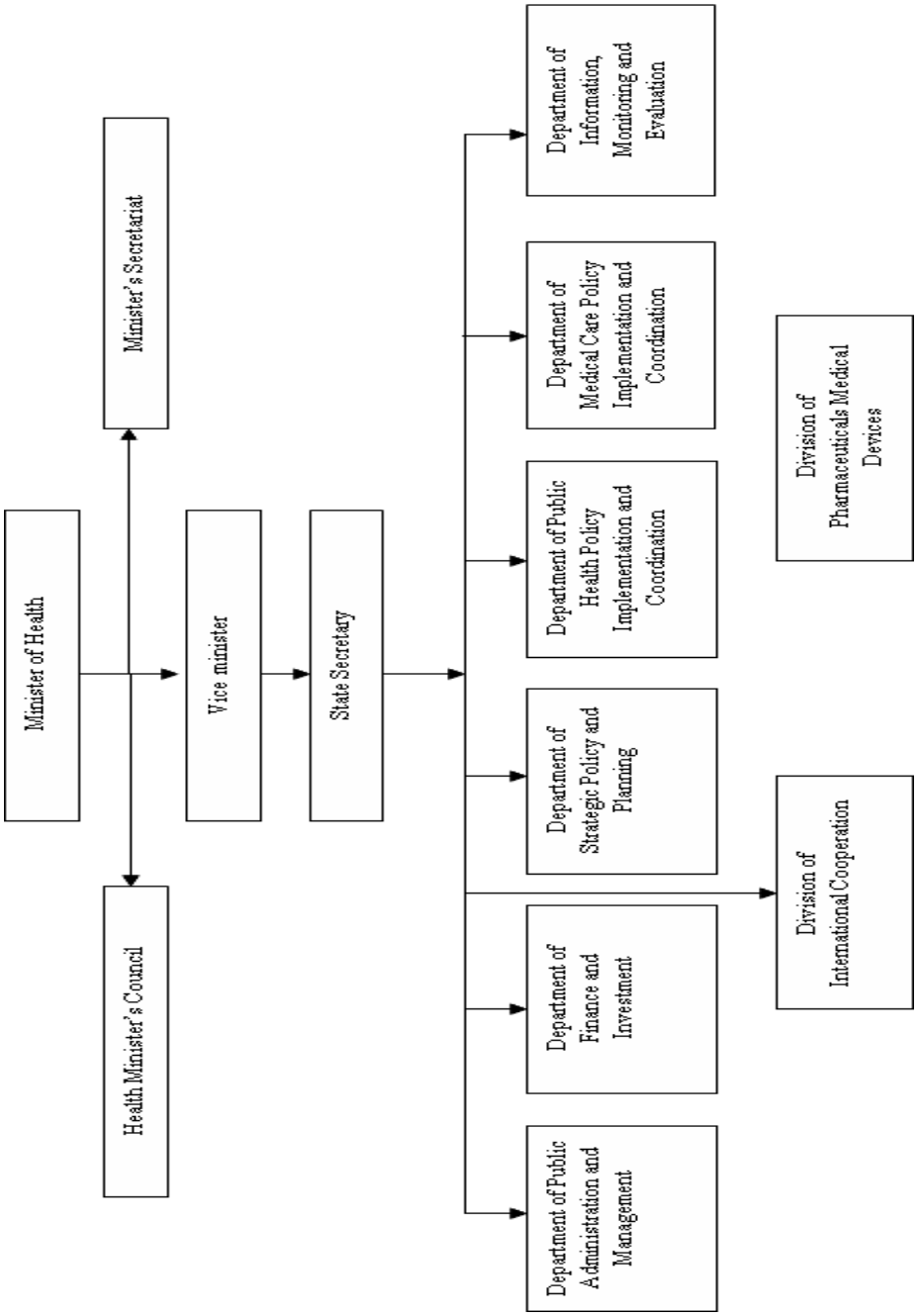
6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

MONGOLIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	1567.00						2010	1
2	**Estimated population ('000s)**	2780.75		1351.70		1429.05		2010	1
3	**Annual population growth rate (%)**	1.70		...		...		2010	1
4	**Percentage of population**								1
	- 0–4 years	10.01		10.43		9.60		2010	1
	- 5–14 years	17.26		17.97		16.58		2010	1
	- 65 years and above	3.94		3.45		4.41		2010	1
5	**Urban population (%)**	63.31		...		...		2010	1
6	**Crude birth rate (per 1000 population)**	23.80		...		...		2010	1
7	**Crude death rate (per 1000 population)**	6.26		...		...		2010	1
8	**Rate of natural increase of population (% per annum)**	1.96		...		...		2009	2
9	**Life expectancy (years)**								
	- at birth	68.05		64.93		72.26		2010	1
	- Healthy Life Expectancy (HALE) at age 60	...		...		...			
10	**Total fertility rate (women aged 15–49 years)**	2.30						2010	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	98.30		...		...		2010	3
12	**Per capita GDP at current market prices (US$)**	1550.90 [a]						2009	1
13	**Rate of growth of per capita GDP (%)**	-1.29						2009	1
14	**Human development index**	0.62						2010	4
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	9099	4925	4174	24	12	12	2010	5
	- Type A	8116	4391	3725	6	2	4	2010	5
	- Type B	747	418	329	17	9	8	2010	5
	- Type C	140	57	83	1	1	0	2010	5
	- Type E	....	....	...	...	...	...		
	- Unspecified	96	59	37	0	0	0	2010	5
	Cholera	0	0	0	0	0	0	2010	5
	Dengue/DHF	0	0	0	...	...	...	2010	6
	Encephalitis	9	8	1	0	0	0	2010	5
	Gonorrhoea	5741	2769	2972	0	0	0	2010	5
	Leprosy	0	0	0	...	...	...	2010	6
	Malaria	0	0	0	0	0	0	2010	5
	Plague	2	2	0	0	0	0	2010	5
	Syphilis	3937	1148	2789	3	2	1	2010	5
	Typhoid fever	1	0	1	1	0	1	2010	5
17	**Acute respiratory infections**	250 609	120 809	129 800	463	267	196	2010	1
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	28 442	14 390	14 052	55	22	33	2010	1
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	4213	2243	1970	325	226	99	2010	5
	- New pulmonary tuberculosis (smear-positive)	1837	1018	819	246	174	72	2010	5
20	**Cancers**								
	All cancers (malignant neoplasms only)	4466	2274	2192	3264	1833	1431	2010	7
	- Breast	126	3	123	48	1	47	2010	7
	- Colon and rectum	125	65	60	70	35	35	2010	7
	- Cervix			358			130	2010	7
	- Leukaemia	24	9	15	25	9	16	2010	7
	- Lip, oral cavity and pharynx	83	56	27	49	33	16	2010	7
	- Liver	1722	974	748	1410	801	609	2010	7
	- Oesophagus	339	158	181	302	164	138	2010	7
	- Stomach	619	381	238	509	321	188	2010	7
	- Trachea, bronchus, and lung	387	319	68	327	254	73	2010	7
21	**Circulatory**								
	All circulatory system diseases	195 428	73 747	121 681	6512	3647	2865	2010	1
	- Acute myocardial infarction	2102	1036	1066	998	710	288	2010	1
	- Cerebrovascular diseases	13 555	5726	7829	2517	1344	1173	2010	1
	- Hypertension	82 831	28 270	54 561	443	222	221	2010	1
	- Ischaemic heart disease	46 731	20 170	26 561	1715	934	781	2010	1
	- Rheumatic fever and rheumatic heart diseases	24 165	6878	17 287	85	48	37	2010	1
22	**Diabetes mellitus**	8105	3810	4295	79	50	29	2010	1
23	**Mental disorders**	31 118	15 946	15 172	19	13	6	2010	1
24	**Injuries**								
	All types	129 726	82 413	47 313	2788	2213	575	2010	1
	- Drowning	...	...	...	130	109	21	2010	1
	- Homicide and violence	...	...	...	288	225	63	2010	1
	- Occupational injuries	...	...	...	39	35	4	2010	1
	- Road traffic accidents	...	...	...	491	375	116	2010	1
	- Suicide	...	...	...	459	384	75	2010	1
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Diseases of the respiratory system	319 190	149 582	169 608	11 572.11	11 123.91	11 998.47	2010	1
	2. Diseases of the digestive system	243 248	98 639	144 609	8818.87	7335.45	10 229.98	2010	1
	3. Diseases of the genitourinary system	203 441	47 500	155 941	7375.68	3532.42	11 031.64	2010	1
	4. Diseases of the circulatory system	195 428	73 747	121 681	7085.17	5484.32	8608.00	2010	1
	5. Injuries, poisoning and other consequences of external causes	129 726	82 413	47 313	4703.17	6128.78	3347.03	2010	1
	6. Diseases of the nervous system	90 086	36 604	53 482	3266.03	2722.11743	3783.44346	2010	1
	7. Diseases of the skin and subcutaneous tissues	82 415	36 065	46 350	2987.93	2682.03379	3278.90887	2010	1
	8. Diseases of the eye and adnexa	60 218	23 257	36 961	2183.18	1729.54554	2614.70875	2010	1
	9. Infectious and parasitic diseases	46 732	20 773	25 959	1694.25	1544.81874	1836.40119	2010	1
	10. Mental and behavioural disorders	31 118	15 946	15 172	1128.17	1185.85085	1073.30324	2010	1

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the circulatory system	6512	3647	2865	236.09	271.22	202.68	2010	1
	2. Tumours and neoplasms	3591	2016	1575	130.19	149.92	111.42	2010	1
	3. Injuries, poisoning and other consequences of external causes	2788	2213	575	101.08	164.57	40.68	2010	1
	4. Diseases of the digestive system	1463	792	671	53.04	58.90	47.47	2010	1
	5. Diseases of the respiratory system	749	437	312	27.15	32.50	22.07	2010	1
	6. Certain conditions originating in the perinatal period	652	379	273	23.64	28.18	19.31	2010	1
	7. Infectious and parasitic diseases	369	247	122	13.38	18.37	8.63	2010	1
	8. Diseases of the nervous system	318	182	136	11.53	13.53	9.62	2010	1
	9. Diseases of the genitourinary system	285	161	124	10.33	11.97	8.77	2010	1
	10. Congenital malformations, deformations and chromosomal abnormalities	215	103	112	7.79	7.66	7.92	2010	1
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					53.40		2010	1
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					...			
29	**Percentage of pregnant women with anaemia**					8.10		2010	1
30	**Neonatal mortality rate (per 1000 live births)**	9.70		10.83		8.51		2010	1
31	**Percentage of newborn infants weighing less than 2500 g at birth**	4.40		4.05		4.83		2010	1
32	**Immunization coverage for infants (%)**								
	- BCG	98.50		...		...		2010	6
	- DTP3	96.10		...		...		2010	6
	- Hepatitis B III	96.10		...		...		2010	6
	- MCV2	94.90		...		...		2010	6
	- POL3	96.50		...		...		2010	6
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			12 492			0	2010	1
	- Eclampsia			8747			2	2010	1
	- Haemorrhage			1670			1	2010	1
	- Obstructed labour			6152			1	2010	1
	- Sepsis			114			3	2010	1
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	0	0	0	2010	5
	- Diphtheria	0	0	0	0	0	0	2010	5, 6
	- Measles	7	...	...	...	...	...	2010	6
	- Mumps	524	273	251	0	0	0	2010	5, 6
	- Neonatal tetanus	0	0	0	0	0	0	2010	5, 6
	- Pertussis (whooping cough)	0	0	0	0	0	0	2010	5, 6
	- Poliomyelitis	0	0	0	0	0	0	2010	5, 6
	- Rubella	11	5	6	...	...	...	2010	6
	- Total Tetanus	0	0	0	0	0	0	2010	5, 6
	Health facilities								
35	**Facilities with HIV testing and counseling services**					57		2009	8

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	35	6023	2010	1
		- Specialized hospitals	16	3995	2010	1
		- District/first-level referral hospitals	328	3630	2010	1
		- Primary health care centres	218	0	2010	1
	Private health facilities	- Hospitals	166	2527	2010	1
		- Outpatient clinics	947	0	2010	1
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			150.50	2009	1
	- total expenditure on health as % of GDP			3.60	2009	1
	- per capita total expenditure on health (in US$)			55.54	2009	1
	Government expenditure on health					
	- amount (in million US$)			140.96	2009	1
	- general government expenditure on health as % of total expenditure on health			93.70	2009	1
	- general government expenditure on health as % of total general government expenditure			8.70	2009	1
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			6.30	2009	1
	- out-of-pocket expenditure on health as % of total expenditure on health			5.90	2009	1
	Exchange rate in US$ of local currency is: 1 US$ =			1440.76	2009	1
38	**Health insurance coverage as % of total population**			77.60	2009	1

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	7497	1578	5919	4565	2932	5948	1549	2010	1
		- Ratio per 1000 population	2.72	1.17	4.19	2.63	2.87	2.16	0.56	2010	1
	Dentists	- Number	533	...	...	387	146	183	350	2010	1
		- Ratio per 1000 population	0.19	...	...	0.22	0.14	0.07	0.13	2010	1
	Pharmacists	- Number	1176	80	1096	925	251	200	976	2010	1
		- Ratio per 1000 population	0.43	0.06	0.78	0.53	0.25	0.07	0.35	2010	1
	Nurses	- Number	9 179	206	8973	4396	4783	8 172	1007	2010	1
		- Ratio per 1000 population	3.33	0.15	6.35	2.53	4.68	2.96	0.37	2010	1
	Midwives	- Number	697	11	686	139	558	672	25	2010	1
		- Ratio per 1000 population	0.25	0.01	0.49	0.08	0.55	0.24	0.01	2010	1
	Paramedical staff	- Number	1249	118	1131	622	627	978	271	2010	1
		- Ratio per 1000 population	0.45	0.09	0.80	0.36	0.61	0.35	0.10	2010	1
	Community health workers	- Number	437	72	365	209	228	427	10	2010	1
		- Ratio per 1000 population	0.16	0.05	0.26	0.12	0.22	0.15	0.00	2010	1
40	**Annual number of graduates**	Physicians	735	186	549	619	116	504	231	2010	9
		Dentists	144	28	116	144	0	108	36	2010	9
		Pharmacists	247 [a]	18	216	...	...	94	153	2010	9

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	291	31	260	...	....	392	101	2010	9
		Midwives	140	2	138	...	...	102	38	2010	9
		Paramedical staff	60	7	53	...	...	60	0	2010	9
		Community health workers	18	7	11	...	...	18	0	2010	9
41	Workforce losses/ Attrition	Physicians	250	...	...	...	...	...	...	2010	1
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	19	...	...	...	...	...	...	2010	1
		Nurses	301	...	...	...	...	...	...	2010	1
		Midwives	22	...	...	...	...	...	...	2010	1
		Paramedical staff	50	...	...	...	...	...	...	2010	1
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	6.30	5.90	6.60	2007	2
43	Infant mortality rate (per 1000 live births)	19.40	21.30	17.30	2010	1
44	Under-five mortality rate (per 1000 live births)	24.60	26.40	22.70	2010	1
45	Proportion of 1 year-old children immunised against measles	96.90	...	...	2010	6
46	Maternal mortality ratio (per 100 000 live births)	45.50			2010	1
47	Proportion of births attended by skilled health personnel	99.80			2010	1
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.20			2010	1
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.51			2010	1
48	Contraceptive prevalence rate	53.40	...	...	2010	1
49	Adolescent birth rate	6.00			2010	1
50	Antenatal care coverage - At least one visit	1.40			2010	1
	- At least four visits	83.40 [c]			2010	1
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	<0.10	<0.10	<0.10	2010	5, 6
53	Estimated HIV prevalence in adults	<0.02	...	...	2010	5
54	Percentage of people with advanced HIV infection receiving ART	88.24	85.19	100.00	2010	5
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	65.26	...	...	2010	5
60	Tuberculosis death rate per 100 000 population	3.30	4.91	1.77	2010	5
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	74.80	...	...	2010	5
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	84.50	...	...	2010	5
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	76.00	97.00	49.00	2008	10
64	Proportion of population using an improved sanitation facility	50.00	64.00	32.00	2008	10
65	Proportion of population with access to affordable essential drugs on a sustainable basis	80.00		...	2009	11

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Totals may not tally due to some reported cases/ deaths without gender breakdown

Sources:	
1	Health Indicators 2010. Department of Health-Governmet Implementing Agency, MOH
2	Mongolia Statistical Yearbook 2010. National Statistics Office of Mongolia
3	2010 Population and Housing Census, Mongolia
4	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
5	Statistical Report 2010, National Center for Communicable Disease
6	WHO Regional Office for the Western Pacific, data received from technical units
7	Statistical Report 2010, National Center for Cancer
8	Universal access report 2009
9	Statistical Report 2010. Ministry of Education, Culture and Sciences
10	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
11	Ministry of Health, Mongolia.

NAURU

1. CONTEXT

1.1 Demographics

The population of Nauru was estimated to be 9976 in 2010, with about 35.6% below 15 years of age and around 1.3% 65 years and above.

1.2 Political situation

The 18-member Parliament is elected every three years. The Parliament elects a President from among its members, who appoints a Cabinet of five or six people. The President is both head of state and head of government. On 18 April 2008, President Marcus Stephen declared a state of emergency and dissolved Parliament. His action was prompted by a stalemate in Parliament over the Speaker's introduction of a Bill to ban Members of Parliament from holding dual citizenship. The election held in April 2008 saw the incumbent president, President Stephen, re-elected. In April 2010, national elections saw the same 18 parliamentarians returned to office in an evenly divided stalemate, which left President Stephen to retain his leadership position. Since becoming independent in 1968, Nauru has seen more than 36 changes of government.

1.3 Socioeconomic situation

Until recently, Nauru was a self-reliant country. Traditionally, revenues of this tiny island have come from exports of phosphate. At the height of phosphate mining activities, the country's gross domestic product (GDP) was one of the highest in the Pacific and living standards were comparable with those of high-income countries. However, phosphate reserves are expected to be exhausted at some point and the drastic decline in phosphate revenue has been followed, first by a decrease in disposable income, and then by dependence on aid.

The rehabilitation of mined land and the replacement of income from phosphate are serious long-term challenges. In anticipation of the exhaustion of Nauru's phosphate deposits, substantial amounts of phosphate income were invested in trust funds to help cushion the transition and provide for the country's economic future. As a result of heavy spending from the trust funds, however, the Government is facing bankruptcy and, to cut costs, has frozen wages and reduced overstaffed public service departments.

There are few resources other than phosphate. The central plateau has limited agricultural value, but some 202-243 hectares, mainly around the coastal belt, are available for cultivation. Coconut, banana and papaya are the main fruit crops and small quantities of vegetables are also grown. However, cultivated crops are for home consumption only and, apart from fish, most food is imported from Australia, including water. There are frequent disruptions to thesupply of food, fuel, equipment and materials.

In 2001, a group of Afghani refugees rescued at sea was transferred to a camp on Nauru in exchange for a multimillion dollar aid package from Australia. Use of Nauru's isolated location and its offshore processing centre was discontinued in February 2008, however, following a change in Australia's policy of holding asylum seekers on the island. Already heavily dependent on foreign support, mainly from Australia and Taiwan (China), Nauru has expressed a need for extra support now that Australia's offshore processing centre has been closed.

Day-to-day difficulties in handling cash transactions (in Australian dollars) have been a major impediment to government activities. Nauru has been without banking services since the Bank of Nauru collapsed in 1998.

1.4 Risks, vulnerabilities and hazards

Nauru is particularly vulnerable due to its isolation, with overdependence on the national air carrier and its single aircraft. The lack of a safe harbour for berthing of ships hinders marine transportation links beyond container freight and phosphate carriers.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

As a result of an effective public health programme focusing on water and sanitation, there have been no recent infectious disease outbreaks, but noncommunicable diseases, such as diabetes, hypertension, heart disease and cancer, have become leading causes of morbidity and mortality, and obesity rates are very high. The 2007 STEPS survey reported a diabetes prevalence rate of 16.2% among the 15-64 age group. Diabetes increases in prevalence with age and was found to be 24.1% in the 35-44 age group, 37.4 % among 45-55 year-olds and 45 % in the 55-64 age group.

2.2 Outbreaks of communicable diseases

See Section 2.1.

2.3 Leading causes of mortality and morbidity

See Section 2.1.

2.4 Maternal, child and infant diseases

According to the preliminary report of the 2007 Nauru Demographic and Health Survey (NDHS), almost all pregnant women (94.5%) reported having consulted with a health professional—doctor, nurse or midwife—at least once for antenatal care for the most recent pregnancy in the five-year period before the survey. Ninety-seven per cent of births are delivered by a health professional.

Based on the 2007 NDHS, the infant mortality rate was 37.9 per 1000 live births and the under-five mortality rate was 37.9 per 1000 live births.

Only 5% of Nauruan children are underweight (2007), with boys slightly more likely to be underweight than girls. Almost a quarter (24%) of Nauruan children are stunted and 1% are wasted.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Nauru Ministry of Health endorses the statement in the preamble to the WHO constitution that: "The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition." In support of this, the Ministry acknowledges that it is the right of every citizen of the Republic of Nauru, irrespective of race, sex, colour, creed or socioeconomic status, to have access to a national health system that provides a quality, affordable health service, the principle function of which is to promote and maintain the health and well-being of the citizens of Nauru to the maximum extent possible with available resources.

The mission statement for the health system is:

> "To cater for the health needs of Nauru and to enhance the quality of life of the People of Nauru through appropriate and effective health care; and to reform and improve the health infrastructure through a well structured, co-ordinated long term policy of:
>
> - recruitment;
> - capacity building; and
> - purchasing and maintenance of equipment and facilities."

The mission statement for curative services reads:

> "With a clear understanding of the health needs of the people and a full appreciation of the Nauruan

culture, we shall provide an appropriate, accessible and affective health service that applies judicious use of all available resources to ensure the health of all patients on Nauru is enhanced; and provide a range of improved and efficient health services through a combination of:

- educational programmes;
- screening procedures;
- registration of disease; and
- establishment of emergency protocols and provision of services to meet the needs of all Nauruans."

The mission statement for public health services states:

> "We shall implement and sustain a range of public health policies and programmes that will enhance the quality of life for the people of Nauru by targeted risk-factor reduction and promotion of a healthy island lifestyle, and set in place a developed and legislated Healthy National Policy that promotes community awareness and participation to induce healthy choices that are early, easy, exciting and everywhere."

Values:

> "Customer focus:
> We aim to provide quality health care, respecting the dignity of all people.
>
> Equity:
> We strive to be fair in all our dealings: irrespective of ethnicity, religion, political affiliation, disability, gender and age.
>
> Quality:
> We seek a high quality outcome in all facets of our activities.
>
> Integrity:
>
> We are committed to the achievement of the highest ethical standards in all that we do."

3.2 Organization of health services and delivery systems

Nauru General Hospital (NGH) and the National Phosphate Corporation (NPC) Hospital amalgamated in July 1999 to become the Republic of Nauru Hospital. The Hospital offers a number of medical and surgical specialties including laboratory, radiological and pharmacy services. At the start of 2011, there were nine doctors employed in the Republic of Nauru Hospital, with complementing nursing and clinical support staff.

3.3 Health policy, planning and regulatory framework

Like many developing countries, Nauru has committed to a range of Millennium Development Goals (MDGs), which were included as high-level outcomes in the Ministry of Health's Operational Plan 2007. The Operational Plan aimed to complement the major goal of the Nauru National Sustainable Development Strategy 2005-2025 (NNSDS): "A future where individual, community, business and government partnerships contribute to a sustainable quality of life for all Nauruans".

The health-specific goals of the NNSDS include the provision of effective preventive health services to reduce lifestyle-related illness. The recent Nauru NCD Risk Factors STEPS Report further highlighted that Nauru has the poorest health indicators for NCD (cardiovascular disease, diabetes, cancer and respiratory disease) in the Pacific region. The Ministry of Health responded by developing the Nauru NCD Action Plan, which details specific activities to reverse the declining health of the population and implement strategies that are known to be effective and have relevance and acceptability to the people.

As a signatory to United Nations conventions and treaties, the Government of Nauru has obligations to meet certain requirements that encompass the principles espoused in conventions such as the WHO Constitution, the Framework Convention on Tobacco Control, the International Convention on Population Development, the Plan of Action for Women and the Convention on the Rights of the Child.

It is a priority for the Ministry of Health to improve the reliability of the current health information system. In the absence of a robust system, the development of the Ministry's Operational Plan 2007 relied on the resources of the Nauru Bureau of Statistics, the data contained in the Nauru NCD Risk Factors Steps Report and information contained in the Health Status and Health System Report 2003.

The primary health care approach to acute respiratory infections and diarrhoeal diseases is to be strengthened and the expanded programme of immunization will extend its coverage of target diseases.

3.4 Health care financing

Over the last few years, the Ministry of Health has embarked on a greatly improved system of budget development. The health budget is prepared by senior staff in accordance with the NSDS guidelines by early May, refined and then presented to the Finance Department. Subsequently, the Secretary for Health is required to attend Cabinet to speak to the budget and answer any relevant questions that may arise. As part of the financial management reform process, departmental heads now receive a monthly financial statement detailing current expenditure and projected year-end results against allocated budgets.

In 2009, total health expenditure was estimated at US$ 6.2 million or 10.9% of GDP. Government expenditure on health was US$ 3.9 million or 70.5% of total health expenditure.

3.5 Human resources for health

The Government plans to make available a balanced supply of health care providers, including physicians, nurses and other specialized staff and community health workers. Currently 50% of professional staff are expatriates on contract, but investment in training of Nauruan nationals is well under way.

3.6 Partnerships

The Ministry of Health has partnerships with WHO, the Secretariat of the Pacific Community (SPC), the United Nations Children's Fund (UNICEF), the University of the South Pacific, the Global Fund and the Australian Agency for International Development (AusAID). Visiting medical specialists have included a team from the AusAID-funded PIPS programme, a mobile medical team from Taiwan (China), and Cuban and Israeli specialists.

3.7 Challenges to health system strengthening

The Ministry of Health acknowledges that people's lifestyles and the conditions in which they live, work and play strongly influence their health. The many social determinants of health are experienced differently by men and women, and these gender-based differences need to be recognised as the Ministry seeks to increase the health status of the population. A comprehensive integrated approach to addressing social determinants of good health for men and women requires the mainstreaming of gender concerns into the day-to-day operations of the Ministry. This will ensure that the basic right of every citizen, irrespective of sex, to have access to a national health system that provides high quality care appropriate to their needs is respected.

While the Ministry of Health cannot address all of these issues alone, it acknowledges the need to develop health outcomes and health improvements that are measured through improved health status of the population. Both health protection and promotion are now recognized as essential components when developing health outcome measures, with a move away from evaluating services based on activities alone. The Ministry's commitment to the principles and philosophy of primary health care is based on the belief that success in achieving and maintaining health is not the responsibility of hospitals and the medical and/or curative model of care alone, but will come from a health-system-wide approach, working with all government departments, the nongovernmental sector and civil society.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Nauru Bureau of Statistics
Web address	:	http://www.spc.int/prism/country/nr/stats
Title 2	:	*Nauru Demographic and Health Survey 2007 (Final report)*
Operator	:	Bureau of Statistics Nauru, Secretariat of the Pacific Community, Macro International Inc.
Web address	:	http://www.spc.int/sdp/index.php?option=com_docman&task=doc_view&gid=185
Title 3	:	Republic of Nauru hospital data
Title 4	:	*Nauru NCD Risk Factors STEPS Report*
Web address	:	http://www.spc.int/prism/country/nr/stats/Publication/Surveys/Nauru_NCD_rpt.pdf

Title 5	:	*Demographic Profile of the Republic of Nauru, 1992-2002*
Operator	:	Bureau of Statistics Nauru, Secretariat of the Pacific Community
Web address	:	http://www.spc.int/prism/country/nr/stats/Publication/Census/NR_Demog%20profile_FINAL-92-02.pdf

5. ADDRESSES

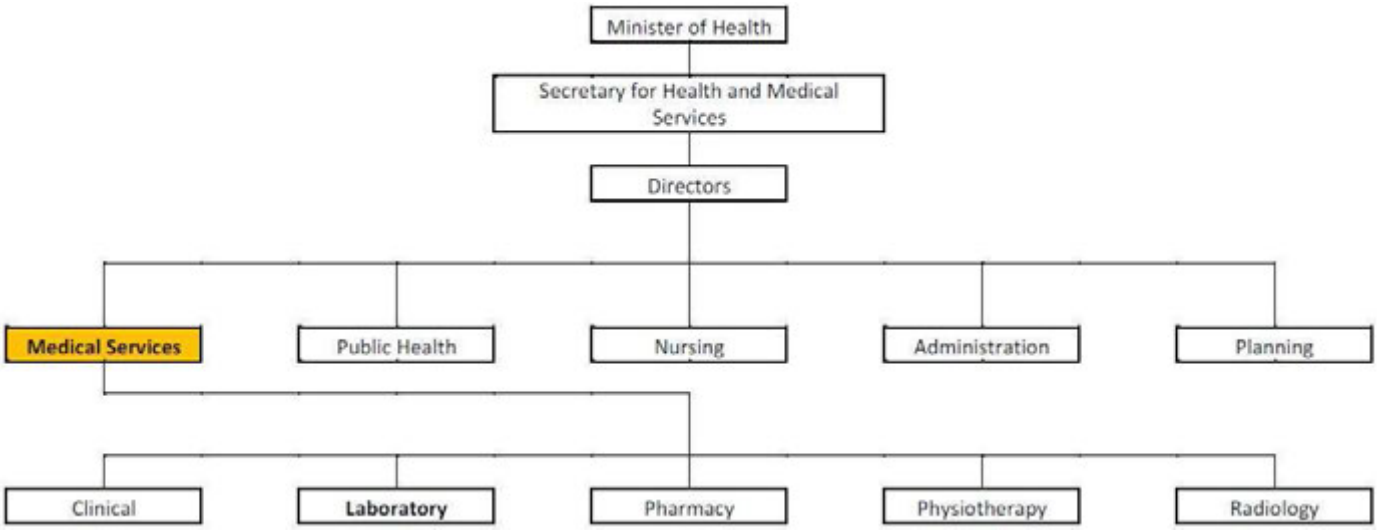
MINISTRY OF HEALTH

Office Address	:	Government Offices, Yaren District, Nauru
Official Email Address	:	secretary.health@naurugov.nr
Telephone	:	+ 674 444 3805 Ext 261/262

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT

Office Address	:	Level 4 Provident Plaza One Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	P.O. Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 166; 3234 177
Office Hours	:	0800 – 1700
Website	:	http://www.wpro.who.int/southpacific

6. ORGANIZATIONAL CHART: MINISTRY OF HEALTH



*focusing mainly on medical/clinical services

COUNTRY HEALTH INFORMATION PROFILE

NAURU — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.02						2011 est	1
2	**Estimated population ('000s)**	9.98 [a]		5.07 [a]		4.91 [a]		2010 est	2
3	**Annual population growth rate (%)**	2.10		…		…		2011 est	1
4	**Percentage of population**								
	- 0–4 years	12.94 [b]		12.97 [b]		12.90 [b]		2010est	2
	- 5–14 years	22.70 [b]		22.87 [b]		22.52 [b]		2010est	2
	- 65 years and above	1.27 [b]		1.19 [b]		1.35 [b]		2010est	2
5	**Urban population (%)**	100.00		…		…		2010est	3
6	**Crude birth rate (per 1000 population)**	13.10		12.90		13.40		2008 est	5
7	**Crude death rate (per 1000 population)**	6.70		7.50		5.90		2008 est	5
8	**Rate of natural increase of population (% per annum)**	0.64		0.54		0.75		2008 est	5
9	**Life expectancy (years)**								
	- at birth	55.40		52.50		58.20		2008	5
	- Healthy Life Expectancy (HALE) at age 60	…		8.70		10.50		2002	4
10	**Total fertility rate (women aged 15–49 years)**	4.00						2008	5
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	…		95.90		99.30		2007	6
12	**Per capita GDP at current market prices (US$)**	2071.00						2006-07	7
13	**Rate of growth of per capita GDP (%)**	…							
14	**Human development index**	…							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	…		…		…			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	…	…	…	…	…	…		
	- Type A	0	0	0	0	0	0	2008	8
	- Type B	613	165	448	0	0	0	2008	8
	- Type C	0	0	0	0	0	0	2008	8
	- Type E	0	0	0	0	0	0	2008	8
	- Unspecified	0	0	0	0	0	0	2008	8
	Cholera	0	0	0	0	0	0	2008	8, 9
	Dengue/DHF	0	0	0	0	0	0	2010	9
	Encephalitis	0	0	0	0	0	0	2008	8
	Gonorrhoea	268	96	172	0	0	0	2008	8
	Leprosy	2	2	0	…	…	…	2010	9
	Malaria	0	0	0	0	0	0	2010	8, 9
	Plague	0	0	0	0	0	0	2008	8
	Syphilis	622	164	458	0	0	0	2008	8
	Typhoid fever	0	0	0	0	0	0	2008	8
17	**Acute respiratory infections**	669	340	329	5	3	2	2008	8
	- Among children under 5 years	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	602 [c]	321	276	0	0	0	2008	8
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	1	...	...	0	0	0	2009	9
	- New pulmonary tuberculosis (smear-positive)	0	0	0	0	0	0	2009	9
20	**Cancers**								
	All cancers (malignant neoplasms only)	11	3	8	4	2	2	2008	8
	- Breast	3	0	3	1	0	1	2008	8
	- Colon and rectum	0	0	0	0	0	0	2008	8
	- Cervix			3			1	2008	8
	- Leukaemia	0	0	0	0	0	0	2008	8
	- Lip, oral cavity and pharynx	0	0	0	0	0	0	2008	8
	- Liver	2	1	1	0	0	0	2008	8
	- Oesophagus	0	0	0	0	0	0	2008	8
	- Stomach	2	1	1	1	1	0	2008	8
	- Trachea, bronchus, and lung	1	1	0	1	1	0	2008	8
21	**Circulatory**								
	All circulatory system diseases	0	0	0	29	21	8	2008	8
	- Acute myocardial infarction	0	0	0	5	3	2	2008	8
	- Cerebrovascular diseases	5	2	3	0	0	0	2008	8
	- Hypertension	220	124	96	2	0	2	2008	8
	- Ischaemic heart disease	5	5	0	0	0	0	2008	8
	- Rheumatic fever and rheumatic heart diseases	84	32	52	0	0	0	2008	8
22	**Diabetes mellitus**	22	9	13	4	1	3	2008	8
23	**Mental disorders**	0	0	0	0	0	0	2008	8
24	**Injuries**								
	All types	0	0	0	0	0	0	2008	8
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	2	2	0	0	0	0	2008	8
	- Occupational injuries	1	1	0	0	0	0	2008	8
	- Road traffic accidents	4	2	2	0	0	0	2008	8
	- Suicide	0	0	0	0	0	0	2008	8
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Pregnancy, childbirth and the pueperium	376		376	3928.94 [b,c]		7981.32 [b]	2008	8
	2. Endocrine, nutritional and metabolic diseases	89	49	40	929.99 [b,c]	1008.65 [b]	849.08 [b]	2008	8
	3. Diseases of the skin and subcutaneous tissue	72	35	37	752.35 [b,c]	720.46 [b]	785.40 [b]	2008	8
	4. Disease of the respiratory system	54	25	29	564.26 [b,c]	514.62 [b]	615.58 [b]	2008	8
	5. Certain conditions originating in the perinatal period	48	8	40	501.57 [b,c]	164.68 [b]	849.08 [b]	2008	8
	6. Diseases of the digestive system	31	21	10	323.92894 [b,c]	432.2767 [b]	212.2692 [b]	2008	8
	7. Diseases of the genitourinary system	30	15	15	313.47962 [b,c]	308.769 [b]	318.4037 [b]	2008	8
	8. Diseases of the circulatory system	27	15	12	282.13166 [b,c]	308.769 [b]	254.723 [b]	2008	8
	9. Infectious and parasitic diseases	22	12	10	229.88506 [b,c]	247.0152 [b]	212.2692 [b]	2008	8
	10. Diseases of the musculosketal system and connective tissue	15	10	5	156.73981 [b,c]	205.846 [b]	106.1346 [b]	2008	8

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the circulatory system	36	23	13	376.18 [b,c]	473.45 [b]	275.95 [b]	2008	10
	2. Endocrine, nutritional and metabolic diseases	9	7	2	94.04 [b,c]	144.09 [b]	42.45 [b]	2008	10
	3. Diseases of the respiratory system	6	2	4	62.70 [b,c]	41.17 [b]	84.91 [b]	2008	10
	4. Certain conditions originating in the perinatal period	6	3	3	62.70 [b,c]	61.75 [b]	63.68 [b]	2008	10
	5. Pregnancy, childbirth and puerperium	5	3	2	52.25 [b,c]	61.75 [b]	42.45 [b]	2008	10
	6. Neoplasms	4	2	2	41.80 [b,c]	41.17 [b]	42.45 [b]	2008	10
	7. Diseases of the genitourinary system	3	2	1	31.35 [b,c]	41.17 [b]	21.23 [b]	2008	10
	8. Symptoms, signs and abnormal clinical and laboratory	1	1	0	10.45 [b,c]	20.58 [b]	0.00 [b]	2008	10
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					25.10		2007	6
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					100.00		2010	9
29	**Percentage of pregnant women with anaemia**					20.00		2008	10
30	**Neonatal mortality rate (per 1000 live births)**	26.80		...		...		2003-07	6
31	**Percentage of newborn infants weighing less than 2500 g at birth**	27.00		...		...		2007	6
32	**Immunization coverage for infants (%)**								
	- BCG	100.00		...		...		2010	9
	- DTP3	100.00		...		...		2010	9
	- Hepatitis B III	100.00		...		...		2010	9
	- MCV2	100.00		...		...		2010	9
	- POL3	100.00		...		...		2010	9
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			5			0	2008	10
	- Eclampsia			2			0	2008	10
	- Haemorrhage			0			0	2008	10
	- Obstructed labour			3			0	2008	10
	- Sepsis			2			0	2008	10
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	9
	- Diphtheria	0	0	0	...	...	...	2010	9
	- Measles	0	0	0	...	...	...	2010	9
	- Mumps	0	0	0	...	...	...	2010	9
	- Neonatal tetanus	0	0	0	...	...	...	2010	9
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	9
	- Poliomyelitis	0	0	0	...	...	...	2010	9
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	0	0	0	...	...	...	2010	9
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	50	2010	11
		- Specialized hospitals	0	0	2010	11
		- District/first-level referral hospitals	0	0	2010	11
		- Primary health care centres	0	0	2010	11
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			6.25 [b]	2009p	12
	- total expenditure on health as % of GDP			10.85	2009p	12
	- per capita total expenditure on health (in US$)			625.00 [b]	2009p	12
	Government expenditure on health					
	- amount (in million US$)			3.91 [b]	2009p	12
	- general government expenditure on health as % of total expenditure on health			70.50	2009p	12
	- general government expenditure on health as % of total general government expenditure			18.50	2009p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			80.00 [b]	2009p	12
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			29.50	2009p	12
	- out-of-pocket expenditure on health as % of total expenditure on health			0.00 [b]	2009p	12
	Exchange rate in US$ of local currency is: 1 US$ =			1.28	2009p	12
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	10 [d]	8 [d]	2	...	...	...	...	2010	11
		- Ratio per 1000 population	1.00	0.80	0.2	...	...	...	...	2010	11
	Dentists	- Number	1	1	0	...	...	...	...	2008	10
		- Ratio per 1000 population	0.10	0.10	0.00	...	...	...	...	2008	10
	Pharmacists	- Number	1	0	1	...	...	...	...	2008	10
		- Ratio per 1000 population	0.10	0	0.10	...	...	...	...	2008	10
	Nurses	- Number	59	2	57	...	...	...	...	2008	10
		- Ratio per 1000 population	6.17	0.21	5.96	...	...	...	...	2008	10
	Midwives	- Number	5	0	5	...	...	...	...	2008	10
		- Ratio per 1000 population	0.52	0.00	0.52	...	...	...	...	2008	10
	Paramedical staff	- Number	19	11	8	...	...	...	...	2008	10
		- Ratio per 1000 population	1.90	1.10	0.80	...	...	...	...	2008	10
	Community health workers	- Number	14	2	12	...	...	...	...	2008	10
		- Ratio per 1000 population	1.40	0.20	1.20	...	...	...	...	2008	10
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	3	0	3	...	...	...	...	2008	10
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	4.80	...	...	2007	6
43	Infant mortality rate (per 1000 live births)	37.90	...	...	2003-07	6
44	Under-five mortality rate (per 1000 live births)	37.90	...	...	2003-07	6
45	Proportion of 1 year-old children immunised against measles	100.00	...	...	2010	9
46	Maternal mortality ratio (per 100 000 live births)	300.00			2002	13
47	Proportion of births attended by skilled health personnel	97.40			2007	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	Contraceptive prevalence rate	35.60	...	...	2007	6
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	53.50			2007	6
	- At least four visits	40.20			2007	6
51	Unmet need for family planning	23.50	...	...	2007	6
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	54.00	...	...	2009	9
60	Tuberculosis death rate per 100 000 population	0.00	0.00	0.00	2009	9
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	...	...	...		
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	100.00	...	...	2008	9
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	90.00	90.00	...	2008	14
64	Proportion of population using an improved sanitation facility	50.00	50.00	...	2008	14
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Estimated mid-year population.
b	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific
c	Revised figure
d	Figure includes one non-practicing doctor

Sources:	
1	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated March 2011. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed on August 2011.
2	Population 2000-2015 by 1 and 5 year age groups, February 2010. Secretariat of the Pacific Community (SPC) - Statistics and Demography (SDP) Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_details&gid=158]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision [ttp://esa.un.org/wup2009/unup/].
4	Pacific island populations- estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. [http://www.spc.int/demog/en/index.html]
5	Nauru Bureau of Statistics. [http://www.spc.int/prism/country/nr/stats/]
6	Nauru Demographic and Health Survey 2007. Bureau of Statistics Nauru, Secretariat for the Pacific Community, Noumea, New Caledonia, Macro International Inc. Calverton, Maryland, U.S.A., April 2008.
7	2010 Pocket Statistical Summary. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme (SDP). Accessed on June 2010 at http://www.spc.int/prism/
8	RON Hospital inpatient record study from Jan to Dec 2008 (data from Health Planning Officer)
9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	Republic of Nauru (RON) Hospital data from Jan - Dec 2008 (data from Health Planning Officer)
11	Situational Analysis of Specialist Clinical Services in the Republic of Nauru. Accessed on August 2011 from [http://sscsp.org/files/NAURU%20SA%20Report%20Darft%201.pdf]
12	National health accounts: country information. Geneva, World Health Organization. Available from: http://www.who.int/nha/country/en/index.html
13	Nauru population profile. A guide for planners and policy makers. Noumea, Secretariat of the Pacific Community.
14	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

NEW CALEDONIA

1. CONTEXT

1.1 Demographics

New Caledonia is an archipelago consisting of a main island, the Grande Terre, and several smaller islands (the Belep archipelago, the Loyalty Islands, the Ile des Pins, the Chesterfield Islands and the Bellona Reefs). Noumea, located on the main island, is the capital.

According to the national census in 2009, the inhabitants of New Caledonia numbered 245 580. The population is made up of 42.5% Melanesians, 37.1% Europeans, 8.4% Wallisians, 3.8% Polynesians, 3.6% Indonesians, 1.6% Vietnamese and 3% other nationalities. In 2008, the crude birth rate was 16.2 per 1000 population, the crude death rate was 4.7 per 1000 population and the rate of natural increase was 11.5 per 1000 population. The total fertility rate was 2.2, and the infant mortality rate was 6.1 per 1000 live births. The proportion of the population under 20 years of age, estimated at 35.5%, is decreasing gradually, in contrast with the over-65 population, which is increasing and is currently estimated at 6.2% of the population.

City-dwellers were estimated to make up 57.4% of the population by 2010. Life expectancy at birth is 71.8 years for males and 80.3 years for females (2007). There is a high level of adult literacy, estimated to be 91% of the total population (male 92%, female 90%).

1.2 Political situation

New Caledonia was an overseas territory of France until the signing of the Noumea Accords in May 1998 and their subsequent approved by the French National Assembly and Senate. It then became a self-governing French overseas country and was granted a new status, with more internal autonomy. Administratively, the archipelago is divided into three provinces (South Province, North Province and Loyalty Islands Province) and has a three-tiered system of administration: metropolitan France (represented by the High Commissioner); the Territorial Congress; and the provincial assemblies. The Noumea Accords diminished the hopes of those involved in the pro-independence movement, as the earliest possible date for independence for the country is now 2014. The Government of France has been represented by High Commissioner Albert Dupuis since October 2010. The President of the New Caledonian Government is elected by the members of the Territorial Congress. The last election was held on 3 March 2011, when Harold Martin was elected.

1.3 Socioeconomic situation

The mainstays of New Caledonia's booming economy are mining, cattle, shrimp farming, fishing, forestry agriculture and tourism. The country has about 25% of the world's known nickel resources. In addition to nickel, substantial financial support from France (equal to more than 25% of gross domestic product [GDP]) and tourism are key to the economy. Substantial new investment in the nickel industry, combined with the recovery of the global nickel market, suggests a bright economic outlook for the next few years. Only a small amount of the country's land is suitable for cultivation, and food accounts for about 20% of imports.

In 2009, the estimated GDP was XPF 736.6 billion CFP (US$ 8.92 billion), with a GDP per capita of XPF 3.0 million (US$ 36 337).

The major exports are coffee, prawns, holoturies or bêche de mer, trochus, scallops and tuna. The country has an Exclusive Economic Zone of 1 740 000 square kilometres.

1.4 Risks, vulnerabilities and hazards

New Caledonia is vulnerable to natural hazards, with cyclones common from November to March. Erosion caused by mining exploitation and forest fires are among the environmental issues facing the country.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Communicable diseases remain a public health problem. Common infections include: acute respiratory tract infections, including pneumonia; diarrhoeal diseases; sexually transmitted infections, including HIV; and rheumatic heart disease.

In 2009, 1419 acute infections of the respiratory tract were reported and 216 ear infections (underreporting: only 2.7 % of expected reports were received). In 2010, there were 15 smear-positive tuberculosis cases (the incidence is 24 per 100 000 population) and eight new cases of leprosy reported. The prevalence of rheumatic heart disease was estimated to be 7.5 per 1000 population in 2008.

Sexually transmitted infections (STI) are highly prevalent. Second-generation surveillance carried out in 2006 revealed that, of the 152 women tested in antenatal care, 23.7 % were infected with chlamydia, 7.9 % with gonorrhoea and 5.9% with syphilis. In 2009, 803 STI cases were notified, of which 25.4% were chlamydial infections, 10% were gonorrhoea, and 6% were syphilis. In 2009, 13 new seropositive HIV infections were registered, bringing the cumulative number by the end of 2009 to 344. A total of 123 AIDS cases have been reported, with 73 AIDS-related deaths since 1986. Thirty-three cases of hepatitis B were notified in 2009.

Dengue and leptospirosis are endemic in the country, with 8410 and 162 cases, respectively, in 2009.

Noncommunicable diseases also constitute a major disease burden, with cardiovascular diseases, diabetes mellitus and cancers being the most common. In 2009, the most common conditions requiring long-term treatment included cardiovascular conditions (44 %), diabetes mellitus (9509 cases, 17.6 %), and psychosis (4386 cases; 8 %). A further 5127 malignant cancers (9.5 %), 5148 cases of chronic respiratory failure (9.5%) and 1198 cases of renal failure (2.2%) were in treatment. There were 35 deaths due to suicide.

2.2 Outbreaks of communicable diseases

In 2009, a dengue outbreak was notified by the health authorities. A total of 8410 cases were reported, of whom 5652 were confirmed by polymerase chain reaction (PCR) by 31 December 2009. In the same year, an epidemic of pandemic (H1N1) 2009 virus was reported, with 1162 samples analysed and 44.5% found to be positive. The Government estimates that 16%-18 % of the population became infected by the virus, which would represent about 40 000 people.

2.3 Leading causes of mortality and morbidity

The leading causes of mortality during 2009 included: tumours (26 %); diseases of the circulatory system (23.7 %); traumatic injuries and poisonings (14.6 %); and diseases of the respiratory system (9.2 %).

2.4 Maternal, child and infant diseases

New Caledonia has a well-functioning mother and child health programme. In 2009, 53.6% of the female population was estimated to be between the ages 15 and 49 years. Of those, 50.1 % had access to contraception. The use of medical abortion as a means of contraception had risen to 22.7 per 1000 (26.7 % per 100 conceptions) in 2009. In the same year, 27 018 Pap smears were performed and 4037 deliveries took place, of which 720 (17.8 %) were by Caesarian section. One maternal death was registered in 2009. Of the 4082 births registered that year, 345 (8.4%) were premature and 329 (8 %) had a low birth weight.

In 2010, vaccination coverage was 98% for BCG, 100% for DPT3, 100% for POL3, 99% for measles (MCV1), and 98% for hepatitis B III.

2.5 Burden of disease

Chronic health conditions that require long-term hospitalization constitute a major burden for the health system. At the same time, some communicable diseases, such as STI, HIV infections and acute respiratory infections, remain major public health issues for the country.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Government has endorsed the 'Health for All' principle, and primary health care is one of the priorities set by health offices of all three provinces. The main elements of the health strategy are:

- qualitative and quantitative improvements in health care;
- prevention of communicable diseases through immunization; and
- improvement of health status, housing and the environment by means of health education.

3.2 Organization of health services and delivery systems

At the provincial level, public health care services are provided by 26 medicosocial constituencies, managed by the Directions Provinciales des Affaires Sanitaires et Sociales de l'interieur et des Iles. Of those, seven are medicosocial centres that have a total of 46 hospital beds and deliver integrated health care. The remaining 19 are medical centres, which cover in total: 14 nursing stations, 55 consultation rooms and 22 dental care stations. There are four specialized medical centres based in Noumea (the Multi-Specialty Centre, the Mother and Child Health Centre, the School Health Centre and the Family Planning Centre).

At the territorial level, there are five public hospitals (Centre Hospitalier Territorial [CHT] Gaston Bourret, CHT Magenta, CH Noumea, CHT Raoul Follereau and CHT Col de la Pirogue) and three private hospitals (Clinique Baie Des Citrons, Clinique Anse-Vata and Clinique Magnin).

There are 2.9 hospital beds for every 1000 inhabitants.

The significant improvement in the health status of the population in recent years can be attributed to the economic growth of New Caledonia as well as to the quality of health care coverage. The whole population has access to health services.

3.3 Health policy, planning and regulatory framework

No available information.

3.4 Health care financing

In 2006, health expenditure amounted to XPF 62 563.88 million (US$ 758.15 million). This increased by 12%, to XPF 68 601.85 million (US$ 832.47 million) in 2008, with 9.5 % of GDP being spent on health. Per capita expenditure on health was XPF 280 465 (US$ 3399.85). Various public mechanisms fund social welfare programmes, including national insurance, family allowances, industrial programmes and a pension scheme. Consequently, all citizens are comprehensively covered for their health and welfare needs. However, it requires a constant effort to balance the distribution of the available resources equally among the population.

3.5 Human resources for health

As of 1 September 2009, there were 542 practising medical doctors, 53.2% specialists and 46.8% practising general medicine, representing a density of 220.7 doctors/100 000 inhabitants. There were also 441.2 nurses, 48.9 dentists, 49.7 physiotherapists and 57.7 pharmacists per 100 000 population, and 163.2 midwives per 100 000 women between the ages of 15 and 49 years.

3.6 Partnerships

In addition to its direct link with the French Government, la Direction des Affaires Sanitaires et Sociales works closely with its partners. The Secretariat of the Pacific Community (SPC) and WHO are the main development partners in the health sector. New Caledonia is committed to implementing various global health initiatives, such as the International Health Regulations and the Stop TB Programme.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Institut Territorial de la Statistique et des Etudes Economiques
Web address	:	http://www.isee.nc/
Title 2	:	*New Caledonia Health Profile. Key Features 2009*
Operator	:	La Direction des Affaires Sanitaires et Sociales
Web address	:	http://www.dass.gouv.nc/portal/page/portal/class/publications/sante_chiffres
Title 3	:	*Demographic tables for the Western Pacific 2005-2010*
Operator	:	World Health Organisation, Regional Office fore the Western Pacific
Web address	:	http://www.wpro.who.int/information_sources/databases/regional_statistics/rstat_demographics.htm
Title 4	:	*World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision*
Operator	:	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat
Web address	:	http://esa.un.org/unup
Title 5	:	*La Situation Sanitaire pour l'année 2009*
Operator	:	La Direction des Affaires Sanitaires et Sociales
Web address	:	http://www.dass.gouv.nc/static/publications/chiffre.htm
Title 6	:	*Rapport conjoint OMS/UNICEF de notification des activités de vaccination pour la période janvier-décembre 2007*
Operator	:	WHO Office for South Pacific
Title 7	:	*WHO Report 2008. Global Tuberculosis Control. Surveillance, Planning, Financing*
Operator	:	World Health Organization
Title 8	:	*Population 2000-2015 by 1 and 5 year age groups, February 2010.*
Operator	:	Secretariat of the Pacific Community (SPC) - Statistics and Demography (SDP) Programme.
Web address	:	http://www.spc.int/sdp/index.php?option=com_docman&task=doc_details&gid=158

5. ADDRESSES

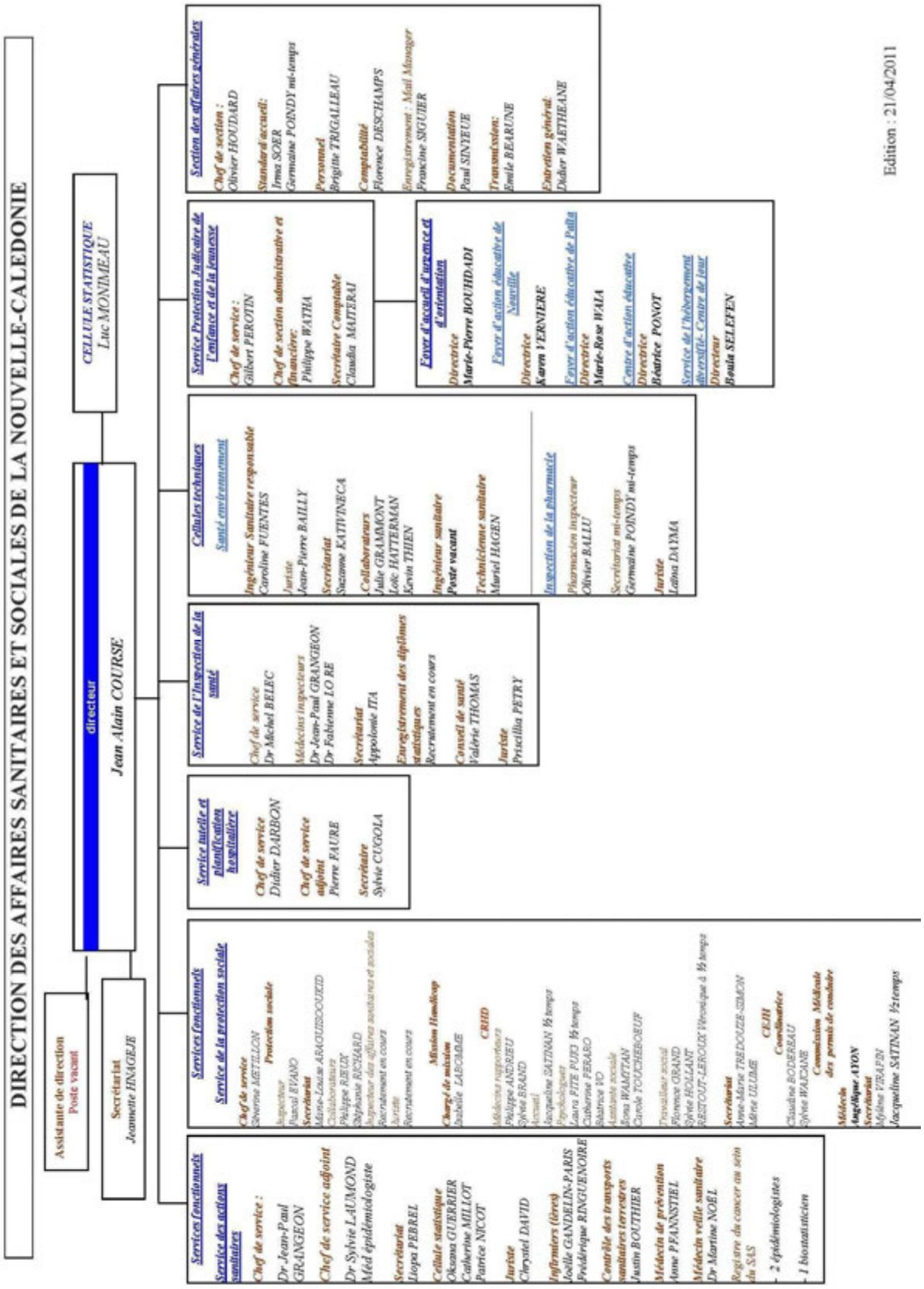
DIRECTION DES AFFAIRES SANITAIRES ET SOCIALES DE NOUVELLE-CALÉDONIE

Office Address	:	DASS – NC, 5 rue Gallieni – Centre ville 98800 Noumea – Nlle- Caledonie
Postal Address	:	BP N4 – 98851 Noumea – Nlle-Calédonie
Official Email Address	:	dass@gouv.nc
Telephone	:	(687) 24.37.00
Fax	:	(687) 24.37.02
Office Hours	:	7h30-11h30 ; 12h15-16h00
Website	:	http://www.dass.gouv.nc

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT

Office Address	:	Level 4 Provident Plaza 1 Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	P.O. Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 177; 3234 177
Office Hours	:	0800 – 1700
Website	:	http://www.wpro.who.int/southpacific

6. ORGANIZATIONAL CHART: Direction des Affaires Sanitaires et Sociales de Nouvelle-CalÉdonie



COUNTRY HEALTH INFORMATION PROFILE

NEW CALEDONIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	18.58						2008	1
2	**Estimated population ('000s)**	245.58		...		...		2009p	1
3	**Annual population growth rate (%)**	2.50		...		...		2006	2
4	**Percentage of population**								
	- 0–4 years	8.30		8.20		8.50		2009 est	3
	- 5–14 years	18.10		18.10		18.00		2009 est	3
	- 65 years and above	6.30		5.70		6.80		2009 est	3
5	**Urban population (%)**	57.40		...		...		2010 est	4
6	**Crude birth rate (per 1000 population)**	16.90 [a]		...		...		2008p	5
7	**Crude death rate (per 1000 population)**	5.00 [a]		6.10		3.80		2008p	5
8	**Rate of natural increase of population (% per annum)**	1.15 [b]		...		...		2008p	5
9	**Life expectancy (years)**								
	- at birth	75.90		71.80		80.30		2007	5
	- Healthy Life Expectancy (HALE) at age 60	...		...		...		...	
10	**Total fertility rate (women aged 15–49 years)**	2.20						2005	5
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	91.00		92.00		90.00		2007	1
12	**Per capita GDP at current market prices (US$)**	36 758.00						2008	6
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	...							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	922	...	...	...	...	...	2005	7
	- Type B	33	7	26	...	...	...	2009	8
	- Type C	2	0	2	...	...	...	2009	8
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	8410 [c]	4278	4128	...	...	...	2009	8
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	77 [c]	42	33	...	...	...	2009	8
	Leprosy	8	5	3	...	...	...	2010	9
	Malaria	2	...	...	...	...	...	2008	8
	Plague	...	...	...	...	...	...		
	Syphilis	46 [c]	12	33	...	...	...	2009	8
	Typhoid fever	...	...	...	...	...	...		
17	**Acute respiratory infections**	1419	...	...	...	...	...	2009	8
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	162	...	...	...	...	...	2009	8
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	54 [a]	...	...	4 [f]	....	....	2009	9
	- New pulmonary tuberculosis (smear-positive)	15 [a]	...	...	...	....	....	2009	9
20	**Cancers**								
	All cancers (malignant neoplasms only)	703	392	311	...	...	...	2007	2
	- Breast	89	...	89	...	...	...	2007	2
	- Colon and rectum	56	32	24	...	...	...	2007	2
	- Cervix			18 [d]			...	2007	2
	- Leukaemia	47	25	22	...	...	...	2007	2
	- Lip, oral cavity and pharynx	22	18	4	...	...	...	2007	2
	- Liver	12	8	4	...	...	...	2007	2
	- Oesophagus	9	8	1	...	...	...	2007	2
	- Stomach	19	14	5	...	...	...	2007	2
	- Trachea, bronchus, and lung	92	69	23	...	...	...	2007	2
21	**Circulatory**								
	All circulatory system diseases	23 832	...	...	...	...	...	2009	8
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	9509	...	...	...	...	...	2009	8
23	**Mental disorders**	4386	...	...	...	...	...	2009	8
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	4433	...	...	...	...	...	2009	8
	- Road traffic accidents	522	...	...	...	...	...	2009	8
	- Suicide	...	...	...	35	29	6	2009	8
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Obstetric conditions	2572	...	...	1069.93	...	...	2006	11
	2. Orthopedic and rheumatogical conditions	1570	...	...	653.11	...	...	2006	11
	3. Digestive conditions	1340	...	...	557.43	...	...	2006	11
	4. Respiratory conditions	927	...	...	385.62	...	...	2006	11
	5. Neurological conditions	870	...	...	361.91	...	...	2006	11
	6. Cutaneous and sub-cutaneous conditions (incl operation linked with obesity)	867	...	...	360.66	...	...	2006	11
	7. Heart conditions	739	...	...	307.42	...	...	2006	11
	8. Opthalmic conditions	370	...	...	153.92	...	...	2006	11
	9. Chemotherapy, radiotherapy, blood transfusion	355	...	...	147.68	...	...	2006	11
	10. Uro-nephrological conditions	323	...	...	134.36	...	...	2006	11

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Tumors	328	188	140	133.56 [b]	...	...	2009	8
	2. Diseases of the circulatory system	299	183	116	121.75 [b]	...	...	2009	8
	3.Traumatic injuries and poisoning	184	132	52	74.92 [b]	...	...	2009	8
	4. Diseases of the respiratory system	116	65	51	47.24 [b]	...	...	2009	8
	5. Infectious and parasitic diseases	45	25	20	18.32 [b]	...	...	2009	8
	6. Diseases of the nervous system	37	17	20	15.07 [b]	...	...	2009	8
	7. Diseases of the digestive system	35	21	14	14.25 [b]	...	...	2009	8
	8. Endocrinic, nutritional and metabolic diseases	32	16	16	13.03 [b]	...	...	2009	8
	9. Diseases of the genito-urinary system	26	14	12	10.59 [b]	...	...	2009	8
	10. Perinatal conditions	6	6	0	2.44 [b]	...	...	2009	8
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					37.50		2007	12
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					...			
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	2.50		...		...		2005	7
31	**Percentage of newborn infants weighing less than 2500 g at birth**	8.40		...		...		2009	8
32	**Immunization coverage for infants (%)**								
	- BCG	98.00		...		...		2010	9
	- DTP3	100.00		...		...		2010	9
	- Hepatitis B III	98.00		...		...		2010	9
	- MCV2	...		...		...			
	- POL3	100.00		...		...		2010	9
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			1479			0	2009	8
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...	2010	9
	- Diphtheria	0	0	0	...	...	...	2010	9
	- Measles	0	0	0	...	...	...	2010	9
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	0	0	0	...	...	...	2010	9
	- Pertussis (whooping cough)	3	...	...	...	...	...	2010	9
	- Poliomyelitis	0	0	0	...	...	...	2010	9
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	0	0	0	...	...	...	2010	9
	Health facilities								
35	**Facilities with HIV testing and counseling services**					75		2009	8

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	5	...	2008	8
		- Specialized hospitals	4	184 [e]	2005	7
		- District/first-level referral hospitals	7	46	2006	11
		- Primary health care centres	19	...	2006	11
	Private health facilities	- Hospitals	3	...	2006	11
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			836.71	2008	15
	- total expenditure on health as % of GDP			9.50	2008	15
	- per capita total expenditure on health (in US$)			3420.72	2008	15
	Government expenditure on health					
	- amount (in million US$)					
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			...		
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			...		
	- out-of-pocket expenditure on health as % of total expenditure on health			...		
	Exchange rate in US$ of local currency is: 1 US$ =			81.90	2008	1
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	542	...	...	...	...	...	...	2009	8
		- Ratio per 1000 population	2.22 [b]	...	...	...	...	...	...	2009	8
	Dentists	- Number	120	...	...	...	...	...	...	2009	8
		- Ratio per 1000 population	0.49 [b]	...	...	...	...	...	...	2009	8
	Pharmacists	- Number	141	...	...	...	...	...	...	2008	8
		- Ratio per 1000 population	0.58 [b]	...	...	...	...	...	...	2008	8
	Nurses	- Number	1 103	...	...	...	...	...	...	2009	8
		- Ratio per 1000 population	4.51 [b]	...	...	...	...	...	...	2009	8
	Midwives	- Number	106	...	...	...	...	...	...	2009	8
		- Ratio per 1000 population	0.43 [b]	...	...	...	...	...	...	2009	8
	Paramedical staff	- Number	...	...	...	...	...	...	....		
		- Ratio per 1000 population	...	...	...	...	...	...	....		
	Community health workers	- Number	...	...	...	...	...	...	....		
		- Ratio per 1000 population	...	...	...	...	...	...	....		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	6.10	...	...	2007	5
44	Under-five mortality rate (per 1000 live births)	9.06	...	...	2002	13
45	Proportion of 1 year-old children immunised against measles	99.00	...	...	2010	9
46	Maternal mortality ratio (per 100 000 live births)	0.02			2009	14
47	Proportion of births attended by skilled health personnel	91.97			2005	10
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	4.37			2005	10
	- Percentage of deliveries in health facilities (as % of total deliveries)	87.60			2005	10
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	...				
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	0.00	...	...	2009	8
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	0.00	...	...	2006	9
56	Malaria death rate per 100 000 population	0.00	...	...	2006	9
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	0.00	...	...	2006	9
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	0.00	...	...	2006	9
59	Tuberculosis prevalence rate per 100 000 population	33.00	...	...	2009	9
60	Tuberculosis death rate per 100 000 population	1.00	...	...	2009	9
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	9
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	82.00	...	...	2008	9
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	...	...	...		
64	Proportion of population using an improved sanitation facility	...	...	...		
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

NEW CALEDONIA

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Revised data
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Totals may not tally due to some reported cases with no gender breakdown
d	Figure refer to cancer of female genital organs
e	Figure refers to 108 beds for psychiatric cases and 76 beds for geriatric cases
f	Estimated number of deaths

Sources:	
1	Institut Territorial de la Statistique et des Etudes Economiques (ISEE). Accessed on 05 Aug 2011 from http://www.isee.nc/chiffresc/chiffresc.html.
2	New Caledonia Health Profile 2008. La Direction des Affaires Sanitaires et Sociales.
3	Demographic Tables for the Western Pacific 2005-2010, Manila. World Health Organization Regional Office for the Western Pacific, 2005.
4	Population Division of the Department of Economics and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/
5	New Caledonia Health Profile, Key features 2008. La Direction des Affaires Sanitaires et Sociales.
6	Institut de la Statistique et des Etudes Economiques (ISEE). Accessed on 16 August 2011 at [http://www.isee.nc/tec/ecofinances/telechargements/fab-13-1.pdf]
7	La Situation sanitaire pour l'annee 2005. La direction des affaires sanitaires et sociales.
8	New Caledonia Health Profile 2009. La Direction des Affaires Sanitaires et Sociales.
9	WHO Regional Office for the Western Pacific, data received from technical units
10	Department of Health and Social Affairs of New Caledonia.
11	La Situation Sanitaire pour l'annee 2008. La direction des affaires sanitaires et sociales.
12	Information furnished by WHO Representative in the South Pacific, 25 June 2008.
13	Health Situation in New Caledonia, 01 January 2002 to 31 December 2002. Department of Health and Social Affairs, New Caledonia.
14	Situation sanitaiere en Nouvelle-Caledonia, 2009
15	Information furnished by the WR South Pacific Office dated April 2011

New Zealand

1. CONTEXT

1.1 Demographics

New Zealand had a population of 4 143 279 at the time of the 2006 census, with 1 965 621 male and 2 062 328 female residents, or around 104 women for every 100 men. The estimated resident population as of 31 December 2010 was 4 370 200. The median age was 35.5 years for men and 37.5 years for women. In common with many other developed countries, New Zealand's population is ageing.

At total population level, the country's health continues to improve, and impressive longevity gains have been recorded: life expectancy at birth in 2006 was 82.4 years for females and 78.4 years for males. These levels for 2006–2008 represent longevity gains of 1.1 years for females and 1.9 years for males since 2000–2002. Since 1975–1977, life expectancy at birth has increased by 6.8 years for females and 9.2 years for males as a result of reductions in mortality rates for all age groups. However, Māori life expectancy at birth in 2006 was approximately eight years less than that for non-Māori for both genders, at 70.4 years for Māori males and 75.1 years for Māori females

The 2006 census results showed that the ethnic make-up of New Zealand had changed rapidly since 2001:

- Asian ethnic groups had grown the fastest, increasing almost 50% from 238 176 in 2001 to 354 552 in 2006.
- Those identifying with Pacific peoples' ethnic groups had the second-largest increase, up almost 15% since 2001, to 265 974.
- The indigenous Māori ethnic group had increased by just over 7% to total 565 329. One in seven people identified with the Māori ethnic group.
- 'New Zealander' was a separate category for the first time in 2006; it was previously counted in the European category. Of those who identified themselves as New Zealanders, 12.9% also identified with at least one other ethnic group. New Zealander was the third-largest ethnic group, with 429 429 people, or 11% of those who stated their ethnicity. It is considered that the vast majority of those who identify themselves as New Zealanders are also Europeans.
- 'European' remained the largest of the major ethnic groups, totaling 2 609 592 people (67.6%).

New Zealand conducts a national census of population and dwellings every five years. The 2011 Census was not held in March 2011 as planned, due to the Christchurch earthquake on 22 February 2011. The national state of emergency and the likely impact on census results meant that the 2011 Census could not have been successfully completed at that time. Hence, the Government has decided to hold the next census in March 2013.

1.2 Political situation

A national general election is held every three years under a mixed-member proportional representation system. There are approximately 120 seats in Parliament and there is no upper house. The centre-right New Zealand National Party was elected in November 2008, resulting in a change of government for the first time in nine years.

1.3 Socioeconomic situation

Economic activity for the year ending December 2010 was up 1.5% compared with the four quarters ending December 2009. Industrial sectors experiencing the largest increases in percentage growth over that period were fishing, forestry and mining (7.6%), wholesale trade (3.0%) and construction (1.8%).

Economic statistics show, however, that the economic recovery effectively stalled over the second half of 2010 as domestic demand remained subdued, business confidence softened and the economy was hit by a number of shocks, including the major earthquake that struck Christchurch in September 2010 and an early summer drought. Real gross domestic product (GDP) has barely grown since the March 2010 quarter and, with growth likely to reduce over the first half of 2011 as a result of a second major earthquake in the Christchurch region in February 2011, the New Zealand economy is set to remain in a weak phase.

The unemployment rates for the five quarters from December 2009 to December 2010 (the most recent quarterly statistics available) were 7.0%, 6.0%, 6.9%, 6.4% and 6.8%, respectively. This "up and down" pattern makes assessing labour market conditions difficult. However, the underlying trend is that of a gradually improving labour market. Employment is higher than a year ago and the unemployment rate remains below its December 2009 quarter peak.

New Zealand was ranked 22nd out of 30 OECD countries for GDP per person in 2007 and 2008. Between 1986 and 2008, real GDP per person (using US dollars and PPPs for the year 2000) grew by 30% in New Zealand compared with an OECD average of 53%.

In 2009, the equivalized disposable income of a household in the 80th percentile was 2.5 times larger than that of a household in the 20th percentile, about the same as the ratio in 2007. In 1988, the ratio was 2.2. Income inequality rose steeply between 1988 and 1991, briefly plateaued, then rose steadily from 1994 to 2004. The most recent OECD comparison available (from 2004) gives New Zealand a score of 34, indicating higher income inequality than the OECD median of 31 and a ranking of 23rd equal out of 30 countries.

1.4 Risks, vulnerabilities and hazards

Vulnerabilities and hazards derive from the geographical configuration of a relatively small island country in the Pacific Ocean. Biological hazards, such as pandemic influenza A (H1N1), pose an imminent risk.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Cancer and ischaemic heart disease were the leading causes of death in 2007, with cancer accounting for 29.8% of deaths and ischaemic heart disease for 19.7%.

Between 1996-1999 and 2000-2004 absolute inequality in all-cause mortality decreased, more so for Māori than for Pacific ethnic groups. This appears to have arrested a widening gap in inequality evident from the early 1990s. A substantial proportion of the decline in mortality for all ethnic groups over the period can be attributed to a progressive reduction (improvements in smoking, diet and control of blood cholesterol and blood pressure) in the incidence and case fatality rates for cardiovascular disease (CVD), coronary heart disease and stroke, in particular. At the same time, the contribution of cancer to ethnic mortality inequality increased.

In terms of health risk factors influenced by individual behaviour, tobacco consumption declined significantly from 3154 cigarette equivalents per person aged 15+ in 1976 to 961 in 2009. Smoking remains a major contributor to inequalities in health. People living in more deprived areas have higher rates of smoking than those in less deprived areas. Although declining, smoking rates among both Māori and Pacific people remain high. In 2009, the current (daily + weekly + monthly) smoking prevalence rates among those aged 15-64 years were 45.1% among Māori and 30.3% among Pacific people, compared with 21% for the total population.

Obesity is one of the most important modifiable risk factors for a number of important diseases, such as type 2 diabetes, ischaemic heart disease and stroke. Obesity and overweight are major health issues affecting over half the adult population and just under one-third of New Zealand children. Māori are more likely to be obese than non-Māori, with 41.1% of Māori adults and 24.6% of non-Māori adults (over 15 years) being obese in 2006 -2007. Similar trends are seen for children, with 12.6% of Māori children and 7.1% of non-Māori children obese in 2006-2007.

2.2 Outbreaks of communicable diseases

The Ministry of Health is responsible for planning the national response to health service emergencies of all kinds and has acknowledged capability and capacity in the leadership and coordination of health sector activity during possible emergency events, such as outbreaks of severe acute respiratory syndrome (SARS), highly pathogenic influenza A(H5N1) and pandemic influenza A(H1N1). The National Health Emergency Plan 2008, which describes the larger context within which the Ministry of Health and all health services will function during any national health-related emergency, including the country's responsibilities under international agreements and regulations, serves as a valuable model for the Pacific region. The information in the Plan is the outcome of work

undertaken by intersectoral working groups covering health, biosecurity, law and order, emergency services, civil defense emergency management, welfare, education, border response, the economy, external response (international) infrastructure and workplaces.

2.3 Leading causes of mortality and morbidity

Chronic or long-term conditions are the leading cause of preventable morbidity, mortality and unequal health outcomes. They include: diabetes; cardiovascular diseases; cancer; respiratory conditions; mental health conditions such as anxiety and depression; and arthritis.

Together, cardiovascular diseases and diabetes account for a significant burden of chronic illness and premature death. About 10 500 New Zealanders die from cardiovascular diseases each year, accounting for 40% of all deaths, and there are 7000 new stroke 'events' every year. Over 7000 people are newly diagnosed with diabetes each year and 4.5% of the population live with the disease.

The major causes of death (rate per 100 000) in 2007 were: malignant neoplasms (198.9); ischaemic heart diseases (133.2); cerebrovascular diseases (62.0); chronic lower respiratory diseases (38.9); other forms of heart disease (26.3); diabetes mellitus (20.0); organic, including symptomatic, mental disorders (18.0); other degenerative diseases of the nervous system (12.8); diseases of arteries, arterioles and capillaries (12.3); and intentional self-harm (11.5).

2.4 Maternal, child and infant diseases

In 2008, based on provisional figures, there were 61 090 hospital deliveries, of which 66.0% were normal deliveries, 24.3% were Caesarean sections, 8.5% were assisted deliveries (forceps and/or vacuum extraction) and 0.5 % were breech deliveries. In the same year, 99.0% (60 499) of total hospital births were liveborn babies and 0.8% (476) were stillbirths.

The infant mortality rate continues to decrease, standing at 4.8 per 1000 live births in 2007, down from 5.7 in 1999 and 18.4 in 1969. The rate has fallen in association with a reduction in infectious diseases (and respiratory diseases), which were previously the main causes of infant death in the country.

The number of neonatal deaths remains relatively small, accounting for 165 infant deaths in the first 28 days of life in 2007, or a rate of 2.5 per 1000 live births. Europeans have markedly lower early neonatal deaths (deaths in the first week of life) rates than all other ethnicities. The perinatal death rate (fetal deaths after 20 weeks' gestation or 400 g birth weight, plus early neonatal deaths) for Pacific babies was the highest in 2006, at 11.1 perinatal deaths per 1000 total births, compared with a rate of 8.4 for Māori and 8.9 for other ethnic groups.

The major causes of infant mortality are sudden infant death syndrome (SIDS), congenital abnormalities and perinatal conditions (such as prematurity, perinatal infections and low birth weight). The SIDS death rate of 0.8 per 1000 live births in 2004 was 61.9% lower than in 1994 and the lowest rate recorded since SIDS became a separate category in the International Classification of Diseases in 1979.

There were 63 950 live births registered in New Zealand in the year to March 2010, down from 64 160 in the previous year. The birth rate was 2.2 births per woman. In the same year, women aged 30–34 years had the highest fertility rate, at 126 births per 1000 women. The median age of women giving birth is now 30 years, and the median age of women giving birth to their first child is 28 years. A delayed fertility pattern is noticeable among women of European and Asian ethnicity, but there is also some evidence of delayed child-bearing among Pacific women.

In terms of child health, asthma is the most common chronic health condition in both Māori and non-Māori New Zealand children. In the 2006/2007 New Zealand Health Survey, 20.3% of Māori and 13.1 % of non-Māori children were currently taking medication for asthma. Other common health conditions for children were eczema (14.1%) and all types of allergy (6.2%).

2.5 Burden of disease

The burden of diseases and injuries in New Zealand is dominated by long-term conditions; in 2001 the Ministry of Health estimated that such conditions accounted for approximately 80% of disability-adjusted life years, with

injuries (approximately 9%) and acute conditions making up the remainder. Those estimates are currently being updated.

Although the incidence of some long-term conditions (most notably cardiovascular disorders) is decreasing, survival is improving simultaneously, with the result that prevalence of such conditions is stable or increasing. For other long-term conditions (most notably diabetes), incidence is increasing at the same time that the case fatality rate is falling, leading to a rapid rise in prevalence. Population ageing is also making an increasing contribution to the growth in prevalence of many long-term conditions, particularly dementia.

The increasing prevalence of some long-term conditions, such as heart failure, diabetes and dementia, does not always imply an equivalent increase in the health burden of those conditions, as diseases are being diagnosed earlier and progression to late stages (often accompanied by serious complications) is generally slowing. Nevertheless, long-term conditions will inevitably make an even greater contribution to the total disease burden (and associated health care costs) in the future. Accentuating the situation is the increasing level of co-morbidity: in 2006/2007, 42% of older people (65+) reported three or more co-morbid long-term conditions. Neck or back disorders are currently (2006/2007 Health Survey data) the most prevalent of those conditions (24.2% of the adult [15+] population), followed by arthritis (14.8%), asthma (11.2%) and mood disorders (10.9%). Diabetes affects 7.2% of the adult population, of whom approximately 30% are currently undiagnosed. Chronic lung disease affects 6.6%, while 5.2% report coronary disease and 1.8% are stroke survivors.

Established behavioural and biological risk factors are the proximal causes of many long-term conditions. While tobacco use has been declining over the past decade, especially among young people, approximately 20% of adults still smoke. Furthermore, smoking is much more prevalent among Māori adults (approximately 40%) and among more socioeconomically disadvantaged groups. On the other hand, the prevalence of obesity has been increasing since the early 1980s, and is an important driver of the growth in type 2 diabetes prevalence in particular. In 2006, approximately 26% of adults and 9% of children (5-14 years) were obese, with higher rates among Māori and Pacific people than other ethnic groups.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health is a policy advisor to the Minister of Health, an agent of the Minister for monitoring and overseeing District Health Boards (DHBs), a funder of DHBs and national services (such as national screening services), and a provider of regulatory and other functions (e.g. public health).

The overall strategic objective of the Ministry of Health is "better, sooner, more convenient" services, thereby contributing to the Government's goal of all New Zealanders leading longer, healthier and more independent lives. The immediate-term strategic priorities feeding into this overarching objective are outlined in the Ministry's Statement of Intent:

(1) Providing greater value for money.
(2) Increasing clinical leadership.
(3) Reducing waiting times for elective services, emergency departments and cancer treatment.
(4) Devolving more services to primary and community settings.
(5) Making the system more adaptable and resilient to deal with the challenges ahead.

3.2 Organization of health services and delivery systems

The New Zealand Public Health and Disability Act 2000 established DHBs. Governed by boards of directors that include locally elected members and ministerial appointees, the 20 DHBs are responsible for planning, funding and delivering most publicly funded health services to New Zealanders. DHBs' provider arms encompass hospital care, specialty care, community nursing and other functions.

DHBs are responsible for funding primary health care and contract with primary health organizations (PHOs) to provide primary health care services. DHBs and PHOs are responsible for implementing the Primary Health Care Strategy. Implementation of the Primary Health Care Strategy introduced significant changes for primary health care providers and consumers, and has been a significant investment for the Government. In the 2010/2011

financial year, total core PHO funding is estimated at NZ$ 764.8 million (US$ 642.1 million). The number of people enrolled with a PHO had remained steady, at just over 96% of the total estimated population (4 391 833), as at April 2011. PHOs have consolidated to reduce management costs, and there are currently 44. This phase of implementing the Primary Health Care Strategy is emphasizing 'Better, Sooner, More Convenient' (BSMC) primary health care. The BSMC priorities include:

- Better services through primary and secondary health professionals working more collaboratively.
- Patients accessing services sooner through providing more services in the community and creating smoother patient flow between different parts of the health system.
- More convenient access for patients through moving some services from hospital settings to primary health care settings.

Much health care is delivered by nongovernmental organizations (NGOs). These include providers with national contracts, such as the Royal New Zealand Plunket Society, which provides child health services, and providers that contract with their local DHB, such as community-based NGOs providing services to people with experience of mental illness. There are also approximately 275 Māori health and disability providers that are Māori-owned and Māori-governed.

3.3 Health policy, planning and regulatory framework

The New Zealand Health Strategy and the New Zealand Disability Strategy sit alongside each other and together set the country's health and independence goals. Additional key strategies include *He Korowai Oranga* (the Māori Health Strategy), the aim of which is to support Māori families to achieve their maximum health and well-being, and the Primary Health Care Strategy, which aim to strengthen the comprehensiveness and integration of primary health care services throughout the country.

A wide range of health information is collected nationally and held in various collections maintained by the Analytical Services, National Health Board (Ministry of Health), and is used for a variety of analytical and research purposes at national, regional and local levels. Uses of the data include: monitoring contracts with providers, forecasting and setting of annual budgets, analysis of health needs, policy formation, assessment of policy effectiveness, performance monitoring and review, reporting and ad hoc queries, monitoring of health care strategies, and research into service provision.

Key national data collections include the following:

- The National Health Index, which is the cornerstone of health information. It was established to provide a mechanism for identifying every health care user by assigning each a unique number (known as the NHI number).
- The National Minimum Dataset, which uses a single, integrated collection of secondary and tertiary hospital health discharge data.
- The Cancer Registry, which is a population-based tumour register of all primary malignant diseases, active since 1948.
- The Mortality Register, which contains coded causes of death for New Zealanders who die in New Zealand and is based on the legal death certificate, or coroner's report, and autopsy reports. A complete data set of each year's mortality data is sent to WHO each year to be used in international comparisons of mortality statistics.
- The Mental Health Information National Collection, which contains information on specialist mental health and alcohol and drug services. The collection contains comprehensive information from DHBs and approximately 10% of NGOs.
- The National Booking Reporting System, which provides information, by health specialty and booking status, on how many patients are waiting for treatment, their assigned priority, their booking status and how long they have had to wait before receiving treatment
- The National Non-admitted Patient Collection (NNPAC), which provides national consistent data on non-admitted patient (outpatient and emergency department) activity.
- The Health Practitioner Index (HPI), the principal purpose of which is to uniquely identify health practitioners and to hold that information in a central, national database for use by the New Zealand health and disability sector.

- The Sector Services, which is a business unit within the Ministry of Health's Information Directorate which provides information and reports relating to health claims, provider payments and entitlements.

A full listing of national data collections and their content can be viewed on the following website at http://www.moh.govt.nz/moh.nsf/indexmh/dataandstatistics-collections.

3.4 Health care financing

Public sector funding is the major source of financing for health and disability support services. Approximately 80% of total health expenditure is paid for by government funds. Of total health expenditure, 68% is from Vote Health, which pays for core health services, such as hospitals, primary care, public health care, mental health care, addiction services, and care for older people. Most of the remaining public funds (10%) are from the ACC (Accident Compensation Corporation/ Social Security), which pays for accident and injury prevention and treatment. Private insurance pays for less than 5% of total health expenditure, while out-of-pocket spending accounts for between 14% and 17%. The balance is made up by non-profit institutions serving households (NPISH). These levels have remained roughly the same for the past 20 years.

Total Vote Health expenditure amounted to NZ$ 14 570 million (US$ 10 955 million) in 2009/2010, while DHB appropriations totalled NZ$ 11 589 million (US$ 8714 million). Most DHB funding is allocated using a population-based funding formula that gives each DHB the same opportunity, in terms of resources, to respond to its population's needs.

New Zealand has historically had a system of cost-sharing for doctors' visits and prescription drugs. The Commonwealth Fund 2007 International Health Policy Survey showed 12% of New Zealanders faced no out-of-pocket medical costs in 2007, while 10% faced more than US$ 1000 in out-of-pocket payments.

3.5 Human resources for health

New Zealand's health and disability workforce delivers services to over 4 million people and comprises over 165 000 health workers, 90 000 of whom are registered practitioners under statutory regulation. The remaining unregulated workforce includes those providing care and support in both residential and home-based settings, community health promoters, some technicians, service and food workers, and administrators.

DHBs are the largest health sector employers and directly employ approximately 63 000 health workers to provide publicly funded health services. There are some 60 000 health workers in residential or community settings in the private sector and another 42 000 in NGOs. In some cases, these NGOs are funded for particular services by the Ministry of Health or DHBs. Some health workers, primarily doctors, may work in both the public and the private sectors.

New Zealand's health and disability workforce can be characterized by:

- an ageing workforce;
- an trend towards specialization and sub-specialization among doctors;
- a reliance on overseas-trained doctors (43%) and nurses (23%) compared with other developed countries;
- supply pressures in some professions, particularly midwives, and some medical specialties, including general practitioners;
- supply pressures in some rural areas of New Zealand; and
- an underrepresentation of Māori and Pacific peoples in the health professions.

Increasing health service demand is predicted due to the interplay of such factors as: an ageing population and resultant growth in chronic diseases, and the associated increased complexity of need. At the same time, global demand for qualified health workers is projected to increase, and competition for workers in the health sector labour market will be vigorous. New Zealand will need to retain local graduates as well as attracting suitable numbers of trained workers from overseas. Health Workforce New Zealand (HWNZ) was set up in 2009 to lead and coordinate the planning and development of the country's health and disability workforce. HWNZ is working to ensure a fit-for-purpose, high quality and motivated health workforce, keeping pace with clinical innovations and the growing needs and expectations of service users and the public.

HWNZ undertakes health workforce planning and works in collaboration with training providers, professional bodies and employers so that the development of the health and disability workforce is informed by those providing services. HWNZ activities to improve recruitment, retention and repatriation of health workers include the following:

- The Voluntary Bonding Scheme, which is an incentive payment scheme that has been introduced to reward medical, midwifery and nursing graduates who agree to work in hard-to-staff areas.
- The Advanced Trainee Fellowship, which will assist advanced medical trainees to train or study overseas in a shortage specialty and then return to New Zealand.
- Practical guidance for career planning.
- Four regional training hubs (RTH) to facilitate clinical training of health workers. Each hub is responsible for a population of approximately 1 million people. The RTHs bring together employers, education providers and professional bodies to plan and provide training on a regional basis.

HWNZ is also working to identify future gaps and actions to fill workforce needs and skills across critical areas. This work will include forecasts of health workforce need based on sufficient data and sound analysis, and workforce development investment aligned with regional and national service needs.

3.6 Partnerships

New Zealand is one of the three dominant development partners in the South Pacific, together with Australia and the European Union, with collaboration and partnerships at both the bilateral and multilateral levels.

The Pacific Plan was adopted by countries of the Pacific Islands Forum in November 2005 as a blueprint for strengthening regional cooperation and integration. It covers the most significant common development challenges the Pacific island countries face and is seen to be, not just regionally, but also nationally owned. Health is embodied in the Pacific Plan under strategic objective No. 6. – Improved Health.

3.7 Challenges to health system strengthening

Rising public expenditures, workforce shortages, an ageing population, new technologies, persistent inequalities and a growth in long-term conditions are the main pressures on the New Zealand health system.

There are clear signs that the health system is contributing positively to the health of New Zealanders, such as increased life expectancy, lower infant mortality rates (28% in the last decade), declining death rates from cardiovascular disease (10% between 2000 and 2004), and a reduced gap between Māori and non-Māori mortality rates (approximately 15% between 1996−1999 and 2001−2004). These results have been achieved by a system that, overall, compares well with comparable countries from an efficiency standpoint.

Adjusting for cost-of-living differences using US$ PPP, New Zealand was spending US$ 2510 per capita on health in 2007, compared with the OECD average of US$ 2984, which is about the level of health spending expected across OECD countries given New Zealand's per capita income as measured by GDP. To use another measure of health expenditure, by 2007, the country was spending 9.2% of GDP on health, slightly higher than the OECD average of 8.9. A very recent health system efficiency analysis, using 2007 data, showed that New Zealanders are living longer lives than would be predicted from GDP when compared with other OECD countries, achieving 1.7 more years of life expectancy than expected from GDP, while spending only slightly more (US$ 189 PPP) on health than expected from GDP. New Zealand also performs especially well on the international stage for controlling growth in pharmaceutical spending per capita, at one third of Canadian per capita pharmaceutical spend and half of the Australian per capita spend. However, further productivity gains are needed to keep moving the country in the right direction in terms of improved systems outcomes, with proportionately smaller increases in the level of government health spending in the near future.

While progress is being made in reducing inequalities in health outcomes between population groups, some remain. Māori and Pacific peoples have poorer health than non- Māori and non-Pacific people, and people with low socioeconomic status have poorer health than those with higher socioeconomic status. Five-year cancer survival rates, cardiovascular disease mortality and diabetes diagnosis show marked disadvantages for Māori compared with non- Māori people, while Māori and Pacific women and women living in deprived areas are less likely to receive cervical or breast cancer screening. The causes of inequality are complex. The health and

disability sector needs to continue to provide services that act to reduce inequalities between groups and to work across sectors to address the unequal distribution of the social determinants of health.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Health and Independence Report 2009*
Operator	:	Ministry of Health, New Zealand
Web address	:	http://www.moh.govt.nz/moh.nsf/indexmh/health-independence-report09
Title 2	:	*A Portrait of Health: Key Results of the 2006/07 New Zealand Health Survey*
Operator		New Zealand Ministry of Health
Web address	:	http://www.moh.govt.nz/moh.nsf
Title 3	:	New Zealand Health Information Service (NZHIS)
Operator	:	Ministry of Health, New Zealand
Features	:	The New Zealand Health Information Service (NZHIS) is a group within the New Zealand Ministry of Health responsible for the collection and dissemination of health-related data.
Web address	:	http://www.nzhis.govt.nz/
Title 4		The Social Report, 2009
Operator		Ministry of Social Development
Web Address		http://www.socialreport.msd.govt.nz/
Title 5		Tatau Kahukura: Māori Health Chart Book 2010
Operator		The Ministry of Health
Web Address		www.moh.govt.nz
Title 5	:	*Statistics New Zealand*
Comments	:	Provides, among others, the 2006 Census data
Web address	:	http://www.stats.govt.nz/default.htm
Title 6	:	*Statement of Intent 2010–2013*
Operator	:	Ministry of Health, New Zealand
Web address	:	http://www.moh.govt.nz/soi

5. ADDRESSES

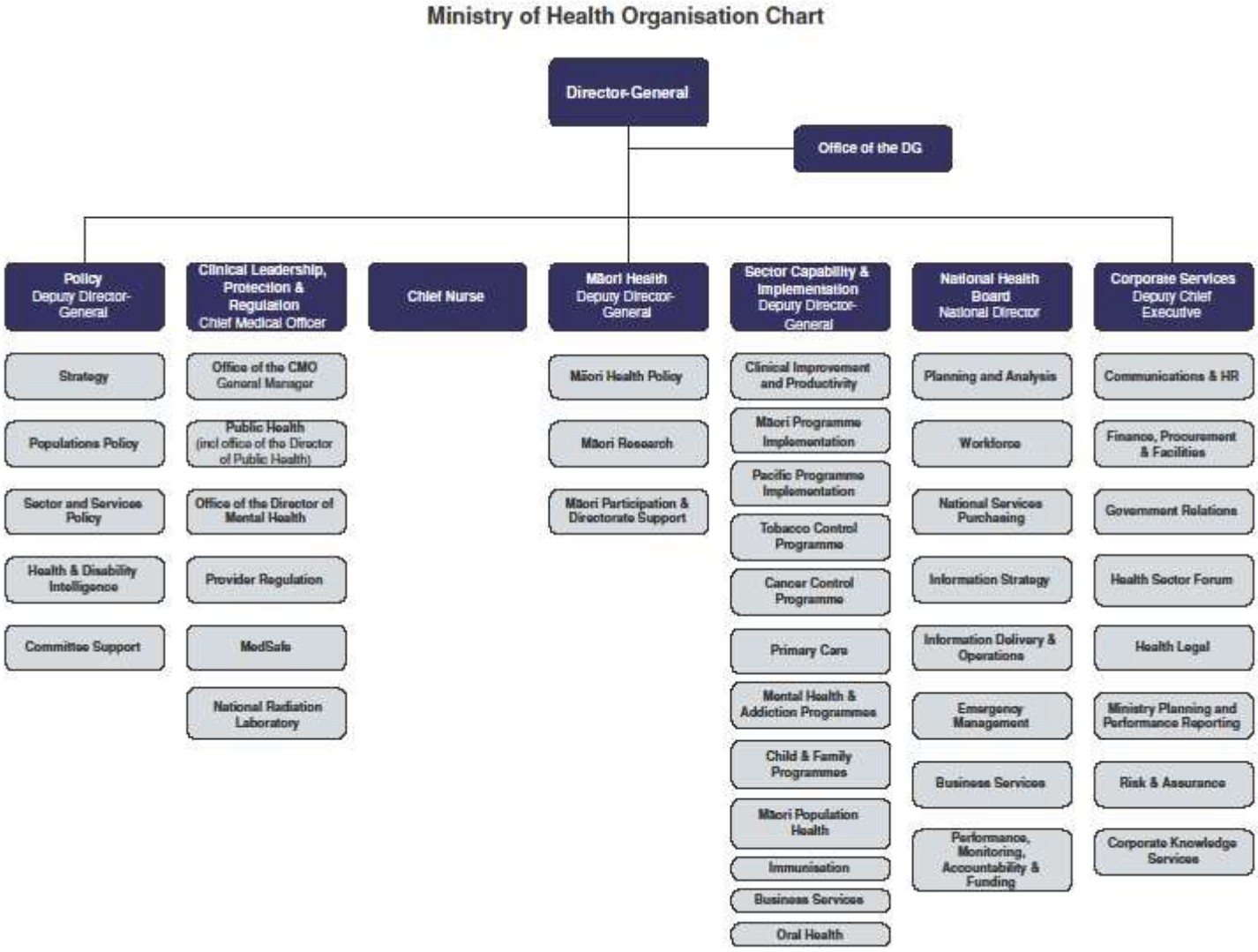
MINISTRY OF HEALTH

Office Address	:	1-3 The Terrace, P.O. Box 5013, Wellington 6011, New Zealand
Telephone	:	04 - 496-2000
Fax	:	04 - 496-2340
Website	:	http://www.moh.govt.nz

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT

Office Address	:	Level 4, Provident Plaza One, Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	P.O. Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 166; 3234 177
Office hours	:	0800 – 1700
Website	:	http://www.wpro.who.int/southpacific

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

NEW ZEALAND — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**	**Male**	**Female**					
1	**Area (1 000 km2)**	270.69 [a]						2006	1
2	**Estimated population ('000s)**	4370.20 [b]	2145.90 [b]	2224.30 [b]				2010p	1
3	**Annual population growth rate (%)**	1.18 [c]	1.17 [c]	1.19 [c]				1991-2010p	1
4	**Percentage of population**								
	- 0–4 years	7.13 [b]	7.45 [b]	6.83 [b]				2010p	1
	- 5–14 years	13.33 [b]	13.91 [b]	12.77 [b]				2010p	1
	- 65 years and above	13.02 [b]	12.07 [b]	13.94 [b]				2010p	1
5	**Urban population (%)**	86.20	...	...				2010 est	2
6	**Crude birth rate (per 1000 population)**	14.62	...	...				2010p	1
7	**Crude death rate (per 1000 population)**	6.51	...	...				2010p	1
8	**Rate of natural increase of population (% per annum)**	0.81 [d]	...	...				2010p	1
9	**Life expectancy (years)**								
	- at birth	80.75	78.80	82.70				2009p	1
	- Healthy Life Expectancy (HALE) at age 60	...	16.90	18.90				2006	3
10	**Total fertility rate (women aged 15–49 years)**	2.15 [e]						2010	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	86.00 [f]	...	...				2006	4
12	**Per capita GDP at current market prices (US$)**	27066.68						2009p	5
13	**Rate of growth of per capita GDP (%)**	669.39 [g]						1996-2010	6
14	**Human development index**	0.91						2010 est	7
	Environmental indicators	**Total**	**Urban**	**Rural**					
15	**Health care waste generation (metric tons per year)**	...	...	...					
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	46	23	23	0	0	0	2010	8
	- Type B	51 [h]	39	11	0	0	0	2010	8
	- Type C	17	10	7	0	0	0	2010	8
	- Type E	...	...	...	...	...	...		
	- Unspecified	3	3	0	0	0	0	2010	8
	Cholera	2	2	0	0	0	0	2010	8
	Dengue/DHF	51 [h]	26	24	0	0	0	2010	8,9
	Encephalitis	...	...	...	2	1	1	2007	10
	Gonorrhoea	...	...	...	0	0	0	2007	10
	Leprosy	3	2	1	0	0	0	2010	8,9
	Malaria	44	34	10	0	0	0	2010	8
	Plague	0	0	0	0	0	0	2010	8
	Syphilis	...	...	...	0	0	0	2007	10
	Typhoid fever	31 [h]	18	12	0	0	0	2010	8
17	**Acute respiratory infections**	29803 [i]	15955 [i]	13848 [i]	475	161	314	C:2007-08 D:2007	10
	- Among children under 5 years	11888 [i]	6990 [i]	4898 [i]	19	9	10	C:2007-08 D:2007	10

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	7060 [i]	3483 [i]	3577 [i]	59	24	35	C:2007-08 D:2007	10
	- Among children under 5 years	3758 [i]	2005 [i]	1753 [i]	1	1	0	C:2007-08 D:2007	10
19	**Tuberculosis**								
	- All forms	306	154	152	8	4	4	2010	8
	- New pulmonary tuberculosis (smear-positive)	86	45	41	6	3	3	2010	8
20	**Cancers**								
	All cancers (malignant neoplasms only)	19 736 [j]	10 425 [j]	9311 [j]	8687 [j]	4627 [j]	4060 [j]	2007	10
	- Breast	2575	10	2565	648	5	643	2007	10
	- Colon and rectum	2809	1453	1356	1252	644	608	2007	10
	- Cervix			159			65	2007	10
	- Leukaemia	563	317	246	306	172	134	2007	10
	- Lip, oral cavity and pharynx	357	222	135	123	81	42	2007	10
	- Liver	237	163	74	203	144	59	2007	10
	- Oesophagus	282	196	86	244	164	80	2007	10
	- Stomach	372	234	138	297	184	113	2007	10
	- Trachea, bronchus, and lung	1822	1031	791	1528	864	664	2007	10
21	**Circulatory**								
	All circulatory system diseases	71 229 [i]	39 942 [i]	31 287 [i]	10 480	5017	5463	C:2007-08 D:2007	10
	- Acute myocardial infarction	12 601 [i]	7899 [i]	4702 [i]	2762	1462	1300	C:2007-08 D:2007	10
	- Cerebrovascular diseases	9076 [i]	4599 [i]	4477 [i]	2625	987	1638	C:2007-08 D:2007	10
	- Hypertension	963 [i]	388 [i]	575 [i]	311	125	186	C:2007-08 D:2007	10
	- Ischaemic heart disease	24 828 [i]	15 411 [i]	9417 [i]	5634	3015	2619	C:2007-08 D:2007	10
	- Rheumatic fever and rheumatic heart diseases	818 [i]	393 [i]	425 [i]	199	84	115	C:2007-08 D:2007	10
22	**Diabetes mellitus**	10 377 [i]	5298 [i]	5079 [i]	847	440	407	C:2007-08 D:2007	10
23	**Mental disorders**	20 010 [l,k]	9585 [l,k]	10425 [l,k]	821 [k]	263 [k]	558 [k]	C:2007-08 D:2007	10
24	**Injuries**								
	All types	158 912 [l]	85 406 [l]	73 506 [l]	1833	1187	646	C:2007-08 D:2007	10
	- Drowning	124 [l]	89 [l]	35 [l]	63	55	8	C:2007-08 D:2007	10
	- Homicide and violence	5163 [l]	3923 [l]	1240 [l]	54	31	23	C:2007-08 D:2007	10
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	8898 [l]	5314 [l]	3584 [l]	428	282	146	C:2007-08 D:2007	10
	- Suicide	5253 [l]	1766 [l]	3487 [l]	487	371	116	C:2007-08 D:2007	10
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Malignant neoplasms (C00-C96)	45 957 [i]	24 235 [i]	21 722 [i]	1076.00 [m]	1157.74 [m]	997.43 [m]	2007-08	10
	2. Complications of labour and delivery (060-075)	34 202 [i]		34 202 [i]	800.78 [m]		1570.48 [m]	2007-08	10
	3. Arthropathies (M00-M25)	25 313 [i]	13 580 [i]	11 733 [i]	592.66 [m]	648.74 [m]	538.75 [m]	2007-08	10
	4. Ischaemic heart diseases (I20-I25)	24 828 [i]	15 411 [i]	9 417 [i]	581.30 [m]	736.21 [m]	432.41 [m]	2007-08	10
	5. Symptoms and signs involving the circulatory and respiratory systems (R00-R09)	24 698 [i]	12 493 [i]	12 205 [i]	578.26 [m]	596.81 [m]	560.43 [m]	2007-08	10
	6. Other forms of heart disease (I30-I52)	22 491 [i]	12 158 [i]	10 333 [i]	526.59 [m]	580.81 [m]	474.47 [m]	2007-08	10
	7. Symptoms and signs involving the digestive system and abdomen (R10-R19)	20 580 [i]	6922 [i]	13 658 [i]	481.84 [m]	330.67 [m]	627.15 [m]	2007-08	10
	8. Chronic lower respiratory diseases (J40-J47)	19 926 [i]	9615 [i]	10 311 [i]	466.53 [m]	459.32 [m]	473.46 [m]	2007-08	10
	9. Maternal care related to the fetus and amniotic cavity and possible delivery problems (O30-O48)	19 672 [i]		19 672 [i]	460.58 [m]		903.3 [m]	2007-08	10
	10. Pregnancy with abortive outcome (O00-O08)	16 326 [i]		16 326 [i]	382.24 [m]		749.66 [m]	2007-08	10

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malignant neoplasms (C00-C96)	8413	4475	3938	198.86 [m]	215.97 [m]	182.42 [m]	2007	8
	2. Ischaemic heart diseases (I20-I25)	5634	3015	2619	133.17 [m]	145.51 [m]	121.32 [m]	2007	8
	3. Cerebrovascular diseases (I60-I69)	2625	987	1638	62.05 [m]	47.64 [m]	75.88 [m]	2007	8
	4. Chronic lower respiratory diseases (J40-J47)	1647	848	799	38.93 [m]	40.93 [m]	37.01 [m]	2007	8
	5. Other forms of heart disease (I30-I52)	1113	505	608	26.31 [m]	24.37 [m]	28.16 [m]	2007	8
	6. Diabetes mellitus (E10-E14)	847	440	407	20.02 [m]	21.24 [m]	18.85 [m]	2007	8
	7. Organic, including symptomatic, mental disorders (F00-F09)	763	237	526	18.03 [m]	11.44 [m]	24.37 [m]	2007	8
	8. Other degenerative diseases of the nervous system (G30-G32)	540	210	330	12.76 [m]	10.14 [m]	15.29 [m]	2007	8
	9. Diseases of arteries, arterioles and capillaries (I70-I79)	521	278	243	12.31 [m]	13.42 [m]	11.26 [m]	2007	8
	10. Intentional self-harm (X60-X84)	487	371	116	11.51 [m]	17.91 [m]	5.37 [m]	2007	8
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						72.00	2002 est	11
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						...		
29	**Percentage of pregnant women with anaemia**						...		
30	**Neonatal mortality rate (per 1000 live births)**		2.53		...		...	2007	8
31	**Percentage of newborn infants weighing less than 2500 g at birth**		5.85		...		...	2010	8
32	**Immunization coverage for infants (%)**								
	- BCG		...		...		...		
	- DTP3		93.40		...		...	2010	9
	- Hepatitis B III		90.20		...		...	2010	9
	- MCV2		...		...		...		
	- POL3		93.30		...		...	2010	9
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			17 550			0	C:2009 D:2007	10,12
	- Eclampsia			69 [i]			0	C:2007-08 D:2007	10
	- Haemorrhage			4881 [i]			0	C:2007-08 D:2007	10
	- Obstructed labour			3690 [i]			0	C:2007-08 D:2007	10
	- Sepsis			424 [i]			0	C:2007-08 D:2007	10
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	8,9
	- Diphtheria	0	0	0	...	...	...	2010	8.9
	- Measles	43	...	...	...	...	...	2010	9
	- Mumps	14	...	...	...	...	...	2010	9
	- Neonatal tetanus	0	0	0	...	...	...	2010	8,9
	- Pertussis (whooping cough)	462	...	...	...	...	...	2010	9
	- Poliomyelitis	0	0	0	...	...	...	2010	8,9
	- Rubella	2	...	...	...	...	...	2010	9
	- Total Tetanus	6	...	...	...	...	...	2010	9
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	69	7398 [n]	2011p	6
		- Specialized hospitals	20	801 [n]	2011p	6
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	...	...		
	Private health facilities	- Hospitals	81	2004 [n]	2011p	6
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			11 369.38 [s]	2009p	5
	- total expenditure on health as % of GDP			9.70	2009p	5
	- per capita total expenditure on health (in US$)			2633.63 [s]	2009p	5
	Government expenditure on health					
	- amount (in million US$)			9120.00 [s]	2009p	5
	- general government expenditure on health as % of total expenditure on health			80.20	2009p	5
	- general government expenditure on health as % of total general government expenditure			18.30	2009p	5
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			19.80	2009p	5
	- out-of-pocket expenditure on health as % of total expenditure on health			14.04 [s]	2009p	5
	Exchange rate in US$ of local currency is: 1 US$ =			1.60	2009p	5
38	**Health insurance coverage as % of total population**			100.00	2007	13

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	13269 [o]	8094 [o]	5175 [o]	...	...	8365 [o,t]	4904 [o,t]	2009	14,15
		- Ratio per 1000 population	3.07	1.88	1.20	...	...	1.94	1.14	2009	14,15
	Dentists	- Number	2548	1748	800	...	...	637	1911	2010	16
		- Ratio per 1000 population	0.58	0.40	0.18	...	...	0.15	0.44	2010	16
	Pharmacists	- Number	3180	1270	1910	...	...	410	2770	2010	17
		- Ratio per 1000 population	0.73	0.29	0.44	...	...	0.09	0.63	2010	17
	Nurses	- Number	48 052	3460	44592	...	...	28014	20038	2010	18,19
		- Ratio per 1000 population	10.99	0.79	10.20	...	...	6.40	4.58	2010	18,19
	Midwives	- Number	2903	9 [t]	2894 [t]	...	...	1588 [t]	1315 [t]	2010	21,22
		- Ratio per 1000 population	0.66	0.00	0.66	...	...	0.36	0.30	2010	21,22
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	420	...	...	...	...	...	...	2009	23
		Dentists	77	...	...	...	...	...	...	2009	24
		Pharmacists	221	...	...	...	...	...	...	2009	25

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	1475	...	...	...	...	...	...	2009	26
		Midwives	107 [t]	...	...	...	...	...	...	2009	22
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	4.79	...	...	2007	10
44	Under-five mortality rate (per 1000 live births)	6.05	...	...	2007	10
45	Proportion of 1 year-old children immunised against measles	91.27 [p]	...	...	2010	6
46	Maternal mortality ratio (per 100 000 live births)	19.96			2007	10
47	Proportion of births attended by skilled health personnel	100.00			2001	10
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	95.30			2004 est	10
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	28.80			2010p	1
50	Antenatal care coverage - At least one visit	100.00			2005	10
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	0.10	...	...	2009	9
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	1.01 [q]	1.58 [q]	0.45 [q]	2010	8
56	Malaria death rate per 100 000 population	0.00 [q]	0.00 [q]	0.00 [q]	2010	8
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	10.00	...	...	2009	9
60	Tuberculosis death rate per 100 000 population	0.00	...	...	2009	9
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	9
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	73.00	...	...	2008	9
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	100.00	2011p	20
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2011p	20
65	Proportion of population with access to affordable essential drugs on a sustainable basis	100.00 [r]	100 [q]	100 [q]	2011p	6

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Figure excludes inland waters and oceanic areas
b	Figure refers to the estimated resident population for the mean year ended December 2010. The estimated resident population is based on the census usually resident population count, with adjustments for residents missed or counted more than once by the census (net census undercount), residents temporarily overseas on census night, and births, deaths, and net permanent and long-term migration between census night and the date of the estimate.
c	Average using estimated resident mean populations for year ended December
d	Computed directly using data from Stats NZ website; resident natural increase , births - deaths (Annual Dec), Estimated Resident population (Annual Dec)
e	Sum of age specific fertility rates between 15 and 49
f	Figure refers to the proportion of the NZ population aged 16-65 years old above ALL (Adult Literacy and Life Skills Survey 2006) “document literacy” level 1
g	Refers to per annum average growth in real GDP per capita in $NZ2006; OLS regression run over the period 1996 to 2010; the value quoted is the beta coefficient (the alpha intercept term was $31,090)
h	Totals may not tally due to some reported cases with no gender breakdown
i	Figure refers to hospitalisation in 2007-08
j	Includes all cancers coded to ICD-10-AM C00-C96, D45-D47
k	Includes all mental and behavioural disorders coded to ICD-10-AM F00-F99
l	Figure refers to hospitalisations in 2007-08 1st reported e-code
m	Crude rates, calculated using the estimated resident population for the mean year ending 31 December 2007 (for mortality), or 2008 (for hospitalisations).
n	Known to be understated
o	Figure based on survey data of which 147 physicians, 1870 nurses and 292 midwives did not specify their employer type
p	Figure refers to proportion of 2 -year old children immunised for measles in the period 1 January 2010 to 31 December 2010 (aged 2 as at 1 January 2011).
q	Crude rate (per 100,00 population) calculated by the Ministry of Health using data from the number of malaria cases and deaths supplied by ESR
r	Ministry of Health: the entire population has access to essential medicines at affordable prices due to pharmaecuticals co-payments limiting most out-of-pocket payments to no more than NZ$3 per drug where patients are enrolled with a Primary Health Care Organisation; in NZ approximately 2000 prescription medicines and therapeutic products are listed on the New Zealand Pharmaceuticals Schedule and attract government subsidies and this includes essential medicines; and while the entire population would not be within 1 hour walking time of the nearest pharmacy or dispensing outlet, the bulk of the population would be within a 1 hours access time frame to receive essential medicines (e.g. walking, driving, public transport, home delivery of medication, ambulance transfer to an acute care facility) especially when living in urban areas
s	Computed by Health Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
t	Estimated data

Sources:	
1	Statistics New Zealand [http://www.stats.govt.nz].
2	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
3	Health & Disability Intelligence Unit, Ministry of Health [www.moh.govt.nz]
4	2006 Adult Literacy and Life Skills Survey (ALL). [http://www.educationcounts.govt.nz/data_collections/all]
5	National health accounts: country information. Geneva, World Health Organization. Accessed in August 2011 from [http://www.who.int/nha/country/en/index.html]
6	Ministry of Health, New Zealand.
7	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
8	Environmental science and research, New Zealand. Data source: EpiSurv as of 17 Feb 2011 (for all diseases apart from TB disease - data as of 13 April 2011). TB disease rate derived from 2010 mid-year population estimates as published by Statistics New Zealand.
9	WHO Regional Office for the Western Pacific, data received from technical units
10	Analytical Services team, National Collections and Reporting. Ministry of Health [www.moh.govt.nz]
11	2002 ESCAP population data sheet. Bangkok, Economic and Social Commission for Asia and the Pacific, 2002.
12	Abortion Supervisory Committee [http://www.justice.govt.nz/]
13	OECD Health Data 2009
14	The New Zealand Medical Workforce in 2009 (Facts at a Glance). Accessed from [http://www.mcnz.org.nz/portals/0/publications/workforce_2009.pdf]
15	Medical Workforce Survey table "E18 Employment Capacity at Site1"
16	Dental Council of New Zealand 2010 Annual Report. Accessed from [http://www.dcnz.org.nz/Documents/AnnualReports/DCNZ_Annual_Report_2010.pdf]
17	Pharmacy Council of New Zealand Workforce Demographics as at 30 June 2010. Accessed from [http://www.pharmacycouncil.org.nz/cms_show_download.php?id=180]
18	Nursing Council of New Zealand Annual Report 2010. Accessed from [http://www.nursingcouncil.org.nz/download/91/annual-report-2010.pdf]
19	The New Zealand Nursing Workforce. Nursing Council of New Zealand. Accessed from [http://www.nursingcouncil.org.nz/download/186/31march2010.pdf]
20	Ministry of Health Environmental & Border Health Protection team
21	Midwifery Council of New Zealand 2010 Annual report. Accessed from [http://www.midwiferycouncil.health.nz/images/stories/pdf/Midwifery-AR-10.pdf]
22	Midwifery Workforce Report 2009. Accessed from [http://www.midwiferycouncil.health.nz/images/stories/pdf/09_Midwifery_Workforce_Report.pdf]
23	Ministry of Education batchelor level degree completions for medicine area of study.
24	Derived from Ministry of Education batchelor level degree completions for dentistry area of study
25	Derived from Ministry of Education batchelor level degree completions for pharmacy area of study.
26	Derived from Ministry of Education batchelor level degree completions for nursing areas of study.

NIUE

1. CONTEXT

1.1 Demographics

The population of Niue decreased from a peak of 5194 in 1966, to 2322 in 1991, 1788 in 2001 and an estimated 1496 residents in June 2010. There is substantial emigration to New Zealand because of the country's lack of natural resources, its isolation and insufficient social and economic development, and because Niueans hold New Zealand citizenship. The 2001 New Zealand census listed 20 148 Niueans in the New Zealand population.

Population density is estimated at six persons per square kilometre, with 37% living in urban areas. Children under the age of 15 years make up 26% of the population, adults 65 years and older accounting for 12%. The crude birth rate is 20.1 per 1000 population and the crude death rate 7.8 per 1000 population.

1.2 Political situation

Niue is a self-governing nation in free association with New Zealand. The head of government is Premier Toke Talagi. The head of state is Queen Elizabeth II of the United Kingdom of Great Britain and Northern Ireland.

The Legislative Assembly is Niue's supreme law-making body. It has 20 members, six elected from a common roll and 14 as village representatives. The Legislative Assembly is responsible for electing the Premier. Elections are held every three years by secret ballot under a system of universal suffrage.

1.3 Socioeconomic situation

The economy is dependent on limited agricultural exports and the sale of fishing rights. The sale of postage stamps to foreign collectors is also an important source of revenue. The gap between domestic production and demand for goods and services is very wide. The resulting trade deficit makes the economy heavily dependent on foreign aid, most of which comes from New Zealand, and remittances from Niueans living abroad.

In 2006, the gross domestic product (GDP) was US$ 13.3 million (NZ$ 20.5 million) and per capita GDP stood at US$ 8208.2 (NZ$ 12 158).

The New Zealand High Commissioner's Office, the only diplomatic mission in Niue, manages the projects of the New Zealand Official Development Assistance (NZODA). Niue also receives aid from the Australian Agency for International Development (AusAID), the Government of Japan and other international and United Nations agencies, including WHO.

The monthly boat between New Zealand and Niue, which provides essential supplies for daily living, illustrates the country's isolation. Plans to develop tourism are under way, but are necessarily limited by dependence on other countries' airlines.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

In general, health indicators are good, consistent with the country's high literacy rate (100% in 2003) and its well educated population.

Common childhood illnesses and traditional communicable diseases, such as tuberculosis and leprosy, have been substantially contained. The filariasis elimination programme is ongoing, with high coverage (88.05% among the total population at risk) of mass drug administration (MDA). Niue is targeting filariasis elimination and currently has a 0.2% antigenaemia rate.

No case of HIV/AIDS has been reported and sexually transmitted infections are rare. With support from WHO and the Joint United Nations Programme on HIV/AIDS (UNAIDS), the Department of Health has been active in working with communities, nongovernmental organizations and the private sector to increase public awareness regarding reproductive health and HIV/ AIDS.

Although the incidence of vectorborne parasitic diseases has been negligible in the last five years, mosquito control activities are ongoing. Because the mosquito population is large, control measures require strengthening.

Lifestyle-related health problems are increasing and the prevalence of risk factors for chronic diseases is high. In the 2006 census, 23.4% of residents aged 15 years and older said they smoked, with smoking twice as prevalent among men (30.7%) than women (16.2%). The proportion of alcohol drinkers is equal to the proportion of non-drinkers, but there are more male drinkers (62.7%) than female.

Cancer incidence remains very low. Cervical screening procedures are available and women are encouraged to practise breast self-examination. Males aged 55 and over are routinely checked for early signs of prostate problems.

The Government is committed to the Healthy Islands programme and the Tobacco Free Initiative, which are supported by WHO. The *Moui Olaola* Project (a Healthy Islands health-promotion project) was started in 1996.

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

In 2001, the leading causes of morbidity were hypertension, diabetes mellitus, infections of the skin and subcutaneous tissue, upper respiratory tract infections and influenza. In 2009, there were 12 deaths, caused by heart disease (66.7% or eight deaths), cancer (16.65% or two deaths), and senility (16.65% or two deaths).

2.4 Maternal, child and infant diseases

Niue residents enjoy good maternal and child health care. No maternal death has been recorded since the early 1980s. The estimated fertility rate is 2.6 (2006) and the estimated infant mortality rate is 0 per 1000 live births (2006). In 2010, there was 100% immunization coverage against vaccine-preventable diseases.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Department of Health is run by the Director of Health and a complement of four medical officers, two dental officers, one dental nurse, one pharmacist, 15 nurses (one principal nursing officer, 13 hospital nurses and one maternal and child health nurse), and two midwives (2006). There are also seven paramedical staff, two public health officers, one health promotion coordinator, one health service manager, two office assistants and four drivers (2005). The workforce development plan for the health sector (2000-2003), which was prepared for the Niue Training and Development Council in June 2000, identified training needs. National health priorities are focused on public health prevention strategies to reduce the risk factors associated with causes of morbidity/mortality and lifestyle diseases.

The national priorities are:

- to make Niue the healthiest country in the Pacific in terms of having healthy people and a healthy environment;
- to pursue health promotion, disease prevention and injury prevention strategies with more vigour; and
- to strengthen the capacity of human resources to effectively deliver primary care services and public health programmes.

3.2 Organization of health services and delivery systems

Community outreach is maintained through village visits by public health nurses and regular village inspections by public health officers. While medical services are free for local residents, payment is required for some prescribed medicines, such as contraceptives.

3.3 Health policy, planning and regulatory framework

See Section 3.1.

3.4 Health care financing

Niue's estimated total health expenditure in 2009 amounted to US$ 2.76 million, with per capita total health expenditure of US$ 1866.6 General government expenditure on health was US$ 2.74 million, representing 99.2% of total health expenditure.

3.5 Human resources for health

The only hospital, Lord Liverpool Hospital, was destroyed by Cyclone Heta in January 2004. Hospital services were set up subsequently in a youth centre in Fonuakula, Alofi, which is near the airport, until a new hospital was constructed in Kaimiti, an inland location rather than a coastal area. Lord Liverpool Hospital had been the centre for all preventative and curative health services, dentistry services and school health services since the early 1990s and, from June 2001 to May 2002 the hospital underwent a US$ 2 million renovation project, with financial assistance provided by WHO, the New Zealand Agency for International Development (NZAID) and AusAID. The new hospital, constructed in 2005 with funding from WHO, the European Union and NZAid, was named Niue Foou Hospital. *'Foou'* literally means new.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Statistical Release, Niue Vital Statistics 2009; Niue Population Estimate 30 June 2010*
Operator	:	Niue Statistics
Web address	:	http://www.spc.int/prism/country/nu/stats/
Title 2	:	*Niue population profile based on 2006 Census of Population and Housing: A guide for planner and policy-makers*
Operator	:	Niue Economics, Planning, Development & Statistics Unit
Web address	:	http://www.spc.int/prism/country/nu/stats/Reports/Census%202006/NIUE%20PROFILE-25-02WEB.pdf
Title 3	:	*Niue Millennium Development Goals 2006 report*
Operator	:	Economics Planning Development and Statistics Unit
Title 4	:	*Pacific Island Populations - Estimates and projections of demographic indicators for selected years (updated April 2010) Population 2000-2015 by 1 and 5 year age groups, February 2010*
Operator		Secretariat of the Pacific Community (SPC), Statistics and Demography Programme
Web address		http://www.spc.int/sdp/

5. ADDRESSES

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COUNTRY HEALTH INFORMATION PROFILE

NIUE — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	0.26			2009	1
2	**Estimated population ('000s)**	1.50	0.75	0.74	2010 est	2
3	**Annual population growth rate (%)**	…	…	…		
4	**Percentage of population**					
	- 0–4 years	9.02	9.15	8.65	2010 est	2
	- 5–14 years	16.71 [a]	15.65 [a]	17.84 [a]	2010 est	2
	- 65 years and above	12.16 [a]	11.28 [a]	13.11 [a]	2010 est	2
5	**Urban population (%)**	37.50	…	…	2010 est	3
6	**Crude birth rate (per 1000 population)**	20.10	…	…	2009	4
7	**Crude death rate (per 1000 population)**	7.80	…	…	2009	4
8	**Rate of natural increase of population (% per annum)**	1.23 [a]	…	…	2009	4
9	**Life expectancy (years)**					
	- at birth	71.60	67.00	76.00	2001-06	5
	- Healthy Life Expectancy (HALE) at age 60	…	11.60	12.80	2002	6
10	**Total fertility rate (women aged 15–49 years)**	2.60			2006 est	7
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	100.00	100.00	100.00	2003	12
12	**Per capita GDP at current market prices (US$)**	8208.20			2006	7
13	**Rate of growth of per capita GDP (%)**	5.66 [b]			2006	7
14	**Human development index**	…				
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	…	…	…		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**								
	Hepatitis viral	0	0	0	0	0	0	2005	9
	- Type A	0	0	0	0	0	0	2005	9
	- Type B	0	0	0	0	0	0	2005	9
	- Type C	0	0	0	0	0	0	2005	9
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		
	Cholera	0	0	0	0	0	0	2005	9
	Dengue/DHF	0	0	0	…	…	…	2010	10
	Encephalitis	0	0	0	0	0	0	2005	9
	Gonorrhoea	0	0	0	0	0	0	2005	9
	Leprosy	0	0	0	…	…	…	2010	10
	Malaria	0	0	0	0	0	0	2005	10
	Plague	0	0	0	0	0	0	2005	9
	Syphilis	0	0	0	0	0	0	2005	9
	Typhoid fever	0	0	0	0	0	0	2005	9
17	**Acute respiratory infections**	…	…	…	…	…	…		
	- Among children under 5 years	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	0	0	0	0	0	0	2009	10
	- New pulmonary tuberculosis (smear-positive)	0	0	0	...	...	...	2009	10
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix								
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	343	...	...	...	...	...	2001	11
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	308	...	...	...	...	...	2001	11
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning								
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	...	...	...		
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Hypertension	343	...	...	19 183.45	...	...	2001	11
	2. Diabetes mellitus	308	...	...	17 225.95	...	...	2001	11
	3. Infection of the skin and subcutaneous tissue	271	...	...	15 156.60	...	...	2001	11
	4. Upper respiratory tract infection, unspecified	270	...	...	15 100.67	...	...	2001	11
	5. Influenza	156	...	...	8724.83	...	...	2001	11
	6. Myalgia and myositis	148	...	...	8277.40	...	...	2001	11
	7. Other disease of the skin	110	...	...	6152.13	...	...	2001	11
	8. Open wounds	97	...	...	5425.06	...	...	2001	11
	9. Bronchitis	78	...	...	4362.42	...	...	2001	11
	10. Sprains and strains of joints and adjacent muscles	72	...	...	4026.85	...	...	2001	11

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Heart disease	8	3	5	...	...	...	2009	4
	2. Cancer	2	1	1	...	...	...	2009	4
	3. Senility	2	2	0	...	...	...	2009	4
	4.	...	...	...	...	...	...		
	5.	...	...	...	...	...	...		
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					22.00		2005	9
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					100.00		2008	10
29	**Percentage of pregnant women with anaemia**					2.00		2005	9
30	**Neonatal mortality rate (per 1000 live births)**	0.00		0.00		0.00		2005	12
31	**Percentage of newborn infants weighing less than 2500 g at birth**	0.00		0.00		0.00		2005	12
32	**Immunization coverage for infants (%)**								
	- BCG	100.00		...		...		2010	10
	- DTP3	100.00		...		...		2010	10
	- Hepatitis B III	100.00		...		...		2010	10
	- MCV2	100.00		...		...		2010	10
	- POL3	100.00		...		...		2010	10
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...					
	- Eclampsia			...					
	- Haemorrhage			...					
	- Obstructed labour			...					
	- Sepsis			...					
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	10
	- Diphtheria	0	0	0	...	...	...	2010	10
	- Measles	0	0	0	...	...	...	2010	10
	- Mumps	1	0	0	...	...	...	2010	10
	- Neonatal tetanus	0	0	0	...	...	...	2010	10
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	10
	- Poliomyelitis	0	0	0	...	...	...	2010	10
	- Rubella	0	0	0	...	...	...	2010	10
	- Total Tetanus	0	0	0	...	...	...	2010	10
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	8	2006	9
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	...	...		
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			2.76 [a]	2009p	13
	- total expenditure on health as % of GDP			16.94	2009p	13
	- per capita total expenditure on health (in US$)			1866.55 [a]	2009p	13
	Government expenditure on health					
	- amount (in million US$)			2.74 [a]	2009p	13
	- general government expenditure on health as % of total expenditure on health			99.23	2009p	13
	- general government expenditure on health as % of total general government expenditure			15.81	2009p	13
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			55.80 [a]	2009p	13
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			0.77	2009p	13
	- out-of-pocket expenditure on health as % of total expenditure on health			0.68 [a]	2009p	13
	Exchange rate in US$ of local currency is: 1 US$ =			1.60	2009p	13
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA						Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**	
	Physicians	- Number	4	1	3	...	...	...	...	2006p	9
		- Ratio per 1000 population	2.58	0.65 [a]	1.94 [a]	...	...	...	...	2006p	9
	Dentists	- Number	3	3	0	...	...	...	...	2006p	9
		- Ratio per 1000 population	1.94	1.94 [a]	0.00	...	...	...	...	2006p	9
	Pharmacists	- Number	1	1	0	...	...	...	...	2006p	9
		- Ratio per 1000 population	0.65	0.65 [a]	0.00	...	...	...	...	2006p	9
	Nurses	- Number	13	1	12	...	...	...	...	2006p	9
		- Ratio per 1000 population	8.39	0.65 [a]	7.75 [a]	...	...	...	...	2006p	9
	Midwives	- Number	2	0	2	...	...	...	...	2006p	9
		- Ratio per 1000 population	1.29	0.00	1.29 [a]	...	...	...	...	2006p	9
	Paramedical staff	- Number	146	63	83	...	...	...	...	2003	12
		- Ratio per 1000 population	2.33	1.01	1.33	...	...	...	...	2003	12
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	0	0	0	0	0	0	0	2006p	9
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	0.00	0.00	0.00	2005	9
43	Infant mortality rate (per 1000 live births)	0.00	0.00	0.00	2006	8
44	Under-five mortality rate (per 1000 live births)	0.00	0.00	0.00	2006	8
45	Proportion of 1 year-old children immunised against measles	100.00	...	...	2010	10
46	Maternal mortality ratio (per 100 000 live births)	0.00			2006	8
47	Proportion of births attended by skilled health personnel	100.00			2006	8
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.00			2006	8
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00			2006	8
48	Contraceptive prevalence rate	22.60	...	...	2001	8
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	100.00 [b]			2005	9
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	0.00	...	...	2009	10
60	Tuberculosis death rate per 100 000 population	0.00	...	...	2009	10
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	...	...	...		
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	...	...	...		
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	100.00	100.00	2008	14
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2008	14
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Revised data
c	Figure refers to annual nominal GDP growth

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=236&Itemid=&lang=en]
2	Niue Population Estimate, 30 June 2010, Economic, Planning, Development, and Statistics. Premiers Department Government of Niue. Accessed on August 2011 from [http://www.spc.int/prism/country/nu/stats/]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	Statistical Release, Niue Vital Statistics 2009, Economic, Planning, Development and Statistics. Premiers Department Government of Niue. Accessed August 2011 [http://www.spc.int/prism/country/nu/stats/
5	2011 Population and Demographic indicators. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=344&Itemid=&lang=en]
6	World health report 2004. Changing history. Geneva, World Health Organization, 2004.
7	Statistics Niue [www/spc/int/prism].
8	Niue Millennium Development Goals 2006 Report. Economics Planning Development and Statistics Unit, Niue, 2007.
9	Niue Foou Hospital Data Sources, 2006.
10	WHO Regional Office for the Western Pacific, data received from technical units
11	Niue sustainable human development situation analysis 2002. New York, United Nations Development Programme, 2002.
12	Pacific Island Populations 2004. Secretariat of the Pacific Community [www.spc.int/demog/].
13	National health accounts: country information. Geneva, World Health Organization. Accessed in March 2010 from http://www.who.int/nha/country/en/index.html.
14	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

Northern Mariana Islands, Commonwealth Of

1. CONTEXT

1.1 Demographics

The Commonwealth of the Northern Mariana Islands comprises 14 islands with a total land area of 457 square kilometres spread out over 683 760 square kilometres of the Pacific Ocean. The Commonwealth's population lives primarily on three islands. Saipan, the largest and most populated island, is 20.1 kilometres long and 8.8 kilometres wide. The other two populated islands are Tinian and Rota, and the nine far northern islands are very sparsely inhabited, with a combined population of about six people.

Since the 1980s, the number of residents has more than quadrupled. In the 2000 census, the total population numbered 69 221, with approximately 90% living in Saipan and 5% each in Tinian and Rota. The total population was estimated to be 63 072 in July 2010.

Local residents are primarily Chamorros and Carolinians, the two indigenous ethnic groups. Additionally, the Compact of Free Association with the United States of America permits the free movement of people between the freely associated states, flag territories, Hawaii and the mainland United States. These 'Compact' islands include the Republic of Palau, the Republic of the Marshall Islands and the Federated States of Micronesia. The Department of Public Health estimated in 1996 that it provided health care costing US$ 1 480 000 to 'Compact' residents. The impact of meeting the chronic health care needs of these Micronesian residents within the struggling national health care system plays an important role in overwhelming the capacity of the system. Foreign contract workers from Asia (primarily Chinese and Filipino) working in the private and public sector in difficult-to-fill positions, represent almost half the population, although a recent slowdown in the garment industry has resulted in a decline in the number of such workers.

1.2 Political situation

The Northern Mariana Islands is a commonwealth of the United States of America, formed in 1978, and was formerly the United Nation's Trust Territory of the Pacific Region of Micronesia within Oceania. Negotiations for territorial status began in 1972 and a covenant to establish a commonwealth in political union with the United States of America was approved in 1975. Residents (excluding foreign contract workers) are United States citizens, but do not vote in federal elections and do not pay United States taxes.

It is important to note that the Commonwealth of the Northern Mariana Islands, its governing system and its infrastructure as an independent entity within a commonwealth agreement with the United States are only 33 years old.

The present administration was elected in November 2005, with the Honourable Governor Benigno Fitial taking office in January 2006 and appointing Joseph Kevin Villagomez as Secretary of Public Health. There are three branches of Government: the executive, legislative and judicial. The Secretary of Public Health serves as an Executive Cabinet member and head of the Department of Public Health.

1.3 Socioeconomic situation

The economy benefits substantially from financial assistance from the United States of America, although the rate of funding has declined as locally generated government revenues have grown. In addition to funds received from the United States, the economy largely depends on two major industries: tourism and garment manufacturing.

Garment production is by far the most important industry, employing 17 500 mostly Chinese workers and with sizable shipments to the United States under duty and quota exemptions. The key tourist industry employs about

50% of the work force and accounts for roughly one-quarter of gross domestic product (GDP). Japanese tourists predominate. Annual tourist entries have exceeded 500 000 in recent years, but financial difficulties in Japan have caused a temporary slowdown.

In a 2007 report by the United States Government Accountability Office, it was stated that "the CNMI's (Commonwealth of the Northern Mariana Islands) economic potential is constrained, in part, by its lack of diversification and faces serious challenges owing to declines in garment manufacturing and tourism, its two major industries. Among factors affecting the garment industry, liberalization in trade law in the early 2000s reduced the CNMI's trade advantage relative to low-wage countries such as China, causing CNMI exports to fall. The CNMI's tourism industry has been subject to fluctuations due to Asian economic trends in the late 1990s, as well as recent changes in airline practices. Until 2007, the CNMI's workforce was subject to a minimum wage set by the CNMI Government that was lower than the U.S. mainland's; however, Congress enacted a law in 2007 that applied the U.S. minimum wage to the CNMI and will gradually increase the CNMI minimum wage until it meets federal minimum wage requirements."

The agricultural sector is made up of cattle ranches and small farms producing coconuts, breadfruit, tomatoes and melons.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Infectious diseases are once again emerging as a major public health concern. Of particular concern are tuberculosis, enteric foodborne illnesses, vaccine-preventable diseases, HIV infection and other sexually transmitted infections. At the same time, obesity, diabetes, hypertension and atherosclerotic vascular disease are increasing concerns facing the ageing population.

2.2 Outbreaks of communicable diseases

The Department of Public Health had been overwhelmed by the H1N1 Pandemic. Mass immunization campaigns and intense community influenza education and other awareness activities have been conducted to prevent or reduce the impact of influenza in the country.

2.3 Leading causes of mortality and morbidity

The Vital Statistics Office of the Department of Public Health monitors the number of deaths and the causes each year, with the Registrar reviewing the data for trends in order to guide preventive health efforts.

In 2010, there were 170 deaths: 61 females and 109 males. Since there is no resident forensic pathologist, autopsies for non-suspicious deaths are not performed routinely.

The leading cause of death in 2010 was cancer, followed by stroke, respiratory arrest, and heart disease.

The number of deaths due to strokes and heart attacks has been increasing, with strokes becoming the third leading cause of death in 2005, after heart disease and cancer, and increasing among individuals under the age of 50. This disturbing trend is probably due to high rates of untreated diabetes and hypertension in the population. There is also growing evidence that use of methamphetamine ('ice') can contribute to deaths from heart attacks and strokes; ice use is prevalent in the country.

Cancer diagnoses and most chemotherapy are carried out nationally, but radiation therapy is not available in the country and there is no resident oncologist. The Department of Public Health is increasing its public health efforts to improve cancer prevention in the community. A significant example was the 2007 launch of the HPV Vaccination Campaign, aimed at vaccinating girls in high school with the human papillomavirus (HPV) vaccine that immunizes against four HPV strains that can cause cervical cancer.

The Department of Health and WHO jointly organized a national training workshop on the national NCD STEPS Survey in November 2009. It is hoped that the survey will be carried out in the near future.

2.4 Maternal, child and infant diseases

Under the United States Division of Public Health, the Maternal and Child Health (MCH) Programme oversees primary and preventive health care services for mothers and children, including children with special health care needs, and is federally funded by a grant under the Health Resources and Services Administration (HRSA) within the Department of Health and Human Services (DHHS). The MCH Programme authorizes appropriations to the Commonwealth of the Northern Mariana Islands to improve the health of all mothers and children applicable to health status goals and national health objectives. It enables the country to:

- provide and assure mothers and children access to maternal and child health services;
- reduce infant mortality and the incidence of preventable diseases, increase the number of children appropriately immunized against disease, and otherwise promote the health of mothers and infants by providing prenatal and postpartum care, and promote the health of children by providing preventive and primary care services; and
- provide and promote family-centred, community-based coordinated care for children with special health care needs.

The priority MCH concerns include, among others, childhood obesity, lack of or little prenatal care, access to women's health services, identification and referral of infants for early intervention services, and the number of sexually transmitted infections among teenagers. In addition, more effort is being put into decreasing the burden of dental caries in children. An assessment of 2613 students for the 2009-2010 school year found that 68% of thosethat were assessed had dental caries.

Despite many challenges as regards prenatal care, the infant mortality rate (IMR) decreased significantly from 6.3 in 2006 to 1.8 in 2009. However, in view of the small numbers and large statistical variation, the Department of Public Health will continue to strive for improvements in perinatal care.

The most common diseases among infants during 2007 were acute upper respiratory infections, fetal/neonatal jaundice and acute bronchiolitis. In the 1-4 years age group, the most common diseases were acute upper respiratory infections and otitis media.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Health care in the country is facing major challenges in the areas of quality and financing. These problems have been recognized for many years but, with the recent deepening financial crisis, there is increasing pressure to find solutions. The current leadership at the Department of Public Health has been working on many different plans to improve the current situation. Among the highest priorities have been stabilizing and improving the financial status of the Commonwealth Health Center (CHC) and restructuring the Department of Public Health in order to build a foundation that will allow overall improvements in the quality of health care delivery. The overall goal is to improve the health of the people.

As a way of focusing restructuring efforts, a strategic plan has been developed for prioritizing and implementing solutions to some of the more immediate problems affecting health care delivery, with financial stability the top priority. The Mission of the Department of Public Health is "to provide compassionate, quality health care and promote health for all people in the Commonwealth of the Northern Mariana Islands." To guide prioritization in attaining its stated mission, the Department of Public Health plans to deliver the best possible health care by improving its financial stability.

Goals have been chosen from all possible solutions discussed as being the most likely to allow the Department of Public Health to attain its vision. Highest priority has been placed on goals that can be attained relatively quickly within the current resources of the Department, including:

(1) movement towards more autonomy for CHC in the areas of operations, supply chain and finance (over-arching goal);

(2) installation of a new hospital information system and financial management programme (VISTA – a programme through the VA system);

(3) improvement in billing and processing of collections for CHC to improve revenue and cash flow;

(4) reform of Medicaid to improve resources available to CHC and on-island medical providers; and

(5) creation of autonomy in recruitment and retention of Department of Public Health personnel.

This is an ambitious list to accomplish in a relatively short time, but achievement of these goals will allow the development of more adequate resources to improve direct patient care and overall health. The plan will guide efforts in working towards the vision of creating a financially stable hospital to improve the health of all citizens.

3.2 Organization of health services and delivery systems

The Department of Public Health comprises three divisions: the Division of Public Health, which provides preventive and community health programmes; the Hospital Division; and the Community Guidance Center (CGC), which delivers mental health and substance-abuse programmes. The Department also oversees the Medicaid and Medical Referral programmes.

The Department of Public Health is the sole provider of comprehensive health care services and, through its primary health care facility, the Commonwealth Health Center (CHC) on the island of Saipan, provides a wide range of preventive (public health) and curative health services aimed at protecting and improving the health and quality of life of the population. CHC is an 86-bed, Medicare-certified hospital that opened in 1986 and was expanded in 2007. The hospital's scope of services includes emergency medicine, obstetrics, postpartum care, adult and neonatal intensive care, surgery, general medicine, paediatrics, physical therapy, dialysis, mental health and various outpatient services. It is a busy community hospital, with more than 60 000 outpatient visits each year. The hospital is also very full, with a daily census nearing 90% of capacity.

Sub-hospitals are located on the islands of Rota and Tinian and there is also one public health wellness clinic on the island of Saipan. There are six private clinics, all on Saipan. The nearest United States tertiary medical centre is in Honolulu, Hawaii, over eight hours away by air.

The Department of Public Health strives to maintain full staffing of its health care workforce. Almost all CHC physicians are from the United States of America or Canada, despite challenges to recruitment and retention of clinicians due to highly competitive salaries in the United States. The Department of Public Health also supports efforts to increase training opportunities for the local health care workforce.

3.3 Health policy, planning and regulatory framework

The Department of Public Health is under the umbrella of the Commonwealth of the Northern Mariana Islands Government and has the power and responsibility to:

- maintain and improve health and sanitary conditions;
- minimize and control communicable disease;
- establish and administer programmes regarding vocational rehabilitation, crippled children's services, infant care, Medicaid, Medicare, mental health and related programmes, including substance abuse;
- establish standards for water quality; and
- administer all Government-owned health care facilities.

3.4 Health care financing

Total health expenditure for CHC in 2005 amounted to US$ 44 741 490. For the 2007 fiscal year, health expenditure represented 25.4% of total general government expenditure of US$ 289.1 million. It is notable that total health expenditure is declining because the budget is decreasing; in the last fiscal year, the health budget was only US$ 39 million, a fall from US$ 42 million in the previous year. Significant efforts are being made to maintain critical services in a world of soaring health care costs. CHC will likely privatize adult outpatient services in the near future to continue to improve patient access to the private sector.

3.5 Human resources for health

Building and improving local health care manpower to sustain public health programmes is imperative to improving the delivery of services to the community. This is also in line with the strategic plan for future health initiatives stated in the Institute of Medicine (IOM) report. One of the four recommended approaches includes promoting the education and training of the health care workforce. Through the University of Hawaii, John A. Burns School of Medicine, the Commonwealth of the Northern Mariana Islands has an Area Health Education Center (AHEC) grant. AHEC's mission is to improve the health services of the Commonwealth by establishing a sustainable health care manpower programme through strengthening of the country's capacity to recruit and retain allied health professions to serve the health needs of the islands. The programme aims to develop competent, committed and compassionate health professionals, and its vision is to improve the quality of health care services and reduce disparities in health conditions in the Commonwealth. In addition, two Division staff are attending the Maternal and Child Health Certificate Program, through a grant, at the University of Hawaii; there is ongoing collaboration with WHO in supporting training for oral health and sanitation; and, in collaboration with the Pacific Islands Health Officers Association (PIHOA), a series of courses dealing with public health disease surveillance and investigation have been sponsored. A PIHOA consultant visited the Commonwealth in 2008 and conducted a strategic planning meeting for human resource capacity building.

3.6 Partnerships

The Department of Public Health recognizes the need for partnerships with various governmental and private agencies, non-profit organizations and other organizations, on-island, regionally and internationally, to sustain and build effective health care programmes and services.

Key partners both on-island and abroad include, among others:

- The Public School System;
- Northern Marianas College;
- The Department of Community and Cultural Affairs;
- The Department of Commerce;
- The Workforce Investment Agency;
- The Developmental Disabilities Council;
- Karidat;
- The Ayuda Network, Inc.;
- The Commonwealth Cancer Association;
- The Diabetes Coalition;
- NAPU Life;
- The Substance Abuse Prevention Coalition (SAPC);
- The University of Hawaii, John A. Burns School of Medicine – Area Health Education Center (AHEC) and Maternal and Child Health Certificate Program through HRSA;
- Western Michigan University (Project Familia);
- The Secretariat of the Pacific Community (SPC);
- WHO;
- The Pacific Islands Health Officers Association (PIHOA);
- The United States Centers for Disease Control and Prevention (CDC);
- The Health Resources and Services Administration (HRSA);
- The Joint Task Force Homeland Defense;
- The Pacific Substance Abuse and Mental Health Collaborating Council (PSAMHCC);
- The Pacific Islands Mental Health Network (PIMHnet);
- The National Prevention Network (NPN);
- The National Asian Pacific American Families Against Substance Abuse, Inc. (NAPAFASA).

3.7 Challenges to health system strengthening

One of the greatest challenges is recruitment and retention of qualified personnel. Some of the main obstacles include the small human resources pool from which to recruit, the ever-rising costs of maintaining the Commonwealth Health Center, and the limited local funding available to sustain quality health care delivery.

Another challenge is the need to improve the Department of Public Health's data infrastructure, which impacts the way the Department plans activities for its programmes and evaluates the effectiveness of services provided to the community.

In addition, the isolation and disparities apparent in the country create unique and challenging barriers for a struggling health care system.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Commonwealth Health Center website
Operator	:	CNMI Department of Public Health's Commonwealth Health Center
Features	:	Organization Description, Jobs, Island Lifestyle
Web address	:	http://www.dphsaipan.com/
Title 2	:	*2010 Pocket statistical summary (PSS)*
Operator	:	Secretariat of the Pacific Community, Statistics and Demography.
Web address	:	http://www.spc.int/sdp/
Title 3	:	Pacific Island Populations – Estimates and projections of demographic indicators for selected years
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int

5. ADDRESSES

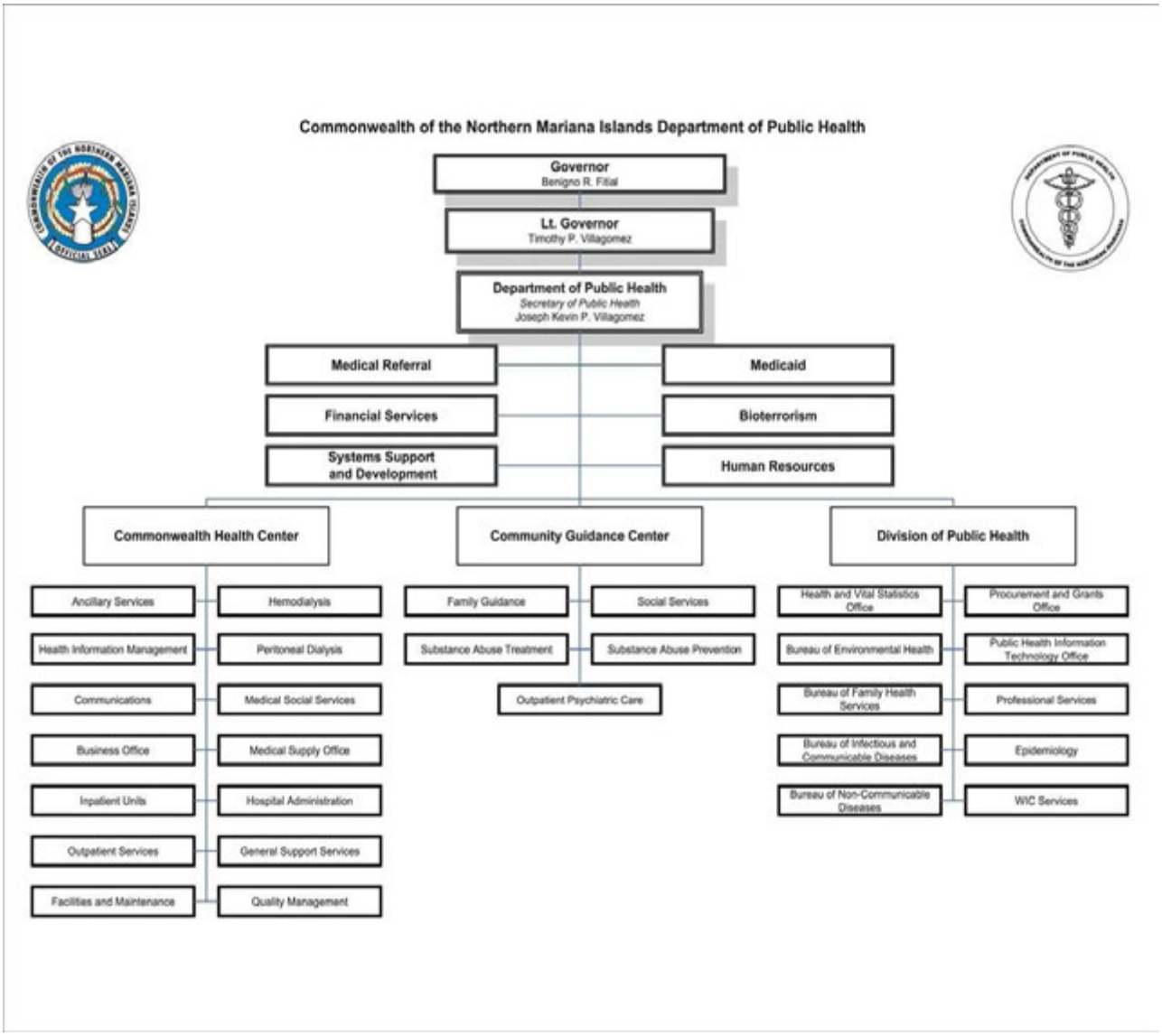
DEPARTMENT OF PUBLIC HEALTH

Office Address	:	CHC, Lower Navy Hill
Postal Address	:	P.O. Box 500409 CK, Saipan MP 96950, Commonwealth of the Northern Mariana Islands
Telephone	:	(670) 234-8950
Fax	:	(670) 234-8930
Website	:	http://www.dphsaipan.com

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT

Office Address	:	Level 4 Provident Plaza One, Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	P.O. Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 166; 3234 177
Office hours	:	0800 – 1700
Website	:	http://www.wpro.who.int/southpacific

6. ORGANIZATIONAL CHART: Ministry of Health



NORTHERN MARIANA ISLANDS, COMMONWEALTH OF

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	0.46			2011	1
2	**Estimated population ('000s)**	63.07	31.74	31.33	2010 est	2
3	**Annual population growth rate (%)**	-0.10	...	...	2010 est	1
4	**Percentage of population**					
	- 0–4 years	9.50 [a]	9.71 [a]	9.28 [a]	2010 est	2
	- 5–14 years	16.76 [a]	18.05 [a]	15.44 [a]	2010 est	2
	- 65 years and above	3.31 [a]	3.14 [a]	3.48 [a]	2010 est	2
5	**Urban population (%)**	91.30	...	...	2010 est	3
6	**Crude birth rate (per 1000 population)**	18.44	...	...	2010 est	4
7	**Crude death rate (per 1000 population)**	2.35	...	...	2010 est	4
8	**Rate of natural increase of population (% per annum)**	1.61 [a]	...	...	2010 est	4
9	**Life expectancy (years)**					
	- at birth	76.90	74.27	79.68	2010 est	5
	- Healthy Life Expectancy (HALE) at age 60	...	...	...		
10	**Total fertility rate (women aged 15–49 years)**	1.12			2010 est	5
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	...	...	...		
12	**Per capita GDP at current market prices (US$)**	12 638.00			2005	6
13	**Rate of growth of per capita GDP (%)**	...				
14	**Human development index**	...				
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	63	41	22	...	...	...	2010	12
	- Type A	19	14	5	...	...	...	2010	12
	- Type B	35	21	14	...	...	...	2010	12
	- Type C	9	6	3	...	...	...	2010	12
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	...	...	...	2010	12
	Dengue/DHF	0	0	0	0	0	0	2010	7
	Encephalitis	0	0	0	...	...	...	2010	12
	Gonorrhoea	1	1	0	0	0	0	2010	12
	Leprosy	0	0	0	...	...	...	2010	7
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	...	...	...	2010	12
	Syphilis	0	0	0	...	...	...	2010	12
	Typhoid fever	0	0	0	...	...	...	2010	12
17	**Acute respiratory infections**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	…	…	…	…	…	…		
	- Among children under 5 years	…	…	…	…	…	…		
19	**Tuberculosis**								
	- All forms	38	…	…	3 [b]	…	…	2009	7
	- New pulmonary tuberculosis (smear-positive)	16	…	…	…	…	…	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	…	…	…		
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	…	…	…		
	- Liver	…	…	…	…	…	…		
	- Oesophagus	…	…	…	…	…	…		
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	…	…	…	…	…	…		
21	**Circulatory**								
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	…	…	…	…	…	…		
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
22	**Diabetes mellitus**	…	…	…	…	…	…		
23	**Mental disorders**	…	…	…	…	…	…		
24	**Injuries**								
	All types	…	…	…	…	…	…		
	- Drowning	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Road traffic accidents	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1.	…	…	…	…	…	…		
	2.	…	…	…	…	…	…		
	3.	…	…	…	…	…	…		
	4.	…	…	…	…	…	…		
	5.	…	…	…	…	…	…		
	6.	…	…	…	…	…	…		
	7.	…	…	…	…	…	…		
	8.	…	…	…	…	…	…		
	9.	…	…	…	…	…	…		
	10.	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Cancer	20	9	11	22.06	23.41	21.06	2010	13
	2. Stroke	19	10	9	20.95	26.01	17.23	2010	13
	3. Respiratory arrest	14	9	5	15.44	23.41	9.57	2010	13
	4. Heart disease	13	9	4	14.34	23.41	7.66	2010	13
	5. Diabetes	9	7	2	9.93	18.21	3.83	2010	13
	6. Sepsis	9	3	6	9.93	7.80	11.49	2010	13
	7. Gastrointestinal bleeding	8	6	2	8.82	15.61	3.83	2010	13
	8. Lung disease	8	5	3	8.82	13.00	5.74	2010	13
	9. Pneumonia	7	5	3	7.72	13.00	5.74	2010	13
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					8.41		2009	14
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					NR		2010	7
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	...		...		...			
31	**Percentage of newborn infants weighing less than 2500 g at birth**	8.90		...		...		2009	10
32	**Immunization coverage for infants (%)**								
	- BCG	13.00		...		...		2010	7
	- DTP3	80.90		...		...		2010	7
	- Hepatitis B III	83.00		...		...		2010	7
	- MCV2	39.00		...		...		2010	7
	- POL3	94.00		...		...		2010	7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	7
	- Diphtheria	0	0	0	...	...	...	2010	7
	- Measles	0	0	0	...	...	...	2010	7
	- Mumps	0	0	0	...	...	...	2010	7
	- Neonatal tetanus	0	0	0	...	...	...	2010	7
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	7
	- Poliomyelitis	0	0	0	...	...	...	2010	7
	- Rubella	0	0	0	...	...	...	2010	7
	- Total Tetanus	0	0	0	...	...	...	2010	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**					...			

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	...	...		
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	...	...		
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	6	...	2007	9
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)		...			
	- total expenditure on health as % of GDP					
	- per capita total expenditure on health (in US$)		...			
	Government expenditure on health					
	- amount (in million US$)		43.32 [c]		FY2007	11
	- general government expenditure on health as % of total expenditure on health		...			
	- general government expenditure on health as % of total general government expenditure		25.40		FY2007	11
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health		...			
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health		...			
	- out-of-pocket expenditure on health as % of total expenditure on health		...			
	Exchange rate in US$ of local currency is: 1 US$ =		...			
38	**Health insurance coverage as % of total population**		...			

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	31	...	...	...	...	...	...	2008	15
		- Ratio per 1000 population	0.36	...	...	...	...	...	...	2008	15
	Dentists	- Number	2	...	...	...	...	...	...	2008	15
		- Ratio per 1000 population	0.02	...	...	...	...	...	...	2008	15
	Pharmacists	- Number	2	...	...	...	...	...	...	2008	15
		- Ratio per 1000 population	0.02	...	...	...	...	...	...	2008	15
	Nurses	- Number	158	...	...	...	...	...	...	2008	15
		- Ratio per 1000 population	1.82	...	...	...	...	...	...	2008	15
	Midwives	- Number	6	...	...	...	...	...	...	2008	15
		- Ratio per 1000 population	0.07	...	...	...	...	...	...	2008	15
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	1.80	...	...	2009	10
44	Under-five mortality rate (per 1000 live births)	...	...	...		
45	Proportion of 1 year-old children immunised against measles	93.00	...	...	2010	7
46	Maternal mortality ratio (per 100 000 live births)	...				
47	Proportion of births attended by skilled health personnel	...				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	92.00			2007	10
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	69.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	3.00	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	77.00	...	...	2008	7
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	...	...	96.00	2008	8
64	Proportion of population using an improved sanitation facility	98.00	98.00	97.00	2008	8
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

NORTHERN MARIANA ISLANDS, COMMONWEALTH OF

Notes:	
…	Data not available
p	Provisional
est	Estimate
FY	Fiscal Year
NR	Not relevant
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Estimated number of deaths
c	Figure refers to total general government expenditures

Sources:	
1	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated March 2011. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed on September 2011.
2	Population 2000-2015 by 1 and 5 year age groups, February 2010. Secretariat of the Pacific Community (SPC) - Statistics and Demography (SDP) Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_details&gid=158]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:17:33 PM
4	Estimates and projections, CNMI: 2000 to 2050. United States Census Bureau, International Programs Center. Accessed on September 2011 at http://www.spc.int/prism/country/mp/stats/Social/Popn/popest.htm
5	Estimates and projections of life expectancy, infant mortality and total fertility, CNMI: 2000 to 2050. United States Census Bureau, International Programs Center. Accessed on September 2011 at http://www.spc.int/prism/country/mp/stats/Social/Popn/estimrtfr.htm
6	2010 Pocket Statistical Summary (PSS). Secretariat of the Pacific Community, Statistics and Demography. Accessed on 02 September 2011 from http://www.spc.int/sdp/
7	WHO Regional Office for the Western Pacific, data received from technical units
8	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010.[http://www.wssinfo.org/en/welcome.html]
9	Information furnished by the WHO Representaitive in the South Pacific, 15 April 2008.
10	Maternal and Child Health 2010 Needs Assessment. CNMI, Division of Public Health. Accessed on September 2011 at [https://perfdata.hrsa.gov/mchb/TVISReports/…/MP-NeedsAssessment.pdf.]
11	Hospital Division, Department of Public Health
12	Division of Public Health, Department of Public Health, Commonwealth of Northern Marianas Island.
13	Data analyzed through the RPMS computerized system. Birth and Death Database Registry, Office of Health Planning and Statistics, Division of Public Health, Department of Public Health, , Commonwealth of Northern Marianas Island.
14	Family Planning Programme, Division of Public Health, Department of Public Health.
15	Health Data Report, 2008. Commonwealth of Northern Mariana Islands, Department of Public Health.

PALAU

1. CONTEXT

1.1 Demographics

The estimated multi-ethnic population of Palau was 20 550 in 2009, with an estimated annual population growth rate of 0.99%. The population consists of 69.9% Palauans (who are a conglomeration of Micronesians with Malayan and Melanesian admixtures), 15.3% Filipinos, 4.9% Chinese, 2.4% other Asian, 1.9% Causacian, 1.4% Carolinian and 4.2% other or unspecified groups (2000 estimate). The 2006 estimate indicated a population density of 46 persons per square kilometre. In 2007, approximately 77% of the Palauan population were living in Koror City.

Since the 1990 census, life expectancy at birth has been higher for women than men; the 2005 estimate stood at 69 years, 72.1 years for women and 66.3 years for men.

1.2 Political situation

Palau is a democratic republic with directly elected executive and legislative branches. Presidential elections to select the President and the Vice-President take place every four years. Elections were last held in 2008. His Excellency Johnson Toribiong is the current Head of State and President of the Republic of Palau. The Vice-President is Kerai Mariur.

The Palau National Congress (*Olbiil era Kelulau*) has two houses: the Senate and the House of Delegates. The Senate has 13 members, while the House of Delegates has 16 members, one from each of Palau's states. All legislators serve four-year terms for a maximum of three cycles, or 12 years. Each state also elects its own governor and legislature.

The Council of Chiefs is an advisory body to the President that contains the highest traditional chiefs from each of the 16 states. The Council is consulted on matters concerning traditional laws and customs.

The judicial system consists of the Supreme Court, the National Court, the Court of Common Pleas, and the Land Court. The Supreme Court has trial and appellate divisions and is presided over by the Chief Justice.

1.3 Socioeconomic situation

Palau's real per capita gross domestic product (GDP) of US$ 8423 (2007 estimate) makes it one of the wealthier Pacific island states. The economy relies primarily on tourism, subsistence agriculture and fishing. The Government is the major employer, relying heavily on financial assistance from the United States of America. Business and tourist arrivals numbered 89 151 in 2007. Long-term prospects for the key tourist sector have been greatly bolstered by the expansion of air travel in the Pacific, the rising prosperity of leading East Asian countries, and the willingness of foreigners to finance infrastructure development.

1.4 Risks, vulnerabilities and hazards

The population of Palau is at risk for a high number of hazards, including a uniquely high hydrometeorological and geological risk. Due to its geographical location as the United States of America's westernmost border with Asia, Palau is also more vulnerable to hazards emerging in Asia, such as infectious diseases.

Vulnerability analysis shows that Palau is 19.25 times more vulnerable to hazards than the United States of America, and it should not be understated that the most significant risk factor in vulnerability to disasters is poverty. The population of Palau is made of 69.9% Palauans, as well as a large number of young, impoverished, foreign worker households mixed with smaller local lower- and middle-class factions. Economic stability is dependent upon United States federal support, immigration, tourism, and the United States and Asian stock, commodity and import/export markets, as well as fuel/energy prices. It is unfortunate that this most difficult of vulnerabilities to alter is also the most significant.

Over the past five years, public health preparedness in Palau has improved significantly, and a comprehensive all-hazard public health emergency operational plan has been developed, although it still needs to be tested and validated by field exercises and is lacking standard operating procedures. The Department of Public Health has developed an extensive level of awareness regarding disaster preparedness and response, yet much still has to be done in terms of educating clinicians and the public. All components of preparedness—planning, training, hazard monitoring, warning, population protection— are much more cost-effective than emergency response after an event.[1]

Palau's isolation from the United States mainland increases logistical demands. Supply chains, communication networks and air runways are limited options. Improving long-distance communication and logistical coordination that may lessen the "tyranny of distance" for any emergency response measures would help to reduce Palau's vulnerability to public health disasters.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The population of Palau faces a heavy burden of both infectious and chronic diseases. Like many developing nations, the country has recently undergone an epidemiological shift from diseases of the developing world, such as malnutrition and communicable diseases, to an increasing burden of diseases of the developed world, like diabetes, heart disease, obesity and kidney failure. This is placing an inordinate burden on the already low human, material and fiscal resources. However, the general health of Palauans seems to have improved a little, as manifested in health indicators such as a decreased crude death rate, increased life expectancy at birth, and a low maternal mortality ratio.

It is expected that environmental problems will increase with more foreign investment and workers on the islands in coming years. Water pollution is a major concern due to the lack of sufficient land area for proper waste disposal, and progressive industrial development will continue to worsen both air and marine quality. Marine life and reefs will also be affected by pollution. Other negative health impacts of globalization, such as reduced physical activity and consumption of processed rather than locally produced foods, are already encroaching insidiously beyond Koror and Airai, where over 79% of the population resides.

2.2 Outbreaks of communicable diseases

Palau has one of the best communicable disease surveillance systems of all the Pacific island countries and regularly reports outbreaks of infectious disease on PacNet. In 2009, the Ministry of Health was able to detect and control the outbreak of pandemic influenza A (H1N1) the country experienced. Collaborative initiatives among principal health officials, health specialists and multisectoral community leaders have been a positive step forward in monitoring events and communicable disease outbreaks.

2.3 Leading causes of mortality and morbidity

While tuberculosis remains a problem and the prevalence of leprosy has increased slightly, modern lifestyle-related diseases are at the top of the list of major causes of death. Based on information furnished by the Ministry of Health, the reported leading causes of mortality in 2009 were cardio/cerebrovascular disease; cancer; lung disease; septicaemia; injuries; kidney disease; liver disease and complications of childbirth/pregnancy. In 2007, the leading causes of hospitalization were diseases of the respiratory system; diseases of the genitourinary system; diseases of the digestive system; normal childbirth and delivery; diseases of the endocrine and metabolic system; diseases of the circulatory system; infectious and parasitic diseases; injuries and poisonings; diseases of the nervous system; and complications of pregnancy, childbirth and the puerperium.

2.4 Maternal, child and infant diseases

Great progress is being made in improving maternal health in Palau, and only one maternal death was reported in 2009.

[1] Rykken D, Keim M. Republic of Palau, Public Health Hazard Vulnerability Assessment, June 2006.

The under-five mortality rate fell from 34 per 1000 live births in 1990 to 12.2 in 2010, a fairly low level among Pacific island countries. However, the percentage decline in the 1990s was lower than during the pre-1990s, indicating that further reduction in under-five mortality is becoming progressively more difficult as the mortality rate declines.

Infant mortality decreased from 25 to 22 per 1000 live births in the 1990s, then further to 7.2 per 1000 live births in 2007. In 2010, the rate increased back up to 12.2 per 1000 live births.

In 2009, the estimated coverage for DTP3 was 49% and 75% for measles first dose (MCV1).

2.5 Burden of disease

To paraphrase the 11th Annual Report on the Republic of Palau's Implementation of the Compact of Free Association fiscal year 2006, the best description for health in Palau is "in transition". The transition of culture, political system, economic development and technology has moved the health emphasis from communicable to noncommunicable diseases. Most of the reported leading causes of death are due to noncommunicable diseases related to lifestyle-associated risk factors, and are therefore preventable. Such a transitional status has led to pending issues that need to be evaluated, such as the cost of off-island medical referrals, the cost of haemodialysis and intensive care services, and the financial sustainability of a secondary health care facility in such a small island community.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

"Health for all" remains a top priority in the socioeconomic development of Palau. The Government aims to provide sufficient trained and qualified staff to provide quality services in all outlying dispensaries, including the more remote areas and islands, as well as at the main hospital in Koror.

The national health priorities are:

- to deliver quality health care, including community-based health care, in order to improve the health of the population and contribute towards building a balanced economy;
- to control communicable and noncommunicable diseases;
- to improve the nutritional status of community members through implementation of a national action plan for food and nutrition;
- to protect environmental health;
- to increase the accessibility of health services through establishment of outlying dispensaries/health centres;
- to train and certify health workers and allied health workers in proper training institutions;
- to establish a national insurance policy; and
- to improve and enhance the health information system.

3.2 Organization of health services and delivery systems

A high percentage of health services are supported by grant funds and technical assistance from the Federal Government of the United States of America, in addition to the provision of technical support and limited funding from a number of United Nations agencies. However, future resource requirements to sustain the operations of the health system will still be dependent on the country's successful economic development.

The Belau National Hospital (BNH), built with United States funding, is the main health facility in the country. BNH has undergone recent upgrades that will significantly mitigate its vulnerability to both national and technological disasters, including: installation of two generators to allow for one month of independent power generation; enhancement of respiratory isolation and PPE capabilities; equipping and training of hazardous materials teams; updating of the hospital's disaster plan; and upgrading of staff communications. Challenges remain, however, in that, by nature, BNH represents a centralized dependency for inpatient and outpatient care that increases the vulnerability of the health system. It is not economically feasible to decentralize inpatient care,

but steps to build inpatient capacity and capabilities on the other islands may add some limited additional secondary capability.

Four community health centres, known as superdispensaries, are located strategically throughout the country, three on the big island of Babeldaob and one on the southern island of Peleliu for the Southern Lagoon population. In addition, four additional satellite dispensaries serve hard-to-reach outlying localities, Kayangel in the north, and Angaur and the South-West Islands in the south.

3.3 Health policy, planning and regulatory framework

In June 2005, the Ministry of Health adopted a vision and a mission statement, framed by Article VI of the Constitution of the Republic of Palau, that embraced a holistic definition of health that stated that the health of Palauans is influenced by health services, the environment, behaviour and heredity. These issues were discussed at the 1st Public Health Convention, held in December 2005.

During a leadership symposium, held in February 2006, certain priorities were identified, including addressing the burden of noncommunicable diseases; solid and liquid waste management; human resources for health; and improvement of the legal framework for health in Palau. Operationalization of the health system is based on a conscious decision to make health a domain owned by the community. This clarifies certain strategies that will help move Palau towards a more sustainable health care system. Strategic health planning, improved fiscal control, enhanced primary health care through community health centres, strengthening of community advocacy through the creation of a community advocacy programme, and improvements to the health information system, have all given the health sector the ability to plan better for the future. These activities are also enhanced by the decision to address human resource, procurement and grant issues. All these initiatives in the Ministry of Health and at the national level to increase accountability and promote sound and sustainable development provided the impetus for implementation of the Integrated Planning Process 2006-2008 for the entire executive branch of government. The process was aimed at streamlining health system development and ensuring greater health worker productivity and an improvement in health status for all people living in Palau.

3.4 Health care financing

The total expenditure on health was 10.8% of GDP in 2008, with 78.4% coming from the Government. External resources for health accounted for 32% of total health expenditure. Total per capita expenditure on health was US$ 957.

3.5 Human resources for health

Since enactment of the mandatory retirement law, there has been a rapid reduction in the number of health workers, due to retirement of ageing staff. This has resulted in a critical shortage of health workers, particularly among the nursing force and allied health personnel. In addition, more staff members are needed as a result of the expanded main health facility and completion of the superdispensaries, and training of more local health workers is needed to allow them to replace expensive expatriate staff.

Vigorous efforts are under way between the Ministry of Health and the Ministry of Education to ensure that an increased number of high-school graduates can stream into health careers. These include a United States federal grant from the Department of Education to the Ministry of Education to develop a Health Academy in the only public high school, Palau High School. The Ministry of Health is a key partner in the initiative. Marketing efforts to increase the number of high-school students choosing nursing, medicine and allied health professions as careers are under way through development of two marketing videos – "Careers in nursing" and "Careers in health for Palau, the region and the world".

A nursing programme was established in the Palau Community College in 1998 and continues to produce a minimum of two graduates a year, but numbers are insufficient to meet staffing requirements. Bridging programmes in nursing and other allied health fields are currently in place in the Palau Community College and within the Ministry of Health.

Since 2001, the Ministry of Health has been partnered with Palau Community College (PCC) to participate in the College's Palau Area Health Education Center (AHEC), which is funded through the United States Department of Health and Human Services/Health Resources and Services Administration. The Palau AHEC is part of the

Hawaii-Pacific Basin AHEC, which is managed by the John A. Burns School of Medicine (JABSOM)/University of Hawaii. Since 2001, JABSOM has funnelled over US$ 2 million to promote health worker training in Palau and Micronesia. The Palau AHEC has sponsored most of the 98 courses conducted by the Fiji School of Medicine School of Public Health (now Department of Public Health) and all courses conducted by the University of Auckland, Faculty of Medicine (8) in the region. A total of 56 physicians, nurses, environmental health workers, health administrators, and nutrition workers from Palau have graduated with Fiji School of Medicine (FSMed) undergraduate and postgraduate certificates and diplomas. In addition, four physicians from Palau have been awarded Postgraduate Diplomas in General Practice from the University of Auckland, Faculty of Medicine. Most of these activities have been achieved through the efforts of the Ministry of Health–PCC AHEC partnership.

3.6 Partnerships

Partnerships developed by the Ministry of Health fall under three categories: bilateral, regional and institutional. The Ministry has developed bilateral relationships with the governments of the Czech Republic, India, Israel, Japan (JICA), the Philippines, the Republic of Korea, Spain, and the United States of America, among others. Regional partnerships include those with the Pacific Islands Health Officers Association (PIHOA), the Secretariat of the Pacific Community (SPC), the Pacific Forum, the Pacific Emergency Health Initiative (PEHI), the Health Research Council of the Pacific (HRCP) (formerly the Pacific Health Research Council), and the Pacific Open Learning Health Net (POLHN).

Partner institutions in various countries in the region have been developed for the purpose of training and medical referrals for patients requiring tertiary care and services not provided by Belau National Hospital. Partner institutions for education and training include the Fiji School of Medicine (FSMed), and the Good Samaritan Hospital in Los Angeles, United States of America, among others.

Other partner institutions provide specialized services in adult and paediatric cardiology, EENT and ophthalmology, either on an annul basis or every two years. Recent developments will add to the current list of services provided by visiting specialists on an ad hoc basis. Ministry of Health physicians and other health professionals provide training for student interns in partner institutions, such as the University of Washington in Seattle, United States of America, and the University of Hawaii, among others.

3.7 Challenges to health system strengthening

- The numbers and distribution of the health workforce (in medicine, nursing, allied health fields) are inadequate and pose a continuing challenge. In addition, the majority of those already working are underprepared.
- A health resource development services department is needed within the Ministry of Health to provide the necessary support services to Ministry personnel.
- Quality assurance performance measures are needed, not only for service providers, but for all personnel.
- Infrastructure development in the country, particularly in the health sector, is still limited, which hinders the maximum utilization of limited resources for service provision in all aspects of health care, from primary to secondary and tertiary, including off-island medical referrals.
- Health care financing is inadequate and will continue to be, necessitating ongoing lobbying with local legislature and vigorous solicitation efforts for assistance from regional and international organizations and institutions, as well as bilateral negotiations for sources of support via various forms of technical assistance.
- The health information system (HIS) infrastructure is already established, the hardware is already in place and qualified personnel are on board, but not in sufficient numbers or in the necessary specialized areas. There is a great need to increase the capacity of the HIS for monthly compilation, analysis and reporting of data from its various data sources. Integration of data and better management still need to take place. Much progress has taken place, but further support and development is needed to respond to all the competing reporting requirements and needs of the Ministry of Health.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Palau Government statistics*
Operator	:	Palau Government
Web address	:	http://www.palaugov.net
Title 2	:	*World fact book, 2007*
Web address	:	https://www.cia.gov/library/publications/the-world-factbook/print/ps.html
Title 3	:	*Palau statistics and key health indicators*
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int/prism
Title 4	:	*Health indicators*
Operator	:	Ministry of Health
Title 5	:	*National expenditure on health*
Operator	:	World Health Organization
Web address	:	http://www.who.int/nha/country/plw/en/
Title 6	:	Pacific Island Populations – Estimates and projections of demographic indicators for selected years
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int

5. ADDRESSES

DEPARTMENT OF HEALTH

Office Address	:	One Hospital Road, Meyuns, Koror
Postal Address	:	P.O.Box 6027, Koror, Republic of Palau 96940
Official Email Address	:	moh@palau-health.net
Telephone	:	(680) 488 2552
Fax	:	(680) 488 1211
Office Hours	:	7:30 a.m. -4:30 p.m. Monday to Friday
Website	:	http://www.palau-health.net/index.htm

WHO COUNTRY LIAISON OFFICE FOR NORTHERN MICRONESIA

Office Address	:	The Federated States of Micronesia National Government Department of Health and Social Affairs 1/F Mogethin Building, Palikir, Pohnpei
Postal Address	:	P.O. Box PS70 Palikir, Pohnpei FM 96941 Federated States of Micronesia
Telephone	:	(619) 320-2619
Fax	:	(619) 320-5263
Office Hours	:	0800 – 1700 Mon. – Fri.

COUNTRY HEALTH INFORMATION PROFILE

PALAU — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**	**Male**	**Female**					
1	**Area (1000 km2)**	0.44						2010	1
2	**Estimated population ('000s)**	20.52	11.00	9.52				2010 est	1, 2
3	**Annual population growth rate (%)**	0.60	...	...				2010 est	1
4	**Percentage of population**								
	- 0–4 years	6.47	6.16	6.83				2010 est	2
	- 5–14 years	14.01	13.49	14.62				2010 est	2
	- 65 years and above	5.81	4.69	7.09				2010 est	2
5	**Urban population (%)**	83.40	...	...				2010 est	3
6	**Crude birth rate (per 1000 population)**	11.90	...	...				2010	4
7	**Crude death rate (per 1000 population)**	7.82	9.43	6.57				2010	5
8	**Rate of natural increase of population (% per annum)**	0.41 [a]	...	...				2010	4, 5
9	**Life expectancy (years)**								
	- at birth	63.80	61.30	68.00				2010	5
	- Healthy Life Expectancy (HALE) at age 60	...	10.20	12.00				2002 est	6
10	**Total fertility rate (women aged 15–49 years)**	1.70						2010	4
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	99.90 [b]	99.90 [b]	99.80 [b]				2005	7
12	**Per capita GDP at current market prices (US$)**	8423.00						2007	1
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	...							
	Environmental indicators	**Total**	**Urban**	**Rural**					
15	**Health care waste generation (metric tons per year)**	83.00 [c]	...	...				2007	9
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	0	0	0	0	0	0	2010	9
	- Type B	31	19	12	0	0	0	2010	9
	- Type C	6	6	0	0	0	0	2010	9
	- Type E	0	0	0	0	0	0	2010	9
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2010	9
	Dengue/DHF	9	7	2	0	0	0	2010	9, 10
	Encephalitis	0	0	0	0	0	0	2010	9
	Gonorrhoea	5	4	1	0	0	0	2010	9
	Leprosy	3	3	0	0	0	0	2010	9, 10
	Malaria	0	0	0	0	0	0	2010	9
	Plague	0	0	0	0	0	0	2010	9
	Syphilis	18	10	8	0	0	0	2010	9
	Typhoid fever	0	0	0	0	0	0	2010	9
17	**Acute respiratory infections**	2492	1201	1291	0	0	0	2010	5, 11
	- Among children under 5 years	445	213	232	0	0	0	2010	5, 11

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	601	277	324	0	0	0	2010	9
	- Among children under 5 years	161	73	88	0	0	0	2010	9
19	**Tuberculosis**								
	- All forms	19	11	8	0	0	0	2010	9, 12
	- New pulmonary tuberculosis (smear-positive)	8	5	3	0	0	0	2010	9, 12
20	**Cancers**								
	All cancers (malignant neoplasms only)	30	12	18	31	20	11	2008-10	5, 13
	- Breast	1	0	1	1	0	1	2008-10	5, 13
	- Colon and rectum	3	2	1	3	3	0	2008-10	5, 13
	- Cervix			2			4	2008-10	5, 13
	- Leukaemia	0	0	0	0	0	0	2008-10	5, 13
	- Lip, oral cavity and pharynx	6	5	1	3	2	1	2008-10	5, 13
	- Liver	1	0	1	2	0	2	2008-10	5, 13
	- Oesophagus	2	1	1	2	1	1	2008-10	5, 13
	- Stomach	2	0	2	1	0	1	2008-10	5, 13
	- Trachea, bronchus, and lung	7	3	4	4	4	0	2008-10	5, 13
21	**Circulatory**								
	All circulatory system diseases	1021	441	580	...	...	...	2010	5, 11
	- Acute myocardial infarction	13	8	5	12	10	2	2010	5, 11
	- Cerebrovascular diseases	11	4	7	34	17	17	2010	5, 11
	- Hypertension	29 [d]	14	15	0	0	0	2010	5, 14
	- Ischaemic heart disease	38	23	15	3	2	1	2010	5, 11
	- Rheumatic fever and rheumatic heart diseases	77	41	36	2	1	1	2010	5, 11
22	**Diabetes mellitus**	5 [d]	1	4	0	0	0	2010	5, 11
23	**Mental disorders**	17 [e]	9	8	6	2	4	2010	15
24	**Injuries**								
	All types	...	...	...	14	14	0	2010	5
	- Drowning	...	...	...	4	4	0	2010	5
	- Homicide and violence	...	...	...	0	0	0	2010	5
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	253	...	...	2	2	0	2010	5, 16
	- Suicide	...	...	...	4	4	0	2010	5
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Disease of the respiratory system	346	172	174	1670.13	1544.82	1815.72	2010	5, 11
	2. Complications of pregnancy, childbirth, and puerperium	228		228	...		...	2010	5, 11
	3. Disease of the genitourinary system	207	94	113	999.18	844.26	1179.17	2010	5, 11
	4. Disease of the circulatory system	168	96	72	810.93	862.22	751.33	2010	5, 11
	5. Endocrine & metabolic system	121	52	69	584.06	467.04	720.03	2010	5, 11
	6. Disease of the digestive system	118	69	49	569.58	619.72	511.32	2010	5, 11
	7. Injury and poisoning	115	83	32	555.10	745.46	333.92	2010	5, 11
	8. Normal childbirth and delivery	110		110	...		...	2010	5, 11
	9. Disease of the nervous system	54	33	21	260.66	296.39	219.14	2010	5, 11
	10. Infectious and parasitic diseases	18	11	7	86.89	98.80	73.05	2010	5, 11

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Cardio/Cerebrovascular Disease	51	30	21	248.56	272.83	220.54	2010	5
	2. Cancer	32	17	15	155.96	154.60	157.53	2010	5
	3. Respiratory Disease	25	16	9	121.84	145.51	94.52	2010	5
	4. Kidney disease	18	12	6	87.73	109.13	63.01	2010	5
	5. Septicemia	16	9	7	77.98	81.85	73.51	2010	5
	6. Injury	14	14	0	68.23	127.32	0.00	2010	5
	7. Liver Disease	4	2	2	19.50	18.19	21.00	2010	5
	8. Complications of Childbirth/pregnancy	2	0	2	9.75	0.00	21.00	2010	5
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					22.26		2010	4
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					26.00		2010	10
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	4.05		0.00		4.05		2010	5
31	**Percentage of newborn infants weighing less than 2500 g at birth**	6.90		7.80		5.90		2010	4
32	**Immunization coverage for infants (%)**								
	- BCG	NR [f]		NR [f]		NR [f]		2010	10, 17
	- DTP3	69.00		...		...		2010	10
	- Hepatitis B III	80.00		...		...		2010	10
	- MCV2	...							
	- POL3	68.00		...		...		2010	10
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			30			0	2007	18
	- Eclampsia			9			0	2007	18
	- Haemorrhage			3			0	2007	18
	- Obstructed labour			8			0	2007	18
	- Sepsis			7			0	2007	18
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	0	0	0	2010	10, 12
	- Diphtheria	0	0	0	0	0	0	2010	10, 12
	- Measles	0	0	0	0	0	0	2010	9, 10, 12
	- Mumps	0	0	0	0	0	0	2010	10, 12
	- Neonatal tetanus	0	0	0	0	0	0	2010	5, 10, 12
	- Pertussis (whooping cough)	0	0	0	0	0	0	2010	10, 12
	- Poliomyelitis	0	0	0	0	0	0	2010	10, 12
	- Rubella	0	0	0	0	0	0	2010	10, 12
	- Total Tetanus	0	0	0	0	0	0	2010	10, 12
	Health facilities								
35	**Facilities with HIV testing and counseling services**						4	2010	19

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	80	2010	20
		- Specialized hospitals	0	0	2010	21
		- District/first-level referral hospitals	0	0	2010	21
		- Primary health care centres	5	12	2010	21
	Private health facilities	- Hospitals	0	0	2010	21
		- Outpatient clinics	2	6	2010	22
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			20.00 [a]	2009p	23
	- total expenditure on health as % of GDP			11.20	2009p	23
	- per capita total expenditure on health (in US$)			1000.00 [a]	2009p	23
	Government expenditure on health					
	- amount (in million US$)			16.00 [a]	2009p	23
	- general government expenditure on health as % of total expenditure on health			79.00	2009p	23
	- general government expenditure on health as % of total general government expenditure			16.70	2009p	23
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			56.20 [a]	2009p	23
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			21.00	2009p	23
	- out-of-pocket expenditure on health as % of total expenditure on health			10.00 [a]	2009p	23
	Exchange rate in US$ of local currency is: 1 US$ =			1.00	2009	23
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	29	10	19	...	...	25	4	2010	5
		- Ratio per 1000 population	1.40	0.49	0.93	...	...	1.21	0.19	2010	5
	Dentists	- Number	2	2	0	2	0	2	0	2009	21
		- Ratio per 1000 population	0.10	0.10	0.00	0.10	0	0.10	0.00	2009	21
	Pharmacists	- Number	2	1	1	2	0	2	0	2010	5, 21
		- Ratio per 1000 population	0.10	0.05	0.05	0.10	0	0.10	0.00	2010	5, 21
	Nurses	- Number	116	...	...	...	...	112	4	2010	24
		- Ratio per 1000 population	5.60	...	...	...	...	5.41	0.19	2010	5
	Midwives	- Number	4	0	4	...	...	4	0	2010	24
		- Ratio per 1000 population	0.19	0.00	0.19	...	...	0.19	0.00	2010	5
	Paramedical staff	- Number	0	0	0	0	0	0	0	2010	5
		- Ratio per 1000 population	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2010	5
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	0	0	0	0	0	0	0	2010	5
		Dentists	0	0	0	0	0	0	0	2010	5
		Pharmacists	0	0	0	0	0	0	0	2010	5

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	5	1	4	...	...	5	0	2010	24
		Midwives	2	0	2	0	0	2	0	2010	24
		Paramedical staff	0	0	0	0	0	0	0	2010	5
		Community health workers	..	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	2.20	2.10	2.40	2010	4
43	Infant mortality rate (per 1000 live births)	12.20	7.75	16.95	2010	4, 5
44	Under-five mortality rate (per 1000 live births)	12.20	7.75	16.95	2010	4, 5
45	Proportion of 1 year-old children immunised against measles	39.00	...	...	2010	10
46	Maternal mortality ratio (per 100 000 live births)	0.00			2010	5
47	Proportion of births attended by skilled health personnel	100.00			2010	18
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.00			2010	18
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00			2010	18
48	Contraceptive prevalence rate	22.26	...	...	2010	4
49	Adolescent birth rate	27.00			2010	4
50	Antenatal care coverage - At least one visit	90.30			2010	4
	- At least four visits	81.00			2010	4
51	Unmet need for family planning	...	...	....		
52	HIV prevalence among population aged 15-24 years	0.00	0	0	2010	19
53	Estimated HIV prevalence in adults	0.15 [g]	...	...	2010	19
54	Percentage of people with advanced HIV infection receiving ART	0.15 [g]	...	...	2010	19
55	Malaria incidence rate per 100 000 population	NR	NR	NR	2010	9
56	Malaria death rate per 100 000 population	NR	NR	NR	2010	9
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	NR	NR	NR	2010	9
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	NR	NR	NR	2010	9
59	Tuberculosis prevalence rate per 100 000 population	83.00	...	...	2009	10
60	Tuberculosis death rate per 100 000 population	3.00	...	...	2009	10
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	140.00	...	...	2009	10
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	...	...	...		
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	89.00	79.00	94.00	2006	25
64	Proportion of population using an improved sanitation facility	...	96.00	...	2008	26
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific
b	Figure refers to 15-24 years old
c	Figure refers to hospital waste only and excludes dispensaries
d	Incidence (no. of new cases diagnosed within the year)
e	Figure refers to number of hospital encounters
f	This is not part of the routine immunization
g	Total of 3 cases

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/]
2	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=158&Itemid=&lang=en]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
4	Family Health Unit Statistics, Bureau of Public Health, Ministry of Health, Palau.
5	Public Health Data and Statistics, Epidemiology, Bureau of Public Health, Ministry of Health, Palau.
6	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
7	Palau Statistics (http://www.spc.int/prism).
8	Maintenance Office, Belau National Hospital, Ministry of Health, Palau.
9	Reportable Disease Surveillance System, Epidemiology, Bureau of Public Health, Ministry of Health, Palau.
10	WHO Regional Office for the Western Pacific, data received from the technical units.
11	HIS, Hospital Infromation System, Belau National Hospital, Ministry fo Health, Palau.
12	Communicable Disease Unit, Bureau of Public Health, Ministry of Health, Palau.
13	Cancer Prevention and Control Program, Bureau of Public Health, Ministry of Health, Palau.
14	PECS Registry
15	Division of Behavioral Health, Bureau of Public Health, Ministry of Health, Palau
16	Bureau of Public Safety, Ministry of Justice, Palau
17	Immunization Program, Bureau of Public Health, Ministry fo Health, Palau.
18	OB/GYN Ward, Belau National Hospital, Ministry of Health, Palau.
19	HIV/STD Program, Bureau of Public Health, Ministry fo Health, Palau.
20	Equipment and Facility Office, Belau National Hospital, Ministry of Health, Palau
21	Finance and HR Office, Belau National Hospital, Ministry of Health, Palau.
22	Private Clinics (Family Surgical Clinic & Belau Medical Clinic), Palau
23	National health accounts: country information. Geneva, World Health Organization. Available from: http://www.who.int/nha/country/en/index.html.
24	Nursing Office, Ministry of Health, Palau
25	Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special Focus on Sanitation. UNICEF and WHO. UNICEF, New York and WHO, Geneva, 2008. Available from http://www.wssinfo.org/en/welcome.html.
26	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

PAPUA NEW GUINEA

1. CONTEXT

1.1 Demographics

Papua New Guinea has an estimated population of around 6.7 million (2010), 38.2% under the age of 15. Around 800 languages are spoken in the country, each language group having a distinct culture, and there are large sociocultural differences between and within provinces. The official languages are English, Pidgin and Motu.

Access to widely scattered rural communities (87.5% of the country's population is living in rural areas) is often difficult, slow and expensive. Only 3% of the roads are paved and many villages can only be reached on foot. Most travel between provinces is by air. The capital, Port Moresby, is not linked by road to the rest of the country.

Papua New Guinea has made some progress in social development over the last 30 years. For example, the literacy rate has risen from 32% to 58%. However, only half of all women aged 15 years and above and two-thirds of all men aged 15 years and older have ever attended school, and enrolment rates vary significantly across provinces. Women have a very high fertility rate of 4.1 births per woman. Life expectancy has risen from 49 to 61 years. In the 2000 population census, the crude death rate was 12.0 per 1000 population. The country's Human Development Index has decreased from 0.5 to 0.4, indicating that progress has slowed in recent years.

1.2 Political situation

Papua New Guinea is divided administratively into four regions: Southern Coastal (Papuan) Region, Northern Coastal (MoMaSe = Morobe, Madang and Sepik provinces) Region, Highlands Region, and New Guinea Islands Region. The governance system is a parliamentary democracy based on the Westminster model. As a member of the Commonwealth, the head of the Independent State of Papua New Guinea is Queen Elizabeth II of the United Kingdom of Great Britain and Northern Ireland, represented by the Governor-General, who is elected by Parliament for a five-year term.

The current single-chamber Parliament has 109 members, comprising one representative from each of the nineteen provinces and the National Capital District, and one representative from each of the 89 open constituencies. Every five years, political leaders are elected to the two tiers of government: national and local. Presently, there is only one woman representative in the national Parliament. There is a decentralized system of government. At the subnational level, there are three levels of administration: provincial, district and local (including several communes, with their villages).

1.3 Socioeconomic situation

During the 1990s, economic performance was mixed, although the economy benefited greatly from major mining and petroleum projects. While there was the potential for economic and social development, the period was largely characterized by negative economic growth and macroeconomic instability. As a result, the economy grew very little in real terms, with growth in the non-mining sector more sluggish than that in the mining sector. The reasons for the economic stagnation were complex. External contributing factors included the worldwide economic depression, the negative development in commodity prices, and unfavourable trade conditions, among others, while internal factors included a series of inappropriate policy regimes and fiscal failures, the catastrophic civil war in Bougainville from 1989 to 1999, and a series of devastating national disasters.

In recent years, the economic parameters have shown a more stable situation and a slightly more positive trend. However, this has been caused by the rising prices of mining products on the international markets rather than by improved internal performance.

Because of the economic situation, as well as the widespread evidence of deterioration in public services, especially in rural areas, it is a widely held view that living standards for a significant number of Papua New Guineans have declined since 1990. Furthermore, in spite of the increasing cost of living, salaries have changed very little over a long period, contributing to a static or possibly worsening poverty situation, particularly in the urban sector. In 2003, the Government developed a poverty-reduction strategy that was intended to give an added

focus to poverty in the national Medium-Term Development Strategy (MTDS, 2003–2007, not updated since). The country is a signatory to the Millennium Development Declaration, with its first MDG progress report being published in 2005.

1.4 Risks, vulnerabilities and hazards

The country is prone to numerous chronic natural hazards, as well as the occasional acute disaster situation, on a scale greater than any of its Pacific neighbours. The repertoire of hazards that continually hamper the development process in urban and rural remote locations of the country include volcanic eruptions, earthquakes, tsunamis, tropical cyclones, large-scale landslides, flooding, sporadic droughts, frosts in highland areas, the impact of climate change and variability, and rising sea levels. There is also a high risk of technical and human-made disasters, such as oil spills, industrial pollution and unregulated and destructive land-use practices.

Papua New Guinea is situated on the boundary between the Pacific and the Australian tectonic plates. The country has eight active volcanoes and is subject to regular earthquakes every year, with secondary effects of this activity including tsunamis and landslides.

A major challenge to improving health is related to perceptions of illness and health among the general population. There is a widespread lack of awareness regarding risk-related and health-promoting behaviour, and little involvement by local communities in health-promoting activities. Key risks include behaviour and environments that increase the risks of communicable disease; risks of noncommunicable disease, such as chewing betel and smoking tobacco; and the risks associated with unsafe sexual behaviour.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Communicable diseases remain the major causes of morbidity and mortality in all age groups. However, significant progress has been made in some areas. In 2000, the country was declared poliomyelitis-free. In addition, the national leprosy elimination target of less than one case per 10 000 population was reached.

In 2008, malaria was the leading cause of all outpatient visits, the fourth leading cause of hospital admissions and the third leading cause of death. The disease is now endemic in every province, including the Highlands Region, which was once considered malaria-free. An average of 1.5-1.8 million suspected cases of malaria are seen at health care facilities annually, and malaria mortality rates for 2008 were estimated to be 9.7 per 100 000 population. Together, malaria and pneumonia account for one-third of all recorded deaths.

According to WHO estimates, in 2009, Papua New Guinea had an estimated tuberculosis prevalence rate of 337 per 100 000, a TB death rate of 26 per 100 000, and a total of 12 306 new TB cases (all forms). However, it is very likely that these are underestimates because the prevalence and incidence rates are based on case notifications, and cases are generally underreported. Only 14 provinces report and relay their data to the National Health Information System (NHIS). Thus TB remains a major public health problem, particularly in view of the current HIV epidemic, which is posing a serious threat as a double burden (TB-HIV co-infection) and also in the context of multidrug-resistant TB (MDR-TB). In 2010, 4350 TB patients were tested for HIV. An estimated 33% of new and retreatment TB cases had MDR-TB in 2008. According to the 2010 Global MDR-XDR WHO Surveillance Report, there were 530 new and relapsed cases. The Global Stop TB Strategy is reflected in the revised five-year National TB Strategic Plan, with the country able to achieve a case detection rate of 73% and 64% success rate in 2009, meeting the global targets set by WHO. The directly observed treatment, short-course (DOTS) programme has gradually expanded since its inception in 1997, but it was not until 2007 that the DOTS roll-out strategy was implemented and it is currently operational in nine provinces with the roll-out expected to include all 20 provinces by 2012.

The Government is committed to having a TB-Free Papua New Guinea by 2050 and the National TB Programme (NTP) is aligned to the National Health Plan 2011-2020 in that context. The Global Fund has supported the NTP with a five-year grant that began in 2007 and phases out in 2012. Currently the country is in phase two of year four of Global Fund Round 6. The reasons for the slower-than-planned expansion of DOTS include a number of system constraints common to other disease-control programmes: staff migration, weak or no infrastructure, the

geographical layout of the country impeding service delivery, and delays in access to funds, which have led to limited training, supervision and other local-level support.

Papua New Guinea was declared to have a generalized HIV/AIDS epidemic in 2003. While the prevalence rate reached approximately 1.5% in 2007, a consensus meeting held in June 2010 resulted in a revised HIV prevalence rate estimate of 0.9% for 2009. In February 2006, it was estimated that there were 23 000 to 91 000 HIV-positive individuals in the sexually active population aged 15-49 years. HIV prevalence among women attending antenatal clinics was between 0.6% and 3.7% in 2005, and AIDS-related death is the leading cause of death in adult inpatients at the Port Moresby General Hospital. The main mode of HIV transmission is heterosexual. The incidence of other sexually transmitted infections (STI) is also rising, with the high incidence of sexual assaults on women contributing to their risk of contracting an STI.

Filariasis is endemic, although the size of the problem is unknown. Mass drug administration through the Elimination of Lymphatic Filariasis (ELF) programme is ongoing in only a few provinces due to insufficient funding.

Dengue has been reported in the last few years. Two cases were reported by Vamino hospital and confirmed by the Papua New Guinea Institute of Medical Research in March 2011. However, the scope of dengue endemicity is unclear.

The incidence of noncommunicable diseases is rising, creating the double burden observed in most developing countries. Cases of tobacco-related and alcohol-related illness appear to be increasing, while data from Port Moresby General Hospital suggest that diabetes and hypertension are also on the increase. The leading cancer in Papua New Guinea—oral—has a largely preventable cause (betel chewing and tobacco smoking).

Another ongoing health concern is related to injuries caused by road traffic accidents and all forms of violence (domestic, criminal and tribal).

2.2 Outbreaks of communicable diseases

Outbreaks of communicable disease are common in Papua New Guinea, and are often associated with widespread morbidity and mortality. Since July 2009, the country has been affected by a cholera outbreak that has spread across eight provinces in the country, with approximately 14 000 cases reported in health facilities and communities. Risk factors for cholera outbreaks have included: living in a settlement, poor access to safe water, poor defecation practices, and sharing a house with a case. Contaminated food and water are the major factors contributing to cholera and other disease outbreaks, with only 40% of the population using an improved drinking-water source and poor hygiene conditions resulting in unsafe food-handling practices.

Prior to the first outbreaks of pandemic influenza A(H1N1) 2009, concurrent outbreaks of shigellosis and influenza were associated with high morbidity and mortality across four provinces in zones with health system access limitations. Delayed reporting and response, as well as a lack of access to timely antimicrobial therapies were thought to have contributed to the impact of those outbreaks. The degree to which pandemic influenza impacted on Papua New Guinea is unknown, in part due to limited influenza surveillance capacity. In recent years, internally displaced persons, settlement dwellers, prisoners and other groups have been severely affected by communicable disease outbreaks and can be particularly vulnerable.

The country is strengthening core capacities in line with the International Health Regulations 2005 in order to better prepare for, identify, report, verify, assess and respond to public health events such as communicable disease outbreaks.

2.3 Leading causes of mortality and morbidity

Communicable diseases, including pneumonia, malaria, tuberculosis, diarrhoeal diseases, meningitis and, increasingly, HIV/AIDS, remain the leading causes of morbidity and account for around 50% of mortality. Information on the true impact of HIV on mortality and morbidity in Papua New Guinea is lacking, but AIDS-related death is now the leading cause of death in adult inpatients at the Port Moresby General Hospital.

Perinatal conditions account for over 10% of all recorded deaths and maternal mortality estimates are high and have increased in past years, indicating a decrease in access to quality health services.

The noncommunicable disease epidemic in Papua New Guinea is firmly established and increasing, but remains largely unrecognized in reported data. Tobacco-related and alcohol-related illnesses, diabetes and hypertension are on the increase, as are the three leading cancers (oral, hepatic and cervical), along with breast and lung cancers.

2.4 Maternal, child and infant diseases

Maternal and child morbidity and mortality are not improving. Maternal mortality estimates vary widely, but all are high. The 2006 Demographic and Health Survey established a maternal mortality ratio of 733 per 100 000 live births. The causes of maternal mortality include postpartum haemorrhage, puerperal sepsis, antepartum haemorrhage, eclampsia and anaemia. Almost 53% of pregnant women are cared for by trained health personnel and about 40% of births take place in health facilities. About 35.7% of women are using modern family planning methods.

Perinatal conditions account for over 10% of all recorded deaths. The infant mortality rate was estimated at 56.7 per 1000 live births for 2006, compared with 82 in 1991 and 72 from the 1981 National Census. Overall, 28% of children are considered to be moderately to severely malnourished and 31% of children aged 0–5 are stunted, while wasting is comparatively low. Again, there are marked regional variations.

Child health problems are being addressed through improved immunization, periodic supplementary immunization activities and the joint United Nations Children's Fund (UNICEF)/WHO child survival strategy, with a focus on the integrated management of childhood illness (IMCI) approach.

2.5 Burden of disease

The health status of Papua New Guineans, the lowest in the Pacific region, steadily improved during the 1980s before declining in the 1990s. Life expectancy (2007) is estimated to be 58.7 years for men and 63 years for women, and 15% of a woman's lifetime is estimated to be affected by some form of disability or morbidity. The estimations of mortality and morbidity patterns in the population are very approximate, as data are almost entirely facility-based and laboratory confirmation of clinical diagnoses is rare.

3. HEALTH SYSTEM

3.1 National Department of Health's mission, vision and objectives

The overall mission of the National Department of Health is to promote the physical, social, mental and spiritual well-being of people in their communities, and to promote and encourage the maintenance of community health at an acceptable level by planning and delivering preventive and curative medical and other health services.

The vision of the Department is of a nation of healthy individuals, families and communities where self-reliance prepares all for healthy living in a healthy island environment, with the ultimate goal of improving the health of all Papua New Guineans through the development of a health system that is responsive, effective, affordable, acceptable and accessible to the majority of people.

The Government is focusing its efforts on improving child health and reducing malaria, tuberculosis and HIV/AIDS through specific programmes. To be a nation of healthy individuals, families and communities, and in the spirit of the National Goals and Directive Principles, as enshrined in the National Constitution, Papua New Guineans strive for a future in which:

- fewer infants and children die before they have had a chance to experience life;
- fewer mothers die in childbirth from preventable causes;
- all Papua New Guineans have access to basic health care and good nutrition;
- fewer Papua New Guineans die from preventable and treatable diseases including malaria, pneumonia, tuberculosis, diarrhoea and HIV/AIDS;
- women and men live healthier, longer, productive lives and age with dignity;
- villages have safe drinking water and a clean environment; and
- individuals make informed choices as regards health behaviour.

3.2 Organization of health services and delivery systems

Health services are provided by government and church providers (both of which are financed primarily from public sector funds); enterprise-based services (e.g. the mines); a small, modern private sector; and traditional healers (undocumented amount). Within the public sector, management responsibility for hospitals and rural health services within provinces is divided. The National Department of Health manages the provincial hospitals, while provincial and local governments are responsible for all other services (health centres and subcentres, rural hospitals and aid posts), known collectively as 'rural health services'.

The National Health Conference 2001 supported a proposal to create a unified provincial health system. The proposal envisaged a single provincial health authority responsible for both hospital and rural health services, headed by a provincial director of health who would report to both the national and provincial governments. Thus far, this system has only been implemented in four provinces.

Strategies to ease managerial difficulties include: amendment of selected public finance and management procedures; quarantining (earmarking) of health funds in provincial grants; delegation of powers over district health staff from the provincial administrator to the provincial health adviser; and alignment of treasury warrants to provincial budgets. Stronger monitoring mechanisms are being developed. A review of functions has recommended that provincial health budgets should make provision for each rural health facility individually, which may have implications for the current budget structure if all resources going to facilities from several different programme heads are to be captured comprehensively. This too still needs to be actually put in place.

3.3 Health policy, planning and regulatory framework

The National Health Plan 2001-2010 and the Medium-Term Expenditure Framework 2005-2007, with its 2007-2009 update, identify some explicit priorities. These include maternal and child health, immunization, malaria control, TB DOTS, HIV/AIDS, and water and sanitation programmes. Work on the development of the next National Health Plan 2011-2020 has started.

3.4 Health care financing

Overall health spending is falling despite receiving a high share of government funds. Total health expenditure as a share of GDP rose steadily from 3.2% to 4.4% between 1997 and 2001. In 2009, however, it decreased back down to 3.1%, while total health expenditure per capita increased to US$ 39, from US$ 32 in 1997. Over 80% of recurrent provincial health budgets were allocated to salaries in 2006. Increased income from the mining sector in the same year provided for an additional US$ 60 million for the health sector, which allowed the undertaking of long-awaited renovation work in hospitals and the addressing of human resource issues, such as staff housing.

Papua New Guinea receives significant levels of official development assistance (ODA), estimated to have amounted to US$ 203 million, or 7.2% of GNP, in 2001. Over recent years, ODA for health has fluctuated, but has been around 24% (2004) of total health spending.

A major new source of funds for health was opened up in 2005 with the signing for a US$ 30 million grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) for the country's HIV/AIDS programme. In 2004, the Global Fund committed US$ 20 million for malaria over five years. A further proposal of US$ 21 million for TB was accepted in 2006 and, in 2008, a malaria proposal of over US$ 152.2 million.

Papua New Guinea does not have any form of private health insurance, although there is an initiative to introduce mandatory staff health insurance in the formal sector. In principle, health services are free. In most provinces, however, a fee is charged for outpatient visits. It is not clear in how much this acts as a deterrent to people accessing health services.

3.5 Human resources for health

The nurse-to-population ratio is estimated at 1:2271 population. An additional 600 nurses, 600 community health workers and 100 midwives are estimated to be needed to fill vacant posts, but current production rates are insufficient to fill the gaps. The doctor-to-population ratio is estimated at 1:19 399 population, the majority of doctors being in Port Moresby.

Churches are important providers of care, especially in rural areas, where they provide up to 80% of health services. They share many of the problems of public facilities, but appear to perform better in a number of areas. Papua New Guinea trains most of its health workforce and the churches run five of the seven nursing schools and all the community health worker training schools.

3.6 Partnerships

Papua New Guinea has relatively few development partners. According to statistics provided by the Organisation for Economic Co-operation and Development (OECD), 96% of ODA for health in 1998-2000 came from Australia. Since then, other major external agencies providing loans or grants have included: the Asian Development Bank (ADB); United Nations agencies, including WHO; and the governments of Japan (JICA) and New Zealand (NZAID). Smaller contributions have been made by the United States Agency for International Development (USAID), the European Union and the World Bank.

In the last few years, there have been major government and partner efforts to ensure a more unified approach to health sector development. The 2001-2010 National Health Plan was developed after extensive consultation. There is now one annual activity plan for the National Department of Health and all donor partners. A Medium-Term Expenditure Framework was developed for 2004-2006, and was further refined to become a rolling plan. There are formal annual reviews of achievements, most importantly by the National Health Conference, attended by the National Department of Health, donor partners, churches and provincial government staff. In 2004, two bilateral (AusAID, NZAID) and three multilateral partners (UNICEF, UNFPA and WHO) signed a 'partnership arrangement' with the National Department of Health, formally entering into a sectorwide approach called the Health Sector Improvement Programme (HSIP), which ADB joined in 2006. This arrangement, through its management structure, has clearly strengthened day-to-day operations and coordination among development partners and with the National Department of Health. A jointly managed and financed Independent Monitoring and Review Group, which spends a couple of weeks in-country twice a year, is a key instrument in assessing the performance of the health sector in general and interactions between development partners and the Government, mainly the National Department of Health. This group provides recommendations on lessons learnt and best practices and guides the discussion on strategy development for the health sector.

The Country Coordination Mechanism (CCM), a requirement of the Global Fund to execute programme activities, has had a further impact on overall cooperation between the different stakeholders in Papua New Guinea's health sector.

In 2006, under the leadership of the Resident Representative of the United Nations to Papua New Guinea, the EXCOM agencies (UNDP, UNICEF and UNFPA), as well as the other in-country and non-resident United Nations agencies (WHO, UNHCR, OCHA, UNIFEM, UNESCO and FAO), agreed to pilot a 'Delivering as one UN' approach in the country. Although Papua New Guinea (referred to as a 'self-starter') has not been formally included in the first eight pilot countries, there are indications that the Common United Nations Country Programme is more advanced in the process. The bearing of this on the health sector remains to be seen. Partners in the 'Delivering as one UN' approach are currently revising their four-year strategic plan (2012-2015), which includes the activities of the various agencies under three sub-task teams: maternal and child health, communicable diseases and health system strengthening.

3.7 Challenges to health system strengthening

Under the Organic Law on Provincial Governments and Local Level Governments, district and local governments are given responsibility to manage and support their health services, each level of government having different powers and functions in relation to health. The National Department of Health is responsible for policy, standards, training, medical supplies, specialist services, public hospitals and monitoring, while the provincial and local governments are responsible for implementation of health policies, standards and funding programmes. However, due to other district and local government priorities, almost all rural health services in the country are underfunded.

Nurses and community health workers form the backbone of primary health care services in rural areas, and both are considered to be in short supply and dramatically reduced. These shortages constitute a serious constraint in implementing the National Health Plan, including the priority programmes. Some provinces and many districts have no doctor.

The passing of the Organic Law exacerbated existing problems in health staff supervision and support. Provincial health advisers lost much of their authority to supervise and discipline district health staff. National Department of Health oversight of provincial staff is also limited. Reasons include the limited capacity of programme units at the central level; the lack of funds for travel; the lack of economies of scale through joint training and supervision across programmes; and delayed disbursement of funds. As a result, rural health services are poor and deteriorating.

A function and expenditure review in 2001 described the health system in rural areas as being in a state of "slow breakdown and collapse, currently being saved from complete collapse by donors". The review stated, "About 600 rural facilities are closed or not functioning effectively. Where services remain, the breadth and quality of the services are diminishing." This dire situation has worsened since then, and more facilities have closed down. In spite of the problem being acknowledged for some time, little has been done yet to seek redress. The scarcity and maldistribution of human resources for health has not been addressed effectively, and there have only been limited and not very coordinated efforts in training and other approaches to capacity-building. Recommendations from the Human Resources for Health Forum, conducted in 2008, included the urgent need to upscale health care worker training and to develop a human resource development plan. Action on these recommendations is still pending.

There has been no proper assessment of the national health information and surveillance system for many years, resulting in a lack of timely and reliable information for decision-making. The surveillance system is weak and there is a lack of capacity for conducting proper surveillance. Consequently, most information on communicable disease outbreaks comes from the media.

At all levels, there are very limited capacities for outbreak response, and current central government policy of putting a ceiling on staff numbers does not allow for recruitment of more staff for the health system, especially in the peripheral areas. The National Department of Health is making an effort to strengthen communicable disease surveillance and to build outbreak response capacities by re-establishing its Disease Control Branch and recruiting staff for communicable disease surveillance and outbreak response, but the process is still ongoing.

There is some laboratory capacity and a laboratory network in Papua New Guinea, but laboratory services are generally weak. The Central Public Health Laboratory (CPHL) in Port Moresby is responsible for overall coordination of operations for communicable disease diagnosis and surveillance, while the regional and provincial hospital laboratories form the backbone of the country's laboratory network. Some health centres also have some limited laboratory diagnostic capacities.

The Blood Transfusion Service has just been recognized as a specialized service in the health service and is now functioning under the guidance and direction of Curative Health, National Department of Health. The Blood Transfusion Service remains fragmented and hospital-based, and the network is very weak. However, there are about 34 blood centres in the country that cover all provincial hospitals and some other church-run semi-urban or district hospitals.

Medical supply and drug procurement and distribution face many challenges and 'stock-outs' are common occurrences. The distribution system is often dependent on ad hoc solutions. A 2006 survey showed a high level of susceptibility to corruption in the pharmaceutical sector. Although the necessary regulations are in place, they are not being enforced and there seems to be collusion between the approving and procuring authorities. There is anecdotal evidence that the prices paid for drugs may be up to several times higher than those available on international markets. In 2008, on the advice of an independent drug procurement mission, procurement was separated from the regulatory side in medical supply.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	2000 National Census
Operator	:	National Statistical Office (NSO)
Title 2	:	Papua New Guinea Demographic and Health Survey, 2006
Operator	:	National Statistical Office
Features	:	Includes information on health outcomes, family planning etc.

Title 3	:	*Millennium Development Goals progress report for Papua New Guinea 2004*.
Operator	:	Government of Papua New Guinea, United Nations in Papua New Guinea
Features	:	Tables, graphs and maps on MDG indicators by province
Title 4	:	Papua New Guinea National Department of Health Information System,
Operator	:	Monitoring and Research Branch
Features	:	Yearly compiled tables of all collected and compiled data by province
Title 5	:	*Papua New Guinea National Health Plan 2001-2010 (volume III)*
Features	:	Tables, graphs and maps of major health indicators by districts 1995 – 1999
Title 6	:	*Discharge reports 2004*
Operator	:	Monitoring and Research Branch National Department of Health
Features	:	Survey of compiled data drawn from health facility discharge reports
Title 7	:	*Annual Health Sector Review*
Operator	:	National Department of Health, Monitoring and Research Branch
Specification	:	Compiled Provincial Reports with tables and graphs on regularly collected indicators
Title 8	:	*National inventory of health facilities 2003*
Operator	:	National Department of Health
Features	:	Tables (& graphs) on staff and equipment of all health facilities as foreseen by the health coverage plan (gazetteer)
Title 9	:	*Medium Term Development Strategy 2005 - 2010*, (November 2004)
Operator	:	Department of National Planning and Rural development
Features	:	Financial information of all sectors, including health (Annex 1)
Title 10	:	*Report of the 2004 National Consensus Workshop of Papua New Guinea*
Operator	:	National AIDS Council / National Department of Health
Features	:	Tables and graphs on the HIV/AIDS situation in PNG
Title 11	:	*Strategic Plan 2006 – 2008, (formerly Medium Term Expenditure Framework)*
Operator	:	National Department of Health
Features	:	Outlines current situation and the way forward in priority areas in health
Title 12	:	Reports of the Independent Review Group, reports (Nov. 2005, May 2006 & Nov. 2006, May 2007 & November 2007)
Operator	:	National Department of Health with all Development Partners united under the Sector Wide Approach (Health Service Improvement Programme)
Features	:	Narratives on Health Sector Situation

5. ADDRESSES

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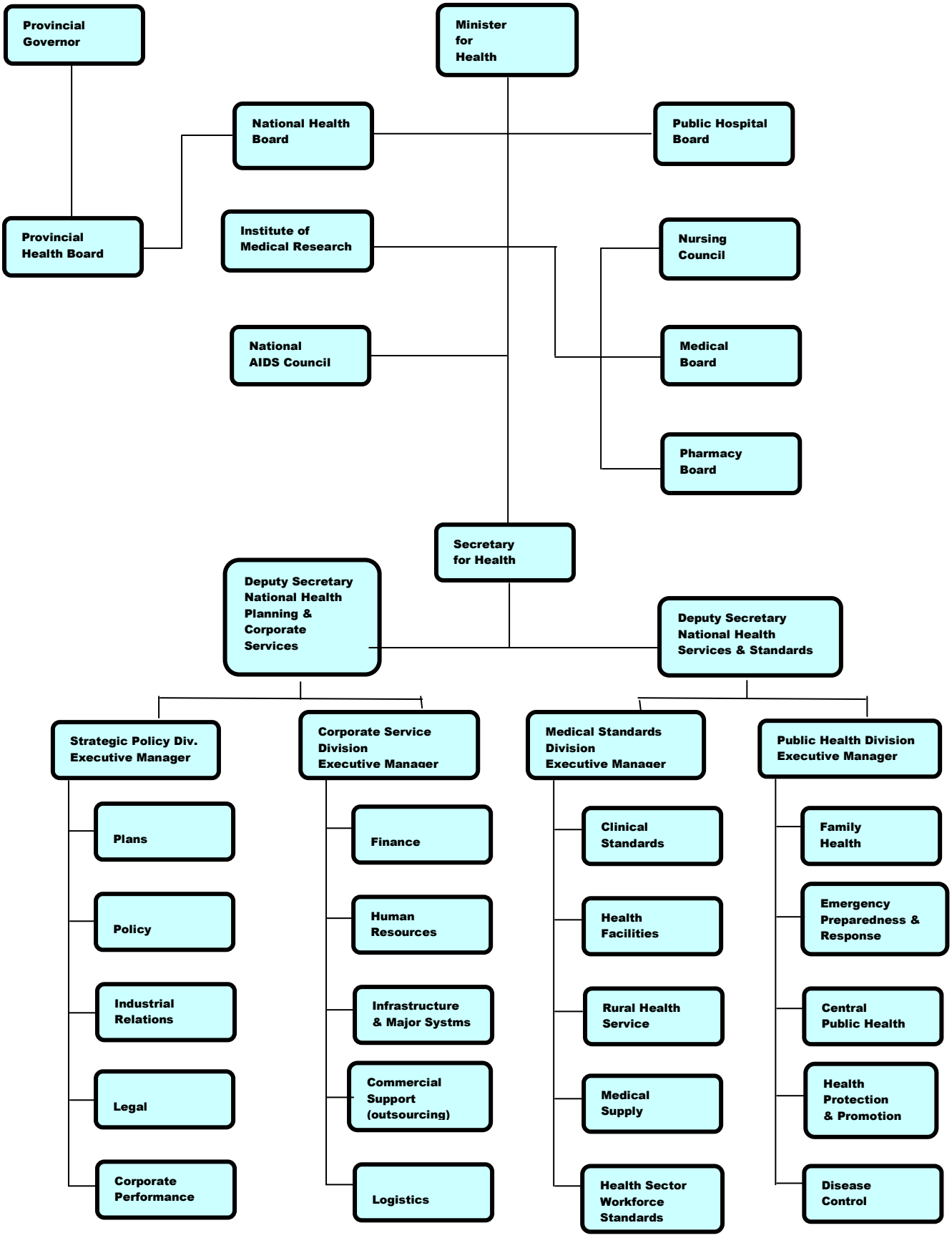
6. ORGANIZATIONAL CHART: National Department of Health



PAPUA NEW GUINEA

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	462.84						2010	1
2	**Estimated population ('000s)**	6744.96		3478.10		3266.85		2010 est	2
3	**Annual population growth rate (%)**	2.70		...		...		2009	3
4	**Percentage of population**								
	- 0–4 years	13.91		13.92		13.90		2010 est	2
	- 5–14 years	24.30		24.47		24.15		2010 est	2
	- 65 years and above	2.48		2.43		2.54		2010 est	2
5	**Urban population (%)**	12.50		...		...		2010 est	4
6	**Crude birth rate (per 1000 population)**	30.90		...		...		2010p	1
7	**Crude death rate (per 1000 population)**	9.60		...		...		2010p	1
8	**Rate of natural increase of population (% per annum)**	2.13		...		...		2010p	1
9	**Life expectancy (years)**								
	- at birth	63.00		62.00		65.00		2009 est	5
	- Healthy Life Expectancy (HALE) at age 60	...		...		...			
10	**Total fertility rate (women aged 15–49 years)**	4.00						2009	5
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	60.00		...		...		2000-08	5
12	**Per capita GDP at current market prices (US$)**	1172.32 [a]						2009p	6
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	0.43						2010	7
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	16	8	8	0	0	0	2008	3
	- Type B	37	19	18	4	1	3	2008	3
	- Type C	2	1	1	1	1	0	2008	3
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	14 000	...	...	...	...	...	2009	23
	Dengue/DHF	28 [b]	...	...	0	0	0	2007-08	8
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	...	...	...	..	...	...		
	Leprosy	281	186	95	...	...	...	2010	9
	Malaria	93 705	...	...	616	...	...	2010	9
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	2666	1264	1402	105	68	37	2008	10
17	**Acute respiratory infections**	...	...	...	...	...	...		
	- Among children under 5 years	21 053	...	...	551	...	...	2010	11

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	…	…	…	…	…	…		
	- Among children under 5 years	6282	…	…	173	…	…	2010	11
19	**Tuberculosis**								
	- All forms	12 306	…	…	1800 [f]	…	…	2009	9
	- New pulmonary tuberculosis (smear-positive)	2238	…	…	…	…	…	2009	9
20	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	…	…	…		
	- Breast	206	8	198	31	0	31	2008	10
	- Colon and rectum	69	44	25	8	6	2	2008	10
	- Cervix			621			35	2008	10
	- Leukaemia	71	43	28	30	18	12	2008	10
	- Lip, oral cavity and pharynx	346	195	151	0	0	0	2008	10
	- Liver	165	111	54	59	37	22	2008	10
	- Oesophagus	51	31	20	13	9	4	2008	10
	- Stomach	18	14	4	9	6	3	2008	10
	- Trachea, bronchus, and lung	23	15	8	11	5	6	2008	10
21	**Circulatory**								
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	80	66	14	13	7	6	2008	10
	- Cerebrovascular diseases	16	10	6	…	…	333	2008	10
	- Hypertension	524	256	268	39	25	14	2008	10
	- Ischaemic heart disease	20	17	3	…	…	333	2008	10
	- Rheumatic fever and rheumatic heart diseases	88	40	48	8	4	4	2008	10
22	**Diabetes mellitus**	397 [c]	229	165	49	21	28	2008	10
23	**Mental disorders**	499	323	176	9	7	2	2008	10
24	**Injuries**								
	All types	…	…	…	…	…	…		
	- Drowning	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Road traffic accidents	59 000	…	…	…	…	…	2008	3
	- Suicide	…	…	…	…	…	…		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Tuberculosis	73 000	…	…	1130.03 [a]	…	…	2008	8
	2. Normal deliveries (incl. BBA)	64 918		64 918	1004.92 [a]		2075.78 [a]	2008	8
	3. Pneumonia	23 291	12 958	10 333	360.54 [a]	388.49 [a]	330.40 [a]	2008	8
	4. Malaria	20 071	10 177	9894	310.70 [a]	305.12 [a]	316.36 [a]	2008	8
	5. Perinatal conditions	11 454	5986	5468	177.31 [a]	179.47 [a]	174.84 [a]	2008	8
	6. Direct obstetric causes	9273		9273	143.54489 [a]		296.5082 [a]	2008	8
	7. Diarrhoea	7803	4311	3492	120.78947 [a]	129.2484 [a]	111.6582 [a]	2008	8
	8. Diseases of the digestive system	7190	3449	3741	111.30031 [a]	103.4047 [a]	119.6201 [a]	2008	8
	9. Open wounds and injury to blood vessels	5993	3888	2105	92.770898 [a]	116.5664 [a]	67.30829 [a]	2008	8
	10. Anaemia	3760	1533	2227	58.204334 [a]	45.96097 [a]	71.20929 [a]	2008	8

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Perinatal conditions	824	460	364	12.76 [a]	13.79 [a]	11.64 [a]	2008	9
	2. Pneumonia	708	390	318	10.96 [a]	11.69 [a]	10.17 [a]	2008	9
	3. Malaria	582	303	279	9.01 [a]	9.08 [a]	8.92 [a]	2008	9
	4. Tuberculosis	534	288	246	8.27 [a]	8.63 [a]	7.87 [a]	2008	9
	5. Meningitis	379	200	179	5.87 [a]	6.00 [a]	5.72 [a]	2008	9
	6. Heart diseases	316	171	145	4.89 [a]	5.13 [a]	4.64 [a]	2008	9
	7. Diarrhoea	278	165	113	4.30 [a]	4.95 [a]	3.61 [a]	2008	9
	8. Diseases of the digestive system	266	172	94	4.12 [a]	5.16 [a]	3.01 [a]	2008	9
	9. Diseases of the digestive system	266	172	94	4.04 [a]	3.51 [a]	4.70 [a]	2008	9
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						35.70	2008	3
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						50.00	2010	9
29	**Percentage of pregnant women with anaemia**						40.30	2005	12
30	**Neonatal mortality rate (per 1000 live births)**		29.10 [a]		...		...	2006	13
31	**Percentage of newborn infants weighing less than 2500 g at birth**		9.40		...			2009	3
32	**Immunization coverage for infants (%)**								
	- BCG		80.00		...		...	2010	9
	- DTP3		70.00		...		...	2010	9
	- Hepatitis B III		89.00		...		...	2010	9
	- MCV2		...		...		...		
	- POL3		70.00		...		...	2010	9
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			3970			28	2008	10
	- Eclampsia			26			1	2008	10
	- Haemorrhage			381			10	2008	10
	- Obstructed labour			495			1	2008	10
	- Sepsis			657			20	2008	10
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	0	0	0	...	...	...	2010	9
	- Measles	0	0	0	...	...	...	2010	9
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	32	...	...	...	...	...	2010	9
	- Pertussis (whooping cough)	4949	...	...	...	...	...	2010	9
	- Poliomyelitis	0	0	0				2010	9
	- Rubella	5	...	...	...	...	...	2010	9
	- Total Tetanus	32	...	...	...	...	...	2010	9
	Health facilities								
35	**Facilities with HIV testing and counseling services**						256	2007	12

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	19	...	2003	13
		- Specialized hospitals	4	...	2003	13
		- District/first-level referral hospitals	201	...	2003	13
		- Primary health care centres	2875	...	2003	13
	Private health facilities	- Hospitals	3	...	2003	13
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			245.29 [a]	2009p	6
	- total expenditure on health as % of GDP			3.10	2009p	6
	- per capita total expenditure on health (in US$)			36.44 [a]	2009p	6
	Government expenditure on health					
	- amount (in million US$)			193.84 [a]	2009p	6
	- general government expenditure on health as % of total expenditure on health			79.00	2009p	6
	- general government expenditure on health as % of total general government expenditure			8.00	2009p	6
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			25.23 [a]	2009p	6
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			21.00	2009p	6
	- out-of-pocket expenditure on health as % of total expenditure on health			8.57 [a]	2009p	6
	Exchange rate in US$ of local currency is: 1 US$ =			2.76	2009p	6
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	333	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.05	...	...	...	...	...	...	2008	16
	Dentists	- Number	46	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.01	...	...	...	...	...	...	2008	16
	Pharmacists	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Nurses	- Number	2 844	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.44	...	...	...	...	...	...	2008	16
	Midwives	- Number	315	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.05	...	...	...	...	...	...	2008	16
	Paramedical staff	- Number	2262	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.35	...	...	...	...	...	...	2008	16
	Community health workers	- Number	3883	...	...	...	...	...	...	2008	16
		- Ratio per 1000 population	0.6	...	...	...	...	...	...	2008	16
40	**Annual number of graduates**	Physicians	36	...	...	...	...	...	...	2008	17
		Dentists	5	...	...	...	...	...	...	2008	17
		Pharmacists	20	...	...	...	...	...	...	2008	17

INDICATORS			DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	64 [d]	...	...	...	...	...	...	2008	17
		Paramedical staff	73	...	...	...	...	...	...	2008	17
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

INDICATORS		DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	28.00	...	...	2007	11
43	Infant mortality rate (per 1000 live births)	56.70	...	...	2006	13
44	Under-five mortality rate (per 1000 live births)	74.70	...	...	2006	13
45	Proportion of 1 year-old children immunised against measles	59.00	...	...	2010	9
46	Maternal mortality ratio (per 100 000 live births)	733.00			2006	13
47	Proportion of births attended by skilled health personnel	...				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	40.00			2009	3
48	Contraceptive prevalence rate	32.00 [e]	...	...	2006	13
49	Adolescent birth rate	12.90			2006	13
50	Antenatal care coverage - At least one visit	60.00			2008	11
	- At least four visits	28.76			2008	11
51	Unmet need for family planning	...	...	29.80	2006	13
52	HIV prevalence among population aged 15-24 years	0.80	...	...	2010	18
53	Estimated HIV prevalence in adults	0.90 [e]	...	...	2009	19
54	Percentage of people with advanced HIV infection receiving ART	0.64	...	...	2010	20
55	Malaria incidence rate per 100 000 population	1396.91	...	...	2009	9
56	Malaria death rate per 100 000 population	9.18	...	...	2009	9
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	32.50	...	...	2008-09	21
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	38.80	...	...	2008-09	21
59	Tuberculosis prevalence rate per 100 000 population	337.00	...	...	2009	9
60	Tuberculosis death rate per 100 000 population	26.00	...	...	2009	9
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	73.00	...	...	2009	9
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	64.00	...	...	2008	9
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	40.00	87.00	33.00	2008	22
64	Proportion of population using an improved sanitation facility	45.00	71.00	41.00	2008	22
65	Proportion of population with access to affordable essential drugs on a sustainable basis	50.00	...	...	2008	3

Notes:	
…	Data not available
est	Estimate
p	Provisional
NR	Not relevant
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Laboratory confimed
c	Totals may not tally due to some reported cases with no gender breakdown
d	Due to non-accreditation of the programs, no graduates are eligible for registration unless they undertake further training and competency assessment
e	Revised data
f	Estimated number of deaths

Sources:	
1	2011 Population and Demographic indicators. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/]
2	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=158&Itemid=&lang=en]
3	2001-2009 Health Sector Review, National Department of Health, May 2009
4	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
5	World Health Statistics 2011. Geneva, World Health Organization, 2011.
6	National health accounts: country information. Geneva, World Health Organization. Accessed in March 2010 from [http://www.who.int/nha/country/en/index.html]
7	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
8	Papua New Guinea Institute of Medical Research Reporting Form, 2007-08
9	WHO Regional Office for the Western Pacific, data received from the technical units
10	Discharge reports 2008, Monitoring and research branch
11	Information system, monitoring and research branch. Papua New Guinea National Department of Health (NHIS)
12	Papua New Guinea National Nutrition Survey, PNG National Department of Health.
13	Demographic Health Survey 2006, Papua New Guinea National Statistical Office - Preliminary results.
14	Technical Unit National Department of Health, Disease Control Branch.
15	National Inventory of Health Facilities 2003.
16	Human Resources for Health Forum Data, Port Moresby, May 2008.
17	Human Resources Branch, National Department of Health, Papua New Guinea.
18	PNG UNGASS report 2010.
19	PNG Estimation and Projection of HIV report, June 2010
20	PNG Universal Access Report 2010
21	Papua New Guinea Institute of Medical Research, Sentinel Site Report 2008/2009 Papua New Guinea Institute of Medical Research, PNG/The Global Fund Round 3 Malaria Control Programme Evaluation 2008/2009
22	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
23	Information furnished by the WR Papua New Guinea Office dated May 2011.

PHILIPPINES

1. CONTEXT

1.1 Demographics

The population of the Philippines, as of the last census in 2007, numbered 88 574 614, with a population density of 295 per square kilometre. This translates to an average annual population growth rate of 2.0% for the period from 2000 to 2007, which was the lowest annual population growth rate recorded for the Philippines since the 1960s.

The country's projected population for 2010 was 94 013 200. It is predominantly young, with the 0-14 years age group representing 33.8% and those aged 65 years and above comprising only 4.4%. There are almost equal numbers of males and females. The crude birth rate is 19.7 per 1000 midyear population and the crude death rate is 5.0 per 1000 midyear population. Life expectancy for both sexes was 70 years in 2009: 67 for males and 73 for females.

1.2 Political situation

The Philippines is a democratic and republican state subscribing to the presidential form of government. There are three branches of government—the executive, legislative and judicial. The country has a unitary form of government and a multiparty political system. Executive power is vested in the President, who is the head of state and commander-in-chief of the armed forces. The Cabinet members are the heads of agencies and assist the President in drafting executive laws, policies and government programmes. The Constitution ensures direct election by the people for all elective positions from the President down to members of the *barangay* (village) councils.

In 1991, the Local Government Code transferred some of the powers of the national government to local government officials. The Code devolved basic services, including health, giving responsibility to local government units (LGUs). The country is made up of political local government units of provinces, cities, municipalities and *barangays*. A local chief executive heads each LGU. Administrative autonomy enables the LGUs to raise local revenues, to borrow and to determine types of local expenditure, including expenditure on health care.

Since May 2010, the country has been under a new administration led by President Benigno "Noynoy" Aquino III, the 15th President of the Republic.

1.3 Socioeconomic situation

Over the last decade, the Philippine economy has posted significant economic growth. Gross national product (GNP) grew by an average of 5% per year during the period from 2000 to 2009, with growth peaking in 2007, when the economy grew by 7.5%. It even posted a growth rate of 6.2% in 2008, the year when there were food and fuel price shocks globally. In 2009, a slowdown in economic growth started. The 5% growth in remittances recorded in 2009 was significantly lower than the 13% growth registered in 2007 and 2008. This led to GNP growing by 3% while gross domestic product (GDP) grew by only 0.9%. Data for 2010 suggest that the economy is on its way to recovery. GDP and GNP grew by 7.3% and 9.5% during the first quarter of 2010, with all sectors, except agriculture, posting significant growth. The rebound was spurred on by the global economic recovery, election-related stimuli and the continuous growth of remittances from Filipino workers overseas. With the population still increasing at more than 2% per year, however, per-capita incomes rose by only 20% in real terms from 1981 to 2009.

Despite economic gains, a significant proportion of the population has remained poor over the past two decades. In 2006, poverty incidence went up slightly, primarily due to inflationary pressures. In the aftermath of the global financial and economic crisis (which reached the country in the latter part of 2008) and with natural calamities like the destructive typhoons Ondoy and Pepeng (in October 2009), followed by the El Niño phenomenon (that emerged in the latter part of 2009), further worsening of poverty was expected in 2009.

President Benigno S. Aquino III, on assuming leadership of the country, embarked on a programme based on a so-called "Social Contract with the Filipino People", wherein he articulated a commitment to transformational leadership, institutional reform, economic stability and inclusive growth. The Philippine Development Plan for 2011-2016 centres on five key strategies: boosting competitiveness in the productive sectors to generate massive employment; improving access to financing to address the evolving needs of a diverse public; investing massively in infrastructure; promoting transparent and responsive governance; and lastly, developing human resources through improved social services and protection.

Previous governments have devoted considerable resources to delivery of social services to those lacking access to health care and education. However, poor households in isolated areas face difficulties in going to health centres and schools, even when services are offered free or at highly subsidized rates. Clearly, poor infrastructure provision, aside from being a hindrance to investment and business activity, also prevents physical access to basic services.

In terms of gender and development, women are becoming more empowered through political and economic participation, and are becoming more visible as leaders and thus more involved in policy decision-making at both the national and local levels. There are also more female workers deployed abroad to work for the welfare of their families. More often than not, however, they tend to accept jobs that are usually not commensurate with their educational attainment, such as domestic workers, caregivers, entertainers, clerical staff or factory workers.

1.4 Risks, vulnerabilities and hazards

Due to its geographical location along the so-called Pacific Ring of Fire and the typhoon belt, the country faces various natural disasters such as typhoons, landslides, volcanic eruptions and earthquakes. Since 2006, the Philippines has consistently been among those countries around the world most often hit by natural disasters and, in 2009, it topped the list, ranking third in terms of mortality (1334 deaths) and second in terms of number of victims (13.4 millions).[1] At the same time, the chronic emergency due to armed conflict in Mindanao has been ongoing for more than four decades. Intensification of fighting alternating with periods of relative calm has led to displacement of those in affected communities, and currently there are around 24 000 individuals seeking refuge in evacuation centres and host communities. Recent flooding in several provinces in Mindanao affected more that 600 000 people and displaced more than 10 000 families.

Environment-related health risks have also been cited as a significant problem, with air pollution, water pollution, poor sanitation and unhygienic practices, and mismanagement of solid wastes, among others, contributing to an estimated 22% of reported cases of disease and nearly 6% of reported deaths, and costing around Php 14.3 billion (US$ 287 million) per year in lost income and medical expenses.

Most regions in the country point to the transport sector as the major source of air pollution. It has been estimated that 21% of the pollutants come from stationary sources, 65% from mobile sources, and the remaining 14% from area sources. Carbon monoxide (CO) contributes the biggest pollution load (50%), mainly due to the increasing numbers of gasoline-fed vehicles, including cars (13.6%) and motorcycles/tricycles (47.9%).

Each Filipino generates between 0.3 kg and 0.7 kg of solid waste daily, with the National Capital Region (NCR) posting the highest rate per capita per day, and the Autonomous Region of Muslim Mindanao the lowest. Total waste generation amounts to 35 154 tons per day, or 12.8 million tons every year. Compliance with the Ecological Solid Waste Management Act, however, has been weak, and its targets have yet to be attained: (1) Only 338 LGUs (20.9% of the 1610 cities and municipalities) have completed their solid waste management plans. In Metro Manila, only eight out of 17 cities and municipalities (47%) have complete plans; (2) Nationwide, only 7680 out of 42 000 *barangays* are covered by materials recovery facilities (MRFs), giving a compliance rate of 18.3%. In Metro Manila, 685 out of 897 *barangays* are covered by MRFs, giving a compliance rate of 76%; and (3) Of the 1205 disposal facilities in the country, 1172 are open and controlled dumpsites, and only 33 are sanitary landfills serving 75 LGUs nationwide, giving a compliance rate of only 2.7%. In Metro Manila, there are two disposal facilities. There is a controlled dumpsite in Payatas, which was scheduled for closure by the end of 2010; the other is a sanitary landfill in Navotas. Most Metro Manila LGUs dispose of their residual wastes in sanitary landfills outside the metropolitan area.

[1] *Annual disaster statistical review 2009*. Centre for Research on the Epidemiology of Disasters

In addition, the around 1461 public and private hospitals nationwide (approximate capacity of 44 296 beds), generate 28 000 kg of health care waste (HCW) per day at an average of 0.3 kg per bed capacity per day. There are also around 393 public hospitals, with an approximate capacity of 44 000 beds, generating 13 200 kg of HCW per day. The NCR has the largest bed capacity (approximately 30 000 beds), which can generate 9000 kg of HCW per day. The volume does not include the waste from small clinics, stand-alone laboratories, research laboratories, municipal health centres and *barangay* health stations, which generate mostly general or domestic health care waste. The general distribution of health care waste is as follows: general or domestic waste (80%); pathological and infectious waste (15%); chemical and pharmaceutical waste (3%); sharps (1%); radioactive waste, cystostatic waste, pressurized containers, broken thermometers and used batteries (less than 1%).

Of the 72 hospitals managed by the Department of Health, 30% are located in Metro Manila and contract out their waste treatment and disposal requirements. Most use chemical disinfection for waste treatment and have limited or no access to a sanitary landfill for the final disposal of treated waste. Of these same 72 hospitals, 90% have existing sewage treatment plants or are currently in the process of installing such facilities.

The degradation of the environment aggravates the impacts of disasters and climate change. Deforestation increases the chance of landslides. The risk of drought and poor availability of water are aggravated by the loss of forest cover[1]. Depleted mangrove reserves deprive coastal communities of natural protection from storm surges. Uncontrolled urban growth, coupled with poor land-use planning, results in encroachment on protected forests or danger zones like riverbanks. Together with shortfalls in basic services, such as proper waste disposal and decent housing, these result in clogged waterways and increased flood risk.

In its scenarios for 2020 to 2050, the Department of Science and Technology-Philippine Atmospheric, Geophysical and Astronomical Services Administration (DOST-PAGASA) projects widespread warming in most parts of the country. The number of days with maximum temperature in excess of 35˚C is expected to increase in all parts of the country within that period. Projected seasonal mean temperatures are expected to rise by about 0.5˚C - 0.9˚C for 2020 and by 1.2˚C - 2.0˚C by 2050. Extreme rainfall is also projected to increase in Luzon and Visayas, while a decreasing trend is projected in Mindanao.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

National HIV prevalence remains under 0.1% on average, but is rapidly expanding among key populations, such as men who have sex with men, with a prevalence rate of 6% in the 2011 Integrated HIV Behavioral and Serologic Surveillance (IHBSS), and injecting drug users, with a rate of 53% in the 2011 Respondent Driven Sampling in Cebu City.

The number of cases reported in the AIDS Registry has been increasing gradually and has shown a steep increase in the last four years, from an average of less than one case a day in 2006 to five cases a day in 2010, and six cases per day in the first two quarters of 2011.

Among the reported cases, sex is still main the mode of transmission, but it has shifted from heterosexual to homosexual and bisexual transmissions, accounting for up to 80% in 2010.

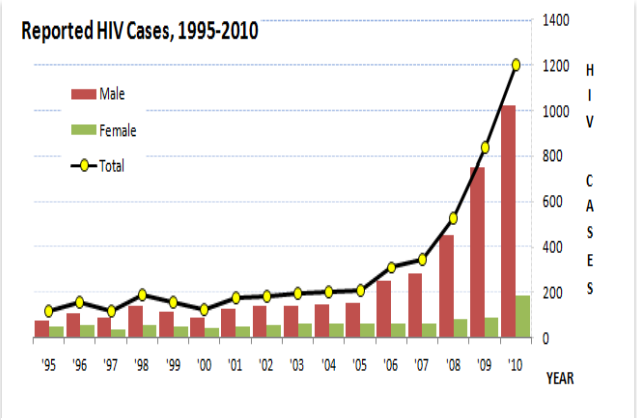


Figure 1. AIDS Registry, Department of Health-NEC, 2010

Tuberculosis continues to plague a sizeable segment of the population although, in recent years, effective case-finding, disease management using the directly observed treatment, short-course (DOTS) strategy, and partnership with the private sector have made inroads in the prevention and control of the disease.

[1] Philippine Development Plan 2011-2016.

Vectorborne diseases, such as malaria, dengue and filariasis, are an ever-present danger. Although malaria is no longer a leading cause of death[1], it continues to threaten the lives of about 12 million Filipinos in the 58 endemic provinces. In 2010, there were 17 008 cases and 19 deaths reported. Commonly affected population groups are farmers relying on forest products, migrant workers, indigenous cultural groups, settlers in frontier areas, soldiers, communities affected by armed conflicts and pregnant women and children. Early diagnosis and prompt treatment, as well as and the use of insecticide-treated nets, are the interventions being used for control and elimination of malaria, while indoor residual spraying is adopted in areas where the use of nets is not culturally acceptable, for displaced populations and in epidemic situations.

Dengue fever also remains a threat, with cyclical outbreaks every three to five years. In 2010, a total of 135 355 cases of dengue and 793 related deaths were reported, with a case fatality rate of 0.6%. The age group with the highest (78%) number of cases was 1-20 year-olds and a case fatality ratio greater than 1 was noted in those less than one year of age.

Soil-transmitted helminths are endemic nationwide, with a prevalence rate of 6%-97% among children aged six to 14 years and 66% among those aged one to five years.[2] Schistosomiasis is endemic in 28 provinces, with a prevalence rate of 0.04 to 3.95 per 100 000. The population at risk is estimated to be 12 million, with 2.5 million people directly exposed to schistosomiasis infection.

The Asia-Pacific Region has been the epicentre of some recent emerging infectious diseases like SARS and highly pathogenic influenza A (H5N1), and the threat of emerging diseases continues. Pandemic influenza A (H1N1) 2009 virus is still circulating, while highly pathogenic influenza A (H5N1) is still a threat to the Philippines since almost all neighbouring countries are affected and are continuously harbouring the disease. In 2010, a total of 82 621 influenza-like illness were reported to Department of Health, 16% (132) of which were laboratory-confirmed as influenza A(H1N1). There was no fatality reported among the positive A(H1N1) cases. The Philippines recently reported Ebola Reston in both pigs and humans. Ebola Reston in pigs is new and therefore the risk to humans is uncertain. Further research is needed.

Mortality and morbidity rates for noncommunicable diseases have been increasing steadily since the 1970s. In 1990, diseases of the heart dislodged infectious diseases as the leading cause of mortality. Latest statistics (2005) show that cardiovascular diseases, cancers, chronic respiratory diseases and diabetes continue to be among the country's top 10 killers. Hypertension ranked fourth among the ten leading causes of illness in 2009.

Noncommunicable diseases are often linked by common preventable risk factors related to lifestyle, including tobacco use, unhealthy diet, physical inactivity and alcohol use. In a study conducted by the Food and Nutrition Research Institute (FNRI) in 2003, it was found that 90% of Filipinos had one or more of the following risk factors: physical inactivity, smoking, obesity, hypertension, diabetes and abnormal cholesterol. Alarmingly, more and more children and adolescents are becoming exposed to NCD risks. The latest FNRI study, carried out in 2008, shows the prevalence of NCD risk factors among adults as follows: hypertension (25%), overweight (27%), high blood sugar (5%) and abnormal cholesterol levels (10%). It is also estimated that about two-thirds (60%) of adults are physically inactive. The obesity trend is also catching up with the young. Prevalence of overweight among adolescents aged 9-11 years doubled from 2.4% in 1993 to 4.8% in 2005. Similarly, the prevalence rate of overweight for children aged 6-10 years doubled from 0.8% in 2001 to 1.6% in 2005. Numerous studies have shown a tendency for obese children to remain obese in adulthood. It is also estimated that about 2% of teenage students are overweight and 30% are physically inactive, spending three or more hours each day in sedentary activities.

The 2009 Global Adult Survey revealed that 28.3% of adults currently smoked (47.7% males and 9% females), 36.9% were exposed to tobacco smoke in enclosed areas at their workplace, and 54.4% were exposed to smoke at home. Of the smokers, 22.5% smoked daily (38.2% men and 6.9% women), 27% smoked manufactured cigarettes (46.6% men and 7.5% women) and 21.5% of ever-daily smokers had quit during the previous year. The average number of cigarettes consumed per day by daily cigarette smokers was 10.6 (11.3 for males and 7 for females). Smokeless tobacco users accounted for 2% (2.8% men and 1.2% women). The average age of initiation of daily smoking was 17.6 (17.4 for men and 19.1 for women). Among adults, 20% were overweight and 5% were

[1] Field Health Service Information System, 2007. Department of Health, Philippines.
[2] Centers for Disease Control, 2002; UNICEF, 2004.

obese, 22.5% were hypertensive, 60.5% were physically inactive, and a significant number had high blood cholesterol and sugar.

At the same time, the 2007 Global Youth Tobacco Survey showed that 21.7% of students in second to fourth year of high school (29.3% male, 13.8% females) smoked cigarettes; 57.8% were living in homes where others smoked in their presence; 67.9% were around others who smoked in places outside their homes; and 64% of those who bought cigarettes in a store were not refused because of their age.

2.2 Outbreaks of communicable diseases

A total of 135 355 dengue cases were reported from different disease-reporting units nationwide between 1 January and 31 December 2010, 234.1% higher than during the same period in 2009 (57 819). The age group with the highest (44.6%) number of cases was 5-14 year-olds. Most (15.8%) of the cases were from region VI. Of the total number of cases, there were 793 fatalities (CFR 0.59%)

Outbreaks of diarrhoeal diseases are common in several areas of the country and are almost always related to a contaminated water supply. Most outbreaks are caused by cholera and salmonella. There were 33 confirmed cholera cases reported in 2010 nationwide, 15-24 year-olds being the age group with the highest number of reported cases (24.2%). Most of the cases were from the National Capital Region.

Pandemic influenza reached the Philippines in 21 May 2009 when the first case was reported and confirmed as the 2009 pandemic H1N1 strain. A total of 5469 confirmed cases and 32 deaths were recorded up to the end of 2009. For 2010, 132 cases were laboratory-confirmed, accounting for 16% of the 82 621 influenza-like illness reported to Department of Health. There was no fatality reported among the positive cases.

Also in 2009, an outbreak of leptospirosis, post-typhoon, affected the National Capital Region, the Southern Tagalog Region and the Ilocos Region. The extensive flooding of many areas of the above-mentioned regions caused the outbreak, which resulted in higher-than-expected numbers of cases and deaths compared with previous rainy seasons. There were 5384 suspected leptospirosis cases reported nationwide, of which 323 died (CFR 6%). The majority of the cases were male (86%). The age group with the highest number of cases was the 25-39 years age group. Most of the cases were from National Capital Region (41.3%). For 2010, there were only 1281 suspected leptospirosis cases reported, with 85 fatalities (CFR 6.6%). Most of the cases were from Region 3.

Since January 2010, large measles outbreaks have been reported nationwide. A total of 10 051 suspected measles cases have been reported, of which 3254 have been clinically confirmed, 140 epidemiologically confirmed, and 2655 laboratory-confirmed. The number of reported cases started to decline after March 2010. Monthly cases vary among regions, with NCR and Regions IVA, V and III having the highest numbers of cases. Of the confirmed cases, 30 have died (CFR 0.50%), the highest fatality rate belonging to children less than nine months of age (CFR 1.33%).

2.3 Leading causes of mortality and morbidity

Noncommunicable diseases (NCD) are considered a major public health concern in the Philippines, accounting for six of the top 10 causes of death. Diseases of the heart and vascular system are the leading causes of mortality, comprising nearly one-third (31%) of all deaths. Other NCD topping the list include malignant neoplasms, chronic obstructive pulmonary disease (COPD), diabetes mellitus, and kidney disease.

Accidents of all types, including road traffic crashes, rank 10th among the causes of mortality for all age groups. Road traffic accidents constitute the fifth leading cause of injury death, with a mortality rate of 39.1/100 000. Among children aged 0-17 years, it is the second leading cause of injury death (mortality rate of 5.85/100 000), next to drowning.

Seven of the 10 leading causes of morbidity in 2009 are caused by infections. They are: acute respiratory infection; pneumonia; bronchitis/bronchiolitis; acute watery diarrhoea; influenza; urinary tract infection and tuberculosis. Among these communicable diseases, pneumonia and tuberculosis continue to be among the 10 leading causes of mortality, causing a significant number of deaths across the country.

At the same time as deaths due to preventable diseases have been in a decline, lifestyle-related diseases have begun to dominate in the leading causes of death, particularly heart diseases, diseases of the vascular system, malignant

neoplasms, diabetes mellitus, and chronic lower respiratory diseases. However, certain conditions originating in the perinatal period are also among the 10 leading causes of mortality, illustrating the vulnerability of the newborn child.

Accidents and injuries, other leading causes of death, are among the neglected conditions of public health importance. Between 1980 and 1996, the mortality rate for accidents increased gradually from 18.7 deaths per 100 000 population to 23 per 100 000. An abrupt increase has been observed since then, reaching a level of 39.1 per 100 000 in 2005, almost double the 1996 rate.

2.4 Maternal, child and infant diseases

The Philippines is one of 55 countries accounting for 94% of all maternal deaths in the world and is statistically off-track for achievement of MDG 5 by 2015, with a maternal mortality ratio (MMR) of 162 per 100 000 live births. Maternal deaths are closely linked with neonatal deaths.

Thirty-seven per cent of all pregnancies every year are unintended, resulting in women having one-third more children than they desire and one-third being born less than two years apart. The updated abortion rate is 27 per 1000 women aged 15–44 per year. Among completed pregnancies, the majority (56%) of deliveries are still home-based, 38% of them attended by an unskilled attendant. Facility-based deliveries and skilled birth attendance are disproportionately in favour of those in the higher wealth quintiles.

The vast majority of maternal deaths are due to haemorrhage, hypertensive diseases, sepsis, obstructed labour and problems related to abortion, all conditions that are treatable if deliveries are attended by skilled health workers. They would also be less prevalent if mothers had only their desired number of children, spaced by at least two years.

The Philippines is also one of 42 countries accounting for 90% of global under-five deaths. The under-five mortality rate (U5MR) is currently 34 per 1000 live births. While the probability of reducing the U5MR by two-thirds by 2015 is considered highly probable, it may not be realized unless deaths during the first 28 days (neonatal period) are dealt with, as they account for 47% of deaths among the under-fives (16 per 1000 live births). Approximately, 75% of neonatal deaths occur during the first seven days of life. Progress to curtail neonatal deaths is dismal, with death rates among this age group remaining statistically unchanged over the past 20 years. The leading causes of under-five mortality are neonatal problems, pneumonia and diarrhoea. The causes of neonatal death are mostly preventable: complications of prematurity, sepsis or pneumonia and asphyxia.

Undernutrition remains a challenge. In 2008, the prevalence of underweight preschool children (0-5 years) was 26.2%, while 27.9% were stunted, 6.1% were considered thin and 2.0% were overweight. According to the 2008 National Demographic and Health Survey (NDHS), 19.6% of babies have a low birth weight.

Exclusive breastfeeding continues to decline, with only 34.0% of children exclusively breastfed up to less than six months of age.

Other nutritional challenges faced by the Filipino child include:

- Anaemia: Prevalence rates among children aged 6-12 months remains high at 55.7%[1]. Anaemia in children aged 6-12 years declined from 37.4% in 2003 to 19.8% in 2008.
- Vitamin A deficiency: The level among children aged six months to five years increased from 35% in 1993 to 40% in 2003.
- Iodine deficiency: According to the 2008 National Nutrition Survey, the iodine status of children aged 6-12 years and 13-19 years is optimal, as indicated by median UIEs. However, localized areas of iodine deficiency still exist. In the following regions, median UIEs are indicative of iodine deficiency: Mimaropa, Soccksargen, Central Visayas and Western Visayas Regions (6-12 year-olds); and Caraga and Eastern Visayas Region (13-19 year-olds).

The 2008 NDHS showed an historic 10% rise in the number of fully immunized children and a 13% rise in the number of children protected at birth against neonatal tetanus. Local surveys have revealed that children born in

[1] *2008 National Nutrition Survey*. Food and Nutrition Research Institute, Department of Science and Technology, Manila.

hospital and receiving a birth dose of hepatitis B vaccine within 24 hours of life rose from 0% in 2007 to 70% in 2008 and 2009.

2.5 Burden of disease

The Philippines is still facing a double burden of disease. Outbreaks of communicable diseases remain a public health problem, while noncommunicable diseases are on the rise, contributing to almost all the top 10 causes of mortality in the country. This double burden has been affecting the country for more than two decades.

Tuberculosis is still among the leading causes of morbidity and mortality. The country has the ninth highest TB incidence in the world and the second highest in the Western Pacific Region. The WHO-estimated prevalence for all forms of TB in the country was 520 per 100 000 population in 2009. In the same year, the estimated mortality caused by TB was 35 per 100 000 population. The Drug Resistance Survey (DRS) conducted in 2004 revealed a primary multidrug-resistant tuberculosis (MDR-TB) rate of 3.8% and an acquired MDR-TB rate of 20.9%. As a result, there are expected to be approximately 6300 smear-positive MDR-TB cases annually. The TB burden is disproportionately high among the poor, the elderly and the male population, although the death rate is highest among older persons. Since TB principally affects the productive age group, it is estimated that the country loses some Php 26 billion (US$ 540 million) annually due to TB-related premature deaths.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Under the new administration, the Department of Health is focusing its "Aquino Health Agenda" (AHA) on the achievement of "universal health care." Under administrative order 0036, the AHA was launched to "improve, streamline and scale up reform interventions espoused in the HSRA [Health Sector Reform Agenda] and implemented under Fl [FOURmula One]." Accordingly, there will be a deliberate focus on the poor, such that implementation of health reforms moves forward with nobody left behind, and that inequities in health outcomes are addressed by ensuring that all Filipinos, especially those belonging to the lowest two income quintiles, have equitable access to quality health care.

Consistent with the World Health Report 2010, the Philippines has identified health care financing as its path and driver to the attainment of universal health coverage. Under the AHA, the National Health Insurance Program (NHIP) is the prime mover in improving financial risk protection, generating resources to modemize and sustain health facilities, and improving the provision of public health services to achieve the Millennium Development Goals (MDGs).

To achieve universal health coverage, the Department of Health has identified the following three strategic thrusts:

(1) Financial risk protection through expansion of NHIP enrollment and benefit delivery, whereby he poor are to be protected from the financial impacts of health care use by improving the benefit delivery ratio of the NHIP.
(2) Improved access to quality hospitals and health care facilities. Government-owned and operated hospitals and health facilities will be upgraded to expand capacity and provide quality services to help attain the MDGs, attend to traumatic injuries and other types of emergencies, and manage noncommunicable diseases and their complications.
(3) Attainment of the health-related MDGs. Public health programmes will be focused on reducing: maternal and child mortality, morbidity and mortality from TB and malaria, and the prevalence of HIV/AIDS, in addition to being prepared for emerging disease trends, and prevention and control of noncommunicable diseases.

The national policy on universal health coverage also stipulates that the following six strategic instruments will be optimized to achieve the above-mentioned thrusts:

(1) Health financing, as the instrument to increase resources for health that will be allocated and utilized effectively to improve the financial protection of the poor and the vulnerable.
(2) Service delivery, as the instrument to transform the health service delivery structure to address variations in health service utilization and health outcomes across socioeconomic variables.

(3) Policy, standards and regulation, as the instrument to ensure equitable access to health services, essential medicines and technologies of assured quality, availability and safety.
(4) Governance for health, as the instrument to establish the mechanisms for efficiency, transparency and accountability, and to prevent opportunities for fraud.
(5) Human resources for health, as the instrument to ensure that all Filipinos have access to professional health care providers capable of meeting their health needs at the appropriate level of care.
(6) Health information, as the instrument to establish a modern information system that will provide evidence for policy and programme development in a timely manner, as well as facilitate support for immediate and efficient provision of health care and management of provincewide health systems.

Efficiency in implementation, through integration of health service delivery and harmonization of systems and processes, is being promoted. Implementation of reforms also follows a sectorwide approach, covering the entire health sector, and an investment portfolio that encompasses all sources. The capacities of LGUs are being enhanced to improve public health conditions in their respective jurisdictions. The national Government, on the other hand, maintains institutional influence over the LGUs by leveraging with incentives and regulatory functions.

3.2 Organization of health services and delivery systems

The power of the Department of Health diminished significantly with the transfer of responsibility for health to about 1600 LGUs under the Local Government Code of 1991. With the devolution of health services to LGUs, fragmentation of services became evident. The provincial governments now oversee provincial and district hospitals, while the municipal governments manage rural health units (RHUs) and *barangay* (village) health stations. The Department of Health, however, maintains specialty hospitals, regional hospitals and medical centres. Sub-national Department of Health offices or "centres for health development" are located in 16 regions.

Service provision is regarded as 'dual', consisting of both the public and private sectors. The public sector has three largely independent segments or sets of providers: (1) national government providers, which include, among others, hospitals run by national government agencies (e.g., hospitals of the Department of Health and the Department of National Defense), and central and regional offices of the Department of Health; (2) provincial government providers, which include provincial hospitals, provincial blood banks and the provincial health offices; and (3) local (municipal or city) government providers, including rural health units or RHUs, city health centers and *barangay* health stations or BHSs. Each BHS is staffed by a midwife, and each RHU is staffed by a doctor, a nurse and midwives.

The Department of Health has taken steps to address the challenges of devolution. It developed the Health Sector Reform Agenda (HSRA) in 1999, which set the strategic direction to promote and ensure effective and efficient provision of adequate health care to the population, despite devolution. The National Health Insurance Program (NHIP) is envisioned as the main lever to effect desired changes and outcomes. The Department's role now focuses on regulation, technical guidelines/orientation, planning, evaluation, and inspection, while the provincial government is responsible for provincial and municipal hospitals, health centres and health posts, although funding flows do not exactly match responsibility. The role of the municipal-government level is not well defined and capacity is reportedly weak.

With decentralization of service delivery, local chief executives became core players in the health sector. The number of actors involved multiplied and hence the need for coordination and policy monitoring. Under a devolved setting, the LGUs serve as stewards of the local health system and are therefore required to formulate and enforce local policies and ordinances related to health, nutrition, sanitation and other health-related matters in accordance with national policies and standards. They are also in charge of creating an environment conducive to establishment of partnerships with all sectors at the local level

Ongoing reforms in health service delivery are aimed at improving the accessibility and availability of basic and essential health care for all, particularly the poor. Public primary health facilities are perceived as being low quality, and are thus frequently bypassed. Clients are dissatisfied due to long waiting times; perceived inferior medicines and supplies; poor diagnosis, resulting in repeated visits; and the perceived lack of medical and people skills of the personnel available, especially in rural areas. The result is that secondary and tertiary facilities are inundated with patients needing primary health care. Since public primary facilities are more accessible to households and are mostly visited by the poor, improving the quality of those services particularly demanded by

the poor would improve their health. Furthermore, referral mechanisms among different health facilities across local government units need to be strengthened.

Private providers are predominantly located in highly urbanized areas. The private sector consists of a wide range of privately operated facilities, such as pharmacies, physicians in solo or group practices, small hospitals and maternity centres, diagnostic centres, employer-based outpatient facilities, and secondary and tertiary hospitals, as well as traditional birth attendants and indigenous healers.

Pharmaceutical challenges remain due to asymmetric information, income distribution and the inadequacy of the regulatory system. This stems from various factors such as massive campaigns by and lucrative incentives from multinational drug firms, prolonged patent rights and a lack of appropriate public understanding regarding generics.

3.3 Health policy, planning and regulatory framework

The Government's policy to achieve improvements in health includes a perspective on the integral value of health for any nation, the coordination of resources from all sectors, the right to access to quality care, and the presence of socioeconomic fundamentals. While the Government provides the leadership and stewardship to ensure that all efforts in the health sector lead to a common goal, greater support to local health system development and emphasis on strong management and administrative support systems at all levels of governance is likewise critical. Better coordination between national policies and external development partner priorities play a major role in fostering harmonization of resources for health. In the context of securing sustained financing for ongoing health sector reforms, budget reforms have been underway such that resources that are within the direct control of the Department of Health are aligned and utilized in support of LGU plans for health.

A six-year strategic plan, the National Objectives for Health, is developed every six years, synchronizing with every change in administration of the Philippine Government. It describes the achievements and problems of the health sector in the previous six years (previous administration), its goals for the next six years, and its strategies for achieving those goals. It is a roadmap of key targets, indicators and strategies to bring the health sector to its desired outcomes.

The fragmentation in management functions brought about by devolution required that planning between the national and local levels be coordinated. Since the previous administration, with FOURmula ONE as its implementation framework, each local government develops a Province-wide Investment Plan for Health (PIPH). This is intended to rationalize the local health systems and harmonize support from the national Government and development partners. PIPH implementation is accompanied by a service-level agreement defining the benchmarks for LGU performance, which triggers the release of corresponding grant/s and variable tranches from the Department of Health. LGU performance is measured using an LGU scorecard that explicitly tracks and holds LGUs accountable for their performance using a set of health outcome, output and governance indicators. The system has guided LGUs to develop PIPHs and City Investment Plans for Health, with the National Objectives for Health serving as a reference and guide in the drafting of PIPHs. At the same time, the Department of Health attempts to work hand-in-hand with LGUs and to ensure commitment of support to health initiatives coming from the LGUs. Such a scheme ensures the synchronicity of local health programmes with national health goals and has reduced fragmentation in the health service delivery system.

Moreover, the Department of Health has adopted a sectoral development approach for health, which is a way of organizing the planning and management of international and national support for health reforms. Corresponding memorandums of agreement are signed between the Department of Health and the provinces to formalize their collaboration in the implementation of their provincial health plans, with defined roles and responsibilities for the stakeholders involved. This arrangement is envisioned to continue with the new Department of Health administration.

With the public health mandate of the Department of Health, health standards, policies and guidelines to support implementation of health services at the local level are provided on a continuous basis. For example, the Philippine National Strategic Plan for Emerging Diseases was developed in response to implementation of the Asia Pacific Strategy for Emerging Diseases (APSED), fulfilling many of the requirements of the revised International Health Regulation (IHR) 2005. One important policy to support the Philippine strategy is the Philippine Integrated Disease Surveillance and Response (PIDSR) policy. The policy aims to increase the

capability of LGUs to perform disease surveillance and response, and to increase utilization of disease surveillance data for decision-making, policy-making, programme management and evaluation. Thereby, it aims to increase capability at the local level for risk assessment to prevent outbreaks and for early detection of outbreaks, as well as strengthening preparedness and response.

The Department of Health's regulatory agencies consist of the Food and Drug Administration or FDA (formerly the Bureau of Food and Drugs), the Bureau of Health Facilities and Services (BHFS), the Bureau of Health Devices and Technology (BHDT) and the Bureau of Quarantine (BOQ). The FDA is responsible for the regulation of products that affect health, while the BHFS covers the regulation of health facilities and services. The BHDT regulates radiation devices and the BOQ covers international health surveillance and security against the introduction of infectious diseases into the country. There is no direct provision for health regulation by LGUs. The general powers and authorities granted to the LGUs, however, do carry several regulatory functions that can directly or indirectly influence health. Examples include: issuance of sanitary permits and clearances, protection of the environment, inspection of markets and food establishments, banning of smoking in public places, and setting taxes and fees for local health services. However, the responsibility for regulation of medical practice and issuance of licenses and other regulatory standards pertaining to the operation of hospitals and health services remains with the Department of Health.

3.4 Health care financing

While budgeting for health follows a yearly cycle, this is based on a Health Sector Expenditure Framework that is developed through discussion and negotiation with the Department of Budget and Management. This defines the amount of resources that will be available in the medium term and the corresponding allocation to health programmes and institutions. The Department of Health has also established the Organizational Performance Indicator Framework, which is an approach to expenditure management that directs resources towards results, with the agency's performance measured by the Framework's key quality and quantity indicators. The Department of Health budget has been restructured to allow performance-based budget allocation and coordinated national and health spending through the PIPHs.

The financial protection of the population against the costs of ill health is deteriorating. In terms of overall trends, out-of-pocket spending has been increasing, while public spending has been declining. This is contrary to the trend in other Asian countries. Out-of-pocket payments account for almost half of all health spending in the Philippines and their share has been increasing (56.2% in 2008). At the same time, health insurance coverage in the country is still low, at around 40%, and the subsidies for health services are poorly targeted, as the true poor and indigent households are not adequately captured in the programme of social health insurance. Moreover, health insurance coverage is no guarantee of financial protection and enhanced access to good quality health services, due to the limited nature of Philippine Health Insurance Corporation (PHIC) benefits and the difficulties in accessing them.

Meanwhile, overall public spending on health, while increasing very slightly, is still below the level of other similar-income countries (US$ 2145.9 in 2009). The Department of Health budget has doubled as a percentage of government expenditure, resulting in an increase in government expenditure from 6% in 2002 to 7.2% in 2009. In particular, spending on public health interventions, such as vaccines, antituberculosis drugs, and the upgrading of government health facilities to provide emergency obstetric care, has increased in the past two years. However, the increase has largely been limited to central government expenditure, while LGU expenditure on health has declined in real terms. Based on the Local Government Code, LGUs with higher fiscal capacity (using per capita income as a measure of financial base) tend to get higher per capita internal revenue allocations than those with lower fiscal capacity. Many municipalities and provinces have experienced financial shortfalls, causing the diversion of health funds to other priorities. In addition, the PHIC share of health expenditures has hardly grown since it was established in 1995.

While the national health insurance programme, PhilHealth, has made a relatively slow and cautious increase in its share of total health expenditure, utilization of PhilHealth benefits is reduced among the poor due to lack of awareness of benefits and the stringent requirements for availing of them. The limited financial protection provided by PhilHealth is closely related to the current provider-payment system. As physicians provide more services and raise prices under the current fee-for-service system, medical care expenses increase rapidly. PhilHealth pays only up to a rather low benefit ceiling and patients pay the rest of the expense. As a result of the

low benefit ceiling and physicians' freedom to extra-bill without fee regulation, it is easy to extract profit out of patients' insurance benefits. Discussions are now ongoing to explore the feasibility of extending benefit coverage by raising the benefit ceiling.

Public health facilities are funded through a mix of public subsidies, such as PhilHealth reimbursements, user fees and, to a lesser degree, private health insurers. At the primary level, public subsidies and PhilHealth capitation allocations are funding services for both insured and non-insured members and for both public health and personal care. At the local level, several schemes are in operation, depending on local priorities and management styles. Drugs are mainly purchased by out-of-pocket payments from private for-profit retailers. The Government recently introduced thousands of non-profit community outlets, but their impact on access and costs supported by patients remains to be seen.

Based on the latest national health accounts, most health care financing resources are spent on hospital-based curative services, with a smaller share going to preventive and health-promotion services, signs that the country is not spending adequately or effectively on health. Meanwhile, the large hospitals in Metropolitan Manila and other urban areas get the biggest share of spending. Non-hospital health services, on the other hand, face difficulties in securing adequate funding.

The Universal Health Care roadmap under the new Department of Health administration hopes to address the above-mentioned challenges by improving health care financing polices to realistically enhance access, equity and effectiveness in resource mobilization and allocation, as well as use of health services.

3.5 Human resources for health

The Philippines is purportedly the leading exporter of nurses to the world and the second major exporter of physicians. Paradoxically, there are shortages of physicians and a fast turnover of nurses in the country, especially in rural areas. The high unemployment rates among health professionals, in spite of the considerable number of vacancies in rural areas, is another irony. Prevailing challenges include unmanaged emigration of Filipino health workers, a weak and inadequate human resources for health (HRH) information system, and the existing distribution imbalance, among others. Responses to HRH issues in the past have more often been stop-gap measures, and the interventions of the agencies concerned have not been coordinated.

In order to address such complex and multifaceted issues, a comprehensive HRH master plan has been developed and implementation of activities is underway. A high-level coordinating body and multisectoral working group was established in 2006 to mobilize the political commitment, donor/partner support and funding needed to accomplish the priority activities of the master plan. Called the Human Resources for Health (HRH) Network, the group was able to successfully convene a policy forum to advocate their policy agenda, which aims to resolve issues related to the production, entry and retention of health professionals, as well as their exit and re-entry.

Strategic thrusts for 2005-2010 included development of HRH policies and strategies to address outmigration; sustaining incentive mechanisms for HRH distribution and complementation in underserved areas; and making education, training and skills development more appropriate to local needs. The strategies undertaken included, among others, the institutionalization of the HRH management and development system; improvement of the technical competence and relevant skills of health professionals through education and training; provision of targeted and performance- linked compensation benefits; strengthening of the coordination mechanism between the education sector, regulatory agencies and HRH users; and installation of an HRH information system.

3.6 Partnerships

The attainment of national health goals has progressed as a result of the reforms in the health sector. The Department of Health has learnt from previous experience that better harmonization of efforts among the various stakeholders at all levels is critical. Currently, assistance for the health sector comes mainly in the form of grants, loans and technical support. A sectorwide development approach for health between the Government and its partners is being initiated to maximize investments, minimize duplication of initiatives and generate the necessary resources for the health sector. The Department of Health is working closely with international organizations and global initiatives to strengthen implementation of priority health programmes. The Department of Health leads a regular meeting of health partners, and has institutionalized mechanisms, such as reviews carried out by the joint

appraisal committee and a joint assessment and planning initiative, where development partners and the Department jointly review progress at both the national and local levels.

3.7 Challenges to health system strengthening

The publicly funded health system has been undergoing major reforms since 1999. At the broadest level, this has included a review of the Department of Health's primary functions, roles and responsibilities, as well as the suitability of the existing organizational structure to support these at both the strategic and service-delivery level. Introduction and pilot-testing of the different concepts and strategies of heath sector reform in selected provinces showcased some gains in health systems development.

Data from various sources, however, show that poor Filipino families have yet to experience real access to critical health services. In addition to increasing enrolment in social health insurance, there is a need to improve the use of benefits and to increase the support value for claims in order for PhilHealth to provide Filipinos with substantial financial risk protection. The health care delivery system has yet to address some major issues and challenges, such as the absence of data disaggregated at provincial/municipal levels (for baseline and monitoring); the minimal involvement of the private sector in the delivery of public health programmes; the still excessive reliance on use of high-end hospital services rather than primary care; the slow improvement in maternal mortality; and population growth. Issues such as geographic inequity, where people who live in rural and isolated communities receive less and lower quality health services, and socioeconomic inequity, where the poor do not receive health services due to inaccessibility and/or unaffordability, continue to abound in the country.

The above-mentioned health development efforts/reforms have been generally aimed at addressing problems of inequitable access to health services. After four decades, however, inequity continues to be the main root of health sector problems. There remain large disparities in health outcomes between the rich and the poor as a result of economic and geographic barriers to health service access. For example, the infant mortality rate (IMR) among the poorest quintiles is four times that for the richest. Another example is that the Autonomous Region of Muslim Mindanao and other poor areas have consistently poorer health status than richer regions. There are also large income-related disparities in the utilization of health services. For instance, there is skilled attendance at 94% of births among the highest income quintile, compared with 25% in the poorest quintile, and only 13% of all births in the lowest quintile occur at a health facility, compared with 84% in the highest quintile. Similarly, immunization coverage is only 70% among the lowest quintile, compared with 94% in the highest (NDHS 2008, 2009). The unfair distribution of coverage rates is paralleled by similar disparities in the distribution of human and physical resources in the health system. While nationwide average supply levels are adequate or nearly adequate, distribution across provinces is not consistent with need or poverty level.

Utilization patterns are affected by financial barriers and negative perceptions or lack of awareness of services. The poor utilize primary health facilities like RHUs and BHCs more than hospitals because of the co-payments and balance-billing in government or private hospitals, which they cannot afford to pay. In addition, government hospitals and lower-level facilities, despite their geographical accessibility are bypassed in favour of private facilities and higher-level facilities, respectively, because of perceived quality issues. Government hospitals intended to serve the poor are utilized by a large non-poor clientele, who patronize those facilities because of the high cost of private facilities and the low level of support from social health insurance. To a large extent, lack of information often combines with cost considerations to cause low utilization of services among the poor.

There are also capacity constraints as health sector inputs have not kept up with population growth. The bed-to-population ratio is roughly 1 per 1000 inhabitants, lower than in other East Asian countries, such as China (2.6 beds per 1000 inhabitants), Viet Nam (1.2 beds) or Thailand (2.2). Moreover, many of these hospital beds are clustered in large city centres and better-off LGUs. This is particularly true for private hospital beds, which account for approximately half of all hospital beds in the country. The availability of skilled health sector staff is also a problem, especially in the public sector. Weaknesses in management and compensation of human resources for health have not been adequately addressed.

Likewise, inadequacies in health information systems to guide planning and implementation of health programmes need to be addressed as a matter of urgency.

Overall, health system strengthening efforts have made important contributions to the health sector but have not effectively addressed significant gaps, namely: (1) the continuing low levels, fragmentation and inequity in public

financing for health; (2) limitations in PHIC performance in the implementation of universal social health insurance and using health financing as a lever to drive health sector development; (3) gaps in service delivery capacities; and (4) weak stewardship at all levels of the health system, particularly with regard to data for decision-making, monitoring and sector performance management, outdated or non-existent strategies in hospitals, pharmaceuticals and supply-chain management, public and private sector regulation, and public health.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : Republic of the Philippines (official website)
Web address : www.gov.ph

Title 2 : The Philippines in Figures 2011
Operator : National Statistics Office.
Web address : http://www.nso.gov.ph/

Title 3 : Philippines National Demographic and Health Survey 2008
Operator : National Statistics Office (NSO) [Philippines], and ICF Macro [Calverton, Maryland]
Web address : http://www.measuredhs.com

Title 4 : 2007 Government of the Philippines Year-End Report
Web address : http://www.gov.ph/faqs/yearend_reports.asp

Title 5 : Philippine Environment Monitor 2006
Operator : The World Bank Group
Web address : http://www.worldbank.org.ph/pem

Title 6 : National Epidemiology Center
Operator : Department of Health, Philippines
Web address : http://www2.doh.gov.ph/nec/

Title 7 : 2007 Philippines Development Forum.
8-9 March 2007, Cebu City, Philippines.

Title 8 : 2005-2010 National Objectives for Health,
Operator : Department of Health, Philippines.

Title 9 : National Nutrition and Health Survey (NNHeS): Atherosclerosis-related Disease and Risk Factors, Philippine Journal of Internal Medicine, 43:103-115, May-June 2005
Operator : Antonio Dans, Dante Morales, Felicidad Velandria, Teresa Abola, Artemio Roxas Jr., Felix Eduardo Punzalan, Rosa Allyn Gy, Elizabeth Paz-Pacheco, Lourdes Amarillo and Maria Vanessa Villaruz

Title 10 : Philippines. Food and Nutrition Research Institute. *6th National Nutrition Survey.* Taguig, Metro Manila, 2003.

5. ADDRESSES

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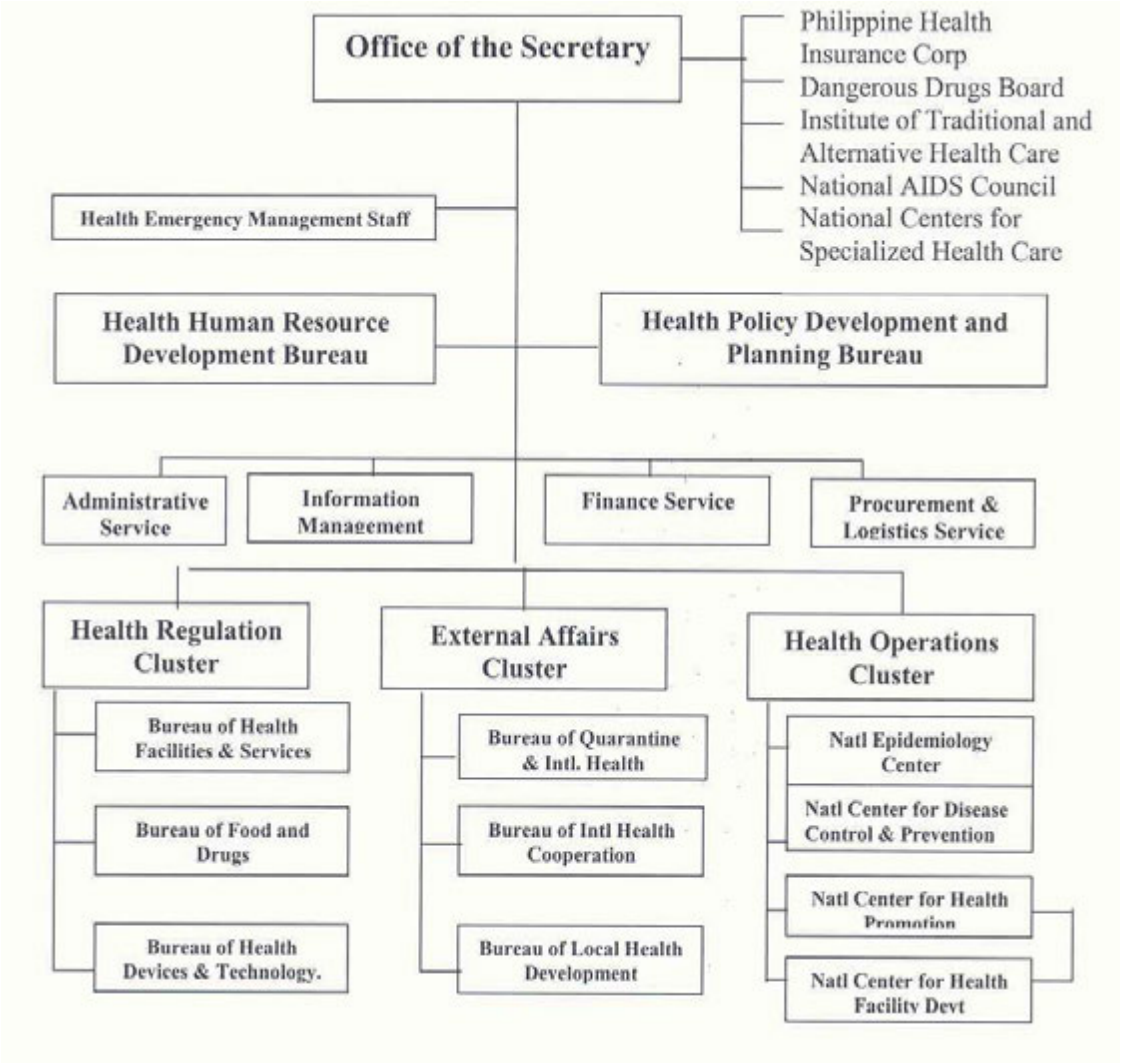
6. ORGANIZATIONAL CHART: Department of Health



COUNTRY HEALTH INFORMATION PROFILE

PHILIPPINES — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	299.76				1
2	**Estimated population ('000s)**	94 013.20	47 263.60	46 749.60	2010 est	2
3	**Annual population growth rate (%)**	2.04	…	…	2000-07	3
4	**Percentage of population**					
	- 0–4 years	11.47	11.64	11.29	2010 est	4
	- 5–14 years	22.28	22.70	21.87	2010 est	4
	- 65 years and above	4.40	4.02	4.78	2010 est	4
5	**Urban population (%)**	48.90	…	…	2010 est	5
6	**Crude birth rate (per 1000 population)**	19.70 [a]	20.40 [a]	19.00 [a]	2007	2
7	**Crude death rate (per 1000 population)**	5.00 [a]	5.80 [a]	4.20 [a]	2007	2
8	**Rate of natural increase of population (% per annum)**	1.47 [b]	…	…	2007	2
9	**Life expectancy (years)**					
	- at birth	70.00	67.00	73.00	2009	6
	- Healthy Life Expectancy (HALE) at age 60	…	10.60	12.10	2002	7
10	**Total fertility rate (women aged 15–49 years)**	3.30			2008	8
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	…	84.20	88.70	2008	2
12	**Per capita GDP at current market prices (US$)**	1825.22 [c]			2009	9
13	**Rate of growth of per capita GDP (%)**	…				
14	**Human development index**	0.64			2010	10
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	…	…	…		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	385	233	152	2	1	1	2010	11
	- Type B	883	470	413	16	14	2	2010	11
	- Type C	…	…	…	…	…	…		
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		
	Cholera	33 [d]	18 [d]	15 [d]	2 [d]	0 [d]	2 [d]	2010	11
	Dengue/DHF	135 355	…	…	793	…	…	2010	12
	Encephalitis	241 [d]	138 [d]	103 [d]	33 [d]	19 [d]	14 [d]	2010	11
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	2041	1633	408	…	…	…	2010	12
	Malaria	17 008	…	…	19	…	…	2010	12
	Plague	…	…	…	…	…	…		
	Syphilis	…	…	…	4	2	2	2006	13
	Typhoid fever	515 [e]	282 [e]	233 [e]	3	3	0	2010	11
17	**Acute respiratory infections**	690 566	348 992	328 956	258	143	115	2006	14
	- Among children under 5 years	…	…	…	75	38	37	2006	13

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	5614	3188	2426	2006	13
	- Among children under 5 years	...	...	...	2125	1229	896	2006	13
19	**Tuberculosis**								
	- All forms	146 565	...	...	3200 [j]	...	...	2009	12
	- New pulmonary tuberculosis (smear-positive)	88 806	...	...	...	...	...	2009	12
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	43 043	22 472	20 571	2006	13
	- Breast	...	...	...	4732	80	4652	2006	13
	- Colon and rectum	...	...	...	3565 [f]	1852	1613	2006	13
	- Cervix			...			1176	2006	13
	- Leukaemia	...	...	...	2365	1181	1184	2006	13
	- Lip, oral cavity and pharynx	...	...	...	2183	1369	814	2006	13
	- Liver	...	...	...	...	...	...		
	- Oesophagus	...	...	...	415	284	131	2006	13
	- Stomach	...	...	...	1415	818	597	2006	13
	- Trachea, bronchus, and lung	...	...	...	7390	5421	1969	2006	13
21	**Circulatory**								
	All circulatory system diseases	...	...	...	138 547	78 128	60 419	2006	13
	- Acute myocardial infarction	...	...	...	33 267	21 235	12 032	2006	13
	- Cerebrovascular diseases	...	...	...	55 466	30 869	24 597	2006	13
	- Hypertension	...	...	...	17 646	9785	7861	2006	13
	- Ischaemic heart disease	...	...	...	15 666	8001	7665	2006	13
	- Rheumatic fever and rheumatic heart diseases	...	...	...	2209	956	1253	2006	13
22	**Diabetes mellitus**	...	...	...	20 239	9818	10 421	2006	13
23	**Mental disorders**	...	...	...	977	741	236	2006	13
24	**Injuries**								
	All types	...	...	...	36 162	29 160	7002	2006	13
	- Drowning	...	...	...	3242	2396	846	2006	13
	- Homicide and violence	...	...	...	13 056	12 071	985	2006	13
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	6866	5380	1486	2006	13
	- Suicide	...	...	...	1794	1387	407	2006	13
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Acute respiratory infection	1 095 328 [i]	...	...	1203.00 [i]	...	...	2008	14
	2. ALTRI and Pneumonia	557 786 [i]	...	...	612.60 [i]	...	...	2008	14
	3. Bronchitis/bronchiolitis	346 627 [i]	...	...	380.70 [i]	...	...	2008	14
	4. Hypertension	333 497 [i]	...	...	366.30 [i]	...	...	2008	14
	5. Acute watery diarrhoea	322 799 [i]	...	...	354.50 [i]	...	...	2008	14
	6. Influenza	271 011 [i]	...	...	297.70 [i]	...	...	2008	14
	7. Urinary tract infection	82 867 [i]	...	...	91.00 [i]	...	...	2008	14
	8. TB respiratory	73 614 [i]	...	...	80.90 [i]	...	...	2008	14
	9. Accidents	50 004 [i]	...	...	54.90 [i]	...	...	2008	14
	10. Injuries	35 396 [i]	...	...	38.90 [i]	...	...	2008	14

PHILIPPINES

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Heart diseases	83 081	47 259	35 822	95.50	108.00	82.90	2006	13
	2. Vascular system diseases	55 466	30 869	24 597	63.80	706.00	56.90	2006	13
	3. Malignant neoplasm	43 043	22 472	20 571	49.50	51.40	47.60	2006	13
	4. Pneumonia	34 958	17 166	17 792	40.20	39.20	41.20	2006	13
	5. Tuberculosis, all form	25 860	17 862	7 998	29.70	40.80	18.50	2006	13
	6. Chronic lower respiratory diseases	21 216	14 715	6 501	24.40	33.60	15.00	2006	13
	7. Diabetes mellitus	20 239	9 818	10 421	23.30	22.40	24.10	2006	13
	8. Certain conditions originating in the perinatal period	12 334	7 425	4 909	14.20	17.00	11.40	2006	13
	9. Nephritis, nephrotic syndrome and nephrosis	11 981	7 107	4 874	13.80	16.20	11.30	2006	13
	10. Road traffic accidents	6866	5380	1486	7.90	12.30	3.40	2006	13
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						22.00	2008	8
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						28.00	2010	12
29	**Percentage of pregnant women with anaemia**						42.50	2008	17
30	**Neonatal mortality rate (per 1000 live births)**		16.00		...		...	2008	8
31	**Percentage of newborn infants weighing less than 2500 g at birth**		19.60		...		...	2008	8
32	**Immunization coverage for infants (%)**								
	- BCG		83.00		...		...	2010	12
	- DTP3		79.00		...		...	2010	12
	- Hepatitis B III		77.00		...		...	2010	12
	- MCV2		10.00		...		...	2010	12
	- POL3		78.00		...		...	2010	12
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			163	2006	13
	- Eclampsia			...			...		
	- Haemorrhage			...			261	2006	13
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	107	...	...	...	...	...	2010	12
	- Measles	6368	...	...	...	...	...	2010	12
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	126	...	...	...	...	...	2010	12
	- Pertussis (whooping cough)	62	...	...	...	...	...	2010	12
	- Poliomyelitis	0	0	0	...	...	...	2010	12
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	1140	...	...	...	...	...	2010	12
	Health facilities								
35	**Facilities with HIV testing and counseling services**						82	2009	12

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	90 [g]	...	2007-10	15
		- Specialized hospitals	21	...	2007-10	15
		- District/first-level referral hospitals	282	...	2007-10	15
		- Primary health care centres	331 [h]	...	2007-10	15
	Private health facilities	- Hospitals	1068	44 296	2007-10	15
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			6081.17 [b]	2009p	16
	- total expenditure on health as % of GDP			3.80	2009p	16
	- per capita total expenditure on health (in US$)			66.11 [b]	2009p	16
	Government expenditure on health					
	- amount (in million US$)			2145.87 [b]	2009p	16
	- general government expenditure on health as % of total expenditure on health			35.30	2009p	16
	- general government expenditure on health as % of total general government expenditure			7.20	2009p	16
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			12.33 [b]	2009p	16
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			64.70	2009p	16
	- out-of-pocket expenditure on health as % of total expenditure on health			54.04 [b]	2009p	16
	Exchange rate in US$ of local currency is: 1 US$ =			47.68	2009p	16
38	**Health insurance coverage as % of total population**			42.00	2008	21

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	93 862	...	...	...	...	...	...	2004	22
		- Ratio per 1000 population	1.14	...	...	...	...	...	...	2004	22
	Dentists	- Number	45 903	...	...	...	...	...	...	2004	22
		- Ratio per 1000 population	0.55	...	...	...	...	...	...	2004	22
	Pharmacists	- Number	49 667	...	...	...	...	...	...	2004	22
		- Ratio per 1000 population	0.60	...	...	...	...	...	...	2004	22
	Nurses	- Number	352 398	...	...	...	...	...	...	2004	22
		- Ratio per 1000 population	4.26	...	...	...	...	...	...	2004	22
	Midwives	- Number	136 036	...	...	...	...	...	...	2004	22
		- Ratio per 1000 population	1.65	...	...	...	...	...	...	2004	22
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	1732	...	...	...	...	...	...	2008	23
		Dentists	1101	...	...	...	...	...	...	2008	23
		Pharmacists	1558	...	...	...	...	...	...	2007	23

INDICATORS			DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	79 149	...	...	...	...	...	...	2007	23
		Midwives	6332	...	...	...	...	...	...	2007	23
		Paramedical staff	1613	...	...	...	...	...	...	2005	23
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

INDICATORS		DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	26.20	...	...	2008	17
43	Infant mortality rate (per 1000 live births)	25.00	...	...	2008	8
44	Under-five mortality rate (per 1000 live births)	34.00	...	...	2008	8
45	Proportion of 1 year-old children immunised against measles	80.00	...	...	2010	12
46	Maternal mortality ratio (per 100 000 live births)	162.00			2006	14
47	Proportion of births attended by skilled health personnel	62.20			2008	8
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	18.20			2008	8
	- Percentage of deliveries in health facilities (as % of total deliveries)	44.00			2008	8
48	Contraceptive prevalence rate	34.00	...	...	2008	8
49	Adolescent birth rate	54.00 [i]			2008	8
50	Antenatal care coverage - At least one visit	95.80			2008	8
	- At least four visits	77.80			2008	8
51	Unmet need for family planning	22.00	...	...	2008	8
52	HIV prevalence among population aged 15-24 years	<1.00	...	...	2009	18
53	Estimated HIV prevalence in adults	<1.00	...	...	2009	18
54	Percentage of people with advanced HIV infection receiving ART	0.82	...	...	2009	18
55	Malaria incidence rate per 100 000 population	18.29	...	...	2008	12
56	Malaria death rate per 100 000 population	0.02	...	...	2008	12
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	97.00	...	...	2010	19
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	99.00	...	...	2010	19
59	Tuberculosis prevalence rate per 100 000 population	520.00	...	...	2009	12
60	Tuberculosis death rate per 100 000 population	35.00	...	...	2009	12
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	57.00	...	...	2009	12
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	88.00	...	...	2008	12
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	91.00	93.00	87.00	2008	20
64	Proportion of population using an improved sanitation facility	76.00	80.00	69.00	2008	20
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Per 1000 midyear population
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Figure converted to USD using 2009 exchange rate (I USD=Php 47.68) from WHO NHA, and projected population for 2009 (92 226 600) from NSO
d	Suspected cases
e	Figure includes parathyroid fever
f	Totals may not tally due to some reported cases or numbers with no gender breakdown
g	Figure refers to Level 3 and 4 hospitals
h	Figure refers to Level 1 hospitals
i	Revised data
j	Estimated number of deaths

Sources:	
1	National Epidemiology Center (NEC), Department of Health.
2	Philippines in Figures 2011. National Statistics Office, Philippines. Accessed on August 2011 from [http://www.census.gov.ph/data/publications/2011PIF_final.pdf]
3	2007 Census of Population, National Statistics Office Presss Release. <http://www.census.gov.ph/data/pressrelease/2008/pr0830tx.html>.
4	Projected Population by Five-Year Age Group and by Sex, by Five Yr. Interval, Medium Assumption.National Statistics Office. <http://www.census.gov.ph/data/sectordata/poproj07.txt>
5	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
6	World health statistics 2011. Geneva, World Health Organization, 2011. Available at [http://www.who.int/whosis/whostat/en/index.html]
7	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
8	National Statistics Office (NSO) [Philippines], and ICF Macro. 2009. National Demographic & Health Survey 2008. Calverton, Maryland: National Statistics Office and ICF Macro.
9	National Statistical Coordination Board, Philippines. <http://www.nscb.gov.ph/stats/statwatch.asp>.
10	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
11	Philippine Integrated Disease Surveillance and Response System, 2010, National Epidemiology Center, Department of Health
12	WHO Regional Office for the Western Pacific, data received from the technical units.
13	Information furnished by WR Philippines Office dated July 2011.
14	Field Health Service Information System 2008 Report. Department of Health, Philippines. <http://www.doh.gov.ph/research_statistics>.
15	Philippine Development Plan 2011-2016. National Economic and Development Authority. Accessed from [http://www.neda.gov.ph/PDP/2011-2016/default.asp].
16	National health accounts: country information. Geneva, World Health Organization. Accessed in March 2010 from http://www.who.int/nha/country/en/index.html.
17	National Nutrition Survey, Food and Nutrition Research Institute, Department of Science and Technology, Philippines, 2008.
18	2007 Estimation Workshop and Concensus Meeting, National Epidemiology Unit, Department of Health, Philippines.
19	Annual Global Fund Project Survey…
20	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
21	2008 National Demographic Health Survey, Philippines.
22	Professional Regulation Commission, Philippines.
23	Commission on Higher Education, Philippines.

PITCAIRN ISLANDS

1. CONTEXT

1.1 Demographics

The Pitcairn Islands comprise a group of four islands, officially named Pitcairn, Henderson, Ducie and Oeno. The group is situated in the South Pacific Ocean about midway between Peru and New Zealand.

The only permanently inhabited island in the group is Pitcairn, with an area of 46 square kilometres. It is a rugged volcanic formation with a rocky coastline and high cliffs. The island is accessed by yachts and ships that travel irregularly between New Zealand and the Americas via the Panama Canal. Ships may occasionally divert to Pitcairn to assist in emergencies. Pitcairn also receives a scheduled supply boat at approximately three-monthly intervals. The official point of arrival is Bounty Bay on the Northern shore.

There are approximately 52 permanent residents on Pitcairn, including 10 children under 15 years of age. Several expat personnel are employed on the island; a Governor's representative, a pastor, a policeman, a schoolteacher, a medical officer and a welfare officer.

Most dwellings are in Adamstown on the north side of Pitcairn. A variable number of tourists visit Pitcairn, mainly from October to March.

The languages spoken are English and Pitkern, the latter being a mixture of 18th century English and Tahitian. English and Pitkern are taught at the school on Pitcairn.

1.2 Political situation

Pitcairn Islands is a tiny British protectorate. It was under the jurisdiction of the British High Commission for the Western Pacific from 1898 until 1952 when, following separation of the offices of Governor and High Commissioner, responsibility for administration was transferred to the Governor of Fiji. When Fiji gained independence in 1971, responsibility was transferred to the British High Commissioner to New Zealand, who conjointly holds office as Governor of Pitcairn Islands. Functional administration is handled by the Pitcairn Islands Office, situated in Auckland, New Zealand.

Pitcairn Islands is notable for being the least populated jurisdiction in the world (although it is not a sovereign nation). The United Nations Committee on Decolonization includes the Pitcairn Islands on the United Nations list of non-self-governing territories.

In 2010, after consultation with most people on the island, Pitcairn gained a new Constitution that aims to protect human rights.

1.3 Socioeconomic situation

Pitcairn Islanders rely on fishing and garden produce in addition to food supplies sent from New Zealand. The fertile topsoil grows a wide variety of fruits and vegetables. Bartering is an important part of the economy. Revenue is generated by sale of postage stamps to collectors and handicrafts to visitors. There is no safe harbour or airstrip. Rough seas can restrict the landing of visitors or the launching of a longboat to go out to visiting ships. The labour force on the island is small and ageing. Most able adults have some government-paid work.

1.4 Risks, vulnerabilities and hazards

The vulnerabilities and hazards facing Pitcairn Islanders are similar to those of other tiny and remote Pacific island residents. Remoteness from trading and supply partners incurs high transportation costs, raising the cost of business. Remoteness also raises the cost of social and protection services.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

In March 2002, a blood survey was carried out by the Pacific Elimination of Lymphatic Filariasis Programme (PacELF) to detect lymphatic filariasis. The survey did not detect anyone with antigenaemia and confirmed the Pitcairn Islands to be non-endemic for filariasis.

There has been no instance of dengue fever on Pitcairn.

2.2 Outbreaks of communicable diseases

Outbreaks of respiratory infection and gastroenteritis have occurred, likely related to visitors bringing infections to Pitcairn.

2.3 Leading causes of mortality and morbidity

Ten of the 52 islanders have type 2 diabetes or obesity-related pre-diabetes. Some have target organ damage. Other leading causes of morbidity include cardiovascular disease, allergy/asthma and accidents.

2.4 Maternal, child and infant diseases

In recent times, there have been no significant maternal and child health issues. Elective transfer to New Zealand for deliveries has been encouraged.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Primary health care is accessible to all and is financed by the United Kingdom Department for International Development (DFID) and the Government of Pitcairn. Emergency evacuation is by sea to Mangareva in French Polynesia then by air transport to Tahiti in French Polynesia or to New Zealand. Presently, Pitcairn employs a doctor capable of advanced primary care. Risk attaches to the isolation from secondary care.

There is subsidized health care on Pitcairn administered from a purpose-built and well equipped health centre (built 1997). The centre has a large reception area, a consulting room, a utility room, a well-stocked and air-conditioned dispensary, an X-ray annex, a dental room and a two-bed ward with en-suite bathroom. For several years, the medical officer has been a general practitioner on a six-month or one-year contract. An islander is employed as an assistant. One islander has had basic training in dental and radiography work.

Pitcairn takes part in the Pacific Public Health Surveillance Network. Attention is given to infectious disease bulletins. The medical officer reports health information to the Pitcairn Islands Council.

3.2 Organization of health services and delivery systems

See section 3.1.

3.3 Health policy, planning and regulatory framework

No further information is offered in this profile.

3.4 Health care financing

Health care is financed by the United Kingdom DFID and the Government of Pitcairn.

3.5 Human resources for health

See section 3.1.

3.6 Partnerships

Authorities collaborate in regional initiatives for the prevention and control of infectious diseases with the Secretariat of the Pacific Community, Pacific Public Health Surveillance Network (SPC/PPHSN).

3.7 Challenges to health system strengthening

Safe and cost-effective care of the small, but very isolated community remains a challenge in Pitcairn Islands.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Pitcairn Islands Office website*
Operator	:	Pitcairn Islands Office
Comments	:	No information on health aspects
Web address	:	http://government.pn/
Title 2	:	*Samoa Commitment – achieving healthy islands*
Web address	:	http://www.wpro.who.int/NR/rdonlyres/CE800376-BC67-45D6-A3B9-01EDDE4FCB7B/0/Samoa_Commitment_2005.pdf
Title 3	:	*2011 Population and Demographic indicators*
Operator	:	Secretariat of the Pacific Community, Statistics and Demography
Web address	:	http://www.spc.int/sdp/
Title 4	:	*European Overseas Countries and Territories Needs Assessment*
Operator	:	European Centre for Disease Prevention and Control Office
Comments	:	Completed by Dr Peter Cardon, Pitcairn Islands Medical Officer

5. ADDRESSES

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REPUBLIC OF KOREA

1. CONTEXT

1.1 Demographics

The population of the Republic of Korea, as of 2010, was 48 874 530, with a population density of 489 persons per square kilometre. The Republic saw its population grow by an annual rate of 3% during the 1960s, but growth slowed to 2% over the next decade. In 2010, the rate stood at 0.26% and it is expected to decline further, to 0.02%, by 2020.

A notable trend in the population structure is that it is getting increasingly older. In 2010, it was estimated that 12.9% of the total population was 65 years or older, while those aged 15 to 64 years of age accounted for 70.9%. In the 1960s, the country's population distribution formed a pyramid shape, with a high fertility rate and relatively short life expectancy. However, age-group distribution is now shaped more like a bell because of the low fertility rate and extended life expectancy. Youths (15 and younger) will make up a decreasing portion of the total by 2020, while senior citizens (65 and older) will account for some 15.6% of the total.

In recent years, a low fertility rate has emerged as a serious social challenge. The total fertility rate dropped from 4.53 in the 1970s to 1.22 in 2010, among the lowest in member countries of the Organisation for Economic Co-operation and Development (OECD). The Government is working to tackle the issue by establishing comprehensive plans to create family-friendly workplace environments and to bolster child care policies.

1.2 Political situation

The tension between the Republic of Korea and the Democratic People's Republic of Korea continues to play a major role in life and decision-making on the Korean peninsula. In 2008, inter-Korean relations went through an adjustment of mutual benefit and common prosperity. Since October 2008, however, North Korea has intensified its intimidation against the South, particularly with a threat to cut-off all inter-Korean relations.

Nonetheless, exchanges and cooperation between the two Koreas, led by the private sector, have continued to grow steadily. There were 186 775 cross-border travellers in 2008 and the volume of trade between the two countries was US$ 1.8 billion, a 17.3% and 1.2% increase, respectively, when compared with the previous year. In addition, the Government of the Republic of Korea continued to provide aid to the Democratic People's Republic through NGOs (amounting to Won 16.4 billion [US$ 12.7 million]) and international organizations, including WHO and the United Nations Children's Fund (UNICEF) (amounting to US$ 16 million), to support their programmes in the Democratic People's Republic in such areas as rural development, public health, medical services, and social welfare.

1.3 Socioeconomic situation

Over the past few decades, the Republic of Korea has transformed itself from an agrarian society to an industrialized nation. The Government has been making efforts to upgrade living standards through a vigorous programme of reforms in education, housing, social welfare and the environment. In 2009, the estimated per capita gross domestic product (GDP) was US$ 17 086.3.

The employment structure has undergone remarkable changes since the beginning of industrialization in the early 1960s. In 1960, workers in the agricultural, forestry and fishery sectors accounted for 63% of the total labour force. However, that figure had dropped to 7.3% by 2007. By contrast, the share of tertiary industries (service sector) grew from 28.3% of the total labour force in 1960 to 75.0% in 2007.

Along with the country's success in economic development, the overall health of the people has improved significantly over the past three decades. In 1960, life expectancy was 51 years for males and 54 for females. Those figures had increased to 76.9 for males and 83.8 for females by 2009. The infant mortality rate has likewise declined sharply, as has maternal mortality.

Women are actively engaged in a wide variety of fields and are making significant contributions to society. Recently, they have been making major inroads in some areas, particularly in the government sector. For example,

the number of female Members of Parliament has increased considerably: there were 16 (5.9%) in the 16th National Assembly (2000-2004) but that number has increased to 43 (14.4%) in the 18th National Assembly (2008-2012).

Recently, the Republic of Korea has been in a temporary economic recession as a result of the global financial crisis. The Government is taking a variety of policy steps to prevent the economic slump from threatening the lives and health of the population. As part of the safety net for those with low incomes, who are hit hardest in difficult times, the Government has expanded support for the poor. In 2009, an additional 184.3 billion won (US$ 143.02 million) of subsistence, housing and medical benefits was awarded to the 1.7 million recipients of the National Basic Livelihood Security System. Moreover, the Government has provided 101.8 billion won (US$ 79 million) in emergency support for those who have fallen into poverty temporarily due to closure and suspension of businesses or loss of jobs. Subsistence benefits amounting to around 418.1 billion won (US$ 324.4) have been provided to 500 000 households of low-income earners who are unable to work.

1.4 Risks, vulnerabilities and hazards

With one of the world's lowest fertility rates and fastest ageing populations, the Republic of Korea saw its total fertility rate drop to 1.22 in 2010, about half the replacement rate.

The country became an ageing society (7% of the population old) in 2000 as a result of low fertility and prolonged life expectancy, and is expected to become an aged society (14% of the population old) by 2018 and a super-aged society (20% of the population old) by 2026. It took France 115 years to move from an ageing to an aged society and 40 years to move from an aged to a super-aged society, while it took 72 and 16 years, respectively in the United States of America, and 24 and 14 years in Japan. Considering such examples, 18 and 8 years for the Republic of Korea would be the world's shortest transition.

The rapid population ageing is causing concern regarding sustainable development as it will reduce the economically active population, hold back economic growth, narrow the tax base, and lead to tensions between generations.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Changes in socioeconomic structures and lifestyles, as well as improvements in health and medical care, have drastically changed the leading causes of death. In the past, the main causes of mortality were acute and communicable diseases, but these have been replaced by chronic and noncommunicable diseases.

The incidence of noncommunicable disease began to rise in the 1980s and, in 2009, the 10 leading causes of death included malignant neoplasms (cancer), cerebrovascular diseases, heart diseases, suicides, diabetes, traffic accidents, chronic lower respiratory diseases, liver diseases, pneumonia and hypertensive diseases. These 10 causes of death accounted for 70.4% of all deaths.

The prevalence rates of major noncommunicable diseases are also high. For example, the prevalence rates for high blood pressure and diabetes stood at 25.6% and 9.7%, respectively, in 2007. The growing prevalence of noncommunicable diseases is considered to be largely attributable to rapid population ageing, increases in obesity and overweight, a decrease in physical activity, and an increase in the number of smokers.

According to a 2005 study, a high proportion of adults (35.2% of males and 28.3% of females) were overweight (BMI $\geq$ 25), and childhood obesity almost doubled from 6.8% in 1998 to 12% in 2005. Lack of physical activity was found to be a serious problem, with only 38% of adults aged 19 and older engaging in moderate levels of physical activity on a regular basis.

Thanks to strong smoking-control policies, the male smoking population dropped drastically from 67.4% to 46.6% in 2008, but it is still the second highest percentage in the world. Youth smoking stood at a high level of 14.1% in 2006 and the age of starting smoking fell from 15 in 1998 to 12 in 2006, indicating a serious smoking problem among the country's young people.

While per capita alcohol consumption, which is increasing steadily, was 8.1% in 2005, a trend towards heavy drinking and a high death rate due to alcohol are troubling the nation. The annual socioeconomic costs attributable to alcohol drinking have been estimated to amount to 2.9% of GDP: 38.8% for reduction of productivity, 26.9% for loss of the workforce, 22.2% for alcoholic beverages, 5.3% for direct medical costs, 2.3% for loss of productivity, 1.9% for direct non-medical costs, 1.5% for administration costs and 1.0% for loss of property.

2.2 Outbreaks of communicable diseases

With vaccination and improved hygiene, the incidence of acute communicable diseases has been decreasing steadily since the 1960s. However, global climate change and increasing overseas travel have increased the incidence of imported tropical diseases. In addition, the growing distribution of food materials, an increase in dining out, and contamination of water resources have the potential to trigger massive outbreaks of waterborne and foodborne infectious diseases.

In 2009, the incidence of infectious diseases increased sharply due to the epidemic of influenza A (H1N1). For the 50 nationally notifiable infectious diseases that require mandated reporting of each case, the incidence rate per 100 thousand people (IR) was 1576 cases (782 757 cases notified in total) in 2009, while it had been maintained at under 100 cases until 2008. In the same year, the leading communicable diseases were influenza A (H1N1) (IR 1423.6), followed by tuberculosis (IR 72.2), varicella (IR 50.7), mumps (IR 12.9), scrub typhus (IR 10.1), malaria (IR 2.7), and hemorrhagic fever with renal syndrome (IR 0.7).

In addition, hepatitis A virus infection has been increasing in recent years, especially in young people, mainly because of poor immunity in this group. The number of cases per sentinel hospital was 42.0 in 2009, compared with 2.2 in 2001 and 9.9 in 2005.

2.3 Leading causes of mortality and morbidity

The number one cause of death is cancer, accounting for 28.0% in 2008, followed by cerebrovascular disease at 11.3% and heart disease at 8.7%.

The number of people dying from cancer rose steadily from 111.9 per 100 000 in 1996 to 140.5 in 2009. Among the major cancers, the number of deaths from stomach cancer has been decreasing, while those from lung and colon cancer have increased.

The number of deaths from cerebrovascular diseases has dropped from 10 years ago. However, the incidence and prevalence rates for the diseases jumped from 1.60 and 6.2 per 1000 in 1998 to 2.3 and 10, respectively, in 2003. The hike indicates an increase in disabilities related to stroke, adding to the burden of disease.

Cardiovascular diseases are not as prevalent in the Republic of Korea as in many Western countries, but have been showing an upward trend. The number of deaths from ischaemic heart disease more than doubled between 1996 and 2006, from 13.0 to 29.2 per 100 000.

The recent increase in the number of suicides is notable. In 1996, 14.1 persons out of 100 000 killed themselves, making suicide the ninth most common cause of death. In 2009, however, suicide became the fourth largest cause of death, with 31 out of every 100 000 persons taking their own lives.

Among the major noncommunicable diseases, high blood pressure, arthritis and dental caries have the highest morbidity rates. The prevalence rate for hypertension was 27.9% in 2005, showing that one-third of all adults in the country were suffering from high blood pressure. Furthermore, out of every 1000, 703.9 were suffering from dental caries and 102.5 from osteoarthritis, according to a study of prevalence rates among adults aged 19 years and older.

2.4 Maternal, child and infant diseases

The mortality risk for infants and young children, as well as for pregnant women, has decreased dramatically. The infant mortality rate fell from 61.0 per 1000 live births in the 1960s to an estimated 3.5 in 2008, while the maternal mortality ratio stood at 12.4 per 100 000 live births in 2008.

The focus of public health programmes in this area is now not just on reducing mortality rates, but also improving health for a longer period by developing the group's health potential. For example, a life-course approach has

been taken to deal with age-specific needs for good health. Medical check-ups are made available to infants and pregnant women at health centres across the country, and medical advice and services are available to promote the health of infants and young children in a timely manner. Pre- and post-pregnancy services are also provided to detect and control any health risks related to pregnancy.

2.5 Burden of disease

According to a study of the disease burden in the country carried out using disability-adjusted life years (DALYs), an indicator developed by WHO and the Global Burden of Disease Study Group, years of life lost (YLL) is highest for cancer, followed by injuries and cardio/cerebrovascular diseases, while years lost due to disability (YLD) is highest for gastrointestinal diseases, followed by respiratory diseases and diabetes.

Of the major diseases, excluding injuries, the DALY (YLL+YLD) for cancer per 100 000 was the highest, at 1525 or 17.1% of the total, followed by cardio/cerebrovascular diseases, with 1492 or 16.7%; gastrointestinal diseases, with 1140 or 12.8%; diabetes, with 970 or 10.9%; and respiratory diseases, with 951 or 10.6%.

Looking at individual diseases rather than disease groups, diabetes was found to have the highest DALY, followed by stroke, asthma, peptic ulcer and ischaemic heart disease.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The mission of the Ministry for Health and Welfare is to contribute to the quality of life of the population and to national development by protecting the public from social risks, promoting social integration, investing in human resources, and offering social services. The Ministry envisions healthy and happy lives for all citizens. To carry out its mission and realize its vision, the Ministry for Health and Welfare has set the following objectives:

(1) Expand the social safety net by:
- reforming the National Pension;
- stabilizing the National Health Insurance fund;
- improving the benefit system of the National Basic Livelihood Security; and
- enhancing the quality of life for people with disabilities.

(2) Pursue forward-looking family policies by:
- strengthening comprehensive family policies;
- restructuring child care policies;
- fostering healthy children and youth; and
- introducing long-term care insurance for the elderly.

(3) Protect public health and safety by:
- establishing a public health safety net;
- implementing preventive health care; and
- strengthening food-safety management.

(4) Strengthen economic growth hand in hand with health and welfare by:
- fostering the health care industry;
- creating the market for welfare services;
- pursuing welfare through work ; and
- operating the National Pension Fund strategically.

With these strategies, the mission of the Ministry for Health and Welfare will pursue proactive welfare by creating jobs for those capable of work, and extending a helping hand to those in need of support.

3.2 Organization of health services and delivery systems

Public health in the Republic of Korea has improved dramatically, especially in terms of life expectancy and infant mortality. The strengthened health care system, as well as increased income and improved living conditions have played a significant role.

As regards health care resources, the number of doctors increased from 22 183 in 1975 to 101 569 in 2010, while the number of hospital-level institutions (hospitals and traditional hospitals with 30 or more beds, as well as dental hospitals) rose from 178 in 1975 to 2240 in 2007.

Total health expenditure amounted to 6.9% of GDP in 2009. Although that figure is relatively low compared with other developed countries, the Government is currently able to offer comparatively good quality health care services. However, health expenditure is growing continuously due to increased use of health care services, driven by a greater public desire for healthy lives and implementation of the National Health Insurance scheme. To respond effectively to the fast-changing health care environment, it is necessary to comprehensively examine the existing health care system and set a new policy direction to advance it.

3.3 Health policy, planning and regulatory framework

The Ministry for Health and Welfare focuses on the following areas in its health policy, planning and regulatory framework:

- establishing a lifetime health maintenance system;
- establishing an efficient health care delivery system;
- enhancing National Health Insurance coverage and strengthening the role of the Government in health care; and
- fostering the health care industry.

3.4 Health care financing

Since 1 July 1989, every citizen of the Republic of Korea has received health care benefits through either National Health Insurance (NHI) or the Medical Aid programme. As of the end of 2008, 96.3% of the total population, or 48.2 million people, were covered by the NHI, while the rest, 1.8 million people, including beneficiaries of the National Basic Livelihood Security System and patriots and veterans, were benefiting from the Medical Aid programme. The NHI is divided into employee insurance and self-employed insurance. Employee insurance covers employees, employers, public servants and teachers. All residents in rural areas, and the self-employed in cities, except those covered by employee insurance and their dependents, are covered by self-employed insurance.

The NHI system is operated by the Ministry for Health and Welfare, the National Health Insurance Corporation (NHIC), and the Health Insurance Review Agency (HIRA). The Ministry for Health and Welfare is in charge of supervision and management of the overall operation of the NHI, while the NHIC oversees everyday tasks, such as determining the eligibility of the insured and their dependents, assessing and collecting insurance premiums and other fees, and making benefit payments. The HIRA reviews health care benefits and evaluates health care performance, independent of insurers, providers and other involved parties.

The finances of the NHI are mainly composed of contributions from the insured and their employers, along with government subsidies, including the National Health Promotion Fund. For an insured employee, the contribution is determined by the level of the standard monthly wage, the calculation of which is based on the wages earned by the employee over a specific period of time. Fifty per cent of the contribution is paid by the employee and 50% by his/her employer. For the self-employed, contributions are calculated per household unit, and the amount is determined by considering the insured person's assets, income and other factors.

Since the introduction of the self-employed insurance scheme in 1998, the Government has subsidized health care benefits and the operation of the insurance programmes for the self-employed to relieve their financial burden. The Government annually supports 14% of the expected insurance premium for the year out of government money, and 6% out of the National Health Promotion Fund.

3.5 Human resources for health

The qualifications for health workers are strictly stipulated by law, and only those licensed by the Government can provide medical treatment and public health services. The Medical Service Act stipulates that the Ministry for Health, Welfare and Family Affairs licenses doctors, dentists, traditional medicine doctors, midwives and nurses. The Act prescribes nurses' aides, bonesetters, acupuncturists, moxibustionists and masseurs as quasi-medical persons.

There were 101 569 physicians, 25 425 dentists, 61 114 pharmacists and 270 837 nurses in the country as of 2010.

3.6 Partnerships

The Ministry for Health and Welfare is making an effort to contribute to improved health and quality of life for the public by responding to the new challenges of low fertility and population ageing. The Ministry works with the public, nongovernmental groups, local governments and expert groups and includes all of them in its policy formation, implementation and assessment procedures. The partnership helps the Ministry to fulfil the real needs of the public.

At the same time, the Ministry also works in close partnership with international organizations, including WHO and OECD, to resolve pending global health issues. The Republic of Korea strives to play a leadership role in making people of the world healthy and sound by exchanging knowledge, experience and technology, and sharing human, physical and intellectual resources with international partners, as well as by signing memorandums of understanding in the field of health care with foreign governments.

3.7 Challenges to health system strengthening

Challenges to health system strengthening in the Republic of Korea include:

- the increase in chronic disease;
- the ageing population and low fertility rate; and
- the inequity in income distribution.

Each challenge suggests health policy issues:

- The growing incidence of chronic disease highlights the need to put a stronger emphasis on such diseases in the current health system.
- The ageing population may mean an increase in the number of elderly people with health problems and higher health-related expenditure.
- Income disparities may lead to inequity in health status.

To respond to such issues, the Government is making an effort to prevent disease, enhance NHI coverage, strengthen its own role in health care, and establish a financially sustainable health care delivery system.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : *Explore Korea through Statistics 2010*
Operator : Statistics Korea
Web address : www.kostat.go.kr

Title 2 : *Population projections for Korea*
Operator : National Statistical Office
Web address : www.nso.go.kr

Title 3 : *Annual report on the cause of death statistics, 2008*
Operator : National Statistical Office
Web address : www.nso.go.kr

Title 4 : *In-depth analysis of the 3rd Korea Health and Nutrition Examination Survey*
Operator : Korea Centre for Disease Control and Prevention, Korea Health Industry Development Institute
Web address : www.cdc.go.kr, www.khidi..or.kr

Title 5 : *Annual report of the Ministry of Health and Welfare, 2006*
Operator : Ministry of Health & Welfare
Web address : www.mw.go.kr

Title 6 : *2007 Population and Housing Census report*
Operator : Korea National Statistical Office, 2006
Web address : www.nso.go.kr

Title 7 : *2008 OECD Health Data*
Operator : Korea Institute for Health and Social Affairs
Web address : www.kihasa.re.kr

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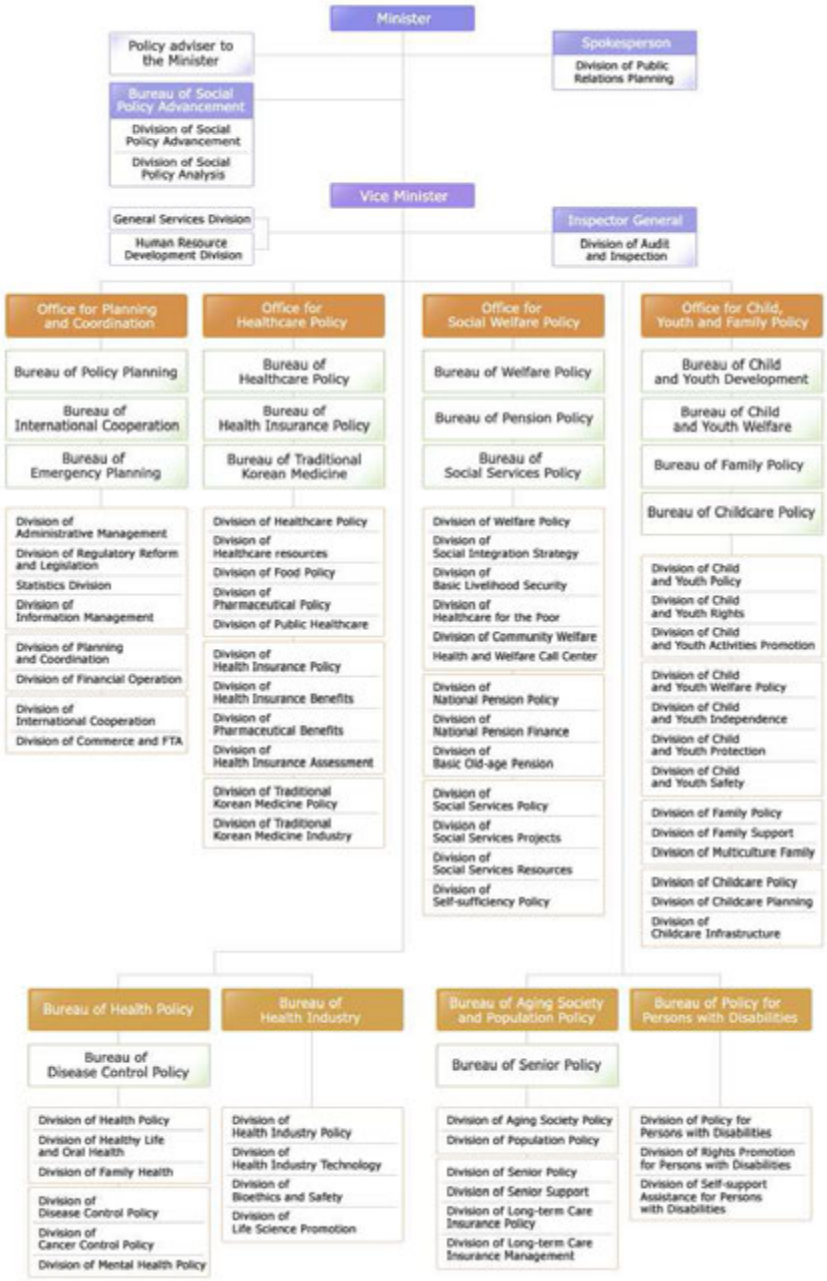
6. ORGANIZATIONAL CHART: Ministry of Health and Welfare



COUNTRY HEALTH INFORMATION PROFILE

REPUBLIC OF KOREA

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	99.90						2009	1
2	**Estimated population ('000s)**	48874.53		...		...		2010	2
3	**Annual population growth rate (%)**	0.26		...		...		2010	2
4	**Percentage of population**								
	- 0–4 years	4.50		4.65		4.36		2010	2
	- 5–14 years	11.67		12.15		11.20		2010	2
	- 65 years and above	12.90		10.09		15.75		2010	2
5	**Urban population (%)**	83.00		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	9.00		...		...		2009	4
7	**Crude death rate (per 1000 population)**	4.97		5.53		4.40		2009	5
8	**Rate of natural increase of population (% per annum)**	0.40		...		...		2009	4
9	**Life expectancy (years)**								
	- at birth	80.55		76.99		83.77		2009	6
	- Healthy Life Expectancy (HALE) at age 60	15.74		14.86		16.41		2005	7
10	**Total fertility rate (women aged 15–49 years)**	1.22						2010	22
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	...		...		...			
12	**Per capita GDP at current market prices (US$)**	17086.30						2009	8
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	0.88						2010	9
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	15231 [a]	9589 [a]	5642 [a]	...	...	...	2009	10
	- Type B	5566 [a,b]	1043 [a,b]	4523 [a,b]	...	...	...	2009	10
	- Type C	6406 [a]	3364 [a]	3042 [a]	...	...	...	2009	10
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2009	10
	Dengue/DHF	...	...	...	...	...	...		
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	1711	1471	240	...	...	...	2009	10
	Leprosy	6	4	2	...	...	...	2010	11
	Malaria	1772	...	...	...	...	...	2010	11
	Plague	0	0	0	0	0	0	2009	10
	Syphilis	1442 [a,c]	659 [a,c]	783 [a,c]	...	...	...	2009	10
	Typhoid fever	168	87	81	0	0	0	2009	10
17	**Acute respiratory infections**	...	...	...	6501	3287	3214	2009	12
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	…	…	…	…	…	…		
	- Among children under 5 years	…	…	…	…	…	…		
19	**Tuberculosis**								
	- All forms	35 845	20 547	15 298	2292	…	…	2009	23
	- New pulmonary tuberculosis (smear-positive)	11 285	…	…	…	…	…	2009	11, 13
20	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	69 780	43 846	25 934	2009	12
	- Breast	…	…	…	1893	15	1878	2009	12
	- Colon and rectum	…	…	…	7105	3952	3153	2009	12
	- Cervix			…			950	2009	12
	- Leukaemia				1541	855	686	2009	12
	- Lip, oral cavity and pharynx	…	…	…	973	765	208	2009	12
	- Liver	…	…	…	11 246	8429	2817	2009	12
	- Oesophagus	…	…	…	1406	1297	109	2009	12
	- Stomach	…	…	…	10 135	6680	3455	2009	12
	- Trachea, bronchus, and lung	…	…	…	14 919	10 892	4027	2009	12
21	**Circulatory**								
	All circulatory system diseases	…	…	…	54 257	26 129	28 128	2009	12
	- Acute myocardial infarction	…	…	…	9454 [e]	4223	5221	2009	12
	- Cerebrovascular diseases	…	…	…	25 838	12 648	13 190	2009	12
	- Hypertension	…	…	…	4749	1522	3227	2009	12
	- Ischaemic heart disease	…	…	…	12 898 [e]	7007	5886	2009	12
	- Rheumatic fever and rheumatic heart diseases	…	…	…	178	47	131	2009	12
22	**Diabetes mellitus**	…	…	…	9757	4959	4798	2009	12
23	**Mental disorders**	…	…	…	4953	2061	2892	2009	12
24	**Injuries**								
	All types	…	…	…	32 661	21 864	10 797	2009	12
	- Drowning	…	…	…	577	467	110	2009	12
	- Homicide and violence	…	…	…	678	353	325	2009	12
	- Occupational injuries	…	…	…	1370	…	…	2010	14
	- Road traffic accidents	…	…	…	7147	5300	1847	2009	12
	- Suicide	…	…	…	15413	9936	5477	2009	12
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Injury , poisoning and certain other consequences of external causes	1 619 835	956 300	663 535	3323.00	3906.20	2734.50	2009	15
	2. Diseases of the respiratory system	856 172	464 975	391 198	1756.40	1899.30	1612.20	2009	15
	3. Neoplasms	749 769	358 253	391 516	1538.10	1463.40	1613.50	2009	15
	4. Diseases of the musculoskeletal system & connective tissues	697 150	290 199	406 952	1430.10	1185.40	1677.10	2009	15
	5. Diseases of the circulatory system	684 999	343 960	341 040	1405.20	1405.00	1405.50	2009	15
	6. Diseases of the digestive system	626 599	365 918	260 681	1285.40	1494.70	1074.30	2009	15
	7. Pregnancy, birth and postnatal periods	411 273		411 273	843.70		1694.90	2009	15
	8. Certain infectious and parasitic diseases	336 271	169 372	166 899	689.80	691.80	687.80	2009	15
	9. Diseases of the genitourinary system	301 773	96 207	205 566	619.10	393.00	847.20	2009	15
	10. Health conditions and factors in the access of health service	247 058	122 287	124 771	506.80	499.50	514.20	2009	15

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malignant neoplasms	69 780	43 846	25 934	140.50	176.30	104.70	2009	5
	2. Cerebrovascular diseases	25 838	12 648	13 190	52.00	50.80	53.20	2009	5
	3. Heart diseases	22 347	11 240	11 107	45.00	45.20	44.90	2009	5
	4. Suicides	15 413	9 936	5477	31.00	39.90	22.10	2009	5
	5. Diabetes mellitus	9757	4959	4798	19.60	19.90	19.40	2009	5
	6. Transport accidents	7147	5300	1847	14.40	21.30	7.50	2009	5
	7. Chronic lower respiratory disease	6914	4347	2567	13.90	17.50	10.40	2009	5
	8. Liver diseases	6868	5449	1419	13.80	21.90	5.70	2009	5
	9. Pneumonia	6324	3206	3118	12.70	12.90	12.60	2009	5
	10. Hypertensive diseases	4749	1522	3227	9.60	6.10	13.00	2009	5
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						80.00	2009	16
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						...		
29	**Percentage of pregnant women with anaemia**						...		
30	**Neonatal mortality rate (per 1000 live births)**		2.00		2.00		1.80	2008	17
31	**Percentage of newborn infants weighing less than 2500 g at birth**		...		...		...		
32	**Immunization coverage for infants (%)**								
	- BCG		96.00		...		...	2010	11
	- DTP3		94.00		...		...	2010	11
	- Hepatitis B III		94.00		...		...	2010	11
	- MCV2		98.40		...		...	2010	11
	- POL3		95.00		...		...	2010	11
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			6	2008	17
	- Eclampsia			...			2	2008	17
	- Haemorrhage			...			5	2008	17
	- Obstructed labour			...			1	2008	17
	- Sepsis			...			2	2008	17
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	11
	- Diphtheria	0	0	0	...	...	...	2010	11
	- Measles	114	...	...	...	...	...	2010	11
	- Mumps	6104	...	...	...	...	...	2010	11
	- Neonatal tetanus	0	0	0	...	...	...	2010	11
	- Pertussis (whooping cough)	18	...	...	...	...	...	2010	11
	- Poliomyelitis	0	0	0	...	...	...	2010	11
	- Rubella	21	...	...	...	...	...	2010	11
	- Total Tetanus	14	...	...	...	...	...	2010	11
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	312	130 601	2009	18
		- Specialized hospitals	134	44 055	2009	18
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	3449	0	2009	18
	Private health facilities	- Hospitals	2220	229 276	2009	18
		- Outpatient clinics	53 103	94 370	2009	18
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			57 727.36	2009	19
	- total expenditure on health as % of GDP			6.92	2009	19
	- per capita total expenditure on health (in US$)			1184.23	2009	19
	Government expenditure on health					
	- amount (in million US$)			33 585.05	2009	19
	- general government expenditure on health as % of total expenditure on health			58.18	2009	19
	- general government expenditure on health as % of total general government expenditure			12.17	2009	19
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			41.82	2009	19
	- out-of-pocket expenditure on health as % of total expenditure on health			32.43	2009	19
	Exchange rate in US$ of local currency is: 1 US$ =			1276.93	2009	13,19
38	**Health insurance coverage as % of total population**			99.70	2009	14

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	101 569	78 605	22 964	...	...	...	...	2010	20
		- Ratio per 1000 population	2.07	1.61	0.47	...	...	...	...	2010	2, 20
	Dentists	- Number	25 425	18 997	6428	...	...	...	...	2010	20
		- Ratio per 1000 population	0.52	0.39	0.13	...	...	...	...	2010	2, 20
	Pharmacists	- Number	61 114	21 996	39 118	...	...	...	...	2010	20
		- Ratio per 1000 population	1.25	0.45	0.80	...	...	...	...	2010	2, 20
	Nurses	- Number	270 393	3386	267 007	...	...	...	...	2010	20
		- Ratio per 1000 population	5.53	0.07	5.46	...	...	...	...	2010	2, 20
	Midwives	- Number	8614	4	8610	...	...	...	...	2010	20
		- Ratio per 1000 population	0.17	0.00	0.18	...	...	...	...	2010	2, 20
	Paramedical staff	- Number	187 417	62 870	124 547	...	...	...	...	2010	20
		- Ratio per 1000 population	3.83	1.29	2.55	...	...	...	...	2010	2, 20
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	3209	2055	1154	...	...	...	...	2010	20
		Dentists	798	513	285	...	...	...	...	2010	20
		Pharmacists	1397	633	764	...	...	...	...	2010	20

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	11 825	639	15 558	...	...	...	...	2010	20
		Midwives	11	...	...	...	...	...	...	2010	20
		Paramedical staff	11 414	3525	7889	...	...	...	...	2010	20
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...	...	
43	Infant mortality rate (per 1000 live births)	3.50 [d]	3.60	3.40	2008	17
44	Under-five mortality rate (per 1000 live births)	4.47	4.61	4.31	2009	6
45	Proportion of 1 year-old children immunised against measles	93.00	...	...	2010	11
46	Maternal mortality ratio (per 100 000 live births)	12.40 [d]			2008	17
47	Proportion of births attended by skilled health personnel	100.00			2009	16
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.10			2009	16
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.90			2009	16
48	Contraceptive prevalence rate	80.00	41.10	38.90	2009	16
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	100.00			2009	16
	- At least four visits	97.40			2009	16
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	3.64	...	...	2010	11
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	115.00	...	...	2009 est	24
60	Tuberculosis death rate per 100 000 population	8.30	...	...	2009	11
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	11
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	82.00	...	...	2008 est	24
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	98.00	100.00	88.00	2008	21
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2008	21
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Data is obtained from sentine surveillance units (1,035 sentinels for Viral Hepatitis, 568 sentinels for STD).
b	Viral hepatitis comprises acute, perinatal and maternal cases
c	Syphilis includes Stage I and II cases
d	Revised data
e	Totals may not tally due to some reported cases with no gender breakdown

Sources:	
1	Cadastral Statistical Report 2009, Ministry of Land, Transport and Maritime Affairs, Republic of Korea
2	Population Projections for Korea, National Statistical Office, Republic of Korea
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision. Accessed on June 2010 from http://esa.un.org/wup2009/unup/.
4	Annual Report on Live Births and Deaths Statistics 2009, National Statistical Office, Republic of Korea
5	Causes of Death Statistics 2009, National Statistical Office, Republic of Korea
6	Life Tables for Korea 2009, National Statistical Office, Republic of Korea
7	2005 National Health and Nutrition Survey, Ministry of Health and welfare, Republic of Korea
8	Korea Statistics Yearbook 2010, National Statistics Office, Republic of Korea
9	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
10	Communicable diseases surveillance yearbook 2009, Korea Centers for Disease Control and Prevention.
11	WHO Regional Office for the Western Pacific, data received from the technical units
12	Annual Report on the Cause of Death Statistics 2009, National Statistical Office, Republic of Korea
13	OECD Health Data 2010, OECD
14	Yearbook of Health and Welfare Statistics 2010, Ministry of Health and Welfare, Republic of Korea
15	Patient Survey Report 2009, Ministry of Health and Welfare, Republic of Korea
16	National Fertility and Family Health Survey 2009, Korea Institute for Health and Social Affairs, Republic of Korea
17	Maternal & Infant Mortality Survey Report in 2007-2008, Ministry of Health and Welfare, Republic of Korea
18	Medical and paramedical institution data by city/province: 2009, Ministry of Health and Welfare, Healthcare Resources Team
19	OECD Health Data 2011, OECD
20	Unpublished Data, National Health Personal Lisencing Examination Board
21	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
22	Births and Deaths Statistics 2010(provisional). National Statistics Office. Republic of Korea
23	Annual Report on the Notified Tuberculosis Patients in Korea, 2009
24	Global Tuberculosis Control SHO REPORT, 2010

SAMOA

1. CONTEXT

1.1 Demographics

In 2010, estimates put Samoa's population at 184 032, with around 38.3% young people aged less than 15 years and only 5.0% aged 65 years and over. Life expectancy was 73.2 according to the 2006 census, compared with 72.8 years in 2001.

The country is divided into four major statistical regions: Apia Urban Area (AUA), North West Upolu, Rest of Upolu (including Manono and Apolima Islands) and Savaii. AUA represents the urban area, while the other three regions are rural.

Gender issues, such as the promotion and protection of women's rights, gender equity and women and HIV/AIDS are of high importance in Samoan society. The level of women's participation in the paid labour force is relatively high, and their access to education and achievement in the formal educational system is virtually equal to men. Women occupy a number of senior positions in the public sector. The church plays a key role in influencing public opinion and in education through the provision of schools at all levels.

The United Nations Development Programme (UNDP) Human Development Index (HDI) ranks Samoa 94th out of 182 countries. Based on the HDI, Samoa has one of the higher levels of social development in the Pacific, showing higher overall educational and health standards than other Pacific islands.

1.2 Political situation

Democratic traditions and a strong social system based on village communities and extended family ties continue to play a major role in maintaining peace in Samoan society. The extended family, the *aiga*, is the foundation of the *fa'a-samoa* (traditional way of life). The head of each *aiga* is the *matai* (customary chief), who is elected by family members. Traditionally, the family *matai* is responsible for maintaining the family's dignity and well-being by administering family affairs. More than 80% of the population lives under the *matai* system. Particularly strong in rural areas and at village level, it functions as a safety net in providing social and financial security. Many Samoans who are resident abroad continue to honour their 'social obligations' by sending significant amounts of money to their extended families and churches.

The national system of government is based on the British Westminster model, with a combination of traditional and democratic features. Universal suffrage has applied since 1991 but, with the exception of two seats reserved for voters considered to be outside the governance of the *matai* system (out of a total of 49 seats), only *matai* can stand for parliament. The Human Rights Protection Party has been in power continuously for almost 20 years. The coalition forming the opposition comprises the Samoan National Development Party and eight independent members.

During 40 years of independence, Samoa has been able to create a stable political environment and to stimulate economic growth through sound macroeconomic management. Over the past 10 years, it has sought to address the challenges of social and economic reforms. Since the early 1990s, the Government has committed itself to the promotion of good governance. Human rights are respected overall. The ongoing Economic and Public Sector Reform Programme (since 1996) has instigated institutional reforms in public services and in several public sector agencies, which has led to improvements in the governance framework. Performance budgeting has encouraged greater efficiency, accountability and transparency. Equally, economic reforms are considered to be crucial for Samoa in the pursuit of the Government's goal to improve the living standards and the welfare of the people.

Since 1996/1997, the Government's national policy framework and development strategies have been set out in statements of economic strategy, currently the *Strategy for the development of Samoa 2008–2012*, which highlight the vision of "improved quality of life for all".

1.3 Socioeconomic situation

The economy of Samoa has traditionally been dependent on development aid, family remittances from overseas, and agriculture and fishing. Agriculture still plays an important role in the economy. Village agriculture provides food security and support to the agro-based industries, such as coconut cream, oil and desiccated coconut, which have been major export products in the past. The manufacturing sector mainly processes agricultural products. Tourism is an expanding sector. The Government has called for deregulation of the financial sector, encouragement of investment and continued fiscal discipline, while protecting the environment. Development efforts in the area of trade, at both national and international levels, are considered relatively advanced compared with other Pacific islands. However, Samoa is ecologically fragile and vulnerable to natural disasters, such as cyclones and disease infestations.

Gross domestic product (GDP) per capita at the end of March 2010 was US$ 2881.81. Economic growth in 2001 was estimated at 6.5%, with an annual rate of inflation of 4% by the end of the year. Manufacturing, transport and communications, and commerce contributed most to the growth. Agriculture production, on the other hand, dropped by 12% as a direct result of the limited market outlets for copra, cocoa, kava and coconut cream, while gross tourism receipts rose only marginally, by 0.7%. The sharp slowdown in growth was seen as a direct result of the 11 September 2001 terrorist attack in the United States of America. While exports improved by 16.8% compared with 2000, imports increased by 28% in 2001. As a result, the current account deficit widened to 11.2% of GDP. Remittance inflows continued to increase, but at a lower rate than in 2000. At the current level, they are equivalent to 18% of GDP. At the end of 2001, foreign reserves stood at WST 174 .84 million (US$ 66.7 million), equivalent to approximately 4.1 months of import cover. Grants from development partners in 2000/2001 added up to WST 65.09 million (US$ 23 million), equalling some 25% of total revenue.

1.4 Risks, vulnerabilities and hazards

Rural-to-urban migration exacerbates the diminishing agriculture and fishing industry in rural areas. The settlement along the coastal areas of Samoa allows for potentially greater accessibility to services. However, tropical vegetation, tidal mudflats and mangrove areas situated along the coastline, with high humidity, create a prime environment for vectorborne diseases, such as dengue, and for complications of conditions such as wound-healing and tropical ulcers.

Samoa's susceptibility to cyclones and other natural disasters raises the importance of developing well-planned mechanisms for disaster preparedness.

Rural-to-urban migration is also impacting upon the health of urban communities. The ready access to unhealthy food, combined with smoking, alcohol and physical inactivity, is contributing to the increasing prevalence of noncommunicable diseases.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The health status of the population has improved significantly, and Samoans now enjoy relatively good health. However, persistently high mortality and morbidity rates for communicable diseases call for a renewed surveillance, control and management commitment.

Typhoid and dengue are both endemic and periodically reach epidemic levels. Lymphatic filariasis is also endemic, with a standardized antigen prevalence rate of 1.6% in 2003. As the Government has made a firm commitment to eliminate lymphatic filariasis by 2005, intensive mass drug administration (MDA) campaigns have been carried out, with 96% coverage in 2001, 60.3% in 2002, 80% in 2003 and 74.2% in 2008.

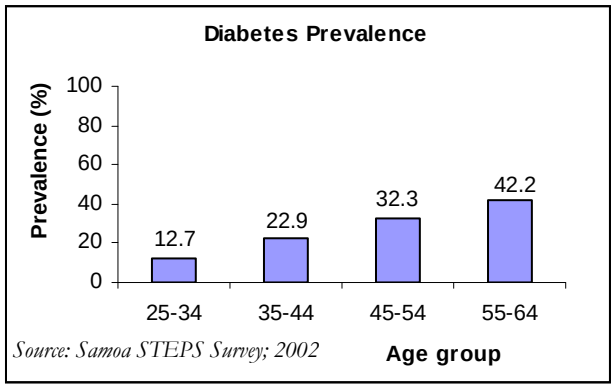
There were 16 tuberculosis cases (all forms) diagnosed in 2009, eight with sputum-smear-positive pulmonary TB. The calculated case-detection rate was 51% in 2009. The directly observed treatment, short-course (DOTS) strategy has been established throughout the country and functions well.

The incidence of HIV/AIDS is low, with a cumulative total of 12 known infections since 1990. Other sexually transmitted infections (STI), however, are present at extremely high rates, with 38% of women attending antenatal

clinics being found to have at least one STI in a study carried out in Apia in 1999-2000. Women aged less than 25 years were significantly more likely to be infected. The surprising results of this study indicate the potential for rapid spread of HIV, but also the urgent need to tackle the STI epidemic in its own right. Given the high prevalence and death rates caused by noncommunicable diseases, such as diabetes and suicide, resources for HIV/AIDS programmes are often limited. Whilst the supportive policy and national structures are in place for the coordination and management of HIV/AIDS activities nationally, this infrastructure has been, until recently with the release of funding from the Global Fund, severely underresourced.

Noncommunicable diseases (NCD), including obesity, diabetes, heart disease, high blood pressure, stroke and cancer, are a top health priority, with high and increasing prevalence rates: the obesity rate is currently 57.0%, the diabetes rate is 23.1% and the hypertension rate is 21.4%. NCD are now appearing in younger age groups and complications are becoming more common. NCD are very costly, accounting for 43.3% of total health care expenditure in 2000. If their prevalence continues to increase, the Government will be unable to continue financing the resultant rising health care costs; hence prevention must remain the mainstay of national NCD management and control. The four main risk factors are smoking (tobacco), poor nutrition, excessive alcohol consumption and physical inactivity. To reduce these risk factors, changes in the lifestyles and the behaviour of individuals, families and communities are necessary, requiring a coordinated, multisectoral national response.

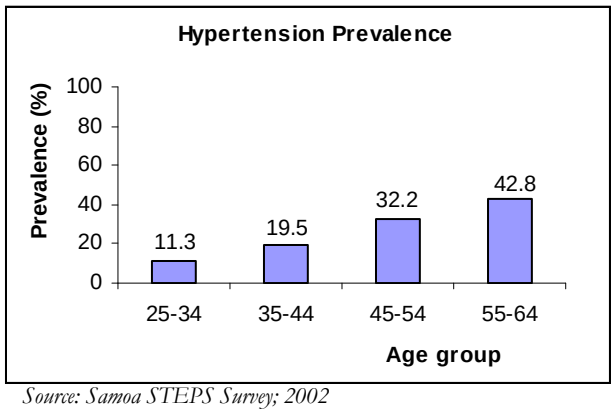
The total prevalence rate for diabetes is 23.1%: 22.9% in males and 23.3% in females. Prevalence increases with age and overall has doubled since a previous survey in 1991. The disease is more common in urban areas, (Apia 27%, Rural Upolu 19.7% and Savaii 20.3%), and the trend is similar for males and females.



Source: Samoa STEPS Survey; 2002

In general, for every known case of diabetes that is diagnosed, almost three remain undiagnosed, with the ratio a lot higher in the younger age groups, (in males, for every known case there are 12 unknown cases). Of those with a known history of diabetes, 56.8% of males and 68.5% of females are taking tablets, and only 4% of males and 5.3% of females are taking insulin.

The total prevalence of hypertension is 21.4%. The rate is higher in males (24.2%) than in females (18.2%) and increases with age in both. High blood pressure is more common in urban areas (Apia 23.5%; Rural Upolu 18.6%; Savaii 21.2%).

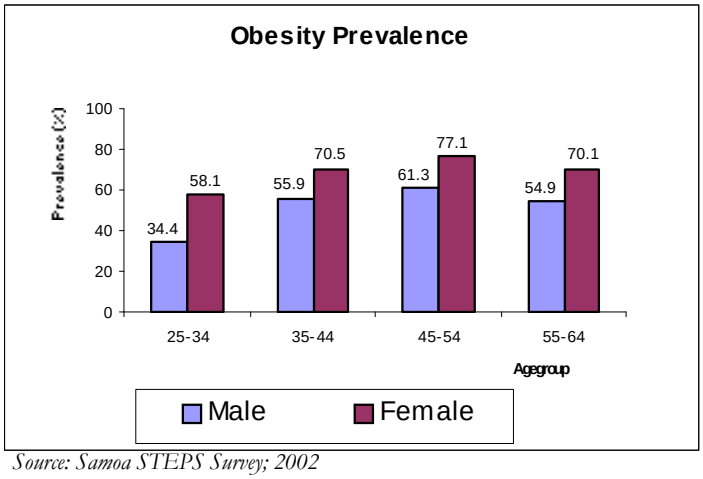


Source: Samoa STEPS Survey; 2002

In general, for every known case of high blood pressure that is diagnosed, another four remain undiagnosed. This ratio is higher in the younger age group, (for every known case there are 22 unknown cases). Most people (more than 90%) with high blood pressure do not know that they have it.

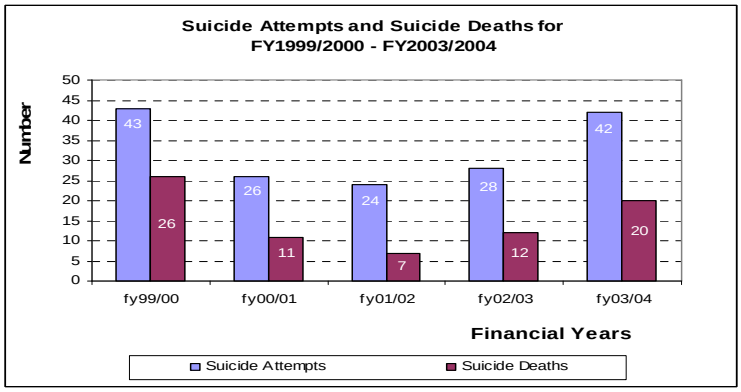
The total prevalence of obesity is 57.0% (48.4% in males and 67.4% in females) and increases with age. It is more common in urban areas. (For males, Apia 53.1%; Rural Upolu 48%; Savaii 40.2%. For females, Apia 69.3%, Rural Upolu 65.9%, Savaii 65.4%).

Many risk factors for NCD are present among the Samoan population, including: smoking (40% of the total population are smokers: 56.3% of males and 21.8% of females.); poor nutrition: (35.6% of the population eat virtually no fruit[1].); alcohol consumption (current levels of alcohol consumption place 37.6 % of males and 19.6 % of females at moderate to high risk of developing an NCD); and lack of physical activity (21% of the population do very little or no physical activity). People in Apia are more likely to be inactive (28%) than people in rural areas (15%), and women (27.3%) are more likely to be inactive than men (14.8%). There is a lack of regular health checks. In the last 12 months, only 35% of the population have had a blood sugar check and only 44.9% have had a blood pressure check. Males and younger people are less likely to have checks.



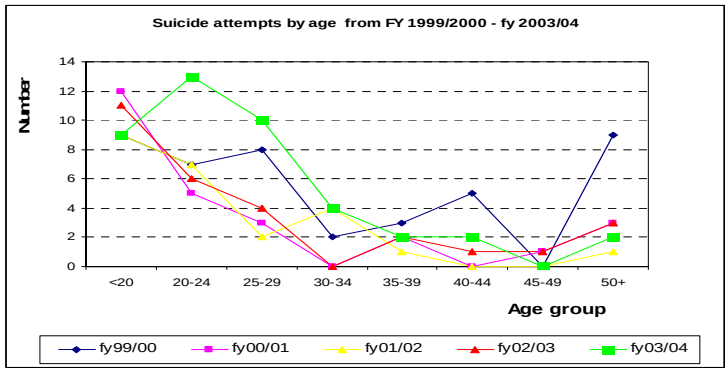
Source: Samoa STEPS Survey; 2002

The number of suicide attempts is increasing. However, the proportion resulting in death was only 43.2% in 2006/2007, compared with 60.5% in 1999/2000.



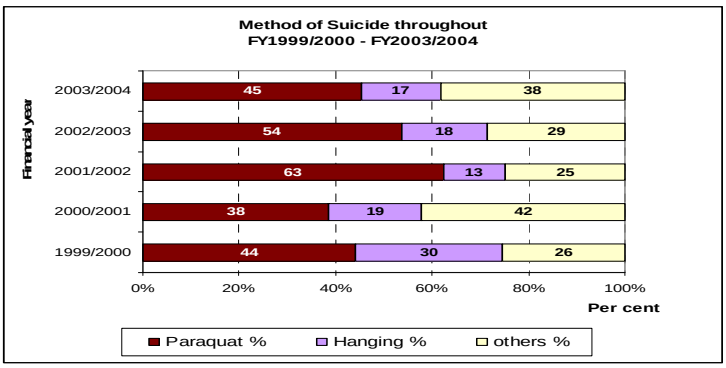
Source: Health Information System, Ministry of Health

The ages of those attempting suicide ranged from 10 to 76 years during the period from 1999 to 2004, with most aged below 30. Paraquat ingestion is the most common mode of suicide. Its use decreased in 2000/2002 then increased to more than 60% in 2001/2002 before exhibiting a slow deceleration in the last few years.



Source: Health Information System, Ministry of Health

[1] No fruit or less than one serving per day



Source: Health Information System, Ministry of Health

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

In 2007-2008, the leading causes of morbidity in all public health facilities comprised both communicable and noncommunicable diseases, with pneumonia as top, followed by other complications of pregnancy and delivery; injuries and poisoning; infections of the skin and subcutaneous tissue; diabetes mellitus; acute bronchitis and acute bronchiolitis; essential (primary) hypertension; other maternal care related to the fetus and amniotic cavity; diarrhoea and gastroenteritis; and typhoid and paratyphoid fevers.

Most deaths over the same period were caused by noncommunicable diseases, such as diabetes mellitus; cancers (all sites), cerebrovascular diseases; other heart diseases; pneumonia; septicaemia; injuries and poisoning; ischaemic heart diseases; hypertension; and liver diseases.

2.4 Maternal, child and infant diseases

The infant mortality rate decreased from 19.3 per 1000 live births in 2001 to 9.0 in 2009. Likewise, the under-five mortality rate dropped from 17.8 per 1000 live births in 2000 to 15.0 per 1000 live births in 2009. The maternal mortality ratio dropped from 19.6 per 100 000 live births in 2002 to 3.0 per 100 000 live births in 2005-2006.

Tetanus and diphtheria have been virtually eradicated in Samoa, and the whole Pacific region is poliomyelitis-free.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health, as the principal agent of the Government in the area of health, takes the lead role in working with government agencies, NGOs, the private and traditional health sectors and consumers of health services to promote a high quality, comprehensive, sustainable, integrated national health system founded on the Samoan lifestyle. The Ministry is specifically charged with implementing health legislation pertaining to public health issues and advising the Government on issues related to health care delivery, health funding and health status. It is the major provider of publicly funded health services and is responsible for the management of the publicly funded health sector.

More specialized care not available in Samoa is provided to some patients through overseas treatment, either through programmes funded by the Samoan and New Zealand Governments or at personal expense.

3.2 Organization of health services and delivery systems

See Section 3.1.

3.3 Health policy, planning and regulatory framework

National priorities in health are identified in the *Strategy for the development of Samoa 2008-2012*.

The *Health Sector Plan 2008–2018* presents the vision of "A healthy Samoa," with the mission "to regulate and provide quality, accountable and sustainable health services through people working in partnership."
To realise the vision and fulfil the mission, four crucial challenges must be met:

- rapidly increasing levels of noncommunicable diseases (NCDs) and their impact on the health system, community mortality and morbidity, and the economy;
- ensuring reproductive and maternal and child health for the long-term health of the community;
- emerging and re-emerging infectious diseases; and
- injuries as a significant cause of death and disability

Six strategic areas have been identified to meet these challenges, underpinned by the guiding principles of accountable governance, sharing, accessibility, affordability and cultural appropriateness:

- Health promotion and primordial prevention (strengthened).
- Quality health care service delivery (access improved and quality strengthened).
- Governance, human resources for health and health systems (governance, human resources and leadership strengthened).
- Partnership commitment (health system strengthened).
- Health financing (financial management and long-term planning of health financing strengthened).
- Donor assistance (increased partner participation).

The publicly funded health system has been undergoing major reform since 1996. At the broadest level this has included a review of the Ministry of Health's primary functions, roles and responsibilities and the suitability of the existing organizational structure to support these at both the strategic and service delivery levels. The themes of the reform have been: (1) Function before form; and (2) Client-based development. The reform process indicated a need for a more defined separation of the governance role from the service delivery role. This has culminated in the formal separation of the existing Ministry of Health into two new bodies, the revised Ministry of Health, as a governance and regulatory body, and the newly established National Health Service (NHS), to take responsibility for service delivery.

The Government's reform agenda is not only about organizational reform, but is also focused on reorienting the sector towards a population-health approach. The introduction of the Integrated Community Health Services (ICHS) model was a major step forward in that approach, the objective being to provide services closer to home, to strengthen primary health care services and to improve health services for the most vulnerable groups. Greater emphasis is also being placed on health promotion, protection and prevention services. It is acknowledged that this will be most effectively realized through partnerships with other groups in the health sector, other sectors, private enterprise and communities.

While increasing the focus on a population-health approach, there is a need to sustain, integrate and enhance the delivery of primary care services to the community. The Ministry of Health has developed a services planning model that is documented in the National Health Services Planning Framework.

3.4 Health care financing

Total national health expenditure in Samoa amounted to US$ 36.9 million in 2009, with per capita spending of US$ 205.5. In the same period, health spending as a share of GDP came to 7.0% (6% in 1998/1999), public expenditures for health comprised 87.3% of total health spending (62% in 1998/1999), and private spending for health comprised 12.7% of total health spending (23% in 1998/1999).

3.5 Human resources for health

In 2005, Samoa's health workforce comprised 50 physicians, 6 dentists, 3 pharmacists, 136 nurses, 37 midwives, and 73 other nursing/ auxiliary staff.

3.6 Partnerships

A review of the *Health Sector Strategic Plan* for the period 2006-2010 highlighted some of the specific objectives and strategies that the Ministry was promoting to improve health services and health outcomes in partnership with other members of the sector. Partnership is thus a major theme of the *Health Sector Plan 2008–2018,* and is pertinent given the changes occurring within the sector. Government-funded health services are undergoing major reforms and there are rapid developments in the private health care industry. There is also a need to continue developing and strengthening collaboration with traditional health practitioners, as well as community-based and nongovernmental organizations.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Samoa National Health Service Planning Framework April 2002; Ministry of Health Annual Report 1999-2000 (leading cause of mortality); Ministry of Health Annual Report 2002/03, 2003/04, 2005/06, 2007/08; Review of the Health Sector Plan 2006-2010 (Draft)
Operator	:	Department of Health
Title 2	:	Samoa National Health Accounts Report for FY 2002-2003; Samoa National Health Account for FY 2000/2001 (Executive summary)
Operator	:	Ministry of Health and the World Bank
Title 3	:	*Strategy for the Development of Samoa 2005-2007: Enhancing People's Choices*
Title 4	:	*Strategy for the development of Samoa 2008-2012*
Title 5	:	Review of the Rural Health Services Plan 2006 (Draft)
Title 6	:	Report of the PacELF 5th Annual Meeting 2003
Title 7	:	*Samoa Suicide Prevention Strategy 2002-2006: An introduction 'Faataua le Ola' (FLO)*
Title 8	:	Collins V, Dowse GK, Toelupe et al. *Increasing prevalence of NIDDM* in *Pacific Islands population*
Title 9	:	Hodge AM, Dowse GK, Toelupe et al. Dramatic increase in the prevalence of obesity in Western Samoa over the 13 years period of 1978-1991. *International journal of obesity*, 1994; 18:419-428
Title 10	:	Dr Viali Lameko et al. *Review of the National Tuberculosis Control Programme in Samoa from the internal medicine perspective*, 20 June 2002.
Title 11	:	Review of the National Tuberculosis Control Programme in May 2001 (WHO mission report by Dr Pierre Yves Norval).
Table 12	:	Update of Samoa's Country Overview – WHO Programme Budget 2010-2011
Operator	:	Ministry of Health
Title 13	:	WHO Global Health Observatory
Website	:	http://apps.who.int/ghodata/
Title 14	:	2009 Statistical Abstract
Operator	:	Samoa Bureau of Statistics
Title 15	:	The 2009 Human Development Report
Website	:	http://hdr.undp.org/en/statistics/

5. ADDRESSES

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COUNTRY HEALTH INFORMATION PROFILE

SAMOA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	2.79						2010 est	1
2	**Estimated population ('000s)**	184.03		95.38		88.65		2010 est	2
3	**Annual population growth rate (%)**	0.30 [a]		…		…		2010 est	1
4	**Percentage of population**								
	- 0–4 years	12.55 [b]		12.50 [b]		12.60 [b]		2010 est	3
	- 5–14 years	25.71 [b]		25.87 [b]		25.53 [b]		2010 est	3
	- 65 years and above	5.00 [b]		4.35 [b]		5.71 [b]		2010 est	3
5	**Urban population (%)**	20.20		…		…		2010 est	4
6	**Crude birth rate (per 1000 population)**	8.74 [b]		8.92 [b]		8.56 [b]		2009est	2
7	**Crude death rate (per 1000 population)**	3.06 [b]		5.91 [b]		2.92 [b]		2009est	2
8	**Rate of natural increase of population (% per annum)**	5.68 [b]		5.73 [b]		5.63 [b]		2009est	2
9	**Life expectancy (years)**								
	- at birth	73.20		71.50		74.20		2006	6
	- Healthy Life Expectancy (HALE) at age 60	…		10.90		11.60		2002	5
10	**Total fertility rate (women aged 15–49 years)**	4.20						2006	6
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	…		97.00 [c]		99.00 [c]		2009	7
12	**Per capita GDP at current market prices (US$)**	2908.02 [b,d]						2009-10	8
13	**Rate of growth of per capita GDP (%)**	…							
14	**Human development index**	0.77						2007	9
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	…		…		…			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	2	1	1	0	0	0	2002	10
	- Type B	10	4	6	0	0	0	2004	11
	- Type C	0	0	0	0	0	0	2002	10
	- Type E	…	…	…	…	…	…		
	- Unspecified	34	13	21	0	0	0	2004	11
	Cholera	0	0	0	0	0	0	2004	12
	Dengue/DHF	677	…	…	1	…	…	2008	13
	Encephalitis	1	1	0	0	0	0	2004	12
	Gonorrhoea	0	0	0	0	0	0	2004	12
	Leprosy	12	9	3	…	…	…	2010	13
	Malaria	…	…	…	…	…	…		
	Plague	0	0	0	0	0	0	2004	12
	Syphilis	0	0	0	0	0	0	2004	12
	Typhoid fever	254	151	103	0	0	0	2004	12
17	**Acute respiratory infections**	349	206	143	0	0	0	2004	12
	- Among children under 5 years	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	322	184	138	5	2	3	2004	12
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	16	...	...	7 [m]	...	...	2009	13
	- New pulmonary tuberculosis (smear-positive)	8	...	...	...	...	...	2009	13
20	**Cancers**								
	All cancers (malignant neoplasms only)	73	43	30	66	...	...	C:2004 D: 2006	C:12 D: 6
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	6	5	1	3	2	1	2004	12
	- Cervix			6			0	2004	12
	- Leukaemia	17	10	7	2	1	1	2004	12
	- Lip, oral cavity and pharynx	7	5	2	0	0	0	2004	12
	- Liver	8	4	4	2	1	1	2004	12
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	8	6	2	0	0	0	2004	12
	- Trachea, bronchus, and lung	21	13	8	5	4	1	2004	12
21	**Circulatory**								
	All circulatory system diseases	301	143	158	175 [b,e]	...	...	C:2004 D:2006	C:12 D:6
	- Acute myocardial infarction	39	15	24	1	0	1	2004	12
	- Cerebrovascular diseases	77	26	51	51 [b,f]	...	...	C:2004 D:2006	C:12 D:6
	- Hypertension	349 [f]	206	143	44 [b,g]	...	...	C:2004 D:2006	C:12 D:6
	- Ischaemic heart disease	72	52	20	3	2	1	2004	12
	- Rheumatic fever and rheumatic heart diseases	113	50	63	27	5	22	2004	12
22	**Diabetes mellitus**	599 [h]	...	...	53	33	20	2007-08	14
23	**Mental disorders**	141	74	67	...	...	...	2006	6
24	**Injuries**								
	All types	733	556	177	44	...	...	C:2002 D:2006	C:10 D:6
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	129	103	26	4	3	1	2002	10
	- Suicide	37	21	16	16 [i]	...	...	FY 2006-07	2
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Pneumonia	1427	...	...	785.97	...	...	FY2007/08	14
	2. Other complications of pregnancy and delivery	1066	...	...	587.14	...	...	FY2007/08	14
	3. Injuries and poisoning	852	...	...	469.27	...	...	FY2007/08	14
	4. Infections of skin and subcutaneous tissue	761	...	...	419.15	...	...	FY2007/08	14
	5. Diabetes mellitus	599	...	...	329.92	...	...	FY2007/08	14
	6. Acute bronchitis and acute bronchiolitis	436	...	...	240.14365	...	...	FY2007/08	14
	7. Essential (primary) hypertension	412	...	...	226.92473	...	...	FY2007/08	14
	8. Other maternal care related to fetus and amniotic cavity	318	...	...	175.15064	...	...	FY2007/08	14
	9. Diarrhoea and gastroenteritis	310	...	...	170.74434	...	...	FY2007/08	14
	10. Typhoid and paratyphoid fevers	274	...	...	150.91596	...	...	FY2007/08	14

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diabetes mellitus	53	33	20	29.19	35.07	22.87	FY2007/08	14
	2. Cancer (all sites)	46	24	22	25.34	25.50	25.15	FY2007/08	14
	3. Cerebrovascular diseases	42	20	22	23.13	21.25	25.15	FY2007/08	14
	4. Other heart diseases	35	20	15	19.28	21.25	17.15	FY2007/08	14
	5. Pneumonia	29	17	12	15.97	18.07	13.72	FY2007/08	14
	6. Septicaemia	25	12	13	13.77	12.75	14.86	FY2007/08	14
	7. Injuries and poisoning	24	18	6	13.22	19.13	6.86	FY2007/08	14
	8. Ischaemic heart diseases	16	13	3	8.81	13.81	3.43	FY2007/08	14
	9. Hypertensive diseases	14	4	10	7.71	4.25	11.43	FY2007/08	14
	10. Liver diseases	12	8	4	6.61	8.50	4.57	FY2007/08	14
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						16.50	2009	7,11
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						...		
29	**Percentage of pregnant women with anaemia**						...		
30	**Neonatal mortality rate (per 1000 live births)**	4.20		...		...		2002	10
31	**Percentage of newborn infants weighing less than 2500 g at birth**	1.20		...		...		2004	16
32	**Immunization coverage for infants (%)**								
	- BCG	91.40		...		...		2010	13
	- DTP3	87.30		...		...		2010	13
	- Hepatitis B III	87.30		...		...		2010	13
	- MCV2	45.10		...		...		2010	13
	- POL3	86.30		...		...		2010	13
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			134			0	2004	12
	- Eclampsia			7			0	2004	12
	- Haemorrhage			15			0	2004	12
	- Obstructed labour			7			0	2004	12
	- Sepsis			23			1	2002	12
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	13
	- Diphtheria	0	0	0	...	...	...	2010	13
	- Measles	8	...	...	...	...	...	2010	13
	- Mumps	1	...	...	...	...	...	2010	13
	- Neonatal tetanus	0	0	0	...	...	...	2010	13
	- Pertussis (whooping cough)	22	...	...	...	...	...	2010	13
	- Poliomyelitis	0	0	0	...	...	...	2010	13
	- Rubella	0	0	0	...	...	...	2010	13
	- Total Tetanus	0	0	0	...	...	...	2010	13
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	2	177 [k]	2005	17
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	6	55	2004	18
		- Primary health care centres	19	0	2005	18
	Private health facilities	- Hospitals	1	21	2004	18
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			36.99 [b]	2009p	19
	- total expenditure on health as % of GDP			7.00	2009p	19
	- per capita total expenditure on health (in US$)			205.53 [b]	2009p	19
	Government expenditure on health					
	- amount (in million US$)			32.23 [b]	2009p	19
	- general government expenditure on health as % of total expenditure on health			87.30	2009p	19
	- general government expenditure on health as % of total general government expenditure			15.90	2009p	19
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			14.77 [b]	2009p	19
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			12.70	2009p	19
	- out-of-pocket expenditure on health as % of total expenditure on health			7.92 [b]	2009p	19
	Exchange rate in US$ of local currency is: 1 US$ =			2.73	2009p	19
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	50	33	17	...	...	...	...	2005	20
		- Ratio per 1000 population	0.27 [a]	0.18 [l]	0.09 [l]	...	...	...	...	2005	20
	Dentists	- Number	6	3	3					2005	21
		- Ratio per 1000 population	0.03 [a]	0.02 [l]	0.02 [l]	...	...	...	...	2005	21
	Pharmacists	- Number	3	3	0	...	...	...	...	2005	22
		- Ratio per 1000 population	0.016 [a]	0.016	0.00	...	...	...	...	2005	22
	Nurses	- Number	136	...	...	...	...	...	...	2005	17
		- Ratio per 1000 population	0.75 [a]	...	...	...	...	...	...	2005	17
	Midwives	- Number	37	...	...	...	...	...	...	2005	17
		- Ratio per 1000 population	0.20 [a]	...	...	...	...	...	...	2005	17
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	9.00	...	...	2009	7,11
44	Under-five mortality rate (per 1000 live births)	15.00	...	...	2009	7,11
45	Proportion of 1 year-old children immunised against measles	60.60	...	...	2010	13
46	Maternal mortality ratio (per 100 000 live births)	3.00 [j]			2005-06	12
47	Proportion of births attended by skilled health personnel	81.00			2009	7,11
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	Contraceptive prevalence rate	17.80	...	...	2009	7,11
49	Adolescent birth rate	44.00			2009	7,11
50	Antenatal care coverage - At least one visit	93.00			2009	7,11
	- At least four visits	58.40			2009	7
51	Unmet need for family planning	46.00	...	...	2009	11
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	33.00	...	...	2009	13
60	Tuberculosis death rate per 100 000 population	4.00	...	...	2009	13
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	51.00	...	...	2009	13
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	71.00	...	...	2008	13
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	88.00	90.00	87.00	2006	23
64	Proportion of population using an improved sanitation facility	100.00	100.00	100.00	2008	24
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
est	Estimate
a	Revised data
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Figure refers to literacy rate in Samoan language of person aged 15-24 years
d	Computed using GDP at current market prices for 2009 and converted using exchange rate of 2.73 Tala per USD (from 2009 National Health Accounts)
e	Figure refers to deaths due to heart problems (80), diabetes/hypertension (46) and stroke/tuaula (51)
f	Figure refers to deaths caused by stroke/tuaula
g	Figure refers to deaths caused by hypertension/diabetes
h	Figure refers to registered patients
i	11 deaths were due to paraquat ingestion
j	Figure refers to hospital reported MMR
k	Figure includes 157 beds in Tupua Tamasese Meaole Hospital, and 20 beds in Maliettoa Tanumafili II Hospital
l	Figure computed using 2006 estimated population
m	Estimated number of deaths

Sources:	
1	2010 Pocket Statistical Summary (PSS) Secretariat of the Pacific Community, Statistics and Demography. Accessed on 03 September 2011 from http://www.spc.int/sdp/.
2	Statistical Abstract 2009, 40th issue. Samoa Bureau of Statistics, Government of Samoa. [http://www.sbs.gov.ws/LinkClick.aspx?fileticket=GeW%2bKVgRUak%3d&tabid=3277&mid=5623&language=en-US]
3	Population 2000-2015 by 1 and 5 year age groups, February 2010. Secretariat of the Pacific Community (SPC) - Statistics and Demography (SDP) Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_details&gid=158]
4	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
5	World health report 2004. Changing history. Geneva, World Health Organization, 2004.
6	Samoa Population and Housing Census Report 2006. Samoa Bureau of Statistics, July 2008 [http://www.sbs.gov.ws/LinkClick.aspx?fileticket=xZE7lp3423g%3d&tabid=3615&language=en-US]
7	Samoa Demographic and Health Survey 2009 [http://www.health.gov.ws/Portals/189/Publications/2009%20SDHS.pdf]
8	Gross Domestic Product Report, March 2010, Issue 6. Samoa Bureau of Statistics, Government of Samoa. [http://www.sbs.gov.ws/Portals/138/PDF/Finance/GDP%20March%2010/GDP%20Report%20March%202010.pdf]
9	Human Development Report 2009: Overcoming barriers: Human mobility and development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2009/]
10	Ministry of Health statistical bulletin 2002 – review 1999-2002.
11	Millennium Development Goals Report for Samoa 2009.
12	Ministry of Health Annual Report 2002/2003 & 2003/2004 & 2005/2006.
13	WHO Regional Office for the Western Pacific, data received from technical units
14	Ministry of Health Annual Report 2007/2008
15	Human Development Report. 2008 Statistical Update: Samoa. [http://hdrstats.undp.org/2008/countries/country_fact_sheets/cty_fs_WSM.html].
16	Nutrition Centre, Ministry of Health, Samoa.
17	Assistant Chief Executive Officer, Nursing Services, Ministry of Health.
18	Rural Health Services Plan Review 2006 (Draft).
19	National health accounts: country information. Geneva, World Health Organization. Available from: http://www.who.int/nha/country/en/index.html
20	Tupua Tamasese Meaole Hospital Management Report 2005, ACEO Clinical Health Services.
21	Assistant Chief Executive Officer, Dental Health Services, Ministry of Health.
22	Assistant Chief Executive Officer, Pharmacy Services, Ministry of Health.
23	World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special focus on Sanitation. UNICEF, New York and WHO, Geneva, 2008. [http://www.wssinfo.org/en/40_mdg2008.html]
24	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

SINGAPORE

1. CONTEXT

1.1 Demographics

Singapore is a small country with a total land area of 712 square kilometres. The total population is about 5.1 million, with a resident population of 3.8 million in 2010. The population is relatively young, with only 9.0% of the resident population aged 65 and over, although that proportion is projected to increase to 19% by 2030.

In 2010, life expectancy at birth for males was 79.3 years and 84.1 years for females. The crude birth rate for 2010 was 9.3 per 1000 resident population and the crude death rate was 4.4 per 1000. The total fertility rate per resident female is 1.2. The infant mortality rate is very low, at 2.0 per 1000 live births.

1.2 Political situation

Singapore is a parliamentary republic that obtained independence from Malaysia on 9 August 1965. The Constitution was established on 3 June 1959 and amended in 1965 (based on the pre-independence State of Singapore Constitution). The legal system is based on English common law.

The head of state is President S R Nathan (since 1 September 1999), the head of government is Prime Minister Lee Hsien Loong (since 12 August 2004), and the Deputy Prime Ministers are Teo Chee Hean (since April 2009), and Tharman Shanmugaratnam (since May 2011). The Cabinet is appointed by the President and is responsible to Parliament. The President is elected by popular vote for a six-year term. President Sellapan Ramanathan was re-elected for his second term in August 2005.

The legislative branch is a unicameral parliament (87 seats; members elected by popular vote to serve five-year terms). The judicial branch has a supreme court headed by the Chief Justice, who is appointed by the President on the advice of the Prime Minister.

1.3 Socioeconomic situation

Singapore is a successful free-market economy. It has a very open and corruption-free business environment. With trade three times the size of gross domestic product (GDP), external demand is the main driver of the economy, which grew by 14.5% in 2010. Per capita GDP amounted to US$59 813 in 2010.

The country continues to position itself as a vibrant global city and a hub of talent, enterprise and innovation in order to succeed in a globalized world.

1.4 Risks, vulnerabilities and hazards

Singapore suffers from few physical hazards. The island city-state is protected from typhoons and monsoons by neighbouring landmasses. Being a small country, Singapore's key challenge arises from its size and limited natural resources. As such, human resources are its key strength and great emphasis is given to the development of its population. It is one of the world's most open economies, highly dependent on the foreign investment, trade and health of other economies. This openness, coupled with a high population density, makes Singapore particularly vulnerable to outbreaks of infectious diseases, such as the severe acute respiratory syndrome (SARS) outbreak in 2003 and the influenza A (H1N1) pandemic in 2009.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Over previous decades, national efforts to combat traditional and vaccine-preventable, communicable diseases have achieved great success. However, the SARS, Nipah virus and influenza A (H1N1) 2009 outbreaks highlighted the regional vulnerability to new and emerging infectious diseases; the lessons learnt from the global SARS epidemic and the influenza A (H1N1) pandemic have been applied to enhance surveillance and outbreak response for pandemics, as well as emerging and re-emerging infectious diseases.

The effective implementation of the childhood immunization programme against major vaccine-preventable diseases has contributed to a significant reduction in their incidence. The incidence of acute hepatitis B showed a rapid decline from 9.5 per 100 000 in 1985 to 1.3 per 100 000 population in 2010, and no acute hepatitis B case has been reported in children below 15 years of age since 1998. Similarly, the incidence of measles was just 1.0 per 100 000 in 2010. Pneumococcal vaccination was added to the childhood immunization schedule in 2009. Despite being in a region endemic for malaria, Singapore has maintained the malaria-free status accorded by WHO since 1982. The incidence of malaria was 2.5 per 100 000 population in 2010, with almost all cases imported from endemic countries. The country also experienced a resurgence of hand, foot and mouth disease (HFMD) and an increase in the circulation of Enterovirus 71 in 2010. A total of 30 878 cases were reported in 2010, an increase of 79% from the 17 278 cases reported in 2009.

Chronic infectious diseases, such as tuberculosis (TB) and HIV/AIDS, remain important public health challenges. The notification rate for HIV/AIDS was 117 per million population in 2010. However, the prevalence of HIV remains low, with UNAIDS estimates for the population aged 15-49 years being just 0.1% in 2009. After a rapid decline in TB incidence during the period from 1960 to 1987, the incidence rate has remained stable at a low level. The Singapore TB Elimination Programme (STEP) was relatively successful in further reducing the incidence of TB from 57 per 100 000 resident population in 1998 to 35 per 100 000 in 2008. The incidence rate was 39 per 100 000 resident population in 2010.

Noncommunicable diseases, like cancer, heart disease and cerebrovascular disease, remain the leading causes of mortality, together accounting for 57% of all deaths. This is in contrast to the 1950s, when infectious diseases like TB featured among the leading causes of death.

National representative, population-based health surveys show that the prevalence of chronic diseases, such as diabetes mellitus and hypertension, and health risk factors, such as smoking, physical inactivity, obesity and high blood cholesterol, declined between 1992 and 2010. The age-standardized prevalence of diabetes mellitus fell from 11.5% in 1992 to 7.8% in 2004, but rose again to 11.3% in 2010. The percentage of the population smoking declined from 17.8% to 14.3%. The age-standardized prevalence of high blood cholesterol also dropped, from 21.4% to 17.4%, and the proportion of Singaporeans engaging in regular physical activity rose from 13.5% to 19.0%. The age-standardized prevalence of hypertension stabilized at 24%, but that of obesity rose from 5.3% to 10.8%. Table 1 shows the trends in the prevalence of diabetes mellitus, hypertension and health risk factors between 1992 and 2010.

Table 1: Prevalence of risk factors for cardiovascular diseases, 1992, 1998, 2004, 2007 and 2010

Risk factor#	Prevalence	1992	1998	2004	2007	2010
Diabetes mellitus [plasma glucose 2 hours post-OGTT ≥ 11.1 mmol/l]	Crude Age-standardized	8.6% 10.0%	9.0% 9.5%	8.2% 7.8%	… …	… 11.3%
Hypertension [systolic pressure ≥ 140 mmHg or diastolic pressure ≥ 90 mmHg]	Crude Age-standardized	22.2% 24.0%	27.3% 28.0%	24.9% 24.0%	… …	… …
High blood cholesterol [Total cholesterol ≥ 6.2 mmol/l]	Crude Age-standardized	19.4% 21.4%	25.4% 26.0%	18.7% 18.1%	… …	… 17.4%
Obesity [BMI ≥ 30 kg/m^2]	Crude Age-standardized	5.1% 5.3%	6.0% 6.2%	6.9% 6.8%	… …	… 10.8%
Cigarette smoking [smoked cigarettes at least once a day]	Crude Age-standardized	18.3% 17.8%	15.2% 15.0%	12.6% 12.5%	13.6% 14.2%	… 14.3%
Physical activity [exercised ≥ 20 minutes for ≥ 3 days per week]	Crude Age-standardized	13.6% 13.5%	16.8% 17.0%	24.9% 25.0%	23.6% 22.5%	… 19.0%

Risk factor for age group 18-69, except for hypertension, which is for age group 30-69
Sources: National Health Survey 1992, 1998 and 2004; National Health Surveillance Survey 2007

2.2 Outbreaks of communicable diseases

To prevent the introduction and spread of infectious diseases with outbreak potential, the Ministry of Health maintains a comprehensive and well-established system of disease surveillance and control, involving the epidemiological investigation of specific notifiable diseases under the Infectious Diseases Act, as well as some emerging infectious diseases of public health importance. In the control of vectorborne diseases, such as dengue and malaria, the Ministry works closely with the National Environment Agency, which is responsible for eliminating the vector through larval-source-reduction activities, environmental controls, public education and community mobilization. In a nationwide outbreak of HFMD in 2010, the Ministry of Health, together with the licensing authorities for childcare centres (Ministry of Community Development, Youth and Sports) and kindergartens (Ministry of Education), took effective measures to break the chain of transmission, including closure of selected pre-schools and a rigorous public education campaign.

2.3 Leading causes of mortality and morbidity

Cancer has been the leading cause of mortality since 1991; in 2009, it accounted for 29% of all deaths. Men have a much higher cancer death rate than women, but rates for both genders have been declining slowly since 1995. In 2009, the age-standardized cancer mortality rates for men and women were 129 and 86 per 100 000 resident population, respectively. The cancer incidence rate in men has declined slowly since the early 1980s, due mainly to declines in lung, stomach, liver, nasopharyngeal and oesophageal cancers. Of note is the fact that colorectal and prostate cancers are increasing in men. The cancer incidence rate in women has increased, due mainly to increases in breast and colorectal cancers, despite declines in cervical, stomach, liver and oesophageal cancers. In the five-year period from 2005 to 2009, the five most common cancers were colorectal, lung, prostate, liver and stomach in men, and cancers of the breast, colorectum, lung, corpus uteri and ovary in women.

Heart diseases constitute the second most common cause of death. Coronary heart disease mortality rates have shown consistent declines over the past 15 years, although men still have almost twice the death rate of women, a difference that has remained constant over the years. In 2009, the age-standardized death rate from heart disease for men was 90 per 100 000 resident population, compared with 48 for women. The incidence of acute myocardial infarction events among adults has generally decreased since 1990. The incidence rate for men is about twice that for women; in 2007, the age-standardized incidence rate for men was 179 per 100 000 resident population, compared with 79 for women.

Stroke has been among the leading causes of mortality since 1970. In 2009, it was the fourth leading cause of death, accounting for 8% of all deaths. Nonetheless, death rates for both genders have fallen noticeably over the years. In 2009, the age-standardized stroke mortality rates for men and women were 31 and 26 per 100 000 resident population, respectively.

2.4 Maternal, child and infant diseases

The number of maternal deaths declined sharply from 86 deaths in 1950 to 12 deaths in 1975, and has dropped further to less than eight deaths per year since. There was no maternal death in 2009. The corresponding maternal mortality ratio fell in tandem, from 180 per 100 000 live births and stillbirths in 1950 to 30 in 1975, and has remained at a low of between 10 and 20 since then. The maternal mortality ratio was 0 per 100 000 live births in 2009.

The infant mortality rate also fell sharply from 82.2 per 1000 live births in 1950 to 6.6 in 1990, and has continued to drop steadily. The rate was 2.0 in 2010. The main causes of infant death are perinatal conditions, congenital anomalies and pneumonia.

2.5 Burden of disease

The growing demand for health services, in spite of limited resources, has always been a challenge, requiring careful health policy planning and wise allocation of resources to respond to people's health needs. Inadequate information to guide decisions on health policies and resource allocation is one of the obstacles to better policy development. Therefore, the Ministry of Health, in 2004, conducted Singapore's first Burden of Disease Study, which provides a comprehensive and detailed assessment of the size and distribution of health problems in the country and was the first local study to use disability-adjusted life years (DALYs) to quantify total disease burden. The Study in general applied the methods developed for the original Global Burden of Disease Study to data

specific to Singapore to compute DALYs. DALYs stratified by gender and age group were calculated for more than 130 specific health conditions for the resident population for the year 2004.

An update of the Study, carried out for 2007, found that more than 390 thousand years of 'healthy' life (that is DALYs) were lost in Singapore in that year due to premature deaths and ill-health. That translates to 110 DALYs lost per 1000 residents or, in other words, an average probability of 0.110 of losing health due to illness or death.

Cardiovascular diseases and cancers were the leading causes of disease and injury burden, accounting for 37% of total DALYs. More than fourth-fifths (83%) of the burden was due to mortality. Ischaemic heart disease and stroke dominated the burden of cardiovascular diseases. Lung, colorectal and breast cancers were the top cancers.

Neurological and sense disorders, mental disorders and diabetes were the next largest contributors, together accounting for another 35% of total DALYs. However, less than one-tenth (7%) of the burden from those groups was due to mortality. Anxiety and depression, schizophrenia and autism spectrum disorders were the main specific causes of mental disorder. The leading neurological and sense disorder conditions were vision disorders, Alzheimer's and other dementias, and adult-onset hearing loss.

The distribution of DALYs between men and women was approximately equal (52% vs 48%). The non-fatal burden was responsible for 48% of the males' total burden and 59% of the females' total burden. For nutritional deficiencies and genitourinary diseases, DALYs were notably higher in women. Conversely, men experienced a higher burden for injuries, endocrine disorders and chronic respiratory diseases. The five leading specific causes of disease in men were ischaemic heart disease (12.9%), diabetes (9.3%), stroke (6.3%), lung cancer (4.3%) and vision disorders (3.9%). The five leading specific causes in women were diabetes (10.7%), anxiety and depression (8.7%), ischaemic heart disease (8.1%), stroke (5.8%), and breast cancer (5.4%).

Ischaemic heart disease (16.1%), followed by stroke (9.7%), diabetes (7.4%), Alzheimer's and other dementias (7.1%), and vision disorder (6.0%), were the top five leading causes of DALYs among the elderly aged 65 years and above.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The vision of the Ministry of Health is to develop the world's most cost-effective health care system to keep Singaporeans in good health. Its mission is to promote good health and reduce illness, ensure access to good and affordable health care, and pursue medical excellence. This is to be achieved through three strategies:

- Promote good health and reduce illness
- Ensure access to good and affordable health care
- Pursue medical excellence

3.2 Organization of health services and delivery systems

Ensuring the good health of the population is achieved through three cooperating ministries, as well as the private sector.

The Ministry of Health is responsible for formulating national health policies for the provision of preventive, curative and rehabilitative health services. The Ministry also coordinates the development and planning of the private and public health sectors, and regulates health standards.

The Ministry of Environment and Water Resources is responsible for weather forecasting services; environmental and public health services, such as the management of water resources and the supply of drinking water to the nation, collection and treatment of used water, pollution and toxic chemicals and poisons; control of vectors that could spread diseases; and the hygienic preparation of food. The Ministry also licenses food-stall proprietors and looks after all public markets and food centres, public toilets and public cemeteries and crematoria.

The Ministry of Manpower is responsible for the health, safety and welfare of employed persons. The Ministry enforces requirements on employment conditions under the Employment Act, has provisions in the Workplace Safety and Health Act to safeguard the health and safety of the workforce, and administers the Work Injury Compensation Act to ensure fair compensation for persons with work-related injuries and diseases.

There is a dual system of health care delivery. The public system is managed by the Government, while the private system is provided by private hospitals and private general practitioners. The health care delivery system comprises primary health care provision at outpatient polyclinics and private medical practitioners' clinics, and secondary and tertiary specialist care in public and private hospitals. In addition, the 'people' sector, made up of voluntary welfare organizations and charities, further supplements the public and private health care systems through the delivery of intermediate and long-term care services, particularly for the elderly and chronically sick. Eighty per cent of primary health care services are provided by private practitioners, while government polyclinics provide the remainder. For hospital care, the ratios are reversed, with 80% provided by the public sector and the remainder by the private sector.

Patients are free to choose their health care providers within the dual health care delivery system, and can call to book an appointment or walk in for a consultation at any private clinic or any government polyclinic. For emergency services, patients can access the 24-hour accident and emergency departments located in government hospitals. The Singapore Civil Defence Force runs an emergency ambulance service to transport accident and trauma cases and medical emergencies to the acute general hospitals.

Primary health care involves the provision of primary medical treatment, preventive health care and health education. Primary health care is provided through an island network of 18 government outpatient polyclinics and over 2400 private medical practitioners' clinics. Each polyclinic is an affordable, subsidized, one-stop health centre, providing outpatient medical care, follow-up of patients discharged from hospital, immunization, health screening and education, investigative facilities and pharmacy services. At polyclinics, the average outpatient consultation fee is about $8 (US$6.50). In addition, Singapore citizens aged 65 and above, children up to 18 years of age and all schoolchildren are given a concession of up to 75% on their consultation and treatment fees. Other Singapore citizens are given a 50% concession. The private medical clinics are located in close proximity to population centres in the city, housing estates and satellite towns. The average outpatient consultation fee is within the means of Singaporeans. The needy elderly receive further help through the Primary Care Partnership Scheme (PCPS), which allows patients to go for consultations at private clinics, but pay polyclinic rates. PCPS is most helpful to those who cannot travel to polyclinics.

There are about 11 431 hospital beds in the 29 public and private hospitals and speciality centres; 77.2% of the beds are in the 14 public-sector, specialty centres and hospitals. The 16 private-sector hospitals are smaller, with a capacity of between 24 and 413 beds. The Government's role as the dominant provider of secondary and tertiary care allows it to manage the supply of hospital beds, the adoption of high-tech/ high-cost medicine, and cost increases in the public sector, which serves as a price benchmark for the private sector.

The eight public hospitals comprise six general hospitals, a women's and children's hospital and a psychiatric hospital. The general hospitals provide inpatient and specialist outpatient services, and a 24-hour emergency department. Seventy-five per cent of public hospital beds are heavily subsidized. There are also six national specialty centres for oncology, cardiology, ophthalmology, dermatology, neuroscience and dentistry. Tertiary specialist care in the areas of cardiology, renal medicine, haematology, neurology, oncology, radiotherapy, plastic and reconstructive surgery, paediatric surgery, neurosurgery, cardiothoracic surgery and transplant surgery is centralized in two of the larger general hospitals, the Singapore General Hospital and the National University Hospital. The private hospitals have similar specialist disciplines and comparable facilities.

The Government has structured all its 14 hospitals and specialty institutes as private companies, wholly owned by the Government and managed as not-for-profit organizations. This has granted the public hospitals management autonomy and flexibility to respond more promptly to the needs of their patients. In the process, greater financial discipline and accountability have been introduced. The corporatized health care institutions are also clustered into Regional Health Systems to deliver comprehensive and affordable quality health care services through cooperation and collaboration between public, private and voluntary non-profit health care establishments. The restructured public hospitals receive an annual government subsidy for the provision of subsidized patient care, and are subject to broad government policy guidance through the Ministry of Health. The Government has also introduced lower-cost community hospitals to provide intermediate subacute and rehabilitative care for patients who do not require the more expensive care provided by the acute general hospitals.

Support services for the hospital and primary health care programmes include forensic pathology, pharmaceutical services and the blood transfusion service. Except for forensic pathology and the blood transfusion service, which

are centralized in the Health Sciences Authority, a statutory board under the Ministry of Health, most of the other services can be found in both the public and private sectors.

Dental care begins with preventive dentistry promoted through the Health Promotion Board. The Board targets students through a network of about 200 static clinics located in schools, as well as 30 mobile dental clinics. This, plus fluoridation of potable water and availability of fluoridated toothpaste, has greatly diminished dental decay and tooth loss. Public dental services are available in some polyclinics and hospitals, and in the National Dental Centre.

3.3 Health policy, planning and regulatory framework

The Singapore health care philosophy emphasizes the building of a healthy population through preventive health care programmes and the promotion of healthy living. Grassroot leaders, the Heath Promotion Board and relevant stakeholders across all sectors are actively engaged in the joint planning of initiatives to address the health needs of the local community. Singaporeans are encouraged, through the public health education programme, to adopt healthy lifestyles and be responsible for their own health, and are made aware of the adverse consequences of harmful habits like smoking, alcohol consumption, bad diet and sedentary lifestyles. The child immunization programme, which targets infectious diseases like tuberculosis, poliomyelitis, diphtheria, whooping cough, tetanus, measles, mumps, rubella and hepatitis B, is offered at government polyclinics, as well as private primary health care clinics. Evidence-based health screening programmes have been introduced for the early detection of common ailments, such as cancer, heart disease, hypertension and diabetes mellitus, as well as follow-up. These are available in both primary and secondary care settings. There is also a Workplace Health Promotion programme, advocating the adoption of healthy practices at workplaces to improve the productivity and efficiency of employees and also to enhance the work environment and culture.

The Government ensures that good and affordable basic medical services are made available to all Singaporeans through heavily subsidized medical services at public hospitals and government clinics. The basic medical package includes evidence-based medical practices, and is delivered cost-effectively by trained personnel. Experimental, non-evidence-based treatments, as well as cosmetic and aesthetic treatments, may be excluded.

The health care regulatory framework consists mainly of two parties; the regulator (comprising the Ministry of Health along with its statutory boards) and the regulated (comprising public and private providers). All hospitals, clinics, clinical laboratories and nursing homes are required to maintain a good standard of medical services through licensing by the Ministry. Health care professionals are self-regulated by their relevant professional bodies:

- Singapore Medical Council,
- Singapore Dental Council,
- Singapore Nursing Board,
- Singapore Pharmacy Council,
- Traditional Chinese Medicine Practitioners Board,
- Optometrists and Opticians Board,
- Allied Health Professions Council.

In addition, health-related products, such as medicines and medical devices, are regulated by the Health Sciences Authority.

3.4 Health care financing

In the 2009, Singapore spent about S$10.3 billion (US$7.1 billion) or 3.9% of GDP on health care. Out of this, the Government expended S$4.3 billion (US$2.9 billion).

The philosophy of Singapore's public health care delivery system is one of strong government support combined with individual responsibility and community support. Multiple tiers of protection have been built into the health care financing system to ensure universal coverage for all citizens. The first level of protection is through heavy government subsidies of up to 80% for patients who choose to stay in subsidized wards within the public hospitals. The second level of protection is provided by Medisave, a compulsory individual medical savings account scheme that helps Singaporeans to save and pay for their share of medical treatment without financial difficulty. The third level of protection is provided by MediShield and ElderShield, which riskpool the financial

risk of patients suffering a major illness or severe disability. Finally, Medifund, a medical endowment fund, acts as the ultimate safety net for needy patients.

Individuals are encouraged to take responsibility for their own health by saving for their medical expenses. Medisave, as a national savings scheme, helps individuals set aside part of their income into Medisave accounts to meet their personal or immediate family's hospitalization expenses. Medisave can be used to pay for an individual's co-payment portion of his or her medical bill, as well as the premiums of approved medical insurance products. From 1 July 2011, Medisave can also help pay for mammograms and colonoscopies for screening.

In 2006, the Ministry of Health initiated the Medisave for Chronic Disease Management programme, a coordinated, nationwide effort to transform care for common chronic illnesses, starting with diabetes mellitus. Participating medical institutions include all public hospitals and polyclinics, as well as about half of the 1400 private primary care clinics in the country. Since then, the programme has been extended progressively to cover hypertension, lipid disorder, stroke, asthma and chronic obstructive pulmonary disease (COPD), schizophrenia and major depression. The programme seeks to improve chronic disease care through two chief avenues: (1) enhancing access, and (2) improving care. By liberalizing the use of Medisave to cover outpatient treatment for the chronic diseases (enhancing access) and implementing evidence-based disease management programmes, together with clinical quality improvement efforts (improving care), complications arising from these chronic diseases can be better prevented. Correspondingly, patients will be healthier and the risks of expensive hospitalization and potential disabilities will be reduced. The programme is supported by the participation of medical and allied health professionals in the public and private sectors, enhancements to IT systems to improve sharing of essential medical data, and education tools to improve patients' ability to manage their conditions.

MediShield is a low-cost, catastrophic illness insurance scheme designed to help members meet the medical expenses from major or prolonged illnesses, for which their Medisave balance would be insufficient. Individual responsibility is promoted through the features of deductibles and co-payment in MediShield. Annual premiums for MediShield can be paid from the individual's Medisave account. There are also private supplementary insurance products offering additional coverage. These are integrated with MediShield to provide a national risk pool for basic coverage.

Medifund is an endowment fund set up by the Government as a safety net to help poor Singaporeans pay for their medical care. Medifund is meant to be an avenue of last resort for patients who, despite heavy government subsidies and Medisave and MediShield coverage, are unable to pay for their medical expenses. Therefore, no Singaporeans are denied access into the health care system or turned away by the public hospitals because of their inability to pay. In 2007, part of Medifund was specifically set aside for needy, elderly patients (65 years and above).

ElderShield is an affordable, severe-disability insurance scheme designed to provide Singaporeans with basic financial protection against long-term care expenses. Introduced in September 2002, it was further reformed in 2007 to improve its benefits, and private insurers are now allowed to provide supplementary products with higher coverage.

Public-sector health services are provided to cater for lower income groups who cannot afford private-sector charges, and also to set the benchmark for the private sector on professional standards and charges. To support the latter objective, the Government requires public hospitals to publish basic consultation and ward charges to ensure greater price transparency. The Ministry of Health also publishes hospital pricing data and bill sizes for common conditions on its website.

3.5 Human resources for health

In 2010, Singapore had 8819 doctors in its health care delivery system, giving a doctor-to-population ratio of 1:580; 38% of the doctors were trained specialists. There were also 29 340 nurses, giving a nurse-to-population ratio of 1:173; 1568 dentists, 18% of whom were trained dental specialists, giving a dentist-to-population ratio of 1:3240; and 290 oral health therapists, giving an oral health therapist-to-population ratio of 1:17 500. There were also 1814 registered pharmacists in 2010, giving a pharmacist-to-population ratio of 1:2800. The number of pharmacists is expected to increase to meet demand due to growing health care needs and anticipated growth in the biomedical and pharmaceutical sectors.

Health care demand has risen with the growth and ageing of the population and the increasing prevalence of chronic diseases, resulting in a need for greater investment in human resources for health to increase the number of health care professionals and to enhance their capabilities to better enable them to provide holistic care across the care continuum. In anticipation of growing national health care needs in the future, strategies have been put in place to ensure an adequate and well-trained health care manpower supply to meet needs.

In recent years, efforts have been made to expand local training capacity and to facilitate mid-career conversions. For example,

- The intake of medical students was recently increased to 260, while the number of overseas medical schools recognized by the Singapore Medical Council has increased to 160. The Duke-NUS Graduate Medical School, which offers a postgraduate doctoral medicine (MD) programme, began their inaugural academic year in 2007 with a batch of 26 students, followed by an increased intake of 48 students in 2008 and 56 students in 2009 and 2010. A new school of medicine, jointly managed by Nanyang Technological University and Imperial College, is slated to start in 2013, and aims to admit 150 students.
- The overall intake of nursing students has increased over the years, with the Diploma in Nursing being offered in two polytechnics. A third Diploma in Nursing course, offered by a private college, was also accredited by the Singapore Nursing Board in 2008. In 2006, the National University of Singapore started the Bachelor of Science (Nursing) programme, a full-time undergraduate degree programme, with a batch of 49 students, and will continue to expand its student intake.
- With the increasing demand for allied health professionals, the student intake for the allied health diploma courses expanded by more than 30% from 2006 to 2010. New programmes, such as the Masters in Speech and Language Pathology, and Masters in Psychology (Clinical), have also been established in the National University of Singapore.
- In 2007, the Professional Conversion Programme was expanded to allow mid-career entrants to pursue a career in allied health.

To prepare the workforce to better handle more complex health care needs in the future, efforts have also been made to enhance the workforce's capabilities. For example,

- The Ministry is improving the postgraduate training structure and curriculum for specialists and family physicians.
- There are now new educational pathways to equip the nursing workforce to undertake more advanced and expanded roles. In 2003, the National University of Singapore started the Master of Nursing programme to train advanced practice nurses, and the Advanced Practice Nurse Register was implemented by the Singapore Nursing Board in 2006. In 2010, the Singapore Institute of Technology, in collaboration with the University of Manchester, United Kingdom, launched a new nursing conversion degree programme to upgrade diploma-level nurses to degree-level. To meet the needs of an ageing population, advanced diploma nursing courses in palliative care and chronic disease management have also been established by the polytechnics in recent years.
- A conversion degree programme to upgrade the diploma-level allied health professionals to degree-level is currently being developed. Qualifying examinations have also been implemented to ensure that foreign allied health professionals in physiotherapy, occupational therapy, diagnostic radiography and radiation therapy have the required knowledge and skills to provide good care to patients.
- The Ministry also offers postgraduate scholarships for health care professionals to further their training locally or overseas.

Policy efforts will continue to be geared towards ensuring adequate and qualified health care manpower to meet the evolving health care demands of the growing and rapidly ageing population.

3.6 Partnerships

Harnessing and forging strong partnerships is important for the attainment of national health goals. The Ministry of Health maintains strong partnerships and strategic alliances with voluntary welfare organizations and charities involved in health to ensure that their activities are aligned with the national health care framework. To further strengthen these links across nongovernment health care providers, the Ministry of Health set up the Agency for

Integrated Care in 2009. The Agency serves as a national care integrator by facilitating referrals to intermediate and long-term care services and coordinating transitional care for patients with complex needs, as well as working with health care providers to actively develop primary and community care services. This further reinforces the Ministry of Health's work with health care institutions, organizations, professional associations, private general practitioners and other partners to develop health services in an integrated manner throughout the continuum of primary, intermediate and long-term care services.

3.7 Challenges to health system strengthening

Singapore is facing an ageing population. It is projected that the number of residents aged 65 years or older will increase from the current 8.5% to 19% by 2030, and careful planning is needed to ensure that provision is made for this population. To this end, the Government has set up the Ministerial Committee on Aging to spearhead a whole-of-government response to the opportunities and challenges presented by the ageing population. The Government aims to achieve its vision of successful ageing for Singaporeans by creating an environment where they can look forward to leading healthy, active and productive lives as they grow old.

Chronic diseases are another area of concern. An estimated 1 million Singaporeans suffer from four major chronic diseases: diabetes, hypertension, lipid disorder and stroke, and the numbers are expected to rise with the ageing population base.

The health workforce is at the forefront in facing the challenges of an ageing population, a changing disease burden, and rising patient expectations regarding health care and new technologies. Besides the need to address the current shortage of health care professionals, the health workforce also have to be trained in an holistic way to deliver high-quality care and to cope with the increasingly complex health care needs of Singapore's ageing and more sophisticated population. Another challenge lies in ensuring that adequate numbers of health care professionals are trained in different disciplines, especially those that are currently undersubscribed, in anticipation of changing health care demands.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Ministry of Health website
Features	:	Information on health policies, facilities and statistics
Web address	:	www.moh.gov.sg
Title 2	:	Singapore Department of Statistics website
Features	:	Information on general Singapore statistics
Web address	:	www.singstat.gov.sg

5. ADDRESSES

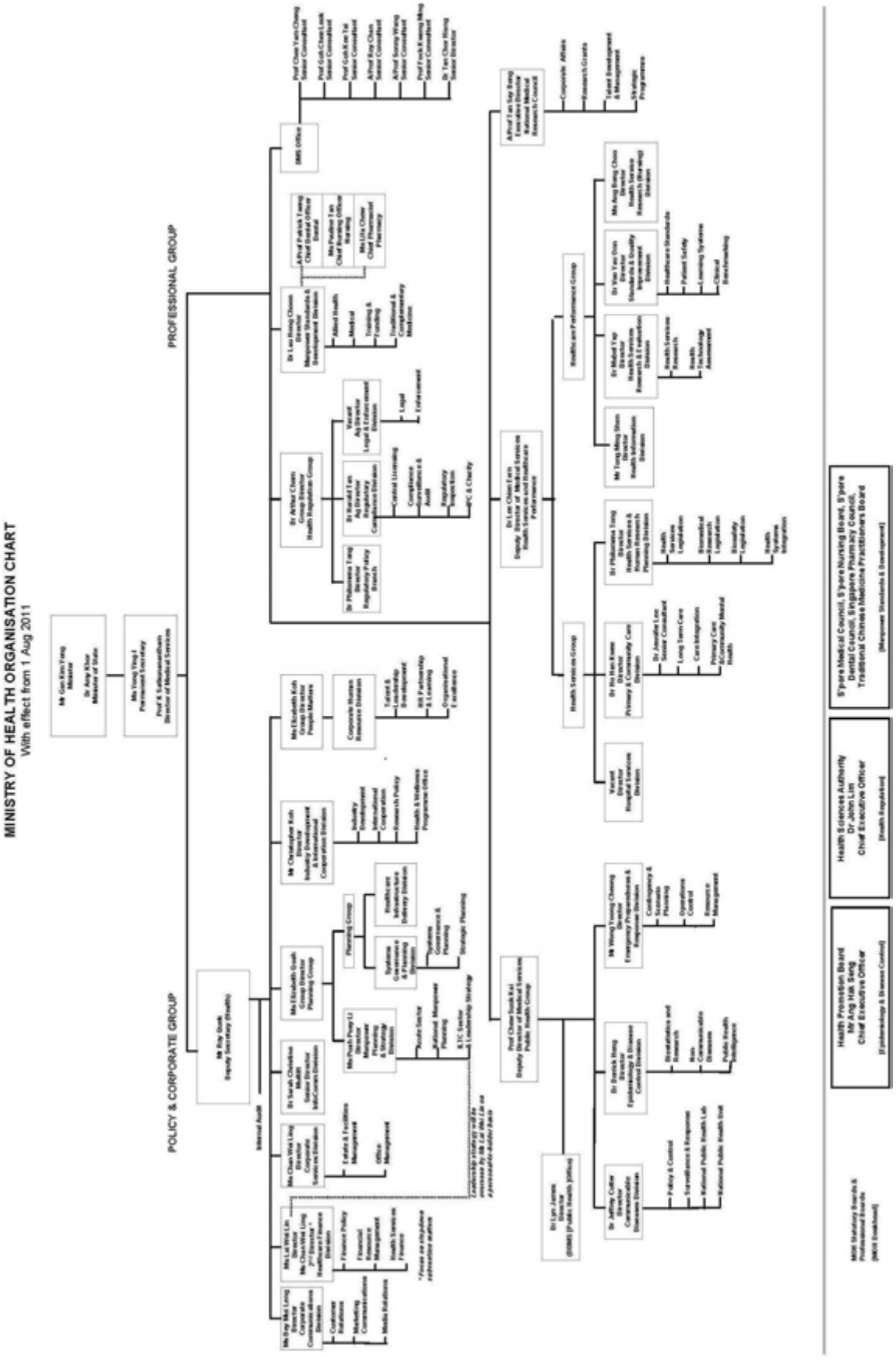
MINISTRY OF HEALTH

Office Address	:	Ministry of Health, College of Medicine Building, 16 College Road, Singapore 169854
Official Email Address	:	moh_info@moh.gov.sg
Telephone	:	(65) 6325 9220
Fax	:	(65) 6224 1677
Office Hours	:	8.30am – 5.30pm
Website	:	http://www.moh.gov.sg
Office Address	:	Ministry of Health, College of Medicine Building, 16 College Road, Singapore 169854

WHO REPRESENTATIVE IN MALAYSIA, BRUNEI DARUSSALAM AND SINGAPORE

Office Address	:	1st Floor, Wisma UN, Block C Komplek Pejabat Damansara Jalan Dungun, Damansara Heights 50490 Kuala Lumpur, Malaysia
Postal Address	:	P. O. Box 12550 50782 Kuala Lumpur, Malaysia
Official Email Address	:	who@maa.wpro.who.int
Telephone	:	(603) 209 39908 / 2092 1184
Fax	:	(603) 209 37446

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

SINGAPORE — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.71						2009p	1
2	**Estimated population ('000s)**	3771.70 [a]		1861.13		1910.59		2010	2
3	**Annual population growth rate (%)**	1.00 [a]		...		...		2010	1
4	**Percentage of population**								
	- 0–4 years	...		...		...			
	- 5–14 years	17.35 [b]		...		...		2010	1
	- 65 years and above	8.97 [a]		...		...		2010	1
5	**Urban population (%)**	100.00		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	9.30 [a]		...		...		2010	1
7	**Crude death rate (per 1000 population)**	4.40 [a]		...		...		2010	1
8	**Rate of natural increase of population (% per annum)**	0.49 [a]		...		...		2010	1
9	**Life expectancy (years)**								
	- at birth	81.80 [a]		79.30 [a]		84.10 [a]		2010	1
	- Healthy Life Expectancy (HALE) at age 60			17.22 [c]		20.39 [c]		2007	4
10	**Total fertility rate (women aged 15–49 years)**	1.15 [a]						2010	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	95.90 [d]		...		...		2010	1
12	**Per capita GDP at current market prices (US$)**	36537.00						2009p	1
13	**Rate of growth of per capita GDP (%)**	-1.30						2009p	22
14	**Human development index**	0.85						2010	5
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			

	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	82	55	27	0	0	0	2009	6
	- Type B	68	58	10	0	0	0	2009	6
	- Type C	5	5	0	0	0	0	2009	6
	- Type E	79	53	26	0	0	0	2009	6
	- Unspecified	0	0	0	0	0	0	2009	6
	Cholera	4	4	0	0	0	0	2009	6
	Dengue/DHF	5364	...	...	6	...	...	2010	7
	Encephalitis	43	27	16	0	0	0	2009	6
	Gonorrhoea	2214	1774	440	0	0	0	2009	6
	Leprosy	11	8	3	...	...	...	2010	7
	Malaria	131	118	13	2	2	0	2009	6
	Plague	0	0	0	0	0	0	2009	6
	Syphilis	1105	669	436	0	0	0	2009	6
	Typhoid fever	58	30	28	0	0	0	2009	6
17	**Acute respiratory infections**	8665 [e,f]	4710 [e]	3954 [e]	3	2	1	2007p	6,8
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	1525 [g]	1140	427	66	56	10	2009	6
	- New pulmonary tuberculosis (smear-positive)	552 [a]	422	130	NA	NA	NA	2009	6
20	**Cancers**								
	All cancers (malignant neoplasms only)	9036 [h]	4393 [h]	4643 [h]	4990	2760	2230	C: 2007 D: 2009	8,9
	- Breast	1363 [h]	3 [h]	1360 [h]	426	1	425	C: 2007 D: 2009	8,9
	- Colon and rectum	1455 [h]	780 [h]	675 [h]	728	408	320	C: 2007 D: 2009	8,9
	- Cervix			202 [h]			67	C: 2007 D: 2009	8,9
	- Leukaemia	239 [h]	135 [h]	105 [h]	126	69	57	C: 2007 D: 2009	8,9
	- Lip, oral cavity and pharynx	481 [h]	352 [h]	128 [h]	208	152	56	C: 2007 D: 2009	8,9
	- Liver	450 [h]	340 [h]	110 [h]	483	346	137	C: 2007 D: 2009	8,9
	- Oesophagus	84 [h]	67 [h]	17 [h]	103	83	20	C: 2007 D: 2009	8,9
	- Stomach	452 [h]	275 [h]	177 [h]	328	197	131	C: 2007 D: 2009	8,9
	- Trachea, bronchus, and lung	1139 [h]	766 [h]	374 [h]	1182	776	406	C: 2007 D: 2009	8,9
21	**Circulatory**								
	All circulatory system diseases	...	...	...	5550	3067	2483	2009	8
	- Acute myocardial infarction	5992 [h]	3885 [h]	2107 [h]	1490	875	615	C: 2007 D: 2009	8,9
	- Cerebrovascular diseases	5401 [h]	2970 [h]	2431 [h]	1373	633	740	C: 2007 D: 2009	8,9
	- Hypertension	298 000 [i]	153 000 [i]	145 000 [i]	366	203	163	C: 2007 D: 2009	8
	- Ischaemic heart disease	14 770	10 621	4149	3256	1940	1316	C: 2007 D: 2009	6,8
	- Rheumatic fever and rheumatic heart diseases	...	...	...	23	6	17	2009	8
22	**Diabetes mellitus**	115 000 [i]	63 000 [i]	52 000 [i]	287	112	175	C: 2007 D: 2009	8,10
23	**Mental disorders**	12466 [e,f]	6671 [e]	5795 [e]	4	1	3	2007p	6,8
24	**Injuries**								
	All types	...	...	...	591	428	163	2009	8
	- Drowning				10	10	0	2009	8
	- Homicide and violence	...	...	...	1	1	0	2009	8
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	152	127	25	2009	8
	- Suicide	...	...	...	266	182	84	2009	8
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Accidents, poisoning & violence (ICD9: 800-999)	38 651	22 825	15 826	845.00 [a]	...	...	2008p	6
	2. Cancer (ICD9: 140-208)	22 555	11 195	11 360	491.70 [a]	...	...	2008p	6
	3. Ischemic heart disease (ICD9: 410 - 414)	14 770	10 621	4149	344.00 [a]	...	...	2008p	6
	4. Pneumonia (ICD9: 480 - 486)	10 584	5377	5205	271.80 [a]	...	...	2008p	6
	5. Obstetric complications affecting fetus or newborn (ICD9: 761 - 763)	10 546	5832	4714	264.80 [a]	...	...	2008p	6
	6. Chronic obstructive lung disease (ICD9: 490 - 493, 496)	9568	5202	4366	244.1 [a]	...	...	2008p	6
	7. Other heart diseases (ICD9: 393 - 398, 402, 415 - 429)	9319	5667	3652	244.5 [a]	...	...	2008p	6
	8. Cerebrovascular disease (ICD9: 430 - 438)	8852	4978	3874	223 [a]	...	...	2008p	6
	9. Intestinal infectious infections (ICD9: 001 - 009)	8191	5237	2954	194.5 [a]	...	...	2008p	6
	10. Complications related to pregnancy (ICD9: 640 - 648)	7620		7620	184.7 [a]		...	2008p	6

SINGAPORE

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Cancer (ICD9: 140-208)	4990	2760	2230	126.11 [a]	141.59 [a]	111.01 [a]	2009p	7
	2. Ischemic heart disease (ICD9: 410 - 414)	3256	1940	1316	81.95 [a]	96.93 [a]	67.33 [a]	2009p	7
	3. Pneumonia (ICD9: 480 - 486)	2600	1356	1244	67.54 [a]	71.07 [a]	64.10 [a]	2009p	7
	4. Cerebrovascular disease (ICD9: 430 - 438)	1373	633	740	35.14 [a]	32.42 [a]	37.80 [a]	2009p	7
	5. Accidents, poisioning & violence (ICD9: E800-E999)	591	428	163	12.75 [a]	18.11 [a]	7.52 [a]	2009p	7
	6. Other heart disease(ICD9: 393 - 398, 402, 415 - 429)	739	400	339	18.45 [a]	19.73 [a]	17.20 [a]	2009p	7
	7. Diabetes mellitus (ICD9: 250)	287	112	175	7.36 [a]	5.96 [a]	8.73 [a]	2009p	7
	8. Chronic obstructive lung disease (ICD9: 490 - 493, 496)	409	329	80	10.44 [a]	17.08 [a]	3.97	2009p	7
	9. Urinary tract infections (ICD9: 599.0)	426	121	305	11.25 [a]	6.45 [a]	15.93 [a]	2009p	7
	10. Nephritis, nephrotic syndrome & nephrosis (ICD9: 580 - 589)	391	169	222	10.04 [a]	8.84 [a]	11.22 [a]	2009p	7
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**						...		
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**						...		
29	**Percentage of pregnant women with anaemia**						32.00	2002	7
30	**Neonatal mortality rate (per 1000 live births)**		6.20		...		...	2007	10
31	**Percentage of newborn infants weighing less than 2500 g at birth**		9.30		...		...	2007	9
32	**Immunization coverage for infants (%)**								
	- BCG		99.30		...		...	2010	7
	- DTP3		96.80		...		...	2010	7
	- Hepatitis B III		96.40		...		...	2010	7
	- MCV2		93.90		...		...	2010	7
	- POL3		96.70		...		...	2010	7
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			4189 [e]			1	2007p	6,8
	- Eclampsia			2 [e]			0	2007p	6,8
	- Haemorrhage			1959 [e]			1	2007p	6,8
	- Obstructed labour			218 [e]			0	2007p	6,8
	- Sepsis			11 [e]			0	2007p	6,8
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	7
	- Diphtheria	0	0	0	...	...	...	2010	7
	- Measles	50	...	...	...	...	...	2010	7
	- Mumps	452	...	...	...	...	...	2010	7
	- Neonatal tetanus	0	0	0	...	...	...	2010	7
	- Pertussis (whooping cough)	8	...	...	...	...	...	2010	7
	- Poliomyelitis	0	0	0	...	...	...	2010	7
	- Rubella	158	...	...	...	...	...	2010	7
	- Total Tetanus	0	0	0	...	...	...	2010	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**						6	2008	7

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	5	5217	2008	6
		- Specialized hospitals	2	2891	2008	6
		- District/first-level referral hospitals	6	185	2008	6
		- Primary health care centres	18 [m]	0 [m]	2010	6
	Private health facilities	- Hospitals	16	3138	2008	6
		- Outpatient clinics	2400 [m]	...	2010	6
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			7083.45 [o]	2009p	11
	- total expenditure on health as % of GDP			3.90	2009p	11
	- per capita total expenditure on health (in US$)			1495.34 [o]	2009p	11
	Government expenditure on health					
	- amount (in million US$)			2937.93 [o]	2009p	11
	- general government expenditure on health as % of total expenditure on health			41.50	2009p	11
	- general government expenditure on health as % of total general government expenditure			9.80	2009p	11
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00	2009p	11
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			58.50	2009p	11
	- out-of-pocket expenditure on health as % of total expenditure on health			55.05 [o]	2009p	11
	Exchange rate in US$ of local currency is: 1 US$ =			1.45	2009p	11
38	**Health insurance coverage as % of total population**			88.00 [j]	2009	6

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	8819	...	...	...	...	...	...	2010	12
		- Ratio per 1000 population	1.72	...	...	...	...	...	...	2010	12
	Dentists	- Number	1568	...	...	...	...	...	...	2010	13
		- Ratio per 1000 population	0.31	...	...	...	...	...	...	2010	13
	Pharmacists	- Number	1814	...	...	...	...	...	...	2010	14
		- Ratio per 1000 population	0.36	...	...	...	...	...	...	2010	14
	Nurses	- Number	29 340	...	...	...	...	...	...	2010	15
		- Ratio per 1000 population	5.78	...	...	...	...	...	...	2010	15
	Midwives	- Number	287	...	...	...	...	...	...	2010	15
		- Ratio per 1000 population	0.06	...	...	...	...	...	...	2010	15
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	228	...	...	...	...	...	...	2010	16
		Dentists	43	...	...	...	...	...	...	2010	16
		Pharmacists	118	...	...	...	...	...	...	2010	16

SINGAPORE

INDICATORS			DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	1542	...	...	...	...	...	...	2010	15-18
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

INDICATORS		DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	14.00	...	...	1995-2003	19
43	Infant mortality rate (per 1000 live births)	2.00 [a]	...	...	2010	1
44	Under-five mortality rate (per 1000 live births)	3.40	...	...	2008p	20
45	Proportion of 1 year-old children immunised against measles	95.20	...	...	2010	7
46	Maternal mortality ratio (per 100 000 live births)	0.00			2009	23
47	Proportion of births attended by skilled health personnel	...				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.74 [k]			2008p	20
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	100.00			2006	6
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	0.10	0.18	0.02	2009	6
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	2.50	...	...	2010	23
56	Malaria death rate per 100 000 population	0.04	0.08	0.00	2009	6
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	43.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	2.00	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	89.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	81.00	...	...	2008	7
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	...	...	2008	21
64	Proportion of population using an improved sanitation facility	100.00	...	...	2008	21
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Figure applies or refers to resident population comprising of Singapore citizens and permanent residents
b	Figure refers to 0-14 years old
c	Figure refers to life expectancy at age 60 among the resident population
d	Figure applies to residents aged 15 years and over
e	Figure refers to number of inpatient discharges
f	Totals may not tally due to some reported cases with no gender breakdown
g	Figure refers to new and relapse cases among Singapore residents
h	Figure refers to average of total number of new cases between 2003 and 2007
i	Figure refers to number of known cases (told by doctor to have the condition and on medication)
j	Figure refers to MediShield and Integrated Shield plans regulated by the Ministry of Health, as a % of total resident population
k	Figure refers to livebirths
l	The first and second dose of MMR vaccine is administered to 1-2 years and 6-7 years of age, respectively.
m	Figure as of June 2010.
n	Revised data
o	Computed by Health Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific

Sources:	
1	Statistics Singapore- Key Annual Indicators, Department of Statistics [http://www.singstat.gov.sg/stats/keyind.html#demoind].
2	Report on Registration of Births and Deaths, 2010. Registry of Births and Deaths, Immigration and Checkpoints Authority.
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	Singapore Disease of Burden Study 2007, Ministry of Health Singapore.
5	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
6	Ministry of Health Singapore [http://www.moh.gov.sg/mohcorp/default.aspx].
7	WHO Regional Office for the Western Pacific, data received from the technical units.
8	Report on Registration of Births and Deaths, 2007 and 2009. Registry of Births and Deaths, Immigration and Checkpoints Authority.
9	National Disease Registries Office, Health Promotion Board Singapore.
10	National Health Surveillance Survey 2007, Ministry of Health Singapore.
11	National health accounts: country information. Geneva, World Health Organization. Accessed in September 2011 from [http://www.who.int/nha/country/en/index.html].
12	Singapore Medical Council.
13	Singapore Dental Council.
14	Singapore Pharmacy Council.
15	Singapore Nursing Board.
16	National University of Singapore.
17	Nanyang Polytechnic.
18	Institue of Technical Education.
19	Study on Marriage and Procreation, Perception and Policies in Singapore, 2003. Ministry of Community Development and Sports.
20	Singapore Demographic Bulletin, December 2008. Registry of Births and Deaths, Immigration and Checkpoints Authority.
21	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
22	Human Development Report 2009: Overcoming barriers: Human mobility and development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2009/]
23	Information furnished by the WR Malaysia, Brunei Darussalam and Singapore Office dated September 2011.
24	Report on Registration of Births and Deaths, 2007. Registry of Births and Deaths, Immigration and Checkpoints Authority.

SOLOMON ISLANDS

1. CONTEXT

1.1 Demographics

Solomon Islands is a double-chain archipelago of more than 900 coral atolls located in the south-west Pacific Ocean about 1800 kilometres north-east of Australia. Its total land area of 30 400 square kilometres is widely scattered over 1.3 million square kilometres (exclusive economic zone) of the Pacific, with most of its smaller islands uninhabited.

The population at the latest National Census in 2009 was 515 870. The growing population and its relatively young structure dominate concerns about future development. In 2009, estimated life expectancy at birth was 67 years. An estimated 93% of the total population are Melanesians, 4% are Polynesians and 3% are from other ethnic groups. According to the 2009 Census, the population is growing at a rate of 2.3% per annum. Most live in rural areas, with only 18% living in urban areas. The median age of the population is 19.7 years old. This demographic trend is creating increasing pressure on infrastructures and jobs, as well as raising growing environmental issues.

1.2 Political situation

The country has continued its peaceful development since the end of unrest in 2003 with the help of the Regional Assistance Mission to Solomon Islands (RAMSI). RAMSI comprises soldiers and policemen from Cook Islands, Fiji, New Zealand, Papua New Guinea, Samoa and Tonga, led by the Australian Army and Police. With the restoration of law and order, RAMSI has been scaled back to approx 300 police officers and 100 soldiers, in addition to civilian technical advisors, since the end of 2004.

The country successfully conducted parliamentary elections on 4 August 2010 and elected Danny Phillip as the new Prime Minister.

1.3 Socioeconomic situation

Since 2004, the country's economy has shown a positive recovery along with the restoration of law and order. According to the Pacific Regional Information System, gross domestic product (GDP) was US$ 528 million in 2008. Total government revenue was US$ 1.7 billion and expenditure was US$ 1.7 billion in 2009. Contributions to government revenue were derived mainly from export duties on timber and growth in both company and personal income tax receipts.

1.4 Risks, vulnerabilities and hazards

Solomon Islands is in the Pacific "ring of fire" and is thus prone to earthquakes. Some parts were devastated during the tsunami of 2007. Some of the islands are also being threatened by rising tides and sea levels related to global warming.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The country is in a phase of epidemiological transition. Having to deal with both the control of infectious diseases and an increasing incidence of noncommunicable diseases, with very limited resources, poses a major challenge for the Government.

With the dissipation of ethnic conflict during 1999-2003 and with support in 2004 from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund), the Australian Agency for International Development (AusAID), the World Bank and Rotary International, progress has been made in malaria control. The malaria burden, measured by annual parasite incidence (API), has been declining steadily over the years. From an API of 167 per 1000 population in 2002, data from 2010 show an API of 75.9 per 1000 population. The maintenance of that progress, however, is dependent on continued efforts and financial support.

The tuberculosis prevalence rate in 2009 was 185 per 100 000, with a 94% cure rate through directly observed treatment, short-course (DOTS) therapy in the 2008 cohort of patients. Support for activities was received from the Global Fund, Round 8, and the national TB programme is set to make further rapid improvements in TB prevention and control.

2.2 Outbreaks of communicable diseases

There was no major disease outbreak in 2009/2010. A cholera outbreak in nearby Papua New Guinea in March 2011 triggered emergency measures, including intensified and improved surveillance, at central, provincial and local levels, resulting in zero cholera cases being reported to the national authority. In addition, the worldwide threats of influenza A(HINI) and HIV/AIDS have resulted in the development of new policies and strategies to strengthen and revitalize disease prevention, control and surveillance activities, as well as preparedness for action.

2.3 Leading causes of mortality and morbidity

Although infectious diseases are still the major causes of morbidity and mortality, there is some evidence that noncommunicable diseases like cancer (cervical and breast cancers are reported to be the most common, followed by lung cancer), diabetes mellitus, hypertension, mental illness and risk-factors like tobacco use, chewing of betel nut, obesity, and alcohol abuse are increasing.

In 2005, cardiovascular diseases, neoplasms, malaria, respiratory diseases and neonatal causes were major public health problems in terms of mortality.

2.4 Maternal, child and infant diseases

A reduction in childhood mortality and morbidity from diarrhoeal diseases is attributed to the improved status of sanitation; better access to safe water supplies, with 84.2% of the population having access to an improved drinking-water source; better personal hygiene; and increased breastfeeding. The reduction in mortality due to neonatal causes is attributed to the improved status of maternal/safe motherhood programmes (85% of births are attended by skilled personnel) and services, supported by much improved paediatric care and a focus on the integrated management of childhood illness (IMCI) approach.

2.5 Burden of disease

The top causes of morbidity and mortality indicate the country is dealing with a "double burden of disease" and must manage both the control of infectious diseases and the increasing incidence of noncommunicable diseases.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The *National Health Strategic Plan 2011-2015*, issued by the Ministry of Health and Medical Services in April 2011, has eight substantive and 14 organizational policies. The priority focus for the medium term is on the top four priorities in each category. These are:

- to reduce the most important individual and family behaviour-related risk factors;
- to reduce the most important causes of the disease burden;
- to reduce the most important environmental risk factors;
- to reduce the most important risk factors for medical conditions;
- to focus on improving human resource planning, production and development, and management;
- to develop and maintain health service infrastructure;
- to have better financial management (planning, budgeting, disbursement/accounting/audit procedures);
- to decentralize the decision-making process to provinces and have closer cooperation with provincial governments.

The new plan shifts the focus from medically-oriented interventions towards more intersectoral efforts to tackle the social determinants of health and reduce risk factors, mostly related to unhealthy lifestyles, at the root of the disease burden. The plan also envisages major efforts to increase efficiency in the way resources (human and financial) are managed and infrastructures are planned, used and preserved, and calls upon provincial governments to play a more substantial role in the management of all aspects of health care delivery to their respective populations.

3.2 Organization of health services and delivery systems

Seven of the nine provinces have a public hospital: Guadalcanal Province is served by the National Referral Hospital and Rennel/Bellona Province has no hospital. Additionally, there is one private hospital in the Western Province, one in Malaita Province and one in Choiseul Province. This gives a total of eight public and three private hospitals throughout the country. The public hospital in Choiseul has recently been upgraded from health centre status, and the Central Islands Province Hospital now has one doctor. The Government of Japan is funding the rebuilding of the Gizo hospital, destroyed by the tsunami of 2007 and now almost completed.

The area and rural health centres and nurse aid posts are well distributed throughout the provinces, based on the size and geographical distribution of their populations.

3.3 Health policy, planning and regulatory framework

The *National Health Strategic Plan 2011-2015* emphasizes the role of the Ministry of Health and Medical Services in providing stewardship to different sectors (education, agriculture, labour, transport, infrastructure, etc.), communities and local governments in working towards the establishment of efficient and effective partnerships for health. In order to better fulfil its new role, the Ministry has restructured its organigram by appointing new directors and strengthening technical programmes, especially those benefitting from donor support.

3.4 Health care financing

Recent increases in funding for the health sector have been dramatic. Since 2005, the per capita budget of the Ministry of Health and Medical Services has increased in real terms at an average annual rate of over 16%. Actual per capita spending also increased by 19% per year in real terms from 2006 to 2009. Both in terms of percentage GDP and percentage of total government revenue (4%-5% for the former and 9%-16% for the latter) the allocations to health are high. Per capita expenditure has also risen significantly, from SBD 299 (US$ 40.71) in 2005 to a budgeted SBD 533 (US$ 72.57) in 2010.

3.5 Human resources for health

According to Ministry of Health and Medical Services data, as of February 2011, a total of 36 dentists and 44 pharmacists/pharmacy officers were employed by the Government and were working in the country. At the same date, there were a total of 130 doctors, 913 nurses and 146 midwives. The Ministry is in the process of completing its *Human Resources for Health Plan.*

3.6 Partnerships

Overseas development assistance increased from US$ 122 million in 2004 to over US$ 350 million in 2009, with key contributions from Australia, Japan, New Zealand, Taiwan (China) and the European Union.

In 2009, expenditure by the Ministry of Health and Medical Services amounted to US$ 32.2 million, compared with US$ 12 million in 2004, representing an increase of well over 100%. Although the Government is the major source of funding for health services at both the central and provincial levels, there is still heavy reliance on external financial assistance, with 35.9% of financing being external.

An increase in the recurrent budget would undoubtedly strengthen the provision of quality health care services and also enhance the implementation of the WHO programme of assistance.

3.7 Challenges to health system strengthening

According to the *National Health Strategic Plan 2011-2015*, in the last two years, the Ministry's health information system (HIS) has not produced aggregate numbers or any analysis as a result of the previous database being reprogrammed. This has resulted in no routine health information outputs in summary form being produced for provinces, programmes or the Ministry as whole. The information has continued to be collected manually, although no analysis has been performed. Therefore, the current status of many of the indicators that should be tracked is unknown for the country as a whole.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : *Corporate Plan 2011-2015; National Health Strategic Plan 2011-2015; Global Fund Periodic*

		Update Reports for 2010 for Malaria and TB; GAVI APR 2011
Operator	:	Honiara, Ministry of Health and Medical Services
Title 2	:	*Solomon Islands Health Status Assessment Report.*
Operator	:	Australian Agency for International Development, Canberra, 2005.
Title 3	:	*Health Workforce for the Solomon Islands, 2011*
Operator	:	Ministry of Health Human Resources Unit
Title 4	:	*Death records 2005*
Operator	:	Heath Statistics Unit, Ministry of Health and Medical Services
Title 5	:	Press releases 2011
Operator	:	Department of Prime Minister and Cabinet
Web address	:	http://www.pmc.gov.sb/

5. ADDRESSES

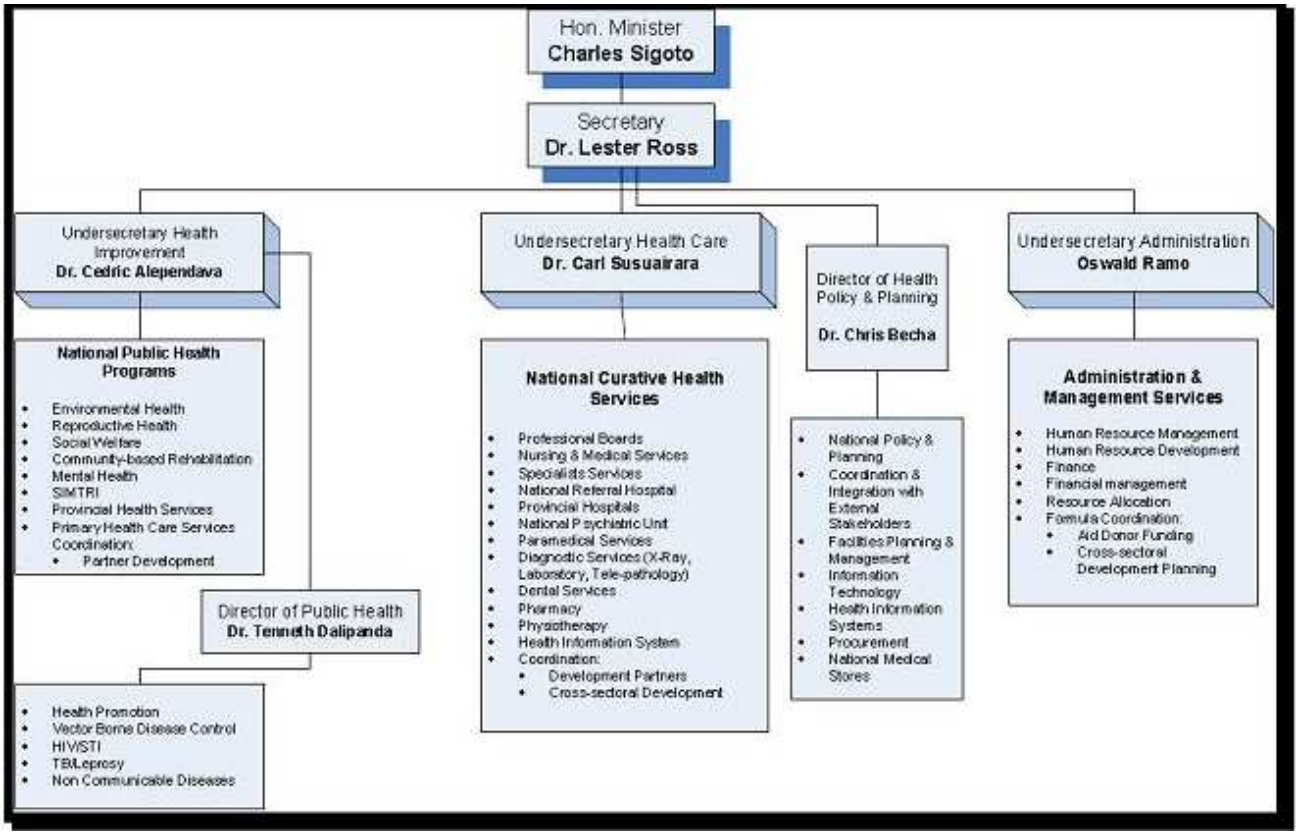
MINISTRY OF HEALTH

Office Address	:	Ministry of Health and Medical Services, Chinatown
Postal Address	:	P.O. Box 349, Honiara, Solomon Islands
Official Email Address	:	lross@moh.gov.sb / pshealth@moh.gov.sb
Telephone	:	+677 20830
Fax	:	+677 20085
Office Hours	:	8:00 – 16:30

WHO COUNTRY LIAISON OFFICER IN SOLOMON ISLANDS

Office Address	:	Ministry of Health and Medical Services, Chinatown
Postal Address	:	P.O. Box 22, Honiara, Solomon Islands
Official Email Address	:	who@sol.wpro.who.int
Telephone	:	+677 23 406
Fax	:	+677 21 344
Office Hours	:	8:00 – 16:30

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

SOLOMON ISLANDS — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	30.40						2008	1
2	**Estimated population ('000s)**	515.87		264.46		251.42		2009	2
3	**Annual population growth rate (%)**	2.30		...		...		2009	2
4	**Percentage of population**								
	- 0–4 years	14.83		...		...		2009	2
	- 5–14 years	25.77		...		...		2009	2
	- 65 years and above	3.51		...		...		2009	2
5	**Urban population (%)**	18.60		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	30.00		...		...		2009	4
7	**Crude death rate (per 1000 population)**	6.00		...		...		2009	4
8	**Rate of natural increase of population (% per annum)**	2.40 [a]		...		...		2009	4
9	**Life expectancy (years)**								
	- at birth	67.00		64.90		66.70		2009	4
	- Healthy Life Expectancy (HALE) at age 60	...		10.90		11.60		2002	5
10	**Total fertility rate (women aged 15–49 years)**	4.60						2004-07	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	84.10		...		...		2009	2
12	**Per capita GDP at current market prices (US$)**	1014.00						2008	1
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	0.49						2010	6
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	...	...	...	...	...	...		
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	14	7	7	...	...	...	2010	7
	Malaria	40 682	...	...	13	...	...	2010	7
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	...	...	...	...	...	...		
17	**Acute respiratory infections**	184 042	...	...	...	...	...	2009	8
	- Among children under 5 years	79 452	...	...	...	...	...	2009	8

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	14 856	...	...	...	...	...	2009	8
	- Among children under 5 years	8036	...	...	...	...	...	2009	8
19	**Tuberculosis**								
	- All forms	366	...	...	96 [c]	...	...	2009	7
	- New pulmonary tuberculosis (smear-positive)	138	...	...	...	...	...	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	0	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	...	...	...	...	...	...		
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	...	...	...		
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Acute respiratory infection	184042 [b]	...	...	33488.36 [a,b]	...	...	2009	8
	2. Clinical and presumptive malaria	84078 [b]	...	...	15298.87 [a,b]	...	...	2009	8
	3. Skin disease	41457 [b]	...	...	7543.53 [a,b]	...	...	2009	8
	4. Ear infection	22136 [b]	...	...	4027.87 [a,b]	...	...	2009	8
	5. Yaws	11622 [b]	...	...	2114.74 [a,b]	...	...	2009	8
	6. Red eye	9358 [b]	...	...	1702.78 [a,b]	...	...	2009	8
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Cardiovascular diseases	…	…	…	…	…	…	2005	9
	2. Malaria	…	…	…	…	…	…	2005	9
	3. Neonatal causes	…	…	…	…	…	…	2005	9
	4. Neoplasm	…	…	…	…	…	…	2005	9
	5. Respiratory diseases (pneumonia as the leading causes)	…	…	…	…	…	…	2005	9
	6.								
	7.								
	8.								
	9.								
	10.								
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					27.30		2006/07	10
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					65.10		2010	7
29	**Percentage of pregnant women with anaemia**					…			
30	**Neonatal mortality rate (per 1000 live births)**	15.00		…		…		2009	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	…		…		…			
32	**Immunization coverage for infants (%)**								
	- BCG	84.70		…		…		2010	7
	- DTP3	78.70		…		…		2010	7
	- Hepatitis B III	78.70		…		…		2010	7
	- MCV2	…		…		…			
	- POL3	78.50		…		…		2010	7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			…			…		
	- Eclampsia			…			…		
	- Haemorrhage			…			…		
	- Obstructed labour			…			…		
	- Sepsis			…			…		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	…	…	…	2010	7
	- Diphtheria	0	0	0	…	…	…	2010	7
	- Measles	0	0	0	…	…	…	2010	7
	- Mumps	…	…	…	…	…	…	2010	7
	- Neonatal tetanus	0	0	0	…	…	…	2010	7
	- Pertussis (whooping cough)	0	0	0	…	…	…	2010	7
	- Poliomyelitis	0	0	0	…	…	…	2010	7
	- Rubella	0	0	0	…	…	…	2010	7
	- Total Tetanus	0	0	0	…	…	…	2010	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**						…		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	8	...	2009	11
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	323	...	2009	11
	Private health facilities	- Hospitals	3	...	2009	11
		- Outpatient clinics	4	...	2009	12
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			37.72 [a]	2009p	13
	- total expenditure on health as % of GDP			5.30	2009p	13
	- per capita total expenditure on health (in US$)			71.84 [a]	2009p	13
	Government expenditure on health					
	- amount (in million US$)			35.36 [a]	2009p	13
	- general government expenditure on health as % of total expenditure on health			93.80	2009p	13
	- general government expenditure on health as % of total general government expenditure			16.80	2009p	13
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			31.23 [a]	2009p	13
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			6.20	2009p	13
	- out-of-pocket expenditure on health as % of total expenditure on health			4.28 [a]	2009p	13
	Exchange rate in US$ of local currency is: 1 US$ =			8.06	2009p	13
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	118	...	...	...	...	...	...	2009	14
		- Ratio per 1000 population	0.21	...	...	...	...	...	...	2009	14
	Dentists	- Number	36	...	...	...	...	...	...	2011p	11
		- Ratio per 1000 population	0.07	...	...	...	...	...	...	2011p	11
	Pharmacists	- Number	44	...	...	...	...	...	...	2011p	11
		- Ratio per 1000 population	0.09	...	...	...	...	...	...	2011p	11
	Nurses	- Number	934	...	...	...	...	...	...	2009	14
		- Ratio per 1000 population	1.70	...	...	...	...	...	...	2009	14
	Midwives	- Number	146	...	...	...	...	...	...	2009	14
		- Ratio per 1000 population	0.26	...	...	...	...	...	...	2009	14
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	43	...	...	...	...	...	...	2005	11
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	11.80	...	...	2007	15
43	Infant mortality rate (per 1000 live births)	26.00	45.60	42.90	2009	2
44	Under-five mortality rate (per 1000 live births)	37.00	...	...	2009	2
45	Proportion of 1 year-old children immunised against measles	67.70	...	...	2010	7
46	Maternal mortality ratio (per 100 000 live births)	103.00			2007	12
47	Proportion of births attended by skilled health personnel	86.00			2007	15
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	1.00			2007	15
	- Percentage of deliveries in health facilities (as % of total deliveries)	85.00			2007	15
48	Contraceptive prevalence rate	34.60	...	...	2007	15
49	Adolescent birth rate	7.00			2007	15
50	Antenatal care coverage - At least one visit	90.60			2009	8
	- At least four visits	65.00			2009	2
51	Unmet need for family planning	11.10	...	...	2007	15
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	2.40	0.75	1.68	2009	16
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	7661.39	...	...	2010	8
56	Malaria death rate per 100 000 population	2.45	...	...	2010	8
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	185.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	18.00	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	61.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	94.00	...	...	2008	7
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	84.20	94.00	82.60	2007	15
64	Proportion of population using an improved sanitation facility	...	98.00	...	2008	17
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
b	Figure refers to primary health care data
c	Estimated number of deaths

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/]
2	Report on 2009 population and housing census - Statistical Bullettin 6/2011, Solomon Islands Government.
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM
4	Basic Indicators, UNICEF. Accessed on 14.07.2011at 15:00 hours from [http://www.unicef.org/infobycountry/solomonislands_statistics.html]
5	World health report 2004. Changing history. Geneva, World Health Organization, 2004.
6	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
7	WHO Regional Office for the Western Pacific, data received from technical units
8	Health Information System Annual Report 2009, Health Statistic Unit, MOHMS.
9	Information provided by Solomon Islands CLO 04 April 2006.
10	Department of Economic and Social Affairs Population Division. World Contraceptive Use 2011. [http://www.un.org/esa/population/publications/contraceptive2011/contraceptive2011.htm]
11	Human Resources Section, Ministry of Health, Solomon Islands.
12	Information provided by Solomon Islands Country Liaison Officer 27 August 2010.
13	National health accounts: country information. Geneva, World Health Organization. Accessed in July 2011 from http://www.who.int/nha/country/en/index.html.
14	2009 Annual report for health sector performance for Solomon Islands Solomon Islands
15	Solomon Islands Demographic Health Survey 2006-2007
16	Solomon Islands Statistics (http://www.spc.int/prism).
17	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

TOKELAU

1. CONTEXT

1.1 Demographics

The Tokelau Census of Population and Dwellings in 2006 yielded a resident population of 1466.[1] The population was relatively young, with 35% below 15 years of age and 7.4% above 65 years. The crude birth rate is 15 per 1000 population (2009) and the crude death rate is five per 1000 population (2009).

1.2 Political situation

In 1889, the Union Jack was raised on all islands of Tokelau and she was declared a British Protectorate. Tokelau was then included in the Gilbert and Ellice Islands Colony and administered by the British Western Pacific High Commission, based in Suva, Fiji, in 1916. The administering power of Tokelau again changed hands in 1925 when Tokelau was placed under the responsibility of New Zealand. Two recent referendums in 2006 and 2007 to change Tokelau's political status did not succeed and today Tokelau remains a non-self governing territory of New Zealand.

Tokelauans are New Zealand citizens. During the 1990s, New Zealand delegated all administrative and legislative powers to the General *Fono*, the highest authority on Tokelau. In 2003, the Principles of Partnership agreement between New Zealand and Tokelau was signed, summarizing the current understanding of the political relationship between New Zealand and Tokelau. The administrative and legislative powers that had previously been held by the General *Fono* were formally delegated in 2004 to the *Taupulega* (Village Council of Elders) in recognition of the fact that they are the highest authority on Tokelau. The three *Taupulega* collectively re-delegated authority for issues of national interest to the General *Fono*, which meets three to four times a year for three-to-four-day sessions on the atoll where the *Ulu-o-Tokelau* (Titular Head of Government) resides. The position of *Ulu-o-Tokelau* rotates among the three *Faipule* (Ministers). When the General *Fono* is not in session, Tokelau is governed by an executive council called the Council for the Ongoing Government of Tokelau composed of the three *Faipule* (Ministers) and three *Pulenuku* (Village Mayors). Following this realignment, the majority of the functions of government for Tokelau were transferred to the three atolls, with a substantial part of key public services remaining at the national level and primarily based in Samoa.

A New Zealand Government-appointed Administrator of Tokelau, located in the New Zealand Ministry of Foreign Affairs and Trade, heads a group that manages the day-to-day relationship with Tokelau. The right to veto any administrative and legislative decision is still vested in the Administrator of Tokelau, although the close working relationship between New Zealand and Tokelau has meant that use of this authority has never been necessary.

1.3 Socioeconomic situation

In the financial years 2001-2008, per capita gross domestic product (GDP) was US$ 1007. The economy is basically subsistence, although cash is now becoming an important part of everyday life. The resource base is fragile, as very little land is available for any agricultural endeavour without substantial preparation and support. Marine resources have not been fully explored as yet, and ocean and lagoon fish form a stable constituent of the local diet. While there is no significant agricultural activity owing to the limited and infertile coral land, Tokelauans raise pigs and chickens and have access to traditional crops, such as coconut and breadfruit, as well as limited quantities of pandanus fruit and taro. However, there is increasing evidence of overreliance on imported, processed foods, which is contributing to lifestyle-related diseases.

[1] *2006 Census of Tokelau Analytical report*. February 2007. [http://www.spc.int/prism/country/tk/stats/Reports/2006censusrpts/2006_Census_of_Tokelau_Analytical_Report.pdf].

1.4 Risks, vulnerabilities and hazards

The effects of climate change, where sea levels are likely to cause increased flooding in the form of storm surges and other coastal hazards in small islands and low-lying states, pose risks to Tokelau. Furthermore, the deterioration of coastal environments through beach erosion, coastal deforestation and coral bleaching has the potential to adversely affect food security. In addition, ocean acidification due to the increase of carbon dioxide in the sea and increase in temperature with little precipitation will also affect the diversity and availability of marine food resources and marine systems.

The most significant climate change impacts in Tokelau will be on water resources. There is no surface water and, in a typical atoll, the aquifer's potential as a source of fresh water is limited. Consequently, dry spells and droughts have adverse impacts on fresh water sources, subsistence agriculture (impacting food security), and reef and lagoon ecology.

Other risks are related to the need for urgent access to medical care in the event of an emergency, where the only vessel currently available is the MV Tokelau and, in extreme emergencies, the Samoa Government Police Patrol Boat.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

While overall health status is reasonably good, changes have been observed in the last 20 years. There has been an increase in noncommunicable diseases (NCD), with cerebrovascular and cardiovascular diseases the leading causes of death. The mortality rate due to cardiovascular diseases was 17% between 2007 and 2010 . Blood pressure recordings of 90 mm Hg diastolic were marginal for both genders (11.7% among females and 12% among males aged 16 years and older). Random blood sugar levels of 7 mmol/litre and above for the same group appear in 18% of men and 28% of women.

Tobacco and alcohol consumption is relatively high among the adult population, but is more prominent in males. Obesity is common and is attributed to diet and physical inactivity. The median BMI by age group can be seen in the table below, with a higher prevalence rate for females than males. There is an observable diet shift from local to imported foods.

Table 1. Mean BMI by sex and agegroup

Age group (years)	Male	Female
16-29	32.0	42.8
30-54	28.6	36.5
55+	25.1	34.1

2.2 Outbreaks of communicable diseases

There was an outbreak of an influenza-like illness in March/April 2009, which affected a significant number of children across the nation. It was managed with no deaths, and field surveillance was carried out by WHO, the Capital and Coast District Health Board (CCDHB) (Wellington, New Zealand) and local village health staff. Each of the villages were closely involved with quarantine implementation and management, hence the result.

2.3 Leading causes of mortality and morbidity

In 2010, the leading causes of mortality were cardiovascular diseases, old age, neoplasms, and accidental deaths (trauma). The 2009 leading causes of morbidity were diseases of the upper and lower respiratory tracts; diseases of the digestive system; and diseases of the circulatory system.

2.4 Maternal, child and infant diseases

The infant mortality rate in 2010 was 0 per 1000 live births. The maternal mortality ratio is 0 per 100 000 live births (2005-2010) and the total fertility rate is 4.5 (2007-2010).

2.5 Burden of disease

The main burden of disease is from noncommunicable diseases. A chronic disease management approach, together with *nuku*-(village) and family-driven programmes, is being implemented. The local health workforce are systematically being trained in chronic care management.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Vision for the Ministry of Health is: Promotion, Prevention, Preservation and Sustainability. The objectives are to:

(1) Protect our population;
(2) Ensure efficiency and effectiveness;
(3) Promote public health; and
(4) Protect our environment.

3.2 Organization of health services and delivery systems

Each of the three atolls has a hospital that provides primary health care to the community. The three hospitals are similarly equipped, but there are no X-ray facilities due to the short life of this type of machinery in Tokelau. There are a total of 24 beds in Tokelau, with an overall occupancy of less than 30 patients per annum.

Preventive health services are also provided by the Health Department. Water and sanitation programmes are ongoing, as well as maternal and child health programmes that are supported by women's committees.

3.3 Health policy, planning and regulatory framework

Tokelau's national health plan priorities are the following:

(1) Healthy islands and communities: Support existing community groups and structures that will enhance the ability to provide a healthy environment for the people.
(2) Promotion of healthy lifestyles: Support community members and health workers to lead healthy and improved diverse lifestyles.
(3) Development of health partnerships: Establish long-term strategic relationships with key partners in government, external donors, other relevant institutions and community groups in health development.
(4) Development of accessible primary health care services: Develop and improve primary health care services that are effective and relevant to communities.
(5) Successful community participation: Develop a successful participative strategy for an effective, combined approach to service delivery by community groups and health service providers.
(6) Development and improvement of the health service system: Improve the accessibility and quality of health services, which will increase people's confidence and participation in the total health system and add value to existing services.

Tokelau's National Women's Policy 2010 ensures that women's health concerns are addressed and are integrated within the Health Department's *National Health Strategic Plan 2009 -2015*.

3.4 Health care financing

For the financial years 2001-2008, the GDP was US$ 55.7 million or US$ 1007 per capita. Health was allocated 10.1% (US$ 5.7 million), which equated to US$107 per capita.

The national budget is made up of locally generated resources and a grant from the New Zealand Government as part of its constitutional responsibility for Tokelau. Other assistance comes from international partner agencies including WHO, the United Nations Development Programme (UNDP), the United Nations Children's Fund

(UNICEF), the United Nations Population Fund (UNFPA), and the Australian Agency for International Development (AusAID).

3.5 Human resources for health

Each of the three atoll hospitals is manned by a medical officer, four to five staff nurses, one dental therapist (Nukunonu and Atafa only), one dentist (Nukunonu only), four to five nurse's aides and a porter. There is no dentist employed nationally, but there is one employed on a contractual basis. The doctor-to-population ratio is 1:366, the dentist/dental therapist-to-population ratio 1:488, the nurse-to-population ratio 1:97, and the midwife-to-population ratio 1:94 (women of childbearing age). There are two eye care technicians, with population ratio of 1:733.

Currently, there is a third year medical student in the Federated States of Micronesia, five nurses are in training (four are trainees with two more years to go, and one is completing a PhD), one eye RN specialist/practitioner, and one eye care technician planned for 2012, and an RN practitioner planned for 2012.

3.6 Partnerships

Tokelau has informal partnerships with the National Hospital in Samoa and two district health boards in New Zealand. For more specialist interventions, Tokelau has access to various doctors in Samoa and New Zealand, especially in emergencies.

3.7 Challenges to health system strengthening

Devolution has impacted on health system strengthening, with all health staff on the atolls being employed by the *taupulegas* (village councils). All programmes and projects have to be presented to each *taupulega* and the Department is working very closely with each community to develop a community model of care with a focus on the family.

The Department has also adopted a whole-village, whole-of-government approach, whole-of-community approach, with a view to creating a sense of nationhood and consistency in approach, especially in addressing NCD and other public health issues.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*2006 Tokelau Census of Population and Dwellings: 2006 Census Tabular Report.*
Web address	:	[http://www.spc.int/prism/NSO-News/TK/2006%20Census%20Tabular%20Report%20-%20Final.pdf]
Title 2	:	Tokelau Department of Health
Title 3	:	Tokelau Government
Website	:	http://www.tokelau.org.nz/

5. ADDRESSES

DEPARTMENT OF HEALTH

Office Address	:	Tokelau Affairs Liaison Office (TALO), Savalalo, Apia
Official Email Address	:	doh@lesamoa.net
Telephone	:	(68529143/20822
Fax	:	(+685) 29143

WHO REPRESENTATIVE IN SAMOA

Office Address	:	Office of the WHO Representative 4th Ioane Viliamu Building Beach Road, Tamaligi, Apia, Western Samoa
Postal Address	:	P.O. Box 77, Apia, Western Samoa
Official Email Address	:	who@sma.wpro.who.int
Telephone	:	(685) 23756; (685) 24976
Fax	:	(685) 23765

COUNTRY HEALTH INFORMATION PROFILE

TOKELAU — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	0.01			2010	1
2	**Estimated population ('000s)**	1.47	0.74	0.73	2006	2
3	**Annual population growth rate (%)**	…	…	…		
4	**Percentage of population**					
	- 0–4 years	11.32	11.41 [a]	11.23 [a]	2006	2
	- 5–14 years	23.74	24.26 [a]	23.01 [a]	2006	2
	- 65 years and above	7.37	6.11 [a]	8.63 [a]	2006	2
5	**Urban population (%)**	0.00	…	…	2010 est	3
6	**Crude birth rate (per 1000 population)**	15.00	…	…	2009	4
7	**Crude death rate (per 1000 population)**	5.00	…	…	2009	4
8	**Rate of natural increase of population (% per annum)**	1.00 [b]	…	…	2009	4
9	**Life expectancy (years)**					
	- at birth	…	67.80	70.40	2008	1
	- Healthy Life Expectancy (HALE) at age 60	…	…	…		
10	**Total fertility rate (women aged 15–49 years)**	4.50			2007-10	5
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	96.00	…	…	2009	4
12	**Per capita GDP at current market prices (US$)**	1007.00			FYs 2001-08	5
13	**Rate of growth of per capita GDP (%)**	…				
14	**Human development index**	…				
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	…	…	…		
	Communicable and noncommunicable diseases	**Number of new cases**		**Number of deaths**		
16	**Selected communicable diseases**					
	Hepatitis viral					
	- Type A	…	…	…	…	…	…		
	- Type B	…	…	…	…	…	…		
	- Type C	…	…	…	…	…	…		
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		
	Cholera	…	…	…	…	…	…		
	Dengue/DHF	…	…	…	…	…	…		
	Encephalitis	…	…	…	…	…	…		
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	0	0	0	…	…	…	2010	6
	Malaria	…	…	…	…	…	…		
	Plague	…	…	…	…	…	…		
	Syphilis	2	…	…	…	…	…	2010	5
	Typhoid fever	…	…	…	…	…	…		
17	**Acute respiratory infections**	162	…	…	…	…	…	2009	4
	- Among children under 5 years	25	…	…	…	…	…	2009	4

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
		Total	**Male**	**Female**	**Total**	**Male**	**Female**		
18	**Diarrhoeal diseases**	30	15	15	...	...	...	2009	4
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	0	0	0	0	0	0	2009	6
	- New pulmonary tuberculosis (smear-positive)	0	0	0	...	...	...	2009	6
20	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	1	...	...	...	2010	5
	- Colon and rectum	1	1	0	...	...	...	2009	4
	- Cervix			1			...	2009	4
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	1	1	0	...	...	...	2009	4
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	3	3	0	...	...	...	2009	4
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	3	3	0	...	...	...	2009	4
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	7	0	7	...	...	...	2009	4
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	3	3	0	...	...	...	2010	5
	- Homicide and violence	1	...	...	...	...	...	2010	5
	- Occupational injuries	...	...	...	...	...	...		
	- Road traffic accidents	...	...	...	...	...	...		
	- Suicide	1	1	0	...	...	...	2010	5
	Leading causes of mortality and morbidity	**Number of cases**			**Rate per 100 000 population**				
25	**Leading causes of morbidity (inpatient care)**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Upper and lower respiratory diseases	12	6	6	1028.28 [b]	1016.95 [b]	1041.67 [b]	2009	4
	2. Diseases of the digestive system	6	4	3	514.14 [b]	677.97 [b]	520.83 [b]	2009	4
	3. Diseases of the circulatory system	5	5	0	428.45 [b]	847.46 [b]	0.00 [b]	2009	4
	4. Diseases of the musculoskeletal system	4	4	0	342.76 [b]	677.97 [b]	0.00 [b]	2009	4
	5. Diseases of the skin and subcutaneous tissues	1	0	1	85.69 [b]	0.00 [b]	173.61 [b]	2009	4
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Cardiovascular diseases	...	...	...	...	...	...	2007-10	5
	2. Old age	...	...	...	...	...	...	2007-10	5
	3. Neoplasms	...	...	...	...	...	...	2007-10	5
	4. Accidental deaths	...	...	...	...	...	...	2007-10	5
	5.	...	...	...	...	...	...		
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					...			
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					100.00		2010	6
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	0.00		0.00		0.00		2009	4
31	**Percentage of newborn infants weighing less than 2500 g at birth**	0.00		0.00		0.00		2009	4
32	**Immunization coverage for infants (%)**								
	- BCG	100.00		...		...		2010	6
	- DTP3	98.00		...		...		2010	6
	- Hepatitis B III	98.00		...		...		2010	6
	- MCV2	100.00		...		...		2010	5
	- POL3	98.00		...		...		2010	6
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	6
	- Diphtheria	0	0	0	...	...	...	2010	6
	- Measles	0	0	0	...	...	...	2010	6
	- Mumps	0	0	0	...	...	...	2010	6
	- Neonatal tetanus	0	0	0	...	...	...	2010	6
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	6
	- Poliomyelitis	0	0	0	...	...	...	2010	6
	- Rubella	0	0	0	...	...	...	2010	6
	- Total Tetanus	0	0	0	...	...	...	2010	6
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	3	18	2009	4
		- Specialized hospitals	…	…		
		- District/first-level referral hospitals	…	…		
		- Primary health care centres	…	…		
	Private health facilities	- Hospitals	…	…		
		- Outpatient clinics	…	…		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			5.61	FY2001-08	5
	- total expenditure on health as % of GDP			…		
	- per capita total expenditure on health (in US$)			107.00	FY2001-08	5
	Government expenditure on health					
	- amount (in million US$)			5.61	FY2001-08	5
	- general government expenditure on health as % of total expenditure on health			…		
	- general government expenditure on health as % of total general government expenditure			…		
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			…		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			…		
	- out-of-pocket expenditure on health as % of total expenditure on health					
	Exchange rate in US$ of local currency is: 1 US$ =			1.69	2010	5
38	**Health insurance coverage as % of total population**			…		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	4	…	…	…	…	…	…	2010	5
		- Ratio per 1000 population	2.72 [c]	…	…	…	…	…	…	2010	5
	Dentists	- Number	2	…	…	…	…	…	…	2010	5
		- Ratio per 1000 population	1.36 [c]	…	…	…	…	…	…	2010	5
	Pharmacists	- Number	0	0	0	0	0	0	0	2010	5
		- Ratio per 1000 population	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2010	5
	Nurses	- Number	12	…	…	…	…	…	…	2010	5
		- Ratio per 1000 population	8.16 [c]	…	…	…	…	…	…	2010	5
	Midwives	- Number	4	…	…	…	…	…	…	2010	5
		- Ratio per 1000 population	2.72 [c]	…	…	…	…	…	…	2010	5
	Paramedical staff	- Number	…	…	…	…	…	…	…		
		- Ratio per 1000 population	…	…	…	…	…	…	…		
	Community health workers	- Number	3	…	…	…	…	…	…	2010	5
		- Ratio per 1000 population	2.04 [c]	…	…	…	…	…	…	2010	5
40	**Annual number of graduates**	Physicians	1	…	…	…	…	…	…	2010	5
		Dentists	…	…	…	…	…	…	…		
		Pharmacists	…	…	…	…	…	…	…		

INDICATORS			DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	…	…	…	…	…	…	…		
		Midwives	…	…	…	…	…	…	…		
		Paramedical staff	…	…	…	…	…	…	…		
		Community health workers	…	…	…	…	…	…	…		
41	Workforce losses/ Attrition	Physicians	…	…	…	…	…	…	…		
		Dentists	…	…	…	…	…	…	…		
		Pharmacists	…	…	…	…	…	…	…		
		Nurses	…	…	…	…	…	…	…		
		Midwives	…	…	…	…	…	…	…		
		Paramedical staff	…	…	…	…	…	…	…		
		Community health workers	…	…	…	…	…	…	…		

INDICATORS		DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	0.00	0.00	0.00	2010	5
43	Infant mortality rate (per 1000 live births)	0.00	0.00	0.00	2010	5
44	Under-five mortality rate (per 1000 live births)	0.00	0.00	0.00	2010	5
45	Proportion of 1 year-old children immunised against measles	95.00	…	…	2010	6
46	Maternal mortality ratio (per 100 000 live births)	0.00			2005-10	9
47	Proportion of births attended by skilled health personnel	…				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	…				
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00			2009	4
48	Contraceptive prevalence rate	…	…	…		
49	Adolescent birth rate	3.00			2009	4
50	Antenatal care coverage - At least one visit	…				
	- At least four visits	…				
51	Unmet need for family planning	…	…	…		
52	HIV prevalence among population aged 15-24 years	…	…	…		
53	Estimated HIV prevalence in adults	…	…	…		
54	Percentage of people with advanced HIV infection receiving ART	…	…	…		
55	Malaria incidence rate per 100 000 population	…	…	…		
56	Malaria death rate per 100 000 population	…	…	…		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	…	…	…		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	…	…	…		
59	Tuberculosis prevalence rate per 100 000 population	0.00	0.00	0.00	2009	6
60	Tuberculosis death rate per 100 000 population	0.00	0.00	0.00	2009	6
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	…	…	…		
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	…	…	…		
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	…	…	2010	7
64	Proportion of population using an improved sanitation facility	100.00	…	…	2010	7
65	Proportion of population with access to affordable essential drugs on a sustainable basis	100.00	NA	100.00	2009	4

Notes:	
…	Data not available
est	Estimate
a	Revised data
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific using 2006 population as denominator

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=236&Itemid=&lang=en]
2	2006 Tokelau Census of Population and Dwellings: 2006 Census Tabular Report. [http://www.spc.int/prism/NSO-News/TK/2006%20Census%20Tabular%20Report%20-%20Final.pdf].
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	Information furnished by the Tokelau Department of Health, 22 July 2010.
5	Information furnished by WHO Representative in Samoa, 29 September 2011.
6	WHO Regional Office for the Western Pacific, data received from technical units.
7	WHO MIND, Mental Health In Development: Tokelau. August 2011. Geneva, World Health Organization.

TONGA

1. CONTEXT

1.1 Demographics

Tonga's estimated population for 2010 was 103 365, giving a population density of 159 persons per square kilometre. The population, about 23.4% of whom live in urban settings, is young, with 38% in the 0-14 year-old age group. The fertility rate remains high, although it has been falling slowly, decreasing from 4.1 in 1986 to 3.7 in 2010. The population growth rate is around 0.3%, a low figure taking into consideration a crude birth rate of about 25.4 per 1000 population and the fact that child mortality rates are the lowest in the Pacific. The explanation is found in the high net emigration rate, which averaged 19.8% between 1986 and 1996. It is estimated that as many as 100 000 Tongans live overseas, most of them in Australia, New Zealand and the United States of America. The Tongan community in New Zealand alone accounts for some 50 000 people.

1.2 Political situation

Tonga is a constitutional monarchy. The Tongan constitution of 1875 remains in use and was federated by George Tupou I. The head of State is the Tongan monarch, currently King George Tupou V, who was crowned in 2008. The Monarch oversees the three areas of the executive: the Cabinet, as appointed by the Monarch; the Privy Council, which includes all members of the Cabinet and the Monarch; and the Legislative Assembly.

A significant change in the structure of the Legislative Assembly occurred on 25 November 2010. For the first time, the majority of seats (17 of a total of 30 seats) in the Assembly were held by people's representatives. The current breakdown is nine seats for nobles (selected by the country's 33 nobles) and 17 elected by popular vote, based of their constituency. The King may administer up to four additional seats, traditionally given to previous serving members of the Cabinet, although these powers have not been invoked in the 2011 Government.

There is no party system in Tonga, but notably 12 of the 17 people's representative are from the Friendly Island Democracy Party. Five popularly elected MPs joined with the nine nobles to elect a noble, Lord Tu'ivakano, as Prime Minister. No women were elected to the new Parliament in November 2010. A woman may become Queen, but the Constitution forbids a woman from inheriting hereditary noble titles or becoming a chief.

1.3 Socioeconomic situation

Agriculture forms the backbone of the economy, and the export of pumpkins for the Japanese market plays a particularly important role as a foreign exchange earner. The fishing industry is in recession due to decreasing catches over several years. Tourism is slowly increasing in importance, although the prospects of Tonga developing a mass-tourism industry are limited. Remittances from Tongans living abroad play an increasingly important role in the economy. The total value of private remittances was estimated at TOP 200 million (US$ 105 million) in 2004, roughly 55% of the gross domestic product (GDP), which was estimated at TOP 361 million (US$ 189.6 million). The Government is heavily dependent on development support for capital investments.

Economic development has been sluggish in recent years and real growth in GDP fell from 2.3% in 1998-1999 and 5.4% in 1999-2000 to only 1.4% in 2003-2004. The figure was 2.5% in 2004-2005, giving an average GDP growth for 1998-2005 of 2.9% per year. The Government has liberalized the economy in recent years and has abolished government monopolies and allowed competition in several areas, including telecommunications, power supply and civil aviation.

Tonga joined the World Trade Organization in December 2005 in an agreement that saw the country reduce its import tariffs on most goods to 15% and open its domestic markets, including health care provision and education, to foreign investors. A 15% consumption tax was introduced on goods and services in April 2005, which compensates for the loss of income from import duties. The tax base is small, with only about 4000 people having a taxable income, and income tax is low, at 10% and 20% progressive, resulting in revenue from income tax of TOP5.3 million (US$ 3.16 million) from government and TOP 6.5 million (US$ 3.88 million) from non-government employees per year. Property taxation is negligible and land ownership is concentrated among the

royal family, churches and nobles. The labour force participation rate in 2003 (Labour Force Survey 2003) was 64% (75% for men and 53% for women).

The literacy rate is very high (99%) and most children complete compulsory primary school classes. Education absorbed 14% of the national budget in 2004. While most primary schools teach in Tongan, secondary education is mainly conducted in English. The education rate is similar for both genders, with some advantages for girls at the secondary level. Despite equal opportunities in education, however, the number of women in leading positions remains limited. An important step was taken in 2005 when the first female Member of Parliament was elected. Tonga has ratified the Convention on the Rights of the Child (CRC), but has failed to fulfil the reporting requirements. It has yet to sign the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW). Women continue to be discriminated against in legislation, including land ownership rights, child support rights and inheritance laws.

The standard of living has improved dramatically over the last 50 years and there is now little absolute poverty. The country is placed 85th in the United Nations Development Programme's Human Development Index (HDI), the highest ranking of any Pacific island state, reflecting the comparatively high GDP per capita of US$2988 (2008-2009), the high life expectancy and the near-universal literacy. Disposable income per capita is considerably higher than GDP per capita as a result of remittances from Tongans working abroad. The value of those remittances is also increasing much faster than the domestic economy and official development assistance, and the strong performance in the HDI is partly explained by the high disposable income. However, many families are dependent for food security on what they can produce on their farmland, and limited access to such land is an increasing problem. An estimated 4% of the population live on less than US$1.00 per day and about 6.7% of households live below the food poverty line. The Government uses the term 'hardship' to describe economically disadvantaged groups in Tonga and hardship is defined as "having difficulties in meeting basic needs, such as education and transport". When translated into monetary terms, hardship is the equivalent of living on less than TOP 28.17 (US$ 14.79) per week (indexed value), and an estimated 23% of the population fall into that category. People who live on the outer islands, where access to education and health care is poor, transport costs are high and income opportunities few, have higher rates of hardship.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Tonga has gone through an epidemiological transition since the 1950s, with increasing life expectancy and falling fertility rates, childhood mortality and maternal mortality. Life expectancy at birth increased from 40 years in 1939 to 65 years for males and 69 years for females in 2010. The proportion of deaths caused by infectious diseases fell from 32% in the 1950s to 6% in the 1990s, while the proportion of deaths from diseases of the circulatory system grew from 5.6% to 38% during the same period. However, there is likely to be considerable underreporting of many noncommunicable diseases. Postmortem examinations are limited to criminal cases and death certificates are, at best, based on clinical findings, and frequently on reports from relatives. More importantly, as many as 18% of deceased people do not have a proper death certificate stating the cause of death, and 'unknown cause of death' actually ranks as second when included in the list of leading causes of death. While the mortality data are considered to be fairly consistent over time for those who die in hospital, there are clearly distortions in morbidity reporting caused by misclassification and inconsistent ICD-10 coding, particularly for communicable diseases.

The steep increase in the burden of noncommunicable disease (NCD) is worrying and is the most important current health problem. Obesity, diabetes and cardiovascular diseases have increased to levels of epidemic proportion and prevalence rates now surpass those of most industrialized countries. Tonga developed a multisectoral national strategy to prevent and control NCD in 2003. There are multiple reasons for the rapidly growing NCD burden, of which the most important include increasing rates of overweight and obesity, reduced physical activity, smoking, and, to some extent, the ageing of the population. Economic development, motorization, improved access to processed imported food and the adoption of 'western' dishes with high fat and high sugar contents have had a strong negative impact on people's health.

Food, gifts of food and feasting traditionally play an important role in Tongan culture. Higher economic standards, improved communications and better access to processed and high-fat and high-sugar foods have led to a rapidly increasing overweight and obesity problem. Figures from 2004 show that the average weight for a Tongan male increased over 30 years by 17.4 kg to 95.7 kg, while the average weight for a woman increased by 21.1 kg to 95.0 kg, a rise in body weight with few comparisons in the world. There are indications that people are becoming overweight and obese earlier in life; girls and young women in particular tend to gain weight during adolescence and pregnancy. The overall adult obesity rate (BMI>30) was 60% in the 2004 survey. Women have higher obesity rates than men over all age groups and they are more obese (mean BMI 34.5 compared with 31.0 for men). Most people continue to perceive fatty food as something desirable, a taste that may be explained partly by the scarcity of fat in the traditional fishing and farming society and by historic periods of food shortage. Other findings indicate that the quantity of food consumed by Tongan adults is as much to blame as its composition. Studies have shown that the average Tongan male consumes double the quantity of food and amount of calories consumed by the average Australian male. Women are more overweight than men, while men have a higher prevalence of other risk factors, including hypertension, elevated blood lipids and smoking.

The overall adult prevalence of diabetes type II has increased from 7% to 18% over the last 30 years. As a consequence of their higher obesity rates, women have higher rates of diabetes than men, with 19.1% of women and 16.5% of men meeting the definition of diabetic. A community survey in 2000 showed that as many as 80% of people with diabetes remained undiagnosed and untreated. Access to health services for people with diabetes and its complications has improved, but the health system does not have the capacity to provide quality care for all those who need it, and primary and secondary prevention have so far not been enough. The number of registered diabetic patients at the specialist clinic at the referral hospital on Tongatapu increased by 54% between 1999 and 2003 from 1463 to 2247, which corresponds to more than 9% of the serviced population aged 30 years and more. A hereditary predisposition towards impaired glucose tolerance is likely to play some role in the high rates of diabetes, but this is a non-modifiable factor and has in itself little to contribute to the design of public health interventions.

Physical inactivity is also thought to be an important cause of overweight, particularly for women and middle-aged people. It is unusual today for people to walk or bicycle, as the number of vehicles is increasing rapidly. The increasing number of cars on the roads, together with outdated traffic safety measures, contributed to the record 24 traffic-related deaths in 2003, a figure that put Tonga ahead of the United States of America in the number of traffic deaths per 100 000 population. Seatbelts are not compulsory and only 1% of drivers were found to be using them in a Ministry of Health survey in 2004. The single most important cause of traffic injury is driving under the influence of alcohol, kava or marijuana. All 24 deaths in 2003 were caused directly or indirectly by intoxication. The section on alcohol in the current Traffic Act is antiquated and not enforceable in practice, and neither the health services nor the police have the equipment to measure blood alcohol or to 'breathalize' motorists. The health and social problems caused by the harmful use of alcohol has received increasing attention in Tonga lately and this will hopefully result in measures aimed at reducing access to alcohol and enforcing drink-driving controls in the future.

The incidence of cancer is perceived to be increasing, but weaknesses in diagnosis, surveillance and reporting do not allow for reliable analysis of trends. The sharp increase in overall cancer incidence is likely to be partly or entirely explained by changes in reporting rather than by a true increase. Diagnostic capacity is limited for many malignancies, and it is not always obvious when the reported figure refers to cytological diagnoses or when clinical (non-confirmed) diagnoses have been included. A cancer register was established in 2004 to capture both clinically determined cancers and laboratory-confirmed cases. Although that important development improved the statistical information on cancer incidence, the proportion of cytologically and histologically confirmed cancer cases remains low compared with overall cancer incidence, and the autopsy rate is very low. A pilot project on Pap-smear screening for cervical cancer was started in 2005. Mammography is not available. Liver cancer, which is closely related to infection with hepatitis B virus (HBV), is common in Tonga, where HBV infection rates in the adult population are hyperendemic (10%-14%). It will take another two to three generations until immunization against HBV, which was introduced in 1989, impacts on incidence. Lung cancer now ranks among the three most common cancers, a result of smoking, and it is expected that the incidence will continue to increase.

Of the 17 hospital-certified deaths among those aged one to four years in 2003, eight were from infectious causes, one from dehydration, two from malignancies and two from road trauma. Of the eight children who died as a result of infection, six were from septicaemia and infection of the central nervous system (CNS), one from dengue

fever and one from pneumonia. This picture resembles the situation in an industrialized country more than that of a poor developing one. There is limited information available on childhood morbidity, but the two deaths from road trauma indicate that child safety is a potential area for improving child health.

Infectious diseases have, to a large extent, been brought under control in the last 30-40 years, with some important exceptions. Tonga does not have the vector for malaria, but a few imported cases are diagnosed each year in people returning from visits to areas with malaria transmission.

A fifth and final round of mass drug administration (MDA) for the eradication of lymphatic filariasis took place in 2005, with 100% geographical coverage and an estimated population coverage rate of >90%. A nationwide post-MDA campaign serosurvey was conducted in 2006 to evaluate the results.

Leprosy has, in practice, been eradicated, although the latest infection was diagnosed in 2004. This was an imported case in a Tongan adult who returned after having lived his entire life in American Samoa. The last case of indigenous transmission was in 1998 and today there are a handful of well documented people living with complications of leprosy.

Hepatitis B is highly endemic in Tonga and screening of blood donors, government employees and visa applicants shows that more than 10% of the adult population are positive for HbsAg. A survey in pregnant women in 2005 found an HbsAg-positive rate of 13.9%. Childhood immunization against hepatitis B started in 1989 and the first immunized cohorts are now entering reproductive life. A serosurvey of 211 preschool children in 1998 found a 3.8% prevalence of chronic hepatitis B infection, indicating a lower-than-expected efficacy for hepatitis B immunization. Increasing efforts are now being made to improve hepatitis B vaccine delivery, particularly the timeliness. A study using convenience testing for HbsAg in children admitted to Vaiola Hospital started in 2005 for surveillance purposes; of more than 100 children tested so far, none has been positive for HbsAg.

Poor household hygiene and sanitation, as well as contamination of drinking water sources, are thought to contribute to the typhoid fever cases. However, in year 2010 there was only one confirmed case of typhoid fever. The Ministry of Health places great importance on finding and treating asymptomatic chronic typhoid carriers through contact tracing and stool sampling, and this limits the spread of typhoid. However, it can be argued that Tonga is in the position to eliminate typhoid fever altogether if adequate coordinated resources were to be allocated to treat carriers, improve sanitary practices and ensure the supply of safe water in all villages.

Eight new cases of tuberculosis (all forms) were reported in 2009. All tuberculosis treatment follows the directly observed treatment, short-course (DOTS) strategy and there is active contact tracing. The cure rate for patients diagnosed in 2008 was 100%.

HIV prevalence remains very low. A total of 14 people have been diagnosed with HIV infection over the last 16 years and, as of January 2006, there was only one person known to be living with HIV. The volume of HIV serology testing is high, with an average of 2500-3000 HIV tests carried out annually as part of screening of blood donors, government employees and visa applicants, and an estimated 45 000 HIV tests have been carried out since the start in the 1980s. A pilot trial of voluntary counselling and testing (VCT) at the antenatal clinic at the referral hospital reported a very high uptake, but no decision has been taken to continue to offer antenatal screening. Risk behaviour surveillance and high-risk group serosurveillance started in 2005 and will provide valuable information on the risk of transmission. Antiretroviral treatment (ART) is not available through the public health system and there are no officially endorsed guidelines for treatment of HIV infection or prevention of mother-to-child transmission.

The diagnostic capacity for sexually transmitted infections (STI) is limited to gonorrhoea and syphilis (with the exception of HIV). The number of cases is thought to be much higher than revealed by the statistics, as many patients are treated by private practitioners who do not notify the Ministry of Health. The ratio of men to women receiving treatment for gonorrhoea is 10:1, indicating weak contact tracing and a lack of appropriate services for women. A serosurvey in pregnant women in 2005 found a high overall prevalence of chlamydial infection of 14.5%. The rate was 27.5% in women <25 years of age, an indication that transmission may be increasing in younger women. The RPR-positive rate for syphilis was 3.2%, which is alarming considering that the Ministry of Health took the controversial decision to discontinue syphilis screening in pregnancy a few years ago. The same study also asked questions about sexual risk behaviour, which showed that the condom use rate is very low and

that condoms are primarily seen as a method of contraception to be used within marriage and not to protect against STI.

2.2 Outbreaks of communicable diseases

The country experienced a large outbreak of dengue fever (serotype 1) in 2003, causing six deaths in children, and transmission continued into 2005. The outbreak was confined to the main island of Tongatapu in the first year, but transmission then spread to all island groups except the Niuas. Two adult deaths due to dengue were recorded in 2005. It is unlikely that dengue will become endemic in Tonga because the population is not large enough to sustain transmission over time. However, vector control and vector surveillance is poor and the measures introduced to prevent fatalities and control transmission during outbreaks are suboptimal. It looks inevitable that the introduction of another serotype will cause a new outbreak of dengue fever, with fatalities.

Tonga experienced an outbreak of watery diarrhoea from December 2005 to February 2006, with altogether six fatalities in children below one year of age. This was an unusually large outbreak and, for the first time, Rotavirus was confirmed in a sample sent to the Pasteur Institute in New Caledonia.

2.3 Leading causes of mortality and morbidity

See Section 2.1.

2.4 Maternal, child and infant diseases

More than 98% of pregnant women attend antenatal clinics, 98.5% deliver in a health facility and 100% of deliveries are attended by trained staff. The maternal mortality ratio (MMR) was 36.5 per 100 000 live births in 2007. Indicators that are based on relatively uncommon events, such as the MMR and the infant mortality rate (IMR), will show large variations between years due to chance and it can be more informative to either compare absolute numbers or to examine rates over five-year or 10-year periods. The mean MMR for the five-year period from 1999 to 2003 was 39.4 per 100 000 live births, which translates to one death per year. It is of concern that the MMR has been stable over the last two decades and that it has proven very difficult to reduce it further. The absolute majority of maternal deaths take place in hospital, which is an indication that patient monitoring and emergency services, such as availability of blood for transfusion, need strengthening.

Tonga is the best performing country in the Pacific in terms of infant and child mortality. The unusually low infant mortality rate of 9.1 deaths per 1000 live births at the 1990 baseline for the Millennium Development Goals (MDGs), together with the fact that the IMR has remained unchanged for the last decade, makes it unrealistic for the country to achieve the MDG for infant mortality. There are several explanations for the low IMR, but at the core is the Government's commitment to delivering key interventions, such as immunizations, antenatal care and trained delivery care to the entire population. The result shows that it is possible to provide high coverage of essential services in an island state with isolated populations, and that it pays off.

There is little absolute poverty in Tonga, no chronic undernutrition (stunting), no important micronutrient deficiencies and no malaria, all factors that contribute to well-nourished and healthy mothers and children. The comparatively low teenage (<20 years) pregnancy rate (4.1% in the 2000-2003 period) is another protective factor. Breastfeeding promotion is receiving increasing attention as an important public health intervention. The goal of establishing Vaiola Hospital as a baby-friendly hospital in 2005 was, unfortunately, not achieved. This would have meant that two-thirds of all children in Tonga would have been born in a baby-friendly environment. Work has started to translate the International Code on Marketing of Breast-milk Substitutes into national law and regulations.

The challenge for child health lies in protecting the impressive gains made so far while at the same time identifying and implementing affordable and sustainable interventions that will reduce mortality rates further. Mortality from *Haemophilus influenzae* type B (Hib) infection lies almost entirely in the 0-1 age group and the introduction of routine childhood immunizations against Hib in 2005 is a good example of an affordable new intervention to improve child health.

Immunization rates are higher than in many industrialized countries, and neonatal tetanus and poliomyelitis have been eliminated. Rubella vaccine (measles-rubella [MR] vaccine) was added to the immunization schedule in 2002 in response to a large outbreak of the disease. There have been no detected cases of congenital rubella syndrome

(CRS) since that outbreak. The immunization campaign with MR vaccine to break the epidemic included all children aged 0-15 years and all women up to 45 years of age, with a coverage rate of above 80%, meaning that population immunity against measles can be expected to be high. The last confirmed measles infection was in 1998 and the country set 2007 as a target for measles elimination. Immunization against Hib was introduced in April 2005, with a catch-up immunization campaign for children below two years of age. It has been estimated that Hib vaccine will prevent one to two infant deaths per year, as well as several more cases of severe sequelae caused by Hib meningitis. Hospital paediatric departments are documenting the impact of Hib vaccine on admissions for meningitis and pneumonia.

2.5 Burden of disease

See Section 2.1.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Mission: To support and improve the health of the nation by providing quality, effective and sustainable health services and being accountable for the health outcomes.

Vision: By 2020, we are the healthiest nation compared with our Pacific neighbours, as judged by international determinants.

Objectives:

(1) To fight the NCD epidemic and communicable diseases using effective preventive measures, being good role models and developing public participation and commitment.

(2) To deliver the range and quality of services to meet the basic health requirements of the public.

(3) To provide appropriate health services to all the outer islands and community centres through effective resourcing.

(4) To build staff commitment and development by demonstrating to staff that they are valued.

(5) To deliver services in a professional and friendly manner.

(6) To continue to improve the standard of existing facilities and ICT, and to construct new facilities and introduce new ICT where needed.

(7) To improve management of financial resources through: better revenue collection, balanced budgeting, compliance with procurement procedures, timely processing of payments and compliance with proper financial procedures.

3.2 Organization of health services and delivery systems

The Ministry of Health works in four programme areas: (1) policy formulation and administration; (2) preventive health services; (3) curative health services; and (4) dental health services.

Government health services are provided free of charge and physical access to care is good for the majority of people, with the exception of small populations living on isolated islands. Primary curative care and preventive services are delivered through a system of 14 health centres.

There are four hospitals in Tonga: the tertiary Vaiola Hospital in Nuku'alofa, with 196 beds; and three district hospitals, Prince Ngu's hospital in Vava'u, Niu'ui hospital in Ha'apai and Niu'eki hospital in Eua. The overall bed occupancy rate is low, 34% in 2003, an indication that the hospital system is oversized and has not adapted to changes in the disease pattern and to improvements in physical access. However, transportation between islands remains difficult and acute referrals to the tertiary hospital are uncommon, making centralization of services problematic. The four hospitals also serve the populations on their respective islands with primary health care and they all run busy outpatient and emergency departments.

Patients requiring specialist care that is not available in Tonga can be referred to New Zealand under two treatment schemes, one funded by the Government of Tonga and one by the Government of New Zealand. The decision to refer is made on a case-by-case basis by the Medical Transfer Board. Specialist treatment teams in such areas as eye surgery, plastic surgery, corrective orthopaedic surgery and rheumatic heart disease visit Tonga regularly.

3.3 Health policy, planning and regulatory framework

See Section 3.2

3.4 Health care financing

A 2003 household survey on health care expenditure showed that 89% of all health services were delivered by public hospitals and only 6.2% by health centres. As per the Tonga NHA 2003-4, the total expenditure on health care in Tonga for the Financial Year 2003/04 amounted to US$ 11.6 million and the per capital expenditures to USS 113.58. The total expenditure on health is 5.8% of the GDP. This level of expenditure is in line with middle income countries. The Government covered 54% of total expenditures on health, household 125, and donors 34%. However, when expenditure on traditional healers and international referrals is excluded, it becomes obvious that the Government covers the absolute majority of both curative and preventive care costs and that 'out-of-pocket' payments for health care are low. However, when expenditure on traditional healers and international referrals is excluded, it becomes obvious that the Government covers the absolute majority of both curative and preventive care costs and that 'out-of-pocket' payments for health care are low.

About 12% of the population have some kind of health insurance. The private sector is still small and consists mainly of traditional healers and government-employed doctors practising 'after hours'. About 14% of total expenditure on health is for traditional healers, although they are mostly paid in kind. Expenditure on drugs accounts for approximately 7.8% of total expenditure on health. There is a health insurance system, but it only covers government employees.

3.5 Human resources for health

There are large variations in equipment, staffing and catchment populations depending on location but, on average, a health centre serves 7200 people and is typically staffed by a health officer and one to three nurses. There were 58 physicians in 2010 (0.56 doctors per 1000 population). In the same year, there were 379 nurses (3.7 nurses per 1000 population). In 2010, there were 10 dental officers. The number of private providers is increasing, but the majority of private doctors remain government employees and run part-time private clinics, many from their homes.

The Ministry of Health had a total of 945 established posts in 2002, with an overall vacancy rate of 25%, making it one of the biggest employers in the country. Doctors normally train in Australia, Fiji or New Zealand, often on bilateral scholarships or WHO fellowships. Three-year health officer training courses are organized by the Ministry of Health when required. Nurses train at the Queen Salote School of Nursing in Tonga. On average, 30 nurses graduate each year from the basic nursing training programme. A decision has been made to increase the intake several-fold in order to make up for the continuous loss of nurses to Australia, New Zealand and the United States of America. The Nursing School also runs a postgraduate certificate training programme in collaboration with the nursing department at the Auckland University of Technology, New Zealand. The first training programme in intensive care nursing started in 2005 and postgraduate training programmes in midwifery, internal medicine, surgery and public health were offered in 2006-2007.

3.6 Partnerships

One of the core values of the Ministry of Health is to develop and sustain partnerships with relevant health stakeholders. An example of a recently established successful partnership is the Tonga-Australia Partnership for Development. Its aim is to support progress towards poverty reduction and improvement in living standards for Tongans, through improved health outcomes. The Partnership will support the Government of Tonga to implement the Ministry of Health Corporate Plan 2008/2009-2011/2012 to achieve the following targets:

- Reduced prevalence of noncommunicable disease risk factors including:
    - tobacco use: 2% decrease in prevalence of smokers by 2015; and

- obesity: 2% decrease in overall prevalence of obesity by 2015

- A budget for preventive health care that has reached 10% of the total public health operational budget by 2015.

- A common national standard in the primary health care available to all communities in Tonga, including in utilization of services.

There are other examples of partnerships between the Ministry of Health and other organizations, such as the Health Promoting Church Partnerships and the Health Promotion Foundation. There is also close collaboration with WHO in strengthening the health system, based on primary health care principles. In addition, the Ministry of Health has very good working relationships with the governments of Australia, China, Japan, New Zealand and the European Union (EU), and the Government of Cuba has also assisted Tonga by providing medical training for Tongan students. There are ongoing partnerships with the following organizations: the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the Joint United Nations Programme on HIV/AIDS (UNAIDS), the Global Fund, the Asian Development Bank, and several others.

3.7 Challenges to health system strengthening

The most critical question for the health system today is how to increase the resources available for health. Government health expenditure is about US$ 100 per capita per year and, given that this pays for free medical treatment and free drugs, it is fair to say that Tongans get a lot of value for their money. Around 10%-15% of the total government budget has been spent on health for the last two decades and it is unlikely that share will increase substantially in the future. Since government income is likely to grow only slowly in the coming years, there will be little space for growth in health sector spending within the current health financing system. At the same time, the pressure on the health system will increase with the increasing NCD burden and the ageing of the population. Identifying alternative sources of health care financing is thus one of the top priorities of the Ministry of Health. In December 2005, the Cabinet approved the introduction of user fees. A decision has also been made to introduce social health insurance. Initially it will cover civil servants, but the intention is to gradually include larger sections of the population. Tonga has achieved many of the health goals within its reach given its existing health spending level, and the challenge now is to increase the resources for health promotion and health care without jeopardizing the health of poor and disadvantaged groups in the population.

The increase in noncommunicable diseases (NCD) has now reached epidemic proportions. In addition to human suffering, NCD can have a negative impact on family economies. The loss of income due to disease and the cost of treating chronic conditions can put enormous strain on families and destroy years of work to improve a family's situation. Ultimately, there will be a negative impact on the country's economic development as more resources have to be used for health care and productive and experienced middle-aged people in the workforce are lost to chronic disease or death. Identifying and implementing effective population-targeted preventive measures that can slow the increase of disease and, in the future, reverse the trend, are of the highest priority. The national multisectoral strategy for the control and prevention of NCD, developed in 2003, is a sign that the Government takes the issue very seriously. There are plans to establish a Health Promotion Foundation with funding from dedicated taxation on tobacco and alcohol. Such a mechanism could provide crucial resources for health promotion, an area of health that is currently heavily dependent on external support.

There is a recognized need to improve both the quality of and access to health care, particularly for NCD, in view of the increasing burden caused by the ageing population. A large proportion of patients with diabetes and cardiovascular disease remain undiagnosed and untreated. It is therefore a priority to both increase access to care and improve the quality of care for people with NCD. This must include solutions for financing the treatment of chronic conditions and for increasing patients' knowledge of their condition and their responsibility for care. Active participation in treatment and patient empowerment are both essential for successful treatment of chronic conditions.

There is a need to strengthen both the collection of information and the analysis and dissemination of health data for decision-making. The outcomes of investments in health care financing and prevention of NCD must be able to be evaluated so that strategies can be modified when needed. The information must be easily available, cheap and reliable, and should therefore be based on ongoing surveillance rather than repeated and costly surveys. A first step towards such a system is the strengthening of vital statistics on births and deaths, as well as a consistent

hospital-based diagnosis registration system. The Government has already started important work in this area, but there is a need to strengthen the system of data collection as well as increase the capacity to process and interpret the information gathered. The Ministry of Health is expected to invest substantially in the area of health information in the coming years, partly with resources made available through a World Bank loan.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Annual reports 1995 to 2004;* *Ministry of Health Corporate Plan 2001-2004;* *Ministry of Health Corporate Plan 2005-2008;* *EPI and Reproductive Health Services annual reports 2000-2003*
Operator	:	Ministry of Health
Title 2	:	Tonga Department of Statistics
Web address	:	http://www.spc.int/prism/country/to/stats/
Title 3	:	*Social and economic update and pro-poor policy formulation, Tonga.* Pacific Island Economic Report series
Operator	:	Asian Development Bank TA6245 (reg)
Title 4	:	*Tonga's report on progress towards the Millennium Development Goals (MDGs)*
Title 5	:	*Annual report of the National Reserve Bank 2003-2004*
Title 6	:	Health Sector Support Project (HSSP/WB) Project Implementation Plan (PIP)
Title 7	:	*National Health Accounts report of July 2004*
Title 8	:	*Report of the Minister of Health for the year 2010*
Operator	:	Ministry of Health

5. ADDRESSES

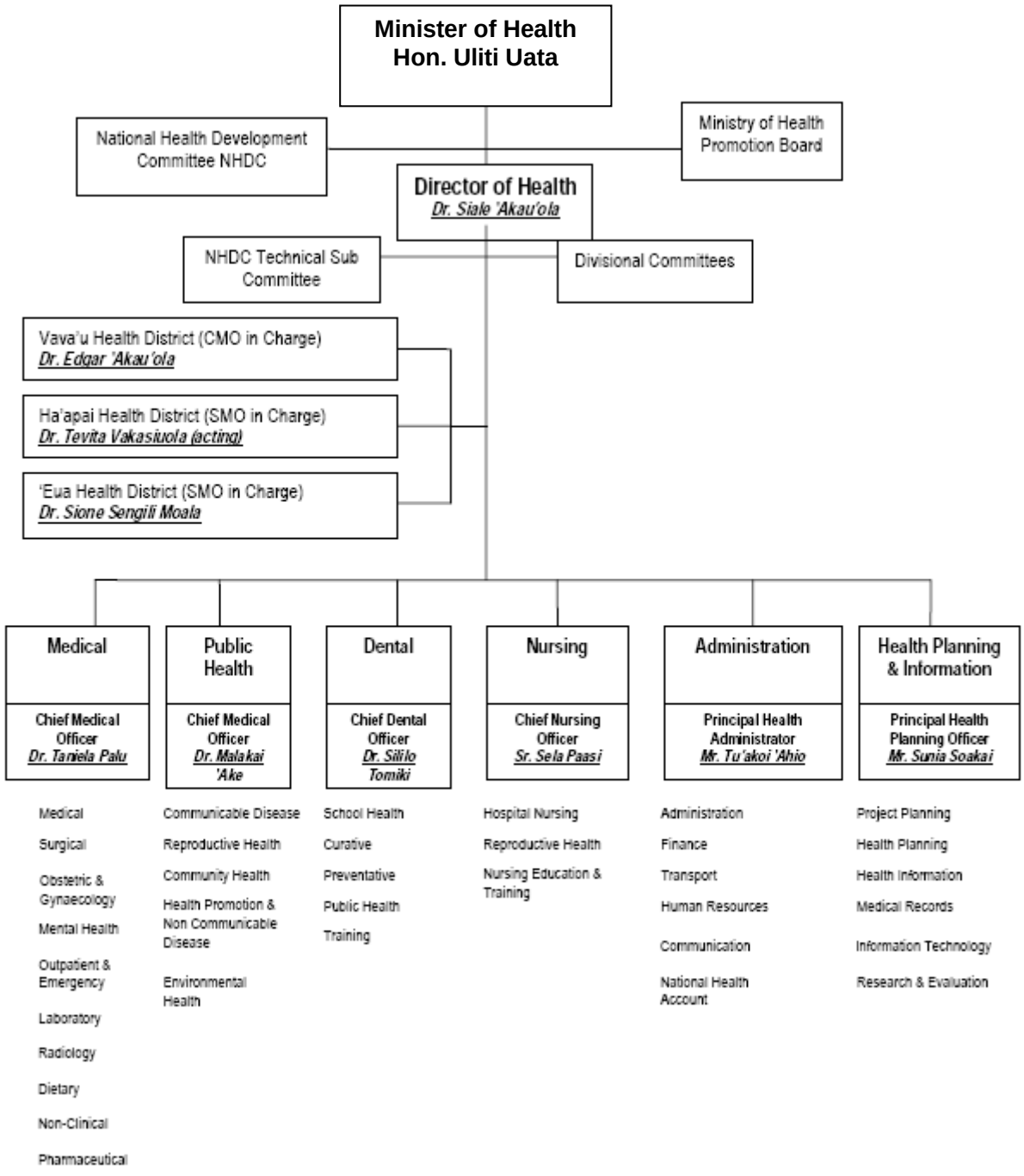
MINISTRY OF HEALTH

Office Address	:	Ministry of Health, Vaiola hospital
Postal Address	:	P.O. Box 59, Nuku'alofa, Kingdom of Tonga
Official Email Address	:	mohtonga@kalianet.to
Telephone	:	(676) 23 200
Fax	:	(676) 24 291
Office Hours	:	08.30 – 16.30

WHO COUNTRY LIAISON OFFICER IN TONGA

Office Address	:	Ministry of Health, Nuku'alofa, Tonga
Postal Address	:	P.O. Box 70, Nuku'alofa, Tonga
Official Email Address	:	who@ton.wpro.who.int
Telephone	:	(676) 23217 / 25522
Fax	:	(676) 23 938
Office Hours	:	08.30 – 16.30 Time zone Manila +5 hrs, CET + 12 hrs

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

TONGA — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.65						2009	1
2	**Estimated population ('000s)**	103.37		...		...		2010 est	1
3	**Annual population growth rate (%)**	0.30		...		...		2010 est	1
4	**Percentage of population**								
	- 0–4 years	13.11		13.32		12.90		2010 est	2
	- 5–14 years	24.96		25.81		24.09		2010 est	2
	- 65 years and above	5.78		5.11		6.46		2010 est	2
5	**Urban population (%)**	23.40		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	25.40		...		...		2009	15
7	**Crude death rate (per 1000 population)**	5.50		...		...		2009	15
8	**Rate of natural increase of population (% per annum)**	1.99		...		...		2009	15
9	**Life expectancy (years)**								
	- at birth	...		70.00		72.00		2009	15
	- Healthy Life Expectancy (HALE) at age 60	...		11.90		12.00		2002	6
10	**Total fertility rate (women aged 15–49 years)**	3.70						2010	4
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	99.00						2006	7
12	**Per capita GDP at current market prices (US$)**	2988.00						2008-09	5
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	0.68						2010 est	8
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	0	0	0	0	0	0	2010	9
	- Type B	0	0	0	0	0	0	2010	9
	- Type C	0	0	0	0	0	0	2010	9
	- Type E	...	...	...	...	...	...		
	- Unspecified	0	0	0	0	0	0	2010	9
	Cholera	0	0	0	0	0	0	2010	9
	Dengue/DHF	30	17	13	0	0	0	2010	9
	Encephalitis	0	0	0	...	...	...	2010	9
	Gonorrhoea	169	106	63	...	...	...	2010	9
	Leprosy	0	0	0	...	...	...	2010	9
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2010	9
	Syphilis	0	0	0	0	0	0	2010	9
	Typhoid fever	1	1	0	...	...	...	2010	9
17	**Acute respiratory infections**	20 891	...	...	26	11	15	2010	5
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	1682	...	...	...	...	...	2010	5
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	8	...	...	5 [d]	...	...	2009	11
	- New pulmonary tuberculosis (smear-positive)	6	...	...	...	...	...	2009	11
20	**Cancers**								
	All cancers (malignant neoplasms only)	101	46	55	83	38	45	2010	9
	- Breast	15	0	15	11	...	11	2010	9
	- Colon and rectum	1	1	0	8	7	1	2010	9
	- Cervix			1			3	2010	9
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	0	0	0	6	3	3	2010	9
	- Liver	2	1	1	0	0	0	2010	9
	- Oesophagus	8	7	1	13	9	4	2010	9
	- Stomach	3	2	1	7	3	4	2010	9
	- Trachea, bronchus, and lung	7	7	0	11	8	3	2010	9
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	50	36	14	2010	9
	- Cerebrovascular diseases	60	...	...	24	13	11	2010	9
	- Hypertension	240	142	98	10	7	3	2010	9
	- Ischaemic heart disease	176	123	53	4	2	2	2010	9
	- Rheumatic fever and rheumatic heart diseases	13	6	7	2	2	0	2010	9
22	**Diabetes mellitus**	176	...	...	30	12	18	2010	9
23	**Mental disorders**	194			1	1	0	2010	9
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	0	0	0	2010	9
	- Occupational injuries	19	...	...	0	0	0	2010	9
	- Road traffic accidents	...	...	...	0	0	0	2010	9
	- Suicide	...	...	...	2	2	0	2010	9
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Pregnancy, Childbirth, and the Puerperium			2713			2624.68 [a]	2010	9
	2. Factors Influencing Health Status and Contact with Health Services	2105	1046	1059	2036.47 [a]	...	...	2010	9
	3. Diseases of the Respiratory System	579	251	328	560.15 [a]	...	...	2010	9
	4. Injury, Poisoning and Certain Other Consequences of External Causes	437	106	331	422.77 [a]	...	...	2010	9
	5. Diseases of the Genitourinary system	373	289	84	360.86 [a]	...	...	2010	9
	6. Parasitic and Infectious Diseases	336	168	168	325.06 [a]	...	...	2010	9
	7. Symptoms, Signs, and Abnormal Clinical and Laboratory Finding, not elsewhere classified	280	139	141	270.88 [a]	...	...	2010	9
	8. Diseases of the Circulatory System	279	135	144	269.92 [a]	...	...	2010	9
	9. Mental and Behabioural Disorders	261	76	185	252.50 [a]	...	...	2010	9
	10. Diseases of the Digestive System	254	90	164	245.73 [a]	...	...	2010	9

TONGA

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the circulatory system	160	55	105	154.79 [a]	...	...	2010	9
	2. Symptoms, signs and ill-defined conditions	102	52	50	98.68 [a]	...	...	2010	9
	3. Neoplasms	83	38	45	80.30 [a]	...	...	2010	9
	4. Diseases of the respiratory system	50	23	27	48.37 [a]	...	...	2010	9
	5. Certain infectious and parasitic disease	31	12	19	29.99 [a]	...	...	2010	9
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					31.50		2010	3
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					98.00		2010	11
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	6.60		...		...		2010	9
31	**Percentage of newborn infants weighing less than 2500 g at birth**	...		...		...			
32	**Immunization coverage for infants (%)**								
	- BCG	99.00		...		...		2010	11
	- DTP3	99.00		...		...		2010	11
	- Hepatitis B III	99.00		...		...		2010	11
	- MCV2	98.00		...		...		2010	11
	- POL3	99.00		...		...		2010	11
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			57			0	2010	9
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	11
	- Diphtheria	0	0	0	...	...	...	2010	11
	- Measles	0	0	0	...	...	...	2010	11
	- Mumps	0	0	0	...	...	...	2010	11
	- Neonatal tetanus	0	0	0	...	...	...	2010	11
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	11
	- Poliomyelitis	0	0	0	...	...	...	2010	11
	- Rubella	0	0	0	...	...	...	2010	11
	- Total Tetanus	0	0	0	...	...	...	2010	11
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	196	2010	9
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	3	70	2010	9
		- Primary health care centres	14	...	2010	9
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			16.75 [a]	2009p	12
	- total expenditure on health as % of GDP			5.30	2009p	12
	- per capita total expenditure on health (in US$)			161.04 [a]	2009p	12
	Government expenditure on health					
	- amount (in million US$)			13.30 [a]	2009p	12
	- general government expenditure on health as % of total expenditure on health			78.80	2009p	12
	- general government expenditure on health as % of total general government expenditure			14.50	2009p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			3.70 [a]	2009p	12
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			21.20	2009p	12
	- out-of-pocket expenditure on health as % of total expenditure on health			17.65 [a]	2009p	12
	Exchange rate in US$ of local currency is: 1 US$ =			2.03	2009p	12
38	**Health insurance coverage as % of total population**			12.00	FY2002-03	10

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	58 [b]	...	...	...	...	...	...	2010	9
		- Ratio per 1000 population	0.56	...	...	...	...	...	...	2010	9
	Dentists	- Number	10 [c]	...	...	...	...	...	...	2010	9
		- Ratio per 1000 population	0.22	...	...	...	...	...	...	2010	9
	Pharmacists	- Number	4	3	1	...	...	...	...	2010	9
		- Ratio per 1000 population	0.04	0.03	0.01	...	...	...	...	2010	9
	Nurses	- Number	379	...	...	...	...	...	...	2010	9
		- Ratio per 1000 population	3.67	...	...	...	...	...	...	2010	9
	Midwives	- Number	21	0	21	...	...	...	...	2010	9
		- Ratio per 1000 population	0.20	0.00	0.20	...	...	...	...	2010	9
	Paramedical staff	- Number	....	....	....	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	0	0	0	0	0	0	0	2007	4

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	20	...	...	...	...	...	...	2007	4
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	0	0	0	0	0	0	0	2007	4
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	16.00	...	...	2010	9
44	Under-five mortality rate (per 1000 live births)	19.70	...	...	2010	5
45	Proportion of 1 year-old children immunised against measles	99.00	...	...	2010	11
46	Maternal mortality ratio (per 100 000 live births)	36.40			2010	9
47	Proportion of births attended by skilled health personnel	100.00			2010	9
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.40			2010	9
	- Percentage of deliveries in health facilities (as % of total deliveries)	98.00			2010	9
48	Contraceptive prevalence rate	31.50	...	...	2010	5
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	97.90			2010	9
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	44.00	...	...	2009	9
60	Tuberculosis death rate per 100 000 population	5.00	...	...	2009	9
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	33.00	...	...	2009	9
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	100.00	...	...	2008	9
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	99.80	100.00	100.00	2008	14
64	Proportion of population using an improved sanitation facility	96.00	98.00	96.00	2008	14
65	Proportion of population with access to affordable essential drugs on a sustainable basis	>95.00	...	...	2002	13

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific
b	Figure refers to government doctors
c	Figure refers to dental officers and dental therapists
d	Estimated number of deaths

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=236&Itemid=&lang=en]
2	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. Accessed on June 2011 from [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=158&Itemid=&lang=en]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision,[http://esa.un.org/wup2009/unup/]Monday, June 06, 2011; 9:20:08 PM.
4	Report of the Minister of Health for the year 2007.
5	Information furnished by Country Liaison Office for Tonga, August 2011.
6	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
7	Human Development Report 2007/2008 . United Nations Development Programme [http://hdrstats.undp.org/countries/data_sheets/cty_ds_TON.html]
8	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
9	Report of the Minister of Health for the year 2010, Ministry of Health, Tonga.
10	Information provided by Country Liaison Officer for Tonga, 10 May 2005.
11	WHO Regional Office for the Western Pacific, data received from the technical units.
12	National health accounts: country information. Geneva, World Health Organization. Accessed in August 2011 from [http://www.who.int/nha/country/en/index.html].
13	Tonga 1st national Status Report. Millenium Development Goals: Today and Tomorrow. National MDG Task Force, March 2005. Government of Tonga [http://planipolis.iiep.unesco.org/upload/Tonga/Tonga_MDG_Report_2005.pdf]
14	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
15	Report of the Minister of Health for the year 2009, Ministry of Health, Tonga.

TUVALU

1. CONTEXT

1.1 Demographics

Tuvalu comprises nine coral islands and is, by population, the smallest member of the United Nations. The population has, however, more than doubled since 1980 and was estimated to have reached approximately 11 149 in 2010. About 32.0% are in the 0-14 year age group, 62.7% in the 15-64 year age group and 5.3% are 65 years or older. The population growth rate is estimated at 0.5% (2010), and the crude birth rate at 22.9 per 1000 population. The total fertility rate was estimated at 3.2 in 2009.

Life expectancy at birth is currently 63.6 years for both sexes: 61.7 years for males and 65.1 years for females.

The Tuvaluan language is spoken by virtually everyone, while a language very similar to Gilbertese is spoken on Nui. English is also an official language, but is not spoken in daily use. Parliamentary and official functions are conducted in Tuvaluan.

1.2 Political situation

The islands came under the United Kingdom's sphere of influence in the late 19th century. In 1974, the Ellice Islanders voted for separate British dependency status as Tuvalu, separating from the Gilbert Islands, which became Kiribati upon independence. Tuvalu became fully independent within the Commonwealth in 1978.

The country is a constitutional monarchy and Commonwealth realm, with Queen Elizabeth II of the United Kingdom of Great Britain and Northern Ireland recognized as Queen of Tuvalu. She is represented in Tuvalu by a Governor General, who is appointed upon the advice of the Prime Minister. The local unicameral parliament, or *Fale I Fono*, has 15 members and is elected every four years. The members elect a Prime Minister as head of government. The Cabinet is appointed by the Governor General on the advice of the Prime Minister. Some elders also exercise informal authority on a local level. There are no formal political parties and election campaigns are largely on the basis of personal/family ties and reputation.

The highest court in Tuvalu is the High Court. There are also eight island courts with limited jurisdiction. Rulings from the High Court can be appealed to the Court of Appeal in Fiji.

Tuvalu has no regular military force and spends no money on defence. The police force includes the Maritime Surveillance Unit for search and rescue missions and surveillance operations. The police have a Pacific-class patrol boat (*Te Mataili*), provided by Australia under the Pacific Patrol Boat Program, for use in maritime surveillance and fishery patrol.

1.3 Socioeconomic situation

Tuvalu has very limited natural resources, its main income deriving from foreign aid, subsistence farming and fishing. Government revenues largely come from the sale of stamps, coins and fishing licenses and from worker remittances from overseas. Substantial income is received annually from an international trust fund established in 1987 by Australia, New Zealand and the United Kingdom and also supported by Japan and the Republic of Korea. The fund grew from an initial US$ 17 million to over US$ 35 million in 1999. The United States Government is also a major revenue source for Tuvalu, with 1999 payments from a 1988 treaty on fisheries valued at about US$ 9 million, a total that is expected to rise annually. In an effort to reduce the country's dependence on foreign aid, the Government is pursuing public sector reforms, including privatization of some government functions and personnel cuts of up to 7%.

In 1998, Tuvalu began deriving revenue from use of its area code for '900' lines and from the sale of its '.tv' Internet domain name. In 2000, Tuvalu negotiated a contract leasing its Internet domain name '.tv' for US$ 50 million in royalties. However, the Canadian entrepreneur who negotiated the deal was unable to raise the agreed amount in the contracted time period, and the contract eventually fell into other hands.

Due to its remoteness, tourism does not provide much income, with only a handful of tourists visiting the country annually. Almost all visitors are government officials, aid workers, officials of nongovernmental organizations or consultants.

1.4 Risks, vulnerabilities and hazards

In terms of land area, Tuvalu is the fourth smallest country in the world. The land is very low-lying, with five narrow coral atolls and four islands. The highest elevation is five metres (16 ft) above sea level. Because of the low elevation, the islands that make up the nation may be threatened by any future rise in sea level due to global warming. Under such circumstances, the population may evacuate to New Zealand, Niue or the Fijian island of Kioa.

The land is very poor and the soil is hardly usable for agriculture. There is almost no reliable supply of drinking-water.

Westerly gales and heavy rain affect the country from November to March and tropical temperatures moderated by easterly winds from March to November.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Noncommunicable diseases (NCD) are the main cause of morbidity and mortality, and the Ministry of Health is designing an NCD plan to focus specifically on four main areas: food and nutrition; physical health; tobacco; and alcohol. The plan will provide a road map for the Department of Public Health to combat NCD in the future.

Tuberculosis, previously thought to be under control, is now increasing again, with an average of 15 new sputum-positive cases every year. The increase is most likely due to improved sputum testing facilities and diagnostics. A full-time programme officer has been recruited with support from the Global Fund to work with the assigned medical officer, thus allowing more time for clinical care, contact tracing, patient counselling, inpatient care and DOTS implementation.

A filariasis mass drug administration and deworming programmes are in place. Water quality and monitoring testing and vector control are ongoing activities.

As in other Pacific island countries, diseases like dengue and typhoid fever occur from time to time. For diagnosis of many diseases, specimens need to be shipped to overseas laboratories, limiting the sensitivity and timeliness of surveillance. There may be an occupational risk of leptospirosis among pig farmers, although the disease has not been reported for several years.

There is a limited supply of safe water. Groundwater is brackish and is not generally considered safe for consumption. In 2009, all households on Funafuti were provided with large rain-water tanks through a project sponsored by the European Union, and this is expected to greatly reduce the incidence of waterborne disease.

2.2 Outbreaks of communicable diseases

In 2009, pandemic influenza A(H1N1) went through Tuvalu. There were 23 laboratory-confirmed cases but it is likely that many more were infected. No deaths due to H1N1 were reported. No other outbreaks of infectious disease have been reported in recent years, although dengue outbreaks are thought to occur every few years.

2.3 Leading causes of mortality and morbidity

Noncommunicable diseases remain the leading causes of morbidity and mortality, with cardiac diseases accounting for the majority of deaths. Diabetes mellitus, hypertension, and cancers (all types) are among the others. However, data disaggregation of cases recorded as morbidity data is difficult due to the lack of a proper database system at the general outpatient, special outpatient and inpatient departments. Acute respiratory infections continued to dominate the statistics for 2009.

2.4 Maternal, child and infant diseases

Data available from the Ministry of Health (2009) reveal that the under-fve mortality rate fell from 68.7 per 1000 live births in 1991 to 24.6 in 2009, a 72.6% reduction (more than the targeted 66.7%). In 2009, there were five under-five deaths and 203 live births.

The infant mortality rate has also declined remarkably, from 57.3 per 1000 live births in 1992, to 34.6 in 2000, 38.3 in 2005 and 14.8 in 2009, a 74.1% reduction (more than the targeted 66.7%).

2.5 Burden of disease

No information available.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The mission of the Ministry of Health is "to ensure the highest attainable standard of health for all people of Tuvalu".

The Ministry's vision is "that all people of Tuvalu should enjoy the highest attainable standard of health, regardless of race, religion, political belief, or economic or social condition".

3.2 Organization of health services and delivery systems

The health services are working to meet the new demands of changing lifestyles (especially regarding diet) among the population.

There is one hospital, located on the main island of Funafuti. The outer islands have clinics staffed by registered nurses.

3.3 Health policy, planning and regulatory framework

The year 2008 marked the beginning of the health reform process, with the development of a new health master plan to guide the work of the Ministry of Health over a 10-year period stretching from 2009 to 2019. The *Strategic Health Plan 2009-2019*, completed in early 2009, provides the Ministry of Health with the renewed aim to focus on primary health care and disease prevention.

In 2011, a review of several pieces of health legislation has been undertaken, including the Nurses Act, the Medical and Dental Act, the Public Health Act and the Pharmacy and Poison Act. The options for development of an umbrella Act for Health Professionals in Tuvalu are also currently being reviewed.

Development of the health infrastructure in the outer islands was another successful project that the Ministry of Health started to execute in 2008. The Ministry secured funding through the Government of Japan's Grant Assistance for Grassroots Human Security Projects to build a new medical centre for Vaitupu Island, to be followed by Niutao Island Medical Centre and Nui Medical Centre in 2009. The same project will also cover new medical centres for the remaining outer islands. The new centres will improve the delivery of health services to the outer islands, with better facilities for inpatient care. In Funafuti, the renovation of the Reproductive Health Clinic to house the integrated programmes for Reproductive Health, Maternal Child Health, HIV and STI, TB and Adolescent Health Development was completed in early 2009.

3.4 Health care financing

The Ministry of Health started work on development of a national health account system in 2009 to track all health financial resources and spending within the Government core budgetary system and those outside the Government jurisdiction. The system, which is expected to be ready for implementation in 2011, will allow better monitoring, evaluation and planning for the Ministry of Health in developing its own financial plans.

The Ministry of Health receives financial support from WHO, the United Nations Population Fund (UNFPA) and the Global Fund.

3.5 Human resources for health

In 2009, a total of 132 staff were employed by the Ministry of Health. There were seven Tuvaluan doctors, four Cuban doctors, 35 registered nurses, and 18 paramedics. The four Cuban doctors were the first cadre of medical officers recruited from Cuba under an agreement between the Government of Tuvalu and the Cuban Medical Program. All the doctors work at Princess Margaret Hospital and also provide consultation services and medical tours to the nine outer island medical centres. Due to the small number of doctors in the country, most shoulder more than one job to meet the medical needs of the population.

The 18 paramedics are stationed at Princess Margaret Hospital, the only hospital.

Of the 35 nurses in the country, 18 are stationed at Princess Margaret Hospital, with the remaining 17 assigned to the nine medical centres on the outer islands. There are also six assistant nurses and eight nurse aides. The deployment of nursing officers to each island ensures they each have a midwife, a junior nurse and a nurse aide.

Two registered nurses who were awarded Government scholarships to study for a Nurse Practitioner qualification for a period of one year at the Fiji School of Nursing, completed their programme in 2010.

One local doctor is completing a Masters Degree in Obstetrics and Gynaecology in Papua New Guinea and another is completing a Masters Degree in Anaesthesiology at the Fiji School of Medicine.. The recruitment of medical specialists from Cuba allowed local medical officers to pursue specialized training in Fiji. Later in 2011, Tuvalu will be recruiting one obstetrician from Cuba and one anaesthetist from the Philippines.

The introduction of the Cuban Medical Programme in 2008 was a result of the agreement between the Government of Tuvalu and the Government of Cuba to assist Tuvalu with its shortages in medical specialists working at the main hospital, Princess Margaret Hospital.

Mobile medical teams from Taiwan (China) visit Tuvalu to offer services in general surgery, urology, obstetrics and gynaecology, ENT, cardiology, anaesthesiology, dermatology, and orthopaedics. The Australian Pacific Islands Project (PIP) also provides eye surgery, ENT, diabetes, cardiology, and biomedical services in the country.

3.6 Partnerships

The Ministry of Health continues to work closely with regional and international donor agencies and partners, who support public health programmes and activities in the country through funding mechanisms and the provision of technical assistance at various levels throughout the year.

3.7 Challenges to health system strengthening

Human resources are the main challenge to health services in Tuvalu. There needs to be an ongoing effort to strengthen the knowledge and expertise of existing staff.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Central Statistics Department
Operator	:	Government of Tuvalu
Web address	:	http://www.spc.int/prism/country/tv/stats/
Title 2	:	Secretariat of the Pacific Community – *Prism.*
Web address	:	http://www.spc.int/prism/country/tv/tv_index.html
Title 3	:	*2008 Pocket statistical summary (PSS)*
Operator	:	Secretariat of the Pacific Community, Statistics and Demography
Web address	:	http://www.spc.int/sdp/
Title 4	:	Household Income and Expenditure Survey (HIES) 2004/2005
Operator	:	Government of Tuvalu Central Statistics Division
Web address	:	http://www.spc.int/prism/Country/TV/Stats/Publictn/Tuvalu%20HIES%20Report.pdf
Title 5	:	Annual Report: Health, 2008
Operator	:	Ministry Of Health, Government Of Tuvalu

Title 6	:	Tuvalu Millennium Development Goals Report 2006
Operator	:	Government Of Tuvalu
Web address	:	http://www.spc.int/prism/country/tv/stats/mdg/TV_mdgrpt.pdf
Title 7	:	Tuvalu Demographic and Health Survey 2007
Web address	:	http://www.spc.int/sdp/index.php?option=com_docman&task=cat_view&gid=46&Itemid=42

5. ADDRESSES

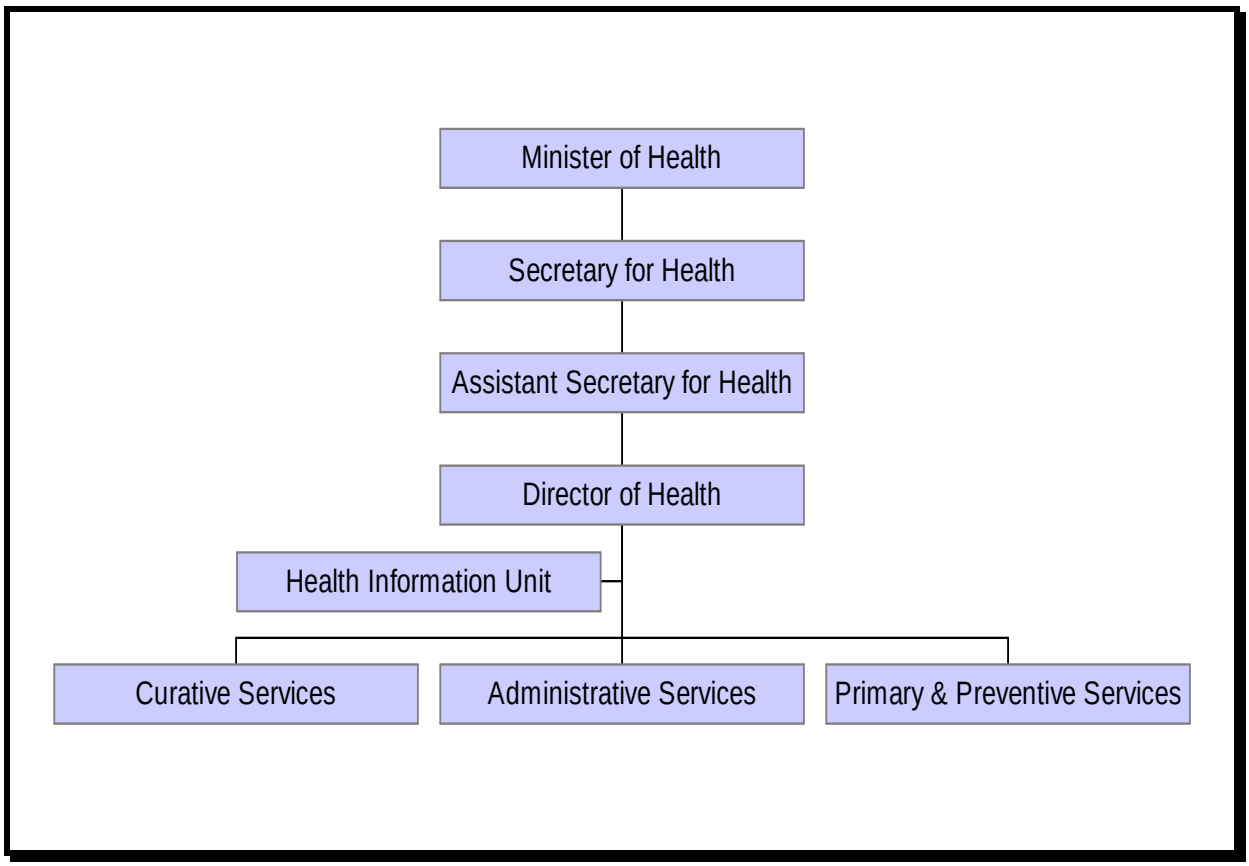
MINISTRY OF HEALTH

Office Address	:	Vaiaku, Funafuti, Tuvalu
Postal Address	:	P.O. Box 36, Funafuti, Tuvalu
Official Email Address	:	s.homasi@yahoo.com
Telephone	:	Health Division: (688) 20765
Fax	:	Health Division: (688) 20832
Office Hours	:	0800-1600

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT WHO REPRESENTATIVE

Office Address	:	Level 4, Provident Plaza One, Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	P O Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 166; 3234 177
Office Hours	:	0800 – 1700
Website	:	http://www.wpro.who.int/southpacific

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

TUVALU — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.03						2010	1
2	**Estimated population ('000s)**	11.15		5.55		5.60		2010 est	2
3	**Annual population growth rate (%)**	0.50		...		...		2010	1
4	**Percentage of population**								
	- 0–4 years	10.90 [a]		11.29 [a]		10.51 [a]		2010 est	2
	- 5–14 years	21.11 [a]		21.97 [a]		20.26 [a]		2010 est	2
	- 65 years and above	5.31 [a]		4.34 [a]		6.26 [a]		2010 est	2
5	**Urban population (%)**	50.40		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	22.90		...		...		2010 est	1
7	**Crude death rate (per 1000 population)**	9.00		...		...		2010 est	1
8	**Rate of natural increase of population (% per annum)**	1.39 [a]		...		...		2010 est	1
9	**Life expectancy (years)**								
	- at birth	63.60		61.70		65.10		1997-2002	4
	- Healthy Life Expectancy (HALE) at age 60	...		9.70		10.30		2002	5
10	**Total fertility rate (women aged 15–49 years)**	3.20						2009	16
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	...		92.70		97.10 [b]		2007	6
12	**Per capita GDP at current market prices (US$)**	1139.32						2002	4
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	...							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	0	0	0	0	0	0	2001	7
	- Type B	0	0	0	0	0	0	2001	7
	- Type C	0	0	0	0	0	0	2001	7
	- Type E	...	...	...	...	...	...		
	- Unspecified	23	...	...	0	0	0	2001	7
	Cholera	0	0	0	0	0	0	2005	7
	Dengue/DHF	0	0	0	0	0	0	2009	7
	Encephalitis	0	0	0	0	0	0	2005	7
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	0	0	0	...	...	...	2010	7
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2001	7
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	0	0	0	0	0	0	2005	7
17	**Acute respiratory infections**	2950	...	...	...	...	...	2003	8
	- Among children under 5 years	12 [c]	6 [c]	6 [c]	...	...	...	2007	6

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	967	...	...	1	...	...	2002	9
	- Among children under 5 years	42 [d]	16 [d]	26 [d]	...	...	...	2007	6
19	**Tuberculosis**								
	- All forms	18	...	...	...	...	...	2009	7
	- New pulmonary tuberculosis (smear-positive)	8	...	...	...	...	...	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	1	...	...	0	0	0	2009	16
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Oesophagus	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
21	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	344	...	...	...	...	...	2002	9
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
22	**Diabetes mellitus**	281	...	...	...	...	...	2002	9
23	**Mental disorders**	...	...	...	...	...	...		
24	**Injuries**								
	All types	...	...	...	...	...	...		
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Occupational injuries	32	...	...	...	...	...	2002	9
	- Road traffic accidents	1	...	...	0	0	0	2001	8
	- Suicide	...	...	...	...	...	...		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Septic sores	1667	...	...	17274.61 [a]	...	...	2007	4
	2. Headache	1504	...	...	15585.49 [a]	...	...	2007	4
	3. Acute respiratory infection	1298	...	...	13450.78 [a]	...	...	2007	4
	4. Body ache	1186	...	...	12290.16 [a]	...	...	2007	4
	5. Cough	1067	...	...	11056.99 [a]	...	...	2007	4
	6. Abdominal pain	992	...	...	10279.793 [a]	...	...	2007	4
	7. Ringworm	732	...	...	7585.4922 [a]	...	...	2007	4
	8. Conjunctivitis	553	...	...	5730.5699 [a]	...	...	2007	4
	9. Tooth decay	536	...	...	5554.4041 [a]	...	...	2007	4
	10.								

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Senility	14	...	...	145.08 [a]	...	...	2007	4
	2. Cardiac arrest	8	...	...	82.90 [a]	...	...	2007	4
	3. Diabetes	5	...	...	51.81 [a]	...	...	2007	4
	4. Pneumonia	4	...	...	41.45 [a]	...	...	2007	4
	5. Hypertension	3	...	...	31.09 [a]	...	...	2007	4
	6. Congestive heart failure	3	...	...	31.09 [a]	...	...	2007	4
	7. Cerebrovascular accident	2	...	...	20.73 [a]	...	...	2007	4
	8. Stillbirth	2	...	...	20.73 [a]	...	...	2007	4
	9. Pulmonary tuberculosis	2	...	...	20.73 [a]	...	...	2007	4
	10.Tuberculosis & others	2	...	...	20.73 [a]	...	...	2007	4
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					22.40		2007	6
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					100.00		2010	7
29	**Percentage of pregnant women with anaemia**					28.80		2007	6
30	**Neonatal mortality rate (per 1000 live births)**	29.00		...		...		2003-07	6
31	**Percentage of newborn infants weighing less than 2500 g at birth**	6.10		...		...		2007	6
32	**Immunization coverage for infants (%)**								
	- BCG	100.00		...		...		2010	7
	- DTP3	89.30		...		...		2010	7
	- Hepatitis B III	89.30		...		...		2010	7
	- MCV2	70.40		...		...		2010	7
	- POL3	89.30		...		...		2010	7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	0	0	0	...	...	...	2010	7
	- Diphtheria	0	0	0	...	...	...	2010	7
	- Measles	0	0	0	...	...	...	2010	7
	- Mumps	0	0	0	...	...	...	2010	7
	- Neonatal tetanus	0	0	0	...	...	...	2010	7
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	7
	- Poliomyelitis	0	0	0	...	...	...	2010	7
	- Rubella	0	0	0	...	...	...	2010	7
	- Total Tetanus	0	0	0	...	...	...	2010	7
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	1	40	2001	8
		- Specialized hospitals	...	...		
		- District/first-level referral hospitals	...	...		
		- Primary health care centres	8	16	2001	8
	Private health facilities	- Hospitals	0	0	2001	8
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			3.12 [a]	2009p	10
	- total expenditure on health as % of GDP			10.50	2009p	10
	- per capita total expenditure on health (in US$)			312.50 [a]	2009p	10
	Government expenditure on health					
	- amount (in million US$)			3.12 [a]	2009p	10
	- general government expenditure on health as % of total expenditure on health			99.80	2009p	10
	- general government expenditure on health as % of total general government expenditure			11.00	2009p	10
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			25.00 [a]	2009p	10
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			0.20	2009p	10
	- out-of-pocket expenditure on health as % of total expenditure on health			0.00 [a]	2009p	10
	Exchange rate in US$ of local currency is: 1 US$ =			1.28	2009p	10
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	12	8	4	...	...	...	...	2009	16
		- Ratio per 1000 population	1.08	0.72	0.36	...	...	...	...	2009	16
	Dentists	- Number	2	1	1	...	...	...	...	2009	16
		- Ratio per 1000 population	0.18	0.09	0.09	...	...	...	...	2009	16
	Pharmacists	- Number	2	2	...	...	...	...	...	2009	16
		- Ratio per 1000 population	0.18	0.18	...	...	...	...	...	2009	16
	Nurses	- Number	35 [e]	...	...	...	...	...	...	2009	16
		- Ratio per 1000 population	3.60	...	...	...	...	...	...	2009	16
	Midwives	- Number	10	...	...	...		...	...	2008	11
		- Ratio per 1000 population	1.03	...	...	...	...	...	...	2008	11
	Paramedical staff	- Number	9	2	7	...	...	...	...	2009	16
		- Ratio per 1000 population	0.81	0.18	0.63	...	...	...	...	2009	16
	Community health workers	- Number	0	0	0	0	0	0	0	2008	12
		- Ratio per 1000 population	0	0	0	0	0	0	0	2008	12
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	**Annual number of graduates**	Nurses	…	…	…	…	…	…	…		
		Midwives	…	…	…	…	…	…	…		
		Paramedical staff	…	…	…	…	…	…	…		
		Community health workers	…	…	…	…	…	…	…		
41	**Workforce losses/ Attrition**	Physicians	…	…	…	…	…	…	…		
		Dentists	…	…	…	…	…	…	…		
		Pharmacists	…	…	…	…	…	…	…		
		Nurses	…	…	…	…	…	…	…		
		Midwives	…	…	…	…	…	…	…		
		Paramedical staff	…	…	…	…	…	…	…		
		Community health workers	…	…	…	…	…	…	…		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	**Total**	**Male**	**Female**		
42	**Prevalence of underweight children under five years of age**	1.60	…	…	2007	6
43	**Infant mortality rate (per 1000 live births)**	14.80	…	…	2009	17
44	**Under-five mortality rate (per 1000 live births)**	24.60	…	…	2009	17
45	**Proportion of 1 year-old children immunised against measles**	84.80	…	…	2010	7
46	**Maternal mortality ratio (per 100 000 live births)**	0.00 [f]			2003	13
47	**Proportion of births attended by skilled health personnel**	100.00			2009	16
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	…				
	- Percentage of deliveries in health facilities (as % of total deliveries)	…				
48	**Contraceptive prevalence rate**	30.50	…	…	2007 est	14
49	**Adolescent birth rate**	8.00			2007	6
50	**Antenatal care coverage** - At least one visit	77.20			2007	6
	- At least four visits	67.30			2007	6
51	**Unmet need for family planning**	24.20	…	…	2007	6
52	**HIV prevalence among population aged 15-24 years**	…	…	…		
53	**Estimated HIV prevalence in adults**	…	…	…		
54	**Percentage of people with advanced HIV infection receiving ART**	…	…	…		
55	**Malaria incidence rate per 100 000 population**	…	…	…		
56	**Malaria death rate per 100 000 population**	…	…	…		
57	**Proportion of population in malaria-risk areas using effective malaria prevention measures**	…	…	…		
58	**Proportion of population in malaria-risk areas using effective malaria treatment measures**	…	…	…		
59	**Tuberculosis prevalence rate per 100 000 population**	194.00	…	…	2009	7
60	**Tuberculosis death rate per 100 000 population**	7.00	…	…	2009	7
61	**Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)**	120.00	…	…	2009	7
62	**Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)**	78.00	…	…	2008	7
		Total	**Urban**	**Rural**		
63	**Proportion of population using an improved drinking water source**	97.00	98.00	97.00	2008	15
64	**Proportion of population using an improved sanitation facility**	84.00	88.00	81.00	2008	15
65	**Proportion of population with access to affordable essential drugs on a sustainable basis**	100.00	…	…	2008	11

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Computed by Information, Evidence and Research (IER) Unit of the WHO Regional Office for the Western Pacific
b	Figure refers to women aged 15-49 years old at the time of the DHS survey.
c	Computed by IER of WHO-WPRO based on the given percentage of under-five years old with symptoms of ARI - 2.80 (total), 2.80 (males), and 2.70 (females).
d	Computed by IER of WHO-WPRO based on the given percentage of under-five years old with diarrhoea in the two weeks preceeding the survey - 9.70 (total), 7.00 (males), and 12.5 (females).
e	Figure refers to bachelor and diploma graduate nurses
f	There is only one maternal death in the last 5 years

Sources:	
1	2010 Pocket Statistical Summary. Secretariat of the Pacific Community, Statistics and Demography. Accessed on 6 June 2011 from [http://www.spc.int/sdp/]
2	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_download&gid=158&Itemid=&lang=en]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM
4	Tuvalu Central Statistics Division (http://www.spc.int/prism).
5	World health report 2004. Changing history. Geneva, World Health Organization, 2004.The world health report 2004: changing history. Geneva, World Health Organization, 2004.
6	Tuvalu Demographic and Health Survey 2007 [http://www.spc.int/sdp/index.php?option=com_docman&task=cat_view&gid=46&Itemid=42]
7	WHO Regional Office for the Western Pacific, data received from technical units.
8	Information furnished by the Health Department, Government of Tuvalu, 18 March 2003.
9	PMH health report 2002. Ministry of Health.
10	National health accounts: country information. Geneva, World Health Organization. Accessed in March 2010 from http://www.who.int/nha/country/en/index.html.
11	Annual Report: Health, 2008, Ministry Of Health, Government Of Tuvalu
12	University of New South Wales. Mapping of human resources for health, Pacific Island Countries, April 2009
13	Tuvalu Millennium Development Goals Report 2006. Government of Tuvalu, and United Nations Development Programme, 2006.
14	Department of Economic and Social Affairs Population Division. World Contraceptive Use 2011. Available from [http://www.un.org/esa/population/publications/contraceptive2011/contraceptive2011.htm]
15	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
16	Annual Health Report 2009, Ministry Of Health, Government Of Tuvalu
17	Tuvalu Progress Report 2010. MDG Target Scorecard.

VANUATU

1. CONTEXT

1.1 Demographics

The 2009 National Census of Population and Housing reported the population of Vanuatu to be 234 023, with a growth rate of 2.3% per annum. Life expectancy at birth is 69 for males and 72 for females, and 3.5% of the population is over 65 years of age.

The 2011 estimated crude birth rate was 31.1 per 1000 population and the estimated crude death rate was 5.3. The infant mortality rate was 27 per 1000 live births in 2008.

According to the last national census, the urban population accounted for 25.6% of the total population in 2010. Urban migration is increasing at an alarming rate, particularly from rural islands to Port Vila and Luganville, as people seek employment or education. Most of the population are employed in subsistence agriculture, the rest being in government departments, private companies and other employment sectors.

1.2 Political situation

On 30 July 2010, Vanuatu celebrated 30 years of independence.

The country has a republican political system headed by a President who has primarily ceremonial powers. The President is elected for a five-year term by a two-thirds majority in the Electoral College, consisting of Members of Parliament and the presidents of regional councils. The Prime Minister, who is the head of the Government, is elected by a majority vote by a three-fourths quorum of Parliament. The Prime Minister appoints the Council of Ministers, whose number may not exceed one-fourth of parliamentary representatives. The Prime Minister and the Council of Ministers constitute the Executive Government. The Parliament has 52 members who are elected every four years by popular vote. The legal system of the country is based on English common law.

Vanuatu has had a relatively prolonged period of political stability. Prime Minister Edward Nipake Natapei has been in office since September 2008. Moses Kahu has been Minister of Health since July 2009.

1.3 Socioeconomic situation

Per capita gross domestic product (GDP) was US$ 2685.10 in 2009. As part of plans to improve the economic status of the country, the Government has introduced a priority action agenda, a long-term investment plan to expand the economy and improve the living standards of the people. The agenda relies mainly on foreign aid for investment, with Australia, China, the European Union, Japan, Malaysia and New Zealand being the main donors.

Besides direct foreign investment, other mainstays of the economy are construction, tourism retail and wholesale trade and, to a lesser extent, agriculture. Economic development is hindered by dependence on relatively few commodity exports, vulnerability to natural disasters and the long distances from main markets.

The traditional economic staples, such as copra, cocoa and kava, are not likely to sustain economic growth into the future. The Government currently subsidizes copra and demand is not increasing to meet production. Kava (*Rhizoma Piperis Methystici*) has been subjected to investigations into its possible detrimental effect on health, specifically liver toxicity. Cocoa could be an important export if sufficient quantities could be produced. The economy is moving towards complete dependence on the tourism industry, which will not be sustainable for economic development. Very few new jobs are created annually in all sectors of the economy, especially for returned trainees and graduates.

1.4 Risks, vulnerabilities and hazards

Vanuatu is highly vulnerable to natural disasters as the country is in an earthquake zone. Volcanic eruptions, earthquakes, tsunamis and cyclones are the main culprits damaging the country. Most of the islands of Vanuatu are mountainous and of volcanic origin. The danger of a major eruption is always present due to several active volcanoes, including several under water. Cyclones, drought, flooding and other weather events also occur.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Malaria is the major public health problem in the country, other communicable disease concerns being tuberculosis; sexually transmitted infections; acute respiratory tract infections, including pneumonia; diarrhoeal diseases; viral hepatitis; typhoid fever; and measles.

In 2008, the rapid diagnostic test for malaria was progressively introduced in all health facilities. Annual parasite incidence (API) decreased from a baseline of 73.9 positive cases per 1000 inhabitants to 23.3 per 1000 in 2007, 15.6 per 1000 in 2008, and 13.3 per 1000 in 2009. This remarkable decline has opened up the prospect of further reduction and eventual elimination of malaria. The Ministry of Health has introduced long-lasting, insecticide-treated nets, using funding from the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria. The use of bednets now seems to be widespread, with 85% of children sleeping under nets in 2009. Nevertheless, concentrated efforts are still needed to achieve the elimination target.

Tuberculosis (TB) is a national concern in both urban and rural settings. From 2000 to 2007, the average annual prevalence rate was six cases per 10 000 inhabitants, which corresponds to 120 TB cases a year. The Ministry of Health implements the directly observed treatment, short-course (DOTS) strategy. The case detection rate was 78% in 2009 and the treatment success rate was 91% in 2008. The programme is now concentrating on quality, consistency and sustainability issues.

Dengue fever, dengue haemorrhagic fever and filariasis are also very significant communicable diseases, and the Directorate of Public Health has implemented an extensive vectorborne-disease control programme over the past 20 years. The five rounds of mass drug administration against filariasis have been completed and the programme is now in an evaluation and surveillance phase.

Sexually transmitted infections (STI) have always been suspected of being highly prevalent, and data from health facilities indicate high prevalence and incidence rates. Azythromycin-based presumptive treatment for pregnant women has been ongoing at Vila Central Hospital since January 2001. In 2000, a survey of women visiting the antenatal clinic at the hospital showed incidence rates of 27.5% for *Trichomonal vaginalis* and 21.5% for *Chlamydia trachomatis*. However, the results of a cervical cancer screening project carried out in 2007 in 500 women in Efate found chlamydial infection in only 2% of the sample. On the other hand, the survey revealed that 9% of the sample had cervical pre-cancer or cancer lesions. A number of STI were also identified, such as syphilis in 4% of the sample.

Vanuatu officially reported its first HIV infection on 25 September 2002. There was considerable public interest in the case, giving impetus to health service improvements in the areas of counselling, blood safety and testing. There has been an increase in the number of people requesting HIV tests. Three confirmed HIV infections have been reported to date, with one AIDS-related death in 2006 and one in 2007.

Other major health concerns are acute respiratory infections (ARI) and diarrhoeal diseases, which contribute significantly to the morbidity burden. Children under two years of age account for about 50% of all hospital admissions for ARI. The introduction of the integrated management of childhood illness (IMCI) strategy and the support for integrated health services may reduce the burden on the health system caused by advanced cases of ARI and diarrhoeal disease.

Noncommunicable diseases, especially diabetes and hypertension, have come to the attention of the Ministry of Health in the last few years; in 2006, diabetes was the eighth leading cause of morbidity (inpatient care) and hypertension the 10th leading cause. Lifestyle changes and the growing urban population appear to be the main causes.

2.2 Outbreaks of communicable diseases

The country needs to develop a good disease surveillance system for early reporting of disease incidence in order to respond to outbreaks properly. During 2006, there was an outbreak of typhoid fever on the island of Tanna, which was successfully controlled by the Southern Health Care Directorate. There were also sporadic outbreaks of

diarrhoeal diseases. In June 2008, a workshop on the International Health Regulations (IHR 2005) was organized and a national surveillance action plan has been developed. During the H1N1 outbreak, Vanuatu implemented a very comprehensive disease surveillance programme.

2.3 Leading causes of mortality and morbidity

The 10 leading causes of morbidity (inpatient) during 2006 were: acute respiratory infection, including pneumonia; cutaneous abscess; malaria; asthma; diarrhoea; injuries; food poisoning; diabetes; chronic obstructive pulmonary disease; and hypertension. The quality of diagnosis is often hampered by inadequate laboratory facilities for investigation and is mainly based on clinical judgement.

The leading causes of mortality reported in 2006 were: heart disease, cancer, asthma, stroke, pneumonia, liver disease, neonatal death, diabetes mellitus, septicaemia, and hypertension. The mortality pattern over the years shows a clearly increasing trend towards noncommunicable diseases becoming the leading cause of mortality in the country.

2.4 Maternal, child and infant diseases

The Maternal and Child Health (MCH) Programme conducts clinics for antenatal mothers, child immunizations and family planning. In addition to care, it offers support, information and advice regarding parenting, child health and development, maternal health and well-being, child safety, immunization, breastfeeding, nutrition and birth spacing.

During 2006, the five hospitals in the country treated 168 maternity cases: 109 for abortions, 7 for eclampsia, 11 for haemorrhage, 33 for obstructed labour and 8 for sepsis. There were six maternal deaths reported during the year.

A total of 8567 births were reported for 2006: 2507 (29%) were delivered in hospitals; 5296 (61%) were delivered in health centres; 156 (2%) were delivered outside health facilities, assisted by skilled health personnel; and 608 (7%) were delivered by traditional birth attendants (TBA). Of the total births reported, 92.9% were attended by skilled health personnel, and 95.5% of the newborn babies weighed more than 2500g.

In 2010, 87.6% of pregnant women received a second dose of tetanus toxoid (TT2). Coverage for DTP3 was 93%, while the POL3, BCG and hepatitis B III coverage rates were 90% in 2010.

2.5 Burden of disease

With an annual population growth rate of 2.3%, the population is expected to continue to grow, with higher numbers of births every year. At the same time, life expectancy at birth is also increasing. This will lead to a double burden of disease: childhood diseases will continue in importance while, at the same time, diseases of the elderly will rise. Hypertension and its complications, heart disease, cancer, diabetes and injuries are the diseases that will place a serious burden on the health services in coming years.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The vision of the Ministry of Health is to protect and promote the health of all people living in Vanuatu. The Ministry's mission is to establish an integrated and decentralized health system to promote effective, efficient and equitable development and services for the well-being of all people across the country, based on the following values:

Customer focus: Customers are the first priority and concern in the provision of quality care and access, while respecting their geographic situation, economic circumstances, and social and cultural beliefs and values.

Equity: In cultural, ethnic, religious and political diversity, and irrespective of disability, gender and age, fairness, respect and honesty must prevail in all dealings.

Quality: High quality outcomes will be pursued using safe and affordable interventions, and science and technology will be applied to maximize benefits, while minimizing risks in all facets of activities.

Integrity: The health system will strive for improvement and will commit to the highest ethical standards in all that is done in providing quality care in Vanuatu.

The objectives are:

- to restructure the Ministry to ensure effective, efficient and responsive service delivery;
- to strengthen health partnerships to ensure effective, efficient and coordinated service delivery;
- to plan and provide equitable service delivery for the people of Vanuatu;
- to further develop a range of public health programmes and initiatives, including programmes for tuberculosis, leprosy, malaria and HIV/AIDS;
- to provide and promote effective and efficient reproductive health services;
- to improve and strengthen the drug and medical supply system;
- to plan new primary health care facilities based on population numbers;
- to review and develop the patient referral system;
- to develop hospital service standards, policy and regulations to assure quality and customer-focused services;
- to strengthen the national health information system to support planning, management and effective service delivery to patients and customers; and
- to further develop human resource management and development to achieve a well-managed and well-trained workforce.

3.2 Organization of health services and delivery systems

The Ministry of Health is responsible for the provision of curative and preventive health services. The Ministry formulates national health policies, coordinates the development and planning of public health sectors, and regulates health standards.

The five public and one private hospital provide inpatient and specialist outpatient services. Of the five hospitals, there are two tertiary referral public hospitals located in both Port Vila and Luganville. Specialized tertiary services are not available in Vanuatu and are referred for overseas treatment, mainly to Australia and New Zealand.

There are 27 health centres, about four in each province. They provide outpatient and inpatient services (mostly prescription of drugs and deliveries), health promotion and preventive health services, such as immunization. Each health centre is staffed by a nurse practitioner, who is also the manager, a midwife and a general nurse. The health centres are the referral centres for dispensaries (referred to as PHC centres in the health databank) and aid posts. There are 97 active dispensaries providing primary care. All the islands have at least one dispensary, which is usually staffed by a general nurse.

Aid posts have been established in most villages and are funded by the community, while the Ministry of Health provides basic medicine and training for the staff. There are about 231 aid posts in the country, each staffed by a village health worker.

The support services for hospitals and primary health care programmes include pharmaceutical, blood-transfusion and laboratory services.

The five public hospitals in the country have a total of 390 beds, the health centres having fewer beds. In 2006, 14 856 inpatients and 356 236 outpatients attended clinics. Thus, the bed occupancy rate was 2.1 per 1000 population and there were 1.5 outpatient visits per person.

3.3 Health policy, planning and regulatory framework

Based on an overarching primary health care philosophy, the policy objectives for the health sector are:

- to improve the health status of the people;
- to improve access to services;
- to improve the quality of the services delivered; and
- to make more effective use of resources

The strategies to achieve these objectives are as follows:

- Base health services delivery on a primary health care approach to ensure access to sustainable provincial services, including strong links with provincial governments.
- Improve the health status of the people by:
  - reducing illness and death in children under five years of age;
  - promoting birth spacing and reducing teenage pregnancies; and
  - reducing disability and deaths among productive adults.
- Improve access to services through:
  - adoption of the role-delineation tool to distribute resources more fairly, based on community health needs;
  - implementation of mechanisms to evaluate tertiary services and provide guidance for their access both within Vanuatu and beyond;
  - development of an integrated primary health care strategy and public health care strategy for Vanuatu; and
  - giving a higher priority to improving transportation and communication to (1) improve access for patients, (2) reduce the isolation of health workers, and (3) improve and strengthen partnerships for and ownership of health programmes through the coordination of donors, NGOs, other sectors of Government, chiefs, churches, etc.
- Improve the quality of services delivered through:
  - implementation of a comprehensive hospital and health service quality and safety standards programme; and
  - recognition of the potential for a key role to be played by health professionals in providing leadership and ensuring there is continued skills-base development and retention in the workforce.
- Make more effective use of resources by:
  - improving the collection of data to enable monitoring of health status and support health planning and management; and
  - adopting only those health initiatives that are cost-effective and proven in the South Pacific, and continuing to roll out the planning process to include high-priority services and new programmes.

The Ministry of Health's Sector Strategy 2010-2016 contains strategies, targets and performance indicators to measure progress in the priority areas. Performance indicators to reflect overall progress in the sector include those on:

- infant and child mortality;
- maternal mortality;
- births attended by trained health personnel;
- immunization coverage;
- contraceptive prevalence;
- malaria, TB and noncommunicable disease incidence; and
- availability of timely and accurate health statistics.

3.4 Health care financing

Until 2005, Vanuatu had one financing scheme represented by national health services operated and funded by the Government and under the supervision of the Ministry of Health. The major sources of funding for the health sector were the government budget and donor contributions. Household contributions consisted of in-kind payments to traditional healers and fees-for-services at government facilities.

The fees-for-service scheme, a Ministry of Health cost-recovery scheme, realized the reasonable amount of 10 to 12 million Vatu (US$ 95 000 to US$ 114 000) between 2002 and 2005, representing 1% to 2% of the Ministry's executed budget. Unfortunately, these funds are not added to the Ministry of Health budget, but are treated as state revenue and go into the Ministry of Finance account.

National Health Account (NHA 2007) results found that, in 2005, almost 100% of inpatient and 60% of outpatient services were provided by Ministry of Health facilities. Recently, however, private sector health services have started up. New private polyclinics have been established in the capital city of Port Vila and the major city of Luganville, and a private hospital (Vila Bay Hospital) was established in Port Vila in 2006. The private insurance market in the country is utilized mainly by the large number of expatriates residing in the two major cities. Private insurance companies represented 3% of total health expenditure in 2005.

National health expenditure in 2009 was estimated at Vatu 2692 million (US$ 25.22 million), representing 3.9% of GDP. Almost 81.9% of total health expenditure was from public sources and 18.1% from private funds.

To date, there has been no social health insurance scheme based on the principles of mandatory contribution, risk-sharing and fund-pooling, but such a scheme is now being seriously considered.

3.5 Human resources for health

The Ministry of Health is responsible for development of the human resources required to provide health services in the country. A comprehensive Human Resource Development Plan has been prepared by the Ministry and is being implemented with the assistance of WHO and other donors.

There have been developments in the management of human resources in the Ministry of Health towards rationalization of salary levels and a review of career options for health workers. Currently, only clinicians have an established career path, but the Ministry is working towards establishing career paths for technical categories. Salary and career advancement will be tied to the new performance appraisal system and the new structure.

The major challenge facing Vanuatu in the development and employment of its human resources for health is staff shortages. Almost 90% of the health workforce is made up of nursing staff that perform both clinical and community health roles, as well as most management roles. The Vanuatu Centre for Nursing Education (VCNE) graduated 21 nurses in 2007 and an intake of 25 nurses will graduate in 2010. However, these graduates will hardly compensate for the 40 or 50 nurses who are due to retire in the next few years.

3.6 Partnerships

The Government and the Ministry of Health work very closely with partners. While WHO is the Ministry's main technical assistance partner, the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the Japan International Cooperation Agency (JICA), the Australian Agency for International Development (AusAID), the New Zealand Agency for International Development (NZAID), the Asian Development Bank (ADB) and the Global Fund are the main development partners in the health sector. The Secretariat of the Pacific Community (SPC) and the Pacific Island Forum also assist the country in health sector development programmes.

3.7 Challenges to health system strengthening

Vanuatu faces major challenges in the development and delivery of health services. Its citizens are spread over 80 islands, and it is a huge task for the Ministry of Health to provide health services to such a dispersed population.

The Government also has to face challenges due to the rapid growth of the population. The number of people will have doubled by 2030 and the population base will keep expanding, resulting in a very young population. As a result, health services will have to provide more and more services in the areas of antenatal, natal and postnatal care, as well as neonatal care. Diseases of childhood will continue and more and more paediatric and obstetric care services will be required. At the same time, the elderly population will also keep increasing due to longer life expectancy, and the diseases of the elderly will be another serious problem.

With urbanization and changing lifestyles, the incidence of chronic diseases, such as diabetes, hypertension and stroke, are increasing. To address these issues properly, the health services need human resources trained in both the clinical and preventive health fields that are adequate in terms of both numbers and quality. Further, proper equipment is needed for good diagnosis, treatment and rehabilitation. Production of sufficient human resources for health will be a major challenge to be addressed in the near future.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1 : *2009 Vanuatu national population and housing census*
Operator : National Statistics Office
Specification : Include information on population structure & dynamics, social profile, educational characteristic, household characteristic and economic activity

Title 2 : *Vanuatu health situation report 2006*
Operator : HIS Unit/ Ministry of Health
Specification : Nationwide data compilation, as reported by health centres, dispensaries and hospitals
Comments : 20 to 30% of health facilities don't send in their monthly report, hence total are not accurate but gives the general trend.

Title 3 : *Statistical summary 2010*
Operator : Secretariat of the Pacific Community , Noumea, New Caledonia
Web address : http://www.spc.int/prisim/demog/

Title 4 : *Multiple cluster sampling survey (MIC) 2007, Vanuatu*
Web address : www.unicef.org/pacificislands/

Title 5 : *Vanuatu national health accounts 2009*
Operator : Vanuatu NHA team, Finance unit/ Ministry of Health
Web address : www.who.int/nha/country/vut/en/

Title 6 : *Republic of Vanuatu Master Health Service Plan (2004-2009)*
Operator : Ministry of Health

Title 7 : *WHO Global Health Observatory*
Web address : http://apps.who.int/ghodata/

Title 8 : *Millennium Development Goals Report 2010 Report for Vanuatu*
Operator : Prime Minister's Office
Web address : http://www.governmentofvanuatu.gov.vu/index.php?option=com_phocadownload&view=sections&Itemid=41

5. ADDRESSES

MINISTRY OF HEALTH

Office Address : Iatika Complex
Postal Address : Private Mail Bag 009, Port Vila, Vanuatu
Official Email Address : MOH Secretariat: msolomon@vanuatu.gov.vu
Director General of Health: mbebe@vanuatu.gov.vu
Telephone : (678) 22512
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Office Hours : 7.30 am to 11.30 am and 1.15pm to 4.30pm

WHO COUNTRY LIAISON OFFICER IN VANUATU

Office Address : Iatika Complex, Ministry of Health, Port Vila, Vanuatu
Postal Address : World Health Organization
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CLO: who.van@wpro.who.int
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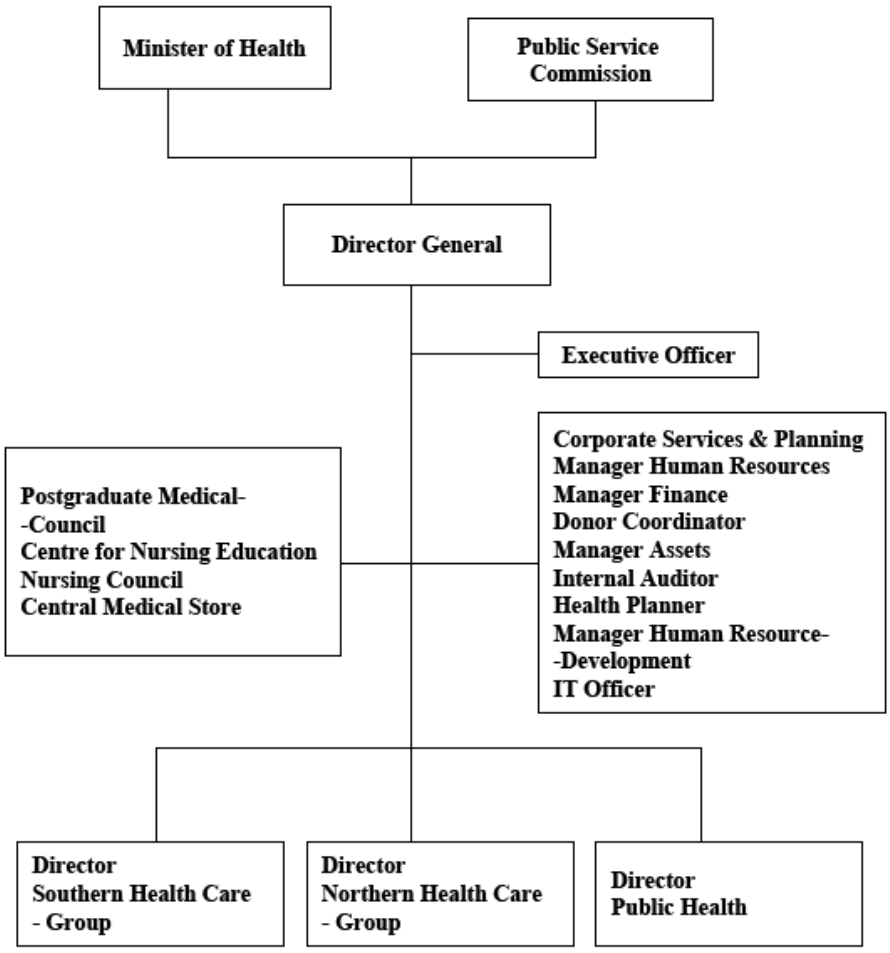
Fax : (678) 22 691
Office Hours : 7.30 am to 12.00 am and 1.30pm to 5.00pm

6. ORGANIZATIONAL CHART: Ministry of Health



VANUATU — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA			Year	Source
	Demographics	**Total**	**Male**	**Female**		
1	**Area (1 000 km2)**	12.28			2010	1
2	**Estimated population ('000s)**	234.02	119.09	114.93	2009	2
3	**Annual population growth rate (%)**	2.30	2.20	2.30	2009	2
4	**Percentage of population**					
	- 0–4 years	14.26 [a]	14.53 [a]	13.97 [a]	2009	2
	- 5–14 years	24.61 [a]	25.37 [a]	23.83 [a]	2009	2
	- 65 years and above	4.05 [a]	4.21 [a]	3.90 [a]	2009	2
5	**Urban population (%)**	25.60	...	...	2010	3
6	**Crude birth rate (per 1000 population)**	31.10	...	...	2011p	4
7	**Crude death rate (per 1000 population)**	5.30	...	...	2011p	4
8	**Rate of natural increase of population (% per annum)**	2.58	...	...	2011p	4
9	**Life expectancy (years)**					
	- at birth	71.00	69.00	72.00	2009	5
	- Healthy Life Expectancy (HALE) at age 60	...	11.10	11.70	2002	6
10	**Total fertility rate (women aged 15–49 years)**	4.00			2005-10	7
	Socioeconomic indicators					
11	**Adult literacy rate (%)**	84.80	85.70	83.90	2010	2
12	**Per capita GDP at current market prices (US$)**	2685.10 [b]			2009p	8
13	**Rate of growth of per capita GDP (%)**	3.50			2007	9
14	**Human development index**	0.69			2007	7
	Environmental indicators	**Total**	**Urban**	**Rural**		
15	**Health care waste generation (metric tons per year)**	...	...	...		

	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**								
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	2 [c]	...	...	...	...	...	2006	10
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	8 [c]	...	...	...	...	...	2006	10
	Cholera	1 [c]	0 [c]	1 [c]	...	...	...	2006	10
	Dengue/DHF	...	...	...	0	0	0	2010	11
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	910	910	0	0	0	0	2006	10
	Leprosy	3	3	0	...	...	...	2010	11
	Malaria	7798 [d]	...	...	1	...	...	2010	11
	Plague	...	...	...	...	...	...		
	Syphilis	192	93	99	0	0	0	2006	10
	Typhoid fever	...	...	...	...	...	...		
17	**Acute respiratory infections**	27 926	...	...	...	...	...	2007	10
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	5657	...	...	2	...	...	2006	10
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	134	...	...	24 [g]	...	...	2009	11
	- New pulmonary tuberculosis (smear-positive)	47	...	...	...	...	...	2009	11
20	**Cancers**								
	All cancers (malignant neoplasms only)	96 [c]	37 [c]	59 [c]	58 [c]	36 [c]	22 [c]	2006	10
	- Breast	6 [c]	0	6 [c]	2 [c]	0 [c]	2 [c]	2006	10
	- Colon and rectum	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	0 [c]	2006	10
	- Cervix			15 [c]			5 [c]	2006	10
	- Leukaemia	2 [c]	2 [c]	0 [c]	3 [c]	2 [c]	1 [c]	2006	10
	- Lip, oral cavity and pharynx	7 [c]	6 [c]	1 [c]	6 [c]	4 [c]	2 [c]	2006	10
	- Liver	1 [c]	1 [c]	0 [c]	0 [c]	0 [c]	0 [c]	2006	10
	- Oesophagus	2 [c]	1 [c]	1 [c]	1 [c]	0 [c]	1 [c]	2006	10
	- Stomach	15 [c]	11 [c]	4 [c]	8 [c]	7 [c]	1 [c]	2006	10
	- Trachea, bronchus, and lung	9 [c]	5 [c]	4 [c]	7 [c]	5 [c]	2 [c]	2006	10
21	**Circulatory**								
	All circulatory system diseases	414 [c]	216 [c]	198 [c]	53 [c]	35 [c]	18 [c]	2006	10
	- Acute myocardial infarction	10 [c]	8 [c]	2 [c]	6 [c]	5 [c]	1 [c]	2006	10
	- Cerebrovascular diseases	48 [c]	26 [c]	22 [c]	13 [c]	6 [c]	7 [c]	2006	10
	- Hypertension	137 [c]	65 [c]	72 [c]	4 [c]	3 [c]	1 [c]	2006	10
	- Ischaemic heart disease	34 [c]	26 [c]	8 [c]	10 [c]	8 [c]	2 [c]	2006	10
	- Rheumatic fever and rheumatic heart diseases	22 [c]	8 [c]	14 [c]	1 [c]	0 [c]	1 [c]	2006	10
22	**Diabetes mellitus**	120 [c]	58 [c]	62 [c]	8 [c]	5 [c]	3 [c]	2006	10
23	**Mental disorders**	26 [c]	12 [c]	14 [c]	...	...	...	2006	10
24	**Injuries**								
	All types	5166 [c]	...	...	3 [c]	...	...	2006	10
	- Drowning	...	...	...	...	...	...		
	- Homicide and violence	122 [c]	66 [c]	56 [c]	...	...	...	2006	10
	- Occupational injuries	3708	...	...	...	...	...	2006	10
	- Road traffic accidents	101 [e]	...	...	...	...	...	2006	10
	- Suicide	19 [c]	3 [c]	16 [c]	...	...	...	2006	10
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Acute respiratory infection including Pneumonia	566 [c]	409 [c]	157 [c]	252.63 [c]	182.56 [c]	70.08 [c]	2006	10
	2. Cutaneous abscess	251 [c]	167 [c]	84 [c]	112.03 [c]	74.54 [c]	37.49 [c]	2006	10
	3. Malaria	249 [c]	137 [c]	112 [c]	111.14 [c]	61.15 [c]	49.99 [c]	2006	10
	4. Asthma	241 [c]	149 [c]	92 [c]	107.57 [c]	66.51 [c]	41.06 [c]	2006	10
	5. Diarrhoea	214 [c]	110 [c]	104 [c]	95.52 [c]	49.10 [c]	46.42 [c]	2006	10
	6. Injuries	181 [c]	125 [c]	56 [c]	80.788784 [c]	55.79336 [c]	24.99542 [c]	2006	10
	7. Food poisoning	88 [c]	55 [c]	33 [c]	39.278525 [c]	24.79 [c]	14.72945 [c]	2006	10
	8. Diabetes mellitus (non-Insulin-dependent)	85 [c]	37 [c]	48 [c]	37.939484 [c]	16.51483 [c]	21.42465 [c]	2006	10
	9. Chronic obstructive pulmonary disease	75 [c]	52 [c]	23 [c]	33.476016 [c]	23.21004 [c]	10.26598 [c]	2006	10
	10. Hypertension	62 [c]	27 [c]	35 [c]	27.673506 [c]	12.05137 [c]	15.62214 [c]	2006	10

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Heart disease	112	56	56	49.99	25.00	25.00	2006	10
	2. Cancer	48	24	24	21.42	10.71	10.71	2006	10
	3. Asthma	42	21	21	18.75	9.37	9.37	2006	10
	4. Stroke	30	15	15	13.39	6.70	6.70	2006	10
	5. Pneumonia	24	10	14	10.71	4.46	6.25	2006	10
	6. Liver diseases	20	10	10	8.93	4.46	4.46	2006	10
	7. Neonatal death	11	8	3	4.91	3.57	1.34	2006	10
	8. Diabetes mellitus	8	6	2	3.57	2.68	0.89	2006	10
	9. Septicaemia	8	4	4	3.57	1.79	1.79	2006	10
	10. Hypertension	8	4	4	3.57	1.79	1.79	2006	10
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					37.00		2007	12
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					87.60		2010	11
29	**Percentage of pregnant women with anaemia**					3.00		2006	10
30	**Neonatal mortality rate (per 1000 live births)**	30.00		30.00		28.00		2006	10
31	**Percentage of newborn infants weighing less than 2500 g at birth**	10.20		...		...		2007	12
32	**Immunization coverage for infants (%)**								
	- BCG	90.00		...		...		2010	11
	- DTP3	93.00		...		...		2010	11
	- Hepatitis B III	90.00		...		...		2010	11
	- MCV2	...		...		...			
	- POL3	90.00		...		...		2010	11
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			109 [c]			...	2006	10
	- Eclampsia			7 [c]			...	2006	10
	- Haemorrhage			11 [c]			...	2006	10
	- Obstructed labour			33 [c]			...	2006	10
	- Sepsis			8 [c]			...	2006	10
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	0	0	0	...	...	...	2010	11
	- Measles	0	0	0	...	...	...	2010	11
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	0	0	0	...	...	...	2010	11
	- Pertussis (whooping cough)	0	0	0	...	...	...	2010	11
	- Poliomyelitis	0	0	0	...	...	...	2010	11
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	0	0	0	...	...	...	2010	11
	Health facilities								
35	**Facilities with HIV testing and counseling services**						...		

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	3	135	2008	13
		- Specialized hospitals	2	255	2008	13
		- District/first-level referral hospitals	…	…		
		- Primary health care centres	27	…	2008	13
	Private health facilities	- Hospitals	1	3	2008	13
		- Outpatient clinics	4	…	2008	13
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			25.22 [b]	2009	8
	- total expenditure on health as % of GDP			3.90	2009	8
	- per capita total expenditure on health (in US$)			104.00 [b]	2009	8
	Government expenditure on health					
	- amount (in million US$)			20.65 [b]	2009	8
	- general government expenditure on health as % of total expenditure on health			81.90	2009	8
	- general government expenditure on health as % of total general government expenditure			13.60	2009	8
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			17.00 [b]	2009	8
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			18.10	2009	8
	- out-of-pocket expenditure on health as % of total expenditure on health			11.96 [b]	2009	8
	Exchange rate in US$ of local currency is: 1 US$ =			106.74	2009	8
38	**Health insurance coverage as % of total population**			…		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	26	20	6	26	0	22	4	2008	13
		- Ratio per 1000 population	0.11	0.09	0.03	0.46	0	0.09	0.02	2008	13
	Dentists	- Number	3	2	1	3	0	2	1	2008	13
		- Ratio per 1000 population	0.01	0.01	0.00	0.05	0	0.01	0.00	2008	13
	Pharmacists	- Number	2	0	2	2	0	2	0	2008	13
		- Ratio per 1000 population	0.01	0	0.01	0.04	0	0.01	0.00	2008	13
	Nurses	- Number	332	115	217	110	222	332	0	2008	13
		- Ratio per 1000 population	1.42	0.49	0.93	1.94	1.26	1.42	0.00	2008	13
	Midwives	- Number	48	2	46	18	30	48	0	2008	13
		- Ratio per 1000 population	0.21	0.01	0.20	0.32	0.17	0.21	0.00	2008	13
	Paramedical staff	- Number	58	37	21	47	30	58	0	2008	13
		- Ratio per 1000 population	0.25	0.16	0.09	0.83	0.17	0.25	0	2008	13
	Community health workers	- Number	212	112	100	0	212	212	0	2008	13
		- Ratio per 1000 population	0.91	0.48	0.43	0	1.2	0.91	0	2008	13
40	**Annual number of graduates**	Physicians	3	…	…	…	…	…	…	2008	14
		Dentists	1	…	…	…	…	…	…	2007	14
		Pharmacists	1	…	…	…	…	…	…	2008	14

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	**Annual number of graduates**	Nurses	21	...	...	...	...	...	...	2007	14
		Midwives	9	...	...	...	...	...	...	2008	14
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	**Workforce losses/ Attrition**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	**Total**	**Male**	**Female**		
42	**Prevalence of underweight children under five years of age**	19.50	...	...	2007	12
43	**Infant mortality rate (per 1000 live births)**	27.00	27.00	27.00	2008	5
44	**Under-five mortality rate (per 1000 live births)**	31.00	34.00	33.00	2008	5
45	**Proportion of 1 year-old children immunised against measles**	82.00	...	...	2010	11
46	**Maternal mortality ratio (per 100 000 live births)**	86.00			2007	15
47	**Proportion of births attended by skilled health personnel**	80.00 [h]			2008	15
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	**Contraceptive prevalence rate**	38.40 [a]	...	...	2007	12
49	**Adolescent birth rate**	64.00 [f]			2009	15
50	**Antenatal care coverage** - At least one visit	98.10			2007	12
	- At least four visits	...				
51	**Unmet need for family planning**	...	...	...		
52	**HIV prevalence among population aged 15-24 years**	0.00	...	...	2009	11
53	**Estimated HIV prevalence in adults**	0.00	...	...	2009	11
54	**Percentage of people with advanced HIV infection receiving ART**	100	...	...	2007	11
55	**Malaria incidence rate per 100 000 population**	3209.00	...	...	2010	11
56	**Malaria death rate per 100 000 population**	0.00	...	...	2010	11
57	**Proportion of population in malaria-risk areas using effective malaria prevention measures**	56.00	...	...	2007	11
58	**Proportion of population in malaria-risk areas using effective malaria treatment measures**	...	...	...		
59	**Tuberculosis prevalence rate per 100 000 population**	194.00	...	...	2009	11
60	**Tuberculosis death rate per 100 000 population**	10.00	...	...	2009	11
61	**Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)**	78.00	...	...	2009	11
62	**Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)**	91.00	...	...	2008	11
		Total	**Urban**	**Rural**		
63	**Proportion of population using an improved drinking water source**	85.20	94.70	82.10	2009	2
64	**Proportion of population using an improved sanitation facility**	52.00	66.00	48.00	2008	16
65	**Proportion of population with access to affordable essential drugs on a sustainable basis**	...	...	...		

Notes:	
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Revised data
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific
c	Figure refers to hospital data only
d	Data is not reflective of actual case numbers as laboratory confirmation is limited
e	Figure refers to motor and other vehicular accidents
f	Provisional results from the 2009 Census and Population and housing
g	Estimated number of deaths
h	Data included for indicative purposes only, not considered reliable.

Sources:	
1	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated April 2010. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed Aug 2011. [http://www.spc.int/sdp/index.php?option=com_docman&task=cat_view&gid=28&dir=ASC&order=name&limit=5&limitstart=0]
2	2009 National Census of Population and Housing: Basic Tables Report Volume 1. Vanuatu National Statistics Office, Ministry of Finance and Economic Management, Port Vila, Vanuatu. [http://www.spc.int/prism/country/vu/stats/Publications/2009%20Census%20Summary%20release%20final.pdf]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, [http://esa.un.org/wup2009/unup/]
4	Statistical Summary 2011. Secretariat of the Pacific Community, Noumea, New Caledonia.
5	The Global Health Observatory, World Health Organization. Accessed on 15 August 2011 at http://apps.who.int/ghodata/
6	WHO Global Burden of Disease (GBD) 2002 estimate. World Health Organization. [http://www.who.int/healthinfo/statistics/gbdwhr2004hale.xls].
7	Human Development Report 2009: Overcoming barriers: Human mobility and development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2009/]
8	National health accounts: country information. Geneva, World Health Organization. Available from: http://www.who.int/nha/country/en/index.html
9	National health accounts report, 2007.
10	Health Information System (HIS) Unit, Ministry of Health.
11	WHO Regional Office for the Western Pacific, data received from technical units
12	Multiple Iindicator Cluster (MIC) Survey 2007, UNICEF, Vanuatu.
13	Human Resources for Health (HRH) Unit, Ministry of Health, Vanuatu.
14	Report on First human resource national conference on health (September 2007).
15	Millennium Development Goals 2010 Report for Vanuatu. Prime Minister's Office - September 2010.
16	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

VIET NAM

1. CONTEXT

1.1 Demographics

The estimated population of Viet Nam was 86 025 000 in 2009, 49.4% of them male. The population density is 263 persons per square kilometre, with most (70.3%) of the population living in rural areas. Over the past few years, the country has witnessed a gradual change in its population structure. In 2009, 25% of the population was aged 0-14 years, a decrease of 8.1% in comparison with 1999. However, the proportion aged over 65 years also increased rapidly (by 0.6 %) over the same ten-year period. This shows that fertility has continued to decline over recent years while the number of elderly has been increasing gradually.

Viet Nam has 54 different ethnic groups, with the Kinh representing 87% of the total population. The rest are ethnic minorities scattered all over the country, mostly in mountainous and remote areas. Population migration is an important factor in rural-urban population growth differentials. The General Statistics Office survey on migration and family planning indicates that substantial spontaneous migration has been taking place and that migrants from rural to urban areas are numerous.

In 2009, life expectancy at birth was 70.2 for males and 75.6 for females. In the same year, the population growth rate was 1.08% per annum. The total fertility rate decreased from 2.33 in 1999 to 2.03 in 2009, reaching replacement-level fertility. In 2009, the crude birth rate was 17.6 per 1000 population and the crude death rate was 6.8 per 1000 population.

The maternal mortality ratio (MMR) was 130/100 000 live births in 1990. By 2009 the ratio had fallen to 69.0/100 000 live births. However, throughout the 2006-2009 period, the MMR remained unchanged. Thus to achieve the goal of reducing maternal mortality to 58.3/100 000 live births by 2015, Viet Nam needs to put even more effort into implementing its policies and programmes.

The under-five mortality rate was 55.4‰ in 1990 and had fallen by more than half to 24.1% by 2009. In order to achieve the MDG of 18.4% by 2015, however, progress must be accelerated.

1.2 Political situation

Viet Nam is a socialist republic and one-party state governed by the Communist Party of Viet Nam. The National Assembly is designated the highest representative body of the people and is the only organ with constitutional and legislative powers.

Beyond central government, the People's Committees at different levels are responsible for daily administration at the local level. Mass organizations, such as the Women's Union, Farmers' Union and Youth Union, exist to serve the interests of the people and to act as a link between the people and the Party.

Although the political system is stable, the country's senior leaders have raised concerns on a number of occasions about the lack of transparency, administrative inefficiency and corruption. Steps have been taken to strengthen open public debate and effective rule of law from the central to local level.

1.3 Socioeconomic situation

Vietnamese authorities have moved to implement a free-market economy with socialist orientation, to modernize the economy and to produce more competitive, export-driven industries. This has led to a strong rate of growth in gross domestic product (GDP). Major economic achievements in the period 2001-2005 included, among others, a high level of economic growth, averaging 7.2% per year; comprehensive development; the solution of many social problems, especially hunger eradication and poverty reduction; and the improvement of people's living standards. In 2000, the GDP per capita was only about US$ 400. By 2009, however, it stood at US$ 1064, representing an increase of 166%.

In the last two decades, the poverty rate has been in constant decline, from 58.1% in 1993 to 28.9% in 2002 and 14.5% in 2008. On average, the number taken out of poverty is 1.8 million each year, from more than 40 million people living in poverty in 1993 down to 12.5 million in 2008. At the same time, the proportion of undernourished people, measured by the food poverty line, also decreased, from 24.9% in 1993 to 10.9% in 2002 and 6.9% in 2008. Viet Nam has now far exceeded the MDG of halving the proportion of people whose income is less than one dollar a day between 1990 and 2015, the proportion declining from 39.9% in 1993 to 4.1% in 2008.

During the period from 2001 to 2005, the economy created jobs for about 7.5 million workers. The proportion of unemployed working-age people declined from 6.4% in 2001 to 2.9 % in 2009, at which time 47.7 million people, about 55.5% of the population, were employed.

According to the survey on household living standards conducted in 2008, 89.% of the population had access to clean water (if sources such as taps, wells and rain were to be considered sanitary and those from ponds, lakes and rivers to be non-sanitary). In the same year, approximately 67% of rural households had sanitary toilets, and about 80% of schools, 82% of clinics and 72% of ward centres had sanitary water systems and toilets. Regions with difficult water source conditions, such as mountainous areas and high-saline plains, have been given priority in investments. The goal for 2010 was for 95% of the population in urban areas to have access to safe drinking water.

Spending in the environment sector has improved. Since 2007, the Government's environmental expenditure has accounted for 1% of the total national budget, and environmental observation, disaster warnings and rescue systems have all been strengthened. Policies on diversifying investments in environmental protection and improvement have achieved initial success, while policies to support enterprises in environmental protection have gradually taken effect. Many enterprises have invested in new technologies and developed wastewater processing systems to help improve the environment.

1.4 Risks, vulnerabilities and hazards

Viet Nam is one of the most disasters-prone countries in the world. It extends over 11 latitudes, with a 3200 kilometre coastline, and is located in an area ranging from a humid tropical to a sub-tropical climate, with complex topography and a dense river network.

Every year, the country suffers from many natural disasters, such as typhoons, tropical storms, floods, drought, seawater intrusion, landslides, forest fires and, occasionally, earthquakes. Disasters triggered by typhoons and floods are by far the most frequent and severe. In recent years, disasters have occurred continually all over the country, causing vast losses in human lives, property and socioeconomic and cultural infrastructure, as well as environmental degradation. During the period from 1980 to 2009, natural disasters, including typhoons, floods and droughts, caused significant losses, including 15 917 deaths, 69 700 028 affected people and damage equivalent to US$ 7 356 350 000. Natural disasters are becoming increasingly severe in terms of magnitude, frequency and volatility, due to climate change.

The most important natural hazards are water-related, particularly typhoons and floods and, increasingly in recent years, flash floods, landslides and droughts. Typhoons occur between May and December and are often accompanied by storm surges that inundate huge areas of the delta regions with saline water. Half of all the typhoons to hit Viet Nam in the last 30 years have caused surges of at least one metre and 11% have caused surges of over 2.5 metres. These typhoons and storm surges have often overtopped—and frequently destroyed—sea dykes, causing damage and seawater flooding in addition to wind damage and flooding from the storm itself.

Besides natural disasters, man-made and technological hazards are becoming an increasing threat to communities. Such hazards include urban fires, transportation accidents, chemical or industrial accidents and epidemics, among others.

There is a risk of many diseases breaking out or being imported from overseas, especially emerging diseases like severe acute respiratory syndrome (SARS), highly pathogenic influenza A(H5N1) and encephalitis due to arbovirus, which creates many difficult challenges as regards prediction, prevention and control. At the same time, the increasingly polluted environment, unusual weather patterns, natural disasters, rapid urbanization, lack of clean water in many residential areas and increasing contact between travellers from different localities and countries

creates favourable conditions for the development and spread of diseases. These same factors may also complicate the disease situation and make it hard to control.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Diarrhoea is one of the leading causes of morbidity in the country. Cholera, typhoid fever and dysentery still exist in some areas where water supply and sanitary facilities remain inadequate. In 2010, the country recorded 317 cases of cholera (no deaths), of which 301 cases were Vietnamese and 16 were Cambodian.

Dengue and dengue hemorrhagic fever are also big public health problems. According to the Ministry of Health's Department of Preventive Medicine, the incidence of dengue fever is increasing, especially in the southern area of the country. There were 128 831 cases and 109 deaths in 2010. The incidence rate for dengue fever increased 22% in 2010, and the mortality rate by 25.3%, compared with 2009. Vector control is the main activity for dengue control, including reducing mosquito breeding sites, applying biological measures for larvae reduction, and insecticide spraying during outbreaks. Education about self-protection and mobilization of different sectors in dengue control at the community level are being strengthened.

The national malaria control programme has continued its efforts to halt and reverse the incidence of malaria, and plans to have malaria eradicated by 2015. Over the past 15 years, the number of malaria patients in the country has decreased by 83% (from 1.1 million cases to less than 100 000), and many provinces have reported no case of malaria in recent years. The number of confirmed malaria cases dropped from 19 497 in 2005 to 17 515 in 2010. However, mortality increased from 18 malaria deaths in 2005 to 21 deaths in 2010. In general, malaria has been prevented and reduced in the whole country, with a reduction in morbidity and mortality and no occurrence of a malaria epidemic. Malaria is controlled in endemic areas. Every year since 2000, 10 to 12 million people in malaria-plagued areas have been protected by free anti-mosquito insecticides, 1.2 to 2 million with chemical spraying and 9.5 to 10 million with insecticide-treated mosquito nets. The challenges for malaria control include the uncontrolled movement in and out malaria areas by forest-goers and people staying overnight in rice fields and coffee plantations; people crossing international borders; and remote and hard-to-reach areas where minority groups with a low level of education are living.

In 2009, pneumonia was among the leading causes of morbidity. According to 2009 hospital statistics, there were 353 623 new pneumonia cases and 1146 related deaths.

Viet Nam essentially managed to keep the growth rate in HIV infections to under 0.3% in the period from 2004 to 2010. The current HIV prevalence rate is estimated to be 0.28% (all ages), with nationwide prevalence of 187 per 100 000 people. There were 15 713 new HIV infections, 5785 new cases of AIDS and 3928 reported deaths due to HIV/AIDS in 2009, with an estimated 293 000 people living with HIV/AIDS. The HIV prevalence rate in adults (from 15 to 49 years old) was 0.44% in 2010. The HIV epidemic remains largely concentrated among key populations at higher risk; there is a high level of HIV prevalence among injecting drug users (28.6%), female sex workers (4.4%) and their partners, and men having sex with men (9.4% and 5.3% in Hanoi and HCMC, respectively), while HIV prevalence among pregnant women remains low (0.37%). According to the Ministry of Health, HIV-infected people aged 20-39 years account for more than 80% of all reported cases, that rate having hardly changed in five years. Moreover, the percentage of people aged 30-39 in the total number of reported HIV infections is increasing. HIV prevention, care and treatment services are being expanded rapidly. It is estimated by the Ministry of Health that the number of people living with HIV in need of antiretroviral treatment increased from 42 480 in 2006 to 72 970 in 2010. The National Action Plan states that 70% of adults and all children infected with HIV will be eligible to receive ARV by the year 2010.

In 2009, there was a slight increase in the number of recent tuberculosis (TB) cases, with 95 970 being reported in 2005 and 95 036 in 2009, of which 51 291 were new pulmonary AFB-positive cases, 18 612 cases of pulmonary tuberculosis with negative AFB, and 18 333 cases of non-pulmonary tuberculosis. The number of tuberculosis-related deaths has decreased, although not significantly: 1936 TB deaths were reported in 2005 compared with 1689 in 2009. Most TB patients receive treatment under the directly observed treatment, short-course (DOTS) strategy. With a detection rate of 54.0% and a high success rate (92.0%), Viet Nam has reached WHO's target for

TB control. However, the tuberculosis control programme is facing new challenges, including drug-resistant bacillus (it is estimated that about 30% of new cases are resistant to one drug and 2.3% to more than one) and tuberculosis among HIV/AIDS patients.

The mortality and morbidity rates for leprosy are not high. The number of new leprosy cases decreased from 588 new cases in 2007 to 359 new cases reported in 2010. Viet Nam has reached WHO's leprosy elimination target on the national scale (the incidence rate is less than 1/10 000 people).

Noncommunicable diseases(NCD) have shown a tendency to increase in the last two decades, with total morbidity rising from 39.0% in 1986 to 66.32% in 2009, and mortality from 41.1% to 63.34%. Economic growth, the ageing population and lifestyle changes are the leading causes of the increasing NCD burden. Some NCD are common among children, such as nutritional disorders, asthma, vision disorders, dental caries, congenital malformations, and disability due to accident or illness. These diseases are also found among adults. Diseases commonly found among the elderly include cardiovascular disease, diabetes and cancer.

Rates of protein energy malnutrition and micronutrient deficiencies among the under-fives have fallen significantly, although the under-five malnutrition rate varies greatly among income groups. A 2008 study by the General Statistics Office revealed that improvements to the under-five malnutrition rate are harder to make among the lower income group. In particular, the gap between the poorest and richest groups has widened from two times higher in 1992/1993(40.2% compared with 20.1%) to over 3.5 times in 2006 (28.6% compared with 6.8%). Nevertheless, a new trend towards overweight and obesity in children in cities and more economically developed areas has developed and needs to be controlled in order to prevent the negative consequences that may result, such as diabetes and cardiovascular diseases.

The cancer incidence rate has been increasing, with about 106 421 new cases per year. The case fatality rate is very high.

Lifestyle-related health problems are becoming increasingly important, particularly those related to tobacco use, alcohol and drug abuse; injuries due to road accidents or violence; suicide; and mental disorders. However, non-users of tobacco, alcohol and drugs, particularly women and children, may also suffer from external effects like passive or second-hand smoking, domestic violence, traffic accidents and exposure to HIV/AIDS. In 2002, the adult male smoking prevalence rate was 56.0% (compared with 50.0% in 1998). Males aged 15 years and over consume an average of 12.5 cigarettes per day and a female of the same age 8.1 cigarettes per day. The Vietnam National Health Survey 2001-2002 showed that 45.7% of males and 1.9% of females aged 15 and over drink, and each drinks 100 ml of spirits/wine or one can/bottle of beer or more each time.

Injuries and accidents are causing serious concern. In the period from 2002 to 2009, morbidity due to accidents, injuries and poisonings increased from 9.2% of all hospital admissions to 10.8%, and hospital deaths related to accidents increased from 18.5% of all deaths in hospitals to 22.6%. Transport accident is the sixth leading cause of mortality.

2.2 Outbreaks of communicable diseases

In the period from 2006 to 2010, Viet Nam also had to face challenges related to newly emerging diseases. Dangerous and new diseases, including those caused through animal-to-human transmission, have threatened to break out into pandemics. The first reported case of highly pathogenic influenza A (H5N1) in December 2003. Nationally, 37 provinces/cities have now reported infections, with 112 infected cases and 57 deaths. According to a report of the Preventive Medicine Department in the Ministry of Health, 11 104 positive cases of infection with the pandemic influenza A (H1N1) 2009 virus had been recorded by the end of December 2009, with 53 deaths. The number of infections increased gradually from October 2010 to January 2011, but most cases are mild and clusters of cases have not yet been recorded.

Having been under control for many years, acute diarrhoeal disease broke out once again in 2007, with an infection rate of 2.24/100 000 people, and new cases of infection continue to be recorded. In 2009 alone, 239 cases nationally tested positive for *Vibrio cholera*.

In 2004, dengue fever was widespread in the Mekong delta, accounting for 84.0% of cases, with 9.0% in the south central coast, 5.0% in the central highlands, and only 2.0% in the north. Treatment currently consists of analgesic and antipyretic drugs, such as acetaminophen. The prevention methods being applied include activities to reduce

vectors in the community and to monitor when there is an outbreak. The health sector has made great efforts to reduce the incidence of dengue fever, and only 88 deaths due to dengue were detected in 2008. The sustainability of these achievements and the potential reduction of morbidity and mortality are still in question.

An outbreak of hand, foot and mouth disease in 2010 led to 11 709 cases being recorded, including six deaths. Hand, foot and mouth epidemic risk increases, particularly in preschools and kindergartens, after local flooding, in crowded areas, and in areas where sanitation conditions are poor.

2.3 Leading causes of mortality and morbidity

In the past, most of the leading causes of morbidity were communicable diseases. However, in 2009, noncommunicable diseases were also among the leading causes (reported by public hospitals), with the incidence rate for hypertension being particularly high.

Currently the vital registration system in Viet Nam does not operate effectively and cannot provide accurate data on numbers of deaths, causes of death, or age, sex and socioeconomic status of those who die. Therefore, it is still necessary to rely on mortality data collected in public hospitals for assessment of mortality patterns and trends. According to 2009 data from hospitals, injuries, AIDS-related conditions, pneumonia, accidents and some NCD are the leading causes of mortality.

2.4 Maternal, child and infant diseases

The maternal mortality ratio (MMR) and the infant mortality rate (IMR) are lower than other Asian countries with the same level of economic development. More than 93.7% of pregnant women were cared for by skilled health personnel in 2009, and 94.4% during delivery. The MMR fell from 200 per 100 000 live births in the 1980s to 69.0 per 100 000 in 2009. However, there are huge differences in MMR across regions, with the highest in the northern mountainous area and the central highlands.

The IMR has also fallen rapidly in the past two decades: from 55.0 per 1000 live births in 1983 it declined to 16.0 in 2009. In the nine years leading up to 2009, the rate fell from 31.2 per 1000 live births to 16.0, a decline of more than one half, with an average reduction of 1.8 % per year.

The under-five mortality rate fell from 42.0 in 1999 to 24.1 per 1000 live births in 2009, with an average decline of 1.8% per year. A recent study indicated that deaths among children under five years of age are concentrated in the perinatal period and are mainly due to premature birth, asphyxia at birth or multiple birth defects. For children beyond the perinatal period, mortality is mainly due to drowning, respiratory infection or encephalitis.

Child malnutrition is measured using two basic indicators: the proportion of children born with low birth weights and the proportion of children under five years of age who are malnourished. The proportion of babies born with low birth weights (under 2500g) declined from 7.3% in 2000 to 5.3% in 2008; the under-five malnutrition rate fell from 33.8% to 18.9% over the same period. Of increasing concern recently has been the overweight and obesity rate for those under five years of age. The current rate is 6.2 times higher than it was in 2000 and has increased in both rural and urban areas. Indeed, despite having emerged quite recently, child overweight and obesity is increasing even faster in rural areas than in urban areas.

2.5 Burden of disease

No available information, with the exception of a few specific diseases.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Ministry of Health is the government agency exercising state management in the field of people's health care, including preventive medicine; consultation and treatment; rehabilitation; traditional medicine; pharmaceuticals, including vaccine production; hazardous effects of cosmetics on human health; food hygiene and safety; medical equipment; health facilities; population and family planning; and health system development and management.

3.2 Organization of health services and delivery systems

The health system is a mixed public-private provider system, in which the public system plays a key role in health care, especially in policy, prevention, research and training. The private sector has grown steadily since the 'reform' of the health sector in 1989, but is mainly active in outpatient care; inpatient care is provided essentially through the public sector.

The health care network is organized under state administrative units: central, provincial, district, commune and village levels, with the Ministry of Health at the central level. In the public sector, there are 783 general hospitals, 144 specialized hospitals and 11 636 primary health centres. The establishment of the grassroots health care network (including commune and district levels) as the foundation for health care has yielded many achievements, especially that of contributing towards attainment of national health care goals for the entire population. The health stations in communes provide primary health care services, including consultation, outbreak prevention and surveillance, treatment of common diseases, maternal and child health care, family planning, and hygiene and health promotion. The total number of private facilities rose from 56 000 facilities in 2001 to 65 000 in 2004. In 2009, there were 102 private hospitals, accounting for 8.9 % of the total number of hospitals nationwide, with 5822 beds, accounting for 3.2% of the total number of hospital beds.

Health care is further strengthened by implementation of national health programmes to deal with diseases and health issues that are of important public health concern. For example, the tuberculosis control programme has made every effort to maintain, over many years, a high implementation rate, with DOTS now covering 100% of the affected population. WHO has highly commended the programme and has ranked it as being on par with those countries reaching the highest achievements in the world.

In the period 2001-2010, the immunization rate for infants remained high, at over 90%. As a result, Viet Nam has succeeded in sustaining the eradication of poliomyelitis (since 2000) and the elimination of neonatal tetanus, as well as significantly reducing the rate of children contracting dangerous infectious diseases through the Expanded Child Immunization Programme.

The HIV/AIDS control programme was a priority health programme for the period from 2001 to 2005. Through its implementation, more than 90% of state officials, members of popular organizations, servicemen and students, more than 80% of the urban population, and 70% of the rural and mountain-dwelling population gained good knowledge about HIV/AIDS and participated actively in HIV/AIDS intervention activities.

3.3 Health policy, planning and regulatory framework

The Government set ambitious goals and targets in the *Ten-Year Socio-Economic Development Strategy, the Comprehensive Poverty Reduction and Growth Strategy* and the *National Strategy for People's Health Care 2001–2010*. These included substantially improving the human development index of the country and providing prevention and treatment services to the whole population.

The Minister of Health then promulgated a five-year plan for the health sector, setting the following new targets for 2010:

- to increase average life expectancy to 71 years;
- to reduce the maternal mortality ratio to below 70 per 100 000 live births;
- to reduce the infant mortality rate to below 25 per 1000 live births;
- to reduce the under-five mortality rate to below 32 per 1000 live births;
- to reduce the percentage of low-birth-weight infants to below 6%;
- to reduce the percentage of malnourished under-five children to below 20%;
- to increase the average height of young people to at least 160 cm;
- to increase the ratio of medical doctors per population to 4.5/10 000 people;
- to increase the ratio of college-trained pharmacists to 1/10 000 people.

The *National Strategy* recognized the important role of health and the need to invest in health for accelerated socioeconomic development and to improve the quality of life of each individual. The strategy was based on four principles:

- equity and efficiency of the health sector;
- the fight against the broad social determinants of bad health;
- the integration of traditional and modern medicines; and
- an appropriate public-private mix, with the Government in a position to protect the public interest.

The strategy outlined the Government's main policies and proposals for improving the overall level and distribution of health among the entire population (ethnic minority groups, women, children, the poor and the elderly). These included:

- using the government budget more effectively and moving to prepayment schemes in the medium term to finance health;
- reviewing and strengthening the organization of the health sector, and consolidating and developing primary health care/community-based services;
- strengthening preventive care and health promotion, improving curative care, and putting in place an effective referral system;
- developing human resources according to the needs of each level, and improving training;
- developing traditional medicines and implementing the national drug policy in order to promote rational and effective use of modern and traditional drugs;
- developing new technologies to catch up with other countries in the Region; and
- increasing planning and management capacity in all areas within the health sector.

The *National Strategy* provided a broad basis for further planning and can be seen as an orientation document for the development of the health sector. However, it did not provide specific solutions on how to: (1) ensure equal access to health care; (2) improve the performance of the health system and the quality of care; (3) rationalize the prescription and use of drugs and expenditure on medicines; and (4) respond to new public health problems, including noncommunicable diseases.

Some more recent policies have attempted to address these issues. In October 2002, the Prime Minister signed Decree 139 to establish the Health Care Fund for the Poor, which aims to provide free health Insurance for 14.6 million people. As of December 2008, 15.8 million people had received health care through this financing mechanism.

3.4 Health care financing

Since 2000, the State has continued building and adjusting health financing policies with greater concern for equity, efficiency and development than in the past. The broad orientation of health financing was decided upon in the 1990s through development of a health insurance scheme, the partial-user-fee policy and the Government resolution on "social mobilization" in the areas of education, health and culture. These orientations have created a health financing system that combines partially subsidized state health services with health services that collect user fees from patients. Nevertheless, the partial user fees created some contradictions and have led to inequalities. Therefore, the Government had to pay attention to financial assistance for certain social groups, especially for the poor. Health financing underwent further major changes in the 1990s as the State began to strongly promote decentralization of public finance, which had major implications for the health sector.

Total health expenditure in 2008 was 7.3% of GDP, with government expenditure accounting for only 38.5%. Most health finance is used for curative and preventive care (93%-98%): curative care accounts for 75.2% and preventive care for 23.6%, and there is some expenditure on scientific research and training (less than 2%). By 2008, within the sphere of the government system, the number of enrolees in public health insurance was over 37.7 million, accounting for 43.76% of the population, including compulsory insurance, voluntary insurance and insurance for the poor.

3.5 Human resources for health

Currently, the number of health workers per bed in general for the whole country is 1.4 (including contract workers). The number of medical doctors on average for the whole country is about 2.6 per 10 beds, while the number of nurses is about 3.0 per 10 beds. The number of doctors per 1000 population is 0.66, the number of nurses is 0.88, and the number of pharmacists is 0.12 (not including the private sector).

According to data from the Ministry of Health, of all health workers at the provincial level in the whole country, 81.8% are working in curative care and 13.0% in preventive medicine, while those in management account for 4.0%.

The number of health staff in public facilities increased from 241 498 in 2003 to 301 980 in 2009. Total staff at the central, provincial, district and communal levels include: 56 661 medical doctors (including PhD and Masters degrees), 10 524 pharmacists (in 2008), 75 891 nurses and 24 998 midwives.

3.6 Partnerships

The external relations line of the Party and the State is one of multilateralism, diversification and expansion of health cooperation with international NGOs and foreign partners to gain financial, technical and technological support. In implementation of this, international cooperation in health has created positive changes in terms of both quantity and quality. Since the 1990s, the number of donors/partners in health has increased considerably. However, aid for health still accounts for just 3% of total health expenditure and between 8% and 10% of government spending. As Viet Nam reaches middle-income-country status, the number of health partners is expected to decline; indeed, some partners with a global mandate to focus on the poorest countries have already announced their intention to leave the country. Nevertheless, aid to the health sector has been significant in certain areas, particularly HIV/AIDS and communicable disease control. Funds received through official development assistance (ODA) have come in diverse forms and have included grant aid from governments, international organizations, intergovernmental organizations and NGOs, and soft loans from international monetary institutions. While Viet Nam has a substantial general budget-support programme, coordinated by the World Bank, there are no examples of budget or programmatic support in the health sector, where assistance remains heavily project-based (98% of health projects funded by a single donor).

3.7 Challenges to health system strengthening

Despite the important achievements recorded in health care, the country is still beset by many problems. The Party Politburo's Resolution No. 46 - NQ/TW on Health Care, Protection and Improvement for People in the New Situation points out irrationalities in the health sector as follows:

- The health system is slow to renew and has not adapted itself to the development of a socialist-oriented market economy and changes in disease patterns.
- The quality of health services has not met the increasingly diversified needs of the people.
- The health care conditions for the poor and those in remote areas and areas inhabited by ethnic groups remain very difficult.
- Pharmaceutical production and supply capacity remains weak; the price of pharmaceuticals remains high in comparison with people's incomes.
- The organization and operation of preventive medicine remain insufficient. A portion of the population lacks awareness about self-protection, self-care and health promotion. Environmental health and food safety have not been put under tight control.

Therefore, Viet Nam still faces a number of key challenges, such as:

- achieving adequate recognition that improved health outcomes are central to poverty reduction and economic growth and that health improvements require an intersectoral approach to address broad health determinants;
- developing a clear consensus among policy-makers on the road to developing an efficient equity-oriented health sector;
- achieving better coordination among ministries and across departments in the Ministry of Health and among partners;
- strengthening pro-poor health policies to meet the needs of the disadvantaged and ethnic minorities, particularly addressing the problems of financial access and the lack of responsiveness of health services to the needs of the poor;
- strengthening the public health agenda to address the incomplete agenda of infectious diseases and the problems brought about by urbanization, changing lifestyles and an ageing population;
- strengthening capacities at district and provincial levels to prioritize and implement successful interventions within an increasingly decentralized health system; and

- improving the enforcement of regulations and speeding up the implementation of public administration reform.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Health statistics year books, 1998-2009.*
Operator	:	Ministry of Health, 1999-2009.
Web address		http://www.gso.gov.vn
Title 2	:	*Statistical year book 2008*
Operator	:	General Statistics Office of Viet Nam, 2008.
Title 3	:	*Vietnam development report: poverty.*
Features	:	Joint Donor Report to the Vietnam Consultative Group Meeting.
Title 4	:	*Reports on National Health Survey 2001*-2002.
Operator	:	Ministry of Health and General Statistics Office, 2003.
Web address	:	http://www.moh.gov.vn/tinbyt/ and http://www.gso.gov.vn/
Title 5	:	*Millennium Development Goals: closing the Millennium gaps.*
Features	:	Hanoi, *United* Nations, 2003.
Title 6	:	*Health policies and guidelines*
Operator	:	Health Policy Unit, Ministry of Health, 2002.
Web address	:	http://www.moh.gov.vn/tinbyt/
Title 7	:	*Vietnam MDG report in 2008*
Operator	:	Ministry of planning & Investment

5. ADDRESSES

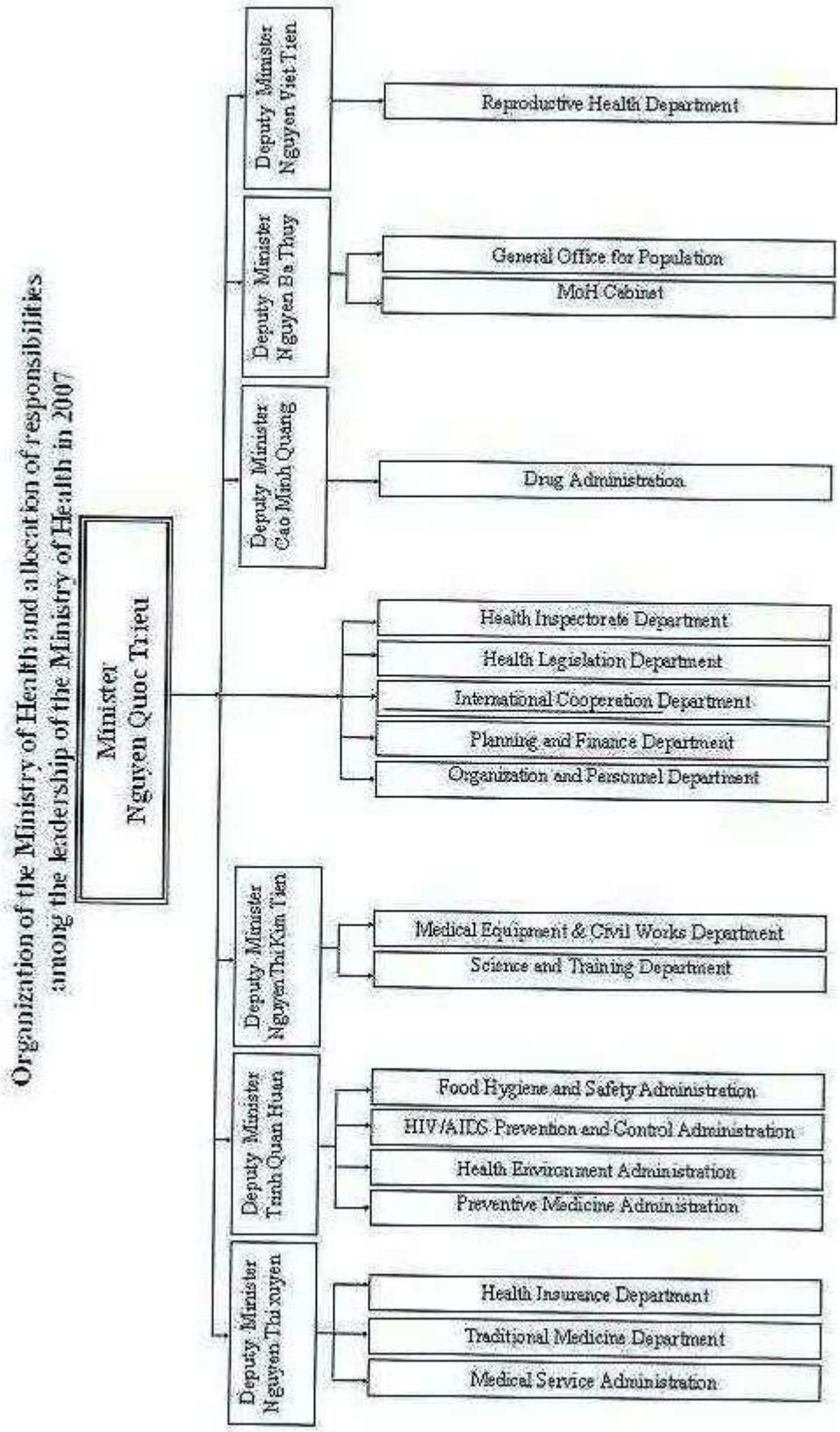
MINISTRY OF HEALTH

Office Address	:	138A Giang Vo, Hanoi, Viet Nam
Telephone	:	(84 4) 846 1325
Fax	:	(84 4) 846 4051
Website	:	http://www.moh.gov.vn/tinbyt/

WHO REPRESENTATIVE IN VIET NAM

Office Address	:	63 Tran Hung Dao Street, Hoan Kiem District Ha Noi, Socialist Republic of Viet Nam
Postal Address	:	P.O. Box 52, Ha Noi, Socialist Republic of Vietnam
Official Email Address	:	who.vtn@wpro.who.int
Telephone	:	(84 4)3 943 3734/ 3 943 3735
Fax	:	(84 4) 3 943 3740

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

VIET NAM — WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	331.05						2009	1
2	**Estimated population ('000s)**	86 025.00		42 523.40		43 501.60		2009	1
3	**Annual population growth rate (%)**	1.10		...		...		2009	1
4	**Percentage of population**								
	- 0–4 years	8.50		9.00		7.90		2009	1
	- 5–14 years	16.50		17.40		15.70		2009	1
	- 65 years and above	6.60		5.30		7.90		2009	1
5	**Urban population (%)**	30.40		...		...		2010 est	1
6	**Crude birth rate (per 1000 population)**	17.60		...		...		2009	1
7	**Crude death rate (per 1000 population)**	6.80		...		...		2009	1
8	**Rate of natural increase of population (% per annum)**	1.08		...		...		2009	1
9	**Life expectancy (years)**								
	- at birth	72.80		70.20		75.60		2009	1
	- Healthy Life Expectancy (HALE) at age 60	...		60.00		63.00		2002	3
10	**Total fertility rate (women aged 15–49 years)**	2.03						2009	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	93.88		96.01		91.85		2009	1
12	**Per capita GDP at current market prices (US$)**	1064.00						2009	1
13	**Rate of growth of per capita GDP (%)**	0.22						2009	1
14	**Human development index**	0.57						2010	4
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	74.00 [f]		...		...		2009	5
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral	8932	...	...	3	...	...	2009	5
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	317 [a]	...	...	0	0	0	2010	5
	Dengue/DHF	128 831	...	...	109	...	...	2010	5
	Encephalitis	1227	...	...	20	...	...	2009	5
	Gonorrhoea	5639	...	...	0	0	0	2009	5
	Leprosy	359	261	98	...	...	...	2010	6
	Malaria	17 515	...	...	21	...	...	2010	6
	Plague	0	0	0	0	0	0	2009	5
	Syphilis	1611	...	...	0	0	0	2009	5
	Typhoid fever	1522	...	...	1	....	...	2009	5
17	**Acute respiratory infections**	757 112	...	...	159	...	...	2009	5
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	930496	...	...	4	...	...	2009	5
	- Among children under 5 years	...	...	...	...	...	...		
19	**Tuberculosis**								
	- All forms	95 036	...	...	1689	...	...	2009	5
	- New pulmonary tuberculosis (smear-positive)	51 291	...	...	...	...	...	2009	5, 6
20	**Cancers**								
	All cancers (malignant neoplasms only)	106 421	...	...	438	...	...	2009	5
	- Breast	10 406	...	...	10	...	...	2009	5
	- Colon and rectum	9811	...	...	29	...	...	2009	5
	- Cervix			230			2	2009	5
	- Leukaemia	4683	...	...	53	...	...	2009	5
	- Lip, oral cavity and pharynx	7490	...	...	21	...	...	2009	5
	- Liver	6875	...	...	82	...	...	2009	5
	- Oesophagus	1660	...	...	19	...	...	2009	5
	- Stomach	7770	...	...	35	...	...	2009	5
	- Trachea, bronchus, and lung	10 793	...	...	95	...	...	2009	5
21	**Circulatory**								
	All circulatory system diseases	205 688	...	...	2490	...	...	2009	5
	- Acute myocardial infarction	11342	...	...	689	...	...	2009	5
	- Cerebrovascular diseases	110 920	...	...	1586	...	...	2009	5
	- Hypertension	269 863	...	...	141	...	...	2009	5
	- Ischaemic heart disease	39 605	...	...	69	...	...	2009	5
	- Rheumatic fever and rheumatic heart diseases	33 986	...	...	23	...	...	2009	5
22	**Diabetes mellitus**	77 843	...	...	69	...	...	2009	5
23	**Mental disorders**	40 262	...	...	18	...	...	2009	5
24	**Injuries**								
	All types	205 688	...	...	2490	...	...	2009	5
	- Drowning	1682	...	...	45	...	...	2009	5
	- Homicide and violence	14 357	...	...	24	...	...	2009	5
	- Occupational injuries	21221	...	...	61	...	...	2009	5
	- Road traffic accidents	97635	...	...	653	...	...	2009	5
	- Suicide	18915	...	...	319	...	...	2009	5
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1. Acute pharyngitis and acute tonsillitis	417 573 [b]	...	...	644.18 [b]	...	...	2009	5
	2. Pneumonia	353 623 [b]	...	...	545.53 [b]	...	...	2009	5
	3. Other injuries of specified, unspecified and multiple body regions	253 656 [b]	...	...	391.31 [b]	...	...	2009	5
	4. Acute bronchitis and acute bronchiolitis	249 014 [b]	...	...	384.15 [b]	...	...	2009	5
	5. Diarrhoea and gastroenteritis of presumed infectious origin	222 784 [b]	...	...	343.68 [b]	...	...	2009	5
	6. Essential (primary) hypertension	212 084 [b]	...	...	327.18 [b]	...	...	2009	5
	7. Gastritis and duodenitis	180 471 [b]	...	...	278.41 [b]	...	...	2009	5
	8. Other acute upper respiratory infections	173 309 [b]	...	...	267.36 [b]	...	...	2009	5
	9, Other arthropod-borne viral fevers and viral haemorrhagic fevers	172 028 [b]	...	...	265.38 [b]	...	...	2009	5
	10.Influenza	161 082 [b]	...	...	248.50 [b]	...	...	2009	5

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Intracranial injury	1623 [b]	...	...	2.50 [b]	...	...	2009	5
	2. Human immuno deficiency virus disease	1163 [b]	...	...	1.79 [b]	...	...	2009	5
	3. Pneumonia	1146 [b]	...	...	1.77 [b]	...	...	2009	5
	4. Intracerebral haemorrhage	884 [b]	...	...	1.36 [b]	...	...	2009	5
	5. Acute myocardial infarction	686 [b]	...	...	1.06 [b]	...	...	2009	5
	6. Transport accident	683 [b]	...	...	1.05 [b]	...	...	2009	5
	7. Stroke, not specified as haemorrhage or infarction	637 [b]	...	...	0.98 [b]	...	...	2009	5
	8. Heart failure	536 [b]	...	...	0.83 [b]	...	...	2009	5
	9. Other injuries of specified, unspecified and multiple body regions	448 [b]	...	...	0.69 [b]	...	...	2009	5
	10. Septicemia	426 [b]	...	...	0.66 [b]	...	...	2009	5
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					67.50		2010	1
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					90.20		2010	6
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	...		...		...			
31	**Percentage of newborn infants weighing less than 2500 g at birth**	5.30		...		...		2009	5
32	**Immunization coverage for infants (%)**								
	- BCG	93.70		...		...		2010	6
	- DTP3	93.40		...		...		2010	6
	- Hepatitis B III	87.50		...		...		2010	6
	- MCV2	97.70		...		...		2010	6
	- POL3	93.70		...		...		2010	6
		Number of cases			Number of deaths				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			20832			...	2009	5
	- Eclampsia			460			6	2009	5
	- Haemorrhage			1990			65	2009	5
	- Obstructed labour			...			...		
	- Sepsis			291			3	2009	5
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	6	...	...	...	...	...	2010	6
	- Measles	2809	...	...	...	...	...	2010	6
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	35	...	...	...	...	...	2010	6
	- Pertussis (whooping cough)	81	...	...	...	...	...	2010	6
	- Poliomyelitis	0	0	0	...	...	...	2010	6
	- Rubella	2300	...	...	...	...	...	2010	6
	- Total Tetanus	196	...	...	...	...	...	2010	6
	Health facilities								
35	**Facilities with HIV testing and counseling services**						244	2008	6

	INDICATORS		DATA		Year	Source
	Health facilities		Number	Number of beds		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	783	126 943	2009	5
		- Specialized hospitals	144	31 045	2009	5
		- District/first-level referral hospitals	615	55 190	2009	5
		- Primary health care centres	11 636	47 842	2009	5
	Private health facilities	- Hospitals	102	5822	2009	5
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			7003.03 [g]	2009p	7
	- total expenditure on health as % of GDP			7.20	2009p	7
	- per capita total expenditure on health (in US$)			79.52 [g]	2009p	7
	Government expenditure on health					
	- amount (in million US$)			2707.63 [g]	2009p	7
	- general government expenditure on health as % of total expenditure on health			38.70	2009p	7
	- general government expenditure on health as % of total general government expenditure			8.90	2009p	7
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			4.40 [g]	2009p	7
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			61.30	2009p	7
	- out-of-pocket expenditure on health as % of total expenditure on health			55.34 [g]	2009p	7
	Exchange rate in US$ of local currency is: 1 US$ =			17 005.10	2009p	7
38	**Health insurance coverage as % of total population**			58.20	2009	5

	INDICATORS		DATA							Year	Source
39	Human resources for health		Total	Male	Female	Urban	Rural	Public	Private		
	Physicians	- Number	...	...	...	...	...	56661	...	2009	5
		- Ratio per 1000 population	...	...	...	...	...	0.66	...	2009	5
	Dentists	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Pharmacists	- Number	...	...	...	...	...	10524	...	2008	5
		- Ratio per 1000 population	...	...	...	...	...	0.22	...	2008	5
	Nurses	- Number	...	...	...	...	...	75 891	...	2009	5
		- Ratio per 1000 population	...	...	...	...	...	0.88	...	2009	5
	Midwives	- Number	...	...	...	...	...	24998	...	2009	5
		- Ratio per 1000 population	...	...	...	...	...	0.29	...	2009	5
	Paramedical staff	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	6883 [c]	...	...	...	...	...	...	2009	5
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	18.90	...	...	2009	5
43	Infant mortality rate (per 1000 live births)	16.00	...	...	2009	1
44	Under-five mortality rate (per 1000 live births)	24.10	...	...	2009	1
45	Proportion of 1 year-old children immunised against measles	97.80	...	...	2010	6
46	Maternal mortality ratio (per 100 000 live births)	69.00			2009	1
47	Proportion of births attended by skilled health personnel	94.40 [d]			2009	5
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	Contraceptive prevalence rate	78.00	...	...	2010	12
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	93.70			2009	5
	- At least four visits	...				
51	Unmet need for family planning	4.80	...	...	2007 est	8
52	HIV prevalence among population aged 15-24 years	...	0.10	0.10	2009	6
53	Estimated HIV prevalence in adults	0.44	...	...	2010	9
54	Percentage of people with advanced HIV infection receiving ART	35.00 [e]	...	...	2007	10
55	Malaria incidence rate per 100 000 population	19.28	...	...	2010	6
56	Malaria death rate per 100 000 population	0.02	...	...	2010	6
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	63.00	...	...	2010	6
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	333.00	...	...	2009	6
60	Tuberculosis death rate per 100 000 population	36.00	...	...	2009	6
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	54.00	...	...	2009	6
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	92.00	...	...	2008	6
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	94.00	99.00	92.00	2008	11
64	Proportion of population using an improved sanitation facility	75.00	94.00	67.00	2008	11
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
a	Data includes 301 cases are Vietnamese and 16 Cambodians
b	Figure applies to public hospitals (51/63 provinces in the whole country)
c	Figure refers to physicians and pharmacists
d	Figure applies to public health facilities
e	Based on country reports as of end of December 2007
f	Figure refers to percentage of health facilities procesed solid waste
g	Computed by Health Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific

Sources:	
1	General Statistics Office of Viet Nam - Viet Nam population and housing Census 2009.
2	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
3	The world health report 2004: changing history. Geneva, World Health Organization, 2004.
4	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
5	Health Statistics Yearbook 2009: HSID. Planning and Finance Department, Ministry of Health, Viet Nam
6	WHO Regional Office for the Western Pacific, data received from the technical units
7	National health accounts: country information. Geneva, World Health Organization. Accessed in August 2011 from [http://www.who.int/nha/country/en/index.html].
8	Department of Economic and Social Affairs Population Division. World Contraceptive Use 2011. [http://www.un.org/esa/population/publications/contraceptive2011/contraceptive2011.htm]
9	HIV estimates and projections, Ministry of Health, Viet Nam.
10	UNGASS Country Progress Report, 2008.
11	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]
12	Population change and family planning survey 2010, General Statistics Office of Viet Nam.

WALLIS AND FUTUNA

1. CONTEXT

1.1 Demographics

The Wallis and Futuna Islands are located in the Oceania Islands in the South Pacific Ocean, about two-thirds of the way from Hawaii to New Zealand. The total area is 142 square kilometres and includes Ile Uvea (Wallis Island), Ile Futuna, Ile Alofi and 20 islets.

The estimated population of Wallis and Futuna was 13 256 in 2010. About 28.4% are 0-14 years old, 63.7% are 15-64 years old and 7.9% are 65 years and older.

1.2 Political situation

The Futuna island group was discovered by the Dutch in 1616 and Wallis by the British in 1767, but it was the French who declared the islands a protectorate in 1842. In 1959, the inhabitants of the islands voted to become a French overseas territory. The Chief of State is President Nicolas Sarkozy of France (since 16 May 2007), represented by the High Administrator, who is appointed by the French President on the advice of the French Ministry of the Interior. The High Administrator has been Phillippe Paolantoni since 28 July 2008. The head of government is the President of the Territorial Assembly, currently Victor Brial (since 4 February 2009). The Council of the Territory consists of three kings with limited powers, appointed by the High Administrator on the advice of the Territorial Assembly. The presidents of the Territorial Government and the Territorial Assembly are elected by the members of the Assembly.

1.3 Socioeconomic situation

The economy is limited to traditional subsistence farming, with about 80% of the labour force involved in agriculture (coconuts and vegetables), livestock (mostly pigs) and fishing. About 4% of the population is employed by the Government. Revenues come from subsidies from the French Government, licensing of fishing rights to Japan and the Republic of Korea, import taxes, and remittances from expatriate workers in New Caledonia. Gross domestic product (GDP) per capita was estimated at US$ 3800 in 2004.

1.4 Risks, vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The leading noncommunicable diseases are: diabetes, obesity, rheumatism/gout and dental caries. For communicable diseases, they are leptospirosis, brucellosis, dengue, filariasis, tuberculosis, leprosy, hepatitis B, shigellosis and salmonella.

2.2 Outbreaks of communicable diseases

In 2002/2003, 2045 cases of dengue were reported in Wallis and Futuna, including 1535 suspected cases, 166 confirmed cases, 280 hospitalized cases and two cases resulting in death.

2.3 Leading causes of mortality and morbidity

No available information.

2.4 Maternal, child and infant diseases

The estimated infant mortality rate was 5.9 per 1000 live births in 2003. In 2010, immunization coverage for infants was 85.0% for DTP3, 84.9% for POL3, and 100% for BCG. Only 86% of infants received measles immunization in 2007. In 2002, about 70% of pregnant women were immunized with tetanus toxoid.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

No available information.

3.2 Organization of health services and delivery systems

In 2009, there were one hospital and three dispensaries in Wallis, and one hospital and two dispensaries in Futuna. All treatment, including inpatient care, is free of charge.

Wallis hospital comprises an emergency ward, one medical ward with 21 beds, one surgical ward with 16 beds and two operating rooms, one delivery ward with two delivery rooms, one laboratory, one X-ray unit, two ultrasound rooms, one outpatient ward, one education room, and one pharmacy.

Futuna hospital comprises one emergency ward, one internal medicine ward with 15 beds, one post-delivery ward with seven beds, one labour ward, one laboratory, one X-ray and ultrasound unit, one pharmacy, one dental unit, and one medical evacuation unit.

3.3 Health policy, planning and regulatory framework

No available information.

3.4 Health care financing

The French Government provides funding to support the health services. In 2008, the Government spent an estimated US$ 35.2 million on health, 24% of total government expenditure.

3.5 Human resources for health

There are currently 125 medical staff in Wallis and Futuna.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	Population 2000-2015 by 1 and 5 year age groups, May 2011.
Operator	:	Secretariat of the Pacific Community (SPC) - Statistics for Development Programme.
Website	:	http://www.spc.int/sdp/
Title 2	:	Pacific Regional Information System (PRISM)
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int/prism/
Title 3	:	Service territorial de la statistique
Web address	:	http://www.spc.int/prism/wf/

5. ADDRESSES

MINISTRY OF HEALTH

Postal Address	:	B.P. 4G Mata Utu 98600 Uvea
Official Email Address	:	sante@adswf.org
Fax	:	(681) 72 23 99

WHO REPRESENTATIVE IN THE SOUTH PACIFIC/DIRECTOR, PACIFIC TECHNICAL SUPPORT

Office Address	:	Level 4 Provident Plaza One, Downtown Boulevard, 33 Ellery Street, Suva
Postal Address	:	PO Box 113, Suva, Fiji.
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 3234 100
Fax	:	(679) 3234 166/ 3234 177
Office hours	:	0800 – 1700

WALLIS AND FUTUNA

WESTERN PACIFIC REGION HEALTH DATABANK, 2011 Revision

	INDICATORS	DATA						Year	Source
	Demographics	**Total**		**Male**		**Female**			
1	**Area (1 000 km2)**	0.14						2010	1
2	**Estimated population ('000s)**	13.25 [a]		6.58 [a]		6.68 [a]		2010 est	2
3	**Annual population growth rate (%)**	-0.60		...		...		2010 est	1
4	**Percentage of population**								
	- 0–4 years	7.74 [b]		7.92 [b]		7.56 [b]		2010 est	2
	- 5–14 years	20.69 [b]		22.64 [b]		18.74 [b]		2010 est	2
	- 65 years and above	7.91 [b]		7.35 [b]		8.44 [b]		2010 est	2
5	**Urban population (%)**	0.00		...		...		2010 est	3
6	**Crude birth rate (per 1000 population)**	19.40		...		...		2003	4
7	**Crude death rate (per 1000 population)**	5.90		...		...		2003	4
8	**Rate of natural increase of population (% per annum)**	1.35 [b]		...		...		2003	4
9	**Life expectancy (years)**								
	- at birth	74.30		72.70		75.90		2005-08	1
	- Healthy Life Expectancy (HALE) at age 60	...		...		...			
10	**Total fertility rate (women aged 15–49 years)**	2.00						2008 est	1
	Socioeconomic indicators								
11	**Adult literacy rate (%)**	78.80 [c]		78.20 [c]		78.20 [c]		2003	5
12	**Per capita GDP at current market prices (US$)**	3800.00						2004	6
13	**Rate of growth of per capita GDP (%)**	...							
14	**Human development index**	...							
	Environmental indicators	**Total**		**Urban**		**Rural**			
15	**Health care waste generation (metric tons per year)**	...		...		...			
	Communicable and noncommunicable diseases	**Number of new cases**			**Number of deaths**				
16	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	...	...	...	...	...	...		
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	NR	NR	NR	...	...	...	2010	7
	Malaria	...	...	...	...	...	...		
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	...	...	...	...	...	...		
17	**Acute respiratory infections**	...	...	...	...	...	...		
	- Among children under 5 years	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
	Communicable and noncommunicable diseases	Number of new cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
18	**Diarrhoeal diseases**	…	…	…	…	…	…		
	- Among children under 5 years	…	…	…	…	…	…		
19	**Tuberculosis**								
	- All forms	9	…	…	0 [h]	0	0	2009	7
	- New pulmonary tuberculosis (smear-positive)	2	…	…	…	…	…	2009	7
20	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	…	…	…		
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	…	…	…		
	- Liver	…	…	…	…	…	…		
	- Oesophagus	…	…	…	…	…	…		
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	…	…	…	…	…	…		
21	**Circulatory**								
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	…	…	…	…	…	…		
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
22	**Diabetes mellitus**	…	…	…	…	…	…		
23	**Mental disorders**	…	…	…	…	…	…		
24	**Injuries**								
	All types	…	…	…	…	…	…		
	- Drowning								
	- Homicide and violence	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Road traffic accidents	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
	Leading causes of mortality and morbidity	Number of cases			Rate per 100 000 population				
25	**Leading causes of morbidity (inpatient care)**	Total	Male	Female	Total	Male	Female		
	1.	…	…	…	…	…	…		
	2.	…	…	…	…	…	…		
	3.	…	…	…	…	…	…		
	4.	…	…	…	…	…	…		
	5.	…	…	…	…	…	…		
	6.	…	…	…	…	…	…		
	7.	…	…	…	…	…	…		
	8.	…	…	…	…	…	…		
	9.	…	…	…	…	…	…		
	10.	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
		Number of deaths			Rate per 100 000 population				
26	**Leading causes of mortality**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1.	...	...	...	...	...	...		
	2.	...	...	...	...	...	...		
	3.	...	...	...	...	...	...		
	4.	...	...	...	...	...	...		
	5.	...	...	...	...	...	...		
	6.	...	...	...	...	...	...		
	7.	...	...	...	...	...	...		
	8.	...	...	...	...	...	...		
	9.	...	...	...	...	...	...		
	10.	...	...	...	...	...	...		
	Maternal, child and infant diseases	**Total**		**Male**		**Female**			
27	**Percentage of women in the reproductive age group using modern contraceptive methods**					...			
28	**Percentage of pregnant women immunized with tetanus toxoid (TT2)**					69.50		2002	7
29	**Percentage of pregnant women with anaemia**					...			
30	**Neonatal mortality rate (per 1000 live births)**	...		...		...			
31	**Percentage of newborn infants weighing less than 2500 g at birth**	...		...		...			
32	**Immunization coverage for infants (%)**								
	- BCG	100.00		...		...		2010	7
	- DTP3	85.00		...		...		2010	7
	- Hepatitis B III	...		...		...			
	- MCV2	...		...		...			
	- POL3	84.90		...		...		2010	7
		Number of cases			**Number of deaths**				
33	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
34	**Selected diseases under the WHO-EPI**								
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	...	...	...	...	...	...		
	- Measles	0	0	0	...	...	...	2010	7
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	...	...	...	...	...	...		
	- Pertussis (whooping cough)	...	...	...	...	...	...		
	- Poliomyelitis	0	0	0	...	...	...	2010	7
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	...	...	...	...	...	...		
	Health facilities								
35	**Facilities with HIV testing and counseling services**					...			

	INDICATORS		DATA		Year	Source
	Health facilities		**Number**	**Number of beds**		
36	**Health infrastructure**					
	Public health facilities	- General hospitals	2	59	2009	6
		- Specialized hospitals	0	0	2008	6
		- District/first-level referral hospitals	0	0	2008	6
		- Primary health care centres	5 [d]	0	2009	6
	Private health facilities	- Hospitals	...	...		
		- Outpatient clinics	...	...		
	Health care financing					
37	**Total health expenditure**					
	- amount (in million US$)			...		
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			...		
	Government expenditure on health					
	- amount (in million US$)			35.20	2008	6
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			24.00	2008	6
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			...		
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			...		
	- out-of-pocket expenditure on health as % of total expenditure on health			...		
	Exchange rate in US$ of local currency is: 1 US$ =			...		
38	**Health insurance coverage as % of total population**			...		

	INDICATORS		DATA							Year	Source
39	**Human resources for health**		**Total**	**Male**	**Female**	**Urban**	**Rural**	**Public**	**Private**		
	Physicians	- Number	16 [e]	...	...	...	...	...	...	2008	6
		- Ratio per 1000 population	1.10 [b]	...	...	...	...	...	...	2008	6
	Dentists	- Number	3	...	...	...	...	...	...	2008	6
		- Ratio per 1000 population	0.21 [b]	...	...	...	...	...	...	2008	6
	Pharmacists	- Number	1	...	...	...	...	...	...	2008	6
		- Ratio per 1000 population	0.07 [b]	...	...	...	...	...	...	2008	6
	Nurses	- Number	43 [f]	...	...	...	...	...	...	2008	6
		- Ratio per 1000 population	2.97 [b]	...	...	...	...	...	...	2008	6
	Midwives	- Number	10 [g]	...	...	...	...	...	...	2008	6
		- Ratio per 1000 population	0.69 [b]	...	...	...	...	...	...	2008	6
	Paramedical staff	- Number	52	...	...	...	...	...	...	2003	6
		- Ratio per 1000 population	3.48 [b]	...	...	...	...	...	...	2003	6
	Community health workers	- Number	...	...	...	...	...	...	...		
		- Ratio per 1000 population	...	...	...	...	...	...	...		
40	**Annual number of graduates**	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		

	INDICATORS		DATA							Year	Source
			Total	Male	Female	Urban	Rural	Public	Private		
40	Annual number of graduates	Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		
41	Workforce losses/ Attrition	Physicians	...	...	...	...	...	...	...		
		Dentists	...	...	...	...	...	...	...		
		Pharmacists	...	...	...	...	...	...	...		
		Nurses	...	...	...	...	...	...	...		
		Midwives	...	...	...	...	...	...	...		
		Paramedical staff	...	...	...	...	...	...	...		
		Community health workers	...	...	...	...	...	...	...		

	INDICATORS	DATA			Year	Source
	Health-related Millennium Development Goals (MDGs)	Total	Male	Female		
42	Prevalence of underweight children under five years of age	...	...	...		
43	Infant mortality rate (per 1000 live births)	5.90	...	...	2003 est	8
44	Under-five mortality rate (per 1000 live births)	...	...	...		
45	Proportion of 1 year-old children immunised against measles	86.00	...	...	2007	7
46	Maternal mortality ratio (per 100 000 live births)	...				
47	Proportion of births attended by skilled health personnel	...				
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	...				
	- Percentage of deliveries in health facilities (as % of total deliveries)	...				
48	Contraceptive prevalence rate	...	...	...		
49	Adolescent birth rate	...				
50	Antenatal care coverage - At least one visit	...				
	- At least four visits	...				
51	Unmet need for family planning	...	...	...		
52	HIV prevalence among population aged 15-24 years	...	...	...		
53	Estimated HIV prevalence in adults	...	...	...		
54	Percentage of people with advanced HIV infection receiving ART	...	...	...		
55	Malaria incidence rate per 100 000 population	...	...	...		
56	Malaria death rate per 100 000 population	...	...	...		
57	Proportion of population in malaria-risk areas using effective malaria prevention measures	...	...	...		
58	Proportion of population in malaria-risk areas using effective malaria treatment measures	...	...	...		
59	Tuberculosis prevalence rate per 100 000 population	44.00	...	...	2009	7
60	Tuberculosis death rate per 100 000 population	2.00	...	...	2009	7
61	Proportion of tuberculosis cases detected under directly observed treatment short-course (DOTS)	0.00	...	...	2009	7
62	Proportion of tuberculosis cases cured under directly observed treatment short-course (DOTS)	100.00	...	...	2008	7
		Total	Urban	Rural		
63	Proportion of population using an improved drinking water source	100.00	NA	100.00	2008	9
64	Proportion of population using an improved sanitation facility	96.00	NA	96.00	2008	9
65	Proportion of population with access to affordable essential drugs on a sustainable basis	...	...	...		

Notes:	
…	Data not available
est	Estimate
NA	Not applicable
a	Estimated population as of 1 July 2010
b	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific.
c	Figure applies to aged 19 years and above.
d	Figure refers to dispensaries.
e	Figure refers to physicians and specialists.
f	Figure includes 1 anaesthesiology nurse and excludes unauthorized nurses
g	Figure excludes 1 unauthorized midwife
h	Estimated number of deaths

Sources:	
1	Pacific Island Populations - Estimates and projections of demographic indicators for selected years, Updated March 2011. Secretariat of the Pacific Community (SPC), Statistics and Demography Programme. Accessed on August 2011.
2	Population 2000-2015 by 1 and 5 year age groups, May 2011. Secretariat of the Pacific Community (SPC) - Statistics for Development Programme. [http://www.spc.int/sdp/index.php?option=com_docman&task=doc_details&gid=158]
3	Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision and World Urbanization Prospects: The 2009 Revision, http://esa.un.org/wup2009/unup/, Monday, June 06, 2011; 9:20:08 PM.
4	Service de la statistique de wallis et futuna. Accessed from http://www.spc.int/prism/country/wf/stats/Social/demography.htm.
5	Service territorial de la statistique (http://www.spc.int/prism/wf/).
6	Information furnished by the WHO Representative to the South Pacific, 3 June 2009.
7	WHO Regional Office for the Western Pacific, data received from technical units.
8	Service territorial de la statistique (http://www.spc.int/prism/wf/).
9	Progress on Sanitation and Drinking Water: 2010 Update. World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). UNICEF, New York and WHO, Geneva, 2010. [http://www.wssinfo.org/en/welcome.html]

Statistical annex

Table 1. Demographic Indicators

	Country/ area	Population							
		Year	Total Population [1] ('000s)	Area [1] (1000 km²)	Density [l] (per sq. km.)	Year	Urban [1] (%)	Year	Growth Rate [1] (%)
1	American Samoa	2010 est	65.90	(2006) 0.20	329.50	2010 est	93.00		...
2	Australia	2010	22 342.40 [a]	7692.02	2.90	2010 est	89.10	2010	1.72
3	Brunei Darussalam	2009	406.20	5.77	70.40	2010 est	75.70	2009	2.02
4	Cambodia	2008	13 395.68	181.04	73.99	2010 est	20.10	2008	1.54
5	China	2010	1 370 537.00	9600.00	142.76	2010	49.68	2010	0.57
6	Cook Islands	2010 est	23.30 [b]	(2006) 0.24	97.08	2010 est	75.30	2006	1.70
7	Fiji	2010 est	854.00	18.33	46.59	2010est	51.90	2005-10	0.82
8	French Polynesia	2010 est	268.77 [c]	3.52	76.36	2010 est	51.40	2002-07	1.20
9	Guam	2010 est	180.69 [d]	(2008) 0.54	334.61	2010 est	93.20		...
10	Hong Kong (China)	2010	7067.80	1.10	6425.27	2010	94.77	2010	0.92
11	Japan	2010	128 056.00 [e]	(2008) 377.94	338.83	2010 est	66.80		...
12	Kiribati	2010	103.47	0.81	127.74	2010	48.33	2010	2.23
13	Lao People's Democratic Republic	2009 est	6128.00 [f]	(2009) 236.8	25.88	2010 est	33.20	1995-2005	2.10
14	Macao (China)	2010	552.30 [g]	0.03	18410.00	2010 est	100.00	2010	1.90
15	Malaysia	2010	28 250.50	329.96	85.62	2010 est	72.20	2010	1.30
16	Marshall Islands	2010	54.44	0.18	302.44	2010 est	71.80	2009	1.00
17	Micronesia, Federated States of	2010p	102.62	(2010) 0.70	146.60	2010est	22.70	2009 est	0.25
18	Mongolia	2010	2780.75	1567.00	1.77	2010	63.31	2010	1.70
19	Nauru	2010 est	9.98 [h]	(2011 est) 0.02	499.00	2010 est	100.00	2011 est	2.10
20	New Caledonia	2009p	245.58	(2008) 18.58	13.22	2010 est	57.40	2006	2.50
21	New Zealand	2010p	4370.20 [i]	(2006) 270.69 [k]	16.14	2010 est	86.20	1991-2010p	1.18 [m]
22	Niue	2010 est	1.50	(2009) 0.26	5.77	2010 est	37.50		...
23	Northern Mariana Islands	2010 est	63.07	(2011) 0.46	137.11	2010 est	91.30	2010 est	- 0.10
24	Palau	2010 est	20.52	(2010) 0.44	46.64	2010 est	83.40	2010 est	0.60
25	Papua New Guinea	2010 est	6744.96	(2010) 462.84	14.57	2010 est	12.50	2009	2.70
26	Philippines	2010 est	94 013.20	299.76	313.63	2010 est	48.90	2000-07	2.04
27	Pitcairn Islands	2009	0.05	0.04	1.30		...		...
28	Republic of Korea	2010	48 874.53	(2009) 99.90	489.23	2010 est	83.00	2010	0.26
29	Samoa	2010 est	184.03	2.79	65.96	2010 est	20.20	2010 est	0.30 [n]
30	Singapore	2010	3771.70 [j]	(2009p) 0.71	5312.25	2010 est	100.00	2010	1.00 [j]
31	Solomon Islands	2009	515.87	(2008) 30.40	16.97	2010 est	18.60	2009	2.30
32	Tokelau	2006	1.47	(2010) 0.01	147.00	2010 est	0.00		...
33	Tonga	2010 est	103.37	(2009) 0.65	159.03	2010 est	23.40	2010 est	0.30
34	Tuvalu	2010 est	11.15	(2010) 0.03	371.67	2010 est	50.40	2010	0.50
35	Vanuatu	2009	234.02	(2010) 12.28	19.06	2010	25.60	2009	2.30
36	Viet Nam	2009	86 025.00	331.05	259.86	2010 est	30.40	2009	1.10
37	Wallis and Futuna	2010 est	13.25 [c]	(2010) 0.14	94.64	2010 est	0.00	2010 est	-0.60

% Distribution of Population [1]												
				Aged 60 years or older by gender[o] [2] (2010)						Dependency Ratio [t]		Total Fertility Rate (women 15-49 years) [1]
Year	0-4 years (%)	5-14 years (%)	65+ years (%)	Male	Female	Year	Crude Birth Rate [1] (per 1000 popn)	Crude Death Rate [1] (per 1000 popn)	Year	(%)	Year	
2010 est	11.52 [o]	23.68 [o]	4.46 [o]	(2008) 6.90	8.30	2011 est	23.50	4.50	2010 est	65.73	...	...
2010	6.50	12.40	13.60	17.91	20.65	2009	13.46	6.41	2010	48.14	2009	1.90
2009	8.50	17.60	3.40	5.94	5.56	2009	16.30	2.90	2009	41.84	2009	1.70
2008	10.25	23.45	4.30	4.91	7.48	2004	25.00	6.70	2008	61.29	2010	3.00
2010	5.16	11.71	8.87	11.51	13.18	2009	12.13	7.08	2010	34.66	2009	1.80
2010 est	8.55	19.39	8.23	(2008) 7.00	8.30	2010p	23.85 [o]	8.12 [o]	2010 est	56.67	2009	2.60
2010 est	10.07	20.84	4.92	7.09	8.55	2009	21.40	7.50	2010 est	55.84	2003	2.60
2010 est	7.89 [o]	16.84 [o]	6.19 [o]	9.42	9.09	2010	17.00	4.30	2010 est	44.76	2008	2.18
2010 est	8.87 [o]	18.48 [o]	7.39 [o]	10.00	10.34	2008	19.71 [o]	4.41 [o]	2010 est	53.23	2009	2.54
2010	3.46	8.68	12.91	18.34	18.15	2010	12.48 [q]	(2010p) 6.04 [p,s]	2010	33.42	2010p	1.09
2010	4.23 [e]	9.00 [e]	23.10 [e]	27.63	33.15	2009	8.50	9.10	2010	57.06	2009	1.37
2010	13.36	22.57	3.57	(2008) 7.50	8.30	2010	10.72	6.03	2010	65.29	2010	4.10
2009 est	14.20	23.70	3.70	5.24	6.50	2009 est	30.70 [f]	8.40 [f]	2009 est	71.23	2009 est	3.90 [f]
2010	4.20	8.00	8.00	12.21	10.92	2010	9.40	3.30	2010	25.31	2010	1.10
2010	8.60	18.60	4.70	7.53	7.92	2010	18.80	4.90	2010	46.84	2010 est	2.40
2010	15.00	27.00	2.00	(2008) 7.50	8.30	2010	26.00	5.00	2010	78.57	2010	3..18
2010p	11.73 [o]	23.98 [o]	3.33 [o]	3.70	7.27	2009 est	19.90	3.80	2010p	64.04	2009	3.90
2010	10.01	17.26	3.94	5.14	6.54	2010	23.80	6.26	2010	45.37	2010	2.30
2010 est	12.94 [o]	22.70 [o]	1.27 [o]	(2008) 7.50	8.20	2008 est	13.10	6.70	2010 est	58.50	2008	4.00
2009 est	8.30	18.10	6.30	11.11	12.50	2008p	16.90 [n]	5.00 [n]	2009 est	48.59	2005	2.20
2010p	7.13 [i]	13.33 [i]	13.02 [i]	17.38	19.21	2010p	14.62	6.51	2010p	50.33	2010	2.15 [u]
2010 est	9.02	16.71 [o]	12.16 [o]	(2008) 6.90	8.30	2009	20.10	7.80	2010 est	61.00	2006 est	2.60
2010 est	9.50 [o]	16.76 [o]	3.31 [o]	(2008) 7.50	8.20	2010 est	18.44	2.35	2010 est	41.98	2010 est	1.12
2010 est	6.47	14.01	5.81	(2008) 7.50	8.30	2010	11.90	7.82	2010 est	35.67	2010	1.70
2010 est	13.91	24.30	2.48	4.06	5.21	2010p	30.90	9.60	2010 est	68.61	2009	4.00
2010 est	11.47	22.28	4.40	5.02	6.45	2007	19.70 [r]	5.00 [r]	2010 est	61.68	2008	3.30
	...	...	...	(2008) 36.60	41.00		...	...		...		...
2010	4.50	11.67	12.90	13.58	17.83	2009	9.00	4.97	2010	40.98	2010	1.22
2010 est	12.55 [o]	25.71 [o]	5.00 [o]	5.32	7.95	2009 est	8.74 [o]	3.06 [o]	2010 est	76.24	2006	4.20
2010	...	17.35 [p]	8.97 [j]	13.15	14.91	2010	9.30 [j]	4.40 [j]	2010	35.72	2010	1.15 [j]
2009	14.83	25.77	3.51	4.64	5.41	2009	30.00	6.00	2009	78.92	2004-07	4.60
2006	11.32	23.74	7.37	(2008) 6.80	8.10	2009	15.00	5.00	2006	73.70	1997-01	4.50
2010 est	13.11	24.96	5.78	7.69	9.62	2009	25.40	5.50	2010 est	78.09	2010	3.70
2010 est	10.90 [o]	21.11 [o]	5.31 [o]	(2008) 6.90	8.20	2010 est	22.90	9.00	2010 est	59.54	2009	3.20
2009	14.26 [n]	24.61 [n]	4.05 [n]	4.96	5.13	2011p	31.10	5.30	2009	75.19	2005-10	4.00
2009	8.50	16.50	6.60	7.14	9.56	2009	17.60	6.80	2009	46.20	2009	2.03
2010 est	7.74 [o]	20.69 [o]	7.91 [o]	(2008) 7.00	8.30	2003	19.40	5.90	2010 est	57.08	2008 est	2.00

Table 2. Socioeconomic Indicators

	Country/ area	Adult Literacy Rate [1]					Health Expenditure [1]			General Government Expenditure on Health as % of Total General Government Expenditure [1]
		Year	Total (%)	Male (%)	Female (%)	Year / Per capita GDP [1] (in US$)	Year	Per capita (US$)	As % of GDP (%)	2009 (provisional)
1	American Samoa		...	...	...	2005est 9041.00	2003	500.00	...	(2003) 14.00
2	Australia		...	...	...	2009-10 39975.00 k	2008-09	4387.40	9.03	(2008-09) 17.81
3	Brunei Darussalam	2009	...	97.30	94.60	2009 26423.40	2009p	769.25 m	2.91	6.79
4	Cambodia	2008	77.60	85.10	70.90	2010 776.00	2009p	43.70 m	5.92	7.46
5	China	2009	92.90	96.24	89.55	2009 3677.00 l	2009p	192.40 m	5.15	6.31
6	Cook Islands	2009	100.00	...	...	2009p 10 298.00 m	2009p	503.60 m	4.50	10.60
7	Fiji	2005	94.40 a	...	...	2009 2 978.65 n	2009p	130.40 m	3.60	9.30
8	French Polynesia	2007	94.70 b	93.70 b	95.60 b	2006 16 803.36	2008	3361.57	13.09	(2008) 29.00
9	Guam		...	...	...	2005 22 661.00		...	...	(2005) 8.71 x
10	Hong Kong (China)	2010	94.62 c	97.14 c	92.46 c	2010p 31 835.76	FY2006/07	1408.94 u	5.00 w	FY2006/07 15.28 y
11	Japan		...	...	...	2009 39 530.00	2009p	3321.47	8.30	17.90
12	Kiribati	2005	91.00	...	...	2010p 1 307.40 o	2009p	204.08 m	12.20	8.70
13	Lao People's Democratic Republic	2005	73.00	...	...	2009 est 914.00	2009p	35.83	4.10	3.80
14	Macao (China)	2010	95.87 d	97.97 d	93.98 d	2010 49 745.00	2009	897.30	2.36	(2009) 8.45
15	Malaysia	2009	92.70	95.20	90.20	2010 7 689.18 m	2009p	337.80	4.80	7.10
16	Marshall Islands		...	...	...	2007 2851.00	2009p	419.35 m	16.50	20.10
17	Micronesia, Federated States of	2009	92.40	92.90	91.90	2008 2 223.00	2009p	333.33 m	13.80	20.60
18	Mongolia	2010	98.30	...	...	2009 1 550.90 p	2009	55.54	3.60	(2009) 8.7
19	Nauru	2007	...	95.90	99.30	2006-07 2 071.00	2009p	625.00 m	10.85	18.50
20	New Caledonia	2007	91.00	92.00	90.00	2008 36 758.00	2008	3420.72	9.50	...
21	New Zealand	2006	86.00 e	...	...	2009p 27 066.68	2009p	2633.63 m	9.70	18.30
22	Niue	2003	100.00	100.00	100.00	2006 8 208.20	2009p	1866.55 m	16.94	15.81
23	Northern Mariana Islands		...	...	...	2005 12 638.00		...	...	(FY 2007) 25.40
24	Palau	2005	99.90 f	99.90 f	99.80 f	2007 8 423.00	2009p	1 000.00 m	11.20	16.70
25	Papua New Guinea	2000-08	60.00	...	...	2009p 1 172.32 m	2009p	36.44	3.10	8.00
26	Philippines	2008	...	84.20	88.70	2009 1 825.22 q	2009p	66.11 m	3.80	7.20
27	Pitcairn Islands		...	...	...	...		...	...	...
28	Republic of Korea		...	...	...	2009 17 086.30	2009	1184.23	6.92	(2009) 12.17
29	Samoa	2009	...	97.00 g	99.00 g	2009-10 2 908.02 m,r	2009p	205.53 m	7.00	15.90
30	Singapore	2010	95.90 h	...	...	2009p 36 537.00	2009p	1495.34 m	3.90	(2009) 9.80
31	Solomon Islands	2009	84.10	...	...	2008 1 014.00	2009p	71.84 m	5.30	16.80
32	Tokelau	2009	96.00	...	...	2003 612.50 s	2001-09	3705.64 v	...	(FY 2001-09) 10.46
33	Tonga	2006	99.00	...	...	2008-09 2 988.00	2009p	161.04 m	5.30	(2008) 14.50
34	Tuvalu	2007	...	92.70	97.10 i	2002 1 139.32	2009p	312.50 m	10.50	11.00
35	Vanuatu	2010	84.80	85.70	83.90	2009p 2 685.10 t	2009	104.00 t	3.90	(2009) 13.60
36	Viet Nam	2009	93.88	96.01	91.85	2009 1 064.00	2009p	79.52 m	7.20	8.90
37	Wallis and Futuna	2003	78.80 j	78.20 j	78.20 j	2004 3 800.00		...	...	(2008) 24.00

Table 3. Health and Human Rights Instruments

	Country/ area	Convention on the rights of the child [3]		Convention on the elimination of all forms of discrimination against women [3]		International covenant on economic, social and cultural rights [3]	
		Year of ratification [a]	Latest submission of report *(as of August 2011)*	Year of ratification [a]	Latest submission of report *(as of August 2011)*	Year of ratification [a]	Latest submission of report *(as of August 2011)*
1	American Samoa	…	…	…	…	…	…
2	Australia	1990	2009	1983	2008	1975	2007
3	Brunei Darussalam	1995	2001	2006	…	…	…
4	Cambodia	1992	2009	1992	2004	1992	2008
5	China	1992	2003	1980	2004	2001 [b]	2010 [c]
6	Cook Islands	1997	2010	2006	2006	…	…
7	Fiji	1993	1996	1995	2008	…	…
8	French Polynesia	…	…	…	…	…	…
9	Guam	…	…	…	…	…	…
10	Hong Kong (China)	…	…	…	…	…	…
11	Japan	1994	2008	1985	2008	1979	2009
12	Kiribati	1995	2005	2004	…	…	…
13	Lao People's Democratic Republic	1991	2009	1981	2008	2007	…
14	Macao (China)	…	…	…	…	…	…
15	Malaysia	1995	2006	1995	2004	…	…
16	Marshall Islands	1993	2004	2006	…	…	…
17	Micronesia, Federated States of	1993	1996	2004	…	…	…
18	Mongolia	1990	2008	1981	2007	1974	1998
19	Nauru	1994	…	2011	…	…	…
20	New Caledonia	…	…	…	…	…	…
21	New Zealand	1993	2008	1985	2010	1978	2009
22	Niue	1995	2010	…	…	…	…
23	Northern Mariana Islands	…	…	…	…	…	…
24	Palau	1995	1998	…	…	…	…
25	Papua New Guinea	1993	2002	1995	2008	2008	…
26	Philippines	1990	2008	1981	2004	1974	2006
27	Pitcairn Islands	…	…	…	…	…	…
28	Republic of Korea	1991	2008	1984	2006	1990	2007
29	Samoa	1994	2005	1992	2009	…	…
30	Singapore	1995	2009	1995	2009	…	…
31	Solomon Islands	1995	2001	2002	…	1982	2001
32	Tokelau	…	…	…	…	…	…
33	Tonga	1995	…	…	…	…	…
34	Tuvalu	1995	…	1999	2008	…	…
35	Vanuatu	1993	1997	1995	2005	…	…
36	Viet Nam	1990	2008	1982	2005	1982	…
37	Wallis and Futuna	…	…	…	…	…	…

Table 4. Poverty- and Gender-related Development Indicators

	Country/ area	Human Development Index (HDI)[a] value [1,4]	Population below income poverty line (%) [4]		Gender-related development index (GDI) value [6]	Gender-empowerment measure (GEM) value [6]	Seats in parliament held by women [4]	Ratio of estimated female to male earned income [6]
			$1.25 a day	National poverty line				
		2010	2000-2008 [d]	2000-2008 [d]	2007	2005-2007 [e]	(% of total)	1996-2007 [g]
1	American Samoa	...	...	...	...	...	...	...
2	Australia	0.94	...	...	0.97	0.87	29.70	0.70
3	Brunei Darussalam	0.80	...	...	0.91	...	...	0.59
4	Cambodia	0.49	25.80	30.10	0.59	0.43	15.80	0.68
5	China	0.66	15.90	2.80	0.77	0.53	21.30	0.68
6	Cook Islands	...	...	...	...	...	...	...
7	Fiji	0.67	...	...	0.73	...	...	0.38
8	French Polynesia	(2007) 0.87 [5]	...	...	...	...	...	...
9	Guam	...	...	...	...	...	...	...
10	Hong Kong (China)	0.86	...	...	0.93	...	...	0.73
11	Japan	0.88	...	...	0.95	0.57	12.30	0.45
12	Kiribati	...	...	...	...	...	4.40	...
13	Lao People's Democratic Republic	0.50	44.00	33.50	0.61	...	25.20	0.76
14	Macao (China)	0.84 [b]	...	...	...	...	...	...
15	Malaysia	0.74	<2.00	...	0.82	0.54	14.60	0.42
16	Marshall Islands	...	...	...	...	...	3.00	...
17	Micronesia, Federated States of	0.61	...	...	...	...	0.00	...
18	Mongolia	0.62	2.20	36.10	0.73	0.41	4.20	0.87
19	Nauru	...	...	...	...	...	0.00	...
20	New Caledonia	...	...	...	...	...	...	...
21	New Zealand	0.91 [c]	...	...	0.94	0.84	33.60	0.69
22	Niue	...	...	...	...	...	...	...
23	Northern Mariana Islands	...	...	...	...	...	...	...
24	Palau	...	...	...	...	...	6.90	...
25	Papua New Guinea	0.43	...	...	...	...	0.90	0.74
26	Philippines	0.64	22.60	...	0.75	0.56	20.20	0.58
27	Pitcairn Islands	...	...	...	...	...	...	...
28	Republic of Korea	0.88	...	...	0.93	0.55	13.70	0.52
29	Samoa	...	...	...	0.76	0.43	8.20	0.40
30	Singapore	0.85	...	...	...	0.79	24.50	0.53
31	Solomon Islands	0.49	...	...	...	...	0.00	0.51
32	Tokelau	...	...	...	...	...	...	...
33	Tonga	0.68 [c]	...	...	0.77	0.36	3.10 [f]	0.57
34	Tuvalu	...	...	...	...	...	0.00	...
35	Vanuatu	...	...	...	0.69	...	3.90	0.69
36	Viet Nam	0.57	21.50	28.90	0.72	0.56	25.80	0.69
37	Wallis and Futuna	...	...	...	...	...	...	...

Table 5. Health Status Indicators

	Country/ area	Life expectancy at birth [1]				Mortality rates [1]					
		Year	Total (years)	Male (years)	Female (years)	Year	Neonatal (per 1000 live births)	Infant (per 1000 live births)	Under-five (per 1000 live births)	Maternal mortality ratio Year	(per 100 000 live births)
1	American Samoa	...	...	...	...	2007	6.20	(2006-08) 11.30	(2002) 4.90	2002	123.00
2	Australia	2009	81.60	79.30	83.90	2009	3.01	4.26	5.04	2003-05	8.40
3	Brunei Darussalam	2009	77.70	77.10	78.30	2009	5.30	7.40	8.20	2009	15.10
4	Cambodia	2008	...	60.50	64.30	2010	27.00	45.00	54.00	2008	461.00
5	China	2010	73.50	...	...	2010	8.30 [d]	(2009) 9.00	(2009) 17.20	2009	31.90
6	Cook Islands	2009 est	72.00 [a]	70.00 [a]	73.00 [a]	2009	7.10	7.10	7.10	2009	0.00
7	Fiji	2007	...	68.00	72.00	2009	9.90	15.20	23.20	2009	27.50
8	French Polynesia	2010 est	75.20	72.80	77.80	2008	3.00	(2010) 5.50	6.48	2007	22.55 [j]
9	Guam	2010 est	79.35	76.95	82.08	2008p	4.33	(2005-07) 11.70 [g]	(2005est) 10.00	2003	0.00
10	Hong Kong (China)	2010p	...	79.98	85.85	2010p	1.07 [e]	1.62 [e]	2.19 [e]	2010p	1.13 [k]
11	Japan	2009	...	79.59	86.44	2009	1.20	2.40	3.20	2009	5.00
12	Kiribati	2009 est	68.00	65.00	70.00	2010	...	52.00	61.00	2010	0.00
13	Lao People's Democratic Republic	2009 est	63.90 [b]	...	...	2009 est	(2005) 26.00	59.20 [b]	80.40 [b]	2005	405.00
14	Macao (China)	2007-10p	82.50	79.50	85.40	2010	2.50	2.90	3.50	2010	0.00
15	Malaysia	2010 est	...	71.70	76.60	2008	3.90	6.20 [h]	8.00	2008	27.30
16	Marshall Islands	2009	59.00	58.00	60.00	2010	9.00	19.00	28.00	2010	143.00
17	Micronesia, Federated States of	2010 est	69.00	68.00	70.00	2009	9.30	13.50 [i]	39.00	2009	0.00
18	Mongolia	2010	68.05	64.93	72.26	2010	9.70	19.40	24.60	2010	45.50
19	Nauru	2008	55.40	52.50	58.20	2003-07	26.80	37.90	37.90	2002	300.00
20	New Caledonia	2007	75.90	71.80	80.30	2005	2.50	(2007) 6.10	(2002) 9.06	2009	0.02
21	New Zealand	2009p	80.75	78.80	82.70	2007	2.53	4.79	6.05	2007	19.96
22	Niue	2001-06	71.60	67.00	76.00	2006	(2005) 0.00	0.00	0.00	2006	0.00
23	Northern Mariana Islands	2010 est	76.90	74.27	79.68	2009	...	1.80	...		...
24	Palau	2010	63.80	61.30	68.00	2010	4.05	12.20	12.20	2010	0.00
25	Papua New Guinea	2009 est	63.00	62.00	65.00	2006	29.10 [f]	56.70	74.70	2006	733.00
26	Philippines	2009	70.00	67.00	73.00	2008	16.00	25.00	34.00	2006	162.00
27	Pitcairn Islands		...	...	...		...	...	...		...
28	Republic of Korea	2009	80.55	76.99	83.77	2009	(2008) 2.00	(2008) 3.50 [h]	4.47	2008	12.40 [h]
29	Samoa	2006	73.20	71.50	74.20	2009	(2002) 4.20	9.00	15.00	2005-06	3.00 [l]
30	Singapore	2010	81.80 [c]	79.30 [c]	84.10 [c]	2010	(2007) 6.20	2.00 [c]	(2008p) 3.40	2009	0.00
31	Solomon Islands	2009	67.00	64.90	66.70	2009	15.00	26.00	37.00	2007	103.00
32	Tokelau		...	...	...	2010	(2009) 0.00	0.00	0.00	2005-09	0.00
33	Tonga	2009	...	70.00	72.00	2010	6.60	16.00	19.70	2010	36.40
34	Tuvalu	1997-2002	63.60	61.70	65.10	2009	(2003-07) 29.00	14.80	24.60	2003	0.00 [m]
35	Vanuatu	2009	71.00	69.00	72.00	2008	(2006) 30.00	27.00	31.00	2007	86.00
36	Viet Nam	2009	72.80	70.20	75.60	2009	...	16.00	24.10	2009	69.00
37	Wallis and Futuna	2005-08	74.30	72.70	75.90	2003 est	...	5.90	...		...

Table 6. Maternal, Child Care and Nutritional Indicators

	Country/ area	Maternal and Child Care					
		% of women in reproductive age group using modern contraceptive methods [1]		% deliveries attended by skilled health personnel [1]		% of deliveries in health facilities [1]	% deliveries at home attended by skilled health personnel [1]
		Year	(%)	Year	(%)	(%)	(%)
1	American Samoa		...	2002	100.00	99.00	1.00
2	Australia	2001	65.00 [a]	2008	...	99.10	...
3	Brunei Darussalam		...	2009	99.90	99.80	0.10
4	Cambodia	2010	35.00	2010	71.00	54.00	17.00
5	China	2006	89.60	2009	...	96.30	...
6	Cook Islands	2007	29.00 [b]	2009	100.00	99.60	0.40
7	Fiji	2009	28.90	2009	99.80	...	...
8	French Polynesia	2005	62.00 [c]	2004	100.00	99.00	1.00
9	Guam		...	2004	...	87.22	0.60
10	Hong Kong (China)		...	2010	About 100.00	About 100.00 [j]	About 0.00 [m]
11	Japan	2005 est	44.40 [d]	2009	99.95 [f]	99.77 [f]	0.18 [f]
12	Kiribati	2005	18.46	2010	98.25	81.85	16.40
13	Lao People's Democratic Republic	2005	36.60 [e]	2005	18.50	12.80 [k]	5.70 [k]
14	Macao (China)		...	2010	100.00	100.00	0.00
15	Malaysia	2009	1.14	2010	98.65	98.12	0.53
16	Marshall Islands	2010	18.00	2010	99.00	97.00	2.00
17	Micronesia, Federated States of	2009	66.00	2009	100.00 [g]	80.00	20.00
18	Mongolia	2010	53.40	2010	99.80	99.51	0.20
19	Nauru	2007	25.10	2007	97.40	...	...
20	New Caledonia	2007	37.50	2005	91.97	87.60	4.37
21	New Zealand	2002 est	72.00	2001	100.00	(2004 est) 95.30	...
22	Niue	2005	22.00	2006	100.00	100.00	0.00
23	Northern Mariana Islands	2009	8.41		...	...	...
24	Palau	2010	22.26	2010	100.00	100.00	0.00
25	Papua New Guinea	2008	35.70	2009	...	40.00	...
26	Philippines	2008	22.00	2008	62.20	44.00	18.20
27	Pitcairn Islands		...		...	...	...
28	Republic of Korea	2009	80.00	2009	100.00	99.90	0.10
29	Samoa	2009	16.50	2009	81.00	...	...
30	Singapore		...	2008p	...	99.74 [l]	...
31	Solomon Islands	2006/07	27.30	2007	86.00	85.00	1.00
32	Tokelau		...	2009	...	100.00	...
33	Tonga	2010	31.50	2010	100.00	98.00	0.40
34	Tuvalu	2007	22.40	2009	100.00	...	...
35	Vanuatu	2007	37.00	2008	80.00 [h]	...	...
36	Viet Nam	2010	67.50	2009	94.40 [i]	...	...
37	Wallis and Futuna		...		...	...	...

Maternal and Child Care							
% of women given at least 2 doses of tetanus toxoid TT2+ [1]		% of newborn babies weighing less than 2500 grams at birth [1]				One-year old children protected against neonatal tetanus through immunization of their mothers [7,8]	
Year	*%*	*Year*	*Total*	*Male*	*Female*	*Year*	*%*
	...	2006	2.85 [n]	...	...		...
	...	2008	6.10	5.60	6.70		...
2010	75.60	2009	11.20	...	...	2009	65.00 [q,9]
2009	62.20	2005	8.00 [o]	...	...	2010	84.50
	...	2009	2.40	...	...		...
2010	100.00	2009	3.90	...	...	2008	83.00 [10]
2009	28.70	2005	9.00	...	...	2009	94.00 [q,9]
	...	2004	6.20	...	...		...
2006	NR	2004	8.46 [n]	...	...		...
	...	2009	5.22 [p]	4.44 [p]	6.11 [p]		...
2007	42.90	2009	9.60	8.50	10.80		...
2010	56.30	2010	22.10	...	...		...
2010	31.00		...	...	...	2006	56.00
	...	2010	6.90	6.80	7.00		...
2010	74.90	2008	10.80	9.90	11.70	2009	87.00 [q,9]
2010	39.00	2010	13.00	12.00	15.00		...
	...	2009	11.10	...	...		...
	...	2010	4.40	4.05	4.83		... [r]
2010	100.00	2007	27.00	...	...		...
	...	2009	8.40	...	...		...
	...	2010	5.85	...	...		...
2008	100.00	2005	0.00	0.00	0.00		...
2010	NR	2009	8.90	...	...		...
2010	26.00	2010	6.90	7.80	5.90		...
2010	50.00	2009	9.40	...	...	2006	69.60
2010	28.00	2008	19.60	...	...	2008	75.60
	...		...	...	...		...
	...		...	...	...		...
	...	2004	1.20	...	...		...
	...	2007	9.30	...	...		...
2010	65.10		...	...	...	2009	85.00 [q,9]
2010	100.00	2009	0.00	0.00	0.00		...
2010	98.00	...	...	...	...		...
2010	100.00	2007	6.10	...	...	2008	100.00 [10]
2010	87.60	2007	10.20	...	...	2009	73.00 [q,9]
2010	90.20	2009	5.30	...	...	2008	84.08 [10]
2002	69.50		...	...	...		...

Table 6. Maternal, Child Care and Nutritional Indicators

	Country/ area	Maternal and Child Care				
		Proportion of infants <12 months of age with breastfeeding initiated within one hour of birth [7,8]		Proportion of infants less than six months exclusively breastfed [10]	Proportion of infants aged 6-9 months receiving breastmilk and complementary food [7]	Proportion of children 6-59 months old who had received vitamin A in the past six months [7]
		Year	*(%)*	*(%)*	*(%)*	*(%)*
1	American Samoa		...	...	...	...
2	Australia	2001	...	46.00	...	...
3	Brunei Darussalam	2003	...	14.60	...	...
4	Cambodia	2010	65.20	73.50 [7]	84.60	70.90
5	China	2000	...	48.70 (urban) 60.40 (rural) [s]	(2003) 32.00 [14]	...
6	Cook Islands		...	...	...	...
7	Fiji	2004	57.00 [11]	39.80 [11]	...	...
8	French Polynesia	2001	...	19.00	...	...
9	Guam		...	...	...	...
10	Hong Kong (China)		...	...	...	...
11	Japan	2000	...	41.00 [s]	97.90	...
12	Kiribati	1995-2003	...	80.00 [s]	...	...
13	Lao People's Democratic Republic	2006	30.00	26.40 [8]	70.00	(2000-10) 18.10 [10]
14	Macao (China)		...	...	...	...
15	Malaysia	1995-2003	...	29.00 [s]	...	...
16	Marshall Islands	2007	73.00	27.30	77.00	(2003) 23.00
17	Micronesia, Federated States of	1995-2003	...	60.00 [s]	...	(2003) 95.00 [t]
18	Mongolia	2008	81.00 [12]	79.00 [13]	82.00 [13]	(2000-10) 64.60 [8]
19	Nauru	2007	76.00	67.20	65.00	...
20	New Caledonia		...	...	...	...
21	New Zealand		...	...	...	...
22	Niue		...	...	...	...
23	Northern Mariana Islands		...	...	...	...
24	Palau	1995-2003	...	59.00 [s]	...	...
25	Papua New Guinea	2006	NA	56.00 [7]	78.00	42.00
26	Philippines	2008	53.50	34.00 [7]	57.90	75.90
27	Pitcairn Islands		...	...	...	...
28	Republic of Korea		...	(2000-10) 50.00	...	...
29	Samoa		...	(2000-10) 51.00	...	...
30	Singapore		...	...	...	...
31	Solomon Islands	2007	75.00	73.70 [k]	81.40	7.0 [k]
32	Tokelau		...	...	...	...
33	Tonga		...	...	...	...
34	Tuvalu	2007	...	34.70	40.00	...
35	Vanuatu	2007	72.00	40.10	62.00 [8]	...
36	Viet Nam	2006	57.80	16.90	68.00	53.10 [u]
37	Wallis and Futuna		...	...	...	...

Maternal and Child Care				National underweight, stunting and wasting prevalence (age 0-59 months)			
Proportion of children aged 0-59 months who had diarrhoea in the past 2 weeks and were treated with ORT [7,8]		Proportion of children aged 0-59 months who had suspected pneumonia in the past 2 weeks and were taken to an appropriate health care provider [7,8]		Year	≤2 SD weight/ age [1]	≤2 SD height/ age [15]	≤2 SD weight/ height [15]
Year	*(%)*	*Year*	*(%)*		*(%)*	*(%)*	*(%)*
	…		…		…	…	…
	…		…		…	…	…
	…		…		…	…	…
2010	34.10	2010	64.20	2010	28.00 [7]	39.50 [7]	8.90 [7]
	…		…	2000-09	4.50	(2008) 13.70 [v]	(2008) 3.10 [v]
	…		…		…	…	…
	…		…	2009	6.00	…	…
	…		…		…	…	…
	…		…		…	…	…
	…		…		…	…	…
	…		…		…	…	…
	…		…		…	…	…
2000-2010	50.50	2006	32.30	2006	37.10	47.60	7.30
	…		…		…	…	…
	…		…	2010	4.64	…	…
	…		…		…	…	…
	…		…		…	…	…
2000-2010	62.80	2000-2010	62.60	2010	(2007) 6.30	15.60 [16]	1.80 [16]
	…	2007	69.00	2007	4.80	24.00 [7]	1.00 [7]
	…		…		…	…	…
	…		…		…	…	…
	…		…	2005	0.00	…	…
	…		…		…	…	…
	…		…	2010	2.20	…	…
2006	8.00	2006	62.90	2007	28.00	(2007) 31.00 [1]	(2005) 4.40 [10]
2000-2010	58.60	2008	50.00	2008	26.20	27.90 [1]	6.10 [1]
	…		…		…	…	…
2000-2010	87.0 [10]		…		…	…	…
	…	2000-2010	87.00		…	…	…
	…		…	1995-2003	14.00	(2000-10) 4.40 [10]	(2000) 2.40 [10]
2007	71.0 [10]	2007	73.00	2007	11.80	33.00 [7]	4.00 [7]
	…		…	2010	0.00	…	…
	…		…		…	…	…
	…		…	2007	1.60	10.00	3.30
2000-2010	53.7 [10]	2000-2010	63.00	2007	19.50	25.90	5.90
2000-2010	94.70	2000-2010	82.70	2009	18.90	(2008) 30.50 [10]	(2008) 9.70 [10]
	…		…		…	…	…

Table 7. Environmental Health and Prevalence of Tobacco Use Indicators

	Country/ area	Percentage of population using:				Estimated smoking prevalence among adults [10]				Smoking prevalence among youth (student aged 13-15 years) [10]			
		Improved drinking water source [1]		Improved sanitation facility [1]									
		Year	(%)	Year	(%)	Year	Total (%)	Male (%)	Female (%)	Year of survey	Total (%)	Boys (%)	Girls (%)
1	American Samoa	2004	99.00	2004	99.00	2006	29.90	38.10	21.60	2005	16.70	18.30	15.10
2	Australia	2008	100.00	2008	100.00	2007	...	22.00	19.00		...	...	...
3	Brunei Darussalam	2008	99.90	2002	80.00	1997	...	36.10	6.40		...	...	...
4	Cambodia	2008	61.00	2008	29.00	2005	...	49.00	7.00	2003	2.50	4.60	0.20
5	China	2008	89.00	2008	55.00	2002	...	59.00	4.00	2005	1.70 [a]	2.70 [a]	0.80 [a]
6	Cook Islands		...	2008	100.00	2004	...	42.00	34.00	2008	30.00	28.20	31.50
7	Fiji		...		...	2002	...	22.00	4.00	2009	8.50	12.80	5.80
8	French Polynesia	2008	100.00	2008	98.00	1995	...	36.00	36.00		...	...	...
9	Guam	2008	100.00	2008	99.00	1999	...	37.70	26.90	2002	22.60	25.30	19.70
10	Hong Kong (China)	2010	100.00	2010	99.00	1998	...	27.10	2.90	2009	7.50	7.50	7.60
11	Japan	2008	100.00	2008	100.00	2006	...	42.00	13.00		...	...	...
12	Kiribati	2006	65.00	2006	33.00	1999	42.00	56.50	32.30	2009	19.80	26.30	13.90
13	Lao People's Democratic Republic	2008	57.00	2008	53.00	2003	...	64.00	15.00	2007	7.40 [b]	12.10 [b]	1.70 [b]
14	Macao (China)	2010	100.00	2010	100.00	1997	...	31.58	4.18	2005	10.40	11.00	9.80
15	Malaysia	2008	100.00	2008	96.00	2006	...	53.00	3.00	2009	18.20	30.90	5.30
16	Marshall Islands	2008	94.00	2008	73.00	2002	...	36.00	6.00	2009	13.30	17.00	10.60
17	Micronesia, Federated States of		...	2006	25.00	2002	...	30.00	18.00	2007	28.30	36.90	19.80
18	Mongolia	2008	76.00	2008	50.00	2006	...	46.00	6.00	2003	8.50	14.40	4.00
19	Nauru	2008	90.00	2008	50.00	2004	...	47.00	54.00		...	...	...
20	New Caledonia		...		...	1992	...	28.00	34.00		...	...	...
21	New Zealand	2011p	100.00	2011p	100.00	2007	...	22.00	20.00	2008	17.70	14.50	20.70
22	Niue	2008	100.00	2008	100.00	1980	...	58.00	17.00	2009	10.50	...	...
23	Northern Mariana Islands		...	2008	98.00		...	...	...	2004	29.10	26.60	31.50
24	Palau	2006	89.00		...	1998	...	38.00	9.00	2009	34.40	41.90	27.00
25	Papua New Guinea	2008	40.00	2008	45.00	1990	...	76.00	80.00	2007	43.80	52.10	35.80
26	Philippines	2008	91.00	2008	76.00	2009	28.30	47.70	9.00	2007	17.30	23.40	11.80
27	Pitcairn Islands		...		...		...	...	...		...	...	...
28	Republic of Korea	2008	98.00	2008	100.00	2005	...	53.00	6.00	2008	7.90	9.00	6.30
29	Samoa	2006	88.00	2008	100.00	2002	...	56.90	21.80	2007	15.20	16.00	12.70
30	Singapore	2008	100.00	2008	100.00	2007	...	36.00	6.00	2000	9.10	10.50	7.50
31	Solomon Islands	2007	84.20		...	1989	...	...	33.00	2008	24.20	24.30	23.40
32	Tokelau	2008	97.00	2008	93.00	2006	46.40	47.30	45.60		...	...	...
33	Tonga	2008	99.80	2008	96.00	2006	...	62.00	15.00		...	...	...
34	Tuvalu	2008	97.00	2008	84.00	2002	...	54.00	21.00	2007	26.60	33.20	22.10
35	Vanuatu	2009	85.20	2008	52.00	2007	26.20	46.50	10.10	2007	18.20	28.20	11.40
36	Viet Nam	2008	94.00	2008	75.00	2003	...	44.00	2.00	2007	3.30	5.90	1.20
37	Wallis and Futuna	2008	100.00	2008	96.00	1996	...	42.00	18.00		...	...	...

Table 8. Summary of 2010-2011 Emergencies in the Western Pacific Region

	Country/ area	Emergency [17] (GLIDE number [a]) Month	Casualties [17] Dead	Injured	Missing	Number of individuals affected [17]	Health facilities damaged/ destroyed/ affected [b] [17]	Estimated cost of damages (in million USD) [17]	Health priorities and impact (reported) [17]
1	Australia	**Floods** FL-2010-000259-AUS *December 2010*	12	…	…	200 000	No reported damage to health facilities		
		Floods FL-2010-000259-AUS *Dec to Feb 2010*	35	…	…	>200 000		Around US$ 7300	- Safe water supply - Increased risk of GI diseases
2	Cambodia	**Stampede** OT-2010-000256-KHM *November 2010*	347	395	…	…	No reported damage to health facilities		
3	China	**Earthquake** EQ-2010-000073-CHN *April 2010*	760	11477	243	…	No reported damage to health facilities		- Water-borne, food-borne and communicable diseases - Vaccine-preventable diseases
		Floods FL-2010-000122-CHN *May to August 2010*	1158	…	609	400 million	No reported damage to health facilities	73	- Outbreak prevention - Water safety - Mental health and psychosocial support
4	Cook Islands	**Cyclone** TC-2010-000024-COK *February 2010*	0	0	0	1498	No reported damage to health facilities	NZ$ 12M	- Shelter - Safe water and food supply - Sanitation - Vector control - Mental health and psycho-social support - Medical supplies
5	Fiji	**Cyclone** TC-2010-000054-FIJI *March 2010*	1	0	0	17 000	No exact number: Several health centers and hospitals in the Northern region suffered structural damage, power loss and communcation disruption		- Food and water safety - Adequate hygiene and sanitation - Shelter for displaced people - Increased risk of water and sanitation-related diseases
6	French Polynesia	**Cyclone** TC-2010-000018-PYF *February 2010*	1	11	…	3 400	No reported damage to health facilities	11.00 [c]	- Shelter - Safe food and water supply

Table 8. Summary of 2010-2011 Emergencies in the Western Pacific Region

Country/ area	Emergency [17] (GLIDE number [a]) *Month*	Casualties [17]			Number of individuals affected [17]	Health facilities damaged/ destroyed/ affected [b] [17]	Estimated cost of damages (in million USD) [17]	Health priorities and impact (reported) [17]
		Dead	Injured	Missing				
7 Japan	**Earthquake** EQ-2011-000028-JPN *March 2011*	15534	5685	7092	440 000	As of 6 May, 29 of 33 (88%) of designated disaster hospitals in Miyagi, Fukushima and Iwate were capable of accepting in-patients, and 29 can accept out-patients		- Radiation concerns (including environmental monitoring) - Food safety - Drinking water quality
8 Mongolia	**Dzud** CW-2010-000010-MNG *January 2010*	4 [d]	0	0		No reported damage to health facilities		- Increase in infant , child and maternal morbidity and mortality rates - Lack of adequate nutrition - Psychosocial stress - Increased risk of zoonotic, water-borne and vector-borne disease - Lack of adequate water, sanitation and hygiene
9 Lao People's Democratic Republic	**Floods and tropical cyclone** FL-2011-000077-LAO *June 2011* TC-2011-000100-LAO *July to August 2011*	30	…	…	249 954			- Safe water and food access - Medicines - Sanitation
10 New Zealand	**Earthquake** EQ-2011-000024-NZL *February 2011*	166	…	118	…			
11 Philippines	**Volcanic activity** VO-2010-000223-PHL *February 2010*	0	0	0	319			- No increase in respiratory complaints noted
	Floods FL-2010-000158-PHL *July 2010*	…	…	…	…	No reported damage to health facilities		
	Typhoon TC-2010-000205-PHL *October 2010*	3	9	…	7 951	2 - nonstructural		Communicable diseases in evacuation centers (ARI, conjunctivitis)
	Floods FL-2010-000258-PHL *December 2010*	33	8	9	1 120 685	No reported damage to health facilities		

	Country/ area	Emergency [17] (GLIDE number [a]) Month	Casualties [17] Dead	Injured	Missing	Number of individuals affected [17]	Health facilities damaged/ destroyed/ affected [b] [17]	Estimated cost of damages (in million USD) [17]	Health priorities and impact (reported) [17]
11	Philippines	**Floods** FL-2010-000258-PHL *Dec 2010 to Jan 2011*	33	8	7	1 120 685	11 barangay health stations were reported damaged in Eastern Samar, 7 from the Municipality of Dolores and one of each from Municipality of Jipapad, Taft, Maslog, and Can-avid		
		Cyclone TC-2011-000069-PHL *June 2011*	8	4	12	1 700 085			
		Floods FL-2011-000067-PHL *June 2011*	11	…	…	447 613	33 barangay health stations in Cotabato City were reported to be affectedby flooding; Assessments ongoing		- Identified needs: food, medicines, access to health services
12	Solomon Islands	**Earthquake** EQ-2010-000002-SLB *January 2010*	0	0	0	8 067	No reported damage to health facilities		- Clean food and safe water - Sanitation - Hazard analysis - Provision of health services to affected people
		Floods FL-2010-000014-SLB *January 2010*	2	1	0	16 016	No reported damage to health facilities		- Safe water source - Sanitation - Low vaccination coverage
13	Tonga	**Cyclone** TC-2010-000025-TON *February 2010*	0	0	0		No major damage sustained by health facilities		
		Cyclone TC-2011-000012-TON *January 2011*	0	0	0	…			
14	Vanuatu	**Volcanic activity** (Yassur volcano, Tanna Island) *May*	0	0	0	6 631	No reported damage to health facilities		
		Floods *June*	0	0	0		No reported damage to health facilities		- Safe water and food supply - Shelter - Cooking utensils - Mosquito nets

Table 8. Summary of 2010-2011 Emergencies in the Western Pacific Region

Country/ area	Emergency [17] (GLIDE number [a]) *Month*	Casualties [17]			Number of individuals affected [17]	Health facilities damaged/ destroyed/ affected [b] [17]	Estimated cost of damages (in million USD) [17]	Health priorities and impact (reported) [17]
		Dead	Injured	Missing				
14 Vanuatu	**Earthquake**	0	0	0		No reported damage to health facilities		None identified
	Cyclone TC-2011-000015-VUT *January 2011*	0	0	0				- Food and income shortage due to massive damage to fruit, root and cash crops - Increased complaints of diarrhoea, fever, respiratory problems and eye and skin irritation
15 Viet Nam	**Floods** FL-2010-000194-VNM *October 2010*	143	128	24	1 170 000 (278 734 houses)	No reported damage to health facilities		- Food - Shelter/ housing - Medicines - Environmental health
	Typhoon (Haima) *June 2011*	22	65	5	2 601 houses	4	52.00	- Flood - Shelter/ housing - Medicines - Water and sanitation - Food
	Typhoon (Haitang) TC-2011-000147-VNM *September 2011*	4	…	4	128 houses			- Flood - Shelter/ housing - Medicines - Water and sanitation
	Central flood FL-2011-000171-VNM *October 2011*	14	18	5	104 271 houses		21.80	- Shelter/ housing - Medicines - Water and sanitation - Food
	Flood (Mekong Delta) *October 2011*	58	2	…	91 679 houses	25	70.40	- Shelter/ housing - Medicines - Water and sanitation - Food

Table 9. Health Workforce and Infrastructure Indicators

	Country/ area	Health workforce [1]				
		Physicians			Nurses	
		Year	Number	Rate per 1000 population	Number	Rate per 1000 population
1	American Samoa	2003	49	0.78	127	2.03
2	Australia	2010	74 061 [a]	3.31 [a]	216 338 [a,m]	9.68 [a,m]
3	Brunei Darussalam	2009	445	1.10	1 432	3.53
4	Cambodia	2010	3 294	0.24	8 493	0.63
5	China	2010	1 972 840 [b]	1.47	2 048 071	1.49
6	Cook Islands	2004	22	1.08	52	2.56
7	Fiji	2008	337	0.38 [c]	1 784	2.03 [c]
8	French Polynesia	2009	565	2.13 [c]	1 111	4.18 [c]
9	Guam	2007	141 [d]	0.84 [c]	...	...
10	Hong Kong (China)	2010	12 620 [e]	1.78 [e]	40 011 [n]	5.64 [n]
11	Japan	2008	286 699	2.25	1 295 670 [o]	10.15
12	Kiribati	2010	41	0.40 [c]	330	3.19 [c]
13	Lao People's Democratic Republic	2005	1 283	0.23	5 291 [p]	0.93
14	Macao (China)	2010	1 330	2.41	1 536	2.78
15	Malaysia	2010	32 979	1.17	69 110	2.45
16	Marshall Islands	2010	32	0.59	115	2.11
17	Micronesia, Federated States of	2009	63	0.58 [c]	229	2.12 [c]
18	Mongolia	2010	7 497	2.72	9 179	3.33
19	Nauru	2010	10 [f]	1.00	(2008) 59	6.17
20	New Caledonia	2009	542	2.22 [c]	1 103	4.51 [c]
21	New Zealand	2010	(2009) 13269 [g]	3.07	48 052	10.99
22	Niue	2006p	4	2.58	13	8.39
23	Northern Mariana Islands	2008	31	0.36	158	1.82
24	Palau	2010	29	1.40	116	5.60
25	Papua New Guinea	2008	333	0.05	2 844	0.44
26	Philippines	2004	93 862	1.14	352 398	4.26
27	Pitcairn Islands		...	...	...	...
28	Republic of Korea	2010	101 569	2.07	270 393	5.53
29	Samoa	2005	50	0.27 [h]	136	0.75 [h]
30	Singapore	2010	8 819	1.72	29 340	5.78
31	Solomon Islands	2009	118	0.21	934	1.70
32	Tokelau	2010	4	2.72 [i]	12	8.16 [i]
33	Tonga	2010	58 [j]	0.56	379	3.67
34	Tuvalu	2009	12	1.08	35 [q]	3.60
35	Vanuatu	2008	26	0.11	332	1.42
36	Viet Nam	2009	56 661 [k]	0.66 [k]	75 891 [r]	0.88 [r]
37	Wallis and Futuna	2008	16 [l]	1.10 [c]	43 [s]	2.97 [c]

Table 9. Health Workforce and Infrastructure Indicators

	Country/ area	Health workforce [1]					Health infrastructure [1]		
		Midwives			Total	Density [c]	Hospital beds		
		Year	Number	Rate per 1000 population	(physicians, nurses, midwives)	(per 1000 population)	Year	Number	Rate per 1000 population [c]
1	American Samoa	2003	1	0.02	177	2.91 [w]	2003	128 [y]	2.04 [w]
2	Australia	2010	14 108 [a]	0.63 [a]	304 507	13.63	2008-09	83 944 [z]	3.82
3	Brunei Darussalam	2009	534	1.31	2411	5.94	2009	1 067 [aa]	2.63
4	Cambodia	2010	3758	0.28	15 995	1.19		...	...
5	China		...	...	... [x]	...	2008-10	5 683 583 [ab]	4.15
6	Cook Islands	2004	11	0.54	85	4.19 [w]	2005	127 [ac]	6.29
7	Fiji		...	...	... [x]		2009	1 743 [ad]	2.08 [w]
8	French Polynesia	2009	129	0.49 [c]	1805	6.79	2009	788 [ae]	2.99
9	Guam		...	...	... [x]		2007-08	172 [h,y]	0.98
10	Hong Kong (China)	2010	4595 [t]	0.65 [t]	57 226	8.10	2010	31 722 [af]	4.49
11	Japan	2008	27 789	0.22	1 610 158	12.64 [w]	2009	1743293 [ag]	13.65
12	Kiribati	2010	74	0.72 [c]	445	4.30	2010	144 [y]	1.39
13	Lao People's Democratic Republic		...	...	... [x]		2010	4 426 [y]	0.72 [w]
14	Macao (China)		...	...	... [x]		2010	1 365 [af]	2.47
15	Malaysia	2010	21 089	0.75	123 178	4.36	2010	51 369 [z]	1.82
16	Marshall Islands	2010	12	0.22	159	2.92	2010	146 [y]	2.68
17	Micronesia, Federated States of	2009	20	0.19 [c]	312	2.89	2009	348 [ah]	3.22
18	Mongolia	2010	697	0.25	17 373	6.25	2010	16 175 [ab]	5.82
19	Nauru	2008	5	0.52	... [x]	...	2010	50 [ai]	5.01
20	New Caledonia	2009	106	1.60 [c]	1751	7.13	2006	46 [aj]	0.19
21	New Zealand	2010	2903	0.66	... [x]	...	2011p	10 203 [ak]	2.33 [w]
22	Niue	2006p	2	1.29	19	12.34	2006	8 [y]	5.19
23	Northern Mariana Islands	2008	6	0.07	195	3.10		...	...
24	Palau	2010	4	0.19	149	7.26	2010	98 [ab]	4.78
25	Papua New Guinea	2008	315	0.05	3492	0.54		...	...
26	Philippines	2004	136 036	1.65	582 296	7.04	2007-10	44 296 [al]	0.50 [w]
27	Pitcairn Islands		...	...	...	...		...	...
28	Republic of Korea	2010	8614	0.17	380 576	7.79	2009	498 302 [am]	10.25 [w]
29	Samoa	2005	37	0.20 [h]	223	1.22 [w]	2005	177 [an]	0.97 [w]
30	Singapore	2010	287	0.06	38 446	10.19	2008	11 431 [ao]	3.14
31	Solomon Islands	2009	146	0.26	1198	2.18 [h]		...	...
32	Tokelau	2010	4	2.72 [i]	20	13.61 [w]	2009	18 [y]	12.24 [w]
33	Tonga	2010	21	0.20	458	4.43	2010	266 [ap]	2.57
34	Tuvalu	2008	10	1.03	... [x]	...	2001	56 [aq]	5.56
35	Vanuatu	2008	48	0.21	406	1.74	2008	393 [z]	1.69
36	Viet Nam	2009	24 998 [u]	0.29 [u]	157 550	1.83	2009	266 842 [ar]	3.10
37	Wallis and Futuna	2008	10 [v]	0.69 [c]	69	4.76	2009	59 [ai]	4.42

Table 10. Morbidity and Mortality Indicators

	Country/ area	Communicable Diseases [1]									
		Cholera			Dengue fever/ DHF			Leprosy		Malaria		
		Year	Cases	Deaths	Year	Cases	Deaths	Year	Cases	Year	Confimed cases	Deaths
1	American Samoa	2003	0	0	2009	419	...	2010	0		...	...
2	Australia	2010p	3	(2008) 0	2010	1171	0	2010	9	2010p	401 [j]	(2007) 0
3	Brunei Darussalam	2009	0	0	2010	298	2	2010	3	2010	18	0
4	Cambodia	2010	586 [a]	0	2010	12 500	38	2010	262	2010	49 356	151
5	China	2010	157	0	2010	223	0	2010	1324	2010	7 389	14
6	Cook Islands	2005	0 [b]	0	2010	0	0	2010	0 [b]	2009	0 [b]	0
7	Fiji	2009	0	...	2009	430	...	2009	2	2009	5	...
8	French Polynesia	2009	0	0	2010	250	0	2010	6	2009	1	0
9	Guam	2007	1	...	2010	3	0	2010	10	2007	1 [k]	...
10	Hong Kong (China)	2010p	9 [c]	0 [d]	2010p	83 [c]	0 [d]	2010p	2 [c]	2010p	34 [c]	0 [d]
11	Japan	2009	16	...	2009	93	0	2009	2	2009	56	1
12	Kiribati	2010	0	0	2010	20	...	2010	182		...	...
13	Lao People's Democratic Republic	2002	1 272	...	2010	22 929	46	2010	86	2010	22 800	24
14	Macao (China)	2010	0	0	2010	6	0	2010	0	2010	1	0
15	Malaysia	2010	443	0	2010	46 171	134	2010	194	2010	6 650	33
16	Marshall Islands	2010	0	0	2010	0	0	2010	98	2010	0	0
17	Micronesia, Federated States of	2009	0	0	2010	23	1	2010	117	2010	1	0
18	Mongolia	2010	0	0	2010	0	0	2010	0	2010	0	0
19	Nauru	2008	0	0	2010	0	0	2010	2	2010	0	0
20	New Caledonia		...	...	2009	8410 [h]	...	2010	8	2008	2	...
21	New Zealand	2010	2	0	2010	51 [h]	0	2010	3	2010	44	0
22	Niue	2005	0	0	2010	0	...	2010	0	2005	0	0
23	Northern Mariana Islands	2010	0	...	2010	0	0	2010	0		...	...
24	Palau	2010	0	0	2010	9	0	2010	3	2010	0	0
25	Papua New Guinea	2009	14 000	...	2007-08	28 [i]	0	2010	281	2010	93 705	616
26	Philippines	2010	33 [e]	2 [e]	2010	135 355	793	2010	2041	2010	17 008	19
27	Pitcairn Islands		...	...		...	...		...		...	...
28	Republic of Korea	2009	0	0		...	...	2010	6	2010	1 772	...
29	Samoa	2004	0	0	2008	677	1	2010	12		...	...
30	Singapore	2009	4	0	2010	5 364	6	2010	11	2009	131	2
31	Solomon Islands		...	...		...	...	2010	14	2010	40 682	13
32	Tokelau		...	...		...	...	2010	0		...	...
33	Tonga	2010	0	0	2010	30	0	2010	0		...	...
34	Tuvalu	2005	0	0	2009	0	0	2010	0		...	...
35	Vanuatu	2006	1 [f]	...	2010	...	0	2010	3	2010	7 798 [l]	1
36	Viet Nam	2010	317 [g]	0	2010	128 831	109	2010	359	2010	17 515	21
37	Wallis and Futuna		...	...		...	...	2010	NR		...	...

Table 10. Morbidity and Mortality Indicators

	Country/ area	Vaccine preventable diseases --- Number of reported cases						
		AFP 10] 2010	Congenital rubella [1] 2010	Diptheria [1] 2010	Measles [1] 2010	Measles incidence rate [10] per 1 000 000	Mumps [1] 2010	Neonatal tetanus [1] 2010
1	American Samoa	0	(2008) 0	(2008) 0	0	0.00	(2008) 0	(2008) 0
2	Australia	44	(2009p) 0	(2009p) 0	(2009p) 105	3.10	(2009p) 165	(2009p) 0
3	Brunei Darussalam	2	0	0	0	0.00	12	0
4	Cambodia	44	...	3	1156	81.80	...	19
5	China	5 285	...	0	38 159	28.40	298 932	1 057
6	Cook Islands	0	0	0	0	0.00	0	0
7	Fiji	5	0	...	0	0.00	0	0
8	French Polynesia	0	0	0	0	0.00	0	0
9	Guam	0	0	0	0	0.00	502	0
10	Hong Kong (China)	14	0 [c]	0 [c]	13 [c]	1.80	168 [c]	0 [c]
11	Japan	0	(2009) 2	(2009) 0	(2009) 739	3.60	(2009) 104568	...
12	Kiribati	0	0	0	0	0.00	0	0
13	Lao People's Democratic Republic	41	...	34	153	24.70	...	7
14	Macao (China)	0	0	0	0	0.00	81	0
15	Malaysia	124	0	3	73	2.60	...	10
16	Marshall Islands	0	0	...	0	0.00	0	1
17	Micronesia, Federated States of	0	(2009) 0	(2009) 0	(2009) 0	0.00	(2009) 17	0
18	Mongolia	19	0	0	7	2.50	524	0
19	Nauru	0	0	0	0	0.00	0	0
20	New Caledonia	1	...	0	0	0.00	...	0
21	New Zealand	7	0	0	43	9.80	14	0
22	Niue	0	0	0	0	0.00	1	0
23	Northern Mariana Islands	0	0	0	0	0.00	0	0
24	Palau	0	0	0	0	0.00	0	0
25	Papua New Guinea	17	...	0	0	0.00	...	32
26	Philippines	413	...	107	6368	68.30	...	126
27	Pitcairn Islands	...	...	...	...	...	...	...
28	Republic of Korea	70	0	0	114	2.40	6 104	0
29	Samoa	0	0	0	8	43.70	1	0
30	Singapore	4	0	0	50	9.80	452	0
31	Solomon Islands	7	0	0	0	0.00	...	0
32	Tokelau	0	0	0	0	0.00	0	0
33	Tonga	0	0	0	0	0.00	0	0
34	Tuvalu	0	0	0	0	0.00	0	0
35	Vanuatu	0	...	0	0	0.00	...	0
36	Viet Nam	304	...	6	2809	32.00	...	35
37	Wallis and Futuna	0	...	...	0	0.00	...	...

Vaccine preventable diseases --- Number of reported cases					Immunization coverage (%)			
Pertussis [1] 2010	Poliomyelitis [1] 2010	Rubella [1] 2010	Total tetanus [1] 2010	Yellow fever [10] 2010	BCG [1] 2010	DTP1 [10] 2010	DTP3 [1] 2010	HepB birth dose[10] 2010
(2008) 0	0	(2008) 0	(2008) 0	...	...	...	(2008) 94.00	...
(2009p) 29656 [e]	(2009p) 0	(2009p) 26	(2009p) 3	0	...	...	(2009) 92.10 [o]	...
1	0	1	0	...	95.40	97.50	95.40	95.80
372	0	85	...	...	94.50	93.30	91.80	56.80
1764	0	43 117	...	...	99.60	99.60	99.50	92.20
0	0	0	0	...	100.00	100.00	100.00	100.00
0	0	0	0	0	98.70	90.10	87.20	...
12	0	0	0	0	99.00	98.00	98.00	...
0	0	0	0	0	...	...	(2006) 89.00	...
(2010p) 5 [c]	(2010p) 0 [c]	(2010p) 38 [c]	(2010p) 0 [c]	0	(2009) >95.00 [m]	95.00	(2009) >95.00 [m]	95.00
(2009) 5208	(2009) 0	(2009) 148	(2009) 113	0	(2008) 99	103.60	(2009) 100	...
0	0	0	0	0	87.00	90.00	91.00	63.00
6	0	31	14	...	72.00	81.00	74.00	...
0	0	4	0	...	99.60	...	93.20	...
41	0	104	28	0	98.00	95.00	95.00	95.00
0	0	0	0	0	99.27	100.00	94.15	99.30
(2009) 0	0	(2009) 0	(2009) 0	0	70.00	90.00	85.00	80.00
0	0	11	0	0	98.50	97.90	96.10	95.20
0	0	...	0	0	100.00	100.00	100.00	100.00
3	0	...	0	0	98.00	81.00	100.00	99.00
462	0	2	6	0	...	94.80	93.40	...
0	0	0	0	0	100.00	100.00	100.00	55.00
0	0	0	0	0	13.00	94.00	80.90	100.00
0	0	0	0	0	NR [n]	99.00	69.00	100.00
4949	0	5	32	...	80.00	84.00	70.00	35.00
62	0	...	1140	...	83.00	81.00	79.00	37.00
...	...	...	...	...	...	...	...	...
18	0	21	14	0	96.00	96.00	94.00	95.00
22	0	0	0	0	91.40	96.90	87.30	91.40
8	0	158	0	0	99.30	97.80	96.80	68.30
0	0	0	0	0	84.70	84.70	78.70	62.20
0	0	0	0	0	100.00	100.00	98.00	100.00
0	0	0	0	0	99.00	99.00	99.00	99.00
0	0	0	0	...	100.00	100.00	89.30	98.80
0	0	...	0	...	90.00	95.00	93.00	63.00
81	0	2300	196	...	93.70	92.90	93.40	21.40
...	0	...	...	...	100.00	100.00	85.00	100.00

Table 10. Morbidity and Mortality Indicators

	Country/ area	Immunization coverage (%)					
		HepB3 [1] 2010	Hib3 [10] 2010	MCV1 [1] 2010	MCV2 [10] 2010	POL3 [1] 2010	VitA1 [10] 2010
1	American Samoa	(2008) 89.00	...	(2008) 86.00	...	(2008) 92.00	...
2	Australia	(2009) 91.60 [o]	91.80	94.00 [p]	...	(2009) 92.00 [o]	...
3	Brunei Darussalam	95.80	99.00	94.40	93.00	99.00	...
4	Cambodia	91.80	91.80	92.70	...	91.90	95.00
5	China	99.50	...	99.40	99.20	99.60	...
6	Cook Islands	100.00	100.00	100.00	96.00	100.00	...
7	Fiji	87.20	87.20	73.00	84.60	86.20	...
8	French Polynesia	99.00	98.00	99.00	84.00	98.00	...
9	Guam	(2006) 91.00	...	(2006) 85.00	...	(2006) 85.00 [s]	...
10	Hong Kong (China)	(2009) >95.00 [m]	...	(2009) >95.00 [m]	(2009) >95.00 [m,r]	(2009) >95.00 [m]	...
11	Japan	...	...	(2009) 93.60	(2009) 92.30	(2009) 90.40	...
12	Kiribati	91.00	91.00	89.00	89.00	95.00	...
13	Lao People's Democratic Republic	74.00	74.00	64.00	64.00	76.00	...
14	Macao (China)	88.70	...	91.40	...	93.20	...
15	Malaysia	95.00	95.00	95.00	95.00	95.00	...
16	Marshall Islands	97.13	91.60	90.24	90.24	95.24	17.00
17	Micronesia, Federated States of	88.00	70.00	80.00	75.00	85.00	...
18	Mongolia	96.10	96.10	96.90	94.90	96.50	...
19	Nauru	100.00	100.00	100.00	100.00	100.00	...
20	New Caledonia	98.00	100.00	99.00	...	100.00	...
21	New Zealand	90.20	88.60	91.27 [q]	...	93.30	...
22	Niue	100.00	100.00	100.00	100.00	100.00	...
23	Northern Mariana Islands	83.00	82.00	93.00	39.00	94.00	...
24	Palau	80.00	66.00	39.00	...	68.00	...
25	Papua New Guinea	89.00	70.00	59.00	...	70.00	...
26	Philippines	77.00	1.00	80.00	10.00	78.00	94.00
27	Pitcairn Islands	...	...	...	...	...	...
28	Republic of Korea	94.00	...	93.00	98.40	95.00	...
29	Samoa	87.30	87.30	60.60	45.10	86.30	...
30	Singapore	96.40	...	95.20	93.90	96.70	...
31	Solomon Islands	78.70	78.70	67.70	...	78.50	...
32	Tokelau	98.00	98.00	95.00	100.00	98.00	...
33	Tonga	99.00	99.00	99.00	98.00	99.00	...
34	Tuvalu	89.30	89.30	84.80	70.40	89.30	...
35	Vanuatu	90.00	...	82.00	...	90.00	...
36	Viet Nam	87.50	63.30	97.80	97.70	93.70	90.00
37	Wallis and Futuna	...	85.00	(2007) 86.00	...	84.90	...

HIV/AIDS					Lymphatic filariasis	
HIV prevalence among population aged 15-24 years 2010 [18]		Estimated HIV prevalence in adults (%) [18]	% of people with advanced HIV infection receiving ART (2009)		Reported MDA coverage among total population at risk (%) [10]	Number of MDA rounds [10]
Male	*Female*	*2010*	*Data* [19]	*Data* [1]	*2010*	*2010*
…	…	…	…	…	(2009) …	0
0.10	0.10	0.10	…	(2009 est) 55.00 [u]	… [x]	…
…	…	(2005) <0.10 [1]	…	…	…	…
0.10	0.10	0.50	94.00	(2010) 90.00	(2009) 84.60	5
…	…	0.10	…	62.40	… [x]	…
…	…	…	…	…	…	7 [aa]
0.10	0.10	0.10	30.00	…	…	8 [ab]
…	…	0.06 [1]	…	(2010) 83.00	(2011) 84.9	(2011) 10
…	…	…	…	…	… [x]	…
…	…	<0.10 [1]	…	(2010) 97.30 [v]	… [x]	…
<0.10	<0.10	<0.10	…	95.90	… [x]	…
…	…	…	…	…	77.00	7 [ac]
0.20	0.10	0.20	67.00	(2007) 100.00	69.60	2
…	…	0.05 [1]	…	…	… [x]	…
<0.10	0.10	0.50	23.00	23.00	(2008) 85.95	(2008) 5
…	…	(2009) 0.03 [1]	…	(2010) 75.00	(2006) 62.15 [y]	(2006) 5 [y]
…	…	(2009) 34.60 [1]	…	8.30	(2008) 3.10	4 [ad]
<0.10	<0.10	<0.10	8.00	(2010) 88.24	… [x]	…
…	…	…	…	…	… [x]	…
…	…	…	…	…	N.A.	0
<0.10	<0.10	0.10	…	…	… [x]	…
…	…	…	…	…	(2004) 88.05 [y]	(2004) 5 [y]
…	…	…	…	…	… [x]	…
…	…	0.15 [t,1]	…	(2010) 0.15 [t]	…	…
0.80	0.30	0.90	52.00	(2010) 0.64	…	4
<0.10	<0.10	<0.10	37.00	0.82	63.00 [z]	4-5
…	…	…	…	…	… [x]	…
<0.10	<0.10	<0.10	…	…	… [x]	…
…	…	…	…	…	(2008) 74.20	(2008) 7
<0.10	<0.10	0.10	…	…	… [x]	…
…	…	(2009) 2.40 [1]	…	…	… [x]	..
…	…	…	…	…	… [x]	…
…	…	…	…	…	(2005) 83.60 [y]	(2005) 5 [y]
…	…	…	…	…	(2008) NR	6
…	…	(2009) 0.00 [1]	…	(2007) 100.00	(2008) 97.00	8 [ac]
0.10	0.10	0.40	34.00	(2007) 35.00 [w]	(2008) 83.80	(2008) 5
…	…	…	…	…	(2007) 55.62 [y]	(2007) 6 [y]

Table 10. Morbidity and Mortality Indicators

	Country/ area	Tuberculosis			
		Estimated Prevalence rate (per 100 000 population) 2009 [1] *All forms*	Estimated Incidence rate (per 100 000 population) 2009 [10] *All forms*	Estimated Mortality rate (all cases per 100 000 population) [1] *2009*	Cure rate (smear positive cases in DOTS areas, %) [1] *2008*
1	American Samoa	6.00	2.00	0.00	...
2	Australia	8.00	6.00	0.00	80.00
3	Brunei Darussalam	72.00	60.00	1.70	87.00
4	Cambodia	693.00	442.00	71.00	95.00
5	China	138.00	96.00	12.00	94.00
6	Cook Islands	54.00	27.00	7.00	50.00
7	Fiji	26.00	19.00	2.00	90.00
8	French Polynesia	(2010) 15.78	22.00	(2010) 1.54	(2010) 100.00
9	Guam	85.00	64.00	4.00	90.00
10	Hong Kong (China)	(2010p) 72.61 [c]	82.00	(2010p) 2.65 [d]	78.52
11	Japan	14.80	21.00	1.70	48.00
12	Kiribati	288.00	351.00	12.00	96.00
13	Lao People's Democratic Republic	131.00	89.00	12.00	93.00
14	Macao (China)	(2010) 129.80	64.00	(2010) 2.40	(2009) 91.30
15	Malaysia	109.00	83.00	9.00	78.00
16	Marshall Islands	231.00	207.00	8.00	97.00
17	Micronesia, Federated States of	(2009est) 168.00	90.00	15.00	47.00
18	Mongolia	(2010) 65.26	224.00	(2010) 3.30	(2010) 84.50
19	Nauru	54.00	2.00	0.00	100.00
20	New Caledonia	33.00	24.00	1.00	82.00
21	New Zealand	10.00	8.00	0.00	73.00
22	Niue	0.00	0.00	0.00	...
23	Northern Mariana Islands	69.00	49.00	3.00	77.00
24	Palau	83.00	65.00	3.00	...
25	Papua New Guinea	337.00	250.00	26.00	64.00
26	Philippines	520.00	280.00	35.00	88.00
27	Pitcairn Islands	...	...	...	...
28	Republic of Korea	(2009est) 115.00	90.00	8.30	(2008 est) 82.00
29	Samoa	33.00	18.00	4.00	71.00
30	Singapore	43.00	36.00	2.00	81.00
31	Solomon Islands	185.00	115.00	18.00	94.00
32	Tokelau	0.00	0.00	0.00	...
33	Tonga	44.00	23.00	5.00	100.00
34	Tuvalu	194.00	155.00	7.00	78.00
35	Vanuatu	194.00	72.00	10.00	91.00
36	Viet Nam	333.00	200.00	36.00	92.00
37	Wallis and Futuna	44.00	1.00	2.00	100.00

Tuberculosis				Noncommunicable diseases	
Case detection rate of all forms cases (2009, %) [1]	TB Notification rate (per 100 000 population) 2009 [10]		Estimated HIV prevalence among TB cases (%) [10]	Cancer [1]	
All forms	*All cases*	*Smear-positive*	*2009*	*Year*	*Deaths*
290.00	6.00	0.00	…	2002	37
89.00	6.00	1.00	3.70	2009	40 988
89.00	53.00	35.00	0.90	2009	215
60.00	265.00	121.00	6.40		…
75.00	72.00	33.00	1.50	2004-05	1 885 500 [af]
37.00	10.00	5.00	…	2009	19
91.00	17.00	10.00	0.30		…
(2010) 100.00	20.00	6.00	…	2007	307
89.00	57.00	17.00	…	2003-07	720
89.00	73.00	21.00	1.00	2009	12 839 [d]
89.00	19.00	7.00	0.40	2009	344 105
81.00	284.00	148.00	53.00	2010	10
68.00	61.00	48.00	3.40		…
89.00	57.00	22.00	0.30	2010	581
76.00	63.00	36.00	11.00	2010	5 349
110.00	218.00	84.00	2.00	2010	26
150.00	134.00	55.00	…	2009	40
(2010) 74.80	168.00	68.00	0.20	2010	3 264
…	10.00	0.00	…	2008	4
89.00	22.00	6.00	…		…
89.00	7.00	2.00	1.60	2007	8 687 [ag]
…	0.00	0.00	…		…
89.00	38.00	18.00	…		…
140.00	93.00	29.00	…	2008-10	31
73.00	183.00	33.00	3.90		…
57.00	159.00	97.00	0.50	2006	43 043
…	…	…	…		…
89.00	80.00	23.00	0.60	2009	69 780
51.00	9.00	4.00	…	2006	66
89.00	32.00	12.00	4.60	2009	4 990
61.00	70.00	26.00	…		…
…	0.00	0.00	…		…
33.00	8.00	6.00	…	2010	83
120.00	181.00	81.00	…	2009	0
78.00	56.00	20.00	…	2006	58 [f]
54.00	108.00	58.00	4.20	2009	438
0.00	59.00	13.00	…		…

Table 10. Morbidity and Mortality Indicators

Country/ area	Noncommunicable diseases		Estimated road traffic death rate (per 100 000 population [aj]) [20]	Suicide rate (per 100 000 population) [1]		
	Diseases of the circulatory system [1]					
	Year	*Deaths*	*2007*	*Year*	*Male*	*Female*
1 American Samoa	2002	88	...		...	...
2 Australia	2009	46 106	(2008) 6.80 [21]	2009	14.84	2.32
3 Brunei Darussalam	2009	333	(2008) 7.28 [ah,22]	2009	0.00 [ak]	1.07 [ak]
4 Cambodia		...	(2009) 12.70 [23]		...	...
5 China		...	(2004-05) 22.81 [24]		...	...
6 Cook Islands	2009	30	45.00		...	...
7 Fiji		...	7.00		...	...
8 French Polynesia	2007	292	...	2007	17.01 [ak]	6.21 [ak]
9 Guam		...	...	2005	29.37	6.13
10 Hong Kong (China)	2009	10 596 [d]	...	2009	18.99	10.73
11 Japan	2009	329 731	5.00	2009	35.64 [ak]	13.02 [ak]
12 Kiribati	2010	8	7.40	2010	9.80	3.81
13 Lao People's Democratic Republic		...	18.30		...	...
14 Macao (China)	2010	457	...	2010	11.68	6.62
15 Malaysia	2010	11 957	(2009) 23.80 [25]	2010	8.69	1.84
16 Marshall Islands		...	1.70		...	...
17 Micronesia, Federated States of	2009	74	14.40	2009	12.90	3.72
18 Mongolia	2010	6 512	19.30	2010	28.41	5.25
19 Nauru	2008	29	9.90	2008	0.00	0.00
20 New Caledonia		...	...		...	...
21 New Zealand	2007	10 480	8.57 [ah,26]	2007	18.87 [ak]	5.62 [ak]
22 Niue		...	...		...	...
23 Northern Mariana Islands		...	...		...	...
24 Palau		...	14.80	2010	36.36	0.00
25 Papua New Guinea		...	14.20		...	...
26 Philippines	2006	138 547	20.00	2006	3.24 [ak]	0.96 [ak]
27 Pitcairn Islands		...	...		...	...
28 Republic of Korea	2009	54 257	12.80	2009	40.69 [ak]	22.64 [ak]
29 Samoa	2006	175 [ah,ai]	12.80		...	...
30 Singapore	2009	5 550	5.11 [ah,27]	2009	9.87	4.45
31 Solomon Islands		...	16.90		...	...
32 Tokelau		...	...		...	...
33 Tonga		...	7.00		...	...
34 Tuvalu		...	9.50		...	...
35 Vanuatu	2006	53 [f]	18.60		...	...
36 Viet Nam	2009	2 490	(2010) 12.80 [28]		...	...
37 Wallis and Futuna		...	...		...	...

Table 11. Risk factors for noncommunicable diseases

	Country/ area	Behavioural measures									
		Daily smokers [29]					Current drinkers [33]				
		Year	Age group	Total	Male	Female	Year	Age group	Total	Male	Female
1	American Samoa	2007	25-64	29.90 [30]	38.10 [30]	21.60 [30]	2007	25-64	63.50 [30]	72.70 [30]	41.30 [30]
2	Australia	2008	15+	17.50 [a]	18.80 [a]	16.10 [a]			...	...	...
3	Brunei Darussalam			...	...	...			...	...	...
4	Cambodia	2008	15+	26.30 [a]	48.30 [a]	4.20 [a]	2010	25-64	53.50 [c,34]	76.30 [c,34]	31.90 [c,34]
5	China	2008	15+	25.40 [a]	48.80 [a]	2.10 [a]			...	...	...
6	Cook Islands	2008	15+	32.90 [a]	37.40 [a]	28.50 [a]			...	...	...
7	Fiji	2008	15+	8.30 [a]	14.90 [a]	1.70 [a]	2002	15+	23.80 [35]	39.90 [35]	5.50 [35]
8	French Polynesia			...	...	...			...	...	...
9	Guam			...	...	...			...	...	...
10	Hong Kong (China)	2008	15+	11.80 [31]	20.50 [31]	3.60 [31]			...	...	...
11	Japan	2008	15+	24.10 [a]	37.80 [a]	10.30 [a]			...	...	...
12	Kiribati	2008	15+	67.80 [a]	73.50 [a]	62.00 [a]	2006	25-64	25.50 [36]	46.90 [36]	6.10 [36]
13	Lao People's Democratic Republic	2008	15+	23.60 [a]	44.20 [a]	2.90 [a]	2008	25-64	50.00 [c,37]	72.00 [c,37]	35.60 [c,37]
14	Macao (China)			...	...	...			...	...	...
15	Malaysia	2008	15+	20.80 [a]	39.80 [a]	1.70 [a]	2005	25-64	12.20 [38]	20.00 [38]	3.90 [38]
16	Marshall Islands	2008	15+	16.90 [a]	30.20 [a]	3.70 [a]			...		
17	Micronesia, Federated States of	2008	15+	19.00 [a]	24.90 [a]	13.20 [a]	2002	25-64	28.70 [d,39]	47.50 [d,39]	9.90 [d,39]
18	Mongolia	2008	15+	24.00 [a]	42.70 [a]	5.20 [a]	2005	15-64	66.50 [40]	75.00 [40]	57.40 [40]
19	Nauru	2008	15+	46.80 [a]	43.60 [a]	49.90 [a]	2004	15-64	46.20 [41]	60.70 [41]	32.10 [41]
20	New Caledonia			...	...	...			...	...	...
21	New Zealand	2008	15+	20.50 [a]	21.50 [a]	19.50 [a]			...	...	...
22	Niue	2002	15+	26.10 [b, 33]	37.50 [33]	14.50 [33]	2006	15+	50.00 [42]	62.70 [42]	37.40 [42]
23	Northern Mariana Islands			...	...	...			...	...	...
24	Palau	2008	15+	20.10 [a]	32.90 [a]	7.30 [a]			...	...	...
25	Papua New Guinea	2008	15+	40.50 [a]	54.80 [a]	26.30 [a]			...	...	...
26	Philippines	2008	15+	22.10 [a]	35.90 [a]	8.30 [a]			...	...	...
27	Pitcairn Islands			...	...	...			...	...	...
28	Republic of Korea	2008	15+	27.50 [a]	50.20 [a]	4.80 [a]			...	...	...
29	Samoa	2008	15+	36.50 [a]	55.30 [a]	17.70 [a]			...	...	...
30	Singapore	2008	15+	14.60 [a]	24.90 [a]	4.30 [a]			...	...	...
31	Solomon Islands	2008	15+	27.60 [a]	41.00 [a]	14.20 [a]	2006	25-64	33.50 [43]	51.50 [43]	14.90 [43]
32	Tokelau	2005	15-64	59.30 [32]	55.40 [32]	63.30 [32]	2005	15-64	94.50 [32]	97.10 [32]	90.40 [32]
33	Tonga	2008	15+	22.80 [a]	38.00 [a]	7.60 [a]	2000	15+	...	25.80	3.60
34	Tuvalu	2008	15+	33.10 [a]	49.70 [a]	16.50 [a]			...	...	...
35	Vanuatu	2008	15+	11.00 [a]	19.60 [a]	2.30 [a]			...	...	...
36	Viet Nam	2008	15+	21.10 [a]	41.30 [a]	1.00 [a]			...	...	...
37	Wallis and Futuna			...	...	...			...	...	...

Table 11. Risk factors for noncommunicable diseases

	Country/ area	Behavioural measures									
		Binge drinkers [33]					Insufficiently active [29]				
		Year	Age group	Total	Male	Female	Year	Age group	Total	Male	Female
1	American Samoa	2007	25-64	…	49.60 [30]	33.90 [30]	2007	25-64	62.20 [p,30]	58.60 [p,30]	66.00 [p,30]
2	Australia			…	…	…	2008	15+	37.90 [a]	35.90 [a]	39.90 [a]
3	Brunei Darussalam			…	…	…			…	…	…
4	Cambodia	2010	25-64	NA	45.10 [e,34]	4.60 [e,34]	2008	15+	11.20 [a]	11.40 [a]	11.10 [a]
5	China			…	…	…	2008	15+	31.00 [a]	29.70 [a]	32.30 [a]
6	Cook Islands			…			2008	15+	72.00 [a]	70.90 [a]	73.20 [a]
7	Fiji	2002	15+	77.30 [35]	79.50 [35]	58.60 [35]	2002	15+	37.40 [s,35]	24.90 [s,35]	51.90 [s,35]
8	French Polynesia			…	…	…			…	…	…
9	Guam			…	…	…			…	…	…
10	Hong Kong (China)	2009	18-64	8.40 [31]	13.80 [31]	3.80 [31]	2008	18-64	21.00 [31]	19.80 [31]	22.00 [31]
11	Japan	2003	20+	6.40	11.10	2.30	2008	15+	60.20 [a]	58.90 [a]	61.60 [a]
12	Kiribati			…	…	…	2008	15+	46.70 [a]	38.40 [a]	54.90 [a]
13	Lao People's Democratic Republic	2008	25-64	…	59.30 [37]	65.20 [37]	2008	15+	18.80 [a]	16.70 [a]	21.00 [a]
14	Macao (China)			…	…	…			…	…	…
15	Malaysia			…	…	…	2008	15+	61.40 [a]	57.30 [a]	65.60 [a]
16	Marshall Islands			…	…	…	2008	15+	49.60 [a]	43.50 [a]	55.70 [a]
17	Micronesia, Federated States of			…	…	…	2008	15+	66.30 [a]	58.20 [a]	74.40 [a]
18	Mongolia	2005	15-64	…	27.30 [40]	10.30 [40]	2008	15+	9.40 [a]	9.30 [a]	9.50 [a]
19	Nauru	2004	15-64	…	29.80 [41]	25.60 [41]	2008	15+	46.50 [a]	43.00 [a]	50.00 [a]
20	New Caledonia			…	…	…			…	…	…
21	New Zealand			…	…	…	2008	15+	47.70 [a]	45.00 [a]	50.40 [a]
22	Niue			…	…	…			…	…	…
23	Northern Mariana Islands			…	…	…			…	…	…
24	Palau			…	…	…			…	…	…
25	Papua New Guinea			…	…	…	2008	15+	19.30 [a]	17.20 [a]	21.50 [a]
26	Philippines			…	…	…	2008	15+	23.70 [a]	21.20 [a]	26.20 [a]
27	Pitcairn Islands			…	…	…			…	…	…
28	Republic of Korea			…	…	…	2005	20+	78.20 [g,33]	77.50 [g,33]	79.00 [g,33]
29	Samoa			…	…	…	2008	15+	51.10 [a]	36.80 [a]	65.40 [a]
30	Singapore			…	…	…	2007	18-69	23.60 [43]	…	…
31	Solomon Islands			…	…	…	2008	15+	43.70 [a]	38.00 [a]	49.50 [a]
32	Tokelau	2006	15-64	…	37.50 [32]	20.00 [32]	2006	15-64	41.20 [p,32]	24.20 [p,32]	55.90 [p,32]
33	Tonga			…	…	…	2008	15+	41.80 [a]	31.80 [a]	51.90 [a]
34	Tuvalu			…	…	…			…	…	…
35	Vanuatu			…	…	…			…	…	…
36	Viet Nam	2003	18+	1.00 [f]	2.30 [f]	0.00 [f]	2008	15+	15.30 [a]	14.60 [a]	15.90 [a]
37	Wallis and Futuna			…	…	…			…	…	…

Behavioural measures					Physical measures				
Low fruit and vegetable consumption (<5 servings/day) [33]					Raised blood pressure [29]				
Year	*Age group*	*Total*	*Male*	*Female*	*Year*	*Age group*	*Total*	*Male*	*Female*
2007	25-64	86.70 [30]	87.90 [30]	85.60 [30]			…	…	…
2005	12+	…	…	…	2008	25+	31.80 [a]	37.40 [a]	26.20 [a]
		…	…	…			…	…	…
2010	25-64	84.30 [34]	83.30 [34]	85.30 [34]	2008	25+	31.50 [a]	35.50 [a]	28.10 [a]
2003	10-12	66.20 [h]	67.40 [h]	65.10 [h]	2008	25+	38.60 [a]	40.80 [a]	36.3 [a]
		…	…	…	2008	25+	43.60 [a]	48.40 [a]	38.50 [a]
2002	15+	65.00	…	…	2008	25+	41.60 [a]	43.20 [a]	39.70 [a]
		…	…	…			…	…	…
		…	…	…			…	…	…
2009	18-64	…	85.20 [31]	73.80 [31]			…	…	…
		…	…	…	2008	25+	36.00 [a]	41.30 [a]	30.70 [a]
2006	25-64	99.30 [36]	99.20 [36]	99.40 [36]	2008	25+	37.40 [a]	42.20 [a]	32.80 [a]
2008	25-64	36.60 [37]	40.20 [37]	34.50 [37]	2008	25+	37.30 [a]	39.70 [a]	35.10 [a]
		…	…	…			…	…	…
2005	25-64	72.80 [i,38]	70.30 [i,38]	75.50 [i,38]	2008	25+	38.00 [a]	40.30 [a]	35.70 [a]
		…	…	…	2008	25+	36.80 [a]	40.70 [a]	33.10 [a]
2002	25-64	81.80 [d,39]	81.30 [d,39]	82.40 [d,39]	2008	25+	41.80 [a]	46.20 [a]	37.50 [a]
2005	15-64	77.70 [40]	80.90 [40]	74.20 [40]	2008	25+	47.00 [a]	51.40 [a]	42.70 [a]
2004	15-64	91.60 [41]	92.20 [41]	91.10 [41]	2008	25+	43.90 [a]	48.40 [a]	39.70 [a]
		…	…	…			…	…	…
		…	…	…	2008	25+	32.60 [a]	37.50 [a]	28.00 [a]
		…	…	…			…	…	…
		…	…	…			…	…	…
		…	…	…			…	…	…
		…	…	…	2008	25+	32.10 [a]	34.40 [a]	29.80 [a]
2007	10-18	78.20	78.10	78.20	2008	25+	37.20 [a]	40.00 [a]	34.40 [a]
		…	…	…			…	…	…
		…	…	…	2008	25+	29.80 [a]	33.50 [a]	25.80 [a]
		…	…	…	2008	25+	42.70 [a]	46.50 [a]	38.50 [a]
		…	…	…	2008	25+	34.60 [a]	38.20 [a]	30.90 [a]
2006	25-64	93.60 [43]	93.30 [43]	93.90 [43]	2008	25+	37.40 [a]	38.50 [a]	36.20 [a]
2005	15-64	92.30 [32]	93.70 [32]	91.00 [32]	2005	15-64	13.60 [32]	13.30 [32]	13.90 [32]
		…	…	…	2008	25+	41.10 [a]	44.30 [a]	37.70 [a]
		…	…	…	2001	10-70	31.00 [j,33]	…	…
		…	…	…	2008	25+	47.20 [a]	48.90 [a]	45.60 [a]
2003	18+	84.00	87.00	81.40	2008	25+	36.80 [a]	40.00 [a]	33.70 [a]
		…	…	…			…	…	…

Table 11. Risk factors for noncommunicable diseases

	Country/ area	Physical measures									
				Mean BMI [45]			Overweight [29]			Obese [29]		
		Year	Age group	Total	Male	Female	Total	Male	Female	Total	Male	Female
1	American Samoa	2007	25-64	34.90 [30]	33.70 [30]	36.20 [30]	18.90 [30]	23.50 [30]	14.20 [30]	74.60 [30]	69.30 [30]	80.20 [30]
2	Australia	2008	20+	...	27.73 [k]	27.18 [k]	61.30 [a]	66.50 [a]	56.20 [a]	25.10 [a]	25.20 [a]	24.90 [a]
3	Brunei Darussalam	2008	20+	...	24.10 [k]	22.80 [k]	...	...	...	...	...	...
4	Cambodia	2008	20+	...	21.24 [k]	21.52 [k]	12.70 [a]	11.40 [a]	13.80 [a]	2.30 [a]	1.60 [a]	2.80 [a]
5	China	2008	20+	...	22.97 [k]	22.98 [k]	25.00 [a]	25.10 [a]	24.90 [a]	5.60 [a]	4.60 [a]	6.50 [a]
6	Cook Islands	2005	15+	33.40 [I,33]	32.80 [I,33]	34.00 [I,33]	90.60 [a]	91.00 [a]	90.20 [a]	64.10 [a]	59.70 [a]	68.50 [a]
7	Fiji	2008	20+	...	26.43 [k]	29.14 [k]	66.60 [a]	60.10 [a]	72.90 [a]	31.90 [a]	21.30 [a]	42.20 [a]
8	French Polynesia			...	...	...	...	...	...	...	...	...
9	Guam			...	...	...	...	...	...	...	...	...
10	Hong Kong (China)	2009	18-64	...	...	...	38.70 [33]	49.20 [33]	29.70 [33]	...	...	...
11	Japan	2008	20+	...	23.53 [k]	22.23 [k]	22.40 [a]	28.90 [a]	15.90 [a]	4.50 [a]	5.50 [a]	3.50 [a]
12	Kiribati	2006	25-64	30.5 [36]	29.40 [36]	31.50 [36]	80.50 [a]	78.40 [a]	82.50 [a]	45.80 [a]	37.70 [a]	53.60 [a]
13	Lao People's Democratic Republic	2008	20+	...	20.88 [k]	21.88 [k]	14.80 [a]	11.60 [a]	17.80 [a]	3.00 [a]	1.70 [a]	4.10 [a]
14	Macao (China)			...	...	...	...	...	...	...	...	...
15	Malaysia	2008	20+	...	24.75 [k]	25.43 [k]	44.60 [a]	42.40 [a]	47.00 [a]	14.10 [a]	10.40 [a]	17.90 [a]
16	Marshall Islands	2008	20+	...	...	...	80.20 [a]	78.20 [a]	82.00 [a]	46.50 [a]	38.80 [a]	53.90 [a]
17	Micronesia, Federated States of	2008	20+	...	27.75 [k]	31.28 [k]	76.80 [a]	71.40 [a]	82.50 [a]	42.00 [a]	30.90 [a]	53.40 [a]
18	Mongolia	2008	20+	...	24.60 [k]	25.32 [k]	47.10 [a]	44.40 [a]	49.60 [a]	16.40 [a]	11.90 [a]	20.70 [a]
19	Nauru	2005	15-64	32.10 [33]	31.70 [33]	32.50 [33]	92.80 [a]	93.50 [a]	92.30 [a]	71.10 [a]	67.50 [a]	74.70 [a]
20	New Caledonia		...				...	...	...	...	...	...
21	New Zealand	2008	20+	...	27.91 [k]	27.57 [k]	64.10 [a]	67.80 [a]	60.60 [a]	27.00 [a]	26.20 [a]	27.70 [a]
22	Niue	2005	15+	30.30 [I,33]	28.60 [I,33]	32.10 [I,33]	...	78.50 [I,33]	85.00 [I,33]	...	36.80 [I,33]	61.00 [I,33]
23	Northern Mariana Islands			...	...	...	...	...	...	...	...	...
24	Palau			...	...	...	...	...	...	...	...	...
25	Papua New Guinea	2008	20+	...	25.10 [k]	26.00 [k]	47.80 [a]	45.40 [a]	50.30 [a]	15.90 [a]	11.80 [a]	20.10 [a]
26	Philippines	2008	20+	...	22.95 [k]	23.43 [k]	26.90 [a]	24.50 [a]	29.10 [a]	6.40 [a]	4.50 [a]	8.30 [a]
27	Pitcairn Islands			...	...	...	...	...	...	...	...	...
28	Republic of Korea	2008	20+	...	24.06 [k]	23.54 [k]	30.60 [a]	33.40 [a]	27.40 [a]	7.30 [a]	6.90 [a]	7.70 [a]
29	Samoa	2008	20+	...	30.17 [k]	33.43 [k]	85.60 [a]	82.60 [a]	88.90 [a]	55.50 [a]	45.30 [a]	66.70 [a]
30	Singapore	2008	20+	...	24.00 [k]	23.20 [k]	28.10 [a]	32.30 [a]	23.70 [a]	6.40 [a]	6.60 [a]	6.20 [a]
31	Solomon Islands	2008	20+	...	26.80 [k]	28.67 [k]	67.90 [a]	64.90 [a]	71.10 [a]	32.10 [a]	25.30 [a]	39.20 [a]
32	Tokelau	2005	25-64	32.4 [32]	31.50 [32]	33.20 [32]	86.20 [32]	82.90 [32]	89.30 [32]	63.40 [32]	58.60 [32]	67.80 [32]
33	Tonga	2008	20+	...	30.68 [k]	34.02 [k]	88.10 [a]	85.80 [a]	90.60 [a]	59.60 [a]	49.10 [a]	70.30 [a]
34	Tuvalu			...	...	...	...	...	...	...	...	...
35	Vanuatu	2008	20+	...	26.50 [k]	28.10 [k]	65.40 [a]	62.40 [a]	68.50 [a]	29.80 [a]	22.90 [a]	36.80 [a]
36	Viet Nam	2008	20+	...	20.99 [k]	21.10 [k]	10.10 [a]	9.40 [a]	10.80 [a]	1.60 [a]	1.20 [a]	2.00 [a]
37	Wallis and Futuna			...	...	...	...	...	...	...	...	...

Biochemical measures									
Raised blood cholesterol/lipids [29]					Raised blood glucose [29]				
Year	Age group	Total	Male	Female	Year	Age group	Total	Male	Female
2007	25-64	23.40 [q,30]	23.10 [q,30]	23.70 [q,30]	2007	25-64	41.10 [r,30]	45.80 [r,30]	36.40 [r,30]
2008	25+	55.20 [a]	54.80 [a]	55.30 [a]	2008	25+	8.10 [a]	9.60 [a]	6.70 [a]
		…	…	…			…	…	…
2008	25+	30.00 [a]	26.90 [a]	32.00 [a]	2008	25+	5.10 [a]	4.70 [a]	5.20 [a]
2008	25+	33.40 [a]	31.50 [a]	35.10 [a]	2008	25+	9.50 [a]	9.60 [a]	9.40 [a]
2008	25+	59.00 [a]	59.30 [a]	58.30 [a]	2008	25+	20.80 [a]	20.50 [a]	21.10 [a]
2008	25+	53.20 [a]	56.40 [a]	49.70 [a]	2008	25+	14.80 [a]	13.20 [a]	16.40 [a]
		…	…	…			…	…	…
		…	…	…			…	…	…
		…	…	…			…	…	…
2008	25+	57.10 [a]	58.20 [a]	55.70 [a]	2008	25+	5.90 [a]	7.20 [a]	4.70 [a]
2008	25+	35.50 [a]	32.60 [a]	38.20 [a]	2008	25+	24.40 [a]	23.60 [a]	24.90 [a]
		…	…	…			…	…	…
		…	…	…			…	…	…
2005	25-64	53.50 [38]	53.10 [38]	53.90 [38]	2008	25+	11.40 [a]	11.60 [a]	11.20 [a]
2008	25+	46.10 [a]	43.10 [a]	49.00 [a]	2008	25+	28.70 [a]	25.50 [a]	31.90 [a]
2008	25+	48.10 [a]	48.50 [a]	47.50 [a]	2008	25+	17.00 [a]	14.00 [a]	19.80 [a]
2008	25+	37.30 [a]	37.00 [a]	37.40 [a]	2008	25+	9.90 [a]	10.90 [a]	8.90 [a]
2008	25+	46.20 [a]	41.20 [a]	50.90 [a]	2008	25+	14.00 [a]	12.80 [a]	15.20 [a]
		…	…	…			…	…	…
2008	25+	56.20 [a]	56.80 [a]	55.40 [a]			…	…	…
		…	…	…			…	…	…
		…	…	…			…	…	…
		…	…	…			…	…	…
2008	25+	38.20 [a]	36.50 [a]	39.80 [a]	2008	25+	15.00 [a]	15.20 [a]	14.70 [a]
2008	25+	43.30 [a]	39.30 [a]	46.70 [a]	2008	25+	6.60 [a]	6.50 [a]	6.60 [a]
		…	…	…			…	…	…
2008	25+	42.50 [a]	41.70 [a]	42.70 [a]	2008	25+	6.10 [a]	6.80 [a]	5.30 [a]
2008	25+	34.60 [a]	31.40 [a]	37.80 [a]	2008	25+	22.40 [a]	21.20 [a]	23.70 [a]
2008	25+	57.50 [a]	56.30 [a]	58.50 [a]	2008	25+	6.40 [a]	7.50 [a]	5.40 [a]
2008	25+	33.20 [a]	30.10 [a]	36.50 [a]	2008	25+	17.70 [a]	17.10 [a]	18.30 [a]
2005	15-64	35.60 [m,32]	33.80 [m,32]	37.00 [m,32]	2005	15-64	33.60 [n,32]	35.20 [n,32]	32.20 [n,32]
2008	25+	49.70 [a]	53.40 [a]	45.40 [a]	2008	25+	18.20 [a]	17.00 [a]	19.30 [a]
		…	…	…	2001	10-80	9.00 [o,33]	…	…
		…	…	…	2008	25+	9.40 [a]	9.20 [a]	9.60 [a]
		…	…	…	2008	25+	7.70 [a]	7.50 [a]	7.90 [a]
		…	…	…			…	…	…

Table 12. Millennium Development Goals Indicators

	Country/ area	Goal 1: Eradicate extreme poverty and hunger		Goal 4: Reduce child mortality					
		Target 1C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger		Target 4A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate					
		Year	Prevalence of underweight children under five years of age [1]	*Year*	Under-five mortality rate [1]	Year	Infant mortality rate [1]	*Year*	Proportion of 1 year-old children immunised against measles [1]
1	American Samoa		...	2002	4.90	2006-08	11.30	2008	86.00
2	Australia		...	2009	5.04	2009	4.26	2010	94.00 [g]
3	Brunei Darussalam		...	2009	8.20	2009	7.40	2010	94.40
4	Cambodia	2010	28.00	2010	54.00	2010	45.00	2010	92.70
5	China	2000-09	4.50	2009	17.20	2009	9.00	2010	99.40
6	Cook Islands		...	2009	7.10	2009	7.10	2010	100.00
7	Fiji	2009	6.00	2009	23.20	2009	15.20	2010	73.00
8	French Polynesia		...	2008	6.48	2010	5.50	2010	99.00
9	Guam		...	2005 est	10.00	2005-07	11.70 [c]	2006	85.00
10	Hong Kong (China)		...	2010p	2.19 [a]	2010p	1.62 [a]	2009	>95.00 [h]
11	Japan		...	2009	3.20	2009	2.40	2009	93.60
12	Kiribati		...	2010	61.00	2010	52.00	2010	89.00
13	Lao People's Democratic Republic	2006	37.10	2009 est	80.40 [b]	2009 est	59.20 [b]	2010	64.00
14	Macao (China)		...	2010	3.50	2010	2.90	2010	91.40
15	Malaysia	2010	4.64	2008	8.00	2008	6.20 [d]	2010	95.00
16	Marshall Islands		...	2010	28.00	2010	19.00	2010	90.24
17	Micronesia, Federated States of		...	2009	39.00	2009	13.50 [e]	2009	86.00
18	Mongolia	2007	6.30	2010	24.60	2010	19.40	2010	96.90
19	Nauru	2007	4.80	2003-07	37.90	2003-07	37.90	2010	100.00
20	New Caledonia		...	2002	9.06	2007	6.10	2010	99.00
21	New Zealand		...	2007	6.05	2007	4.79	2010	91.27 [i]
22	Niue	2005	0.00	2006	0.00	2006	0.00	2010	100.00
23	Northern Mariana Islands		...		...	2009	1.80	2010	93.00
24	Palau	2010	2.20	2010	12.20	2010	12.20	2010	39.00
25	Papua New Guinea	2007	28.00	2006	74.70	2006	56.70	2010	59.00
26	Philippines	2008	26.20	2008	34.00	2008	25.00	2010	80.00
27	Pitcairn Islands		...		...		...		...
28	Republic of Korea		...	2009	4.47	2008	3.50 [d]	2010	93.00
29	Samoa		...	2009	15.00	2009	9.00	2010	60.60
30	Singapore	1995-2003	14.00	2008p	3.40	2010	2.00 [f]	2009	95.20
31	Solomon Islands	2007	11.80	2009	37.00	2009	26.00	2010	67.70
32	Tokelau	2010	0.00	2010	0.00	2010	0.00	2010	95.00
33	Tonga		...	2010	19.70	2010	16.00	2010	99.00
34	Tuvalu	2007	1.60	2009	24.60	2009	14.80	2010	84.80
35	Vanuatu	2007	19.50	2008	31.00	2008	27.00	2010	82.00
36	Viet Nam	2009	18.90	2009	24.10	2009	16.00	2010	97.80
37	Wallis and Futuna		...		...	2003 est	5.90	2007	86.00

Goal 5: Improve maternal health					
Target 5A: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio					
Year	Maternal mortality ratio [1]	Year	Proportion of births attended by skilled health personnel [1]	% of deliveries at home by skilled health personnel (as % of total deliveries) [1]	% of deliveries in health facilities (as % of total deliveries)[1]
2002	123.00	2002	100.00	1.00	99.00
2003-05	8.40	2008	…	…	99.10
2009	15.10	2009	99.90	0.10	99.80
2008	461.00	2010	71.00	17.00	54.00
2009	31.90	2009	…	…	96.30
2009	0.00	2009	100.00	0.40	99.60
2009	27.50	2009	99.80	…	…
2007	22.55 [j]	2004	100.00	1.00	99.00
2003	0.00	2004	…	0.60	87.22
2010p	1.13 [k]	2010	About 100.00	About 0.00 [r]	About 100.00 [s]
2009	5.00	2009	99.95 [n]	0.18 [n]	99.77 [n]
2010	0.00	2010	98.25	16.40	81.85
2005	405.00	2005	18.50	5.70 [d]	12.80 [d]
2010	0.00	2010	100.00	0.00	100.00
2008	27.30	2010	98.65	0.53	98.12
2010	143.00	2010	99.00	2.00	97.00
2009	0.00	2009	100.00 [o]	20.00	80.00
2010	45.50	2010	99.80	0.20	99.51
2002	300.00	2007	97.40	…	…
2009	0.02	2005	91.97	4.37	87.60
2007	19.96	2001	100.00	…	(2004 est) 95.30
2006	0.00	2006	100.00	0.00	100.00
	…		…	…	…
2010	0.00	2010	100.00	0.00	100.00
2006	733.00	2009	…	…	40.00
2006	162.00	2008	62.20	18.20	44.00
	…		…	…	…
2008	12.40 [d]	2009	100.00	0.10	99.90
2005-06	3.00 [l]	2009	81.00	…	…
2009	0.00	2008p	…	…	99.74 [t]
2007	103.00	2007	86.00	1.00	85.00
2005-09	0.00	2009	…	…	100.00
2010	36.40	2010	100.00	0.40	98.00
2003	0.00 [m]	2009	100.00	…	…
2007	86.00	2008	80.00 [p]	…	…
2009	69.00	2009	94.40 [q]	…	…
	…		…	…	…

Table 12. Millennium Development Goals Indicators

	Country/ area	Goal 5: Improve maternal health							
		Target 5B: Achieve, by 2015, universal access to reproductive health							
		Year	Contraceptive prevalence rate [1]	Year	Adolescent birth rate [1]	Antenatal care coverage [1] Year	At least 1 visit	At least 4 visits	Year	Unmet need for family planning [1]
1	American Samoa		...		...	2002	70.00	...		...
2	Australia	2001	65.00	2008	4.20	2008	98.30	...		...
3	Brunei Darussalam		...	2009	19.45	2009	100.00	100.00		...
4	Cambodia	2010	35.00	2005	5.20	2010	89.00	(2005) 27.00	2005	25.00
5	China	2007	89.74		...	2010	94.10	...		...
6	Cook Islands	2007	29.00 [u]		...	2005	100.00	...		...
7	Fiji	2009	28.90	2009	5.11	2005	100.00	...		...
8	French Polynesia	2005	62.00 [v]	2008	50.08	2004	100.00 [j]	(2004 est) 95.00		...
9	Guam		...		...	2001	92.05	...		...
10	Hong Kong (China)		...	2009	3.54		...	...		...
11	Japan		...	2009	5.00		...	...		...
12	Kiribati		...		...	2005	100.00	...		...
13	Lao People's Democratic Republic	2005	38.40		...	2005	28.50	...		...
14	Macao (China)		...	2010	3.00	2010	99.30 [x]	...		...
15	Malaysia	2010	0.93		...	2010	83.43	...		...
16	Marshall Islands	2010	16.00	2010	67.00	2004-07p	2.00 [y]	77.10 [y]	2009	2.36
17	Micronesia, Federated States of	2009	55.00	2009	22.00		...	...		...
18	Mongolia	2010	53.40	2010	6.00	2010	1.40	83.40		...
19	Nauru	2007	35.60		...	2007	53.50	40.20	2007	23.50
20	New Caledonia		...		...		...	...		...
21	New Zealand		...	2010p	28.80	2005	100.00	...		...
22	Niue	2001	22.60		...	2005	10.00	...		...
23	Northern Mariana Islands				...	2007	92.00	...		...
24	Palau	2010	22.26	2010	27.00	2010	90.30	81.00		...
25	Papua New Guinea	2006	32.00 [d]	2006	12.90	2008	60.00	28.76		...
26	Philippines	2008	34.00	2008	54.00 [d]	2008	95.80	77.80	2008	22.00
27	Pitcairn Islands		...		...		...	...		...
28	Republic of Korea	2009	80.00		...	2009	100.00	97.40		...
29	Samoa	2009	17.80	2009	44.00	2009	93.00	58.40	2009	46.00
30	Singapore		...		...	2006	100.00	...		...
31	Solomon Islands	2007	34.60	2007	7.00	2009	90.60	65.00	2007	11.10
32	Tokelau		...	2009	3.00		...	...		...
33	Tonga	2010	31.50		...	2010	97.90	...		...
34	Tuvalu	2007est	30.50	2007	8.00	2007	77.20	67.30	2007	24.20
35	Vanuatu	2007	38.40 [d]	2009	64.00 [w]	2007	98.10	...		...
36	Viet Nam	2010	78.00		...	2009	93.70	...	2007 est	4.80
37	Wallis and Futuna		...		...		...	...		...

Goal 6: Combat HIV/AIDS, malaria and other diseases							
Target 6A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS					Target 6B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it		
HIV prevalence among population aged 15-24 years 2010 [18]			Estimated HIV prevalence in adults [18]		% of people with advanced HIV infection receiving (ART)		
Year	*Male*	*Female*	*Year*	*Data*	**Year**	*Data* **[19]**	*Data* **[1]**
	…	…		…		…	…
2009	0.10	0.10	2010	0.10	2009est	…	55.00 [aa]
	…	…	2005	<0.10 [1]		…	…
	0.10	0.10	2010	0.50	2010	94.00	90.00
	…	…	2010	0.10	2009	…	62.40
	…	…		…		…	…
	0.10	0.10	2010	0.10	2009	30.00	…
	…	…	2010	0.06 [1]	2010	…	83.00
	…	…		…		…	…
	…	…	2010	<0.01 [1]	2010	…	97.30 [ab]
2009	<0.10	<0.10	2010	<0.10	2009	…	95.90
	…	…		…		…	…
	0.20	0.10	2010	0.20	2009	67.00	(2007) 100.00
	…	…	2009	0.05 [1]		…	…
2009	<0.10	0.10	2010	0.50	2009	23.00	23.00
	…	…	2010	0.03 [1]	2009	…	75.00
	…	…	2009	34.60 [1]	2009	…	8.30
	<0.10	<0.10	2010	<0.10	2009	8.00	88.24
	…	…		…		…	…
	…	…		…		…	…
	<0.10	<0.10	2010	0.10		…	…
	…	…		…		…	…
	…	…		…		…	…
	…	…	2010	0.15 [z,1]	2009	…	0.15 [z]
	0.80	0.30	2010	0.90	2009	52.00	0.64
2009	<0.10	<0.10	2010	<0.10	2009	37.00	0.82
	…	…		…		…	…
	<0.10	<0.10	2010	<0.10		…	…
	…	…		…		…	…
	<0.10	<0.10	2010	0.10		…	…
	…	…	2009	2.40 [1]		…	…
	…	…		…		…	…
	…	…		…		…	…
	…	…		…		…	…
	…	…	2009	0.00 [1]	2009	…	(2007) 100.00
2009	0.10	0.10	2010	0.40	2009	34.00	(2007) 35.00 [ac]
	…	…		…		…	…

Table 12. Millennium Development Goals Indicators

	Country/ area	Goal 6: Combat HIV/AIDS, malaria and other diseases				
		Target 6C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases				
		Year	Incidence rate of confirmed malaria cases per 100 000 population [1]	Malaria death rate per 100 000 population [1]	Proportion of children under 5 sleeping under insecticide-treated bednets [1]	Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs [1]
1	American Samoa		…	…	…	…
2	Australia	2010p	1.80	NR [ag]	NR [ag]	NR [ag]
3	Brunei Darussalam	2008	…	0.00	…	…
4	Cambodia	2010	324.20	0.99	82.00	0.33
5	China	2010	0.38	0.01 [ah]	…	(2009) 100.00
6	Cook Islands	2007	2.00	0.00	…	…
7	Fiji		…	…	…	…
8	French Polynesia	2010	0.00	0.00	(2009) NR	(2009) NR
9	Guam		…	…	…	…
10	Hong Kong (China)	2010p	0.48 [ad,ae]	0.00 [k]	…	…
11	Japan		…	…	…	…
12	Kiribati		…	…	…	…
13	Lao People's Democratic Republic	2010	369.35	0.39	81.20	87.00
14	Macao (China)	2010	0.00	0.00	…	…
15	Malaysia	2010	23.82	0.12	…	…
16	Marshall Islands		…	…	…	…
17	Micronesia, Federated States of		…	…	…	…
18	Mongolia		…	…	…	…
19	Nauru		…	…	…	…
20	New Caledonia	2006	0.00	0.00	0.00	0.00
21	New Zealand	2010	1.01 [af]	0.00 [af]	…	…
22	Niue		…	…	…	…
23	Northern Mariana Islands		…	…	…	…
24	Palau	2010	NR	NR	NR	NR
25	Papua New Guinea	2009	1396.91	9.18	(2008-09) 32.50	(2008-09) 38.80
26	Philippines	2008	18.29 [d]	0.02 [d]	(2010) 97.00	(2010) 99.00
27	Pitcairn Islands		…	…	…	…
28	Republic of Korea	2010	3.64	…	…	…
29	Samoa		…	…	…	…
30	Singapore	2010	2.50	(2009) 0.04	…	…
31	Solomon Islands	2010	7 661.39	2.45	…	…
32	Tokelau		…	…	…	…
33	Tonga		…	…	…	…
34	Tuvalu		…	…	…	…
35	Vanuatu	2010	3209.00	0.00	(2007) 56.00	…
36	Viet Nam	2010	19.28	0.02	63.00	…
37	Wallis and Futuna		…	…	…	…

Goal 6: Combat HIV/AIDS, malaria and other diseases							
Target 6C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases							
Year	TB incidence rate per 100 000 [10]	Year	TB prevalence rate per 100 000 [1]	Year	TB death rate per 100 000 [1]	Proportion of TB cases detected under directly observed treatment short course (DOTS) (2009) [1]	Proportion of TB cases cured under directly observed treatment short course (DOTS) (2008) [1]
2009	2.00	2009	6.00	2009	0.00	290.00	...
2009	6.00	2009	8.00	2009	0.00	89.00	80.00
2009	60.00	2009	72.00	2009	1.70	89.00	87.00
2009	442.00	2009	693.00	2009	71.00	60.00	95.00
2009	96.00	2009	138.00	2009	12.00	75.00	94.00
2009	27.00	2009	54.00	2009	4.00	37.00	50.00
2009	19.00	2009	26.00	2009	2.00	91.00	90.00
2009	22.00	2009	(2010) 15.78	2009	(2010) 1.54	(2010) 100.00	(2010) 100.00
2009	64.00	2009	85.00	2009	4.00	89.00	90.00
2009	82.00	2009	(2010p) 72.61 [ad]	2009	(2010p) 2.65 [k]	89.00	78.52
2009	21.00	2009	14.80	2009	1.70	89.00	48.00
2009	351.00	2009	288.00	2009	12.00	81.00	96.00
2009	89.00	2009	131.00	2009	12.00	68.00	93.00
2009	64.00	2009	(2010) 123.80	2009	(2010) 2.40	89.00	(2009) 91.30
2009	83.00	2009	109.00	2009	9.00	76.00	78.00
2009	207.00	2009	231.00	2009	8.00	110.00	97.00
2009	90.00	2009	(2009est) 168.00	2009	15.00	150.00	47.00
2009	224.00	2009	(2010) 65.26	2009	(2010) 3.30	(2010) 74.80	(2010) 84.50
2009	2.00	2009	54.00	2009	0.00	...	100.00
2009	24.00	2009	33.00	2009	1.00	89.00	82.00
2009	8.00	2009	10.00	2009	0.00	89.00	73.00
	0.00	2009	0.00	2009	0.00	...	...
2009	49.00	2009	69.00	2009	3.00	89.00	77.00
2009	65.00	2009	83.00	2009	3.00	140.00	...
2009	250.00	2009	337.00	2009	26.00	73.00	64.00
2009	280.00	2009	520.00	2009	35.00	57.00	88.00
	...		...	2009	...	...	...
2009	90.00	2009	(2009est) 115.00	2009	8.30	89.00	(2008 est) 82.00
2009	18.00	2009	33.00	2009	4.00	51.00	71.00
2009	36.00	2009	43.00	2009	2.00	89.00	81.00
2009	115.00	2009	185.00	2009	18.00	61.00	94.00
	0.00		0.00	2009	0.00	...	...
2009	23.00	2009	44.00	2009	5.00	33.00	100.00
2009	155.00	2009	194.00	2009	7.00	120.00	78.00
2009	72.00	2009	194.00	2009	10.00	78.00	91.00
2009	200.00	2009	333.00	2009	36.00	54.00	92.00
2009	1.00	2009	44.00	2009	2.00	0.00	100.00

Table 12. Millennium Development Goals Indicators

	Country/ area	Goal 7: Ensure environmental sustainability						Goal 8. Develop a global partnership for development	
		Target 7C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation						Target 8E: In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	
		Proportion of population using an improved drinking water source [1]			Proportion of population using an improved sanitation facility [1]			Year	Proportion of population with access to affordable essential drugs on a sustainable basis [1]
		Year	Urban	Rural	Year	Urban	Rural		
1	American Samoa	2004	99.00	99.00	2004	99.00	99.00		...
2	Australia	2008	100.00	100.00	2008	100.00	100.00		...
3	Brunei Darussalam	...	...	...		...	...	2008	100.00
4	Cambodia	2008	81.00	56.00	2008	67.00	18.00		...
5	China	2008	98.00	82.00	2008	58.00	52.00		...
6	Cook Islands	2008	98.00	...	2008	100.00	100.00	2009	100.00
7	Fiji	2008	43.00	51.00	2008	87.00	55.00		...
8	French Polynesia	2008	100.00	100.00	2008	99.00	97.00	2007	99.97
9	Guam	2008	100.00	100.00	2008	99.00	98.00		...
10	Hong Kong (China)		...	...		...	...		...
11	Japan	2008	100.00	100.00	2008	100.00	100.00		...
12	Kiribati	2006	77.00	53.00	2006	46.00	20.00		...
13	Lao People's Democratic Republic	2008	72.00	51.00	2008	86.00	38.00		...
14	Macao (China)		...	...		...	...		...
15	Malaysia	2008	100.00	99.00	2008	96.00	95.00		...
16	Marshall Islands	2008	92.00	99.00	2008	83.00	53.00		...
17	Micronesia, Federated States of	2008	95.00	...	2006	61.00	14.00		...
18	Mongolia	2008	97.00	49.00	2008	64.00	32.00	2009	80.00
19	Nauru	2008	90.00	...	2008	50.00	...		...
20	New Caledonia		...	...		...	...		...
21	New Zealand	2010p	100.00	100.00	2010p	100.00	100.00	2010	100.00 [ai]
22	Niue	2008	100.00	100.00	2008	100.00	100.00		...
23	Northern Mariana Islands	2008	...	96.00	2008	98.00	97.00		...
24	Palau	2006	79.00	94.00	2008	96.00	...		...
25	Papua New Guinea	2008	87.00	33.00	2008	71.00	41.00	2008	50.00
26	Philippines	2008	93.00	87.00	2008	80.00	69.00		...
27	Pitcairn Islands			...		...			...
28	Republic of Korea	2008	100.00	88.00	2008	100.00	100.00		...
29	Samoa	2006	90.00	87.00	2008	100.00	100.00		...
30	Singapore		...	...		...	...		...
31	Solomon Islands	2007	94.00	82.60	2008	98.00	...		...
32	Tokelau	2008	NA	97.00	2008	NA	93.00	2009	100.00
33	Tonga	2008	100.00	100.00	2008	98.00	96.00	2008	>95.00
34	Tuvalu	2008	98.00	97.00	2008	88.00	81.00	2008	100.00
35	Vanuatu	2008	96.00	79.00	2008	66.00	48.00		...
36	Viet Nam	2008	99.00	92.00	2008	94.00	67.00		...
37	Wallis and Futuna	2008	NA	96.00		...	...		...

Notes

Table 1. Demographic indicators

a Estimated figure includes Other Territories comprising Jervis Bay Territory, Christmas Island and the Cocos (keeling) Islands.
b Estimated population at June Quarter.
c Estimated population as of 1 July 2010.
d Mid-year projected population using 2000 Census percentages.
e Revised estimates as of 1 October 2010.
f Results from the Population and Housing Census 2005.
g Refers to Macao population as of 31st December 2010.
h Estimated mid-year population.
i Figure refers to the estimated resident population for the mean year ended December 2010. The estimated resident population is based on the census usually resident population count, with adjustments for residents missed or counted more than once by the census (net census undercount), and for residents temporarily overseas on census night.
j Figure applies or refers to resident population comprising of Singapore citizens and permanent residents.
k Figure excludes inland waters and oceanic areas.
l Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific using data in columns 2 and 3 of this table.
m Average using estimated resident mean populations for year ended December.
n Revised data.
o Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
p Figure refers to 0-14 years.
q The figure is compiled based on registered deaths and/or registered births.
r Per 1000 midyear population.
s The figure includes unknown sex.
t Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific using data in columns 10-12 of this table.
u Sum of age specific fertility rates between 11 and 49.

Table 2. Socioeconomic indicators

a Figure should be interpreted with caution as it refers to estimates for 2005 from UNESCO Institute for Statistics (2003), based on outdated census or survey information.
b Figure refers to French as official language.
c The figure refers to the percentage of population aged 15 and above with primary or above education attainment.
d Data derived from the Employment Survey of Statistics and Census Service, Macao SAR, referring to land-based non-institutionalized population.
e Figure refers to the proportion of the NZ population aged 16-65 years old above ALL (Adult Literacy and Life Skills Survey 2006) “document literacy” level 1.
f Figure refers to 15-24 years old.
g Figure refers to literacy rate in Samoan language of person aged 15-24 years.
h Figure applies to residents aged 15 years and over.
i Figure refers to women aged 15-49 years old at the time of the DHS survey.
j Figure applies to aged 19 years and above.
k Revised figure refers to current prices based on Purchasing Power Parities (PPP) from <http://stats.oecd.org/Index.aspx?datasetcode=SNA_TABLE4> (accessed 31st March 2011).
l Current market prices 2009.
m Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific.
n Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific using 2009 exchange rate=FJD 1.89 per USD.
o Computed by IER Unit of the WHO Regional Office for the Western Pacific using the exchange rate of AUD 1.28 = US$1 from NHA.
p Totals may not tally due to some reported cases/ deaths without gender breakdown.

Notes

q Figure converted to USD using 2009 exchange rate (I USD=Php 47.68) from WHO NHA, and projected population for 2009 (92 226 600) from NSO.

r Computed using GDP at current market prices for 2009 and converted using exchange rate of 2.73 Tala per USD (from 2009 National Health Accounts).

s Figure refers to per capita GNP at current market prices (US$).

t Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific Global Age-Specific Literacy Projections model, April 2009.

u The figure is compiled based on the summation of public health expenditure and private health expenditure in the financial year 2006/07 per mid-2006 population.

v Converted to USD using average UN exchange rates for 2009.

w The figure is compiled based on the summation of public health expenditure and private health expenditure in the financial year 2006/07 as percentage of GDP in the FY 2006/07.

x Figure refers to percentage total expenditure on public health as to total government expenditure.

y The figure refers to public health expenditure as percentage of overall public expenditure.

Table 3. Health and human rights instruments

a Ratification includes ratification, accession or succession

b Effective 1 July 1997 and 20 December 1999 respectively, Hong Kong and Macau became special administrative regions of China. Previously, Hong Kong have been administered by the United Kingdom of Great Britain and Northern Ireland (which had ratified CESCR on 19 May 1976), and Macau had been administered by Portugal (which had ratified CESCR on 30 July 1978). In official notifications to the Secretary General dated 20 June 1997 and 2 December 1999, respectively, the People's Republic of China advised that the CESCR would continue to be applicable to the territories of Hong Kong and Macau.

c Refers to Third Report of the Hong Kong Special Administrative Region of the People's Republic of China under the International Covenant on Economic, Social and Cultural Rights; and, Second Report of the People's Republic of China in relation to its Macao Special Administrative Region under Articles 16 and 17 of the Covenant.

Table 4. Poverty- and gender-related development indicators

a Refer to Technical Note 1 for details on how the HDI is calculated, The Human Development Report 2010 - 20th Anniversary Edition The Real Wealth of Nations: Pathways to Human Development at [http://hdr.undp.org/en/reports/global/hdr2010/chapters/].

b According to methodology of the Human Development Report 2010

c Estimate

d Not all indicators were available for all countries; caution should thus be used in cross-country comparisons. Where data are missing, indicator weights are adjusted to total 100 percent. For details on countries missing data, see Alkire and Santos (2010).

e Figures calculated based on various data with reference years 2007 and 2009.

f No woman candidate was elected in the 2008 elections; however, one woman was appointed to the cabinet and cabinet ministers also sit in parliament.

g Estimates are based on data for the most recent year available between 1996 and 2007. Following the methodology implemented in the calculation of the GDI, the income component of the GEM has been scaled downward for countries whose income exceeds the maximum goalpost GDP per capita of the GDI, the income component of the GEM has been scaled downward for countries whose income exceeds the maximum goalpost GDP per capita

Table 5. Health status indicators

a Figures were estimated using complete life table method - health stats.

b Results from the Population and Housing Census 2005.

c Figure applies or refers to resident population comprising of Singapore citizens and permanent residents.

d Figure refers to Surveillance Region (per 1000 live births).

e The figure is compiled based on registered deaths and/or registered births and includes unknown sex.

f Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific.

g Estimate

h Revised data.

Notes

i Hospital-reported infant deaths.
j Figure refers to 1 maternal death out of 4434 births.
k The figure is compiled based on registered deaths and/or registered births.
l Figure refers to hospital reported MMR.
m There is only one maternal death in the last 5 years.

Table 6. Maternal, childcare and nutritional indicators

a Percentage of women aged 18-49 (or their partners) reporting using contraceptive methods (including hysterectomy, tubal ligation and partner vasectomy)
b Figure refers to percentage of women of child-bearing ages (15-44 years old) who are current users of any type of family planning contraceptive.
c Figure refers to women aged 15-39 years old.
d Figure refers to woman married or in union
e Figure refers to married women
f Figure refers to the percentage of live births (except fetal deaths).
g Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific.
h Data included for indicative purposes only, not considered reliable.
i Figure applies to public health facilities.
j Figure refers to cases known to public and private hospitals.
k Revised data.
l Figure refers to livebirths.
m Nearly all newborns were delivered in health facilities.
n Figure refers to birthweight less than 2501 grams
o Among 40% of the infants who were weighed at birth.
p The figure excludes those with unknown birthweight.
q Data refers to neonates protected at birth against neonatal tetanus
r Neonatal tetanus eliminated.
s Figure applies to infants less than four months
t Identifies countries that have achieved a second round of Vitamin A coverage≥70%.
u Figure includes only children less than 3 years old.
v Figure applies to national rural

Table 7. Environmental health and prevalence of tobacco use indicators

a Data applies to China Shanghai only
b Data applies to Luang Prabang province, Lao People's Democratic Republic.

Table 8. Summary of 2010-2011 Emergencies in the Western Pacific Region

a Global Identifier Number (GLIDE) is based in http://www.glidenumber.net/glide/public/about.jsp
b Blank entries mean that there were no reports on damages to health facilities/ hospitals
c Figure applies to Tubuai alone
d Figure refers to maternal and infant deaths

Table 9. Health Workforce and Infrastructure Indicators

a These data are subject to sampling error and may not directly correspond to other Australian labour force data. Figures here are based on an average of four quarters.
b Licensed doctors.
c Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific.
d Figure refers to physicians in Guam Memorial Hospital and includes licensed military physicians working on part-time basis.
e Figure refers to the number of doctors/dentists, regardless of whether they are actually working in the profession or not, with full registration on the local and overseas lists and are assumed all to be in urban area.

Notes

f	Figure includes one non-practicing doctor.
g	Figure based on survey data of which 147 physicians, 1870 nurses and 292 midwives did not specify their employer type.
h	Revised data.
i	Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific using 2006 population as denominator.
j	Figure refers to government doctors.
k	Figure refers to public physicians.
l	Figure refers to physicians and specialists.
m	Figure refers to registered nurses.
n	Figure refers to the number of registered nurses and enrolled nurses, regardless of whether they are actually working in the profession or not, assumed all to be in urban area.
o	Figure includes nurses, public nurses and assistant nurses.
p	Includes medical assistants.
q	Figure refers to bachelor and diploma graduate nurses.
r	Figure refers to public nurses.
s	Figure includes 1 anaesthesiology nurse and excludes unauthorized nurses.
t	The number of healthcare professionals regardless of whether they are actually working in the profession or not, and are assumed all to be in urban area.
u	Figure refers to public midwives.
v	Figure excludes 1 unathorized midwife.
w	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the western Pacific using available population data nearest the reference year needed.
x	Incomplete data.
y	Figure refers to beds in public general hospitals as classified in the health databank.
z	Figure refers to beds in public general, specialized, and private hospitals as classified in the health databank.
aa	Figure refers to beds in public general, district/first-level referral, and private hospitals as classified in the health databank.
ab	Figure refers to beds in public and private health facilities as classified in the health databank.
ac	Figure refers to beds in public general, specialized, and district/first-level referral hospitals as classified in the health databank.
ad	Figure refers to beds in public specialized and district hospitals as classified in the health databank.
ae	Figure refers to public general and district/first level referral, and private hospitals as classified in the health databank.
af	Figure refers to beds in public general hospital and primary health care centres, and private hospitals as classified in the health databank.
ag	Figure refers to public health facilities (hospitals and clinics) and private hospitals and outpatient clinics as classified in the health databank.
ah	Figure refers to beds in public general and private hospitals as classified in the health databank.
ai	Figure refers to beds in public district/first-level referral and private hospitals as classified in the health databank.
aj	Figure refers to beds in public general, specialized and district/first-level referral hospitals, and private hospitals as classified in the health databank.
ak	Figure refers to beds in public district/first-level referral as classified in the health databank. Not included are the 184 beds in 2005 in specialized hospitals.
al	Figure refers to beds in public general, specialized and private hospitals as classified in the health databank. Figure is known to be understated.
am	Figure refers to beds in public general hospitals, primary health care centers and private outpatient clinics as classified in the health databank.
an	Figure refers to beds in private hospitals as classified in the health databank.
ao	Figure refers to beds in public general and specialized hospitals, and private hospitals and outpatient clinics as classified in the health databank.
ap	Figure refers to beds in public general hospitals as classified in the health databank; includes 157 beds in Tupua Tamasese Meaole Hospital, and 20 beds in Maliettoa Tanumafili II Hospital. Figure does not include the 55 (2004) beds in the district/first-level referral hospitals and the 21 (2004) beds in the private hospitals.
aq	Figure refers to beds in public general and district/first-level referral hospitals as classified in the health databank.
ar	Figure refers to beds in public health facilities and private hospitals as classified in the health databank.

Notes

Table 10. Morbidity and Mortality Indicators

a Based on data reported by Ministry of Health as part of their outbreak report.

b Figure refers to registered positive cases.

c The figure refers to the cases reported to the Department of Health for the listed Statutory Notifiable Infectious Diseases.

d The figure is compiled based on registered deaths and/or registered births.

e Suspected cases.

f Figure refers to hospital data only.

g Data includes 301 cases are Vietnamese and 16 Cambodians.

h Totals may not tally due to some reported cases with no gender breakdown.

i Laboratory confirmed.

j Not endemic, absence of local transmission.

k Disease contracted "off island".

l Data is not reflective of actual case numbers as laboratory confirmation is limited.

m Immunization coverage rates, an official estimate mainly based on the latest survey results of the immunization coverage survey, refer to the percentages of local live births in the year who have received the vaccinations.

n This is not part of the routine immunization.

o At 12-15 months.

p At 24-27 months (age calculated at 31 December 2010).

q Figure refers to proportion of 2 -year old children immunised for measles in the period 1 January 2010 to 31 December 2010 (aged 2 as at 1 January 2011).

r Under the Hong Kong Childhood Immunisation Programme, the second dose of measles vaccine is given as measles, mumps and rubella vaccine at Primary 1.

s Given as inactivated polio vaccine (IPV).

t Total of 3 cases.

u The estimate is for all people living with diagnosed HIV infection rather than for people with advanced HIV infection.

v Revised figure only reflects those attending Department of Health's specialist clinic.

w Based on country reports as of end of December 2007.

x Non-endemic for lymphatic filariasis.

y Revised reference year.

z Incomplete data pending receipt of reports from other provinces.

aa Figure refers to 7th round. Coverage is not nationwide.

ab Figure refers to 8th round. Coverage is not nationwide.

ac Figure refers to 6th and 7th rounds. Coverage is not nationwide.

ad Figure refers to 4th round. Coverage is not nationwide.

ae Figure refers to 6th to 8th rounds for one island only.

af The number of death is calculated according to the rates but not reported data.

ag Includes all cancers coded to ICD-10-AM C00-C96, D45-D47.

ah Computed by Information, Evidence and Research Unit of the WHO Regional Office for the Western Pacific.

ai Figure refers to deaths due to heart problems (80), diabetes/hypertension (46) and stroke/tuaula (51).

aj Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat (2007). World population Prospects: The 2006 Revision, Highlights. New York: United Nations.

ak Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific using available population nearest to reference year.

Notes

Table 11. Risk factors for noncommunicable diseases

a Age-standardized estimates

b Figure refers to current users of any tobacco product on >=1 occasion on the 30 days preceding the survey

c Figure refers to those who drank alcohol in the past 30 days

d Figure applies to subnational data (Pohnpei)

e Figure refers to men who had 5 or more/ women who had 4 or more drinks on any day in the past 30 days

f Figure refers to heavy drinker which is defined as drinking alcohol amounting to ≥20g/day for females and ≥40g/day for males.

g Figure refers to moderate intensity.

h Figure refers to subnational data from urban area

i Figure refers to inadequate vegetables and fruits intake.

j Figure refers to subnational data and excludes group with SBP=140mmHg

k Crude adjusted estimates

l Estimated figure

m Figure refers to raised blood cholesterol ≥ 5.2 mmol/L or ≥ 200 mg/dL

n Figure refers to raised fasting blood glucose ≥ 6.1 mmol/L or ≥ 126 mg/dL (plasma venous value)

o Figure refers to population group having results of oral glucose tolerance test with blood value≥11.0 mmol/l.

p Those having a low level of physical activity with less than 600 MET minutes per week of total physical activity.

q Those with total blood cholesterol ≥ 200mg/dL (5.15mmol/L)

r Those with fasting blood glucose ≥ 110mg/dL (6.1 mmol/L)

s Those with nil to low work activity

Table 12. Millennium Development Goals Indicators

a Figure is compiled based on registered deaths and/or registered births and includes unknown sex

b Estimated figures are results from Population and Housing Census 2005

c Estimate

d Revised data

e Hospital-reported infant deaths

f Figure applies or refers to resident population comprising of Singapore citizens and permanent residents

g At 24-27 months (age calculated at 31 December 2010)

h Immunization coverage rates, an official estimate mainly based on the latest survey results of the immunization coverage survey, refer to the percentages of local live births in the year who have received the vaccinations

i Figure refers to proportion of 2-year old childrenimmunised for measles in the period 1 January 2010 to 31 December 2010 (aged 2 as at 1 January 2011)

j Figure refers to 1 maternal death out of 4434 births

k The figure is compiled based on registered deaths and/or registered births

l Figure refers to hospital reported MMR

m There is only one maternal death in the last 5 years

n Figure refers to the percentage of live births (except fetal deaths)

o Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific

p Data included for indicative purposes only, not considered reliable

q Figure applies to public health facilities

r Nearly all newborns were delivered in health facilities

s Figure refers to cases known to public and private hospitals

t Figure refers to livebirths

u Figure refers to women currently practicing any type of family planning contraceptives

v Figure refers to women aged 15-39 years old

Notes

w	Provisional results from the 2009 Census and Population and housing
x	Figure refers to services provided by public health facilities
y	Figure applies to births in the last three years
z	Total of 3 cases
aa	Based on all persons living with HIV (rather than just just adults)
ab	Revised figure only reflects those attending Department of Health's specialist clinic
ac	Based on country reports as of end of December 2007
ad	Figure refers to the cases reported to the Department of Health for the listed Statutory Notifiable Infectious Diseases
ae	All are imported cases
af	Crude rate (per 100,00 population) calculated by the Ministry of Health using data from the number of malaria cases and deaths supplied by ESR
ag	Not endemic, absence of local transmission
ah	Actual figure is 0.007
ai	Ministry of Health: the entire population has access to essential medicines at affordable prices due to pharmaecuticals co-payments limiting most out-of-pocket payments to no more than NZ$3 per drug where patients are enrolled with a Primary Health Care Organisation; in NZ approximately 2000 prescription medicines and therapeutic products are listed on the New Zealand Pharmaceuticals Schedule and attract government subsidies and this includes essential medicines; and while the entire population would not be within 1 hour walking time of the nearest pharmacy or dispensing outlet, the bulk of the population would be within 1 hour access time frame to receive essential medicines (e.g. walking, driving, public transport, home delivery of medication, ambulance transfer to an acute care facility) especially when living in urban areas

Sources

1	Western Pacific Country Health Information Profiles 2011 Revision (individual country profiles and health databank).
2	World Population Prospects: the 2010 Revision accessible from this site http://esa.un.org/unpp/panel_indicators.htm.
3	The United Nations Human Rights Treaties: State Reports as of August 2011 [http://www.bayefsky.com/bystate.php/alist/af].
4	Human Development Report 2010: The Real Wealth of Nations: Pathways to Human Development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2010/chapters/en/]
5	Agence française de développement
6	Human Development Report 2009: Overcoming barriers: Human mobility and development. United National Development Programme. [http://hdr.undp.org/en/reports/global/hdr2009/]
7	National Demographic Health Surveys (DHS).
8	Multiple Indicator Cluster Survey (MICS).
9	World Health Statistics 2011. Geneva, World Health Organization, 2011. Available at [http://www.who.int/whosis/whostat/en/index.html].
10	WHO Regional Office for the Western Pacific, data received from technical units.
11	Fiji National Nutrition Survey, 2004.
12	Mongolia Health Management Information System, 2004.
13	Mongolia Reproductive Health Survey, 2008.
14	Third National Health Services Survey, Ministry of Health, 2003.
15	WHO Global Database on Child Growth and Malnutrition [http://www.who.int/nutgrowthdb/database/countries/en/index.html/p-child_pdf/].
16	4th National Nutrition Survey of Mother and Child 2010
17	Events referred by WHO Country Offices to the Regional Office for the Western Pacific. For more information, please visit [http://www.wpro.who.int/sites/eha/disasters/summary.htm]
18	UNAIDS. 2010 Global Report. 2010, Geneva

Sources

19 Towards Universal Access: Scaling up Priority HIV/AIDS interventions in the health sector, Progress Report 2010. WHO, UNAIDS, UNICEF.

20 Road Safety in the Western Pacific Region: Time for Action, 2009.
[http://www.wpro.who.int/publications/Road+Safety+in+the+Western+Pacific+Region+-+Call+for+Action.htm]

21 Australian Government Department of Infrastructure, Transport and Regional Development and Local Government, Road Safety Report No. 4, Road Deaths Australia 2008 Statistical Summary. [http://www.infrastructure.gov.au/roads/safety/publications/2009/pdf/rsr_04.pdf] accessed on 12 May 2011.

22 Brunei Darussalam Road Safety Council [http://www.bruneiroadsafety.org.bn/statisticsinfo/index.htm] accessed on 12 May 2011.

23 Cambodia Road Crash and Victim Information System (RTAVIS), 2009.

24 China Third National Retrospective Sampling on Population Mortality, Ministry of Health, 2004-05.

25 Malaysian Institute of Road Safety Research, Malaysia.

26 New Zealand, Ministry of Transport Report on Road Safety Progress since 2000, December 2009
[http://www.transport.govt.nz/saferjourneys/Documents/Road%20Safety%20Progress%20since%202000.pdf] accessed on 12 May 2011.

27 Singapore Police Force [http://www.spf.gov.sg/stats/traf2010_concern.htm] accessed on 12 May 2011.

28 Viet Nam NTSC Report, 2010.

29 Global Status Report on Noncommunicable diseases 2010. World Health Organization, Geneva, Switzerland, 2011.

30 American Samoa NCD Risk Factors STEPS Report 2007 [http://www.who.int/chp/steps/Printed_STEPS_Report_American_Samoa.pdf]

31 Thematic Household Survey conducted in December 2007 to March 2008.Accessed from [http://www.chp.gov.hk/en/behavioural/10/280.html]

32 Tokelau NCD Risk factors STEPS Report 2007 [http://www.who.int/chp/steps/STEPS_Report_Tokelau.pdf]

33 WHO Global Infobase [https://apps.who.int/infobase/Indicators.aspx]

31 Noncommunicable disease prevalence and risk factors in Cambodia, STEPS survey country report, September 2010.

35 Fiji Noncommunicable Diseases STEPS Survey 2002 [http://www.who.int/chp/steps/FijiSTEPSReport.pdf]

36 Kiribati NCD Risk factors STEPS Report 2009. Available at [http://www.who.int/chp/steps/kiribati_STEPS_report_2004-6.pdf]

37 Report on STEPS Survey on Non Communicable Diseases Risk Factors in Vientiane Capital city, Lao PDR, 2010.
http://www.who.int/chp/steps/2008_STEPS_Report_Laos.pdf]

38 NCD Risk factors in Malaysia 2006. [http://www.who.int/chp/steps/MalaysiaSTEPSReport.pdf]

39 FS Micronesia (Pohnpei) NCD Risk factors STEPS Report 2008. [http://www.who.int/chp/steps/STEPS_Report_Micronesia.pdf]

40 Mongolian STEPS Survey on the prevalence on NCD Rsik factors 2006.
[http://www.who.int/entity/chp/steps/December_2006_Mongolia_STEPS_Survey.pdf]

41 Nauru NCD Risk Factors STEPS Report 2004. [http://www.spc.int/prism/country/nr/stats/Publication/Surveys/Nauru_NCD_rpt.pdf]

42 2006 Niue population census (cited in the Western Pacific Regional country profile, 2011 Revision).

43 Solomon Islands NCD Risk factors STEPS report 2010 [http://www.who.int/chp/steps/2006_Solomon_Islands_STEPS_Report.pdf]

44 National Health Surveillance 2009 (cited in the Western Pacific Region Health Databank and country profile, 2010 Revision)

45 Noncommunicable Diseases Country Profiles 2010, WHO, Geneva. 2011

Definition of Terms

Acute respiratory infections, cases and deaths. The recorded and estimated number of new cases of respiratory infections and deaths due to such infections during the most recent year for which valid statistics are available. Disaggregated by age (all ages and among under-fives) and sex.

Admission. Formal acceptance by a health facility of a patient who is to receive medical or paramedical care while occupying a health-facility bed. Healthy babies born in hospital should not be counted if they do not require special care.

Adolescent birth rate. Annual number of live births to girls aged 15-19 years, per 1000 girls aged 15-19 years.

Adult literacy rate. The percentage of the total population aged 15 years and over who can, with understanding, both read and write a short simple statement on their everyday lives. Disaggregated by sex. Notes are made when a country has a different definition.

Annual number of graduates. Includes all students in the health-education sector duly conferred with an academic degree or diploma signifying advancement to a new level of skill, achievement or activity.

Annual population growth rate. (See **Population growth rate**.)

Antenatal care. Includes recording of medical history, assessment of individual needs, provision of advice and guidance on pregnancy and delivery, performance of screening tests, education on self-care during pregnancy, identification of conditions detrimental to health during pregnancy, first-line management and referral if necessary.

Antenatal care coverage.

- **At least one visit.** Number of women who utilized antenatal care provided by skilled birth attendants for reasons related to pregnancy at least once during pregnancy as a percentage of live births in a given time period.

- **At least four visits.** Number of women who utilized antenatal care provided by skilled birth attendants for reasons related to pregnancy at least four times during pregnancy as a percentage of live births in a given time period.

Area. The total surface area, comprising land area and all inland waters. Presented in 1000 square kilometres or actual value.

Beds. The number of beds regularly maintained and staffed for the accommodation and full-time care of a succession of inpatients and situated in wards or a part of a hospital where continuous medical care for inpatients is provided. The total number of such beds constitutes the normally available bed complement of the hospital. Cribs and bassinets maintained for use by healthy newborn babies who do not require special care are not included.

Number of hospital beds may include beds in public general hospitals, specialized hospitals, district/first-level referral hospitals, primary health care centres, private hospitals and outpatient clinics.

Behavioural measures.

- **Daily smokers**. Percentage of population who smoke any tobacco product on a daily basis.

- **Current drinkers**. Percentage of population who have consumed a drink containing alcohol in the last 12 months.

- **Binge drinkers**. Percentage of population who have consumed ≥5 (males) or ≥4 (females) standard drinks in a single sitting on at least one day in the past week. Standard drinks defined as: beer (285 ml), spirits (30 ml), wine (120 ml), aperitif (60 ml).

- **Insufficiently active**. Percentage of population engaging in less than five times 30 minutes of moderate activity per week or less than three times 20 minutes of vigorous activity three times per week, or the equivalent.

- **Low fruit and vegetable consumption**. Percentage of population who consume less than five combined servings of fruit or vegetables per day of the week.

Biochemical measures.

- **Raised blood-cholesterol/ lipids**. Percentage of population with total cholesterol ≥5.0 mmol/L (190mg/dl).

- **Raised blood glucose**. Percentage of population with fasting plasma glucose value

≥7.0mmol/L (126mg/dl) or on medication for raised blood glucose.

Body mass index (BMI). Calculated as weight in kilograms (kg) divided by height in square metres (m^2).

Cancers, cases and deaths. New cases due to all types and specific types of cancer detected during the most recent year for which valid data are available. Deaths due to all types and specific types of cancer that occurred during the most recent year for which valid data are available. Disaggregated by sex.

Causes of morbidity. (See **Leading causes of morbidity**).

Causes of mortality. (See **Leading causes of mortality**).

Communicable diseases. (See **Selected communicable diseases**).

Circulatory system diseases, cases and deaths. Cases and deaths resulting from any form of circulatory disease. Disaggregated by sex.

Contraceptive prevalence rate. Percentage of women aged between 15-49 years who are practising, or whose sexual partners are practising, any form of contraception.

Crude birth rate. The registered number of live births for every 1000 population in a given year or period of time. Disaggregated by sex.

Crude death rate. The registered number of deaths for every 1000 population in a given year or period of time. Disaggregated by sex.

Dependency ratio. The ratio of persons in the 'dependent' age groups (under 15 years and 65 years and above) to those in the 'economically productive' age group (15-64 years), expressed as a percentage.

Diabetes mellitus, cases and deaths. Existing cases and deaths due to diabetes mellitus during the most recent year for which valid statistics are available. Disaggregated by sex.

Diarrhoeal diseases, cases and deaths. New cases of and/or recorded or estimated deaths due to all types of diarrhoeal disease during the most recent year for which valid statistics are available. Disaggregated by age (all ages and among under-fives) and sex.

Disaster. A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Discharges (including deaths). Persons, living or dead, whose stay in a health care facility has terminated and whose departure has been officially recorded.

Diseases of the circulatory system. (See **Circulatory system diseases**).

DOTS. Directly observed treatment, short-course (DOTS) is the recommended strategy for tuberculosis control. It comprises:

(1) government commitment to ensuring sustained, comprehensive tuberculosis-control activities;
(2) case detection by sputum-smear microscopy among symptomatic patients self-reporting to health services;
(3) standardized short-course chemotherapy, using regimens of six to eight months for at least all confirmed smear-positive cases (Good case management includes DOTS during the intensive phase for all new sputum-smear-positive cases, the continuation phase of rifampicin-containing regimens and the whole retreatment regimen.);
(4) a regular, uninterrupted supply of all essential antituberculosis drugs; and
(5) a standardized recording and reporting system that allows assessment of case-finding and treatment results for each patient and of the tuberculosis control programme's performance overall.

DOTS coverage. (See **Tuberculosis DOTS coverage**).

Emergency. A state in which normal procedures are suspended and extraordinary measures are taken in order to avert the impact of a hazard on the community. Authorities should be prepared to respond effectively to an emergency. If not managed properly, some emergencies will become disasters.

Estimated population. (See **Population**).

Estimated HIV prevalence in adults. Estimated percentage of persons with HIV infection among persons aged 15-49 years.

Estimated HIV prevalence among TB cases. Estimated percentage of HIV-positive cases among TB cases.

Estimated smoking prevalence among adults. (See **Smoking prevalence among adults**).

External resources for government health expenditure. Government expenditure on health coming from external sources, mainly in the form of grants passing through the Government or loans channelled through the national budget.

External resources for health as a percentage of general government expenditure on health. The ratio of external resources for health to total general government expenditure on health, expressed as a percentage.

Facilities with HIV testing and counselling services. Facilities where HIV testing and counselling is available, including both health and non-health facilities.

Gender-empowerment measure (GEM) value. A composite index measuring gender inequality in three basic dimensions of empowerment—economic participation and decision-making, political participation, and decision-making, and power over economic resources.

Gender-related development index (GDI) value. A composite index measuring average achievement in the three basic dimensions captured in the human development index—a long and healthy life, knowledge and a decent standard of living—adjusted to account for inequalities between men and women.

General government expenditure on health (excluding social security). Expenditures on health incurred by central, state/regional and local government authorities, excluding social security schemes. Included are non-market, non-profit institutions that are controlled and financed mainly by government units.

Government expenditure on health. The sum of outlays by government entities to purchase health care services and goods, notably by ministries/departments of health and social security agencies. The revenue base may comprise multiple sources, including external funds. (See also **External resources for government health expenditure**).

- **Amount.** Government expenditure on health expressed in million US dollars or another indicated currency.

- **General government expenditure on health as a percentage of total expenditure on health.** The ratio of government expenditure on health to total expenditure on health, expressed as a percentage.

- **General government expenditure on health as a percentage of total general government expenditure.** The ratio of government expenditure on health to total government expenditure, expressed as a percentage.

Gross domestic product (GDP). The total output of goods and services for final use produced by residents and non-residents, regardless of the allocation to domestic and foreign claims.

Gross national income (GNI). The sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad.

Gross national product (GNP). Comprises the gross domestic product (GDP), plus net factor income from abroad, which is the income residents receive from abroad for factor services (labour and capital) less similar payments made to non-residents who contributed to the domestic economy.

Growth rate. (See also **Population growth rate**.)

Growth rate of per capita GDP (%). Least squares annual growth rate, calculated from constant price GDP in local currency units.

Hazard. A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impact, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.

Healthy life expectancy (HALE). The average number of years in full health a person (usually at age 60) can expect to live based on current rates of ill-health and mortality. Disaggregated by sex.

Health care waste generation (metric tons per year). The total weight of all solid and liquid waste generated by all public and private health care establishments, health research facilities, and health-related laboratories, plus waste generated by home health care activities, such as dialysis, insulin injections, etc. during the course of a calendar year. Expressed as metric tons per year. Disaggregated by location (urban/ rural).

Health expenditure per capita. (See **Total health expenditure - Per capita total expenditure on health**).

Health facilities. (See **Health infrastructure**).

Health infrastructure. Public (state/ government) health facilities

- **General hospital**. Hospital providing a range of different services for patients of various age groups and with varying disease conditions.

- **Specialized hospital**. Hospital admitting primarily patients suffering from a specific disease or affection of one system, or reserved for the diagnosis and treatment of conditions affecting a specific age group or of a long-term nature.

- **District/first-level referral hospital.** Hospital at the first referral level responsible for a district or a defined geographical area containing a defined population and governed by a politico-administrative organization, such as a district health management team. The role of a district hospital in primary health care has been expanded beyond being dominantly curative and rehabilitative to include promotional, preventive and educational roles as part of a primary health care approach.

- **Primary health care centre**. Centre that serves as the first point of contact with a health professional and provides outpatient medical and nursing care. Services are provided by general practitioners, dentists, community nurses, pharmacists and midwives, among others.

Health infrastructure. Private facilities.

- **Hospital.** Hospital not owned by government or parastatal organizations (includes both private not-for profit, e.g. owned by religious organizations, and private for-profit).

- **Outpatient clinic.** Clinic not owned by government or parastatal organizations (includes both private not-for-profit, e.g. owned by religious organizations, and private for-profit).

Health insurance coverage as a percentage of total population. The percentage of the population covered by health insurance, including both private and public health insurance schemes.

Health workforce.

- **Physicians**. Graduates of any faculty or school of medicine, licensed or registered to work in the country as medical doctors who apply preventive or curative measures and/or conduct research. Also expressed as number of physicians per 1000 population. Disaggregated by sex, area and sector.

- **Dentists**. Graduates of any faculty or school of dentistry, odontology or stomatology, duly licensed or registered to practise dentistry, and actually working in the country in any dental field to apply medical knowledge in the field of dentistry and/or conduct research. Also expressed as number of dentists per 1000 population. Disaggregated by sex, area and sector.

- **Pharmacists**. Graduates of any faculty or school of pharmacy, duly licensed or registered to practise pharmacy and actually working in the country in pharmacies, hospitals, laboratories, industry, etc. applying pharmaceutical concepts and theories by preparing and dispensing or selling medicaments and drugs. Also expressed as number of pharmacists per 1000 population. Disaggregated by sex, area and sector.

- **Nurses**. Persons who have completed a programme of basic nursing education and are qualified and registered or authorized to provide responsible and competent service for the promotion of health, prevention of illness, care of the sick, and rehabilitation, and are actually working in the country. Also expressed as number of nurses per 1000 population. Disaggregated by sex, area and sector.

- **Midwives**. Persons who have completed a programme of midwifery education and have acquired the requisite qualifications to be registered and/or legally licensed to practise midwifery, and are actually working in the country. The persons may or may not have prior nursing education. Also expressed as number of midwives per 1000 population. Disaggregated by sex, area and sector.

- **Paramedical staff.** Health care assistants, laboratory technicians, technologists, therapists, nutritionists, sanitarians, among others, who are actually working in the country and are graduates of two-year to five-year health courses in recognized health training institutions. Also expressed as number of paramedical staff per 1000 population. Disaggregated by sex, area and sector.

- **Community health workers**. Lay members of communities who have a period of on-the-job training, sometimes formalized in apprenticeships, who work either for pay or as volunteers in association with the local health care system in both urban and rural environments and usually share ethnicity, language, socioeconomic status and life experiences with the community members they serve. Also expressed as number of community health workers per 1000 population. Disaggregated by sex, area and sector.

- **Area.**
  - **Urban**. Those working in urban areas or in planned metropolitan communities in developed areas designed to be self-sufficient, with their own housing, education, commerce and recreation.

  - **Rural**. Those working in rural areas or in areas outside cities and metropolitan areas generally regarded as underdeveloped in terms of infrastructure and specialized services.

- **Sector.**
  - **Public.** Those who are employed in the public sector, which is the portion of society controlled by national, state or provincial and local governments.

  - **Private.** Those who are employed in the private sector, which comprises private corporations, households and non-profit institutions serving households.

Health workforce density. The total number of physicians, nurses and midwives per 1000 population.

HIV prevalence among population aged 15–24 years. The percentage of the population aged 15–24 whose blood samples tested positive for HIV.

Hospital beds. (See **Beds**).

Human Development Index (HDI). The HDI is a measure of the average achievements in a country in three basic dimensions of human development — longevity, knowledge and a decent standard of living. A composite index, the HDI thus contains three variables: life expectancy, educational attainment (adult literacy and combined primary, secondary and tertiary enrolment) and real GDP per capita (in purchasing power parity or PPP$).

Immunization coverage for infants. (See **Percentage of infants fully immunized with BCG, DTP3, DTP1, POL3, measles (MCV1 and MCV2), Hib3, hepatitis B3 and HepB birth dose, as well as VitA1.**).

Infant mortality rate. The number of registered deaths among infants (below one year of age) per 1000 live births in a given year or period of time. Disaggregated by sex.

Injuries, all types. Recorded or estimated number of diseases/injuries and deaths related to drowning, homicide and violence; road traffic accidents; work accidents; and suicide. Disaggregated by sex.

- **Drowning, cases and deaths.** Total number of cases and deaths resulting from drowning (conditions that fall under W65-W74 in the ICD10). Disaggregated by sex.

- **Homicide and violence, cases and deaths.** Total number of cases and deaths from injuries resulting from homicides and other forms of violence. Disaggregated by sex.

- **Road traffic accidents, cases and deaths.** The total number of cases refers to injuries (non-fatal and fatal) from road traffic accidents (Conditions that fall under V01-V80, V82 and V87 only in the ICD10), while

the total number of deaths refers only to the fatal injuries. Disaggregated by sex.

- **Occupational injuries, cases and deaths.** Total number of cases and deaths due to injuries arising out of or in the course of work. Disaggregated by sex.

- **Suicide, cases and deaths.** Total number of cases and deaths from self-inflicted injuries with the intention of taking one's life. Disaggregated by sex.

Inpatient. A person admitted to a health care facility and who usually occupies a bed in that health care facility.

Leading causes of morbidity. The most frequently occurring causes of morbidity (usually 10) for which the greatest number of cases have been reported during a given year. The crude morbidity rate is usually expressed as the number of cases of disease per 100 000 population for a given year. Disaggregated by sex.

Leading causes of mortality. The most frequently occurring causes of mortality (usually 10) for which the greatest number of deaths have been reported during a given year. Causes of mortality are all those diseases, morbid conditions or injuries that either resulted in or contributed to death, and the circumstances of the accident or violence that produced any such injuries. The crude mortality rate is usually expressed as the number of deaths from a specific cause per 100 000 population for a given year. Disaggregated by sex.

Life expectancy at birth. The average number of years a newborn baby is expected to live if mortality patterns at the time of its birth were to prevail throughout the child's life. Disaggregated by sex.

Live birth. The complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered liveborn.

Malaria death rate. The number of malaria deaths per 100 000 population. Disaggregated by sex.

Malaria incidence rate. The number of cases of malaria per 100 000 population. Disaggregated by sex.

Maternal causes, cases and deaths. The number of cases and deaths due to abortion, eclampsia, haemorrhage, obstructed labour and sepsis among women while pregnant or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy. Maternal causes of death may be subdivided into two groups:

(1) **direct obstetric death** resulting from obstetric complications of the pregnant state (pregnancy, labour and the puerperium) due to interventions, omissions, incorrect treatment or a chain of events resulting from any of the above; and

(2) **indirect obstetric death** resulting from previously existing disease or disease that developed during pregnancy and that was not due to direct obstetric causes, but was aggravated by the physiological effects of pregnancy.

Maternal mortality ratio. The number of registered deaths among women, from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy, childbirth or within 42 days of termination of pregnancy, irrespective of the duration or site of the pregnancy, for every 100 000 live births in a given year or period of time.

Measles incidence rate. The number of measles cases per million population.

Mental disorders, cases and deaths. Cases and deaths from any form of mental disorder, i.e. clinical, behavioural or psychological syndrome, characterized by the presence of distressing symptoms or significant impairment of functioning. Disaggregated by sex.

Mortality rate. An estimate of the proportion of a population that dies during a specified period. The numerator is the number of persons dying during the period; the denominator is the total number of people in the population, usually estimated as the mid-year population. This rate is an estimate of the person-time death rate, i.e., the death rate per 10^n person-years. If the rate

is low, it is also a good estimate of the cumulative death rate. This rate is also called the **crude death rate**.

Multidrug-resistant tuberculosis (MDR-TB). Strains of tuberculosis that are resistant to at least the two main first-line TB drugs—isoniazid and rifampicin.

National poverty line. (See **Population below national poverty line**).

National underweight, stunting and wasting prevalence.

- **Underweight**. Low weight for age or weight for age more than a standard deviation of 2 below the median value of the reference (healthy) population.
- **Stunting.** Low height for age or height for age more than a standard deviation of 2 below the median value of the reference (healthy) population.
- **Wasting.** Low weight for height or weight for height more than a standard deviation of 2 below the median value of the reference (healthy) population.

Natural rate of increase. A measure of population growth (in the absence of migration), comprising addition of newborn infants to the population and subtraction of deaths. Expressed as a percentage per annum. Disaggregated by sex.

Neonatal mortality rate. The number of registered deaths in the neonatal period per 1000 live births in a given year or period of time. Disaggregated by sex.

Neonatal period. Period commencing at birth and ending 28 completed days after birth.

Number of mass drug administration (MDA) rounds for lymphatic filariasis. Number of rounds of mass drug administration of diethylcarbamazine or ivermectin in combination with albendazole conducted for prevention of lymphatic filariasis.

Obese. A calculated body mass index (BMI) greater than or equal to 30 kg/m^2.

Outpatient. A person who goes to a health care facility for consultation, is not admitted to the facility and does not occupy a hospital bed for any length of time.

Overweight. A calculated body mass index (BMI) greater than or equal to 25 kg/m^2 but less than 30 kg/m^2.

Out-of-pocket expenditure on health as percentage of total expenditure on health. Ratio of out-of-pocket expenditure on health to total expenditure on health, expressed as a percentage.

Per capita gross domestic product (GDP) at current market prices. Gross domestic product divided by mid-year population (or population size if mid-year population is not available).

Per capita gross national income (GNI). Gross national income divided by mid-year population (or population size if mid-year population is not available).

Per capita gross national product (GNP). Total gross national product divided by the total population.

Per capita health expenditure (US$). The average health expenditure (in United States dollars) per person in a year.

Per capita income. Income per person in a population. Per capita income is often used to measure a country's standard of living.

Percentage distribution of population aged 60 years or older by sex. The percentage of the male and the female populations aged 60 years or older in a given period of time.

Percentage distribution of population less than 15 years. (See **Percentage of population: 0- 4 years of age; 5-14 years old; or 65 years and older**).

Percentage distribution of population above 65 years. (See **Percentage of population: 0- 4 years of age; 5-14 years old; or 65 years and older).**

Percentage of deliveries attended by skilled health personnel. The percentage of deliveries attended by personnel trained: to give the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period; to conduct deliveries on their own; and to care for newborn infants. Estimated in this CHIPS publication using two indicators:

- **Percentage of deliveries at home attended by skilled health personnel.** Percentage of deliveries that take place at home and are attended by personnel trained: to give the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period; to conduct deliveries on their own; and to care for newborn infants. Expressed as a percentage of total deliveries.

- **Percentage of deliveries in health facilities.** Percentage of total deliveries in public and private hospitals, clinics and health centres, irrespective of who attended the delivery at those facilities.

Percentage of infants fully immunized with BCG, DTP3, DTP1, POL3, measles (MCV1 and MCV2), Hib3, hepatitis B3 and HepB birth dose, as well as VitA1. Percentage of children under one year of age who have received immunization against tuberculosis (BCG), diphtheria, pertussis, tetanus (DTP3 and DTP1), poliomyelitis (POL3), measles (at least one dose and two doses), Hib Haemophilus influenzae type b (Hib3), and hepatitis B3 (HepB) and HepB birth dose. Also includes coverage with vitamin A1.

Percentage of newborn infants weighing less than 2500 grams at birth. The percentage of newborn infants whose birth weight is less than 2500 grams, the measurement being taken preferably within the first hours of life before significant postnatal weight loss has occurred. Disaggregated by sex. Notes are made when a country has a different definition.

Percentage of people with advanced HIV infection receiving ART. Percentage of people with advanced HIV infection who are receiving antiretroviral therapy (ART) according to a nationally approved treatment protocol (or WHO/Joint United Nations Programme on HIV and AIDS standards) among the estimated number of people with advanced HIV infection.

Percentage of population: 0- 4 years of age; 5-14 years old; or 65 years and older. The percentage of the total population aged 0 to 4 years, 5 to 14 years, or 65 years and above in a given period of time. Disaggregated by sex.

Percentage of population with access to safe water. (See **Proportion of the population using an improved drinking-water source**).

Percentage of population with access to excreta disposal facilities. (See **Proportion of the population using an improved sanitation facility**).

Percentage of pregnant women immunized with tetanus toxoid (TT2). The percentage of pregnant women adequately immunized against tetanus, having received at least two doses of tetanus toxoid during pregnancy. Expressed as a percentage of all live births, since the number of pregnant women is generally not available.

Percentage of pregnant women with anaemia. Percentage of pregnant women aged 15 to 49 years with a blood concentration of haemoglobin below 110 grams per litre (or 6.83 millimoles per litre) or haematocrit below 33%.

Percentage of women given at least 2 doses of TT2. (See also **Percentage of pregnant women immunized with tetanus toxoid [TT2]).**

Percentage of women in the reproductive age group using modern contraceptive methods. The percentage of women aged 15-49 in marital or consensual unions who are practising, or whose male partners are practising, any form of modern contraception, including female and male sterilization, oral contraceptives, injectables or implants, intrauterine devices, condoms, spermicidal foams, jelly, cream, sponges, among others. Notes are made when specific female populations are pertained to, such as only married women.

Person with midwifery skills. A person who has successfully completed the prescribed course in midwifery and is able to give the necessary supervision, care and advice to women during pregnancy, labour and the postpartum period, to conduct deliveries alone, to provide lifesaving obstetric care, and to care for the newborn infant.

Physical measures.

- **Raised blood-pressure**. Percentage of population with systolic BP≥140 mmHg and/or diastolic BP≥90 mmHG or on medication to lower blood pressure.

- **Overweight**. Percentage of population with BMI≥ 25kg/m^2.

- **Obese**. Percentage of population with BMI≥30 kg/m^2.

Population. All the inhabitants of a given country or area considered together. Estimates are based on a recent census, official national data or projections by United Nations and other international agencies. Presented in thousands or actual value. Disaggregated by sex.

Population below national poverty line. The percentage of the population living below the poverty line deemed appropriate for a country by its authorities. National estimates are based on population-weighted subgroup estimates from household surveys.

Population density. Number of people per square kilometre.

Population growth rate. The average exponential population growth of the population in a given period of time. Expressed as a percentage. Disaggregated by sex.

Prevalence of underweight children under five years of age. Percentage of children under five years of age whose weight for age is less than a standard deviation of 2 from the median for the international reference population (often referred to as the National Centre for Health Statistics/ WHO reference population) aged 0-59 months. Disaggregated by sex.

Prevalence rate. The proportion of the population with the health condition or disease in a given time. Expressed in 100, 1000, 10 000 or 100 000 population.

Private health expenditure. The sum of total outlays on health by private entities, notably commercial insurance, non-profit institutions and households acting as complementary funders to the previously cited institutions or disbursing unilaterally on health commodities. This includes out-of-pocket health expenditure, patient co-payments, private health insurance premiums, and health expenditures by nongovernmental organizations.

Private expenditure on health as a percentage of total expenditure on health. Ratio of private expenditure on health to total expenditure on health, expressed as a percentage.

Proportion of infants less than six months of age exclusively breastfed. Proportion of infants less than six months of age given only breast milk, except for drops or syrups consisting of vitamins, minerals or medicines.

Proportion of infants aged 6-9 months receiving breast milk and complementary food. Proportion of infants aged 6-9 months receiving breast milk and any food, whether home-prepared or industrially processed, suitable as a complement to breast milk to satisfy the nutritional requirements of the infant.

Proportion of infants less than 12 months of age with breastfeeding initiated within one hour of birth. Proportion of infants less than 12 months of age who were breastfed by their mothers within one hour after birth, based on mother's recall.

Proportion of children 6-59 months of age who received vitamin A in the past six months. Proportion of children aged 6-59 months who received vitamin A in the six months preceding the survey.

Proportion of children 0-59 months of age who had diarrhoea in the past two weeks and were treated with ORT. Proportion of children aged 0-59 months with diarrhoea in the two weeks preceding the survey who received oral rehydration therapy (oral rehydration therapy solutions or recommended homemade fluids).

Proportion of children aged 0-59 months who had diarrhoea in the past 2 weeks and were treated with zinc supplements. Percentage of children aged 0-59 months with diarrhoea and were treated with an appropriate course of zinc supplements over the number of children aged 0-59 months with diarrhoea in the past two weeks.

Diarrhoea defined as having three or more loose or watery stools during a 24 hour period.

Appropriate course of zinc means that for infants less than 6 months = 10mg of zinc per day for 14 days; infants 6 months or more = 20mg of zinc for 14 days.

Proportion of children 0-59 months of age who had suspected pneumonia in the past two weeks and were taken to an appropriate health care provider. Proportion of children aged 0-59 months with suspected pneumonia in the two weeks preceding the survey taken to an appropriate health care provider. An appropriate health care provider is defined as any provider trained in standard case management of children with suspected pneumonia, including a midwife, a nurse, a doctor trained in IMCI (integrated management of childhood illness) or a community-based health worker trained in a simplified version of IMCI, and who is permitted to give antimicrobials.

Proportion of one-year-old children immunized against measles. Percentage of children under one year of age who have received at least one dose of measles vaccine.

Proportion of one-year-old children protected against neonatal tetanus through immunization of their mothers. Proportion of infants whose mothers had two tetanus toxoid doses during the last pregnancy or had received at least TT2 (3 years protection), TT3 (5 years protection), TT4 (10 years protection) or TT5 (lifetime protection).

Proportion of population in malaria-risk areas using effective malaria prevention measures. Percentage of children aged 0–59 months in the survey who slept under an insecticide-treated net the previous night.

Proportion of population in malaria-risk areas using effective malaria treatment measures. Proportion of children aged 0–59 months who were ill with fever in the two weeks before the survey and who received appropriate antimalarial drugs.

Proportion of population with access to affordable essential drugs on a sustainable basis. The percentage of the population that has access to a minimum of 20 of the most essential drugs. Access is defined as having drugs continuously available and affordable at public or private health facilities or drug outlets that are within one hour's walk of the population. Essential drugs are drugs that satisfy the health care needs of the majority of the population.

Proportion of population using an improved sanitation facility. Percentage of the population with access to facilities that hygienically separate human excreta from human, animal and insect contact. Facilities such as sewers or septic tanks, pour-flush latrines and simple pit or ventilated improved pit latrines are assumed to be adequate provided that they are not public, according to the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) *Global Water Supply and Sanitation Assessment 2000 Report*. To be effective, facilities must be correctly constructed and properly maintained. Disaggregated by location: urban or rural.

Proportion of population using an improved drinking-water source. The percentage of the population who use any of the following types of water supply for drinking: piped water, public tap, borehole or pump, protected well, protected spring or rainwater. Improved water sources do not include vendor-provided waters, bottled water, tanker trucks or unprotected wells and springs. Disaggregated by location: urban or rural.

Proportion of tuberculosis cured under directly observed treatment, short-course (DOTS). The proportion of new smear-positive tuberculosis cases registered under DOTS in a given year that successfully completed treatment, whether with bacteriological evidence of success ('cured') or without ('treatment completed'). Expressed as a percentage.

Proportion of tuberculosis detected under directly observed treatment, short-course (DOTS). The percentage of estimated new infectious tuberculosis cases under the DOTS strategy. Expressed as a ratio of the number of DOTS-detected cases to the estimated number of new cases.

Public expenditure on health. (See **Government expenditure on health**).

Public health facilities. (See **Health infrastructure**).

Purchasing power parity (PPP). The rates of conversion that equalize purchasing power across the full range of goods and services contained in total expenditure and gross domestic product of a country.

Rate of growth of per capita GDP (%) (See **Growth rate of per capita GDP).**

Rate of natural increase of population. (See **Natural rate of increase**).

Reported mass drug administration (MDA) coverage for lymphatic filariasis among total population. Proportion of the population in identified filaria-endemic areas covered by MDA.

Risks. Potential consequences of a hazard affecting communities (deaths, injuries, disease, disabilities, displacement, damage, destruction, contamination, unemployment, etc.).

Road traffic death rate. Estimated number of road traffic deaths per 100 000 population.

Selected communicable diseases, cases and deaths. New cases and deaths due to hepatitis

(types A, B and C, E and unspecified), cholera, dengue fever/dengue haemorrhagic fever (DHF), encephalitis, gonorrhoea, leprosy, malaria, plague, syphilis and typhoid fever in a given year. Disaggregated by sex.

Selected diseases under the WHO expanded programme on immunization (EPI), cases and deaths. Reported cases and deaths due to a specific disease among selected preventable diseases (acute flaccid paralysis [AFP], congenital rubella syndrome, diphtheria, measles, mumps, neonatal tetanus, pertussis [whooping cough], poliomyelitis, rubella, total tetanus and yellow fever) in a specific country or area over a given year.

Skilled health personnel or skilled birth attendant. An accredited health professional, such as a midwife, doctor or nurse, who has been educated and trained to proficiency in the skills need to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborn infants. Both trained and untrained traditional birth attendants (TBA) are excluded.

Smoking prevalence among adults. Proportion of the adult population (15 years and over) who are smokers (both daily and occasional) at a point in time.

Smoking prevalence among youth. Proportion of young people (aged 13-15 years) who smoked during one or more of the 30 days preceding the survey (regardless of amount used).

Suicide rate. Total number of deaths from self-inflicted injuries with the intention of taking one's life per 100 000 population.

Surface area. (See **Area**).

Total fertility rate. The number of children who would be born per woman if the woman were to live to the end of her child-bearing years and bear children at each age in accordance with prevailing age-specific fertility rates.

Total health expenditure. The sum of general government expenditure on health (commonly called public expenditure on health) and private expenditure on health. (See also **Government expenditure on health** and **Private health expenditure**).

- **Amount.** Total health expenditure expressed in million United States dollars or another indicated currency.

- **Total expenditure on health as a percentage of GDP.** The percentage share of total expenditure on health with respect to a country's GDP.

- **Per capita total expenditure on health.** Total expenditure on health divided by the mid-year population (or population size if mid-year population is not available).

Traditional birth attendant. A traditional birth attendant (TBA) who initially acquired her ability by delivering babies herself or through apprenticeship to other TBAs and who has undergone subsequent extensive training and is now integrated into the formal health care system.

Tuberculosis case. A patient in whom tuberculosis has been bacteriologically confirmed or who has been diagnosed by a clinician.

- **All forms, cases and deaths**. The sum of new smear-positive pulmonary, relapse, new smear-negative, pulmonary, and extrapulmonary tuberculosis cases and deaths.

- **New pulmonary tuberculosis (smear-positive), cases**. Patients who have never received treatment for tuberculosis or have taken antituberculosis drugs for less than 30 days and who have one of the following:

  (1) two or more initial sputum-smear examinations positive for acid fast bacilli (AFB);
  (2) one sputum examination positive for AFB plus radiographic abnormalities consistent with active pulmonary tuberculosis, as determined by a clinician; or
  (3) one sputum specimen positive for AFB and at least one sputum specimen that is culture-positive for AFB.

Tuberculosis case detection. Tuberculosis is diagnosed in a patient and is reported within the national surveillance system, and then to WHO.

Tuberculosis case detection rate, total. The ratio of new smear-positive cases notified to the

estimated number of new smear-positive cases for a given year.

Tuberculosis case detection rate under directly observed treatment, short- course (DOTS). The percentage of estimated new infectious tuberculosis cases detected under the DOTS strategy. Expressed as a ratio of the number of DOTS-detected cases to the estimated number of new cases. (See also **Tuberculosis case detection**).

Tuberculosis case notification rate, all cases. The number of tuberculosis cases reported per 100 000 population in a given year. Includes all forms of TB.

Tuberculosis case notification rate, sputum smear-positive. The number of new smear-positive pulmonary tuberculosis cases reported per 100 000 population in a given year.

Tuberculosis cure rate. (See **Proportion of tuberculosis cured under directly observed treatment, short-course [DOTS]**).

Tuberculosis DOTS coverage. Percentage of people living in areas where health services have adopted the DOTS strategy

Tuberculosis death rate. Estimated number of deaths due to TB for a given year. Includes deaths from all forms of TB and deaths from TB in people with HIV. Expressed as deaths per 100 000 population per year.

Tuberculosis incidence rate, all forms. Estimated number of tuberculosis cases arising in a given period of time. Includes all forms of TB, including cases of people co-infected with HIV. Expressed as a per capita rate.

Tuberculosis prevalence, all forms. Estimated number of cases of tuberculosis in a population in a year or given period of time. Includes all forms of TB, including cases co-infected with HIV. Expressed as number of cases per 100 000 population in a given year.

Tuberculosis prevalence, sputum-smear-positive. Estimated number of sputum-smear-positive cases of tuberculosis in a population in a year or given period of time. Expressed as the number of sputum-smear-positive cases per 100 000 population in a given year.

Tuberculosis success rate under directly observed treatment, short-course (DOTS). (See **Proportion of tuberculosis cured under directly observed treatment short-course [DOTS]**).

Under-five mortality rate. The probability (expressed as a rate per 1000 live births) of a child born in a specified year dying before reaching the age of five if subject to current age-specific mortality rates. Disaggregated by sex.

Urban population. The total population living in areas termed as 'urban' by that country. Typically, the population living in towns of 2000 or more or in national or provincial capitals is classified as 'urban'. Expressed as a percentage. Disaggregated by sex.

Unmet need for family planning. Percentage of currently married women aged 15-49 who want to stop having children or to postpone the next pregnancy for at least two years, but who are not using contraception.

Vaccine-preventable disease. (See **Selected diseases under the WHO Expanded Programme on Immunization [EPI]**).

Vulnerabilities. Factors that determine the severity of the risks a community faces from hazards. Vulnerabilities are described in terms of people, property/ infrastructure, services, livelihoods and environment.

Women of reproductive age (or women of child-bearing age). Refers to all women aged 15 to 49 years, unless otherwise specified.

Workforce losses/ attrition. Number of persons who have left the local health workforce due to retirement, death, outmigration or resignation in a given period of time. Disaggregated by sex, area and sector.