Western Pacific Country Health Information Profiles

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World Health Organization
Western Pacific Region

2007 REVISION

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CHiPS

WESTERN PACIFIC

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

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Contents

Introduction

Country health information profiles (CHIPS) were first published in 1974 by the WHO Regional Office for the Western Pacific. The first CHIPS were primarily a reference for WHO staff responsible for briefing others, writing reports, drafting plans of action and verifying statistical data. CHIPS then became a resource tool used by other United Nations agencies, international organizations, government agencies and the general public.

The 2007 edition of CHIPS comprises the ***country profiles*** and the ***health databanks*** for each country and area of the WHO Western Pacific Region. The data are either supplied by the health ministries/departments or compiled from national databases and reference libraries. Every effort is made to update the figures and analyses in CHIPS annually in response to ever-growing demands for current data and information. 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.

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 density 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 the country's economic performance, levels of poverty, employment and working conditions, and government spending on health are also explained and quantified. An overview of the environmental conditions and prevailing gender and human rights issues affecting health is given, and the country's major vulnerabilities, which may be natural, biological, technological or societal in nature, 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 of Health, describes the organization of the country's health services and delivery systems and presents the framework for health policy, planning and regulation. The Government's long-term objectives for the health sector are outlined, highlighting health plans, legislation recently passed or pending, health reform proposals and health system

strengthening strategies. An overview is given on the health care financing system and major financing issues are discussed. An estimate of the stock of health facilities and workforce is provided, and the policies, planning and management strategies for these resources 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)

The country ***health databank*** is annexed to each country profile and is more detailed in containing different sets of indicators to reflect the country's:

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

To facilitate intercountry comparisons, a ***statistical annex*** is made available at the end of the publication. It summarizes most of the information in the health databanks and includes other indicators on selected health conditions and practices, such as HIV and obesity, smoking behaviour and child care. It also contains human-rights, poverty and gender-related development indicators, as well as major emergencies in the Region over the last two years.

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 the 2004, 2005 and 2006 revisions, 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*.

List of Acronyms

ADB	Asian Development Bank
AFB	Acid-fast bacillus
AIDS	Acquired immunodeficiency syndrome
APEC	Asia-Pacific Economic Cooperation
ARI	Acute respiratory infection
ART	Antiretroviral treatment
AusAID	Australian Agency for International Development
BMI	Body mass index
CD	Communicable disease
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CNS	Central nervous system
CRC	Convention on the Rights of the Child
CRS	Congenital rubella syndrome
DALY	Disability-adjusted life years
DOTS	Directly observed treatment short-course
EPI	Expanded programme on immunization
EU	European Union
GAVI	Global Alliance for Vaccine and Immunization
GDI	Gender-related development index
GDP	Gross domestic product
GEM	Gender empowerment measure
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GMP	Good manufacturing practices
GNI	Gross national income
GNP	Gross national product
HBsAg	Hepatitis B antigen
HBV	Hepatitis B virus
HDI	Human development index
HFMD	Hand, foot and mouth disease
HIB	Haemophilus influenzae type b
HIS	Health information system
HIV	Human immunodeficiency virus
HRDF	Human Resources Development Fund
ICD	International classification of diseases
ICT	Information and communication technology
IMCI	Integrated management of childhood illness
IMF	International Monetary Fund
IMR	Infant mortality rate
JICA	Japan International Cooperation Agency
LBW	Low birth weight
LDC	Least developed countries
MCH	Maternal and child health
MDA	Mass drug administration
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MMR	Maternal mortality ratio
NCD	Noncommunicable disease
NDHS	National Demographic and Health Survey
NGO	Non-governmental organization
NHA	National health accounts
NMDS	National minimum data set
NSO	National Statistics Office
NZAID	New Zealand Agency for International Development
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development

POLHN	Pacific Open Learning Health Network
PPP	Purchasing power parity
PRISM	Pacific Regional Information System
PYLL	Potential years of life lost
RHS	Reproductive health survey
RPR	Rapid plasma reagin
SAR	Special Administrative Region
SARS	Severe acute respiratory syndrome
SPC	Secretariat of the Pacific Community
STEPS	STEPwise approach to chronic disease risk factor surveillance
STI	Sexually transmitted infection
SWAp	Sector wide approach
TB	Tuberculosis
TCM	Traditional and complementary 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
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
U5MR	Under-five mortality rate
WB	World Bank
WHO	World Health Organization
WTO	World Trade Organization
YLD	Years lost due to disability

AMERICAN SAMOA

1. CONTEXT

1.1 Demographics

In 2006, American Samoa had an estimated population of 66 900, 91.1% residing in urban areas. Based on 2006 population estimates, around 34% of the population is below 15 years of age, while almost 5% is above 65 years. Life expectancy at birth for men is estimated to be 72 years, while for women it is 80 years. The crude birth rate dropped from 30.0 per 1000 population in 2000 to 25.7 per 1000 population in 2005. The crude death rate in the same year was 4.9 per 1000 population.

1.2 Political situation

American Samoa was defined by a treaty in 1899 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. 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). There is also an independent judiciary.

1.3 Socioeconomic situation

American Samoa is 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. Annual budget revenues of US$ 121 million comprise grants from the United States of America (63%) and local revenue (37%). The United States is the main trading partner. Gross domestic product (GDP) per capita (goods and services) was estimated at US$ 8052 in 2003.

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 adequate space for solid waste landfill operations is very limited.

1.4 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 are related 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 these 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 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. This represents a 50% improvement compared with the 1999 MDA, which had a coverage rate of only 19%. In 2003, MDA coverage among the total population was 70%. 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 diseases, 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 2004. Other causes of death are diabetes, cerebrovascular, pneumonia and influenza, chronic obstructive pulmonary diseases, certain conditions originating in the perinatal period, septicaemia, accidents, and nephritis and nephrosis.

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 3.25 in 2005, while the maternal mortality ratio was 123 per 100 000 live births in 2002. In 2000, 33% of women in the reproductive age group were using modern contraceptive methods.

The infant mortality rate dropped from 15.2 per 1000 live births in 2004 to 7.0 in 2005. The under-five mortality rate was 4.90 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 National Hospital 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 regulation 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 National 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 through:
    - 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.
(5) 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 and the bulk goes towards curative care, with only about 10% going to public health. Total health expenditures are 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 a year to the LBJ Tropical Medical Center (16% of its funding), most of which is used to purchase medicine and medical supplies used at the centre. Pharmaceuticals and vaccines are purchased from the United States of America. 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); eye; 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, and severe government financial difficulties, make long-range health workforce planning uncertain and recruitment and retention problematic. Both the hospital and the Department of Health have inadequate resources for 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 for 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 post-graduate training is 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 welcomed and add to the quality of services, particularly those related to public health. The newly acquired 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 post-graduate training through short-term courses and attachments is arranged in Australia and New Zealand. A number of medical students are also in medical schools in the United States of America, although this practice does not provide any assurance that these individuals will return to the island 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 2005*
Operator	:	Statistics Division, American Samoa Department of Commerce
Web address	:	http://www.asdoc.info/statistics/statshp.htm
Title 2	:	*Pacific Island Populations 2005*
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int
Title 3	:	*Demographic Tables for the Western Pacific Region 2005-2010*
Operator	:	WHO Regional Office for the Western Pacific, 2005.
Web address	:	http://www.wpro.who.int
Title 4	:	*World Population 2002*
Operator	:	United Nations Population Division, Department of Economic and Social Affairs

5. ADDRESSES

DEPARTMENT OF HEALTH

Office Address	:	Pago Pago, American Samoa 98799
Telephone	:	(684) 633 4606
Fax	:	(684) 633 5379
Office Hours	:	Pago Pago, American Samoa 98799

WHO REPRESENTATIVE IN SAMOA, AMERICAN SAMOA, COOK ISLANDS, NIUE AND TOKELAU

Office Address	:	Ioane Viliamu Building Beach Road, Apia, Western Samoa
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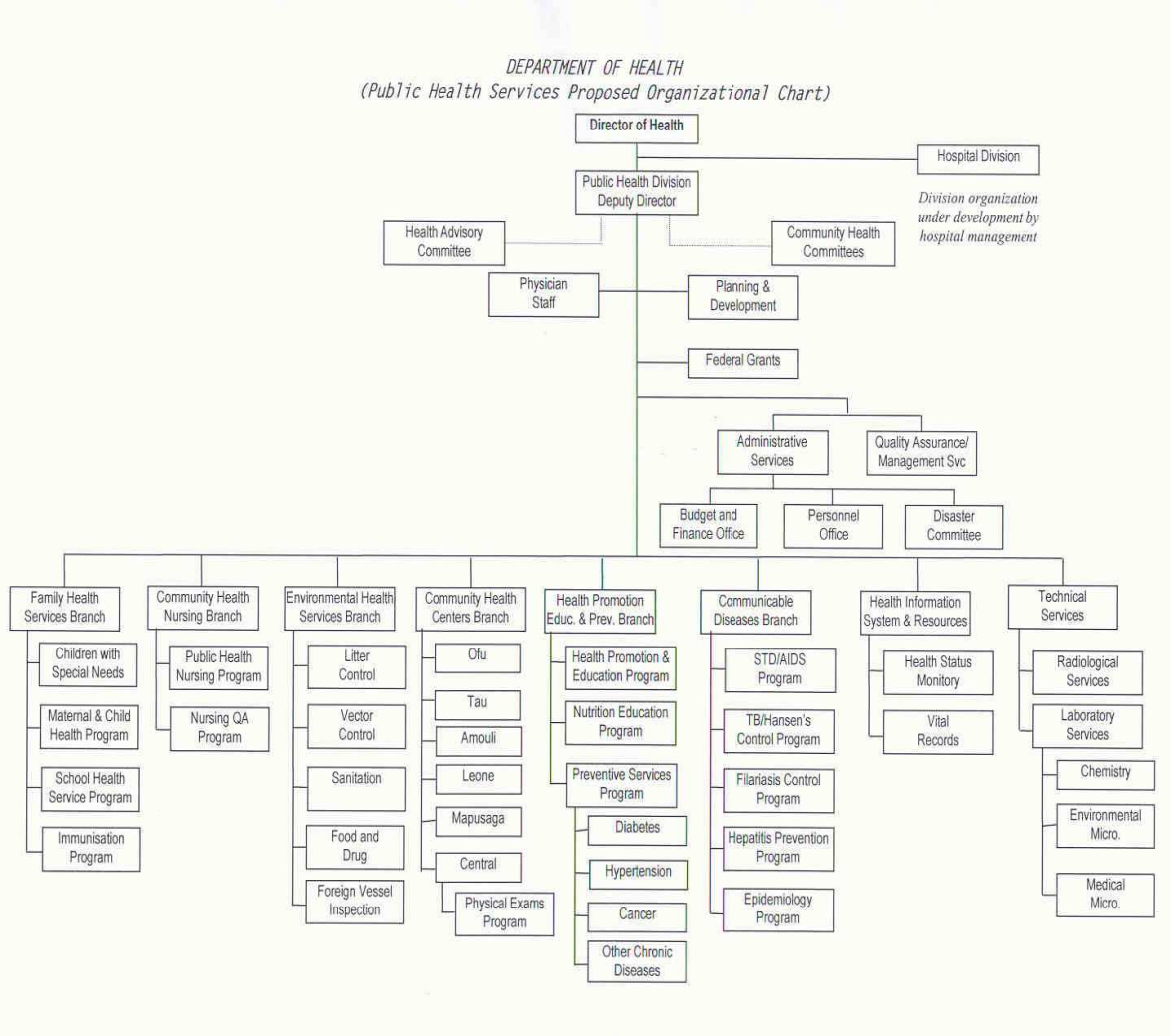
Official Email Address	:	who@sma.wpro.who.int
Telephone	:	(685) 23756
Fax	:	(685) 23765

6. ORGANIZATIONAL CHART: Department of Health



COUNTRY HEALTH INFORMATION PROFILE

AMERICAN SAMOA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.20			2006	1
2	**Estimated population** ('000s)	66.90	...	...	2006 est	1,4
3	**Annual population growth rate** (%)	2.30	...	...	2006 est	1
4	**Percentage of population**					
	- 0–4 years	12.00	12.10	12.00	2006 est	3
	- 5–14 years	21.80	21.80	21.80	2006 est	3
	- 65 years and above	5.00	4.20	5.70	2006 est	3
5	**Urban population** (%)	91.10	...	...	2005 est	3
6	**Crude birth rate** (per 1000 population)	25.70	...	...	2006	4
7	**Crude death rate** (per 1000 population)	4.90	...	...	2006	4
8	**Rate of natural increase of population** (% per annum)	1.98	...	...	2005	8
9	**Life expectancy** (years)					
	- at birth	75.84	72.27	79.62	2005	8
	- Healthy Life Expectancy (HALE) at age 60	...	...	...		
10	**Adult literacy rate** (%)	...	...	...		
11	**Neonatal mortality rate** (per 1000 live births)	2.90 [a]	...	...	2005	2
12	**Infant mortality rate** (per 1000 live births)	7.00 [a]	...	...	2005	2
13	**Under-five mortality rate** (per 1000 live births)	4.90	...	...	2002	5
14	**Total fertility rate** (women aged 15–49 years)	3.25			2005	8
15	**Maternal mortality ratio** (per 100 000 live births)	123.00			2002	5
16	**Percentage of newborn infants weighing at least 2500 g at birth**	96.22 [c]	...	...	2005	2
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			32.00	2002	5
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	NR	NR	NR	2005	6
	- DTP3	87.00	...	...	2006	6
	- POL3	87.00 [d]	...	...	2006	6
	- Measles	90.00	...	...	2006	6
	- Hepatitis B III	74.00	...	...	2006	6
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	70.00			2002	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries attended by skilled health personnel	100.00			2002	5
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	1.00			2002	5
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.00			2002	5
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			33.00	2000	5
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	99.00	99.00	99.00	2004	5
27	**Proportion of population with access to improved sanitation**	99.00	99.00	99.00	2004	5
28	**Proportion of the population using solid fuels (%)**	...	...	...		
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			...		
33	**Per capita GDP at current market prices** (US$)			8052.00 e	2003 est	1
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			32.30	2003	7
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			500.00	2003	7
	Government expenditure on health					
	- amount (in million US$)			31.80	2003	7
	- general government expenditure on health as % of total expenditure on health			98.00	2003	7
	- general government expenditure on health as % of total general government expenditure			14.00	2003	7
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			70.00	2003	7
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			2.00	2003	7
	Exchange rate in US$ of local currency is: 1 US$ =			...		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	49	36	13	...	...	7.83	...	...	...	...	2003	5
	- dentists	15	8	7	...	...	2.40	...	...	...	...	2003	5
	- pharmacists	2	2	0	...	...	0.20	0.32	0.00	...	...	2003	5
	- nurses	127	4	123	...	...	20.29	...	...	...	...	2003	5
	- midwives	1	0	1	...	...	0.16	0.00	0.16	...	...	2003	5
	- other nursing / auxiliary staff	98	8	90	...	...	15.65	...	...	...	...	2003	5
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	146	63	83	...	...	23.32	...	...	...	...	2003	5
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	13	13	0	...	...	2.08	2.08	0.00	...	...	2003	5
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Dengue fever	3196	...	...	5380.47 [f]	...	...	2001	2
	2. Chickenpox	325	...	...	547.14 [f]	...	...	2001	2
	3. Dog bites	319	...	...	537.04 [f]	...	...	2001	2
	4. Road traffic injuries	182	...	...	306.40 [f]	...	...	2001	2
	5. Food poisoning	79	...	...	132.99 [f]	...	...	2001	2
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Heart diseases	38	...	...	60.70 [f]	...	...	2003	2
	2. Neoplasm	36	...	...	57.51 [f]	...	...	2003	2
	3. Diabetes	30	...	...	47.92 [f]	...	...	2003	2
	4. Cerebrovascular	22	...	...	35.14 [f]	...	...	2003	2
	5. Pneumonia and influenza	21	...	...	33.55 [f]	...	...	2003	2
	6. Certain conditions originating in the perinatal period	15	...	...	23.96 [f]	...	...	2003	2
	7. Accidents	13	...	...	20.77 [f]	...	...	2003	2
	8. Nephritis and nephrosis	12	...	...	19.17 [f]	...	...	2003	2
	9. Chronic obstructive pulmonary diseases	10	...	...	15.97 [f]	...	...	2003	2
	10. Suicide	9	..	...	14.38 [f]	...	...	2003	2
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	6
	- Diphtheria	0	0	0	0	0	0	2006	6
	- Hib meningitis	0	0	0	0	0	0	2005	6
	- Measles	0	0	0	0	0	0	2006	6
	- Mumps	0	0	0	0	0	0	2006	6
	- Neonatal tetanus	0	0	0	0	0	0	2006	6
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	6
	- Poliomyelitis	0	0	0	0	0	0	2006	6
	- Rubella	0	0	0	0	0	0	2006	6
	- Total Tetanus	0	0	0	0	0	0	2006	6
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	<5	...	...	0	0	0	2003	5
	- Type B	<5	...	...	0	0	0	2003	5
	- Type C	<5	...	...	0	0	0	2003	5
	- Type E	...	...	...	...	...	...		
	- Unspecified	0	0	0	0	0	0	2003	5
	Cholera	0	0	0	0	0	0	2003	5
	Dengue/DHF	0	0	0	0	0	0	2005	8
	Encephalitis	0	0	0	0	0	0	2003	5
	Gonorrhoea	41	30	11	0	0	0	2003	5
	Leprosy	3	...	...	...	...	...	2004	6
	Malaria	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Plague	0	0	0	0	0	0	2003	5
	Syphilis	3	1	2	0	0	0	2003	5
	Typhoid fever	<5	...	...	0	0	0	2003	5
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	6	...	...	...	...	...	2005	6
	- New pulmonary tuberculosis (smear-positive)	3	...	...	...	...	...	2005	6
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	9.00	...	...	1.00	...	...	2005	6
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	114.00	...	...	67.00 (2004)	...	...	2005	6
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	11	...	...	2002	5
48	**Diarrhoeal diseases**	...	...	...	0	0	0	2002	5
49	**Cancers**								
	All cancers (malignant neoplasms only)	58	...	...	37	...	...	2002	5
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	7	...	...	3	...	...	2002	5
	- Cervix			7			4	2002	5
	- Oesophagus	...	...	...	...	...	....		
	- Leukaemia	2	...	...	2	...	...	2002	5
	- Lip, oral cavity and pharynx	4	...	...	0	...	...	2002	5
	- Liver	2	...	...	6	...	...	2002	5
	- Stomach	7	...	...	5	...	...	2002	5
	- Trachea, bronchus, and lung	2	...	...	7	...	...	2002	5
50	**Circulatory**								
	All circulatory system diseases	...	...	...	88	...	...	2002	5
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	17	...	...	2002	5
	- Hypertension	...	...	...	9	...	...	2002	5
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
52	**Diabetes mellitus**	2417	1119	1298	29	...	...	2002	5
53	**Mental disorders**	135	...	...	0	0	0	2003	5
54	**Injuries**								
	All types	1500	...	...	26	...	...	2002	5
	- Homicide and violence	130	...	...	10	...	...	2002	5
	- Motor and other vehicular accidents	101	...	...	5	...	...	2002	5
	- Occupational injuries	...	...	...	1	...	...	2002	5
	- Suicide	35	...	...	4	...	...	2002	5
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	128	2003	5
	- Specialized hospitals					...	...		
	- District/first-level referral hospitals					...	...		
	- Primary health care centres					5	0	2003	5
	Private hospitals					...	...		

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Revised data
b	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
c	Figure refers to birthweight equal to 2501 grams and above
d	Given as inactivated polio vaccine (IPV)
e	Figure refers to per capita GDP (goods and services)

Sources:

1	*American Samoa Factsheet* . ASG Department of Commerce, Statistics Division, American Samoa [www.adsoc.info/AS%20Factsheet.htm].
2	Health Information System, ASG Department of Health, American Samoa.
3	*Demographic Tables for the Western Pacific 2005-2010* . Manila, World Health Organization Regional Office for the Western Pacific, 2005.
4	*American Samoa Population: 2006* . ASG Department of Commerce, Statistics Division, American Samoa 96799.
5	Department of Health, American Samoa.
6	WHO Regional Office for the Western Pacific, data received from the technical units.
7	ASG Department of Commerce, Statistics Division, American Samoa [www.asdoc.info/Statistics/statshp.htm].
8	US Census Bureau [www.census.gov].

AUSTRALIA

1. CONTEXT

1.1 Demographics

Australia had a population of 20 605 500 in 2006; 10 257 400 males and 10 348 100 females. The average age of the population was 37.8 years, with a life expectancy at birth of 78.5 years for men and 83.3 years for women. It is one of the world's most urbanized countries, with 88.2% of the population living in urban areas. Most of the population is concentrated along the eastern seaboard and the south-eastern corner of the continent.

1.2 Political situation

Australia was created in 1901 when former British colonies (now the six states) agreed to federate. The Government is based on a popularly elected parliament with two chambers: the House of Representatives and the Senate. Ministers appointed from these chambers conduct executive government. Policy decisions are made in meetings of the Cabinet. Ministers are bound by the principle of Cabinet solidarity. Although Australia is an independent nation, Queen Elizabeth II of the United Kingdom of Great Britain and Northern Ireland is also formally Queen of Australia. The Queen appoints a Governor-General (on the advice of the elected Australian Government) to represent her. The Governor-General has wide powers, but by convention acts only on the advice of ministers on virtually all matters.

Australia's system of government is based on the liberal democratic tradition, which includes religious tolerance and freedom of speech and association. Its institutions and practices reflect British and North American models, but are uniquely Australian.

Australia has a written constitution that defines the responsibilities of the Federal Government, which include foreign relations and trade, defence and immigration. Governments of states and territories are responsible for all matters not assigned to the Commonwealth. State parliaments are subject to the national constitution as well as their state constitutions. A federal law overrides any state law not consistent with it.

A national general election must be held within three years of the first meeting of a new federal parliament. The average life of parliaments is about two-and-a-half years. The Australian colonies inherited an electoral tradition from the United Kingdom that included limited franchise and public and plural voting. Abuses, such as bribery and intimidation of voters, stimulated electoral reform. Australia pioneered reforms that underpin the electoral practices of modern democracies. The indigenous people of Australia were recognized as part of the population and given the right to vote in 1967.

1.3 Socioeconomic situation

The twentieth century was a period of great social, economic and scientific development in Australia. In health, these developments brought better nutrition and living conditions from the start of the century, widespread immunization and improvements in medical treatment in the second half, and a growing awareness of the effects of lifestyle and socioeconomic factors on health in more recent times. Such advances have resulted in death rates that are now less than one-third of those in 1900, an improvement in life expectancy at birth of over 20 years, and a dramatic decline in perinatal mortality and deaths from infectious diseases. However, there has also been an increasing incidence of chronic diseases (e.g. cardiovascular diseases and cancer) and the rise and partial fall of two burdens of disease, coronary heart disease and lung cancer.

Although most Australians enjoy good health today, some groups in the population continue to suffer poor health, in particular Aboriginal and Torres Strait Islander peoples.

Australia has had one of the strongest economies in the world over the past decade: more competitive, open and vibrant than ever before. Australia's high level of economic performance, resting on strong growth, low inflation and low interest rates, has been the result of effective economic management and ongoing structural reform, along with a competitive and dynamic private sector and a skilled, flexible workforce.

With its abundant physical resources, Australia has enjoyed a high standard of living since the nineteenth century. It has made a comparatively large investment in social infrastructure, including education, training, health and transport.

In recent decades, the shift from manufacturing to services has been rapid, with most new jobs created in the services sector. The service industries sector accounted for 75% of total employment in Australia across all industries in 2002-2003. The new economy is characterized in part by the increasing pace of technological and social change, with innovation leading to higher productivity, and the development of information and knowledge in all industries.

1.4 Vulnerabilities and hazards

Biological hazards such as avian influenza and severe acute respiratory syndrome continue to pose an imminent risk to Australia. In preparation, the country hosted the Asia-Pacific Economic Corporation (APEC) Avian Influenza Preparedness and Response Meeting in Brisbane in 2005 and led the APEC Pandemic Response Exercise in June 2006.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Australia's goal is to manage, prevent and respond to health risks faced by the population. Policy is based and implemented on evidence-based and targeted programmes, which contribute to the sustainability of the Australian health system by reducing preventable illness and mortality. The Health and Ageing portfolio provides strategic leadership in health surveillance, biosecurity and emergency preparedness, food policy, chronic and communicable disease control, health promotion and the reduction of harm from substance abuse. A key focus is the integration of Australia's capacity to respond to a range of new and emerging threats to health.

The Health and Ageing portfolio supports the development and implementation of national communicable disease control policies. Particular areas of interest are polio, Creutzfeldt-Jakob Disease (CJD), tuberculosis, arboviruses, zoonoses, measles and vectorborne diseases.

An example of the Government's response to a communicable disease is the response to HIV/AIDS. It is guided by the principles and priorities outlined in the fifth National HIV/AIDS Strategy 2005–2008. Australia'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. The National HIV/AIDS Strategy 2005–2008 identifies five priority areas for action to be addressed over the life of the Strategy: developing a targeted prevention education and health promotion programme for HIV/AIDS; improving the health of people living with HIV/AIDS; developing an effective response to the changing care and support needs of people living with HIV/AIDS; reviewing the National HIV Testing Policy; and providing a clearer direction for HIV/AIDS research.

2.2 Outbreaks of communicable diseases

The Government provides expert advice and actions to support communicable disease (including foodborne diseases) surveillance activities nationally and internationally.

There are 66 nationally notifiable diseases in Australia, including bloodborne, sexually transmitted, quarantinable, gastrointestinal, and vaccine-preventable diseases. Diseases most often notified during 2006 included chlamydiosis (47 030 cases), campylobacteriosis (15 397 cases) and hepatitis C (13 226 cases).

Australia is working to ascertain and minimize the incidence and impact of foodborne illness 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 their 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 Government. Activities include:

- national health sector pandemic planning;
- establishment of the National Influenza Pandemic Action Committee (NIPAC); and
- development of the Pandemic Influenza Communication Strategy.

Major activities and programmes include:

- coordination of the health sector implementation of the outcomes of *Exercise Cumpston '06;*
- publication and ongoing review of the Australian Health Management Plan for Pandemic Influenza (AHMPPI) and associated annexes and technical papers;
- provision of support for the National Influenza Pandemic Action Committee (NIPAC) and the Chief Medical Officer's Expert Advisory Group (EAG);
- development and implementation of the Pandemic Influenza Communication Strategy;
- coordination of information regarding developments in international pandemic preparedness; and
- consultation with external stakeholders on pandemic preparedness issues.

2.3 Leading causes of mortality and morbidity

Significant increases in life expectancy occurred throughout the twentieth century, reductions in infant and child mortality being the most significant contributing factors. Life expectancy at birth continues to increase, reflecting the general decrease in death rates. A boy born in 2003–2005 could expect to live 78.5 years, while a girl could expect to live 83.3 years. Since 1984, life expectancy at birth has increased by 6.1 years for males and 4.5 years for females. In 2003–2005, life expectancy at birth for males and females varied across the regions of Australia by up to 12 years.

The most serious health issues are related to the increase in chronic diseases 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 a number of these conditions. Hypertension, cardiovascular diseases, cerebrovascular diseases, diabetes and its complications and arthritis are among these important chronic diseases.

The leading cause of morbidity in 2003 was upper respiratory tract infections, with 131 970 cases per 100 000 population. This figure indicates that, throughout the statistical period, some people experienced more than one infection. Chronic respiratory infection may lead to an acute respiratory attack. Acute respiratory infection was the cause of death for 3498 people in 2004.

Diarrhoeal diseases and back pain, with 87 810 and 45 500 cases, respectively, were the next leading causes of morbidity (2003).

There were 130 714 deaths registered in 2005, 67 241 male and 63 473 female, a fall of 1.4% on the corresponding figure for 2004 (132 508). There was a corresponding decrease in the standardized death rate from 9.8 deaths per 1000 population in 1985 to 6.0 in 2005, the lowest on record. The leading underlying cause of death in 2005 was malignant neoplasms, with 39 222 deaths, and the second major cause was ischaemic heart disease, with 23 570 deaths, giving rates of 192.9 and 115.9 deaths per 100 000 population, respectively. Other significant causes of death were cerebrovascular disease (56.6 deaths per 100 000) and accidents (25.9 deaths per 100 000).

Injuries accounted for 8015 deaths in 2005. Motor vehicle accidents and suicide were the major contributors, with 1638 and 2101 deaths, respectively. Males were more likely to commit suicide than females, with 1657 deaths compared with 444 deaths for females (2005).

2.4 Maternal, child and infant diseases

The neonatal mortality rate for 2005 was 3.6 deaths per 1000 live births and the infant mortality rate was 5 deaths per 1000 live births, an increase from 4.7 in 2004. The 2005 under-five mortality rate was 5.9 deaths per 1000 live births. The current infant and child death rates are low by international standards. Although infant and child deaths form only a small proportion (less than 1%) of all deaths, they nevertheless have important public health policy significance.

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 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. In the triennium 2000-2002, the maternal mortality ratio (MMR) was 11 deaths per 100 000 confinements. The MMR for Aboriginal and Torres Strait Islander women, however, continues to be higher than the rate for non-indigenous women, with an MMR of 45.9 deaths for 100 000 confinements, five times higher than the MMR of 8.7 for non-indigenous women. Although this comparison should be treated with caution owing to the very small number of indigenous maternal deaths and the lack of completeness of indigenous identification, there is justification for continuing concern about this disparity.

In 2005, Australia's fertility rate was 1.81 live births per woman, slightly higher than in 2004 (1.77).

2.5 Burden of disease

Upper respiratory tract infections, diarrhoeal diseases and back pain were the leading burdens of disease with 26 237 596, 17 457 098 and 9 045 837 cases, respectively, during 2003. Also prevalent were circulatory system diseases, which resulted in 46 134 deaths in 2005. The main circulatory diseases were acute myocardial infarction, cerebrovascular disease and ischaemic heart disease. These disease contributed to the deaths of 11 861, 11 513 and 24 502 people, respectively, during 2005.

Mental disorders affected a large proportion of the community, contributing to 3367 deaths during 2005. Of these deaths, 2139 were female. Although the death rate of females with mental disorder was higher than for males, the prevalence of mental illness was far higher in males than females, with 308 669 reported cases, compared with 185 950 cases for females (2003).

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Health and Ageing portfolio works towards providing a health care system that meets the health care and ageing needs of all Australians. This is achieved by improving health and well-being by strengthening evidence-based policy advice, improving programme management, research, regulation, and partnerships with other government agencies, consumers and stakeholders. The vision of the Department of Health and Ageing is of better health and active ageing for all Australians. Australia aims to achieve this through:

- focusing the health and aged care system more on healthy lifestyles, prevention and early intervention and a 'best practice' handling of chronic disease;
- improving the transparency, accessibility, accountability and quality of public and private health and aged care service provision through financing and agreements with stakeholders, industry and state and territory governments;
- consolidating and progressing reforms to ensure choice and access to quality aged care services;
- working together with the states and territories to reduce duplication and gaps, and to deliver efficient, value-for-money health and aged care services through an adaptable and sustainable health and aged care workforce;
- working towards improved health for Aboriginal and Torres Strait Islander peoples through whole-of-government arrangements for policy development and service delivery, and improved access to, and responsiveness of, the mainstream health system; and
- improving choice for consumers through strong private sector involvement, effectively integrated with the public sector.

3.2 Organization of health services and delivery systems

Within the Australian Health System, major programmes funded and managed by the Government include:

(1) Medicare Benefits Schedule (MBS)—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) Pharmaceutical Benefits Scheme (PBS)—subsidization of a wide range of prescription medications, supplied by community pharmacies.
(3) Private Health Insurance (PHI) Rebates—a system of rebates that subsidize the cost of premiums to private health insurance.
(4) Australian Health Care Agreements (AHCAs)—these provide the major transfer of funds from the Australian Government to its state and territory counterparts to contribute to the funding of free public hospital services.
(5) Public Health Outcome Funding Agreements (PHOFAs)—bilateral funding agreements between the Australian Government and the states and territories to provide a variety of public health programmes.

The Government also provides funding for public health initiatives, such as the purchase of vaccines, and programmes and health services administered by the Australian Divisions of General Practice and Aboriginal Medical Services. Many other grant programmes are also funded by the Government to improve, among other things, medical and nursing workforce participation in rural and remote areas and other areas of workforce shortages.

Privately supplied goods and services include dentists and other allied health professionals, complementary therapies and medicines, and aids and appliances.

In 2004-2005, there were 1293 hospitals in Australia, 759 of them public hospitals. In 2004-2005 there were 82 100 hospital beds, 55 113 in public hospitals and 26 988 in the private hospitals. This equates to 2.67 available beds per 1000 population in public hospitals, and 1.31 available beds per 1000 population in private hospitals, providing a total of 3.98 beds per 1000 population.

3.3 Health policy, planning and regulatory framework

In view of the importance, high cost and complexity of maintaining health, it is necessary to coordinate activities, set priorities and monitor the performance of the health system. Priority areas include those for Aboriginal and Torres Strait Islander health, hospital services, and the National Chronic Disease Health Strategy, covering the seven national health priority areas of: asthma; cancer; diabetes; heart, stroke and vascular disease; injury prevent and control; arthritis and musculoskeletal conditions; and mental health. In 2006, health ministers established a new Australian Health Development Committee to coordinate the development and implementation of national strategies relating to primary and secondary prevention of chronic and noncommunicable disease.

The type of evidence and information required to support informed priority setting in health depends on the societal goals for health. Improving the overall health of the population is a major goal of all societies. However, priority-setting based on the potential for health gain is not the only goal that Australians value. Other values of importance 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 Australian health system.

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 greater emphasis on community care and coordinated care; changing disease patterns; advances in medical technologies; and increasing consumer expectations.

3.4 Health care financing

In 2005, total health expenditure was US$ 69 197 million, an average of US$ 3400 per person. Government health expenditure totalled US$ 46 889 million, an average of US$ 2306 per person.

3.5 Human resources for health

In February 2007, approximately 363 100 people were employed in the health industry. The number of full-time equivalent staff in public hospitals has increased annually by an average of 1.4% (211 645 people) since 2004-2005. As of February 2007, there were 182 200 nurses, which is 88.4 nurses per 10 000 people, while there were 57 100 physicians, giving a ratio of 27.7 per 10 000 population. In 2004, there were 1733 graduate physicians and 5976 nurses.

3.6 Partnerships

The Commonwealth, in partnership with the states and territories, will strengthen the focus of the health system on the prevention and management of chronic disease through the Australian Better Health Initiative. Activities under the initiative will enhance the capacity of the health system and reduce the incidence of chronic disease by promoting healthy lifestyles and supporting early detection of lifestyle risks and diseases.

3.7 Challenges to health system strengthening

Australia's health care system is unique and often faces unique challenges. It is a combination of public, private and community-based health care and relies on many different professions. It extends from primary care to tertiary hospitals, from dense inner urban to remote low-density locations. It needs to provide care to all members of the community, from the very young to the very old, and address the health needs of both sexes, the chronically ill, and people from diverse backgrounds and places of origin.

Overall, Australians experience good health but still suffer from the major health burdens of the developed world (e.g. cancer, heart and vascular disease, mental illness, bone and muscular diseases, obesity and diabetes) and, in some communities, most notably many indigenous communities, diseases of the developing world.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	ABS developed the following information materials: *Year Book Australia* (ABS Cat. No. 1301.0); *Australian Demographic Statistics*- June Quarter 2006 (ABS Cat. No. 3101.0); *Births Australia 2005* (ABS Cat. No. 3301.0); *Deaths Australia 2005* (ABS Cat. No. 3302.0); Causes of Death 2005 (ABS Cat. No. 3303.0); *Employed Persons by Sex, Occupation, State, Status in Employment* (ABS Cat. No. 6291.0.55.003); *National Nutrition Survey: Nutrient intakes and physical measurements, Australia, 1995* (ABS Cat No. 4805.0); *Australian Social Trends 2004* (ABS Cat. No. 4102.0); *Motor vehicle census Australia 2006* (ABS Cat. No. 9); *Australian National Accounts: National income, expenditure and product* -December quarter 2006 (ABS Cat. No. 5206.0); *National Health Survey Australia 2001* (ABS Cat. No. 43464.0, and unpublished); *Labour force, Australia*, detailed, quarterly, February 2007 (ABS Cat. No. 6291.0.55.003, Table E08)
Operator	:	Australian Bureau of Statistics (ABS)
Web address	:	http://www.abs.gov.au/
Title 2	:	*Annual Report 05-06; Portfolio Budget Statement (2006);* *2006 Health and Ageing Factbook: Better Health. Better Care. Better Life*
Operator	:	Australian Government Department of Health and Ageing
Web address	:	http://www.health.gov.au/
Title 3	:	*Australia's Health*
Operator	:	Australian Institute of Health and Welfare (AIHW)
Specification	:	Australian Institute of Health and Welfare 2006. Health expenditure Australia 2004-2005 (AIHW Cat. No. HWE 35.)
Web address	:	http://www.aihw.gov.au/
Title 4	:	*The burden of disease and injury in Australia (2003) AIHW Cat. No. PHE 82*
Operator	:	Canberra: AIHW
Features	:	by Begg S, Vos T, Barker B, Stevenson C, Stanley L and Lopez A
Title 5	:	*Learning for tomorrow's world – first results from PISA (2003)*
Operator	:	Organisation for Economic Cooperation and Development (OECD)
Title 6	:	*Maternal deaths in Australia 2000-2002* (Cat. No. PER 32) by
Operator	:	AIHW National Perinatal Statistics Unit
Features	:	Sullivan EA and King JF (eds) (2006
Title 7	:	*Australia's mothers and babies 2004* (AIHW Cat. No. PER 34)
Operator	:	AIHW National Perinatal Statistics Unit
Features	:	Laws PJ, Grayson N and Sullivan EA (2006)
Title 8	:	*NHRMC – The New Era. Challenges for Australian Health and Medical Research*
Operator	:	NHMRC Strategic Plan 2007-2009
Title 9	:	*Pregnancy Outcome in South Australia 2005*
Operator	:	Pregnancy Outcome Unit, South Australian Department of Health, Adelaide
Features	:	Chan A, Scott J, Nguyen A-M, Sage L (2006)

Title 10	:	*Reproductive health indicators Australia 2002* (AIHW Cat. No. PER 20.)
Operator	:	Canberra: AIHW NPSU
Features	:	Ford J, Nassar N, Sullivan EA, Chambers G & Lancaster P 2003
Title 11	:	Reserve Bank of Australia
Web address	:	http:// www.rba.gov.au
Title 12	:	Students 2005: selected higher education statistics.
Operator	:	Canberra: Australian Department of Education, Science and Training
Web address	:	http://www.dest.gov.au/
Title 13	:	The burden of disease and injury in Australia (AIHW Cat. No. PHE 17.)
Operator	:	Canberra: AIHW (and unpublished)
Features	:	Mathers C, Vos T, Stevenson C 1999
Web address	:	http://www.aihw.gov.au/
Title 14	:	National Notifiable Diseases Surveillance System
Title 15	:	National Cancer Statistics Clearing House
Operator	:	Australian Institute of Health and Welfare
Web address	:	http://www.aihw.gov.au/
Title 16	:	*Australian hospital statistics 2004-2005* (AIHW Cat. No. HSE 41.)
Operator	:	Australian Institute of Health and Welfare 2006
Features	:	Canberra: AIHW
Web address	:	http://www.aihw.gov.au
Title 17	:	*Australia Now*
Operator	:	Australian Government Department of Foreign Affairs and Trade
Web address	:	http://www.dfat.gov.au/
Title 18	:	*National Centre in HIV Epidemiology and Clinical Research. HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2006*
Operator	:	National Centre in HIV Epidemiology and Clinical Research; The University of New South Wales, Sydney, NSW; Australian Institute of Health and Welfare, Canberra, ACT. 2006
Title 19	:	Communicable Diseases Australia
Operator	:	Surveillance Section, Australian Government Department of Health and Ageing
Web address	:	http://www.health.gov.au/cda

5. ADDRESSES

AUSTRALIAN DEPARTMENT OF HEALTH AND AGEING

Office Address	:	The Secretary Australian Department of Health and Ageing Attention: Assistant Secretary International Strategies Branch G.P.O. Box 9848, MDP 85 Canberra, A.C.T. 2601 Australia
Telephone	:	(612) 6289 1555
Fax	:	(612) 6289 7087
Office Hours	:	Mon–Fri 0830-1700
Website	:	www.health.gov.au

AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE

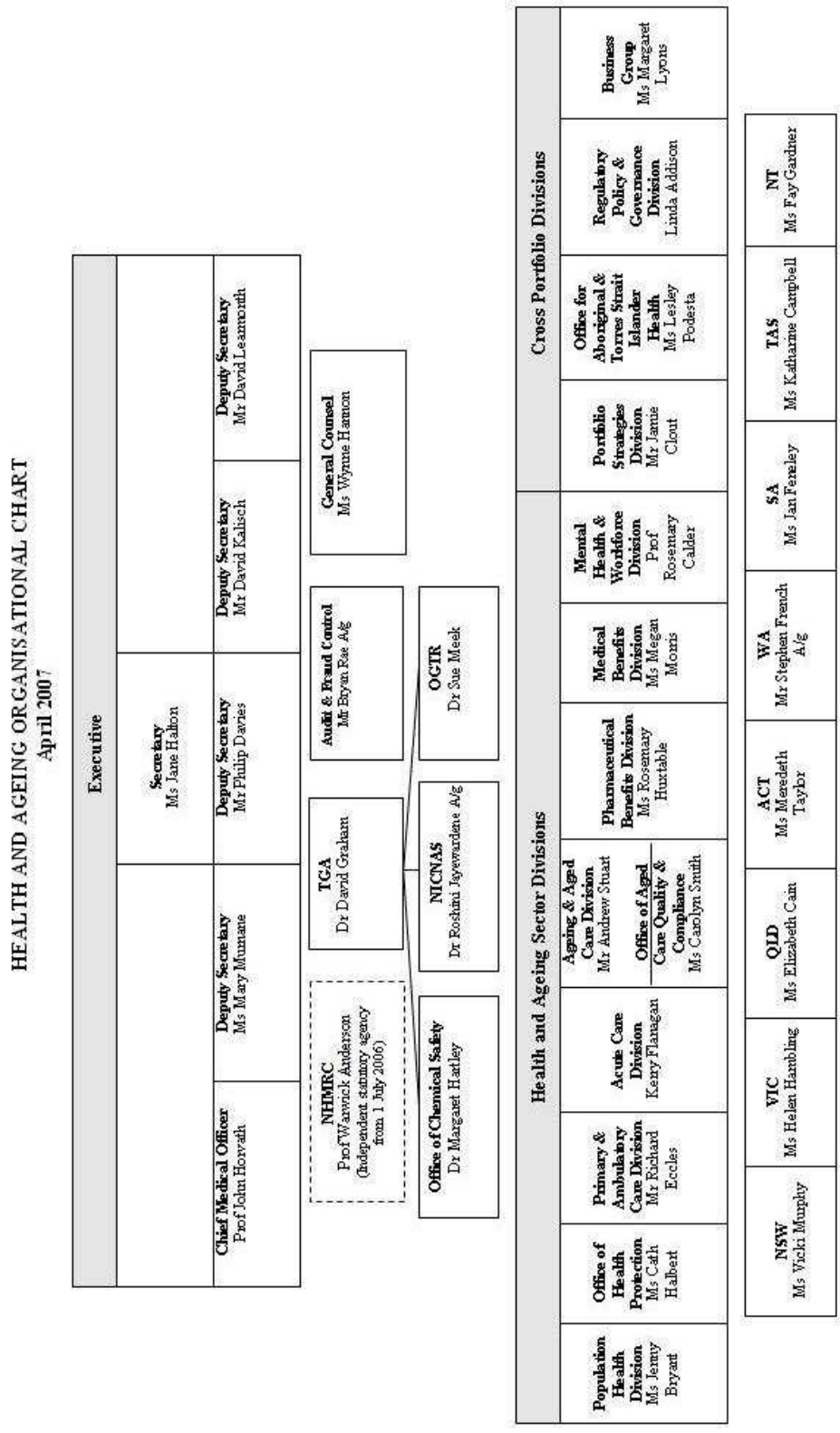
Office Address	:	Australian Institute of Health and Welfare 6A Traeger Court, Fern Hill Park Bruce ACT 2617 Australia
Postal Address	:	The Director Australian Institute of Health and Welfare GPO Box 570 Canberra ACT 2601 Australia
Telephone	:	(612) 6244 1000
Fax	:	(612) 6244 1299
Office Hours	:	Mon-Fri 0830-1700
Website	:	www.aihw.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	:	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) 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



AUSTRALIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	7692.02			2007	1
2	**Estimated population** ('000s)	20 605.50	10 257.40	10 348.10	2006	2
3	**Annual population growth rate** (%)	1.31	...	...	2005–06	2
4	**Percentage of population**					
	- 0–4 years	6.20	6.40	6.00	2006	2
	- 5–14 years	13.20	13.60	12.80	2006	2
	- 65 years and above	13.30	12.00	14.50	2006	2
5	**Urban population** (%)	88.20 [j]	...	...	2005 est	31
6	**Crude birth rate** (per 1000 population)	12.80	13.20	12.40	2005	3
7	**Crude death rate** (per 1000 population)	6.40	6.60	6.20	2005	4
8	**Rate of natural increase of population** (% per annum)	0.64	...	...	2005–06	2
9	**Life expectancy** (years)					
	- at birth	...	78.50	83.30	2003–05	4
	- Healthy Life Expectancy (HALE) at age 60	18.90	17.10	20.50	2003	5
10	**Adult literacy rate** (%)	88.20 [a]	...	...	2003	6
11	**Neonatal mortality rate** (per 1000 live births)	3.60	3.90	3.30	2005	4
12	**Infant mortality rate** (per 1000 live births)	5.00	5.40	4.70	2005	4
13	**Under-five mortality rate** (per 1000 live births)	5.90	6.40	5.50	2005	4
14	**Total fertility rate** (women aged 15–49 years)	1.81			2005	3
15	**Maternal mortality ratio** (per 100 000 live births)	11.00			2000–02	7
16	**Percentage of newborn infants weighing at least 2500 g at birth**	93.60	94.10	93.10	2004	8
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			6.20	2005	10
19	**Percentage of teenage pregnancy**			4.60	2004	8
20	**Immunization coverage for infants (%)**					
	- BCG	NR	NR	NR	2005	29
	- DTP3	92.30	...	...	2005	29
	- POL3	92.20	...	...	2005	29
	- Measles	93.40 [g]	...	...	2005	29
	- Hepatitis B III	94.60	...	...	2005	29
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.00			2001	11
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2005	20
	- Percentage of deliveries attended by skilled health personnel	99.50			2004	8
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.20			2004	8
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.30			2004	8
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			65.00 [h]	2001	13
23	**Condom use rate of the contraceptive prevalence rate**	36.00	...	...	2001	13
24	**HIV prevalence among 15–24 year-old pregnant women**			0.01	2004 est	12
25	**Number of children orphaned by HIV/AIDS** [aa]	...		...		

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	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	100.00	100.00	100.00	2004	14
27	**Proportion of population with access to improved sanitation**	100.00	100.00	100.00	2004	14
28	**Proportion of the population using solid fuels (%)**	<5.00	...	...	2002	15
29	**Proportion of households with access to secure tenure**	99.50 [e]			2001	16
30	**Proportion of vehicles using unleaded gasoline** (%)	78.10	...	...	2006	17
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**	0.96			2004	30
33	**Per capita GDP at current market prices** (US$)	36 759.00			2005-06	18
34	**Rate of growth of per capita GDP** (%)	7.80			2004-06	18
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)	69 197.71			2005 p	19
	- total expenditure on health as % of GDP	9.50			2005 p	19
	- per capita total expenditure on health (in US$)	3404.00			2005 p	19
	Government expenditure on health					
	- amount (in million US$)	46 889.31			2005 p	19
	- general government expenditure on health as % of total expenditure on health	67.80			2005 p	19
	- general government expenditure on health as % of total general government expenditure	18.50			2005 p	19
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health	0.00			2005 p	19
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health	32.20			2005 p	19
	Exchange rate in US$ of local currency is: 1 US$ =	1.31			2005 p	19
36	**Health insurance coverage as % of total population**	100.00 [f]			2007	23

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	57 000	37 600	19 400	...	...	27.71	36.66	18.75	...	...	2007p	28
	- dentists	8900	6300	2600	...	...	4.32	6.14	2.51	...	...	2007p	28
	- pharmacists	17 300	9300	8000	...	...	8.40	9.07	7.73	...	...	2007p	28
	- nurses	182 200	13 000	169 200	...	...	88.42	12.67	163.51	...	...	2007p	28
	- midwives	16 800	0	16 800	...	...	8.15	0.00	16.23	...	...	2007p	28
	- other nursing / auxiliary staff	15 700	2600	13 100	...	...	7.62	2.53	12.66	...	...	2007p	28
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	58 900	15 600	43 300	...	...	28.58	15.21	41.84	...	...	2007p	28
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	6200	1400	4800	...	...	3.01	1.36	4.64	...	...	2007p	28
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	1733	794	939								2004	21
40	**Yearly new graduates – nurses**	5976	704	5272								2004	21

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Upper respiratory tract infections	26 237 596	12 310 741	13 926 855	131 970.00	124 710.00	139 130.00	2003	5
	2. Diarrhoeal diseases	17 457 098	7 867 069	9 590 029	87 810.00	79 690.00	95 810.00	2003	5
	3. Acute & chronic back pain	9 045 837	3 840 354	5 205 483	45 500.00	38 900.00	52 000.00	2003	5
	4. Dental caries	5 011 664	2 507 395	2 504 269	25 210.00	25 400.00	25 020.00	2003	5
	5. Pulpitis	2 208 276	1 088 720	1 119 556	11 110.00	11 030.00	11 180.00	2003	5
	6. Lower respiratory tract infections	2 048 242	991 471	1 056 771	10 300.00	10 040.00	10 560.00	2003	5
	7. Otitis media	1 174 267	627 022	547 245	5910.00	6350.00	5470.00	2003	5
	8. Deficiency anaemia	940 777	217 333	723 444	4730.00	2200.00	7230.00	2003	5
	9. Non-melanoma skin cancers	382 623	221 190	161 433	1920.00	2240.00	1610.00	2003	5
	10. Adult-onset hearing loss	246 428	169 876	76 552	1240.00	1720.00	760.00	2003	5
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neoplasms (C00-C97)	39 222	22 039	17 183	192.90	218.00	168.20	2005	25
	2. Ischaemic heart disease (I20-I25)	23 570	12 433	11 137	115.90	123.00	109.00	2005	25
	3. Cerebrovascular disease (I60-I69)	11 513	4668	6845	56.60	46.20	67.00	2005	25
	4. Chronic lower resp dis (J40-J47)	5428	3025	2403	26.70	29.90	23.50	2005	25
	5. Accidents (V01-X59)	5267	3317	1950	25.90	32.80	19.10	2005	25
	6. Diabetes mellitus (E10-E14)	3529	1775	1754	17.40	17.60	17.20	2005	25
	7. Influenza & pneumonia (J10-J18)	3034	1331	1703	14.90	13.20	16.70	2005	25
	8. Organic (inc symptomatic) mental (F00-F09)	2838	908	1930	14.00	9.00	18.90	2005	25
	9. Disease of arteries (I70-I79)	2386	1217	1169	11.70	12.00	11.40	2005	25
	10. Heart failure (I50)	2225	835	1390	11.00	8.30	13.60	2005	25
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	1	...	...	...	...	...	2005	20
	- Diphtheria	0	0	0	0	0	0	2005	20
	- Hib meningitis	2	...	...	...	...	...	2005	20
	- Measles	10	...	...	...	...	...	2005	20
	- Mumps	240	...	...	...	...	...	2005	20
	- Neonatal tetanus	0	0	0	0	0	0	2005	20
	- Pertussis (whooping cough)	11 277	...	...	...	...	...	2005	20
	- Poliomyelitis	0	0	0	0	0	0	2005	20
	- Rubella	31	...	...	...	...	...	2005	20
	- Total Tetanus	2	...	...	...	...	...	2005	20
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	280	...	...	2	0	2	C:2006 D:2004	24,25
	- Type B	6686	...	...	7	4	3	C:2006 D:2004	24,25
	- Type C	13 226	...	...	21	11	10	C:2006 D:2004	24,25
	- Type E	24	...	...	0	0	0	C:2006 D:2004	24,25
	- Unspecified	32	...	...	3	1	2	C:2006 D:2004	24,25

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	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	3	...	...	0	0	0	C:2006 D:2004	24,25
	Dengue/DHF	187	...	...	1	0	1	C:2006 D:2004	24,25
	Encephalitis	7650	...	...	29	13	16	C:2006 D:2004	24,25
	Gonorrhoea	8573	...	...	1	1	0	C:2006 D:2004	24,25
	Leprosy	5	...	...	...	...	...	2004	20
	Malaria	771	...	...	1	1	0	C:2006 D:2004	24,25
	Plague	0	0	0	0	0	0	C:2006 D:2004	24,25
	Syphilis	2662	...	...	2	1	1	C:2006 D:2004	24,25
	Typhoid fever	77	...	...	0	0	0	C:2006 D:2004	24,25
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	3.70	...	...	0.00	0.00	0.00	C:2006 D:2004	24,25
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	1033	...	...	...	...	...	2005	20
	- New pulmonary tuberculosis (smear-positive)	244	...	...	...	...	...	2005	20
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	6.00	...	...	1.00	...	...	2005	20
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	42.00	...	...	85.00 (2004)	...	...	2005	20
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	29 460 105	13 929 234	15 530 871	3498	1549	1949	C:2003 D:2004	5,25
48	**Diarrhoeal diseases**	17 457 098	7 867 069	9 590 029	199	63	136	C:2003 D:2004	5,25
49	**Cancers**								
	All cancers (malignant neoplasms only)	93 194	51 418	41 776	37 989 [d]	21 383 [d]	16 606 [d]	C:2003 D:2004	26,25
	- Breast	11 889	101	11 788	2661	20	2641	C:2003 D:2004	26,25
	- Colon and rectum	12 536	6857	5679	4077	2189	1888	C:2003 D:2004	26,25
	- Cervix			725			212	C:2003 D:2004	26,25
	- Oesophagus	1154	765	389	1093	772	321	C:2003 D:2004	26,25
	- Leukaemia	2524	1460	1064	1448 [d]	842 [d]	606 [d]	C:2003 D:2004	26,25
	- Lip, oral cavity and pharynx	2776	1966	810	606	433	173	C:2003 D:2004	26,25
	- Liver	890	614	276	892	560	332	C:2003 D:2004	26,25
	- Stomach	1873	1216	657	1149 [d]	715 [d]	434 [d]	C:2003 D:2004	26,25
	- Trachea, bronchus, and lung	8249	5281	2968	7264 [d]	4733 [d]	2531 [d]	C:2003 D:2004	26,25

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	...	...	...	46 134	21 957	24 177	2005	5,25
	- Acute myocardial infarction	...	...	...	11 861	6004	5857	2005	5,25
	- Cerebrovascular diseases	19 627	9129	10 498	11 513	4668	6845	C:2003 D:2005	5,25
	- Hypertension	...	...	...	1445	508	937	2005	5,25
	- Ischaemic heart disease	38 675	24 651	14 024	23 570	12 433	11 137	C:2003 D:2005	5,25
	- Rheumatic fever and rheumatic heart diseases	1925	635	1290	284	100	184	C:2003 D:2005	5,25
51	**Maternal causes**								
	- Abortion			...			0	2004	25
	- Eclampsia			...			0	2004	25
	- Haemorrhage			...			4	2004	25
	- Obstructed labour			...			0	2004	25
	- Sepsis			...			0	2004	25
52	**Diabetes mellitus**	1 170 898	616 119	554 779	3529	1775	1754	C:2003 D:2005	5,25
53	**Mental disorders**	494 619	308 669	185 950	3367	1228	2139	C:2003 D:2005	5,25
54	**Injuries**								
	All types	309 026	183 853	125 173	8015	5364	2651	C:2003 D:2005	5,25
	- Homicide and violence	16 987	13 356	3631	199	130	69	C:2003 D:2005	5,25
	- Motor and other vehicular accidents	25 382	17 618	7764	1638	1224	414	C:2003 D:2005	5,25
	- Occupational injuries	...	...	...	...	...	...		
	- Suicide	24 385	9533	14 852	2101	1657	444	C:2003 D:2005	5,25
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					739	52 626	2004-05	27
	- Specialized hospitals					20 [i]	2487 [i]	2004-05	27
	- District/first-level referral hospitals					...	...		
	- Primary health care centres					...	...		
	Private hospitals					534	26 988	2004-05	27

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Data for 15-year-old schoolchildren. Literacy defined as Levels 2-5 using OECD PISA (Programme for International Student Assessment) standards
b	Ages 2-3 only
c	South Australia only

d	Revised data
e	Persons without secure tenure include those sleeping rough (primary homeless), in stop-gap housing (secondary homeless) and boarding house residents (tertiary homeless)
f	Medicare provides universal health care to all Australians
g	Measles as at age 2
h	Percentage of women aged 18-49 (or their partners) reporting using contraceptive methods (including hysterectomy, tubal ligationand partner vasectomy)
i	Figure refers to psychiatric hospitals
j	Figure includes Christmas Island, Cocos (Keeling) Islands and Norfolk Island

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BRUNEI DARUSSALAM

1. CONTEXT

1.1 Demographics

The population of Brunei Darussalam is estimated to have been 370 100 in 2005 and is increasing at 2.9% per annum. With an area of 5765 square kilometres, the country's population density is 64 persons per square kilometre.

The population comprises 195 300 (52.8%) males and 174 800 (47.2%) females, giving a gender ratio of 112 males per 100 females. The population structure is essentially that of a young population; about 13.1% and 32.1% of the population is under-five and under-15 years, respectively, and only 2.6% are 65 years and over.

Brunei Darussalam has a multi-ethnic population, with Malays, comprising 66.7%, the predominant ethnic community, and Chinese, with 11.2%, the next major group. Other races, such as Indians, other ethnic groups and expatriates, make up the rest of the population.

In 2005, life expectancy at birth was 74.2 years for males and 77.3 years for females. The crude birth rate had declined to 18.7 per 1000 population and crude death rate was 2.9 per 1000 population. The total fertility rate had remained constant at 2.1 since 2003.

Brunei Darussalam's health services are ranked among the best in Asia. The Ministry of Health works hand in hand with WHO and continues to meet the targets of a better health status. The country has achieved almost all indicators stipulated by WHO. For instance, the infant mortality and under-five mortality rates have decreased to 7.4 per 1000 live births and 9.4 per 1000 live births, respectively, while the death rate among mothers giving birth was 14.4 per 100 000 live births in 2005.

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. His Majesty 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, since that date, has been subject to important amendments in 1971 and 1984. The 1959 Constitution provides for 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 His Majesty 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, His Majesty swears in a Supreme Court (chief justice and judges) for a three-year term.

1.3 Socioeconomic situation

The economy 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 of GDP. Per capita GDP is far above most other developing countries (US$ 25 667 in 2005), and substantial income from overseas investment supplements income from domestic production. The Government provides for all medical services and subsidizes rice and housing.

The Council of Cabinet Ministers, with the consent of His Majesty the Sultan and Yang Di-Pertuan of Brunei Darussalam, approved a budget totalling US$ 4 990 322 402 for the financial year of 1 April 2004 to 31 March 2005. The allocation to public utilities and health amounted to US$ 208 108 000.

Human resource development (HRD) is a crucial element in implementation of the economy's five-year national development plan. As such, a sum of US$ 250 million or 3.4% of the Eighth National Development Plan's total allocation has been allocated to the HRD Fund (HRDF). Its main objective is to facilitate training, retraining and other HRD-related programmes and projects aiming at better career development of the economy's human resources. Among other things, the HRDF includes special schemes for undergraduate, post-graduate and specialized studies, and pre- and post-employment for local job-seekers, as well as pre-retirement programmes.

Plans for the future include upgrading the labour force, reducing unemployment, strengthening the banking and tourist sectors, and further widening the economic base beyond oil and gas.

1.4 Vulnerabilities and hazards

Natural hazards, such as typhoons, earthquakes and severe flooding, are very rare in Brunei Darussalam. However, there has been seasonal smoke/haze resulting from forest fires in Indonesia. A National Committee on Disaster Management has been formed to strengthen the country's preparedness and 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 modern lifestyles. The five leading causes of death in 2005 were cancer, heart disease, diabetes mellitus, cerebrovascular diseases and hypertensive diseases. 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.

Brunei Darussalam has an enviable record in being almost entirely free of major communicable diseases. A total of 55 communicable diseases are notifiable in the country, and authorities have been vigilant in detecting and preventing the invasion of newly emerging infectious diseases such as severe acute respiratory syndrome (SARS) and avian influenza. Brunei Darussalam, together with several other countries in South-East Asia has been declared 'polio-free'.

The country has a comprehensive child immunization programme to protect against vaccine-preventable diseases. All these services are free. Medical advances in vaccines have been made widely available through the Expanded Programme on Immunization, which is incorporated into the 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.

The overall improvement in general sanitation, housing, food hygiene, regular food handlers screening and counselling, safe drinking water and health education measures have successfully kept foodborne and waterborne diseases under control in Brunei Darussalam.

2.2 Outbreaks of communicable diseases

There have been no recent major outbreaks of communicable disease in Brunei Darussalam. In 2006, there were a number of cases of hand, mouth and foot disease, and a very small number of food poisoning and dengue cases, which were all contained and caused no alert.

2.3 Leading causes of mortality and morbidity

The main diseases affecting health status (morbidity) are derived from hospital discharge summaries, outpatient morbidity data 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 2005 were: asthma; diabetes mellitus; acute lower respiratory infections; abortions; and diarrhoea and gastroenteritis of presumed infectious origin. For mortality, the leading causes were: cancer; heart disease; diabetes mellitus; cerebrovascular disease; and hypertensive disease.

In 2005, there were 1072 deaths registered in Brunei Darussalam. Males accounted for 170 more deaths than females. Cancer, the prime cause of mortality, constituted 20.1% of total deaths. The second in line was heart disease, accounting for 16.4% of total deaths, followed by diabetes mellitus (11.0%). The most common type of heart disease is ischaemic heart disease, while the common types of cancers are of the trachea, lung and bronchus; colon and rectum; and breast.

2.4 Maternal, child and infant diseases

Infant mortality has fallen as a result of higher standards of living, improved levels of education and literacy, the increasing empowerment of women and rising standards of infant care services. Maternal health has also improved dramatically and the maternal mortality ratio has plunged to an extremely low level. To maintain these outcomes, Brunei Darussalam strives to ensure the availability and practice of antenatal care, skilled care during childbirth and postnatal care, and quality of health services. Almost all births are delivered in hospitals and almost 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 services in Brunei Darussalam. The Ministry's vision is to strive 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 be health improvement for people-centred development. In this regard, health policies and programmes will continue to be constantly reviewed in the context of changing

economic, social and technological environments and health situations. In looking ahead to the future, the following four principles will be 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 this 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.

Measures being implemented to help achieve these goals:

- generation of additional revenue and sending of price signals to users and providers;
- better definition of the range of health services that should be provided by the public sector;
- implementation of the shift to corporatization of hospitals; and
- pursuing of initiatives on dealing with national health emergencies.

With noncommunicable diseases now the dominating causes of morbidity and mortality, Brunei Darussalam has identified health promotion as one of the major initiatives in its National Health Care Plan 2000-2010. This strategy provides the basis for a more integrated health programme. In recognition of the need for the promotion of positive health measures, a multidisciplinary committee has been established. The National Committee on Health Promotion aims to increase public awareness of these problems as well as develop strategies to modify the public's behaviour in favour of a healthier lifestyle through community participation and intersectoral collaboration.

The Committee has identified seven priority areas for action: nutrition; food safety; tobacco control; mental health; physical activity; health environments/settings; and women's health. These priorities are promoted by special events, publicity on major health issues, and appropriate measures for modifying 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 mother and child. In remote areas that are not accessible or are difficult to access by land or water, primary health care is provided by the Flying Medical Services.

As of year 2005, there were five general hospitals—in Bandar Seri Begawan, Tutong, Kuala Belait, Bangar and Seria—15 health centres, 16 maternal and child health clinics, 10 travelling health clinics and four flying medical services for remote areas. In addition to the government hospitals in each district, there were also two private hospitals and five medical centres operated by the Ministry of Defence.

The main referral 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.

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 to provide access to primary health care for the general population throughout the country.

The Ministry of Health has now categorized the respective health care services available in Brunei Darussalam into two main services. 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 priority for the Government of His Majesty and Yang Di-Pertuan of Negara Brunei Darussalam. 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, and premature deaths, thereby increasing life expectancy; improvement of the environment; and control of communicable diseases.

3.4 Health care financing

All the Ministry of Health services provided to citizens and permanent residents 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 amount 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 97.25% public versus 2.75% private spending. 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 cooperation provides health insurance through international insurance companies.

3.5 Human resources for health

In 2005, a total of 390 physicians and 73 dentists were registered to practice. The ratio of doctors to population was 1:949. A comprehensive manpower development programme for the community, as well as for hospital-based health personnel, is to be extended to strengthen health care services throughout the country, with emphasis on the primary health care approach.

3.6 Partnerships

The Government continues to harness and forge a stronger partnership among various stakeholders to provide the necessary synergy to reach the shared vision of improved health. The main common stakeholders are other government agencies, academic institutions and other organizations, both local and international. Government agencies provide support in 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 mostly comes 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 investments 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, and increased public expectations. Over time, the role of the Ministry will evolve from that of a provider of health care services to that of a facilitator and regulator of services. 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, including 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 establishing 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	:	*2001 Preliminary Census Report*
Operator	:	Department of Economic Planning and Development, Prime Minister's Office
Title 2	:	Statistics Unit, Research and Development Section, Ministry of Health
Title 3	:	Ledger Section – Expenditure, Ministry of Finance
Title 4	:	Budget and Tender Section – Budget, Ministry of Finance

5. ADDRESSES

MINISTRY OF HEALTH

Office Address	:	Jalan Menteri Besar Bandar Seri Begawan BB3910 Brunei Darussalam
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WHO REPRESENTATIVE IN MALAYSIA, BRUNEI DARUSSALAM AND SINGAPORE

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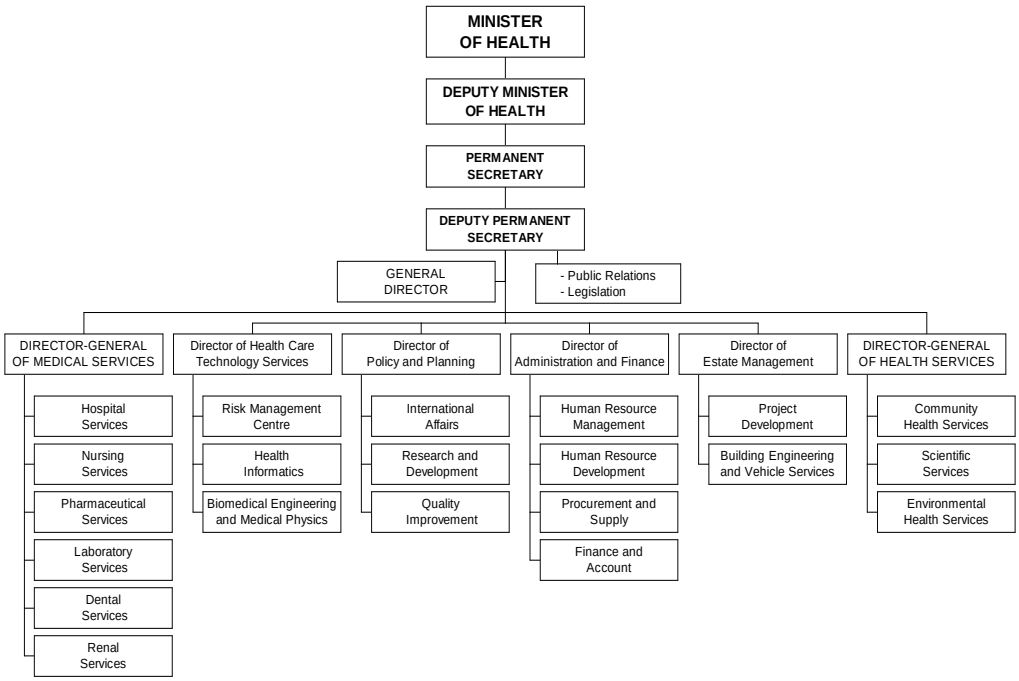
Official Email Address	:	who@maa.wpro.who.int
Telephone	:	(603) 209 39908 / 209 21184
Fax	:	(603) 209 37446

6. ORGANIZATIONAL CHART: Ministry of Health



BRUNEI DARUSSALAM — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	5.77			2005	1
2	**Estimated population** ('000s)	370.10	195.30	174.80	2005	1
3	**Annual population growth rate** (%)	2.90	...	...	2005	1
4	**Percentage of population**					
	- 0–4 years	13.10	13.10	13.20	2005	1
	- 5–14 years	19.00	18.90	19.10	2005	1
	- 65 years and above	2.60	2.30	3.00	2005	1
5	**Urban population** (%)	73.50	...	...	2005 est	5
6	**Crude birth rate** (per 1000 population)	18.70	...	...	2005	2
7	**Crude death rate** (per 1000 population)	2.90	...	...	2005	2
8	**Rate of natural increase of population** (% per annum)	1.60	...	...	2005	1
9	**Life expectancy** (years)					
	- at birth	...	74.20	77.30	2005	1
	- Healthy Life Expectancy (HALE) at age 60	...	13.10	13.30	2002	6
10	**Adult literacy rate** (%)	92.70	95.20	90.20	2004	7
11	**Neonatal mortality rate** (per 1000 live births)	4.50	...	...	2005	2
12	**Infant mortality rate** (per 1000 live births)	7.40	...	...	2005	2
13	**Under-five mortality rate** (per 1000 live births)	9.40	...	...	2005	2
14	**Total fertility rate** (women aged 15–49 years)	2.10			2004p	1
15	**Maternal mortality ratio** (per 100 000 live births)	14.40			2005	2
16	**Percentage of newborn infants weighing at least 2500 g at birth**	90.60	...	...	2005	2
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	96.00	...	...	2005	4
	- DTP3	100.00	100.00	100.00	2005	4
	- POL3	100.00	100.00	100.00	2005	4
	- Measles	97.00	...	...	2005	4
	- Hepatitis B III	100.00	100.00	100.00	2005	4
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.60			2004	2
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	41.00			2005	2
	- Percentage of deliveries attended by skilled health personnel	99.70			2005	2
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.05			2005	2
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.65			2005	2
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			...		
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	99.00	...	...	2005	1
27	Proportion of population with access to improved sanitation	80.00	...	...	2002	2
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.87	2004	7
33	**Per capita GDP at current market prices** (US$)			25 667.30	2005	1
34	**Rate of growth of per capita GDP** (%)			1.59	2005p	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			199.40	2005p	3
	- total expenditure on health as % of GDP			3.10	2005p	3
	- per capita total expenditure on health (in US$)			533.16	2005p	3
	Government expenditure on health					
	- amount (in million US$)			154.82	2005p	3
	- general government expenditure on health as % of total expenditure on health			77.60	2005p	3
	- general government expenditure on health as % of total general government expenditure			4.80	2005p	3
	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			22.40	2005p	3
	Exchange rate in US$ of local currency is: 1 US$ =			1.66	2005p	3
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	390	...	...	335	55	10.54	...	...	9.05	1.49	2005	2
	- dentists	73	...	...	59	14	1.97	...	...	1.59	0.38	2005	2
	- pharmacists	41	...	...	25	16	1.11	...	...	0.68	0.43	2005	2
	- nurses	1789	...	...	1745	44	48.34	...	...	47.15	1.19	2005	2
	- midwives	748	...	...	713	35	20.21	...	...	19.27	0.95	2005	2
	- other nursing / auxiliary staff	6	0	6	...	...	0.17	0.00	0.35	...	...	2004	2
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	193	74	119	...	...	5.37	3.91	6.99	...	...	2004	2
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	253	154	99	...	...	7.03	8.13	5.81	...	...	2004	2
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	15	4	11								2005	2
40	**Yearly new graduates – nurses**	67	19	48								2005	2

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Asthma	968	502	466	261.60	257.00	266.60	2005	2
	2. Diabetes Mellitus	967	408	559	261.30	208.90	319.80	2005	2
	3. Acute Lower Respiratory Infections	897	498	399	242.40	255.00	228.30	2005	2
	4. Pregnancy with Abortive Outcome	887		887	239.70		507.40	2005	2
	5. Diarrhoea and Gastroenteritis of Presumed Infectious Origin	877	477	400	237.00	244.20	228.80	2005	2
	6. Hypertensive Diseases	804	343	461	217.20	175.60	263.70	2005	2
	7. Acute Upper Respiratory Infections	781	457	324	211.00	234.00	185.40	2005	2
	8. Heart Diseases	627	383	244	169.40	196.10	139.60	2005	2
	9. Fractures of Specified and Multiple Body Regions	573	379	194	154.80	194.10	111.00	2005	2
	10. Cataract	556	280	276	150.20	143.40	157.90	2005	2
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Cancer	215	118	97	58.10	60.40	55.50	2005	2
	2. Heart Diseases (including Acute Rheumatic Fever)	176	113	63	47.60	57.90	36.00	2005	2
	3. Diabetes Mellitus	118	57	61	31.90	29.20	34.90	2005	2
	4. Cerebrovascular Diseases	71	35	36	19.20	17.90	20.60	2005	2
	5. Hypertensive Diseases	54	28	26	14.60	14.30	14.90	2005	2
	6. Influenza and Pneumonia	49	29	20	13.20	14.80	11.40	2005	2
	7. Bronchitis, Chronic & Unspecified Emphysema & Asthma	46	25	21	12.40	12.80	12.00	2005	2
	8. Transport Accidents	45	28	17	12.20	14.30	9.70	2005	2
	9. Certain Conditions Originating in the Perinatal Period	26	20	6	7.00	10.20	3.40	2005	2
	10. Congenital Malformations, Deformations & Chromosomal Abnormalities	25	12	13	6.80	6.10	7.40	2005	2
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2005	4
	- Diphtheria	0	0	0	0	0	0	2005	4
	- Hib meningitis	0	0	0	0	0	0	2005	4
	- Measles	9	...	...	...	...	...	2005	4
	- Mumps	25	...	...	...	...	...	2005	4
	- Neonatal tetanus	0	0	0	0	0	0	2005	4
	- Pertussis (whooping cough)	0	0	0	0	0	0	2005	4
	- Poliomyelitis	0	0	0	0	0	0	2006	4
	- Rubella	0	0	0	0	0	0	2005	4
	- Total Tetanus	0	0	0	0	0	0	2005	4
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	4	2	2	0	0	0	2005	8
	- Type B	0	0	0	0	0	0	2005	8
	- Type C	0	0	0	0	0	0	2005	8
	- Type E	...	...	...	...	...	...		
	- Unspecified	0	0	0	0	0	0	2005	8

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2005	8
	Dengue/DHF	68	41	47	0	0	0	2005	8
	Encephalitis	0	0	0	0	0	0	2005	8
	Gonorrhoea	210	191	19	...	...	...	2005	8
	Leprosy	1	...	...	...	...	...	2005	4
	Malaria	0	0	0	0	0	0	2005	8
	Plague	0	0	0	0	0	0	2005	8
	Syphilis	12	3	9	0	0	0	2005	8
	Typhoid fever	2 [a]	2 [a]	0	0	0	0	2005	8
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	0.00	0.00	0.00	0.00	0.00	0.00	2005	8
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	163	...	...	...	...	...	2005	4
	- New pulmonary tuberculosis (smear-positive)	101	...	...	...	...	...	2005	4
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	63.00	...	...	5.00	...	...	2005	4
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	112.00	...	...	71.00 (2004)	...	...	2005	4
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	3503	1986	1517	122	73	49	2005	2
48	**Diarrhoeal diseases**	457	257	197	0	0	0	2005	8
49	**Cancers**								
	All cancers (malignant neoplasms only)	400	168	232	215	118	97	2005	2
	- Breast	32	0	32	17	0	17	2005	2
	- Colon and rectum	30	22	8	31	22	9	2005	2
	- Cervix			50			6	2005	2
	- Oesophagus	2	2	0	0	0	0	2005	2
	- Leukaemia	13	9	4	7	5	2	2005	2
	- Lip, oral cavity and pharynx	19	14	5	12	8	4	2005	2
	- Liver	10	5	5	11	5	6	2005	2
	- Stomach	15	5	10	11	8	3	2005	2
	- Trachea, bronchus, and lung	63	40	33	51	36	15	2005	2

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	1778	907	871	310	183	127	2005	2
	- Acute myocardial infarction	62	45	17	50	39	11	2005	2
	- Cerebrovascular diseases	133	69	64	71	35	36	2005	2
	- Hypertension	804	343	461	54	28	26	2005	2
	- Ischaemic heart disease	203	134	69	37	27	10	2005	2
	- Rheumatic fever and rheumatic heart diseases	16	5	11	1	1	0	2005	2
51	**Maternal causes**								
	- Abortion			887			...	2005	2
	- Eclampsia			...			...		
	- Haemorrhage			12			...	2005	2
	- Obstructed labour			3			1	2005	2
	- Sepsis			...			...		
52	**Diabetes mellitus**	967	408	559	118	57	61	2005	2
53	**Mental disorders**	53	26	27	0	0	0	2005	2
54	**Injuries**								
	All types	3204	2153	1051	82	57	25	2005	2
	- Homicide and violence	114	84	30	12	8	4	2005	2
	- Motor and other vehicular accidents	425	267	158	45	28	17	2005	2
	- Occupational injuries	56	...	...	...	...	...	2005	2
	- Suicide	49	10	39	7	6	1	2005	2
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						100.00	2003	2
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	598	2005	2
	- Specialized hospitals					1	...	2005	2
	- District/first-level referral hospitals					3	367	2005	2
	- Primary health care centres					15	0	2005	2
	Private hospitals					2	148	2005	2

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure includes parathyroid cases

Sources:

1	Department of Economic Planning and Development (DEPD), Prime Minister's Office.
2	Statistics Unit, Research and Development Section, Ministry of Health.
3	World Health Organization. National health accounts [http://www.who.int/entity/nha/country/MYS.pdf].
4	WHO Regional Office for the Western Pacific, data received from the technical units.

5	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
6	The World Health Report 2004. *Changing History* . Geneva, World Health Organization, 2004.
7	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis* . United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
8	Disease Control Division, Environmental Health Services, Ministry of Health.

CAMBODIA

1. CONTEXT

1.1 Demographics

Based on the 2004 intercensal survey, Cambodia's population is projected to have been around 14 million people by the end of 2006. The population density is 74 per square kilometre. The median age is just under 20 years, with the proportion aged 0-24 being twice that of those aged 25-50. The male to female ratio is gradually normalizing after the distortions caused by 30 years of war during the last century. Eighty-five per cent of the population lives in rural areas, but there is a significant urban drift, especially among young people.

Mainly due to a decline in early mortality, life expectancy increased in the period from 1998 to 2003 from 52 to 60 years for males and from 56 to 65 for females. The total fertility rate dropped from 4.0 births per woman in 2000 to 3.4 in 2005, achieving the Cambodian Millennium target for 2010, predominantly occurring as a result of a decline in fertility among rural women; the annual population growth rate between 1998 and 2005 declined from 2.5% to 1.9%. Forty per cent of women use contraceptives, 27% of them modern methods. One quarter of currently married women have an unmet need for family planning, which is especially high among women in the lowest wealth quintile and women with no education. 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 CDHS 2005 reports a maternal mortality ratio of 472 deaths per 100 000 live births, which does not show significant change from the CDHS 2000 and is one of the highest in the Region. Infant mortality 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 CDHS 2005 shows infant and under-five mortality declined by 39% and 35%, respectively, to 66 and 83 deaths per 1000 live births. 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.

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 re-integration of Cambodia into the international community. Parliamentary elections are held every five years, the next being scheduled for 2008. Poverty alleviation and governance are increasingly important items on the Government's agenda.

In September 2004, the Government issued its 'Rectangular Strategy', with reforms focusing on corruption, the judiciary, public administration and the military as core priorities for its current term. The National Strategic Development Plan 2006-2010, combining previous poverty-reduction strategy papers and socioeconomic development plans, specifies the prioritized goals, targets and actions, including the Cambodian Millennium Development Goals, and was drafted in collaboration with development partners.

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, and estimated at almost 10% for 2006. This growth, while reducing poverty by 10%-15%,

however, has increased inequality, as reflected in a Gini coefficient of 42 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 this status has now ended, the change does not seem to have affected growth. Increases in tourism and construction are the other recent drivers of economic growth. Agriculture, mainly rice production, accounts for 40% of gross domestic product (GDP) and employs more than 70% of the workforce. Annual flooding and drought result in year-to-year fluctuations in agricultural production. Diversifying this 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 2004 it had increased to 0.58, moving Cambodia from the low to the medium human development category. Despite this achievement, the country still has some of the worst human development indicators in South-East Asia. In 2005, per capita GDP was US$ 409, with 35% of the total population still living below the official rural and urban poverty lines of US$ 0.46 and US$ 0.63 (1999). In some rural areas, the percentage of the population living below the poverty line rises to 79%.

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 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; as well as disease-vector transmission. However, the country is also subjected to emerging issues, including health risks related to changes in the global environment (e.g. climate change and biodiversity loss); 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.

The Cambodia Demographic and Health Survey 2005 presents information and data related to environmental health. The most significant are: 55.6% of the total population has sustainable access to an improved water source (67.3% in urban and 53.7% in rural areas); only 21.6% of the population have access to improved sanitation; bacteriological contamination of drinking water is the most important health-related concern; arsenic in groundwater poses a health threat in seven provinces, exposing around 2.24 million people; indoor and urban air pollution 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 has the potential to contaminate food and water; and finally, there are serious environmental health impacts from solid and hazardous waste, including health care waste.

The most important natural hazards in Cambodia are water-related, in particular perennial river flooding, general monsoon floods and, increasingly in recent years, droughts. Typhoons form in the South China Sea between May and November and, while not directly hitting Cambodia, they can cause extremely heavy rainfall, with landslides and local flooding. The Mekong River and its tributaries are vital to the economic and social life of the country, providing water for domestic, industrial and agricultural usage, food for people (fish, animals and plants) and fodder for animals (water spinach, water hyacinth etc). In the monsoon season, travel to many remote parts of the country is only possible by boat.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The list of reportable diseases monitored by the Department of Communicable Disease Control (CDC) of the Ministry of Health was expanded in 2005 to include 12 conditions, up from four the previous year. Training on the new reporting requirements and surveillance system was conducted for most government health care facilities. In 2006, the number of reports increased for all conditions, but seasonal trends remained unchanged: ARI cases and deaths both doubled in 2006, accounting for 71% and 28%, respectively. While the overall increase in reporting is a result of the training, the increase in ARI reporting is most likely due to a combination of this and the increased awareness of, and concern for acute respiratory illnesses that followed the first human cases of H5N1 avian influenza.

Malaria continues to affect mostly the poorer communities living in forested areas, where approximately 2 million people are at risk. The total number of treated malaria cases in public health facilities steadily declined from 133 000 in 2003 to 75 000 in 2005, but increased again to 101 000 in 2006. Similarly, the number of reported malaria deaths in public health facilities fell from 492 in 2003 to 296 in 2005, but went up to 396 in 2006. The factors that contributed to the increases in 2006 include: the early start of the rainy season, prolonging the transmission period; delayed and inadequate bed-net distribution/re-impregnation; and increasing population movement to malaria-risk areas. The management of severe malaria has improved, however, and the case fatality rate among severe malaria patients at referral hospitals decreased from 10.5% in 2005 to 7.9% in 2006. Another positive development is the increasing proportion of confirmed malaria among all cases treated in public health facilities from only 54% in 2003 to78% in 2006. With improvements in diagnosis, treatment and personal protection at the community level, the morbidity and mortality of malaria is expected to reduce in the coming years. However, the country is also right at the centre of the global multidrug-resistant malaria problem.

Dengue fever and dengue haemorrhagic fever have become a serious public health problem in Cambodia during 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 decreased from 0.9 per 1000 populations in 2003 to 0.7 per 1000 in 2005. 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. An improved dengue surveillance system also contributed to the increase in reported cases. The case fatality rate among hospitalized cases, 3% in 2003, declined to 0.9% in 2006 due to improvements in case management.

The national immunization programme has made a significant effort to improve vaccination coverage in recent years. The DTP3 3 coverage of infants increased from 43% in 2000 to 80% in 2006, and the proportion of fully immunized infants increased from 31% in 2000 to 60% in 2005. However, the limited support for routine immunization makes it difficult for the programme to maintain high quality immunization services and improve coverage further.

Cambodia is one of the 22 high-tuberculosis-burden countries. WHO estimates put the total of new TB cases in Cambodia in 2005 at 71 000, but the national TB programme notified 36 000. According to the joint TB programme review conducted in 2006, Cambodia has achieved the 2005 WHO target of a 70% sputum-smear positive case detection rate under DOTS and a >85% cure rate. TB-HIV co-infection is one of the major challenges for TB control, and the last TB-HIV prevalence survey (2005) showed an HIV prevalence of 9.9% among TB patients.

From HIV sentinel surveillance (HSS) among antenatal clinic attendees in 2003, the prevalence of HIV infection among adults has levelled of to 1.9%. The Cambodia Demographic and Health Survey (CDHS) 2005 found an even lower HIV prevalence rate of 0.6% among adults in households. A calibration of HSS figures with CDHS figures will be conducted in 2007 to

provide updated estimates of HIV prevalence. Services for people living with HIV/AIDS are provided through a continuum-of-care package available in 35 operational districts, with more than 20 000 patients on antiretroviral treatment in December 2006.

A national survey in 2006 found hepatitis B virus among 3.4% of five-year-old children. Data collected from 27 000 blood donors in 2006 showed infection rates of 1.5% for HIV, 8.4% for HBV, 1.6% for HCV, 2% for syphilis and 0.4% for malaria. In 2006, 77.3% of blood donations were from paid or replacement donors. With current efforts to strengthen the national blood transfusion programme, including developing regulations for the Blood Transfusion Services, it is expected that the challenges related to blood safety will be addressed.

Although Cambodia has 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 and those in labour-intensive activities, are putting such people at risk of contracting HIV/AIDS and other health problems. Virtually no services currently exist for most drug users, although government-approved basic harm-reduction services are available in Phnom Penh through NGOs.

Cambodia has a significant and growing burden of noncommunicable disease. Recent surveys have demonstrated that, in urban areas like Kampong Cham, Battambang and Phnom Penh, 10% of adults have diabetes and 25% suffer from high blood pressure. In poor rural communities, 5% of adults have diabetes and 12% are hypertensive. In 2005, a nationwide survey of adult tobacco use found that 48% of men and 3.6% of women smoked cigarettes, while 17 % of women and 1% of men chewed tobacco. Alcohol consumption is on the increase (18% of husbands are frequently intoxicated according to their partners), and the number of violent incidents, traffic accidents and domestic violence linked to alcohol is alarming. With the high prevalence of diabetes, hypertension and tobacco and alcohol use, it is not unreasonable to assume that cardiovascular diseases and cancer are on the increase. In 2005, cerebrovascular stroke was the second most common cause of inpatient mortality at Calmette Hospital, a large government teaching hospital in Phnom Penh.

2.2 Outbreaks of communicable diseases

The first poultry outbreaks of H5N1 avian influenza reported in Cambodia were in January 2004, more than a year before the first Cambodian human case was detected in Viet Nam, where she had gone for treatment. In 2006, outbreaks of H5N1 in poultry were reported in Cambodia and all the immediate surrounding countries. During 2006, two human cases of H5N1 were reported in Cambodia, both fatal. The two cases of laboratory-confirmed avian influenza (sub-type A/H5N1) were detected in late March 2006 and both were in children, a three-year-old girl and a 12-year-old boy who had been in contact with sick or dead poultry. Field investigations were conducted and numerous contacts monitored, but no further cases were identified. These cases were the fifth and sixth human cases of avian influenza in Cambodia. The first four, all fatal and all from Kampot province (bordering Viet Nam), were detected in 2005, with onset of illness between January and April.

In 2006, there was an increase in the number of reported dengue fever/dengue haemorrhagic fever cases compared with 2003, 2004 and 2005: a total of 16 649 clinically suspected cases were reported nationwide, an increase of 84% over the previous year. Cases increased from May to October and declined thereafter. In the first four months of the year, a monthly average of 250

cases was reported, surging to 2300 from May to October. Outbreaks were reported from new geographical areas as well as previously affected areas. The predominant dengue serotype was DEN-3, in contrast to DEN-2 in previous years. Climatic changes, including the early rainfall and prolonged rainy season, were thought to have favoured dengue transmission.

2.3 Leading causes of mortality and morbidity

Infectious diseases still constitute the main causes of mortality and morbidity, but 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 of the population and dengue outbreaks exacerbating the situation. In addition, the country is still classified as one of the 22 worldwide with a high burden of tuberculosis. Notably, HIV prevalence has decreased substantially over and a high proportion of people living with HIV/AIDS are on antiretroviral treatment.

Preventing and treating noncommunicable diseases and injuries will be the challenge in the near future. The number of road accidents is rising very rapidly as a leading cause for mortality due to improved infrastructure and rapid socioeconomic development. Some surveys have indicated high levels of diabetes (5%-10%) and hypertension (12%-25%) in rural and urban areas, both major risk factors for ischemic heart disease and stroke. As half 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 Cambodia Demographic and Health Survey 2005 shows that the maternal mortality ratio has remained high, with postpartum haemorrhage being the leading cause of maternal deaths, followed by infection, complications from abortions and maternal hypertension. These deaths contributed 17% to mortality in women aged 15-49 years. The majority of births (78%) were still occurring at home, with 44% of all births being attended by a health professional, an increase from 32% in 2000. A Midwifery Review in 2006 showed a low level of competence, particularly in life-saving skills, even among trained midwives. Unravelling of the multiple and complex causes of maternal mortality in Cambodia is beginning, and strategies are being formed to address them.

Infant and under-five mortality rates decreased by about 30% in the five years from 2000 to 2005, bringing Cambodia on target to meet Cambodian Millennium Development Goal 4 in 2015. The prevalence of child malnutrition also decreased, for both acute and chronic malnutrition, with wasting decreasing from 15% to 7%, underweight from 45% to 36% and stunting from 45% to 37%. However, the low-birth-weight rate remained at the same level as in 2000, at about 15%. Respiratory infections have remained the leading cause of death amongst neonatal infants and young children (30%), followed by diarrhoea (27%), dengue hemorrhagic fever (11%), severe acute malnutrition and measles. Although the under-five and infant mortality rates decreased significantly, the neonatal mortality rate went down only slightly. One quarter of these neonates were of low birth-weight and a fifth had a difficult delivery. A quarter had a history of poor feeding after initially feeding well, indicating possible sepsis, with 7% also having convulsions, indicating neonatal tetanus. Greater efforts need to be made to focus on reducing neonatal deaths.

Infant and young child feeding practices have improved significantly. The rate of exclusive breast-feeding for the first six months of life improved from 11% in 2000 to 60% in CDHS 2005. The use of iodized salt increased dramatically from 12% in 2000 to 73% in 2005. The anaemia rate among woman of reproductive age (15-49 years) decreased from 58% in 2000 to 47% in 2005 and among pregnant women from 66% to 57%. However, the anaemia rate among children aged 6-59 months did not improved, remaining at a high level of 62%.

The Government has continued its commitment to maternal health and child survival, making them a top priority for action. The Ministry of Health and partner agencies continue to increase

their collaboration and support for improvement of maternal and child health. The Ministry has taken significant steps to improve child survival, including endorsement of the Regional WHO/UNICEF Child Survival Strategy, establishment of Child Survival Steering and Management Committees, and development of the Cambodia Child Survival Strategy, which outlines approaches to reducing mortality and improving nutritional status among young children. It aims to achieve universal coverage of a limited package of 12 essential evidence-based, cost-effective interventions that impact child mortality, expressed in the Child Survival Score Card.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The first national Health Sector Strategic Plan, in 2002, presented the mission of the Ministry of Health as a commitment to ensure sectorwide equitable, quality health care for all the people of Cambodia through targeting of resources, especially towards the poor and areas in greatest need. To achieve this mission, a ministry policy statement asserts that all people in Cambodia, of whatever gender, age, place of residence or ability to pay, should have equal access to good quality basic and essential specialized health services, staffed by competent health professionals, at a cost that people can afford; and that they should have information that empowers them to make informed choices about matters affecting the health and the well-being of themselves and their families.

To guide progress in fulfilling its mission and policy statement, the Ministry has adopted eight essential objectives (strategies):

(1) to improve coverage and access to health services, especially for the poor and other vulnerable groups;
(2) to strengthen the delivery of high quality basic health services;
(3) to strengthen the quality of care, especially obstetric and paediatric care;
(4) to improve the attitude of health providers to effectively communicate with customers;
(5) to introduce a culture of quality in the public health services;
(6) to increase the number of midwives through training and capacity-building;
(7) to ensure a regular and adequate flow of funds to the health sector, especially for service delivery, through advocacy, and to increase financial resources and strengthen financial management; and
(8) to introduce organizational and management reform of structures and procedures to respond to change.

These strategies are expected to result in

- reduced infant, child and maternal mortality;
- improved nutritional status among children and women;
- a reduced total fertility rate;
- reduced household health expenditure, especially among the poor; and
- a more efficient and effective health system.

A monitoring and evaluation process has been established, and indicators to measure the achievement of the strategic objectives have been formulated. Annual targets are monitored at the National Health Congress and Joint Annual Performance Review and directives for the next

Annual Operational Plan issued. A Three-year Rolling Plan provides medium-term guidance. The new Health Sector Strategic Plan will be released in early 2008 and synchronised with the five-year cycles of the National Strategic Development Plan.

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 a Health Coverage Plan, formulated with WHO support, which divided the country into 73 operational districts (OD) 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 2006, there were eight national hospitals, 77 operational districts, 69 referral hospitals, 872 functional health centres and 79 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 functioning 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.

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 has recently developed a comprehensive system of sectoral operational planning to support implementation of the Health Sector 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, which 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 their own specific goals, capacities and challenges. This year, 2007, marks the third year of the Annual Operational Plan, which will become an increasingly useful tool for resource allocation as the links between planning and budgeting processes are strengthened in coming years.

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 Health Sector Congress. This consultative event reviews performance toward strategic goals and identifies priorities for action during the coming year. At the 2007 Joint Annual Performance Review, key bottlenecks to improvement of maternal, reproductive and child health were identified, and a set of priority interventions was recommended for which resource allocations within individual operational plans should increase by 20%. 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 resources 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. Nevertheless, registration, as well as the development and approval of

codes of practice, are proceeding. As most private practitioners are also civil servants, these steps are expected to have some impact.

3.4 Health care financing

The government budget for health has been steadily increasing over recent years, reaching US$ 6.8 per capita in 2005 (of which US$ 4 was for the recurrent budget of the Ministry of Health). 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 98%), provinces and districts face irregular and untimely disbursement. Cambodia is also still highly dependant on donor funding (US$ 7 per capita in 2005) 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 expenditures to be US$ 15 per capita per year (secondary analysis of Cambodian Socio-Economic Survey CSES 2004), while the WHO NHA website estimates the figure at US$ 18. More recent figures from the Cambodian Demographic and Health Survey (CDHS) 2005 seem to indicate even higher out-of-pocket spending, almost US$ 25 per capita per year, with potential underreporting in CSES and overreporting in CDHS.

The Ministry of Health's Health Financing Charter was introduced in 1996 and allows establishment of user-fee schemes in health facilities. Sixty per cent of this income is redistributed as incentives for staff, while 39% is used for operating costs and quality improvement (1% paid in tax to the Treasury). A positive impact of user fees on access has been to reduce under-the-table payments, but the costs of health care remain a substantial obstacle for a large portion of the population. In this context, Cambodia has, in recent years, piloted several alternative financing mechanisms for health, such as contracting, health equity funds and community-based health insurance. Lessons from these experiments are the basis for the formulation of Cambodia's priorities in health care financing:

1. Increase government resource allocation for health and improve budgeting and financial management capacity at all levels, under the framework of Public Financial Management Reform.

2. Improve and coordinate donor resource allocation for health, including a sustainable long-term approach through the Government's Action Plan on Harmonization & Alignment for Results 2006-10.

Enable development of universal social health protection mechanisms, including health safety nets for vulnerable groups, based on pre-paid financing systems, following the Master Plan for Social Health Insurance in Cambodia.

3.5 Human resources for health

The war years had a disproportionate impact on the professional classes, with the health sector suffering severe losses in human resources, both in terms of deaths and emigration, as well as in terms of truncated education and years lost. While the country's recovery has been striking and the total number of health workers in Cambodia is no longer particularly low by international standards, staff shortages persist throughout the public health sector, particularly in remote areas. Staff remuneration is one of the key challenges facing the public health sector. With over 15 000 staff members, the Ministry of Health salary budget for 2007 is just over US$ 3 million, with an average monthly salary of US$ 61. This is a major contributing factor to the serious maldistribution of staff. Health professionals tend to come from urban backgrounds. As a result, it is extremely difficult to recruit and place staff in remote rural areas. This problem is particularly acute for midwives, who are key staff members at all health centres across the country.

Recruitment and training of new staff from remote areas is therefore a Ministry of Health priority.

Many staff must supplement their salaries through side practices in the private sector, which compounds staffing problems for facilities and results in curtailed opening hours and diminished quality of service. It is recognized that this is a widespread practice, and that it will be necessary to either substantially increase public sector remuneration or develop workable models for dual practice if it is to be successfully addressed. Up to now, the main response to the staff salaries problem has been the use of donor-funded staff incentives for priority areas, as well as payment of a per diem for key activities. As is to be expected with such partial solutions, the effect has been mixed. While many staff are now reasonably remunerated, uncoordinated donor funding has resulted in human resource imbalances between external and Cambodian priorities. Similarly, reliance on a per diem for income supplementation creates incentives that may adversely affect the staff's ability to accomplish their core functions. To address these issues, the Ministry of Health and other relevant ministries and health partners are finalizing a comprehensive scheme for providing merit-based salary support across the sector.

An important component of facility-level remuneration is user fees, 60% of which flow to staff incentives. Attracting more clients through improved quality of care will increase staff incentives, but it is not realistic to expect the requisite improvements in staff morale without first ensuring a living wage. Contracting models have been successfully employed in selected operational districts to increase salaries, strengthen HR management, and improve staff morale and quality of care.

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 100+ international and national NGOs. The Ministry generally welcomes the contribution of health partners and the Health Sector Strategic Plan explicitly promotes public and private partnerships for basic and specialist care. Sectorwide management introduced and led by the Ministry of Health as the primary mechanism for sector dialogue is currently being reviewed in order to strengthen coordination and implementation of the new Strategic Plan to be adopted in 2007. With the multidonor Health Sector Support Project 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 new Department of International Cooperation, the Ministry is finding it difficult to manage aid as it is delivered (mostly project-based). More broadly, the Government of Cambodia is taking greater ownership of its development processes, assisted by a global agenda for greater harmonization and alignment, to which Cambodia contributes as a pilot country for monitoring of progress. These efforts are also embedded in the National Strategic Development Plan 2006-2010 and reflected in the move to a more government-led Cambodia Development Cooperation Forum in mid-2007. While the general contribution of partners to the 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.

3.7 Challenges to health system strengthening

The Health Sector Strategic Plan 2003-2007 identifies 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 0.5 visits per person per year. Except in a few areas where additional resources and semi-autonomous 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, in particular 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. The Ministry of Health published the National Policy for Quality in Health in 2005 to address these issues. A number of initiatives have been introduced to promote a 'client-centred' approach to service delivery in health staff training programmes, 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 the CDHS 2005 confirms the pertinence of this challenge. Currently, many referral hospitals and health centres, particularly in rural areas, have insufficient 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 recent comprehensive midwifery review indicated serious gaps in the skills possessed by the current midwife workforce.

4. Improving reproductive and adolescent health services: Cambodia has a recently declining fertility rate and a youthful population; half the population is under 20 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 to continue to improve the indicators, which until now have been substantially influenced by an improving socioeconomic situation.

A new challenge has gradually become more apparent: prevention and treatment of noncommunicable diseases and injuries. Recent surveys have revealed a high prevalence of diabetes (5%-10%) and hypertension among rural and urban populations. In combination with the fact that about 50% of men in Cambodia smoke and the rapid increase in life expectancy, the epidemiological transition is imminent. Rapid socioeconomic development constantly changes the social determinants for health, and improved road infrastructure has resulted in a steeply rising number of deaths and injuries due to traffic accidents. Health staff will need to be trained and provided with means to promote healthy lifestyles and treat chronic diseases or disabilities.

A multipronged challenge will be to improve the effectiveness and efficiency of allocation and disbursement of the scarce financial and human resources. As an OECD pilot country for Aid Effectiveness, the Government is assuming a growing leadership role and is taking forward an action plan to facilitate harmonization and alignment processes. This includes 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 quite fragmented support for the health sector, to more policy coherence and balanced funding of country priorities. Engaging the 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*
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 2005*
Operator	:	Health Information Bureau, Department of Planning and Health Information, Ministry of Health
Specification	:	Provides health data, table, and graphs based on statistics generated from the nationwide Health Information System (HIS)
Title 3	:	*Demographic Estimates and Revised Population Projections 2005*
Operator	:	National Institute of Statistics, Ministry of Planning
Specification	:	Presents population projections, estimations of fertility and mortality and provides tables based on the 2004 CIPS data
Web address	:	http://www.nis.gov.kh
Title 4	:	*Cambodia Inter-Censal Population Survey 2004*
Operator	:	National Institute of Statistics, Ministry of Planning
Specification	:	Includes information on population characteristics, household facilities and amenities.
Title 5	:	*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

MINISTRY OF HEALTH

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Telephone	:	(855-23) 722 933
Fax	:	(855 23) 426 034 / 426 841
Office Hours	:	07:00 – 11:30 and 14:00 – 17:00
Website	:	http://www.moh.gov.kh

WHO REPRESENTATIVE IN CAMBODIA

Office Address	:	No. 177-179 corner Streets Pasteur (51) and 254
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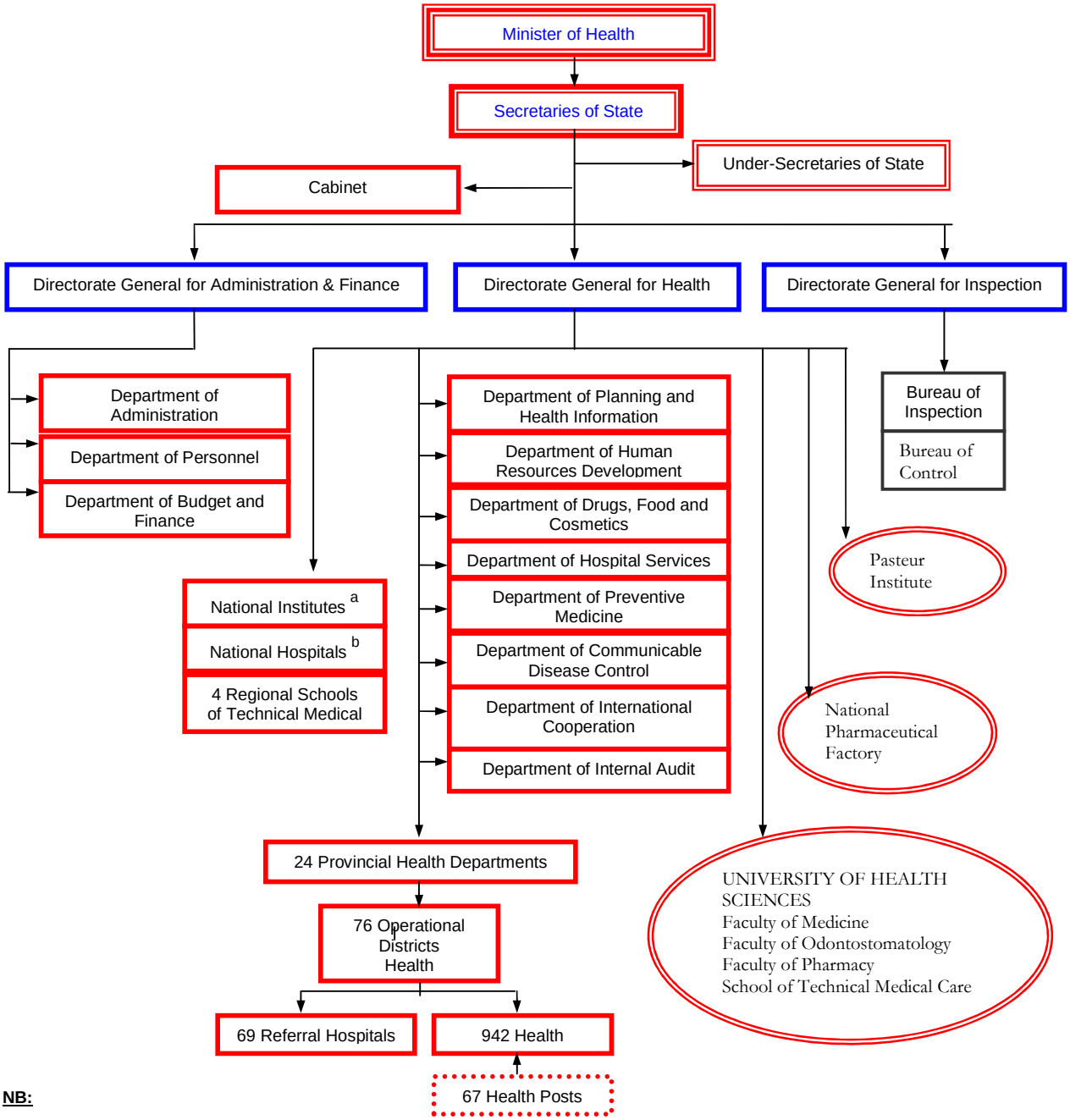
Official Email Address	:	who@cam.wpro.who.int
Telephone	:	(855-23) 216 610 / 216 942 / 215 464
Fax	:	(855-23) 216 211
Office Hours	:	07:30 – 12:00 and 14:00 – 17:30

6. ORGANIZATIONAL CHART: Ministry of Health

ORGANIZATIONAL CHART OF THE MINISTRY OF HEALTH



NB:

a. National Centre for HIV/AIDS and STI Control, National Centre for Tuberculosis and Leprosy Control, National Centre for Parasitology, Entomology and Malaria Control, National Maternal and Child Health Centre, National Institute of Public Health, National Centre for Traditional Medicine, National Centre for Drug Quality Control, National Blood Transfusion Centre, National Centre for Health Promotion, National Immunization Programme

b. Excluding Hopitals in NCMCH and NCTB/Lepr: Calmette, National Paediatric Hospital, Kossamak, Norodom Sihanouk, Ang Duong, Kuntha Bopha, Jayavaraman 7

c. Battambang, Kampot, Kg. Cham and Stung Treng

COUNTRY HEALTH INFORMATION PROFILE

CAMBODIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	181.04			2004	3
2	**Estimated population** ('000s)	13 996.21	6811.04	7185.17	2006	8
3	**Annual population growth rate** (%)	1.90	...	...	2005	8
4	**Percentage of population**					
	- 0–4 years	11.50	12.20	10.90	2005	1
	- 5–14 years	27.40	29.30	25.80	2005	1
	- 65 years and above	4.60	3.90	5.30	2005	1
5	**Urban population** (%)	19.70	...	...	2005 est	18
6	**Crude birth rate** (per 1000 population)	25.00	...	...	2004	6
7	**Crude death rate** (per 1000 population)	6.70	...	...	2004	6
8	**Rate of natural increase of population** (% per annum)	1.90	...	...	2005	8
9	**Life expectancy** (years)					
	- at birth	...	60.00	65.00	2003	8
	- Healthy Life Expectancy (HALE) at age 60	...	9.70	11.00	2002	9
10	**Adult literacy rate** (%)	73.60	84.70	64.10	2004	6
11	**Neonatal mortality rate** (per 1000 live births)	28.00	...	...	2005	1
12	**Infant mortality rate** (per 1000 live births)	66.00	...	...	2005	1
13	**Under-five mortality rate** (per 1000 live births)	83.00	...	...	2005	1
14	**Total fertility rate** (women aged 15–49 years)	3.40			2005	1
15	**Maternal mortality ratio** (per 100 000 live births)	472.00			2005	1
16	**Percentage of newborn infants weighing at least 2500 g at birth**	36.00	...	...	2005	1
17	**Prevalence of underweight children under five years of age**	35.55	35.30	35.80	2005	1
18	**Percentage of pregnant women with anaemia**			57.10	2005	1
19	**Percentage of teenage pregnancy**			8.00	2005	1
20	**Immunization coverage for infants (%)**					
	- BCG	87.00	...	...	2006	17
	- DTP3	80.00	...	...	2006	17
	- POL3	80.00	...	...	2006	17
	- Measles	78.00	...	...	2006	17
	- Hepatitis B III	NR	NR	NR	2006	17
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	69.00			2005	1
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	50.00			2006	17
	- Percentage of deliveries attended by skilled health personnel	43.80			2005	1
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	22.20			2005	1
	- Percentage of deliveries in health facilities (as % of total deliveries)	22.00			2005	1
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			27.00	2005	1
23	**Condom use rate of the contraceptive prevalence rate**	4.90	4.80	0.10	2005	1
24	**HIV prevalence among 15–24 year-old pregnant women**			0.30	2005	1
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	55.60 [e]	67.30 [e]	53.70 [e]	2005	1
27	**Proportion of population with access to improved sanitation**	21.60	56.10	15.70	2005	1
28	**Proportion of the population using solid fuels (%)**	97.90	97.40	98.00	2005	1
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.58	2004	12
33	**Per capita GDP at current market prices** (US$)			409.00	2005	4
34	**Rate of growth of per capita GDP** (%)			10.40	2006	5
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			393.00	2005p	4
	- total expenditure on health as % of GDP			6.80	2005p	4
	- per capita total expenditure on health (in US$)			27.90	2005p	4
	Government expenditure on health					
	- amount (in million US$)			96.43	2005p	4
	- general government expenditure on health as % of total expenditure on health			24.50	2005p	4
	- general government expenditure on health as % of total general government expenditure			12.00	2005p	4
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			106.38 [a]	2005p	4
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			75.50	2005p	4
	Exchange rate in US$ of local currency is: 1 US$ =			4092.50	2005p	4
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	2122	...	...	...	...	1.62	...	...	...	...	2004	10
	- dentists	241	...	...	...	...	0.18	...	...	...	...	2004	10
	- pharmacists	577	...	...	...	...	0.44	...	...	...	...	2004	10
	- nurses	4516	...	...	...	...	3.45	...	...	...	...	2004	10
	- midwives	1754	...	...	...	...	1.34	...	...	...	...	2004	10
	- other nursing / auxiliary staff	4449	...	...	...	...	3.39	...	...	...	...	2004	10
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	160	...	...	...	...	0.12	...	...	...	...	2004	10
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	1638	...	...	...	...	1.25	...	...	...	...	2004	13
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	280 [b]	...	...								2002-2004	10

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections	2 236 262	...	...	17 082.44 [c]	...	...	2005	2
	2. Diarrhoea	356 273	...	...	2721.51 [c]	...	...	2005	2
	3. Tuberculosis	21 406	...	...	163.52 [c]	...	...	2005	2
	4. Road accidents	14 035	...	...	107.21 [c]	...	...	2005	2
	5. Dengue haemorragic fever	9965	...	...	76.12 [c]	...	...	2005	2
	6. Malaria	6412	...	...	48.98 [c]	...	...	2005	2
	7. Dysentery	5129	...	...	39.18 [c]	...	...	2005	2
	8. Meningitis	1692	...	...	12.92 [c]	...	...	2005	2
	9. Mine accidents	438	...	...	3.35 [c]	...	...	2005	2
	10. Breast cancer	393	...	...	3.00 [c]	...	...	2005	2
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Acute respiratory infections	818	...	...	6.25 [c]	...	...	2005	2
	2. Tuberculosis	313	...	...	2.39 [c]	...	...	2005	2
	3. Malaria	296	...	...	2.26 [c]	...	...	2005	2
	4. Road accidents	281	...	...	2.15 [c]	...	...	2005	2
	5. Dengue haemorrhagic fever	190	...	...	1.45 [c]	...	...	2005	2
	6. Meningitis	163	...	...	1.25 [c]	...	...	2005	2
	7. Diarrhoea	38	...	...	0.29 [c]	...	...	2005	2
	8. Mine accidents	31	...	...	0.24 [c]	...	...	2005	2
	9. Other tetanus	28	...	...	0.21 [c]	...	...	2005	2
	10. Liver cancer	20	...	...	0.15 [c]	...	...	2005	2
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	NR	NR	NR	...	...	...	2006	17
	- Diphtheria	0	0	0	0	0	0	2006	17
	- Hib meningitis	...	...	...	...	...	...		
	- Measles	188	...	...	...	...	...	2006	17
	- Mumps	NR	NR	NR	...	...	...	2006	17
	- Neonatal tetanus	69	...	...	...	...	...	2006	17
	- Pertussis (whooping cough)	474	...	...	...	...	...	2006	17
	- Poliomyelitis	1 [d]	...	...	...	...	...	2006	17
	- Rubella	508	...	...	...	...	...	2006	17
	- Total Tetanus	1041	...	...	...	...	...	2004	17
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	1410	...	...	...	...	...	2000	13
	- Type C	536	...	...	...	...	...	2000	13
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	…	…	…	…	…	…		
	Dengue/DHF	16 649	…	…	158	…	…	2006	15
	Encephalitis	…	…	…	…	…	…		
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	429	…	…	…	…	…	2005	17
	Malaria	49 436	…	…	296	…	…	2005	17
	Plague	…	…	…	…	…	…		
	Syphilis	…	…	…	…	…	…		
	Typhoid fever	…	…	…	…	…	…		
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	333.00	…	…	2.00	…	…	2005	17
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	36 123	…	…	…	…	…	2005	19
	- New pulmonary tuberculosis (smear-positive)	21 001	…	…	…	…	…	2005	19
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	703.00	…	…	87.00	…	…	2005	19
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	70.00	…	…	91.00 (2004)	…	…	2005	11
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	2 236 262	…	…	818	…	…	2005	2
48	**Diarrhoeal diseases**	356 273	…	…	38	…	…	2005	2
49	**Cancers**								
	All cancers (malignant neoplasms only)	2343	…	…	23	…	…	2005	2
	- Breast	393	…	…	…	…	…	2005	2
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			349			3	2005	2
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	…	…	…		
	- Liver	277	…	…	20	…	…	2005	2
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	…	…	…	…	…	…		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	2492	…	…	213	…	…	2000	13
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
51	**Maternal causes**								
	- Abortion			1983			…	2000	13
	- Eclampsia			…			…		
	- Haemorrhage			1390			…	2000	13
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	416	…	…	29	…	…	2000	13
53	**Mental disorders**	1237	…	…	33	…	…	2000	13
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	535	…	…	2002	14
	- Occupational injuries	…	..	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					…	…		
	- Specialized hospitals					8	1770	2004	20
	- District/first-level referral hospitals					69	…	2006	7
	- Primary health care centres					951	…	2006	7
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health information and evidence for policy unit of WHO Regional Office for the Western Pacific
b	Primary nurses and midwives included in other nursing/auxiliary staff graduated between 2002-2004 (Ministry of Health)
c	Computed by Health information and evidence for policy unit of WHO Regional Office for the Western Pacific, using the 2004 population
d	Due to circulating vaccine derived poliovirus (1 more laboratory confirmed case plus 1 epidemiologically linked case in 2005)
e	Figure applies to dry season

Sources:	
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20	Information data for 2004, Ministry of Health, Cambodia.

CHINA

1. CONTEXT

1.1 Demographics

At the end of 2006, the total population of China was 1.31 billion. In the same year, there were 15.89 million births. The crude birth rate was 12.09 per 1000 population and the crude death rate was 6.81 per 1000 (8.95 million deaths). The net population growth in 2006 was 9.08 million, representing a natural growth rate of 5.89 per 1000, up by 0.02 percentage points from the previous year.

1.2 Political situation

The political situation in China has remained stable and favourable to the country's domestic and international socioeconomic advancement.

China's 11th Five Year Plan (2006-2010) forms the current basis for the Government's economic and social development efforts. In continuity with the 10th Five Year Plan, the 11th Plan aims to sustain the rapid and steady development of China's "socialist market economy" while in addition achieving the "five balances" (between rural and urban development, interior and coastal development, economic and social development, people and nature, and domestic and international development) and making economic and social development more people-oriented, comprehensive, balanced and sustainable.

The 11th Plan includes two key quantitative targets:

- First, it aims to achieve annual gross domestic product (GDP) growth of 7.5%, with the goal of doubling the 2000 GDP per capita by 2010.
- Second, it aims to reduce energy consumption per unit of GDP by 20%, and the total discharge of major pollutants by 10%, by 2010.

It also includes a number of strategic priorities and major tasks, including:

(1) rebalancing China's pattern of growth;
(2) deepening reforms and opening up further to the outside world;
(3) constructing a "new socialist countryside;"
(4) promoting more balanced development among the different regions; and
(5) increasing the capacity for independent innovation.

China's commitment to advancement offers great promise for the future. Subscribing to the ideals of a *xiaokang* (well-off in an all-round way) and harmonious society, the Government's "people's agenda" strives to achieve a significant improvement in the lives of the entire Chinese population by 2020.

1.3 Socioeconomic situation

Since initiating the reforms and open policy in 1979, China has achieved tremendous success and has made impressive gains in overall development. Considerable progress has been made in improving average living standards, reducing poverty and maintaining strong economic growth.

China's GDP witnessed an average real annual growth of 10% during the period 1979-2006. From 1979 to 1984, economic growth was driven by the shift in labour from agriculture to rural industry. Later, from 1985 to 1992, growth benefited from 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 and its contribution to growth.

China's impressive growth performance has been correlated with reductions in poverty and with social development. Using a standard international poverty line of US$ 1.00 per day, an estimated 400 million people have been lifted out of poverty within the past 30 years, mainly benefiting from 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 668 Yuan, or US$ 87 at current rates) decreased from 250 million in 1978 (31% of the rural population) to 24 million in 2005 (3% of the rural population). China alone has accounted for over 75% of poverty reduction in the developing world over the last 30 years.

In 2006, the socioeconomic situation remained strong and continued to improve. Real GDP grew at 10.7% in real terms in 2006 (and 11.1% in the first quarter of 2007), bringing GDP to 20.9 trillion Yuan and GDP per capita to 15 931 Yuan, or US$ 2000 at the end of 2006. Growth continued to be powered by investment, which continued to outpace consumption. From the production side, growth continued to be industry-led, with heavy industry outpacing other industries. Value added in industry (excluding construction) increased 15.4% in real terms. Real retail sales growth remained stable. Disaggregated data show improvements in both rural and urban areas.

Expert analyses suggest that China's socioeconomic development is based on a sound footing and is expected to advance in the medium to long term as the Government continues to enhance its macroeconomic, structural and social policies. The country's key economic challenge is to rebalance the economy to further strengthen sustainable economic and social development. This will require a shift in production from industry towards services, more reliance on domestic consumption, and more equally shared and environmentally sustainable growth.

Recent policies to constrain investment in physical capital while promoting productivity improvements and private consumption suggest that the Government is committed to sustaining economic growth. The State Council's 2007 document on stimulating the service sector sets the stage for future policy action in this area, while many new policy initiatives could potentially support rebalancing, including policies for more equitable growth, administrative policies to reduce energy intensity, and price and tax mechanisms to address environmental and energy issues.

China's earlier high health standards have played a pivotal role in the country's economic success since the launch of market-oriented reforms in 1979. The linkages between health and economic growth continue to intensify as China seeks to sustain its rapid economic growth. The benefits of economic growth, however, have not been shared equally, and there is a gaping divide in socioeconomic indicators between different regions and communities including rich and poor, urban and rural, and migrant and resident communities within cities. Importantly, 30%–50% of poor people in China indicate health is the single biggest cause of their poverty. Ill health is leading to poverty through reduced earning capacity and medical bills that can be financially ruinous. Poor health and poverty can form a vicious cycle that robs many people of their working capacity and erodes the country's economic productivity.

1.4 Vulnerabilities and hazards

Health vulnerabilities are arising as the by-products of economic development; urbanization, environmental damage and an explosion in motor vehicle use have resulted in an increasing prevalence of chronic-disease risk factors. Currently, 23% of the population is overweight and 150 million people are suffering from hypertension—a figure that has increased by around one-third in the past 10 years. Diabetes prevalence is projected to double by 2030 to more than 42 million cases. Some 350 million Chinese continue to smoke, increasing their risk of developing related chronic diseases.

2. HEALTH SITUATION AND TREND

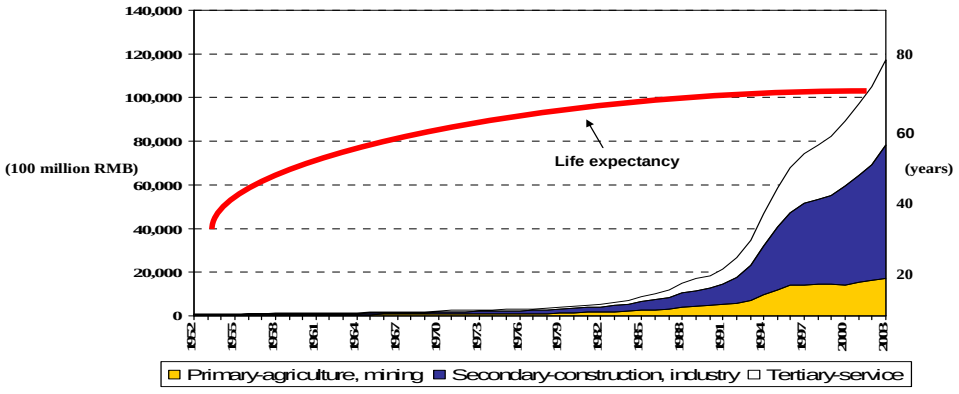
2.1 Communicable and noncommunicable diseases, health risk factors and transition

Health outcomes

During the 1960s and 1970s, when publicly financed community and preventive health programmes provided access to basic care throughout the country, there were important improvements in health conditions, especially in rural areas of the country.

Health outcomes continued to improve during 1980-2005, although at a slower pace than in the preceding quarter of a century. Figure 1 shows the increase in life expectancy over almost 50 years in comparison with economic growth. Other health indicators improved as well. By 2005, the maternal mortality ratio had declined to 44.7 per 100 000, while the infant and under-5 mortality rates had also declined, to 19.0 and 22.5 per 1000 live births, respectively, levels comparable with middle-income countries. In 2006, immunization coverage of one-year-olds against tuberculosis reached 92.0%, and 93.0% for measles. Undernutrition rates among children under five years of age declined to less than 10% in 2002.

Figure 1: Life expectancy and GDP, 1952-2003.



Source: China Statistical Yearbook 2004 and UNIDO analysis

A critical health challenge in China relates to inequality in health outcomes, worsening since the 1980s. While infant and childhood mortality rates in developed coastal areas mirror those of industrialized countries, rates in most western provinces are three to five times higher. In terms of rural-urban disparity across provinces, China National Maternal and Child Surveillance reports the 2004 rates for maternal, infant and under-5 mortality in rural areas were two to three times greater than those in urban areas. Furthermore, life expectancy is also generally lower in provinces with a higher share of China's rural population, particularly in provinces with a higher share of rural poverty.

Health problems

Like many other countries in transition from planned to market-based economies, China faces a double burden of illness. Preventable communicable diseases, common in low-income countries, remain a significant cause of death, particularly among young children. About 10% of the population suffers from active hepatitis B. At the same time, driven by socioeconomic and demographic transitions, chronic noncommunicable diseases, common in high-income countries, have become increasingly prevalent. More and more Chinese people are suffering from vascular-related diseases. Chronic diseases cause about 80% of deaths and it is projected that they will

result in about US$ 550 billion of lost productivity between 2005 and 2015 due to associated deaths and disabilities.

There are approximately 60 million known disabled people in China, of which 12 million are suffering from mental retardation. Among newborn infants, the rate of physical deformity stands at 6%.

In addition, new infections, such as SARS and avian influenza, have emerged.

Health risks

The major health threats in the underdeveloped areas of rural China include unsafe water, lack of sanitation, undernutrition, vitamin and mineral deficiencies, and indoor pollution. However, significant progress has occurred in these areas thanks to targeted government programmes.

Emerging health threats related to the environment, workplaces and lifestyles 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 human lives.[1] In terms of workplace risks, another major source of morbidity and mortality, the occupational accident rate in 2003 was estimated at 1.3 per 1000 workforce, with 15.4 fatalities per 100 000 in the workforce (85% of which occur in coal mining). Among lifestyle-related health risks, smoking and associated exposure to second-hand smoke are particularly serious, in both rural and urban China.

Ongoing demographic transitions are contributing to China's health challenges. Citizens are living longer and mortality rates have continued to fall. At the same time, population fertility rates have decreased rapidly, from 2.4 in 1980 to 1.7 in the early 2000s. Moreover, gender imbalances have sharpened. Census data show that the ratio of newborn boys to girls increased from 108.5:100 in the 1980s to 117:100 in 2000.

2.2 Outbreaks of communicable diseases

Despite the tremendous progress made over the past 50 years in controlling communicable diseases, they are still a problem in China. More than 850 000 children under five years of age die annually in China, and about 70% of these deaths are due to a few conditions— respiratory infections, and infectious and parasitic diseases—that are preventable and treatable.

Emerging infectious diseases (such as SARS and avian influenza) are increasingly important because of their potential to become epidemics and because, in addition to the illness and death they bring, they can cause social instability. The SARS outbreak in 2003 affected 5327 patients in mainland China and killed 348 people. Since 2003, there have been 25 reported human cases of H5N1 in China, and 16 of them have died.

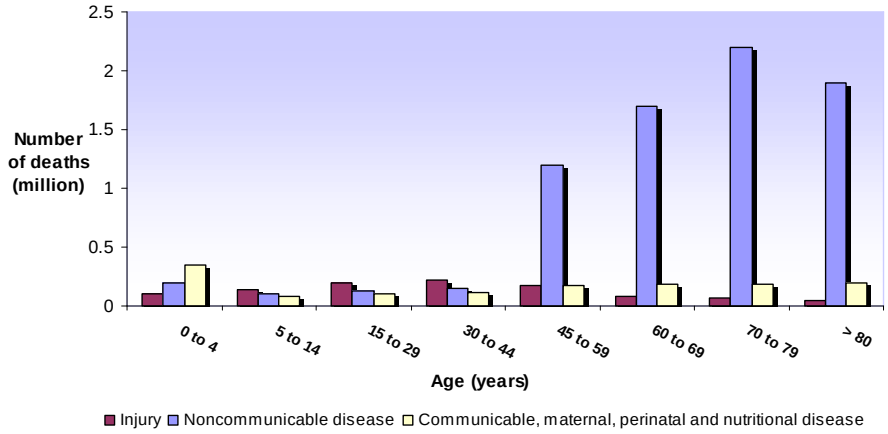
2.3 Leading causes of mortality and morbidity

Overall, people in China are living longer and healthier lives. The disease profile resembles that of a developed country: 85%-90% of deaths are due to noncommunicable diseases and injuries. National averages, however, mask considerable regional variations and disparities.

Among the remaining infectious diseases, hepatitis B virus infection, TB and lower respiratory infections still account for significant mortality and lost DALYs. Figure 2 shows causes of death by age in China in 2003. The national averages, however, hide wide differences across socioeconomic groups and genders, as well as across localities.

[1] Guang X. 1997. *An estimate of the economic consequences of environmental pollution in China.* In Smil and Yushi, Project on Environmental Scarcities, State Capacity and Civil Violence. Cambridge: Committee on International Security Studies.

Figure 2: Number of deaths by cause and age, 2003



Source: WHO World Health Report (2005)

According to the Third National Health Service Survey, conducted in 2003, a decline in infectious diseases of the respiratory and digestive systems was seen from 1998 to 2003. Circulatory, endocrine, nutritious and kinetic system disorders continually rose over the same period. The following table provides more detailed information.

Table 1: Two-week morbidity rate per 1000 population, by major disease, NHSS 2003

	Total			Urban			Rural		
	Disease	Morbidity rate	%	Disease	Morbidity rate	%	Disease	Morbidity rate	%
1	Acute upper respiratory tract infection	20.4	14.3	Hypertension	21.9	14.3	Acute upper respiratory tract infection	21.3	15.3
2	Acute nasopharyngitis	17.8	12.5	Acute upper respiratory tract infection	18.0	11.8	Acute nasopharyngitis	19.8	14.2
3	Hypertension	11.9	8.3	Acute nasopharyngitis	12.0	7.8	Gastroenteritis	11.3	8.1
4	Gastroenteritis	10.5	7.4	Gastroenteritis	8.3	5.4	Hypertension	8.4	6.1
5	Influenza	5.8	4.1	Cerebrovascular diseases	6.4	4.2	Flu	6.4	4.6
6	Rheumatoid arthritis	5.1	3.6	Diabetes	6.3	4.1	Rheumatoid arthritis	5.4	3.9
7	COPD	3.8	2.6	Ischaemic heart disease	4.9	3.2	COPD	3.8	2.8
8	Cerebrovascular diseases	3.7	2.6	Rheumatoid arthritis	4.2	2.7	Cerebrovascular diseases	2.7	2.0
9	Intervertebral disc disorders	2.8	2.0	Intervertebral disc disorders	4.2	2.7	Dislocations, sprains, injuries	2.7	1.9
10	Conditions relating to the gall bladder	2.5	1.7	Influenza	4.1	2.7	Intervertebral disc disorders	2.4	1.7

Source: *A Health Situation Assessment of the People's Republic of China* July 2005 United Nations Health Partners Group in China.

2.4 Maternal, child and infant diseases

In order to attain the Millennium Development Goals (MDGs) related to the reduction of child mortality (MDG4) and improvement of maternal health (MDG5)[1], the Government of China has designed a series of targeted policies and interventions and has obtained impressive achievements. The 11th Five Year Plan also sets targets for infant mortality (17 per 100 000) and maternal mortality (40 per 100 000) by 2010).

The country has remained polio-free since 1994 and the incidence of immunization-targeted diseases, such as measles and diphtheria, has declined significantly. Currently the Expanded Programme on Immunization also includes hepatitis B vaccine. In 2006, immunization rates reached more than 90%.

However, the country still faces many challenges with regard to maternal and child health. Since the mid 1980s, the infant and under-five mortality rates have continued to fall, but the rate of decline has slowed considerably since the mid-1990s. Regional disparities have resulted in significant discrepancies in maternal and child mortality rates; vulnerable migrant and remote and rural poor populations do not seem to be covered by MCH services.

Direct causes of maternal mortality

Post-partum haemorrhage is the leading cause of maternal death in China, followed by pregnancy-induced hypertension, embolism, ante-partum haemorrhage and puerperal sepsis. In rural areas, post-partum haemorrhage explains 35.2% of all deaths; the rates were 5.7 times higher than in urban areas for the 2000-2004 period. The second most important cause of maternal mortality is pregnancy-induced hypertension, particularly in rural areas. Indirect causes, which include mainly pregnancy-associated heart disease, hepatitis, anaemia, deep vein thrombosis, and other infections, cause only 14.3% of all maternal deaths.

The maternal mortality review data show that over 75% of all maternal deaths in China are caused by factors that can either be prevented or averted successfully through the provision of essential obstetrical care.

Direct causes of neonatal, infant and under-five mortality

In 2004, 63.9% of all child deaths were caused by neonatal conditions, with most (79% of total neonatal mortality) occurring within seven days of delivery. Neonatal asphyxia and trauma (4.9‰), preterm delivery, low birth weight (LBW), hypothermia (5.4‰), severe infection (2.3‰), and congenital malformation (2.5‰) explain 89% of all neonatal deaths. Among these factors, asphyxia and trauma, and preterm delivery, LBW and hypothermia are the leading causes of neonatal death, explaining up to 38.7% of under-five deaths, while severe infections is the third leading cause of neonatal mortality in rural areas. Another important cause of neonatal death is congenital malformation.

Pneumonia represents the leading cause of post-neonatal mortality in poor rural areas. In richer areas, injury is the leading cause of post-neonatal deaths. Diarrhoea is the third leading cause of death for children aged one month to five years in most rural areas where there might still be a lack of proper sanitation.

Indirect causes of death: Maternal vitamin and mineral deficiencies and nutritional status

Research shows that maternal nutritional status is not satisfactory and that micronutrient/vitamin deficiencies may be inducing a number of pregnancy-associated complications and increasing the risks of maternal mortality. The 2002 National Nutrition and Health Survey (NNHS) revealed a high prevalence of maternal anaemia (Hb<110g/L) among women aged 18-44, with an average

[1] These goals aim at reducing the under-five mortality rate (U5MR) by two-thirds and the maternal mortality ratio by three-quarters between 1990 and 2015.

of 28.9% (25.3% in urban areas and 30.4% rural areas). The NNHS also showed that the percentage of undernutrition (BMI<18.5) among women aged 18-44 stood at 7.7%.

Another significant problem is insufficient calcium intake, which may be linked to eclampsia and pregnancy-induced hypertension. The NNHS 2002 showed an average daily intake of 438.6 mg of calcium in urban areas, and 369.6 mg in rural areas, equivalent to only 54.8% and 46.2% of the daily calcium intake recommended by the Nutrition Society (800 mg).

Vitamin/micronutrient deficiency during pregnancy still exists in China. Insufficient folic acid intake seriously affects normal fetal growth and development. Regional research has revealed that folic acid deficiency is prevalent in northern China.

Indirect causes of child mortality

Over the last decade, childhood nutritional status has significantly improved in China. The national stunting and underweight rates among children dropped by more than half during 1990-2005 in both urban and rural areas. Stunting and underweight rates, however, remain three times higher in rural areas than in urban areas. Childhood anaemia incidence varies from 10.6% to 38.3% according to age. Vitamin and mineral deficiencies are still prevalent in the whole of China, with significant regional disparities. For example, the proportion of children aged 3-12 suffering from vitamin A deficiency in rural areas is 11.2%, 3.7 times higher than in urban areas (3%).

2.5 Burden of disease

Like many other countries in transition from planned to market-based economies, China faces a double burden of illness, with preventable communicable diseases remaining a significant cause of death, while chronic noncommunicable diseases become increasingly prevalent[1]. In addition, emerging infections, such as SARS and avian influenza, are posing new threats.

Global Burden of Disease estimates produced by WHO indicate that China's overall disease profile now resembles that of a developed country, with 80% of deaths due to noncommunicable diseases and injuries. Cerebrovascular disease, chronic obstructive pulmonary disease and heart disease account for nearly 50% of all deaths. The rankings, based on disability-adjusted life years (DALYs),[2] also highlight the emergence of noncommunicable chronic diseases and injuries as the predominant health condition. Among the remaining infectious diseases, hepatitis B virus infection, TB and lower respiratory infections still account for significant mortality and lost DALYs.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

China's political commitment to health system reform was declared at the highest level when President Hu Jintao stated in October 2006 that all Chinese people should have access to affordable essential health services.

The Chinese Government's Scientific Concept and Five Balances of Development acknowledge that investments in social services, including health, are crucial for achieving sustainable development. China's 11th Five-Year Plan for 2006-2010 accordingly emphasizes investment in human capital.

[1] He J, et al. Major causes of death among men and women in China. *New England Journal of Medicine*. 2005 Sep 15;353(11):1124-34.

[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.

The following points were proposed as the major measures and actions to be taken in the period from 2006 to 2010 (the period of the 11th Five-Year Plan):

- increasing government investment in health and improving the public health and clinical service delivery system;
- improving capacity in disease prevention and control and establishing a medical safety net for the poor; making great efforts to control killer diseases, such as HIV/AIDS, schistosomiasis and hepatitis B; and actively preventing occupational and endemic diseases;
- strengthening maternal and child health care and promoting the development of community health services;
- deepening health system reform and allocating health resources rationally; better regulating pharmaceutical production/products and the market; and
- supporting the development of Traditional Chinese Medicine and fostering a modern TCM industry.

China's citizens have welcomed the Government's political commitment as recognition that essential health is a basic right.

3.2 Organization of health services and delivery systems

In the 1980s-1990s, market-oriented reforms may have improved efficiency in the health sector to a small degree, but negatively affected equity in access to health care. The quality of care has improved in China's top urban hospitals. The cost of care across the country, however, has risen much faster than is justified on the grounds of effectiveness.

Local health departments and service providers are expected to generate a significant proportion of their own operating budgets from user-fees. The associated economic incentives have led to overprovision of specialized services and expensive medicines for those who are able to pay, and underprovision of public health services for those who cannot afford them. The rising fees limit the utilization of health care by the poor and low-income population groups. This contributes to underutilization in many health facilities, including health centres and agencies associated with vertical programmes, such as family planning centres, which often compete with overlapping functions.

Regulations related to public health and delivery systems are underdeveloped and only weakly enforced, and monitoring capacity is weak. Most health facilities lack a clinical governance system, and there are important regulatory gaps. For example, hospital accreditation is not linked to pricing compliance and comprehensive safety records, and doctors and health institutions are not constrained in their engagement in commercial incentive programmes.

Safety standards and health regulations—pertaining to food, environment, roads and traffic, occupational and living conditions, drugs, blood, hospitals, medicines and laboratories, among others—are inconsistent in their design and enforcement across sectors and localities. Weaknesses in safety regulation and enforcement are particularly apparent in rural areas, where township and village enterprises operate in a largely unregulated fashion and generate the majority of occupational diseases, disabilities and deaths in China.

3.3 Health policy, planning and regulatory framework

President Hu Jintao has announced the political commitment to raise government spending on health and to ensure that all Chinese citizens have access to essential health care.

In fact, a Government Working Group, including 14 ministries, is developing a comprehensive outline for major policy reforms in health financing, health security, health care delivery and the pharmaceutical sector.

Box 1: Commitment to improve public health since 2003

In the aftermath of the SARS epidemic, two important documents were publicized from the Centre: *Improvement of the Socialist Market System in 2003* and the *State Work Report 2004*. Both documents have helped to place public health higher on the national agenda.

The Government launched a successful effort to contain the SARS virus and formed long-term strategies to prevent future epidemics. In 2003, the Government successfully implemented a series of emergency measures, including the creation of a special emergency fund, provision of guaranteed access to SARS-related diagnostic and clinical services, improvement in hospital infection control, massive social mobilization and public education, and creation of a special surveillance system to rapidly detect and isolate potential SARS cases. During 2003-2004, an estimated 5 billion Yuan (US$ 0.66 billion) was allocated to support health infrastructure, staffing and service delivery related to SARS. Furthermore, drawing a lesson from its experience during China's SARS episode, the Government revised infectious disease legislation and related regulations, worked toward expanding access to basic immunization, focusing on EPI and hepatitis B, raised central government spending on prevention and treatment of AIDS and tuberculosis, and adopted new operational guidelines for public health.

In effect, China's achievement vis-à-vis SARS involved a rapid expansion of the role of Government to fill gaps in the public health system. As a result, a national consensus has emerged that the Government needs to re-assume greater responsibility for public health functions and services, including health surveillance, reporting, regulation, and prevention and control of infectious diseases.

3.4 Health care financing

In 2007, the Government announced significant increases in its financial contribution to rural health, recognizing that health care financing is at the heart of the problem of the rising cost of and limited access to health care. In the early 2000s, the government budget contribution to the delivery of public health and essential clinical health care was inadequate and inequitable. The Government covered only about 17 % of total health expenditure, while the people paid 54 % directly out of their pockets and the health insurance share was 29 %. In particular, local governments, accounting for 90 % of total government spending on health, were left without the required resources to deliver on their health responsibilities, creating 'unfunded mandates'. Resources were not targeted equitably or efficiently within and between provinces.

There are significant problems relating to the existing fee-for-service payment system. Providers are paid on the basis of fees for services, with their income derived from the revenue raised. As providers focus on providing profitable, rather than cost-effective, health services, overcharging, overdiagnosis and the prescription of unnecessary medicines are common problems. As the 'purchasers' of care, individuals (rather than a specialized institution) are not in a strong position to judge the appropriateness, cost, efficiency and quality of care provided, due to their lack of knowledge and information.

Moreover, financial protection in access to health care remains inadequate. While population coverage under health security schemes has been increasing rapidly, the extent of protection is often very limited. Reimbursement levels are low, and commonly needed outpatient services are often excluded from service benefit packages. This means that, despite being insured, patients still pay high medical costs from their own pocket.

3.5 Human resources for health

China is in the process of transforming its health sector from the situation in the early 1950s, with a severe shortage of people with medical and public health skills, to one in which the benefits of specialized medical skills and technology are made widely available, particularly in urban areas. Over recent decades, one of the country's priorities with respect to human resources for health has been to increase the quantity of health personnel with two to six years of professional training. As a consequence, the availability of health services has expanded rapidly, particularly in cities and better-off rural areas.

Several concerns have arisen, however, around human resources for health in China. Although the number of physicians has reached 15.5 per 10 000 population (comparable with the Republic of Korea and Singapore), they are not evenly distributed, with poor rural areas suffering from shortages of qualified health professionals. Furthermore, many of the health workers responsible for public health and preventive care tend to be less qualified than those specializing in clinical services.

The efficiency of health human resource use in China is also questionable. While the number of health professionals has increased significantly over past decades, the use of health services has declined. Furthermore, China is one of the few countries where doctors outnumber nurses, with 11.1 nurses per 10 000 population in 2006. International experience suggests that preventive and health-promotion services are generally more cost-effectively delivered by nurses. The relatively high number of doctors compared with nurses (in both urban and rural areas) thus raises concerns about cost-effectiveness. These challenges relate partly to the absence of any national human resources for health strategy that would allow the defining and rebalancing of the respective roles of health care practitioners, and the filling of gaps in rural areas.

3.6 Partnerships

China has been taking a leading role in improving public health in the Region and the world. In both multilateral and bilateral partnerships, China has organized several important regional and global health events, and tabled important resolutions on public health in the United Nations General Assembly in 2003 and 2005.

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). Six of the eight MDGs relate to health either directly or indirectly, calling for reductions in child malnutrition, child mortality and maternal mortality, and combating communicable diseases such as HIV/AIDS, malaria and tuberculosis. China is ahead of schedule in achieving most of the MDGs, benefiting from the positive effects of both rapid economic growth and targeted government programmes. Closer examination of the situation, however, reveals that, despite improvement in some indicators, the pace of development across disadvantaged and poor localities is slow, and targeted government actions are seeking to address some specific gaps. Box 2 provides a brief overview of China's progress and actions toward achieving the MDGs in health.

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. Since this momentous pledge, the 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.

In 2005, China initiated a resolution on Public Health in the United Nations. In this context, China has recommended to the United Nations 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.

Box 2: China's progress toward achieving the MDGs in health

China has made remarkable progress in reducing the prevalence of malnutrition and in combating tuberculosis and HIV/AIDS. A closer look beyond the aggregate figures, however, reveals major challenges at the local level. To address these challenges, China particularly needs to build the institutional capacities of local governments to implement targeted programmes and deliver public services.

The rate of decline in malnutrition exceeds the MDG target in aggregate. The task for the Government is now to address the slower pace of decline among children in rural areas.

In tuberculosis, the detection rate has been improving rapidly since 2002, reaching 80 % by the end of 2005. Over 90 % of the population now has access to free tuberculosis treatment in the Government-sponsored directly observed treatment, short-course (DOTS) programme, and more than 90% of patients have been treated successfully. Tuberculosis, however, is still far from being controlled, with persistently high rates of multi-drug resistance, and remains at the top of Government's health agenda.

China's response to the HIV/AIDS epidemic has been effective, particularly in terms of commitment by the national leadership and provision of treatment, care and support. Clusters of high prevalence are constrained geographically and are among specific sub-groups. However, the wider population is at risk. With the onset of the epidemic occurring later than in most other developing countries, China is still on the upward phase of the epidemic's distribution curve, which adds to the challenge of meeting the HIV/AIDS-related MDG. The Government is working towards enhancing public awareness and is considering options for scaling up its pilot projects targeting high-risk groups.

Regarding maternal and child mortality, the aggregate progress also masks major disparities. These are particularly related to inequities and gaps in access to essential maternal and child preventive and survival health services. In line with its commitment to the MDGs, China has been strengthening its policies toward promoting maternal and child survival. Since 2005, the Ministry of Health has been working with WHO, UNICEF and UNFPA on a Joint Review of Maternal and Child Survival Strategies in China. The goal is to define an equitable and affordable essential package of maternal and child care, to be universally accessible and financed from public sources and health insurance. Activities related to the joint review have indicated that enhancing maternal and child survival will require strong government commitment to ensure equitable access to essential health services and to other public services (such as safe water, sanitation and health promotion) that are strongly correlated with health.

3.7 Challenges to health system strengthening

Lessons learnt by China over the past half a century suggest that the Government must pay significant attention to securing access to basic health by the poor and vulnerable population groups for the benefit of the country's future economic growth, poverty reduction and equity.

To this end, major positive changes have occurred since the Government adopted its Scientific Concept of Development. Efforts are underway to clarify functions across the different levels of government and within the many ministries and high-level institutions that share health-related responsibilities. There has been significant debate surrounding the prioritization of objectives in health for China. The growing consensus is that the Government should focus efforts on promoting equitable access to basic health care at affordable cost and of adequate quality.

Reforming the health system

Since 2006, the Government has made an enormous effort to define its role in health more clearly. As many countries around the world attest, launching comprehensive reforms in the health system is very difficult on political and ethical, as well as technical grounds. Health system reforms are further complicated by complex governance structures.

China has made a very significant step in the right direction by establishing a 14-ministry working group in charge of outlining future health care reforms, and by appointing the National Development Reform Commission and the Ministry of Health to lead this group. Indeed, even beyond the preparation of large-scale health care sector reforms, a coordinating body is needed to direct health-related ministries and relevant institutions to work together more efficiently, and to ensure that public health functions within the numerous ministries and provinces are well coordinated. Issues controlled by other ministries, like environmental pollution, biosafety, tobacco regulation and taxation, nutrition, traffic control and road safety, sanitation, and basic health education in schools, may thus be harmonized, in line with Government health policy.

Oversight by this high-level committee will ensure that policies affecting health fit into the larger vision for a healthier China.

Most importantly, achieving greater equity in health requires immense political resolve. In China, as in other countries, the single biggest challenge is securing the political will to balance the influence of interest groups and promote the well-being of the entire population regardless of political influence, socioeconomic status or cultural background. Since 2006, the Government and the Communist Party of China have used every opportunity to express their commitment to strengthening the basis for improving the health of the poor and disadvantaged population groups. The involvement of many stakeholders in the current health policy reform process gives every hope that China will succeed and set yet another example of successful reforms that can inspire other countries.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*China's 11th Five-Year Plan*
Web address	:	http://www.china.org
Title 2	:	*2007 NPC & CPPCC Sessions*
Features	:	The 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.
Web address	:	http://www.china.org
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
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
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

5. ADDRESSES

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Website	:	http://www.wpro.who.int/china

COUNTRY HEALTH INFORMATION PROFILE

CHINA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	9600.00			2006	2
2	**Estimated population** ('000s)	1 314 480.00	677 280.00	637 200.00	2006	1
3	**Annual population growth rate** (%)	0.59	...	...	2004	1
4	**Percentage of population**					
	- 0–4 years	...	...	...		
	- 5–14 years	19.80 [a]	...	...	2006	1
	- 65 years and above	7.90	...	...	2006	1
5	**Urban population** (%)	43.90	...	...	2006	1
6	**Crude birth rate** (per 1000 population)	12.09	...	...	2006	1
7	**Crude death rate** (per 1000 population)	6.81	...	...	2006	1
8	**Rate of natural increase of population** (% per annum)	0.53	...	...	2006	1
9	**Life expectancy** (years)					
	- at birth	71.40	69.60	73.70	2000	3
	- Healthy Life Expectancy (HALE) at age 60	...	13.10	14.70	2002	4
10	**Adult literacy rate** (%)	...	95.10	86.50	2004	8
11	**Neonatal mortality rate** (per 1000 live births)	13.20	...	...	2005	6
12	**Infant mortality rate** (per 1000 live births)	19.00	...	...	2005	6
13	**Under-five mortality rate** (per 1000 live births)	22.50	...	...	2005	6
14	**Total fertility rate** (women aged 15–49 years)	1.90			2001	3
15	**Maternal mortality ratio** (per 100 000 live births)	47.70			2005	6
16	**Percentage of newborn infants weighing at least 2500 g at birth**	97.61	...	...	2002	3
17	**Prevalence of underweight children under five years of age**	7.88	...	...	2002	9
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	92.00	...	...	2006	10
	- DTP3	93.00	...	...	2006	10
	- POL3	94.00	...	...	2006	10
	- Measles	93.00	...	...	2006	10
	- Hepatitis B III	91.00	...	...	2006	10
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	90.14			2002	3
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries attended by skilled health personnel	97.80			2006	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	9.40			2006	6
	- Percentage of deliveries in health facilities (as % of total deliveries)	88.40			2006	6
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			84.60	2002 est	3
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

CHINA

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	77.00	93.00	67.00	2004	11
27	**Proportion of population with access to improved sanitation**	44.00	69.00	28.00	2004	11
28	**Proportion of the population using solid fuels (%)**	80.00	...	...	2002	5
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.77	2004	8
33	**Per capita GDP at current market prices** (US$)			2000.00	2006	13
34	**Rate of growth of per capita GDP** (%)			9.80	2005	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			105 738.00	2005	7
	- total expenditure on health as % of GDP			4.73	2005	7
	- per capita total expenditure on health (in US$)			80.87	2005	7
	Government expenditure on health					
	- amount (in million US$)			40 990.60	2005	7
	- general government expenditure on health as % of total expenditure on health			38.77	2005	7
	- general government expenditure on health as % of total general government expenditure			10.00	2005	14
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.26	2005	14
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			61.23	2005	7
	Exchange rate in US$ of local currency is: 1 US$ =			8.19	2005	1
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	1 994 854	...	...	...	...	15.50	...	...	...	...	2006	6
	- dentists	136 520	...	...	...	...	1.10	...	...	...	...	2001	12
	- pharmacists	353 565	...	...	...	...	2.69	...	...	...	...	2006	6
	- nurses	1 426 339	...	...	...	...	11.10	...	...	...	...	2006	6
	- midwives	42 000	...	...	...	...	0.30	...	...	...	...	2001	12
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	209 144	...	...	...	...	16.28	...	...	...	...	2002	2
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the respiratory system	...	...	...	11.20 [c]	...	...	2002	3
	2. Diseases of the digestive system	...	...	...	11.00 [c]	...	...	2002	3
	3. Pregnancy, childbirth and puerperium causes	...	...	...	10.68 [c]	...	...	2002	3
	4. Injury and poisoning	...	...	...	9.13 [c]	...	...	2002	3
	5. Malignant neoplasms	...	...	...	6.36 [c]	...	...	2002	3
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neoplasms	...	...	...	136.53	...	...	2006	6
	2. Cerebrovascular diseases	...	...	...	100.30	...	...	2006	6
	3. Heart diseases	...	...	...	80.13	...	...	2006	6
	4. Diseases of the respiratory system	...	...	...	78.07	...	...	2006	6
	5. Injury and poisoning	...	...	...	40.08	...	...	2006	6
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	1	...	...	...	...	...	2006	10
	- Hib meningitis	...	...	...	...	...	...		
	- Measles	99 602	...	...	...	...	...	2006	10
	- Mumps	273 242	...	...	...	...	...	2006	10
	- Neonatal tetanus	2519	...	...	...	...	...	2006	10
	- Pertussis (whooping cough)	2595	...	...	...	...	...	2006	10
	- Poliomyelitis	0	0	0	0	0	0	2006	10
	- Rubella	37 137	...	...	...	...	...	2006	10
	- Total Tetanus	...	...	...	...	...	...		
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	68 667	...	...	37	...	...	2006	13
	- Type B	1 109 130	...	...	995	...	...	2006	13
	- Type C	70 681	...	...	160	...	...	2006	13
	- Type E	19 007	...	...	54	...	...	2006	13
	- Unspecified	67 374	...	...	106	...	...	2006	13
	Cholera	159	...	...	2	...	...	2006	6
	Dengue/DHF	1044	...	...	0	0	0	2006	13
	Encephalitis	1669	...	...	156	...	...	2006	6
	Gonorrhoea	158 795	...	...	3	...	...	2006	6
	Leprosy	1658	...	...	...	...	...	2005	10
	Malaria	21 935	...	...	48	...	...	2005	10
	Plague	1	...	...	0	0	0	2006	6
	Syphilis	167 370	...	...	86	...	...	2006	6
	Typhoid fever	16 317	...	...	13	...	...	2006	6

CHINA

	INDICATORS	DATA						Year	Source
		Total	Male	Female	Total	Male	Female		
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	2.00	...	...	0.00	0.00	0.00	2005	10
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	894 428	...	...	...	...	...	2005	10
	- New pulmonary tuberculosis (smear-positive)	472 719	...	...	...	...	...	2005	10
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	208.00	...	...	16.00	...	...	2005	10
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	80.00	...	...	94.00 (2004)	...	...	2005	10
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	...	...	...		
48	**Diarrhoeal diseases**	...	...	...	...	...	...		
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
50	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
51	**Maternal causes**								
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	…	…	…	…	…	…		
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					13 120	1 902 894	2006	6
	- Specialized hospitals					3 022	320 503	2006	6
	- District/first-level referral hospitals					2 738	…	2006	6
	- Primary health care centres					40 791 [b]	710 308	2006	6
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to 0-14 years old
b	Figure refers to urban street and rural township health center
c	Figure refers to leading causes of morbidity among inpatients in city hospitals (% of total cases)

Sources:

1	Statistical Communique of the People's People's Republic of China on the 2006 National Economic and Social Development. National Bureau of Statistics of China (http://www.stats.gov.cn/english).
2	Information provided by the WHO Representative of China, 20 April 2004.
3	Information provided by the Ministry of Health, 2003, 2004 and 2005.
4	World health report 2004. *Changing history*. Geneva, World Health Organization, 2004.
5	*Indoor Air Pollution: National Burden of Disease Estimates*. World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
6	Chinese health statistical digest 2006.
7	China national health accounts report 2006.
8	Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis. United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
9	2002 National Nutrition and health survey.
10	WHO Regional Office for the Western Pacific, data received from the technical units.
11	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
12	World health report 2006. *Working together for health*. Geneva, World Health Organization, 2006.
13	Information provided by the WHO Representative of China, 26 June 2007.
14	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].

Cook Islands

1. CONTEXT

1.1 Demographics

The population of Cook Islands dropped between 1996 and 2001 due to outmigration, but increased again in the five years leading up to the 2006 census to an estimated 19 569 people. Around 21% of the population are below 15 years of age and about 11.8% above 65 years.

In 2005, overall life expectancy at birth was estimated at 69 years: 65 years for men and 73 years for women. The crude birth rate was 23.6 per 1000 population, and the crude death rate 7.2 per 1000 resident population in 2006.

1.2 Political situation

Cook Islands has a unicameral, democratic parliament with 25 elected members who serve parliamentary terms of five years. However, there have been four government changes since 1999. In the September 2004 elections, Jim Marurai was elected Prime Minister. 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 producers of income in the Cook Islands 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 260 million New Zealand dollars (approximately US$ 183.1 million) and 12 878 New Zealand dollars (approximately US$ 9069) per capita in 2005. The GDP growth rate per capita was 1.2%. The country's focus on development has been affected by 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 2004, about 94.0% of the population had access to a clean, safe water supply and 100% had adequate sewage sanitation disposal facilities.

1.4 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. Parasitic intestinal worm disease has been greatly reduced by improved water and sanitation. A water supply and sanitation improvement programme, with the building of flush toilets in all schools and health centres on

the outer islands, has enhanced the reduction in these diseases and probably also septic skin disease, rheumatic fever and obstructive airways disease. There was no case of leprosy in 2005. The incidence of sexually transmitted infections (STI) varies. Gonorrhoea and syphilis are rare, while 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 88% in 2003.

Noncommunicable diseases, such as hypertension, diabetes, cancer, coronary heart disease, obesity, and injury and poisoning, continue to be major public health problems. According to a WHO consultancy report in 2001, the prevalence of diabetes is 11.8% for males and 3.8% for females (not including patients with well controlled pre-existing diabetes). The prevalence of obesity is 48.4% for males and 36.2% for females. According to hospital records, 65% of registered patients in 2005 were reported to have acquired hypertension, 16% having both hypertension and diabetes and 19% having diabetes only.

2.2 Outbreaks of communicable diseases

The only infectious disease outbreak since the dengue outbreaks in 1992-1993 and 1995 was the dengue outbreak of 2002 (2491 cases reported).

2.3 Leading causes of mortality and morbidity

The leading causes of morbidity and mortality are noncommunicable diseases. In 2005, 33% of deaths were caused by circulatory system diseases.

2.4 Maternal, child and infant diseases

There has been no case of maternal mortality since 1993. The infant mortality rate was 10.8 per 1000 live births in 2006. During the 2004-2005 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 improve healthy lifestyles, minimize the risk of disease and reduce the need for hospital and other health services through:

- evaluating the effectiveness of health education and promotion activities and strengthening the concepts approach; and
- providing 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 adolescence 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 sex 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, care during pregnancy and childbirth and after delivery, and family planning will be enhanced.

(6) Noncommunicable diseases and mental 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 and parcel 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 and consumption among adults. The results of the survey will determine and guide 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 2005, total health expenditure was 10 million New Zealand dollars (US$ 7.04 million), with per capita expenditure on health of US$ 391.24.

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 these 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 80 beds in Rarotonga and seven 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 (ADB) 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	:	*2005 Annual Statistical Bulletin.*
Operator	:	Ministry of Health Medical *Records* Unit
Web address	:	http://www.health.gov.ck
Title 2	:	*Cook Islands Statistical Bulletin, Census Population and Dwellings 2006 Preliminary Result*
Operator	:	Statistics Office
Web address	:	http://www.stats.gov.ck
Title 3	:	*Key Indicators 2003 of Developing Asian and Pacific Countries*, *vol. 34.*
Operator	:	Asian Development Bank
Title 4	:	*Pacific Human Development Report 1999 (Creating Opportunities).*
Operator	:	United Nations Development Programme

5. ADDRESSES

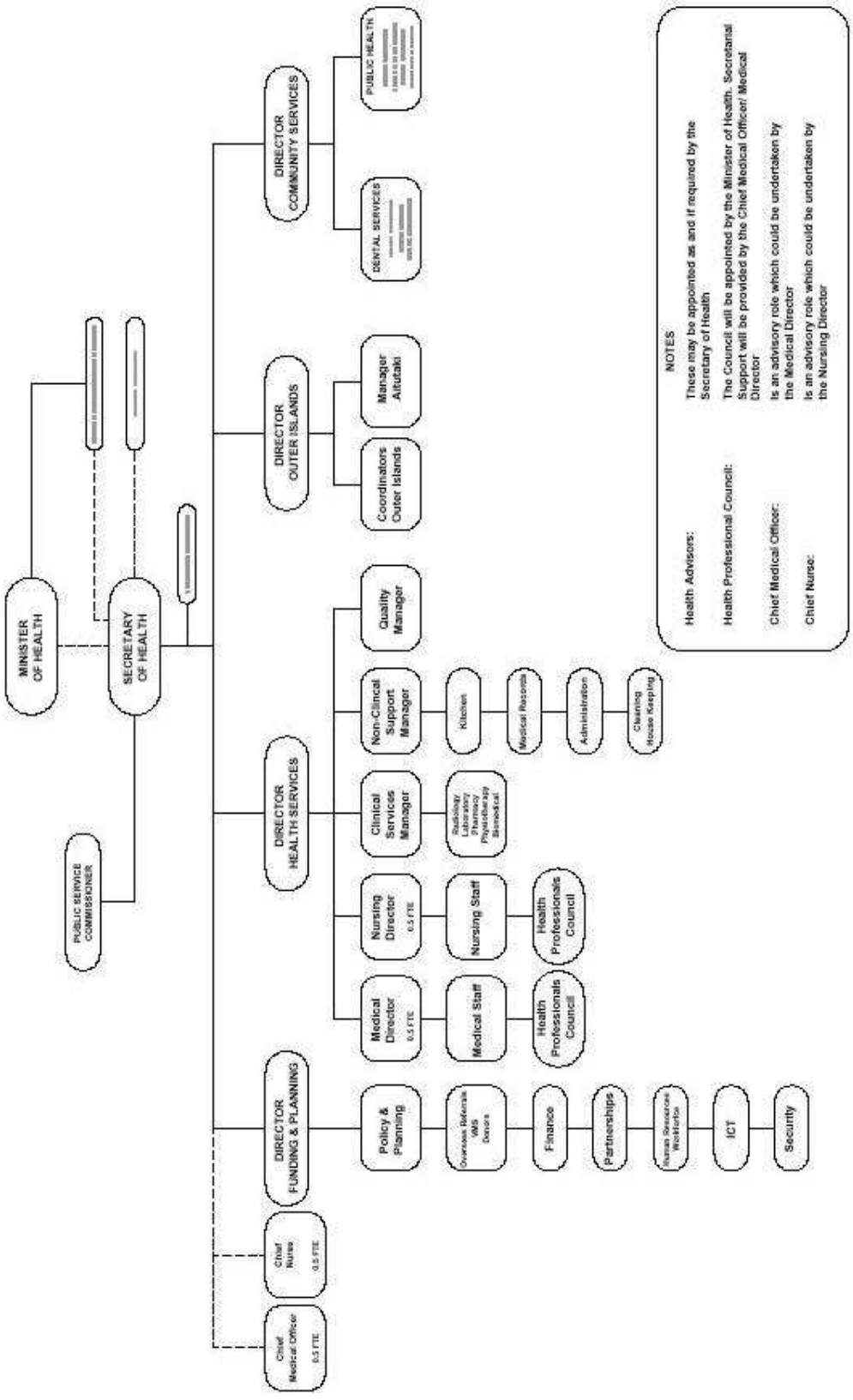
MINISTRY OF HEALTH

Postal Address	:	P.O. Box 109, Avarua, Rarotonga, Cook Islands
Official Email Address	:	dcsl@health.gov.ck
Telephone	:	(682) 22664 (Hospital), (682) 29664 (Admin)
Fax	:	(682) 22670 (Hospital), (682) 23109 (Admin)
Website	:	http://www.health.gov.ck/stats_statistics.asp

WHO REPRESENTATIVE IN SAMOA, AMERICAN SAMOA, COOK ISLANDS, NIUE AND TOKELAU

Office Address	:	Ioane Viliamu Building Beach Road, Apia, Western Samoa
Postal Address	:	P.O. Box 77, Apia, Western Samoa
Official Email Address	:	who@sma.wpro.who.int
Telephone	:	(685) 23756/ 23757
Fax	:	(685) 23765

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

COOK ISLANDS — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.24			2006	1
2	**Estimated population** ('000s)	19.57	9.93	9.64	2006p	1
3	**Annual population growth rate** (%)	1.10	…	…	2002 est	1
4	**Percentage of population**					
	- 0–4 years	…	…	…		
	- 5–14 years	21.00 [a]	26.67 [a]	25.41 [a]	2006p	1
	- 65 years and above	11.85 [b]	11.97 [b]	11.72 [b]	2006p	1
5	**Urban population** (%)	70.40	…	…	2006 est	2
6	**Crude birth rate** (per 1000 population)	23.60 [c]	…	…	2006p	3
7	**Crude death rate** (per 1000 population)	7.20 [c]	…	…	2006p	3
8	**Rate of natural increase of population** (% per annum)	1.64	…	…	2006p	3
9	**Life expectancy** (years)					
	- at birth	69.00	65.00	73.00	2005	4
	- Healthy Life Expectancy (HALE) at age 60	…	11.50	12.60	2002	5
10	**Adult literacy rate** (%)	100.00	100.00	100.00	2005	4
11	**Neonatal mortality rate** (per 1000 live births)	9.90	…	…	2005	4
12	**Infant mortality rate** (per 1000 live births)	10.80	…	…	2006p	3
13	**Under-five mortality rate** (per 1000 live births)	11.00	…	…	2005	4
14	**Total fertility rate** (women aged 15–49 years)	2.80			2005	4
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2005	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	97.70	…	…	2005	4
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			…		
19	**Percentage of teenage pregnancy**			15.20	2005	4
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	6
	- DTP3	100.00	100.00	100.00	2006	6
	- POL3	100.00	100.00	100.00	2006	6
	- Measles	100.00	100.00	100.00	2006	6
	- Hepatitis B III	100.00	100.00	100.00	2006	6
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2005	4
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	100.00			2006	6
	- Percentage of deliveries attended by skilled health personnel	100.00			2005	4
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.37			2005	4
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.63			2005	4
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			39.87	2005	4
23	**Condom use rate of the contraceptive prevalence rate**	1.65	…	…	2005	4
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	94.00	98.00	88.00	2004	7
27	Proportion of population with access to improved sanitation	100.00	100.00	100.00	2004	7
28	Proportion of the population using solid fuels (%)	10.90	...	...	2001	10
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			...		
33	**Per capita GDP at current market prices** (US$)			9069.01	2005	3
34	**Rate of growth of per capita GDP** (%)			1.20	2005	3
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			7.04	2005p	8
	- total expenditure on health as % of GDP			3.90	2005p	8
	- per capita total expenditure on health (in US$)			391.24	2005p	8
	Government expenditure on health					
	- amount (in million US$)			6.34	2005p	8
	- general government expenditure on health as % of total expenditure on health			88.60	2005p	8
	- general government expenditure on health as % of total general government expenditure			8.30	2005p	8
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			29.98	2005p	8
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			11.40	2005p	8
	Exchange rate in US$ of local currency is: 1 US$ =			1.42	2005p	8
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	22	...	...	22	...	12.20	...	...	12.20	...	2004	9
	- dentists	20	...	...	20	...	11.09	...	...	11.09	...	2004	9
	- pharmacists	1	1	0	1	...	0.55	1.07	0.00	0.55	...	2004	9
	- nurses	52	0	52	52	...	28.85	0.00	59.61	28.85	...	2004	9
	- midwives	11	0	11	11	...	6.10	0.00	12.61	6.10	...	2004	9
	- other nursing / auxiliary staff	57	0	57	57	...	31.62	0.00	65.34	31.62	...	2004	9
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	16	...	...	16	...	8.88	...	...	8.88	...	2004	9
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	112	...	...	112	...	62.13	...	...	62.13	...	2004	9
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Influenza and pneumonia	127 [d]	76 [d]	51 [d]	628.71 [d]	...	...	2005	4
	2. Hypertensive diseases	118 [d]	56 [d]	62 [d]	584.16 [d]	...	...	2005	4
	3. Diabetes Mellitus	104 [d]	52 [d]	52 [d]	514.85 [d]	...	...	2005	4
	4. Diseases of pulmonary circulation & other forms of heart diseases	98 [d]	57 [d]	41 [d]	485.15 [d]	...	...	2005	4
	5. Motor cycle rider injured in transport accident	96 [d]	60 [d]	36 [d]	475.25 [d]	...	...	2005	4
	6. Toxic effects of substances chiefly nonmedicinal as to source	90 [d]	55 [d]	35 [d]	445.54 [d]	...	...	2005	4
	7. Injuries to the hip, thigh, knee, lower leg, ankle and foot	88 [d]	56 [d]	32 [d]	435.64 [d]	...	...	2005	4
	8. Accidental poisoning by and exposure to noxious substances	64 [d]	39 [d]	25 [d]	316.83 [d]	...	...	2005	4
	9. Infections of skin and subcutaneous tissue	52 [d]	31 [d]	21 [d]	257.42 [d]	...	...	2005	4
	10. Injuries to the shoulder, upper arm, elbow, forearm, wrist and hand	52 [d]	44 [d]	8 [d]	257.42 [d]	...	...	2005	4
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Hypertension	11	8	3	88.70 [h]	...	...	2005	1
	2. Pneumonia	11	10	1	88.70 [h]	...	...	2005	1
	3. Diabetes Mellitus	10	4	6	80.60 [h]	...	...	2005	1
	4. Ischaemic heart disease	7	4	3	56.50 [h]	...	...	2005	1
	5. Neoplasms	7	2	5	56.50 [h]	...	...	2005	1
	6. Transport Accidents	6	5	1	48.40 [h]	...	...	2005	1
	7. Symptoms, Signs & Ill-defined conditions	6	4	2	48.40 [h]	...	...	2005	1
	8. Heart Failure	4	3	1	32.30 [h]	...	...	2005	1
	9. Diseases of the digestive system	4	4	0	32.30 [h]	...	...	2005	1
	10. Diseases of the genitourinary system	4	3	1	32.30 [h]	...	...	2005	1
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	6
	- Diphtheria	0	0	0	0	0	0	2006	6
	- Hib meningitis	0	0	0	0	0	0	2005	6
	- Measles	6	...	...	...	...	...	2006	6
	- Mumps	0	0	0	0	0	0	2006	6
	- Neonatal tetanus	0	0	0	0	0	0	2006	6
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	6
	- Poliomyelitis	0	0	0	0	0	0	2006	6
	- Rubella	0	0	0	0	0	0	2006	6
	- Total Tetanus	0	0	0	0	0	0	2006	6
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	41 [e]	18 [e]	23 [e]	...	...	...	2005	4
	- Type C	0 [e]	0 [e]	0 [e]	0	0	0	2005	4
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0 [e]	0 [e]	0 [e]	0	0	0	2005	1
	Dengue/DHF	0 [e]	0 [e]	0 [e]	0	0	0	2005	1
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	29 [e]	21 [e]	8 [e]	...	...	...	2005	1
	Leprosy	0	0	0	0	0	0	2005	6
	Malaria	0 [e]	0 [e]	0 [e]	0	0	0	2005	1
	Plague	0 [e]	0 [e]	0 [e]	0	0	0	2005	1
	Syphilis	1 [e]	0 [e]	1 [e]	0	0	0	2005	1
	Typhoid fever	0 [e]	0 [e]	0 [e]	0	0	0	2005	1
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	1	...	...	...	...	...	2005	6
	- New pulmonary tuberculosis (smear-positive)	1	...	...	...	...	...	2005	6
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	26.00	...	...	3.00	...	...	2005	6
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	77.00	...	...	100.00 (2002)	...	...	2005	6
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	5488	...	...	0	0	0	2005	4
48	**Diarrhoeal diseases**	1370	...	...	0	0	0	2005	4
49	**Cancers**								
	All cancers (malignant neoplasms only)	18	7	11	7	2	5	2005	4
	- Breast	2	0	2	2	0	2	2005	4
	- Colon and rectum	0	0	0	0	0	0	2005	4
	- Cervix			0			0	2005	4
	- Oesophagus	0	0	0	0	0	0	2005	4
	- Leukaemia	0	0	0	0	0	0	2005	4
	- Lip, oral cavity and pharynx	0	0	0	0	0	0	2005	4
	- Liver	1	0	1	2	1	1	2005	4
	- Stomach	0	0	0	0	0	0	2005	4
	- Trachea, bronchus, and lung	3	0	3	1	1	0	2005	4

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	312	182	130	31	23	8	2005	4
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	22	16	6	2	2	0	2005	4
	- Hypertension	118	56	62	11	8	3	2005	4
	- Ischaemic heart disease	34	25	9	7	4	3	2005	4
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
51	**Maternal causes**								
	- Abortion			31			0	2005	4
	- Eclampsia			9			0	2005	4
	- Haemorrhage			9			0	2005	4
	- Obstructed labour			27			0	2005	4
	- Sepsis			…			…		
52	**Diabetes mellitus**	47	…	…	10	4	6	2005	4
53	**Mental disorders**	60	42	18	2	1	1	2005	4
54	**Injuries**								
	All types	348	226	122	9	8	1	2005	4
	- Homicide and violence	0	0	0	0	0	0	2005	4
	- Motor and other vehicular accidents	105	67	38	6	5	1	2005	4
	- Occupational injuries	0	0	0	0	0	0	2005	4
	- Suicide	4	3	1	3	3	0	2005	4
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	70	2005	4
	- Specialized hospitals					0	0	2005	4
	- District/first-level referral hospitals					7	57	2005	4
	- Primary health care centres					73 [f]	0	2005	4
	Private hospitals					5 [g]	…	2005	4

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to 0-14 years old
b	Figure refers to 60 years and above
c	Figure is computed per thousand resident population as of 1992
d	Figure applies to Rarotonga only
e	Figure refers to registered cases
f	Figure includes 9 out-patient clinics, 8 dental clinics, 6 health centres and 50 child welfare clinics

g	Figure refers to private clinics
h	Rates are calculated per 100 000 resident population
Sources:	
1	Census of Population and Dwellings 2006, Preliminary Result. Cook Islands Statistical Bulletin. http://www.spc.int/prism/Country/CK/stats/.
2	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
3	Cook Islands Statistics Office http://www.stats.gov.ck/index.htm.
4	Annual Statistical Bulletin 2005. Cooks Islands Ministry of Health. http://www.health.gov.ck/default.asp.
5	World health report 2004. *Changing history* . Geneva, World Health Organization, 2004.
6	WHO Regional Office for the Western Pacific, data received from the technical units.
7	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade* . Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
8	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].
9	Annual Bulletin 2004. Cooks Islands Ministry of Health. http://www.health.gov.ck/default.asp.
10	*Pacific Islands Regional Millenium Development Goals Report 2004* . Secretariat of the Pacific Community and UN/CROP MDG Working Group, November 2004.

FIJI

1. CONTEXT

1.1 Demographics

Fiji has the largest population of the South Pacific island countries. The estimated multiethnic population for 2006 was 853 445, with 471 033 ethnic Fijians, 313 181 Indo-fijians and 69 231 of other ethnic groups. The average annual growth rate stands at 0.8%, this trend of 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 330 islands and is concentrated on the two largest islands, Viti Levu (10 429 square kilometres) and Vanua Levu (5556 square kilometres), with the nation's capital, Suva, located on Viti Levu.

1.2 Political situation

Fiji's military chief, Commodore Frank Bainimarama, announced in a televised address on 5 December 2006 that he had taken over the running of the country. The following day he sent troops to close Parliament. In January 2007, he took on the role of interim Prime Minister, as decreed by the President, with individuals appointed by the military chief occupying key posts as part of the interim administration.

The interim administration says they will call elections in 2010, restoring parliamentary democracy, but there has been local and international pressure to hold them much earlier. The military leader accused the deposed Prime Minister, Laisenia Qarase, of leading Fiji down a "path of doom".

1.3 Socioeconomic situation

With a population of 846 085 in 2005 and a gross domestic product (GDP) of FJD 4296.7 million (US$ 2542.4 million), GDP per capita was FJD 5085 (US$ 3008.9). The per capita GDP growth rate was 6.6%. Government income comes largely from customs duties and port dues, as well as taxation.

The political situation has affected the economy of the country. Just a week after the coup, the Fiji Employers Federation revealed that its members had laid off nearly 1000 workers because of the downturn in business. Many of these workers, the Federation said, were in the tourism business. One of the country's biggest multi-million dollar tourism and land development projects at Momi near Nadi International Airport is being halted because of the uncertainty, sending home hundreds of construction workers and labourers.

One thousand five hundred more workers were left jobless overnight when Fiji's sole mining operation, Emperor Gold Mine, decided to close. Gold exports last year totalled F$ 218 million (US$ 136 million), representing 7% of total exports of a country that is already suffering from poor export receipts and a rising import bill.

1.4 Vulnerabilities and hazards

With the military coup that has taken place and the many international pressures on the interim administration, Fiji is vulnerable to suffer economically, especially when the main income earner, tourism, is the first industry to be affected. The sugar industry should be undergoing reform in an

effort to improve efficiency and production, but this too remains vulnerable due to the current prevailing political situation.

2. HEALTH SITUATION AND TREND

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 diseases. 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 (NCDs) 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 take one or less servings of fruits a day, 37% currently smoke tobacco, and there is a low rate of physical activity (25%) and a high rate of binge drinking (77.3% of current drinkers). This information led to the formulation of the National NCD Strategy 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).

There are three health goals under the Millennium Development Declaration. The two mortality goals have been largely achieved, but the target for HIV/AIDS is still a major challenge for Fiji. As of September 2006, there were 229 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, like TB, SARS, and avian influenza (HPAI H5N1), that 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 elimination. 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

In February 2006, there was a report of three infants being admitted to a divisional hospital with suspected measles, which was confirmed by serological testing at the national laboratory on 23 February 2006. This result was verified by the WHO measles regional reference laboratory at the Victoria Infectious Diseases Reference Laboratory in Australia, where the H1 measles genotype was identified. Between 17 February 2006 and 9 June 2006, 136 suspected cases of measles were reported to the Ministry of Health, including 22 that were laboratory-confirmed (by the presence of anti-measles IgM antibodies). Among the 136 reported cases, 58% occurred among those aged less than five years, with the highest incidence among children aged 6–11 months. Of the 41 children aged from 12 to 59 months for whom the Ministry of Health could obtain detailed case investigation data, 12 (29%) had received the first dose of measles-rubella vaccine, 10 (24%) had

not been vaccinated, and the immunization status of 19 (46%) was unknown. Altogether, 31 (24%) patients required hospitalization, mainly for pneumonia. No deaths were reported.

The Ministry of Health rapidly achieved high measles immunization coverage by implementing an outbreak response that targeted the appropriate age group. At the same time, a sharp decrease in reported cases occurred among all age groups. Fiji's intersectoral, comprehensive and timely response to this outbreak was exemplary. The strong commitment from the Ministry of Health and its partners to reach at least 95% of targeted children was critical to the successful interruption of measles virus transmission and preventing it spreading to other, equally vulnerable Pacific islands.

The threat of dengue virus infection and outbreaks will continue in Fiji given the many factors that could introduce the virus. To reduce disease burden and case fatality rates, 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 humans pathogenic serovars. With the advent of eco-tourism, humans are facing increased risk of acquiring the pathogenic organisms in the environment. Research and identification of animal reservoirs is planned.

The Government has made a budgetary provision of F$ 500 000 (US $295 857) for the control of diseases. This is the largest budget allocation for any one health programme and has continued to increase, from F$ 150 000 (US $78 947) in 2003, to F$ 300 000 (US $173 410) in 2004, to the current level.

2.3 Leading causes of mortality and morbidity

People in Fiji are living longer, with life expectancy at 67 years for males and 72 years for females. The infant mortality rate has fallen by 62% in the past 20 years and is now about 16.3 deaths per 1000 live births. Good obstetrical services are contributing to the lower infant death rate, with about 98.9% of births being attended by trained medical personnel.

By 2002, around 70% of deaths in Fiji were due to noncommunicable diseases (NCD), 15% to communicable diseases and another 15% to other causes. Over the past 10 years the leading causes of adult morbidity and mortality have been noncommunicable diseases, with cardiovascular disease being the leading cause of death. While infectious diseases used to claim the majority of lives, they no longer do so due to the vigorous immunization programme and improved living conditions.

Diabetes continues to be a devastating disease. Estimates reveal that one in every eight people is affected in some way by the disease. Figures from hospital admissions reveal that around 80% of all admissions into medical and surgical wards are diabetes-related.

2.4 Maternal, child and infant diseases

Maternal, child and infant diseases have continued to decline in Fiji. The existence of protein energy malnutrition among children less than five years of age, although minimal, remains a concern for public health, especially when these few are infected with diarrhoea and other infectious disease 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, the triple burden of communicable diseases, noncommunicable diseases and injuries is plaguing the health system in Fiji. The prematurity of NCD deaths especially is becoming an economic and development issue, as the age of men dying from CVD falls every year. In a 2022 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 was attributed to NCD and 18.5% to communicable diseases.

Oral hygiene is another concern, as oral health is integral to total health. The two most common oral afflictions in Fiji are dental caries and periodontal diseases, as revealed in the 2004 National Oral Health Survey report. The strategies currently being pursued are: the Fissure Sealant Programme, the Oral Health Education Programmes in schools and communities, making oral health services more accessible to the people, and enabling public health agencies to promote oral health.

3. HEALTH SYSTEM

The Ministry of Health underwent a health reform programme in 1999-2003, whereby the divisional health management structure was reviewed and strengthened to support the now decentralized health service structure. The Ministry of Health provides services to two types of users: internal (provision of health care to citizens of Fiji); and external (monitoring of compliance with statues and regulation; issue of permits, certificates and reports; professional boards function; provision of health care to visitors; provision of accommodation and meals for staff; provision of training to health staff of the region.)

Basic health care is provided to all residents through a hierarchy of village health workers, nursing stations, health centres, subdivisional hospitals and divisional and specialized hospitals. Tertiary health care services are currently offered by the divisional hospitals. Subdivisional hospitals offer primary care and limited secondary health care services.

3.1 Ministry of Health's mission, vision and objectives

The 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 the above statement, 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. The principle function of this system is to promote and maintain the health and well-being of the citizens of Fiji to the maximum extent possible with available resources.

Fiji generally has a good standard of health and compares well with other Pacific island nations. The country's health status meets or exceeds most of the WHO goals for the Year 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.

The Mission of the Ministry is to provide quality health services through strengthened divisional health structures for the people of Fiji. The Ministry's Vision is of a well financed health care delivery system that fosters good health and well-being for all citizens.

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, gender and age); Quality (pursuing high quality outcomes in all facets of activities); Integrity (committing to the highest ethical standards in all activities); and Responsiveness (responsive to the health needs of the population, noting the need for speed in delivery of urgent health services).

The Ministry of Health's Strategic Plan for 2007-2012 focuses on five main thematic areas:

- Provision of affordable, well planned, quality health services to everyone in Fiji.
- Protection of the health of citizens through the review of formulations and appropriate policies, legislation, regulations and standards that safeguard health.
- Promotion of health through the development and maintenance of effective partnerships that empower all stakeholders of health promotion so as to reduce risk factors related to communicable and noncommunicable diseases.
- Development and retention of a valued, committed and skilled workforce to enhance the delivery of quality health services.

Development and use of an integrated management system to empower managers to maximize resources and promote continuous improvement at all levels of health service delivery.

3.2 Organization of health services and delivery systems

Health services are delivered through 900 village clinics, 124 nursing stations, three area hospitals, 76 health centres, 19 subdivisional medical centres and three divisional hospitals and three speciality hospitals, with TB, leprosy and medical rehabilitation units at Tamavua Hospital and St Giles Mental Hospital. Fiji plays a key role in the development of public health surveillance of eight priority infectious diseases (Pac NET), public health laboratory networks (Lab NET) and targeted outbreak response (Epi NET) under the Pacific Public Health Surveillance Network (PPHSN). The country hosts level 2 public health laboratories at Mataika House and is now venturing into the Regional Measles Laboratory Network. There is also an initiative to coalesce public health laboratory functions at Mataika House through collaboration between the clinical and public health laboratories.

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 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

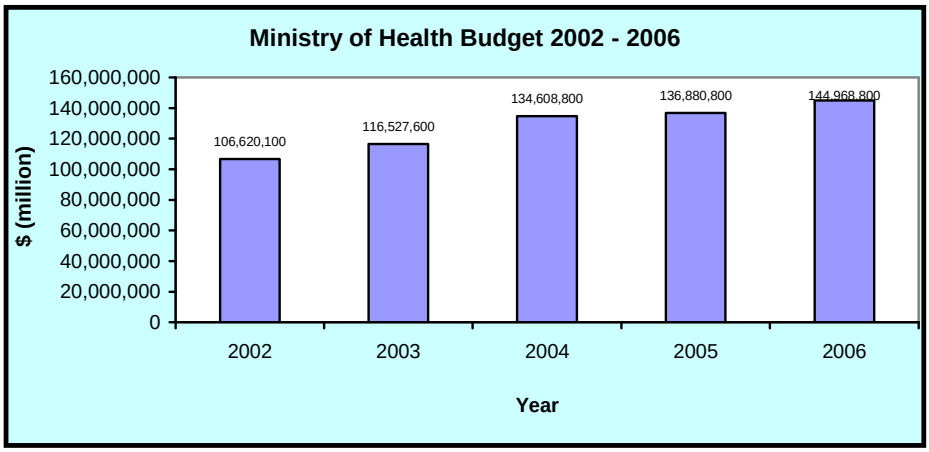
The Ministry of Health Strategic Plan 2007-20011 was developed through extensive consultations with major stakeholders, including the private sector, nongovernmental organizations, central government agencies and senior staff of the Ministry of Health. The Strategic Plan has been developed in recognition 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 is also expected to form the framework for the development of annual corporate plans for the Ministry of Health for each successive year, from 2007 to 2011 inclusive.

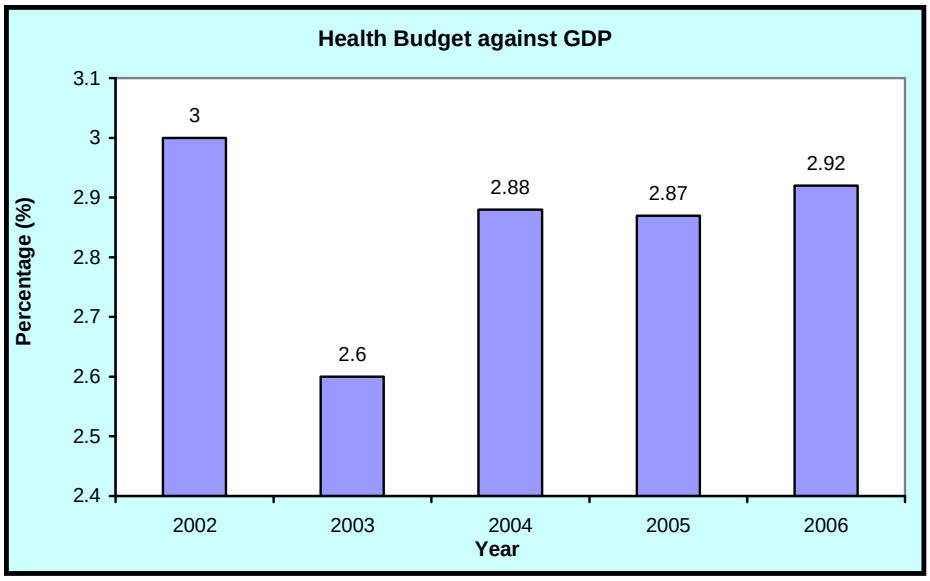
3.4 Health care financing

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 finance 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

fees introduced must ensure that disadvantaged groups in the community are not adversely affected.

Increasing demand for services has led to an expansion in the number of private general practitioners and specialists practising in Fiji under the Fiji Medical Council. The immediate priority of the Government is aimed at reducing long queues, reducing long waiting lists and turnaround times and facilitating patient flow.





3.5 Human resources for health

Emigration of health professionals, including doctors, nurses and paramedics, has increased over the last few years. The Ministry of Health is reviewing their workforce plan to ensure that the 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 in the lifespan of this plan. A focus will also be placed on the retention of existing staff, training nurse practitioners, employing part-time highly skilled staff and increasing the training opportunities for health professionals.

3.6 Partnerships

With the idea of health being a collective responsibility, the Ministry of Health engages with other partners in delivering the best health care services for the people of Fiji. For noncommunicble disease (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 permanent secretary or directorate level of government, non-state actors and civil society groups, including faith-based ones.

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, the WHO and the SPC are the main partners.

3.7 Challenges to health system strengthening

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 at Nadi, Levuka, Vunidawa, and Taveuni. New infrastructure development will include the completion of 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.

Fiji has a well developed health system with an infrastructure of base hospitals in three geographic divisions, supported by area and subdivisional hospitals, health centres and nursing stations in the smaller towns and rural and remote areas. Clinical services for surgery, medicine, paediatrics, obstetrics and gynaecology, orthopaedics, ENT, emergency medicine and relevant support services, however, need to be strengthened. During the course of the Health Strategic Plan 2007-20011, clinical services will be strengthened for cardiology, oncology, nephrology and hyperbaric medicine.

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, data update, April 2007*
Operator	:	Health Information Unit
Title 3	:	*Corporate Plan 2007, Ministry of Health*
Operator	:	Ministry of Health
Title 4	:	*Strategic Plan 2007 – 2011: 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

MINISTRY OF HEALTH

Office Address	:	Ministry of Health, 88 Amy Street., Toorak
Postal Address	:	PO Box 2223, Govt Bulding, Suva
Official Email Address	:	info@health.gov.fj
Telephone	:	679-3306177
Fax	:	679-3 306163
Office Hours	:	8am – 4:30pm

WHO REPRESENTATIVE IN THE SOUTH PACIFIC

Office Address	:	World Health Organization - South Pacific Office , Level 4 Provident Plaza One, Downtown Boulevard, 33 Ellery Street, Suva
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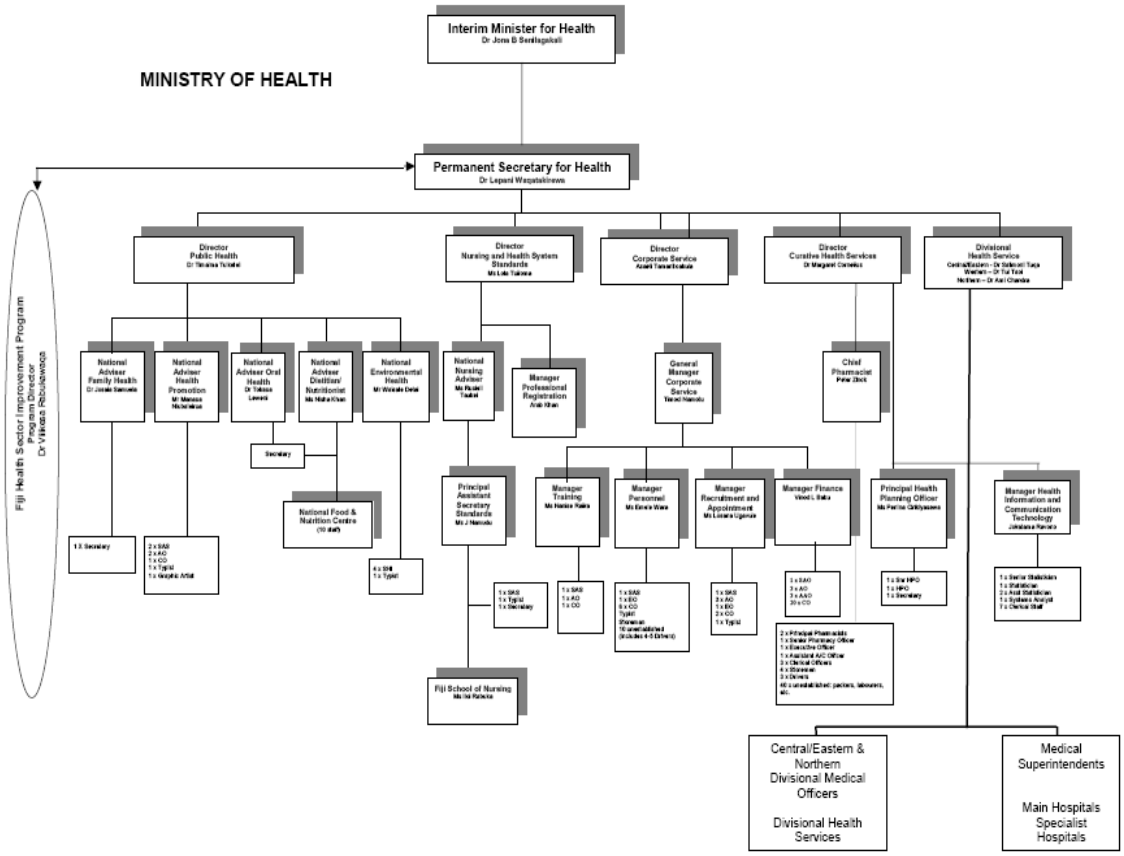
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	679-3304 600 Ext. 127
Fax	:	679-3300 462 or 3311 530

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

FIJI — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	18.33			2006	1
2	**Estimated population** ('000s)	853.44	...	...	2006p	2
3	**Annual population growth rate** (%)	0.83	...	...	2006p	2
4	**Percentage of population**					
	- 0–4 years	11.70	11.90	11.60	2006 est	4
	- 5–14 years	20.50	20.80	20.30	2006 est	4
	- 65 years and above	3.90	3.40	4.50	2006 est	4
5	**Urban population** (%)	50.80	...	...	2005 est	7
6	**Crude birth rate** (per 1000 population)	20.99	...	...	2005	3
7	**Crude death rate** (per 1000 population)	7.02	...	...	2005	3
8	**Rate of natural increase of population** (% per annum)	1.40 [a]	...	...	2005	3
9	**Life expectancy** (years)					
	- at birth	69.53	67.05	72.14	2005	5
	- Healthy Life Expectancy (HALE) at age 60	...	10.40	11.90	2002	6
10	**Adult literacy rate** (%)	92.90 [b]	...	...	2002	8
11	**Neonatal mortality rate** (per 1000 live births)	15.37	...	...	2005	3
12	**Infant mortality rate** (per 1000 live births)	16.30	...	...	2005	3
13	**Under-five mortality rate** (per 1000 live births)	25.81	...	...	2005	3
14	**Total fertility rate** (women aged 15–49 years)	2.50			2002	1
15	**Maternal mortality ratio** (per 100 000 live births)	50.49			2005	3
16	**Percentage of newborn infants weighing at least 2500 g at birth**	91.00	...	...	2005	3
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	93.40	...	...	2006	10
	- DTP3	81.40	...	...	2006	10
	- POL3	82.80	...	...	2006	10
	- Measles	100.00	100.00	100.00	2006	10
	- Hepatitis B III	81.00	...	...	2006	10
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2005	3
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries 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)	98.88			2005	3
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			42.29	2005	3
23	**Condom use rate of the contraceptive prevalence rate**	16.31	...	...	2005	3
24	**HIV prevalence among 15–24 year-old pregnant women**			<0.01	2002	11
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	47.00	43.00	51.00	2004	12
27	**Proportion of population with access to improved sanitation**	72.00	87.00	55.00	2004	12
28	**Proportion of the population using solid fuels (%)**	40.00	...	...	2002	13
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.76	2004	14
33	**Per capita GDP at current market prices** (US$)			3008.88	2005p	2
34	**Rate of growth of per capita GDP** (%)			6.60	2005p	1,2
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			134.32	2005p	15
	- total expenditure on health as % of GDP			4.50	2005p	15
	- per capita total expenditure on health (in US$)			158.40	2005p	15
	Government expenditure on health					
	- amount (in million US$)			81.06	2005p	15
	- general government expenditure on health as % of total expenditure on health			60.30	2005p	15
	- general government expenditure on health as % of total general government expenditure			8.90	2005p	15
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			10.10	2005p	15
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			39.70	2005p	15
	Exchange rate in US$ of local currency is: 1 US$ =			1.69	2005p	15
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	315	...	...	...	...	3.69 [a]	...	...	...	...	2006	3
	- dentists	42	...	...	...	...	0.49 [a]	...	...	...	...	2006	3
	- pharmacists	40	...	...	...	...	0.47 [a]	...	...	...	...	2006	3
	- nurses	1673	...	...	...	...	19.60 [a]	...	...	...	...	2006	3
	- midwives	...	...	...	...	...	...	...	...	...	...		
	- other nursing / auxiliary staff	58	...	...	...	...	0.68 [a]	...	...	...	...	2006	3
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	444	...	...	...	...	5.20 [a]	...	...	...	...	2006	3
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	115	...	...	...	...	1.35 [a]	...	...	...	...	2006	3
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	35	...	...								2006	3
40	**Yearly new graduates – nurses**	191	...	...								2006	3

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Respiratory disease	3827	...	...	452.32 [a]	...	...	2005	3
	2. Circulatory disease	3304	...	...	390.50 [a]	...	...	2005	3
	3. Injury poisoning	3174	...	...	375.14 [a]	...	...	2005	3
	4. Infectious and parasitic disease	2800	...	...	330.93 [a]	...	...	2005	3
	5. Disease of digestive system	2153	...	...	254.46 [a]	...	...	2005	3
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Circulatory disease	366	...	...	43.26 [a]	...	...	2005	3
	2. Infectious and parasitic disease	185	...	...	21.86 [a]	...	...	2005	3
	3. Neoplasm	149	...	...	17.61 [a]	...	...	2005	3
	4. Respiratory disease	120	...	...	14.18 [a]	...	...	2005	3
	5. Disease of the genitourinary system	105	...	...	12.41 [a]	...	...	2005	3
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	10
	- Diphtheria	0	0	0	0	0	0	2006	10
	- Hib meningitis	...	...	...	...	...	...		
	- Measles	136	...	...	...	...	...	2006	10
	- Mumps	1020	...	...	...	...	...	2006	10
	- Neonatal tetanus	0	0	0	0	0	0	2006	10
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	10
	- Poliomyelitis	0	0	0	0	0	0	2006	10
	- Rubella	10	...	...	...	...	...	2006	10
	- Total Tetanus	0	0	0	0	0	0	2006	10
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	72	...	...	...	...	...	2005	3
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2005	3
	Dengue/DHF	27	...	...	...	...	...	2005	3
	Encephalitis	0	0	0	0	0	0	2005	3
	Gonorrhoea	885	782	103	...	...	...	2005	3
	Leprosy	3	...	...	...	...	...	2005	3
	Malaria	0	0	0	0	0	0	2005	3
	Plague	0	0	0	0	0	0	2005	3
	Syphilis	870	361	509	...	...	...	2005	3
	Typhoid fever	116	...	...	...	...	...	2005	3

	INDICATORS	DATA						Year	Source
		Total	Male	Female	Total	Male	Female		
45	**Malaria**	Prevalence rates			Death rates				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	Number of cases			Number of deaths				
	- All types	132	…	…	…	…	…	2005	10
	- New pulmonary tuberculosis (smear-positive)	63	…	…	…	…	…	2005	10
		Prevalence rates			Death rates				
	- Rates associated with tuberculosis (per 100 000 population)	30.00	…	…	4.00	…	…	2005	10
		Detection rates			Success rates				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	72.00	…	…	86.00 (2003)	…	…	2005	10
47	**Acute respiratory infections**	10 124	5208	4916	…	…	…	2005	3
48	**Diarrhoeal diseases**	6309	3388	2921	…	…	…	2005	3
49	**Cancers**								
	All cancers (malignant neoplasms only)	395	129	266	…	…	…	2005	3
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	10	7	3	…	…	…	2005	3
	- Cervix			69			…	2005	3
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	24	16	8	…	…	…	2005	3
	- Lip, oral cavity and pharynx	15	9	6	…	…	…	2005	3
	- Liver	4	2	2	…	…	…	2005	3
	- Stomach	10	8	2	…	…	…	2005	3
	- Trachea, bronchus, and lung	1	1	0	…	…	…	2005	3
50	**Circulatory**								
	All circulatory system diseases	3304	…	…	…	…	…	2005	3
	- Acute myocardial infarction	376	…	…	…	…	…	2005	3
	- Cerebrovascular diseases	277	…	…	…	…	…	2005	3
	- Hypertension	346	…	…	…	…	…	2005	3
	- Ischaemic heart disease	353	…	…	…	…	…	2005	3
	- Rheumatic fever and rheumatic heart diseases	99	…	…	…	…	…	2005	3
51	**Maternal causes**								
	- Abortion			1			0	2005	3
	- Eclampsia			0			0	2005	3
	- Haemorrhage			0			0	2005	3
	- Obstructed labour			0			0	2005	3
	- Sepsis			1			0	2005	3

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	208	92	116	…	…	…	2005	3
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	3174	…	…	…	…	…	2005	3
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	745	…	…	76	…	…	2005p	1
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	77	…	…	…	…	…	2005p	1
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					3	958	2005	3
	- Specialized hospitals					3	227	2005	3
	- District/first-level referral hospitals					22	576	2005	3
	- Primary health care centres					76	0	2005	3
	Private hospitals					1	7	2005	3

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Figure refers to 1999/2000 schoolyear and census data

Sources:

1	*2006 Facts and figures*. Fiji Islands Bureau of Statistics [http://www.spc.int/prism/country/fj/stats/index.htm].
2	Key Statistics. Fiji Islands Bureau of Statistics [http://www.spc.int/prism/country/fj/stats/index.htm].
3	*Ministry of health annual report 2005* Fiji Islands Ministry of Health.
4	*Demographic Tables for the Western Pacific 2005-2010*. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
5	World health report 2006, *Working together for health*. Geneva, World Health Organization, 2006.
6	World health report 2005, *Make every mother and child count*. Geneva, World Health Organization, 2005.
7	*Urban and rural areas 2005*. Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
8	*Human development report 2004*, New York, United Nations Development Programme, 2005.
9	Annual tabulation for 1998, Ministry of Health.
10	WHO Regional Office for the Western Pacific, data received from the technical units.
11	Ministry of Health, February 2005.
12	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
13	*Indoor Air Pollution: National Burden of Disease Estimates*. World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
14	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis*. United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
15	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].

FRENCH POLYNESIA

1. CONTEXT

1.1 Demographics

French Polynesia covers an area of 4167 million square kilometres, with a land area of 3521 square kilometres, and is made up of 35 volcanic islands and about 183 low-lying coral atolls in five archipelagos. Its nearest neighbours are Kiribati to the north-west and Cook Islands to the west. The small, uninhabited island of Clipperton, located far to the north-east, some 600 kilometres off the coast of Mexico, is administered from French Polynesia, under the direct jurisdiction of the High Commissioner. Some 75% of the inhabitants live in the Society Islands, which constitute about one-half of the land area (census 2002). The most important and most populated island is Tahiti.

As of 1 January 2007 the estimated population was 259 800, with 43.10 % below 20 years of age and 6.10% above 65 years. About 83% of the population are Polynesian, 12% European and 5% from Asia. The life expectancy is 73 for males and 76.9 for females.

1.2 Political situation

Since 2004, French Polynesia has had the special status of 'French overseas country' with extended political independence. However, the core state functions such as justice, security and public order, defence, foreign policy are still under the authority of France, which is represented by a High Commissioner. Since December 2006, Gaston Tong Sang has been President of French Polynesia.

1.3 Socioeconomic situation

In 2003, the gross domestic product (GDP) per capita was US$ 17 000 with a total GDP of US$ 4.5 billion, relying heavily on transfers from France.

French Polynesia has reached a high level of health and socioeconomic development, as shown by its principal indicators. About 10% (US$ 300 million) of the gross national product is currently spent on health. This favourable situation may be attributed to significant socioeconomic development and to the gradual implementation of an efficient health care system.

1.4 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 density of the population on Tahiti island, mainly in its urban area, representing 70% of the total population. 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 in French Polynesia are therefore linked to environmental health factors, tobacco; obesity (diabetes and food habits); mental health in its broader context, taking into account the difficulties of a rapidly changing society; habitat; water; and internal and external air quality.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Like many countries, French Polynesia is experiencing an epidemiological transition where communicable diseases are decreasing while noncommunicable diseases are increasing. Nearly all of the population have ready access to quality health care, resulting in immunization coverage levels of over 90%, a low infant mortality rate (5.30 infant deaths per 1000 live births) and low maternal morality.

2.2 Outbreaks of communicable diseases

In 2006-2007, French Polynesia faced an outbreak of dengue serotype 1, circulating since the last outbreak in 2001 and partially linked to a reservoir of the population who had not been immunized. Dengue, leptospirosis and filariasis are endemic. A more intensive surveillance system targeting these diseases has been organized and a stronger vector control programme is now in place.

There is a specific programme and surveillance system for tuberculosis.

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 for these conditions. The leading causes of mortality are noncommunicable diseases, especially cardiovascular diseases and cancers.

2.4 Maternal, child and infant diseases

See Section 2.1

2.5 Burden of disease

While diarrhoea does not represent a major issue, as in most of developed countries, respiratory infections remain a problem.

The impact of noncommunicable diseases is very high, particularly cancer and cardiovascular diseases. Regarding cancers, the main characteristic in French Polynesia is the issue of cancers in females: uterine, thyroid, but mainly lung cancer, with a heavy death burden and type of pathology (years of life lost). Regarding cardiovascular diseases, the main burden is due to strokes and endocarditic diseases of various origins. The consequences of preventable diseases or conditions are also important (suicides, road accidents and drowning).

Prevention programmes targeting tobacco use, diabetes and obesity should be intensified. The rheumatic fever and rheumatic heart disease programme should be reactivated.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

Although 'Health for all by the year 2000' was adopted as a general objective of the health policy in the early 1980s, French Polynesia has not defined or implemented a health development strategy. Nevertheless, most primary health care services are delivered at the first-contact level.

The Direction de la Santé (Directorate for Health) is mandated by the Ministry of Health to prepare a master plan for health every five years, as a high priority. Emphasis is placed on planning and management processes, and on decentralization. The recent reorganization of the administrative structure of the Direction de la Santé should facilitate the process.

3.2 Organization of health services and delivery systems

Both the private and the public systems deliver curative services. 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 child and adult resuscitation, neurosurgery, cancerology and cardiovascular surgery, including heavy treatment; and four hospitals managed by the Directorate of Health: one general hospital in the Leeward Islands (UTUROA Raiatea), one hospital in the Marquesas Islands, with surgery, emergencies and medical wards (TAIOAHE Nuku Hiva), one hospital with a medical ward, an emergency ward and a long-stay ward in TARAVAO (TAHITI Winward Islands), and one hospital with medical and surgical wards in Moorea (Winward Islands).

Primary health care is also delivered through the private and public systems. The private system is concentrated on the Winward 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: dispensaries and aid posts are spread across all archipelagos and are managed by the Directorate of Health. On a number of islands, the public sector is the only one present, mainly in remote and isolated areas.

The whole system is under the authority of the Directorate of Health (Département Planification et Organisation des Soins: DPOS), 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

In 2000, the Strategic Health Plan was developed. It will be assessed in 2007.

The health priorities, as defined in the 1999 Plan for Health, were validated in 2006 after an evaluation of the Plan. These priorities are mainly linked to those diseases responsible for a high number of years of life lost. The objectives of the prevention programme should be revised after assessment.

3.4 Health care financing

The prevention programme is funded by the Government of French Polynesia for a total of 844 824 385 CFP (US$ 9 498 462), including 315 000 000 CFP (US$ 3 543 141) for vaccination. Curative services are funded by the Social Provident Fund. Data are not available.

3.5 Human resources for health

Collaboration with international and regional organizations such as WHO and the Secretariat for the Pacific Community has taken on particular significance in recent years. In order to strengthen health services, one or two nurses have been assigned to each island in French Polynesia and are responsible for local coordination of the various public health programmes. They are 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. About 15 nurses work in isolated communities where there is no doctor.

3.6 Partnerships

French Polynesia had signed partnership conventions with various agencies involved in health, security and surveillance, particularly the Institut de Veille Sanitaire (INVS), the Agence Française desProduits de Santé (AFFSAPS), and national referral centres. For data on mortality, a partnership has been developed with the National Referral Centre CEDIC PC in St Maurice, France. A convention is under development.

The cancer register of French Polynesia is linked with the IARC (Association Internationale des Registres des Cancers), FRANCIM (Fédération Française des Registres) and the INVS.

3.7 Challenges to health system strengthening

French Polynesia is currently facing a number of challenges, 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	:	*Observatoire de la Santé, Direction de la Santé en Polynésie Française*
Title 2	:	*Institut de la Statistique de Polynésie Française*
Web address	:	http://www.ispf.pf
Title 3	:	*Site officiel Présidence de la Polynésie Française*
Web address	:	http://www.presidence.pf
Title 4	:	*Secretariat of the Pacific Community, Pacific Regional Information System (PRISM)*
Web address	:	http://www.spc.int/prism.html

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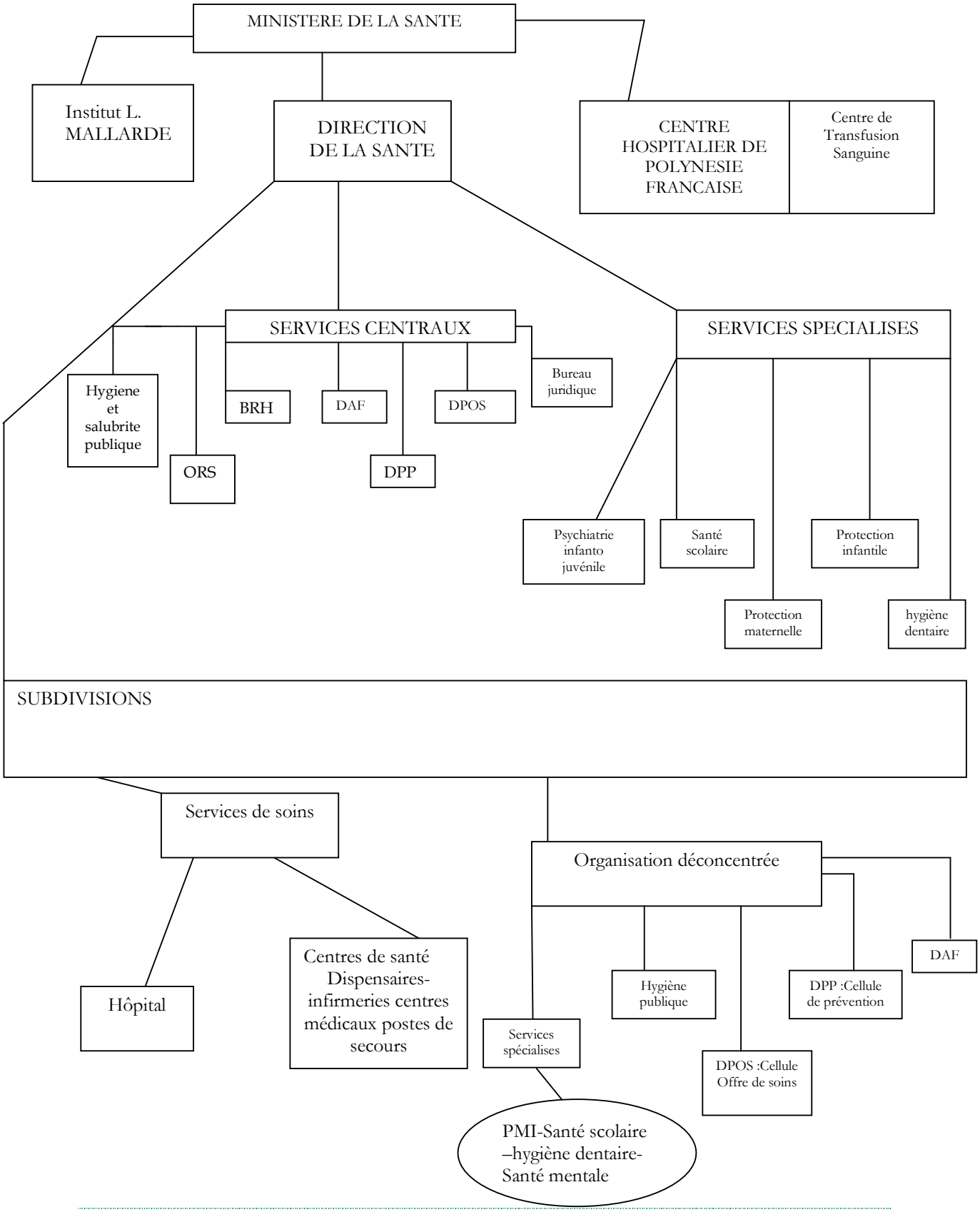
6. ORGANIZATIONAL CHART: Ministry of Health



FRENCH POLYNESIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	3.52			2006	1
2	**Estimated population** ('000s)	259.80	…	…	2006	2
3	**Annual population growth rate** (%)	1.40	…	…	2006	2
4	**Percentage of population**					
	- 0–4 years	…	…	…		
	- 5–14 years	43.10 [a]	…	…	2006	2
	- 65 years and above	6.10	…	…	2006	2
5	**Urban population** (%)	51.70	…	…	2005 est	3
6	**Crude birth rate** (per 1000 population)	17.80	…	…	2006	2
7	**Crude death rate** (per 1000 population)	4.40	…	…	2006	4
8	**Rate of natural increase of population** (% per annum)	1.40	…	…	2006	2
9	**Life expectancy** (years)					
	- at birth	…	73.00	76.90	2006	2
	- Healthy Life Expectancy (HALE) at age 60	…	17.10	20.60	1984-2004	2
10	**Adult literacy rate** (%)	…	…	…		
11	**Neonatal mortality rate** (per 1000 live births)	3.80	…	…	2005	4
12	**Infant mortality rate** (per 1000 live births)	5.30	…	…	2005	4
13	**Under-five mortality rate** (per 1000 live births)	14.70	…	…	2005	4
14	**Total fertility rate** (women aged 15–49 years)	2.20			2006	2
15	**Maternal mortality ratio** (per 100 000 live births)	0.38			2005	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	93.08	…	…	2004	5
17	**Prevalence of underweight children under five years of age**	3.10	7.40	…	2004	5
18	**Percentage of pregnant women with anaemia**			66.60	2002	6
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	99.00	…	…	2006	7
	- DTP3	97.00	…	…	2006	7
	- POL3	97.00	…	…	2006	7
	- Measles	96.00	…	…	2006	7
	- Hepatitis B III	95.00	…	…	2006	7
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.10			2004	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2006	7
	- Percentage of deliveries attended by skilled health personnel	99.97			2004	5
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.96			2004	5
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.10			2004	5
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			…		
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	100.00	100.00	100.00	2004	8
27	Proportion of population with access to improved sanitation	98.00	99.00	97.00	2004	8
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			...		
33	**Per capita GDP at current market prices** (US$)			17 000.00	2003	5
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			...		
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			...		
	Government expenditure on health					
	- amount (in million US$)			...		
	- 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			...		
	Exchange rate in US$ of local currency is: 1 US$ =			...		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	676	...	...	...	...	26.02	...	...	...	..	2005	9
	- dentists	114 [b]	...	...	...	...	4.38	...	...	...	...	2005	9
	- pharmacists	158	...	...	...	...	6.08	...	...	...	...	2005	9
	- nurses	1141	...	...	...	...	43.90	...	...	...	...	2005	9
	- midwives	131	...	...	...	...	5.04	...	...	...	...	2005	9
	- other nursing / auxiliary staff	419	...	...	...	...	16.12	...	...	...	...	2005	9
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	137	...	...	...	...	5.27	...	...	...	...	2005	9
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	13	...	...								2005	9

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections	12 906	...	...	5069.13 [c]	...	...	2005	10
	2. Infections of the skin and subcutaneous tissues	12 235	...	...	4805.58 [c]	...	...	2005	10
	3. Acute otitis media	5581	...	...	2192.06 [c]	...	...	2005	10
	4. Pharyngitis	4706	...	...	1848.39 [c]	...	...	2005	10
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diseases of the circulatory system	317	181	136	124.51 [c]	...	...	2005	4
	2. Neoplasms	291	167	124	114.30 [c]	...	...	2005	4
	3. Diseases of the respiratory system	138	74	64	54.20 [c]	...	...	2005	4
	4. Injuries and external causes	132	97	35	51.85 [c]	...	...	2005	4
	5. Symptoms, signs and findings, not elsewhere classified	109	74	35	42.81 [c]	...	...	2005	4
	6. Infectious and parasitic diseases	55	22	33	21.60 [c]	...	...	2005	4
	7. Endocrine diseases	31	16	15	12.18 [c]	...	...	2005	4
	8. Diseases of the digestive system	30	20	10	11.78 [c]	...	...	2005	4
	9. Diseases of the genitourinary system	27	10	17	10.60 [c]	...	...	2005	4
	10. Diseases of the nervous system	21	10	11	8.25 [c]	...	...	2005	4
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	7
	- Diphtheria	0	0	0	0	0	0	2006	7
	- Hib meningitis	0 [e]	0	0	0	0	0	2005	10,4
	- Measles	0	0	0	0	0	0	2006	7
	- Mumps	0 [e]	0	0	0	0	0	2005	10,4
	- Neonatal tetanus	0	0	0	0	0	0	2006	7
	- Pertussis (whooping cough)	0 [e]	0	0	0	0	0	2005	10,4
	- Poliomyelitis	0	0	0	0	0	0	2006	7
	- Rubella	0 [e]	0	0	0	0	0	2005	10,4
	- Total Tetanus	0	0	0	0	0	0	2006	7
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	2 [e]	...	...	0	0	0	2005	10,4
	- Type B	10 [e]	...	...	0	0	0	2005	10,4
	- Type C	0 [e]	0	0	0	0	0	2005	10,4
	- Type E	...	...	...	...	...	...		
	- Unspecified	61 [e]	...	...	0	0	0	2005	10,4
	Cholera	0 [e]	0	0	0	0	0	2005	10,4
	Dengue/DHF	11 [e]	...	...	0	0	0	2005	10,4
	Encephalitis	...	...	...	0	0	0	2005	10,4
	Gonorrhoea	0 [e]	0	0	0	0	0	2005	10,4
	Leprosy	10	...	...	...	...	...	2005	7

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Malaria	0	0	0	0	0	0	2005	10,4
	Plague	0	0	0	0	0	0	2005	10,4
	Syphilis	0	0	0	0	0	0	2005	10,4
	Typhoid fever	0	0	0	0	0	0	2005	10,4
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	0.00	0.00	0.00	2005	10,4
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	63	...	...	...	...	...	2005	7
	- New pulmonary tuberculosis (smear-positive)	21	...	...	...	...	...	2005	7
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	32.00	...	...	4.00	...	...	2005	7
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	65.00	...	...	80.00 (2004)	...	...	2005	7
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	12 906	...	...	0	0	0	2005	10,4
48	**Diarrhoeal diseases**	...	...	...	3	1	2	2005	10,4
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	293 [d]	167	124	2005	10,4
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	14	6	8	2005	10,4
	- Cervix			...			4	2005	10,4
	- Oesophagus	...	...	..	...	...	...		
	- Leukaemia	...	...	...	6	3	3	2005	10,4
	- Lip, oral cavity and pharynx	...	...	...	10	8	2	2005	10,4
	- Liver	...	...	...	20	15	5	2005	10,4
	- Stomach	...	...	...	15	9	6	2005	10,4
	- Trachea, bronchus, and lung	...	...	...	87 [d]	57	29	2005	10,4
50	**Circulatory**								
	All circulatory system diseases	...	...	...	319 [d]	181	136	2005	10,4
	- Acute myocardial infarction	...	...	...	12	6	6	2005	10,4
	- Cerebrovascular diseases	...	...	...	85	41	44	2005	10,4
	- Hypertension	...	...	...	27	14	13	2005	10,4
	- Ischaemic heart disease	...	...	...	70	51	19	2005	10,4
	- Rheumatic fever and rheumatic heart diseases	...	...	...	4	3	1	2005	10,4
51	**Maternal causes**								
	- Abortion			...			0	2005	10,4
	- Eclampsia			...			0	2005	10,4
	- Haemorrhage			...			0	2005	10,4

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Obstructed labour			...			0	2005	10,4
	- Sepsis			...			0	2005	10,4
52	**Diabetes mellitus**	...	...	...	18	12	6	2005	10,4
53	**Mental disorders**	...	...	...	7	4	2	2005	10,4
54	**Injuries**								
	All types	...	...	...	133 [d]	97	35	2005	11,4
	- Homicide and violence	...	...	...	37 [d]	27	9	2005	11,4
	- Motor and other vehicular accidents	...	...	...	38	31	7	2005	11,4
	- Occupational injuries	...	...	...	2	1	1	2005	11,4
	- Suicide	...	...	...	6	3	3	2005	11,4
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	452	2005	12
	- Specialized hospitals					1 [f]	15	2005	12
	- District/first-level referral hospitals					4	177	2005	12
	- Primary health care centres					89	0	2005	12
	Private hospitals					4	265	2005	12

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to 0-19 years old
b	Figure refers to dental surgeons
c	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
d	Totals may not tally due to some reported cases with no gender breakdown
e	Figure provided by dispensaries and isolated aid posts only. It does not represent the whole public and private data
f	Figure refers to children hospital open during the day only

Sources:

1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	Institute de la Statistique de Polynesie Francaise http://www.ispf.pf.
3	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
4	Observatoire de la Sante,Direction de la Sante en Polynesie Francaise.
5	Service de Protection Infantile Direction de la Sante en Polynesie Francaise.
6	Service de Protection Maternelle, Direction de la Sante en Polynesie Francaise.
7	WHO Regional Office for the Western Pacific, data received from the technical units.
8	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade* . Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
9	Direction de la Sante en Polynesie Francaise.
10	Department des Programme de Prevention; DPP, Direction de la Sante en Polynesie Francaise.
11	Centre hospitalier de Polynesie francaise.
12	Department of planification et Offre de Soins DPOS, Direction de la sante en Polynesie Francaise.

GUAM

1. CONTEXT

1.1 Demographics

The population of Guam was estimated to be 167 370 in 2006, with 104 males for every 100 females. Population density is 310 per square kilometre. Total life expectancy for both sexes is 78.40 years. Men are expected to live to 75.3 years of age and women to 81.6 years. The crude birth rate slightly decreased from 20.6 in 2004 to 19.03 in 2005. The crude death rate in 2005 was 4.41 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 held in 2004. Cooperation between the Executive Branch and the Legislative Branch is growing.

1.3 Socioeconomic situation

Guam has been in a financial crisis since the 1994 fiscal year. The economic decline is related to the Asian economic crisis and unforeseen events such as supertyphoons (which have destroyed much of Guam's infrastructure and left much of the island with little or no potable water for weeks and no electricity for two to three months in some areas), the war in Iraq, and the outbreak of severe acute respiratory syndrome (SARS). Guam's economy is heavily reliant on the tourism industry, with the majority of visitors originating from Japan and the Pacific rim. Tourist arrivals and expenditures have dwindled due to the aforementioned events, although there are indications of an upswing.

The most critical impact of the crisis has been in the employment area. According to the local Department of Labour office, Guam's unemployment rate was 7.7 % as of March 2004. In 2002, the reported per capita gross island product was US$ 15 439.

1.4 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

No available information.

2.3 Leading causes of mortality and morbidity

Based on inpatient data, the leading causes of morbidity in 2005 were pregnancy, childbirth and the puerperium; influenza and pneumonia; certain infectious and parasitic diseases; ischaemic heart disease; and malignant neoplasm.

Leading causes of death in 2003 were: diseases of the heart (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 in 2004 was 12.3 per 1000 live births, a significant increase from the 2002 rate of 6.21 per 1000 live births. 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 made 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

The 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 the total government expenditure.

3.5 Human resources for health

All public health services depend on having a basic infrastructure, especially in terms of personnel. Unfortunately, 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 in environmental law, policy, management, and planning and analysis; and short-term training in retail hazard analysis critical control point (HACCP), and in drugs, medical devices and controlled substances.

The Guam Environmental Protection Agency (GEPA) relies heavily on its professional staff to provide technical expertise in 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 (DPHSS) 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. Because of 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 Division of Environmental Health staff.

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 faces the added challenge of addressing the problems of the rapidly increasing number of older people, forecast to increase 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 2005*
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

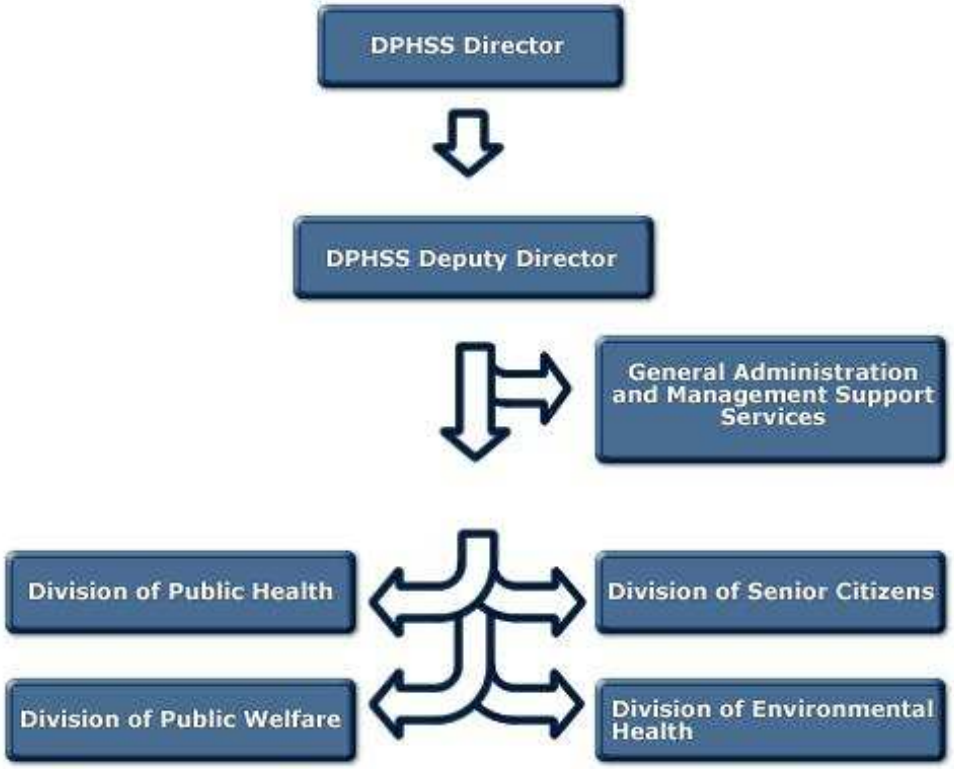
Postal Address	:	P.O. Box 2816, Agana, Guam 96910
Telephone	:	(671) 735-7102
Fax	:	(671) 734-5910

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: Department of Public Health and Social Services



GUAM — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.54			2006	1
2	**Estimated population** ('000s)	167.37	85.34	82.03	2006 est	1
3	**Annual population growth rate** (%)	1.10	...	...	2006-10	1
4	**Percentage of population**					
	- 0–4 years	10.50	10.40	10.70	2006 est	3
	- 5–14 years	19.90	19.70	20.30	2006 est	3
	- 65 years and above	6.20	6.00	6.70	2006 est	3
5	**Urban population** (%)	94.00	...	...	2005 est	3
6	**Crude birth rate** (per 1000 population)	19.03	...	...	2005	2
7	**Crude death rate** (per 1000 population)	4.41	...	...	2005	2
8	**Rate of natural increase of population** (% per annum)	1.46	...	...	2005	2
9	**Life expectancy** (years)					
	- at birth	78.40	75.34	81.64	2005	2
	- Healthy Life Expectancy (HALE) at age 60	...	...	...		
10	**Adult literacy rate** (%)	...	...	...		
11	**Neonatal mortality rate** (per 1000 live births)	5.20	...	...	2003	10
12	**Infant mortality rate** (per 1000 live births)	12.30	...	...	2004	10
13	**Under-five mortality rate** (per 1000 live births)	10.00	...	...	2005 est	3
14	**Total fertility rate** (women aged 15–49 years)	2.60			2005	2
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2003	5
16	**Percentage of newborn infants weighing at least 2500 g at birth**	91.54 [a]	...	...	2004	4
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			1.20	2001	6
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	...	...	...		
	- DTP3	89.00	...	...	2006	7
	- POL3	85.00 [b]	...	...	2006	7
	- Measles	85.00	...	...	2006	7
	- Hepatitis B III	91.00	...	...	2006	7
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	92.05			2001	6
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2006	7
	- Percentage of deliveries 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)	87.22			2004	10
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			...		
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	100.00	100.00	100.00	2004	9
27	**Proportion of population with access to improved sanitation**	99.00	99.00	98.00	2004	9
28	**Proportion of the population using solid fuels (%)**	<5.00	…	…	2003	7
29	**Proportion of households with access to secure tenure**	…				
30	**Proportion of vehicles using unleaded gasoline** (%)	…	…	…		
31	**Health care waste generation** (metric tons per year)	…	…	…		
32	**Human development index**			…		
33	**Per capita GDP at current market prices** (US$)			15 439.00 [c]	2002	8
34	**Rate of growth of per capita GDP** (%)			…		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			159.81	2000	6
	- total expenditure on health as % of GDP			…		
	- per capita total expenditure on health (in US$)			1032.36	2000	6
	Government expenditure on health					
	- amount (in million US$)			64.07 [d]	2005	10
	- general government expenditure on health as % of total expenditure on health			…		
	- general government expenditure on health as % of total general government expenditure			8.71 [e]	2005	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			…		
	Exchange rate in US$ of local currency is: 1 US$ =			NA		
36	**Health insurance coverage as % of total population**			…		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	244 [h]	…	…	244	0	14.14	…	…	14.14	0.00	2005	10
	- dentists	31 [f]	…	…	…	…	2.05	…	…	…	…	1999	6
	- pharmacists	…	…	…	…	…	…	…	…	…	…		
	- nurses	…	…	…	…	…	…	…	…	…	…		
	- midwives	…	…	…	…	…	…	…	…	…	…		
	- other nursing / auxiliary staff	…	…	…	…	…	…	…	…	…	…		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	…	…	…	…	…	…	…	…	…	…		
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	…	…	…	…	…	…	…	…	…	…		
38	**Workforce losses/ attrition**	…	…	…									
39	**Yearly new graduates - physicians**	…	…	…									
40	**Yearly new graduates – nurses**	…	…	…									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Pregnancy, childbirth and the puerperium	3892 [i]	...	...	2308.97	...	...	2005	10
	2. Influenza and pneumonia	645 [i]	...	...	382.65	...	...	2005	10
	3. Certain infectious and parasitic diseases	583 [i]	...	...	345.87	...	...	2005	10
	4. Ischaemic heart disease	521 [i]	...	...	309.09	...	...	2005	10
	5. Malignant neoplasm	370 [i]	...	...	219.51	...	...	2005	10
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diseases of the heart	199	...	...	119.45	...	...	2003	10
	2. Malignant neoplasm	114	...	...	68.43	...	...	2003	10
	3. Cerebrovascular disease	52	...	...	31.21	...	...	2003	10
	4. All other accidents	29	...	...	17.41	...	...	2003	10
	5. Bacterial diseases (septicaemia)	27	...	...	16.21	...	...	2003	10
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	7
	- Diphtheria	0	0	0	0	0	0	2006	7
	- Hib meningitis	0	0	0	0	0	0	2005	7
	- Measles	0	0	0	0	0	0	2006	7
	- Mumps	3	...	...	...	...	...	2006	7
	- Neonatal tetanus	0	0	0	0	0	0	2006	7
	- Pertussis (whooping cough)	64	...	...	...	...	...	2006	7
	- Poliomyelitis	0	0	0	0	0	0	2006	7
	- Rubella	0	0	0	0	0	0	2006	7
	- Total Tetanus	0	0	0	0	0	0	2006	7
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	17	...	...	2	...	...	2003	7
	- Type A	2	...	...	0	0	0	2003	7
	- Type B	10	...	...	1	...	...	2003	7
	- Type C	5	...	...	1	...	...	2003	7
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2003	7
	Dengue/DHF	...	...	...	...	...	...		
	Encephalitis	2	...	...	0	0	0	2003	7
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	6	...	...	...	...	...	2005	7
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2003	7
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	0	0	0	0	0	0	2003	7

	INDICATORS	DATA						Year	Source
		Total	Male	Female	Total	Male	Female		
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	63	…	…	…	…	…	2005	7
	- New pulmonary tuberculosis (smear-positive)	27	…	…	…	…	…	2005	7
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	39.00	…	…	3.00	…	…	2005	7
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	93.00	…	…	100.00 (2004)	…	…	2005	7
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	137	…	…	11	7	4	2000	6
48	**Diarrhoeal diseases**	…	…	…	0	0	0	2000	6
49	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	125	74	51	2000	6
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	13	8	5	2000	6
	- Cervix			…			2	2000	6
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	4	1	3	2000	6
	- Lip, oral cavity and pharynx	…	…	…	1	1	0	2000	6
	- Liver	…	…	…	7	6	1	2000	6
	- Stomach	…	…	…	7	3	4	2000	6
	- Trachea, bronchus, and lung	…	…	…	36	22	14	2000	6
50	**Circulatory**								
	All circulatory system diseases	…	…	…	246	149	97	2000	6
	- Acute myocardial infarction	…	…	…	25	19	6	2000	6
	- Cerebrovascular diseases	…	…	…	58	33	25	2000	6
	- Hypertension	…	…	…	15	10	5	2000	6
	- Ischaemic heart disease	…	…	…	142	88	54	2000	6
	- Rheumatic fever and rheumatic heart diseases	…	…	…	2	2	0	2000	6
51	**Maternal causes**								
	- Abortion			76			0	2000	6
	- Eclampsia			…			…		
	- Haemorrhage			57			0	2000	6
	- Obstructed labour			…			…		
	- Sepsis			…			…		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	…	…	…	21	8	13	2000	6
53	**Mental disorders**	…	…	…	0	0	0	2000	6
54	**Injuries**								
	All types	…	…	…	82	69	13	2000	6
	- Homicide and violence	…	…	…	4	2	2	2000	6
	- Motor and other vehicular accidents	…	…	…	23	18	5	2000	6
	- Occupational injuries	…	…	…	5	4	1	2000	6
	- Suicide	…	…	…	29	27	2	2000	6
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

		Number	Number of Beds		
56	**Health infrastructure**				
	Public health facilities				
	- General hospitals	2 [j]	187	2005	10
	- Specialized hospitals	0	0	2005	10
	- District/first-level referral hospitals	0	0	2005	10
	- Primary health care centres	77 [g]	0	2005	10
	Private hospitals	0	0	2005	10

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to birth weight equal to 2501 grams and above
b	Given as inactivated polio vaccine (IPV)
c	Figure reported as Gross Island Product
d	Figure refers to total expenditure on public health as of 30 Septermber 2005 (audited)
e	Figure refers to percentage total expenditure on public health as to total government expenditure
f	Figure refers to dental surgeons only
g	Figure refers to clinics which includes specialized services but excludes eye and dental clinics
h	Figure refers to physicians in Guam Memorial Hospital and includes licensed military physicians working on part-time basis
i	Figure refers to inpatients in Guam Memorial Hospital
j	Figure includes one civilian hospital and one naval hospital

Sources:

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3	*Demographic Tables for the Western Pacific 2005-2010.* Manila, World Health Organization Regional Office for the Western Pacific, 2005.
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HONG KONG (CHINA)

1. CONTEXT

1.1 Demographics

Hong Kong (China) had an estimated mid-year population of 6 857 100 in 2006, representing an increase of 0.6% over mid-2005. There were 912 males for every 1000 females. Population density was 6350 persons per square kilometre, and about 94.7% of the population were urban dwellers. Both births and the inflow of one-way permit holders from mainland China were important constituents of the overall population increase. The population were 95% ethnic Chinese, the major non-Chinese ethnic groups being Filipinos and Indonesians.

In 2006, life expectancy at birth was 79.5* years for males and 85.6* years for females. The registered crude birth rate was 9.5 per 1 000 and the registered crude death rate was 5.5 per 1000. The total fertility rate was 0.984 known live births per woman.

As a result of the decreasing birth rate and increasing life expectancy, Hong Kong's population has been ageing steadily. In 2006, 12.4% of the population were aged 65 years and above (10.2% in 1996), while those aged 14 and below made up 13.7% of the population (18.7% in 1996).

There was no registered maternal death recorded in 2006*. The number of registered infant deaths was 119* and infant mortality rate (IMR) was 1.8* per 1000 registered live births. The under-five mortality rate was 2.4* per 1000 registered live births.

1.2 Political situation

Hong Kong is a Special Administrative Region (SAR) 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 Government introduced a new accountability system for principal officials on 1 July 2002. Under the new system, the politically appointed principal officials accept total responsibility relating to their respective portfolios.

1.3 Socioeconomic situation

The gross domestic product (GDP) grew at an average annual rate of 4.1% in real terms during the 10 years to 2006. Per capita GDP increased by 1.2% in money terms over the same period, reaching US$ 27 640 (HK$ 214 710) in 2006.

The major source of government income is taxation. In the financial year 2004-2005, about 37% of tax revenue was collected from direct taxes and 21% 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; and land premiums.

Based on the results of the General Household Survey, the size of the total labour force in 2006 was 3.58 million, of whom 54.6% were male and 45.4% female. This represents 61.3% of the total population aged 15 and over. A total of 3 411 600 persons were employed, of whom 54.1% were male and 45.9% female. The unemployment rate was 4.8%, lower than the 5.6% rate in 2005, while the underemployment rate was 2.4%.

* Provisional figure

In the past decade, "wholesale, retail and import/export trades, restaurants and hotels" and "community, social and personal services" were the two largest sectors of employment in Hong Kong, with their shares altogether increasing from 47% to 54% during the period. The proportion of the working population in the "finance, insurance, real estate and business services" sector increased and it became the third largest sector. In contrast, there was a significant decline in the number of workers in the manufacturing industry, with its share decreasing from 19% in 1996 to 10% in 2006.

In 2006, nearly 100% of the population had sustainable access to an improved water source, while 99.0% had access to improved sanitation.

1.4 Vulnerabilities and hazards

Hong Kong is geologically stable. It is occasionally hit by tropical cyclones in the summer and early autumn, but they seldom cause casualties.

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 the 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 3% in 2006. In 2006, the four major chronic NCD - cancer, diseases of the heart, stroke and chronic lower respiratory diseases - accounted for more than three-fifths (61.8%*) of all registered deaths. The age-standardized mortality rates of these four major NCD for 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 past decades.

Many NCD are closely related to behavioural risk factors, such as overweight and obesity, unhealthy diet, physical inactivity, smoking and drinking of alcohol. A periodic telephone survey in 2006, which interviewed around 2000 people aged 18-64, reported that more than two-fifths (41.0%) of those aged 18-64 were overweight/obese. A significantly higher proportion of males (51.4%) than females (32.1%) were classified as overweight/obese. More than three-fourths (77.6%) of the population failed to meet the WHO recommendation of having at least five servings of fruit and vegetables per day (82.3% for males and 73.5% for females). As regards physical activity, more than one-fifth (21.3%) of the population were classified as having a low level of physical activity, with females being more sedentary than males (23.2% versus 19.1%). Around one in seven (15.3%) were daily smokers and one in twelve (8.3%) were binge drinkers. Both smoking (26.2% versus 6.0%) and binge drinking (15.4% versus 2.1%) were more common among males.

In terms of communicable diseases (CD), the Quarantine and Prevention of Disease Ordinance in Hong Kong provides the legal framework for the management of CD and defines a list of infectious diseases that are of public health importance and require to be reported to the Director of Health. In 2006, there were 31 infectious diseases on the list. A total of 22 555* cases of notifiable diseases were reported in 2006, 12%* higher than in 2005. The top three most commonly reported diseases were chickenpox (14 429* cases), tuberculosis (TB) (5856* cases) and food poisoning (1098* cases), constituting 95%* of all notifications among the 31 listed

* Provisional figure

conditions. When compared with the average notifications in the preceding five years, legionnaires' disease, scarlet fever and food poisoning showed a more than 50%* increase. On the other hand, amoebic dysentery, cholera and Japanese encephalitis showed a more than 50%* decrease.

In 2006, there were 5856* TB notifications, giving a notification rate of 85.4* per 100 000 population. For HIV/AIDS, by the end of 2006, a cumulative total of 3198 cases of HIV infection and 855 AIDS patients had been reported.

The most serious disease event in recent years was the outbreak of severe acute respiratory syndrome (SARS) in early 2003. It lasted for three months and affected 1755 individuals, leading to 300 deaths. Its effects went beyond the health sector and had a severe adverse impact on the general economy, employment, schooling and many other activities.

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 2006, the most commonly reported outbreaks were acute gastroenteritis, influenza-like illness and hand-foot-mouth disease. Throughout the year, 221* confirmed noroviral outbreaks occurred in institutions, affecting 2612* persons, and 69* influenza outbreaks in such institutions were confirmed, affecting 1094* persons, with peak numbers recorded in March and June. Hand-foot-mouth disease outbreaks occurred most commonly between May and July and 222* institutional outbreaks, affecting 1611* persons, were reported during the year.

2.3 Leading causes of mortality and morbidity

There were 37 415 registered deaths in 2006 and NCD predominated the picture. Among the top ten leading causes of death, six were NCD, including cancer, diseases of the heart, stroke, injury and poisoning, chronic lower respiratory diseases and diabetes. They contributed to a total of 25 609* registered deaths (cancer: 12 160*; heart disease: 5684*; stroke: 3334*; injury and poisoning: 1979*; chronic lower respiratory diseases: 1957*; and diabetes: 495*) and accounted for 68.4%* (cancer: 32.5%*; heart disease: 15.2%*; stroke: 8.9%*; injury and poisoning: 5.3%*; chronic lower respiratory diseases: 5.2%*; and diabetes: 1.3%*) of all registered deaths.

In terms of morbidity, there were 1 386 822 episodes of hospital discharge and death in all hospitals in 2005. Similar to mortality data, a substantial proportion of hospitalizations were due to NCD, including cancer, diseases of the heart, stroke, chronic lower respiratory diseases, injury and poisoning and diabetes. In total, they accounted for 22.5% (312 410 episodes) of hospitalizations, while infectious and parasitic diseases only accounted for 2.8% (38 666 episodes).

2.4 Maternal, child and infant diseases

Infant and under-five mortality rates are consistently low, as is the maternal mortality ratio.

Children are immunized against tuberculosis, hepatitis B, poliomyelitis, diphtheria, tetanus, pertussis, measles, mumps and rubella. Due to high immunization coverage, diseases such as diphtheria and poliomyelitis have been virtually eradicated, and the incidence of preventable infectious diseases among children is relatively low.

* Provisional figure

2.5 Burden of disease

Apart from mortality and hospitalization data, the prevalence rates of diseases or risk factors can also reflect the disease burden in the community. A population-based household survey in 2003/2004, which interviewed more than 7000 people aged 15 and above, showed that more than one-fourth (27.2%) of the population had hypertension and one-twelfth (8.4%) had high blood cholesterol. Both hypertension and high blood cholesterol are important risk factors of many NCD, including heart disease, stroke and diabetes.

The same survey also revealed that the prevalence rates for diabetes, coronary heart disease, chronic obstructive pulmonary disease, cancer and stroke were 3.8%, 1.6%, 1.4%, 1.3% and 1.1%, respectively. As regards injuries, 14.3% of the population reported that they had sustained injuries that were serious enough to limit their normal activities in the 12 months preceding the survey.

In terms of potential years of life lost (PYLL) at age 75, which provides a good estimate of the overall level of premature deaths in the population, cancer accounted for over two-fifths (41.3%) of total PYLL in 2005. Although injury and poisoning only ranked sixth as the leading cause of death in 2005, it accounted for one-fifth (20.1%) of the total PYLL. This indicates that injury and poisoning is an important health problem, especially among young people. For diseases of the heart, stroke and chronic lower respiratory disease, the proportions of PYLL were 8.6%, 4.9% and 2.0%, respectively. In total, these five NCD accounted for 76.9% of all PYLL in 2005.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The mission of the Health, Welfare and Food Bureau is to enhance the well-being of every member of the community and to build a healthy and caring society, seeking to ensure quality, equitable, efficient, cost-effective and accessible health care systems and to organize the infrastructure for coordinated health care delivery through an 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 account for more than half (56.5%) of consultations. 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 in Hong Kong 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 in Hong Kong. Hospital services are subsidised 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 genetic clinics, seven child assessment centres, two travel health centres and other clinical services. In June 2004, 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.

The Hospital Authority provides medical treatment and rehabilitation services to patients through public hospitals, general outpatient and specialist clinics and outreach services. The Authority managed a total of 27 755 hospital beds in 38 public hospitals during 2006, which represents around 4.0* public hospital beds per 1000 population. The Hospital Authority also operates 75 general outpatient clinics throughout the territory, primarily targeted 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 are around 3500 private clinics providing primary and specialist medical care. The Thematic Household Survey, conducted from May to July 2002, showed that, of a total of 2 245 000 doctor consultations during the 30 days before enumeration, 76% (or 1 701 900 consultations) were with private medical practitioners, while 82% of all hospital admissions were managed by public hospitals. There were 12 private hospitals operating a total of 3122 hospital beds at the end of 2006. Their market share in terms of inpatient discharges and deaths on attendance was about 17.1% in 2005. There were also 30 private nursing homes, providing about 2893 beds, in 2006.

With regards 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 20 000 registered medicines in total, of which about 40% are prescription-only medicines, 14% pharmacy medicines and 46% general-sale medicines.

3.3 Health policy, planning and regulatory framework

The Government's health care policy is that no one should be denied adequate medical treatment due to lack of means.

The Health, Welfare and Food 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 agency to execute 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 2005-2006 amounted to 4.8% of GDP, including the public sector (48%) and the private sector (52%). Public expenditure on health reached US$ 4.1 billion, representing 12.6% of total public expenditure. As there are no social insurance taxes, all public finances for health care services come from taxation.

The health services provided by the public sector are heavily subsidized, with subsidy levels at about 97% of total cost for inpatient services and 91% for outpatient services in 2003. Health-promotion and disease-prevention activities, such as treatment of tuberculosis and childhood immunization, are provided free of charge.

* Provisional figure

The private health care sector is financed largely by out-of-pocket payments and, to some extent, private insurance.

3.5 Human resources for health

Various statutory boards and councils, such as the Medical Council, the Dental Council, and the Pharmacy and Poisons Boards, have been established under relevant ordinances to handle the registration, conduct and discipline of their respective health care professionals.

Under existing legislation, 12 types of health care professional are required to be registered 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.

By the end of 2006, there were 11 739 doctors, 1976 dentists, 1649 pharmacists, 36 444 registered and enrolled nurses, 4648 midwives, 5268 registered Chinese medicine practitioners, 68 limited registered Chinese medicine practitioners, 2897 listed Chinese medicine practitioners, and 90 chiropractors under registration. In addition, there were another 9373 supplementary medical professionals, including medical laboratory technologists, physiotherapists, occupational therapists, optometrists and radiographers.

3.6 Partnerships

Regular infectious disease data exchange channels have been established with regional health authorities, including the Ministry of Health of the People's Republic of China, the Health Department of Guangdong Province and the Macao Health Bureau. In addition, exercises and drills are organized jointly with the health authorities in the Chinese mainland and Macao to test the emergency response and notification mechanism.

Locally, the Government has been maintaining good working relationships and collaborating with various partners, including professional and community associations and the business sector, in health-promotion activities for the prevention and control of communicable as well as noncommunicable diseases.

3.7 Challenges to health system strengthening

Faced with the challenges of an ageing population and escalating health care costs as a result of technological advances and rising community aspirations, the financial sustainability of the health care system is a serious concern for the Government of Hong Kong. Health expenditure has grown significantly as a share of GDP over the past several years, increasing from 3.3% (1989/1990) to 4.8% (2005/2006), and there is a need to identify new financing mechanisms to ensure the long-term sustainability of the system. Since 1993, various reviews have been conducted, particularly in relation to developing health care financing models. It is also important to realign the roles of the public and private sectors in developing the future health care model.

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/inex.jsp

Title 2 : *Statistics on mortality, morbidity, healthcare professionals and services, and communicable diseases*
Operator : Department of Health
Web address : http://www.chp.gov.hk/index.asp?lang=en

Title 3	:	*Behavioral Risk Factor Survey*
Operator	:	Department of Health
Specification	:	It 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&id=280&pid=10&ppid=
Title 4	:	*Population Health Survey*
Operator	:	Department of Health
Specification	:	It collected information on the 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 quality of life of the population. Results were obtained from over 7000 land-based non-institutionalized population of 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/epidemiology.asp?lang=en&id=363&pid=362&ppid=134
Title 5	:	*Thematic Household Survey*
Operator	:	Census and Statistics Department
Specification	:	It collected information on the health status of Hong Kong residents and their patterns with respect to doctor consultation, hospitalization, dental consultation, the provision of medical benefits by employers/ companies and the coverage of medical insurance purchased by individuals. Some 10 000 households within a scientifically selected sample were successfully enumerated, constituting a response rate of 78%.
Web address	:	http://www.censtatd.gov.hk/products_and_services/products/publications/statistical_report/social_data/index_cd_B1130212_dt_detail.jsp

5. ADDRESSES

DEPARTMENT OF HEALTH

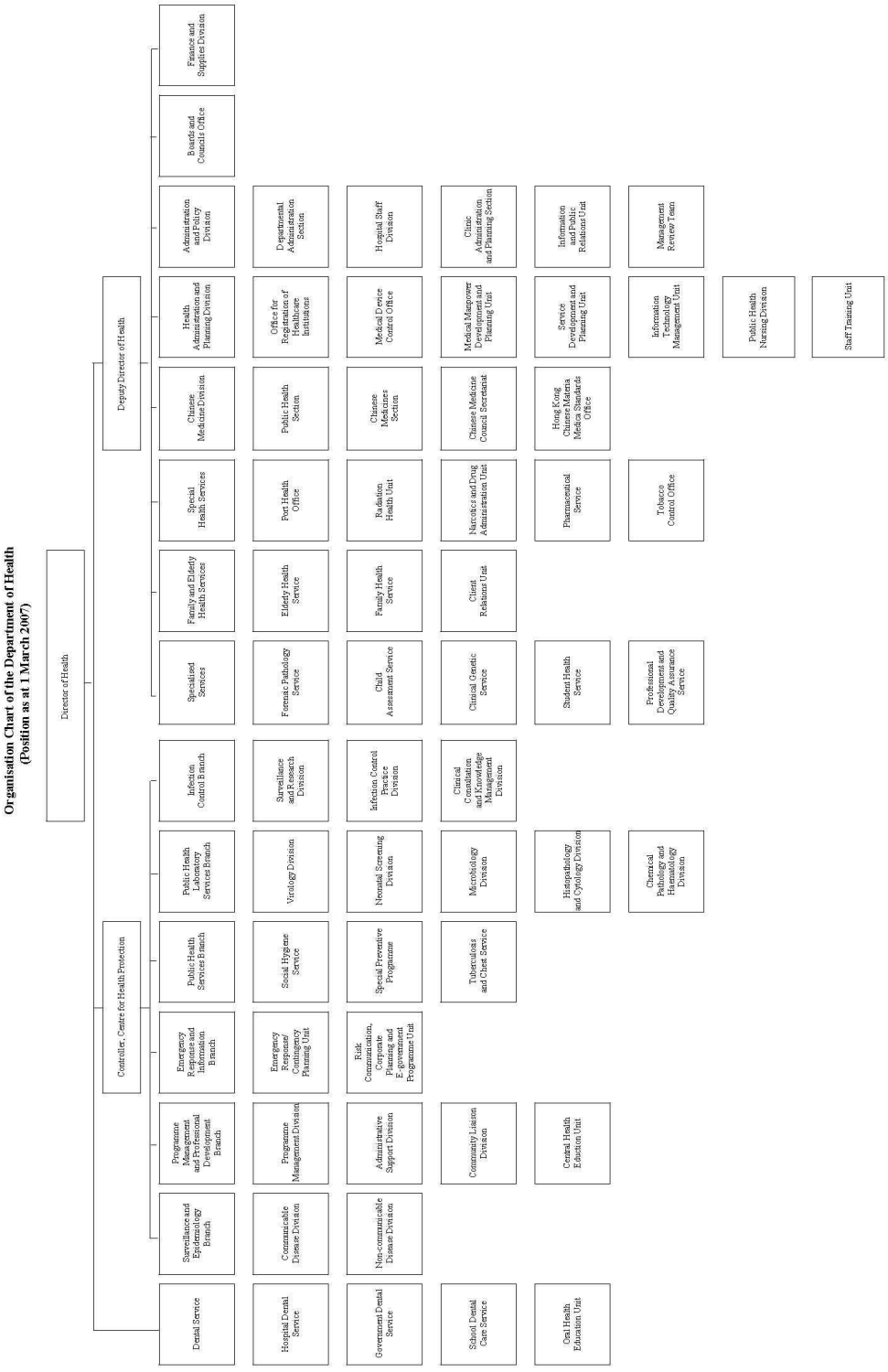
Office Address	:	21/F Wu Chung House, 213 Queen's Road East, Wan Chai, Hong Kong
Postal Address	:	21/F Wu Chung House, 213 Queen's Road East, Wan Chai, Hong Kong
Official Email Address	:	enquiries@dh.gov.hk
Telephone	:	29618989
Fax	:	28360071
Office Hours	:	Mon to Fri: 9am-5:30pm; Sat, Sun & Public Holidays 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 Director, Programme Management, WHO Regional Office for the Western Pacific.

Office Address	:	Director, Programme Management World Health Organization Regional Office for the Western pacific United Nations Avenue, P.O. Box 2932, 1000 Manila, Philippines
Telephone	:	+632 528 8001
Fax	:	+632 521 1036
Website	:	http://www.wpro.who.int

6. ORGANIZATIONAL CHART: Ministry of Health



HONG KONG (CHINA) — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	1.10			2006	1
2	**Estimated population** ('000s)	6857.10	3270.10	3587.00	2006	2
3	**Annual population growth rate** (%)	0.64	0.19	1.07	2006	2
4	**Percentage of population**					
	- 0–4 years	3.11	3.38	2.86	2006	2
	- 5–14 years	10.59	11.42	9.83	2006	2
	- 65 years and above	12.43	12.02	12.79	2006	2
5	**Urban population** (%)	94.65	...	...	2005	3
6	**Crude birth rate** (per 1000 population)	9.51	10.51	8.60	2006	2,4,5
7	**Crude death rate** (per 1000 population)	5.46 [b]	6.42	4.57	2006	2,4,5
8	**Rate of natural increase of population** (% per annum)	0.42	...	...	2006	2
9	**Life expectancy** (years)					
	- at birth	...	79.46	85.57	2006p	2
	- Healthy Life Expectancy (HALE) at age 60	...	22.36 [a]	27.48 [a]	2006	2
10	**Adult literacy rate** (%)	94.12 [c]	97.20 [c]	91.37 [c]	2006	2
11	**Neonatal mortality rate** (per 1000 live births)	1.07 [b]	1.02	1.10	2006p	2,4,5
12	**Infant mortality rate** (per 1000 live births)	1.84 [b]	1.98	1.65	2006p	2,4,5
13	**Under-five mortality rate** (per 1000 live births)	2.36 [b]	2.56	2.11	2006p	2,4,5
14	**Total fertility rate** (women aged 15–49 years)	0.98			2006	2
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2006p	2,4,5
16	**Percentage of newborn infants weighing at least 2500 g at birth**	94.89 [d]	95.54 [d]	94.17 [d]	2006	2,4
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			1.79 [e]	2006	4
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	99.00			2006	15
	- DTP3	95.00			2006	15
	- POL3	95.00 [f]			2006	15
	- Measles	95.00			2006	15
	- Hepatitis B III	95.00			2006	15
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2006	4
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries attended by skilled health personnel	100.00			2006	4
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.00			2006	4
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00 [j]			2006	4
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			...		
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	100.00	100.0	100.0	2006	6
27	Proportion of population with access to improved sanitation	99.00	...	...	2006	7
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	72.56 [l]	...	...	2006	8
31	**Health care waste generation** (metric tons per year)	2702.46	...	...	2006 est	9
32	**Human development index**			0.93	2004	10
33	**Per capita GDP at current market prices** (US$)			27 640.32	2006p	2,4
34	**Rate of growth of per capita GDP** (%)			5.80	2006p	2,4
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			8540.44 [m]	2005p	2,4,11
	- total health expenditure on health as % of GDP			4.80 [n]	FY2005/06	2,4,11
	- per capita total expenditure on health (in US$)			1253.51 [o]	2005p	2,4,11
	Government expenditure on health					
	- amount (in million US$)			4068.28 [q]	FY2005/06	2,4,11
	- general government expenditure on health as % of total expenditure on health			47.64 [r]	FY2005/06	2,4,11
	- general government expenditure on health as % of total general government expenditure			12.64 [s]	FY2005/06	2,4,11
	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			52.36 [t]	2005p	2,4,11
	Exchange rate in US$ of local currency is: 1 US$ =			7.77	2005	2
36	**Health insurance coverage as % of total population**			45.73 [u]	2002	2

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	11 739 [v,w]	8625 [v,w]	3114 [v,w]	...	...	17.01 [v,w]	12.50 [v,w]	4.51 [v,w]	...	...	2006p	2,4
	- dentists	1976 [v,w]	1455 [v,w]	521 [v,w]	...	...	2.86 [v,w]	2.11 [v,w]	0.75 [v,w]	...	...	2006p	2,4
	- pharmacists	1649 [v]	836 [v]	813 [v]	...	...	2.39 [v]	1.21 [v]	1.18 [v]	...	...	2006p	2,4
	- nurses	36 444 [v,x]	3987 [v,x]	32 457 [v,x]	...	...	52.81 [v,x]	5.78 [v,x]	47.03 [v,x]	...	...	2006p	2,4
	- midwives	4648 [v]	0 [v]	4648 [v]	...	...	6.74 [v]	0.00 [v]	6.74 [v]	...	...	2006p	2,4
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	9373 [v]	4920 [v]	4453 [v]	...	...	13.58 [v]	7.13 [v]	6.45 [v]	...	...	2006p	2,4
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
	'- registered Chinese medicine practitioners	5268	3759	1509	...	...	7.63	5.45	2.19	...	...	2006p	2,4
	- listed Chinese medicine practitioners	2897 [y]	2212 [y]	685 [y]	...	...	4.20 [y]	3.21 [y]	0.99 [y]	...	...	2006p	2,4
	- Chiropractors	90	72	18	...	...	0.13	0.10	0.03	...	...	2006p	2,4
38	**Workforce losses/ attrition**	903	180	723								2006p	4
39	**Yearly new graduates - physicians**	415 [z]	203 [z]	212 [z]								2006	12
40	**Yearly new graduates – nurses**	450 [z]	70 [z]	380 [z]								2006	12

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the genitourinary system (ICD10: N00-N99)	179 716 [g]	...	...	2637.76 [g]	...	...	2005	2,4,13
	2. Diseases of the respiratory system (ICD10: J00-J99)	141 507 [g]	...	...	2076.95 [g]	...	...	2005	2,4,13
	3. Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	130 718 [g]	...	...	1918.60 [g]	...	...	2005	2,4,13
	4. Neoplasms (ICD10: C00-D48)	126 877 [g]	...	...	1862.22 [g]	...	...	2005	2,4,13
	5. Diseases of the digestive system (ICD10: K00-K93)	117 082 [g]	...	...	1718.46 [g]	...	...	2005	2,4,13
	6. Diseases of the circulatory system (ICD10: I00-I99)	116 875 [g]	...	...	1715.42 [g]	...	...	2005	2,4,13
	7. Factors influencing health status and contact with health services (ICD10: Z00-Z99)	97 516 [g]	...	...	1431.28 [g]	...	...	2005	2,4,13
	8. Pregnancy, childbirth and the puerperium (ICD10: O00-O99)	97 130 [g]	...	...	1425.61 [g]	...	...	2005	2,4,13
	9. Injury, poisoning and certain other consequences of external causes (ICD10: S00-	70 414 [g]	...	...	1033.49 [g]	...	...	2005	2,4,13
	10. Diseases of the musculoskeletal system and connective tissue (ICD10: M00-M99)	45 877 [g]	...	...	673.35 [g]	...	...	2005	2,4,13
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neoplasms (ICD10: C00-C97)	12 310	7497.00	4813	180.68	229.69	135.61	2005	2,4
	2. Diseases of heart (ICD10: I00-I09, I11, I13, I20-I51)	5868	2971.00	2897	86.13	91.02	81.62	2005	2,4
	3. Pneumonia (ICD10: J12-J18)	4291	2276.00	2015	62.98	69.73	56.77	2005	2,4
	4. Cerebrovascular diseases (ICD10: I60-I69)	3434	1663.00	1771	50.40	50.95	49.90	2005	2,4
	5. Chronic lower respiratory diseases (ICD10: J40-J47)	2261	1598.00	663	33.19	48.96	18.68	2005	2,4
	6. External causes of morbidity and mortality (ICD10: V01-Y89)	2150 [h]	1402.00 [h]	748 [h]	31.56 [h]	42.95 [h]	21.08 [h]	2005	2,4
	7. Nephritis, nephrotic syndrome and nephrosis (ICD10: N00-N07, N17-N19, N25-	1261	601.00	660	18.51	18.41	18.60	2005	2,4
	8. Septicaemia (ICD10: A40-A41)	701	321.00	380	10.29	9.83	10.71	2005	2,4
	9. Diabetes mellitus (ICD10: E10-E14)	602	247.00	355	8.84	7.57	10.00	2005	2,4
	10. Chronic liver disease and cirrhosis (ICD10: K70, K73-K74)	373	230.00	143	5.47	7.05	4.03	2005	2,4
43	**Selected diseases under the WHO-EPI**	**Number of cases (C)**			**Number of deaths (D)**				
	- Congenital rubella syndrome	0	0	0	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Diphtheria	0	0	0	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Hib meningitis	1 [k]	1 [k]	1 [k]	0 [k]	0 [k]	0 [k]	2005	2,4
	- Measles	106	...	...	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Mumps	184	...	...	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Neonatal tetanus	0	0	0	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Pertussis (whooping cough)	21	...	...	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Poliomyelitis	0	0	0	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Rubella	35	...	...	0	0	0	C: 2006 D: 2005	C: 15 D: 2,4
	- Total Tetanus	2	...	...	1	1	0	C: 2006 D: 2005	C: 15 D: 2,4
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	203 [i]	148 [i]	55 [i]	2	2	0	2005p	2,4
	- Type A	64 [i]	40 [i]	24 [i]	0	0	0	2005p	2,4
	- Type B	104 [i]	79 [i]	25 [i]	1	1	0	2005p	2,4

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Type C	1 [i]	0 [i]	1 [i]	0	0	0	2005p	2,4
	- Type E	33 [i]	28 [i]	5 [i]	1	1	0	2005p	2,4
	- Unspecified	1 [i]	1 [i]	0 [i]	0	0	0	2005p	2,4
	Cholera	5 [i]	0 [i]	5 [i]	0	0	0	2005p	2,4
	Dengue/DHF	31 [i]	16 [i]	15 [i]	0	0	0	2005p	2,4
	Encephalitis	2	...	...	0	0	0	2005	15
	Gonorrhoea	1748 [p]	1535 [p]	213 [p]	0	0	0	2005p	2,4
	Leprosy	4 [i]	1 [i]	3 [i]	0	0	0	2005p	2,4
	Malaria	32 [i]	19 [i]	13 [i]	2	0	2	2005p	2,4
	Plague	0 [i]	0 [i]	0 [i]	0	0	0	2005p	2,4
	Syphilis	1088 [p]	635 [p]	453 [p]	4	4	0	2005p	2,4
	Typhoid fever	36 [i]	20 [i]	16 [i]	0	0	0	2005p	2,4
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	0.47 [i]	0.58 [i]	0 [i]	0.03	0.00	0.06	2005p	2,4
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	5718	...	...	...	...	...	2005	15
	- New pulmonary tuberculosis (smear-positive)	1585	...	...	...	...	...	2005	15
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	77.00	...	...	6.00	...	...	2005	15
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	53.00	...	...	80.00 (2004)	...	...	2005	15
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	18	8	10	2005	2,4
48	**Diarrhoeal diseases**	...	...	...	13	5	8	2005	2,4
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	12 310	7497	4813	2005	2,4
	- Breast	....	...	...	464	4	460	2005	2,4
	- Colon and rectum	...	...	...	1614	906	708	2005	2,4
	- Cervix			...			126	2005	2,4
	- Oesophagus	...	...	...	364	289	75	2005	2,4
	- Leukaemia	...	...	...	271	148	123	2005	2,4
	- Lip, oral cavity and pharynx	...	...	...	574	430	144	2005	2,4
	- Liver	...	...	...	1506	1119	387	2005	2,4
	- Stomach	...	...	...	635	396	239	2005	2,4
	- Trachea, bronchus, and lung	...	...	...	3686	2503	1183	2005	2,4
50	**Circulatory**								
	All circulatory system diseases	...	...	...	10 138	5062	5076	2005	2,4
	- Acute myocardial infarction	...	...	...	1896	1069	827	2005	2,4

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Cerebrovascular diseases	....	...	...	3434	1663	1771	2005	2,4
	- Hypertension	...	...	...	825	353	472	2005	2,4
	- Ischaemic heart disease	...	...	...	4003	2176	1827	2005	2,4
	- Rheumatic fever and rheumatic heart diseases	...	...	...	138	49	89	2005	2,4
51	**Maternal causes**								
	- Abortion			...			0	2005p	2,4
	- Eclampsia			...			0	2005p	2,4
	- Haemorrhage			...			0	2005p	2,4
	- Obstructed labour			...			0	2005p	2,4
	- Sepsis			...			0	2005p	2,4
52	**Diabetes mellitus**	...	...	...	602	247	355	2005	2,4
53	**Mental disorders**	...	...	...	292	107	185	2005	2,4
54	**Injuries**								
	All types	...	...	...	2150	1402	748	2005	2,4
	- Homicide and violence	...	...	...	36	13	23	2005	2,4
	- Motor and other vehicular accidents	...	...	...	176	128	48	2005	2,4
	- Occupational injuries	44 267	28 844	15 423	187	156	31	2005	14
	- Suicide	...	...	...	1149	718	431	2005	2,4
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		

	Health infrastructure	Number	Number of Beds	Year	Source
56	Public health facilities				
	- General hospitals	38	27 755	2006	13
	- Specialized hospitals	...	...		
	- District/first-level referral hospitals	...	...		
	- Primary health care centres	213 [l,ad]	762 [l,ad]	2006	4,13
	Private hospitals	12 [ae]	3122 [ae]	2006	4
	Nursing homes	30 [ae]	2893 [ae]	2006	4

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
FY	Fiscal year
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to life expectancy at age 60
b	The figure includes unknown sex
c	The figures refer to the percentage of population aged 15 and above with primary or above educational attainment
d	The figures exclude those with unknown birth weight
e	The figure refers to the cases who had Hb<10g/dl and attending the maternal and child health centres for ante-natal checkups
f	Given as inactivated polio vaccine

g	The figures refer to the number of in-patient discharges including deaths on attendances basis by disease from public hospitals, private hospitals and correctional institutions
h	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
i	The figures refer to the cases reported to the Department of Health for the listed Statutory Notifiable Infectious Diseases (except Encephalitis, Gonorrhoea, Hib meningitis and Syphilis)
j	The figure refers to the cases known to the maternity homes, public and private hospitals
k	Number of cases refers to the cases reported to the Department of Health
l	The figure(s) is/are as at end of the year
m	The figure refers to the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005
n	The figure compiled is based on the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005 as percentage of GDP in the calendar year 2005
o	The figure is compiled based on the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005 per mid-2005 population
p	Number of cases refers to the number of new cases seen in public Sexually Transmitted Diseases clinics and those in prisons
q	The figure refers to the public health expenditure
r	The figure refers to public health expenditure in the financial year 2005/06 as percentage of the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005
s	The figure refers to public health expenditure as percentage of overall public expenditure
t	The figure refers to private health expenditure in the calendar year 2005 as percentage of the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005
u	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
v	The number of health care personnel regardless of whether they are actually working in the profession or not
w	The number of doctors/dentists refers to the number of doctors/dentists with full registration on both the local and overseas lists
x	The number of nurses refers to the number of registered nurses and enrolled nurses
y	Listed Chinese medicine practitioners can practise lawfully in Hong Kong under the transitional arrangements for registration of Chinese medicine practitioners until a date to be announced by the Secretary for Health, Welfare and Food in the Gazette. They may apply for registration under the requirements of transitional arrangement
z	The figures only cover graduates of full-time sub-degree and undergraduate programmes funded by the University Grants Committee in medicine, Chinese medicine, dental surgery and nursing at the end of the graduation year 2006. Graduates may not be engaged in work areas directly related to their discipline of study after graduation
ad	The figure covers the out-patient clinics 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
ae	The figure covers the institutions licensed under the Hospitals, Nursing Homes and Maternity Homes Registration Ordinance (Cap.165)

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	Immigration Department, HKSARG.
6	Water Supplies Department, HKSARG.
7	Drainage Services Department, HKSARG.
8	Transport Department, HKSARG.
9	Environmental Protection Department, HKSARG.
10	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis* . United Nations Development Programme, NY 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
11	Financial Services and the Treasury Bureau, Government Secretariat, HKSARG.
12	University Grants Committee, HKSARG.
13	Hospital Authority, HKSARG.
14	Labour Department, HKSARG.
15	WHO Regional Office for the Western Pacific, data received from the technical units.

JAPAN

1. CONTEXT

1.1 Demographics

As of 01 October 2006, the total population of Japan was estimated to be 127 770 000, comprising 62 330 000 males and 65 440 000 females, indicating a total population increase of 13 000 or 0% from the previous year. With regards to distribution by age group, 13.6% of the population are aged 0-14 years, 65.6% 15-64 years and 20.8% 65 years and over.

It is projected that Japan's total population will reach its peak in 2006 at 127.77 million, then begin decreasing gradually, diminishing to 100.59 million in 2050.

The average life expectancy remains the highest in the world. In 2005, it was 85.49 years for women and 78.53 years for men.

In 2005, the crude birth rate was 8.4 per 1000 persons and the crude death rate was 8.6 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 September 2006, Mr. Shinzo Abe was designated by the Diet as Japan's 90th Prime Minister. He is a member of the Liberal Democratic Party, which currently holding the largest block of representation in both the House of Representatives and the House of Councillors, which together make up the Diet.

1.3 Socioeconomic situation

Japan has the second largest economy in the world in terms of gross domestic product (GDP), after the United States of America. As of 2004, the GDP of Japan and the United States totaled 40.6% of the world's GDP. Japan's GDP per capita in 2004 was US$ 36 159. This economic scale was achieved largely due to high economic growth from 1955 to the late 1960s.

In the 2005 financial year, the economy as a whole improved, as did the employment/unemployment situation, while some severe aspects remained. The jobless rate dropped 0.3 of a percentage point year on year to 4.3% on the 2005 average. The active ratio of jobs to applicants in the same period increased 0.12 point to 0.98 times.

The water supply coverage ratio has reached a high level of 96.9% (as of the end of March 2004).

1.4 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 the 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 and competitive society, it is said that stress levels felt by all age groups are rising. There were 30 553 suicides in 2005; 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 becoming serious threats to public health in Japan.

2.2 Outbreaks of communicable diseases

No available information

2.3 Leading causes of mortality and morbidity

Since the 1980s, with advancement of the ageing society, the disease patterns have shifted to lifestyle-related diseases such as cancer, heart disease, cerebrovascular disease, diabetes, etc. 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 2.8 per 1000 live births and the maternal mortality ratio was 5.8 per 100 000 live births in 2005.

Activities carried out by the 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', aiming 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 2010, is to realize a society where all nationals live healthy and happy lives, free of 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 2004, they underwent their seventh 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 mind" is one of the targets in Healthy Japan 21. In 2003, the Ministry of Health, Labour and Welfare drew up guidelines for good sleeping 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, promotes efficient separation of smoking areas in public places or offices 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 equity and quality of services. These reforms are closely associated with the ongoing demographic transition—longer life expectancy and lower birth rate—which has resulted in a rapid increase in the percentage of elderly citizens.

Japanese society is ageing at an unprecedented speed compared with other developed countries. In 2005, Japan's ageing rate reached 21.0%, 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 2050. This ageing population will need to pay attention to lifestyle-related diseases. Maintaining healthy lifestyles and the early detection of disease could help 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 2005, total health expenditure reached US$ 357 907 million, about 7.7% 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. The average per capita total expenditure on health in 2005 was US$ 2802.80.

3.5 Human resources for health

As of 2004, there were 270 371 doctors and 1 146 181 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 the general practitioner 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 more than three 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
Specification	:	Includes information on health and labour
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
Office Hours	:	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/

JAPAN — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	377.91 [a]			2005	5
2	**Estimated population** ('000s)	127 770.00	62 330.00	65 440.00	2006	1
3	**Annual population growth rate** (%)	0.01	-0.02	0.04	2006	1
4	**Percentage of population**					
	- 0–4 years	4.30	4.50	4.10	2006	1
	- 5–14 years	9.30	9.80	8.90	2006	1
	- 65 years and above	20.80	18.10	23.30	2003	1
5	**Urban population** (%)	78.70	...	...	2002	1
6	**Crude birth rate** (per 1000 population)	8.40	8.80	8.00	2005	2
7	**Crude death rate** (per 1000 population)	8.60	9.50	7.70	2005	2
8	**Rate of natural increase of population** (% per annum)	-0.02	-0.06	0.03	2005	2
9	**Life expectancy** (years)					
	- at birth	...	78.53	85.49	2005	2
	- Healthy Life Expectancy (HALE) at age 60	...	17.50	21.70	2002 est	6
10	**Adult literacy rate** (%)	99.00	...	...	2000 est	7
11	**Neonatal mortality rate** (per 1000 live births)	1.40	1.50	1.30	2005	2
12	**Infant mortality rate** (per 1000 live births)	2.80	3.00	2.50	2005	2
13	**Under-five mortality rate** (per 1000 live births)	3.90	4.20	3.50	2005	2
14	**Total fertility rate** (women aged 15–49 years)	1.25 [b]			2005	2
15	**Maternal mortality ratio** (per 100 000 live births)	5.80			2005	2
16	**Percentage of newborn infants weighing at least 2500 g at birth**	90.50	91.50	89.40	2005	2
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	...	...	...		
	- DTP3	100.00	100.00	100.00	2004	4
	- POL3	97.00	...	...	2004	4
	- Measles	100.00	100.00	100.00	2004	4
	- Hepatitis B III	...	...	...		
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	...				
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries 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)	99.80			2004	2
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			59.00	1995-2000	8
23	**Condom use rate of the contraceptive prevalence rate**	...				
24	**HIV prevalence among 15–24 year-old pregnant women**	...	...	...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

JAPAN

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	100.00	100.00	100.00	2004	9
27	Proportion of population with access to improved sanitation	100.00	100.00	100.00	2004	9
28	Proportion of the population using solid fuels (%)	<5.00	...	...	2002	10
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	260.00	...	...	2002	3
32	**Human development index**			0.95	2004	11
33	**Per capita GDP at current market prices** (US$)			36 159.00	2004	13
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			357 907.00	2005p	12
	- total expenditure on health as % of GDP			7.70	2005p	12
	- per capita total expenditure on health (in US$)			2802.79	2005p	12
	Government expenditure on health					
	- amount (in million US$)			290 099.86	2005p	12
	- general government expenditure on health as % of total expenditure on health			81.10	2005p	12
	- general government expenditure on health as % of total general government expenditure			17.21	2005p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00	2005p	12
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			18.90	2005p	12
	Exchange rate in US$ of local currency is: 1 US$ =			110.22	2005p	12
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	270 371	225 743	44 628	...	...	21.17	36.24	6.82	...	...	2004	2
	- dentists	95 197	77 301	17 896	...	...	7.46	12.41	2.74	...		2004	2
	- pharmacists	241 369	94 794	146 575	...	...	18.90	15.22	22.41	...	...	2004	2
	- nurses	1 146 181 [c]	...	...	...	...	89.77	...	...	...	...	2004	2
	- midwives	25257	...	...	...	...	1.98	...	...	...	...	2004	2
	- other nursing / auxiliary staff	67 376	...	...	...	...	5.31	...	...	...	...	2000	7
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	284 968	...	...	...	...	22.32	...	...	...	...	2004	2
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	8499	...	...	...	...	0.67	...	...	...	...	2000	7
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Influenza (grippe)	769 964	...	...	604.88	...	...	2000	7
	2. Chickenpox	275 036	...	...	216.07	...	...	2000	7
	3. Mumps	132 877 [d]	...	...	104.39 [d]	...	...	2000	7
	4. Other venereal diseases	50 527 [d]	...	...	39.69 [d]	...	...	2000	7
	5. Tuberculosis (all forms)	39 384	...	...	30.94	...	...	2000	7
	6. Food poisoning (bacterial)	32 417	...	...	25.47	...	...	2000	7
	7. Measles	22 978	...	...	18.05	...	...	2000	7
	8. Gonococcal infections	16 926 [d]	...	...	13.30 [d]	...	...	2000	7
	9. Pertussis (whooping cough)	3804	...	...	2.99	...	...	2000	7
	10. Rubella	3123 [d]	...	...	2.45 [d]	...	...	2000	7
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neoplasms	325 941	196 603	129 338	258.30	319.10	200.30	2005	2
	2. Heart disease	173 125	83 979	89 146	137.20	136.30	138.00	2005	2
	3. Cerebrovascular diseases	132 847	63 657	69 190	105.30	103.30	107.00	2005	2
	4. Pneumonia	107 241	57 310	49 931	85.00	93.00	77.30	2005	2
	5. Accidents and adverse effects	39 863	24 591	15 272	31.60	39.90	23.60	2005	2
	6. Suicide	30 553	22 236	8 317	24.20	36.10	12.90	2005	2
	7. Senility	26 360	6 683	19 677	20.90	10.80	30.50	2005	2
	8. Renal failure	20 528	9 463	11 065	16.30	15.40	17.10	2005	2
	9. Disease of liver	16 430	11 007	5423	13.00	17.90	8.40	2005	2
	10. Chronic obstructive pulmonary disease	14 416	11 018	3398	11.40	17.90	5.30	2005	2
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	1	...	...	0	0	0	2004	C: 4 D: 2
	- Diphtheria	0	0	0	0	0	0	2004	C: 4 D: 2
	- Hib meningitis	...	...	...	1	1	0	2004	2
	- Measles	8752	...	...	3	1	2	2004	C: 4 D: 2
	- Mumps	84 672	...	...	0	0	0	2004	C: 4 D: 2
	- Neonatal tetanus	...	...	...	0	0	0	2004	C: 4 D: 2
	- Pertussis (whooping cough)	1534	...	...	0	0	0	2004	C: 4 D: 2
	- Poliomyelitis	0	0	0	0	0	0	2006	4
	- Rubella	2794	...	...	0	0	0	2004	C: 4 D: 2
	- Total Tetanus	69	...	...	9	4	5	2004	C: 4 D: 2
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	...	...	...	6042	3093	2949	2005	2
	- Type A	...	...	...	12	6	6	2005	2
	- Type B	...	...	...	786	524	262	2005	2
	- Type C	...	...	...	4855	2350	2505	2005	2
	- Type E	...	...	...	...	...	...	2005	2
	- Unspecified	...	...	...	347	191	156	2005	2

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	43	...	...	0	0	0	2005	4
	Dengue/DHF	...	...	...	1	1	0	2005	2
	Encephalitis	...	...	...	125	65	60	2005	2
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	6	...	...	...	...	...	2005	4
	Malaria	...	...	...	1	1	0	2005	2
	Plague	0	0	0	0	0	0	2005	4
	Syphilis	...	...	...	17	11	6	2005	2
	Typhoid fever	50	...	...	...	...	...	2005	4
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	0.00	0.00	0.00	2005	2
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	27 194	...	...	...	...	...	2005	4
	- New pulmonary tuberculosis (smear-positive)	10 931	...	...	...	...	...	2005	4
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	38.00	...	...	4.00	...	...	2005	4
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	57.00	...	...	57.00 (2004)	...	...	2005	4
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	397	161	236	2005	2
48	**Diarrhoeal diseases**	...	...	...	...	...	...		
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	325 941	196 603	129 338	2005	2
	- Breast	...	...	...	10 808	87	10 721	2005	2
	- Colon and rectum	...	...	...	40 830	22 146	18 684	2005	2
	- Cervix			...			2465	2005	2
	- Oesophagus	...	...	...	11 182	9465	1717	2005	2
	- Leukaemia	...	...	...	7283	4311	2972	2005	2
	- Lip, oral cavity and pharynx	...	...	...	5679	4151	1528	2005	2
	- Liver	...	...	...	34 268	23 203	11 065	2005	2
	- Stomach	...	...	...	50 311	32 643	17 668	2005	2
	- Trachea, bronchus, and lung	...	...	...	62 063	45 189	16 874	2005	2

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	…	…	…	329 475	159 268	170 207	2005	2
	- Acute myocardial infarction	…	…	…	47 193	25 762	21 431	2005	2
	- Cerebrovascular diseases	…	…	…	132 847	63 657	69 190	2005	2
	- Hypertension	…	…	…	5835	2145	3690	2005	2
	- Ischaemic heart disease	…	…	…	76 503	41 970	34 533	2005	2
	- Rheumatic fever and rheumatic heart diseases	…	…	…	2540	837	1703	2005	2
51	**Maternal causes**								
	- Abortion			…			2	2005	2
	- Eclampsia			…			2	2005	2
	- Haemorrhage			…			…		
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	…	…	…	13 621	7131	6490	2005	2
53	**Mental disorders**	…	…	…	4602	1692	2910	2005	2
54	**Injuries**								
	All types	…	…	…	75 380	49 775	25 605	2005	2
	- Homicide and violence	…	…	…	600	317	283	2005	2
	- Motor and other vehicular accidents	…	…	…	10 028	7015	3013	2005	2
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	30 553	22 236	8317	2005	2
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities					6253	482 015	2005	2
	- General hospitals					…	…		
	- Specialized hospitals					…	…		
	- District/first-level referral hospitals					…	…		
	- Primary health care centres					…	…		
	Private hospitals					100 215	1 316 458	2005	2

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs.
a	Figure excludes some areas of which boundaries are not yet fixed
b	The average number of children that would be born alive to a hypothetical cohort of women if, throughout their reproductive years, the age-specific fertility rates for the specified year remain unchanged
c	Figure includes nurses, public health nurses and assistant nurses
d	Figure refers to cases treated in large hospitals only

Sources:	
1	Statistics Bureau, Ministry of Internal Affairs and Communications (http://www.stat.go.jp/english/index.htm).
2	Ministry of Health, Labour and Welfare [http://www.mhlw.go.jp/english/index.html].
3	Ministry of the Environment.
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5	Japan in Figures 2007. Statistics Bureau and Statistical Research and Training Institute, Ministry of Internal Affairs and Communications. http://www.stat.go.jp/english/data/figures/index.htm#a.
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KIRIBATI

1. CONTEXT

1.1 Demographics

The Republic of Kiribati, located in the Pacific, consists of 33 low-lying atoll islands in three main island groups, the Gilbert, Phoenix and Line Islands. The country spreads spread over 3.5. million kilomotres of ocean, but has a total land area of only 811 square kilometres.

The 2005 Census Report showed that Kiribati had a population of 92 533, an increase of 9.5% since 2000. South Tarawa in the Gilbert Islands had a total of 40 311, representing 44% of the total Kiribati population. The average population density is 114 per square kilometre, but this varies widely from 13 people per square kilometre in Kiritimati Island to 2558 in South Tarawa . 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 2000-2005 when the overall growth rate in South Tarawa reduced to 1.9%, compared with an average annual growth rate of 1.8% over the same period. Overcrowding in South Tarawa persists, however, putting stress on the environment and infrastructure. New 'urban' settlements have emerged since 2000, especially in Northern Tarawa and Kiritimati Island. Between 2000-2005 North Tarawa's growth rate was 4.8% and Kirimati Island's 8%, compared with 2.2.% and 1.2 %, respectively, during the period 1995-2000.

The total fertility rate was 3.5 in 2005, representing a decline from the 1990s, when it was reported to be about 4.5. Kiribati has a young population, with a median age of 20.7 years; 37% of the population is under 15 years of age and only 5 % over 60 years. The sex ratio was 97 males to 100 females in 2005.

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 2005, life expectancy at birth was estimated at 58.9 for males and 63.1 for females.

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. A general election is scheduled for July-August 2007 .

The guiding development document of the Government , the National Development Strategies 2004-2007: Enhancing Growth and ensuring Equitable Distribution, sets out six main policy areas: economic growth; fair distribution; public sector performance; equipping of people to manage change; conservation of physical assets; and sustainable use of financial reserves. These strategies are operationalized through respective line Ministries.

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 recently been launched by the United Nations Development Programme (UNDP).

The Government places considerable importance on its international commitments to health and recently became 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 is categorized as a least-developed country (LDC) because of its low per capita gross national product (GNP), limited human resources and high vulnerability to external forces. During the 1990s, the buoyant global economy, the 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 achievment 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 (approximately10%-20%). In 2004, there was a decline in GNP per capita from US$ 1040 in 1999 to US$ 970, largely due to a decline in fishing licences.

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, the remainder were employed mainly as subsistence farmers or fishermen. Subsidies to public entities are thought to reduce the opportunities for private job creation. The lack of regular paid employment, particularly in urban settlements, is associated with an increase in youth violence and abuse of alcohol.

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 in Kiribati. Women now comprise 51.8% 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 2004, 65.0% 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 rain water supplies and well-water. The protection of the well-water and the water sources from pollution, mainly from nearby sanitations systems, is a constant public health concern.

In 2004, 40% 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 Vulnerabilities and hazards

The low-lying atolls of Kiribati, rising no higher than three meters above sea-level, makes 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 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, ah hoc construction of seawalls, coastal erosion and illegal beach mining, and

contamination. 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 facilitate the transmission of infectious diseases. For instance, tuberculosis incidence in Kiribati has now surpassed that of other Pacific island countries, and most reported cases (70% in 2005) 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 that of people living in the Outer Islands. In the 2005 Census, for example, the infant mortality rate in South Tarawa was higher than in the Outer Islands.

Inadequate water supplies, unsafe drinking water, variable standards of personal hygiene, poor food handling and storage, and poor sanitation all contribute 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 STIs, 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. As of the end of 2006, Kiribati had a cumulative total of 50 HIV/AIDS cases, of whom 24 are known to have died. Since 2006, seven people living with HIV 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. Filiariasis prevalence will be assessed in 2007 following five years of mass drug administration.

Data suggest that the prevalence of noncommunicable diseases is increasing. Smoking is a significant risk factor contributing to noncommunicable diseases. 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). 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. These changes, together with a strong tradition of feasting, have led to overnutrition and reduced activity in adults, increasing the risk of noncommunicable disease. Draft results from the 2004-2005 STEPs survey show approximately 20% of the adult population have diabetes, and diseases of the circulatory system are 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 contributing factors to under-five mortality. Draft results of a STEPs survey in 2004-2005 showed an anaemia prevalence of 17% for non-pregnant women and 22% among women aged 15-24. Vitamin A deficiency was 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.

2.3 Leading causes of mortality and morbidity

The causes of mortality and morbidity remained fairly consistent between 2002 and 2005. Acute respiratory infections and diarrhoeal diseases are the two major causes of morbidity and are among the five leading causes of mortality. There has been an increase in reported cases of respiratory disease and eye infection since 2002.

The leading causes of mortality and morbidity reported from health facilities in 2005 were:

Morbidity	2002	2005	Mortality	2002	2005
Acute respiratory diseases	76 836	102 148	Signs and symptoms and ill-defined	117	127
Diarrhoeal disease	20 750	22 647	Diseases of the circulatory system	70	84
Eye diseases	7527	10 247	Infections and parasitic diseases	57	70
Skin diseases	1977	795	Perinatal conditions	54	63
Communicable diseases	987	694	Diseases of the respiratory system	35	62
Noncommunicable diseases	793	450	Diseases of the digestive system	59	55
Nutrition-related diseases	565	318	Endocrine, nutritional and metabolic diseases	46	49
Injuries /poisonings	1023	87	External causes		35
			Neoplasms	15	28
			Diseases of the blood		9

There have been increases in mortality from diseases of the circulatory system, respiratory system and cancers. Perinatal conditions are still a leading cause of mortality for infants.

2.4 Maternal, child and infant diseases

Maternal health is improving. Approximately 90% of all births are now attended by trained health personnel and the total fertility rate has declined, falling from 4.5 in 1995 to 3.5 in 2005. The maternal mortality ratio, based on hospital records, is now 158 per 100 000 live births (2005 Census Report), a significant reduction from the previously reported ratio and consistent with (a) the reduction in the total fertility rate, and (b) the continued high percentage of women attended by trained staff.

Infant mortality has also improved over the last decade. 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 counties. 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.

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

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 with road traffic accidents and domestic violence.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The overall goal of the Ministry of Health, as stated in the National Development Plan 2004-2007, is "Continuous improvement in the provision and delivery of preventative and curative health services and equitable distribution of the benefits attained nationwide through effective and efficient allocation of scarce resources and good governance (accountability and transparency)". The Ministry is in the process of developing its sectorwide plan for the period 2008-2011 to focus its attention and coordinate donor support to achieve this goal.

The proposed objectives are to: (1) improve health status in priority areas; (2) improve access to and utilization of curative health services that are efficient, effective, and responsive to patients and delivered to a high standard nation-wide; (3) improve the quality, sustainability and coverage of public health services through increased responsiveness, efficiency and effectiveness nation-wide; (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 evaluating performance; and (6) develop a well-performing, highly skilled and supported workforce to enhance the delivery of quality health services.

The strategic objectives will inform the National Development Plan for the period 2008-2011 and guide formulation of the Ministry of Health's annual operational plans.

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. 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 is under construction in North Tabiteuea to serve the Northern District of the Gilbert Islands. A small hospital providing basic medical services is also located 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.

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 aids employed by the Island Council. Six principle 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 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 works within a comprehensive framework for 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 known as Ministry Operational Plans or MOPs.

Public health legislation primarily falls under the Environmental Health Ordinance. The Ordinance, which is over 30 years old, primarily covers water and sanitation issues. The Ordinance and other legislation, including the Medicines Act and mental health legislation, is 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 was US$ 9.92 million in 2005 and has remained fairly consistent over the last four years. In 2005, approximately 6.2% of total Government expenditure was on health. Revenue generated by the Ministry of Health totalled AUD$ 56 124 (US$ 48 042), most generated from the sale of pharmaceuticals and medical supplies. 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. This includes 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

A total of 238 locally trained nurses and midwives made up 80% of the health workforce in 2004. Doctors make up the next largest group of health workers. The number of doctors increased from 20 to 30 in 2006 with the recruitment of 10 doctors from Cuba.

Basic nurse 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 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 these 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 received additional training through short courses and workshops, provided mainly through regional health programmes.

There is a serious shortage of paramedical and support staff. The retirement of a pharmacist in 2006 left only one qualified pharmacist in the country. 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 in the Ministry of Health.

The Ministry of Health 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 resources management problem

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 workers for training is unlikely to meet future employment requirements.

3.6 Partnerships

The Ministry of Health receives significant technical and financial support from development partners. WHO provides funding and technical support to: 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.

UNFPA supports reproductive health activities and UNICEF supports the expanded programme on immunization, nutrition and infant feeding, and IMCI. The South Pacific Community 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, 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. Its faces many of the challenges faced by other Pacific island countries, but its geography, isolation and extremely small population exacerbate these 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 utilization and the 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 efficiency 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 2005 Census Volume 2 : Analytical Report January 2007*
Operator	:	Ministry of Finance and Economic Development
Comments	:	Supported by SPC
Title 2	:	*National Development Strategies 2004-7.*
Operator	:	Ministry of Finance and Economic Development
Comments	:	To be reviewed in 2008
Title 3	:	*Morbidity and Mortality Data*
Operator	:	Health Information Centre, Ministry of Health and Medical Services
Features	:	Ministry of Health database.

5. ADDRESSES

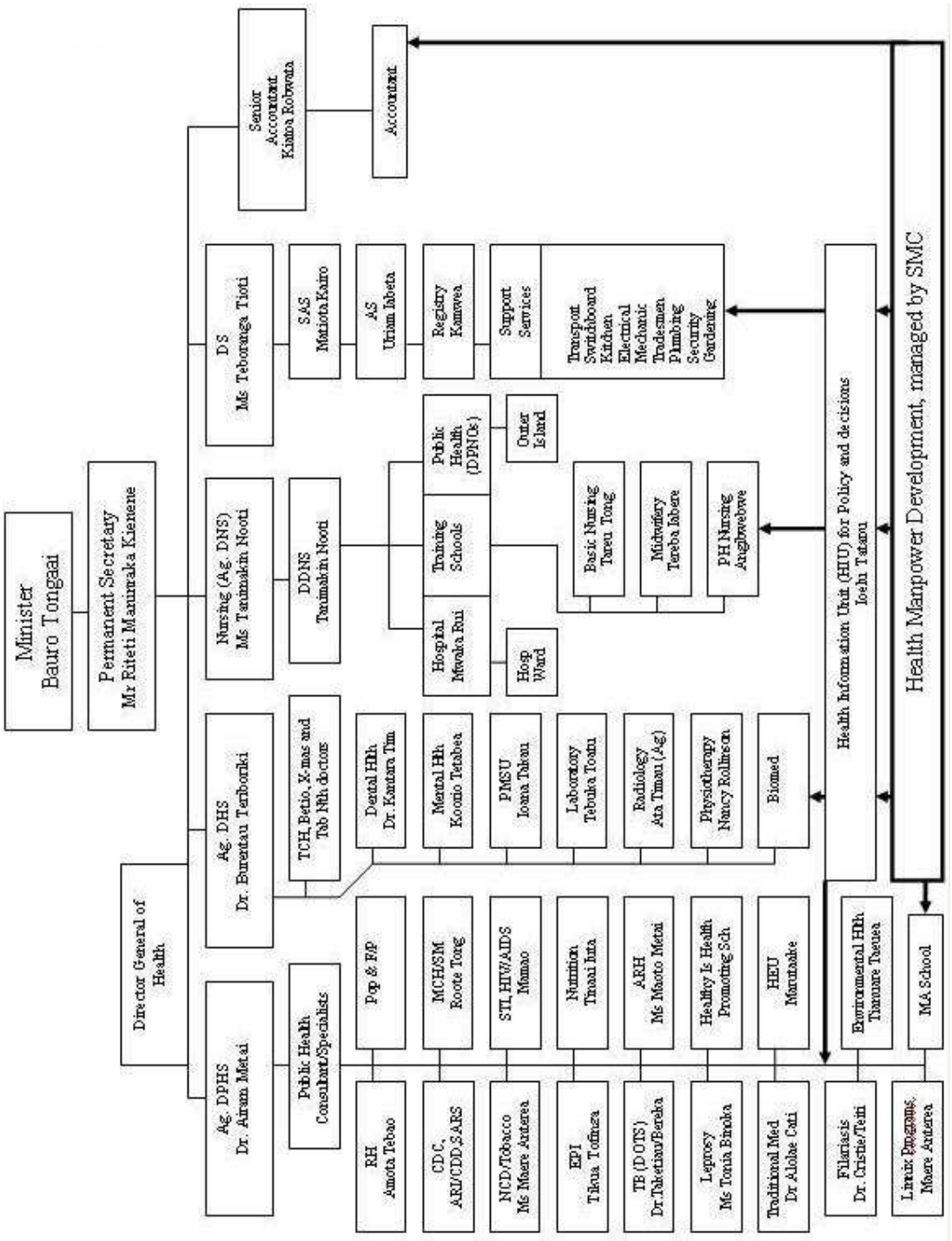
MINISTRY OF HEALTH AND MEDICAL SERVICES

Office Address	:	Nawerewere, Tarawa, Kiribati
Postal Address	:	PO Box 268, Bikenibeu (Nawerewere), Tarawa, Kiribati
Official Email Address	:	mhfp@tskl.net.ki
Telephone	:	(686) 28100
Fax	:	(686) 28152
Office Hours	:	0800 - 12.30 - 1330 - 1615

WHO COUNTRY LIAISON OFFICER IN KIRIBATI

Office Address	:	World Health Organization, Nawerewere , 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	:	0800-1230 -1230-1700
Website	:	www.wpro.who.int

6. ORGANIZATIONAL CHART: Ministry of Health and Medical Services



KIRIBATI — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.81			2005	1
2	**Estimated population** ('000s)	92.53	45.61	46.92	2005	2
3	**Annual population growth rate** (%)	1.80	...	...	2000-05	2
4	**Percentage of population**					
	- 0–4 years	...	...	...		
	- 5–14 years	37.00 [c]	38.40 [c]	35.50 [c]	2005	2
	- 65 years and above	3.50	2.80	4.30	2005	2
5	**Urban population** (%)	43.60	...	...	2005	2
6	**Crude birth rate** (per 1000 population)	26.80	...	...	2005	2
7	**Crude death rate** (per 1000 population)	8.70	...	...	2005	2
8	**Rate of natural increase of population** (% per annum)	1.81	...	...	2005	2
9	**Life expectancy** (years)					
	- at birth	61.00	58.90	63.10	2005	2
	- Healthy Life Expectancy (HALE) at age 60	...	11.50	11.60	2002	3
10	**Adult literacy rate** (%)	91.00	...	...	2005	2
11	**Neonatal mortality rate** (per 1000 live births)	27.00 [a]	...	...	2000	4
12	**Infant mortality rate** (per 1000 live births)	52.00	53.00	51.00	2005	2
13	**Under-five mortality rate** (per 1000 live births)	69.00	71.00	67.00	2005	2
14	**Total fertility rate** (women aged 15–49 years)	3.50			2005	2
15	**Maternal mortality ratio** (per 100 000 live births)	158.00			2005	2
16	**Percentage of newborn infants weighing at least 2500 g at birth**	91.80	92.30	91.40	2005	5
17	**Prevalence of underweight children under five years of age**	13.00	...	...	1999	6
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	7
	- DTP3	86.00	...	...	2006	7
	- POL3	87.00	...	...	2006	7
	- Measles	61.00	...	...	2006	7
	- Hepatitis B III	88.00	...	...	2006	7
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2005	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	45.00			2006	7
	- Percentage of deliveries attended by skilled health personnel	89.65 [e]			2005	5
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	4.65 [d]			2005	5
	- Percentage of deliveries in health facilities (as % of total deliveries)	85.00 [d]			2005	5
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			18.46	2005	1
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	65.00	77.00	53.00	2004	8
27	**Proportion of population with access to improved sanitation**	40.00	59.00	22.00	2004	8
28	**Proportion of the population using solid fuels (%)**	…	…	…		
29	**Proportion of households with access to secure tenure**	…				
30	**Proportion of vehicles using unleaded gasoline** (%)	…	…	…		
31	**Health care waste generation** (metric tons per year)	…	…	…		
32	**Human development index**			0.52	1998	9
33	**Per capita GDP at current market prices** (US$)			789.78	2004 est	10
34	**Rate of growth of per capita GDP** (%)			…		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			10.69	2005p	11
	- total expenditure on health as % of GDP			12.70	2005p	11
	- per capita total expenditure on health (in US$)			107.95	2005p	11
	Government expenditure on health					
	- amount (in million US$)			9.92	2005p	11
	- general government expenditure on health as % of total expenditure on health			92.40	2005p	11
	- general government expenditure on health as % of total general government expenditure			6.20	2005p	11
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			29.85	2005p	11
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			7.60	2005p	11
	Exchange rate in US$ of local currency is: 1 US$ =			1.31	2005p	11
36	**Health insurance coverage as % of total population**			…		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	30	…	…	…	…	3.20	…	…	…	…	2006	5
	- dentists	3	0	3	…	…	0.30	0.00	…	…	…	2004	5
	- pharmacists	1	0	1	…	…	0.10	0.00	…	…	…	2006	5
	- nurses	238	18	220	…	…	26.50	…	…	…	…	2004	5
	- midwives	32	4	28	…	…	3.60	…	…	…	…	2004	5
	- other nursing / auxiliary staff	12	1	11	…	…	1.30	…	…	…	…	2004	5
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	16	8	8	…	…	1.80	…	…	…	…	2004	5
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	10	8	2	…	…	1.10	…	…	…	…	2004	5
38	**Workforce losses/ attrition**	…	…	…									
39	**Yearly new graduates - physicians**	…	…	…									
40	**Yearly new graduates – nurses**	…	…	…									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections	102 148 [b]	50 190 [b]	51 958 [b]	110 390.89	110 036.83	110 735.07	2005	5
	2. Diarrhoeal diseases	22 647 [b]	11 709 [b]	10 938 [b]	24 474.51	25 670.88	23 311.52	2005	5
	3. Eye diseases	10 247 [b]	4948 [b]	5299 [b]	11 073.89	10 848.02	11 293.45	2005	5
	4. Skin diseases	795	398	397	859.15	872.58	846.10	2005	5
	5. Communicable diseases	694	383	311	750.00	839.69	662.82	2005	5
	6. Non-communicable deseases	450 [b]	206 [b]	244 [b]	486.31	451.64	520.02	2005	5
	7. Nutrition and related diseases	318 [b]	161 [b]	157	343.66	352.98	334.60	2005	5
	8. Injury and poisoning	87 [b]	44 [b]	43	94.02	96.47	91.64	2005	5
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Symtoms, signs and ill-defined conditions	127	72	55	137.25	157.85	117.22	2005	5
	2. Disease of the circulatory system	84	58	26	90.78	127.16	55.41	2005	5
	3. Infectious and parasitic system	70	27	43	75.65	59.19	91.64	2005	5
	4. Certain conditions originating in the perinatal	63	34	29	68.08	74.54	61.81	2005	5
	5. Diseases of the respiratory system	62	31	31	67.00	67.96	66.07	2005	5
	6. Diseases of the digestive system	55	35	20	59.44	76.73	42.62	2005	5
	7. Endocrine, nutritional and metabolic	49	24	25	52.95	52.62	53.28	2005	5
	8. External causes of mortality	35	31	4	37.82	67.96	8.52	2005	5
	9. Neoplasms	28	9	19	30.26	19.73	40.49	2005	5
	10. Diseases of the blood & blood-forming organs	9	5	4	9.73	10.96	8.52	2005	5
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	7
	- Diphtheria	0	0	0	0	0	0	2006	7
	- Hib meningitis	0	0	0	0	0	0	2005	7
	- Measles	0	0	0	0	0	0	2006	7
	- Mumps	0	0	0	0	0	0	2006	7
	- Neonatal tetanus	0	0	0	0	0	0	2006	7
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	7
	- Poliomyelitis	0	0	0	0	0	0	2006	7
	- Rubella	0	0	0	0	0	0	2006	7
	- Total Tetanus	0	0	0	0	0	0	2006	7
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	…	…	…	…	…	…		
	- Type B	…	…	…	4 [b]	1 [b]	3 [b]	2005	5
	- Type C	…	…	…	…	…	…		
	- Type E	…	…	…	…	…	…		
	- Unspecified	51	25	26	9	5	4	2005	5

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2005	5
	Dengue/DHF	0	0	0	0	0	0	2005	7
	Encephalitis	0	0	0	0	0	0	2005	5
	Gonorrhoea	278	175	103	0	0	0	2005	5
	Leprosy	34	...	...	...	...	...	2005	7
	Malaria	...	...	...	...	...	...		
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	0	0	0	0	0	0	2005	5
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	332	...	...	...	...	...	2005	7
	- New pulmonary tuberculosis (smear-positive)	124	...	...	...	...	...	2005	7
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	426.00	...	...	49.00	...	...	2005	7
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	73.00	...	...	94.00 (2004)	...	...	2005	7
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	101 954	50 097	51 857	...	...	...	2005	5
48	**Diarrhoeal diseases**	22 548	11 664	10 884	41	24	17	2005	5
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	27	...	...	2005	5
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	1	0	1	2005	5
	- Cervix			...			7	2005	5
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	3	2	1	2005	5
	- Lip, oral cavity and pharynx	...	...	...	1	0	1	2005	5
	- Liver	...	...	...	...	...	...		
	- Stomach	...	...	....	2	1	1	2005	5
	- Trachea, bronchus, and lung	...	...	...	2	2	0	2005	5

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	…	…	…	84	58	26	2005	5
	- Acute myocardial infarction	…	…	…	0	0	0	2005	5
	- Cerebrovascular diseases	…	…	…	47	37	10	2005	5
	- Hypertension	190	87	103	6	4	2	2005	5
	- Ischaemic heart disease	…	…	…	0	0	0	2005	5
	- Rheumatic fever and rheumatic heart diseases	…	…	…	4	3	1	2005	5
51	**Maternal causes**								
	- Abortion			2			2	2004	5
	- Eclampsia			…			…		
	- Haemorrhage			2			2	2004	5
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	248	112	136	23	12	11	2005	5
53	**Mental disorders**	8	6	2	1	1	0	2005	5
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	3	2	1	2005	5
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	21	17	4	2005	5
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	1	140	2005	5
	- Specialized hospitals	…	…		
	- District/first-level referral hospitals	..	…		
	- Primary health care centres	92 [f]	…	2005	5
	Private hospitals	…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Estimates derived by regression and similar estimattion methods
b	Revised data
c	Figure refers to 0-14 years old
d	Best estimated figure
e	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
f	Figure refers to health centers and dispensaries

Sources:	
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Lao People's Democratic Republic

1. CONTEXT

1.1 Demographics

The Lao Peoples' Democratic Republic has a population of 5.6 million (2005), a population growth rate of 2.1%, a sparse population density (23.7/km^2) with large interprovincial variations, and an average household size of 5.9. The topography breaks into lowland areas along the Mekong River, which depend predominantly on paddy rice, and highland areas that depend on upland rice and the gathering of non-timber forest products for their livelihoods. The population is young, but there are signs of changes in its demographic structure; the percentage under 15 years of age fell from 43.6% to 39% between 1995 and 2005. The nation is predominately rural, with the beginnings of a rural-to-urban shift, as indicated by the increase in urban areas; the percentage of the population living in rural areas fell from 83% to 73% from 1995 to 2005.

The last census identified 47 distinct ethnic groups. The ethnic Lao comprise 52.5% 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 available for multiple reasons, including remoteness, lower education levels, land that is less agriculturally productive, increasing land pressure and limited rural health care services. Ethnic diversity presents a major challenge in health care delivery and education, due to cultural and linguistic barriers. Women have lower literacy rates and girls have lower school completion rates. These gaps are accentuated in the rural and highland areas, where poverty is highest. There is some evidence of decreased treatment-seeking behaviour among women when ill.

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 infant mortality rate (deaths per 1000 live births) declined from 137 to 70 from 1990 to 2005. Over the same period, the maternal mortality ratio (deaths per 100 000 live births) fell from 750 to 400. The crude death rate (deaths per 1000 inhabitants) also declined, from 15.1 to 9.8, the total fertility rate (average number of children per women) from 5.0 to 4.5, and the crude birth rate (number of births per 1000 inhabitants) from 36.6 to 34.3. Meanwhile, life expectancy at birth rose by 10 years in a decade, from 51 years in 1995 to 61 in 2005. Female life expectancy is slightly higher than that of males.

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 People's Revolutionary Party (LPRP) through five-yearly Party Congresses, the Politburo and the Central Committee. The VIIIth Party Congress was held in early 2006. A National Assembly (NA) election was held in April 2006, with competition among a group of LPRP-approved candidates and outstanding participation by the population. The National Assembly, the main legislative organ, is composed of 115 members, of which 29 are women; 113 are LPRP members. The NA elected a new President, Lt. Gen. Choummaly Sayasone, in June 2006. At the same time, a new Prime Minister, Mr Bouasone Bouphavanh, was appointed by the

President for a five-year term, with the approval of the NA. 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.

Until January 2006, the country was composed of 16 provinces and one special administrative zone under military administration. In early 2006, the special administration status of Xaysomboune region was removed and the concerned districts allocated to Xiengkhouang and Vientiane provinces.

1.3 Socioeconomic situation

The Lao People's Democratic Republic ranks 133rd out of 177 nations on the Human Development Index (2004). Literacy has improved in the last decade, attaining 74% in the population above 15 years of age in 2005, compared with 60% in 1995. Schooling has improved for children from 6 to 16 years of age, but boys still have higher attendance 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 39.0% in 1997 to 33.5% in 2002. Poverty is higher in remote and highland areas and inversely correlates with road or river access. Compared with international standards, 74% of the population lives on less than PPP US$ 2 a day and 27% on less than PPP US$ 1 a day. Inequalities remain important, with the shares of the national economy of the lowest and highest quintiles being 8.1% and 43.3%, respectively.

The World Bank estimated that per capita gross national income was US$ 460 in 2005, with 7% economic growth. Agriculture makes up 45% of gross domestic product (GDP), industry (mainly hydropower, mining, and textiles) 29%, and services 26%. Revenue collection remains low at 13.2% of 2004 GDP, causing constraints on public expenditure. External debt remains high at 101% of GDP.

1.4 Vulnerabilities and hazards

Locked between Thailand, Viet Nam, China and Myanmar, the Lao People's Democratic Republic is facing major challenges as the country opens up to external influences. Despite its low level of prevalence, the HIV/AIDS epidemic is gaining attention. The latest round of surveillance (2004) showed accelerated transmission among sex workers in two of the 17 provinces.

Until early 2007, there had been only limited reported outbreaks of avian influenza in poultry and no human cases of infections with H5N1 virus in the country. However, in early 2007, the country faced a series of outbreaks in poultry and its first two human cases of H5N1.

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 not robust or universal. Therefore, many of the most reliable indicators are from national surveys, most of which were conducted in 2000 and reported in 2001. A national census was conducted in 2005 and official results were published in 2006. They showed important improvements in the maternal mortality ratio, the crude death rate, the total fertility rate, the crude birth rate and other macro indicators. A Reproductive Health Survey (RHS) was also conducted in 2005; the final results are expected to be published in mid-2007. In addition, a Multiple Indicator Cluster Survey (MICS) was conducted in early 2006, with results expected in 2007. The results of these two last exercises, when available, will update many health indicators. There is a general perception that there will be further improvements in many areas.

The Lao People's Democratic Republic is a low-HIV-prevalence country, with an estimated adult seroprevalence of 0.1% and 1827 HIV-positive individuals detected since 1993, 60% of them male. Based on cumulative HIV case reports, more than 77% of those infected are between the ages of 20 and 39 years. Preliminary results from a second round of second-generation surveillance have shown HIV-positive seroprevalence in female sex workers increasing from 0.9% in 2001 to 2% in 2005. Chlamydiosis 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 appears to be increasing. While the incidence rate was 96.9 cases per 100 000 inhabitants in 2005, dengue outbreaks accounted for a total 6356 cases (5556 cases of dengue fever and 800 cases of dengue haemorrhagic fever/shock syndrome) in 2006. This represents an increase to an incidence of 110.6 cases per 100 000 inhabitants, using the Census 2005 population projections at mid-year. Dengue appears to be moving peripherally, with cases recorded in smaller population centres in recent years.

Until early 2007 there had been only limited reported outbreaks of avian influenza in poultry and no human cases of infections with the H5N1 virus in the Lao People's Democratic Republic. However, in February 2007, the Ministry of Agriculture confirmed an outbreak in commercial poultry farms and backyard poultry in Vientiane capital. Since then, other outbreaks in poultry have been reported and confirmed from four other provinces in the north, centre and south of the country. Control activities targeted at poultry have been conducted successfully and passive surveillance has been reinforced.

The country's first two human cases of avian influenza infection were also confirmed in early 2007; both fatal. The first reported case was a 15-year-old girl from Vientiane capital, and the second a 42-year-old woman from Vientiane province. Both cases had a recent history of poultry exposure. Public health activities for avian influenza have intensified since the first case was confirmed. There is now a health care facility-based AI surveillance system in place. At the national level, as well as in several provinces, there are telephone alert numbers for the reporting of suspected human AI 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.

2.3 Leading causes of mortality and morbidity

Malaria is considered the leading cause of morbidity and mortality, with 70% of the population at risk. This assumption is still made despite the availability of recent data on other major sources of morbidity. For 2006, the total number of reported cases of malaria fell to 24 253, corresponding to an incidence rate of 432 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) have been protected with bed nets since the end of 2005. The numbers of probable and confirmed malaria deaths in hospitals have decreased, from 187 (2001) to 21 (2006). Annual incidence of uncomplicated malaria (probable and confirmed) per 1000 population decreased from 5.5 in 2003 to 3.08 in 2006. Artemesinen-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 from 1995 to 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 97.6 (est. census 2005) deaths per 1000 live births. The IMR varies a great deal between provinces, with the lowest rate in Vientiane Capital (18) and the highest in Sekong (122). Compared with national figures, Vientiane Capital accounts for only 26% of the country's infant mortality, while Sekong's mortality rate is 183% higher than the national average. The National Health Survey showed children had a two-week fever incidence of

2.9%, ARI incidence of 3%, and diarrhoea incidence of 6.2%. The same survey revealed the rate for delivery by a trained birth attendant was 21%, delivery in a health facility 12%, and completed immunizations from age 12-23 months 32%. The rate for modern contraceptive use is 28.9% (2000). Safe water access is available to 51% of the population and improved sanitation to 30% (2004).

2.5 Burden of disease

Tuberculosis prevalence was estimated at 74 smear-positive per 100 000 population in 2005; 2806 new smear-positive cases were reported in 2005, an increase from 2241 in 2004. The DOTS programme reaches 100% of districts. The estimated smear-positive case detection rate under DOTS was 68% and the treatment success rate 86% in 2005.

The most recent data show an intestinal helminth prevalence rate of 62% (2002) among schoolchildren. A project to scale up school deworming nationally began in 2005. There is evidence to show that schistosomiasis has begun to re-emerge in southern parts of the country since control programmes ended.

Road accidents are of rising concern as traffic and the speed of vehicles due to road improvements increase. Mental health issues, particularly drug abuse, are also a growing concern. Other mental health issues and neurological diseases issues include management of seizure disorders and psychoses.

Nutrition is a neglected area, with 40% of children stunted and 48.2% of children and 31.3% of females with haemoglobin levels below 11 g/dl. Universal salt iodization misses at least 7% of children, and vitamin A supplementation is far from universal. The rate of exclusive breast-feeding at three months of age is only 28.1%.

There are no official national data available on risk factors for noncommunicable diseases. The national authorities are planning to conduct a STEPwise approach Survey (STEPS) to assess such risk factors in 2007, with WHO support.

Tobacco and alcohol consumption remain a concern, although no actual numbers on consumption and the effect on public health are available. The Government has taken note of the related risks and has taken steps towards prevention and control of alcohol and tobacco consumption. Major legal steps were taken in 2006 towards tobacco consumption control when the country ratified the International Framework on Tobacco Control. A series of regulations were also passed regarding health warnings on cigarette packs, import of tobacco and smoke-free areas at the national university.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The health priorities of the Lao People's Democratic Republic are articulated in three documents: (i) The *Health Strategy to the Year 2020*; (ii) the *Lao Health Master Planning Study*; and (iii) The *National Growth and Poverty Eradication Strategy (*NGPES). The principles and visions of these documents have been included in the *Sixth National Socio Economic Development Plan (2006-10)* (see paragraph 3.3)

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 led 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 good 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 extremely project-oriented 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 MCH 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 the quantity improvement that has been emphasized over the last five years.

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, around 1865 private pharmacies and 254 private clinics, mainly in urban areas. The state system is underutilized, especially in the peripheral areas. In an effort 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 Lao 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 health care service provision remains the public system. Its health facilities consisted of four central teaching and referral hospitals; five regional hospitals, including one teaching hospital; 13 provincial hospitals; 127 district hospitals, and about 746 health centres in 2005. District hospitals are further classified into categories A and B, category A meaning facilities that have surgical capacity, unlike category B hospitals. The total number of hospital beds was 5081 in 2005, which is 0.9 beds per 1000 inhabitants.

3.3 Health policy, planning and regulatory framework

The Ministry of Health, with support from the Japan International Cooperation Agency (JICA), conducted the Lao Health Master Planning Study in 2001/2002. The study identified seven 'precedent programmes' to be implemented and 31 'very high priority' programmes in the fields of planning and management, human resources development, health financing, health education, infectious disease control, primary health care, maternal and child health, nutrition, hospital services, medical laboratory technology, and essential drugs. The need for sectorwide coordination was emphasized in the document, and initial steps toward such coordination have been made since 2005 with the support of the Sector-wide Coordination Project, financed by the Japanese Government in close collaboration with major donors, WHO and other health sector United Nations agencies.

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; improving and upgrading the capacity of health workers from village to post-graduate level, with an emphasis on ethnic minorities, gender balance, and incentives for retaining health workers in shortage areas; 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 integration with modern medical treatment; and strengthened sustainability, including in financing, management, quality assurance and legal framework.

To a large extent, all health policy documents are superseded by the *Sixth National Socio Economic Development Plan (2006-10)* (NSEDP). The NGPES has been fully integrated into the draft 6th NSEDP and serves as its core. The NSEDP was presented to and discussed widely with both

internal and external partners. There remains a large funding gap for implementation of the 6th NSEDP in all sectors, including health. Despite the constant fall in health expenditure as a share of 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.

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

3.4 Health care financing

Estimated per capita health expenditure is US$ 12, about 60% from households, 30% from donors and 10% from the Government. Hospitals are highly dependent on user-fees for recurrent expenditure. There are nascent health insurances systems for the formal and non-formal sectors and a civil service scheme is being reformed. Equity funds are under discussion and limited piloting has occurred.

Health expenditure made up 4.6% of total government spending in 2005, against a targeted 5.7%. Donor spending is planned to make up 73.1% of total public sector health spending in 2005 (official final numbers still need to be published). 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 similar challenges as all low-income countries in the world regarding human resources for health: underfunding of salaries and wages, maldistribution of qualified staff among geographical areas and health system levels, limited numbers of qualified health workers, and low staff productivity.

The country faces 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. This includes regular staff (civil servants) under the Ministry of Public Health as well as contractual staff. It also includes health workers who are under the two ministries that also manage non-public health facilities, the Ministry of Defence and the Ministry of Public Security. Only 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 midwifes with more than two years of formal training, account only for 23% (4123, i.e. 0.74 workers per 1000 inhabitants).

Fewer 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. District-level facilities account for the majority of health workers. However, the bulk of the staff at district level are mid- and low-level (88%), with physicians representing only 6% of district-level staff. Health centres are almost totally served by low- (81%) and mid-level (18%) staff. There are only eight doctors working in health centres.

Maldistribution of staff among geographical areas and different levels of facility accentuates the crisis. There are only 2992 regular high- and mid-level medical staff at health facility level, corresponding to 0.53 workers per 1000 inhabitants, which is far below the recommended WHO target of 2.5. These workers tend to be concentrated in regions that are better-off socioeconomically to cope with the limitations of their salaries and wages. Rural areas, were living conditions are difficult, are not attractive to newly trained competent workers.

Compared with international standards, the productivity of health workers in the Lao People's Democratic Republic could be considered low, mainly due to a lack of financial and material incentives (the average annual salary for health workers in 2005 was estimated to be US$ 405). This forces them to rely on coping strategies and secondary occupations. This 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.

3.6 Partnerships

The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFTAM) has been a major contributor in the country, with more than US$ 45.5 million in grants allocated between 2003 and 2006, mostly to reduce the malaria disease burden (US$ 27.2 million). In 2006, the Lao People's Democratic Republic submitted proposals for the GFTAM round 6. Two were assessed positively by the Technical Review Panel of the Fund. They will mobilize approximately an additional US$ 9 million to fight HIV/AIDS and US$ 5 million to fight malaria.

Since 2002, the Global Alliance for Vaccination and Immunization (GAVI) has supported the country in immunization services and introduction of new vaccine. This support has included the rolling out of DTP-HepB tetravalent vaccine to all districts (by 2004), along with injection-safety improvements. The five-year estimated GAVI commitment for the country (2002-2007) is currently US$ 7.1 million.

Other major health sector development partners and donors include: the Asian Development Bank, the World Bank, Japan, Luxembourg and France. Avian influenza preparedness has also benefited from support from Australia, the European Union and the United Stated of America.

Most of the United Nations funds and specialized agencies are represented in the Lao People's Democratic Republic. In 2006, the United Nations Country Team finalized the 2007-2011 United Nations Development Assistance Framework (UNDAF) with the national authorities, based on the Common Country Assessment conducted in 2005. WHO led the health working group for the preparation of these documents. The UNDAF will be the leading guideline for United Nations Country Team action in the future.

3.7 Challenges to health system strengthening

Underfinancing in the health sector is placing a major burden on the management and implementation of health system's national policies for prevention and care. Efforts begun in previous decades to improve primary health care and respond to the demands of the population are still ongoing.

Financial barriers to service access are important, which is not surprising in a country were around 70% of the population lives on less then US$ 0.4 a day. Risk-pooling and prepayment has been introduced through social security for the formal sector, and health insurance for the public sector. Voluntary community schemes have been piloted and are now 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 stills need to be adopted and implemented, despite major efforts in recent years. For the poor, the Government has decided to pilot health equity funds to replace the former exemption policy, which has proved to be inefficient. The sustainability of these funds remains questionable and their nationwide implementation will require national commitment and external resources.

The main network for health care service provision remains the public system. There were a total of 5018 hospital beds in 2005, or 0.9 beds per 1000 inhabitants. The shortage of health workers is evident when the ratio of health workers per bed is analysed. This situation is worsened 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 was not a very high doctors to nurses 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 performance 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. This 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* in November 2006. A task force was created to elaborate a country action plan for implementation of this declaration and ensure harmonization and alignment among the signatories. The implementation of this action plan in all sectors, including the health sector, will require major effort and goodwill on both the government and donor side.

Health information from surveillance and surveys still needs to be framed by national policy. WHO, and recently the Health Metrics Network, has supported the Government in developing a new health information system from village to district and provincial level. This system has been discussed widely with major donors and project implementers nationwide. It has been adopted by the World Bank and ADB as a part of their support actions in the south and north of the country. However, nationwide implementation of the system still needs to take place and the system needs to be evaluated. Further, other aspects of the system still need to be reinforced, such as vital registration and information collection and analysis. 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, like vaccinations, have been the centre of a major focus by the Ministry of Health in the last year. 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, the implementation of this 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
Features	:	Includes the latest available official demographic data for Lao People's Democratic Republic
Web address	:	http://www.nsc.gov.la/PopulationCensus2005.htm
	:	
Title 2	:	*Lao Info 4.1*
Operator	:	National Statistics Centre
Features	:	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*
Features	:	Includes most recent links and documents produced by the World Bank on Lao People's Democratic Republic
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 People's Democratic Republic
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 People's Democratic Republic and the United Nations System
Web address	:	http://www.undplao.org/

5. ADDRESSES

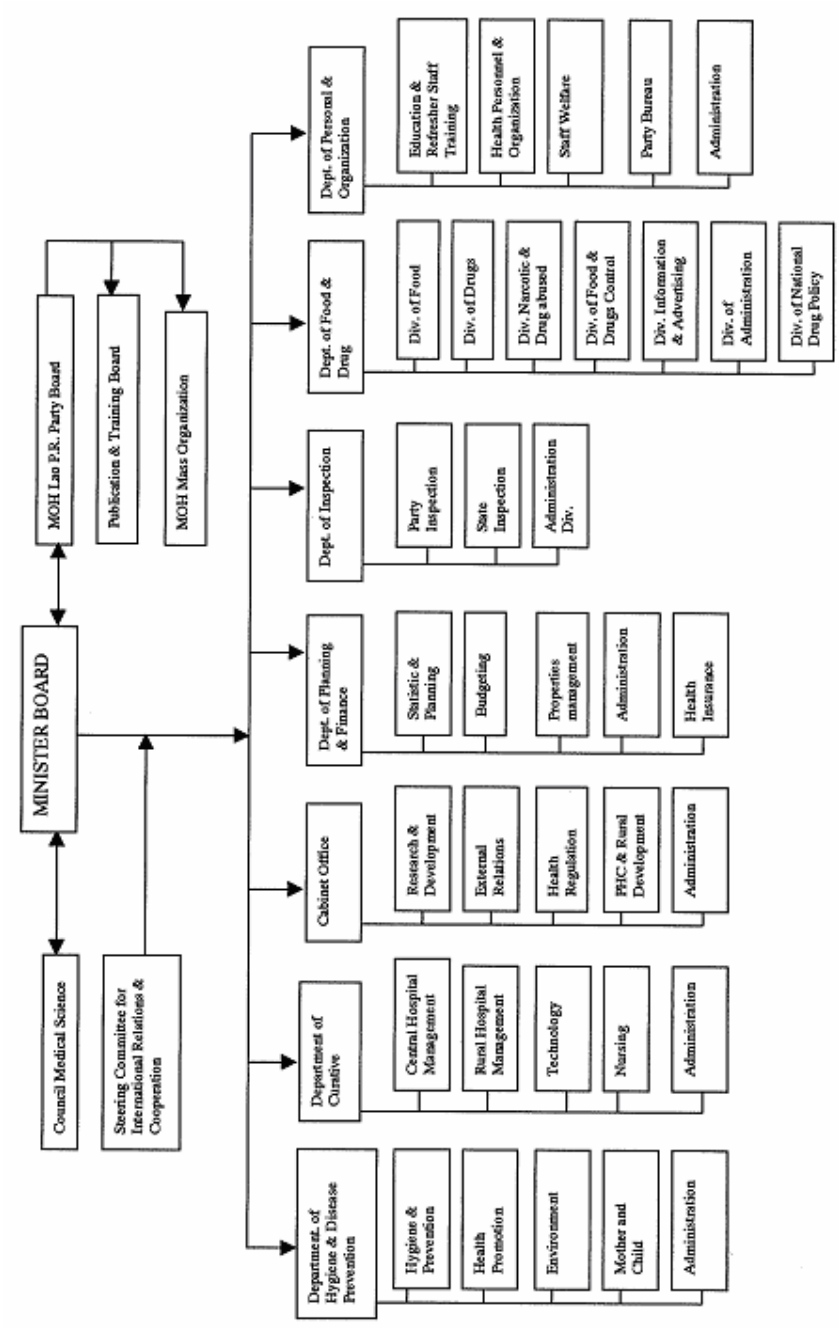
MINISTRY OF HEALTH

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

WHO REPRESENTATIVE IN THE LAO PEOPLE'S DEMOCRATIC REPUBLIC

Office Address	:	That Luang Rd., Ban Phonxay, Vientiane, Lao People's Democratic Republic
Postal Address	:	P.O. Box 343, Vientiane, Lao People's Democratic Republic
Official Email Address	:	who.laos@lao.wpro.who.int
Telephone	:	856 (0)21 413431, 414264
Fax	:	856 (0)21 413432
Office Hours	:	7:30 a.m. – 4:00 p.m.
Website	:	www.undplao.org

6. ORGANIZATIONAL CHART: Ministry of Health



LAO PEOPLE'S DEMOCRATIC REPUBLIC

WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	236.80			2005	1
2	**Estimated population** ('000s)	5621.00 [i]	2800.00 [i]	2821.00 [i]	2005	1
3	**Annual population growth rate** (%)	2.10	...	...	1995-2005	1
4	**Percentage of population**					
	- 0–4 years	12.45	12.56	12.33	2005	1
	- 5–14 years	26.56	27.44	26.67	2005	1
	- 65 years and above	4.00	4.00	4.00	2005	1
5	**Urban population** (%)	27.10	...	...	2005	1
6	**Crude birth rate** (per 1000 population)	34.30	...	...	2005	1
7	**Crude death rate** (per 1000 population)	9.80	...	...	2005	1
8	**Rate of natural increase of population** (% per annum)	2.77 [a]	...	...	2000	2
9	**Life expectancy** (years)					
	- at birth	61.00	59.10	63.00	2005	1
	- Healthy Life Expectancy (HALE) at age 60	...	9.60	10.10	2002	3
10	**Adult literacy rate** (%)	74.00	85.00	64.00	2003	4
11	**Neonatal mortality rate** (per 1000 live births)	36.20	...	...	2000	2
12	**Infant mortality rate** (per 1000 live births)	70.00	...	...	2005	1
13	**Under-five mortality rate** (per 1000 live births)	97.60	...	...	2005	1
14	**Total fertility rate** (women aged 15–49 years)	4.50			2005	1
15	**Maternal mortality ratio** (per 100 000 live births)	405.00			2005	1
16	**Percentage of newborn infants weighing at least 2500 g at birth**	82.00	...	...	1998	5
17	**Prevalence of underweight children under five years of age**	40.00	...	...	2000	6
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	96.00	...	...	2006	18
	- DTP3	81.00	...	...	2006	18
	- POL3	80.00	...	...	2006	18
	- Measles	70.00	...	...	2006	18
	- Hepatitis B III	57.00	...	...	2006	18
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	23.00			2000	2
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	32.00			2006	18
	- Percentage of deliveries attended by skilled health personnel	21.00			2000	2
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	9.00			2004	8
	- Percentage of deliveries in health facilities (as % of total deliveries)	12.00			2000	2
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			28.90	2000	2
23	**Condom use rate of the contraceptive prevalence rate**	0.50	...	...	2000	2
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	51.00	79.00	43.00	2004	9
27	Proportion of population with access to improved sanitation	30.00 [i]	67.00 [i]	20.00 [i]	2004	9
28	Proportion of the population using solid fuels (%)	>95.00	...	...	2002	10
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.55	2004	13
33	**Per capita GDP at current market prices** (US$)			460.00	2005	11
34	**Rate of growth of per capita GDP** (%)			5.10	2005	11
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			103.43	2005p	14
	- total expenditure on health as % of GDP			3.60	2005p	14
	- per capita total expenditure on health (in US$)			17.46	2005p	14
	Government expenditure on health					
	- amount (in million US$)			20.93	2005p	14
	- general government expenditure on health as % of total expenditure on health			20.20	2005p	14
	- general government expenditure on health as % of total general government expenditure			4.60	2005p	14
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			11.30	2005p	14
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			79.80	2005p	14
	Exchange rate in US$ of local currency is: 1 US$ =			10 655.2	2005p	14
36	**Health insurance coverage as % of total population**			<2.00	2005	12

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	1283	...	...	...	...	2.26	...	...	...	...	2005	15
	- dentists	83	...	...	...	...	0.15	...	...	...	...	2005	15
	- pharmacists	276	...	...	...	...	0.49	...	...	...	...	2005	15
	- nurses	5291 [b]	...	...	...	...	9.32	...	...	...	...	2005	15
	- midwives	...	...	...	...	...	...	...	...	...	...		
	- other nursing / auxiliary staff	8183 [c]	...	...	...	...	14.56	...	...	...	...	2005	15
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	1722	...	...	...	...	3.07	...	...	...	...	2005	15
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	429	...	...	...	...	0.76	...	...	...	...	2005	15
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	53	...	...								2005	15
40	**Yearly new graduates – nurses**	30 [d]	...	...								2005	15

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malaria	104 434	...	...	4083.17	...	...	2000	6
	2. Pneumonia	18 096 [g]	...	...	728.00 [g]	...	...	2000	6
	3. Gastritis	17 132 [g]	...	...	690.00 [g]	...	...	2000	6
	4. Influenza	12 987 [g]	...	...	523.00 [g]	...	...	2000	6
	5. Diarrhoea	12 334 [g,h]	...	...	496.49 [g,h]	...	...	2000	6
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malaria	996 [g]	...	...	40.09 [g]	...	...	2000	6
	2. Pneumonia	83 [g]	...	...	3.34 [g]	...	...	2000	6
	3. Diarrhoea	34 [g]	...	...	1.36 [g]	...	...	2000	6
	4. Heart failure	34 [g]	...	...	1.36 [g]	...	...	2000	6
	5. Injury	33 [g]	...	...	1.32 [g]	...	...	2000	6
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	NR	NR	NR	NR	NR	NR	2006	18
	- Diphtheria	2	...	...	...	...	...	2006	18
	- Hib meningitis	264	...	...	4	...	...	2005	7
	- Measles	58	...	...	...	...	...	2006	18
	- Mumps	NR	NR	NR	NR	NR	NR	2006	18
	- Neonatal tetanus	8	...	...	...	...	...	2006	18
	- Pertussis (whooping cough)	182	...	...	...	...	...	2006	18
	- Poliomyelitis	0	0	0	0	0	0	2006	18
	- Rubella	NR	NR	NR	NR	NR	NR	2006	18
	- Total Tetanus	17	...	...	...	...	...	2006	18
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	632	...	...	0	0	0	2002	18
	- Type A	10	...	...	0	0	0	2002	18
	- Type B	61	...	...	0	0	0	2002	18
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	453	...	...	0	0	0	2006	7
	Cholera	1272	...	...	...	...	...	2002	18
	Dengue/DHF	6356	...	...	6	3	3	2006	19
	Encephalitis	16	...	...	0	0	0	2005	7
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	140	...	...	...	...	...	2005	18
	Malaria	24 253	...	...	21	...	...	2006	16
	Plague	0	0	0	0	0	0	2005	7
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	1868	...	...	0	0	0	2006	16

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	308.00	...	...	0.37	...	...	2006	16
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						75.00	2006	16
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	3777	...	...	...	...	...	2005	18
	- New pulmonary tuberculosis (smear-positive)	2806	...	...	...	...	...	2005	18
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	306.00	...	...	24.00	...	...	2005	18
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	68.00	...	...	86.00	...	...		
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	155 [e]	...	...	3	...	...	2006	7
48	**Diarrhoeal diseases**	2828 [f]	...	...	2	...	...	2006	7
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
50	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
51	**Maternal causes**								
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	…	…	…	…	…	…		
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					22 [g]	2555	2005	15
	- Specialized hospitals					3 [h]	160	2005	17
	- District/first-level referral hospitals					127	2366	2005	17
	- Primary health care centres					746	1658	2005	17
	Private hospitals					0	0	2005	17

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Includes medical assistants
c	Corresponds to technical auxillary nurses (low level trained staff)
d	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.
e	Reporting started in June 2006
f	Includes severe diarrhoea and unspecified dysentery
g	Refers to tertiary hospitals (central, regional and provincial)
h	Refers to specialized hospitals at central level
i	Revised data

Sources:

1	*Population census 2005*. National Statistical Centre, 2006 - http://www.nsc.gov.la/PopulationCensus2005.htm .
2	*Lao reproductive health survey 2000.* National Statistical Centre 2001.
3	World health report 2004. *Changing history*. Geneva, World Health Organization, 2004.
4	*Lao expenditure and consumption survey 2002/03. National Statistical Centre, March 2004.*
5	*United Nations country indicators – Lao People's Democratic Republic.* Last amendment, 14 February 2000.
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7	*Weekly epidemiological surveillance report*, National Center for Labororatory and Epidemiology, January 2006
8	Report 2004. Mother and Child Centre of the Lao People's Democratic Republic.
9	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade.* Joint Monitoring Programme for Water Supply and Sanitation. *WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006].*
10	*Indoor air pollution: National burden of disease estimates.* World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
11	*Lao PDR economic monitor.* World Bank, November 2006.
12	Estimation furnished by WHO Representative in the Lao People's Democratic Republic, February 2006.

13	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis*. United Nations Development Programme, New York USA 2006. *[http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].*
14	National health accounts. World Health Organization. [http://www.who.int/entity/nha/country/MYS.pdf].
15	Information furnished by national Ministry of Health, Department of Personal and Organization.
16	Information furnished by national Center for Malariology, Parasitology and Entomology.
17	*Population and Housing Census Year 2005.* Preliminary report, National Statistics Centre, September 2005.
18	WHO Regional Office for the Western Pacific, data received from the technical units.
19	Information provided by National Center for Laboratory and Epidemiology through DengueNet, April 2007.

MACAO (CHINA)

1. CONTEXT

1.1 Demographics

With an annual growth rate of 5.8%, Macao (China) had a year-end estimated resident population of 513 427 in 2006, 49.2% male and 50.8% female; 14.7% of the population were aged 0-14 and 70% were 65 years and above.The population density was 17 952 persons per square kilometre, with the entire resident population urban dwellers.

In 2006, there were 4058 live births, up by 10.5% compared with 2005, while 1566 deaths were recorded, a decrease of 3.0%. The natural growth rate for the same year was 0.5%, with a crude birth rate of 8.1% and a crude death rate of 3.1%. The infant mortality rate was 2.7% and the under-five mortality rate 3.2%, while the total fertility rate was 0.9 birth per woman (aged 15-49), with no recorded maternal mortality. Life expectancy at birth for males was 77.6 years in 2005, and 82.3 years for females.

Besides natural increases, migration flow is another important factor in determining population growth. In 2006, an estimated inflow of 27 585 persons was recorded, including legal and illegal immigrants from Mainland China, persons authorized to reside in Macao and non-resident workers.

1.2 Political situation

Macao became the Macao Special Administrative Region (SAR) of China on 20 December 1999, entering a new era in its development with the return of its administration to China. Under the principle of "one country, two systems" articulated in the Basic Law of Macao, Macao (China) will continue to enjoy a high degree of autonomy with its present political, judicial, social, cultural and economic systems for the next 50 years.

The Chief Executive of Macao (China), Edmund Ho Hau Wah, was appointed by the Central Government of the People's Republic of China. 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

Macao's economy settled down to sustainable and solid growth in 2005 after rapid expansion in 2004. The real growth rate of gross domestic product (GDP) resumed a normal pace at 6.9%, and per capita GDP rose by 2.7% in 2005. The prosperity of the gaming and tourism sector brought about a large amount of investment, which soared on the back of the construction of gaming and tourism facilities and became an impetus for economic growth. An improvement in the residents' employment situation and a rise in income stimulated private consumption. Exports of services continued to be bolstered by growth in the number of tourists from Mainland China. On the other hand, the cancellation of the global textile and garment quota system and a weak economy in the Euro Zone resulted in a fall in exports.

The health expenditure share of GDP was 2.6% in 2005, higher than the 2.5% in 2004, with government expenditure accounting for 70%.

Macao has maintained sound economic and trade relations with more than 120 countries and regions, particularly with the European Union and Portuguese-speaking countries.

In 2006, the total local labour force was estimated to be 277 052, of which 266 675 were employed, giving an unemployment rate of 3.7%, down by 0.4% compared with 2005; the underemployment rate also decreased by 0.4 percentage point to 1.0%.

1.4 Vulnerabilities and hazards

Macao is located at the Pearl River Delta of the southeastern coast of Mainland China. It is humid and rainy in spring and summer, while in autumn and winter the relative humidity and rainfall drop. The rainy season is normally between April and September. Rain can be particularly heavy and persistent from May to August, causing severe traffic disruption and occasionally major floods and landslides. Waterspouts can be seen occasionally. In 2005, there were 140 rainy days recorded, with a total rainfall of 1899 mm, 235 mm less than the 30-year average value observed from 1971 to 2000. The typhoon season runs from May to October, with the highest frequency from July to September. During 2006, two tropical storms, one severe tropical cyclone and one typhoon were recorded.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Having gone through the process of a 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 in 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. Incidence of HIV/AIDS is increasing.

2.2 Outbreaks of communicable diseases

There was a dengue fever outbreak in 2001. Outbreaks of influenza and norovirus gastroenteritis occur from time to time.

2.3 Leading causes of mortality and morbidity

In 2006, cancer was the leading cause of mortality; it was followed by hypertension and hypertensive renal disease; heart diseases; pneumonia; bronchitis, emphysema and asthma; nephritis, nephrotic syndrome and nephrosis; suicide; cerebrovascular diseases; accidents and noxious effects; and septicaemia. Among the 1566 deaths, 33.5% were attributable to neoplasms, 24.3% to diseases of the circulatory system and 13.9% to diseases of the respiratory system.

In terms of causes of morbidity, the top three most common notifiable diseases in 2006 were varicella (53.0%), enterovirus infection (26.3%) and tuberculosis of the lung (9.7%).

Morbidity and mortality from most vaccine-preventable communicable diseases have remained very low for many years. There is no risk of malaria, but dengue fever occurs sometimes. The hepatitis B carrier rate among adults is around 11.5%, and is less than 1% among vaccinated children. HIV/AIDS prevalence remains low at less than 0.1%.

2.4 Maternal, child and infant diseases

Maternal, child and infant care services are available in all health centres, half of them with prenatal ultrasound examination equipment. More than 95% of pregnant women receive prenatal care and almost 100% of births are in hospital. No maternal deaths were recorded during the period from 1992 to 2006. Diarrhoea among infants and children is common, but rarely causes death.

2.5 Burden of disease

A study in 1999 indicated injuries and intoxication and cancer as the leading causes of potential years of life lost (PYLL) in Macao.

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 health of the population.

In the future, the Government will continue to implement its policy of "a sound health care system and putting prevention first". In particular, it focuses on promoting health education, disease-prevention awareness and a healthy lifestyle.

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 the Conde S. Januário Hospital, which provides specialist medical services. The latter include medical entities subsidized by the Government and other institutions, such as Kiang Wu Hospital, the Workers' Clinic and Tung Sin Tong Clinic, as well as various private clinics and laboratories.

To realize the objective of "Health for All", Macao's health authorities have established a primary health care network with health centres as the operational units offering all Macao 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.

3.3 Health policy, planning and regulatory framework

The health authorities continue to address their policy agenda and to proceed with their proposed plans, consolidating external medical cooperation and communication and actively developing collaboration with WHO on traditional medicines, as well as promoting cooperation between government, non-profit and private medical clinics, thus raising overall medical capacity and efficacy At the same time, through revision of legislation, they are strengthening infrastructures and ensuring a sound medical and health system; optimizing a full range of medical services; enhancing prevention and control activities for public health, as well as health promotion; training staff etc. Their aim is to create a favourable environment for medical consultation and to ensure that residents have a satisfying and convenient community medical care service, hence strengthening public health and improving the quality of life of the population.

3.4 Health care financing

The Government attaches great importance to the resources allocated to medical and health care. In 2005, it spent US$ 212 million on related services, up by 19.8% from the US$ 177 million in 2004.

The medical services provided by health centres and the Tung Sin Tong Clinic are basically free of charge. All legal residents of Macao, regardless of age or occupation, are entitled to free services at health centres (except for the physical check-ups required for driving licence applications or renewals) and supplementary check-ups at Conde S. Januario 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

In 2006, there were 1149 physicians, 391 traditional Chinese medicine doctors, 166 dentists and 1212 nurses, equivalent to a physician-to-population ratio of 1:434, a traditional Chinese medicine doctor-to-population ratio of 1:1276, a dentist-to-population ratio of 1:3005 and a nurse-to-population ratio of 1:412.

In order to update health care and medical technology and to raise the standard of medical services, the Government devotes considerable resources to medical and health care workers every year, supporting external training for health personnel and inviting relevant professionals and experts to give lectures and supervise health service operations. In 2005, a total of 102 training courses were held, 71 of them overseas training activities, and 121 staff, including doctors, nurses, administrative staff, and diagnostic and therapeutic technicians, were sent to Australia, China, France, Hong Kong (China), Malaysia, Portugal, Republic of Korea, Singapore, Switzerland and Taiwan (China), among others.

Continuing the Cardiology Intervention Programme and the Cardiac Surgery Development Programme established in 2004, the Health Bureau has sent a number of doctors and nurses to China, Portugal and Singapore for training on cardiac surgery, cardiology interventions, cardiac anesthesia and perfusion, and peri-operative and post-operative care.

3.6 Partnerships

The health system is mainly financed by the Government. On 8 January 2005, the Dr Stanley Ho Medical Development Foundation was launched, with the objective of further improving the standards of medical services in Macao. The Foundation sponsors Macao doctors to receive professional and continuing medical education.

In 2005, the Government signed the Memorandum of Understanding in the Area of Health with the Ministry of Health of Singapore. Promoting deeper collaboration in medical research, closer exchange of medical information and strengthening training and continuing education for medical personnel will benefit both.

In addition, on 21 October 2005, a Cooperation Agreement on a Response Mechanism for Public Health Emergencies was signed between China's Ministry of Health, Hong Kong (China) and Macao, establishing a cooperation mechanism for the prevention and control of emergency public health incidents and enhancing collaboration in training and scientific research.

3.7 Challenges to health system strengthening

Accompanied by rapid economic growth and dramatic social change, health care and medical demand is increasing with the growing population, rising birth rate, ageing population and enormous in-flow of travellers. During 2001 and 2005, the total number of primary health care consultations increased from 414 583 to 427 645, while the total number of consultations in the outpatient department in Conde S. Januário Hospital jumped from 175 360 to 251 676, up by 43.5%. The number of registered patients reached 342 244 in 2005.

The Health Bureau has implemented the Priority-Based Waiting List System and the Triage Scale in Accident and Emergency departments to guarantee patients timely treatment. In addition, the health authorities have made sustainable efforts to improve medical facilities, merging departments and divisions, recruiting medical personnel and health care workers, restructuring land use and seeking other means to shorten waiting times in outpatient clinics.

The Health Bureau refers necessary cases to receive treatment in neighbouring regions, pursuant to laws and legislations. With the continuous progress and development in medical equipment and techniques in Macao, accompanied by closer cooperation with Kiang Wu Hospital, the majority of cases are currently referred to Kiang Wu Hospital.

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 of Macao
Web address	:	http://www.dsec.gov.mo/index.asp?src=/english/indicator/e_dem_indicator.html
Title 2	:	*Principal statistical indicators*
Operator	:	Statistics and Census Service
Specification	:	Provides principal statistical indicators of Macao.
Web address	:	http://www.dsec.gov.mo/index.asp?src=/english/indicator/e_piem_indicator.html
Title 3	:	*2006 Macao in figures*
Operator	:	Statistics and Census Service
Specification	:	Includes latest general information
Web address	:	http://www.dsec.gov.mo/index.asp?src=/english/indicator/e_mn_indicator.html

5. ADDRESSES

HEALTH BUREAU

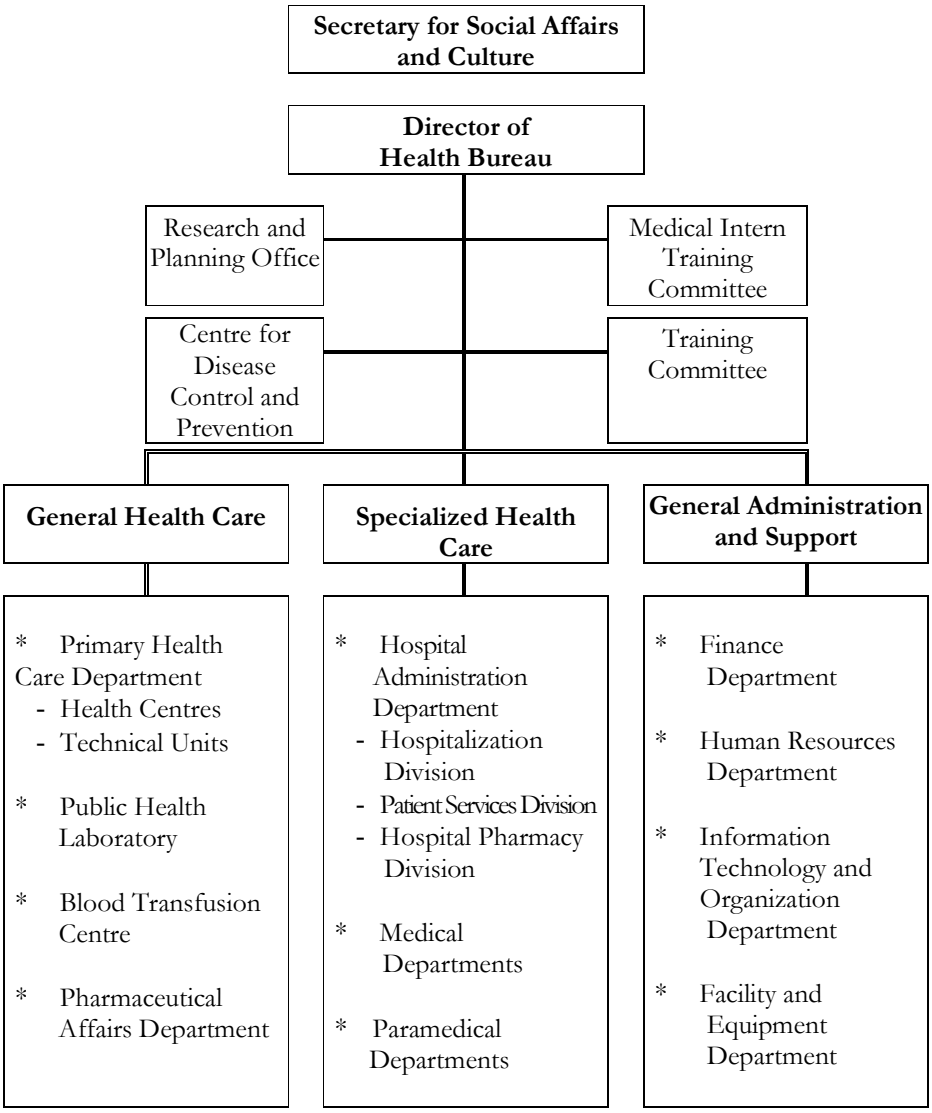
Office Address	:	Estrada do Visconde de S. Januário, Macau
Postal Address	:	Caixa Postal 3002 – Macau
Official Email Address	:	seg@ssm.gov.mo
Telephone	:	(853) 28313731
Fax	:	(853) 28713105
Website	:	http://www.ssm.gov.mo

WHO REPRESENTATIVE

There is no WHO Representative in Macao (China). Queries about the WHO programme of collaboration with Macao (China) should be directed to:

Postal Address	:	Director, Programme Management World Health Organization Regional Office for the Western Pacific United Nations Avenue, P.O. Box 2932, 1000 Manila, 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: Health Bureau



MACAO (CHINA) — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.03			2006	1
2	**Estimated population** ('000s)	513.43 [a]	252.48 [a]	260.95 [a]	2006	1
3	**Annual population growth rate** (%)	5.84	...	...	2006	1
4	**Percentage of population**					
	- 0–4 years	3.30	3.50	3.10	2006	1
	- 5–14 years	11.40	12.00	10.90	2006	1
	- 65 years and above	7.00	6.20	7.80	2006	1
5	**Urban population** (%)	100.00	100.00	100.00	2006	1
6	**Crude birth rate** (per 1000 population)	8.10	...	...	2006	1
7	**Crude death rate** (per 1000 population)	3.10	...	...	2006	1
8	**Rate of natural increase of population** (% per annum)	0.50	...	...	2006	1
9	**Life expectancy** (years)					
	- at birth	79.40	77.60	82.30	2002-05	1
	- Healthy Life Expectancy (HALE) at age 60	...	...	...		
10	**Adult literacy rate** (%)	93.50	96.50	90.70	2006	1
11	**Neonatal mortality rate** (per 1000 live births)	1.72	1.89	1.54	2006	1
12	**Infant mortality rate** (per 1000 live births)	2.71	2.84	2.57	2006	1
13	**Under-five mortality rate** (per 1000 live births)	3.20	3.31	3.08	2006	1
14	**Total fertility rate** (women aged 15–49 years)	0.95			2006	1
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2006	1
16	**Percentage of newborn infants weighing at least 2500 g at birth**	92.88	93.61	92.08	2006	1
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	4
	- DTP3	90.00	...	...	2006	4
	- POL3	92.00	...	...	2006	4
	- Measles	90.00	...	...	2006	4
	- Hepatitis B III	90.00	...	...	2006	4
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2006	2
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	68.00			2003	2
	- Percentage of deliveries attended by skilled health personnel	100.00			2006	1
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.00			2006	1
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00			2006	1
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			...		
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			0.00	2006	2
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	100.00	100.00	NR	2006 est	1
27	Proportion of population with access to improved sanitation	100.00	100.00	NR	2006 est	1
28	Proportion of the population using solid fuels (%)	…	…	…		
29	Proportion of households with access to secure tenure	99.60			2006	1
30	**Proportion of vehicles using unleaded gasoline** (%)	…	…	…		
31	**Health care waste generation** (metric tons per year)	7494.36 [b]	…	…	2006	1
32	**Human development index**			0.91	2004	1
33	**Per capita GDP at current market prices** (US$)			24 369.00	2005	1
34	**Rate of growth of per capita GDP** (%)			2.70	2005	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			303.00	2005	1
	- total expenditure on health as % of GDP			2.60	2005	1
	- per capita total expenditure on health (in US$)			620.72	2005	1
	Government expenditure on health					
	- amount (in million US$)			212.00	2005	1
	- general government expenditure on health as % of total expenditure on health			70.00	2005	1
	- general government expenditure on health as % of total general government expenditure			8.02	2005	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			30.00	2005	1
	Exchange rate in US$ of local currency is: 1 US$ =			8.01	2005	3
36	**Health insurance coverage as % of total population**			…		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	1540 [c]	906	634	356	1184	30.87	37.28	24.78	7.14	23.73	2006	2
	- dentists	166	121	45	12	154	3.33	4.98	1.76	0.24	3.09	2006	2
	- pharmacists	170	62	108	…	…	3.41	2.45	4.13	…	…	2006	2
	- nurses	1212	67	1145	735	477	24.30	2.76	44.75	14.73	9.56	2006	1
	- midwives	…	…	…	…	…	…	…	…	…	…		
	- other nursing / auxiliary staff	686	217	469	…	…	14.17	9.29	18.71	…	…	2005	1
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	455	223	232	…	…	9.40	9.55	9.25	…	…	2005	1
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	733	251	482	…	…	15.14	10.75	19.22	…	…	2005	1
38	**Workforce losses/ attrition**	…	…	…									
39	**Yearly new graduates - physicians**	…	…	…									
40	**Yearly new graduates – nurses**	…	…	…									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Varicella (chickenpox)	2067	1110	957	414.35	456.77	374.06	2006	1
	2. Enterovirus infection	1023	594	429	205.07	244.44	167.68	2006	1
	3. Tuberculosis of lung	379	255	124	75.97	104.93	48.47	2006	1
	4. Salmonella infection	115	48	67	23.05	19.75	26.19	2006	1
	5. Mumps	66	46	20	13.23	18.93	7.82	2006	1
	6. Bacterial food intoxication	38	13	25	7.62	5.35	9.77	2006	1
	7. Acute norovirus gastroenteropathy	34	6	28	6.82	2.47	10.94	2006	1
	8. Other respiratory tuberculosis	30	16	14	6.01	6.58	5.47	2006	1
	9. Acute hepatitis C	29	23	6	5.81	9.46	2.35	2006	1
	10. Tuberculosis of other organs	28	11	17	5.61	4.53	6.64	2006	1
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neoplasms (140-208)	517	313	204	103.63	128.80	79.74	2006	1
	2. Hypertension and hypertensive renal disease (401, 403)	169	86	83	33.87	35.39	32.44	2006	1
	3. Heart diseases (390-398, 402,404-429)	159	84	75	31.87	34.57	29.31	2006	1
	4. Pneumonia (480-487)	112	69	43	22.45	28.39	16.81	2006	1
	5. Bronchitis, emphysema, asthma (490-496)	72	58	14	14.43	23.87	5.47	2006	1
	6. Nephritis, nephrotic syndrome, nephrosis (580-589)	52	27	25	10.42	11.11	9.77	2006	1
	7. Suicide (E950-E959)	51	34	17	10.22	13.99	6.64	2006	1
	8. Cerebrovascular (430-438)	35	16	19	7.01	6.58	7.43	2006	1
	9. Accident and noxious effect (E800-E949)	31	20	11	6.21	8.23	4.30	2006	1
	10. Septicaemia (038)	17	7	10	3.41	2.88	3.91	2006	1
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	4
	- Diphtheria	0	0	0	0	0	0	2006	4
	- Hib meningitis	0	0	0	0	0	0	2005	4
	- Measles	2	...	...	...	...	...	2006	4
	- Mumps	66	...	...	...	...	...	2006	4
	- Neonatal tetanus	0	0	0	0	0	0	2006	4
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	4
	- Poliomyelitis	0	0	0	0	0	0	2006	4
	- Rubella	0	0	0	0	0	0	2006	4
	- Total Tetanus	0	0	0	0	0	0	2006	4
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	...	...	...	7	4	3	2006	1
	- Type A	2	2	0	...	...	...	2006	1
	- Type B	13	7	6	...	...	...	2006	1
	- Type C	29	23	6	...	...	...	2006	1
	- Type E	1	1	0	...	...	...	2006	1
	- Unspecified	0	0	0	...	...	...	2006	1

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2006	1
	Dengue/DHF	2	1	1	0	0	0	2006	1
	Encephalitis	0	0	0	0	0	0	2006	1
	Gonorrhoea	0	0	0	0	0	0	2006	1
	Leprosy	0	0	0	0	0	0	2005	2
	Malaria	0	0	0	0	0	0	2006	1
	Plague	0	0	0	0	0	0	2006	1
	Syphilis	4	2	2	0	0	0	2006	1
	Typhoid fever	0	0	0	0	0	0	2006	1
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	0.00	0.00	0.00	0.00	0.00	0.00	2006	1
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	355	...	...	...	...	...	2005	4
	- New pulmonary tuberculosis (smear-positive)	136	...	...	...	...	...	2005	4
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	87.00	...	...	9.00	...	...	2005	4
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	81.00	...	...	89.00 (2004)	...	...	2005	4
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	4	2	2	2006	1
48	**Diarrhoeal diseases**	...	...	...	...	...	...		
49	**Cancers**								
	All cancers (malignant neoplasms only)	1108 [d]	543	564	485	287	198	2005	1
	- Breast	131	1	130	21	0	21	2005	1
	- Colon and rectum	155	70	85	60	30	30	2005	1
	- Cervix			23			0	2005	1
	- Oesophagus	21	16	5	7	6	1	2005	1
	- Leukaemia	19	9	10	10	4	6	2005	1
	- Lip, oral cavity and pharynx	95 [d]	67	27	43	31	12	2005	1
	- Liver	57	42	15	66	44	22	2005	1
	- Stomach	48	30	18	25	21	4	2005	1
	- Trachea, bronchus, and lung	151	99	52	121	81	40	2005	1
50	**Circulatory**								
	All circulatory system diseases	...	...	...	381	197	184	2006	1
	- Acute myocardial infarction	...	...	...	30	22	8	2006	1
	- Cerebrovascular diseases	...	...	...	19	10	9	2006	1
	- Hypertension	...	...	...	168	85	83	2006	1
	- Ischaemic heart disease	...	...	...	47	24	23	2006	1
	- Rheumatic fever and rheumatic heart diseases	...	...	...	1	0	1	2006	1

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			0	2006	1
	- Eclampsia			...			0	2006	1
	- Haemorrhage			...			0	2006	1
	- Obstructed labour			1423			0	2006	1
	- Sepsis			...			0	2006	1
52	**Diabetes mellitus**	...	...	...	66	32	34	2006	1
53	**Mental disorders**	...	...	...	26	16	10	2006	1
54	**Injuries**								
	All types	...	...	...	99	60	39	2006	1
	- Homicide and violence	...	...	...	8	2	6	2006	1
	- Motor and other vehicular accidents	...	...	...	17	11	6	2006	1
	- Occupational injuries	...	...	...	...	...	...		
	- Suicide	...	...	...	51	34	17	2006	1
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	539	2006	1
	- Specialized hospitals					0	0	2006	1
	- District/first-level referral hospitals					...	...		
	- Primary health care centres					8 [e]	0	2006	1
	Private hospitals					2	581	2006	1

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to resident population
b	Figure refers to 7106.5 metric tons of general solid waste, 218.044 metric tons pathological waste and 169.42 m^3 liquid effluent from hospitals
c	Figure refers to 1149 physicians and 391 traditional Chinese medicine doctors
d	Genders of some cases were not notified
e	Figure includes 6 health centres and 2 health stations

Sources:

1	Statistics and Census Service, Macao SAR Government (DSEC).
2	Health Bureau, Macao (SSM).
3	Macao Monetary Authority (AMCM).
4	World Health Organization Regional Office for the Western Pacific, data received from technical units.

MALAYSIA

1. CONTEXT

1.1 Demographics

The population of Malaysia was 26.6 million in 2006, with about 42% below 20 years of age and about 67% above 60 years. The population growth rate is 1.9 per annum. The population density is 80.7 per square kilometre. The economically productive or working-age population, classified as persons aged 15 to 64 years, accounts for a sizeable population of 16 million, or 63.3% of the total population.

In 2006, 482.7 thousand live births were recorded. The crude birth rate was 18.7 per 1000 population. With the crude death rate at 4.5 per 1000 population, the rate of natural replacement was 14.2 per 1000 population.

Life expectancy at birth for both genders has increased over the years, rising from 56 years for males and 58 for females in 1957 to 72 years for males and 76 years for females in 2006. Over the same period, the crude death rate fell from 12.4 per 1000 population to 5.0 in 1985 and further decreased to 4.5 in 2006.

There have been gradual improvements in the infant, perinatal and toddler mortality rates, with the infant mortality rate improving from 75.5 per 1000 live births in 1957 to 16.4 in 1985, and further decreasing to 6.6 per 1000 live births in 2006. Intensive immunization efforts and other related programmes carried out by both the public and private sectors contributed to this improvement. The perinatal mortality rate decreased from 19.3 per 1000 live births in 1985 to 7.3 in 2006, while the toddler mortality rate fell from 1.4 per 1000 live births in 1985 to 0.5 in 2006. The maternal mortality ratio also decreased, from 160 per 100 000 live births in 1970 to 30 per 100 000 live births in 2000 and 2006.

1.2 Political situation

Malaysia practises parliamentary democracy based on the federal system, with a constitutional monarchy and three branches of government: the legislative, judicial and administrative or 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 the country of Malaysia. The powers of state governments are limited by the Federal Constitution.

The chief of state is the Paramount Ruler (Yang Di-Pertuan Agong), who is elected from and by the hereditary rulers of nine of the states for a five-year term. The Paramount Ruler has the power to safeguard the customs and traditions of the Malay people and the administration of the Islamic religion in each state. He is also the Highest Commander of the Armed Forces. Since early 2007, the Paramount Ruler has been Sultan Mizan Zainal Abidin, the Raja 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 Paramount Ruler. The current Prime Minister is Datuk Seri Haji Abdullah bin Ahmad Badawi (since October 2003).

1.3 Socioeconomic situation

The Malaysian economy continues to be resilient amidst persistent high world crude oil prices, rising inflationary pressures and monetary tightening, especially in major advanced economies. The growth momentum in the country remains strong, driven by robust domestic demand and

favourable export performance. Growth is supported by favourable financing and stable market conditions. The Government's strategic decision to move from a fixed exchange rate regime to a managed float was well received and contributed to further boosting of investor and consumer confidence. These factors, coupled with pro-business policies and political stability, continue to provide the enabling environment for the economy.

Real gross domestic product (GDP) expanded at a strong pace of 5.9% in the second quarter of 2006, following a growth of 5.5% in the first quarter, while growth in the third quarter grew by 5.2%. This unabated growth is expected to continue in the fourth quarter to average 5.8% for the year as a whole.

Monetary policy in 2006 continued to emphasise growth with price stability. Inflation, maintained at below 2% annually during 2000-2004, edged up to 3% in 2005 and 3.9% in the first seven months of 2006, due largely to the higher retail prices of petroleum products. This rise in inflationary pressures was mitigated somewhat by the appreciation of the ringgit, which helped to lower the cost of imports. Meanwhile, productivity gains contributed to reducing the costs of production. For 2006 as a whole, inflation is projected at 3.7% after factoring in the Government's commitment to no further rise in the retail prices of petroleum products in the remaining months of the year and also the modest impact of the upward revision in electricity tariffs.

Unemployment is expected to remain below 4% for 2006 as a whole, reflecting the full employment situation that has prevailed since 1992 and is consistent with increasing job opportunities following sustained expansion in domestic economic activities.

With continued inflows of foreign capital, the overall balance of payments is expected to remain strong in 2006, further strengthening the nation's economic fundamentals as well as boosting investor confidence. In tandem with expansion in economic activities, national income, as measured by nominal gross national product, is estimated to increase by 11.6% to RM 525 853 million (US$ 151 892 million), with per capita income rising by 9.4% to reach RM 19 739 (US$ 5701) (2005: 10.7%; RM 471 331 million [US$ 136 144 million]; 8.4%; RM 18 039 [US$ 5211]). Taking into account the movement of foreign exchange and inflation, per capita income in terms of purchasing power parity (PPP) in envisaged to increase by 11.8% to reach US$ 11 871 in 2006 (2005: 9.2% US$ 10 614).

1.4 Vulnerabilities and hazards

As a whole, Malaysia did not face any major catastrophes in 2006, except for a few incidences of flooding in certain parts of the country. Two incidences of haze occurred in the months of March and June 2006.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The top five main notifiable diseases in 2006 were tuberculosis (48.0 per 100 000 population), food poisoning (26.0 per 100 000 population), dengue fever (24.6 per 100 000 population), hand, foot and mouth disease (19.3 per 100 000 population), and malaria (12.0 per 100 000 population). In 2006, a total number of 12 790 tuberculosis cases were reported, giving an incidence rate of 48.0 per 100 000 population, a decrease from the 2005 figure of 15 875 cases, with an incidence rate of 60.8 per 100 000 population.

With the introduction of various national vaccination programmes, there has been a significant decrease in the incidence of specific vaccine-preventable diseases, such as whooping cough, with an incidence rate of 0.02 per 100 000 population. There was no case of diphtheria notified in 2006.

On average, 60% of the burden of chronic diseases occurs in developing countries. The underlying causes of the noncommunicable disease (NCD) epidemic are demographic changes and the increases in population risk factors resulting from social and economic changes. In Malaysia, the NCD burden outweighs the communicable disease burden in term of morbidity and mortality. NCD such as cardiovascular disease, diabetes and cancer are the major causes of admissions and deaths in government hospitals (Ministry of Health, 2003). At the same time, the first and the second National Health and Morbidity Survey, Malaysia (NHMS) show an increasing trend in the prevalence of diabetes and hypertension. The first NHMS (1986) revealed that the prevalence rate for diabetes was 6.3% and 14.4% for hypertension,which increased to 8.5% and 29.9%, respectively, in the second NHMS (NMHS, 1997).

In 2005, an NCD survey was conducted to establish a surveillance system to provide information to determine the extent of NCD risk factors in Malaysia. This survey collected a broad range of information on sociodemographic status and NCD risk factors for people aged 25-64 years. Results showed prevalence rates for raised blood pressure (25.7%); raised blood glucose (11.0%); hypercholesterolemia (53.5%); overweight (31.6%) and obesity (16.3%); central obesity or abdominal obesity (48.6%); smoking (25.5%); physical inactivity (60.1%); non meeting of dietary guidelines for intake of vegetables and fruits intake (72.8%); alcohol consumption (12.2%); and the prevalence of having one, two, three, four and above four NCD risk factors (18.1%, 29.7%, 28.4%, 13.8% and 7.0%, respectively).

2.2 Outbreaks of communicable diseases

In 2006, outbreaks of hand, foot and mouth disease (HFMD) occurred in the state of Sarawak. Several cholera outbreaks were also reported in the middle of the year in Sabah. The occurrence of food and waterborne diseases in other places was sporadic, with occasional outbreaks confined to a few areas only. A few cholera outbreaks occurred in some areas where hygiene practices, the water supply and sanitation are still very poor. A number of episodes of food poisoning also occurred in some institutions, especially school canteens and school hostels, where food is served to many people at one time.

2.3 Leading causes of mortality and morbidity

The leading cause of admission to government hospitals in 2006 was normal deliveries (ICD-10: O80), which constituted 14.9% of total admissions. This was followed by complications of pregnancy, childbirth and the puerperium (ICD-10: O00-O75, O81-O99), accounting for 12.4%; accidents (ICD-10:V01-X59), 9.2%; diseases of the respiratory system (ICD-10:J00-J99), 7.3%; diseases of the circulatory system, 7.3%; certain conditions originating in the perinatal period, 6.6%; diseases of the digestive system, 5.2%; diseases of the urinary system, 3.8%; ill-defined conditions(symptoms and signs), 3.4%; and malignant neoplasms, 3.1%.

The 10 top causes of death in government hospitals in 2006 were: septicaemia, accounting for 16.8% total deaths; heart disease and disease of pulmonary circulation, 15.5%; malignant neoplasms, 10.4%; cerebrovascular diseases, 8.5%; pneumonia, 5.7%; accidents, 5.5%; diseases of the digestive system, 4.5%; certain conditions originating in the perinatal period, 4.2%; nephritis, nephritic syndrome and nephrosis, 3.8%; and ill-defined conditions, 3.0%.

2.4 Maternal, child and infant diseases

The maternal and perinatal programme continued to carry out activities as scheduled in 2006. The National Maternal and Child Health Committee was reviewed and reconstituted to form the National Technical Advisory Committee on Maternal, Newborn and Child Health.

In 2005, nutritional surveillance of children below five years of age who attended child health clinics at public health facilities showed the following weight-for-age proportions: 0.6% of the children were severely underweight for their ages; 7.5% were moderately underweight; 90.3% were classified as having normal weight; and 1.6% were overweight.

2.5 Burden of disease

Both communicable and noncommunicable diseases remain a burden to Malaysia. The country has begun experiencing changing patterns in both types of disease. The top five diseases are dominated by noncommunicable diseases, similar to the disease burden of a developed nation. However, some communicable diseases persist, along with the rising incidence of noncommunicable diseases. Mental illness has also become an increasing problem.

In repsonse to the situation, the Ministry of Health, in collaboration with the WHO, completed a study on the burden of disease using disability-adjusted life years (DALY) in 2004 (using 2000 data), taking both mortality and morbidity into account. It was found that the five leading diseases in Malaysia are ischaemic heart disease followed by mental illness, cerebrovascular disease/stroke, road traffic injuries and cancers. It was also found that, in 2000, the top 30 diseases out of the 111 studied accounted for 82% of the country's disease burden, or about 2.3 million DALY.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The vision of the Ministry of Health is for Malaysia is to be a nation of healthy individuals, families and communities, through a health system that is equitable, affordable, efficient, technologically appropriate, environmentally adaptable and consumer-friendly, with emphasis on quality, innovation, health promotion and respect for human dignity and which promotes individual responsibility and community participation towards an enhanced quality of life.

The mission of the Ministry is to built partnerships for health to facilitate and support the people to fully attain their potential in health and to motivate them to appreciate health as a valuable asset and to take positive action to further improve and sustain their health status to enjoy a better quality of life.

3.2 Organization of health services and delivery systems

The Malaysian health system has been commended by various international organizations like WHO and the World Bank for its remarkable achievements, especially in primary care, and is referred to as a model for other developing countries. There has also been tremendous improvement in almost all the macro-indicators used worldwide to reflect health status.

Health care in Malaysia is presently provided by the public and private sectors and nongovernmental organizations (NGOs). The major provider and financier of health services is the Ministry of Health, which is responsible for the health of the population, as stated in the Federal Constitution. The private health sector is the second major provider of health services, provided through private hospitals and clinics, which have been mushrooming throughout the country, especially in urban areas. Over the past few decades, the private sector has played an increasing role in the provision of health care for the country.

Other providers of health care include traditional and complementary medicine (TCM) practitioners and NGOs. TCM in Malaysia comprises traditional Malay, Chinese and Ayuverdic Medicines and others, and is well accepted by both rural and urban communities. Some NGOs also contribute towards the provision of health care. Most of these complement tasks undertaken by the Ministry of Health, especially in areas that are not covered by the Ministry.

3.3 Health policy, planning and regulatory framework

Malaysia's national health plan is one component of a bigger nation-building picture. It addresses the health needs of the population towards achieving national goals, as outlined in the national strategic plans. The health planning process requires reliable and comprehensive health data and information from all sectors. To be effective, health planning must complete the full planning

cycle, from health situational analysis through implementation plans to the evaluation process and back to the starting point for the next planning cycle. Priority-setting and decision-making processes to identify areas of concern must be evidence-based and supported by a strong health management information system. In this respect, the Malaysian National Health Account and the Disease Burden Study are valuable planning tools. Implementation has to be monitored, while evaluation methodology needs to be further improved to identify the weaknesses and strengths of the health plan and the planning process.

Health planning in the Ministry of Health began in 1956 with the inception of the first Five-Year Malaya Plan (1956-1960). Subsequently, it has been carried out on a five-yearly cycle within the context of the national long-term and medium-term plans. Each five-year health plan provides the direction for health and health-related agencies to address the health needs of the population.

3.4 Health care financing

The Malaysian National Health Account (MNHA) was developed based on the principle of the System of Health Accounts developed by Organisation for Economic Co-operation and Development (OECD) countries, Version 2000. The MNHA project analysed national health expenditure from 1997 to 2002. The findings showed that total expenditure on health was RM 8 billion (US$ 2.3 billion) in 1997 and RM 14 billion (US$ 4.04 billion) in 2002, representing an average increase of 11% and equivalent to 2.9% of GDP in 1997 and 3.8% of GDP in 2002. Per capita spending on health was RM 379 (US$ 135) in 1997 and RM 555 (US$ 146) in 2002. During this period the public : private sector expenditure ratio changed from 50 : 50 to 56 : 44 of total expenditure on health.

Detailed analysis of 2002 data shows that, in the public sector, the Ministry of Health was the largest source (86%)of health expenditure. In the private sector, however, household out-of-pocket payments was the largest source (74%). Both public and private sector health expenditure was mainly for hospital and curative care services. The findings also show that, in Ministry of Health hospitals, the largest expenditure was for inpatient care services (66% of hospital expenditure). Preventive and health-promotion services consumed 7%, education and training of health personnel 2%, and research and development less than 1% of the total expenditure on health for the country.

The results of the MNHA project should be utilized to improve the allocative efficiency, equity, accessibility, appropriateness and quality of the health care system. This can be best achieved by institutionalization of the MNHA within the Ministry of Health.

3.5 Human resources for health

In 2006, in an effort to fill all health care posts in the Ministry of Health, 141 488 appointments were made: 17 030 managers and professionals, 80 693 paramedics and auxiliary staff and 43 765 support staff.

Facility expansion has contributed to the staff vacancies. As an example, the total number of medical doctors employed in the health services is almost equally distributed between the public and private sectors. The 2005 data show that there were 10 943 public sector doctors compared with 9162 in the private sector. However, the private health sector has fewer inpatients and a less complicated casemix than the public health sector. The attrition of medical staff or the 'brain drain' to the private health sector is thought to be due to such factors as the bureaucratic practices in the public sector, especially those due to job promotions, and many alluring factors in the private sector, like financial benefits. Internal issues, such as a less conducive working environment may add to the problem.

Contractual recruitment is being implemented to make up the shortage of medical officers and paramedics in the Ministry of Health. A government-to-government agreement is being used in the recruitment process for the contractual employment, as well as personal applications to the

Ministry. By December 2006, a total of 704 medical officers had been recruited on a contractual basis, 158 Malaysians and 546 foreigners.

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 of Health works very closely with all these bodies to strengthen the health priorities. Effective collaboration and coordination minimizes the gaps between agencies.

Despite the marked improvement in the health status of the nation, great commitment and efffort are still needed to adress the remaining issues and challenges and to achieve better health. In view of the limited resourcesand the need for timely action, the thrust and goal of the 9th Malaysia Health Plan will focus more on 'achieving better health through consolidation of services', rather than 'greater integration in health and the promotion of smart partnership', as in the 8th Plan.

3.7 Challenges to health system strengthening

There are numerous issues and challenges facing the nation, creating a need for change and reform. The higher standard of living, demographic changes and rapid advances in medical technology have led to rising consumer demand for better health care using modern technology.

Changes in the disease burden and disease pattern due to lifestyle are some of the challenges being faced. Others include the need to enhance human capital; research and development, including research on vaccines and biotechnology; and management of crises and disasters. The threats posed by globalization, liberalization of the health service, harnessing of health technology and ICT, strengthening of the health management information system, intersectoral coordination and collaboration and maximization of the role of the private sector and NGOs are also important challenges that need to be addressed.

In light of these issues and challenges and to ensure that the country's health care provision meets required world class 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 Vision 2020, Malaysia is striving to achieve a healthy and wealthy nation. At the onset of the 8th Malaysia Health Plan, the Government presented the National Vision Policy, outlining the country's priorities for the next 10 years. It is essential that new knowledge, new technology and innovations are implemented appropriately and effectively. To realise the aim of the current, 9th Malaysia Health Plan to achieve better health through consolidation of services, six major goals have been set to ensure more efficient and equitable health. These are: to prevent and reduce the disease burden; to enhance the health care delivery system; to optimize resources; to enhance research and development; to manage crises and disasters effectively; and to strengthen the health information management system.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Yearbook of statistics*
Operator	:	Department of Statistics, Malaysia
Web address	:	http://www.statistics.gov.my
Title 2	:	*Economic report 2006/2007*
Operator	:	Treasury Department, Ministry of Finance
Web address	:	http://www.treasury.gov.my
Title 3	:	*The Ninth Malaysia Health Plan approach: mapping of the future health system*
Operator	:	NCD Journal Malaysia 2005, Volume 4, No 1
Specification	:	By A. Mohamad Taha, H.Rosnah, Y.Rohaizat, AH Mahani, B. Hasnah.

Title 4	:	*Ninth Malaysia Plan 2006-2010*
Operator	:	Economic Planning Unit, Prime Minister's Department
Title 5	:	*NCD risk factors in Malaysia*
Operator	:	Non Communicable Disease Section, Ministry of Health
Web address	:	http://www.dph.gov.my
Title 6	:	*Health information management system, medical care*
Operator	:	Information and Documentation System Unit, Ministry of Health
Title 7	:	*National Health and Morbidity Survey II*
Operator	:	Public Health Institute

5. ADDRESSES

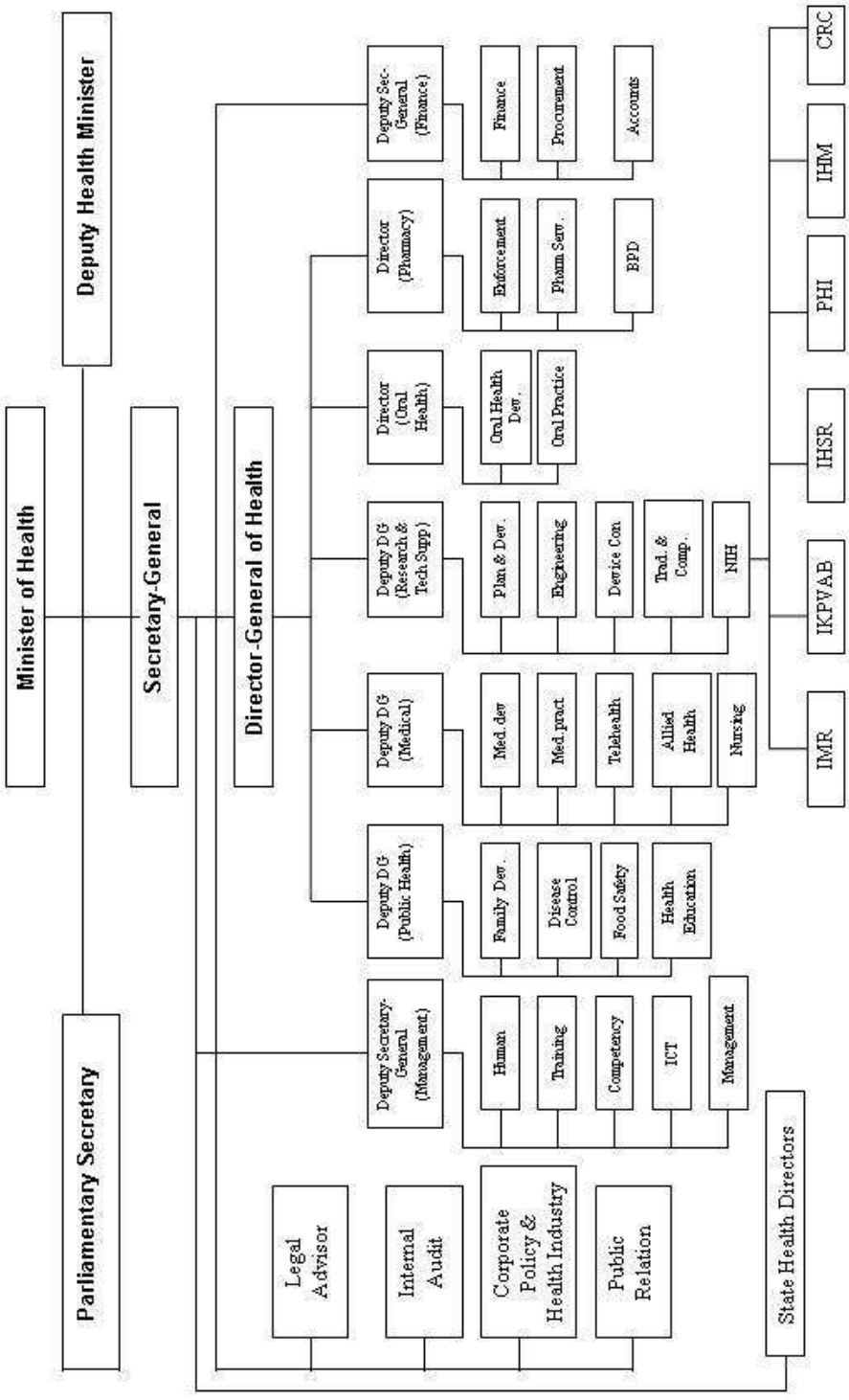
MINISTRY OF HEALTH

Office Address	:	Block E1, E6, E7 & E10, Parcel E Federal Government Complex Administrative Centre 62590 Putrajaya, Malaysia
Official Email Address	:	webmaster@moh.gov.my
Telephone	:	Tel: 603-8883 3888
Office Hours	:	7.30 am – 5.30 pm
Website	:	http://www.moh.gov.my/

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
Fax	:	(603) 209 37446

6. ORGANIZATIONAL CHART: Ministry of Health



Abbreviations:

ICT	=	Information and Communication Technology
NIH	=	National Institute of Health
IMR	=	Institute for Medical Research
NINPVB	=	National Institute of Products Vaccine and Biological
DG	=	Director-General

COUNTRY HEALTH INFORMATION PROFILE

MALAYSIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	330.25			2006	2
2	**Estimated population** ('000s)	26 640.20	13 562.60	13 077.60	2006	2
3	**Annual population growth rate** (%)	1.90	…	…	2006	2
4	**Percentage of population**					
	- 0–4 years	11.60	6.00	5.60	2006	2
	- 5–14 years	20.80	10.70	10.10	2006	2
	- 65 years and above	4.30	3.90	4.70	2006	2
5	**Urban population** (%)	63.20	…	…	2006	2
6	**Crude birth rate** (per 1000 population)	18.70	19.00	18.40	2006 est	2
7	**Crude death rate** (per 1000 population)	4.50	5.10	3.90	2006 est	2
8	**Rate of natural increase of population** (% per annum)	1.42	1.39	1.45	2006 est	2
9	**Life expectancy** (years)					
	- at birth	…	71.80	76.30	2006	2
	- Healthy Life Expectancy (HALE) at age 60	…	17.60	19.60	2006	2
10	**Adult literacy rate** (%)	95.10	…	…	2004	2
11	**Neonatal mortality rate** (per 1000 live births)	3.90	…	…	2006 est	2
12	**Infant mortality rate** (per 1000 live births)	6.60	…	…	2006 est	2
13	**Under-five mortality rate** (per 1000 live births)	8.50	…	…	2006 est	2
14	**Total fertility rate** (women aged 15–49 years)	2.40			2006 est	2
15	**Maternal mortality ratio** (per 100 000 live births)	30.00			2006p	14
16	**Percentage of newborn infants weighing at least 2500 g at birth**	91.40	…	…	2005	1
17	**Prevalence of underweight children under five years of age**	8.10 [a]	…	…	2005	3
18	**Percentage of pregnant women with anaemia**			2.30	2005	6
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	14
	- DTP3	99.20	…	…	2006	14
	- POL3	99.50	…	…	2006	14
	- Measles	100.00	100.00	100.00	2006	14
	- Hepatitis B III	89.90	…	…	2006	14
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	78.80			2005	6
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	90.00			2006	5
	- Percentage of deliveries attended by skilled health personnel	100.00			2005	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	2.00			2005	6
	- Percentage of deliveries in health facilities (as % of total deliveries)	98.00			2005	6
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			…		
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	5500.00 [b]	…	…	2001	4

MALAYSIA

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	99.00	100.00	96.00	2004	8
27	**Proportion of population with access to improved sanitation**	94.00	95.00	93.00	2004	8
28	**Proportion of the population using solid fuels (%)**	5.00 [c]	...	...	2002	9
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.80	2004	7
33	**Per capita GDP at current market prices** (US$)			5227.50 [d]	2005	13
34	**Rate of growth of per capita GDP** (%)			8.40 [d]	2005	13
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			4546.44	2005p	12
	- total expenditure on health as % of GDP			3.50	2005p	12
	- per capita total expenditure on health (in US$)			179.37	2005p	12
	Government expenditure on health					
	- amount (in million US$)			2472.56	2005p	12
	- general government expenditure on health as % of total expenditure on health			54.38	2005p	12
	- general government expenditure on health as % of total general government expenditure			6.80	2005p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.04 [e]	2005p	12
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			45.60	2005p	12
	Exchange rate in US$ of local currency is: 1 US$ =			3.79	2005	2
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	21 937	...	...	13 335	8602	8.23	...	...	5.00 [e]	3.23 [e]	2006	14
	- dentists	2940	...	...	1368	1572	1.10	...	...	0.51 [e]	0.59 [e]	2006	14
	- pharmacists	4292	...	...	889	3403	1.61	...	...	0.33 [e]	1.28 [e]	2006	14
	- nurses	47 642	...	...	34 598	13 044	17.88	...	...	12.99 [e]	4.90 [e]	2006	14
	- midwives	16 667 [l]	...	...	16 090 [l]	577 [l]	6.25	...	...	6.04 [e]	0.22 [e]	2006	14
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	7720 [m]	...	...	7150 [m]	570 [m]	2.90	...	...	2.68 [e]	0.21 [e]	2006	14
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	2119 [d]	...	...	...	...	0.81	...	...	...	...	2005	6
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Normal delivery (single spontaneous delivery)	283 757 [f]			2169.80 [f]			2006p	6
	2. Complications of pregnancy, childbirth and the puerperium	235 734 [f]			1802.60 [f]			2006p	6
	3. Accidents (accidental injury)	173 801 [f]	125 527 [f]	48 274 [f]	652.40 [f]	925.50 [f]	369.10 [f]	2006p	6
	4. Diseases of the respiratory system	138 686 [f]	77 996 [f]	60 690 [f]	520.60 [f]	575.00 [f]	464.00 [f]	2006p	6
	5. Diseases of the circulatory system	138 111 [f]	77 426 [f]	60 685 [f]	518.40 [f]	570.90 [f]	464.00 [f]	2006p	6
	6. Certain conditions originating in the perinatal period	124 466 [f]	66 823 [f]	57 643 [f]	467.20 [f]	492.70 [f]	440.80 [f]	2006p	6
	7. Diseases of the digestive system	98 955 [f]	57 908 [f]	41 047 [f]	371.50 [f]	427.00 [f]	313.90 [f]	2006p	6
	8. Diseases of the urinary system	71 173 [f]	36 007 [f]	35 166 [f]	267.20 [f]	265.50 [f]	268.90 [f]	2006p	6
	9. Ill-defined conditions (symptoms and signs)	65 311 [f]	34 784 [f]	30 527 [f]	245.20 [f]	256.50 [f]	233.40 [f]	2006p	6
	10. Malignant neoplasms	59 363 [f]	27 447 [f]	31 916 [f]	222.80 [f]	202.40 [f]	244.10 [f]	2006p	6
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Septicaemia	6819 [g]	3761 [g]	3058 [g]	25.60 [g]	27.70 [g]	23.40 [g]	2006p	6
	2. Heart diseases and diseases of pulmonary circulation	6282 [g]	3792 [g]	2490 [g]	23.60 [g]	28.00 [g]	19.00 [g]	2006p	6
	3. Malignant neoplasms	4229 [g]	2355 [g]	1874 [g]	15.90 [g]	17.40 [g]	14.30 [g]	2006p	6
	4. Cerebrovascular diseases	3445 [g]	1880 [g]	1565 [g]	12.90 [g]	13.90 [g]	12.00 [g]	2006p	6
	5. Pneumonia	2315 [g]	1415 [g]	900 [g]	8.70 [g]	10.40 [g]	6.90 [g]	2006p	6
	6. Accident	2251 [g]	1831 [g]	420 [g]	8.50 [g]	13.50 [g]	3.20 [g]	2006p	6
	7. Diseases of the digestive system	1809 [g]	1268 [g]	541 [g]	6.80 [g]	9.40 [g]	4.10 [g]	2006p	6
	8. Certain conditions originating in the perinatal period	1721 [g]	960 [g]	761 [g]	6.50 [g]	7.10 [g]	5.80 [g]	2006p	6
	9. Nephritis, nephritic syndrome and nephrosis	1526 [g]	858 [g]	668 [g]	5.70 [g]	6.30 [g]	5.10 [g]	2006p	6
	10. Ill defined conditions	1223 [g]	768 [g]	455 [g]	4.60 [g]	5.70 [g]	3.50 [g]	2006p	6
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	0	0	0	0	0	0	2006p	10
	- Hib meningitis	...	...	...	...	...	...		
	- Measles	603	...	...	0	0	0	2006p	10
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	11	...	...	2	...	...	2006p	10
	- Pertussis (whooping cough)	4	...	...	0	0	0	2006p	10
	- Poliomyelitis	0	0	0	0	0	0	2006p	10
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	26	...	...	2	...	...	2006p	10
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	63	...	...	0	0	0	2006p	10
	- Type B	1238	...	...	16	...	...	2006p	10
	- Type C	1162	...	...	30	...	...	2006p	10
	- Type E	...	...	...	...	...	...		
	- Unspecified	19	...	...	0	0	0	2006p	10

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	237	…	…	2	…	…	2006p	10
	Dengue/DHF	7008 [k]	…	…	23	…	…	2006p	10
	Encephalitis	25	…	…	2	…	…	2006p	10
	Gonorrhoea	506	…	…	0	0	0	2006p	10
	Leprosy	115	…	…	0	0	0	2006p	10
	Malaria	3188 [k]	…	…	5	…	…	2006p	10
	Plague	0	0	0	0	0	0	2006p	10
	Syphilis	811	…	…	2	…	…	2006p	10
	Typhoid fever	204 [k]	…	…	5	…	…	2006p	10
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	11.97	…	…	0.02	…	…	2006p	10
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	15 342	…	…	…	…	…	2005	5
	- New pulmonary tuberculosis (smear-positive)	8446	…	…	…	…	…	2005	5
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	131.00	…	…	16.00	…	…	2005	5
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	73.00	…	…	56.00 (2004)	…	…	2005	5
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	…	…	…	…	…	…		
48	**Diarrhoeal diseases**	…	…	…	…	…	…		
49	**Cancers**								
	All cancers (malignant neoplasms only)	59 363	27 447	31 916	4229	2355	1874	2006	6
	- Breast	8157	77	8080	409	2	407	2006	6
	- Colon and rectum	8387	4711	3676	376	234	142	2006	6
	- Cervix			3164			126	2006	6
	- Oesophagus	860	552	308	91	62	29	2006	6
	- Leukaemia	5598	3397	2201	277	165	112	2006	6
	- Lip, oral cavity and pharynx	3793	2627	1166	251	173	78	2006	6
	- Liver	1948	1368	580	320	232	88	2006	6
	- Stomach	1448	892	556	167	110	57	2006	6
	- Trachea, bronchus, and lung	5672	4148	1524	842	643	199	2006	6
50	**Circulatory**								
	All circulatory system diseases	138 111	77 426	60 685	9977	5851	4126	2006	6
	- Acute myocardial infarction	10 924	7949	2975	1800	1177	623	2006	6
	- Cerebrovascular diseases	19 359	11 084	8275	3445	1880	1565	2006	6
	- Hypertension	36 533	15 911	20 622	146	80	66	2006	6
	- Ischaemic heart disease	43 703	29 101	14 602	3613	2283	1330	2006	6
	- Rheumatic fever and rheumatic heart diseases	3641	1908	1733	70	29	41	2006	6

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			36 364			6	2006	6
	- Eclampsia			429			4	2006	6
	- Haemorrhage			8137			1	2006	6
	- Obstructed labour			1578			0	2006	6
	- Sepsis			118			2	2006	6
52	**Diabetes mellitus**	41 579	18 850	22 729	404	190	214	2006	6
53	**Mental disorders**	28 866	19 256	9610	8	4	4	2006	6
54	**Injuries**								
	All types	156 976	117 229	39 738	2122	1741	381	2006	6
	- Homicide and violence	6201	4229	1972	54	42	12	2006	6
	- Motor and other vehicular accidents	85 109	65 376	19 733	1675	1400	275	2006	6
	- Occupational injuries	...	...	...	...	...	...		
	- Suicide	3073	1055	1982	84	53	31	2006	6
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	134 [h]	33855 [h]	2006p	14
	- Specialized hospitals	6	4770	2006p	6,14
	- District/first-level referral hospitals	...	...		
	- Primary health care centres	2965 [i]	0	2006p	6,14
	Private hospitals	233 [j]	11 637	2006p	11,14

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to moderately and severely underweight children under 5 years old
b	Figure refers to cumulative number of children orphaned by HIV/AIDS under age 15
c	Figure is less than 5
d	Revised data
e	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
f	Figure refers to leading causes of Hospitalisation in Ministry of Health (MOH) hospitals
g	Figure refers to leading causes of mortality in Ministry of Health (MOH) hospitals
h	Figure includes 128 MOH hospitals with 30 969 beds and 6 non-MOH government hospitals with 2886 beds
i	Figure includes Ministry of Health clinics/community polyclinics, Ministry of Health rural clinics, Ministry of Health maternal and child health clinics and Ministry of Health mobile clinics
j	Figure includes maternity/nursing homes
k	Figure refers to confirmed cases
l	Figure refers to JD/ midwives
m	Figure refers to medical assistants

Sources:	
1	*Health facts 2005* . Information and Document System Unit, Ministry of Health, Malaysia. [http://www.moh.gov.my/MohPortal/statPublic.jsp].
2	Department of Statistics, Malaysia [http://www.statistics.gov.my].
3	Nutritional Surveillance Survey 2005, Ministry of Health, Malaysia.
4	*Malaysia: Achieving the Millennium Development Goals, successes and challenges.* United Nations Country Team and UNDP January 2005.
5	WHO Regional Office for the Western Pacific, data received from the technical units.
6	Information and Documentation System Unit, Ministry of Health, Malaysia.
7	Human DevelopmentReport 2006: Beyond scarcity, power, poverty and the global water crisis. United Nations Development Programme, NY 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
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10	Disease Control Division, Ministry of Health, Malaysia.
11	Medical Practice Division, Ministry of Health, Malaysia.
12	World Health Organization National health accounts [http://www.who.int/entity/nha/country/MYS.pdf].
13	Economic Report 2006/2007.
14	*Health facts 2006* . Information and Document System Unit, Ministry of Health, Malaysia. [http://www.moh.gov.my/MohPortal/statPublic.jsp].

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 Rali (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 scheduled for 2009. Therefore, available demographic data are either from the 1999 census or are estimates derived from it.

In the area of gender equality in primary and secondary education, the Marshall Islands is essentially on target to meet the Millennium Development Goals. Gross primary and secondary enrolment rates indicate female-to-male enrolment ratios of roughly 50:50. 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 versus males 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 and hunger. However, current surveys and socioeconomic indicators suggest that poverty and hardship are on the rise. This presents concerns as to whether the country has been developing, implementing and monitoring poverty reduction strategies and programmes appropriately.

1.2 Political situation

During the last election, conducted in November 2003, President, H.E. Kessai Note and ten ministers were elected and assumed their portfolios. The Minister for Health and Environment is the Honourable Alvin Jacklick.

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 picks cabinet members from the *Nitijela.* The Republic of the Marshall Islands has four court systems: the Supreme Court, the High Court, 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 relatively new democratic political system combined with a hierarchical traditional culture. The first two presidents were chiefs, while the current one

is a commoner. The new Government, running on a reform platform, has publicly confirmed its commitment to an independent judiciary.

1.3 Socioeconomic situation

Government assistance from the United States of America is the mainstay of this tiny island economy. Agricultural production, primarily subsistence, is concentrated on small farms; the most important commercial crops are 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, the decline in tourism, and less income from the renewal of fishing vessel licenses have held gross domestic product (GDP) growth to an average of 1% over the past decade.

1.4 Vulnerabilities and hazards

The country is affected by rising a sea level, desertification, pollution from ships, coral reef erosion and infrequent typhoons. Bikini and Enewetak atolls are former United States nuclear tests sites (67 atmospheric bomb tests from 1946 to 1958).

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 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

No available information.

2.3 Leading causes of mortality and morbidity

The last available data (1999-2004) on major causes of morbidity and mortality still refer to communicable diseases, but cancer and NCD are anecdotally emerging as leading causes of disease and death.

2.4 Maternal, child and infant diseases

Sepsis and prematurity are reported as major causes of mortality among children under 12 months of age, whereas severe malnutrition, drowning and vehicular accidents accounted for the majority of child deaths in 2004. No data are available on the prevalence of childhood diseases.

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 is stated 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 Island are delivered in two distinct settings: hospitals—in the urban areas of Majuro and Ebeye—and medical dispensaries 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 2001to 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, community and private sector for health care delivery;
- reduce transmission of sexually transmitted diseases and develop HIV/AIDS/STI prevention programmes;
- reduce population growth and urban densities;
- address and manage 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 2005, government expenditure on health was US$ 16 million, equivalent to 13.7% 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 Marshall Islands and the United States of America.

3.5 Human resources for health

In 2004, the health work force comprised 31 physicians, 4 dentists, 2 pharmacists, 115 nurses, 7 nursing/auxiliary staff, 53 other paramedical staff and 97 other health personnel.

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.

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"*
Operator	:	Ministry of Health and Environment
Title 3	:	*Ministry of Health Statistical Abstract 1999-2001*
Operator	:	Ministry of Health and Environment
Title 4	:	*Statistical yearbook 2003.*
Operator	:	Economic Policy Planning and Statistics Office
Title 5	:	Economic Policy, Planning and Statistics Office (EPPSO) interview
Web address	:	http://www.spc.int/prism
Title 6	:	*CIA World Fact book*
Web address	:	http://www.cia.gov

5. ADDRESSES

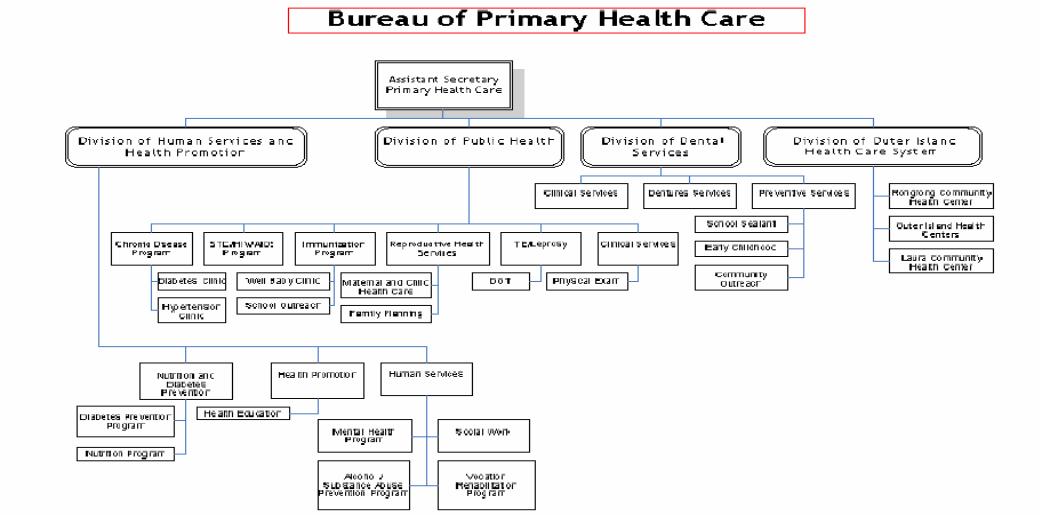
MINISTRY OF HEALTH

Postal Address	:	P.O. Box 16, Majuro, Marshall Islands
Official Email Address	:	rmimohe@ntamar.com
Telephone	:	+ (692) 625 7246/5660/5661
Fax	:	+ (692) 625 3432/4543/4372
Office Hours	:	8:00 – 12:00 and 13:00 – 17:00

WHO REPRESENTATIVE IN THE SOUTH PACIFIC

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) 3-304600/ 3-304631
Fax	:	(679) 3-300462

6. ORGANIZATIONAL CHART: Ministry of Health



MARSHALL ISLANDS — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.18			2006	1
2	**Estimated population** ('000s)	55.98	28.65	27.33	2006 est	1
3	**Annual population growth rate** (%)	1.00	…	…	2006-10	1
4	**Percentage of population**					
	- 0–4 years	12.40	12.30	12.40	2006 est	10
	- 5–14 years	22.50	22.40	22.60	2006 est	10
	- 65 years and above	5.00	4.70	5.30	2006 est	10
5	**Urban population** (%)	66.70	…	…	2005 est	2
6	**Crude birth rate** (per 1000 population)	24.70 [a,b]	…	…	2004 est	3
7	**Crude death rate** (per 1000 population)	4.05 [a,b]	5.56 [a,b]	4.04 [a,b]	2004 est	3
8	**Rate of natural increase of population** (% per annum)	4.90	…	…	1999	3
9	**Life expectancy** (years)					
	- at birth	…	67.00 [d]	70.60 [d]	2004	4
	- Healthy Life Expectancy (HALE) at age 60	…	9.80	10.70	2002	5
10	**Adult literacy rate** (%)	97.00	96.80	97.20	1999	6
11	**Neonatal mortality rate** (per 1000 live births)	12.27	…	…	FY 2004	4
12	**Infant mortality rate** (per 1000 live births)	23.00	…	…	FY 2004	4
13	**Under-five mortality rate** (per 1000 live births)	48.00	…	…	1999	7
14	**Total fertility rate** (women aged 15–49 years)	5.71			1999	3
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			FY 2004	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	87.63	…	…	FY 2004	4
17	**Prevalence of underweight children under five years of age**	27.00	…	…	1999	7
18	**Percentage of pregnant women with anaemia**			8.00	1999	6
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	92.00	…	…	2006	8
	- DTP3	74.00	…	…	2006	8
	- POL3	95.00	…	…	2006	8
	- Measles	96.00	…	…	2006	8
	- Hepatitis B III	97.00	…	…	2006	8
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	…				
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	50.00			2006	8
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			34.00 [c]	2001	7
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	87.00	82.00	96.00	2004	9
27	**Proportion of population with access to improved sanitation**	82.00	93.00	58.00	2004	9
28	**Proportion of the population using solid fuels (%)**	29.90	...	...	1999	7
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.56	1998	14
33	**Per capita GDP at current market prices** (US$)			1817.00	2001	3
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			16.00	2005p	11
	- total expenditure on health as % of GDP			14.40	2005p	11
	- per capita total expenditure on health (in US$)			258.06	2005p	11
	Government expenditure on health					
	- amount (in million US$)			16.00	2005p	11
	- general government expenditure on health as % of total expenditure on health			96.90	2005p	11
	- general government expenditure on health as % of total general government expenditure			13.70	2005p	11
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			57.20	2005p	11
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			3.10	2005p	11
	Exchange rate in US$ of local currency is: 1 US$ =			1.00	2005p	11
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	31	...	...	...	...	5.06	...	...	...	...	2004	12
	- dentists	4	...	...	...	...	0.65	...	...	...	...	2004	12
	- pharmacists	2	...	...	...	...	0.33	...	...	...	...	2004	12
	- nurses	115	...	...	...	...	18.78	...	...	...	...	2004	12
	- midwives	...	...	...	...	...	...	...	...	...	...		
	- other nursing / auxiliary staff	7	...	...	...	...	1.14	...	...	...	...	2004	12
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	53	...	...	...	...	8.66	...	...	...	...	2004	12
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	97	...	...	...	...	15.84	...	...	...	...	2004	12
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	..									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Influenza	5170	...	...	8444.95	...	...	2004	4
	2. Conjunctivities	2632	...	...	4299.25	...	...	2004	4
	3. Gastroenteritis	2041	...	...	3333.88	...	...	2004	4
	4. Diarrhea, Infantile	1640	...	...	2678.86	...	...	2004	4
	5. Scabies	778	...	...	1270.82	...	...	2004	4
	6. Chicken pox	426	...	...	695.85	...	...	2004	4
	7. Amoebias	312	...	...	509.64	...	...	2004	4
	8. Fish poisoning	251	...	...	410.00	...	...	2004	4
	9. Syphilis	172	...	...	280.95	...	...	2004	4
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Sepsis/ Septicemia	46	...	...	75.13	...	...	FY 2004	4
	2. Cancer (All types)	23	...	...	37.57	...	...	FY 2004	4
	3. Myocardial Infarction	15	...	...	24.50	...	...	FY 2004	4
	4. Pneumonia	14	...	...	22.67	...	...	FY 2004	4
	5. Suicide	13	...	...	21.23	...	...	FY 2004	4
	6. End stage renal disease and cerebrovascular disease	12	...	...	19.60	...	...	FY 2004	4
	7. Drowning	10	...	...	16.33	...	...	FY 2004	4
	8. Prematurity	8	...	...	13.07	...	...	FY 2004	4
	9. Trauma	6	...	...	9.80	...	...	FY 2004	4
	10. Congestive Heart Failure and Hepatitis B	5	...	...	9.80	...	...	FY 2004	4
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	8
	- Diphtheria	0	0	0	0	0	0	2006	8
	- Hib meningitis	0	0	0	0	0	0	2006	8
	- Measles	0	0	0	0	0	0	2006	8
	- Mumps	0	0	0	0	0	0	2006	8
	- Neonatal tetanus	0	0	0	0	0	0	2006	8
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	8
	- Poliomyelitis	0	0	0	0	0	0	2006	8
	- Rubella	0	0	0	0	0	0	2006	8
	- Total Tetanus	0	0	0	0	0	0	2006	8
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	12	...	...	...	...	...	2002	12
	- Type B	31	...	...	...	...	...	2002	12
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2005	8
	Dengue/DHF	0	0	0	0	0	0	2004	8
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	230	...	...	...	...	...	2002	12
	Leprosy	44	...	...	...	...	...	2005	8
	Malaria	...	...	...	...	...	...		
	Plague	..	...	...	...	...	...		
	Syphilis	172	...	...	...	...	...	2004	4
	Typhoid fever	14	...	...	...	...	...	2005	8
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	111	...	...	...	...	...	2005	8
	- New pulmonary tuberculosis (smear-positive)	48	...	...	...	...	...	2005	8
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	269.00	...	...	32.00	...	...	2005	8
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	77.00	...	...	90.00 (2004)	...	...	2005	8
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	3703	...	...	...	...	...	2002	12
48	**Diarrhoeal diseases**	1954	...	...	...	...	...	2002	12
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	12	...	...	1998	3
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			4	1998	13
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
50	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Hypertension	…	…	…	…	…	…		
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
51	**Maternal causes**								
	- Abortion			…			…		
	- Eclampsia			…			…		
	- Haemorrhage			…			…		
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	1612	…	…	…	…	…	1998	6
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types								
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	80	1999	6
	- Specialized hospitals					…	…		
	- District/first-level referral hospitals					1	25	1999	6
	- Primary health care centres					5	0	1999	6
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office of the Western Pacific
b	Figure based on projected population for 2004.
c	Figure refers to contraceptive prevalence rate
d	Revised data

Sources:	
1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
3	Economic Planning, Policy and Statistics Office, Marshall Islands http://spc.int/prism/country/mh/stats/Index.htm .
4	Ministy of Health Annual Report (Health is a shared responsibility) Fiscal Year 2004, [http://www.rmiembassyus.org/Health/RMI%20MOH%20Annual%20Report%20FY%202004.pdf].
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10	*Demographic Tables for the Western Pacific 2005-2010* . Manila, World Health Organization Regional Office for the Western Pacific, 2005.
11	World Health Organization. National health accounts [http://www.who.int/entity/nha/country/MYS.pdf].
12	Ministry of Health Services, Marshall Islands.
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14	Pacific human development report 1999 (Creating opportunities). New York, United Nations Development Programme, June 1999.

Federated States Of Micronesia

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 270.5 square miles (704.6 square kilometres), with 2777 square miles of lagoon.

There are four states: Chuuk, Kosrae, Pohnpei and Yap. From east to west, Kosrae has 43.2 square miles of land, Pohnpei contains 133.4 square miles among six islands, Chuuk includes six major island groups with a total land area of 49.2 square miles. Chuuk proper is a complex of 98 islands (14 mountainous volcanic islands and 24 outer low islands and atolls). Yap state includes Yap proper and 15 outer islands with a total land area of 45.9 square miles.

In 2006, the estimated population was 110 220, 37.7% below 15 years old and 3.3% 65 years and over. It is estimated that, despite migration, primarily to the United States and its territories, the population has increased by 6.6% since 2000. For every 100 females, there are about 103 males. The average age of the population is estimated to be 18.9 years. Almost 23% of the population reside in urban areas. Approximately 50% live in Chuuk state, 32% in Pohnpei, 11% in Yap and 7% in Kosrae.

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 contains a Declaration of Rights, similar to the Bill of Rights of the United States of America, specifying basic standards of human rights 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, in 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, Education and Social Affairs. The Secretary for Health, Education and Social Affairs is a cabinet-level position, nominated by the President and requiring congressional confirmation. Currently, the Government is considering a proposal to split the Department into two cabinet-level departments, one for Health and one for Education and Social Affairs.

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. A Joint Economic Management Committee (JEMCO), consisting of representatives of both countries, has been established to manage this compact assistance. 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 employees, at 7060, and Kosrae had the lowest number, at 1366. The three largest employers were the private sector, the 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 rate 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. 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 estimated gross domestic product (GDP) for the 2006 fiscal year was estimated to be US$ 244.7 million, representing a real growth rate of -0.7% over 2005. GDP is supplemented by grant in aid averaging US$ 100 million annually. The nominal GDP per capita was estimated to be US$ 2254 for 2006, an increase of US$ 65 or 3% over 2005. The inflation rate is estimated at 1%.

1.4 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.

Telecommunication costs have fallen, however Internet access is still expensive and most residential 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 in the Federated States of Micronesia remained unchanged between 2000 and 2005, with the population showing continuing susceptibility to both communicable and noncommunicable diseases. Citizens enjoy a high level of health care 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 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 to improve the coverage of immunization and other health programmes that address diseases need to be developed. The highest immunization coverage rate (84.1%) was in 1992 and was the result of heavy campaigning at that time due to outbreaks of measles and the hepatitis B immunization campaign. 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 is a problem due mainly to late reporting and a standardized reporting system. The problem with mortality data has to do with late filing of death certificates for mortality coding. This function is performed at the national level. However, based on current information (2006) collected from the four states with respect to mortality and morbidity data, the leading causes of mortality are endocrine, nutritional and metabolic diseases; diseases of the respiratory system; diseases of the circulatory system; and diseases of the digestive system. Incidence of neoplasms is also on the rise. As for the leading causes of morbidity, diseases of the respiratory and circulatory systems, certain infectious and parasitic diseases, injuries, poisonings and certain other consequences of external causes, along with external causes of morbidity and mortality (traffic accidents), are all evident. Pregnancy, childbirth and puerperium conditions continue to be the leading causes of outpatient visits and hospitalization for women of child-bearing age.

2.4 Maternal, child and infant diseases

Prenatal care is slowly improving in the state centres and is being expanded to remote areas. Deaths and illnesses due to diarrhoea and acute respiratory infections still make up a large portion of infant mortality and morbidity. In 2006, the country started implementing the WHO integrated management of childhood illness (IMCI) approach curriculum as a way to strengthen the skills and capacity of health care workers, particularly those involved in maternal and child health, to reduce childhood illness.

2.5 Burden of disease

Although certain infectious and parasitic diseases are prevalent in the Federated States of Micronesia, the disease burden also includes chronic and noncommunicable diseases. Diabetes and endocrine, nutritional and metabolic diseases are major health problems. Contributing factors to these health conditions are believed to be a change in diet, lack of exercise, gender, age, occupation and, in some cases, drug abuse.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Division of Health has established five strategic health goals with the objective of improving health services:

- to improve primary health care services;
- to improve secondary health care services;
- to prioritize health promotion and services for major health problems;
- to develop a sustainable health care financing mechanism; and
- to improve capacity and accountability systems.

Ten outcome measures were developed and used during the period from 2003 to 2005 to indicate progress in meeting these goals. In 2005, modifications were proposed involving the addition of four new measures. These modifications will be effective when endorsed by all four State Directors, the Secretary, Assistant Secretary and programme managers, and will be effective for the next five years.

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, decreasing the average hospital stay, reducing infant mortality, reducing mental illness, increasing the number of individuals enrolled in a health insurance plan, reducing off-island medical referral costs, increasing the number of children under seven years of age receiving tooth sealant, reducing the incidence of diarrhoeal disease, reducing the incidence of hospitalization for diabetes, and implementing an efficient quality assurance system in all States.

Baseline data have been collected in each of these areas and specific goals have been established to measure progress.

3.2 Organization of health services and delivery systems

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 (DHS) 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, with transportation issues often preventing residents who live on the outer islands from accessing these hospitals. The location of the dispensaries is based on population, need and political considerations.

Dispensaries (similar to health clinics) are located in municipalities and outlying islands and are part of the State Health Department. Local mayors and the dispensary supervisors are responsible for their day-to-day operation. 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, Education and Social Affairs is responsible for the oversight of all health programmes and ensures compliance with all laws and executive directives. The major functions include:

- providing overall supervision for the Division;
- setting priorities within financial, manpower and material constraints, as approved by the Secretary;
- conducting annual program and staff performance audits and evaluations;
- enforcing departmental and national policies;
- improving accountability within the Division
- implementing national health strategies and the Strategic Development Plan, in accordance with the Secretary's directives;
- increasing external funding to support the implementation of health strategies;
- monitoring the compliance of both national and state programmes;
- developing and implementing property inventory systems; and
- coordinating financial support and assistance to the states.

The state-based delivery system is an effective way of administering health care. 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 this environment of politically independent states, there are constraints on the implementation of national policies.

3.3 Health policy, planning and regulatory framework

The Division of Health of the Department of Health, Education 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 does not have a direct role in the provision of health services, it has significant influence on their provision as a result of its managerial responsibilities. Most of the state health departments have very limited planning and programming capabilities.

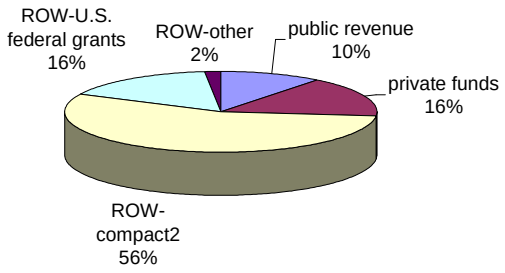
3.4 Health care financing

In 2007, the Federated States of Micronesia, with WHO support, conducted a series of exercises to estimate its national health care expenditure for 2005, which amounted to a total of US$ 30.6 million (Table 1).

Table 1. National Health Expenditures and Indicators: Federated States of Micronesia, 1997-2005.

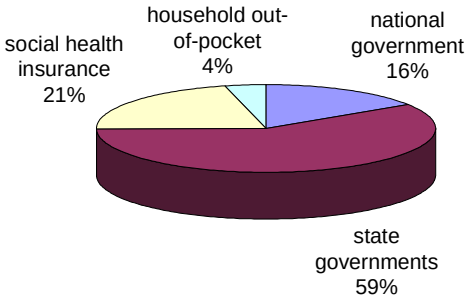
Year	NHE (in million US$)		Per capita Health Spending (in US$)		Health expenditure Indicators (in percent)		NHE by Financing Agent (in percent)				
	Nominal value	Real value	Nominal value	Real value	NHE/GDP	GGHE/GGE	National Government	State Government	Social Health Insurance	Household Out-of-Pocket	All FAs
1997	16.1	16.4	151	155	8.4	10.3	14.5	69.1	10.2	6.2	100.0
1998	15.3	15.3	144	144	7.4	7.9	13.9	67.3	11.8	6.9	100.0
1999	16.7	16.2	156	152	8.1	8.2	13.0	65.6	15.0	6.4	100.0
2000	18.3	17.6	171	164	8.4	8.0	10.3	63.4	20.1	6.1	100.0
2001	20.4	19.4	190	181	9.3	9.7	11.4	65.5	17.6	5.6	100.0
2002	19.0	18.2	177	169	8.5	9.6	9.9	66.3	17.7	6.1	100.0
2003	23.3	22.3	217	207	10.1	10.3	14.7	61.2	19.0	5.1	100.0
2004	24.8	23.3	230	216	11.1	12.7	13.8	61.7	19.8	4.7	100.0
2005	30.6	27.4	281	253	12.8	14.7	15.6	59.2	21.2	4.0	100.0

Figure 1. Health Expenditures by Type of Financing Source: Federated States of Micronesia, 2005



Health funds came mostly from rest-of-the-world or ROW sources (Figure 1): 56% from the Compact 2 health sector grant; 16% from United States Federal Government agencies grants; and 2% from other bilateral and multilateral grants and loans, such as those from the Asian Development Bank (ADB), WHO and the United Nations Population Fund (UNFPA). The remaining 16% and 10% came from private sources (household budgets and private sector employer funds) and from government domestic revenue sources, respectively.

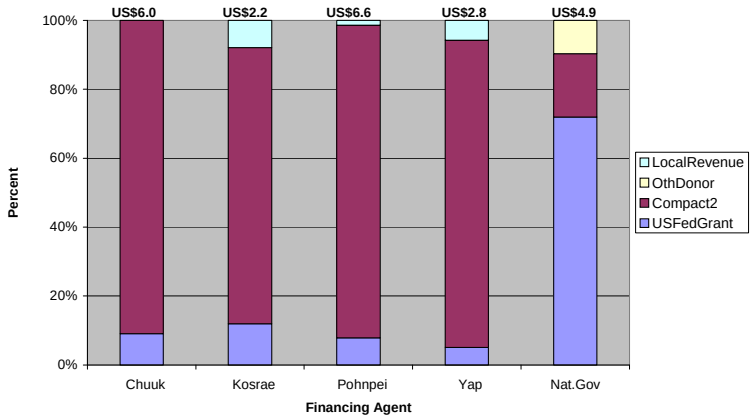
Figure 2. Health Expenditures by Type of Spender (Financing Agent): Federated States of Micronesia, 2005



About 75% of health funds were channelled through the public sector (Figure 2). The State Departments of Health Services operate state hospitals, dispensaries and public health clinics and

thus state government spending accounted for about 60% of total health spending in 2005. The National Government's health spending primarily went towards supporting the operations of public health clinics and state hospitals. Social health insurance spending came to a significant 21% share, while household out-of-pocket spending accounted for the lowest share, at about 4%. In 2005, there were two social health insurance schemes: MiCare, with national coverage; and the Chuuk Health Care Plan covering only residents of Chuuk State.

Figure 3. Government Health Expenditures by Financing Source: Federated States of Micronesia, 2005



The sources of financing for each government financing agent (National Government and individual states) are shown in Figure 3. While State Governments obtain most of their health funds from Compact 2 (more than 90% for the State of Chuuk), the National Government relies more heavily on grants from United States Federal Government agencies (about 70%).

Of total national health expenditures of US$ 30.6 million, about US$ 27 million could be directly assigned as spending specific to a state. Expenditures such as those for national government general administration and for the management and operation of MiCare and the Chuuk Health Care Plan are among those not assigned to states.

The distribution of expenditures by state is shown in Figure 4, with one bar showing the distribution for each category of financing agent. For example, the bar for National Government (representing expenditures totalling US$ 3.5 million) shows that about 10% benefited the State of Yap, 35% Pohnpei, 18% Kosrae and 37% Chhuk. A bar showing the distribution of population by state has also been included as a reference. When the distribution of health expenditure by the National and State Governments is compared with population distribution by state, the bars clearly show that the Kosrae's share of expenditures is larger than its population share (i.e. about 18% of national government spending and about 12% of all state government spending versus a population share of about 7%). On the other hand, Chuuk accounts for about 37% of national government spending and about 33% of all state government spending versus a population share of about 50%.

Figure 4. Financing Agent Spending by State: Federated States of Micronesia, 2005

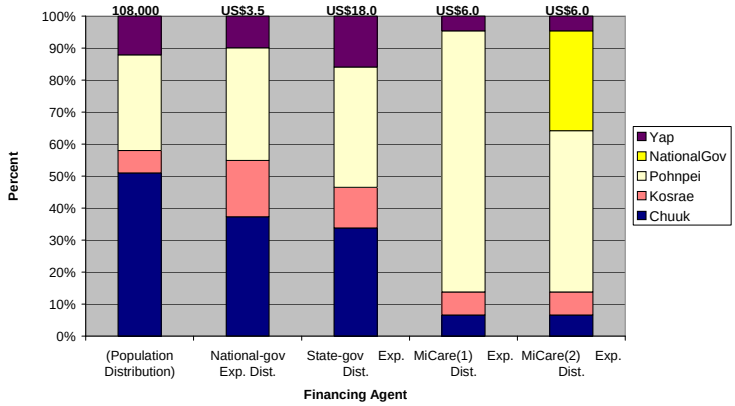
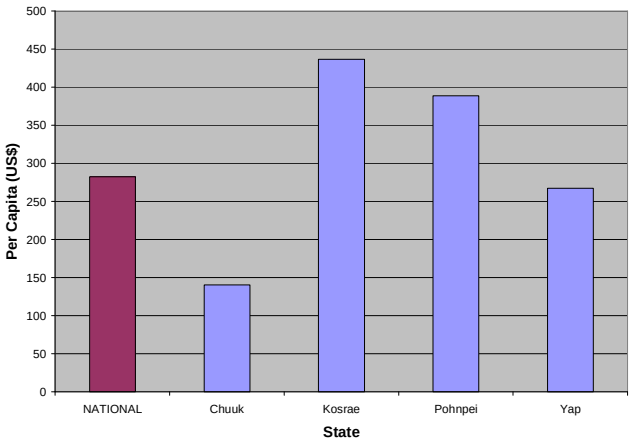


Figure 4 additionally shows the distribution of medical claims paid by MiCare by state of residence of the member. Two bars are shown for MiCare, the first bar showing all claims paid for Pohnpei members combined and the second bar showing the claims paid for Pohnpei members split between national government employees and other Pohnpei members. The National Government is located in Pohnpei and all claims made by its employees would therefore be reflected as Pohnpei claims. Even adjusting for national government employee claims, MiCare claims went mostly towards payment for the health care for Pohnpei residents, close to 50% of claims versus 30% of the population.

Per capita health spending (covering all financing agent expenditures) is shown in Figure 5 for the national and state levels. The patterns observed in the state shares of health expenditures in Figure 4 are reflected in the per capita values derived. As expected, the Kosrae and Pohnpei had the highest per capita health expenditures, while Chuuk had the lowest. Yap came closest to the national level for per capita health spending.

Figure 5. Per Capita Health Expenditures by State: Federated States of Micronesia, 2005



3.5 Human resources for health

Development of the health workforce 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 National Government, in collaboration with the College of Micronesia, is currently planning to establish a nursing school. In addition, Yap State has established a relationship with Palau Community College for the training of nurses.

Government health services also lack specialized allied health professional workers, particularly hospital administrators, epidemiologists, medical record administrators, pharmacists, laboratory technicians, radiologists and environmentalists. Due to limited resources, medical and nursing fellowships have been prioritized, based on state 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

Aside 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, nongovernmental organizations and church groups have all played key roles in increasing public awareness on important health issues.

External partnerships with United States health agencies are largely in the form of funding assistance for programme activities. With the exception of funding through the Amended Compact, infrastructure and capacity development have been on an ad-hoc basis.

The ADB-funded loan, Basic Social Services, is approaching its end. The project was set up to assist the Government in providing capacities in health and education. Activities include training in primary health care and medical coding.

3.7 Challenges to health system strengthening

There are 10 key health system issues confronting the Federated States of Micronesia:

- improving health status;
- setting clear priorities to ensure the most efficient use of resources;
- establishing clear lines of inter- and intra-governmental accountability;
- 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, and responsiveness to, the community;
- 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

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	National Health Statistics Office
Title 2	:	*2000 Population and Housing Census report*
Operator	:	Statistics Division, Department of Economic Affairs
Web address	:	http://www.spc.int/prism/
Title 3	:	*FSM 2005 National Health Accounts*
Title 4	:	Department of Health, Education and Social Affairs

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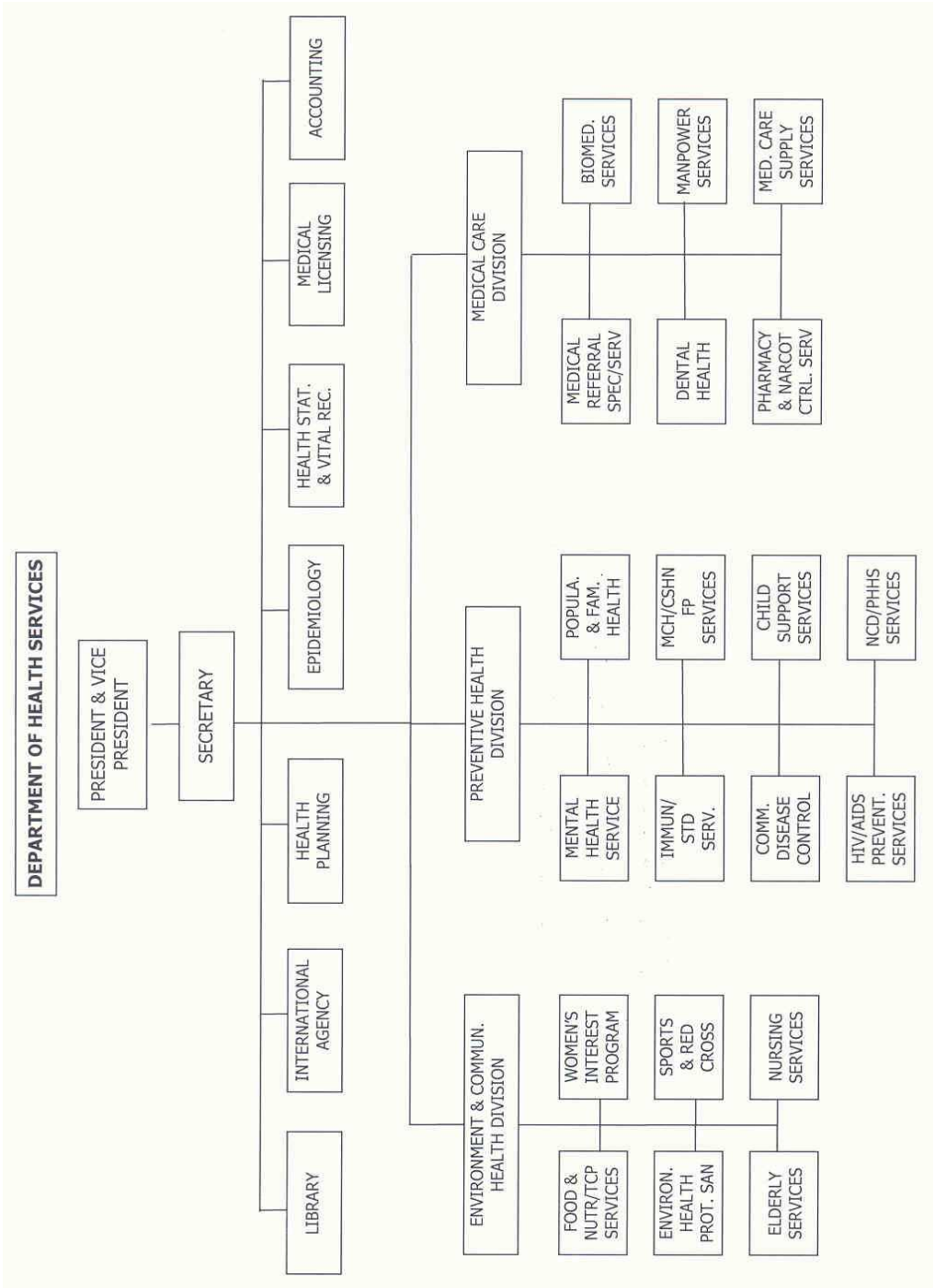
6. ORGANIZATIONAL CHART: Department of Health, Education and Social Services



FEDERATED STATES OF MICRONESIA

WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

INDICATORS		DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.70			2006	1
2	**Estimated population** ('000s)	110.22	56.03	54.19	2006 est	1
3	**Annual population growth rate** (%)	0.50	…	…	2006-10	1
4	**Percentage of population**					
	- 0–4 years	13.50	13.80	13.10	2006 est	2
	- 5–14 years	24.20	24.70	23.80	2006 est	2
	- 65 years and above	3.30	2.90	3.80	2006 est	2
5	**Urban population** (%)	22.30	…	…	2005 est	3
6	**Crude birth rate** (per 1000 population)	23.30	…	…	2003	4
7	**Crude death rate** (per 1000 population)	4.40	…	…	2003	4
8	**Rate of natural increase of population** (% per annum)	1.89 [a]	…	…	2003	4
9	**Life expectancy** (years)					
	- at birth	70.00	68.00	71.00	2003 est	5
	- Healthy Life Expectancy (HALE) at age 60	…	10.90	11.50	2003 est	12
10	**Adult literacy rate** (%)	92.40	92.90	91.90	2000	6
11	**Neonatal mortality rate** (per 1000 live births)	12.00 [b]	…	…	2000 est	5
12	**Infant mortality rate** (per 1000 live births)	21.00	…	…	2003	4
13	**Under-five mortality rate** (per 1000 live births)	23.00	…	…	2003 est	5
14	**Total fertility rate** (women aged 15–49 years)	4.40			2000	4
15	**Maternal mortality ratio** (per 100 000 live births)	317.00 [c]			2003	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	82.00	…	…	2000	8
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			51.00	2000	8
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	55.00	…	…	2006	9
	- DTP3	81.00	…	…	2006	9
	- POL3	81.00	…	…	2006	9
	- Measles	83.00	…	…	2006	9
	- Hepatitis B III	84.00	…	…	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	80.00			2000	8
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2004	9
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			70.00	2000	8
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	94.00	95.00	94.00	2004	7
27	Proportion of population with access to improved sanitation	28.00	61.00	14.00	2004	7
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.57	1998	10
33	**Per capita GDP at current market prices** (US$)			2254.00	FY2006 est	14
34	**Rate of growth of per capita GDP** (%)			0.60 [a]	FY2002 est	11
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			30.60	2005	13
	- total expenditure on health as % of GDP			12.80	2005	13
	- per capita total expenditure on health (in US$)			281.00 [d]	2005	13
	Government expenditure on health					
	- amount (in million US$)			...		
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			14.70	2005	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			...		
	Exchange rate in US$ of local currency is: 1 US$ =			NR		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	62	...	...	...	...	5.43	...	...	...	...	2005	4
	- dentists	13	...	...	...	...	1.14	...	...	...	...	2005	4
	- pharmacists	16 [e]	...	...	...	...	1.40	...	...	...	...	2005	4
	- nurses	229	...	...	...	...	20.07	...	...	...	...	2005	4
	- midwives	20	...	...	...	...	1.75	...	...	...	...	2005	4
	- other nursing / auxiliary staff	86	...	...	...	...	7.54	...	...	...	...	2005	4
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	325	...	...	...	...	28.48	...	...	...	...	2005	4
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	183	...	...	...	...	16.04	...	...	...	...	2005	4
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	115	...	...								2001	11

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the respiratory system	10 063	...	...	9129.92	...	...	2006	4
	2. Diseases of the circulatory system	2864	...	...	2598.44	...	...	2006	4
	3. Infectious and parasitic diseases	2026	...	...	1838.14	...	...	2006	4
	4. Pregnancy, childbirth and diseases of the puerperium	1739		1739	1577.75		1577.75	2006	4
	5. Endocrine, nutritional and metabolic diseases	787	...	...	714.03	...	...	2006	4
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Endocrine, nutritional and metabolic diseases	55	...	...	49.90	...	...	2006	4
	2. Diseases of the respiratory system	50	...	...	45.36	...	...	2006	4
	3. Diseases of the circulatory system	45	...	...	40.83	...	...	2006	4
	4. Infectious and parasitic diseases	30	...	...	27.22	...	...	2006	4
	5. Neoplasms	15	...	...	13.60	...	...	2006	4
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	9
	- Diphtheria	0	0	0	0	0	0	2006	9
	- Hib meningitis	0	0	0	0	0	0	2005	9
	- Measles	0	0	0	0	0	0	2006	9
	- Mumps	0	0	0	0	0	0	2006	9
	- Neonatal tetanus	0	0	0	0	0	0	2006	9
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	0	0	0	0	0	0	2006	9
	- Total Tetanus	0	0	0	0	0	0	2006	9
44	**Selected communicable diseases**								
	Hepatitis viral								
	- Type A	2	...	...	0	0	0	2006	4
	- Type B	1	...	...	5	...	...	2006	4
	- Type C	1	...	...	0	0	0	2006	4
	- Type E	...	...	...	...	...	...		
	- Unspecified	11	...	...	0	0	0	2006	4
	Cholera	0	0	0	0	0	0	2006	4
	Dengue/DHF	2	...	...	...	...	...	2006	4
	Encephalitis	0	0	0	0	0	0	2006	4
	Gonorrhoea	55	...	...	...	...	...	2005	11
	Leprosy	260	...	...	...	...	...	2005	9
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2006	4
	Syphilis	293	...	...	...	...	...	2005	11
	Typhoid fever	0	0	0	0	0	0	2005	9

	INDICATORS	DATA						Year	Source
		Total	Male	Female	Total	Male	Female		
45	**Malaria**	Prevalence rates			Death rates				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	Number of cases			Number of deaths				
	- All types	98	…	…	…	…	…	2005	9
	- New pulmonary tuberculosis (smear-positive)	32	…	…	…	…	…	2005	9
		Prevalence rates			Death rates				
	- Rates associated with tuberculosis (per 100 000 population)	123.00	…	…	14.00	…	…	2005	9
		Detection rates			Success rates				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	61.00	…	…	80.00 (2004)	…	…	2005	9
		Number of cases			Number of deaths				
47	**Acute respiratory infections**	10 964	…	…	…	…	…	2006	4
48	**Diarrhoeal diseases**	3326	…	…	…	…	…	2006	4
49	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	51 [f]	…	…	2000	11
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	4 [f]	…	…	2000	11
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	14 [f]	…	…	2000	11
	- Trachea, bronchus, and lung	…	…	…	8 [f]	…	…	2000	11
50	**Circulatory**								
	All circulatory system diseases	2864	…	…	…	…	…	2005	4
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	2022	…	…	…	…	…	2005	4
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
51	**Maternal causes**								
	- Abortion			…			4	2000	11
	- Eclampsia			…			…		
	- Haemorrhage			…			6	2000	11
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	8686	…	…	…	…	…	2005	4
53	**Mental disorders**	…	…	…	0	0	0	2000	11

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
54	**Injuries**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All types	1313	…	…	…	…	…	2006	8
	- Homicide and violence	…	…	…	6 [f]	…	…	2000	11
	- Motor and other vehicular accidents	…	…	…	4 [f]	…	…	2000	11
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	11 [f]	…	…	2000	11
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	0	0	2006	8
	- Specialized hospitals	0	0	2006	8
	- District/first-level referral hospitals	4 [g]	303 [g]	2006	8
	- Primary health care centres	6 [h]	18 [h]	2006	8
	Private hospitals	6 [i]	44 [i]	2006	8

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
FY	Fiscal year
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Estinates dereived by regression and similar estimation methods
c	Figure is based on child-bearing age 15-44 years old
d	Revised data
e	Figure refers only to pharmacy technicians
f	Death certificates based on underlying causes
g	Figure refers to state hospitals
h	Figure refers to community health centers
i	Figure includes 1 private hospital with 36 beds and 5 private clinics with 8 beds

Sources:

1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	*Demographic Tables for the Western Pacific 2005-2010*. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
3	*Urban and rural areas 2005.* Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
4	National Health Statistics Office, Department of Health, Education and Social Affairs.
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6	2000 Population and Housing Census report. Division of Statistics, Department of Economic Affairs, May 2002.
7	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
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10	*Pacific human development report 1999 (creating opportunities)*. New York, United National Development Programme, June 1999.
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12	World health report 2004. *Changing history*. Geneva, World Health Organization, 2004.
13	National Health Expenditures and Indicators: Federated States of Micronesia, 1997-2005.
14	FSM Department of Finance and Administrationl FSM Social Security Administration [www.spc.int/prism/country/fm/stats/Economic/Nacc't/gdp-current.htm].
15	Information furnished by the Department of Health, Education and Social Affairs, FSM National Government, through the Office of the WHO Representative for South Pacific, 21 March 2006.

Federated States Of Micronesia

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 270.5 square miles (704.6 square kilometres), with 2777 square miles of lagoon.

There are four states: Chuuk, Kosrae, Pohnpei and Yap. From east to west, Kosrae has 43.2 square miles of land, Pohnpei contains 133.4 square miles among six islands, Chuuk includes six major island groups with a total land area of 49.2 square miles. Chuuk proper is a complex of 98 islands (14 mountainous volcanic islands and 24 outer low islands and atolls). Yap state includes Yap proper and 15 outer islands with a total land area of 45.9 square miles.

In 2006, the estimated population was 110 220, 37.7% below 15 years old and 3.3% 65 years and over. It is estimated that, despite migration, primarily to the United States and its territories, the population has increased by 6.6% since 2000. For every 100 females, there are about 103 males. The average age of the population is estimated to be 18.9 years. Almost 23% of the population reside in urban areas. Approximately 50% live in Chuuk state, 32% in Pohnpei, 11% in Yap and 7% in Kosrae.

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 contains a Declaration of Rights, similar to the Bill of Rights of the United States of America, specifying basic standards of human rights 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, in 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, Education and Social Affairs. The Secretary for Health, Education and Social Affairs is a cabinet-level position, nominated by the President and requiring congressional confirmation. Currently, the Government is considering a proposal to split the Department into two cabinet-level departments, one for Health and one for Education and Social Affairs.

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. A Joint Economic Management Committee (JEMCO), consisting of representatives of both countries, has been established to manage this compact assistance. 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 employees, at 7060, and Kosrae had the lowest number, at 1366. The three largest employers were the private sector, the 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 rate 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. 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 estimated gross domestic product (GDP) for the 2006 fiscal year was estimated to be US$ 244.7 million, representing a real growth rate of -0.7% over 2005. GDP is supplemented by grant in aid averaging US$ 100 million annually. The nominal GDP per capita was estimated to be US$ 2254 for 2006, an increase of US$ 65 or 3% over 2005. The inflation rate is estimated at 1%.

1.4 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.

Telecommunication costs have fallen, however Internet access is still expensive and most residential 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 in the Federated States of Micronesia remained unchanged between 2000 and 2005, with the population showing continuing susceptibility to both communicable and noncommunicable diseases. Citizens enjoy a high level of health care 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 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 to improve the coverage of immunization and other health programmes that address diseases need to be developed. The highest immunization coverage rate (84.1%) was in 1992 and was the result of heavy campaigning at that time due to outbreaks of measles and the hepatitis B immunization campaign. 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 is a problem due mainly to late reporting and a standardized reporting system. The problem with mortality data has to do with late filing of death certificates for mortality coding. This function is performed at the national level. However, based on current information (2006) collected from the four states with respect to mortality and morbidity data, the leading causes of mortality are endocrine, nutritional and metabolic diseases; diseases of the respiratory system; diseases of the circulatory system; and diseases of the digestive system. Incidence of neoplasms is also on the rise. As for the leading causes of morbidity, diseases of the respiratory and circulatory systems, certain infectious and parasitic diseases, injuries, poisonings and certain other consequences of external causes, along with external causes of morbidity and mortality (traffic accidents), are all evident. Pregnancy, childbirth and puerperium conditions continue to be the leading causes of outpatient visits and hospitalization for women of child-bearing age.

2.4 Maternal, child and infant diseases

Prenatal care is slowly improving in the state centres and is being expanded to remote areas. Deaths and illnesses due to diarrhoea and acute respiratory infections still make up a large portion of infant mortality and morbidity. In 2006, the country started implementing the WHO integrated management of childhood illness (IMCI) approach curriculum as a way to strengthen the skills and capacity of health care workers, particularly those involved in maternal and child health, to reduce childhood illness.

2.5 Burden of disease

Although certain infectious and parasitic diseases are prevalent in the Federated States of Micronesia, the disease burden also includes chronic and noncommunicable diseases. Diabetes and endocrine, nutritional and metabolic diseases are major health problems. Contributing factors to these health conditions are believed to be a change in diet, lack of exercise, gender, age, occupation and, in some cases, drug abuse.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Division of Health has established five strategic health goals with the objective of improving health services:

- to improve primary health care services;
- to improve secondary health care services;
- to prioritize health promotion and services for major health problems;
- to develop a sustainable health care financing mechanism; and
- to improve capacity and accountability systems.

Ten outcome measures were developed and used during the period from 2003 to 2005 to indicate progress in meeting these goals. In 2005, modifications were proposed involving the addition of four new measures. These modifications will be effective when endorsed by all four State Directors, the Secretary, Assistant Secretary and programme managers, and will be effective for the next five years.

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, decreasing the average hospital stay, reducing infant mortality, reducing mental illness, increasing the number of individuals enrolled in a health insurance plan, reducing off-island medical referral costs, increasing the number of children under seven years of age receiving tooth sealant, reducing the incidence of diarrhoeal disease, reducing the incidence of hospitalization for diabetes, and implementing an efficient quality assurance system in all States.

Baseline data have been collected in each of these areas and specific goals have been established to measure progress.

3.2 Organization of health services and delivery systems

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 (DHS) 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, with transportation issues often preventing residents who live on the outer islands from accessing these hospitals. The location of the dispensaries is based on population, need and political considerations.

Dispensaries (similar to health clinics) are located in municipalities and outlying islands and are part of the State Health Department. Local mayors and the dispensary supervisors are responsible for their day-to-day operation. 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, Education and Social Affairs is responsible for the oversight of all health programmes and ensures compliance with all laws and executive directives. The major functions include:

- providing overall supervision for the Division;
- setting priorities within financial, manpower and material constraints, as approved by the Secretary;
- conducting annual program and staff performance audits and evaluations;
- enforcing departmental and national policies;
- improving accountability within the Division
- implementing national health strategies and the Strategic Development Plan, in accordance with the Secretary's directives;
- increasing external funding to support the implementation of health strategies;
- monitoring the compliance of both national and state programmes;
- developing and implementing property inventory systems; and
- coordinating financial support and assistance to the states.

The state-based delivery system is an effective way of administering health care. 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 this environment of politically independent states, there are constraints on the implementation of national policies.

3.3 Health policy, planning and regulatory framework

The Division of Health of the Department of Health, Education 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 does not have a direct role in the provision of health services, it has significant influence on their provision as a result of its managerial responsibilities. Most of the state health departments have very limited planning and programming capabilities.

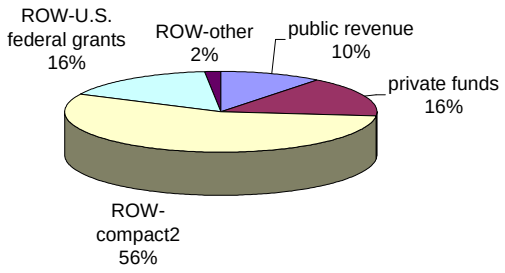
3.4 Health care financing

In 2007, the Federated States of Micronesia, with WHO support, conducted a series of exercises to estimate its national health care expenditure for 2005, which amounted to a total of US$ 30.6 million (Table 1).

Table 1. National Health Expenditures and Indicators: Federated States of Micronesia, 1997-2005.

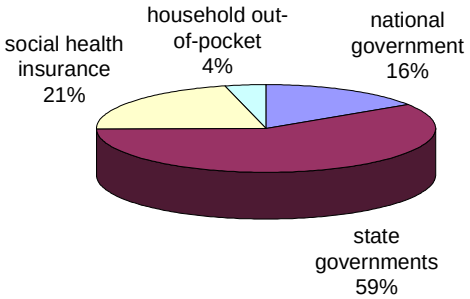
Year	NHE (in million US$)		Per capita Health Spending (in US$)		Health expenditure Indicators (in percent)		NHE by Financing Agent (in percent)				
	Nominal value	Real value	Nominal value	Real value	NHE/GDP	GGHE/GGE	National Government	State Government	Social Health Insurance	Household Out-of-Pocket	All FAs
1997	16.1	16.4	151	155	8.4	10.3	14.5	69.1	10.2	6.2	100.0
1998	15.3	15.3	144	144	7.4	7.9	13.9	67.3	11.8	6.9	100.0
1999	16.7	16.2	156	152	8.1	8.2	13.0	65.6	15.0	6.4	100.0
2000	18.3	17.6	171	164	8.4	8.0	10.3	63.4	20.1	6.1	100.0
2001	20.4	19.4	190	181	9.3	9.7	11.4	65.5	17.6	5.6	100.0
2002	19.0	18.2	177	169	8.5	9.6	9.9	66.3	17.7	6.1	100.0
2003	23.3	22.3	217	207	10.1	10.3	14.7	61.2	19.0	5.1	100.0
2004	24.8	23.3	230	216	11.1	12.7	13.8	61.7	19.8	4.7	100.0
2005	30.6	27.4	281	253	12.8	14.7	15.6	59.2	21.2	4.0	100.0

Figure 1. Health Expenditures by Type of Financing Source: Federated States of Micronesia, 2005



Health funds came mostly from rest-of-the-world or ROW sources (Figure 1): 56% from the Compact 2 health sector grant; 16% from United States Federal Government agencies grants; and 2% from other bilateral and multilateral grants and loans, such as those from the Asian Development Bank (ADB), WHO and the United Nations Population Fund (UNFPA). The remaining 16% and 10% came from private sources (household budgets and private sector employer funds) and from government domestic revenue sources, respectively.

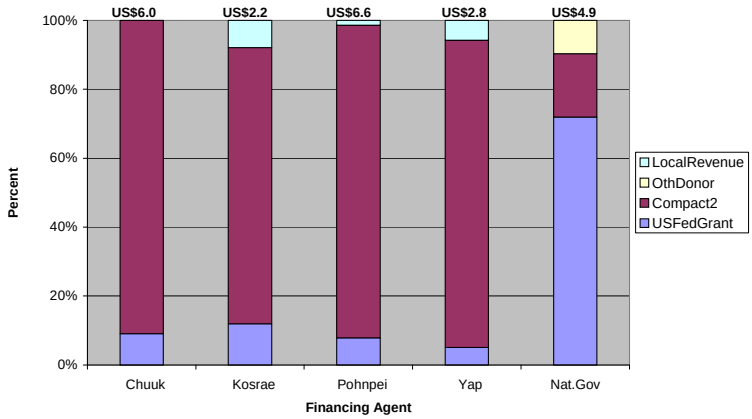
Figure 2. Health Expenditures by Type of Spender (Financing Agent): Federated States of Micronesia, 2005



About 75% of health funds were channelled through the public sector (Figure 2). The State Departments of Health Services operate state hospitals, dispensaries and public health clinics and

thus state government spending accounted for about 60% of total health spending in 2005. The National Government's health spending primarily went towards supporting the operations of public health clinics and state hospitals. Social health insurance spending came to a significant 21% share, while household out-of-pocket spending accounted for the lowest share, at about 4%. In 2005, there were two social health insurance schemes: MiCare, with national coverage; and the Chuuk Health Care Plan covering only residents of Chuuk State.

Figure 3. Government Health Expenditures by Financing Source: Federated States of Micronesia, 2005



The sources of financing for each government financing agent (National Government and individual states) are shown in Figure 3. While State Governments obtain most of their health funds from Compact 2 (more than 90% for the State of Chuuk), the National Government relies more heavily on grants from United States Federal Government agencies (about 70%).

Of total national health expenditures of US$ 30.6 million, about US$ 27 million could be directly assigned as spending specific to a state. Expenditures such as those for national government general administration and for the management and operation of MiCare and the Chuuk Health Care Plan are among those not assigned to states.

The distribution of expenditures by state is shown in Figure 4, with one bar showing the distribution for each category of financing agent. For example, the bar for National Government (representing expenditures totalling US$ 3.5 million) shows that about 10% benefited the State of Yap, 35% Pohnpei, 18% Kosrae and 37% Chhuk. A bar showing the distribution of population by state has also been included as a reference. When the distribution of health expenditure by the National and State Governments is compared with population distribution by state, the bars clearly show that the Kosrae's share of expenditures is larger than its population share (i.e. about 18% of national government spending and about 12% of all state government spending versus a population share of about 7%). On the other hand, Chuuk accounts for about 37% of national government spending and about 33% of all state government spending versus a population share of about 50%.

Figure 4. Financing Agent Spending by State: Federated States of Micronesia, 2005

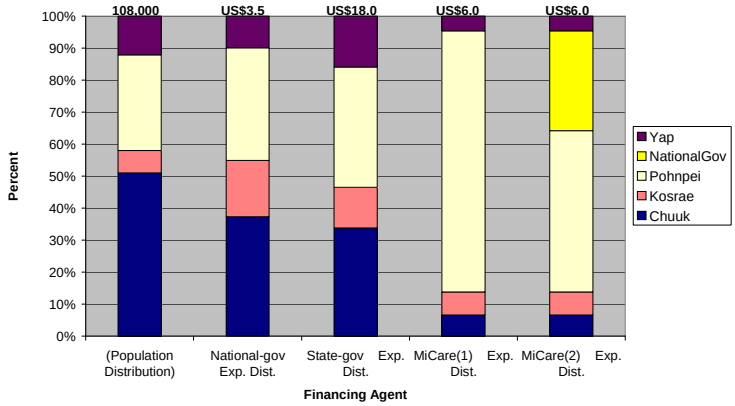
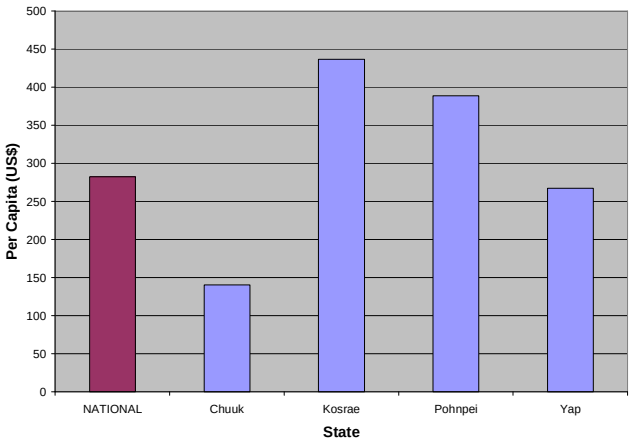


Figure 4 additionally shows the distribution of medical claims paid by MiCare by state of residence of the member. Two bars are shown for MiCare, the first bar showing all claims paid for Pohnpei members combined and the second bar showing the claims paid for Pohnpei members split between national government employees and other Pohnpei members. The National Government is located in Pohnpei and all claims made by its employees would therefore be reflected as Pohnpei claims. Even adjusting for national government employee claims, MiCare claims went mostly towards payment for the health care for Pohnpei residents, close to 50% of claims versus 30% of the population.

Per capita health spending (covering all financing agent expenditures) is shown in Figure 5 for the national and state levels. The patterns observed in the state shares of health expenditures in Figure 4 are reflected in the per capita values derived. As expected, the Kosrae and Pohnpei had the highest per capita health expenditures, while Chuuk had the lowest. Yap came closest to the national level for per capita health spending.

Figure 5. Per Capita Health Expenditures by State: Federated States of Micronesia, 2005



3.5 Human resources for health

Development of the health workforce 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 National Government, in collaboration with the College of Micronesia, is currently planning to establish a nursing school. In addition, Yap State has established a relationship with Palau Community College for the training of nurses.

Government health services also lack specialized allied health professional workers, particularly hospital administrators, epidemiologists, medical record administrators, pharmacists, laboratory technicians, radiologists and environmentalists. Due to limited resources, medical and nursing fellowships have been prioritized, based on state 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

Aside 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, nongovernmental organizations and church groups have all played key roles in increasing public awareness on important health issues.

External partnerships with United States health agencies are largely in the form of funding assistance for programme activities. With the exception of funding through the Amended Compact, infrastructure and capacity development have been on an ad-hoc basis.

The ADB-funded loan, Basic Social Services, is approaching its end. The project was set up to assist the Government in providing capacities in health and education. Activities include training in primary health care and medical coding.

3.7 Challenges to health system strengthening

There are 10 key health system issues confronting the Federated States of Micronesia:

- improving health status;
- setting clear priorities to ensure the most efficient use of resources;
- establishing clear lines of inter- and intra-governmental accountability;
- 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, and responsiveness to, the community;
- 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

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	National Health Statistics Office
Title 2	:	*2000 Population and Housing Census report*
Operator	:	Statistics Division, Department of Economic Affairs
Web address	:	http://www.spc.int/prism/
Title 3	:	*FSM 2005 National Health Accounts*
Title 4	:	Department of Health, Education and Social Affairs

5. ADDRESSES

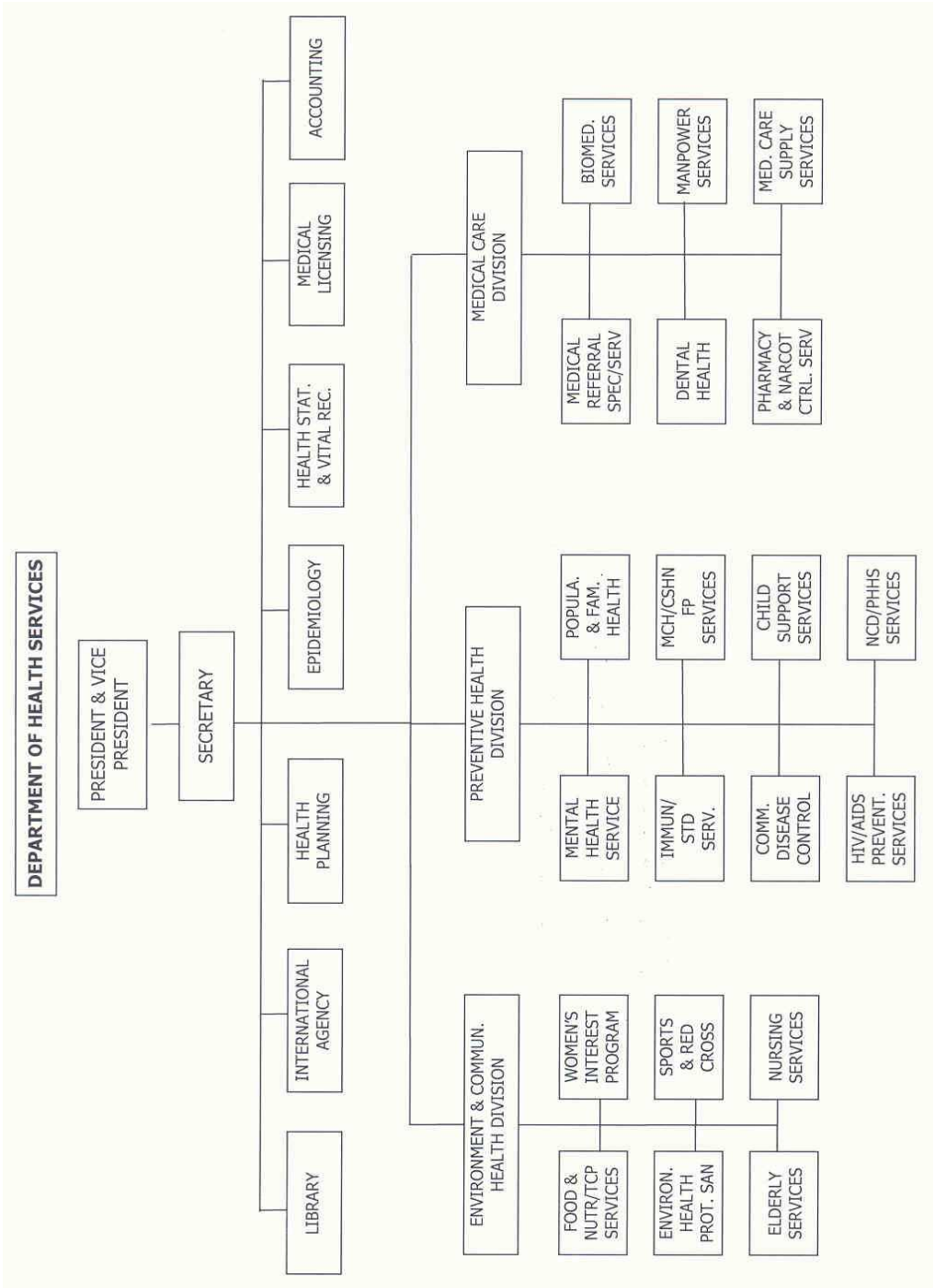
DEPARTMENT OF HEALTH, EDUCATION AND SOCIAL SERVICES

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 REPRESENTATIVE IN THE SOUTH PACIFIC

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) 330 4600 / 330 4631
Fax	:	(679) 330 0462 / 331 1530
Office Hours	:	0800 – 1700 Mon. – Fri.

6. ORGANIZATIONAL CHART: Department of Health, Education and Social Services



FEDERATED STATES OF MICRONESIA

WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

INDICATORS		DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.70			2006	1
2	**Estimated population** ('000s)	110.22	56.03	54.19	2006 est	1
3	**Annual population growth rate** (%)	0.50	…	…	2006-10	1
4	**Percentage of population**					
	- 0–4 years	13.50	13.80	13.10	2006 est	2
	- 5–14 years	24.20	24.70	23.80	2006 est	2
	- 65 years and above	3.30	2.90	3.80	2006 est	2
5	**Urban population** (%)	22.30	…	…	2005 est	3
6	**Crude birth rate** (per 1000 population)	23.30	…	…	2003	4
7	**Crude death rate** (per 1000 population)	4.40	…	…	2003	4
8	**Rate of natural increase of population** (% per annum)	1.89 [a]	…	…	2003	4
9	**Life expectancy** (years)					
	- at birth	70.00	68.00	71.00	2003 est	5
	- Healthy Life Expectancy (HALE) at age 60	…	10.90	11.50	2003 est	12
10	**Adult literacy rate** (%)	92.40	92.90	91.90	2000	6
11	**Neonatal mortality rate** (per 1000 live births)	12.00 [b]	…	…	2000 est	5
12	**Infant mortality rate** (per 1000 live births)	21.00	…	…	2003	4
13	**Under-five mortality rate** (per 1000 live births)	23.00	…	…	2003 est	5
14	**Total fertility rate** (women aged 15–49 years)	4.40			2000	4
15	**Maternal mortality ratio** (per 100 000 live births)	317.00 [c]			2003	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	82.00	…	…	2000	8
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			51.00	2000	8
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	55.00	…	…	2006	9
	- DTP3	81.00	…	…	2006	9
	- POL3	81.00	…	…	2006	9
	- Measles	83.00	…	…	2006	9
	- Hepatitis B III	84.00	…	…	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	80.00			2000	8
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2004	9
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			70.00	2000	8
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	94.00	95.00	94.00	2004	7
27	Proportion of population with access to improved sanitation	28.00	61.00	14.00	2004	7
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.57	1998	10
33	**Per capita GDP at current market prices** (US$)			2254.00	FY2006 est	14
34	**Rate of growth of per capita GDP** (%)			0.60 [a]	FY2002 est	11
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			30.60	2005	13
	- total expenditure on health as % of GDP			12.80	2005	13
	- per capita total expenditure on health (in US$)			281.00 [d]	2005	13
	Government expenditure on health					
	- amount (in million US$)			...		
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			14.70	2005	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			...		
	Exchange rate in US$ of local currency is: 1 US$ =			NR		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	62	...	...	...	...	5.43	...	...	...	...	2005	4
	- dentists	13	...	...	...	...	1.14	...	...	...	...	2005	4
	- pharmacists	16 [e]	...	...	...	...	1.40	...	...	...	...	2005	4
	- nurses	229	...	...	...	...	20.07	...	...	...	...	2005	4
	- midwives	20	...	...	...	...	1.75	...	...	...	...	2005	4
	- other nursing / auxiliary staff	86	...	...	...	...	7.54	...	...	...	...	2005	4
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	325	...	...	...	...	28.48	...	...	...	...	2005	4
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	183	...	...	...	...	16.04	...	...	...	...	2005	4
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	115	...	...								2001	11

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the respiratory system	10 063	...	...	9129.92	...	...	2006	4
	2. Diseases of the circulatory system	2864	...	...	2598.44	...	...	2006	4
	3. Infectious and parasitic diseases	2026	...	...	1838.14	...	...	2006	4
	4. Pregnancy, childbirth and diseases of the puerperium	1739		1739	1577.75		1577.75	2006	4
	5. Endocrine, nutritional and metabolic diseases	787	...	...	714.03	...	...	2006	4
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Endocrine, nutritional and metabolic diseases	55	...	...	49.90	...	...	2006	4
	2. Diseases of the respiratory system	50	...	...	45.36	...	...	2006	4
	3. Diseases of the circulatory system	45	...	...	40.83	...	...	2006	4
	4. Infectious and parasitic diseases	30	...	...	27.22	...	...	2006	4
	5. Neoplasms	15	...	...	13.60	...	...	2006	4
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	9
	- Diphtheria	0	0	0	0	0	0	2006	9
	- Hib meningitis	0	0	0	0	0	0	2005	9
	- Measles	0	0	0	0	0	0	2006	9
	- Mumps	0	0	0	0	0	0	2006	9
	- Neonatal tetanus	0	0	0	0	0	0	2006	9
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	0	0	0	0	0	0	2006	9
	- Total Tetanus	0	0	0	0	0	0	2006	9
44	**Selected communicable diseases**								
	Hepatitis viral								
	- Type A	2	...	...	0	0	0	2006	4
	- Type B	1	...	...	5	...	...	2006	4
	- Type C	1	...	...	0	0	0	2006	4
	- Type E	...	...	...	...	...	...		
	- Unspecified	11	...	...	0	0	0	2006	4
	Cholera	0	0	0	0	0	0	2006	4
	Dengue/DHF	2	...	...	...	...	...	2006	4
	Encephalitis	0	0	0	0	0	0	2006	4
	Gonorrhoea	55	...	...	...	...	...	2005	11
	Leprosy	260	...	...	...	...	...	2005	9
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2006	4
	Syphilis	293	...	...	...	...	...	2005	11
	Typhoid fever	0	0	0	0	0	0	2005	9

	INDICATORS	DATA						Year	Source
		Total	Male	Female	Total	Male	Female		
45	**Malaria**	Prevalence rates			Death rates				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	Number of cases			Number of deaths				
	- All types	98	…	…	…	…	…	2005	9
	- New pulmonary tuberculosis (smear-positive)	32	…	…	…	…	…	2005	9
		Prevalence rates			Death rates				
	- Rates associated with tuberculosis (per 100 000 population)	123.00	…	…	14.00	…	…	2005	9
		Detection rates			Success rates				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	61.00	…	…	80.00 (2004)	…	…	2005	9
		Number of cases			Number of deaths				
47	**Acute respiratory infections**	10 964	…	…	…	…	…	2006	4
48	**Diarrhoeal diseases**	3326	…	…	…	…	…	2006	4
49	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	51 [f]	…	…	2000	11
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	4 [f]	…	…	2000	11
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	14 [f]	…	…	2000	11
	- Trachea, bronchus, and lung	…	…	…	8 [f]	…	…	2000	11
50	**Circulatory**								
	All circulatory system diseases	2864	…	…	…	…	…	2005	4
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	2022	…	…	…	…	…	2005	4
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
51	**Maternal causes**								
	- Abortion			…			4	2000	11
	- Eclampsia			…			…		
	- Haemorrhage			…			6	2000	11
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	8686	…	…	…	…	…	2005	4
53	**Mental disorders**	…	…	…	0	0	0	2000	11

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
54	**Injuries**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All types	1313	…	…	…	…	…	2006	8
	- Homicide and violence	…	…	…	6 [f]	…	…	2000	11
	- Motor and other vehicular accidents	…	…	…	4 [f]	…	…	2000	11
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	11 [f]	…	…	2000	11
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	0	0	2006	8
	- Specialized hospitals	0	0	2006	8
	- District/first-level referral hospitals	4 [g]	303 [g]	2006	8
	- Primary health care centres	6 [h]	18 [h]	2006	8
	Private hospitals	6 [i]	44 [i]	2006	8

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
FY	Fiscal year
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Estinates dereived by regression and similar estimation methods
c	Figure is based on child-bearing age 15-44 years old
d	Revised data
e	Figure refers only to pharmacy technicians
f	Death certificates based on underlying causes
g	Figure refers to state hospitals
h	Figure refers to community health centers
i	Figure includes 1 private hospital with 36 beds and 5 private clinics with 8 beds

Sources:

1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	*Demographic Tables for the Western Pacific 2005-2010*. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
3	*Urban and rural areas 2005.* Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
4	National Health Statistics Office, Department of Health, Education and Social Affairs.
5	World health report 2005, *Make every mother and child count*. Geneva, World Health Organization, 2005.
6	2000 Population and Housing Census report. Division of Statistics, Department of Economic Affairs, May 2002.
7	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
8	Department of Health, Education and Social Affairs.
9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	*Pacific human development report 1999 (creating opportunities)*. New York, United National Development Programme, June 1999.
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12	World health report 2004. *Changing history*. Geneva, World Health Organization, 2004.
13	National Health Expenditures and Indicators: Federated States of Micronesia, 1997-2005.
14	FSM Department of Finance and Administrationl FSM Social Security Administration [www.spc.int/prism/country/fm/stats/Economic/Nacc't/gdp-current.htm].
15	Information furnished by the Department of Health, Education and Social Affairs, FSM National Government, through the Office of the WHO Representative for South Pacific, 21 March 2006.

MONGOLIA

1. CONTEXT

1.1 Demographics

Situated in Central Asia, Mongolia is landlocked between the Russian Federation to the north and China to the south. It is the fifth largest country in Asia, with a total area of 1567 million square kilometres. In 2006, Mongolia had an estimated population of 2 594 792 million and an overall population density of 1.5 persons per square kilometre, making it the least densely populated country in the world. Males comprise 48.8% of the total population, which is predominantly young, with 28.5% below 15 years and only 4.2% over 65. In 2004, the adult literacy rate was reported to be 97.80%.

Socioeconomic changes during the transitional period from a centrally planned to a market economy have been followed by continued rural-to-urban migration. According to the results of a 2004 survey on internal migration and its public health consequences, the main reasons for migration are to seek better opportunities for study and for employment. In 2006, about 60.9% of the population were urban dwellers, compared with 59.1% in 2004. Moreover, almost one-third of the population, or 994 300 people, reside in the capital city, Ulaanbaatar. The 39 % of the total population residing in rural areas in 2006 was a decrease from 42.8% in 2000.

Mongolia has been undergoing a demographic transition since 1990, as defined by a sharp reduction in fertility and deaths and ageing of the population. For instance, in 1990, the population growth rate was 2.7%, decreasing to 1.4% in 2000 and declining further to 1.17% in 2003-2005. In 2006, the population growth rate was 12.3 per 1000 live births and life expectancy at birth was 65.85 (62.59 years for males and 69.38 years for females). The crude birth rate per 1000 population was 35.3 in 1990; this fell to 18.0 in 2003 and has been fairly stable since 2004. Meanwhile, the total fertility rate, interpreted as the number of children a woman would have by the end of her child-bearing years was 4.3 in 1990, dropping by half during the period from 2000 to 2003 and to 1.9 in 2004-2006. The total fertility rate is 1.9 births per woman (2004-2006), down from 6.41 in 1980. The birth rate has declined by nearly 52% over 10 years as a result of a 40% drop in the marriage rate, greater use of contraceptives, legalization of abortions, delayed marriage and longer intervals between births.

1.2 Political situation

Mongolia is a democratic parliamentary country, currently headed by the National Unity Government. The National Unity Government was established in January 2006 following a cooperation agreement between the Mongolian People's Revolutionary Party and the smaller parties, including the Republican Party, the Motherland Party, the National Reform Party and the People's Party.

Since the parliamentary election in 2004, the post-election delays in the appointment of ministers and vice-ministers, along with subsequent and continuing changes in senior staff of the Ministry of Health, have not facilitated the implementation of health-related programmes.

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 of Mongolia 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 next parliamentary and presidential elections will be held in 2008 and 2009, respectively.

1.3 Socioeconomic situation

During the early years of economic transition, Mongolia experienced negative growth rates of 9.2% in 1991 and 9.5% in 1992. Since 1994, the country has been experiencing positive economic growth, despite recent natural disasters. Real GDP increased by 1% in 2001, 4% in 2002 and an estimated 10% in 2004 and 6.2% in 2005, primarily as a result of growth in the mining sector. The inflation rate at the end of 2005 is reported to have been 9.5%, based on the consumer price index for the end of 2005.

The main pillar of the economy continues to be the agricultural sector, including livestock, which provided 21.7% of GDP in 2005. The other main sectors in 2005 were trade and services (25.8%), mining (20.4%), transport and communication (12.2%), and manufacturing (4.40%). The statistics show that agriculture, mining, extracting, trade and service industries have been steady, but the oultlook for the processing industry is not promising.

The number of registered unemployed in Mongolia decreased by 7.5 % during 2005, with females accounting for 55.6% of the total registered unemployed. In 2005, the unemployment rate was estimated at 3.3%, a decrease from 3.6% in 2004. The labour market cannot meet the demands of the annual growth in the working-age population. The labour force participation rate is 63.5% and the employment-to-population ratio is 61.4%.

Using a low poverty line (approximately US$ 20 per month per person), some 36.1% of the population are classified as poor. In urban areas, the poor account for 30% of the population, while in rural areas they account for 43%. Income distribution is becoming more unequal in Mongolia, as evidenced by a 42% increase in the Geni-coefficient between 1995 and 2002. In 2003, it was estimated that the richest 20% of the population consume almost 5.5 times the amount consumed by the poorest 20%.

1.4 Vulnerabilities and hazards

Mongolia has a unique geographical structure with variety of terrains—steppes, semi-desert areas and deserts, high mountain ranges and dry, lake basins. The climatic conditions are predominantly reflected by the desert steppe, with diverse soil and vegetation patterns, by the 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 temperature ranges. The average altitude is 1580 metres above sea level and the average rainfall is just 203 millimetres per year. The country is prone to natural hazards, including natural *dzud* (harsh winters), droughts, floods, earthquakes, steppe and forest fires, and human and animal epidemic diseases. In 2000-2006, the country experienced several kinds of natural disaster—*dzud*, drought, steppe and forest fires, snow and dust storms, earthquakes and floods. According to statistics of the National Emergency Management Agency, over the last 10 years, Mongolia has experienced some 25 000 disasters and emergencies (in duplicated numbers) in which more than 1100 people lost their lives, 9.3 million head of livestock perished, and 55.0 million hectares of forest and pasture land were affected by fires, amounting in total to an estimated 431.7 billion tigriks (US$ 0.372 billion) worth of damage.

As the Mongolian economy is heavily dependent on herding and agriculture, harsh winters and periodic droughts not only have adverse effects on livestock and agricultural output, but also on the health status of the disaster-affected population. A 2003 survey that assessed the nutritional consequences of the *dzud* which occurred during 2000-2001 indicates that the prevalence of growth stunting was significantly greater among children aged 6-23 months in *dzud*-affected areas than in unaffected areas. Another 2006 report on assessment of health facilities in responding to

emergencies indicated that hazard and vulnerability assessment, as well as evaluation of the community characteristics and the local emergency preparedness plan, should be related to and addressed in hospital work plans.

Policy measures to improve emergency preparedness and response have been taken in recent years in Mongolia. The Disaster Protection Law was approved by Parliament in 2003, and the Mongolian National Emergency Management Agency was established in 2005 by integrating the State Board of the Civil Defence and the State Fire Fighting Department to execute nationwide disaster-response actions. Emergency preparedness, the early warning and alert system, training of health personnel and a communication plan all need to be developed and strengthened in order to ensure timely response to emergency situations.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Since the beginning of the 1990s, the mortality pattern in Mongolia has shown a 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 Ministry of Health recently conducted the Mongolian Steps Survey on the Prevalence of Non-Communicable Disease (NCD) Risk Factors 2006, the results of which revealed that nine out of every 10 people (90.6% of the surveyed population) had at least one risk factor for developing NCDs and one in every five people (20.7%) had three or more risk factors or were at high risk. Of particular note was the finding that one in every two males aged 45 years and above was at high risk of developing an NCD. The overall prevalence of current smokers was 28%, of which 24.2% were current daily smokers and 3.4% non-daily smokers. The results of the survey also indicated that, among drinkers over the previous 12 months, about 60.8% (±0.02) of the population (65.1% of males and 56.2% of females) were drinking occasionally, 5% were consuming alcohol in moderation (8.8% males and 1.0% females) and only 0.7% (±0.04)% were drinking frequently (1.1% males and 0.2% females). Thus, a relatively small proportion of the population appear to be drinking alcohol on a frequent basis. About 23% of those surveyed reported low levels of physical activity.

The National Programme on NCD Control and Prevention for 2006-2015 has been approved by the Government. This programme is aimed at reducing risk factors, thus contributing to the reduction in NCD morbidity and mortality.

2.2 Outbreaks of communicable diseases

In 2006, 36 221 cases of infectious disease were registered, giving an incidence rate of 140.8 per 10 000 population, an increase from 128.4 in 2005. Sexually transmitted infections (35.3% of all), viral hepatitis (18.5%), mumps (14.0%) and tuberculosis (13.2%) continue to be the most fequently occurring infections. The HIV epidemic in Mongolia is classified by WHO as low-prevalence. However, Mongolia is at high risk of an epidemic due to its relatively young population (more than 50% below 23 years), the steady increase in the number of STIs in recent years, increased population migration, and growing HIV/AIDS epidemics in neighbouring countries, China and Russia. The first HIV case was reported in 1992, with 24 more cases reported from 1997 to 2006. A sharp increase in the number of reported HIV cases has been observed recently, with 20 more diagnosed in 2005 and 2006. Of those, 11 HIV cases were reported in 2006. Four of the reported cases died of AIDS-related conditions between 1992 and 2006.

Mongolia is among the seven countries in the WHO Western Pacific Region with the highest tuberculosis (TB) incidence. In recent years, TB incidence has remained high, accounting for

13.2% of all reported communicable diseases and increasing from 72 per 100 000 population in 1994 to 191 per 100 000 population in 2005. However, the country has succeeded in reducing TB prevalence and case fatalities as a result of directly observed treatment, short-course (DOTS) implementation since 1995. DOTS coverage increased from 6.5% in 1995 to 100% in 2006. The Government has also been implementing the TB Sub-Programme of the National Programme on Combating Communicable Diseases for 2002-2010, which has set targets of 70% detection and an 85% cure rate for TB, thus facilitating achievement of the goal of halving morbidity and mortality from the disease in Mongolia by 2010.

The viral hepatitis rate was 262.0 cases per 100 000 population in 2006. The high incidence of liver disorders and liver cancer is an important complication for viral hepatitis B. The carrier rate of hepatitis B virus is high in the general population, at 13%.

2.3 Leading causes of mortality and morbidity

Priority health problems include maternal mortality; the high NCD morbidity and mortality; the high incidence of some communicable diseases, such as viral hepatitis, TB and STIs; and the emergence of new infectious diseases in recent years. As of 2006, the incidence rate for diseases of the digestive system was 7296.3 per 100 000 population, 6945.8 for those of the genitourinary system, 5018.4 for those of the circulatory systems, and 3655.6 for injuries and poisonings. These rates are roughly double those for 1996 and show increases of 35%-50% compared with 2000.

Diseases of the circulatory system, neoplasms and injuries have remained the leading causes of population mortality since 1995, and the number of deaths due to these diseases increases every year.

Every year, 5500-6000 people die (one in every three deaths) due to diseases of the circulatory system, which remains the leading cause of mortality. The cardiovascular disease mortality rate is 228.8 per 100 000 population, 259.4 per 100 000 for males and 199.7 per 100 000 for females.

Cancers have remained the second leading cause of mortality in the last 10 years. Among males, the leading cancers are of the liver, stomach, lung, esophagus and prostate. Among females, they are of the liver, cervix/uterus, stomach, esophagus and lung.

Mortality due to injuries and poisonings has increased sharply in the last few years and it is now the third leading cause of death and the fifth leading cause of outpatient morbidity. It was ranked the fifth leading cause of mortality in 1990, fourth in 1994 and third in 2000, where it has remained. The mortality rate per 100 000 population was 60.0 in 1995, 76.0 in 2000 and 103.4 in 2004, and reached 109.5 in 2006. In 2006, mortality due traffic accidents accounted for 19.5% of injury mortality, suicide for 17.0% and homicide for 14.8%. Other types of injures comprise 48.8% of injury mortality.

2.4 Maternal, child and infant diseases

The maternal mortality ratio of 145-176 per 100 000 live births for the period from 1996 to 2001 was considered high compared with regional and developed countries. However, the ratio fell to 109.5 in 2003, the lowest level in 10 years. It has been further decreasing for the last three years to 69.7 per 100 000 live births in 2006, largely due to increased government attention. Although antenatal care has reached almost universal levels with no rich/poor divide, many rural women do not have physical ease of access to prenatal care.

Although nationally one in five females aged 15-45 has had one or more abortion, urban females are more than twice as likely to have had abortions than their rural counterparts, and the likelihood of having one or more abortion increases with education and income. Up to one-third of all females in the highest income and education group have had one or more abortion.

The infant and under-five mortality rates have seen a four-year downward trend, partially as a result of high immunization coverage (almost 98.5 % for all six EPI vaccines and hepatitis B in 2006). Other contributing actions include well implemented programmes to reduce mortality

from diarrhoeal diseases and respiratory infections and, more recently, the result of extended implementation of integrated management of childhood illness (IMCI) programmes.

Almost all newborn babies (97%) received colostrum after birth (within 30 minutes-three hours) nationwide. Although there is good practice in breast-feeding and its promotion until one to two years after birth, the exclusive breast-feeding rate (only breast-milk until six months) has been declining year by year. This is evidenced by the study results in 2004: 79.7% of children were exclusively breast-fed until four months of age, but by six months, the percentage had fallen to 38.3%. This decrease may be attributed to the increased importation and sale of breast-milk substitutes, as well as earlier feeding of complementary food.

A study in 2006 found that 0.6% of all Mongolian children aged 6-59 months were suffering from acute malnutrition, 19.6% from chronic malnutrition or stunting (low height for age) and 6.7% were underweight. The malnutrition prevalence among children under five had decreased since previous surveys, especially the severe form of malnutrition. The progress made in improving the nutritional status of Mongolian children will be sustained provided that the efficiency of internal resource allocation is improved and efforts are made to achieve the relevant MDGs.

2.5 Burden of disease

Mongolia has been experiencing an epidemiological transition over the last decade, with the prevalence of lifestyle-related chronic diseases rapidly increasing and becoming one of the main public health issues. Currently, cardiovascular diseases, cancer, injuries and accidents are the leading causes of mortality. Morbidity however, is still primarily due to infectious diseases, with respiratory and gastrointestinal diseases still dominating the morbidity pattern.

The major burden of disease falls on younger age groups and the poor, which comprises the largest portion of the population (the age group 0-19 years comprises 47% of the total population). It is worth noting that, among men in the 20-44 age group (comprising 20% of total population), road traffic accidents, injuries (occupational and other) and poisonings (industrial and others) dominate. In last few years, there have been an increasing number of deaths caused by suicide and violence.

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 ensuring implementation of health-related activities and standards by its implementing institutions and agencies. The Ministry's functions at the national level include: development of public health policy to safeguard and promote the health of the people; development of policy to ensure the continued supply of drugs, pharmaceuticals and medical equipment; ensuring the quality of services and hygiene; promotion of fitness and physical development; and development of public health policy and professional guidance to promote health.

The Ministry of Health's mission is to prolong life; to improve the health status of the population by upgrading access to health care services and preventive measures at the national level and developing sports and physical activities for all; and to make the population healthier, based on the active participation of the individual and the community, as well as the introduction of the latest diagnostic and treatment methods.

The vision of the Ministry is development of quality health care services and preventive measures of international standard, and creation of favourable conditions for the population's well-being. The following strategic objectives are to be fulfilled in implementating activities to achieve the vision:

- timely provision of needed advice and services through strategic planning and policy guidelines for health;
- provision of public administration and management leadership;
- coordination of policy implementation in the health sector; and
- monitoring and evaluation of health policy implementation.

3.2 Organization of health services and delivery systems

The health care system in Mongolia is characterized by three levels of service. Its prevailing principle is to deliver equitable, accessible and quality health care and services to every Mongolian citizen.

Primary care and services are mainly provided in family practices in Ulaanbaatar city and in *soum* and inter-*soum* hospitals in *aimags*. Secondary care and services are provided in district general hospitals in Ulaanbaatar city and in *aimag* general hospitals in *aimags*. Tertiary care and services are provided in major hospitals and specialized professional centres in Ulaanbaatar city.

From 2003 to 2006, the share of hospital beds provided by the private sector increased from 9.5% to 13.9%. Private hospital admissions increased from 9.1% in 2003 to 10.4% in 2004.

3.3 Health policy, planning and regulatory framework

Numerous laws, policies and national public health programmes regulate and implement activities in Mongolia's health sector. According to the Government's Plan of Action, health priorities include providing good quality primary health services, improving rural health care, developing the private health sector and expanding health insurance coverage. In addition to the Plan of Action, the most important policy document is the State Public Health Policy, approved in November 2001, which clearly states the policy principles, directions and implementation mechanisms.

With the support of the Government of Japan (JICWELS), the Ministry of Health has developed the Health Sector Master Plan, a long-term policy framework for 2006-2015 that represents the Ministry's first comprehensive documentation of its future directions and incorporates the Government's commitment to the MDGs. In the Health Sector Master Plan, 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; the 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. Recently, the implementation framework of the Health Sector Master Plan was endorsed by the Health Minister's Council Meeting.

3.4 Health care financing

Since 2000, there has been a steady increase in the state budget for the health sector. The percentage of GDP spent on health has decreased slightly in the last few years, reaching 4.3% in 2005, resulting in per capita health expenditure of US$ 35.0. The main financing sources are the state budget (69.1% in 2005), health insurance funds (23.0%) and out-of-pocket payments and other sources (4.0%). The total investment of total health expenditure was 4% in 2005, an increase from 3% in 2000.

Health care financing resources are spent on hospital-based curative services, but are insufficient to cover preventive health services. In 2005, 28.1% of total health expenditure was spent on tertiary health care facilities, 42.5% on secondary health care facilities, such as *aimag* and district general hospitals, and 29.4% on primary health care facilities.

The current social health insurance (introduced in 1994) covered 76.5% of the population in 2005. Primary health financing was initially based on a capitation payment for insured people from the Health Insurance Fund. However, due to their lack of health insurance coverage, the poor and people from vulnerable groups formerly had limited access to primary health care. Thus the following change to the Health Law took effect early in 2006, "all primary health care services are to be financed from the state budget from July 2006, increasing access to and equity of primary health care for all".

3.5 Human resources for health

A human resource development policy, approved in November 2003, focused on planning, development, distribution and management of human resources in 2004-2013.

Despite government efforts to protect population health, 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 deficit of health professionals in rural areas owing to great discrepancies in distribution. As of 2006, 15 *soums* had no medical doctor.

In addition, the continued overproduction of physicians and the shortages of nurses, midwives and mid-level personnel have resulted in a high physician-nurse ratio of 1:1.18, which is seriously distorted compared to international standards and has led to a serious internal imbalance in the composition of the health workforce (7079 doctors to 8359 nurses). The situation is further compounded by the overspecialization of medical doctors, which is contributing to the shortage of physicians at the primary health care level. Social security for the health workforce is weak, and that, combined with low wages, harsh working conditions and a lack of proper incentive packages, is negatively affecting their ethics and productivity. This situation could lead to deterioration in the quality and availability of health services, a failure to meet the population's health needs and a loss of confidence in the health system. These factors have the potential to seriously affect attainment of the Millennium Development Goals.

A high-level coordinating mechanism has recently been established, comprising representatives of the Government; the Ministry of Health; the Ministry of Finance; the Ministry of Education, Culture and Science; the Ministry of Social Welfare and Labour; the Ministry of Construction and Building; the Civil Service Council; international donors; partner agencies; professional associations; and local administrations. This high-level committee, headed by the Prime Minister, is expected to improve political commitment and donor support and funding, and to coordinate implementation of health sector human resource policies and strategies at the national level.

3.6 Partnerships

As a developing country, donor support plays an important role in the health sector of Mongolia, and efforts to improve donor coordination and cooperation have become crucial. The Ministry of Health has started initiatives to coordinate the support rendered by international organizations and donor countries. The Health Sector Donor Meeting was organized by the Ministry of Health in 2005, focusing on the issue of improving foreign aid coordination in the health sector. The Health Sector Master Plan, a policy framework for the health sector, also includes a strategy to strengthen and integrate ongoing health sector reform using a sectorwide approach.

The Health Sector Development Programme 2 (HSDP 2) has been underway since 2003. It aims to improve the quality and utilization of health services in rural areas, especially for the poor and vulnerable, and to build the capacity of the health sector, extending the reforms in sector efficiency, effectiveness and sustainability, as well as institutional development. Piloting of results-based management and planning started under the HSDP2 in April 2006. The Public Sector Financing and Management Law (PSFML), introduced in 2003, marked a new era in the management of public resources. The Law advocates the gradual introduction of output-based budgeting (OBB) on the basis of practical experience. Contract between purchasing agencies (e.g. Ministry of Health) and service provider agencies (e.g. *aimag* hospital), specifying the quantity and

quality of each type of output, are to be carefully monitored. Two detailed OBB guides have been developed. One important aspect of OBB is the calculation of costs of outputs. For this purpose costing guidelines for hospital services/outputs have been developed and are being used widely. OBB needs strong advocacy, relating of international experiences and the potential benefits in terms of efficiency and accountability in the Mongolian public sector. The shift in management thinking from inputs to outputs and from planning on an ad hoc basis to strategic and sectorwide planning and to using resources effectively and efficiently, will be achieved by implementing and sustainably institutionalizing the OBB methodology at health facilities to achieve medium- and long-term goals and objectives. This will be facilitated through the development and application of universal guidelines to define outputs and output-based contracts. Performance will be monitored through internal and external auditing.

3.7 Challenges to health system strengthening

Aggravating factors affecting the health system include a sparse population spread over a huge area, growing patient expectations, and an overprovided health system (27.3 physicians and 71.1 beds per 10 000 population in 2006), with problems in cost-effectiveness (a high hospital admission rate of 230 per 1000 population and an average length of stay of 9.0 days in 2006).

There is an excessive number of admissions and hospital stays are long, both thought to be related to the quality of diagnostic and care services and persuasive incentives. Currently, 76% of total health sector financing is spent on inpatient care, while 20 % is spent on outpatient care and only 1% is spent on public health services, indicating a further need to consider the efficiency of the health care financing system.

Budgeting practices vary significantly between different health facilities and levels because the existing accounting systems, despite recent improvements, still permit considerable possibility for misuse of state budget and health insurance funds.

The current mechanisms for the resource allocation are weak as there is a lack of normative (unit-cost-based) allocation of resources across all levels of care. A priority issue is the lack of separation of the purchaser and provider functions, along with poor coordination of the resources from a variety of funding sources, exacerbated by the adverse incentives associated with the existing payment mechanisms.

The ownership of the Health Insurance Fund (HIF) and control over its operations is split and this makes management, use and monitoring cumbersome. International accounting practices and standards are not fully applied and there are no clear guidelines for the use of HIF surpluses. This contributes to the poor management of the HIF and weaknesses in the reimbursement and payment methods. Strengthening the financial management system to improve the efficient and effective use of health sector financial and related resources and the health insurance system have been identified as priority strategies to enhance access, equity and effectiveness, as well as resource mobilization and allocation and use of health services.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Mongolian statistical yearbook 2005*
Operator	:	National Statistics Office
Specification	:	Includes information on population, socioeconomic situation
Web address	:	http://www.nso.mn
Title 2	:	*Household income and expenditure survey/living standard measurement survey 2002-2003*
Operator	:	National Statistics Office
Specification	:	Includes information on socioeconomic situation

Title 3	:	*Health Sector Strategic Master Plan*
Operator	:	Ministry of Health
Specification	:	Contains analyses, tables and graphs depicting the patterns of health care spending in the country
Web address	:	http://moh.mn/moh%20db/HealthReports.nsf
Title 4	:	*Health indicator books, 2000-2005*
Operator	:	National Center for Health Development
Specification	:	Describe trends in child mortality causes and morbidity, identify areas in need of interventions and assess progress towards the MDGs for child and maternal health
Web address	:	http://nchd.mn
Title 5	:	*Mongolian national health accounts 2000-2005*
Operator	:	National Centre for Health Development
Specification	:	To study the quality of primary care for children
Web address	:	http://nchd.mn
Title 6	:	*Mongolian STEPS survey on the prevalence of noncommunicable disease risk factors 2006*
Operator	:	Ministry of Health
Specification	:	The first national representative survey on prevalence of NCD risk factors, supported by WHO.
Web address	:	http://www.moh.mn/
Title 7	:	*3rd national nutrition survey on the nutritional status of Mongolian children and women*
Operator	:	Ministry of Health
Specification	:	The third national nutrition survey, supported by UNICEF.
Title 8	:	*The statistical yearbook of social insurance 2006*
Operator	:	State Social Insurance General Office
Specification	:	Glossary of definitions of social insurance law terminology, tables and graphs, depicting the pattern of social insurance indicators, income and expenditure, including health insurance
Web address	:	http://www.ndaatgal.mn
Title 9	:	*Health care systems in transition: Mongolia*
Operator	:	The European Observatory on Health Systems and Policies
Specification	:	Country-based reports that provide a detailed description of the health system and of policy initiatives in progress or under development.
Comments	:	Unpublished
Title 10	:	*The Mongolian health sector at a crossroads: an incomplete transition*
Operator	:	World Bank East Asia and Pacific Human development
Specification	:	Mongolian health sector profiles and analyses.
Comments	:	Unpublished
Title 11	:	*Survey assessing the nutritional consequences of dzud in Mongolia*
Operator	:	Ministry of Health
Specification	:	The survey supported by UNICEF, WHO and the US Centers for Disease Control and Prevention Summary of the result of the survey, which assessed the nutritional status of children in Mongolia after exceptionally severe winter weather (called *dzud* in Mongolian language) that caused massive livestock losses.
Web address	:	http://www.moh.mn/
Title 12	:	*Report on the assessment of health facilities in responding to emergencies*
Operator	:	Ministry of Health
Specification	:	Survey supported by WHO
Web address	:	http://www.moh.mn/

Title 13	:	***Survey on internal migration and its public health consequences***
Operator	:	Ministry of Health
Specification	:	Review with recommendations on the quality of and access to primary health care among migrants in the capital city.
Web address	:	http://www.moh.mn/
Title 14	:	*Brochure of the Ministry of Health of Mongolia*
Operator	:	Ministry of Health
Specification	:	Introduction to the mission, vision, functions and organizational structure of the Ministry of Health, Mongolia.
Web address	:	http://www.moh.mn/
Title 15	:	*Memorandum of understanding on health sector human resource development in Mongolia*
Operator	:	Ministry of Health
Specification	:	Health and non-health sectors, including education, social welfare, justice and economy, as well as international organizations that have agreed to collaborate on health sector human resource development issues to collectively fulfil action strategies.
Title 16	:	*Memorandum of understanding*
Operator	:	Ministry of Health of Mongolia, ADB
Features	:	Mid Term Review. Loan 1998-MON: Second Health Sector Development Project

5. ADDRESSES

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WHO REPRESENTATIVE IN MONGOLIA

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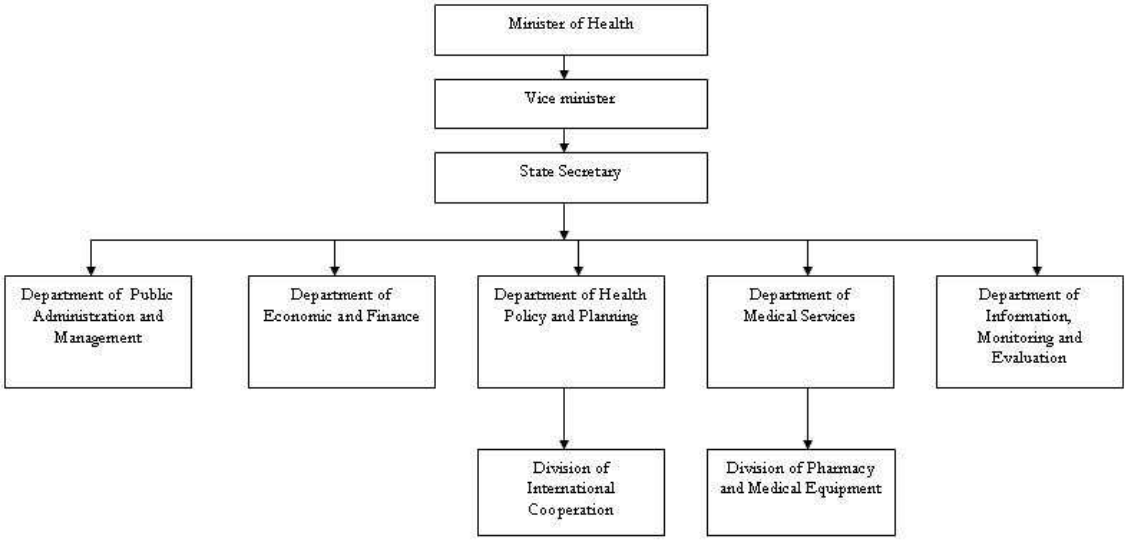
Official Email Address	:	who@mog.wpro.who.int
Telephone	:	(976) 11-32 78 70 (976) 11-32 24 30
Fax	:	(976) 11-32 46 83

6. ORGANIZATIONAL CHART: Ministry of Health



MONGOLIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	1567.00			2006	1
2	**Estimated population** ('000s)	2594.70	1265.20	1329.50	2006	1
3	**Annual population growth rate** (%)	1.20	...	...	2006	1
4	**Percentage of population**					
	- 0–4 years	8.40	8.70	8.10	2006	1
	- 5–14 years	20.10	20.80	19.50	2006	1
	- 65 years and above	4.20	3.70	4.60	2006	1
5	**Urban population** (%)	60.90	...	...	2006	1
6	**Crude birth rate** (per 1000 population)	18.37	19.58	17.54	2006	2
7	**Crude death rate** (per 1000 population)	6.08	7.51	4.61	2006	2
8	**Rate of natural increase of population** (% per annum)	1.20	...	...	2006	1
9	**Life expectancy** (years)					
	- at birth	65.85	62.59	69.38	2006	1
	- Healthy Life Expectancy (HALE) at age 60	60.00	...	...	2006	1
10	**Adult literacy rate** (%)	97.80	98.00	97.50	2004	3
11	**Neonatal mortality rate** (per 1000 live births)	12.40	...	...	2006	2
12	**Infant mortality rate** (per 1000 live births)	19.78	22.10	17.20	2006	2
13	**Under-five mortality rate** (per 1000 live births)	24.04	26.70	21.10	2006	2
14	**Total fertility rate** (women aged 15–49 years)	1.90			2006	2
15	**Maternal mortality ratio** (per 100 000 live births)	69.70			2006	2
16	**Percentage of newborn infants weighing at least 2500 g at birth**	95.90	...	...	2006	2
17	**Prevalence of underweight children under five years of age**	6.70	6.50	6.80	2006	8
18	**Percentage of pregnant women with anaemia**			12.10	2006	2
19	**Percentage of teenage pregnancy**			5.60	2006	2
20	**Immunization coverage for infants (%)**					
	- BCG	98.20	...	...	2006	4
	- DTP3	99.00	...	...	2006	4
	- POL3	98.30	...	...	2006	4
	- Measles	98.90	...	...	2006	4
	- Hepatitis B III	98.50	...	...	2006	4
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.70			2006	2
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries attended by skilled health personnel	99.70			2006	2
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.20			2006	2
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.50			2006	2
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			50.77	2006	2
23	**Condom use rate of the contraceptive prevalence rate**	28.00	...	...	2006	2
24	**HIV prevalence among 15–24 year-old pregnant women**			0.00	2006	4
25	**Number of children orphaned by HIV/AIDS** [aa]	5	3	2	2006	4

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	62.00	87.00	30.00	2004	6
27	**Proportion of population with access to improved sanitation**	59.00	75.00	37.00	2004	6
28	**Proportion of the population using solid fuels (%)**	51.00	...	...	2002	7
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.69	2004	3
33	**Per capita GDP at current market prices** (US$)			746.11	2005	1
34	**Rate of growth of per capita GDP** (%)			6.2	2005	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			89.60	2005	11
	- total expenditure on health as % of GDP			4.30	2005	11
	- per capita total expenditure on health (in US$)			35.00	2005	11
	Government expenditure on health					
	- amount (in million US$)			81.57	2005	11
	- general government expenditure on health as % of total expenditure on health			91.04	2005	11
	- general government expenditure on health as % of total general government expenditure			12.86	2005	11
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			1.62	2005	11
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			7.49	2005	11
	Exchange rate in US$ of local currency is: 1 US$ =			1205.27	2005	1
36	**Health insurance coverage as % of total population**			76.50	2005	10

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	7079	1508	5571	5751	1328	27.28	11.91	41.90	22.30	5.15	2006	2
	- dentists	514	...	...	210	304	1.98	...	...	0.81	1.18	2006	2
	- pharmacists	793	72	721	156	637	3.06	0.57	5.42	0.60	2.47	2006	2
	- nurses	8359	154	8205	7559	800	32.22	1.22	61.71	29.31	3.10	2006	2
	- midwives	646	7	639	625	21	2.49	0.06	4.80	2.42	0.08	2006	2
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	5885	...	...	4008	1877	22.68	...	...	22.82	...	2006	2
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the respiratory system	196 586	95 409	101 177	7576.20	7540.50	7610.10	2006	2
	2. Diseases of the digestive system	189 324	83 108	106 216	7296.30	6568.30	7989.10	2006	2
	3. Diseases of the genitourinary system	180 230	44 739	135 491	6945.80	3535.90	10191.10	2006	2
	4. Diseases of the circulatory system	130 216	53 704	76 512	5018.40	4244.40	5754.90	2006	2
	5. Injuries, poisoning and other consequences of external causes	94 854	62 692	32 162	3655.60	4954.80	2419.10	2006	2
	6. Diseases of the nervous system	60 514	26 793	33 721	2332.10	2117.50	2536.30	2006	2
	7. Diseases of the skin and subcutaneous tissues	51 724	23 879	27 845	1993.40	1887.20	2094.40	2006	2
	8. Infectious and parasitic diseases	38 647	18 031	20 616	1489.40	1425.10	1550.60	2006	2
	9. Diseases of the eye and adnexa	32 584	13 643	18 941	1255.70	1078.30	1424.70	2006	2
	10. Mental and behavioural disorders	29 550	15 776	13 774	1138.80	1246.80	1036.00	2006	2
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diseases of the circulatory system	5938	3283	2655	228.80	259.40	199.70	2006	2
	2. Tumours and neoplasms	2861	1580	1281	110.30	124.90	96.40	2006	2
	3. Injuries, poisoning and otherconsequences of external causes	2842	2345	497	109.50	185.30	37.40	2006	2
	4. Diseases of the digestive system	1472	860	612	56.70	68.00	46.00	2006	2
	5. Diseases of the respiratory system	614	352	262	23.70	27.90	19.70	2006	2
	6. Certain conditions originating in the perinatal period	478	281	197	18.40	22.20	14.80	2006	2
	7. Infectious and parasitic diseases	418	278	140	16.10	22.00	10.50	2006	2
	8. Diseases of the genitourinary system	327	173	154	12.60	13.70	11.70	2006	2
	9. Diseases of the nervous system	244	145	99	9.40	11.50	7.40	2006	2
	10. Congenital malformations, deformations and chromosomal abnormalities	162	87	75	6.20	6.90	5.60	2006	2
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	2
	- Diphtheria	0	0	0	0	0	0	2006	2
	- Hib meningitis	65	30	35	7	5	2	2006	2
	- Measles	22	11	11	0	0	0	2006	2
	- Mumps	5073	3021	2052	0	0	0	2006	2
	- Neonatal tetanus	0	0	0	0	0	0	2006	2
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	2
	- Poliomyelitis	0	0	0	0	0	0	2006	2
	- Rubella	1229	607	622	0	0	0	2006	2
	- Total Tetanus	0	0	0	0	0	0	2006	2
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	6695	3695	3000	53	30	23	2006	4
	- Type A	5574	3024	2550	...	...	...	2006	4
	- Type B	946	589	357	...	...	...	2006	4
	- Type C	161	74	87	...	...	...	2006	4
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2006	4
	Dengue/DHF	0	0	0	0	0	0	2004	9
	Encephalitis	6	2	4	0	0	0	2006	4
	Gonorrhoea	4537	2172	2365	0	0	0	2006	2
	Leprosy	0	0	0	...	...	...	2005	9
	Malaria	...	...	...	...	...	...		
	Plague	1	0	1	0	0	0	2006	2
	Syphilis	3017	1055	1962	0	0	0	2006	2
	Typhoid fever	3	1	2	0	0	0	2006	2
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	4618	...	...	...	...	...	2005	9
	- New pulmonary tuberculosis (smear-positive)	1868	...	...	...	...	...	2005	9
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	206.00	...	...	23.00	...	...	2005	9
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	82.00	...	...	88.00 (2004)	...	...	2005	9
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	151 151	83 723	67 428	342	193	149	2006	2
48	**Diarrhoeal diseases**	19 470	9 674	9796	73	43	30	2006	2
49	**Cancers**								
	All cancers (malignant neoplasms only)	3471	1783	1688	2899	1645	1254	2006	5
	- Breast	89	1	88	29	0	29	2006	5
	- Colon and rectum	81	39	42	62	23	39	2006	5
	- Cervix			318			96	2006	5
	- Oesophagus	291	151	140	242	130	112	2006	5
	- Leukaemia	39	12	27	34	13	21	2006	5
	- Lip, oral cavity and pharynx	46	23	23	26	13	13	2006	5
	- Liver	1260	746	514	1282	762	520	2006	5
	- Stomach	512	331	181	486	313	173	2006	5
	- Trachea, bronchus, and lung	300	232	68	302	223	79	2006	5

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	130 216	53 704	76 512	5938	3283	2655	2006	2
	- Acute myocardial infarction	1484	702	782	819	585	234	2006	2
	- Cerebrovascular diseases	13 823	6861	6962	2597	1358	1239	2006	2
	- Hypertension	49 522	19 323	30 199	543	263	280	2006	2
	- Ischaemic heart disease	31 423	14 147	17 276	1391	745	646	2006	2
	- Rheumatic fever and rheumatic heart diseases	20 021	6266	13 755	104	53	51	2006	2
51	**Maternal causes**								
	- Abortion			12 594			2	2006	2
	- Eclampsia			7377			1	2006	2
	- Haemorrhage			1025			6	2006	2
	- Obstructed labour			11 671			10	2006	2
	- Sepsis			31			2	2006	2
52	**Diabetes mellitus**	3103	1508	1595	76	45	31	2006	2
53	**Mental disorders**	29 550	15 776	13 774	32	11	21	2006	2
54	**Injuries**								
	All types	94 854	62 692	32 162	2842	2345	497	2006	2
	- Homicide and violence	…	…	…	420	362	58	2006	2
	- Motor and other vehicular accidents	…	…	…	554	441	113	2006	2
	- Occupational injuries	…	…	…	44	38	6	2006	2
	- Suicide	…	…	…	482	418	64	2006	2
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					34	4764	2006	2
	- Specialized hospitals					15	3970	2006	2
	- District/first-level referral hospitals					12/ 322	5594	2006	2
	- Primary health care centres					224	0	2006	2
	Private hospitals					780 [a]	2308	2006	2

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure includes private clinics

Sources:

1 Mongolian statistical yearbook-2005. Ulaanbaatar, National Statistical Office of Mongolia.

2 *Health indicators 2006* . National Center for Health Development.

3 *Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis* . United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].

4	Statistical report 2006, National Center for Communicable Diseases.
5	Statistical report 2006, National Center for Cancer.
6	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade.* Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006].
7	*Indoor Air Pollution: National Burden of Disease Estimates*. World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
8	Third National Nutrition Survey Report, 2006 MOH, PHI.
9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	Statistical Yearbook 2006, SSIGO, 2007.
11	*National health accounts 2003-2005*, National Center for Health Development, 2007.

NAURU

1. CONTEXT

1.1 Demographics

The population of Nauru was estimated at 10 131 for 2006, about 35% below 15 years of age and around 5% 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 to six people. The President is both head of state and head of government. There is a loose multi-party system; the two main parties are the Democratic Party and the Nauru Party. On 30 September 2004, President Scotty declared a state of emergency and dissolved Parliament. This action was prompted by a stalemate in Parliament over the Speaker's suspension of a Member of Parliament, blocking the Government's attempts to present its budget. The action lasted 21 days and an election was held on 23 October. President Scotty was re-elected. The next election is expected to be held in June 2007.

1.3 Socioeconomic situation

Until recently, Nauru was a self-reliant country. At the height of phosphate mining activities, the country's gross domestic product (GDP) per capita was one of the highest in the Pacific and living standards were comparable with those of high-income countries. Traditionally, revenues of this tiny island have come from exports of phosphates, but reserves are expected to be exhausted soon. The drastic decline in phosphate revenue has been followed first by a decrease in disposable income, and then by aid-dependence.

The rehabilitation of mined land and the replacement of income from phosphates are serious long-term problems. 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 virtual bankruptcy. To cut costs, the Government has frozen wages and reduced overstaffed public service departments. In 2005, the deterioration in housing, hospitals and other capital plant continued, and the cost to Australia of keeping the Government and the economy afloat continued to climb. Few comprehensive statistics on the Nauru economy exist, with estimates of GDP varying widely.

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 and New Zealand, including water.

There are frequent disruptions of supplies of food, fuel, equipment and materials. 'Our Airline' (formerly 'Air Nauru'), the only airline servicing the country, faces repeated interruptions due to a shortage of funds for lease payments, fuel, maintenance and other running costs.

In 2001, a group of Afghani refugees rescued at sea was transferred to a camp in Nauru in exchange for a multi-million dollar aid package from Australia. Use of Nauru's isolated location and its refugee facility continues.

1.4 Vulnerabilities and hazards

Nauru is particularly vulnerable due to its isolation, with overdependence on the national air carrier and its single 737 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 focused on water and sanitation, there have been no recent infectious disease outbreaks. The last case of preventable infectious disease occurred in 1999. Noncommunicable diseases, such as diabetes, hypertension, heart disease and cancer, have become the leading causes of morbidity and mortality, together with respiratory diseases. Rates of obesity are very high. In 2003, the adult diabetes prevalence rate (30.2 %) was the highest in the world. Cigarette smoking is a very common practice among men and women.

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

No available information.

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

Nauru General Hospital (NGH) and the National Phosphate Corporation (NPC) Hospital amalgamated in July 1999 to become the Republic of Nauru Hospital. The hospital has five doctors. Specialist treatment is restricted and usually has to be sought in Australia.

3.3 Health policy, planning and regulatory framework

The primary health care approach to acute respiratory infections and diarrhoeal diseases will be strengthened, and the Expanded Programme on Immunization will expand coverage of target diseases. A survey of noncommunicable diseases using the WHO STEP-wise approach commenced recently and the following priority areas have been identified:

- diabetic services;
- enhancement of services to reduce overseas referrals;
- emergency services;
- pharmacy services;
- lifestyle diseases;
- school health programme;
- public health legislation and ordinances;

- national strategy;
- effective health promotion, media strategy;
- healthy eating; and
- health promotion as part of curative health.

3.4 Health care financing

Health care services will continue to be provided free of charge to all Nauruans. In 2005, total health expenditure amounted to AUD 6.5 million (US$ 4.96 million), or 8.0% of GDP. Government expenditure on health was AUD 4.0 million (US$ 3.0 million), and accounted for 38.1% of total government expenditure, compared with 5.4% in 1996.

3.5 Human resources for health

The Government plans to make available a balanced supply of health care providers, including physicians, nurses, other specialized staff and community health workers. Currently, 50% of professional staff are expatriates on contract, although training of local staff is planned.

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	:	*Nauru Bureau of Statistics*
Web address	:	http://www.spc.int/prism/country/nr/stats/
Title 2	:	*Nauru population profile: A guide for planners and policy makers.*
Operator	:	Noumea, Secretariat of the Pacific Caommunity
Title 3	:	*Republic of Nauru hospital data*

5. ADDRESSES

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NAURU — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.02			2004	1
2	**Estimated population** ('000s)	10.13	5.16	4.97	2006 est	1
3	**Annual population growth rate** (%)	0.30	…	…	2006-10	1
4	**Percentage of population**					
	- 0–4 years	12.37	12.33	12.42	2006 est	3
	- 5–14 years	22.53	22.39	22.68	2006 est	3
	- 65 years and above	4.97	4.63	5.33	2006 est	3
5	**Urban population** (%)	100.00	100.00	100.00	2005 est	2
6	**Crude birth rate** (per 1000 population)	31.20	…	…	2002	
7	**Crude death rate** (per 1000 population)	7.80	…	…	2002	
8	**Rate of natural increase of population** (% per annum)	2.34 [a]	…	…	2002	
9	**Life expectancy** (years)					
	- at birth	61.00	58.00	61.00	2004	5
	- Healthy Life Expectancy (HALE) at age 60	…	8.70	10.50	2002	6
10	**Adult literacy rate** (%)	95.00	95.00	95.00	1998	7
11	**Neonatal mortality rate** (per 1000 live births)	6.30	…	…	2002	4
12	**Infant mortality rate** (per 1000 live births)	12.70	…	…	2002	4
13	**Under-five mortality rate** (per 1000 live births)	19.10	…	…	2002	4
14	**Total fertility rate** (women aged 15–49 years)	3.80			2004	5
15	**Maternal mortality ratio** (per 100 000 live births)	300.00			2002	8
16	**Percentage of newborn infants weighing at least 2500 g at birth**	…	…	…		
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			…		
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	9
	- DTP3	72.00	…	…	2006	9
	- POL3	45.00	…	…	2006	9
	- Measles	100.00	100.00	100.00	2006	9
	- Hepatitis B III	100.00	100.00	100.00	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2003est	10
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2006	9
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			…		
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

NAURU

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	100.00	100.00	NR	2003	10
27	**Proportion of population with access to improved sanitation**	100.00	100.00	NR	2003	10
28	**Proportion of the population using solid fuels (%)**	...	...	...		
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.66	1998	7
33	**Per capita GDP at current market prices** (US$)			...		
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			4.96	2005p	5
	- total expenditure on health as % of GDP			8.00	2005p	5
	- per capita total expenditure on health (in US$)			477.94	2005p	5
	Government expenditure on health					
	- amount (in million US$)			3.05	2005p	5
	- general government expenditure on health as % of total expenditure on health			61.90	2005p	5
	- general government expenditure on health as % of total general government expenditure			38.10	2005p	5
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			2.60	2005p	5
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			38.10	2005p	5
	Exchange rate in US$ of local currency is: 1 US$ =			1.31	2005p	5
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population[a]						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	5	5	0	...	...	4.95	... [c]	... [c]	...	...	2004	11
	- dentists	1	1	0	...	...	0.99	... [c]	... [c]	...	...	2004	11
	- pharmacists	4 [b]	0	4 [b]	...	...	3.96	... [c]	... [c]	...	...	2004	11
	- nurses	48	6	42	...	...	47.52	...	...	...	...	2004	11
	- midwives	2	0	2	...	...	1.98	... [c]	... [c]	...	...	2004	11
	- other nursing / auxiliary staff	8	0	8	...	...	7.92	... [c]	... [c]	...	...	2004	11
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	13	9	4	...	...	12.87	...	...	...	...	2004	11
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	156	...	...	...	...	154.46	...	...	...	...	2004	11
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population[a]				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Symptoms, signs and abnormal clinical findings not elsewhere classified	252 [e]	132 [e]	120 [e]	2495.05 [e]	...	...	2004	12
	2. Confinement (post partum care)	156 [e]	NR [e]	156 [e]	1544.55 [e]	NR	... [c]	2004	12
	3. Newborn	144 [e]	60 [e]	84 [e]	1425.74 [e]	...	...	2004	12
	4. Diabetes	72 [e]	36 [e]	36 [e]	712.87 [e]	...	...	2004	12
	5. Hypertension	72 [e]	60 [e]	12 [e]	712.87 [e]	...	...	2004	12
	6. Abscess cutaneous	60 [e]	24 [e]	36 [e]	594.06 [e]	...	...	2004	12
	7. Disease of the genotourinary system	48 [e]	0 [e]	48 [e]	475.25 [e]	... [c]	... [c]	2004	12
	8. Anaemia	36 [e]	24 [e]	12 [e]	356.44 [e]	...	...	2004	12
	9. Asthma	36 [e]	24 [e]	12 [e]	356.44 [e]	...	...	2004	12
	10. Carbuncle	24 [e]	24 [e]	0 [e]	237.62 [e]	... [c]	... [c]	2004	12
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diabetes	16	8	8	158.97 [d]	155.76 [d]	162.30 [d]	2003	13
	2. Diseases of respiratory system	15	8	7	149.03 [d]	155.76 [d]	142.02 [d]	2003	13
	3. Diseases of the circulatory system (excluding hypertension –cardiovascular)	12	7	5	119.23 [d]	136.29 [d]	101.44 [d]	2003	13
	4. Neoplasms	8	0	8	79.48 [d]	0.00 [d]	162.30 [d]	2003	13
	5. Transport accident and drowning	8	6	2	79.48 [d]	116.82 [d]	40.58 [d]	2003	13
	6. Hypertension	7	3	4	69.55 [d]	58.41 [d]	81.15 [d]	2003	13
	7. Septicaemia unspecified	4	3	1	39.74 [d]	58.41 [d]	20.29 [d]	2003	13
	8. Fibrosis and cirrhosis of liver	4	4	0	39.74 [d]	77.88 [d]	0.00 [d]	2003	13
	9. Renal failure	2	0	2	19.87 [d]	0.00 [d]	40.58 [d]	2003	13
	10. Certain conditions originating in the perinatal period	2	1	1	19.87 [d]	19.47 [d]	20.29 [d]	2003	13
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	9
	- Diphtheria	0	0	0	0	0	0	2006	9
	- Hib meningitis	0	0	0	0	0	0	2005	9
	- Measles	0	0	0	0	0	0	2006	9
	- Mumps	0	0	0	0	0	0	2006	9
	- Neonatal tetanus	0	0	0	0	0	0	2006	9
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	0	0	0	0	0	0	2006	9
	- Total Tetanus	0	0	0	0	0	0	2006	9
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	0	0	0	0	0	0	2002	4
	- Type B	0	0	0	0	0	0	2002	4
	- Type C	0	0	0	0	0	0	2002	4
	- Type E	...	...	...	...	...	...		
	- Unspecified	0	0	0	0	0	0	2002	4
	Cholera	0	0	0	0	0	0	2002	4
	Dengue/DHF	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Encephalitis	0	0	0	0	0	0	2002	4
	Gonorrhoea	...	...	...	0	0	0	2002	4
	Leprosy	1	...	...	...	...	...	2005	9
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2002	4
	Syphilis	...	...	...	0	0	0	2002	4
	Typhoid fever	0	0	0	0	0	0	2002	4
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	11	...	...	...	...	...	2005	9
	- New pulmonary tuberculosis (smear-positive)	0	...	...	...	...	...	2005	9
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	156.00	...	...	18.00	...	...	2005	9
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	57.00	...	...	50.00 (2002)	...	...	2003	9
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	...	...	...		
48	**Diarrhoeal diseases**	...	...	...	...	...	...		
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	13	5	8	2002	4
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	0	0	0	2002	4
	- Cervix			...			1.00	2002	4
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	4	0	4	2002	4
	- Lip, oral cavity and pharynx	...	...	...	0	0	0	2002	4
	- Liver	...	...	...	2	1	1	2002	4
	- Stomach	...	...	...	1	0	1	2002	4
	- Trachea, bronchus, and lung	...	...	...	5	4	1	2002	4
50	**Circulatory**								
	All circulatory system diseases	...	...	...	14	12	2	2002	4
	- Acute myocardial infarction	...	...	...	9	9	0	2002	4
	- Cerebrovascular diseases	...	...	...	2	1	1	2002	4
	- Hypertension	72	60	12	1	1	0	2002	4
	- Ischaemic heart disease	...	...	...	2	1	1	2002	4
	- Rheumatic fever and rheumatic heart diseases	...	...	...	0	0	0	2002	4

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			12			0	2002	4
	- Eclampsia			0			0	2002	4
	- Haemorrhage			1			1	2002	4
	- Obstructed labour			0			0	2002	4
	- Sepsis			0			0	2002	4
52	**Diabetes mellitus**	72	36	36	8	1	7	2002	4
53	**Mental disorders**	...	...	...	0	0	0	2002	4
54	**Injuries**								
	All types	...	...	...	12	9	3	2002	4
	- Homicide and violence	...	...	...	2	2	0	2002	4
	- Motor and other vehicular accidents	...	...	...	0	0	0	2002	4
	- Occupational injuries	...	...	...	0	0	0	2002	4
	- Suicide	...	...	...	1	1	0	2002	4
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	60	2004	11
	- Specialized hospitals					0	0	2004	11
	- District/first-level referral hospitals					0	0	2004	11
	- Primary health care centres					1	0	2004	11
	Private hospitals					0	0	2004	11

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit, WHO Regional Office for the Western Pacific
b	Figure refers to dispensers only
c	Revised data
d	Estimated by Health Information and Evidence for Policy Unit, WHO Regional Office for the Western Pacific using 2002 cesus population
e	Hospital admissions

Sources:

1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	*Demographic Tables for the Western Pacific 2005-2010* . Manila, World Health Organization Regional Office for the Western Pacific, 2005.
3	*Urban and rural areas 2005.* Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
4	Birth and death documents from Director of Public Health 2002.
5	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].
6	World health report 2004. *Changing history* . Geneva, World Health Organization, 2004.
7	*Pacific human development report 1999 (Creating opportunities).* New York, United Nations Development Programme, 1999.
8	*Nauru population profile. A guide for planners and policy makers.* Noumea, Secretariat of the Pacific Community.
9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	Health inspectors report in the Public Health Office (NGH).
11	Republic of Nauru (RON) Hospital data (data from Health Planning Officer).

12	RON Hospital inpatient record study up to March 24 (data from Health Planning Officer).
13	RON Hospital 2003 mortality data analysis (data from Chief Nursing Officer).

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. Administratively, the archipelago is divided into three provinces: South Province, North Province and Loyalty Islands Province. New Caledonia is an Overseas French Territory.

According to the 2004 national census, the population of New Caledonia was 230 789 inhabitants; the 2006 estimated population was 240 390 inhabitants, consisting of 42.5% Melanesians, 37.1% Europeans, 8.4% Wallisians, 3.8% Polynesians, 3.6% Indonesians, 1.6% Vietnamese and 3% other nationalities. In 2006, the crude birth rate was 17.7 per 1000 population, the crude death rate was 4.7 per 1000 population and the rate of annual population increase was 13.0 per 1000 population. The total fertility rate is 2.2 (2002), and the infant mortality rate is 7.4 per 1000 live births (2006 provisional).

The urban population was estimated to be 63.70 % of the total population by 2005. Life expectancy at birth is 71.9 for males and 78.6 for females (2005). 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 approval 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. New Caledonia consists of three provinces, Iles Loyaute, Nord, and Sud, and has a three-tier system of government: metropolitan France (represented by the High Commissioner), the Territorial Congress and the provincial assemblies. The Noumea Accords of 1998 diminished the hopes of those involved in the pro-independence movement, as the earliest date of possible independence for the country is now 2014. The President of France has been represented by High Commissioner Michel Mathieu since 15 July 2005. The President of the New Caledonian Government is elected by the members of the Territorial Congress. The last election was held 29 June 2004, when Marie-Noelle Themerau was elected.

1.3 Socioeconomic situation

New Caledonia has about 25% of the world's known nickel resources. Only a small amount of the country's land is suitable for cultivation, and food accounts for about 20% of imports. In addition to nickel, substantial financial support from France (equal to more than 25% of 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.

The mainstays of the country's booming economy are mining, cattle, shrimp farming, fishing, forestry agriculture and tourism. Per capita gross domestic product (GDP) was US$ 19 190.49 in 2001.

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 Vulnerabilities and hazards

New Caledonia is vulnerable to natural hazards. Cyclones are 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 in New Caledonia. Common infections include: acute respiratory tract infections, including pneumonia; diarrhoeal diseases; sexually transmitted infections, including HIV infections; and rheumatic heart diseases. In 2005, 3261 cases of acute respiratory infection, including pneumonia, 628 cases of otitis media, 254 cases of influenza cases and 276 cases of diarrhoeal disease were reported. The prevalence of rheumatic heart disease is estimated to be 6.7 per 1000 population.

Sexually transmitted infections (STI) have always been suspected of being highly prevalent, with 411 cases notified in 2005, of which 17.3 % were chlamydial infections and 3.6% were syphilis.

As of December 2006, a cumulative total of 295 HIV infections and 108 AIDS cases had been reported; 59 of them had died, 50 due to AIDS, since 1986. Ten new HIV infections were recorded in 2005.

Dengue, leptospirosis, tuberculosis and leprosy are endemic in the country, with 46 cases, 40 cases, 51 new cases and 4 new cases notified, respectively, in 2005.

Noncommunicable diseases also constitute a major disease burden, cardiovascular diseases and cancers being the most common conditions, followed by chronic renal failure (324 cases) and respiratory failure (208 new cases recorded and 415 cases already under treatment).

2.2 Outbreaks of communicable diseases

In 2007, an outbreak of dengue was notified by the health authorities. There has been an increase in the number of cases of acute respiratory infection, with 35 new cases reported in 2007, as of August.

2.3 Leading causes of mortality and morbidity

The leading causes of mortality during 2005 included: tumours (315 cases or 26.6%); diseases of the circulatory system (285 cases or 25%); traumatic injuries (165 or 14.4%); diseases of the respiratory system (100 cases or 8.8%); diseases of the digestive system (47 cases or 4.1%); and infectious and parasitic diseases (33 cases or 2.9%).

2.4 Maternal, child and infant diseases

New Caledonia has a well-functioning family planning programme. In 2004, it was estimated that 20% of the female population (one in every five women) was using contraception, and 155 women per 1000 underwent a medical abortion as a mean of contraception in 2005. In the same year, 24 968 Pap smears were performed.

During 2006, the BCG, DTP3 and POL3 coverage rate was 100%, while the coverage rate for measles and hepatitis B was 99%.

2.5 Burden of disease

Chronic health conditions requiring long periods of hospitalization constitute a major burden for the health system. Such conditions include cardiovascular diseases, constituting 45.9 % of

hospitalizations, followed by diabetes mellitus (17.6%), cancers (9%), mental illnesses (9.7%), chronic renal failure (7.7%) and respiratory failure.

At the same time, some communicable diseases, such as STI (including HIV) and acute respiratory infections, remain major public health issues.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Government has endorsed 'Health for All' and primary health care is one of the priorities set by the health offices of all three provinces. The main elements of the health strategy are:

- qualitative and quantitative improvements to 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 medico-social constituencies managed by the Directions Provinciales des Affaires Sanitaires. Integrated services are delivered through seven medical-social centres with 46 hospital beds, and 19 medical centres with 14 nursing stations, 55 consultation rooms and 22 dental care stations.

In South Province, the Direction de l'Action Sanitaire et Sociale de la Province Sud manages four specialized medical centres based in Noumea (Multi-Specialty Centre, Mother and Child Health Centre, School Health Centre and Family Planning Centre).

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.

At a territorial level, the Direction des Affaires Sanitaires et Sociales de la Nouvelle-Calédonie, has the role of coordinating public and private health affairs, legislation and health control.

3.3 Health policy, planning and regulatory framework

No available information.

3.4 Health care financing

In 2003, health expenditure amounted to 50 514.43 million XPF (US$ 476.59 million). The country spent 8.7% of its GDP on health. Per capita expenditure on health was 205 777 XPF (US$ 1941.48). 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 health and welfare needs. However, it requires a constant effort to balance the distribution of these resources equally among all of the population.

3.5 Human resources for health

As of 31 December 2006, there were 519 practising medical doctors, 49.5% of whom were specialists and 50.5% of whom were practising general medicine. There were also 1029 nurses, 120 dentists, 96 midwives and 150 pharmacists.

3.6 Partnerships

In addition to the direct link with the French Government, la Direction des Affaires Sanitaires et Sociales works closely with its partners. WHO and the Secretariat of the Pacific Community are the main development partners in the health sector.

3.7 Challenges to health system strengthening

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*La Situation Sanitaire pour l'année 2005*
Operator	:	La direction des affaires sanitaires et sociales
Web address	:	http://www.dass.gouv.nc/static/presentation/presentation.htm
Title 2	:	*Pacific Regional Information System (PRISM)*
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int/prism/country/NC/NC_index.html
Title 3	:	*Demographic Tables for the Western Pacific 2005-2010*
Operator	:	World Health Organization, Regional Office for the Western Pacific

5. ADDRESSES

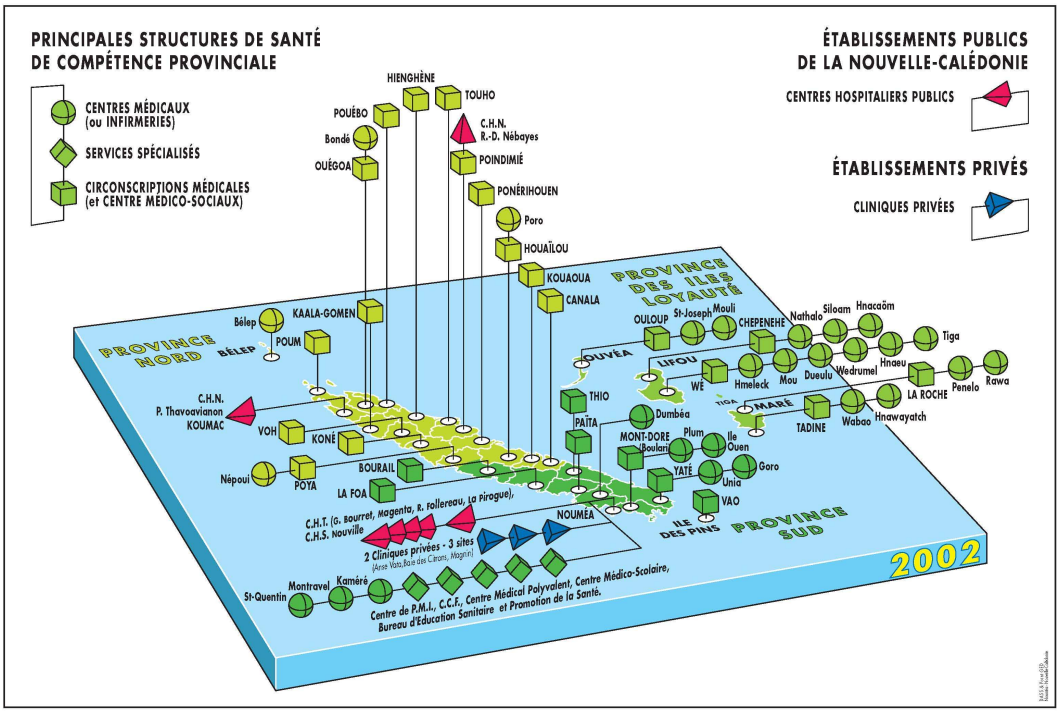
DIRECTION DES AFFAIRES SANITAIRES ET SOCIALES DE NOUVELLE-CALÉDONIE

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

Office Address	:	Level 4 Provident Plaza 1 Downtown Boulevard 33 Ellery Street, Suva, Fiji
Postal Address	:	P.O. Box 113, Suva, Fiji
Official Email Address	:	who@sp.wpro.who.int
Telephone	:	(679) 330 4600 / 330 4631/ 330 4635 / 331 7447
Fax	:	(679) 330 0462 / 331 1530

6. ORGANIZATIONAL CHART: DIRECTION DES AFFAIRES SANITAIRES ET SOCIALES DE NOUVELLE-CALEDONIE



COUNTRY HEALTH INFORMATION PROFILE

NEW CALEDONIA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	18.58			2006	1
2	**Estimated population** ('000s)	240.39	...	...	2006 est	1
3	**Annual population growth rate** (%)	1.60	...	...	2005	9
4	**Percentage of population**					
	- 0–4 years	9.20	9.00	9.40	2006 est	5
	- 5–14 years	19.20	19.40	18.80	2006 est	5
	- 65 years and above	6.30	5.90	6.80	2006 est	5
5	**Urban population** (%)	63.70	...	...	2005 est	6
6	**Crude birth rate** (per 1000 population)	17.70	...	...	2006p	1
7	**Crude death rate** (per 1000 population)	4.70	...	...	2006p	1
8	**Rate of natural increase of population** (% per annum)	1.30	...	...	2006p	1
9	**Life expectancy** (years)					
	- at birth	75.20	71.90	78.60	2005	1,7
	- Healthy Life Expectancy (HALE) at age 60	...	...	...		
10	**Adult literacy rate** (%)	91.00	92.00	90.00	2002 est	1
11	**Neonatal mortality rate** (per 1000 live births)	2.50	...	...	2005	7
12	**Infant mortality rate** (per 1000 live births)	5.70	...	...	2006p	1
13	**Under-five mortality rate** (per 1000 live births)	9.06	...	...	2002	3
14	**Total fertility rate** (women aged 15–49 years)	2.20			2005	7
15	**Maternal mortality ratio** (per 100 000 live births)	32.90			2005	9
16	**Percentage of newborn infants weighing at least 2500 g at birth**	92.00	...	...	2005	9
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	4
	- DTP3	100.00	100.00	100.00	2006	4
	- POL3	100.00 [a]	100.00 [a]	100.00 [a]	2006	4
	- Measles	99.00	...	...	2006	4
	- Hepatitis B III	99.00	...	...	2006	4
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	...				
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries attended by skilled health personnel	91.97			2005	2
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	4.37			2005	2
	- Percentage of deliveries in health facilities (as % of total deliveries)	87.60			2005	2
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			...		
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	…	…	…		
27	Proportion of population with access to improved sanitation	…	…	…		
28	Proportion of the population using solid fuels (%)	…	…	…		
29	Proportion of households with access to secure tenure	…				
30	**Proportion of vehicles using unleaded gasoline** (%)	…	…	…		
31	**Health care waste generation** (metric tons per year)	…	…	…		
32	**Human development index**			…		
33	**Per capita GDP at current market prices** (US$)			19 190.49 [b]	2001	1
34	**Rate of growth of per capita GDP** (%)			…		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			476.59	2003	9
	- total expenditure on health as % of GDP			9.22	1999	2
	- per capita total expenditure on health (in US$)			1941.48	2003	9
	Government expenditure on health					
	- amount (in million US$)			476.59	2003	9
	- 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			…		
	Exchange rate in US$ of local currency is: 1 US$ =			95.29	2006p	1
36	**Health insurance coverage as % of total population**			99.90	2004	2

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	519	…	…	…	…	21.59 [d]	…	…	…	…	2006	8
	- dentists	120	…	…	…	…	4.99 [d]	…	…	…	…	2006	8
	- pharmacists	150	…	…	…	…	6.24 [d]	…	…	…	…	2006	8
	- nurses	1029	…	…	…	…	42.80 [d]	…	…	…	…	2006	8
	- midwives	96	…	…	…	…	3.99 [d]	…	…	…	…	2006	8
	- other nursing / auxiliary staff	…	…	…	…	…	…	…	…	…	…		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	…	…	…	…	…	…	…	…	…	…		
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	…	…	…	…	…	…	…	…	…	…		
38	**Workforce losses/ attrition**	…	…	…									
39	**Yearly new graduates - physicians**	…	…	…									
40	**Yearly new graduates – nurses**	…	…	…									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections including pneumonia	3261	...	...	...	...	...	2005	8
	2. Otitis media	628	...	...	...	...	...	2005	8
	3. STI	411	...	...	...	...	...	2005	8
	4. Diarrhoeal diseases	276	...	...	...	...	...	2005	8
	5. Influenza	254	...	...	...	...	...	2005	8
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Tumor	315	...	...	133.18	...	...	2005	8
	2. Diseases of the circulatory system	285	...	...	120.49	...	...	2005	8
	3. Traumatic injuries	165	...	...	69.76	...	...	2005	8
	4. Diseases of the respiratory system	100	...	...	42.28	...	...	2005	8
	5. Diseases of the digestive system	47	...	...	19.87	...	...	2005	8
	6. Infectious and parasitic diseases	33	...	...	13.95	...	...	2005	8
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	0	0	0	0	0	0	2006	4
	- Hib meningitis	0	0	0	0	0	0	2005	4
	- Measles	0	0	0	0	0	0	2006	4
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	0	0	0	0	0	0	2006	4
	- Pertussis (whooping cough)	...	...	...	...	...	...		
	- Poliomyelitis	0	0	0	0	0	0	2006	4
	- Rubella	...	...	...	...	...	...		
	- Total Tetanus	...	...	...	...	...	...		
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	922	...	...	...	...	...	2005	9
	- Type B	11	...	...	...	...	...	2005	9
	- Type C	0	0	0	0	0	0	2005	9
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	46	...	...	0	0	0	2005	9
	Encephalitis	0	0	0	0	0	0	2005	9
	Gonorrhoea	35	...	...	...	...	...	2005	9
	Leprosy	4	...	...	...	...	...	2005	9
	Malaria	...	...	...	...	...	...		
	Plague	...	...	...	...	...	...		
	Syphilis	15	...	...	...	...	...	2005	9
	Typhoid fever	32	...	...	...	...	...	2005	9

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
		Number of cases			**Number of deaths**				
46	**Tuberculosis**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- All types	49	…	…	…	…	…	2005	4
	- New pulmonary tuberculosis (smear-positive)	18	…	…	…	…	…	2005	4
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	30.00	…	…	3.00	…	…	2005	4
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	67.00	…	…	94.00 (2004)	…	…	2005	4
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	8832	…	…	…	…	…	2004	9
48	**Diarrhoeal diseases**	276	…	…	…	…	…	2004	9
49	**Cancers**								
	All cancers (malignant neoplasms only)	683 [e]	…	…	…	…	…	2004	9
	- Breast	91 [e]	…	…	…	…	…	2004	9
	- Colon and rectum	83 [f]	…	…	…	…	…	2004	9
	- Cervix			52			…	2004	9
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	25	…	…	…	…	…	2004	9
	- Lip, oral cavity and pharynx	19	…	…	…	…	…	2004	9
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	80	…	…	…	…	…	2004	9
50	**Circulatory**								
	All circulatory system diseases	…	…	…	285	…	…	2005	8
	- Acute myocardial infarction	190	…	…	…	…	…	2005	9
	- Cerebrovascular diseases	1070	…	…	…	…	…	2005	9
	- Hypertension	9395	…	…	…	…	…	2005	9
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	1491	…	…	…	…	…	2005	9
51	**Maternal causes**								
	- Abortion			495 [e]			…	2005	9
	- Eclampsia			…			…		
	- Haemorrhage			…			…		
	- Obstructed labour			…			…		
	- Sepsis			…			…		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	6972	…	…	…	…	…	2005	9
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…	2005	9
	- Motor and other vehicular accidents	713	…	…	13	…	…	2005	9
	- Occupational injuries	4408	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	1	528	2005	9
	- Specialized hospitals	4	184 [c]	2005	9
	- District/first-level referral hospitals	7	46	2005	9
	- Primary health care centres	…	…		
	Private hospitals	2	176	2002	2

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Given as inactivated polio vaccine (IPV)
b	Converted to US$ using available exchange rates nearest to the period, i.e. 2003
c	Figure refers to 108 beds for psychiatric cases and 76 beds for geriatric cases
d	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
e	Figure includes only hospital cases
f	Figure refers to digestive cancer in among hospital cases

Sources:

1	Institut Territorial de la Statistique et des Etudes Economiques [www.isee.nc/].
2	Department of Health and Social Affairs of New Caledonia.
3	*Health situation in New Caledonia* , 01 January 2002 to 31 December 2002. Department of Health and Social Affairs, New Caledonia.
4	WHO Regional Office for the Western Pacific, data received from the technical units.
5	*Demographic Tables for the Western Pacific 2005-2010* . WHO Regional Office for the Western Pacific, Manila, 2005.
6	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
7	*Situation sanitaire en Nouvelle-Calédonie - Année 2005* . Department of Health and Social Affairs of New Caledonia [www.dass.gouv.nc/].
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9	*La Situation sanitaire pour l'annee 2005.* La direction des affaires sanitaires et sociales.

New Zealand

1. CONTEXT

1.1 Demographics

New Zealand's 2006 Census of Population and Dwellings was held on 7 March 2006. Final data are now available, with the resident population passing the 4 million mark. There were 4 143 279 people in the country on census night, an increase of 322 530 (8.4% since the 2001 Census). Usual residents accounted for 4 027 947 and overseas visitors for 115 334. In the 10 years to March 2006, New Zealand's census population increased by nearly half a million (up 461 733 or 12.5%). In the past 50 years, it has almost doubled—from 2 174 061 in 1956 to 4 143 279 in 2006.

There were 1 965 621 male and 2 062 328 female residents counted—around 104 women for every 100 men. Women have outnumbered men since the late 1960s.

The median age of usual residents was 35.9 in the 2006 Census; in 1996, it was 33.0 years. This increase in the median age reflects New Zealand's ageing population. The median age for males was 35.1 years, while it was 36.7 years for females, reflecting the longer life expectancy for women than for men.

The 2006 Census results show that the ethnic make-up of New Zealand has continued to change.

- The Mäori ethnic group has increased by 39 048 (7.4%) and now totals 565 329. One in seven people identified with the Mäori 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 11.1% of those who stated their ethnicity.

- Asian ethnic groups have grown the fastest, increasing from a total of 238 176 in 2001 to reach 354 552 in 2006 (an increase of almost 50%). The number of people identifying with the Asian ethnic groups has doubled since 1996, when it was 173 502. Those identifying with Pacific peoples ethnic groups had the second-largest increase from the 2001 Census, up 14.7% to total 265 974.

- European remains the largest of the major ethnic groups, totaling 2 609 592 (67.6%) in 2006.

1.2 Political situation

Elections were last held in September 2005. A minority coalition Government was formed between two parties of the centre-left, the New Zealand Labour Party and the Progressive Party. Elections are held every three years under a mixed-member proportional representation system. There are 120 seats in Parliament and there is no upper house. The next election is due in late 2008.

1.3 Socioeconomic situation

While the economy in New Zealand has slowed over the course of 2006, economic activity has generally been very strong over the past year. The buoyancy due to immigration has outweighed the negative impulse from an appreciating exchange rate. This has left productive resources stretched. Rising housing prices are providing further impetus to domestic demand.

The moderate headline inflation rate reflects the net outcome of falling import prices and high domestically generated inflation. On current monetary policy settings, these factors are likely to continue balancing out and inflation should remain under control.

The New Zealand economy has averaged 4.0% annual growth in recent years. Over the period 2003-2006, the domestic economy, employment and income growth and high international commodity prices have been the main drivers of growth. Annual growth for the financials years 2002/2003 and 2003/2004 years was 4.2% and 4.7% respectively, growing to 4.8% in 2004/2005.

New Zealand continues to give priority to ensuring that overseas development assistance (ODA) activities foster the roles of women in development. The ODA programme recognizes that the roles that women play, their economic contribution and the constraints on their time and activity, are essential factors in sustainable development. The review of the Women in Development (WID) Plan of Action concluded that significant progress had been made in terms of both increasing support for WID-specific activities and in integrating gender considerations into all projects and programmes.

1.4 Vulnerabilities and hazards

Vulnerabilities and hazards derive from the geographical set up of a relatively small island country in the Pacific Ocean with limited natural resources.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

A temperate climate, low population density, lack of heavy industry and good nutrition gave New Zealand an early advantage over other nations in terms of health conditions and, at total population level, New Zealanders' health continues to improve. Impressive longevity gains have been recorded, and the infant mortality rate continues to decrease, reducing from 5.5 per 1000 live births to 4.8 per 1000 over the last year alone (year ending June 2006). The infant mortality rate has fallen steadily in association with a major reduction in infectious diseases (and respiratory diseases), which were previously the main causes of death in the country.

Avoidable mortality decreased by approximately 40% from 1980 to 2003. Related good news is the steady decline in cardiovascular disease mortality for the total population, reflecting both incidence reduction (improvements in smoking, diet and control of blood cholesterol and blood pressure) as well as case fatality reduction (improved treatment of coronary heart disease and stroke) in about equal measure.

Malignant neoplasms (cancer), ischaemic heart disease and cerebrovascular disease were the leading causes of death in New Zealand from 1997 to 2006. In terms of health risk factors influenced by individual behaviour, use of tobacco products declined significantly during the period from 1976 to 1992, levelling off from 1992 to 1996, but subsequently falling steadily. However, the rate of smoking is not even among all groups within the population. An estimated 50% of Mäori and 33% of Pacific island people smoke, compared with 23% of the New Zealand European population, a 30% decline since 1997. People are smoking fewer cigarettes per day. The Government is also concerned about reducing overconsumption of alcohol, especially by men and young people, reducing the average fat intake, and promoting physical exercise. Mean alcohol consumption in 2003 was 10.8 litres of pure alcohol for all drinkers. In 2003, 88.5% of men and 80.3% of women aged 15-64 years drank alcohol. In 2003, drinking and driving contributed to 141 deaths, 555 serious injuries and 1398 minor injuries, and 31% of all road deaths were caused by drinking-related crashes.

AIDS was first diagnosed in New Zealand in 1983 and was made a notifiable disease in 1984. As of 31 December 2004, 843 cumulative cases had been notified and 2261 people had been reported to have tested HIV-positive. The HIV prevalence reported in the 2006 Human Development Report is 0.1% in ages 15-49.

2.2 Outbreaks of communicable diseases

Compared with other developed countries, a relatively high incidence of waterborne diseases, including camphylobacteriosis, giardiasis and cryptosporidiosis, is reported in New Zealand.

The Ministry of Health has acknowledged capability and capacity in the leadership and coordination of sector activity during possible emergency events, such as outbreaks of severe acute respiratory syndrome (SARS) and aviation flu. During 2005/2006, the focus of the Ministry's work in this area was on developing the New Zealand Influenza Pandemic Action Plan. The information in the plan is the outcome of work undertaken over the year by intersectoral work 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. The resulting New Zealand National Influenza Pandemic Preparedness Plan serves as a valuable model for the whole Pacific region.

The Ministry of Health is responsible for planning the national response to health service emergencies of all kinds, including outbreaks of communicable diseases. The Ministry is working on a number of projects that will collectively form the National Health Emergency Plan (NHEP), of which the plan for infectious diseases is one part. NHEP describes the larger context within which the Ministry of Health and all New Zealand health services will function during any national health-related emergency, including New Zealand's responsibilities under international agreements and regulations.

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 in New Zealand (National Advisory Committee on Health and Disability 2005). They include diabetes and cardiovascular disease, cancer, respiratory conditions, mental health conditions, such as anxiety and depression, and arthritis.

Comprehensive estimates of prevalence for cardiovascular disease (CVD) and type 2 diabetes in New Zealand populations are not currently available. However, an estimated 125 000 people have been diagnosed with diabetes, about 90% of them having type 2 diabetes (2006).

The following were the crude death rates (per 100 000) for leading causes: malignant neoplasms—197.8; ischemic heart disease—154.5; cerebrovascular disease—67.1; chronic lower respiratory diseases—44.9; other forms of heart disease—32.2; diabetes mellitus—21.1; organic, including symptomatic, mental disorders—16.9; transport accidents—14.5; intentional self-harm—12.9; and diseases of arteries, arterioles and capillaries—11.5.

Obesity is one of the headline indicators of health system outcome and 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.

2.4 Maternal, child and infant diseases

New Zealand's infant mortality rate was 4.8 deaths per 1000 live births in June 2006, an improvement from 5.5 per 1000 in June 2005, and continues the decrease from 6.7 in 1996 and 13.9 in 1976 (Statistics New Zealand 2006).

In 2003, 99.3% (55 119) of total hospital births were live-born babies, while the remaining 0.7% (414) were stillbirths. Neonatal deaths remain relatively uncommon, accounting for 182 cases (0.3%) of all hospital births. Despite the generally low death rates, neonatal deaths for Mäori and

Pacific babies remained markedly higher than for European babies. Neonatal deaths tend to occur at lower birth weights and gestational ages, with 70% occurring at birth weights of less than 2500 grams or at less than 37 gestational weeks. The proportions of babies born pre-term or with low birth weight remain largely stable, at 7.2% and 5.9% of all live births, respectively.

The three major causes of infant mortality in New Zealand are sudden infant death syndrome (SIDS), congenital abnormalities and perinatal conditions (such as prematurity, perinatal infections and low birth weight).

The information provided on the NZHIS website in 2007 shows that, in 2003, 55 289 live babies were born in New Zealand. Hospital births accounted for 55 119 live babies, delivered to 54 581 women. This is 98.2% of the 56 134 live babies born in 2003 as registered under Births, Deaths and Marriages (as reported by Statistics NZ).

The National Minimum Dataset (NMDS) has achieved complete coverage of all hospital births. The Maternal and Newborn Information System (MNIS) has made significant progress, with coverage increasing from approximately 70% of all registrations under Births, Deaths and Marriages in 2002 to 83% in 2003.

The median age of women giving birth in hospital in 2003 was 30.2 years. This continued a gradual increase from previous years, and for the first time was over 30 years. Nearly one-third (30.8%) of all mothers were in the 30-34 age group, which marks the peak of the reproductive age group. A delayed fertility pattern was particularly noticeable among women of European and Asian ethnic groups. There is also some evidence of delayed child-bearing among Pacific women.

Among the 54 581 mothers, two-thirds (67.4%) gave birth by normal vaginal delivery, 9.5% by operative vaginal birth, and the remaining 23.1% by caesarean section.

2.5 Burden of disease

Although mortality from the incidence of CVD has decreased significantly in the last 25 years, it is still the leading cause of death in New Zealand and a major source of disparity in health between Mäori and non-Mäori. For the first time, however, there are initial indications that the present decline in CVD risks may be starting to plateau, possibly due to the increasing prevalence of obesity and type 2 diabetes.

Within the scope of health and disability services, unequal health outcomes in New Zealand can largely be attributed to the disproportionate burden imposed by chronic or long-term conditions, especially cardiovascular disease (CVD) and type 2 diabetes, on Mäori and Pacific peoples and those on low incomes.

CVD is the leading cause of death, accounting for 40% of all deaths. Data show that 1 in 10 New Zealand adults has been diagnosed with heart disease and 1 in 48 with stroke. Modern sedentary lifestyles and high-energy diets, combined with the effect of an ageing population and improvements in the management of acute CVD, have resulted in an increase in the number of people living with the disease.

The prevalence of overweight adults was relatively stable from 1977 to 2003, averaging 41% in males and 27% in females. In contrast, the prevalence of obesity doubled from 1977 to 2003, increasing from 9% to 20% in males and from 11% to 22% in females. Most of the increase in the prevalence of obesity occurred after 1989.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The vision of the Ministry of Health is to facilitate the development of the health and disability support sector to maximize the potential of people with disabilities and the health of New Zealand people—'Healthy New Zealanders'.

The mission of the Ministry is to be an effective facilitator of desired change, actively linked with an understanding the total health and disability system—'Leading Health'. This mission statement encapsulates the key expectations for the Ministry—able to make the best informed and most innovative judgements on the directions and options for the health and disability sector and the opportunities to promote the health of New Zealanders.

The conceptual link between the Ministry, the whole health and disability sector and the overall goal of healthy New Zealanders is demonstrated in the Ministry's outcomes framework. The framework, drawn from the Ministry's Statement of Intent, reflects the directions established by the two overarching strategies: the New Zealand Health Strategy and the New Zealand Disability Strategy. The outcomes framework has three outcome levels that are logically connected.

- Ministry outcomes—ensuring the system works for all New Zealanders: these are outcomes that reflect the levers the Ministry has available to it to achieve a well-functioning health and disability support system. These outcomes are largely determined by the functions the Ministry performs.
- System outcomes—a fair and functional health system: these are outcomes that reflect the health and disability support system's achievements, encompassing how people access services, the quality and effectiveness of services, the extent to which the system uses public resources in the best way, and how the system interacts with other sectors to enhance health and independence outcomes.
- Societal outcomes—healthy New Zealanders: these are the health and disability support outcomes valued by the Government and citizens that are necessary for healthy New Zealanders. They are influenced by the health and disability sector and broader activities of the Government and society.

The Ministry of Health aims to ensure that the health and disability support system works for all New Zealanders. The Ministry has eight key responsibilities. These are:

- to provide policy advice on improving health outcomes, reducing inequalities and increasing participation;
- to act as a Minister's agent;
- to monitor the performance of District Health Boards;
- to implement, administer and enforce relevant legislation and regulations;
- to provide health information and process payments;
- to facilitate collaboration and coordination within and across the sector;
- to provide nationwide planning and maintenance of service agreements; and
- to plan and fund public health, disability support service and other service areas retained centrally.

The New Zealand Health Strategy and the New Zealand Disability Strategy provide the framework for the health sector's overall direction. These strategies take a population approach to identify the areas where intervention will make a contribution to the goals of healthy and independent New Zealanders. The two strategies sit alongside each other and guide the

development and implementation of more detailed services, as well as health-issue-specific and population-group-specific strategies and action plans.

The New Zealand Health Strategy identifies seven fundamental principles that should be reflected across the health and disability sector:

- acknowledging the special relationship between Mäori and the Crown under the Treaty of Waitangi;
- good health and well-being for all New Zealanders throughout their lives;
- an improvement in the health status of those currently disadvantaged;
- collaborative health promotion and disease and injury prevention by all sectors;
- timely and equitable access for all New Zealanders to a comprehensive range of health and disability services, regardless of ability to pay;
- a high-performing system in which people have confidence; and
- active involvement of consumers and communities at all levels.

The New Zealand Disability Strategy was launched in April 2001. It is an intersectoral strategy that is relevant across the whole public sector (Minister for Disability Issues 2001). The Ministry of Social Development's Office for Disability Issues oversees the strategy's implementation. The Strategy identifies 15 objectives, underpinned by detailed actions, to advance New Zealand towards being a fully inclusive society. The objectives are:

- to encourage and educate for a non-disabling society;
- to ensure rights for disabled people;
- to provide the best education for disabled people;
- to provide opportunities in employment and economic development for disabled people;
- to foster leadership by disabled people;
- to foster an aware and responsive public service;
- to create long-term support systems centred on the individual;
- to support quality living in the community for disabled people;
- to support lifestyle choices, recreation and culture for disabled people;
- to collect and use relevant information about disabled people and disability issues;
- to promote the participation of disabled Mäori people;
- to promote the participation of disabled Pacific people;
- to enable disabled children and youth to lead full and active lives;
- to promote the participation of disabled women in order to improve their quality of life; and
- to value families, *whānau* and people providing ongoing support.

The Ministry of Health aims to ensure the health and disability support system works for New Zealanders. It is the Government's primary advisory on health policy and disability support services.

3.2 Organization of health services and delivery systems

District Health Boards (DHBs) have the responsibility for improving, promoting and protecting the health and independence of a geographically defined population. Twenty-one DHBs are in place to plan, fund and ensure the provision of health and disability services (including hospital services) for their populations.

The Government is placing particular emphasis on the role of primary care to achieve health improvements. DHBs are responsible for establishing, funding and monitoring primary health organizations (PHOs). PHOs have been established to ensure early and affordable access to primary care services and to focus on health promotion and disease prevention for their enrolled populations. By April 2005, more than 3.8 million New Zealanders (95% of the population) were enrolled in PHOs.

Public hospitals, some services, such as assessment, treatment and rehabilitation services, and the majority of public health services (discussed below) come under the umbrella of DHBs. General practitioners (GPs), PHOs, rest homes and midwives are independent and/or contracted to supply services by DHBs or the Ministry.

The Minister of Health has overall responsibility for the health and disability support system. The Minister determines the content of the New Zealand Health Strategy, works through the Ministry of Health to enter into accountability arrangements with DHBs and agrees with government colleagues how much public money will be spent on the public delivery of services.

3.3 Health policy, planning and regulatory framework

The Government's overall direction for the health and disability sector places particular emphasis on improving population health outcomes and reducing disparities among all New Zealanders, including Mäori and Pacific peoples. Thirteen population health objectives, set out in the New Zealand Health Strategy, aim:

(1) to reduce smoking;
(2) to improve nutrition;
(3) to reduce obesity;
(4) to increase the level of physical activity;
(5) to reduce the rate of suicide and suicide attempts;
(6) to minimize harm caused by alcohol and illicit and other drug use to both individuals and the community;
(7) to reduce the incidence and impact of cancer;
(8) to reduce the incidence and impact of cardiovascular disease;
(9) to reduce the incidence and impact of diabetes;
(10) to improve oral health;
(11) to reduce violence in interpersonal relationships, families, schools and communities;
(12) to improve the health status of people with severe mental illness; and
(13) to ensure access to appropriate child health care services, including 'well child' and family health care and immunization.

Toolkits identify appropriate actions to address the priority objectives, while DHB accountability documents contain specific targets to give effect to the Strategy.

Population-specific or illness-specific strategies include the Child Health Strategy, Achieving Health for All People (public health), the Health of Older People Strategy, the Korowai Oronga (the Mäori Health Strategy), the Pacific Health and Disability Action Plan, the National Mental Health Strategy and the Primary Health Care Strategy.

A wide range of health information is collected nationally and held in various collections.

- The National Minimum Dataset is a single integrated collection of secondary and tertiary hospital health discharge data.
- The Cancer Registry is a population-based tumour register of all primary malignant diseases, active since 1948.
- The Mortality Register 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.

- The Mental Health Information National Collection contains information on specialist mental health and alcohol and drug services. This collection contains comprehensive information from DHBs and approximately 10% of NGOs.
- The National Booking Reporting System provides information, by health specialty and booking status, on how many patients are waiting for treatment, and also how long they have had to wait before receiving treatment.
- HealthPAC provides information and reports relating to payment and other health data.

3.4 Health care financing

Public sector funding is the major source of funding for health and disability support services in New Zealand. It accounts for approximately 80% of all health expenditure in the country, with out-of-pocket expenditure and private insurance being the other main contributors.

Vote Health is the Government's main contributor to publicly funded health and disability service expenditure. The total Vote Health in 2005/2006 was NZ$ 9.7 billion (US$ 7.45 billion), rising to NZ$ 10.64 billion (US$ 8.1 billion) in 2006/2007 (exclusive of GST). In 2006/2007, DHB appropriations total NZ$ 7.41 billion (US$ 5.69). Most DHB funding is allocated using the population-based funding formula (PBFF). The PBFF 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 doctor's visits and prescription drugs. The Commonwealth Fund survey shows relatively few New Zealanders had no out-of-pocket medical costs in 2006.

As part of the ongoing roll-out of the Primary Health Care Strategy, lower GP fees and lower patient charges for pharmaceuticals were introduced for people aged between 45 and 64 years on 1 July 2006, providing nearly 700 000 more New Zealanders with cheaper access to doctors. From 1 July 2007, all New Zealanders will have lower-cost access to primary health care.

3.5 Human resources for health

A number of complex and interrelated factors are influencing health workforce development in New Zealand. 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. 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 and attract suitable numbers of trained workers from overseas.

Skill transfer and enhancement and collaboration between all disciplines are needed if high quality, flexible and continuous services are to be delivered equitably to all New Zealanders.

Mäori and Pacific peoples are underrepresented in the New Zealand health workforce in almost all areas of the sector.

Raranga Tupuake: Mäori Health Workforce Development Plan (Ministry of Health 2005) aims to build a competent, capable, skilled and experienced Mäori health and disability workforce over the next 10 to 15 years. There are three goals to achieve the vision:

• Goal 1: Te Raranga Tuatahi: Tuia te muka tangata i takea mai i hawaiiki: Increase the number of Mäori in the health and disability workforce.

• Goal 2: Te Raranga Tuarua: Te Whiri i te mauri Mäori ki roto I ngamahi: Expand the skill base of the Mäori health and disability workforce.

• Goal 3: Te Raranga Tuatoru: Te hononga ki ngā kete ako: Enable equitable access for Māori to training opportunities.

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 bilateral and multilateral levels.

Based on the Pacific Leaders' vision, the Pacific Plan was adopted by Pacific Forum countries in November 2005 as a blueprint for strengthening regional cooperation and integration. It covers, in broad lines, the most significant common development challenges being feced by Pacific island countries 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

While progress is being made in reducing inequalities in health outcomes between population groups, some still remain. Māori and Pacific peoples have poorer health than non-Māori, 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 disadvantage for Māori compared with non-Māori, and 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 work across sectors to address the unequal distribution of the social determinants of health.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*The Annual Report 2005/06 including The Health and Independence Report - Annual Report for the year ended 30 June 2006*
Operator	:	Ministry of Health, New Zealand
Web address	:	http://www.moh.govt.nz/moh.nsf/indexmh/annual-reports
Title 2	:	*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	:	*Statistics New Zealand*
Comments	:	Provides, among others, the 2006 Census data
Web address	:	http://www.stats.govt.nz/default.htm
Title 5	:	*United Nations Development Programme – Human Development Report 2006*
Operator	:	UNDP
Features	:	Beyond Scarcity – Power, poverty and the global water crisis
Web address	:	http://hdr.undp.org

5. ADDRESSES

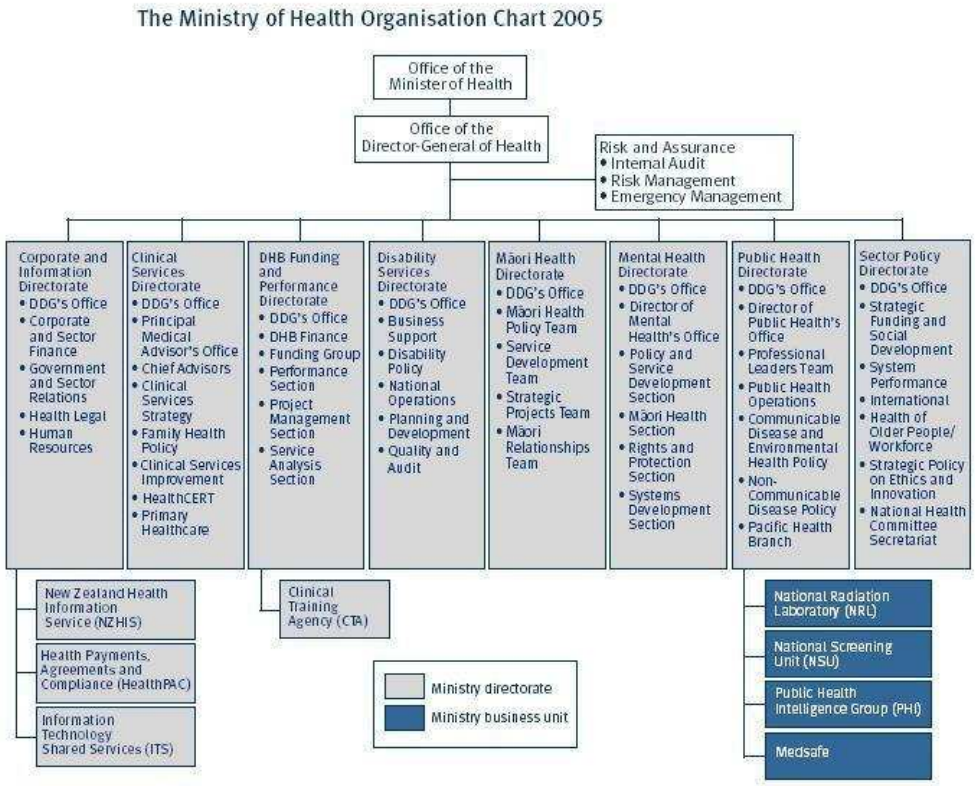
MINISTRY OF HEALTH

Office Address	:	133 Molesworth St , P.O. Box 5013 , Wellington, New Zealand
Telephone	:	04 - 496-2000
Fax	:	04 - 496-2340
Website	:	http://www.moh.govt.nz

WHO REPRESENTATIVE IN THE SOUTH PACIFIC

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) 3-304600/ 3-304631/ 3-300727
Fax	:	(679) 3-300462

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

NEW ZEALAND — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

INDICATORS		DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	270.69 [a]			2006	1
2	**Estimated population** ('000s)	4027.95 [e]	1965.62 [e]	2062.33 [e]	2006	1
3	**Annual population growth rate** (%)	1.00	...	...	2006	2
4	**Percentage of population**					
	- 0–4 years	6.83 [e]	7.14 [e]	6.53 [e]	2006	1
	- 5–14 years	14.70 [e]	15.45 [e]	14.00 [e]	2006	1
	- 65 years and above	12.32 [e]	11.25 [e]	13.30 [e]	2006	1
5	**Urban population** (%)	86.20	...	...	2005 est	3
6	**Crude birth rate** (per 1000 population)	14.10	...	...	2005	2
7	**Crude death rate** (per 1000 population)	6.60	...	...	2005	2
8	**Rate of natural increase of population** (% per annum)	0.75 [b]	...	...	2005	2
9	**Life expectancy** (years)					
	- at birth	78.81	77.50	81.70	2003-05	7
	- Healthy Life Expectancy (HALE) at age 60	...	16.00	18.20	2002	15
10	**Adult literacy rate** (%)	89.00 [l]	...	...	2006	17
11	**Neonatal mortality rate** (per 1000 live births)	5.76	6.59	4.89	2006 est	1
12	**Infant mortality rate** (per 1000 live births)	4.80	...	...	2006	7
13	**Under-five mortality rate** (per 1000 live births)	6.34	...	...	2003	1
14	**Total fertility rate** (women aged 15–49 years)	2.00			2005	2
15	**Maternal mortality ratio** (per 100 000 live births)	6.81			2004	5
16	**Percentage of newborn infants weighing at least 2500 g at birth**	94.18	...	...	2006	5
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			27.00	1998	4
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	...	...	...		
	- DTP3	89.00	...	...	2006	9
	- POL3	89.00 [c]	...	...	2006	9
	- Measles	82.00	...	...	2006	9
	- Hepatitis B III	87.00	...	...	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2001	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2006	9
	- Percentage of deliveries 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)	95.30			2004 est	5
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			72.00	2002 est	6
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...		...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	…	100.00	…	2004	10
27	Proportion of population with access to improved sanitation	100.00	100.00	100.00	2002	8
28	Proportion of the population using solid fuels (%)	<5.00	…	…	2002	13
29	Proportion of households with access to secure tenure	…				
30	**Proportion of vehicles using unleaded gasoline** (%)	…	…	…		
31	**Health care waste generation** (metric tons per year)	…	…	…		
32	**Human development index**			0.94	2004	11
33	**Per capita GDP at current market prices** (US$)			24 361.00	2004	11
34	**Rate of growth of per capita GDP** (%)			4.80	2004-05	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			7383.42	2005	12
	- total expenditure on health as % of GDP			8.70	2005p	18
	- per capita total expenditure on health (in US$)			1801.62	2005	12
	Government expenditure on health					
	- amount (in million US$)			5781.00	2005	12
	- general government expenditure on health as % of total expenditure on health			78.30	2005	12
	- general government expenditure on health as % of total general government expenditure			18.20	2005p	18
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00	2005p	18
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			21.70	2005	12
	Exchange rate in US$ of local currency is: 1 US$ =			1.42	2005	12
36	**Health insurance coverage as % of total population**			…		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	8790	5754	3036	…	…	21.90	14.40	7.50	…	…	2003	5
	- dentists	1582	1182	400	…	…	5.50	4.10	1.40	…	…	2003	5
	- pharmacists	3808	…	…	…	…	10.20	…	…	…	…	2002	16
	- nurses	34 660 [h]	2205 [h]	31 497 [h]	…	…	85.40	11.04	152.62	…	…	2004	5
	- midwives	3780 [i]	11 [i]	3683 [i]	…	…	9.30	0.06	17.85	…	…	2004	5
	- other nursing / auxiliary staff	…	…	…	…	…	…	…	…	…	…		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	…	…	…	…	…	…	…	…	…	…		
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	…	…	…	…	…	…	…	…	…	…		
38	**Workforce losses/ attrition**	…	…	…									
39	**Yearly new graduates - physicians**	…	…	…									
40	**Yearly new graduates – nurses**	…	…	…									

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Malignant neoplasms (C00–C96)	43 123	22 548	20 575	1075.49	1143.81	1009.42	2003-04	5
	2. Complications of labour and delivery (O60–O75)	29 160		29 160	727.25		1430.60	2003-04	5
	3. Ischaemic heart diseases (I20–I25)	26 251	16 076	10 175	654.70	815.50	499.19	2003-04	5
	4. Other forms of heart disease (I30–I52)	20 090	10 747	9343	501.05	545.17	458.37	2003-04	5
	5. Chronic lower respiratory diseases (J40–J47)	19 934	9672	10 262	497.16	490.64	503.46	2003-04	5
	6. Symptoms and signs involving the circulatory and respiratory systems (R00–R09)	19 878	9828	10 050	495.76	498.55	493.06	2003-04	5
	7. Maternal care related to the fetus and amniotic cavity and possible delivery problems	19 182		19 182	478.40		941.08	2003-04	5
	8. Symptoms and signs involving the digestive system and abdomen (R10–R19)	18 726	6342	12 384	467.03	321.72	607.57	2003-04	5
	9. Arthropathies (M00–M25)	17 636	9372	8264	439.84	475.42	405.44	2003-04	5
	10. General symptoms and signs (R50–R69)	14 733	7231	7502	367.44	366.81	368.05	2003-04	5
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neoplasms (C00–C96)	7932	4233	3699	197.83	214.73	181.47	2003	5
	2. Ischaemic heart diseases (I20–I25)	6196	3243	2953	154.53	164.51	144.88	2003	5
	3. Cerebrovascular diseases (I60–I69)	2692	969	1723	67.14	49.16	84.53	2003	5
	4. Chronic lower respiratory diseases (J40–J47)	1799	969	830	44.87	49.16	40.72	2003	5
	5. Other forms of heart disease (I30–I52)	1293	601	692	32.25	30.49	33.95	2003	5
	6. Diabetes mellitus (E10–E14)	847	436	411	21.12	22.12	20.16	2003	5
	7. Organic, including symptomatic, mental disorders (F00–F09)	680	216	464	16.96	10.96	22.76	2003	5
	8. Transport accidents (V01–V99)	582	411	171	14.52	20.85	8.39	2003	5
	9. Intentional self-harm (X60–X84)	517	376	141	12.89	19.07	6.92	2003	5
	10. Diseases of arteries, arterioles and capillaries (I70–I79)	461	256	205	11.50	12.99	10.06	2003	5
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	9
	- Diphtheria	0	0	0	0	0	0	2006	9
	- Hib meningitis	0	0	0	0	0	0	2005	9
	- Measles	20	...	...	...	...	...	2006	9
	- Mumps	48	...	...	...	...	...	2006	9
	- Neonatal tetanus	0	0	0	0	0	0	2006	9
	- Pertussis (whooping cough)	1122	...	...	...	...	...	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	8	...	...	...	...	...	2006	9
	- Total Tetanus	1	...	...	...	...	...	2005	9
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	49	18	31	0	0	0	2004	C:9, D:14
	- Type B	39	23	16	16	12	4	2004	C:9, D:14
	- Type C	24 [j]	14	9	15	10	5	2004	C:9, D:14
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	1	...	...	0	0	0	2005	9
	Dengue/DHF	8	5	3	0	0	0	2004	14
	Encephalitis	0	0	0	0	0	0	2005	9
	Gonorrhoea	...	...	...	0	0	0	2004	14
	Leprosy	2	...	...	...	...	...	2005	9
	Malaria	33 [d]	26 [d]	6 [d]	0	0	0	2004	14
	Plague	0	0	0	0	0	0	2005	9
	Syphilis	...	...	...	0	0	0	2004	14
	Typhoid fever	30	...	...	0	0	0	2005	9
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	332	...	...	...	...	...	2005	9
	- New pulmonary tuberculosis (smear-positive)	83	...	...	...	...	...	2005	9
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	9.00	...	...	1.00	...	...	2005	9
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	51.00	...	...	66.00 (2004)	...	...	2005	9
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	29 108 [f]	15 707 [f]	13 401 [f]	433	160	273	C:2003-04 D:2003	5
48	**Diarrhoeal diseases**	6333 [f]	3182 [f]	3151 [f]	10	1	9	C:2003-04 D:2003	5
49	**Cancers**								
	All cancers (malignant neoplasms only)	18344 [g]	9710 [g]	8634 [g]	7932	4233	3699	2003	5
	- Breast	2337 [g]	12 [g]	2325 [g]	652	5	647	2003	5
	- Colon and rectum	2700 [g]	1366 [g]	1334 [g]	1116	561	555	2003	5
	- Cervix			177 [g]			58	2003	5
	- Oesophagus	257 [g]	159 [g]	98 [g]	204	129	75	2003	5
	- Leukaemia	752 [g]	433 [g]	319 [g]	269	158	111	2003	5
	- Lip, oral cavity and pharynx	315 [g]	197 [g]	118 [g]	132	93	39	2003	5
	- Liver	189 [g]	132 [g]	57 [g]	148	100	48	2003	5
	- Stomach	391 [g]	251 [g]	140 [g]	315	206	109	2003	5
	- Trachea, bronchus, and lung	1803 [g]	1032 [g]	771 [g]	1466	848	618	2003	5

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	68 384 [f]	37 928 [f]	30 456 [f]	11 083	5224	5859	C:2003-04 D:2003	5
	- Acute myocardial infarction	12 127 [f]	7555 [f]	4572 [f]	3168	1653	1515	C:2003-04 D:2003	5
	- Cerebrovascular diseases	8474 [f]	4061 [f]	4413 [f]	2692	969	1723	C:2003-04 D:2003	5
	- Hypertension	894 [f]	346 [f]	548 [f]	247	89	158	C:2003-04 D:2003	5
	- Ischaemic heart disease	26 251 [f]	16 076 [f]	10 175 [f]	6196	3243	2953	C:2003-04 D:2003	5
	- Rheumatic fever and rheumatic heart diseases	684 [f]	309 [f]	375 [f]	148	46	102	C:2003-04 D:2003	5
51	**Maternal causes**								
	- Abortion			14 604 [f]			1	C:2003-04 D:2003	5
	- Eclampsia			71 [f]			0	C:2003-04 D:2003	5
	- Haemorrhage			4624 [f]			0	C:2003-04 D:2003	5
	- Obstructed labour			3119 [f]			0	C:2003-04 D:2003	5
	- Sepsis			287 [f]			0	C:2003-04 D:2003	5
52	**Diabetes mellitus**	7754 [f]	4132 [f]	3622 [f]	847	436	411	C:2003-04 D:2003	5
53	**Mental disorders**	20 898 [f]	9872 [f]	11 026 [f]	762	253	509	C:2003-04 D:2003	5
54	**Injuries**								
	All types	137 869 [k]	73 261 [k]	64 608 [k]	1803	1190	613	C:2003-04 D:2003	5
	- Homicide and violence	4242 [k]	3243 [k]	999 [k]	56	38	18	C:2003-04 D:2003	5
	- Motor and other vehicular accidents	13 125 [k]	8384 [k]	4741 [k]	582	411	171	C:2003-04 D:2003	5
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	5402 [k]	1744 [k]	3658 [k]	517	376	141	C:2003-04 D:2003	5
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities					85	12 484	2002	5
	- General hospitals					…	…		
	- Specialized hospitals					…	…		
	- District/first-level referral hospitals					…	…		
	- Primary health care centres					…	…		
	Private hospitals					360	11 341	2002	5

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
C	Cases
D	Deaths
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure excludes inland waters and oceanic areas

d	Imported cases
e	Figure refers to usual resident population. Usual resident population includes those residents who are present and those who are temporarily elsewhere in New Zealand. Residents who are temporarily overseas were not counted
f	Figure refers to hospitalizations in 2003-2004
g	Figure refers to those in cancer registrations
h	Figure refers to nurses (registered) and midwives. There wre 958 registered nurses without reported gender
i	Figure also included in the registered nurses. There were 86 midwives without registered gender
j	Figure includes one case with unspecified gender
k	Figure refers to hospitalizations - 1st reported e-code
l	Literacy defined as levels 2-5 using OECD PISA (Programme for International Student Achievement) standards

Sources:

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5	New Zealand Health Information Service (http://www.nzhis.govt.nz) .
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8	Information provided by WHO Representative in the South Pacific, 5 April 2004.
9	World Health Organization Regional Office for the Western Pacific, data received from technical units.
10	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade* . Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006].
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12	Information furnished by the Ministry of Health, New Zealand, February 2006.
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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 1625 in 2006, with 802 males and 823 females. There is substantial emigration to New Zealand because of Niue'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 36.7% living in urban areas. Children under the age of 15 years make up 29.6% of the population, and adults 65 years and older 9.3%. The crude birth rate is 17.9 per 1000 population and the crude death rate 8.0 per 1000 population. Average life expectancy in 2001 was 70.1 years, 69.8 years for men and 71.2 years for women.

1.2 Political situation

Niue is a self-governing nation in free association with New Zealand. The head of government is Premier Young Viviani of the Niue People's Party. The chief 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 2003, the gross domestic product (GDP) at current prices was NZD 17 252 000 (US$ 10 030 232); per capita GDP stood at NZD 10 048 (US$ 5841.9).

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 agencies. WHO contributed US$ 101 000 in 2000-2001, and US$ 97 000 in 2002-2003. With a deficit of NZD 1 199 772 (US$ 844 186), the Government is facing a financial crisis.

The monthly boat between New Zealand and Niue, which provides essential supplies for daily living, illustrates Niue's isolation. Plans to develop tourism are under way, but are necessarily limited by a dependence on other countries' airlines to service Niue. Royal Tonga operates a small twin otter aircraft for passenger service three times a week between Nukualofa, Tonga and Niue. Polynesian Airlines has a service from Apia to Auckland via Niue twice a week.

The groundwater supply is safe and potable for human consumption and coverage of safe water sanitation facilities is 100% (2004). AusAID supported the development of the national waste management plan.

1.4 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 programme on elimination of filariasis is ongoing, with high coverage (>80% eligible population) of mass drug administration (MDA). Niue has a 0.2% antigenemia rate and is targeting filariasis elimination by 2005.

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 on reproductive health and HIV/ AIDS.

Although the prevalence 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 a 1997 census, 30.8% of males and 13.6% of females smoked cigarettes. Alcohol consumption is also reported to be high: casual drinking (43%) and heavy drinking (3.2%). The National Nutritional Survey in 1987 noted a concern about the high consumption of sugar snacks and the low intake of vegetables and fruits.

Cancer incidence remains very low. Cervical screening procedures are available and women are encouraged to practise breast self-examination. Elderly 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 major causes of morbidity were hypertension, diabetes mellitus, infections of the skin and subcutaneous tissue, upper respiratory tract infections and influenza. The five leading causes of mortality were injuries from gunshots, diabetes and hypertension complications (cardiovascular and cerebrovascular diseases), premature births, pneumonia (one case) and accidental drowning (one case).

2.4 Maternal, child and infant diseases

Niue residents enjoy good maternal and child health care. No maternal death was recorded from 1999 to 2006. The fertility rate is 3.01 (2001). The infant mortality rate is low. In 2006, 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 three medical officers, two dental officers, one dental nurse, two technicians and one chair-side assistant, 15 nurses (one principal nursing officer, 13 hospital nurses and one maternal and child health nurse), four 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 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 2005 was US$ 2.1 million, with per capita total health expenditure of US$ 2112.7. General government expenditure on health was US$ 1.4 million representing 98.5% 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. 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, is 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	:	*Niue statistics*
Web address	:	http://www.who.int/entity/nha/country/MYS
Title 2	:	*National health accounts series*
Operator	:	World Health Organization
Web address	:	http://www.who.int/entity/nha/country/MYS
Title 3	:	*Report on the Nationwide Health Survey, May 2002*
Operator	:	Health Department
Title 4	:	*Niue Millennium Development Goals 2006 Report*
Operator	:	Economics Planning Development and Statistics Unit

5. ADDRESSES

WHO REPRESENTATIVE IN SAMOA, AMERICAN SAMOA, COOK ISLANDS, NIUE AND TOKELAU

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COUNTRY HEALTH INFORMATION PROFILE

NIUE — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.26			2006	1
2	**Estimated population** ('000s)	1.63	0.80	0.82	2006 est	1
3	**Annual population growth rate** (%)	-3.72	…	…	2001	4
4	**Percentage of population**					
	- 0–4 years	8.70	7.98	9.28	2006 est	1
	- 5–14 years	20.92	22.15	19.67	2006 est	1
	- 65 years and above	9.32	8.66	9.97	2006 est	1
5	**Urban population** (%)	36.70	…	…	2005 est	2
6	**Crude birth rate** (per 1000 population)	17.90	…	…	2005	11
7	**Crude death rate** (per 1000 population)	8.09	…	…	2005	11
8	**Rate of natural increase of population** (% per annum)	1.10	…	…	2001	1
9	**Life expectancy** (years)					
	- at birth	70.10	69.80	71.20	2001	3
	- Healthy Life Expectancy (HALE) at age 60	…	11.60	12.80	2002	7
10	**Adult literacy rate** (%)	100.00	100.00	100.00	2003	12
11	**Neonatal mortality rate** (per 1000 live births)	0.00	0.00	0.00	2005	12
12	**Infant mortality rate** (per 1000 live births)	0.00	0.00	0.00	2005	11
13	**Under-five mortality rate** (per 1000 live births)	0.00	0.00	0.00	2005	11
14	**Total fertility rate** (women aged 15–49 years)	3.01			2001	3
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2006	8
16	**Percentage of newborn infants weighing at least 2500 g at birth**	100.00	100.00	100.00	2005	11
17	**Prevalence of underweight children under five years of age**	0.00	0.00	0.00	2005	11
18	**Percentage of pregnant women with anaemia**			2.00	2005	11
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	6
	- DTP3	100.00	100.00	100.00	2006	6
	- POL3	100.00 [a]	100.00 [a]	100.00 [a]	2006	6
	- Measles	100.00	100.00	100.00	2006	6
	- Hepatitis B III	100.00	100.00	100.00	2006	6
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2005	11
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2005	11
	- Percentage of deliveries 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
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			22.00	2005	11
23	**Condom use rate of the contraceptive prevalence rate**	5.00	…	…	2005	11
24	**HIV prevalence among 15–24 year-old pregnant women**			0.00	2005	11
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	0	2005	11

NIUE

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	100.00	100.00	100.00	2004	10
27	**Proportion of population with access to improved sanitation**	100.00	100.00	100.00	2004	10
28	**Proportion of the population using solid fuels (%)**	12.00	...	...	2006	8
29	**Proportion of households with access to secure tenure**	100.00			2006	8
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.77	1998	9
33	**Per capita GDP at current market prices** (US$)			5841.86	2003	3
34	**Rate of growth of per capita GDP** (%)			6.88 [b]	2003	3
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			2.11	2005p	13
	- total expenditure on health as % of GDP			13.20	2005p	13
	- per capita total expenditure on health (in US$)			2112.68	2005p	13
	Government expenditure on health					
	- amount (in million US$)			1.40	2005p	13
	- general government expenditure on health as % of total expenditure on health			98.50	2005p	13
	- general government expenditure on health as % of total general government expenditure			11.50	2005p	13
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			60.15	2005p	13
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			1.50	2005p	13
	Exchange rate in US$ of local currency is: 1 US$ =			1.42	2005p	13
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	4	1	3	...	...	23.12	12.47 [b]	36.45 [b]	...	...	2006p	11
	- dentists	3	3	0	...	...	17.34	37.40 [b]	0.00	...	...	2006p	11
	- pharmacists	1	1	0	...	...	5.78	12.47 [b]	0.00	...	...	2006p	11
	- nurses	13	1	12	...	...	75.14	12.47 [b]	145.80 [b]	...	...	2006p	11
	- midwives	2	0	2	...	...	11.56	0.00	24.30 [b]	...	...	2006p	11
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...	2006p	11
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	4	0	4	...	...	23.12	0.00	48.60 [b]	...	...	2006p	11
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	4	4	0	...	...	23.12	49.88 [b]	0.00	...	...	2006p	11
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	0	0	0								2006p	11

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Hypertension	343	...	...	19 183.45	...	...	2001	5
	2. Diabetes mellitus	308	...	...	17 225.95	...	...	2001	5
	3. Infection of the skin and subcutaneous tissue	271	...	...	15 156.60	...	...	2001	5
	4. Upper respiratory tract infection, unspecified	270	...	...	15 100.67	...	...	2001	5
	5. Influenza	156	...	...	8724.83	...	...	2001	5
	6. Myalgia and myositis	148	...	...	8277.40	...	...	2001	5
	7. Other disease of the skin	110	...	...	6152.13	...	...	2001	5
	8. Open wounds	97	...	...	5425.06	...	...	2001	5
	9. Bronchitis	78	...	...	4362.42	...	...	2001	5
	10. Sprains and strains of joints and adjacent muscles	72	...	...	4026.85	...	...	2001	5
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Injuries from gunshots	...	...	...	...	...	...	2001	4
	2. Diabetes and hypertension complications	...	...	...	...	...	...	2001	4
	3. Premature births	...	...	...	...	...	...	2001	4
	4. Pneumonia	1	...	...	...	...	...	2001	4
	5. Drowning	1	...	...	...	...	...	2001	4
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2005	6
	- Diphtheria	0	0	0	0	0	0	2005	6
	- Hib meningitis	0	0	0	0	0	0	2005	6
	- Measles	0	0	0	0	0	0	2005	6
	- Mumps	0	0	0	0	0	0	2005	6
	- Neonatal tetanus	0	0	0	0	0	0	2005	6
	- Pertussis (whooping cough)	0	0	0	0	0	0	2005	6
	- Poliomyelitis	0	0	0	0	0	0	2006	6
	- Rubella	0	0	0	0	0	0	2005	6
	- Total Tetanus	0	0	0	0	0	0	2005	6
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	0	0	0	0	0	0	2005	11
	- Type A	0	0	0	0	0	0	2005	11
	- Type B	0	0	0	0	0	0	2005	11
	- Type C	0	0	0	0	0	0	2005	11
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2005	11
	Dengue/DHF	0	0	0	0	0	0	2005	6
	Encephalitis	0	0	0	0	0	0	2005	11
	Gonorrhoea	0	0	0	0	0	0	2005	11

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Leprosy	0	0	0	0	0	0	2005	11
	Malaria	0	0	0	0	0	0	2005	11
	Plague	0	0	0	0	0	0	2005	11
	Syphilis	0	0	0	0	0	0	2005	11
	Typhoid fever	0	0	0	0	0	0	2005	11
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	0	0	0	…	…	…	2005	6
	- New pulmonary tuberculosis (smear-positive)	0	0	0	…	…	…	2005	6
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	87.00	…	…	9.00	…	…	2005	6
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	314.00	…	…	100.00	…	…	2002	6
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	…	…	…	…	…	…		
48	**Diarrhoeal diseases**	…	…	…	…	…	…		
49	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	…	…	…		
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	…	…	…		
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	…	…	…	…	…	…		
50	**Circulatory**								
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	343	…	…	…	…	…	2001	5
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		
52	**Diabetes mellitus**	308		...	...	...	...	2001	5
53	**Mental disorders**	...		...	...	...	...		
54	**Injuries**								
	All types	...	...	...	...	...	...		
	- Homicide and violence	...	...	...	...	...	...		
	- Motor and other vehicular accidents	...	...	...	...	...	...		
	- Occupational injuries	...	...	...	...	...	...		
	- Suicide	...	...	...	...	...	...		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	8	2006	11
	- Specialized hospitals					...	...		
	- District/first-level referral hospitals					...	...		
	- Primary health care centres					...	...		
	Private hospitals					...	...		

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Given as inactivated polio vaccine (IPV)
b	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific

Sources:

1	*Stats at a glance, 2006 Census.* Niue Statistics, Economic Planning Development and Statistics [www.spc.int/prism/country/niu/stats].
2	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
3	Statistics Niue [www/spc/int/prism].
4	Information furnished by WHO Representative in Samoa, 13 March 2004.
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9	*1999 Pacific human development report (creating opportunities)* . New York, United Nations Development Programme, 1999.
10	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade* . Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
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Northern Mariana Islands

1. CONTEXT

1.1 Demographics

The estimated multi-ethnic population of the Northern Mariana Islands was 84 487 in 2006, comprising Chamorros, Carolinians, Micronesians, Japanese, Chinese, Filipinos, Koreans and Caucasians. Even although the three official languages are English, Chamorro and Carolinian, 86% of the population speak a language other than English at home. Of the 14 islands that make up the island nation, only three were inhabited in 2000: Saipan, Rota, and Tinian.

The population has an estimated growth rate of 3.2% (2006 est). The median age is 31.8 for men and 28.7 for women (2007 estimate). The country has an estimated crude birth rate of 19.27 births per 1000 population and an estimated crude death rate of 2.29 deaths per 1000 population.

1.2 Political situation

The Northern Mariana Islands are under the administration of the United States of America as part of the US Trust Territory of the Pacific. 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. A new government and constitution went into effect in 1978.

At the last elections in November 2005, Governor Benigno R. Fitial was elected for a four-year term until November 2009. The Secretary for Public Health is Mr Joseph Kevin Villagomez.

1.3 Socioeconomic situation

The economy benefits substantially from financial assistance from the United States of America, but funding has declined as locally generated government revenues have grown. The tourist industry employs about 50% of the workforce and accounts for roughly one-quarter of gross domestic product (GDP). Japanese tourists predominate and annual tourist entries have exceeded half a million in recent years, although the financial recession in Japan has led to a recent slowdown.

1.4 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, hepatitis B, hepatitis A, 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 public health department has dealt with recent outbreaks of hepatitis A and measles and foodborne disease outbreaks involving salmonella, shigella and cholera.

2.3 Leading causes of mortality and morbidity

In 1999, the leading causes of morbidity were bacterial food poisoning, with a crude rate of 1758.0 per 100 000 population, followed by chlamydiosis (297.0 per 100 000), syphilis (140.0), hepatitis B (110.0), tuberculosis (84.0), salmonellosis (45.0), gonorrhoea (42.0 per 100 000), shigellosis (42.0), ciguatera (22.0) and HIV (6.0).

Cardiovascular diseases and cancer were the leading causes of mortality in 1998.

2.4 Maternal, child and infant diseases

The maternal mortality ratio was zero in 2000. The estimated infant mortality rate in 2005 was 7.11 per 1000 live births. Immunization coverage in 2006 was 73.0% for DTP3, 87.0% for polio, 84.0% for measles and 89.0% for hepatitis B3.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Department of Public Health's mission is "to improve the quality of life through encouraging and empowering the community to achieve its highest possible level of wellness and ensuring the availability of efficient and quality health care and prevention services".

The Public Health Division has set nine immediate objectives targeted at all Northern Mariana Islands residents:

- to provide appropriate preventive health care and services to all communities, with an emphasis on women and children;
- to provide appropriate reproductive health and family planning services to all women of child-bearing age and their partners;
- to provide appropriate and timely health education, promotion and nutrition information to all residents;
- to provide an adequate surveillance and monitoring system, and timely prevention information on communicable and infectious diseases;
- to provide timely and appropriate noncommunicable disease prevention information and outreach services to all residents;
- to strengthen the availability of health information and health planning by developing surveillance systems that accurately monitor the health status of the community;
- to provide public health dental care and outreach dental health prevention services in schools;
- to provide and improve the environmental health and sanitation services; and
- to identify children who are developmentally delayed or 'at risk' in order to minimize their problems and enhance the quality of life for them and their families.

3.2 Organization of health services and delivery systems

The Department of Public Health is composed of three main divisions: the Division of Public Health, the Commonwealth Health Center and the Community Guidance Center. All divisions offer many services and programmes to meet the health care needs of the people. The Division

of Public Health provides a wide range of community services and programmes, such as community and outreach clinics for women and children, environmental health services, health promotion and nutrition services, epidemiology, surveillance and health planning services.

The Commonwealth Health Center is the primary health facility in the Northern Mariana Islands. It is a 86-bed modern hospital that offers a wide range of hospital services, such as emergency medicine, obstetrics, post-partum care, adult and neonatal intensive care, surgery, general medicine, paediatrics, dialysis, mental health and various outpatient services.

The Community Guidance Center has three components: psychiatric mental health, behavioural mental health, and substance abuse/addiction.

3.3 Health policy, planning and regulatory framework

No available information.

3.4 Health care financing

Per capita health expenditure dropped from US$ 1095 in 1996 to US$ 519 in the 2000 fiscal year. The total health expenditure in 2000 was US$ 42.1 million.

3.5 Human resources for health

The College of the Northern Mariana Islands has developed a nursing programme oriented towards public health nursing. In collaboration with the University of Hawaii, the School of Public Health is strengthening manpower training in public health.

3.6 Partnerships

The main partners in MDG achievement are, in addition to the national line ministries, the United Nations, the Council of Regional Organisations of the Pacific (CROP), the Forum Fisheries Agency (FFA), the Pacific Islands Development Program (PIDP), the Secretariat of the Pacific Community (SPC), the South Pacific Regional Environment Programme (SPREP), the South Pacific Applied Geo-science Commission (SOPAC), the University of the South Pacific (USP), the South Pacific Tourism Organisation (SPTO), the South Pacific Board for Educational Assessment (SPBEA), and Fiji School of Medicine.

3.7 Challenges to health system strengthening

There have been difficulties in recruiting and retaining qualified personnel. The main obstacles include the small human resources pool from which to recruit, the ever-rising cost of maintaining the Commonwealth Health Centre and a lack of community participation in the health care system.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Pacific Regional Information System (PRISM)*
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int/demog/
Title 2	:	Department of Public Health
Web address	:	http://www.dphsaipan.com/

5. ADDRESSES

DEPARTMENT OF PUBLIC HEALTH

Postal Address	:	P.O. Box 500409 CK, Saipan MP 96950, Commonwealth of the Northern Mariana Islands

WHO REPRESENTATIVE IN THE SOUTH PACIFIC

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) 3-304600 / 3-304631/ 3-300727
Fax	:	(679) 3-300462
Website	:	

COUNTRY HEALTH INFORMATION PROFILE

NORTHERN MARIANA ISLANDS

WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.47			2004	1
2	**Estimated population** ('000s)	84.49	38.00	46.49	2006 est	1
3	**Annual population growth rate** (%)	3.20	…	…	2006-10	1
4	**Percentage of population**					
	- 0–4 years	12.30	12.30	12.40	2006 est	13
	- 5–14 years	22.50	22.40	22.80	2006 est	13
	- 65 years and above	5.00	4.70	5.30	2006 est	13
5	**Urban population** (%)	94.50	…	…	2005 est	2
6	**Crude birth rate** (per 1000 population)	19.27	…	…	2005 est	3
7	**Crude death rate** (per 1000 population)	2.30	…	…	2005 est	3
8	**Rate of natural increase of population** (% per annum)	1.75 [a]	…	…	2005 est	3
9	**Life expectancy** (years)					
	- at birth	75.88	93.31	78.61	2005 est	3
	- Healthy Life Expectancy (HALE) at age 60	…	…	…		
10	**Adult literacy rate** (%)	…	…	…		
11	**Neonatal mortality rate** (per 1000 live births)	…	…	…		
12	**Infant mortality rate** (per 1000 live births)	7.11	7.05	7.17	2005 est	3
13	**Under-five mortality rate** (per 1000 live births)	7.43	…	…	1999	5
14	**Total fertility rate** (women aged 15–49 years)	1.27			2005 est	3
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2000	5
16	**Percentage of newborn infants weighing at least 2500 g at birth**	81.01	…	…	2000	5
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			4.55	2000	5
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	NR	NR	NR	2006	6
	- DTP3	73.00	…	…	2006	6
	- POL3	87.00 [b]	…	…	2006	6
	- Measles	84.00	…	…	2006	6
	- Hepatitis B III	89.00	…	…	2006	6
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	75.67			2000	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	NR			2006	6
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			64.00	2000	7
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	99.00	98.00	97.00	2004	8
27	Proportion of population with access to improved sanitation	95.00	94.00	96.00	2004	8
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			...		
33	**Per capita GDP at current market prices** (US$)			28 734.49	1998	9
34	**Rate of growth of per capita GDP** (%)			7.85	1998	9
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			42.14	2000	10
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			519.00	2000	10
	Government expenditure on health					
	- amount (in million US$)			52.40	2002	4
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			16.44	2002	4
	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			...		
	Exchange rate in US$ of local currency is: 1 US$ =			NR		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	31	...	...	...	...	4.47	...	...	...	...	1999	5
	- dentists	3	...	...	...	...	0.43	...	...	...	...	1999	5
	- pharmacists	4	...	...	...	...	0.58	...	...	...	...	1999	5
	- nurses	123	...	...	...	...	17.74	...	...	...	...	1999	5
	- midwives	14	...	...	...	...	2.02	...	...	...	...	1999	5
	- other nursing / auxiliary staff	25	...	...	...	...	3.61	...	...	...	...	1999	5
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	20	...	...	...	...	2.88	...	...	...	...	1999	5
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	14	...	...	...	...	2.02	...	...	...	...	1999	5
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Bacterial food poisoning	1219 [c]	...	...	1758.00	...	...	1999	11
	2. Chlamydiosis	206 [c]	...	...	297.00	...	...	1999	11
	3. Syphilis	97 [c]	...	...	140.00	...	...	1999	11
	4. Hepatitis B	76 [c]	...	...	110.00	...	...	1999	11
	5. Tuberculosis	58 [c]	...	...	84.00	...	...	1999	11
	6. Salmonellosis	31 [c]	...	...	45.00	...	...	1999	11
	7. Gonorrhoea	29 [c]	...	...	42.00	...	...	1999	11
	8. Shigellosis	29 [c]	...	...	42.00	...	...	1999	11
	9. Ciguatera	15 [c]	...	...	22.00	...	...	1999	11
	10. HIV	4 [c]	...	...	6.00	...	...	1999	11
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Cardiovascular diseases	33	...	...	54.08	...	...	1998	5
	2. Neoplasms	26	...	...	39.06	...	...	1998	5
	3. Cerebrovascular diseases	14	...	...	21.03	...	...	1998	5
	4. Perinatal conditions	13	...	...	19.53	...	...	1998	5
	5. Motor vehicle accidents	7	...	...	10.51	...	...	1998	5
	6. Pneumonia	6	...	...	9.01	...	...	1998	5
	7. All other accidents	5	...	...	7.51	...	...	1998	5
	8. Chronic liver diseases and cirrhosis	5	...	...	7.51	...	...	1998	5
	9. Suicide	5	...	...	7.51	...	...	1998	5
	10. Diabetes mellitus	4	...	...	6.00	...	...	1998	5
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	6
	- Diphtheria	0	0	0	0	0	0	2006	6
	- Hib meningitis	0	0	0	0	0	0	2005	6
	- Measles	0	0	0	0	0	0	2006	6
	- Mumps	0	0	0	0	0	0	2006	6
	- Neonatal tetanus	0	0	0	0	0	0	2006	6
	- Pertussis (whooping cough)	1	...	...	...	...	...	2006	6
	- Poliomyelitis	0	0	0	0	0	0	2006	6
	- Rubella	0	0	0	0	0	0	2006	6
	- Total Tetanus	0	0	0	0	0	0	2006	6
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	…	…	…	…	…	…		
	Dengue/DHF	…	…	…	…	…	…		
	Encephalitis	…	…	…	…	…	…		
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	4	…	…	…	…	…	2003	6
	Malaria	…	…	…	…	…	…		
	Plague	…	…	…	…	…	…		
	Syphilis	…	…	…	…	…	…		
	Typhoid fever	…	…	…	…	…	…		
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	57	…	…	…	…	…	2005	6
	- New pulmonary tuberculosis (smear-positive)	15	…	…	…	…	…	2005	6
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	92.00	…	…	11.00	…	…	2005	6
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	54.00	…	…	88.00 (2004)	…	…	2005	6
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	4242	…	…	…	…	…	2000	5
48	**Diarrhoeal diseases**	10	…	…	1	…	…	C:2000 D:1998	5
49	**Cancers**								
	All cancers (malignant neoplasms only)	437	…	…	26	…	…	C:2000 D:1998	5
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	0	0	0	1	…	…	C:2000 D:1998	5
	- Cervix			11			3	C:2000 D:1998	5
	- Oesophagus	…	…	….	…	…	…		
	- Leukaemia	0	0	0	5	…	…	C:2000 D:1998	5
	- Lip, oral cavity and pharynx	0	0	0	0	0	0	C:2000 D:1998	5
	- Liver	0	0	0	0	0	0	C:2000 D:1998	5
	- Stomach	1	…	…	2	…	…	C:2000 D:1998	5
	- Trachea, bronchus, and lung	12	…	…	10	…	…	C:2000 D:1998	5

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	2265	...	...	...	...	...	C:2000 D:1998	5
	- Acute myocardial infarction	16	...	...	7	...	...	C:2000 D:1998	5
	- Cerebrovascular diseases	98	...	...	14	...	...	C:2000 D:1998	5
	- Hypertension	1758	...	...	2	...	...	C:2000 D:1998	5
	- Ischaemic heart disease	28	...	...	7	...	...	C:2000 D:1998	5
	- Rheumatic fever and rheumatic heart diseases	39	...	...	0	0	0	C:2000 D:1998	5
51	**Maternal causes**								
	- Abortion			0			0	2000	5
	- Eclampsia			...			...		
	- Haemorrhage			0			0	2000	5
	- Obstructed labour			...			...		
	- Sepsis			...			...		
52	**Diabetes mellitus**	2490	...	...	4	...	...	C:2000 D:1998	5
53	**Mental disorders**	1197	...	...	2	...	...	C:2000 D:1998	5
54	**Injuries**								
	All types	5742	...	...	...	...	...	2000	5
	- Homicide and violence	389	...	...	3	...	...	C:2000 D:1998	5
	- Motor and other vehicular accidents	555	...	...	7	...	...	C:2000 D:1998	5
	- Occupational injuries	510	...	...	...	...	...	FY 1999	12
	- Suicide	43	...	...	5	...	...	C:2000 D:1998	5
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	1	74	2000	5
	- Specialized hospitals	0	0	2000	5
	- District/first-level referral hospitals	2	8	2000	5
	- Primary health care centres	1	0	2000	5
	Private hospitals	5	0	2000	5

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
NA	Not applicable
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Given as inactivated polio vaccine (IPV)
c	Notifiable diseases

Sources:	
1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
3	United States Census Bureau, International Programs Center (http://www.spc.int/prism).
4	CNMI Central Statistics Division, Department of Finance (http://www.spc.int/prism).
5	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.
6	WHO Regional Office for the Western Pacific, data received from the technical units.
7	Family Planning Programme, Division of Public Health, Department of Public Health.
8	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade* . Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006].
9	Census information from the Central Statistics Division, Department of Commerce.
10	Hospital Division, Department of Public Health.
11	Annual report on notifiable diseases to the Epidemiology and Surveillance Unit, Division of Public Health.
12	Data from Worker's Compensation Commission, Northern Mariana Islands Retirement Fund.
13	*Demographic Tables for the Western Pacific 2005-2010* . Manila, World Health Organization Regional Office for the Western Pacific, 2005.

PALAU

1. CONTEXT

1.1 Demographics

The estimated multi-ethnic population of Palau is 20 044 (2006 est.), with an estimated annual growth rate of 0.5%. The population consists of 69.9% Palauans (a conglomeration of Micronesian with Malayan and Melanesian admixtures), 15.3% Filipinos, 4.9% Chinese, 2.4% other Asian, 1.9% Caucasian, 1.4% Carolinian and 4.2% other or unspecified groups (2000 est.). The 2006 estimate indicates a population density of 41 persons per square kilometre. Approximately 70% of the Palauan population live in the capital city of Koror on Koror Island.

Since the 1990 census, life expectancy at birth has been higher for women than men; the 2004 estimate stood at 75.7 years for women and 67.8 years for men. It was estimated that the male to female ratio was 1.12 for the entire population (1.06 at birth), 1.06 for children under 15 years of age and 1.17 among the population aged 15-64 years.

1.2 Political situation

Palau is a democratic republic with directly elected executive and legislative branches. Presidential elections take place every four years to select the President and the Vice-President, who will run on the same ticket starting with the 2008 general elections. The Palau National Congress (*Olbiil era Kelulau*) has two houses. The Senate has nine members, elected nationwide but will increase to 13 members in 2008. The House of Delegates has sixteen members, one from each of Palau's 16 states. All of the 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.

The head of state is President Tommy Esang Remengesau, Jr. The Vice-President is Elias Camsek Chin.

1.3 Socioeconomic situation

Palau's real per capita gross domestic product (GDP) of US$ 5678 (2003 est.) makes it one of the wealthier Pacific island states. The economy consists primarily of tourism, subsistence agriculture and fishing. The Government is the major employer of the workforce, relying heavily on financial assistance from the United States of America. Business and tourist arrivals numbered 87 462 in 2004. 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 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.

Table 1: Summary of vulnerability analysis scores for the health sector

Vulnerability analysis	Mean score
(F) Critical facilities	1.32
(S) Socioeconomic	1.35
(H) Health	2.89
(G) Geospatial	4.56
(P) Preparedness	1.22

Estimation of public health vulnerability: $V_{PH} = \frac{[F \times S \times H \times G]}{P}$

2005 Public Health Vulnerability Factor, $V_{PH} = \frac{[(1.32)\ (1.35)\ (2.89)\ (4.56)]}{(1.22)} = \mathbf{19.25}$

Vulnerability analysis shows that Palau is 19.25 times more vulnerable to hazards than the United States of America. Vulnerability scores can be useful in comparative studies as rough estimates of vulnerability, and for hazard mitigation planning. Public health officials and planners may apply these values to compare levels of vulnerability before and after implementation of a capacity-building programme and/or an emergency event itself. By offering a broader scope of potential vulnerability, (i.e. both facility-based and population-based indicators), the decision-maker is also engaged in a more comprehensive approach that involves addressing the many causes of vulnerability among disaster-affected populations.

Critical facility vulnerability

The Belau National Hospital (BNH) has undergone recent upgrades that will significantly mitigate its vulnerability to both natural 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 disaster plan; and upgrading of staff communications.

Challenges remain in that, by nature, the hospital represents a centralized dependency for inpatient and outpatient care that increases the vulnerability of the system. It is not economically feasible to decentralize inpatient care, but steps to build inpatient capacity and capabilities in the other islands may add some limited additional secondary capability. Mitigating BNH's vulnerabilities would reduce Palau's vulnerability to disasters. Maintaining the continuity of BNH should be of paramount concern in any mitigation strategy.

Socioeconomic vulnerability

It should not be understated that the most significant risk factor for vulnerability to disasters is poverty. The population of Palau is made up of 70% Palauans, as well as a large population of young, impoverished, foreign worker households mixed with smaller population factions of local lower- and middle-class households. 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 these most difficult vulnerabilities to alter are also the most significant.

Health vulnerability

The population faces a large burden of both infectious and chronic diseases. Like many developing nations, Palau has recently undergone an epidemiological shift from diseases of the developing world, such as malnutrition and infectious diseases, to an increasing burden of diseases of the developed world, like diabetes, heart disease, obesity and kidney failure. This places an inordinate burden on the already low human, material and fiscal health resources of the country.

Geospatial vulnerability

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 measure would help to reduce Palau's vulnerability to public health disasters.

Preparedness

Over the past five years, public health preparedness in Palau has improved significantly, but there is still much to do. A comprehensive all-hazard public health emergency operations plan has been developed, but 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 education of clinicians and the public. All components of preparedness, planning, training, hazard monitoring, warning, population protection are much more cost-effective than emergency response after the event.[1]

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The 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. Sanitation has also improved, with 83% of the entire population now having access to excreta disposal facilities.

Tuberculosis remains a problem, while the prevalence of leprosy has increased slightly. Modern lifestyle-related diseases (circulatory diseases and cancer) remain at the top of the list of major causes of death.

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. Progressive industrial development will continue to worsen both air and marine quality. Marine life and reefs will be affected by the pollution. Other negative health impacts of globalization, such as reduced physical activity and consumption of processed foods rather than locally produced foods, are already encroaching insidiously beyond Koror and Airai, where over 77% of the population resides.

2.2 Outbreaks of communicable diseases

Palau has one of the best communicable surveillance systems of all the Pacific island countries and regularly reports outbreaks of infectious disease on PacNet. Since the start of 2007, the Ministry of Health has reported a large gastroenteritis outbreak due to norovirus, a varicella outbreak and a dengue outbreak. Collaborative initiatives among principal health officials, health specialists and multisectoral community leaders have been a positive step forward in monitoring of events and communicable disease outbreaks.

2.3 Leading causes of mortality and morbidity

Based on information furnished by the Ministry of Health, the reported leading causes of mortality for 2006 were cancer; heart disease; injuries; stroke/hypertension; natural causes/unknown; septicaemia; cirrhosis/liver disease/alcohol abuse; diabetes; chronic obstructive pulmonary disease; and kidney disease. 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; endocrine, nutritional, metabolic and immune system diseases; diseases of

[1] Rykken D, Keim M. *Republic of Palau, Public Health Hazard Vulnerability Assessment.* June 2006

the circulatory system; infectious and parasitic diseases; injuries and poisonings; diseases of the nervous system; and complications of pregnancy, childbirth and puerperium.

2.4 Maternal, child and infant diseases

Great progress is being made toward improving maternal health in Palau, with zero maternal mortality reported in 1998.

The under-five mortality rate was 34 per 1000 live births in 1990 and 29 in 2002, 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 becomes progressively more difficult as the mortality rate declines.

The infant mortality rate decreased from 25 to 17 per 1000 live births in the 1990s, then further to 14 per 1000 live births in 2004.

Based on the 2006 WHO-UNICEF joint reporting form on immunization, the official coverage estimates for DTP3 and first dose of MMR both were 98%.

2.5 Burden of disease

To paraphrase the 11th Annual Report on 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 the culture, political systems, economic development and technology has moved the health emphasis from communicable to noncommunicable diseases. Of the reported 10 leading causes of death, eight 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 services and intensive care services, and the financial sustainability of a secondary health care facility in a small island community such as Palau.

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 enough 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 the implementation of a national action plan for food and nutrition; and
- to protect environmental health;
- to increase the accessibility of health services through the establishment of outlying dispensaries/health centres;
- to train and certify health workers and allied health workers in proper training institutions;
- establishment of National Insurance policy; and
- improvement and enhancement of Health Information System

3.2 Organization of health services and delivery systems

Although health services are supported by grants and funds from the Federal Government of the United States of America, in addition to the provision of technical support by several United Nations agencies, future resource requirements will still be dependent on successful economic development.

A new hospital has been built, with United States funding, to accommodate more patients. More staff are needed as a result. Training of more local health workers is needed to replace the rather expensive expatriate staff. Subsequent to the enactment of a new mandatory retirement law, there is an urgent need to train younger people to replace older personnel who are close to retirement age.

3.3 Health policy, planning and regulatory framework

For the 2006 fiscal year, Palau laid out clear directions and health priorities. In June 2005, the Ministry of Health adopted a vision and a mission statement, framed by Article VI of the Palau Constitution, which 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 in December 2005. During the Leadership Symposium (February 2006), certain priorities were identified, including: addressing the burden of noncommunicable diseases; solid and liquid waste management; human resources in health; and improvement of legal frameworks for health. 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 in Palau 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 at the Ministry of Health and at the national level to increase accountability and promote sound and sustainable development, have provided the impetus for implementation of the Integrated Planning Process 2006-2008 for the entire executive branch of national government. This process will streamline health system development and ensure more productivity from health care workers and an improvement in health status for all people living in Palau.

3.4 Health care financing

The total expenditure on health in Palau was 9.7% of GDP in 2005, with 91.2% coming from the Government. External resources for health accounted for 21.3% of total health expenditure. The total expenditure on health per capita was US$ 881.

3.5 Human resources for health

In 1998, Palau had a health workforce comprising 20 doctors, two dentists, 26 nurses, a midwife, a pharmacist and 106 other health personnel. In 2003, the number of doctors increased to 25. In 2005, there were 111 nurses. In 2006, there were 26 doctors, 117 nurses, one midwife, three dentists and one expatriate pharmacist. 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 still insufficient to meet current staffing requirements in nursing. Bridging programmes in nursing and other allied health fields are currently in place in the Palau Community College and within the Ministry of Health.

Vigorous efforts are underway between the Ministry of Health and 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 in Palau. The Ministry of Health is a key partner in this 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.

Since 2001, the Ministry of Health has been partnered with the Palau Community College 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. JABSOM has funnelled over US$ 2 million since 2001 to promote health worker training in Palau and the Federated States of 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.. Fifty-six physicians, nurses, environmental health workers, health administrators and nutrition workers from Palau (39) have graduated with FSMed undergraduate and postgraduate certificates and diplomas. Four physicians from Palau were awarded Postgraduate Diplomas in General Practice from the University of Auckland Faculty of Medicine. Most of this activity has been through the efforts of the Ministry of Health – PCC AHEC partnership.

3.6 Partnerships

Partnerships developed by the Ministry of Health fall into three types—bilateral, regional and institutional. The Ministry has developed bilateral relationships with the governments of Czechoslovakia, India, Israel, Korea, Japan (JICA), the Philippines, the Republic of Korea, Spain and the United States of America, among others. Regional partners include the Pacific Islands Health Officers Association (PIHOA), the Pacific Community, 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 purposes of training and medical referrals for patients requiring tertiary care and services not provided by Belau National Hospital. Partnerships with institutions for education and training include the Fiji School of Medicine (FSMed) and the Good Samaritan Hospital in Los Angeles, California, United States of America, among others.

Other partner institutions provide specialized services in adult and paediatric cardiology, EENT and opthalmology either on an annual basis or every two years. Recent developments will add to the current list of services provided by visiting specialists on an ad hoc basis. As a training site for other higher institutions of learning, 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 and allied fields) are inadequate, and this continues to be a challenge in Palau. In addition, the majority of those already working are underprepared.
- A human 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 services, from primary care to secondary and tertiary care, 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 the 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
Features : Government website
Web address : http://www.palaugov.net

Title 2 : *World Fact Book, 2007*
Operator : Central Intelligence Agency, United States of America
Features : Website
Comments : Most updated information about the country
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
Features : Website
Comments : Information related to MDG goals
Web address : http://www.spc.int/mdgs/MDG_DB, http://www.spc.int/prism

Title 4 : *Health indicators*
Operator : Ministry of Health
Features : Reports

Title 5 : *National Expenditure on Health*
Operator : World Health Organization
Features : Website
Web address : http://www.who.int/nha/country/plw/en/

Title 6 : *Republic of Palau, Public Health Hazard Vulnerability Assessment*
Operator : David Rykken, MPH and Mark Keim, MD, June 2006

5. ADDRESSES

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COUNTRY HEALTH INFORMATION PROFILE

PALAU — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.46			2006	1
2	**Estimated population** ('000s)	20.04	10.77	9.28	2006 est	1
3	**Annual population growth rate** (%)	0.50	.....	...	2006-10	1
4	**Percentage of population**					
	- 0–4 years	12.30	12.30	12.40	2006 est	11
	- 5–14 years	22.50	22.40	22.60	2006 est	11
	- 65 years and above	5.00	4.70	5.30	2006 est	11
5	**Urban population** (%)	68.60	...	...	2005 est	2
6	**Crude birth rate** (per 1000 population)	14.01 [c]	...	...	2004	7
7	**Crude death rate** (per 1000 population)	6.73 [c]	...	...	2004	7
8	**Rate of natural increase of population** (% per annum)	5.70	...	...	2004	10
9	**Life expectancy** (years)					
	- at birth	71.62	67.80	75.68	2004	10
	- Healthy Life Expectancy (HALE) at age 60	....	10.20	12.00	2002	3
10	**Adult literacy rate** (%)	99.90 [a]	99.90 [a]	99.80 [a]	2005	10
11	**Neonatal mortality rate** (per 1000 live births)	14.00 [b]	...	...	2000	4
12	**Infant mortality rate** (per 1000 live births)	16.22	19.02	13.24	2004	10
13	**Under-five mortality rate** (per 1000 live births)	23.11 [c]	25.91 [c]	13.24 [c]	2004	10
14	**Total fertility rate** (women aged 15–49 years)	1.54			2004	10
15	**Maternal mortality ratio** (per 100 000 live births)	11.58			2004	10
16	**Percentage of newborn infants weighing at least 2500 g at birth**	91.00	...	...	1998	7
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			1.20	1998	7
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	...	...	...		
	- DTP3	98.00	...	...	2006	6
	- POL3	98.00	...	...	2006	6
	- Measles	98.00	...	...	2006	6
	- Hepatitis B III	98.00	...	...	2006	6
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.64			1998	7
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	100.00			2004	6
	- Percentage of deliveries 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	14
	- Percentage of deliveries in health facilities (as % of total deliveries)	100.00			2006	14
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			22.83	2006	14
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			0.00	2006	14
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

PALAU

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	85.00	79.00	94.00	2004	9
27	**Proportion of population with access to improved sanitation**	83.00	96.00	52.00	2004	9
28	**Proportion of the population using solid fuels (%)**	1.00	...	...	2000	5
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.86	1998	12
33	**Per capita GDP at current market prices** (US$)			5678.00	2003	10
34	**Rate of growth of per capita GDP** (%)			-1.73 [d]	2003	10
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			15.66	2006	7
	- total expenditure on health as % of GDP			9.70	2006	7
	- per capita total expenditure on health (in US$)			700.00	2005p	13
	Government expenditure on health					
	- amount (in million US$)			9.01	2006	7
	- general government expenditure on health as % of total expenditure on health			91.20	2005p	13
	- general government expenditure on health as % of total general government expenditure			16.40	2005p	13
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			22.94 [d]	2005p	13
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			8.80	2005p	13
	Exchange rate in US$ of local currency is: 1 US$ =			NR		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	26	...	...	...	...	13.06	...	...	...	...	2006	7
	- dentists	3	...	...	...	...	1.51	...	...	...	...	2006	7
	- pharmacists	1	...	...	...	...	0.50	...	...	...	...	2006	7
	- nurses	117	...	...	...	...	58.77	...	...	...	...	2006	7
	- midwives	1	...	...	...	...	0.50	...	...	...	...	2006	7
	- other nursing / auxiliary staff	87	...	...	...	...	48.00	...	...	...	...	1998	15
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	32	...	...	...	...	16.07	...	...	...	...	2006	7
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	16	...	...	...	...	7.98	...	...	...	...	2006	7
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the respiratory system	… [e]	…	…	…	…	…	2006	7
	2. Diseases of the genitourinary system	… [e]	…	…	…	…	…	2006	7
	3. Diseases of the digestive system	… [e]	…	…	…	…	…	2006	7
	4. Normal childbirth and delivery	… [e]	…	…	…	…	…	2006	7
	5. Endocrine, nutritional, metabolic and immunity	… [e]	…	…	…	…	…	2006	7
	6. Diseases of the circulatory system	… [e]	…	…	…	…	…	2006	7
	7. Infections and parasitic diseases	… [e]	…	…	…	…	…	2006	7
	8. Injury and poisoning	… [e]	…	…	…	…	…	2006	7
	9. Diseases of the nervous system	… [e]	…	…	…	…	…	2006	7
	10. Complications of pregnancy, childbirth and puerperium	… [e]	…	…	…	…	…	2006	7
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Cancer	… [f]	…	…	…	…	…	2006	7
	2. Heart diseases	… [f]	…	…	…	…	…	2006	7
	3. Injuries	… [f]	…	…	…	…	…	2006	7
	4. Stroke/ hypertension	… [f]	…	…	…	…	…	2006	7
	5. Natural causes/ unknown	… [f]	…	…	…	…	…	2006	7
	6. Septicaemia	… [f]	…	…	…	…	…	2006	7
	7. Cirrhosis/liver disease/alcohol abuse	… [f]	…	…	…	…	…	2006	7
	8. Diabetes	… [f]	…	…	…	…	…	2006	7
	9. Chronic obstructive pulmonary disease (COPD)	… [f]	…	…	…	…	…	2006	7
	10. Kidney disease	… [f]	…	…	…	…	…	2006	7
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	…	…	…	…	…	…		
	- Diphtheria	0	0	0	0	0	0	2006	6
	- Hib meningitis	0	0	0	0	0	0	2005	6
	- Measles	0	0	0	0	0	0	2006	6
	- Mumps	0	0	0	0	0	0	2006	6
	- Neonatal tetanus	0	0	0	0	0	0	2006	6
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	6
	- Poliomyelitis	0	0	0	0	0	0	2006	6
	- Rubella	0	0	0	0	0	0	2006	6
	- Total Tetanus	0	0	0	0	0	0	2006	6
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral (all forms)	5	3	2	…	…	…	2004	10
	- Type A	…	…	…	…	…	…		
	- Type B	…	…	…	…	…	…		
	- Type C	…	…	…	…	…	…		
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		
	Cholera	0	0	0	0	0	0	2006	10
	Dengue/DHF	26	15	11	0	0	0	2006	14

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	15	8	7	0	0	0	2006	10
	Leprosy	4	4	0	0	0	0	2006	14
	Malaria	0	0	0	0	0	0	2006	10
	Plague	0	0	0	0	0	0	2006	14
	Syphilis	18	11	7	0	0	0	2006	14
	Typhoid fever	0	0	0	0	0	0	2006	14
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	0.00	0.00	0.00	0.00	0.00	0.00	2006	14
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	10	...	...	...	...	...	2005	6
	- New pulmonary tuberculosis (smear-positive)	3	...	...	...	...	...	2005	6
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	61.00	...	...	7.00	...	...	2005	6
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	64.00	...	...	100.00 (2004)	...	...	2005	6
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	2550	1176	1374	...	...	...	2004	10
48	**Diarrhoeal diseases**	69	41	28	...	...	...	2004	10
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	31	16	15	2006	7
	- Breast	...	...	...	3	0	3	2006	7
	- Colon and rectum	...	...	...	2	2	0	2006	7
	- Cervix			...			1	2006	7
	- Oesophagus	...	...	...	1	0	1	2006	7
	- Leukaemia	...	...	...	0	0	0	2006	7
	- Lip, oral cavity and pharynx	...	...	...	0	0	0	2006	7
	- Liver	...	...	...	4	3	1	2006	7
	- Stomach	...	...	...	1	0	1	2006	7
	- Trachea, bronchus, and lung	...	...	...	7	6	1	2006	7
50	**Circulatory**								
	All circulatory system diseases	738	...	...	38	...	...	1998	7
	- Acute myocardial infarction	8	...	...	1	...	...	1998	7
	- Cerebrovascular diseases	53	...	...	2	...	...	1998	7
	- Hypertension	375	...	...	9	...	...	1998	7
	- Ischaemic heart disease	6	...	...	2	...	...	1998	7
	- Rheumatic fever and rheumatic heart diseases	3	...	...	0	0	0	1998	7

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			28			0	1998	7
	- Eclampsia			…			…		
	- Haemorrhage			0			0	1998	7
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	164	…		3	…	…	1998	7
53	**Mental disorders**	…	…		…	…	…		
54	**Injuries**								
	All types	2911	…		25	…	…	1998	7
	- Homicide and violence	20	…		2	…	…	1998	7
	- Motor and other vehicular accidents	77	…		4	…	…	1998	7
	- Occupational injuries	…	…		…	…	…	1998	7
	- Suicide	3	…		…	…	…	1998	7
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	1	96	2006	7
	- Specialized hospitals	0	0	2006	7
	- District/first-level referral hospitals	0	0	2006	7
	- Primary health care centres	9	8	2006	7
	Private hospitals	3 g	14	2006	7

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to 15-24 years old
b	Estimates derived by regression and similar estimation methods
c	Revised data
d	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific
e	Data refers to leading causes of hospitalization but no actual figures given
f	Reported leading causes of mortality but no actual figures given
g	Figure refers to private clinics. There is no private hospital in Palau

Sources:

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11	*Demographic Tables for the Western Pacific 2005-2010*. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
12	*Pacific human development report 1999 (Creating opportunities)*. New York, United Nations Development Programme, June 1999.
13	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].
14	Information furnished by WHO Representative for the South Pacific, 17 August 2007.
15	Information furnished by Ministry of Health, Republic of Palau, 23 April 1999.

PAPUA NEW GUINEA

1. CONTEXT

1.1 Demographics

Papua New Guinea has an estimated population of around 6.1 million, 40% under the age of 15. Around 800 languages are spoken, with 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% of the country's population is living in rural areas) is often difficult, slow and expensive. Only 3% of 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 with the rest of the country.

Papua New Guinea has made some progress in social development over the last 30 years. Literacy rates have risen from 32% to 56%. 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 4.6 births per woman. Life expectancy has risen from 49 to 53 years and, in 2000, the crude death rate was 12 per 1000 population. Papua New Guinea's Human Development Index has risen from 0.43 to 0.52. However, 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 the National 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, the political leaders are elected to the two tiers of government: national and local. Presently, there is only one female 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 are 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. This was caused by the rising prices of mining products on the international market and not 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 an 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, Papua New Guinea developed a poverty-reduction strategy intended to give added focus to poverty in the existing national Medium-Term Development Strategy (MTDS, 2003–2007). The country is a signatory to the Millennium Development Declaration. The first MDG progress report was published in 2005.

1.4 Vulnerabilities and hazards

Papua New Guinea 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. During the last year the following low-scale disasters occurred:

- July 2006: Bialla (West New Britain Province) seismovolcanic event which displaced about 2000 people; no deaths were reported
- October 2006: Tavurvur (East New Britain Province) volcanic eruption which displaced about 1200 people; no deaths were directly attributable to the eruption.

A major challenge to improving health in Papua New Guinea is related to perceptions of illness and health among the general population. There is a widespread lack of awareness of 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; noncommunicable disease risk factors, such as tobacco consumption; and 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.

Malaria is the leading cause of all outpatient visits and the third leading cause of hospital admissions and deaths. The disease is now endemic in every province, including those that were once malaria-free. An average of 1.5-1.8 million suspected cases of malaria are seen at health care

facilities annually. Malaria mortality rates for 2005 were estimated to be 12.2 per 100 000. Together, malaria and pneumonia account for one-third of all recorded deaths.

According to WHO estimates (WHO Report 2007, Global Tuberculosis Control), in 2005, Papua New Guinea had an estimated tuberculosis incidence rate of 250/100 000 per year, a TB prevalence rate of 475/100 000, a TB death rate of 46/100 000, and a total of 12 564 cases per year for all types of TB. However, it is very likely that these are underestimates because the prevalence and incidence rates are based on case notifications, which are generally underreported. According to the same WHO report, it is estimated that the incidence rate for new smear-positive cases was 104/100 000 per year. Thus TB remains a major public health problem in Papua New Guinea, particularly with the current HIV epidemic. The directly observed treatment, short-course (DOTS) programme is gradually expanding; it is currently operational in eight provinces. Reasons for the somewhat slower-than-planned expansion of DOTS include a number of system constraints common to other disease control programmes, including central-level staffing, weak infrastructure and support services, and delays in access to funds, which have limited training, supervision and other local-level support.

Papua New Guinea was declared to have a generalized HIV/AIDS epidemic in 2003. It is estimated that there are 23 000 to 91 000 HIV-positive individuals in the sexually active population of 15-49 years, estimated in a consensus workshop of February 2006. HIV prevalence among women attending antenatal clinics is between 0.6% and 3.7% (2005) and AIDS is the leading cause of death in adult inpatients at the Port Moresby Hospital. The main mode of transmission is heterosexual. The incidence of other sexually transmitted infections is also rising. The high incidence of sexual assaults on women is contributing to their risk of contracting an STI.

Filariasis is endemic in Papua New Guinea, although the size of the problem seems to be unknown. Mass drug administration through the Elimination of Lymphatic Filariasis (ELF) programme is ongoing.

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 Hospital suggest that diabetes and hypertension are also on the increase. A nationwide STEPS survey presently being undertaken will provide the necessary proof of the size of the problem. The three leading cancers in Papua New Guinea, oral, hepatic and cervical, have largely preventable causes.

An 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 vaccine-preventable diseases, such as measles, pertussis and diphtheria, continue to occur due to the low vaccination coverage and poor cold-chain system for vaccine storage and transportation. There were an estimated 17 620 measles cases in 2002, but the number decreased to 3863 cases in 2003, 1222 in 2005 and one case in 2006.

Diarrhoeal diseases remain common. Intestinal infectious diseases, including diarrhoeal diseases and typhoid, are major causes of morbidity, with an estimated combined incidence of 434/100 000 per year. Contaminated food and water are the major contributing factors, with only 39% of the population having access to safe water, and poor hygienic conditions resulting in unsafe food handling practices.

Malaria outbreaks in different parts of the country are yearly events.

Papua New Guinea still seems to be free of Avian Influenza.

2.3 Leading causes of mortality and morbidity

Communicable diseases, including pneumonia, malaria, tuberculosis, diarrhoeal diseases, meningitis and, increasingly, HIV/AIDS, remain the leading cause 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 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.

The noncommunicable diseases epidemic in Papua New Guinea is firmly established and increasing, but is largely unrecognized in reported data. Tobacco-related and alcohol-related illnesses, diabetes and hypertension are on the increase, as are the three leading cancers in Papua New Guinea (oral, hepatic and cervical, all of which have largely preventable causes), and also 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 2000 figure was 330 per 100 000 live births. Causes of maternal mortality include postpartum haemorrhage, puerperal sepsis, antepartum haemorrhage, eclampsia and anaemia. Almost 60% of pregnant women are cared for by trained health personnel and about 35% of births are in health facilities. About 20% of women are using modern family-planning methods (2005).

Perinatal conditions account for over 10% of all recorded deaths. The infant mortality rate is estimated to be 64 per 1000 live births (2000 census) compared with 82 in 1991 and 72 from the 1981 National Census. Overall, 27% of children are considered to be moderately to severely malnourished and 31% of those aged 0–5 are stunted, while the wasting rate is comparatively low. Again, there are marked regional variations.

Child health problems are being addressed through improved immunization 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 (2000) is estimated to be 52.5 years for men and 53.6 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. A demographic and health survey that will provide new data on health outcomes was undertaken in 2006 (analysis etc. in progress).

Since 1990, performance towards achieving the MDGs in Papua New Guinea has been mixed. Although progress has been made in some areas, in others there has been stagnation or even deterioration. Overall, progress has been limited due to the adverse development context, the restricted institutional framework, severe resource limitations and the many socioeconomic, cultural, political and other constraints. Furthermore, disparities in most MDG-related indices at the provincial and subprovincial levels are very large by any standard. In some case, the gaps between the provinces have widened further. The most obvious, cost-effective and easiest way of making progress towards achieving the MDGs, and in the process closing the gaps within the country, would be to concentrate on the low-achieving provinces.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The overall mission of the Papua New Guinea National Department of Health is to promote the physical, social and mental 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.

With this overall mission, the vision of the National Department of Health is 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 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 both government and church providers (both of which are financed primarily from public sector funds); by enterprise-based services (e.g. the mines); by a small, modern private sector; and by 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 19 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. This has only been implemented in two 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 identify some explicit priorities. These include maternal and child health, immunization, malaria control, TB DOTS, HIV/AIDS, and water and sanitation programmes.

There is significant work to be done on the regulatory framework for health. The current Public Health Act emanates from the 1950s and was adopted by the country on independence in 1975. While there have been amendments to the Act and various new regulations have been passed, there is general recognition of the need to replace the current framework with one that is more contemporary and consistent with the International Health Regulations (2005). The legislation regulating health practitioners and health care practice is equally dated, although considerable work has been done in this area and a draft bill has been prepared for presentation to Parliament.

The following laws, regulations and guidelines are available in Papua New Guinea. However, many have to be reviewed or updated to address current issues.

- Public Health Act and Regulations
- National Health Administration Act 1997
- Infection Prevention Policy Guidelines for Health Facilities
- Minimum Standards for District Health Services in Papua New Guinea
- Environment Bill 2000
- Environmental Contamination Act and Regulations
- Water Supply and Sanitation Act.
- Pure Food Act and Regulations
- Traditional laws governing burial areas
- Quarantine Act and Regulations
- Occupational Health and Safety Act

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 gross domestic product (GDP) rose steadily from 3.2% to 3.9% between 1997 and 2005. Total health expenditure per capita fell steadily from US$ 32 US dollars in 1997 to US$ 24 in 2001, but increased again to US $35.72 in 2005. Over 80% of recurrent provincial health budgets were allocated to salaries in 2006. Increased income from the mining sector in 2006 provided an additional US$ 60 million for the health sector, which allowed the undertaking 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 gross national product (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 in 2005 was the signing for a US$ 30 million grant from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) for the country's HIV/AIDS programme. In 2004, the Fund committed US$ 20 million for malaria, over five years. A further proposal of about US$ 21 million for TB was accepted in 2006.

Papua New Guinea does not have any form of private health insurance, although there is an initiative to have mandatory staff health insurance introduced in the formal sector. In principle,

health services are free. However, in most provinces a small fee is charged for outpatient visits. It is not clear how much this acts as a deferent to people accessing health services.

3.5 Human resources for health

The nurse-to-population ratio is estimated to be 15.0/10 000. An additional 600 nurses, 600 community health workers and 100 midwives are estimated to be needed to fill vacant posts, and current production rates are insufficient to fill this gap. The doctor-to-population ratio is estimated to be 1.26 per 10 000, the majority 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 of the community health worker training schools.

A significant gap in human resources for health is the lack of labour-force data collection. As a result, planning for human-resource training, recruitment and retention is based on "what is thought to be there" rather than "what is there". A newly developed database has been completed and it is planned that it will address this situation through the production of comprehensive labour-force reports for all cadres of health care worker by 2008.

3.6 Partnerships

Papua New Guinea has relatively few development partners. According to statistics provided by the Organisation of Economic Co-operation and Development (OECD), 96% of ODA for health in 1998-2000 was 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, until recently, 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 with 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 (presently 2005-2007). 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 Services Improvement Programme (HSIP), which ADB joined in 2006. This SWAp 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 twice yearly a couple of weeks in-country, 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 malaria control strategy received a major injection of funds from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) in 2004. In 2005, the Fund approved a grant for HIV/AIDS and, in 2006, a bid for Global Fund support to strengthen the tuberculosis programme was successful. The Country Coordination Mechanism (CCM), a requirement of the GFATM to execute programme activities, had a further positive impact on overall cooperation between the different stakeholders in the country'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 "One UN" approach in the country. Though Papua New Guinea has not formally been included in the first eight pilot countries, there is indication that the Papua New Guinea common United Nations Country Programme is more advanced in the process. The bearing of this on the health sector remains to be seen.

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 has 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 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. Central 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 functional 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 being acknowledged for some time, little has been done yet to seek redress. The scarcity and maldistribution of human resources has not been addressed effectively, and there have only been limited and not very coordinated efforts in training and other approaches to capacity-building. No plan for development of human resources exists.

There has been no proper assessment of the National Health Information 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 lack of capacity for conducting proper surveillance. Most information on communicable disease outbreaks come from the media, instead of the National Health Information and Surveillance System.

At all levels in the country there are very limited capacities for outbreak response. 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. The regional and provincial hospital laboratories form the backbone of the country's laboratory network. Some health centres also have some limited laboratory diagnosis capacities.

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, these are not enforced and there seems to be no clear separation between the approving and procuring authority. There is anecdotal evidence that the prices paid for drugs may be several times higher than those available on international markets. Recently, a push to outsource all or part of the drug procurement and distribution system has emerged.

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, 1996*
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)*
Operator	:	National Department of Health
Features	:	Tables, graphs and maps of major health indicators by districts 1995 - 1999
Title 6	:	*Discharge Reports 2000*
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
Features	:	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 PNG*
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)
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

NATIONAL DEPARTMENT OF HEALTH

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WHO REPRESENTATIVE IN PAPUA NEW GUINEA

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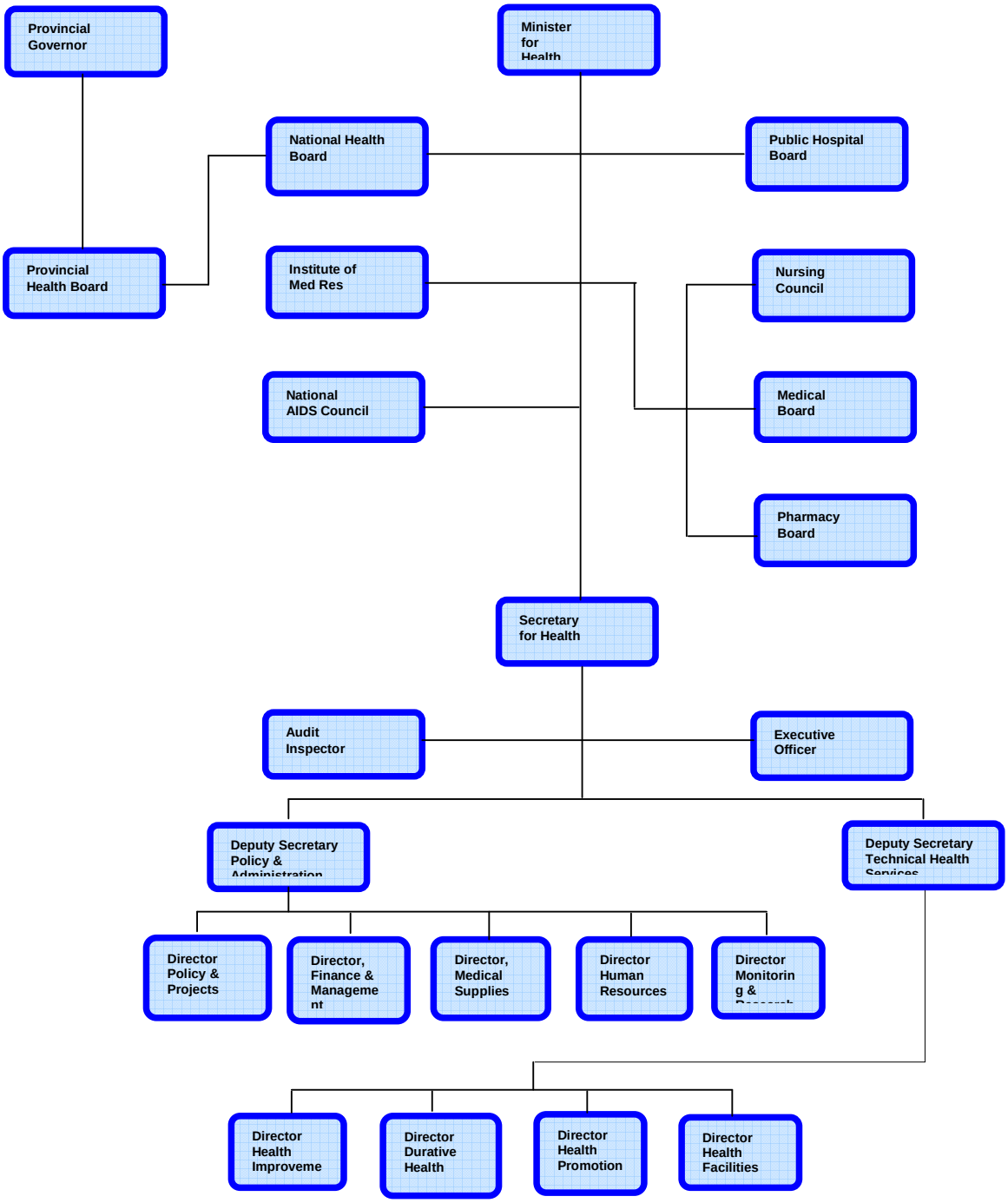
Office Hours	:	Monday to Friday, 7h45 – 16h15

6. ORGANIZATIONAL CHART: National Department of Health



PAPUA NEW GUINEA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	462.84			2006	1
2	**Estimated population** ('000s)	6116.00	…	…	2006 est	4
3	**Annual population growth rate** (%)	2.70	…	…	2006 est	4
4	**Percentage of population**					
	- 0–4 years	14.50	14.50	14.40	2006 est	2
	- 5–14 years	26.00	26.00	26.00	2006 est	2
	- 65 years and above	2.60	2.50	2.50	2006 est	2
5	**Urban population** (%)	13.40	…	…	2005 est	3
6	**Crude birth rate** (per 1000 population)	35.00	…	…	2000	4
7	**Crude death rate** (per 1000 population)	12.00	…	…	2000	4
8	**Rate of natural increase of population** (% per annum)	2.30	…	…	2000	4
9	**Life expectancy** (years)					
	- at birth	53.00	52.50	53.60	2000	4
	- Healthy Life Expectancy (HALE) at age 60	…	10.10	10.60	2002	18
10	**Adult literacy rate** (%)	56.20 [a]	61.20 [a]	50.90 [a]	2000	4
11	**Neonatal mortality rate** (per 1000 live births)	32.00	…	…	2000 est	5
12	**Infant mortality rate** (per 1000 live births)	64.00	67.00	61.00	2000	4
13	**Under-five mortality rate** (per 1000 live births)	88.00	93.00	83.00	2000	6
14	**Total fertility rate** (women aged 15–49 years)	4.60			2000	4
15	**Maternal mortality ratio** (per 100 000 live births)	330.00			2000	6
16	**Percentage of newborn infants weighing at least 2500 g at birth**	90.00	…	…	2002	7
17	**Prevalence of underweight children under five years of age**	31.00	…	…	2005	8
18	**Percentage of pregnant women with anaemia**			…		
19	**Percentage of teenage pregnancy**			13.00	2006	8
20	**Immunization coverage for infants (%)**					
	- BCG	75.00	…	…	2006	9
	- DTP3	75.00	…	…	2006	9
	- POL3	80.00	…	…	2006	9
	- Measles	70.00	…	…	2006	9
	- Hepatitis B III	80.00	…	…	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	59.00			2005	7
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	66.00			2005	7
	- Percentage of deliveries attended by skilled health personnel	38.20			2005	7
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	3.20			2005	7
	- Percentage of deliveries in health facilities (as % of total deliveries)	35.00			2005	7
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			20.00	2005	8
23	**Condom use rate of the contraceptive prevalence rate**	…	…	1.00	2005 est	19
24	**HIV prevalence among 15–24 year-old pregnant women**			1.25	2006 est	20
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	2694	2006	20

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	39.00	88.00	32.00	2004	10
27	Proportion of population with access to improved sanitation	44.00	67.00	41.00	2004	10
28	Proportion of the population using solid fuels (%)	90.00	...	...	2002	16
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	100.00	...	...	2006	9
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.52	2004	11
33	**Per capita GDP at current market prices** (US$)			846.74	2004	12
34	**Rate of growth of per capita GDP** (%)			0.68	2004	12
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			210.32	2005p	13
	- total expenditure on health as % of GDP			3.90	2005p	13
	- per capita total expenditure on health (in US$)			35.72	2005p	13
	Government expenditure on health					
	- amount (in million US$)			179.35	2005p	13
	- general government expenditure on health as % of total expenditure on health			85.30	2005p	13
	- general government expenditure on health as % of total general government expenditure			9.60	2005p	13
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			16.65	2005p	13
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			14.70	2005p	13
	Exchange rate in US$ of local currency is: 1 US$ =			3.10 [b]	2005p	13
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	750	...	...	...	...	1.26	...	...	...	...	2005	17
	- dentists	182	...	...	...	...	0.30	...	...	...	...	2005	17
	- pharmacists	...	...	...	...	...	...	...	...	...	...	2005	17
	- nurses	8914	...	...	...	...	14.98	...	...	...	...	2005	17
	- midwives	567	0	567	...	...	0.95	0.00	0.95	...	...	2005	17
	- other nursing / auxiliary staff	3926	...	...	...	...	6.60	...	...	...	...	2005	17
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	385	...	...	...	...	0.64	...	...	...	...	2005	17
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	1065	...	...	...	...	1.79	...	...	...	...	2005	17
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	50	...	...								2005	17
40	**Yearly new graduates – nurses**	165	...	...								2005	17

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	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Normal deliveries (including BBA)	55 996		55 996	1082.77		2247.23	2000	15
	2. Pneumonia	31 550	17 436	14 114	610.07	650.65	566.42	2000	15
	3. Malaria	30 471	15 295	15 176	589.20	570.76	609.04	2000	15
	4. Perinatal conditions	8508	4576	3932	164.52	170.76	157.80	2000	15
	5. Direct obstetric causes	8284		8284	160.18		332.45	2000	15
	6. Diarrhoea	7566	4210	3356	146.30	157.10	134.68	2000	15
	7. Open wounds and injury to blood vessels	7085	4619	2466	137.00	172.37	98.97	2000	15
	8. Diseases of the digestive system	7076	3476	3600	136.83	129.71	144.48	2000	15
	9. Tuberculosis	5841	3082	2759	112.94	115.01	110.72	2000	15
	10. Skin diseases	5700	3070	2630	110.22	114.56	105.55	2000	15
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Pneumonia	957	510	447	18.51	19.03	17.94	2000	15
	2. Perinatal conditions	834	455	379	16.13	16.98	15.21	2000	15
	3. Malaria	629	324	305	12.16	12.09	12.24	2000	15
	4. Tuberculosis	502	305	197	9.71	11.38	7.91	2000	15
	5. Meningitis	401	217	184	7.75	8.10	7.38	2000	15
	6. Heart diseases	302	147	155	5.84	5.49	6.22	2000	15
	7. Diseases of the digestive system	239	167	72	4.62	6.23	2.89	2000	15
	8. Septicaemia	192	114	78	3.71	4.25	3.13	2000	15
	9. Anaemia	180	82	98	3.48	3.06	3.93	2000	15
	10. Diarrhoea	179	105	74	3.46	3.92	2.97	2000	15
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	NR	NR	NR	NR	NR	NR	2006	9
	- Diphtheria	0	0	0	0	0	0	2006	9
	- Hib meningitis	...	...	...	...	...	...		
	- Measles	1	...	...	...	...	...	2006	9
	- Mumps	NR	NR	NR	NR	NR	NR	2006	9
	- Neonatal tetanus	58	...	...	...	...	...	2006	9
	- Pertussis (whooping cough)	3051	...	...	...	...	...	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	NR	NR	NR	NR	NR	NR	2006	9
	- Total Tetanus	58	...	...	...	...	...	2006	9
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	392 575	...	...	...	...	...	2002	7
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	81	55	26	2	2	0	2000	15
	Cholera	0	0	0	0	0	0	2000	15
	Dengue/DHF	22	...	...	...	...	...	2002	9

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	34	14	20	0	0	0	2000	15
	Leprosy	381	...	...	...	...	...	2005	9
	Malaria	98 762 [c]	...	...	725 [c]	...	...	2005	9
	Plague	...	...	...	...	...	...		
	Syphilis	184	66	118	8	3	5	2000	15
	Typhoid fever	5145	2546	2599	164	95	69	2000	15
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	1657 [c]	...	...	12.17 [c]	...	...	2005	9
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	12 564	...	...	...	...	...	2005	9
	- New pulmonary tuberculosis (smear-positive)	1805	...	...	...	...	...	2005	9
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	475.00	...	...	46.00	...	...	2005	9
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	21.00	...	...	65.00 (2004)	...	...	2005	9
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	300	160	140	3	1	2	2000	15
48	**Diarrhoeal diseases**	7566	4210	3356	179	105	74	2000	15
49	**Cancers**								
	All cancers (malignant neoplasms only)	2694	1071	1623	268	137	131	2000	15
	- Breast	184	...	184	7	...	7	2000	15
	- Colon and rectum	36	16	20	9	6	3	2000	15
	- Cervix			656			29	2000	15
	- Oesophagus	51	37	14	7	5	2	2000	15
	- Leukaemia	102	56	46	28	14	14	2000	15
	- Lip, oral cavity and pharynx	428	248	180	22	11	11	2000	15
	- Liver	335	239	112	51	35	16	2000	15
	- Stomach	31	12	19	4	2	2	2000	15
	- Trachea, bronchus, and lung	63	43	20	16	12	4	2000	15
50	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	19	16	3	1	0	1	2000	15
	- Cerebrovascular diseases	7	5	2	0	0	0	2000	15
	- Hypertension	491	258	233	28	22	6	2000	15
	- Ischaemic heart disease	123	67	54	8	3	5	2000	15
	- Rheumatic fever and rheumatic heart diseases	47	25	22	7	5	2	2000	15

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	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			3371			6	2000	15
	- Eclampsia			605			4	2000	15
	- Haemorrhage			1698			36	2000	15
	- Obstructed labour			50			0	2000	15
	- Sepsis			951			13	2000	15
52	**Diabetes mellitus**	323	183	140	43	27	16	2000	15
53	**Mental disorders**	520	274	246	6	5	1	2000	15
54	**Injuries**								
	All types	20 420	12 404	8016	230	147	83	2000	15
	- Homicide and violence	446	102	346	4	2	2	2000	15
	- Motor and other vehicular accidents	504	346	158	19	12	7	2000	15
	- Occupational injuries	0	0	0	0	0	0	2000	15
	- Suicide	60	11	49	1	0	1	2000	15
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					19	…	2003	14
	- Specialized hospitals					4	…	2003	14
	- District/first-level referral hospitals					201	…	2003	14
	- Primary health care centres					2875	…	2003	14
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to population aged 10 years and over
b	Revised data
c	Due to limited diagnostic facilities, a majority of suspected cases are treated on clinical ground and therefore not included among confirmed cases

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PHILIPPINES

1. CONTEXT

1.1 Demographics

The population of the Philippines is predominantly young, with the 0-14 age group representing 38% and those aged 65 years and above comprising 4.2%. There are almost equal numbers of males and females. About 63% of the population are urban dwellers (2005).

The persistently high population growth rate impacts heavily on the Government's capacity to catch up with desired investments in human capital and physical infrastructure, and analysts regard this as a major factor reducing financial resources. In addition, it lessens women's opportunities to participate fully in the job market within the country. Population migration is also an important factor in the country's population growth. As of December 2004, an estimated 8.1 million Filipinos, nearly 10% of the country's 85 million people were working and/or residing abroad, in nearly 200 countries. In the last 30 years, a "culture of migration" has emerged, with millions of Filipinos eager to work abroad despite the risks and vulnerabilities they are likely to face.

Filipino women are among those with the highest fertility rates in Southeast Asia, at 3.5 births per woman. The country continues to have one of the highest maternal mortality ratios (MMR) in Asia. A recent survey (2005) revealed an MMR of 162 per 100 000 live births; the MMR was 172 in 1998.

Recent scanning of gender issues in the health sector (National Commission on the Role of Filipino Women, 2004) revealed the persistence of several health-related concerns, such as a high fertility rate, a gap between the desired and actual number of children, declining nutritional status among young and adult women, and increasing health consequences of gender-biased violence.

The infant mortality rate among households in the poorest quintile is 2.3 times higher than among the richest quintile, while the under-five mortality rate is 2.7 times higher. This inequality is also evident in the differences in health-seeking behaviour between different income groups. Health improvements in poor provinces and regions further indicate inequities in health outcomes due to continuing differences in access to health care.

1.2 Political situation

The Philippines is a thriving democracy, subscribing to the presidential form of government, with three branches: the executive, legislative and judicial. Executive power is vested in the President, elected by the people as the Head of State and the Commander-in-Chief of the Armed Forces. The cabinet members are the heads of agencies and assist the President in executive laws, policies and programmes of government.

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. The country is made up of the political local government units (LGU) 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 expenditures on health care.

Although administrations since 1986 have been committed to the broad goals of economic and trade liberalization, poverty reduction, sustainable growth, people's participation and good

governance, the periodic changes in political leadership has generally meant a lack of continuity in policies and programmes.

1.3 Socioeconomic situation

The Philippine economy, as measured by gross domestic product (GDP), continued its upturn and rose by 6.9% in the first quarter of 2007. This is the country's highest since the first quarter of 1990. The Government attributes this to low inflation, a strong peso, its pump priming activities and preparations for the elections during the first quarter of 2007. The unexpectedly high GDP growth was backed by the strong performances of trade, manufacturing, agriculture, fishery and forestry, transportation, communication and storage, finance and private services. The expansion of the economy continued to keep pace with population growth in the fourth quarter: with per capita gross national product (GNP) increased by 3.8% from 4.8% (NSCB). The country's GNP grew as a result of the continuing vigorous growth in the net factor income from abroad, including remittances from overseas Filipino workers, which grew by 17.1%.

The country has a per capita income of US$ 450 and is classified as a low-income country, with about 24% of the population living below the national poverty line. According to World Bank/UNDP estimates, approximately 32% of the population lives on less than US$ 1.00 per day and about 41% on less than US$ 2 per day. An estimated 24% of households are headed by women, of which 46% are estimated to be living in poverty.

Poverty is concentrated in the north, with four northern provinces accounting for 76% of all poor households. Urban poverty is also on the rise, particularly among migrant populations, with an estimated 24% of urban households currently living in poverty, most of them comprising informal sector or unemployed workers. Income inequality seems to be growing and the Gini coefficient is now 0.48. The Human Poverty Index for the country for 2006 has been calculated at 15.3.

According to the latest data (2006), unemployment is estimated at 8.3%, decreasing from 11.3% in 2005. Underemployment, on the other hand, is estimated at 26.1%. In spite of the brief resurgence in agriculture, the Philippines continues to be more dependent on the services sector for both employment and output growth, as the industrial sector has not demonstrated sustained growth since the financial crisis in 1997 and 1998. Overseas employment remains an important response, not only to unemployment, but also to the need for foreign exchange.

Some analyses of the distribution of ill-health are available. For example, the poorest quintile of households bears 34% of the burden of infant mortality, while the share of infant deaths among the richest quintile is only 6%. Health care in the Philippines is financed mainly by general taxation, but the share of GNP allocated to health has not improved much in recent years. According to one study, catastrophic health expenditures account for as much as 25% of new poverty.

In 2004, 85% of the population had sustainable access to an improved water source while 72% had access to improved sanitation. However, despite significant improvements in coverage, water and sanitation-related diseases remain major health problems. The epidemiological survey of 1973-2001 showed that acute diarrhoea and food poisoning increased over the period. This development is mainly attributed to two factors: drinking water quality and hygiene behaviour.

Air quality continues to deteriorate, particularly in urban areas, mainly due to the increasing number of motor vehicles and industries that have direct harmful effects on human health. Acute respiratory infection account for more than 30% of total deaths in children under five years of age, and a significant portion of the population, in both rural and urban areas, is affected by bronchitis caused by domestic smoke. In 2002, 45% of the population use solid fuels such as wood, charcoal, dung, agricultural residues and coal for cooking or heating.

The Gender-related Development Index (GDI) for the country is 0.75. There is a lack of sex disaggregated data, but recent studies on gender and health suggest that gender is a significant

determinant of health risks, health-seeking behaviour and health outcomes, for both men and women. For example, gender-related norms for boys place a high value on multiple sexual partners and early sexual initiation. However, since girls who are able to negotiate safe sex are seen as promiscuous, girls tend to have less say in sexual relations. Although likely underreported, anecdotal evidence suggests that gender-based violence against women is widespread and accepted by both men and women as the norm. Although the recently enacted law on domestic violence gives a key role to the health sector, health workers are not yet well equipped with the skills to adequately address this issue.

The Government is taking steps to address gender-related inequalities. The National Gender Action Plan includes a chapter on health, which prioritizes issues such as HIV/AIDS, sexual and reproductive rights and smoking among young men and women. The country ratified the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) n 5 August 1981 and is due to report to the CEDAW Committee in 2007. The Gender Empowerment Measure (GEM) stands at 0.52.

1.4 Vulnerabilities and hazards

Being situated in the typhoon belt and along the Pacific Ring of Fire, the Philippines is prone to many hazards. In 2006, among the significant emergencies that occurred were a stampede and a mudslide that buried a whole village in Southern Leyte Province. Two volcanoes, Bulusan and Mayon, erupted, causing thousands to be evacuated, and four volcanoes remain at Alert Level 1. The country also experienced its biggest ever oil spill, from the MV Solar I, which affected 7870 families, and several chemical emergencies were reported. Typhoons, which hit the country an average of 22 times per year, brought considerable damage in the past year. A series of four powerful typhoons left several provinces severely damaged, the mudslide in Albay Province being a direct consequence of one of them. A total of 1158 persons were killed and 3235 injured and 891 persons remain missing. Approximately 2.38 million families were affected. Thousands still remain in evacuation and transit centres in Albay Province awaiting relocation.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Deaths are mainly due to noncommunicable diseases, specifically of the heart and vascular system. At the same time, although progress has been made in controlling communicable diseases, their burden as a cause of morbidity is still high.

Although the leprosy control programme managed to reach the global elimination target of prevalence of less than 1 case per 10 000 populations as early as 1998, the country still accounts for most of the leprosy cases in the Western Pacific Region (approximately 3000 new cases per year). In addition, most of those cases present at the time of diagnosis with the multibacillary form, and some with disabilities.

About 140 000 new cases of tuberculosis (all types) were reported in 2005. Most patients with TB receive treatment under the directly observed treatment, short-course (DOTS) strategy. In 2003, in order to capture all cases, the National TB Program (NTP) officially adopted the Public-Private Mix DOTS strategy in an effort to engage all private practitioners in DOTS. In 2004, the Philippines was the second high-TB-burden country (after Viet Nam) to reach the global targets of 70% case detection and 85% treatment success rates, which has been maintained since. In addition, the NTP has been expanding the management of multidrug-resistant-TB cases from the private project site into the public sector in Metro Manila.

Malaria continues to be endemic in over 57 provinces in the country, affecting the poorer communities in far-flung *barangays*. Over 46 000 confirmed cases were recorded in 2005, with over 140 deaths. With significant improvements in diagnosis and treatment, and in personnel

protection at the community level, the incidence of the disease is expected to be reduced in the coming years. It is an epidemic-prone disease in several provinces, especially in provincial border regions.

Over 23 million people in 39 provinces are living in filariasis-endemic areas and have been targeted for a five-year elimination campaign through annual mass drug administration (MDA). The Department of Health has increased its support to this initiative significantly and at present the MDA is being implemented in 34 provinces. Filariasis patients with permanent and long-term disabilities are also being targeted for community-based interventions.

The HIV epidemic in the country is currently described as "hidden and growing" (sudden increase in the number of cases reported per month). STI cases, on the other hand, are classified as underreported because many patients are still treated by private practitioners who do not submit reports to the Department of Health.

The steep increase in the burden of noncommunicable disease is currently a priority health problem. Six of the top ten causes of mortality are due to noncommunicable diseases. These include cardiovascular disease, cancer, chronic obstructive pulmonary disease, diabetes and kidney disease. Hypertension and heart disease are among the 10 leading causes of morbidity, with 22.5% of Filipino adults hypertensive.

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.

The overall adult prevalence of diabetes is currently 4.6%. A community survey in 2000 showed that as many as 80% of people with diabetes remain undiagnosed and untreated.

Also a growing health concern is injury, currently the fifth leading cause of mortality. Injury mortality rates increased from 19.1 in 1975 to 42.3 per 100 000 population in 2002. The leading causes of injury mortality are assault, transport accident, accidental drowning and submersion, intentional self-harm and accidental fall. Road traffic accidents constitute the majority of transport accidents.

Prevalence rates for obesity, diabetes and cardiovascular disease now surpass those of most industrialized countries. Increasing rates of overweight and obesity, reduced physical activity, smoking and, to some extent, the ageing of the population are factors contributing to the rapidly growing burden of noncommunicable disease. Currently, 19.6% of Filipino adults are overweight and 4.8% are obese. It is also reported that 60.5% of adults are physically inactive. The prevalence of tobacco use among adults continues to be high and is rising, from 32.7% in 1999 to 34.8 in 2003. Around 56% of adult males and 12% of adult females are current smokers, while 19.6% of adolescents smoke.

2.2 Outbreaks of communicable diseases

In 2006, the Philippines experienced several outbreaks of diarrhoea. In areas north of Luzon, there were several municipalities in the province of Ifugao where the causative organisms isolated were cholera and amoeba. In a distant town in Palawan, indigenous people were affected due to cholera. Some municipalities in Catanduanes had mixed causes of diarrhoea, including Salmonella, E. coli, Vibrios and Aeromonas due to a contaminated water source. In the Visayas, a town in Bohol province was affected by diarrhoea caused by Shigella; the water source was also contaminated. In all the diarrhoea-affected areas, deaths were reported. An outbreak of hepatitis A in Surigao del Sur in Mindanao occurred among students of a state college. The source of infection was attributed to contaminated food outside the school. The above list of outbreaks points to poor environmental sanitation and contaminated water supplies and food as the most likely causes. Most of the affected areas are rural, where water systems are unprotected.

Dengue continued to emerge as major outbreak in several cities of Luzon in 2006. Over 28 000 cases were recorded in sentinel hospitals, but the real burden was estimated to be over 100 000 cases. Metro Manila and the Cordillera Autonomous Region recorded a 30% increase in cases, although mortality was reduced to 0.75%. Dengue is now spreading to semi-urban pockets of Mindanao.

2.3 Leading causes of mortality and morbidity

As in the past, most of the leading causes of morbidity are communicable diseases, including diarrhoea, bronchitis, pneumonia, influenza, tuberculosis, malaria, chickenpox and measles. In 2005, dengue, diseases of the heart and hypertension were also among the leading causes of morbidity.

Deaths, on the other hand, are mainly due to noncommunicable diseases, the eight leading causes of mortality being diseases of the heart, stroke, cancer, accidents, pneumonia, tuberculosis, diabetes mellitus and chronic lower respiratory diseases. The majority of these diseases are linked to common, preventable, lifestyle-related risk factors that include tobacco use, unhealthy diet and physical inactivity.

Cases of acute watery diarrhoea are widespread in all areas of the country, while acute bloody diarrhoea is common in selected regions, like the Cordillera Autonomous Region in the northern part of Luzon. Cholera showed a marked increase in 2005 and was common in the two Regions of Mindanao and the Ilocos Region in Luzon where the cholera outbreak of 2004 occurred. Leptospirosis continues to be constantly reported, the highest incidence being in agricultural areas of the country and in Metro Manila, where flooding is frequent. Outbreaks of viral encephalitis and meningococcemia are still sporadic in a few areas of the country. Rabies has a saw-tooth decreasing trend, though incidence has increased compared with 2004.

The Philippines has not recorded any cases of avian influenza.

2.4 Maternal, child and infant diseases

The latest National Demographic and Health Survey (NDHS) shows that only six out of 10 births are attended by a health professional. Among Filipino women, the lifetime risk of dying from maternal causes is one in 100. Maternal deaths make up less than 1% of the total deaths in the country, but they contribute 14% of all deaths in women aged 15 to 49 years. Maternal deaths are mainly due to postpartum haemorrhage, hypertension and its complications, sepsis, obstructed labour and complications from abortions. The maternal mortality ratio barely improved from 1970 to 1995 and remains high (190 per 100 000 live births in 1970, 179.70 in 1995 and an estimated 172 in 1998).

The infant mortality rate (IMR), although declining, is still high compared with neighbouring countries, and varies according to socioeconomic and demographic factors. A high IMR is noted among infants of mothers with low or no education and no antenatal and delivery care, and mothers aged below 20 or above 40 years. The IMR is also lower in urban areas, at 24 infant deaths per 1000 live births, compared with 36 in rural areas (NDHS, 2003).

Nutritional problems and parasitism are common among children. A national survey of children under five years of age revealed prevalence rates of soil-transmitted helminths ranging from 49%-93%. The Philippines is one of 42 countries that account for 90% of global deaths among the under-fives. In addition, the prevalence of underweight preschool children (0–5 years old) is 27.6% (Food and Nutrition Research Institute, 2003), a slight decrease from 30.6% in 1998, and the prevalence of stunting was 26.7% in 2002 (FNRI). Adolescents and youths account for 17% of the total morbidity from notifiable diseases and 6.7% of total deaths.

The latest NDHS shows that only 16.1% babies are exclusively breast-fed up to four to five months.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Medium-Term Philippine Development Plan 2004-2010 emphasizes that improving the accessibility and affordability of quality social services is essential to ensuring social justice and meeting the basic needs of every Filipino. Basic health and nutrition services, such as low-cost good quality medicines, maternal care, micronutrient supplements, etc. are among the essential social services that constitute the vital government interventions aimed at raising productivity, reducing poverty and promoting social justice. In this light, stakeholders in health and health-related sectors must intensify and harmonize their efforts to attain the country's vision of health for all Filipinos and continue its mission of ensuring the accessibility and quality of health care to improve the quality of life of all Filipinos, especially the poor.

The goals of the health sector parallel the WHO health systems framework. Better health for the entire population is the primary goal. This means making the health status of the people as good as possible over the entire life-cycle, taking into consideration the occurrence of disabilities and premature deaths. The second goal is related to how the health system performs in meeting people's expectations and satisfaction with the services it provides. Equitable health care financing is the third goal because health and illness involves large and unexpected costs that may result in poverty for many people.

The strategic thrusts to achieve the three primary health goals mentioned above are anchored in implementation of the current health reform framework, labelled FOURmula ONE for Health. It is designed to undertake critical reforms with speed, precision and effective coordination, with the end goal of improving the efficiency, effectiveness and equity of the health system. Vital reforms are organized into four major implementation components: Health Financing, Health Regulations, Health Service Delivery and Good Governance in Health. Implementation will focus on four general objectives: (1) Health financing—the general objective is to secure increased, better and sustained investments in health to provide equity and improve health outcomes, especially for the poor; (2) Health regulation—the aim is to assure access to quality and affordable health products, devices, facilities and services, especially those commonly used by the poor; (3)Health service delivery—health interventions are aimed at improving the accessibility and availability of social and essential health care for all, particularly the poor; and (4) Good governance in health—the aim is to improve health system performance at the national and local levels.

3.2 Organization of health services and delivery systems

The country's public health care system has achieved significant milestones in the past 25 years: adoption of the primary health care approach in 1979, integration of public health and hospital services in 1983, reorganization of the Department of Health in 1987, devolution of health services to local government units (LGUs) in 1992, and the streamlining of its organization and functions in 1999–2000.

With the devolution of health services to LGUs, the provincial governments oversee provincial and district hospitals, while the municipal governments manage rural health units (RHUs) and *barangay* health stations (BHSs). Issues such as geographical 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. Equally disturbing is the mass migration of doctors and nurses, making the rural areas (52% of the population) in the country even more vulnerable to health human resource deficiencies. Hospitals all over the country, both public and

private, are lamenting the loss of their experienced senior nurses and doctors. The University of the Philippines-Philippine General Hospital (UP-PGH), the largest hospital in the country, loses 300 to 500 of their 2000 nursing workforce every year. Midwives, the front-liners in providing health services, are also seeking jobs as caregivers in other countries in need.

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 facilities are perceived as being low quality, hence they are frequently bypassed. Clients are dissatisfied due to long waiting times, perceived inferior medicines and supplies, poor diagnosis resulting in repeated visits, and personnel who are not always available, especially in rural areas, and are perceived to lack both medical and people skills. 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 their quality, particularly those services demanded by the poor, would improve their health. Furthermore, referral mechanisms among different health facilities across LGUs need to be strengthened.

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 and lucrative incentives from multinational drug firms, prolonged patent rights and a lack of appropriate public understanding of generics.

3.3 Health policy, planning and regulatory framework

The Government's policy to achieve improvements in health includes a perspective for the integral value of health for any nation, the coordination of resources from all sectors, the right to access 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 systems development and emphasis on strong management and administrative support systems at all levels of governance is critical. Better coordination between national policies and external development partner priorities would also play a major role in fostering harmonization of resources for health.

The Department of Health remains inadequate in regulating the quality of health service in the country. This is attributed to the immense gaps in health regulation caused by the lack of specific legal mandates, inadequate expertise, an inadequate number of health regulation officers, a lack of expertise and infrastructure in specialized services and laboratory facilities, and weak regulatory systems and processes.

3.4 Health care financing

The financial burden on individual families remains high. The latest (2004) national health accounts show that the most common source of funds for health in the country today is still out-of-pocket payments (around 47%). Paying for health care is an issue because of its poverty impacts. Under the current health care financing arrangements, low-income families are pushed into poverty due to payments for health care. Almost 80% of total health expenditure is spent on personal health care services. In contrast, only 10% is used for public health care services. The same percentage is also used for the administrative spending needed to run the entire health system. These are signs that the Philippines is not spending enough or effectively for health.

Health care financing resources are largely spent on hospital-based curative services and not enough on preventive and promotive health services, and subsidies for health services are poorly targeted. The large hospitals in Metropolitan Manila and other urban areas get the biggest share of spending, while non-hospital health services face difficulties in getting adequate funding.

The salary payment scheme and the historical budget system in the public sector need to be reviewed because they may be contributing to the inefficiency and poor quality of health services. At the same time, the fee-for-service payment system in the private sector produces a pattern of expensive and excessive use of services that is more lucrative to health providers.

The national health insurance programme has seen only a relatively slow and cautious increase in its share of total health expenditure. Possible reasons for this include its low benefit package and the fact that coverage of the informal economy has not increased. The limited financial protection of the national health insurance programme, PhilHealth, is closely related to its benefit coverage and provider payment system. As physicians provide more services and raise prices under the current fee-for-service system, medical care expenses increase rapidly. However, PhilHealth pays only up to a rather low benefit ceiling and patients pay the rest of the expenses. At the same time, physicians have freedom to bill without fee regulation.

In response to these issues, the Government is determined to adopt health care financing polices/strategies that would enhance access, equity and effectiveness in resource mobilization, allocation and use of health services.

3.5 Human resources for health

In 2004, there was one physician for every 880 people, one nurse for every 235, one dentist for every 1800, and one pharmacist for every 1664. However, these ratios have most likely changed, especially with the exodus of nurses in the past five years. The country is purportedly the leading exporter of nurses to the world and the second major exporter of physicians. Prevailing challenges include unmanaged immigration of Filipino health workers; a weak and inadequate human resources for health (HRH) information system; and an existing distribution imbalance, among others. Responses to HRH issues in the past were more often stopgap measures.

In order to address such complex and multi-faceted issues, a comprehensive approach is needed. A master plan for human resources for health has been developed and implementation has just started. A high-level coordinating body and multisectoral working group was established in 2006 to mobilize political commitment, donor/partner support and the funding needed to accomplish the priority activities of the master plan. Strategic thrusts for 2005-2010 include development of HRH policies and strategies to address out-migration; sustaining incentive mechanisms for HRH distribution and complementation in underserved areas; and making education, training and skills development more appropriate to local needs.

3.6 Partnerships

The attainment of national health goals has significantly progressed given the well-defined, commonly-shared vision and framework for health (now called FOURmula ONE) and better harmonization of efforts among the various stakeholders. Harnessing and forging a stronger partnership gives the necessary synergy to reach the shared vision of improved health. The health system consists of various stakeholders: the Department of Health, the LGUs, other government agencies, international development partners, the academic community, professional organizations, civil society and community groups. The Department of Health is working closely with international organizations and global initiatives to strengthen priority health programmes. Assistance for the health sector mostly comes in the form of grants, loans and technical assistance. At present, a sectorwide development approach for health, between the Government and partners, is being initiated to ensure maximization of investments, minimization of initiative duplication, and generation of necessary resources for the health sector.

3.7 Challenges to health system strengthening

The publicly funded health system has been undergoing a major reform programme since 1999. At the broadest level this has included a review of the Department 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. Introducing and pilot-testing the different concepts and strategies of heath sector reform in selected provinces showcased some gains in health systems development. However, one of the gaps then was the absence of a comprehensive operational framework to implement the reform strategies. Thus, the FOURmula ONE for Health framework was launched in August 2005 to set the directions and

implementation arrangements for strengthening the way health care is delivered, governed, regulated and financed.

The health care delivery system has yet to address some major issues and challenges These include: the unclear operational definition of "devolved health services"; weak integration of public health and hospital programmes; the minimal involvement of the private sector in the delivery of public health programmes; and the inappropriate health service delivery system, where there is excessive reliance on use of high-end hospital services rather than primary care, including an ineffective mechanism for providing public health programmes and inadequate resources/funding for public health.

The current workforce is inadequate to meet population health needs, and is inequitably distributed. Migration from rural to urban areas, poor salaries/ wages and lack of incentives, and poor working environments, including shortages of basic medical equipment and supplies, contribute to worsening of the health worker shortage in rural areas, where health needs are greatest. At the same time, out-migration of health workers, including physicians, nurses and midwives, is a serious problem.

The inadequacy of resources is a major constraint faced by both national and local health agencies. The 2004 National Health accounts show that a large share of the government budget for health still goes to tertiary hospital care. The double burden of disease from both infectious and degenerative diseases has overloaded the health system. The lack of funds are evident, with the low quality or unavailability of medicines and supplies in health facilities, the prevailing deterioration of equipment and facilities, and the migration of trained and capable health workers to other countries.

With the devolution of health services in 1991, the health information system and reporting between central and field offices are often disjointed. There is a lack of reliable, disaggregated and integrated health and health-related data, evidence and information. The inability to use health information to ensure knowledge-based policies and programmes remains a major challenge. There is also low investment in health research and development systems, as well as information management systems.

In the area of health care financing, the following challenges remain: high out-of pocket spending; inadequate government spending on health; low spending on cost-effective public health interventions; low social health insurance benefit spending; and identification of the 'true' poor for social health insurance (sponsored programme).

Some regulatory challenges being faced include limited capacity in regulatory oversight and a lack of quasi-judicial powers that would ensure strong and timely enforcement of related laws. Regulatory functions are limited to standards development and monitoring inspections, licensing and accreditation, assessment and imposition of fees.

The high cost of drugs and medicines also remains a major challenge, as prices range from two times to as much as 30 times higher than in Canada or other neighbouring Asian countries. Due to the intensive lobbying and massive marketing campaigns by multinational drug companies, the Generics Act failed to remove the cloud of doubt over the perceived inferior quality of local generics, and thus consumers continue to patronize branded over generic products, despite the huge price difference. Weak regulations have likewise resulted in a proliferation of counterfeit medicines.

The devolution of health services created new challenges for the Government in overseeing that local actions are in accordance with national policies and goals. To have good governance in health there is a need to improve transparency and accountability in finance and procurement, and logistics management remains a big challenge. There is a need to institute a system of control that will establish accountability and minimize unscrupulous behaviour.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*National Demographic and Health Survey 2003*
Operator	:	National Statistics Office
Specification	:	Includes information on population, family planning, and health
Comments	:	Results of survey of 12, 586 households, and completed interviews for 13,633 women 15-49 years old and 4,766 mean 15-54 years old
Web address	:	http://www.census.gov/ncr/ncrweb/ncr_ndhs/index_NDHS.htm
Title 2	:	***Field health service information system (FHSIS) annual report 2002***
Operator	:	National Epidemiology Center, Department of Health
Specification	:	Provides the nationwide compilation of data/health facilities collected through the provincial and regional health offices
Web address	:	http://www.doh.gov/data_stat/html/population.htm
Title 3	:	***National health accounts 2003***
Operator	:	National Statistical Coordinating Board
Specification	:	Contains analyses, tables and graphs depicting the patterns of health care spending in the country
Web address	:	http://www.nscb.gov/publication/social/social_pnha.asp
Title 4	:	*Child mortality and morbidity review*
Operator	:	Department of Health
Specification	:	Describe trends in child mortality causes and morbidity, identify areas in need of interventions and assess progress towards the MDGs for child health
Title 5	:	***Health facility survey***
Operator	:	Health Sciences University, Maternal and Child Health Research Center
Specification	:	To study the quality of primary care for children

5. ADDRESSES

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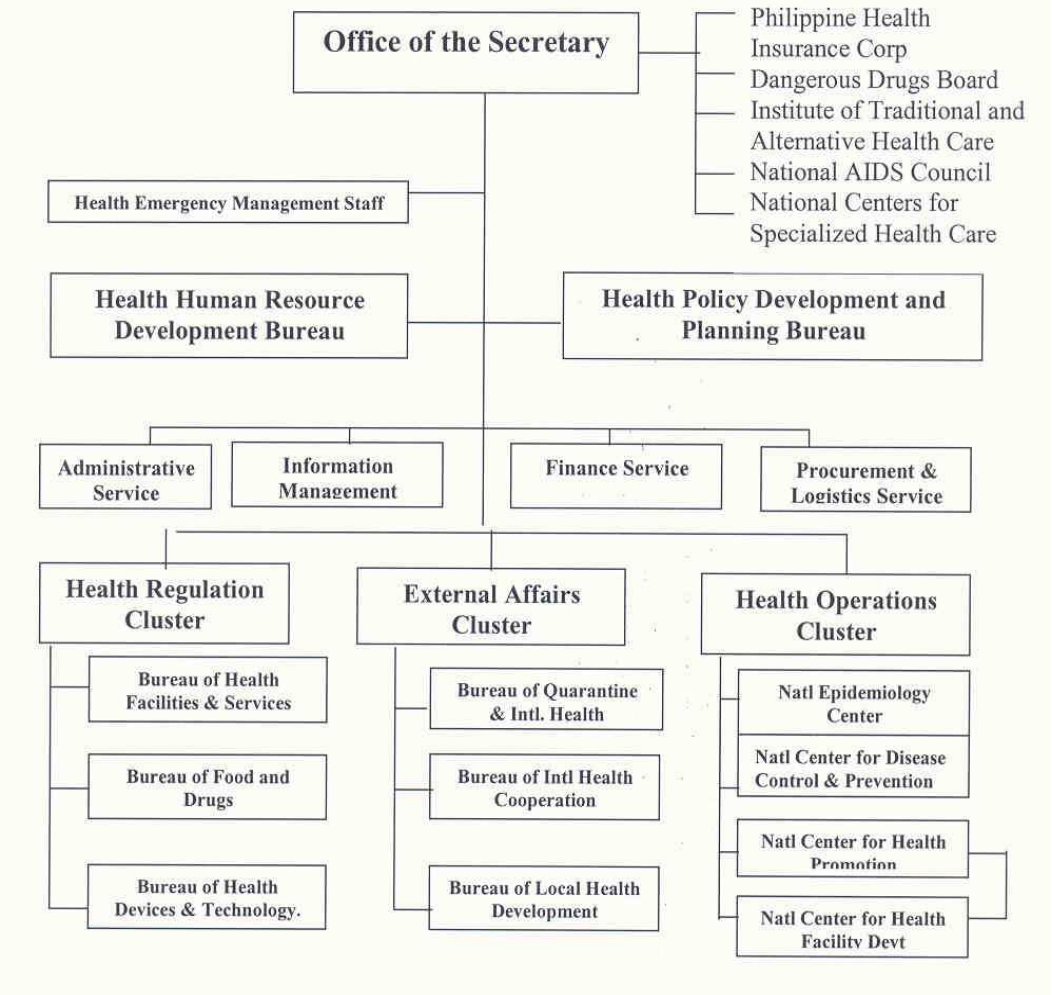
6. ORGANIZATIONAL CHART: Department of Health



PHILIPPINES — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	300.00			2002	1
2	**Estimated population** ('000s)	85 236.91	42 874.77	42 362.15	2005	9
3	**Annual population growth rate** (%)	2.36	...	...	2000	2
4	**Percentage of population**					
	- 0–4 years	12.50 e	12.70 e	12.30 e	2005	28
	- 5–14 years	23.10 e	23.40 e	22.80 e	2005	28
	- 65 years and above	3.80 e	3.40 e	4.20 e	2005	28
5	**Urban population** (%)	62.70	...	...	2005 est	3
6	**Crude birth rate** (per 1000 population)	24.09	...	...	2005	7
7	**Crude death rate** (per 1000 population)	5.60	...	...	2005	7
8	**Rate of natural increase of population** (% per annum)	1.90	...	...	2004	7
9	**Life expectancy** (years)					
	- at birth	...	67.53	72.78	2004 est	4
	- Healthy Life Expectancy (HALE) at age 60	...	10.60	12.10	2002	20
10	**Adult literacy rate** (%)	92.60	92.50	92.70	2002	5
11	**Neonatal mortality rate** (per 1000 live births)	17.00	21.00	13.00	1998-2003	11
12	**Infant mortality rate** (per 1000 live births)	29.00	35.00	25.00	1998-2003	11
13	**Under-five mortality rate** (per 1000 live births)	40.00	48.00	34.00	1998-2003	11
14	**Total fertility rate** (women aged 15–49 years)	3.50			2000-03	11
15	**Maternal mortality ratio** (per 100 000 live births)	172.00			1998	18
16	**Percentage of newborn infants weighing at least 2500 g at birth**	54.80	...	...	1998-2003	11
17	**Prevalence of underweight children under five years of age**	27.60	27.20	28.10	2003	10
18	**Percentage of pregnant women with anaemia**			43.90	2003	15
19	**Percentage of teenage pregnancy**			10.00	2002	23
20	**Immunization coverage for infants (%)**					
	- BCG	82.00	...	...	2006	16
	- DTP3	88.00	...	...	2006	16
	- POL3	80.00	...	...	2006	16
	- Measles	92.00	...	...	2006	16
	- Hepatitis B III	69.00	...	...	2006	16
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	87.60			1998-2003	11
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	42.00			2006	16
	- Percentage of deliveries attended by skilled health personnel	58.20			1998-2003	11
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	20.20			1998-2003	11
	- Percentage of deliveries in health facilities (as % of total deliveries)	38.00			1998-2003	11
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			21.60	2003	11
23	**Condom use rate of the contraceptive prevalence rate**	...	...	1.90	2003	4
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** aa	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	85.00	87.00	82.00	2004	24
27	Proportion of population with access to improved sanitation	72.00 e	80.00	59.00	2004	24
28	Proportion of the population using solid fuels (%)	45.00	...	...	2002	25
29	Proportion of households with access to secure tenure	66.50			2002	17
30	**Proportion of vehicles using unleaded gasoline** (%)	30.20	...	...	2003	19
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**	0.76			2004	5
33	**Per capita GDP at current market prices** (US$)	1252.30			2006 est	4
34	**Rate of growth of per capita GDP** (%)	6.90			2007 est	4
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)	3304.59			2005p	26
	- total expenditure on health as % of GDP	3.40			2005p	26
	- per capita total expenditure on health (in US$)	2191.95			2005p	26
	Government expenditure on health					
	- amount (in million US$)	1266.67			2005p	26
	- general government expenditure on health as % of total expenditure on health	38.30			2005p	26
	- general government expenditure on health as % of total general government expenditure	6.20			2005p	26
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health	6.78			2005p	26
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health	61.70			2005p	26
	Exchange rate in US$ of local currency is: 1 US$ =	55.09			2005p	26
36	**Health insurance coverage as % of total population**	79.00			2007	13

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	93 862	...	...	...	...	11.35	...	...	...	...	2004	12
	- dentists	45 903	...	...	...	...	5.55	...	...	...	...	2004	12
	- pharmacists	49 667	...	...	...	...	6.01	...	...	...	...	2004	12
	- nurses	352 398	...	...	...	...	42.63	...	...	...	...	2004	12
	- midwives	136 036	...	...	...	...	16.46	...	...	...	...	2004	12
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	58 145	...	...	...	...	7.03	...	...	...	...	2004	12
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	2000	...	...								2005	10
40	**Yearly new graduates – nurses**	10 000	...	...								2005	10

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute lower respiratory tract infection & Pneumonia	690 566 [a]	348 992	328 956	828.00	823.10	786.20	2005	8
	2. Bronchitis/bronchiolitis	616 041 [a]	295 904	308 930	738.70	658.50	738.40	2005	8
	3. Acute watery diarrhea	603 287 [a]	296 344	278 958	723.40	698.90	666.70	2005	8
	4. Influenza	406 237 [a]	191 728	205 419	487.10	452.20	491.00	2005	8
	5. Hypertension	382 662 [a]	167 403	214 220	458.80	394.80	512.00	2005	8
	6. Tuberculosis/ respiratory	114 360 [a]	68 789	44 440	137.10	162.20	104.90	2005	8
	7. Chickenpox	43 898 [a]	13 183	15 324	52.60	31.10	36.60	2005	8
	8. Diseases of the heart	36 090 [a]	19 177	15 003	43.30	45.20	35.90	2005	8
	9. Malaria	30 063 [a]	14 824	14 748	36.00	35.00	35.20	2005	8
	10. Dengue Fever	20 107 [a]	10 210	9434	24.10	24.10	22.50	2005	8
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diseases of the heart	67 696	38 677	29 019	83.50	98.70	77.60	2003	6
	2. Diseases of the vascular system	51 868	29 054	22 814	64.00	68.80	55.70	2003	6
	3. Malignant neoplasms	39 298	20 634	18 664	48.50	51.10	46.60	2003	6
	4. Accidents	33 966	27 720	6246	41.90	67.91 [f]	15.51 [f]	2003	6
	5. Pneumonia	32 055	15 831	16 224	39.50	38.78 [f]	40.30 [f]	2003	6
	6. Tuberculosis, all forms	26 771	18 367	8404	33.00	48.20	23.30	2003	6
	7. Symptoms, signs and abnormal clinical, laboratory findings, NEC	21 363	10 740	10 623	26.30	26.31 [f]	26.39 [f]	2003	6
	8. Chronic lower respiratory diseases	18 905	12 998	5907	23.30	21.30	14.40	2003	6
	9. Diabetes mellitus	14 196	6823	7373	17.50	16.30	18.70	2003	6
	10. Certain conditions originating in the perinatal period	14 122	8397	5725	17.40	20.57 [f]	14.22 [f]	2003	6
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	NR	NR	NR	NR	NR	NR	2006	16
	- Diphtheria	47	...	...	...	...	...	2006	16
	- Hib meningitis	0	0	0	0	0	0	2005	16
	- Measles	9	...	...	...	...	...	2006	16
	- Mumps	NR	NR	NR	NR	NR	NR	2006	16
	- Neonatal tetanus	161	...	...	...	...	...	2006	16
	- Pertussis (whooping cough)	41	...	...	...	...	...	2006	16
	- Poliomyelitis	0	0	0	0	0	0	2006	16
	- Rubella	NR	NR	NR	NR	NR	NR	2006	16
	- Total Tetanus	1232	...	...	...	...	...	2006	16
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	4096 [a]	2260	1546	828	577	251	C:2004 D:2002	C:8 D:6
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	351	238	104	23	13	10	C:2004 D:2002	C:8 D:6
	Dengue/DHF	36 712	…	…	378	…	…	2006	6
	Encephalitis	306 [a,d]	153 [d]	152 [d]	117 [d]	63 [d]	54 [d]	C:2004 D:2002	C:8 D:6
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	3130	…	…	…	…	…	2005	16
	Malaria	46 485	…	…	145	…	…	2005	16
	Plague	…	…	…	…	…	…		
	Syphilis	…	…	…	…	…	…		
	Typhoid fever	12 535 [a,c]	6255 [c]	5556 [c]	1120 [c]	651 [c]	469 [c]	C:2002 D:1998	C:8 D:6
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	56.00	…	…	0.18	…	…	2005	16
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	137 100	…	…	…	…	…	2005	16
	- New pulmonary tuberculosis (smear-positive)	81 647	…	…	…	…	…	2005	16
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	450.00	…	…	47.00	…	…	2005	16
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	75.00	…	…	87.00 (2004)	…	…	2005	16
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	776 562 [a]	373 606	360 409	237	123	114	C:2004 D:2002	6
48	**Diarrhoeal diseases**	577 153 [a]	281 023	270 528	3684	2108	1576	C:2004 D:2002	C:8 D:6
49	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	38 821	20 440	18 381	2002	6
	- Breast	…	…	…	3978	49	3929	2002	6
	- Colon and rectum	…	…	…	2650	1430	1220	2002	6
	- Cervix			…			998	2002	6
	- Oesophagus	…	…	…	413	278	135	2002	6
	- Leukaemia	…	…	…	2406	1245	1161	2002	6
	- Lip, oral cavity and pharynx	…	…	…	2017	1282	735	2002	6
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	1590	927	663	2002	6
	- Trachea, bronchus, and lung	…	…	…	6890	5167	1723	2002	6

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	…	…	…	119 742	67 085	52 657	2002	6
	- Acute myocardial infarction	…	…	…	25 612	16 487	9125	2002	6
	- Cerebrovascular diseases	…	…	…	40 515	22 856	17 659	2002	6
	- Hypertension	304 690	136 011	168 679	16 382	8860	7522	2002	6
	- Ischaemic heart disease	…	…	…	14 762	7608	7154	2002	6
	- Rheumatic fever and rheumatic heart diseases	…	…	…	2609	1114	1495	2002	6
51	**Maternal causes**								
	- Abortion			…			161	2002	6
	- Eclampsia			…			…		
	- Haemorrhage			…			328	2002	6
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	…	…	…	13 922	6524	7398	2002	6
53	**Mental disorders**	…	…	…	966	738	228	2002	6
54	**Injuries**								
	All types	…	…	…	33 617	27 448	6169	2002	6
	- Homicide and violence	…	…	…	13 267	12 222	1045	2002	6
	- Motor and other vehicular accidents	…	…	…	6131	4630	1501	2002	6
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	1301	999	302	2002	6
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					682	37 400	2006	14
	- Specialized hospitals					21	10 374	2006	14
	- District/first-level referral hospitals					713 [b]	22 023	2006	14
	- Primary health care centres					2293	…	2002	15
	Private hospitals					1068	36 519	2006	14

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Totals may not tally due to some reported cases with no gender breakdown
b	District hospital can be general or special
c	Figure includes parathyroid fever
d	Figure refers to meningitis encephalitis
e	Revised data
f	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific

Sources:

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26 World Health Organization. National health accounts [http://www.who.int/entity/nha/country/MYS.pdf].

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PITCAIRN ISLANDS

1. CONTEXT

1.1 Demographics

The Pitcairn Islands, officially named the Pitcairn, Henderson, Ducie and Oeno Islands, constitute a group of islands in the southern Pacific Ocean.

The only permanently inhabited island, Pitcairn, is accessible only by boat through Bounty Bay.

A total of 54 people live on Pitcairn (2007), with about 20 additional outside persons working as teachers, prison staff, health staff, etc.

Two languages are spoken: English, the official language, and Pitcairnese, a mixture of an 18th century English dialect and a Tahitian dialect. Pitcairnese is spoken as a first language by the population and is taught alongside standard English at the island's only school. It is closely related to the Creole language, Norfuk, spoken on Norfolk Island, because Norfolk was repopulated in the mid-nineteenth century by Pitcairners.

Out-migration, primarily to New Zealand, has thinned the population from a peak of 233 in 1937. In September 2003, the first baby was born on the islands in 17 years. Another child, Adrianna Tracey Christian, was born on Pitcairn on 3 March 2007, increasing the island's population to 54.

1.2 Political situation

Pitcairn Islands is the smallest British protectorate in the world and is governed from the United Kingdom of Great Britain and Northern Ireland by an appointed Governor, whose office is in Wellington, New Zealand. A Commissioner for the island, who handles most ongoing, practical matters for Pitcairn, is located in Auckland, New Zealand.

Pitcairn Islands is held by the United Kingdom to have come under the jurisdiction of the British High Commission for the Western Pacific in 1898, and in 1952 the Pitcairn Island Order in Council transferred the responsibility for administration to the person of the Governor of Fiji, following separation of the offices of Governor and High Commissioner. When Fiji gained independence in 1971, the administration was transferred to Auckland, within the jurisdiction of the British High Commissioner to New Zealand, who conjointly holds office as Governor of Pitcairn Islands.

Pitcairn Islands is also 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.

1.3 Socioeconomic situation

Pitcairn islanders exist on fishing, subsistence farming, handicrafts and postage stamps. The fertile soil of the valleys produces a wide variety of fruits and vegetables, including citrus, sugarcane, watermelons, bananas, yams and beans. Bartering is an important part of the economy. The major sources of revenue are the sale of postage stamps to collectors and the sale of handicrafts to passing ships.

In October 2004, more than one-quarter of Pitcairn's labour force was arrested, which negatively affected the economy as they were thus unable to supply their services to load and unload passing ships.

Trade is restricted by the jagged geography of the island, which lacks a harbour or airstrip, forcing all trade to be made by longboat to visiting ships. Occasionally, passengers from expedition-type cruise ships come ashore for a day, weather permitting. In 2004, the island had a labour force of 15 men and women.

1.4 Vulnerabilities and hazards

While no specific data are available in the information sources listed, the vulnerabilities and hazards for Pitcairn Islands are similar to those of other tiny and remote Pacific island countries and areas. Remoteness from each other and from trading/supply partners, with resulting high transportation costs, raises the cost of social and protection services, as well as the cost of business.

2. HEALTH SITUATION AND TREND

No specific information is available. However, the outcomes of the biennial Ministers of Health Meetings in the Pacific, especially the 2005 Samoa Commitment – Achieving Healthy Islands, apply by and large to most Pacific island countries and areas.

Three themes have emerged at all seven biennial meetings of the Ministers of Health (1995 – 2007):

- the predominant and growing burden of noncommunicable diseases;
- the lingering burden of infectious diseases and the danger of their re-emergence; and
- the need to support health systems so that they can cope with this double burden of communicable and noncommunicable disease.

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 antigenemia and confirmed the Pitcairn Islands to be non-endemic for filariasis.

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

No available information.

2.4 Maternal, child and infant diseases

No available information.

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

There is a subsidized national health system on Pitcairn and a fully-equipped Grade 2 medical centre staffed by a New Zealand general practitioner on a three- or six-month rotational basis.

3.2 Organization of health services and delivery systems

As per 3.1

3.3 Health policy, planning and regulatory framework

No available information.

3.4 Health care financing

As per 3.1

3.5 Human resources for health

As per 3.1

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	:	Pitcairn Islands Office website
Operator	:	Pitcairn Islands Office
Features	:	Web site
Comments	:	No information on health aspects
Web address	:	http://government.pn/
Title 2	:	*Pacific Programme to Eliminate Lymphatic Filariasis – PacELF*
Operator	:	PacELF and WHO
Features	:	Web site
Web address	:	http://www.pacelf.org/regions/pitcairn.html
Title 3	:	*Samoa Commitment – achieving healthy islands*
Operator	:	WHO
Web address	:	http://www.wpro.who.int/NR/rdonlyres/CE800376-BC67-45D6-A3B9-01EDDE4FCB7B/0/Samoa_Commitment_2005.pdf

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REPUBLIC OF KOREA

1. CONTEXT

1.1 Demographics

The population of the Republic of Korea as of 2006 was 48 297 184, with a density of 485 persons per square kilometre. Fast population growth was once a serious social problem in the Republic, as in most other developing nations. Due to successful family planning campaigns and changing attitudes, however, population growth has been curbed remarkably in recent years. The country saw its population grow by an annual rate of 3% during the 1960s, but growth slowed to 2% over the next decade. In 2006, the rate stood at 0.33% and is expected to further decline to 0.01% by 2020.

A notable trend in the population structure is that it is getting increasingly older. The 2006 population estimate revealed that 9.5% of the total population was 65 years old or over, while the number of people in the 15-64 age group accounted for 71.9%. In the 1960s, population distribution formed a pyramid shape, with a high birth rate and relatively short life expectancy. However, age-group distribution is now shaped more like a bell because of the low birth rate and extended life expectancy. Youths (15 and younger) will make up a decreasing portion of the total, while senior citizens (65 and older) will account for some 15.7% of the total by 2020.

The nation's rapid industrialization and urbanization in the 1960s and 1970s was accompanied by migration of rural residents into the cities, particularly Seoul, resulting in heavily populated metropolitan areas. However, in recent years, an increasing number of Seoulites have begun moving to suburban areas.

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. The summit meeting of both heads of states in 2001 symbolized improving relations and many activities have taken place since that historic meeting. Several rounds of family reunions have taken place, and the family reunion centre has been established at Mt. Geumgang. Construction is complete on the two rail and road links between south and north—Gyeong-ui in the west and Donghae on the eastern coast.

The current President of the Republic of Korea, Roh Moo-hyun, and the former president, Kim Dae-jung, have called for continued dialogue and further assistance to the Democratic People's Republic of Korea. The Republic of Korea National Security Council has officially designated WHO as the channel of support for the health sector in the Democratic People's Republic of Korea. Since 2001, the Government of the Republic of Korea has successfully donated a quantity of malaria control supplies to the Government of the Democratic People's Republic of Korea through the WHO offices in each country. In 2006, WHO and the Republic of Korea launched a new programme to improve the health of women and children in the Democratic People's Republic of Korea. The total value of the materials provided in 2005 was approximately US$ 1 million.

1.3 Socioeconomic situation

The Republic of Korea recently pulled through an economic storm that began in late 1997. The crisis, which roiled markets all across Asia, threatened the country's remarkable economic achievements. However, thanks to the faithful implementation of an IMF agreement, the Government's strong resolve for reform, and successful negotiation of foreign debt restructuring

with creditor banks, the nation is currently on track to resume economic growth. Since the onset of the crisis, the Republic of Korea has been rapidly integrating itself into the world economy. The goal is to overcome problems rooted in the past by creating an economic structure suitable for an advanced economy.

The Republic of Korea, once known to be one of the world's poorest agrarian societies, has undertaken economic development in earnest since 1962. In less than four decades, it achieved what has become known as the "Miracle of the Han River"—a process that dramatically transformed the economy while marking a turning point in the country's history. An outward-oriented economic development strategy, which used exports as the engine of growth, contributed greatly to the radical economic transformation. Based on such a strategy, many successful development programmes were implemented. As a result, from 1962 to 2005, gross national income (GNI) increased from US$ 2.3 billion to US$ 786.8 billion, with per capita GNI soaring from US$ 87 to about US$ 16 291. These impressive figures clearly indicate the magnitude of success that these economic programmes have brought about. GNI and per capita GNI dropped drastically to US$ 340.4 billion and US$ 7335 in 1998 due to the fluctuation in foreign exchange rates, but these figures returned to the pre-economic crisis level in 2002.

Imports have steadily increased thanks to the nation's liberalization policy and increasing per capita income levels. As one of the largest import markets in the world, the volume of the Republic of Korea's imports exceeded those of China in 1995, and were comparable to the imports of Malaysia, Indonesia and the Philippines combined. Major import items include industrial raw materials, such as crude oil and natural minerals, general consumer products, foodstuffs and goods such as machinery and electronic and transportation equipment.

The Republic of Korea has developed rapidly since the 1960s, fuelled by high savings and investment rates and a strong emphasis on education. The nation became the 29th member country of the Organization for Economic Cooperation and Development (OECD) in 1996. With a history as one of the fastest growing economies in the world, the Republic of Korea is working to become the focal point of a powerful Asian economic bloc during the 21st century. The Northeast Asian region commands a superior pool of essential resources that are the necessary ingredients for economic development. These include a population of 1.5 billion people, abundant natural resources and large-scale consumer markets.

1.4 Vulnerabilities and hazards

With one of the world's lowest fertility rates and fastest ageing populations, Korea saw its total fertility rate drop to 1.08 in 2005, about a half of the replacement rate.

Korea became an ageing society (7% of population old) in 2000 as a result of low fertility and prolonged life expectancy and is expected to become an aged society (14% of population old) by 2018 and a super-aged society (20% of population old) by 2026. It has taken 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 for the United States of America it took 72 and 16 years, respectively, and 24 and 14 years for Japan. Considering such examples, 18 and 8 years for the Republic of Korea would be the world's shortest transition. This rapid population ageing is causing concerns about 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 Korean peninsula. In

the past, the main causes of death were acute and communicable diseases, but these have been replaced by chronic and noncommunicable diseases.

Beginning in the 1980s, the incidence of noncommunicable diseases began to rise. Among the top 10 causes of death in 2005, seven were chronic diseases—cancer, cerebrovascular diseases, diabetes, liver disorders, chronic lower respiratory diseases, and high blood pressure. In addition, the proportion of deaths due to noncommunicable diseases has increased from 12% to over 60% during the last two decades.

Morbidity from major noncommunicable diseases is also high. For example, the incidence rates for high blood pressure and diabetes stood at 27.9% and 8.1%, respectively, in 2005. This growing incidence of noncommunicable disease is considered to be largely attributable to rapid population ageing, an increase in obesity and overweight, a decrease in physical activity, and an increase in smoking.

According to a 2005 study, the proportion of obese adults (BMI $\geq$ 25) was at a high level, with males at 35.2% and females at 28.3%. In particular, childhood obesity almost doubled from 6.8% in 1998 to 12.0% in 2005. Lack of physical activity was found to be a serious problem, with only 38% of adults aged 19 and older engaging in a moderate level of physical activity on a regular basis.

Thanks to strong smoking control policies, the male smoking population drastically dropped from 67.4% to 52.3% in 2005, but it is still among the world's highest. Youth smoking also 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 young people.

While the Republic Korea came 19th in 2003 among 29 OECD members in term of per capita alcohol consumption, a heavy drinking trend and a high death rate due to drinking are troubling the nation. Per capita alcohol consumption is increasing steadily, and among Koreans aged 18-64, 6.8% or 2.21 million suffered from alcohol-use disorders in 2001.

2.2 Outbreaks of communicable diseases

With vaccination and improved hygiene, the incidence of acute communicable diseases had been decreasing steadily since the 1960s. In late 1990s, however, periodic outbreaks of measles and mumps, an increase in shigellosis, and the re-emergence of malaria led to an increase in acute communicable disease incidence. After reaching its peak in 2000, the incidence of acute communicable disease started to fall again, thanks to the rapid decrease in measles incidence following implementation of the National Measles Elimination Programme after the measles outbreak in 2000. In addition, malaria incidence decreased. Nevertheless, acute communicable disease notifications are again showing an upward trend, with an increase in cases of scrub typhus, malaria and mumps over the last two to three years, as well as the designation of varicella in July 2005. In 2006, 23 414 cases (a daily average of 64 cases) of acute communicable diseases were reported, with a notification rate of 47.5 cases per 100 000 population, up 74% from the previous year. Even if varicella is factored out, the notification rate increased by 7%.

2.3 Leading causes of mortality and morbidity

The number one cause of death in the Republic of Korea is cancer, accounting for 26.7% of mortality in 2005, followed by cerebrovascular diseases with 12.7% and heart diseases with 7.9%.

The number of people dying from cancer rose steadily from 110.8 per 100 000 in 1995 to 134.5 in 2005. Among major cancers, deaths from stomach cancer have been decreasing while the numbers of deaths from lung cancer and colon cancer have increased.

The number of deaths from cerebrovascular diseases has dropped compared with 10 years ago. However, the incidence and prevalence rates for the diseases jumped from 1.60 and 6.15 per 1000 in 1998 to 2.30 and 10.06, respectively, in 2003. The hike means an increase in disability related to stroke, adding to the burden of disease.

Cardiovascular diseases are not as prevalent in the Republic of Korea as in Western countries but have been showing an upward trend. The number of deaths from ischaemic heart diseases has more than doubled, from 12.6 per 100 000 in 1994 to 27.8 in 2005.

What is striking is the recent increase in the number of suicides. In 1995, 11.8 persons out of 100 000 killed themselves, making suicide the ninth leading cause of death in the Republic of Korea. In 2005, however, suicide became the fourth largest cause of death, with 26.1 persons out of 100 000 committing suicide.

Among the major noncommunicable diseases, high blood pressure, arthritis and dental caries have the highest morbidity rates. According to a 2005 study among adults aged 19 and older, the prevalence rate for high blood pressure was 27.9%, showing that one-third of all adults in the Republic of Korea were suffering from high blood pressure. Furthermore, out of every 1000, 703.9 had dental caries and 102.5 were suffering from osteoarthritis.

2.4 Maternal, child and infant diseases

The mortality risks for infants and young children, as well as for pregnant women, have decreased dramatically. The infant mortality rate fell from 61.0 per 1000 live births in the 1960s to an estimated 5.30 in 2003, while the maternal mortality ratio stood at 15 per 100 000 live births in 2003.

The focus of public health programmes in this area is now not just on reducing mortality for this group, but improving their 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 health needs. Medical check-ups are available to infants and pregnant women at health centres across the country, while 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 burden-of-disease study carried out in the Republic of Korea using disability-adjusted life years (DALYs), the years-of-life-lost (YLL) level is high for cancer, injuries and cardio/cerebrovascular diseases, and the years-lost-due-to-disability (YLD) level is high for gastrointestinal diseases, respiratory diseases and diabetes.

Out of the major diseases, excluding injury, the DALY (YLL+YLD) for cancer per 100 000 was the highest (recording 1525 or 17.1% of the total) followed by cardio/cerebrovascular diseases (1492 or 16.7%), gastrointestinal diseases (1140 or 12.8%), diabetes (970 or 10.9%), and respiratory diseases (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 of Health and Welfare of the Republic of Korea is to contribute to the quality of life of the public and to national development by protecting the public from social hazards, promoting social integration, investing in people and offering social services. A healthy and happy life for all citizens is envisioned. To carry out its mission and realize its vision, the Ministry of Health and Welfare has set the following objectives:

(1) Strengthen social security net by:

- improving the basic livelihood security system;

- enhancing the sustainability of the pension system;
- securing income and increasing employment opportunities for the disabled; and
- reinforcing the service delivery system, focusing on the demand side.

(2) Expand investment in health care by:

- strengthening the role of public health care organizations;
- building up a comprehensive preventive public health management system;
- encouraging innovation and increasing investment in health care; and
- bolstering safety of food, medicine, and the blood management system.

(3) Expand investment in human resources and improve social services by:

- formulating and implementing policies to respond to low fertility and an ageing population;
- expanding social services supporting childbirth and child care;
- expanding investment for those in their retirement years; and
- providing diverse and quality social services for the public.

(4) Foster health and medical industries by:

- nurturing the health care industry;
- enhancing the competitiveness of the medical service industry; and
- establishing the Biohealth Science Technopolis in the city of Osong

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, thanks to increased income, an improved living environment, and expansion of health care resources in terms of both quality and quantity.

Looking at the health care resources in the Republic of Korea, the number of physicians increased from 22 183 in 1975 to 92 056 in 2007 (provisional), while the number of hospital-level health care institutions rose from 178 in 1975 to 2082 at the end of 2006.

Table 1: Number of hospital-level health care institutions, 2006.

Classification	Total		Public sector		Private sector	
	No.	Percentage (%)	No.	Percentage (%)	No.	Percentage (%)
Health care institution	2082	100	406	19.5	1676	80.5
beds	417 387	100	163 892	39.3	253 495	60.7

However, despite the increase in chronic diseases like cancer, high blood pressure and diabetes, the Republic of Korea has a treatment-focused health care delivery system, which makes it difficult to respond effectively to new health care demands. In addition, 87.6% of health care facilities and 89% of health care workers are concentrated in urban areas, leading to disparities in access to health care services between urban and rural residents.

The Government's health care spending (5.6 % of GDP in 2004) is not at a worryingly high level considering the size of the economy. However, it is growing continuously because of the increased use of health care services driven by a greater public desire for health and implementation of the National Health Insurance scheme. At the same time, a general preference for large hospitals and undifferentiated roles and functions between health care organizations are hindering convenience in the use of medical services, resulting in inefficient utilization of various medical institutions.

For a more effective health care delivery system, the Republic of Korea will redefine the roles of medical professionals within the current three-tier delivery system. For example, secondary-care providers will be encouraged to direct their functions towards serving as specialty hospitals in communities, in effect providing a centre for medical services in their respective locality. Also, tertiary-care providers will be encouraged to focus on education and research and to provide services to severely ill patients rather than patients in general.

3.3 Health policy, planning and regulatory framework

The country's health policies have been guided by two strategic documents

- Health Vision 2010
- Welfare Vision 2010

The Ministry of Health and Welfare has published a Health Care Development Plan for the 21st century, which focuses on the following four major areas:

- establishing a lifetime health maintenance system;
- establishing an efficient health care delivery system;
- fostering the health care industry; and
- revising the health care law and the administrative system to establish an advanced social welfare system.

3.4 Health care financing

Since July 1, 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 2006, 96.3% of the total population (47.41 million people) were covered by the NHI, while the remaining 3.7% (1.83 million people), including beneficiaries of the National Basic Livelihood Security System, 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 National Health Insurance system is operated by the Ministry of Health and Welfare, the National Health Insurance Corporation (NHIC), and the Health Insurance Review Agency (HIRA). The Ministry of Health and Welfare is in charge of supervision and management of the overall operation of the NHI. The NHIC oversees 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 standard monthly wage, the calculation of which is based on the wages earned by the employee for a specific period of time. The contribution is paid 'fifty-fifty' by the employee and his/her employer. For the self-employed, contributions are calculated per household unit, the amount being 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 operation of the insurance programmes for the self-employed, to relieve their financial burden. The Government also supports 40% of expenditures arising from health care benefits and the operation of health insurance programmes for the self-insured out of government money and 15% out of the National Health Promotion Fund. Beginning in 2007, the Government annually supports 14% of the expected insurance premium of 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-related personnel are strictly stipulated by the law. Only those licensed by the Government can provide medical treatment and public health services.

The Medical Service Act stipulates that the Ministry of Health and Welfare licenses doctors, dentists, oriental medical doctors, midwives and nurses. The Act prescribes nurses, aides, acupuncturists, moxibustionists and masseurs as quasi-medical persons.

There were 92 056 physicians, 213 184 dentists, 57 610 pharmacists and 235 965 nurses in the country as of 2007 (provisional).

3.6 Partnerships

The Ministry of Health and Welfare, under the current Government known as the "Participatory government", is making efforts to contribute to improved health and quality of life of the public by responding to the new challenges of low fertility and population ageing. The Ministry is working with the public, nongovernmental groups, local governments and expert groups, and includes all of them in 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 of Health and Welfare is working 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 the people of the world healthy and sound by exchanging knowledge, experience and technology; sharing human, physical and intellectual resources with international partners; and signing Memorandums of Understanding in the field of health care with foreign governments.

3.7 Challenges to health system strengthening

To effectively respond to the fast-changing health care environment, it is necessary to comprehensively examine the existing health care system and to set a new policy direction to advance it. In the case of the Republic of Korea, tasks to be done include improving the efficiency of the health care delivery system and the competitiveness of hospitals and offering high-quality health care services, from prevention to treatment. There is also a need to actively prepare against the rapid changes taking place at home and abroad, like the health care market opening up through WHO and DDA, the increasing demand for elderly health care, and the systematic management of medical information.

Although the Republic of Korea has a basic health care delivery system in place, most of the services are provided by private organizations, and the public health care sector is weak in terms of both quality and quantity. The private sector health care system has helped the country to reduce the number of 'doctorless' villages within a short period of time and to establish a health care system living up to public demands without putting a strain on the government budget. However, it has also resulted in a weak public health care sector, including disease prevention, health promotion and health care for the poor.

There is a lack of resources and organization to respond to the demands for new services arising from changes in the demographic and disease structures. In addition, an adequate lifetime health management system, a service offering the public health promotion, prevention, treatment and rehabilitation services throughout their lives, is still lacking.

The health care system currently focuses on short-term treatment. The number of patients requiring long-term care is increasing due to changes in disease structure, but nursing facilities and reimbursements are as yet insufficient. In addition, functions are not adequately divided between health care organizations, causing patients go to large hospitals or neighbourhood clinics, thereby making medium-sized hospitals less viable.

Although the number of doctors is increasing, most of them, about 86%, are specializing in particular fields of medicine. In addition, medical resources are concentrated in urban areas, which account for 87.6% of hospitals and 85.9% of beds.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Cadastral statistical annual report, 2005*
Operator	:	Ministry of Government Administration and Home Affairs, 2006
Web address	:	http://www.mogaha.go.kr
Title 2	:	*Population projections for Korea*
Operator	:	National Statistical Office
Web address	:	http://www.nso.go.kr
Title 3	:	*Annual Report on the Cause of Death Statistics, 2005*
Operator	:	National Statistical Office
Web address	:	http://www.nso.go.kr
Title 4	:	*In-Depth Analysis on the 3rd Korea Health and Nutrition Examination Survey*
Operator	:	Korea Centre for Disease Control and Prevention, Korea Health Industry Development Institute
Web address	:	http://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	:	http://www.mohw.go.kr
Title 6	:	*2005 Population and Housing Cences Report*
Operator	:	Korea National Statistical Ofiice, 2006
Web address	:	http://www.nso.go.kr

5. ADDRESSES

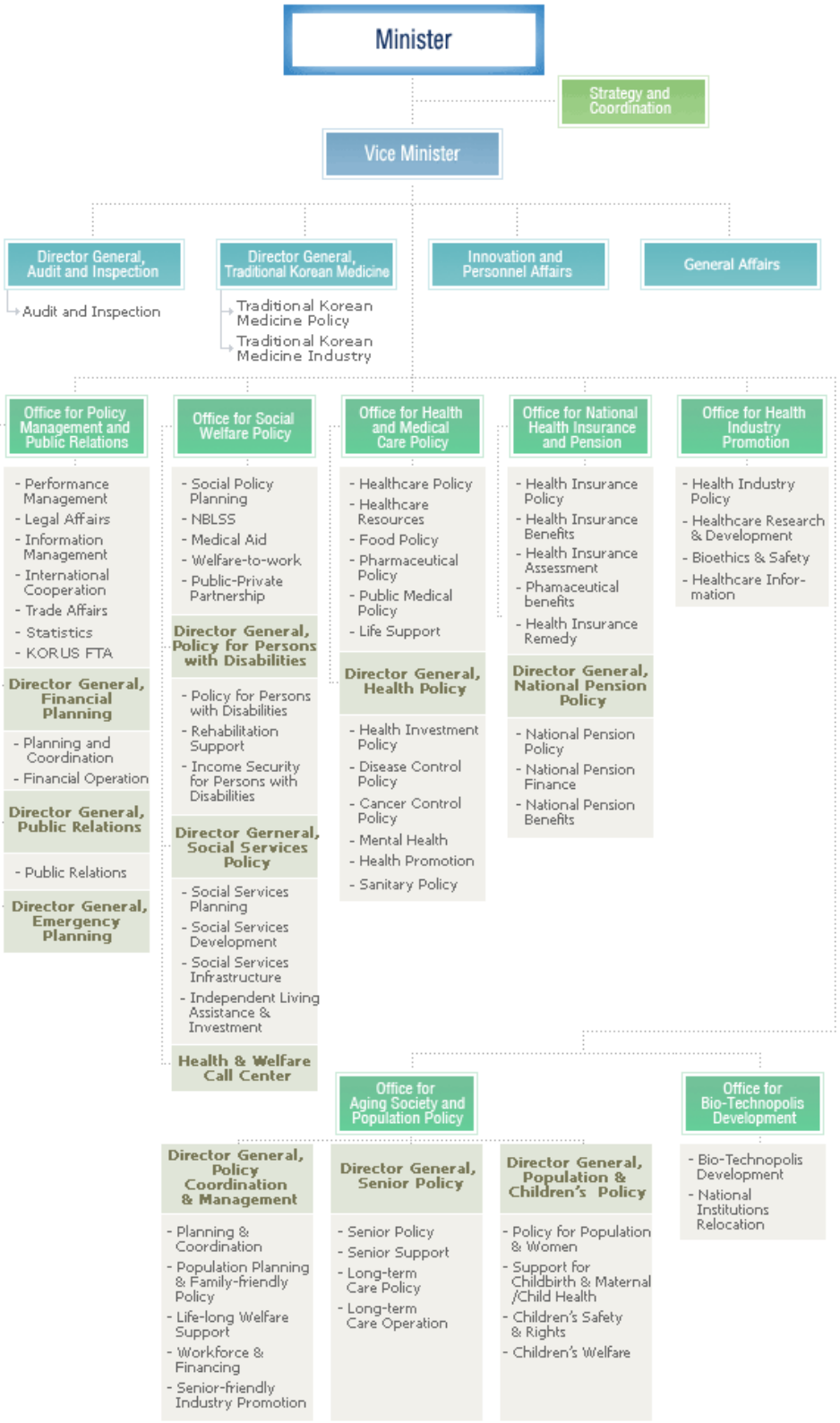
MINISTRY OF HEALTH

Office Address	:	Government Complex-Gwacheon, 1, Jungang-dong, Gwacheon-si 427-721, Gyeonggi-do, Republic of Korea
Telephone	:	(822) 2110-6125~6134
Fax	:	(822) 504-6418
Website	:	http://www.mohw.go.kr

WHO COUNTRY LIAISON OFFICER IN THE REPUBLIC OF KOREA

Office Address	:	Room 306, 2-dong, Government Complex-Gwacheon, 1 Chungang-dong, Kwachon City, 427-760, Kyonggido, Republic of Korea
Postal Address	:	Central P.O. Box 540, Seoul, Republic of Korea
Official Email Address	:	ChungNH@kor.wpro.who.int
Telephone	:	(822) 503-7533, 2110-6473
Fax	:	(822) 502-7818

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

REPUBLIC OF KOREA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	99.65			2005	1
2	**Estimated population** ('000s)	48 297.18	24 267.61	24 029.58	2006	2
3	**Annual population growth rate** (%)	0.33	0.32	0.34	2006	2
4	**Percentage of population**					
	- 0–4 years	4.95	5.12	4.77	2006	2
	- 5–14 years	13.68	14.36	12.99	2006	2
	- 65 years and above	9.49	7.56	11.45	2006	2
5	**Urban population** (%)	81.46	81.52	81.40	2005	3
6	**Crude birth rate** (per 1000 population)	9.10	9.40	8.81	2005	4
7	**Crude death rate** (per 1000 population)	5.10	5.60	4.60	2005	4
8	**Rate of natural increase of population** (% per annum)	0.40	0.38	0.42	2005	4
9	**Life expectancy** (years)					
	- at birth	78.63	75.14	81.89	2005	5
	- Healthy Life Expectancy (HALE) at age 60	...	13.20	17.10	2002	19
10	**Adult literacy rate** (%)	97.90	99.20	96.60	2002	9
11	**Neonatal mortality rate** (per 1000 live births)	3.30	3.50	3.10	2002	7
12	**Infant mortality rate** (per 1000 live births)	5.30	5.70	5.00	2003	7
13	**Under-five mortality rate** (per 1000 live births)	6.23	6.64	5.78	2005	5
14	**Total fertility rate** (women aged 15–49 years)	1.08			2005	4
15	**Maternal mortality ratio** (per 100 000 live births)	15.00			2003	7
16	**Percentage of newborn infants weighing at least 2500 g at birth**	95.70	96.10	95.30	2005	4
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...	...	...
19	**Percentage of teenage pregnancy**			0.72	2005	4
20	**Immunization coverage for infants (%)**					
	- BCG	98.00	...	...	2006	20
	- DTP3	98.00	...	...	2006	20
	- POL3	98.00 [a]	...	...	2006	20
	- Measles	100.00	100.00	100.00	2006	20
	- Hepatitis B III	99.00	...	...	2006	20
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2006	6
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries attended by skilled health personnel	100.00			2006	6
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	0.10			2006	6
	- Percentage of deliveries in health facilities (as % of total deliveries)	99.90			2006	6
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			79.70	2006	6
23	**Condom use rate of the contraceptive prevalence rate**	24.20	...	...	2006	6
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	90.70	98.30	56.90	2005	8
27	**Proportion of population with access to improved sanitation**	83.50	…	…	2005	8
28	**Proportion of the population using solid fuels (%)**	<5.00	…	…	2002	21
29	**Proportion of households with access to secure tenure**	…				
30	**Proportion of vehicles using unleaded gasoline** (%)	…	…	…		
31	**Health care waste generation** (metric tons per year)	43.00	…	…	2004	8
32	**Human development index**			0.91	2004	22
33	**Per capita GDP at current market prices** (US$)			18 373.0	2006p	10
34	**Rate of growth of per capita GDP** (%)			11.77	2006p	10
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			49 988.44	2005p	11
	- total expenditure on health as % of GDP			6.00	2005p	11
	- per capita total expenditure on health (in US$)			972.97	2005p	11
	Government expenditure on health					
	- amount (in million US$)			24 884.65	2005p	11
	- general government expenditure on health as % of total expenditure on health			53.00	2005p	11
	- general government expenditure on health as % of total general government expenditure			11.20	2005p	11
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00	2005p	11
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			47.00	2005p	11
	Exchange rate in US$ of local currency is: 1 US$ =			1024.12	2005p	11
36	**Health insurance coverage as % of total population**			96.30 [b]	2006	12

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	92 056	72 729	19 327	…	…	18.90	14.93	3.97	…	…	2007p	13
	- dentists	23 184	17 637	5547	…	…	4.76	3.62	1.14	…	…	2007p	13
	- pharmacists	57 610	20 713	36 897	…	…	11.83	4.25	7.58	…	…	2007p	13
	- nurses	235 965	1691	234 274	…	…	48.45	0.35	48.11	…	…	2007p	13
	- midwives	8711	4	8707	…	…	1.79	0.00	1.79	…	…	2007p	13
	- other nursing / auxiliary staff	…	…	…	…	…	…	…	…	…	…	…	13
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	195 228 [c]	73 112 [c]	122 116 [c]	…	…	40.09	15.01	25.08	…	…	2007p	13
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	147 978 [d]	14 243 [d]	133 735 [d]	…	…	30.39	2.92	27.46	…	…	2007p	13
38	**Workforce losses/ attrition**	…	…	…								…	…
39	**Yearly new graduates - physicians**	3276	2091	1185								2007p	13
40	**Yearly new graduates – nurses**	11 823	382	11 441								2007p	13

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Diseases of the respiratory system	575 192	260 791	314 401	1 194.80	1 077.70	1 313.00	2005	14
	2. Diseases of the musculoskeletal system & connective tissues	397 384	137 803	259 581	825.40	569.50	1 083.9	2005	14
	3. Diseases of the digestive system	340 475	160 360	180 115	708.50	664.30	753.10	2005	14
	4. Injury, poisoning and certain other consequences of external causes	185 052	98 502	86 550	384.60	407.50	361.40	2005	14
	5. Diseases of the circulatory system	162 604	69 632	92 972	337.80	287.90	388.20	2005	14
	6. Diseases of the genitourinary system	95 814	46 968	48 846	199.00	194.10	203.90	2005	14
	7. Diseases of the skin and subscutaneous tissue	91 938	26 472	65 466	191.00	109.50	273.30	2005	14
	8. Diseases of the eye and adnexa	80 898	31 703	49 195	168.10	131.00	205.50	2005	14
	9. Certain infectious and parasitic diseases	67 857	28 793	39 064	141.00	119.00	163.10	2005	14
	10. Factors influencing health status and contact with health services	57 248	27 072	30 176	118.90	111.80	126.00	2005	14
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Malignant neolasms	65 479	41 375	24 104	134.50	169.50	99.30	2005	15
	2. Cerebrovascular diseases	31 297	14 949	16 348	64.30	61.20	67.30	2005	15
	3. Heart diseases	19 288	10 005	9283	39.60	41.00	38.20	2005	15
	4. Intentional self-harm	12 047	8053	3994	26.10	34.90	17.30	2005	15
	5. Diabetes mellitus	11 802	5968	5834	24.20	24.40	24.00	2005	15
	6. Diseases of the liver	8425	6708	1717	17.30	27.50	7.10	2005	15
	7. Transport accidents	7957	5859	2098	16.30	24.00	8.60	2005	15
	8. Chronic lower respiratory diseases	7556	4604	2952	15.50	18.90	12.20	2005	15
	9. Hypertensive diseases	4539	1605	2934	9.30	6.60	12.10	2005	15
	10. Pneumonia	4186	2195	1991	8.60	9.00	8.20	2005	15
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	…	…	…	…	…	…		
	- Diphtheria	0	0	0	0	0	0	2006	20
	- Hib meningitis	NR	NR	NR	NR	NR	NR	2005	20
	- Measles	25	…	…	…	…	…	2006	20
	- Mumps	2090	…	…	…	…	…	2006	20
	- Neonatal tetanus	0	0	0	0	0	0	2006	20
	- Pertussis (whooping cough)	17	…	…	…	…	…	2006	20
	- Poliomyelitis	0	0	0	0	0	0	2006	20
	- Rubella	18	…	…	…	…	…	2006	20
	- Total Tetanus	10	…	…	…	…	…	2006	20
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	798	437	361	…	…	…	2005	16
	- Type B	7998	413	7585	…	…	…	2005	16
	- Type C	2843	1554	1289	…	…	…	2005	16
	- Type E	…	…	…	…	…	…		
	- Unspecified	…	…	…	…	…	…		

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	16	7	9	0	0	0	2005	16
	Dengue/DHF	34	18	16	...	...	...	2005	16
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	6135	4403	1732	...	...	...	2005	16
	Leprosy	15	...	...	...	...	...	2005	20
	Malaria	1323	...	...	0	0	0	2005	20
	Plague	0	0	0	0	0	0	2005	16
	Syphilis	674	293	381	...	...	...	2005	16
	Typhoid fever	190	97	93	0	0	0	2005	16
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	3.00	...	...	0.00	0.00	0.00	2005	20
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	38 290	...	...	...	...	...	2005	20
	- New pulmonary tuberculosis (smear-positive)	11 638	...	...	...	...	...	2005	20
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	135.00	...	...	11.00	...	...	2005	20
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	18.00	...	...	80.00 (2004)	...	...	2005	20
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	...	...	...	...	...
48	**Diarrhoeal diseases**	...	...	...	98 [e]	43 [e]	55 [e]	2005	15
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	65 479	41 375	24 104	2005	15
	- Breast	...	...	...	1598	17	1581	2005	15
	- Colon and rectum	...	...	...	6071	3293	2778	2005	15
	- Cervix			...			1067	2005	15
	- Oesophagus	...	...	...	1434	1319	115	2005	15
	- Leukaemia	...	...	...	1442	797	645	2005	15
	- Lip, oral cavity and pharynx	...	...	...	847	653	194	2005	15
	- Liver	...	...	...	10 962	8253	2709	2005	15
	- Stomach	...	...	...	10 990	7183	3807	2005	15
	- Trachea, bronchus, and lung	...	...		13 805	10 154	3651	2005	15

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	162 604	69 632	92 972	56 576	27 360	29 216	2005	14, 15
	- Acute myocardial infarction	…	…	…	10 200	5493	4707	2005	15
	- Cerebrovascular diseases	…	…	…	31 297	14 949	16 348	2005	15
	- Hypertension	…	…	…	4539	1605	2934	2005	15
	- Ischaemic heart disease	…	…	…	13 410	7037	6373	2005	15
	- Rheumatic fever and rheumatic heart diseases	…	…	…	289	111	178	2005	15
51	**Maternal causes**								
	- Abortion			…			1	2003	7
	- Eclampsia			…			2	2003	7
	- Haemorrhage			…			26	2003	7
	- Obstructed labour			…			0	2003	7
	- Sepsis			…			2	2003	7
52	**Diabetes mellitus**	…	…	…	11 802	5968	5834	2005	14
53	**Mental disorders**	…	…	…	4509	1942	2567	2005	15
54	**Injuries**								
	All types	…	…	…	30 957	21 050	9907	2005	15
	- Homicide and violence	…	…	…	866	422	444	2005	15
	- Motor and other vehicular accidents	…	…	…	7957	5859	2098	2005	15
	- Occupational injuries	84 161	…	…	2493	…	…	2005	17
	- Suicide	…	…	…	12 047	8053	3994	2005	15
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					295	124 090	2006	18
	- Specialized hospitals					111	39 802	2006	18
	- District/first-level referral hospitals					…	…		
	- Primary health care centres					3442	0	2006	18
	Private hospitals					1676	253 495	2006	18

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Given as inactivated polio vaccine (IPV)
b	Not including medical aid
c	Including licensed medical technicians (clinical pathology technicians, rediological technicians, physican therapists, occupational therapists, dental technicians dental hygienists, medical records officers, opticians)
d	Figures for licensed sanitary workers, licensed dietitians
e	Including ICD code A01-A09

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SAMOA

1. CONTEXT

1.1 Demographics

In 2006, estimates put Samoa's population at 184 650, with around 39.9% composed of young people aged less than 15 years and only 4% aged 65 years and over. 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 make up the rural population.

The health status of the population has improved significantly, and Samoans now enjoy relatively good health. Life expectancy is 72.8 according to the 2001 census, compared with 66.4 years ten years previously.

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 UNDP Human Development Index (HDI) ranks Samoa 75th out of 177 countries. Based on the HDI, Samoa has one of the higher levels of social development rankings 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 administrating family affairs. More than 80% of the population lives under the *matai* system. Particularly strong in the 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 improvement of 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 goals 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 annual statements of economic strategy (SES), currently the *Strategy for the development of Samoa 2005–2007*, which highlight the medium-term vision as follows: "For every Samoan to enjoy an improved quality of life premised on a competitive economy with sustained economic growth, improved education, enhanced health standards and strengthened cultural and traditional values".

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 in 2001 was US$ 1442.67 US dollars. Economic growth in the same year was estimated at 6.5%, with an annual rate of inflation of 4% by the end of 2001. 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. 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 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 Vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Persistent high mortality and high morbidity rates for communicable diseases call for a renewed control, management and surveillance commitment.

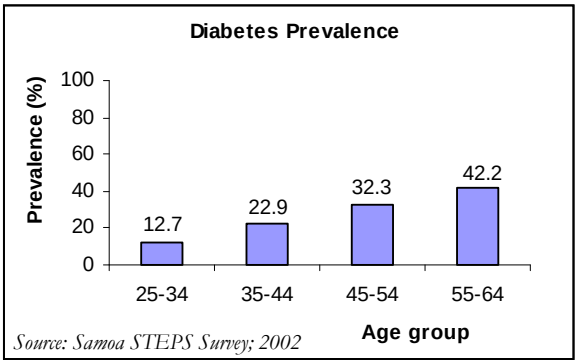
Typhoid and dengue are both endemic and periodically reach epidemic levels. Lymphatic filariasis is also endemic, with a standardized antigen prevalence rate of 1.6% in 2003. As the Government has made a firm commitment to eliminate lymphatic filariasis by 2005, intensive mass drug administration (MDA) campaigns have been carried out, with 96% coverage in 2001, 60.3% in 2002 and 80% in 2003.

An average of 33 cases of tuberculosis were diagnosed each year in the period from 1995 to 2004, an average of 13 being the most infectious form, sputum smear-positive pulmonary TB. WHO estimates of the likely numbers of smear-positive cases are somewhat higher, however, and so the calculated case-detection rate has been relatively low at around 50% for the past few years, ranging from 25%-79% in the past 10 years. 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 cases since 1990. Other sexually transmitted infections, 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 have an STI. The surprising results of this study indicate the potential for rapid spread of HIV, but also the urgency of tackling 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 to Fight HIV/AIDS, Tuberculosis and Malaria, severely underresourced.

Noncommunicable diseases (NCDs), including obesity, diabetes, heart diseases, high blood pressure, strokes and cancer, are a top health priority in Samoa, with high and increasing prevalence rates: obesity is currently 57.0%, diabetes 23.1% and high blood pressure 21.4%. NCDs are now appearing in younger age groups and complications are more common. NCDs 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 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, excess alcohol consumption and physical inactivity (SNAP). To reduce these risk factors changes in the lifestyles and behaviour of individuals, families and communities are necessary, requiring a coordinated multisectoral national response.

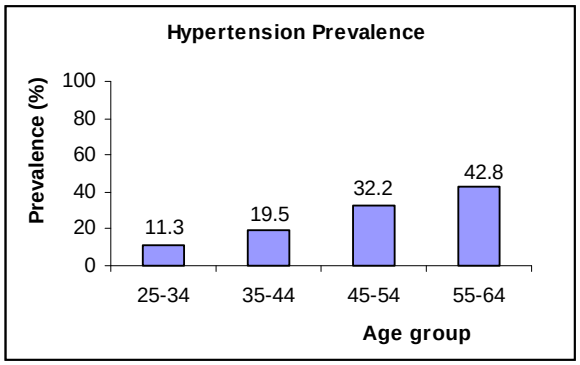
The total prevalence of diabetes is 23.1%: 22.9% in males and 23.3% in females. Prevalence increases with age and overall has doubled since a previous survey in 1991. The disease is more common in urban areas, (Apia 27%, Rural Upolu 19.7% and Savaii 20.3%), and the trend is similar for males and females.



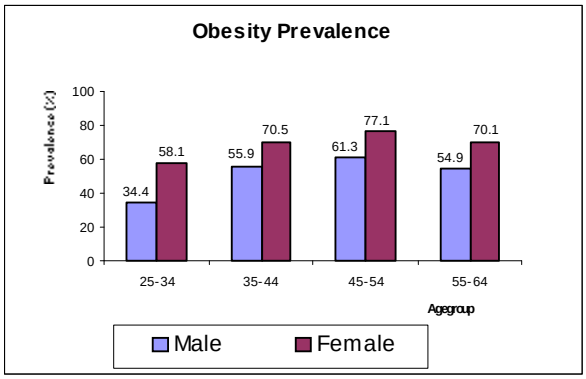
Source: Samoa STEPS Survey; 2002

In general, for every known case of diabetes that is diagnosed, almost three cases 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%, and is higher in males (24.2%) than females (18.2%) and increases with age in both males and females. High blood pressure is more common in urban areas (Apia 23.5%; Rural Upolu 18.6%; Savaii 21.2%).



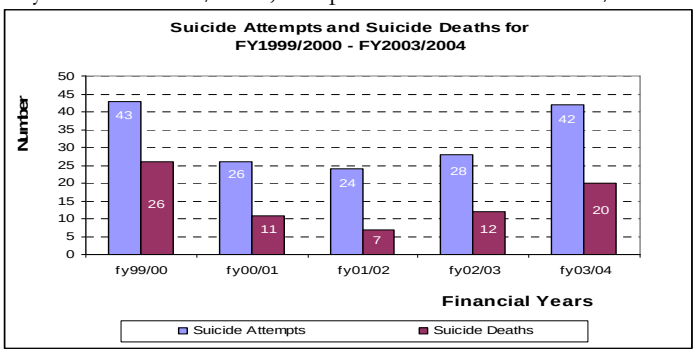
In general, for every known case of high blood pressure that is diagnosed, another four remain undiagnosed. This ratio is higher in the younger age group, (for every known case there are 22 unknown cases). Most people (more than 90%) with high blood pressure do not know that they have it.



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 noncommunicable disease 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); 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%).); and lack of regular health checks (In the last 12 months, only 35% of the population had a blood sugar check and only 44.9% had a blood pressure check. Males and younger people are less likely to have checks.).

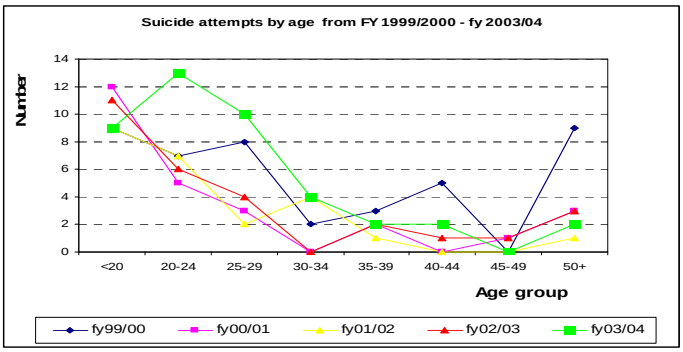
The number of suicide attempts is increasing. However, the proportion resulting in death was only 47.6% in 2003/2004, compared with 60.5% in 1999/2000.



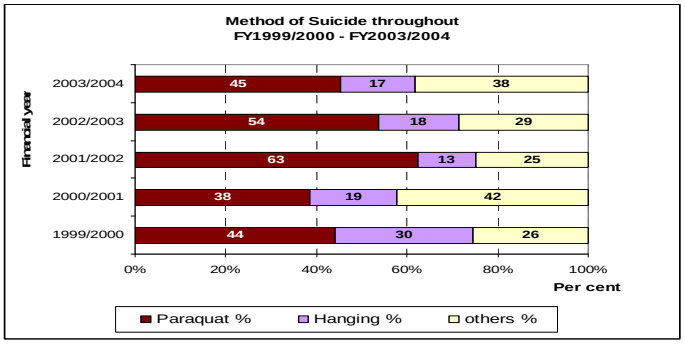
Source: Health Information System, Ministry of Health

The ages of those attempting suicide cases 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.

[1] No fruit or less than one serving per day



Source: Health Information System, Ministry of Health



Source: Health Information System, Ministry of Health

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

See Section 2.1.

2.4 Maternal, child and infant diseases

The infant mortality rate dropped from 19.3 per 1000 live births in 2001 to 13 in 2004, and the under-five mortality rate from 17.8 per 1000 live births in 2000 to 13.7 in 2002. The maternal mortality ratio also dropped from 19.6 per 100 000 live births in 2002, to 10.7 in 2003 and 5.3 in 2004.

Poliomyelitis, tetanus and diphtheria have been virtually eradicated in Samoa, and the whole of the 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 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, which are identified in the *Strategy for the development of Samoa 2005-2007 'enhancing people's choices'* include improved health standards primarily through a focus on:

- strengthening health prevention programmes;
- developing skilled human resources;
- improving health facilities and equipment;
- financing health services; and
- strengthening the Ministry of Health.

The publicly funded health system has been undergoing a major reform programme 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 this 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 is a major step forward in that approach, the objective being to provide services closer to home, strengthen primary health care services and 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 partnering 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. This is currently under review to consider how the private and community sector can contribute to the provision of primary services as close as possible to the people.

The current review of the Health Sector Strategic Plan for the period 2006-2010 highlights some of the specific objectives and strategies that the Ministry is promoting to improve health services and health outcomes in partnership with other members of the sector. The vision of creating a healthy Samoa can only be effectively realized through all members of the health sector working in partnership. Partnership is thus the major theme of the health sector plan 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.

The Health Sector Strategic Plan review also stresses the need to continue to implement the three priority areas of the Health Reform Programme:

(1) institutional strengthening;
(2) primary health care and health promotion services; and
(3) quality improvement.

Major refurbishments to the Tupua Tamasese Meaole Hospital (TTMH) have been completed, while refurbishments to some rural health facilities are under way. The Health Care Waste Management System is also in place and running. The National Non-Communicable Diseases (NCD) Strategy and Plan of Action have been completed and are in the implementation stage, while the NCD Policy is under review and about to be finalized.

3.4 Health care financing

Total national health expenditure in Samoa amounted to US$ 22.7 million in 2005, with per capita spending of US$ 117.68. In the same period, health spending as a share of gross domestic product (GDP) came to 5.2% (6% in 1998/1999), public expenditures for health comprised 76.6% of total health spending (62% in 1998/1999), private spending for health comprised 23.4% of total health spending (23% in 1998/1999), and donor spending made up the remaining 19% (15% 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, 73 other nursing/ auxiliary staff and 146 paramedical and other health personnel.

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	:	Samoa National Health Service Planning Framework April 2002; Department of Health Annual Report 1999-2000 (leading cause of mortality); Department of Health Annual Report 2002/2003 & 2003/2004; 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 2002-2004: Opportunities for all*
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).

5. ADDRESSES

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COUNTRY HEALTH INFORMATION PROFILE

SAMOA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	2.94			2004	1
2	**Estimated population** ('000s)	184.65	96.35	88.61	2006 est	2
3	**Annual population growth rate** (%)	1.00	...	...	2001	4
4	**Percentage of population**					
	- 0–4 years	14.30	14.20	14.50	2006 est	3
	- 5–14 years	25.60	25.20	26.00	2006 est	3
	- 65 years and above	4.40	3.50	5.60	2006 est	3
5	**Urban population** (%)	22.40	...	...	2005 est	5
6	**Crude birth rate** (per 1000 population)	20.80	...	...	2004	6
7	**Crude death rate** (per 1000 population)	3.00	...	...	2004	6
8	**Rate of natural increase of population** (% per annum)	1.78 [a]	...	...	2004	6
9	**Life expectancy** (years)					
	- at birth	72.80	71.80	73.80	2001	4
	- Healthy Life Expectancy (HALE) at age 60	...	10.90	11.60	2002	7
10	**Adult literacy rate** (%)	98.70	...	...	2002	8
11	**Neonatal mortality rate** (per 1000 live births)	4.20	...	...	2002	9
12	**Infant mortality rate** (per 1000 live births)	13.00	...	...	2004	6
13	**Under-five mortality rate** (per 1000 live births)	13.70	8.90	4.70	2002	9
14	**Total fertility rate** (women aged 15–49 years)	3.40			2004	10
15	**Maternal mortality ratio** (per 100 000 live births)	5.30			2004	6
16	**Percentage of newborn infants weighing at least 2500 g at birth**	98.50	...	...	2004	11
17	**Prevalence of underweight children under five years of age**	1.90	...	...	1999	11
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	84.00	...	...	2006	12
	- DTP3	56.00	...	...	2006	12
	- POL3	57.00	...	...	2006	12
	- Measles	54.00	...	...	2006	12
	- Hepatitis B III	56.00	...	...	2006	12
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2004	10
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	1.00			2006	12
	- Percentage of deliveries attended by skilled health personnel	100.00			2004	10
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	9.00			2004	10
	- Percentage of deliveries in health facilities (as % of total deliveries)	91.00			2004	10
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			53.90	2004	10
23	**Condom use rate of the contraceptive prevalence rate**	5.30	...	...	2004	10
24	**HIV prevalence among 15–24 year-old pregnant women**			0.00	2004	13
25	**Number of children orphaned by HIV/AIDS** [aa]	0	0	0	2004	13

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	88.00	90.00	87.00	2004	14
27	**Proportion of population with access to improved sanitation**	100.00	100.00	100.00	2004	14
28	**Proportion of the population using solid fuels (%)**	70.00	...	...	2002	15
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	73.00	...	...	2005	16
32	**Human development index**			0.78	2004	17
33	**Per capita GDP at current market prices** (US$)			1442.67	2001	4
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			22.77	2005p	18
	- total expenditure on health as % of GDP			5.20	2005p	18
	- per capita total expenditure on health (in US$)			117.68	2005p	18
	Government expenditure on health					
	- amount (in million US$)			16.60	2005p	18
	- general government expenditure on health as % of total expenditure on health			76.60	2005p	18
	- general government expenditure on health as % of total general government expenditure			8.60	2005p	18
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			15.60	2005p	18
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			23.40	2005p	18
	Exchange rate in US$ of local currency is: 1 US$ =			2.71	2005p	18
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	50	33	17	...	...	2.74	...	...	...	...	2005	19
	- dentists	6	3	3	...	...	0.33	...	...	...	...	2005	20
	- pharmacists	3	3	0	...	...	0.16	...	...	...	...	2005	21
	- nurses	136	...	...	...	...	7.47	...	...	...	...	2005	22
	- midwives	37	...	...	...	...	2.03	...	...	...	...	2005	22
	- other nursing / auxiliary staff	73	...	...	...	...	4.01	...	...	...	...	2005	22
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	101	...	...	...	...	5.53 [a]	...	...	...	...	2004	6
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	35	...	...	...	...	2.90 [a]	...	...	...	...	2004	6
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	5	...	...								2005	19
40	**Yearly new graduates – nurses**	19	...	...								2004	6

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Spontaneous vertex delivery	2408		2408	1326.00		2768.00	2004	6
	2. Pneumonia, unspecified	1017	549	468	560.00	580	538.00	2004	6
	3. First-degree perineal laceration during delivery	385		385	212.00		442.00	2004	6
	4. Acute bronchiolitis, unspecified	342	204	138	188.00	216.00	159.00	2004	6
	5. Diarrhoea	321	183	138	177.00	193.00	159.00	2004	6
	6. Typhoid fever	254	151	103	140.00	160.00	118.00	2004	6
	7. Cellulitis of other parts of limb	172	108	64	95.00	114.00	74.00	2004	6
	8. Congestive heart failure	156	75	81	86.00	80.00	93.00	2004	6
	9. Neonatal aspiration of meconium	154	85	69	85.00	90.00	79.00	2004	6
	10. Second degree perineal laceration during delivery	135		135	74.00		155.00	2004	6
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Cerebrovascular diseases	43	26	17	24.30	28.20	20.10	2002	9
	2. Septicaemia	34	24	10	19.20	26.10	11.80	2002	9
	3. Congestive heart failure	28	11	17	15.80	12.00	20.10	2002	9
	4. Pneumonia	28	10	18	15.80	10.90	21.30	2002	9
	5. Myocardial infarction	24	6	18	13.60	6.50	21.30	2002	9
	6. Renal failure	17	5	12	9.60	5.40	14.20	2002	9
	7. Old age	10	4	6	5.70	4.30	7.10	2002	9
	8. Leukaemia	9	3	6	5.10	3.30	7.10	2002	9
	9. Cancer of the liver	6	4	2	3.40	4.30	2.40	2002	9
	10. Cardiovascular accident	6	2	4	3.40	2.20	4.70	2002	9
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	12
	- Diphtheria	0	0	0	0	0	0	2006	12
	- Hib meningitis	1	...	...	...	...	...	2005	12
	- Measles	0	0	0	0	0	0	2006	12
	- Mumps	0	0	0	0	0	0	2006	12
	- Neonatal tetanus	1	...	...	...	...	...	2006	12
	- Pertussis (whooping cough)	24	...	...	...	...	...	2006	12
	- Poliomyelitis	0	0	0	0	0	0	2006	12
	- Rubella	0	0	0	0	0	0	2006	12
	- Total Tetanus	4	...	...	...	...	...	2006	12
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	2	1	1	0	0	0	2002	9
	- Type B	10	4	6	0	0	0	2004	8
	- Type C	0	0	0	0	0	0	2002	9
	- Type E	...	...	...	...	...	...		
	- Unspecified	34	13	21	0	0	0	2004	8

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2004	6
	Dengue/DHF	28	...	...	0	0	0	2005	12
	Encephalitis	1	1	0	0	0	0	2004	6
	Gonorrhoea	0	0	0	0	0	0	2004	6
	Leprosy	7	...	...	...	...	...	2005	12
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2004	6
	Syphilis	0	0	0	0	0	0	2004	6
	Typhoid fever	254	151	103	0	0	0	2004	6
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	85	...	...	...	...	...	2005	23
	- New pulmonary tuberculosis (smear-positive)	12	...	...	...	...	...	2005	23
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	27.00	...	...	3.00	...	...	2005	12
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	66.00	...	...	100.00 (2004)	...	...	2005	12
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	349	206	143	0	0	0	2004	6
48	**Diarrhoeal diseases**	322	184	138	5	2	3	2004	6
49	**Cancers**								
	All cancers (malignant neoplasms only)	73	43	30	12	8	4	2004	6
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	6	5	1	3	2	1	2004	6
	- Cervix			6			0	2004	6
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	17	10	7	2	1	1	2004	6
	- Lip, oral cavity and pharynx	7	5	2	0	0	0	2004	6
	- Liver	8	4	4	2	1	1	2004	6
	- Stomach	8	6	2	0	0	0	2004	6
	- Trachea, bronchus, and lung	21	13	8	5	4	1	2004	6

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	All circulatory system diseases	301	143	158	37	8	29	2004	6
	- Acute myocardial infarction	39	15	24	1	0	1	2004	6
	- Cerebrovascular diseases	77	26	51	6	1	5	2004	6
	- Hypertension	45	206	143	0	0	0	2004	6
	- Ischaemic heart disease	72	52	20	3	2	1	2004	6
	- Rheumatic fever and rheumatic heart diseases	113	50	63	27	5	22	2004	6
51	**Maternal causes**								
	- Abortion			134			0	2004	6
	- Eclampsia			7			0	2004	6
	- Haemorrhage			15			0	2004	6
	- Obstructed labour			7			0	2004	6
	- Sepsis			23			1	2002	9
52	**Diabetes mellitus**	7195 [b]	...	...	...	...	...	2004-05	24
53	**Mental disorders**	76 [b]	...	...	...	...	...	2003	25
54	**Injuries**								
	All types	733	556	177	22	13	9	2002	9
	- Homicide and violence	...	...	...	...	...	...		
	- Motor and other vehicular accidents	129	103	26	4	3	1	2002	9
	- Occupational injuries	...	...	...	...	...	...		
	- Suicide	45	26	19	21	...	...	2004-05	2
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					2	177 [c]	2005	22
	- Specialized hospitals					...	...		
	- District/first-level referral hospitals					6	55	2004	26
	- Primary health care centres					19	0	2005	26
	Private hospitals					1	21	2004	26

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
b	Figure refers to registered patients
c	Figure includes 157 beds in Tupua Tamasese Meaole Hospital, and 20 beds in Maliettoa Tanumafili II Hospital

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SINGAPORE

1. CONTEXT

1.1 Demographics

Singapore is a small country with a total land area of 704 square kilometres. The total population is about 4.48 million, with a resident population of 3.61 million in 2006. While the population is relatively young, with only 8.5% of the resident population aged 65 and over, the proportion of residents aged 65 and over is projected to increase to 19% by 2030.

In 2006, life expectancy at birth was 78.0 years for males and 81.8 years for females. The crude birth rate for the same year was 10.1 per 1000 resident population and the crude death rate was 4.3 per 1000 resident population. The total fertility rate per resident female is 1.26. The infant mortality rate is very low, at 2.6 per 1000 resident 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 Sep 1999), the head of government is Prime Minister Lee Hsien Loong (since 12 August 2004), and the Deputy Prime Ministers are S Jayakumar (since 12 August 2004), and Wong Kan Seng (since 1 September 2005). The Cabinet is appointed by the President and is responsible to the 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 unicameral parliament (84 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 characterized by a highly developed and successful free-market economy. It has a very open and corruption-free business environment. With trade 3.9 times the size of gross domestic product (GDP), external demand is the main driver of the economy. The Singapore economy grew by a strong 7.9% in 2006 after a 6.6% growth rate in 2005. Per capita gross national income amounted to US$ 28 544 in 2006.

Singapore 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 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 of only approximately 700 square kilometres, 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. Singapore 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 its high

population density, makes Singapore particularly vulnerable to infectious disease outbreaks, such as sever acute respiratory syndrome (SARS).

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

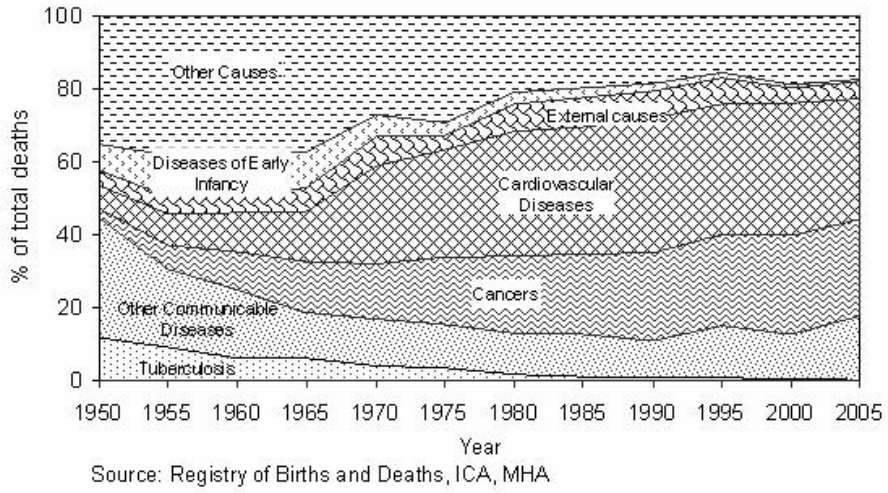
Over previous decades, national efforts to combat traditional and vaccine-preventable, communicable diseases have achieved good success. However, the SARS and Nipah virus outbreaks have highlighted the regional vulnerability to new and emerging infectious diseases. Lessons learnt from the global SARS epidemic have also been applied to enhance surveillance and outbreak response for endemic, 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 indigenous acute hepatitis B showed a rapid decline from 9.5 per 100 000 population in 1985 to 1.9 per 100 000 in 2005. No acute hepatitis B case has been reported in children below 15 years of age since 1998. Similarly, the incidence of measles was 0.8 per 100 000 population in 2005, a decline from 2.3 per 100 000 in 2004. Despite being in a region endemic for malaria, Singapore has maintained its malaria-free status, accorded by WHO, since 1982. The incidence of malaria in the resident population was 2.8 per 100 000 population in 2005, with virtually all cases imported from endemic countries.

Chronic infectious diseases such as tuberculosis and HIV/AIDS are still considered public health problems in Singapore. The morbidity rate for HIV/AIDS has steadily increased from 0.8 per million in 1985 to 89.2 per million in 2005. After a rapid decline in TB incidence during the period from 1960 to 1987, the incidence rate has been stable at a low level. The TB incidence rate among the resident population was 37 per 100 000 in 2005, a decline from 39 per 100 000 in 2004.

Noncommunicable diseases, like cancer, heart diseases and cerebrovascular disease, remain the leading causes of death among Singaporeans, and together account for 60% of all deaths. This is in contrast to the 1950s, when infectious diseases like tuberculosis featured among the leading causes of death. Figure 1 shows the contribution of major communicable and noncommunicable diseases (as a proportion of total deaths) afflicting Singaporeans from 1950 to 2005.

Figure 1: Contribution of communicable and noncommunicable diseases as a proportion of total deaths, 1950-2005.



Source: Registry of Births and Deaths, ICA, MHA

Nationally 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 2004. The age-standardized prevalence of diabetes mellitus fell from 10% to 8%, and that of smoking declined from 18% to 13%. The age-standardized prevalence of high blood cholesterol also dropped, from 21% to 18%, and the proportion of Singaporeans engaging in regular physical activity rose from 14% to 25%. The age-standardized prevalence of hypertension stabilized at 24%, but that of obesity rose from 5% to 7%. Table 1 shows the trends in the prevalence of diabetes mellitus, hypertension and health risk factors between 1992 and 2004.

Table 1: Prevalence of risk factors for cardiovascular diseases, 1992, 1998 and 2004

Risk factor#	Prevalence	1992	1998	2004
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%
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%
Obesity [BMI ≥ 30 kg/m²]	Crude Age-standardized	5.1% 5.3%	6.0% 6.2%	6.9% 6.8%
Cigarette smoking [smoked cigarettes at least once a day]	Crude Age-standardized	18.3% 17.8%	15.2% 15.0%	12.6% 12.5%
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%

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

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 diseases specified as notifiable in the Infectious Diseases Act, as well as some emerging infectious diseases of public health importance. In the control of vectorborne diseases like 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.

2.3 Leading causes of mortality and morbidity

Cancer has been the leading cause of death in Singapore since 1991. In 2005, it accounted for 27% of all deaths. Men have a much higher death rate relative to women, but death rates for both genders have been slowly declining since 1995. In 2005, the age-standardized death rates in men and women were 127 and 87 per 100 000 resident population, respectively. The incidence rate in men has slowly declined since the early 1980s, due mainly to declines in lung, stomach, liver, nasopharyngeal and oesophageal cancer. 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 cancer, despite declines in cervical, stomach, liver and oesophageal cancer. In the five-year period from 1998 to 2002, the five most common cancers were of the lung, colorectum, liver, stomach and prostate in men, and of the breast, colorectum, lung, ovary and cervix in women.

Heart diseases constitute the second most common cause of death among Singaporeans. Coronary heart disease death rates have shown consistent declines over the past 15 years. Men have almost twice the death rates of women, and the difference in rates has remained constant over the years. In 2005, the age-standardized death rate in men was 92 per 100 000 resident population, compared with 55 in women. Incidence of acute myocardial infarction events among adults aged 35-64 has generally decreased since 1990. The incidence rate for men is about six times that for women. In 2004, the age-standardized incidence rate for men was 173 per 100 000 resident population, compared with 29 for women.

Stroke has been among the leading causes of death since 1970. In 2005, it was the fourth leading cause of death, accounting for 13% of all deaths. Nonetheless, death rates for both genders have fallen noticeably over the years. In 2005, the age-standardized death rates in men and women, about the same at 40 per 100 000 resident population, were half their respective levels in 1989.

Figure 2 juxtaposes the leading causes of death of Singaporeans in 1950 with that in 2005.

Figure 2: Top 10 causes of death in Singapore, 1950 and 2005

1950	% of Deaths
Tuberculosis	12.0
Infantile convulsions	11.1
Pneumonia	10.9
Gastroenteritis	8.9
Diseases of early infancy	6.6
Heart diseases	4.6
Injuries	4.0

2005	% of Deaths
Cancer	26.5
Heart diseases	20.6
Pneumonia	15.9
Cerebrovascular diseases	12.6
Injuries	4.0
Diabetes mellitus	3.9
Urinary tract infections	3.1

Source: Registry of Births and Deaths, ICA, MHA

2.4 Maternal, child and infant diseases

The number of maternal deaths declined sharply in the period from 1950 to 1975 from 86 to 12, and has dropped further to less than eight deaths per year since. There were four maternal deaths in 2006. 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 level of between 10 and 20 since then. The maternal mortality ratio was 5.2 per 100 000 live births in 2006.

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 since. The rate was 2.6 in 2006. The main causes of infant death are perinatal conditions, congenital anomalies and pneumonia.

2.5 Burden of disease

No available information.

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

Health services are provided through three cooperating ministries, as well as the private sector.

The Ministry of Health is responsible for providing preventive, curative and rehabilitative health services. The Ministry formulates national health policies, coordinates the development and planning of the private and public health sectors, and regulates health standards.

The Ministry of Environment manages Singapore's water resources and the supply of drinking water to the nation. It is responsible for weather forecasting services; environmental and public health services, such as 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 Workmen's 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 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 the public and private hospitals. 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.

In 1999, the public health care delivery system was reorganized into two vertically integrated delivery networks, the National Healthcare Group (NHG) and Singapore Health Services (SHS). These two integrated networks enable comprehensive, yet affordable quality health care services through cooperation and collaboration between public health care establishments. The clustering of the health care delivery system encourages cooperation among the institutions within the cluster, fosters vertical integration of services and enhances synergy and economies of scale. It is envisaged that the friendly competition between the two clusters will spur them to innovate and improve the quality of care while ensuring that medical costs remain affordable.

Patients are free to choose their health care providers within the dual health care delivery system and can 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 outpatient polyclinics and over 1400 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. The needy elderly receive further help through the Primary Care Partnership Scheme (PCPS). PCPS is most helpful for those who cannot travel to polyclinics. The private clinics are located in close proximity to population centres in the city, housing estates and satellite towns. The average outpatient consultation fee is between S$ 10 (US$ 6.00) and S$ 15 (US$ 9.00), well within the means of Singaporeans. At government polyclinics, Singapore citizens aged 65 and above, children up to 18 years of age and all schoolchildren are given a discount of up to 57% on their consultation and treatment fees. Other Singapore citizens are given a 50% discount.

There are about 11 545 hospital beds in the 29 public and private hospitals and speciality centres, giving a ratio of 3.2 beds per 1000 population; 72% of the beds are in the 13 public-sector specialty centres and hospitals, each with between 185 and 2064 beds. The 16 private-sector hospitals are smaller, with a capacity of between 16 and 505 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 seven public hospitals comprise five 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; 75% 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 restructured all its 13 hospitals and specialty institutes into 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. Unlike private hospitals, 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 low-cost community hospitals for intermediate health care for the convalescent sick and aged 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 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 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.

Besides tertiary, secondary and primary health care services, there is a comprehensive range of residential and community-based health care services that cater to the intermediate and long-term care needs of elderly Singaporeans. The services are managed either by not-for-profit organizations (otherwise known as voluntary welfare organizations in Singapore) or private

operators. The services available include community hospitals; chronic-sick hospitals; nursing homes; sheltered homes for persons with psychiatric conditions; inpatient hospice institutions; home medical, home nursing and home hospice care services; day rehabilitation centres; dementia day-care centres; psychiatric day-care centres; and psychiatric rehabilitation homes. Some government subsidies are available to the elderly needy who require such services.

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. Singaporeans are encouraged, through the public health education programme, to adopt healthy lifestyles and be responsible for their 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. Health screening programmes have been introduced for the early detection of common ailments such as cancer, heart disease, hypertension and diabetes mellitus. These are available in both primary and secondary care settings.

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.

Singapore's health care regulatory framework consists mainly of two parties; the regulator (comprising the Ministry of Health and 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 Board, and the
- Traditional Chinese Medicine Practitioners Board.

In addition, health-related products such as medicines and medical devices are regulated by the Health Sciences Authority.

3.4 Health care financing

In 2005, Singapore spent about S$ 7.0 billion (US$ 4.2 billion) or 3.6% of GDP on health care. Out of this, the Government expended S$ 2.4 billion (US$ 1.5 billion) on health services.

The financing philosophy of the health care delivery system is based on individual responsibility, coupled with Government subsidies, to keep basic health care affordable. Patients are expected to pay part of the cost of the medical services they use, and to pay more when they demand a higher level of service. The principle of co-payment applies even to the most heavily subsidized wards to avoid the pitfalls of providing completely "free" medical services.

To help Singaporeans to pay for their medical expenses, the Government has put in place a financing framework, which consists of Medisave, Medishield, ElderShield and Medifund. Individuals are encouraged to take responsibility for their own health by saving for their medical expenses. Medisave is the national savings scheme which helps individuals put aside part of their income to meet their personal or immediate family's hospitalization expenses. Under the

Medisave scheme, every working person is required by law to save 6.5%-8.5% of his or her income in a personal Medisave account.

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 not be sufficient. Annual premiums for MediShield can be paid from the individual's Medisave account.

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, are unable to pay for their medical expenses. Therefore, no Singaporean is denied access into the health care system or turned away by the public hospitals because of their inability to pay.

ElderShield was introduced by the Ministry of Health in June 2002. It is an affordable, severe-disability insurance scheme, designed to provide Singaporeans with basic financial protection against expenses required in the event of severe disabilities, especially in old age.

Public sector health services are provided for cater to the lower income groups who cannot afford the private sector charges and also to set the benchmark for the private sector on professional standards and charges. Charges for public sector health services are regulated by the Government. In public hospitals, patients can choose different classes of ward accommodation ranging from one-bedded rooms to an open dormitory with eight or more beds. Patients in the one-two-bedded rooms (Class A) pay the full cost, whereas patients in other ward classes enjoy subsidies ranging from 20% of the cost for the four-bedded rooms (Class B1) to 80% of the cost for the open dormitories (Class C). In private hospitals and outpatient clinics, patients pay the amount charged by the hospitals and doctors on a fee-for-service basis.

To enhance transparency of pricing for health care services, the Ministry of Health publishes public and private hospital pricing data for common conditions on its internet website (http://www.moh.gov.sg).

3.5 Human resources for health

In 2006, Singapore had 6931 doctors in its health care delivery system (42.8% in the private sector), giving a doctor-to-population ratio of 1:650. Of these doctors, 38.3% were trained specialists with postgraduate medical degrees and advanced specialty training. In 2006, there were 1323 dentists (62.9% in private practice), giving a dentist-to-total population ratio of 1:3390.

In 2006, Singapore had 15 452 registered nurses, 5163 enrolled nurses and 312 registered midwives, giving a nurse-to-population ratio of 1: 214 or 4.7 nurses per 1000 population. Of these, 55.3% work in the public sector. The Singapore Nursing Board licenses all nurses and midwives practising in Singapore. To meet the growing demands in health care, the Singapore Nursing Board implemented an Advanced Practice Nurse Register in 2006.

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 to ensure that their activities are in alignment with the national health care framework. The Ministry continues to 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 8% to 19% by 2030, and careful planning is needed to ensure

that this population will be provided for. The Government has set up a Ministerial Committee on Ageing 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 Singapore by creating an environment where Singaporeans can look forward to leading healthy, active and productive lives as they grow old.

The health workforce also faces the challenges of an ageing population as well as new technologies, lifestyle medicine and higher demands for good medical care. There are shortages of professional staff that will have to be filled. At the same time, the growth of the private sector may lead to higher attrition from the public sector. High quality care is delivered by health care professionals who need to be constantly trained in a holistic way to meet the required standards of care in a changing, more sophisticated population. The challenge is to ensure adequate numbers of such health care professionals trained in different disciplines, especially in those health care disciplines that are currently undersubscribed.

Chronic diseases are another area of concern. An estimated one 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. In 2006, the Ministry of Health initiated the Medisave for Chronic Disease Management Programme, a coordinated, nationwide effort to transform care for chronic illnesses. Participating medical institutions include all public hospitals and polyclinics, as well as more than half of the 1400 private primary care clinics in the country.

The programme seeks to improve chronic disease care through two chief avenues: enhancing access; and improving care. By liberalizing the use of Medisave to cover outpatient treatments for these 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.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Ministry of Health*
Features	:	Information on health policies, facilities and statistics
Web address	:	http://www.moh.gov.sg
Title 2	:	*Singapore Department of Statistics*
Features	:	Information on general Singapore statistics
Web address	:	http://www.singstat.gov.sg
Title 3	:	*Report on Registration of Births and Deaths 2006*
Operator	:	Registry of Births and Deaths, Immigration and Checkpoints Authority Singapore
Features	:	Information on population, births, deaths and other vital statistics of Singapore

5. ADDRESSES

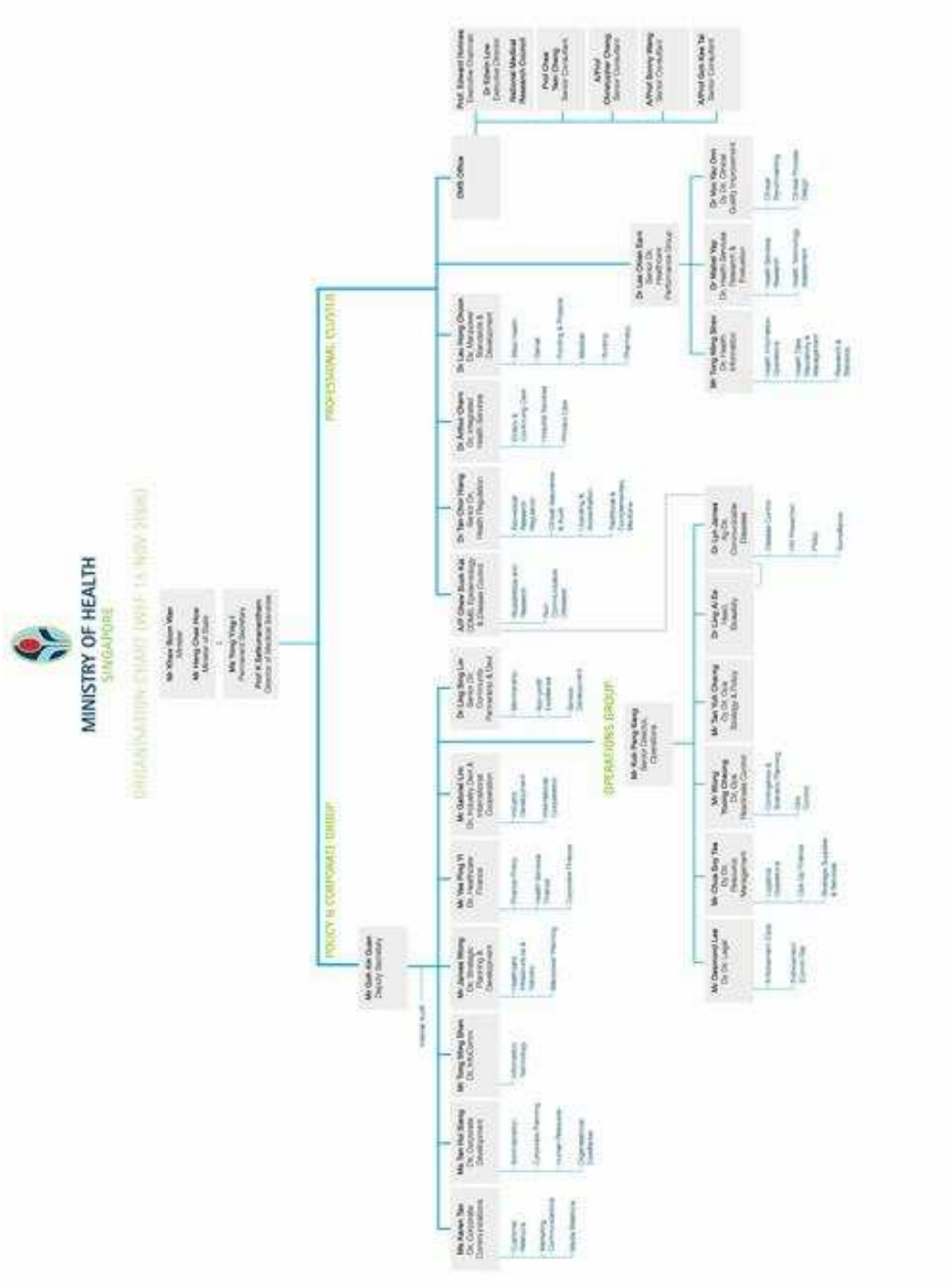
MINISTRY OF HEALTH

Office Address	:	Ministry of Health, College of Medicine Building, 16 College Road, Singapore 169854
Postal Address	:	As above
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

WHO REPRESENTATIVE IN MALAYSIA, BRUNEI DARUSSALAM AND SINGAPORE

Office Address	:	1st Floor, Wisma UN, Block C, Kompleks Pejabat Damansara, Jalan Dungun, Damansara Heights, 50490 Kuala Lumpur
Postal Address	:	P.O. Box 12550, 50782 Kuala Lumpur, Malaysia
Official Email Address	:	who@maa.wpro.who.int
Telephone	:	(603) 2093-9908
Fax	:	(603) 2093-7446

6. ORGANIZATIONAL CHART: Ministry of Health



SINGAPORE — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.70			2006	1
2	**Estimated population** ('000s)	3608.50 [a]	1787.60 [a]	1820.80 [a]	2006	1
3	**Annual population growth rate** (%)	1.80 [a]	...	...	2006	1
4	**Percentage of population**					
	- 0–4 years	5.40 [a]	...	...	2006	1
	- 5–14 years	13.90 [a]	...	...	2006	1
	- 65 years and above	8.49 [a]	...	...	2006	1
5	**Urban population** (%)	100.00	...	...	2006	1
6	**Crude birth rate** (per 1000 population)	10.10 [a]	...	...	2006	1
7	**Crude death rate** (per 1000 population)	4.30 [a]	...	...	2006	1
8	**Rate of natural increase of population** (% per annum)	0.58 [a]	...	...	2006	4
9	**Life expectancy** (years)					
	- at birth	79.90	78.00	81.80	2006	1
	- Healthy Life Expectancy (HALE) at age 60	18.30 [b]	17.10 [b]	19.40 [b]	2006	1
10	**Adult literacy rate** (%)	95.40 [a]	...	...	2006	1
11	**Neonatal mortality rate** (per 1000 live births)	1.80 [a]	...	...	2006	4
12	**Infant mortality rate** (per 1000 live births)	2.60 [a]	...	...	2006	4
13	**Under-five mortality rate** (per 1000 live births)	3.70	...	...	2006	4
14	**Total fertility rate** (women aged 15–49 years)	1.26			2006	1
15	**Maternal mortality ratio** (per 100 000 live births)	5.20			2006	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	90.90	...	...	2005	3
17	**Prevalence of underweight children under five years of age**	14.00	...	...	1995-2003	14
18	**Percentage of pregnant women with anaemia**			...	0	0
19	**Percentage of teenage pregnancy**			...	0	0
20	**Immunization coverage for infants (%)**					
	- BCG	98.00	...	...	2006	5
	- DTP3	95.00	...	...	2006	5
	- POL3	95.00	...	...	2006	5
	- Measles	93.00	...	...	2006	5
	- Hepatitis B III	94.00	...	...	2006	5
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			2006	2
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	...				
	- Percentage of deliveries 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)	99.71			2006	4
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			72.50	2003	14
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	100.00	100.00	NA	2006	2
27	Proportion of population with access to improved sanitation	100.00	100.00	NA	2006	2
28	Proportion of the population using solid fuels (%)	<5.00	...	NA	2002	13
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	NA		
31	**Health care waste generation** (metric tons per year)	...	...	NA		
32	**Human development index**			0.92	2004	12
33	**Per capita GDP at current market prices** (US$)			29 474.00	2006	1
34	**Rate of growth of per capita GDP** (%)			4.68	2006	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			4264.46	2005p	6
	- total expenditure on health as % of GDP			3.60	2005p	6
	- per capita total expenditure on health (in US$)			985.77	2005p	6
	Government expenditure on health					
	- amount (in million US$)			1477.71	2005p	6
	- general government expenditure on health as % of total expenditure on health			34.70	2005p	6
	- general government expenditure on health as % of total general government expenditure			6.30	2005p	6
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			0.00	2005p	6
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			65.30	2005p	6
	Exchange rate in US$ of local currency is: 1 US$ =			1.66	2005p	6
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	6931 [e]	...	...	3505	2966	15.50	...	...	9.71 [h]	8.22 [h]	2006	7,2
	- dentists	1323 [f]	...	...	293	833	3.00	...	...	0.81 [h]	2.30 [h]	2006	8,2
	- pharmacists	1421 [g]	...	...	449	832	3.20	...	...	1.24 [h]	2.30 [h]	2006	9,2
	- nurses	20 615 [c]	...	...	...	...	46.00	...	...	...	...	2006	10
	- midwives	312	...	...	...	...	0.70	...	...	...	...	2006	10
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray	...	...	...	...	...	...	...	...	...	...		
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	231 [d]	...	...								2006	7
40	**Yearly new graduates – nurses**	1583 [d]	...	...								2006	10

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Accidents, poisioning & violence (ICD9: 800-999)	38 072	22 719	15 353	849.13	...	...	2006	2
	2. Cancer (ICD9: 140-208)	23 202	11 428	11 774	517.45	...	...	2006	2
	3. Ischemic heart disease (ICD9: 410 - 414)	16 159	11 471	4688	360.38	...	...	2006	2
	4. Obstetric complications affecting fetus or newborn (ICD9: 761 - 763)	9963	5067	4896	222.22	...	...	2006	2
	5. Pneumonia (ICD9: 480 - 486)	9659	5288	4371	215.42	...	...	2006	2
	6. Other heart disease (ICD9: 393 - 398, 402, 415 - 429)	9627	5086	4541	214.70	...	...	2006	2
	7. Chronic obstructive lung disease (ICD9: 490 - 493, 496)	9555	6119	3436	213.10	...	...	2006	2
	8. Cerebrovascular disease (ICD9: 430 - 438)	8894	5040	3854	198.35	...	...	2006	2
	9. Intestinal infectious infections (ICD9: 001 - 009)	8619	4340	4279	192.22	...	...	2006	2
	10. Complications related to pregnancy (ICD9: 640 - 648)	8076		8076	180.11		180.11	2006	2
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Cancer (ICD9: 140-208)	4677	2576	2101	104.31	...	...	2006p	3
	2. Ischemic heart disease (ICD9: 410 - 414)	3035	1842	1193	67.69	...	...	2006p	3
	3. Pneumonia (ICD9: 480 - 486)	2244	1147	1097	50.05	...	...	2006p	3
	4. Cerebrovascular disease (ICD9: 430 - 438)	1462	642	820	32.61	...	...	2006p	3
	5. Accidents, poisioning & violence (ICD9: E800-E999)	1025	690	335	22.90	...	...	2006p	3
	6. Other heart disease (ICD9: 393 - 398, 402, 415 - 429)	712	405	307	15.88	...	...	2006p	3
	7. Diabetes mellitus (ICD9: 250)	536	223	313	11.95	...	...	2006p	3
	8. Chronic obstructive lung disease (ICD9: 490 - 493, 496)	535	400	135	11.93	...	...	2006p	3
	9. Urinary tract infections (ICD9: 599.0)	335	107	228	7.47	...	...	2006p	3
	10. Nephritis, nephrotic syndrome & nephrosis (ICD9: 580 - 589)	284	147	137	6.33	...	...	2006p	3
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	3
	- Diphtheria	0	0	0	0	0	0	2006	3
	- Hib meningitis	4	2	2	...	...	...	2006	3
	- Measles	23	13	10	...	...	...	2006	3
	- Mumps	844	479	365	...	...	...	2006	3
	- Neonatal tetanus	0	0	0	0	0	0	2006	3
	- Pertussis (whooping cough)	2	1	1	...	...	...	2006	3
	- Poliomyelitis	0	0	0	0	0	0	2006	3
	- Rubella	90	37	53	...	...	...	2006	3
	- Total Tetanus	0	0	0	0	0	0	2006	3
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	132	105	27	...	...	...	2006	2
	- Type B	93	74	19	...	...	...	2006	2
	- Type C	32	29	3	...	...	...	2006	2
	- Type E	29	24	5	...	...	...	2006	2
	- Unspecified	0	0	0	0	0	0	2006	2

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Cholera	0	0	0	0	0	0	2006	2
	Dengue/DHF	3127	1856	1271	...	...	...	2006	2
	Encephalitis	40	24	16	...	...	...	2006	2
	Gonorrhoea	2420	2017	403	...	...	...	2006	2
	Leprosy	12	7	5	...	...	...	2006	2
	Malaria	124	95	29	...	...	...	2006	2
	Plague	0	0	0	0	0	0	2006	2
	Syphilis	1589	1113	476	...	...	...	2006	2
	Typhoid fever	42	26	16	...	...	...	2006	2
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	1393	977	416	...	...	...	2006	2
	- New pulmonary tuberculosis (smear-positive)	541	397	144	...	...	...	2006	2
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	28.00	...	...	3.00	...	...	2005	11
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	100.00	...	...	81.00 (2004)	...	...	2005	11
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	7670	4189	3481	4	2	2	2006	2,3
48	**Diarrhoeal diseases**	...	...	...	...	...	...		
49	**Cancers**								
	All cancers (malignant neoplasms only)	23 202	11 428	11 774	4677	2576	2101	2006	2,3
	- Breast	2692	4	2688	375	0	375	2006	2,3
	- Colon and rectum	2979	1654	1325	684	364	320	2006	2,3
	- Cervix	709		709	80		80	2006	2,3
	- Oesophagus	246	184	62	77	59	18	2006	2,3
	- Leukaemia	1539	804	735	144	75	69	2006	2,3
	- Lip, oral cavity and pharynx	830	616	214	224	169	55	2006	2,3
	- Liver	1839	1428	411	442	329	113	2006	2,3
	- Stomach	1004	604	400	303	176	127	2006	2,3
	- Trachea, bronchus, and lung	2471	1653	818	1096	724	372	2006	2,3
50	**Circulatory**								
	All circulatory system diseases	43 437	26 312	17 125	5441	3017	2424	2006	2,3
	- Acute myocardial infarction	5250	3617	1633	1504	877	627	2006	2,3
	- Cerebrovascular diseases	8894	5040	3854	1462	642	820	2006	2,3

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number of cases			Number of deaths				
50	**Circulatory**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Hypertension	1759	712	1047	443	250	193	2006	2,3
	- Ischaemic heart disease	16 159	11 471	4688	3035	1842	1193	2006	2,3
	- Rheumatic fever and rheumatic heart diseases	192	66	126	28	13	15	2006	2,3
51	**Maternal causes**								
	- Abortion			4026			0	2006	2,3
	- Eclampsia			5			0	2006	2,3
	- Haemorrhage			2064			0	2006	2,3
	- Obstructed labour			268			0	2006	2,3
	- Sepsis			10			0	2006	2,3
52	**Diabetes mellitus**	4356	2233	2123	536	223	313	2006	2,3
53	**Mental disorders**	12 741	6708	6033	2	1	1	2006	2,3
54	**Injuries**								
	All types	...	...	...	1025	690	335	2006	3
	- Homicide and violence	...	...	...	19	14	5	2006	3
	- Motor and other vehicular accidents	...	...	...	198	162	36	2006	3
	- Occupational injuries	...	...	...	...	...	...		
	- Suicide	...	...	...	419	260	159	2006	3
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities					13	8338	2006	2
	- General hospitals					5	...	2006	2
	- Specialized hospitals					2	...	2006	2
	- District/first-level referral hospitals					6	...	2006	2
	- Primary health care centres					18	0	2006	2
	Private hospitals					16	3207	2006	2

Notes:

Red text	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
NR	Not relevant
NA	Not applicable
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to resident population
b	Figure refers to HALE at 65 years
c	Figure refers to 15 452 regsitered nurses and 5163 enrolled nurses
d	Figure refers to yearly intake of physicians and nurses
e	Figure includes 460 physicians who are not in active practice
f	Figure includes 197 dentists who are not in active practice
g	Figure includes 140 pharmacists who are not in active practice
h	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific

Sources:	
1	Singapore Department of Statistics [http://www.singstat.gov.sg/index.html].
2	Ministry of Health Singapore [http://www.moh.gov.sg/mohcorp/default.aspx].
3	Report on Registration of Births and Deaths. Registry of Births and Deaths, Immigration and Checkpoints Authority.
4	Singapore Demographic Bulletin, December 2006. Registry of Births and Deaths, Immigration and Checkpoints Authority.
5	Health Promotion Board.
6	World Health Organization. National health accounts [http://www.who.int/entity/nha/country/MYS.pdf].
7	Singapore Medical Council.
8	Singapore Dental Council.
9	Singapore Pharmacy Board.
10	Singapore Nursing Board.
11	WHO Regional Office for Western Pacific, data received from technical units.
12	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis* . United Nations Development Programme, New York USA 2006 [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
13	*Indoor Air Pollution: National Burden of Disease Estimates* . World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
14	*Study on Marriage and Procreation, Perception and Policies in Singapore, 2003.* Ministry of Community Development and Sports.

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 about 1800 km north-east of Australia. Its total land area of 28 900 square kilometres is widely scattered over 1.3 million square kilometres (Exclusive Economic Zone) of the Pacific Ocean, with most of its smaller islands uninhabited.

The population of Solomon Islands was estimated to be 483 080 in 2006. The growing population and the relatively young population structure dominate concerns about future development. In 2005, estimated life expectancy at birth was 63.4 years (62.6 years for males and 64.3 years for females). According to the 1999 national population census, 93% of the total population are Melanesians, 4% are Polynesians and 3% are from other ethnic groups. During 2000-2005, the total population is estimated to have increased by about 59 000 persons and about 42% of the population is below 15 years of age according to United Nations population projections. 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 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 scaled back to 302 police officers and 120 soldiers, in addition to civilian technical advisors, since the end of 2004.

The Government, led by Prime Minister Sir Allan Kemakeza since 17 December 2001, was dissolved on 20 December 2005. A national election was held on 5 April 2006.

1.3 Socioeconomic situation

Since 2004, the country's economy has shown a positive recovery along with the restoration of law and order. Total government revenue collection was SBD 625 million (around US$ 86 million) during 2005, SBD 75 million (US$ 10 million) more than expected. Contributions to government revenue were derived mainly from export duties on timber and growth in both company and personal income taxation receipts.

1.4 Vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Solomon Islands 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 from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), the Australian Agency for International Development (AusAID), the World Bank and Rotary International in 2004, progress has been made in malaria control. Compared with 2003, 2004 saw a 3.5% reduction and 2005 a 17.7% reduction, in national malaria incidence. Impressive progress was seen in Isabel Province (49% reduction), Choiseul Province (45% reduction) and Western Province (34% reduction) in 2005 compared with 2004. The national malaria goal is to reduce the annual incidence rate to below 80 cases per 1000 population and malaria mortality to less than 25 cases by 2010. The achievement of these targets is dependent on maintenance of efforts and continuous financial support.

A total of 397 tuberculosis cases were reported by the Central Registry in 2005 (30% increase in detected cases compared with 2004). The National TB Programme is progressing well with its implementation at both provincial and national levels and is set to achieve an 85% cure rate in the near future (seven out of nine provinces have achieved a more than 85% cure rate).

2.2 Outbreaks of communicable diseases

There was no major disease outbreak in 2004/2005. However, the worldwide threat of avian influenza and HIV/AIDS have resulted in the development of new policies and strategies to strengthen and revitalize disease prevention, control and surveillance, 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, tobacco-related diseases and mental illness 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, water supply, personal hygiene and breast-feeding. A reduction in mortality due to neonatal causes is attributed to the improved status of maternal/safe motherhood programmes and services, supported by much improved paediatric care and the current focus on the integrated management of childhood illness (IMCI) approach.

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 and Medical Services' *Corporate Plan for 2006-2008*, based on the gains made during 2004 and 2005, has the following eight priority areas:

- improvement of management and supervision of services;
- improvement of access to quality care;
- management and development of human resources for health care;
- mortality and morbidity reduction;
- maintenance of healthy environments;
- promotion of healthy living and lifestyles;
- improvement of reproductive health and family planning and;

- forging of partnerships in health development.

The Plan details future directions in terms of strategies and plans for the next three years, demonstrating the Government's commitment to meeting the Millennium Development Goals and those set by the International Conference on Population and Development (Cairo, Egypt, 1994). However, improving public health and primary health care functions, focusing on the prevention and control of noncommunicable diseases and STI/HIV/AIDS, will be among the top priorities.

3.2 Organization of health services and delivery systems

See Section 3.5.

3.3 Health policy, planning and regulatory framework

See Section 3.1.

3.4 Health care financing

In 2005, the total expenditure on health in Solomon Islands amounted to US$ 15.54 million, with per capita spending of US$ 32.5. In the same period, health spending as a share of gross domestic product (GDP) came to 5.1%. Government expenditure on health was US$ 14.48 million, or 12.6% of the total government expenditure.

3.5 Human resources for health

Seven of the nine provinces have a public hospital: Guadalcanal Province is serviced 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 in the country. The public hospital in Choiseul has recently upgraded from health centre status, while the Central Province Hospital is still without a doctor.

All provincial hospitals were at full operational capacity during 2005, although the total number of available hospital beds is yet to be confirmed. Infrastructure and refurbishment work is in progress. The area and rural health centres and nurse aide posts are well distributed throughout the provinces, based on the size and geographical distribution of their populations.

At end of 2005, a total of 89 doctors (19 doctors per 100 000 population), 52 dentists (11 dentists per 100 000 population) and 53 pharmacists (11 pharmacists per 100 000 population) were employed by the Government and were working in the country. In terms of nurses, a total of 620 nurses, including nurse aides, were employed by the Ministry of Health (130 nurses per 100 000 population).

3.6 Partnerships

Overseas development assistance increased from US$ 60 million in 2003 to US$ 122 million in 2004, with key contributions from Australia (US$ 85.6 million), New Zealand (US$ 8.9 million), the European Union (US$ 4.1 million) and Japan (US$ 2.3 million).

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. In 2005, expenditure by the Ministry of Health and Medical Services amounted to SBD 87 087 310 (around US$ 12 million), representing a 73% increase compared with 2004.

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

No available information.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	*Goals and Strategies, Corporate Plan 2006-2008; IMCI Annual Report 2004; Reproductive Health Annual Report 2004; Tuberculosis Unit Annual Report 2005; EPI Annual Report 2004; National Vector Borne Disease Control Programme Annual Report 2005; Year 2006 Approved Recurrent Estimates*
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, 2005*
Operator	:	Nursing School
Title 4	:	*Death records 2005*
Operator	:	Heath Statistics Unit, Ministry of Health and Medical Services
Title 5	:	Press releases 2005
Operator	:	Department of Prime Minister and Cabinet
Web address	:	http://www.pmc.gov.sb/
Title 6	:	*Statistical Profiles of the Least Developed Countries*
Operator	:	United Nations, New York 2005

5. ADDRESSES

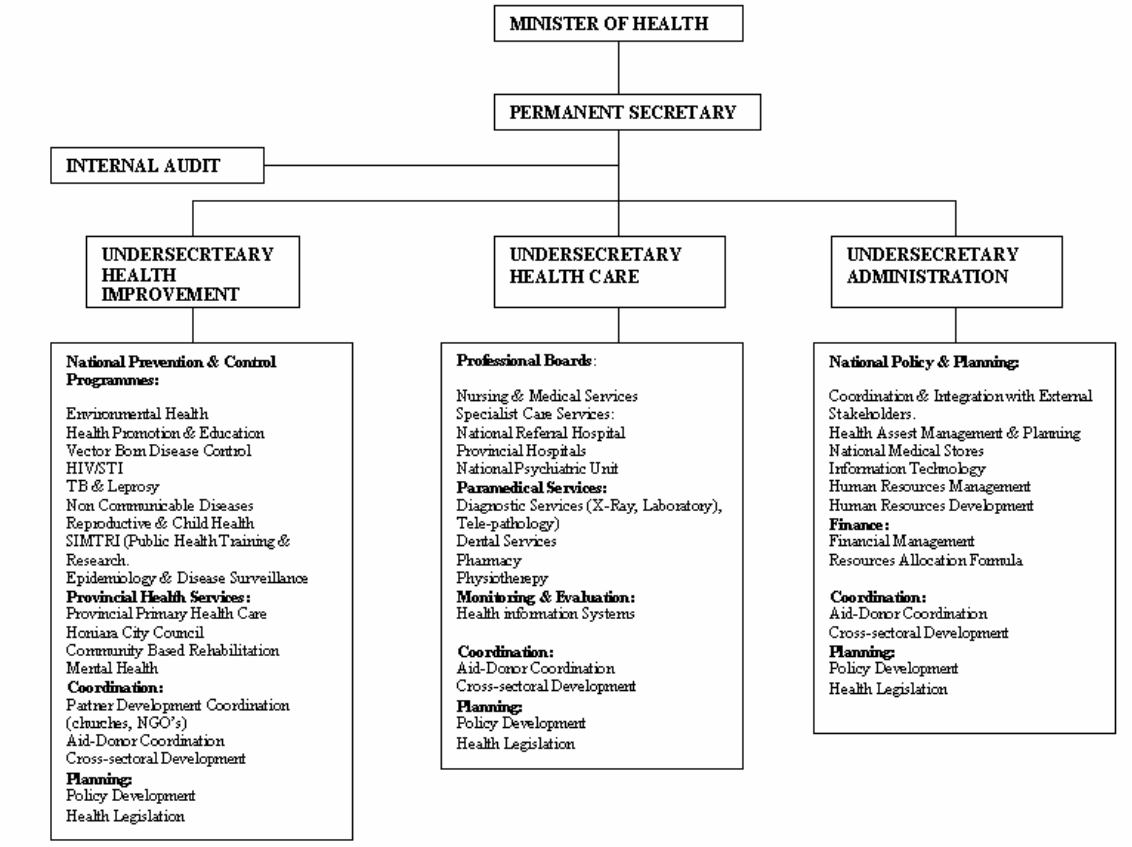
MINISTRY OF HEALTH

Office Address	:	Ministry of Health and Medical Services, Chinatown
Postal Address	:	P.O. Box 349, Honiara, Solomon Islands
Official Email Address	:	malefoasi@solomon.com.sb / pshealth@pmc.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, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	28.90			2005	1
2	**Estimated population** ('000s)	483.08	248.94	234.14	2006 est	2
3	**Annual population growth rate** (%)	2.36	...	...	2005 est	3
4	**Percentage of population**					
	- 0–4 years	14.39	14.45	14.34	2006 est	8
	- 5–14 years	25.07	25.33	24.79	2006 est	8
	- 65 years and above	3.16	3.20	3.12	2006 est	8
5	**Urban population** (%)	17.00	...	...	2005 est	5
6	**Crude birth rate** (per 1000 population)	30.20	...	...	2005-10	3
7	**Crude death rate** (per 1000 population)	6.70	...	...	2005-10	3
8	**Rate of natural increase of population** (% per annum)	2.35 [a]	...	...	2005-10	3
9	**Life expectancy** (years)					
	- at birth	63.40	62.60	64.30	2005	4
	- Healthy Life Expectancy (HALE) at age 60	...	10.90	11.60	2002	6
10	**Adult literacy rate** (%)	77.00	84.00	67.00	1999	7
11	**Neonatal mortality rate** (per 1000 live births)	12.00 [b]	...	...	2002	6
12	**Infant mortality rate** (per 1000 live births)	31.40	33.10	29.60	2005-10	3
13	**Under-five mortality rate** (per 1000 live births)	52.00	55.00	49.00	2005 est	3
14	**Total fertility rate** (women aged 15–49 years)	3.80			2005	4
15	**Maternal mortality ratio** (per 100 000 live births)	236.00			2005	4
16	**Percentage of newborn infants weighing at least 2500 g at birth**	...	...	...		
17	**Prevalence of underweight children under five years of age**	21.00	...	...	1999	7
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	95.00	...	...	2006	9
	- DTP3	83.00	...	...	2006	9
	- POL3	80.00	...	...	2006	9
	- Measles	75.00	...	...	2006	9
	- Hepatitis B III	83.00	...	...	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	76.00 [c]			2003	10
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	46.00			2005	9
	- Percentage of deliveries 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)	43.00 [d]			2003	10
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			25.00	2005	11
23	**Condom use rate of the contraceptive prevalence rate**	2.40	...	...	2001	12
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

SOLOMON ISLANDS

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	70.00	94.00	65.00	2004	13
27	**Proportion of population with access to improved sanitation**	31.00	98.00	18.00	2004	13
28	**Proportion of the population using solid fuels (%)**	95.00	...	...	2002	14
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.59	2004	15
33	**Per capita GDP at current market prices** (US$)			494.68	2002	16
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			15.54	2005p	17
	- total expenditure on health as % of GDP			5.10	2005p	17
	- per capita total expenditure on health (in US$)			32.50	2005p	17
	Government expenditure on health					
	- amount (in million US$)			14.48 e	2005p	17
	- general government expenditure on health as % of total expenditure on health			93.50	2005p	17
	- general government expenditure on health as % of total general government expenditure			12.60	2005p	17
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			74.80	2005p	17
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			6.50	2005p	17
	Exchange rate in US$ of local currency is: 1 US$ =			7.53 e	2005p	17
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	89	87	2	...	...	1.86	3.52	0.09	...	...	2005	18
	- dentists	52	29	23	...	...	1.09	1.17	1.00	...	...	2005	18
	- pharmacists	53	40	13	...	...	1.10	1.62	0.56	...	...	2005	18
	- nurses	620	...	...	...	...	12.97	...	...	...	...	2005	18
	- midwives	74	...	...	...	...	1.55	...	...	...	...	2005	18
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...	2005	18
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	493	...	...	...	...	10.31	...	...	...	...	2005	18
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...	2005	18
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	43	...	...								2005	18

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Clinical and presumptive malaria	314 665 g	...	...	35 136.80 g	...	...	2006	19
	2. Acute respiratory infection	243 600 g	...	...	50 426.10 g	...	...	2006	19
	3. Skin disease	47 329 g	...	...	9 797.30 g	...	...	2006	19
	4. Ear infection	31 378 g	...	...	6495.40 g	...	...	2006	19
	5. Red eye	22 828 g	...	...	4725.50 g	...	...	2006	19
	6. Yaws	20 371 g	...	...	4217.80 g	...	...	2006	19
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Cardiovascular diseases (cerebrovascular accident or CVA as the leading causes)	...	...	...	...	...	...	2005	22
	2. Neoplasm	...	...	...	...	...	...	2005	22
	3. Malaria	...	...	...	...	...	...	2005	22
	4. Respiratory diseases (pneumonia as the leading causes)	...	...	...	...	...	...	2005	22
	5. Neonatal causes	...	...	...	...	...	...	2005	22
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	9
	- Diphtheria	0	0	0	0	0	0	2006	9
	- Hib meningitis	...	...	...	...	...	...		
	- Measles	0	0	0	0	0	0	2006	9
	- Mumps	0	0	0	0	0	0	2006	9
	- Neonatal tetanus	1	...	...	...	...	...	2006	9
	- Pertussis (whooping cough)	24	...	...	...	...	...	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	0	0	0	0	0	0	2006	9
	- Total Tetanus	4	...	...	...	...	...	2006	9
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	0	0	0	0	0	0	2004	9
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	26	...	...	...	...	...	2005	21
	Malaria	76 762	...	...	38	...	...	2005	9
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	...	...	...	...	...	...		

SOLOMON ISLANDS

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	15 231.00	...	...	7.54	...	...	2005	9
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
		Number of cases			**Number of deaths**				
46	**Tuberculosis**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- All types	397	...	...	...	...	...	2005	9
	- New pulmonary tuberculosis (smear-positive)	169	...	...	...	...	...	2005	9
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	201.00	...	...	23.00	...	...	2005	9
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	55.00	...	...	87.00 (2004)	...	...	2005	9
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	178 327	...	...	...	...	...	2004	19
48	**Diarrhoeal diseases**	14 565	...	...	...	...	...	2004	19
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
50	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
51	**Maternal causes**								
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	…	…	…	…	…	…		
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	..	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	8 [e]	691 [f]	2005	20
	- Specialized hospitals	…	…		
	- District/first-level referral hospitals	…	…		
	- Primary health care centres	145 [h]	…	2005	20
	Private hospitals	3	…	2005	20

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific
b	Estimates derived by regression and similar estimation methods
c	Figure reported as the antenatal coverage
d	Figure applies to clinics only
e	Revised data
f	Figure refers to total beds in public health facilities
g	Figure refers to primary health care data
h	Figure refers to 29 primary health care centres and 116 dispensaries
i	Reported leading causes of mortality but no actual figures given

Sources:

1	Statistical Profiles of the least developed countries, United Nations, 2005.
2	Solomon Islands Statistics (http://www.spc.int/prism).
3	World Population Prospects: The 2004 Revision Population Database (Medium Variant), United Nations Department of Economic and Social Affairs, (http://esa.un.org/unpp/p2k0data.asp).
4	National Health Report 2005, MOHMS, Solomon Islands.
5	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
6	World health report 2005, *Make every mother and child count* . Geneva, World Health Organization, 2005.
7	Population and Housing Census, Solomon Islands, 1999.
8	National Statistics Office Population Projections.
9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	Solomon Islands Millennium Development Goals report 2004: Scoring fundamental goals (Draft). Department of National Reform and Planning, United Nations Country Team for Solomon Islands.

11	Reproductive Health, MOHMS.
9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	Solomon Islands Millennium Development Goals report 2004: Scoring fundamental goals (Draft). Department of National Reform and Planning, United Nations Country Team for Solomon Islands.
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12	*Pacific Island Regional Millennium Development Goals report 2004*. Noumea, Secretariat of the Pacific Community, UN/CROP MDG Working Group, November 2004.
13	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF, 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
14	*Indoor Air Pollution: National Burden of Disease Estimates*. World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
15	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis*. United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
16	National Accounts, Central Bank of Solomon Islands, 2005.
17	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].
18	Registry Department, Nursing School and Registry of Reproductive Health Unit, 2005.
19	Health Information System Annual Report 2006, Health Statistic Unit, MOHMS.
20	List of Clinic, Ministry of Health, 2005.
21	Database of National TB and Leprosy Unit, MOHMS, 2005.
22	Information provided by Country Liaison Officer for Solomon Islands, 04 April 2006.

TOKELAU

1. CONTEXT

1.1 Demographics

The last census, conducted in October 2001, recorded the population of Tokelau as 1515, a slight increase from the 1996 census of 1500. The estimated population in 2006 was 1530, 34.3% below 15 years of age and 5.0% were above 65 years of age. Life expectancy at birth is 68 years for males and 71 years for females (1997-2000). The crude birth rate is 31.0 per 1000 population (1997-2001) and the crude death rate is 7.0 per 1000 population (1997-2001).

1.2 Political situation

The constraints of atoll life and limited opportunities have led some 6000 Tokelauans to settle in New Zealand and a few hundred more in Samoa. Tokelauans have linguistic, family and cultural links with other Pacific islands, notably Samoa and Tuvalu. The family and extended family constitute the core of social organization, with the village (*nuku*) being the foundation of Tokelauan society. Community welfare is paramount in what has been traditionally a subsistence environment.

1.3 Socioeconomic situation

Per capita gross national product (GNP) is US$ 612.50 or about NZ$ 1000 (2003). The economy is basically subsistence, although cash is now becoming an important part of everyday life. The country's 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 over-reliance on imported, processed foods, which is contributing to lifestyle-related diseases.

1.4 Vulnerabilities and hazards

No available information.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The overall health status is reasonably good, but changes have been observed in the last few years. There has been an increase in noncommunicable diseases, with cerebrovascular disease the leading cause of death. The mortality rate due to cardiovascular diseases increased from 31.0% of the total in 1981 to 37.8% in 2003. Blood pressure recordings of 90 mm Hg diastolic and greater are seen in 36% of women and 23% of men of 30 years of age and over. 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, with prevalence rates of 70% for men and 83% for women between the ages of 30 and 39. There is an observable diet shift from local to imported foods.

2.2 Outbreaks of communicable diseases

No available information.

2.3 Leading causes of mortality and morbidity

See Section 2.1.

2.4 Maternal, child and infant diseases

The infant mortality rate is 33.0 per 1000 live births (1997-2000), the under-five mortality rate is 0 per 1000 live births (1999). Maternal mortality ratio is 0 per 100 000 live births (2001-2002) and total fertility rate is 4.9 (1997-2001).

2.5 Burden of disease

No available information.

3. HEALTH SYSTEM

3.1 Ministry of Health's mission, vision and objectives

The Health Department of the public service operates the health care system. Its main office is located in Atafu. The Department also has an office in the Tokelau Apia Liaison Office (TALO) in Samoa. Its main purpose is to facilitate referral of patients to Samoa and New Zealand. The TALO Health Office also serves as the storage and distribution point for medical supplies.

3.2 Organization of health services and delivery systems

Hospitals in each of the three atolls provide primary health care to their communities. Preventive health services are also provided by the Health Department. Water and sanitation programmes are ongoing, as well as maternal and child health programmes which are supported by women's committees.

3.3 Health policy, planning and regulatory framework

Tokelau's national health plan and 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 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.

3.4 Health care financing

For the financial year 2003/2004, the Tokelau GNP forecast was NZ$ 11 381 770 (US$ 8 115 604). Health was allocated 12.5%, about NZ$ 1 424 502 (US$ 1 015 452). For the previous financial year, health was allocated 8.2%. 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 atolls has a 12-bed hospital, manned by a medical officer, four to five staff nurses, one dental nurse, four to five nurse's aides and a handyman. There is ongoing renovation of the three hospitals and the bed capacity has been reduced to six in each. There are only three dentists working in Tokelau (2003). The doctor-to-population ratio is 1:757, the dentist-to-population ratio 1:757, and the nurse-to-population ratio 1:151. In December 2003, there were three doctors on the island plus the Director of Health, who is also a practising medical officer. Tokelau relies on the 'locum' scheme in recruiting doctors. It is envisioned that this will go on for the next three years, by which time new graduates will be expected to fill the vacancies.

In 2002-2003, Tokelau experienced an unexpected shortage of nurses. This was attributed to the fact that local nurses migrated overseas, specifically to New Zealand.

The three hospitals are similarly equipped. The only X-ray facility available is in the Nukunonu Hospital.

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	:	Tokelau Census
Title 2	:	Tokelau Department of Health
Title 3	:	*World Factbook 2003*
Web address	:	http://www.cia.gov/cia/publications/factbook/index.html

5. ADDRESSES

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COUNTRY HEALTH INFORMATION PROFILE

TOKELAU — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.01			2004	1
2	**Estimated population** ('000s)	1.53	0.79	0.74	2006 est	2
3	**Annual population growth rate** (%)	0.40	…	…	2001	1
4	**Percentage of population**					
	- 0–4 years	12.70	12.80	12.70	2006 est	2
	- 5–14 years	21.60	21.60	21.60	2006 est	2
	- 65 years and above	5.00	4.30	5.60	2006 est	2
5	**Urban population** (%)	0.00	…	…	2005 est	2
6	**Crude birth rate** (per 1000 population)	31.00	…	…	1997-2001	1
7	**Crude death rate** (per 1000 population)	7.00	…	…	1997-2001	1
8	**Rate of natural increase of population** (% per annum)	2.40	…	…	1997-2001	1
9	**Life expectancy** (years)					
	- at birth	…	68.40	71.30	1997-2000	1
	- Healthy Life Expectancy (HALE) at age 60	…	…	…		
10	**Adult literacy rate** (%)	86.50	…	…	2003	3
11	**Neonatal mortality rate** (per 1000 live births)	40.00 [a]	…	…	2003	4
12	**Infant mortality rate** (per 1000 live births)	33.00	…	…	1997-2000	1
13	**Under-five mortality rate** (per 1000 live births)	0.00	…	…	1999	5
14	**Total fertility rate** (women aged 15–49 years)	4.90			1997-2001	1
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2001-02	6
16	**Percentage of newborn infants weighing at least 2500 g at birth**	100.00	…	…	2003	4
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			0.00	1999	5
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	7
	- DTP3	100.00	100.00	100.00	2006	7
	- POL3	100.00	100.00	100.00	2006	7
	- Measles	100.00	100.00	100.00	2006	7
	- Hepatitis B III	100.00	100.00	100.00	2006	7
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	100.00			1999	8
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	…				
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			13.40	1999	8
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
25	Number of children orphaned by HIV/AIDS [aa]	...	...	...		
26	Proportion of population with sustainable access to an improved water source	88.00	NA	88.00	2004	9
27	Proportion of population with access to improved sanitation	78.00	NA	78.00	2004	9
28	Proportion of the population using solid fuels (%)	14.50	NA	14.50	2001	3
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			...		
33	**Per capita GDP at current market prices** (US$)			612.50 [c]	2003	6
34	**Rate of growth of per capita GDP** (%)			3.20	1999	5
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			0.51 [d]	1999-2000	5
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			341.07 [d]	1999-2000	5
	Government expenditure on health					
	- amount (in million US$)			1.42 [d]	FY2003-2004	6
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			12.50	FY2003-2004	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			...		
	Exchange rate in US$ of local currency is: 1 US$ =			...		
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	Total	Male	Female	Public	Private	Total	Male	Female	Public	Private		
	- physicians	3	...	...	...	...	20.00	...	...	...	...	2003	6
	- dentists	3	...	...	...	...	20.00	...	...	...	...	2003	6
	- pharmacists	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	2000	5
	- nurses	10	...	...	...	...	66.67	...	...	...	...	2003	6
	- midwives	3	...	...	...	...	20.00	...	...	...	...	2000	5
	- other nursing / auxiliary staff	7	...	...	...	...	46.67	...	...	...	...	2003	5
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	1	...	...	...	...	6.67	...	...	...	...	2000	5
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	1	...	...	...	...	6.67	...	...	...	...	2000	5
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Upper and lower respiratory diseases	1000	...	...	65 061.81 [a]	...	...	2003	4
	2. Diseases of the skin and subcutaneous tissues	439	...	...	28 562.13 [a]	...	...	2003	4
	3. Diseases of the digestive system	400	...	...	26 024.72 [a]	...	...	2003	4
	4. Diseases of the musculoskeletal system	151	...	...	9824.33 [a]	...	...	2003	4
	5. Diseases of the circulatory system	73	...	...	4749.51 [a]	...	...	2003	4
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diseases of the circulatory system	...	...	...	38 [e]	...	...	2003	4
	2. Diseases of the respiratory system	...	...	...	21 [e]	...	...	2003	4
	3. Neoplastic diseases	...	...	...	16 [e]	...	...	2003	4
	4. Ill-defined and undiagnosed conditions	...	...	...	11 [e]	...	...	2003	4
	5. Congenital anomalies	...	...	...	5 [e]	...	...	2003	4
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	7
	- Diphtheria	0	0	0	0	0	0	2006	7
	- Hib meningitis	0	0	0	0	0	0	2005	7
	- Measles	0	0	0	0	0	0	2006	7
	- Mumps	0	0	0	0	0	0	2006	7
	- Neonatal tetanus	0	0	0	0	0	0	2006	7
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	7
	- Poliomyelitis	0	0	0	0	0	0	2006	7
	- Rubella	0	0	0	0	0	0	2006	7
	- Total Tetanus	0	0	0	0	0	0	2006	7
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	...	...	...	...	...	...		
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	0	0	0	0	0	0	2005	7
	Malaria	...	...	...	...	...	...		
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	...	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	...	...	...		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
		Number of cases			**Number of deaths**				
46	**Tuberculosis**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- All types	0	0	0	0	0	0	2005	7
	- New pulmonary tuberculosis (smear-positive)	0	0	0	0	0	0	2005	7
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	112.00	...	...	12.00	...	...	2005	7
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	...	...	...	...	...	...		
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	...	...	...	...	...	...		
48	**Diarrhoeal diseases**	...	...	...	...	...	...		
49	**Cancers**								
	All cancers (malignant neoplasms only)	...	...	...	...	...	...		
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	...	...	...	...	...	...		
	- Cervix			...			...		
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	...	...	...	...	...	...		
	- Lip, oral cavity and pharynx	...	...	...	...	...	...		
	- Liver	...	...	...	...	...	...		
	- Stomach	...	...	...	...	...	...		
	- Trachea, bronchus, and lung	...	...	...	...	...	...		
50	**Circulatory**								
	All circulatory system diseases	...	...	...	...	...	...		
	- Acute myocardial infarction	...	...	...	...	...	...		
	- Cerebrovascular diseases	...	...	...	...	...	...		
	- Hypertension	...	...	...	...	...	...		
	- Ischaemic heart disease	...	...	...	...	...	...		
	- Rheumatic fever and rheumatic heart diseases	...	...	...	...	...	...		
51	**Maternal causes**								
	- Abortion			...			...		
	- Eclampsia			...			...		
	- Haemorrhage			...			...		
	- Obstructed labour			...			...		
	- Sepsis			...			...		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	…	…	…	…	…	…		
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					3	18	2003	6
	- Specialized hospitals					…	…		
	- District/first-level referral hospitals					…	…		
	- Primary health care centres					…	…		
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
FY	Fiscal year
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific
b	Given as inactivated polio vaccine (IPV)
c	Figure refers to per capita GNP at current market prices (US$)
d	Figure is in New Zealand dollars
e	Figure refers to percentage of deaths reported

Sources:

1	*Pacific island populations 2004*. Noumea, Secretariat of the Pacific Community, 2004.
2	*Demographic Tables for the Western Pacific 2005-2010*. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
3	*Pacific Island Regional Millennium Development Goals Report 2004*. Noumea, Secretariat of the Pacific Community, UN/ CROP MDG Working Group, November 2004.
4	Tokelau Statistics Unit http://www.spc.int/prism/country/tk/.
5	Information furnished by the Tokelau Department of Health, 17 May 2001.
6	Information furnished by WHO Representative in Samoa, 25 February 2004.
7	WHO Regional Office for the Western Pacific, data received from technical units.
8	Hospital records.
9	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF, 2006. [http://www.wssinfo.org/en/40_mdg2006.html].

TONGA

1. CONTEXT

1.1 Demographics

Tonga's estimated population for 2006 was 108 000, giving a population density of 166.2 per square kilometre, with 68% residing on the largest main island of Tongatapu. About 24% of the population live in urban settings. The population is young, with 36.5% 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 3.4 in 2005. The population growth rate is around 0.3%, a low figure taking into consideration a crude birth rate of about 25 per 1000 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 some 50 000 people.

1.2 Political situation

Tonga is a constitutional monarchy with almost absolute power given to the head of state, King Taufa'ahau Tupou IV, who has reigned since 1965. The King's Cabinet consists of the Prime Minister, the ministers of the Crown and the governors of Vava'au and Ha'apai, all directly appointed by the King. The unicameral Parliament consists of the cabinet members, the Speaker of the House (appointed by the King), nine nobles elected by the peers from among Tonga's 33 hereditary title holders, and nine democratically elected peoples' representatives.

The political situation remains stable and peaceful overall despite growing discontent with the undemocratic system of rule; the, in some aspects, feudal structure of society; and the mounting pressure for constitutional reform. The introduction of civil service salary reforms in July 2005 sparked a six-week general strike, ending with a settlement on 3 September 2005 that gave civil servants pay increases of 60%-80%. The strike quickly developed into widespread demands for political reform. A Constitutional Review Committee, headed by Prince Tu'ipelekahe and financially supported by the Commonwealth Secretariat, was set up in response to the protests and is expected to deliver its recommendation for political reform by mid-2006.

Tonga has been a member of the United Nations since 1999. The churches are influential in Tonga and religion, traditional customs and hierarchy play important roles in policy development and the government decision-making process.

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 second biggest industry, fishing, 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 relatives 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 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 per year 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 will see Tonga reduce its import tariffs for 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 and 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 (10%) and non-progressive, resulting in a revenue from income taxation of less than TOP 2 million (US$ 1.05 million) 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 (98.8%) 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, 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 of 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 55th in the United Nations Development Programme's Human Development Index ranking (HDI), the highest ranking of any Pacific island state, reflecting the comparatively high gross domestic product (GDP) per capita of US$ 1780 (2003-2004 estimate), high life expectancy and near-universal literacy. Disposable income per capita, at approximately US$ 2308, 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 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 falls 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 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 rates and maternal mortality. Life expectancy at birth increased from 40 years in 1939 to 70 years for males and 72 years for

females in 2003. 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 for many noncommunicable diseases. Post-mortem 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 number 2 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 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 noncommunicable diseases in 2003. There are multiple reasons for the rapidly growing burden of noncommunicable diseases, of which the most important include increasing rates of overweight and obesity, reduced physical activity, smoking, and, to some extent, the ageing 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 developing overweight and obesity 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). As a consequence, they have higher rates of diabetes than men, with 19.1% of women and 16.5% of men meeting the definition of diabetic. 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. A community survey in 2000 showed that as many as 80% of people with diabetes remain 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% in five years, from 1463 in 1999 to 2247 in 2003, 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 puts 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, in practice, not enforceable, 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 this important development will improve 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 hepatitis B virus infection (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 in the 1-4 age group 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 CNS infection, one from dengue fever and one from pneumonia. This picture resembles more the situation in an industrialized country than 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 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 particularly the timeliness of hepatitis B vaccine delivery. 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 average 10-20 cases of typhoid fever recorded annually (22 confirmed cases in 2003). The Ministry of Health places high 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 should be in the position to eliminate typhoid fever altogether if adequate coordinated resources were allocated to treat carriers, improve sanitary practices and ensure the supply of safe water in all villages.

Eighteen new cases of tuberculosis (all types) were reported in 2005. All tuberculosis treatment follows the DOTS strategy and there is active contact tracing. The cure rate for patients diagnosed in 2002 was 83%.

HIV prevalence remains very low in Tonga. Fourteen 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 infection. The volume of HIV serology testing is high, with an average of 2500-3000 HIV tests being carried out annually as part of screening of blood donors, government employees and visa applicants, and an estimated 45 000 HIV tests have been done since the start in the 1980s. A pilot trial with voluntary counselling and testing (VCT) at the antenatal clinic at the referral hospital showed that the uptake was very high, 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 (STIs) 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 Chlamydia 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 STIs.

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, Rota virus 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 99% of pregnant women attend antenatal clinics, 98% deliver in a health facility and 99% of deliveries are attended by trained staff. The maternal mortality ratio (MMR) was 227.8 per 100 000 live births in 2005, which translates to seven fatalities. Indicators that are based on relatively uncommon events, such as MMR and 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 took place in hospital, which is an indication that patient monitoring and emergency services, such as availability of blood for transfusion, needs 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 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. Breast-feeding 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 be 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. Currently, 67% of under-five mortality is in the 0-1 age group and investments in perinatal and neonatal care are likely to be important in reducing infant mortality. Mortality from *Haemophilus Influenzae* type B (Hib) infection lies almost entirely in the 0-1 age group and the introduction, in 2005, of routine childhood immunizations against Hib 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) following the outbreak. The immunization campaign with MR vaccine to break the epidemic included all children of 0-15 yrs 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 Tonga has 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 and several more cases of severe sequelae per year caused by Hib meningitis. The 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

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. It 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 post-graduate 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 post-graduate training programmes in midwifery, internal medicine, surgery and public health have been offered in 2006-2007.

3.2 Organization of health services and delivery systems

Primary curative care and preventive services are delivered through a system of 14 health centres and 34 maternal health clinics. 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 32 filled medical officer posts in 2003 (3.9 doctors per 10 000 population) to which should be added 18 filled health officer posts. In the same year, there were 342 filled nursing posts (33.7 nurses per 10 000 population). There are 13 dental officers and 10 dental therapists. The number of private providers is increasing, but the majority of private doctors remain government employees and run part-time private clinics, many out of their homes.

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. The Government covers 45% of total expenditure on health, households 23% and donors 32%. 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 and that 'out-of-pocket' payments on 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 after-hours practising government-employed doctors. 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 covers only government employees.

3.5 Human resources for health

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. There are four hospitals in Tonga: the tertiary Vaiola Hospital in Nuku'alofa, with 191 beds; and three district hospitals, Prince Ngu's hospital in Vava'u (61 beds), Niu'ui hospital in Ha'apai (28 beds) and Niu'eki hospital in Eua (16 beds). The overall bed occupancy rate is low, 34% in 2003, an indication that the hospital system is oversized and has not adapted to the 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. A major refurbishment of Vaiola Hospital, supported by a grant from the Government of Japan and a World Bank loan, commenced in 2005 and will result in a leaner hospital when it is completed in 2007.

3.6 Partnerships

No available information.

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 Government's total 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 burden of noncommunicable diseases and the ageing population. Identifying alternative sources for health care financing is thus one of the top priorities of the Ministry of Health. In December 2005, Cabinet approved the introduction of user fees. A decision has also been made to introduce social health insurance within the next three to five years. 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 the 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 (NCDs) has now reached epidemic proportions. In addition to human suffering, NCDs 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 death and chronic illness. 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 noncommunicable diseases, 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 noncommunicable diseases, in view of the increasing burden of the ageing population.

A large proportion of patients with diabetes and cardiovascular diseases remain undiagnosed and untreated. It is therefore a priority to both increase access to care and improve the quality of care for people with noncommunicable diseases. 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 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 statistics for decision-making. The outcomes of investments in health care financing and prevention of noncommunicable disease 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	:	*Tonga's health 2000*

5. ADDRESSES

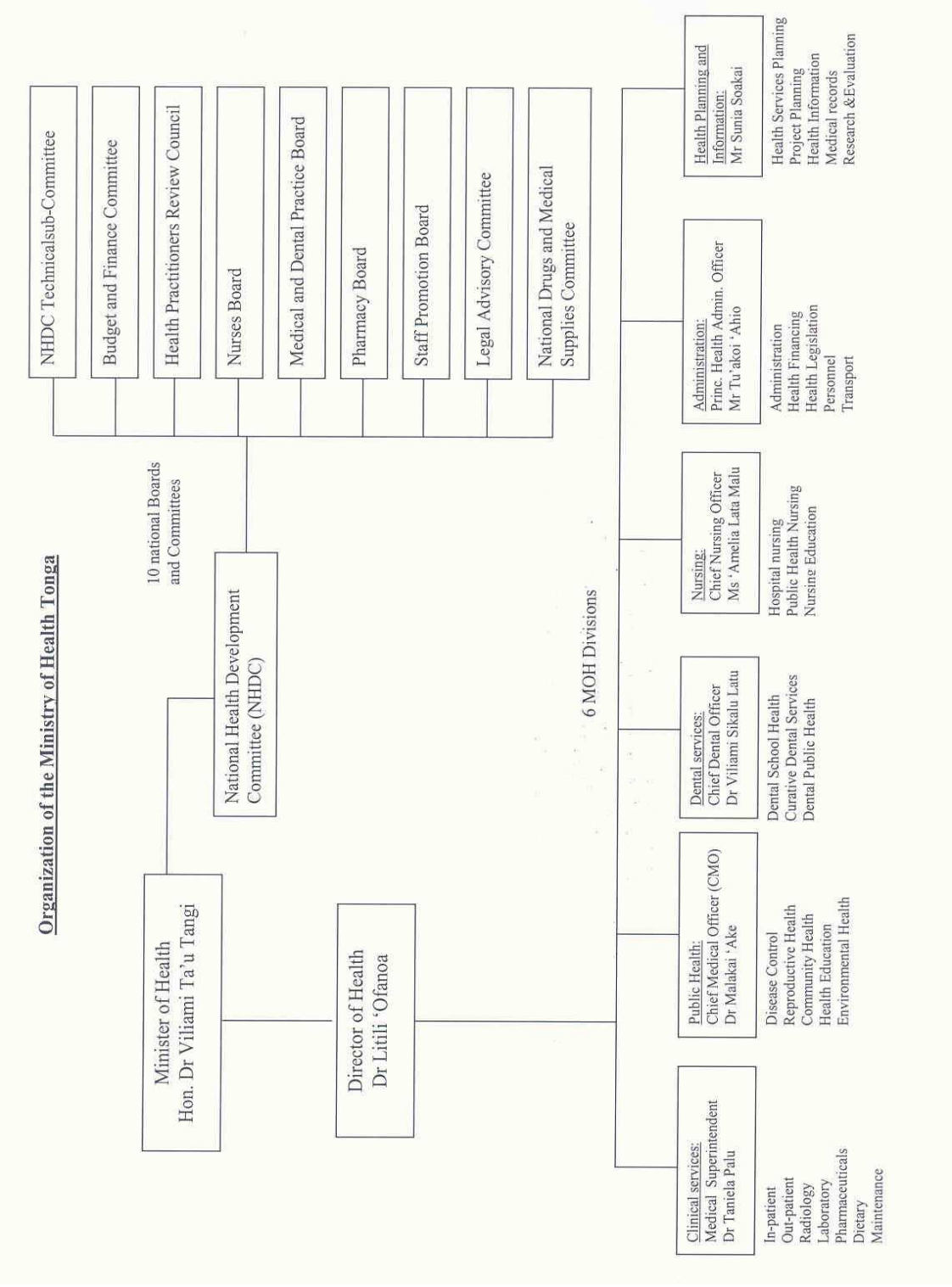
MINISTRY OF HEALTH

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, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.65			2004	1
2	**Estimated population** ('000s)	108.00	55.00	53.00	2006 est	2
3	**Annual population growth rate** (%)	0.30	...	...	2001	3
4	**Percentage of population**					
	- 0–4 years	13.00	13.20	12.80	2006 est	2
	- 5–14 years	23.50	24.00	22.90	2006 est	2
	- 65 years and above	5.70	5.10	6.40	2006 est	2
5	**Urban population** (%)	24.00	...	...	2005 est	4
6	**Crude birth rate** (per 1000 population)	24.80	...	...	2004	5
7	**Crude death rate** (per 1000 population)	6.10	...	...	2004	5
8	**Rate of natural increase of population** (% per annum)	1.84	...	...	2002	6
9	**Life expectancy** (years)					
	- at birth	...	70.00	72.00	2005	7
	- Healthy Life Expectancy (HALE) at age 60	...	11.90	12.00	2002	8
10	**Adult literacy rate** (%)	98.80	...	...	2000	9
11	**Neonatal mortality rate** (per 1000 live births)	10.00 [a]	...	...	2000	10
12	**Infant mortality rate** (per 1000 live births)	11.80	...	...	2005	7
13	**Under-five mortality rate** (per 1000 live births)	16.59	...	...	2001	7
14	**Total fertility rate** (women aged 15–49 years)	3.40			2005	7
15	**Maternal mortality ratio** (per 100 000 live births)	227.80			2005	7
16	**Percentage of newborn infants weighing at least 2500 g at birth**	97.50	...	...	2002	6
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			4.10	2000-03	11
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	12
	- DTP3	100.00	100.00	100.00	2006	12
	- POL3	100.00	100.00	100.00	2006	12
	- Measles	99.00	...	...	2006	12
	- Hepatitis B III	100.00	100.00	100.00	2006	12
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.00			2004	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	98.00			2006	12
	- Percentage of deliveries attended by skilled health personnel	99.00			2004	5
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	1.00			2004	5
	- Percentage of deliveries in health facilities (as % of total deliveries)	98.00			2004	5
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			23.10	2002	6
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

TONGA

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	100.00 [b]	100.00	100.00	2004	14
27	**Proportion of population with access to improved sanitation**	96.00	98.00	96.00	2004	14
28	**Proportion of the population using solid fuels (%)**	56.00	...	...	2002	15
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**	0.82			2004	16
33	**Per capita GDP at current market prices** (US$)	1780.00			2003-04	17
34	**Rate of growth of per capita GDP** (%)	...				
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)	12.82			2005p	18
	- total expenditure on health as % of GDP	6.10			2005p	18
	- per capita total expenditure on health (in US$)	125.69			2005p	18
	Government expenditure on health					
	- amount (in million US$)	10.26			2005p	18
	- general government expenditure on health as % of total expenditure on health	79.20			2005p	18
	- general government expenditure on health as % of total general government expenditure	15.50			2005p	18
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health	36.36			2005p	18
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health	20.80			2005p	18
	Exchange rate in US$ of local currency is: 1 US$ =	1.95			2005p	18
36	**Health insurance coverage as % of total population**	12.00			FY2002-2003	5

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	32 [c]	...	...	...	...	3.90	...	...	...	...	2003	5
	- dentists	23 [d]	...	...	...	...	2.27	...	...	...	...	2003	5
	- pharmacists	4	3	1	...	...	0.40	0.58	0.20	...	...	2002	6
	- nurses	342	...	...	...	...	33.70	...	...	...	...	2003	5
	- midwives	21	0	21	...	...	2.08	0.00	2.08	...	...	2002	6
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	26	18	8	...	...	2.57	3.50	1.60	...	...	2002	6
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	22	18	4	...	...	2.18	...	...	...	...	2002	6
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	30	...	...								2004	19

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Acute respiratory infections	20 819	...	...	20 437.83 [e]	...	...	2004	5
	2. Influenza	20 057	...	...	19 689.79 [e]	...	...	2004	5
	3. Bronchiopneumonia	1947	...	...	1911.35 [e]	...	...	2004	5
	4. Diarrhoea (adult)	1011	...	...	992.49 [e]	...	...	2004	5
	5. Diarrhoea (children)	671	...	...	658.71 [e]	...	...	2004	5
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Diseases of the circulatory system	146	...	...	190.10	...	...	2002	5
	2. Neoplasms	67	...	...	77.23	...	...	2002	5
	3. Symptoms, signs and ill-defined conditions	51	...	...	53.47	...	...	2002	5
	4. Diseases of the respiratory system	37	...	...	49.50	...	...	2002	5
	5. Endocrine, nutritional and metabolic conditions	33	...	...	43.56	...	...	2002	5
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	12
	- Diphtheria	0	0	0	0	0	0	2006	12
	- Hib meningitis	0	0	0	0	0	0	2005	12
	- Measles	0	0	0	0	0	0	2006	12
	- Mumps	8	...	...	...	...	...	2006	12
	- Neonatal tetanus	0	0	0	0	0	0	2006	12
	- Pertussis (whooping cough)	2	...	...	...	...	...	2006	12
	- Poliomyelitis	0	0	0	0	0	0	2006	12
	- Rubella	0	0	0	0	0	0	2006	12
	- Total Tetanus	0	0	0	0	0	0	2006	12
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	2	0	2	0	0	0	2002	20
	- Type B	5	4	1	5	3	2	2002	20
	- Type C	0	0	0	0	0	0	2002	20
	- Type E	...	...	...	...	...	...		
	- Unspecified	0	0	0	0	0	0	2002	20
	Cholera	0	0	0	0	0	0	2002	20
	Dengue/DHF	3	...	...	0	0	0	2004	12
	Encephalitis	2	...	...	...	...	...	2003	20
	Gonorrhoea	42	...	...	...	...	...	2003	7
	Leprosy	0	0	0	0	0	0	2005	12
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2002	20
	Syphilis	0	0	0	0	0	0	2002	20
	Typhoid fever	23	...	...	...	...	...	2003	5

TONGA

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	...	...	...	1.00	...	...	2000 est	8
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
		Number of cases			**Number of deaths**				
46	**Tuberculosis**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- All types	18	...	...	...	...	...	2005	12
	- New pulmonary tuberculosis (smear-positive)	11	...	...	...	...	...	2005	12
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	32.00	...	...	3.00	...	...	2005	12
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	96.00	...	...	83.00 (2002)	...	...	2003	12
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	20 891	...	...	...	...	...	2004	5
48	**Diarrhoeal diseases**	1682	...	...	...	...	...	2004	5
49	**Cancers**								
	All cancers (malignant neoplasms only)	101	46	55	76	42	34	2002	6
	- Breast	...	...	...	...	...	...		
	- Colon and rectum	3	3	0	0	0	0	2002	6
	- Cervix			7			3	2002	6
	- Oesophagus	...	...	...	...	...	...		
	- Leukaemia	1	0	1	1	0	1	2002	6
	- Lip, oral cavity and pharynx	6	3	3	3	0	3	2002	6
	- Liver	6	3	3	8	6	2	2002	6
	- Stomach	8	6	2	5	4	1	2002	6
	- Trachea, bronchus, and lung	7	7	0	13	11	2	2002	6
50	**Circulatory**								
	All circulatory system diseases	...	...	...	192	121	71	2002	6
	- Acute myocardial infarction	34	26	8	28	19	9	2002	6
	- Cerebrovascular diseases	41	15	26	21	9	12	2002	6
	- Hypertension	1154	634	520	7	4	3	2002	6
	- Ischaemic heart disease	34	18	16	7	7	0	2002	6
	- Rheumatic fever and rheumatic heart diseases	21	9	12	1	1	0	2002	6
51	**Maternal causes**								
	- Abortion			114			0	2002	6
	- Eclampsia			...			...		
	- Haemorrhage			0			1	2002	6
	- Obstructed labour			...					
	- Sepsis			...					

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	2035	787	1248	35	14	21	2002	6
53	**Mental disorders**	199	130	69	0	0	0	2002	6
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	0	0	0	1	1	0	2002	6
	- Motor and other vehicular accidents	109	80	29	0	0	0	2002	6
	- Occupational injuries	0	0	0	0	0	0	2002	6
	- Suicide	0	0	0	1	1	0	2002	6
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

		Number	Number of Beds		
56	**Health infrastructure**				
	Public health facilities				
	- General hospitals	1	191	2004	21
	- Specialized hospitals	…	…		
	- District/first-level referral hospitals	3	105	2004	21
	- Primary health care centres	14	…	2005	5
	Private hospitals	…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Estimates derived by regression and similar estimation methods
b	Revised data
c	Figure refers to government doctors
d	Figure refers to dental officers and dental therapists
e	Computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific

Sources:

1	Pacific island populations 2004. Noumea, Secretariat of the Pacific Community, 2004.
2	*Demographic Tables for the Western Pacific 2005-2010*. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
3	Report of the Minister of Health – Year 2001.
4	*Urban and rural areas 2005*. Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
5	Information provided by Country Liaison Officer for Tonga, 10 May 2005.
6	Report of the Minister of Health for the year 2002.
7	Tonga Statistics Department (http://www.spc.in/prism).
8	World health report 2004: *Changing history*. Geneva, World Health Organization, 2004.
9	Report of the Minister of Education – Year 2000.
10	World health report 2005: *Make every mother and child count*. Geneva, World Health Organization, 2005.
11	Information provided by Country Liaison Officer for Tonga, 21 April 2006.
12	WHO Regional Office for the Western Pacific, data received from the technical units.
13	Report of the Minister of Health for the year 2003.
14	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF, 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
15	*Indoor Air Pollution: National Burden of Disease Estimates*. World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].

16	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis*. United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
17	Social and Economic Update and Pro-Poor Policy Formulation, Tonga. Pacific Island Economic Report series, ADB TA6245 (reg).
18	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].
19	Personal communication with the Principal, Queen Salote School of Nursing.
20	Information Unit, Ministry of Health.
21	Information provided by Country Liaison Officer for Tonga, 05 March 2004.

TUVALU

1. CONTEXT

1.1 Demographics

Tuvalu is the smallest member of the United Nations, by population. The population has more than doubled since 1980 and was estimated to reach 9652 in 2006. About 34.2% are in the 0-14 year age group, 57.3% in the 15-64 year age group, and 8.5% are 60 years or older. The median age is 24 years. The population growth rate is estimated at 0.1% (2006-2010), and the crude birth rate was 27.1 per 1000 population in 2002.

The population is primarily of Polynesian ethnicity, with about 4% Micronesian. Life expectancy at birth is 65 years for both sexes: 64 years for males and 67 years for female in 2002.

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 Britain'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.

Tuvalu is a constitutional monarchy and Commonwealth Realm, with Queen Elizabeth II 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 who is the 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 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 defense. 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 almost no natural resources, its main source of income being foreign aid. Virtually the only jobs in the islands that pay a steady wage or salary are with the Government. Subsistence farming and fishing remain the primary economic activities, particularly off the capital island of Funafuti. Government revenues largely come from the sale of stamps and coins, fishing licenses and worker remittances.

The traditional community system still survives to a large extent. Each family has its own task, or *salanga*, to perform for the community, such as fishing, house-building or defense. The skills of a family are passed on from father to son.

About 800 Tuvaluans previously worked in Nauru in the phosphate mining industry or aboard foreign ships as sailors. When phosphate mining ceased in Nauru, 378 Tuvaluans were stranded in the country until they were repatriated in 2006 by a joint programme in which Australia, New Zealand and the European Union paid most of the cost of their return passage, and Taiwan (China) paid the back wages they were owed. Substantial income is received annually from an international trust fund established in 1987 by Australia, New Zealand and the United Kingdom and supported also by Japan and the Republic of Korea. This 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 US$ 50 million in the contracted time period, and the contract eventually fell into other hands.

Due to its remoteness, tourism does not provide much income; only a handful of tourists visit Tuvalu annually. Almost all visitors are government officials, aid workers, nongovernmental organization officials or consultants.

1.4 Vulnerabilities and hazards

In terms of physical land size, Tuvalu is the fourth smallest country in the world. The land is very low-lying, with narrow coral atolls, and the highest elevation is only five metres (16 ft) above sea level. Because of this low elevation, the islands that make up this nation may be threatened by any future rise in sea levels due to global warming. Under such circumstances, the population may evacuate to New Zealand, Niue or the Fijian island of Kioa.

Tuvalu has very poor land and the soil is hardly usable for agriculture. There is almost no reliable supply of drinking water.

The country has westerly gales and heavy rain 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

Communicable diseases are reported as the major cause of morbidity, with alarming numbers of skin infections, acute respiratory infections and eye infections reported. An increase in tuberculosis prevalence has resulted in strengthening of the TB programme and a filariasis mass drug administration programme is in place. Vector control is an ongoing activity.

A new communicable disease surveillance system was implemented in 2003, which is appropriately simple and sustainable and addresses the right priority diseases. However, not all cases of infectious disease are reported. As in other Pacific island countries, diseases such as dengue and typhoid fever occur from time to time. One problem is the limited microbiological testing capability on the island; many specimens need to be shipped to overseas laboratories for confirmation and this limits the sensitivity and timeliness of surveillance. The high number of domesticated pigs suggests that there may a risk of leptospirosis, although this disease has not been reported on the island for several years. This low reporting may also be linked to the lack of microbiological testing available on the main island.

There is a limited supply of fresh (rain) water on these atoll islands, which means that there is a risk of spread of communicable diseases through drinking water. Groundwater is brackish and is not generally considered safe for consumption.

Lifestyle diseases are also evident, with the leading causes of mortality including heart disease and diabetes.

2.2 Outbreaks of communicable diseases

No outbreaks of infectious diseases have been reported in recent years.

2.3 Leading causes of mortality and morbidity

The leading causes of morbidity and mortality are communicable diseases. However, noncommunicable diseases, such as obesity, heart disease and diabetes, are a growing concern.

2.4 Maternal, child and infant diseases

The infant mortality rate is high, at 21.6 per 1000 live births. The total fertility rate was 3.7 in 2002.

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

Health services are working to meet the new demands of the changing lifestyles (especially regarding diet) of the population.

There is one hospital, located on the main island of Funafuti. The outer islands have clinics staffed by trained nurses.

3.3 Health policy, planning and regulatory framework

The national health policy goals for Tuvalu are:

- to prevent diseases, promote healthy lifestyles and raise the standard of living;
- to provide high quality primary, secondary and tertiary health services;
- to continually improve the effectiveness and efficiency of the health care delivery system;
- to develop all health services to be customer-focused; and
- to produce and retain high quality personnel for the health services.

Along these lines, major activities of the Ministry of Health are geared towards:

- strengthening the existing communicable diseases programmes (special attention is to be given to tuberculosis, filariasis, skin infection and primary eye care); and
- assessing the prevalence and incidence of noncommunicable diseases and developing corresponding preventive and control programmes (particular attention is to be given to diabetes mellitus and hypertension).

3.4 Health care financing

Like in other developing countries, health care financing remains a problem in Tuvalu. However, the government is working towards improving it.

3.5 Human resources for health

Human resources are a major weak spot for the Tuvalu health care system. The workforce, consisting of four physicians and approximately 30 trained nurses, provides for limited surge capacity and is very sensitive to brain drain to countries such as Australia and New Zealand.

3.6 Partnerships

No available information.

3.7 Challenges to health system strengthening

Human resources are the main challenge. There needs to be an ongoing effort to strengthen the knowledge and expertise of the 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	:	*2006-2015 Population data*
Operator	:	SPC Demography/ Population Division
Web address	:	http://www.spc.int/demog/en/stats/2006/Pacific%20Island%20Populations%202006-2015%20-%2030%
Title 4	:	*Household Income and Expenditure Survey (HIES) 2004/2005. Government of Tuvalu Central Statistics Division.*
Web address	:	http://www.spc.int/prism/Country/TV/Stats/Publictn/Tuvalu%20HIES%20Report.pdf

5. ADDRESSES

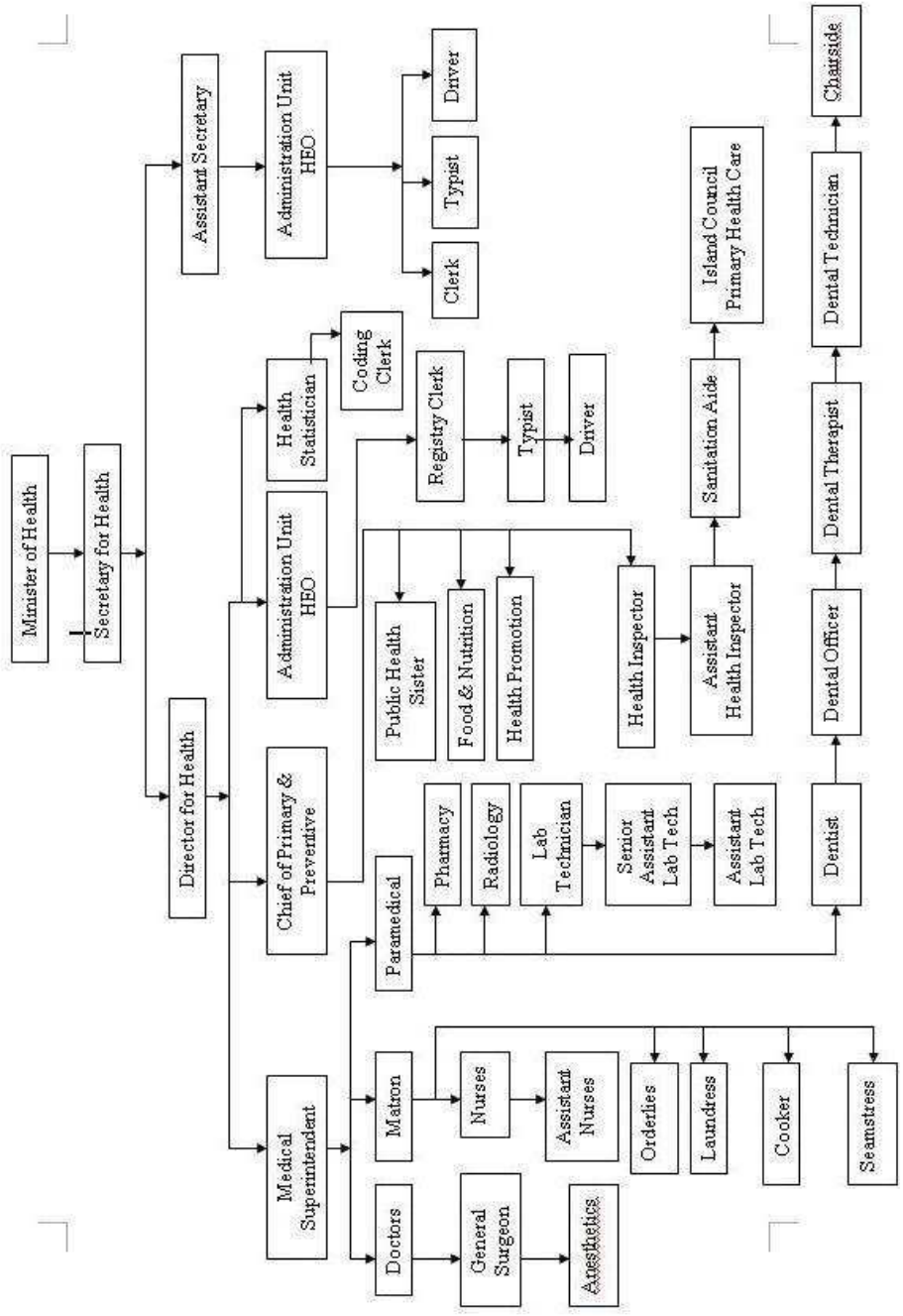
MINISTRY OF HEALTH

Office Address	:	Vaiaku, Funafuti, Tuvalu
Postal Address	:	P.O. Box 36, Funafuti, Tuvalu
Official Email Address	:	soh@tuvalu.tv
Telephone	:	Health Division: (688) 20416/20480
Fax	:	Health Division: (688) 20481
Office Hours	:	0800-1600
Website	:	http://www.gov.tv

WHO REPRESENTATIVE IN THE SOUTH PACIFIC

Office address	:	Level 4, Provident Plaza 1, Downtown Boulevard, 33 Ellery Street, Suva
Postal address	:	P O Box 113, Suva, Fiji
Official e-mail address	:	who@sp.wpro.who.int
Telephone	:	((679) 323 4100
Facsimile	:	(679) 323 4177
Office hours	:	0800 - 1700

6. ORGANIZATIONAL CHART: Ministry of Health



TUVALU — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.03			2006	1
2	**Estimated population** ('000s)	9.65	4.79	4.87	2006 est	1
3	**Annual population growth rate** (%)	0.10	...	...	2006-10	1
4	**Percentage of population**					
	- 0–4 years	12.20	12.20	12.10	2006 est	14
	- 5–14 years	21.70	21.60	21.70	2006 est	14
	- 65 years and above	5.00	4.20	5.70	2006 est	14
5	**Urban population** (%)	48.10 [a]	...	...	2005 est	2
6	**Crude birth rate** (per 1000 population)	27.10	...	...	2002	3
7	**Crude death rate** (per 1000 population)	9.90	...	...	2002	3
8	**Rate of natural increase of population** (% per annum)	1.72 [a]	...	...	2002	3
9	**Life expectancy** (years)					
	- at birth	63.60 [a]	61.70 [a]	65.10 [a]	2002	3
	- Healthy Life Expectancy (HALE) at age 60	...	9.70	10.30	2002	11
10	**Adult literacy rate** (%)	95.00	95.00	95.00	1998	7
11	**Neonatal mortality rate** (per 1000 live births)	...	...	...		
12	**Infant mortality rate** (per 1000 live births)	21.60	...	...	2003	6
13	**Under-five mortality rate** (per 1000 live births)	32.40	...	...	2003	6
14	**Total fertility rate** (women aged 15–49 years)	3.70			2002	3
15	**Maternal mortality ratio** (per 100 000 live births)	0.00			2002	8
16	**Percentage of newborn infants weighing at least 2500 g at birth**	95.00	...	...	2000	9
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			...		
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	100.00	100.00	100.00	2006	10
	- DTP3	97.00	...	...	2006	10
	- POL3	97.00	...	...	2006	10
	- Measles	84.00	...	...	2006	10
	- Hepatitis B III	97.00	...	...	2006	10
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	99.00			2001	9
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	100.00			2006	10
	- Percentage of deliveries 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)	...				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			28.50	2001	9
23	**Condom use rate of the contraceptive prevalence rate**	...	...	...		
24	**HIV prevalence among 15–24 year-old pregnant women**			...		
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	93.00	94.00	92.00	2004	4
27	**Proportion of population with access to improved sanitation**	90.00	93.00	84.00	2004	4
28	**Proportion of the population using solid fuels (%)**	...	...	...		
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.58	1998	7
33	**Per capita GDP at current market prices** (US$)			1139.32	2002	3
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			2.29	2005p	12
	- total expenditure on health as % of GDP			8.40	2005p	12
	- per capita total expenditure on health (in US$)			229.00	2005p	12
	Government expenditure on health					
	- amount (in million US$)			1.53	2005p	12
	- general government expenditure on health as % of total expenditure on health			89.10	2005p	12
	- general government expenditure on health as % of total general government expenditure			10.90	2005p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			18.11	2005p	12
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			10.90	2005p	12
	Exchange rate in US$ of local currency is: 1 US$ =			1.31	2005p	12
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	4	...	...	...	...	4.18	...	...	...	...	2003	5
	- dentists	2	...	...	...	...	2.09	...	...	...	...	2003	5
	- pharmacists	2	...	...	...	...	2.09	...	...	...	...	2003	5
	- nurses	30 [b]	...	...	...	...	31.38	...	...	...	...	2003	5
	- midwives	10	...	...	...	...	10.46	...	...	...	...	2003	5
	- other nursing / auxiliary staff	12	...	...	...	...	12.55	...	...	...	...	2003	5
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	5	...	...	...	...	5.23	...	...	...	...	2003	5
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	23	...	...	...	...	24.06	...	...	...	...	2003	5
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Septic sores/ wounds	4758	...	...	49 764.67	...	...	2003	13
	2. Influenza	3663	...	...	38 311.89	...	...	2003	13
	3. Acute respiratory infection	2950	...	...	30 854.51	...	...	2003	13
	4. Headache	2303	...	...	24 087.44	...	...	2003	13
	5. Cough	1890	...	...	19 767.80	...	...	2003	13
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Heart problem	21	...	...	219.64	...	...	2003	13
	2. Senility	11	...	...	115.05	...	...	2003	13
	3. Undiagnosed	10	...	...	104.59	...	...	2003	13
	4. Diabetes	5	...	...	52.30	...	...	2003	13
	5. Hypoglycemia	5	...	...	52.30	...	...	2003	13
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2006	10
	- Diphtheria	0	0	0	0	0	0	2006	10
	- Hib meningitis	0	0	0	0	0	0	2005	10
	- Measles	0	0	0	0	0	0	2006	10
	- Mumps	4	...	...	...	...	...	2006	10
	- Neonatal tetanus	0	0	0	0	0	0	2006	10
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	10
	- Poliomyelitis	0	0	0	0	0	0	2006	10
	- Rubella	0	0	0	0	0	0	2006	10
	- Total Tetanus	0	0	0	0	0	0	2006	10
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	0	0	0	0	0	0	2001	10
	- Type B	0	0	0	0	0	0	2001	10
	- Type C	0	0	0	0	0	0	2001	10
	- Type E	...	...	...	...	...	...		
	- Unspecified	23	...	...	0	0	0	2001	10
	Cholera	0	0	0	0	0	0	2005	10
	Dengue/DHF	0	0	0	0	0	0	2004	10
	Encephalitis	0	0	0	0	0	0	2005	10
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	0	0	0	0	0	0	2004	10
	Malaria	...	...	...	...	...	...		
	Plague	0	0	0	0	0	0	2001	10
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	0	0	0	0	0	0	2005	10

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]			…					
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]			…					
		Number of cases			**Number of deaths**				
46	**Tuberculosis**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- All types	12	…	…	…	…	…	2005	10
	- New pulmonary tuberculosis (smear-positive)	5	…	…	…	…	…	2005	10
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	495.00	…	…	55.00	…	…	2005	10
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	35.00	…	…	100.00 (2004)	…	…	2005	10
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	2950	…	…	…	…	…	2003	8
48	**Diarrhoeal diseases**	967	…	…	1	…	…	2002	8
49	**Cancers**								
	All cancers (malignant neoplasms only)	1	…	…	0	0	0	2004	9
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	…	…	…		
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	…	…	…	…	…	…		
50	**Circulatory**								
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	344	…	…	…	…	…	2002	8
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		
51	**Maternal causes**								
	- Abortion			…			…		
	- Eclampsia			…			…		
	- Haemorrhage			…			…		
	- Obstructed labour			…			…		
	- Sepsis			…			…		

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
		Total	Male	Female	Total	Male	Female		
52	**Diabetes mellitus**	281	…	…	…	…	…	2002	8
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	1	…	…	0	0	0	2001	9
	- Occupational injuries	32	…	…	…	…	…	2002	8
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		

56	**Health infrastructure**	**Number**	**Number of Beds**		
	Public health facilities				
	- General hospitals	1	40	2001	9
	- Specialized hospitals	…	…		
	- District/first-level referral hospitals	…	…		
	- Primary health care centres	8	16	2001	9
	Private hospitals	0	0	2001	9

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Revised data
b	Figure refers to bachelor and diploma graduate nurses

Sources:

1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. http://www.spc.int/demog/en/index.html.
2	*Urban and rural areas 2005* . Population Division Department of Economic and Social Affairs, UN New York 2006. [http:///www.unpopulation.org].
3	Tuvalu Central Statistics Division (http://www.spc.int/prism).
3	Information furnished by the WHO Representative for the South Pacific, 24 February 2005.
4	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade* . Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].
5	Information furnished by the Ministry of Health through the WHO Representative for the South Pacific, 02 April 2004.
6	*Pacific Island Regional Millennium Development Goals report 2004*. Noumea, Secretariat of the Pacific Community UN/ CROP MDG Working Group, November 2004.
7	*Pacific human development report 1999 (Creating opportunities)* . New York, United Nations Development Programme, 1999.
8	PMH health report 2002. Ministry of Health.
9	Information furnished by the Health Department, Government of Tuvalu, 18 March 2003.
10	WHO Regional Office for the Western Pacific, data received from technical units.
11	World health report 2004. *Changing history* . Geneva, World Health Organization, 2004.
12	World Health Organization - National health accounts series [http://www.who.int/entity/nha/country/MYS.pdf].
13	Information furnished by the WHO Representative for the South Pacific, 24 February 2005.
14	*Demographic Tables for the Western Pacific 2005-2010* . Manila, World Health Organization Regional Office for the Western Pacific, 2005.

VANUATU

1. CONTEXT

1.1 Demographics

According to the national census in 1999, the population of Vanuatu was 186 678; the 2005 estimated population was 221 852. Around 41% of the population is below 15 years of age. In 2005, the crude birth rate was 28.0 per 1000 population, the crude death rate was 6.0 per 1000 population and the annual growth rate was 2.8%, and the total fertility rate was 4.8. The infant mortality rate in the 1999 census was 27 per 1000 live births. It is expected that the population will have doubled, from 1999 figures, by 2030.

The urban population was estimated to be 21% by 2005 and urban migration is very severe, particularly from rural islands to Port Vila and other main cities, as people seek employment or education. Most of the population are employed in subsistence agriculture; the rest in government posts, service industries and light industry.

Life expectancy at birth is 70.2 for males and 74.3 females (2005 est.) and the percentage of the population over 60 years of age is expanding. The median age is 19.4 years, with a dependency ratio of 80.

1.2 Political situation

Vanuatu has a republican political system, currently headed by a President who has primarily ceremonial powers and who is elected for 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 vote of the people. The legal system of the country is based on British common law.

Vanuatu has had a relatively prolonged period of political stability. The current Government is a coalition, formed on 23 July 2004, comprising the National United Party (NUP) with Prime Minister Ham Lini Vanuaroroa and Minister of Health Morking Stevens Iatika; the People's Progressive Party (PPP); the Melanesian Progressive Party (MPP); the Vanua'aku Party (VP); the Vanuatu Republican Party (VRP) and the Green Alliance (GA).

1.3 Socioeconomic situation

The economy is based primarily on subsistence or small-scale agriculture, which provides a living for 65% of the population. Fishing, offshore financial services and tourism are other mainstays of the economy. A small light industry sector caters to the local market. Economic development is hindered by dependence on relatively few commodity exports, vulnerability to natural disasters and long distances from main markets.

The average gross domestic product (GDP) growth rate has been about 3% over the last decade. 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 of Vanuatu. The agenda relies mainly on foreign aid for investment, with Australia, New Zealand, the European Union, Japan, China and Malaysia being the main donors.

The traditional economic staples, copra 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 can 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 Vulnerabilities and hazards

Vanuatu is highly vulnerable to natural disasters as the country is in an earthquake zone. Volcanic eruptions, earthquakes, tsunami and cyclones are the main culprits damaging the country. Most of the islands of Vanuatu are mountainous and of volcanic origin, and have tropical or subtropical climates. There are several active volcanoes in Vanuatu, including several under water. Volcanic activity is common with an ever-present danger of a major eruption.

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.

The Ministry of Health has introduced long-lasting insecticide-treated nets using funding from the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM) to combat malaria. This has initiated a decline in incidence, but more effort and focus is needed to sustain progress. The malaria baseline survey was completed during 2006; results are still awaited.

Tuberculosis is a national concern in both urban and rural settings. The Ministry of Health has implemented the directly observed treatment, short-course (DOTS) strategy, and 100% coverage has been achieved. The programme is now concentrating on quality, consistency and sustainability issues.

Dengue fever, dengue haemorrhagic fever and filariasis also 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. Mass drug administration against filariasis has been included in the vectorborne disease control programme and the fifth and the last round was conducted in 2005.

Sexually transmitted infections (STI) have always been suspected of being highly prevalent, and data from health facilities indicate high prevalence and incidence rates. An azythromycin-based presumptive treatment for pregnant women has been ongoing at Vila Central Hospital since January 2001. Preliminary results of an STI survey carried out in 2005 in the same population seem to be encouraging, but further investigation is needed for a better understanding of successful strategies.

Vanuatu officially reported its first HIV-positive case on 25 September 2002. Three confirmed HIV cases have been reported to date, with one AIDS-related death in 2006. 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.

Voluntary and non-remunerated blood donor recruitment has made good progress with the support of an Australian Youth Ambassador assigned to the WHO office for a 10-month period, and working closely with Vila Central Hospital laboratory staff.

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 diseases.

Noncommunicable diseases, especially diabetes and hypertension, have come to the attention of the Ministry of Health in the last few years, with rising numbers of new outpatient cases of hypertension and diabetes. Lifestyle changes and the growing urban population appear to be the main culprits.

2.2 Outbreaks of communicable diseases

The country needs to develop a good disease surveillance system to report disease incidence early in order to respond to disease 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 a few sporadic outbreaks of diarrhoeal diseases.

2.3 Leading causes of mortality and morbidity

The 10 leading causes of morbidity during 2005 (with numbers of cases) were: running nose, dry cough, bronchitis (34 792); malaria (32 940); ARI - all ages (27 926); other skin diseases (25 033); scabies (18 333); influenza (14 771); skin sepsis/ulcers (11 720); injuries (7386); worm infestation (6754); and tooth/gum disease (6054). The quality of diagnosis is very often hampered by inadequate laboratory investigation facilities and is mainly based on clinical judgement.

The leading causes of mortality reported in 2005 were: heart disease (55); cancer (51); neonatal death (45); stroke (25); pneumonia (20); asthma (19); diabetes mellitus (17); septicaemia (12); malaria (10); and cardiac arrest (7). These data reported are from 66.4% of institutions, reported during 2005 only.

This picture shows that government health services are catering to the diseases of childhood as well as those of the elderly. The mortality pattern over the years shows a clearly increasing trend towards noncommunicable diseases becoming the leading killers in the country.

2.4 Maternal, child and infant diseases

The Maternal and Child Health (MCH) Programme of the Ministry of Health is responsible for the health of mothers and infants. The MCH programme conducts clinics for antenatal mothers, child immunizations and family planning. In addition to care, education on health, nutrition and family planning etc. is provided at these clinics.

During 2005, five hospitals in the country treated 98 mothers for abortions, 32 for eclampsia, 84 for haemorrhage, 30 for obstructed labour and seven for sepsis. There was one maternal death due to haemorrhage during the year.

During their pregnancies, 91% of mothers were cared for by skilled health personnel and 22% were immunized against tetanus; 92% of deliveries were assisted by skilled health personnel and 87.6% took place in hospital. Of the newborn babies, 96.4 % had birth weights of more than 2500g.

In 2006, BCG coverage was 92%, DTP3 was 85%, POL3 was 85%, measles was 99% and hepatitis B III was 85%.

2.5 Burden of disease

Given that 41% of the population are under 15 years of age and the annual population growth rate is 2.8%, 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 continue to rise. Hypertension and its complications, heart diseases, cancer, diabetes and injuries are the diseases that will place a serious burden on the health services in coming years, and a long-term 'life-course' approach" needs to be taken to help to prevent them.

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 Vanuatu, based on the following values:

> Customer focus: Customers are our first priority and concern in the provision of quality care and access, while respecting their geographic situation, economic circumstances, and the 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 our dealings
>
> Quality: Pursuing high quality outcomes using safe and affordable interventions and the application of science and technology to maximize benefits, while minimizing risks in all facets of our activities
>
> Integrity: Striving for improvement we commit ourselves to the highest ethical standards in all that we do 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 regulation 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

Both the government and private sectors deliver health services; the government sector caters for both outpatients and inpatients, while private sector services are limited to outpatient services.

The administration of the government health services is carried out jointly by the Ministry of Health, the Northern Healthcare Group and the Southern Healthcare Group through a network of five hospitals, 25 health centres, 80 dispensaries and 180 health aid posts. In addition to this structure, Ministry of Health programme managers implement special health programmes in the community.

While the health system and services cover the country adequately in terms of facilities and access, the quality of the services delivered could be improved through planned multitasking of health workers and integration of programmes for greater efficiency.

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 the delivery of health services 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 amongst 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 Master Services Plan 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 NCD incidence; and
- availability of timely and accurate health statistics.

3.4 Health care financing

The country spends about 4.0% of GDP on health. Health services are mainly funded by government and external support. However, user fees have been introduced and are practised in various forms. The WHO NHA estimation in 2001 indicates that 36% is funded by out-of-pocket payments through such fees. Looking at the trend, the share of out-of-pocket payments increased from 30% to 36% during the period from 1998 to 2001, with newly emerged private clinics and overseas referrals contributing to the rise. To date, there has been no social health insurance based on the principles of mandatory contribution, risk-sharing and fund-pooling, but such a scheme is now being seriously considered.

As a requirement of the Ministry of Finance and Economic Management, the Ministry of Health produces corporate and business plans, which are universally regarded as the blueprint for development of the health sector.

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 a rationalization of salary levels and a review of career options for health workers. Only clinicians currently 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.

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 GFATM are the main development partners in the health sector. The South Pacific Community and Pacific Island Forum also assist the country in health sector development programmes.

3.7 Challenges to health system strengthening

The Government of Vanuatu has to face challenges due to the rapid growth and ageing of the population. The population will have doubled by 2030 and the population base will keep on expanding, resulting in a very young population. As a result, the 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 higher life expectancy and the diseases of the elderly will be another serious problem. The country will experience both communicable diseases that need urgent attention (especially as the country is depending more and more on tourism) as well as costly noncommunicable diseases.

To address these issues properly, the health services need human resources trained in the clinical fields and preventive health fields that are adequate in terms of both numbers and quality. Production of human resources for health will be the major challenge to be addressed in the near future.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

Title 1	:	National Statistics Office
Title 2	:	Ministry of Health
Title 3	:	National Census
Title 4	:	Department of Economic and Sector Planning
Title 5	:	Reserve Bank of Vanuatu
Title 6	:	Ministry of Education

5. ADDRESSES

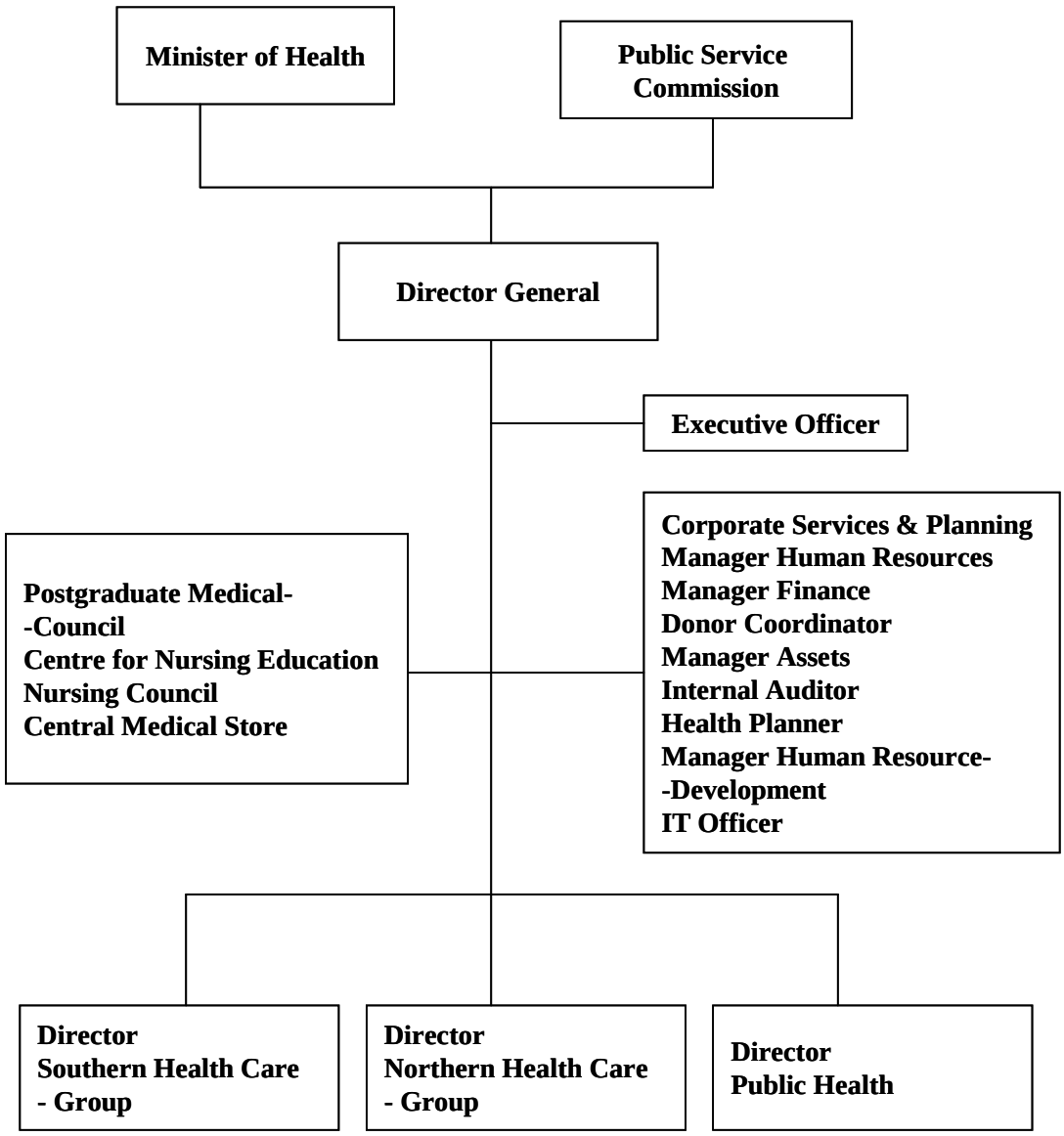
MINISTRY OF HEALTH

Office Address	:	Ah Tong Building
Postal Address	:	Private Mail Bag 009, Port Vila, Vanuatu
Telephone	:	(678) 22512
Fax	:	(678) 26 204
Office Hours	:	7.30 am to 11.30 am and 1.15pm to 4.30pm

WHO COUNTRY LIAISON OFFICER IN VANUATU

Office Address	:	Lolam House, Level 2, Port Vila, Vanuatu
Postal Address	:	PO Box 177, Port Vila, Vanuatu, South Pacific
Official Email Address	:	who@van.wpro.who.int
Telephone	:	(678) 27 683
Fax	:	(678) 22691
Office Hours	:	7.30 am to 12.00 am and 1.30pm to 5.00pm

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

VANUATU — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	12.19			2005	1
2	**Estimated population** ('000s)	221.85	113.82	108.47	2005 est	1
3	**Annual population growth rate** (%)	2.80	...	...	2005	1
4	**Percentage of population**					
	- 0–4 years	15.68	15.83	15.53	2005	1
	- 5–14 years	25.56	25.87	25.23	2005	1
	- 65 years and above	3.20	3.30	3.10	2005	1
5	**Urban population** (%)	21.00	...	...	2005	2
6	**Crude birth rate** (per 1000 population)	28.00	...	...	2005	2
7	**Crude death rate** (per 1000 population)	6.00	...	...	2005	2
8	**Rate of natural increase of population** (% per annum)	2.22	...	...	1999	3
9	**Life expectancy** (years)					
	- at birth	...	70.20	74.30	2005 est	2
	- Healthy Life Expectancy (HALE) at age 60	...	11.10	11.70	2002	4
10	**Adult literacy rate** (%)	50.00 [a]	50.10 [a]	49.90 [a]	2002	1
11	**Neonatal mortality rate** (per 1000 live births)	19.00 [b]	...	...	2002 est	9
12	**Infant mortality rate** (per 1000 live births)	27.00	27.00	26.00	1999	3
13	**Under-five mortality rate** (per 1000 live births)	2.80	2.80	2.40	2005	5
14	**Total fertility rate** (women aged 15–49 years)	4.80			2005	2
15	**Maternal mortality ratio** (per 100 000 live births)	36.90			2005	5
16	**Percentage of newborn infants weighing at least 2500 g at birth**	96.40	...	...	2005	5
17	**Prevalence of underweight children under five years of age**	...	...	...		
18	**Percentage of pregnant women with anaemia**			7.00	2003	5
19	**Percentage of teenage pregnancy**			...		
20	**Immunization coverage for infants (%)**					
	- BCG	92.00	...	...	2006	10
	- DTP3	85.00	...	...	2006	10
	- POL3	85.00	...	...	2006	10
	- Measles	99.00	...	...	2006	10
	- Hepatitis B III	85.00	...	...	2006	10
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	91.00			2003	5
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	88.00			2006	10
	- Percentage of deliveries attended by skilled health personnel	91.97			2005	5
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	4.37			2005	5
	- Percentage of deliveries in health facilities (as % of total deliveries)	87.60			2005	5
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			30.07	2005	5
23	**Condom use rate of the contraceptive prevalence rate**	5.31	...	...	2005	5
24	**HIV prevalence among 15–24 year-old pregnant women**			...	...	
25	**Number of children orphaned by HIV/AIDS** [aa]	...	...	...	...	

VANUATU

	INDICATORS	DATA			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	60.00	85.00	52.00	2002	6
27	**Proportion of population with access to improved sanitation**	50.00	78.00	42.00	2002	6
28	**Proportion of the population using solid fuels (%)**	79.00	...	...	2003	7
29	**Proportion of households with access to secure tenure**	90.00			1998	1
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	....		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			0.67	2004	11
33	**Per capita GDP at current market prices** (US$)			1558.00	2004	2
34	**Rate of growth of per capita GDP** (%)			2.80	2004	2
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			12.88	2005p	12
	- total expenditure on health as % of GDP			4.00	2005p	12
	- per capita total expenditure on health (in US$)			61.04	2005p	12
	Government expenditure on health					
	- amount (in million US$)			9.85	2005p	12
	- general government expenditure on health as % of total expenditure on health			76.50	2005p	12
	- general government expenditure on health as % of total general government expenditure			13.70	2005p	12
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			33.34	2005p	12
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			23.50	2005p	12
	Exchange rate in US$ of local currency is: 1 US$ =			109.25	2005p	12
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	29	...	...	...	...	1.30	...	...	...	...	2005	8
	- dentists	...	...	...	...	...	...	...	...	...	...		
	- pharmacists	...	...	...	...	...	...	...	...	...	...		
	- nurses	312	...	...	...	...	14.06	...	...	...	...	2005	8
	- midwives	50	...	...	...	...	2.22	...	...	...	...	2005	8
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	51	...	...	...	...	2.30	...	...	...	...	2005	8
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...											

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Runny nose, dry cough, bronchitis	34 792	...	...	15 628.53	...	...	2005	5
	2. Malaria	32 940	...	...	14 847.74	...	...	2005	5
	3. Acuter respiratory infection - all ages	27 926	...	...	12 587.67	...	...	2005	5
	4. Other skin disease	25 033	...	...	11 283.65	...	...	2005	5
	5. Scabies	18 333	...	...	8263.62	...	...	2005	5
	6. Influenza	14 771	...	...	6658.04	...	...	2005	5
	7. Skin sepsis/ulcers	11 720	...	...	5282.80	...	...	2005	5
	8. Injuries	7386	...	...	3329.25	...	...	2005	5
	9. Worms	6754	...	...	3044.37	...	...	2005	5
	10. Tooth/gum disease	6054	...	...	2728.85	...	...	2005	5
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Heart disease	55	35	20	24.79	30.87	18.44	2005	5
	2. Cancer	51	26	25	22.99	22.93	23.05	2005	5
	3. Neonatal death	45	26	19	20.28	22.93	17.52	2005	5
	4. Stroke	25	12	13	11.27	10.58	11.98	2005	5
	5. Pneumonia	20	11	9	9.02	9.70	8.30	2005	5
	6. Asthma	20	13	7	8.56	11.47	6.45	2005	5
	7. Diabetes	17	11	6	7.66	9.70	5.53	2005	5
	8. Septicaemia	12	6	6	5.41	5.29	5.53	2005	5
	9. Malaria	10	2	8	4.51	1.76	7.38	2005	5
	10. Cardiac arrest	7	5	2	3.16	4.41	1.84	2005	5
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	NR	NR	NR	NR	NR	NR	2006	10
	- Diphtheria	...	...	...	...	...	...		
	- Hib meningitis	20	...	...	...	...	...	2003	10
	- Measles	0	0	0	0	0	0	2006	10
	- Mumps	50	...	...	...	...	...	2006	10
	- Neonatal tetanus	0	0	0	0	0	0	2006	10
	- Pertussis (whooping cough)	0	0	0	0	0	0	2006	10
	- Poliomyelitis	0	0	0	0	0	0	2006	10
	- Rubella	NR	NR	NR	NR	NR	NR	2006	10
	- Total Tetanus	0	0	0	0	0	0	2006	10
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	4	3	1	...	...	...	2005	5
	- Type A	2	1	1	...	...	...	2005	5
	- Type B	9	6	3	3	1	2	2005	5
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	7	...	...	5	5	0	2005	5
	Cholera	1 [d]	0	1 [d]	0	0	0	2005	5
	Dengue/DHF	0	0	0	0	0	0	2005	13

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Encephalitis	4 [d]	3 [d]	1 [d]	2 [d]	… [d]	… [d]	2005	5
	Gonorrhoea	…	…	…	…	…	…		
	Leprosy	0	0	0	…	…	…	2005	10
	Malaria	9834	…	…	…	…	…	2005	10
	Plague	…	…	…	…	…	…		
	Syphilis	…	…	…	…	…	…		
	Typhoid fever	38 [d]	18 [d]	20 [d]	2 [d]	0	2 [d]	2005	5
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	4430.00	…	…	0.00	0.00	0.00	2005	10
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						…		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						…		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	76	…	…	0	0	0	2005	C:10 D:14
	- New pulmonary tuberculosis (smear-positive)	35	…	…	0	0	0	2005	C:10 D:14
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	84.00	…	…	10.00	…	…	2005	10
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	61.00	…	…	90.00 (2004)	…	…	2005	10
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	27 926	…	…	20	11	9	2005	5
48	**Diarrhoeal diseases**	4364	…	…	…	…	…	2005	5
49	**Cancers**								
	All cancers (malignant neoplasms only)	123	50	73	51	26	25	2005	5
	- Breast	7	0	7	3	0	3	2005	5
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			32			6	2005	5
	- Oesophagus	6	5	1	1	0	1	2005	5
	- Leukaemia	2	2	0	1	1	0	2005	5
	- Lip, oral cavity and pharynx	1	1	0	0	0	0	2005	5
	- Liver	18	14	4	7	5	2	2005	5
	- Stomach	8	7	1	5	3	2	2005	5
	- Trachea, bronchus, and lung	10	7	3	4	3	1	2005	5
50	**Circulatory**								
	All circulatory system diseases	271 [c]	132 [c]	139 [c]	44 [c]	27 [c]	17 [c]	2005	5
	- Acute myocardial infarction	10 [c]	8 [c]	2 [c]	5 [c]	3 [c]	2 [c]	2005	5
	- Cerebrovascular diseases	35 [c]	19 [c]	16 [c]	11 [c]	4 [c]	7 [c]	2005	5
	- Hypertension	100 [c]	42 [c]	58 [c]	5 [c]	3 [c]	2 [c]	2005	5
	- Ischaemic heart disease	18 [c]	14 [c]	4 [c]	4 [c]	3 [c]	1 [c]	2005	5
	- Rheumatic fever and rheumatic heart diseases	19 [c]	7 [c]	12 [c]	1 [c]	0 [c]	1 [c]	2005	5

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			98 [c]			…	2005	5
	- Eclampsia			32			…	2005	5
	- Haemorrhage			84			1	2005	5
	- Obstructed labour			30 [c]			…	2005	5
	- Sepsis			7 [c]			…	2005	5
52	**Diabetes mellitus**	147	67	80	17	11	6	2005	5
53	**Mental disorders**	…	…	…	…	…	…		
54	**Injuries**								
	All types	7738	…	…	…	…	…	2005	5
	- Homicide and violence	352	117	235	…	…	…	2005	5
	- Motor and other vehicular accidents	65	…	…	…	…	…	2005	5
	- Occupational injuries	3179	…	…	…	…	…	2005	5
	- Suicide	29	6	23	1	0	1	2003	15
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					1	129	2005	5
	- Specialized hospitals					0	0	2005	5
	- District/first-level referral hospitals					4	232	2005	5
	- Primary health care centres					25	545	2005	5
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NR	Not relevant
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
RBV	Reserve Bank of Vanuatu
a	Figure refers to those aged 15-24 years old
b	Estimates derived by regression and similar estimate methods
c	Figure refers to hospital data only
d	Revised data

Sources:

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VIET NAM

1. CONTEXT

1.1 Demographics

The estimated population of Viet Nam rose to 83 119 900 in 2005, 49.2% males. Population density is 250 persons per square kilometre, with most (73.0%) of the population living in rural areas. The population trend has changed over the last five years. The percentage aged 0-14 years was 28.4% in 2005, a decrease of 6.6% since 1999. At the same time, the proportion over 64 years of age has been increasing rapidly, with an increase of 0.9% over the same five-year period.

In 2005, life expectancy at birth was 71.3 for both males and females. In the same year, the population growth rate was 1.33% per annum, while the total fertility rate fell from 2.33 in 1999 to 2.11 in 2005, equivalent to replacement-level fertility. The crude birth rate in 2005 was 18.6 per 1000 population and the crude death rate was 5.3. Population migration is another important factor in population growth. General Statistics Office surveys on migration and family planning indicate that substantial spontaneous migration has been taking place and that migrants from rural to urban areas are also numerous.

Viet Nam has 54 different ethnic groups, with the Kinh representing 87% of the total population; the rest are ethnic minorities who are scattered all over the country.

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 power.

Beyond central government, the People's Committees in localities are responsible for daily administration at local levels. Mass organizations, such as the Women's Union, Farmers' Union and Youth Union, accommodate the interests of the people and serve as links 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 gross domestic product (GDP) growth rate. Economic achievements in the period 2001-2005 include: economic growth at an average high level of 7.2% per year; comprehensive development; solving of many social problems, especially hunger eradication and poverty reduction; and improvements in people's living standards.

The World Bank assessed that, in 2004, GDP per capita was US$ 562, higher than the mean for lower-income countries (US$ 530 per capita), and it increased by 60% between 2000 and 2005, from US$ 400 to US$ 538. It is expected that it will have reached US$ 1050-1100 by 2010. The General Statistics Office defines the poverty line in terms of average expenditure per capita per

month. Using this definition the poverty rate fell from 37.4% in 1998 to 19.5% in 2004, with a concentration in rural areas (25.0%).

In the period from 2001 to 2005, about 7.5 million jobs were created, and the unemployment rate fell from 6.4% to 5.3%. It is planned that, in the next five years (2006-2010), a further 8 million jobs will be created, reducing unemployment to 5%. By 2010, it is expected that farming will make up only 50% of the total labour market.

Access to safe water and sanitation has also improved. In 2004, 85.0% of the population had access to an improved water source and 61.0% had improved sanitation. Over the period from 1998 to 2002, there was considerable investment by the Government in hospital waste treatment. About 21 000 tons of solid hospital waste is discharged each year.

Air pollution sources in Viet Nam include industry, traffic, construction, traditional handicraft villages, forest fires and households, the most severe offenders being cement factories, traditional handicraft villages using coal and wood, and waste collection facilities. In urban areas, traffic is the main cause of air pollution (70%).

1.4 Vulnerabilities and hazards

In 2005, Viet Nam was affected by five major floods and four typhoons or tropical storms. A number of other natural disasters, such as tornadoes, droughts, landslides and forest fires, although rare, also occurred.

During 2000-2005, there were between 128 and 591 deaths caused by natural disasters, giving a cumulative total of 1815 deaths over six years. There were 594 recorded injuries from such disasters, although the actual figure may be higher. In total, those affected by disasters numbered from 403 000 to 5 million. The need to provide epidemic prevention and first aid as well as maintain basic health services when natural disasters occur poses a very great challenge.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

Severe acute respiratory syndrome (SARS) was detected in its early stages in Viet Nam. Fatality remained relatively low, with five deaths out of 63 cases. Since 2003, no new case of SARS has been detected in Viet Nam.

The first cases of avian influenza in humans in Viet Nam were detected in the south of the country in 2003. By August 2006, there were 93 confirmed cases of A/H5N1 infection in humans, 42 of whom had died. It is predicted that avian influenza in humans will continue to be a complex issue in the future.

Acute respiratory infections, including influenza, pneumonia and acute bronchitis, are among the leading causes of morbidity in Viet Nam. According to the 2005 Health Statistics Yearbook, there were 1723 deaths due to these diseases.

HIV/AIDS cases are found in all provinces and cities in the country, with the majority concentrating in large cities and border provinces. In the period from 2003 to 2005, it is estimated that there were about 37 000 new infections per year for the whole country. In 2005, the health sector only detected 13 731 new HIV infections and 2861 new cases of AIDS, and reported 1673 deaths due to HIV/AIDS. However, the Viet Nam Administration of Preventive Health and HIV/AIDS Control projects that there could be as many as 26 000 new HIV infections, 5000-10 000 new AIDS cases and 11 500 related deaths per year.

About 94 994 new cases of tuberculosis (all types) were detected in 2005, 55 570 new pulmonary AFB-positive cases, 16 429 cases of pulmonary tuberculosis with negative AFB, and 16 670 cases

of non-pulmonary tuberculosis. Most of tuberculosis patients in Viet Nam receive treatment under the directly observed treatment, short-course (DOTS) strategy. With a high detection rate (84.0%) and high cure rate (93.0%), WHO has declared Viet Nam to have reached the 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 drug-resistant to one drug and 2.3% are resistant to more than one) and tuberculosis among HIV/AIDS patients.

Diarrhoea is also a leading cause of morbidity, with nearly one million hospitalized cases per year and many others going without treatment, self-medicating, or being treated in private facilities. Cholera, typhoid fever and dysentery still exist in some areas where safe water supplies and sanitary facilities remain inadequate.

Intestinal parasites are also common, with estimates of 33.9 million people (44.4% of the population) infected with roundworms, 17.6 million infected with whipworm (23.1%), 21.8 million infected with hookworm (28.6%) and 1.7% infected by clonorchiasis in the central region.

The mortality and mobility rates for leprosy are not high. As of 2005, 746 new cases were reported, of which 51 were children under 15 years of age and 124 (16.0%) had established disabilities because of late detection. Viet Nam has reached WHO's criteria for the elimination of leprosy on the national scale (the incidence rate is less than 1/10 000 people).

Noncommunicable diseases have shown a tendency to increase in the last two decades, with total morbidity rising from 39.0% in 1986 to 62.2% in 2005, and mortality from 41.1% to 61.1%. Economic growth, an ageing population and lifestyle changes are the causes leading to an increasing burden of noncommunicable disease. Some noncommunicable diseases are common among children, such as nutritional disorders, asthma, vision disorders, dental caries, congenital malformations and disabilities due to accident or illness. These diseases are also found among adults. Diseases commonly found among the elderly include cardiovascular disease, diabetes and cancer.

Protein-calorific malnutrition and micronutrient deficiencies among children under the age of five have fallen significantly. Nevertheless, a new trend towards overweight and obesity in children in cities and more economically developed areas has developed and needs to be controlled to prevent negative consequences, such as diabetes and cardiovascular disease.

In 2004, a nationwide epidemiological survey on diabetes indicated that the standardized prevalence of diabetes in Viet Nam is 2.7%. The highest standardized prevalence is in cities, at 4.4%, while in the delta it is 2.7% (crude prevalence 3.1%) and in mountainous areas 2.1%.

There are about 75 000 new cases of cancer every year in Viet Nam. The case fatality rate is very high, and cancer accounts for around 12% of total deaths each year. The cancer incidence rate of increased from 1990 to 2002.

Lifestyle-related health problems are becoming increasingly important, particularly tobacco use, alcohol and drug abuse, injuries due to road accidents, violence, suicide and mental health. Use of addictive substances such as tobacco, alcoholic beverages and illicit drugs is primarily found among men and directly harms their health. However, non-users, particularly women and children, may also suffer from external effects like passive smoking, family violence, traffic accidents and exposure to HIV/AIDS. Drug abuse is a growing concern and the vast majority of the 97 000 registered drug users are under the age of 30.

The fifth leading cause of mortality and morbidity is traffic accidents. According to the Transportation Police Administration, there were 11 184 deaths due to traffic accidents in 2005. Based on public hospital records, there were 149 055 traffic injuries. Injuries and accidents are a major health concern in Viet Nam. Accidents, injuries and poisonings are set to overtake infectious diseases as the most common causes of mortality, accounting for 25.1% of total deaths in 2004. In the period 2001-2005, morbidity due to accidents, injuries and poisonings increased

from 10.6% of all hospital admissions to 13.2%. Hospital deaths related to accidents increased from 18.0% of all deaths in hospitals to 25.1%. According to VNHS 2001-02, it is estimated that annually there are about 50 000 deaths due to accidents, accounting for 11.0% of total mortality.

2.2 Outbreaks of communicable diseases

In 2004, dengue fever was widespread in the Mekong delta, accounting for 84.0% of total infected cases, 9.0% in the south central coast, 5.0% in the central highlands, and 2.0% in the north. Treatment consists of analgesic and antipyretic drugs, such as acetaminophen. The prevention methods being applied are to reduce the 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, and in 2005, the national prevalence was reduced to 67.9 per 100 000 inhabitants and no death due to dengue was detected. However, the disease has made a come back in 2007 and, to date, 27 dengue-related deaths have been recorded.

2.3 Leading causes of mortality and morbidity

In the past, communicable diseases were the leading cause of morbidity. In 2005, as well as such communicable diseases as pneumonia, acute bronchitis and influenza, noncommunicable diseases were also among the leading causes of morbidity (reported by public hospitals), particularly hypertension.

Currently the vital registration system in Viet Nam does not operate effectively and cannot provide accurate data on the number of deaths, cause of death, age, gender or living standards of those who die. Therefore, it is still necessary to rely on mortality data collected in public hospitals for assessment of mortality trends. According to data from hospitals in 2005, the leading causes of mortality are injuries and accidents, HIV/AIDS, pneumonia, stroke, heart failure, and tuberculosis.

2.4 Maternal, child and infant diseases

More than 96.1% of pregnant women are cared for by skilled health personnel, and 82.0% of deliveries take place in health facilities. The maternal mortality ratio (MMR) in Viet Nam has fallen, from 200.0 per 100 000 live birth in the 1980s to 80.0 per 100 000 in 2005. However, there are large variations across regions, with the highest ratio in the northern mountainous region and the central highlands. In 2005, the most important direct causes of maternal mortality among five obstetric complications were haemorrhage (74.0% of total deaths by obstetric complications) and eclampsia (8.0%). The MMR in Viet Nam is lower than those in several countries in the Region. However, the MDG target of 32.5 maternal deaths per 100 000 live births by the year 2015 poses a real challenge and will require extreme effort to achieve.

The infant mortality rate (IMR) has fallen rapidly in the past two decades: from 55.0 per 1000 live births in 1983 to 17.8 in 2005. In the past five years (2000-2005), it has declined at an average rate of 3.78% per year and is now lower than other Asian countries at a similar level of economic development. However, in order to achieve the MDG of 18.4% by 2015, progress must be accelerated.

The under-five mortality rate (U5MR) has also fallen, from 42% in 1999 to 27.5% in 2005, with an average decline of 2.8% per year. A recent study indicated that the causes of death among children under five are concentrated in the perinatal period and are mainly due to premature birth, asphyxia at birth and multiple birth defects. For children beyond the perinatal period, mortality is mainly due to drowning, respiratory infection and encephalitis.

Child malnutrition is measured using two basic indicators: the proportion of children born with low birth weight and the proportion of children under five who are malnourished. The proportion of babies born with low birth weight (under 2500g) declined from 7.3% in 2000 to 5.1% in 2005 and the under-five malnutrition rate fell from 33.8% to 25.2% in 2005. The

problem of overweight children is beginning to appear, although still at low levels, accounting for about 1.3% of children in the under-five age group and 0.8% in the 5-10 year age group.

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 the government agency exercising State management in the field of health care, including preventive medicine, consultation and treatment, rehabilitation, traditional medicine, pharmaceuticals, hazardous effects of cosmetics to human health, food hygiene and safety, medical equipment and health facilities.

3.2 Organization of health services and delivery systems

The health system in Viet Nam is a mixed public-private provider system, in which the public system still 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, communal and village level, with the Ministry of Health at the central level. In the public sector, there are 730 general hospitals, 103 specialized hospitals and 11 389 primary health centres. The selection of the grassroots health care network (including commune and district levels) as the foundation for people's health care has yielded many achievements, especially contributing towards attainment of national health care goals for the entire population. Health centres in communes provide primary health services including consultation, 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 in 2001 to 65 000 in 2004. A total of 43 private hospitals account for 4.6% of the total number of hospitals nationwide, with their 3200 beds accounting for 13% of the total number of hospital beds. Of the private hospitals, six of which are funded wholly by foreign investment, 29 are general hospitals and 14 are specialist hospitals.

Health care is strengthened by national health programmes, especially those for important public health problems. For example, the tuberculosis control programme has made every effort over many years to maintain high DOTS coverage for 100% of the population, and has been evaluated highly by WHO.

The extended immunization programme is also considered a successful child health care intervention, resulting in high reduction rates for vaccine-preventable diseases and the elimination of polio, neonatal tetanus and leprosy, according to WHO definitions. However, current challenges facing the programme include vaccine maintenance, vaccination timeliness and safety, and insufficient newly developed vaccines to meet demand.

The HIV/AIDS control programme is one of the National Target Health Programmes for the period 2001-2005. After the project, 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 mountainous population should have a good knowledge of HIV/AIDS and should be ready to participate actively in HIV/AIDS interventions.

3.3 Health policy, planning and regulatory framework

The Government has set out 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 include substantially improving the human development index of the country and providing prevention and treatment services to all.

The Minister of Health recently promulgated its five-year plan for the health sector, setting new targets for 2010 as follow:

- to increase average life expectancy to 72 years;
- to reduce the maternal mortality ratio to below 70 per 100 000 live births;
- to reduce the infant mortality rate to below 16 per 1000 live births;
- to reduce the under-five mortality rate to below 25 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; and
- to increase the ratio of college-trained pharmacists to 1/10 000 people.

The *National Strategy* recognizes 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 is based on four principles:

- the 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 outlines the Government's main policies and proposals for improving the overall level and distribution of health care among the entire population (ethnic minority groups, women, children, poor and the elderly). These include:

- 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 medicine and implementing the national drug policy in order to promote the rational and effective use of modern and traditional drugs;
- developing new technology to catch up with other countries in the Region; and
- improving the capacity of planning and management in all areas within the health sector.

As it stands today, the *National Strategy* provides a broad basis for further planning and can be seen as an orientation document for the development of the health sector. However, it does 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 use of and expenditure on drugs; and (4) respond to new public health problems, including noncommunicable diseases.

Some recent policies have begun to address those 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 care services for 14.6 million people. As of December 2003, 11 million people had received health care through this financing mechanism. Earlier, in January 2002, the Ministry of Health published the *Directive on Consolidating and Strengthening the Basic Health Care Network* (06-CT/TW).

3.4 Health care financing

Since 2000, the State has continued building and adjusting health financing policies based on the same orientation as previously, but with greater concern for efficiency and development than in the past. The broad direction of health financing was decided upon in the 1990s with the development of health insurance, the partial-user-fee policy and the Government resolution on 'Social mobilization' in the areas of education, health and culture. This created a health financing system combining partially subsidized state health services with health services that collect user-fees from patients. This partial user-fees system, however, created some contradictions and led to inequalities. Therefore, the Government began to focus on financial assistance for certain social groups, especially the poor.

Total health expenditure in 2005 was 5.1% of gross domestic product (GDP). Government expenditure accounts for only 22.6% of total health expenditure. Most health finance is used for curative and preventive care (93%-98%), of which expenditure for curative care accounts for 84%-86%. There is little expenditure on scientific research and training. By 2005, about 18 million people (23.4% of the population) were enrolled in the public health insurance system, including compulsory insurance, voluntary insurance and insurance for the poor. In the same year, 22.2% of health expenditure was from health insurance (17.7% in 2001), 31.2% from user fees (27.1% in 2001), and 46.6% from the government budget and international aid (55.2% in 2001), of which international aid accounted for only a small portion, about 2%. However, government health system financing relies mainly on subsidies from the government budget and health insurance.

3.5 Human resources for health

Currently the ratio of health workers per hospital bed for the whole country is 0.99 (including contract workers). The number of medical doctors per bed is about 2 per 10 beds on average, while the number of nurses is about 3 per 10 beds. There are 6.0 doctors per 10 000 population, 6.3 nurses and 1.3 pharmacists (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, 13.0% in preventive medicine and 4% in management positions.

Health staff are deployed at all levels (central, provincial, district, communal) and in all provinces. In 2004, 24% were working at the commune level, participating directly in primary health care for the population. In the same year, 31% of health workers were employed at the district level and 45% at the provincial level.

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, specific, 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, together with the number of projects and the total value of aid. Aid to the health sector over past years has substantially helped fill the gap created by the lack of funds from the State budget. Official development assistance (ODA) funds 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.

3.7 Challenges to health system strengthening

Despite the important achievements recorded in health care, the country is still beset with 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 certain irrationalities in the health sector as follows:

- The health system is slow to renew itself and has not adapted to the development of a socialist-oriented market economy and changes in disease patterns.
- The quality of health services has not met the growing diversified needs of the people.
- The health care conditions for the poor and in remote areas and areas inhabited by ethnic groups remain very difficult.
- Pharmaceutical production and supply capacity remains weak, and the price of pharmaceuticals remains high in comparison with people's incomes.
- The organization and operation of preventive medicine remains insufficient. A portion of the population lack awareness about self-protection, self-care and health promotion. Environmental health and food safety have not been put under tight control.

However, 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 develop 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 to address the problems of financial access and the lack of health service responsiveness 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 Statistical Year Books, 1998-2004.*
Operator : Ministry of Health, 1999-2005.

Title 2 : *Statistical Year Book 2003*
Operator : General Statistics Office, 2004.

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 to 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/

5. ADDRESSES

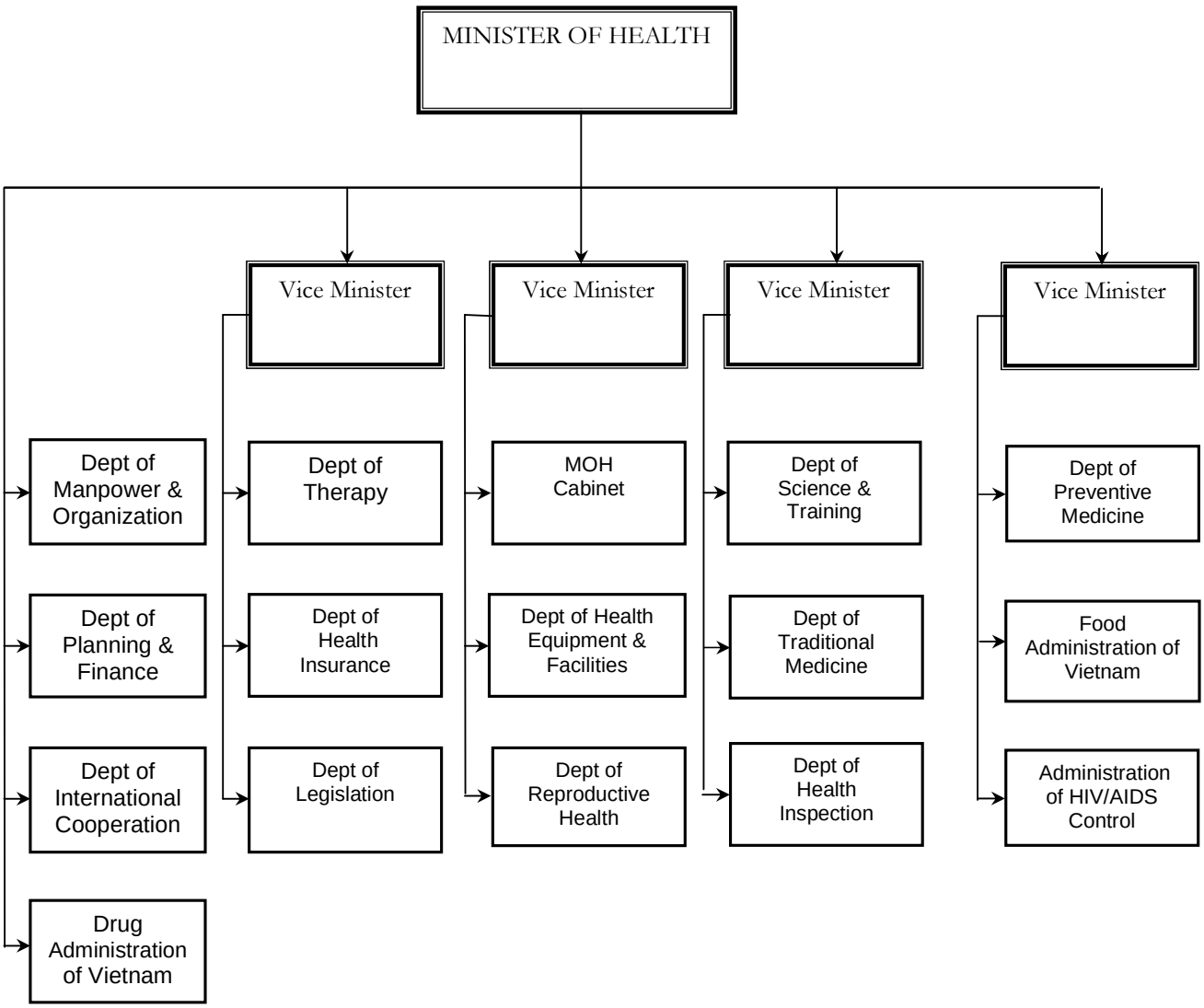
MINISTRY OF HEALTH

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 THE SOCIALIST REPUBLIC OF 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) 943 3734
Fax	:	(84 4) 943 3740

6. ORGANIZATIONAL CHART: Ministry of Health



COUNTRY HEALTH INFORMATION PROFILE

VIET NAM — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	332.60			2004	1
2	**Estimated population** ('000s)	83 119.90	40 845.40	42 274.50	2005 est	1
3	**Annual population growth rate** (%)	1.33	…	…	2004 est	1
4	**Percentage of population**					
	- 0–4 years	7.81	6.71	7.07	2005 est	1
	- 5–14 years	20.64	18.72	19.67	2005 est	1
	- 65 years and above	5.46	6.71	7.92	2005 est	1
5	**Urban population** (%)	27.00	49.10	50.90	2005	1
6	**Crude birth rate** (per 1000 population)	18.60	…	…	2005	1
7	**Crude death rate** (per 1000 population)	5.30	…	…	2005 est	1
8	**Rate of natural increase of population** (% per annum)	1.33	…	…	2005	1
9	**Life expectancy** (years)					
	- at birth	71.30	70.00	73.00	2002	2
	- Healthy Life Expectancy (HALE) at age 60	…	11.40	13.10	2002	8
10	**Adult literacy rate** (%)	92.70	94.50	90.90	2002	1
11	**Neonatal mortality rate** (per 1000 live births)	…	…	…		
12	**Infant mortality rate** (per 1000 live births)	17.80	…	…	2005 est	1
13	**Under-five mortality rate** (per 1000 live births)	27.50	…	…	2005 est	3
14	**Total fertility rate** (women aged 15–49 years)	2.11			2005 est	1
15	**Maternal mortality ratio** (per 100 000 live births)	80.00			2005 est	3
16	**Percentage of newborn infants weighing at least 2500 g at birth**	94.90	…	…	2005	3
17	**Prevalence of underweight children under five years of age**	25.20	…	…	2005	3
18	**Percentage of pregnant women with anaemia**			…		
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	95.00	…	…	2006	9
	- DTP3	94.00	…	…	2006	9
	- POL3	94.00	…	…	2006	9
	- Measles	93.00	…	…	2006	9
	- Hepatitis B III	93.00	…	…	2006	9
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	96.10			2005	3
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	91.00			2006	9
	- Percentage of deliveries attended by skilled health personnel	96.10 [a]			2005	3
	- Percentage of deliveries at home by skilled health personnel (as % of total deliveries)	…				
	- Percentage of deliveries in health facilities (as % of total deliveries)	82.00 [a]			2005	3
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			65.80	2005	1
23	**Condom use rate of the contraceptive prevalence rate**	9.70	…	…	2005	3
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	**Proportion of population with sustainable access to an improved water source**	85.00	99.00	80.00	2004	10
27	**Proportion of population with access to improved sanitation**	61.00	92.00	50.00	2004	10
28	**Proportion of the population using solid fuels (%)**	70.00	...	...	2002	11
29	**Proportion of households with access to secure tenure**	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	21.00	...	...	2005	3
32	**Human development index**			0.71	2004	12
33	**Per capita GDP at current market prices** (US$)			638.00	2005 est	1
34	**Rate of growth of per capita GDP** (%)			15.37	2005	1
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			2677.17	2005p	5
	- total expenditure on health as % of GDP			5.10	2005p	5
	- per capita total expenditure on health (in US$)			31.78	2005p	5
	Government expenditure on health					
	- amount (in million US$)			605.73	2005p	5
	- general government expenditure on health as % of total expenditure on health			22.60	2005p	5
	- general government expenditure on health as % of total general government expenditure			4.20	2005p	5
	External source of government health expenditure					
	- external resources for health as % of general government expenditure on health			10.16	2005p	5
	Private health expenditure					
	- private expenditure on health as % of total expenditure on health			77.40	2005p	5
	Exchange rate in US$ of local currency is: 1 US$ =			15 859.00	2005p	5
36	**Health insurance coverage as % of total population**			23.35	2005 est	6

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	...	...	...	50 106	...	...	...	...	6.03	...	2005	3
	- dentists	...	...	...	...	...	...	...	...	...	...		
	- pharmacists	...	...	...	28 500	...	...	...	...	3.43	...	2005	3
	- nurses	...	...	...	52 115	...	...	...	...	6.27	...	2005	3
	- midwives	...	...	...	18 313	...	...	...	...	2.23	...	2005	3
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	...	...	...	61 569	...	...	...	...	7.50	...	2005	3
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	48 980	...	...	...	...	5.97	...	2005	3
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	2161	...	...								2005	7
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1. Pneumonia	304 100 [b]	...	...	415.10 [b]	...	...	2005	3
	2. Acute pharyngitis and acute tonsillitis	226 671 [b]	...	...	309.40 [b]	...	...	2005	3
	3. Acute bronchitis and acute bronchiolitis	223 816 [b]	...	...	305.50 [b]	...	...	2005	3
	4. Influenza	166 436 [b]	...	...	227.20 [b]	...	...	2005	3
	5. Transport accident	149 055 [b]	...	...	203.50 [b]	...	...	2005	3
	6. Diarrhoea and gastroenteritis of presumed infectious origin	146 736 [b]	...	...	200.30 [b]	...	...	2005	3
	7. Essential (primary) hypertension	128 057 [b]	...	...	174.80 [b]	...	...	2005	3
	8. Gastritis and duodenitis	109 134 [b]	...	...	149.00 [b]	...	...	2005	3
	9. Diseases of appendix	81 005 [b]	...	...	110.60 [b]	...	...	2005	3
	10. Intracranial injury	54 685 [b]	...	...	74.60 [b]	...	...	2005	3
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1. Intracranial injury	2065 [b]	...	...	2.82 [b]	...	...	2005	3
	2. Human immunodeficiency virus disease	1557 [b]	...	...	2.13 [b]	...	...	2005	3
	3. Pneumonia	1377 [b]	...	...	1.88 [b]	...	...	2005	3
	4. Intracerebral haemorrhage	975 [b]	...	...	1.33 [b]	...	...	2005	3
	5. Transport accident	743 [b]	...	...	1.01 [b]	...	...	2005	3
	6. Acute myocardial infarction	723 [b]	...	...	0.99 [b]	...	...	2005	3
	7. Stroke, not specified as haemorrhage or infarction	677 [b]	...	...	0.92 [b]	...	...	2005	3
	8. Heart failure	624 [b]	...	...	0.85 [b]	...	...	2005	3
	9. Respiratory tuberculosis	452 [b]	...	...	0.62 [b]	...	...	2005	3
	10. Intentional self-harm	360 [b]	...	...	0.49 [b]	...	...	2005	3
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	...	...	...	...	...	...		
	- Diphtheria	25	...	...	...	...	...	2006	9
	- Hib meningitis	...	...	...	12	...	...	2004	2
	- Measles	1978	...	...	...	...	...	2006	9
	- Mumps	...	...	...	...	...	...		
	- Neonatal tetanus	27	...	...	...	...	...	2006	9
	- Pertussis (whooping cough)	144	...	...	...	...	...	2006	9
	- Poliomyelitis	0	0	0	0	0	0	2006	9
	- Rubella	3403	...	...	...	...	...	2006	9
	- Total Tetanus	57	...	...	...	...	...	2006	9
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral	628	...	...	2	...	...	2005	4
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	0	0	0	0	0	0	2005	3
	Dengue/DHF	59 550	...	...	54	...	...	2005	9

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
44	**Selected communicable diseases**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	Encephalitis	1590	...	...	36	...	...	2005	3
	Gonorrhoea	5233	...	...	0	0	0	2005	3
	Leprosy	746	...	...	...	...	...	2005	9
	Malaria	19 497	...	...	18	...	...	2005	9
	Plague	0	0	0	0	0	0	2005	3
	Syphilis	2219	...	...	0	0	0	2005	3
	Typhoid fever	4565	...	...	1	...	...	2005	3
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	23.00	...	...	0.02	...	...	2005	9
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]						...		
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]						...		
46	**Tuberculosis**	**Number of cases**			**Number of deaths**				
	- All types	94 994	...	...	...	...	...	2005	9
	- New pulmonary tuberculosis (smear-positive)	55 570	...	...	...	...	...	2005	9
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	235.00	...	...	23.00	...	...	2005	9
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	84.00	...	...	93.00 (2004)	...	...	2005	9
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	223 816	...	...	71	...	...	2005	3
48	**Diarrhoeal diseases**	366 913	...	...	417	...	...	2005	3
49	**Cancers**								
	All cancers (malignant neoplasms only)	101 326	...	...	465	...	...	2005	3
	- Breast	1478	...	...	8	...	...	2005	3
	- Colon and rectum	6071	...	...	20	...	...	2005	3
	- Cervix			2102			10	2005	3
	- Oesophagus	693	...	...	19	...	...	2005	3
	- Leukaemia	4765	...	...	51	...	...	2005	3
	- Lip, oral cavity and pharynx	1484	...	...	15	...	...	2005	3
	- Liver	5383	...	...	111	...	...	2005	3
	- Stomach	6676	...	...	43	...	...	2005	3
	- Trachea, bronchus, and lung	7111	...	...	77	...	...	2005	3
50	**Circulatory**								
	All circulatory system diseases	148 962	...	...	3026	...	...	2005	3
	- Acute myocardial infarction	7653	...	...	723	...	...	2005	3
	- Cerebrovascular diseases	80 278	...	...	1925	...	...	2005	3
	- Hypertension	170 858	...	...	327	...	...	2005	3
	- Ischaemic heart disease	24 494	...	...	93	...	...	2005	3
	- Rheumatic fever and rheumatic heart diseases	19 818	...	...	38	...	...	2005	3

COUNTRY HEALTH INFORMATION PROFILE

	INDICATORS	DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			26 639			...	2005	3
	- Eclampsia			450			8	2005	3
	- Haemorrhage			2426			69	2005	3
	- Obstructed labour			...			...		
	- Sepsis			325			6	2005	3
52	**Diabetes mellitus**	20 481	...	...	83	...	...	2005	3
53	**Mental disorders**	39 616	...	...	32	...	...	2005	3
54	**Injuries**								
	All types	235 105	...	...	1343	...	...	2005	3
	- Homicide and violence	15 076	...	...	42	...	...	2005	3
	- Motor and other vehicular accidents	149 055	...	...	11 184	...	...	2005	C: 3 D: 13
	- Occupational injuries	2755	...	...	3	...	...	2005	3
	- Suicide	17 694	...	...	340	...	...	2005	3
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						...		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					730	99 781	2005	3
	- Specialized hospitals					103	20 880	2005	3
	- District/first-level referral hospitals					564	43 427	2005	3
	- Primary health care centres					11 389	45 176	2005	3
	Private hospitals					43	3200	2005	3

Notes:

Red	Millennium Development Goals (MDG) indicators
...	Data not available
p	Provisional
est	Estimate
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to public health facilities
b	Figure applies to public hospitals

Sources:

1	General Statistics Office of Viet Nam [http://www.gso.gov.vn].
2	Health Statistics Yearbook 2004: HSID. Planning and Finance Department, Ministry of Health.
3	Health Statistics Yearbook 2005: HSID. Planning and Finance Department, Ministry of Health.
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9	WHO Regional Office for the Western Pacific, data received from the technical units.
10	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006].
11	*Indoor Air Pollution: National Burden of Disease Estimates*. World Health Organization, 2007. [http://www.wssinfo.org/images/download_pdf.gif].
12	*Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis*. United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
13	Transportation Police Administration.

WALLIS AND FUTUNA

1. CONTEXT

1.1 Demographics

The Futuna Island group was discovered by the Dutch in 1767, but it was the French who declared a protectorate over the islands in 1842. In 1959, the inhabitants voted to become a French overseas territory. The Futuna and Wallis 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 274 square kilometres and includes Ile Uvea (Wallis Island), Ile Futuna , Ile Alofia 20 islets.

The estimated population of Wallis and Futuna was 15 260 in 2006. About 30.4% were 0-14 years old and 9.8% were aged 60 years and older.

1.2 Political situation

The Chief of State is President Jacques Chirac of France, represented by the High Administrator, who is appointed by the French President on the advice of the French Ministry of Interior. The High Administrator has been Richard Didier since 19 July 2006. The head of the government is the President of the Territorial Assembly, currently Patlione Kanimoa.

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 agriculture, 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 French Government subsidies, licensing of fishing rights to Japan and the Republic of Korea, import taxes and remittances from expatriate workers in New Caledonia.

1.4 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 disease. For communicable diseases, they are leptospirosis, brucellosis, dengue, filariasis, tuberculosis, leprosy, hepatitis B, shigellosis and salmonellas.

2.2 Outbreaks of communicable diseases

Wallis and Futuna has suffered the following dengue outbreaks:

- 1971 – 500 cases reported (Type II)
- 1976 – 500 cases reported (Type I)
- 1979 – 300 cases reported (Type 4)
- 1989/1990 – 2361 cases reported (Type IV)

- 1998/1999 – 395 cases were reported (Type 2)
- 2002/2003 – 2045 cases reported, including 1535 suspected cases, 166 confirmed cases, 280 hospitalized cases and two cases resulting in death.

2.3 Leading causes of mortality and morbidity

See Section 2.1.

2.4 Maternal, child and infant diseases

The estimated infant mortality rate was 5.9 per 1000 live births in 2003. In 2002, immunization coverage for infants was 100% for DTP3, POL3, measles and hepatitis B III. Only 73% of infants received BCG immunization. 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

As for 2004, there were one hospital and three dispensaries in Wallis, and one hospital and two dispensaries in Futuna. Hospitalization and treatment are free of charge.

Wallis hospital comprises an emergency ward, one medical ward with 21 beds, one surgical ward with 16 beds and two operation 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 2003, the Government spent an estimated US$ 4.79 million on health, 7.6% of total government expenditure.

3.5 Human resources for health

In Wallis, there are 62 medical staff, including one general surgeon, one anaesthesiologist, one gynaecologist, one polyvalent medical practitioner, one emergency doctor, five general doctors, three surgeon dental surgeons, one pharmacist, one anaesthesiology nurse, seven midwives, two physical therapists and 38 nurses.

In Futuna, there are 17 medical staff, including three general doctors, four midwives (three authorized), one dental surgeon, one physical therapist and eight nurses (only four authorized).

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	:	*Pacific Regional Information System (PRISM)*
Operator	:	Secretariat of the Pacific Community
Web address	:	http://www.spc.int/prism/
Title 2	:	*SPC Statistics and Demographic Programme*
Web address	:	http://www.spc.int/demog/en/stats/2006/Pacific%20Island%20Populations%202006-2015%20-%2030%
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 Matautu 98600 Uvea
Official Email Address	:	Sante.wf@wallis.co.nc
Fax	:	(681) 72 2399

WHO REPRESENTATIVE IN THE SOUTH PACIFIC

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) 330 4600/ (679) 330 4631/ (679)330 4635/ (679) 3317447
Fax	:	(679) 330 0462/ (679) 331 1530
Office Hours	:	8 am to 5 pm

COUNTRY HEALTH INFORMATION PROFILE

WALLIS AND FUTUNA — WESTERN PACIFIC REGION HEALTH DATABANK, 2007 Revision

	INDICATORS	DATA			Year	Source
		Total	Male	Female		
1	**Area** (1 000 km^2)	0.14			2006	1
2	**Estimated population** ('000s)	15.26	7.66	7.60	2006 est	1
3	**Annual population growth rate** (%)	0.60	…	…	2006-10	1
4	**Percentage of population**					
	- 0–4 years	12.10	12.20	12.10	2006 est	2
	- 5–14 years	21.70	21.60	21.80	2006 est	2
	- 65 years and above	5.00	4.20	5.70	2006 est	2
5	**Urban population** (%)	0.00	…	…	2005 est	2
6	**Crude birth rate** (per 1000 population)	19.40	…	…	2003	5
7	**Crude death rate** (per 1000 population)	5.90	…	…	2003	5
8	**Rate of natural increase of population** (% per annum)	1.63	…	…	2003	1
9	**Life expectancy** (years)					
	- at birth	74.30	73.10	75.50	2003 est	5
	- Healthy Life Expectancy (HALE) at age 60	…	…	…		
10	**Adult literacy rate** (%)	78.80 [a]	78.20 [a]	78.20 [a]	2003	5
11	**Neonatal mortality rate** (per 1000 live births)	…	…	…		
12	**Infant mortality rate** (per 1000 live births)	5.90	…	…	2003 est	5
13	**Under-five mortality rate** (per 1000 live births)	…	…	…		
14	**Total fertility rate** (women aged 15–49 years)	3.10			2003 est	5
15	**Maternal mortality ratio** (per 100 000 live births)	…				
16	**Percentage of newborn infants weighing at least 2500 g at birth**	…	…	…		
17	**Prevalence of underweight children under five years of age**	…	…	…		
18	**Percentage of pregnant women with anaemia**			…		
19	**Percentage of teenage pregnancy**			…		
20	**Immunization coverage for infants (%)**					
	- BCG	73.50	…	…	2002	3
	- DTP3	100.00	100.00	100.00	2002	3
	- POL3	100.00	100.00	100.00	2002	3
	- Measles	100.00	100.00	100.00	2002	3
	- Hepatitis B III	100.00	100.00	100.00	2002	3
21	**MCH coverage (pregnancies, deliveries, infant care)**					
	- Percentage of pregnant women cared for by skilled health personnel	…				
	- Percentage of pregnant women immunized with tetanus toxoid (TT2)	69.50			2002	3
	- Percentage of deliveries 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)	…				
22	**Percentage of women in the reproductive age group using modern contraceptive methods**			…		
23	**Condom use rate of the contraceptive prevalence rate**	…	…	…		
24	**HIV prevalence among 15–24 year-old pregnant women**			…		
25	**Number of children orphaned by HIV/AIDS** [aa]	…	…	…		

	INDICATORS	Data			Year	Source
		Total	Urban	Rural		
26	Proportion of population with sustainable access to an improved water source	100.00	NA	100.00	2004	6
27	Proportion of population with access to improved sanitation	80.00	NA	80.00	2004	6
28	Proportion of the population using solid fuels (%)	...	...	...		
29	Proportion of households with access to secure tenure	...				
30	**Proportion of vehicles using unleaded gasoline** (%)	...	...	...		
31	**Health care waste generation** (metric tons per year)	...	...	...		
32	**Human development index**			...		
33	**Per capita GDP at current market prices** (US$)			...		
34	**Rate of growth of per capita GDP** (%)			...		
35	**Health expenditure**					
	Total health expenditure					
	- amount (in million US$)			...		
	- total expenditure on health as % of GDP			...		
	- per capita total expenditure on health (in US$)			...		
	Government expenditure on health					
	- amount (in million US$)			4.79	2003 est	5
	- general government expenditure on health as % of total expenditure on health			...		
	- general government expenditure on health as % of total general government expenditure			7.58 [b]	2003	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			...		
	Exchange rate in US$ of local currency is: 1 US$ =			95.42 [c]	2005	5
36	**Health insurance coverage as % of total population**			...		

		Number					Rate per 10 000 population						
37	**Health workforce**	**Total**	**Male**	**Female**	**Public**	**Private**	**Total**	**Male**	**Female**	**Public**	**Private**		
	- physicians	13 [d]	...	...	...	...	8.72	...	...	...	...	2004	4
	- dentists	4	...	...	...	...	2.68	...	...	...	...	2004	4
	- pharmacists	1	...	...	...	...	0.67	...	...	...	...	2004	4
	- nurses	47 [e]	...	...	...	...	31.54	...	...	...	...	2004	4
	- midwives	11 [f]	...	...	...	...	7.38	...	...	...	...	2004	4
	- other nursing / auxiliary staff	...	...	...	...	...	...	...	...	...	...		
	- other paramedical staff (e.g. medical assistants, laboratory technicians, X-ray technicians)	3	...	...	...	...	2.01	...	...	...	...	2004	4
	- other health personnel (health inspectors, assistant sanitarians, traditional workers, etc.)	...	...	...	...	...	...	...	...	...	...		
38	**Workforce losses/ attrition**	...	...	...									
39	**Yearly new graduates - physicians**	...	...	...									
40	**Yearly new graduates – nurses**	...	...	...									

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number			Rate per 100 000 population				
41	**Leading causes of morbidity**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	1.	...	...	...	...	...	...		
	2.	...	...	...	...	...	...		
	3.	...	...	...	...	...	...		
	4.	...	...	...	...	...	...		
	5.	...	...	...	...	...	...		
42	**Leading causes of mortality**	**Number**			**Rate per 100 000 population**				
	1.	...	...	...	...	...	...		
	2.	...	...	...	...	...	...		
	3.	...	...	...	...	...	...		
	4.	...	...	...	...	...	...		
	5.	...	...	...	...	...	...		
43	**Selected diseases under the WHO-EPI**	**Number of cases**			**Number of deaths**				
	- Congenital rubella syndrome	0	0	0	0	0	0	2004	3
	- Diphtheria	0	0	0	0	0	0	2004	3
	- Hib meningitis	0	0	0	0	0	0	2004	3
	- Measles	0	0	0	0	0	0	2004	3
	- Mumps	0	0	0	0	0	0	2004	3
	- Neonatal tetanus	0	0	0	0	0	0	2004	3
	- Pertussis (whooping cough)	0	0	0	0	0	0	2004	3
	- Poliomyelitis	0	0	0	0	0	0	2006	3
	- Rubella	1	...	...	...	...	...	2004	3
	- Total Tetanus	0	0	0	0	0	0	2004	3
44	**Selected communicable diseases**	**Number of cases**			**Number of deaths**				
	Hepatitis viral								
	- Type A	...	...	...	...	...	...		
	- Type B	...	...	...	...	...	...		
	- Type C	...	...	...	...	...	...		
	- Type E	...	...	...	...	...	...		
	- Unspecified	...	...	...	...	...	...		
	Cholera	...	...	...	...	...	...		
	Dengue/DHF	41	...	...	0	0	0	2004	3
	Encephalitis	...	...	...	...	...	...		
	Gonorrhoea	...	...	...	...	...	...		
	Leprosy	0	0	0	0	0	0	2003	3
	Malaria	...	...	...	...	...	...		
	Plague	...	...	...	...	...	...		
	Syphilis	...	...	...	...	...	...		
	Typhoid fever	..	...	...	...	...	...		

	INDICATORS	DATA						Year	Source
45	**Malaria**	**Prevalence rates**			**Death rates**				
	- Rates associated with malaria (per 100 000 population)	…	…	…	…	…	…		
	- Proportion of population in malaria-risk areas using effective malaria prevention measures [ab]			…					
	- Proportion of population in malaria-risk areas using effective malaria treatment measures [ac]			…					
		Number of cases			**Number of deaths**				
46	**Tuberculosis**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- All types	7	…	…	…	…	…	2005	3
	- New pulmonary tuberculosis (smear-positive)	1	…	…	…	…	…	2005	3
		Prevalence rates			**Death rates**				
	- Rates associated with tuberculosis (per 100 000 population)	61.00	…	…	7.00	…	…	2005	3
		Detection rates			**Success rates**				
	- Proportion of tuberculosis cases detected and cured under directly observed treatment, short-course (DOTS)	31.00	…	…	100.00 (2004)	…	…	2005	3
		Number of cases			**Number of deaths**				
47	**Acute respiratory infections**	…	…	..	…	…	…		
48	**Diarrhoeal diseases**	…	…	…	…	…	…		
49	**Cancers**								
	All cancers (malignant neoplasms only)	…	…	…	…	…	…		
	- Breast	…	…	…	…	…	…		
	- Colon and rectum	…	…	…	…	…	…		
	- Cervix			…			…		
	- Oesophagus	…	…	…	…	…	…		
	- Leukaemia	…	…	…	…	…	…		
	- Lip, oral cavity and pharynx	…	…	…	…	…	…		
	- Liver	…	…	…	…	…	…		
	- Stomach	…	…	…	…	…	…		
	- Trachea, bronchus, and lung	…	…	…	…	…	…		
50	**Circulatory**								
	All circulatory system diseases	…	…	…	…	…	…		
	- Acute myocardial infarction	…	…	…	…	…	…		
	- Cerebrovascular diseases	…	…	…	…	…	…		
	- Hypertension	…	…	…	…	…	…		
	- Ischaemic heart disease	…	…	…	…	…	…		
	- Rheumatic fever and rheumatic heart diseases	…	…	…	…	…	…		

COUNTRY HEALTH INFORMATION PROFILE

INDICATORS		DATA						Year	Source
		Number of cases			Number of deaths				
51	**Maternal causes**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**		
	- Abortion			…			…		
	- Eclampsia			…			…		
	- Haemorrhage			…			…		
	- Obstructed labour			…			…		
	- Sepsis			…			…		
52	**Diabetes mellitus**	…	…	…	…	…			
53	**Mental disorders**	…	…	…	…	…			
54	**Injuries**								
	All types	…	…	…	…	…	…		
	- Homicide and violence	…	…	…	…	…	…		
	- Motor and other vehicular accidents	…	…	…	…	…	…		
	- Occupational injuries	…	…	…	…	…	…		
	- Suicide	…	…	…	…	…	…		
55	**Proportion of population with access to affordable essential drugs on a sustainable basis**						…		
56	**Health infrastructure**					**Number**	**Number of Beds**		
	Public health facilities								
	- General hospitals					2	59	2004	4
	- Specialized hospitals					0	0	2006	4
	- District/first-level referral hospitals					0	0	2006	4
	- Primary health care centres					5 [g]	0	2006	4
	Private hospitals					…	…		

Notes:

Red text	Millennium Development Goals (MDG) indicators
…	Data not available
p	Provisional
est	Estimate
NA	Not applicable
aa	Proxy indicator for MDG indicator 20: Ratio of school attendance of orphans to school attendance on non-orphans age 10-14 years
ab	Prevention is measured by the percentage of children ages 0-59 months sleeping under insecticide-treated bednets
ac	Treatment is measured by the proportion of children ages 0-59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs
a	Figure refers to aged 19 years and above
b	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
c	Average figure
d	Figure refers to physicians and specialists
e	Figure includes 1 nurse anaesthesia and 4 unauthorized nurses
f	Figure includes 1 unauthorized midwife
g	Figure includes dispensaries

Sources:

1	Pacific Island Populations - Estimates and projections 2005-2015, Secretariat of the Pacific Community, Noumea, 2006. [http://www.spc.int/demog/en/index.html].
2	*Demographic tables for the Western Pacific Region 2005-2010*. WHO Regional Office for the Western Pacific, Manila, 2005.
3	WHO Regional Office for the Western Pacific, data received from the technical units.
4	Information furnished by the WHO Representative to the South Pacific, 26 July 2007.
5	Service territorial de la statistique (http://www.spc.int/prism/wf/).
6	*Meeting the MDG Drinking Water and Sanitation target: The urban and rural challenge of the Decade*. Joint Monitoring Programme for Water Supply and Sanitation. WHO and UNICEF 2006. [http://www.wssinfo.org/en/40_mdg2006.html].

Statistical Tables

Table 1. Demographic Indicators

	Country/ area	Population							
		Year	Total Population ('000s)	Area (1000 km^2)	Density [ag] (per sq. km.)	Year	Urban (%)	Year	Growth Rate (%)
1	American Samoa	2006 est	66.90	0.20	334.50	2005 est	91.10	2006 est	2.30
2	Australia	2006	20 605.50	7 692.02	2.68	2005 est	88.20 [g]	2005–06	1.31
3	Brunei Darussalam	2005	370.10	5.77	64.14	2005 est	73.50	2005	2.90
4	Cambodia	2006	13 996.21	181.04	77.31	2005 est	19.70	2005	1.90
5	China	2006	1 314 480.00	9 600.00	136.93	2006	43.90	2004	0.59
6	Cook Islands	2006p	19.57	0.24	81.54	2006 est	70.40	2002 est	1.10
7	Fiji	2006p	853.44	18.33	46.56	2005 est	50.80	2006p	0.83
8	French Polynesia	2006	259.80	3.52	73.81	2005 est	51.70	2006	1.40
9	Guam	2006 est	167.37	0.54	309.95	2005 est	94.00	2006-10	1.10
10	Hong Kong (China)	2006	6 857.10	1.10	6233.73	2005	94.65	2006	0.64
11	Japan	2006	127 770.00	377.91 [e]	338.10	2002	78.70	2006	0.01
12	Kiribati	2005	92.53	0.81	114.24	2005	43.60	2000-05	1.80
13	Lao People's Democratic Republic	2005	5 621.00 [a]	236.80	23.74	2005	27.10	1995-2005	2.10
14	Macao (China)	2006	513.43 [b]	0.03	17114.33	2006	100.00	2006	5.84
15	Malaysia	2006	26 640.20	330.25	80.67	2006	63.20	2006	1.90
16	Marshall Islands	2006 est	55.98	0.18	311.00	2005 est	66.70	2006-10	1.00
17	Micronesia, Federated States of	2006 est	110.22	0.70	157.45	2005 est	22.30	2006-10	0.50
18	Mongolia	2006	2 594.70	1567.00	1.66	2006	60.90	2006	1.20
19	Nauru	2006 est	10.13	0.02	506.50	2005 est	100.00	2006-10	0.30
20	New Caledonia	2006 est	240.39	18.58	12.94	2005 est	63.70	2005	1.60
21	New Zealand	2006	4 027.95 [c]	270.69 [f]	14.88	2005 est	86.20	2006	1.00
22	Niue	2006 est	1.63	0.26	6.27	2005 est	36.70	2001	-3.72
23	Northern Mariana Islands	2006 est	84.49	0.47	179.77	2005 est	94.50	2006-10	3.20
24	Palau	2006 est	20.04	0.46	43.57	2005 est	68.60	2006-10	0.50
25	Papua New Guinea	2006 est	6 116.00	462.84	13.21	2005 est	13.40	2006 est	2.70
26	Philippines	2005	85 236.91	300.00	284.12	2005 est	62.70	2000	2.36
27	Pitcairn Islands	2007p	0.05	0.04	1.25		…		…
28	Republic of Korea	2006	48 297.18	99.65	484.67	2005	81.46	2006	0.33
29	Samoa	2006 est	184.65	2.94	62.81	2005 est	22.40	2001	1.00
30	Singapore	2006	3 608.50 [b]	0.70	5155.70	2006	100.00	2006	1.80 [b]
31	Solomon Islands	2006 est	483.08	28.90	16.72	2005 est	17.00	2005 est	2.36
32	Tokelau	2006 est	1.53	0.01	153.00	2005 est	0.00	2001	0.40
33	Tonga	2006 est	108.00	0.65	166.15	2005 est	24.00	2001	0.30
34	Tuvalu	2006 est	9.65	0.03	321.67	2005 est	48.10 [a]	2006-10	0.10
35	Vanuatu	2005 est	221.85	12.19	18.20	2005	21.00	2005	2.80
36	Viet Nam	2005 est	83 119.90	332.60	249.91	2005	27.00	2004 est	1.33
37	Wallis and Futuna	2006 est	15.26	0.14	109.00	2005 est	0.00	2006-10	0.60
	WESTERN PACIFIC REGION	**2006 est**	**1 755 206.00** [d]	…	…	**2005 est**	**45.01** [h]	**2000-05**	**0.78** [i]

% Distribution of Population												
Year	0-4 years (%)	5-14 years (%)	65+ years (%)	Aged 60 years or older by gender (2006) [1] Male	Aged 60 years or older by gender (2006) [1] Female	Year	Crude Birth Rate (per 1000 popn)	Crude Death Rate (per 1000 popn)	Year	Dependency Ratio [1] (%)	Year	Total Fertility Rate (women 15-49 years)
2006 est	12.00	21.80	5.00	6.60	8.20	2006	25.70	4.90	2006 est	63.40	2005	3.25
2006	6.20	13.20	13.30	16.50	19.00	2005	12.80	6.40	2006	48.59	2005	1.81
2005	13.10	19.00	2.60	5.20	4.70	2005	18.70	2.90	2005	53.14	2004p	2.10
2005	11.50	27.40	4.60	3.60	5.90	2004	25.00	6.70	2005	76.99	2005	3.40
2006	…	19.80 [j]	7.90	10.40	12.00	2006	12.09	6.81	2006	38.31 [j]	2001	1.90
2006p	…	21.00 [j]	11.85 [l]	6.60	7.70	2006p	23.60 [m]	7.20 [m]	2006p	48.92 [j,l]	2005	2.80
2006 est	11.70	20.50	3.90	6.00	7.20	2005	20.99	7.02	2006 est	56.49	2002	2.50
2006	…	43.10 [k]	6.10	8.00	8.30	2006	17.80	4.40	2006	96.85 [k]	2006	2.20
2006 est	10.50	19.90	6.20	9.10	9.60	2005	19.03	4.41	2006 est	57.73	2005	2.60
2006	3.11	10.59	12.43	14.90	15.40	2006	9.51	5.46 [o]	2006	35.37	2006	0.98
2006	4.30	9.30	20.80	24.30	29.70	2005	8.40	8.60	2006	52.44	2005	1.25 [p]
2005	…	37.00 [j]	3.50	7.00	7.70	2005	26.80	8.70	2005	68.07	2005	3.50
2005	12.45	26.56	4.00	4.80	5.70	2005	34.30	9.80	2005	75.47	2005	4.50
2006	3.30	11.40	7.00	10.10	11.10	2006	8.10	3.10	2006	27.71	2006	0.95
2006	11.60	20.80	4.30	6.60	7.50	2006 est	18.70	4.50	2006	57.98	2006 est	2.40
2006 est	12.40	22.50	5.00	7.00	7.70	2004 est	24.70 [n]	4.05 [n]	2006 est	66.39	1999	5.71
2006 est	13.50	24.20	3.30	4.40	5.50	2003	23.30	4.40	2006 est	69.49	2000	4.40
2006	8.40	20.10	4.20	5.10	6.40	2006	18.37	6.08	2006	48.59	2006	1.90
2006 est	12.37	22.53	4.97	7.00	7.70	2002	31.20	7.80	2006 est	66.31	2004	3.80
2006 est	9.20	19.20	6.30	9.10	10.10	2006p	17.70	4.70	2006 est	53.14	2005	2.20
2006	6.83 [c]	14.70 [c]	12.32 [c]	15.70	18.00	2005	14.10	6.60	2006	51.17 [c]	2005	2.00
2006 est	8.70	20.92	9.32	6.70	8.20	2005	17.90	8.09	2006 est	63.77	2001	3.01
2006 est	12.30	22.50	5.00	7.00	7.70	2005 est	19.27	2.30	2006 est	66.11	2005 est	1.27
2006 est	12.30	22.50	5.00	7.00	7.70	2004	14.01 [a]	6.73 [a]	2006 est	66.11	2004	1.54
2006 est	14.50	26.00	2.60	4.10	4.00	2000	35.00	12.00	2006 est	75.75	2000	4.60
2005	12.50 [a]	23.10 [a]	3.80 [a]	5.50	6.70	2005	24.09	5.60	2003	64.74	2000-03	3.50
	…	…	…	37.80	42.30		…	…		…		…
2006	4.95	13.68	9.49	11.50	14.90	2005	9.10	5.10	2006	39.12	2005	1.08
2006 est	14.30	25.60	4.40	5.10	7.70	2004	20.80	3.00	2006 est	79.53	2004	3.40
2006	5.40 [b]	13.90 [b]	8.49 [b]	11.90	13.60	2006	10.10 [b]	4.30 [b]	2006	38.48 [b]	2006	1.26
2006 est	14.39	25.07	3.16	4.30	4.30	2005-10	30.20	6.70	2006 est	74.28	2005	3.80
2006 est	12.70	21.60	5.00	6.70	8.10	1997-2001	31.00	7.00	2006 est	64.74	1997-2001	4.90
2006 est	13.00	23.50	5.70	7.10	9.00	2004	24.80	6.10	2006 est	73.01	2005	3.40
2006 est	12.20	21.70	5.00	6.60	8.20	2002	27.10	9.90	2006 est	63.67	2002	3.70
2005	15.68	25.56	3.20	5.10	5.10	2005	28.00	6.00	2005	79.98	2005	4.80
2005 est	7.81	20.64	5.46	6.50	9.00	2005	18.60	5.30	2005 est	51.31	2005 est	2.11
2006 est	12.10	21.70	5.00	6.60	8.20	2003	19.40	5.90	2006 est	63.40	2003 est	3.10
2006 est	**6.30 [d]**	**15.10 [d]**	**8.30 [d]**	**…**	**…**	**2000-05**	**14.90 [i]**	**7.00 [i]**		**…**	**1995-2000**	**2.00**

Table 2. Socioeconomic Indicators

	Country/ area	Adult Literacy Rate						Health Expenditure				
		Year	Total (%)	Male (%)	Female (%)	Year	Per capita GDP (in US$)	Year	Per capita (US$)	As % of GDP (%)	Year	General Government Expenditure on Health as % of Total General Government Expenditure
1	American Samoa		…	…	…	2003 est	8052.00 [x]	2003	500.00	…	2003	14.00
2	Australia	2003	88.20 [q]	…	...	2005-06	36 759.00	2005p	3404.00	9.50	2005p	18.50
3	Brunei Darussalam	2004	92.70	95.20	90.20	2005	25 667.30	2005p	533.16	3.10	2005p	4.80
4	Cambodia	2004	73.60	84.70	64.10	2005	409.00	2005p	27.90	6.80	2005p	12.00
5	China	2004	…	95.10	86.50	2006	2000.00	2005	80.87	4.73	2005	10.00
6	Cook Islands	2005	100.00	100.00	100.00	2005	9069.01	2005p	391.24	3.90	2005p	8.30
7	Fiji	2002	92.90 [r]	…	…	2005p	3008.88	2005p	158.40	4.50	2005p	8.90
8	French Polynesia		…	…	…	2003	17 000.00		…	…		…
9	Guam		…	…	…	2002	15 439.00 [y]	2000	1032.36	…	2005	8.71 [ae]
10	Hong Kong (China)	2006	94.12 [s]	97.20 [s]	91.37 [s]	2006p	27 640.32	2005p	1253.51 [ab]	4.80 [ad]	FY2005/06	12.64 [af]
11	Japan	2000 est	99.00	…	…	2004	36 159.00	2005p	2802.79	7.70	2005p	17.21
12	Kiribati	2005	91.00	…	…	2004 est	789.78	2005p	107.95	12.70	2005p	6.20
13	Lao People's Democratic Republic	2003	74.00	85.00	64.00	2005	460.00	2005p	17.46	3.60	2005p	4.60
14	Macao (China)	2006	93.50	96.50	90.70	2005	24 369.00	2005	620.72	2.60	2005	8.02
15	Malaysia	2004	95.10	…	…	2005	5227.50 [a]	2005p	179.37	3.50	2005	6.80
16	Marshall Islands	1999	97.00	96.80	97.20	2001	1817.00	2005p	258.06	14.40	2005p	13.70
17	Micronesia, Federated States of	2000	92.40	92.90	91.90	FY2006 est	2254.00	2005	281.00 [a]	12.80	2005	14.70
18	Mongolia	2004	97.80	98.00	97.50	2005	746.11	2005	35.00	4.30	2005	12.86
19	Nauru	1998	95.00	95.00	95.00		…	2005p	477.94	8.00	2005p	38.10
20	New Caledonia	2002 est	91.00	92.00	90.00	2001	19 190.49 [z]	2003	1941.48	(1999) 9.22		…
21	New Zealand	2006	89.00 [t]	…	…	2004	24 361.00	2005	1801.62	8.70p	2005p	18.20
22	Niue	2003	100.00	100.00	100.00	2003	5841.86	2005p	2112.68	13.20	2005p	11.50
23	Northern Mariana Islands		…	…	…	1998	28 734.49	2000	519.00	…	2002	16.44
24	Palau	2005	99.90 [u]	99.90 [u]	99.80 [u]	2003	5678.00	2005	700.00p	9.70	2005p	16.40
25	Papua New Guinea	2000	56.20 [v]	61.20 [v]	50.90 [v]	2004	846.74	2005p	35.72	3.90	2005p	9.60
26	Philippines	2002	92.60	92.50	92.70	2006 est	1252.30	2005p	2191.95	3.40	2005p	6.20
27	Pitcairn Islands		…	…	…		…		…	…		…
28	Republic of Korea	2002	97.90	99.20	99.60	2006p	18 373.00	2005p	972.97	6.00	2005p	11.20
29	Samoa	2002	98.70	…	…	2001	1442.67	2005p	117.68	5.20	2005p	8.60
30	Singapore	2006	95.40 [b]	…	…	2006	29 474.00	2005p	985.77	3.60	2005p	6.30
31	Solomon Islands	1999	77.00	84.00	67.00	2002	494.68	2005p	32.50	5.10	2005p	12.60
32	Tokelau	2003	86.50	…	…	2003	612.50 [aa]	1999-2000	341.07 [ac]	…	FY2003-04	12.50
33	Tonga	2000	98.80	…	…	2003-04	1780.00	2005p	125.69	6.10	2005p	15.50
34	Tuvalu	1998	95.00	95.00	95.00	2002	1139.32	2005p	229.00	8.40	2005p	10.90
35	Vanuatu	2002	50.00 [u]	50.10 [u]	49.90 [u]	2004	1558.00	2005p	61.04	4.00	2005p	13.70
36	Viet Nam	2002	92.70	94.50	90.90	2005 est	638.00	2005p	31.78	5.10	2005p	4.20
37	Wallis and Futuna	2003	78.80 [w]	78.20 [w]	78.20 [w]		…		…	…	2003	7.58 [ag]
	WESTERN PACIFIC REGION	**1994-96**	**85.80**	**…**	**…**		**…**		**…**	**…**		**…**

Table 3. Health and Human Rights Instruments

	Country/ area	Convention on the rights of the child [2]		Convention on the elimination of all forms of discrimination against women [3]		International covenant on economic, social and cultural rights [4]	
		Year of ratification	Latest submission of report *(as at 10 July 2007)*	Year of ratification	Latest submission of report *(as at 25 Sept 2007)*	Year of ratification	Latest submission of report *(as at 11 Oct 2007)*
1	American Samoa	…	…	…	…	…	…
2	Australia	1990	2003	1983	2004	1975	2007
3	Brunei Darussalam	1995 [ah]	2001	2006 [ah]	…	…	…
4	Cambodia	1992 [ah]	1997	1992 [ah]	2004	1992 [ah]	…
5	China	1992	2003	1980	2004	2001	2003
6	Cook Islands	1997 [ah]	…	2006 [ah]	…	…	…
7	Fiji	1993	1996	1995 [ah]	2000	…	…
8	French Polynesia	…	…	…	…	…	…
9	Guam	…	…	…	…	…	…
10	Hong Kong (China)	…	…	…	…	…	…
11	Japan	1994	2001	1985	2002	1979	1998
12	Kiribati	1995 [ah]	…	2004 [ah]	…	…	…
13	Lao People's Democratic Republic	1991 [ah]	1996	1981	2003	2007	…
14	Macao (China)	…	…	…	…	…	…
15	Malaysia	1995 [ah]	2006	1995 [ah]	2004	…	…
16	Marshall Islands	1993	2004	2006 [ah]	…	…	…
17	Micronesia, Federated States of	1993 [ah]	1996	2004 [ah]	…	…	…
18	Mongolia	1990	2003	1981	1998	1974	1998
19	Nauru	1994 [ah]	…	…	…	…	…
20	New Caledonia	…	…	…	…	…	…
21	New Zealand	1993	2001	1985	2006	1978	2001
22	Niue	1995 [ah]	…	…	…	…	…
23	Northern Mariana Islands	…	…	…	…	…	…
24	Palau	1995	1998	…	…	…	…
25	Papua New Guinea	1993	2002	1995 [ah]	…	…	…
26	Philippines	1990	2002	1981	2004	1974	2006
27	Pitcairn Islands	…	…	…	…	…	…
28	Republic of Korea	1991	2002	1984	2006	1990 [ah]	2007
29	Samoa	1994	2005	1992 [ah]	2003	…	…
30	Singapore	1995	2002	1995 [ah]	2004	…	…
31	Solomon Islands	1995	2001	2002 [ah]	…	1982 [ai]	1999 [aj]
32	Tokelau	…	…	…	…	…	…
33	Tonga	1995	…	…	…	…	…
34	Tuvalu	1995	…	1999 [ah]	…	…	…
35	Vanuatu	1993	1997	1995 [ah]	2005	…	…
36	Viet Nam	1990	2000	1982	2005	1982 [ah]	1992
37	Wallis and Futuna	…	…	…	…	…	…

Table 4. Poverty- and Gender-related Development Indicators

	Country/ area	Human Development Index (HDI) value [5]	Population below income poverty line (%) [5]		Gender-related development index (GDI) value [5]	Gender-empowerment measure (GEM) value [5]	Seats in parliament held by women [5]	Ratio of estimated female to male earned income [5]
			$1 a day	National poverty line				
		2004	1990-2004 [ak]	1990-2003 [ak]	2004	1992-2006 [ak]	(% of total) [am]	1991-2004 [ak]
1	American Samoa	...	...	...	...	...	...	...
2	Australia	0.96	...	...	0.96	0.83	28.30	0.70
3	Brunei Darussalam	0.87	...	...	...	...	... [an]	...
4	Cambodia	0.58	34.10	35.90	0.58	0.37	11.40	0.74
5	China	0.77	16.60	4.60	0.77	...	20.30	0.64
6	Cook Islands	...	...	...	...	...	...	...
7	Fiji	0.76	...	...	...	...	11.70	0.48
8	French Polynesia	...	...	...	...	...	...	...
9	Guam	...	...	...	...	...	...	...
10	Hong Kong (China)	0.93	...	...	...	...	...	0.49
11	Japan	0.95	...	...	0.94	0.56	10.70	0.44
12	Kiribati	(1998) 0.52	...	...	...	...	...	...
13	Lao People's Democratic Republic	0.55	27.00	38.60	0.55	...	22.90	0.52
14	Macao (China)	0.91	...	...	...	...	...	...
15	Malaysia	0.80	2.00	15.50 [al]	0.80	0.50	13.10	0.36
16	Marshall Islands	(1998) 0.56	...	...	...	...	...	...
17	Micronesia, Federated States of	(1998) 0.57	...	...	...	...	...	...
18	Mongolia	0.69	27.00	35.60	0.69	0.39	6.60	0.51
19	Nauru	(1998) 0.66	...	...	...	...	...	...
20	New Caledonia	...	...	...	...	...	...	...
21	New Zealand	0.94	...	...	0.93	0.80	32.20	0.70
22	Niue	(1998) 0.77	...	...	...	...	...	...
23	Northern Mariana Islands	...	...	...	...	...	...	...
24	Palau	(1998) 0.86	...	...	...	...	...	...
25	Papua New Guinea	0.52	...	37.50	0.52	...	0.90	0.73
26	Philippines	0.76	15.50	36.80	0.76	0.53	15.80	0.60
27	Pitcairn Islands	...	...	...	...	...	...	...
28	Republic of Korea	0.91	2.00	...	0.91	0.50	13.40	0.46
29	Samoa	0.78	...	...	0.77	...	4.10	0.38
30	Singapore	0.92	...	...	...	0.71	18.90	0.51
31	Solomon Islands	0.59	...	...	...	...	0.00	0.50
32	Tokelau	...	...	...	...	...	...	...
33	Tonga	0.82	...	...	0.81	...	3.30	0.47
34	Tuvalu	(1998) 0.58	...	...	...	...	...	...
35	Vanuatu	0.67	...	...	...	...	3.80	0.68
36	Viet Nam	0.71	...	28.90	0.71	...	27.30	0.71
37	Wallis and Futuna	...	...	...	...	...	...	...
	WESTERN PACIFIC REGION	...	...	...	...	...	...	...

Table 5. Health Status Indicators

	Country/ area	Life expectancy at birth				Mortality rates					
		Year	Total (years)	Male (years)	Female (years)	Year	Neonatal (per 1000 live births)	Infant (per 1000 live births)	Under-five (per 1000 live births)	Year	Maternal mortality ratio (per 100 000 live births)
1	American Samoa	2005	75.84	72.27	79.62	2005	2.90 [a]	7.00 [a]	(2002) 4.90	2002	123.00
2	Australia	2003–05	...	78.50	83.30	2005	3.60	5.00	5.90	2000–02	11.00
3	Brunei Darussalam	2005	...	74.20	77.30	2005	4.50	7.40	9.40	2005	14.40
4	Cambodia	2003	...	60.00	65.00	2005	28.00	66.00	83.00	2005	472.00
5	China	2000	71.40	69.60	73.70	2005	13.20	19.00	22.50	2005	47.70
6	Cook Islands	2005	69.00	65.00	73.00	2005	9.90	(2006p) 10.80	11.00	2005	0.00
7	Fiji	2005	69.53	67.05	72.14	2005	15.37	16.30	25.81	2005	50.49
8	French Polynesia	2006	...	73.00	76.90	2005	3.80	5.30	14.70	2005	0.38
9	Guam	2005	78.40	75.34	81.64	2003	5.20	(2004) 12.30	(2005 est) 10.00	2003	0.00
10	Hong Kong (China)	2006p	...	79.46	85.57	2006p	1.07 [o]	1.84 [o]	2.36 [o]	2006p	0.00
11	Japan	2005	...	78.53	85.49	2005	1.40	2.80	3.90	2005	5.80
12	Kiribati	2005	61.00	58.90	63.10	2005	(2000) 27.00 [ap]	52.00	69.00	2005	158.00
13	Lao People's Democratic Republic	2005	61.00	59.10	63.00	2005	(2000) 36.20	70.00	97.60	2005	405.00
14	Macao (China)	2002-05	79.40	77.60	82.30	2006	1.72	2.71	3.20	2006	0.00
15	Malaysia	2006	...	71.80	76.30	2006 est	3.90	6.60	8.50	2006p	30.00
16	Marshall Islands	2004	...	67.00 [a]	70.60 [a]	FY2004	12.27	23.00	(1999) 48.00	FY 2004	0.00
17	Micronesia, Federated States of	2003 est	70.00	68.00	71.00	2003	(2000) 12.00est [ap]	21.00	23.00 est	2003	317.00 [aq]
18	Mongolia	2006	65.85	62.59	69.38	2006	12.40	19.78	24.04	2006	69.70
19	Nauru	2004	61.00	58.00	61.00	2002	6.30	12.70	19.10	2002	300.00
20	New Caledonia	2005	75.20	71.90	78.60	2005	2.50	(2006p)5.70	(2002) 9.06	2005	32.90
21	New Zealand	2003-05	78.81	77.50	81.70	2006	5.76 est	4.80	(2003) 6.34	2004	6.81
22	Niue	2001	70.10	69.80	71.20	2005	0.00	0.00	0.00	2006	0.00
23	Northern Mariana Islands	2005 est	75.88	93.31	78.61	2005 est	...	7.11	(1999) 7.43	2000	0.00
24	Palau	2004	71.62	67.80	75.68	2004	(2000) 14.00 [ap]	16.22	23.11 [a]	2004	11.58
25	Papua New Guinea	2000	53.00	52.50	53.60	2000	32.00 est	64.00	88.00	2000	330.00
26	Philippines	2004 est	...	67.53	72.78	1998-2003	17.00	29.00	40.00	1998	172.00
27	Pitcairn Islands		...	...	...		...	...	...		...
28	Republic of Korea	2005	78.63	75.14	81.89	2002	3.30	(2003) 5.30	(2005) 6.23	2003	15.00
29	Samoa	2001	72.80	71.80	73.80	2002	4.20	(2004) 13.00	13.70	2004	5.30
30	Singapore	2006	79.90	78.00	81.80	2006	1.80 [b]	2.60 [b]	3.70	2006	5.20
31	Solomon Islands	2005	63.40	62.60	64.30	2002	12.00 [ap]	(2005-10) 31.40	(2005) 52.00 est	2005	236.00
32	Tokelau	1997-2000	...	68.40	71.30	2003	40.00 [ag]	(1997-2000) 33.00	(1999) 0.00	2001-02	0.00
33	Tonga	2005	...	70.00	72.00	2000	10.00 [ap]	(2005) 11.80	(2001) 16.59	2005	227.80
34	Tuvalu	2002	63.60 [a]	61.70 [a]	65.10 [a]	2003	...	21.60	32.40	2002	0.00
35	Vanuatu	2005 est	...	70.20	74.30	2002 est	19.00 [ap]	(1999) 27.00	(2005) 2.80	2005	36.90
36	Viet Nam	2002	71.30	70.00	73.00	2005 est	...	17.80	27.50	2005 est	80.00
37	Wallis and Futuna	2003 est	74.30	73.10	75.50	2003 est	...	5.90	...		...
	WESTERN PACIFIC REGION	**2000**	**A: 80.90 [ao]** **B: 70.40 [ao]**	**A: 77.30 [ao]** **B: 68.20 [ao]**	**A: 84.20 [ao]** **B: 72.70 [ao]**	**2000-05**	**...**	**33.80**	**39.50**	**2000 est**	**81.00**

Table 6. Maternal, Child Care and Nutritional Indicators

	Country/ area	Maternal and Child Care							
		Year	% of women in reproductive age group using modern contraceptive methods (%)	Year	% deliveries attended by skilled health personnel (%)	Year	% of deliveries in health facilities (%)	Year	% deliveries at home attended by skilled health personnel (%)
1	American Samoa	2000	33.00	2002	100.00	2002	99.00	2002	1.00
2	Australia	2001	65.00 [ar]	2004	99.50	2004	99.30	2004	0.20
3	Brunei Darussalam		...	2005	99.70	2005	99.65	2005	0.05
4	Cambodia	2005	27.00	2005	43.80	2005	22.00	2005	22.20
5	China	2002 est	84.60	2006	97.80	2006	88.40	2006	9.40
6	Cook Islands	2005	39.87	2005	100.00	2005	99.63	2005	0.37
7	Fiji	2005	42.29		...	2005	98.88		...
8	French Polynesia		...	2004	99.97	2004	99.10	2004	0.96
9	Guam		...		...	2004	87.22		...
10	Hong Kong (China)		...	2006	100.00	2006	100.00 [au]	2006	0.00
11	Japan	1995-2000	59.00		...	2004	99.80		...
12	Kiribati	2005	18.46	2005	89.65 [ag]	2005	85.00 [av]	2005	4.65 [av]
13	Lao People's Democratic Republic	2000	28.90	2000	21.00	2000	12.00	2004	9.00
14	Macao (China)		...	2006	100.00	2006	100.00	2006	0.00
15	Malaysia		...	2005	100.00	2005	98.00	2005	2.00
16	Marshall Islands	2001	34.00 [as]		...		...		...
17	Micronesia, Federated States of	2000	70.00		...		...		...
18	Mongolia	2006	50.77	2006	99.70	2006	99.50	2006	0.20
19	Nauru		...		...		...		...
20	New Caledonia		...	2005	91.97	2005	87.60	2005	4.37
21	New Zealand	2002 est	72.00		...	2004 est	95.30		...
22	Niue	2005	22.00	2006	100.00	2006	100.00	2006	0.00
23	Northern Mariana Islands	2000	64.00		...		...		...
24	Palau	2006	22.83	2006	100.00	2006	100.00	2006	0.00
25	Papua New Guinea	2005	20.00	2005	38.20	2005	35.00	2005	3.20
26	Philippines	2003	21.60	1998-2003	58.20	1998-2003	38.00	1998-2003	20.20
27	Pitcairn Islands		...		...		...		...
28	Republic of Korea	2006	79.70	2006	100.00	2006	99.90	2006	0.10
29	Samoa	2004	53.90	2004	100.00	2004	91.00	2004	9.00
30	Singapore	2003	72.50		...	2006	99.71		...
31	Solomon Islands	2005	25.00		...	2003	43.00 [aw]		...
32	Tokelau	1999	13.40		...		...		...
33	Tonga	2002	23.10	2004	99.00	2004	98.00	2004	1.00
34	Tuvalu	2001	28.50		...		...		...
35	Vanuatu	2005	30.07	2005	91.97	2005	87.60	2005	4.37
36	Viet Nam	2005	65.80	2005	96.10 [at]	2005	82.00 [at]		...
37	Wallis and Futuna		...		...		...		...
	WESTERN PACIFIC REGION		**...**		**...**		**...**		**...**

Maternal and Child Care						National underweight, stunting and wasting prevalence (age 0-59 months)			
Year	% of newborn babies weighing at least 2500 grams at birth			Year	% of women given at least 2 doses of tetanus toxoid TT2+	Year	≤2 SD weight/ age	≤2 SD height/ age	≤2 SD weight/ height
	Total	*Male*	*Female*				*(%)*	*(%)*	*(%)*
2005	96.22 [ax]	…	…		…		…	…	…
2004	93.60	94.10	93.10	2005	NR	1995-1996	0.00 [ba]	0.00 [ba]	0.00 [ba]
2005	90.60	…	…	2005	41.00	1995-1996	14.00	13.00	3.60
2005	36.00	…	…	2006	50.00	2005	35.55	(2000) 44.60	(2000) 15.00
2002	97.61	…	…		…	2002	7.88	14.30	(2000) 2.20
2005	97.70	…	…	2006	100.00		…	…	…
2005	91.00	…	…		…	1993	7.90	2.70	8.20
2004	93.08	…	…	2006	NR	2004	3.10	…	…
2004	91.54 [ax]	…	…	2006	NR		…	…	…
2006	94.89 [ay]	95.54 [ay]	94.17 [ay]		…		...	…	…
2005	90.50	91.50	89.40		…		…	…	…
2005	91.80	92.30	91.40	2006	45.00	1999	13.00	(1985) 28.30	(1985) 10.80
1998	82.00	…	…	2006	32.00	2000	40.00	40.70	15.40
2006	92.88	93.61	92.08	2003	68.00		…	…	…
2005	91.40	…	…	2006	90.00	2005	8.10 [az]	…	…
FY 2004	87.63	…	…	2006	50.00	1999	27.00	… [bd]	… [bf]
2000	82.00	…	…	2004	NR		…	…	…
2006	95.90	…	…		…	2006	6.70	(1999) 24.60	(1999) 3.60
	…	…	…	2006	NR		…	…	…
2005	92.00	…	…		…	1996	… [bb]	…	…
2006	94.18	…	…	2006	NR		…	…	…
2005	100.00	100.00	100.00	2005	NR	2005	0.00	…	…
2000	81.01	…	…	2006	NR		…	…	…
1998	91.00	…	…	2004	100.00	1997	1.40	…	…
2002	90.00	…	…	2005	66.00	2005	31.00	(1982-83) 43.20 [be]	(1982-83) 5.50 [be]
1998-2003	54.80	…	…	2006	42.00	2003	27.60	30.00	5.30
	…	…	…		…		…	…	…
2005	95.70	96.10	95.30		…	1997	3.00 [bc]	…	…
2004	98.50	…	…	2006	1.00	1999	1.90	4.20	0.90
2005	90.90	…	…		…	1995-2003	14.00	(2000) 2.20	(2000) 2.40
	…	…	…	2005	46.00	1999	21.00	(1989) 27.30	(1989) 6.60
2003	100.00	…	…		…		…	…	…
2002	97.50	…	…	2006	98.00	1986	…	1.30	0.90
2000	95.00	…	…	2006	100.00		…	…	…
2005	96.40	…	…	2006	88.00	1996	12.00	20.00	6.00
2005	94.90	…	…	2006	91.00	2005	25.20	(2004) 30.70	(2003) 7.20
	…	…	…	2002	69.50		…	…	…
	…	…	…		…		…	…	…

Table 6. Maternal, Child Care and Nutritional Indicators

	Country/ area	Maternal and Child Care			
		Year	Proportion of babies exclusively breastfed for the first six months (%)	Proportion of babies aged 6-9 months receiving breastmilk and complementary food (%)	Vitamin A supplementation to children aged 6-59 months old (%)
1	American Samoa	1997	20.00 [bg]	…	…
2	Australia	2001	46.00	…	…
3	Brunei Darussalam	2003	14.60	…	…
4	Cambodia	2005	60.00	82.00	35.0
5	China	2000	48.70 (urban) 60.40 (rural) [bh]	…	…
6	Cook Islands	1998	19.00	45.00	…
7	Fiji	1995	53.00	52.00	…
8	French Polynesia	2001	19.00	…	…
9	Guam		…	…	…
10	Hong Kong (China)		…	…	…
11	Japan	2000	41.00 [bh]	97.90	…
12	Kiribati	1995-2003	80.00 [bh]	…	(2003) 45.00
13	Lao People's Democratic Republic	2000	16.90 [bi]	9.90	28.80
14	Macao (China)		…	…	…
15	Malaysia	1995-2003	29.00 [bh]	…	…
16	Marshall Islands	1995-2003	63.00 [bh]	…	(2003) 23.00
17	Micronesia, Federated States of	1995-2003	60.00 [bh]	…	(2003) 95.00 [bj]
18	Mongolia	2004	79.70 [bh]	(2001) 55.00	(2003) 87.00 [bj]
19	Nauru		…	…	…
20	New Caledonia		…	…	…
21	New Zealand		…	…	…
22	Niue		…	…	…
23	Northern Mariana Islands		…	…	…
24	Palau	1995-2003	59.00 [bh]	…	…
25	Papua New Guinea	2004	21.00-86.00	60.00	(2003) 1.00
26	Philippines	2003	33.50	57.90	76.60
27	Pitcairn Islands		…	…	…
28	Republic of Korea	1998	14.00 [bg]	92.00	…
29	Samoa	1999	58.30 [bg]	…	…
30	Singapore		…	…	…
31	Solomon Islands	1995-2003	65.00 [bh]	…	…
32	Tokelau		…	…	…
33	Tonga	1999	61.00 [bh]	37.00	…
34	Tuvalu		…	…	…
35	Vanuatu	1996	73.00 [bg]	…	…
36	Viet Nam	2005	12.00	88.00	87.00 [bk]
37	Wallis and Futuna		…	…	…
	WESTERN PACIFIC REGION		**…**	**…**	**…**

Maternal and Child Care				Mean BMI				
Year	Proportion of children aged 0-59 months who had diarrhoea in the past 2 weeks and were treated with ORT (%)	Year	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 (%)	Year of survey	Age group (years)	Total	Male	Female
	…		…			…	…	…
	…		…			…	…	…
	…		…			…	…	…
	38.00	2005	48.00	2000	15-49	…	…	17.80-23.40
	…		…			…	…	…
	…		…	2003	25-64	32.90	32.50	33.40
	…		…	2002	25-64	26.60	25.20	28.10
	…		…	1995	16+	29.40	23.10-34.50	22.60-37.00
	…		…			…	…	…
	…		…			…	…	…
	…		…			…	…	…
	…		…			…	…	…
	95.50	2000	36.00			…	…	…
	…		…			…	…	…
	…		…	1996	20+	22.90	22.70	23.10
	…		…	2002	25-64	29.90	28.90	31.00
	…		…	2002	25-64	29.50	27.70	31.40
	…		…	1999	35+	26.00	25.00	26.60
	…		…	2004	25-64	35.10	34.60	35.60
	…		…	1992-94	30-59	22.80-33.20	22.50-31.70	23.10-34.50
	…		…	2002-03	15+	26.60	26.90	26.40
	…		…	1981	20+	27.00	26.10	27.80
	…		…			…	…	…
	…		…			…	…	…
	…		…			…	…	…
	58.90	2003	96.30	1998	20+	22.50	22.40	22.60
	…		…			…	…	…
	…		…			…	…	…
	…		…	2002	25-64	31.70	30.00	33.40
	…		…			…	…	…
	…		…			…	…	…
	…		…			…	…	…
	…		…	1998-2000	15-70	32.30	30.20	33.80
	…		…			…	…	…
	…		…	1998	20+	25.60	21.20-29.20	20.90-31.10
	(2002) 74.00	2002	71.00	1987-89	15+	17.00-21.20	16.90-21.30	17.00-21.20
	…		…			…	…	…
	…		…			…	…	…

Table 6. Maternal, Child Care and Nutritional Indicators

	Country/ area	Percentage prevalence overweight					Percentage prevalence obese				
		BMI ≥ 25					BMI ≥ 30				
		Year of survey	Age group (yrs)	Total	Male	Female	Year of survey	Age group (yrs)	Total	Male	Female
1	American Samoa			…	…	…			…	…	…
2	Australia	2001	18+	46.20	54.50	38.20	2001	18+	15.10	14.80	15.30
3	Brunei Darussalam			…	…	…			…	…	…
4	Cambodia	2000	15-49	…	…	6.40	2000	15-49	…	…	0.70
5	China	2002	18+	22.80 [bl]	…	…	2002	18+	7.10 [bm]	…	…
6	Cook Islands	2003	25-64	89.20	90.10	88.30	2003	25-64	62.40	58.60	66.30
7	Fiji	2002	25-64	56.70	46.40	68.40	2002	25-64	22.80	13.20	33.70
8	French Polynesia	1995	16+	73.70	75.20	72.50	1995	16+	40.90	36.30	44.30
9	Guam			…	…	…			…	…	…
10	Hong Kong (China)	1995/1996	25-74	…	38.00	34.00	1995/1996	25-74	…	5.00	7.00
11	Japan	2002	20+	25.50	28.80	22.70	1991-95	20+	2.37	1.86	2.79
12	Kiribati			…	…	…			…	…	…
13	Lao People's Democratic Republic	2000	15+	8.50	5.90	10.80	2000	15+	1.20	0.70	1.60
14	Macao (China)			…	…	…			…	…	…
15	Malaysia	1996	20+	26.50	24.10	29.00	1996	20+	5.80	4.00	7.60
16	Marshall Islands	2002	25-64	80.60	78.00	83.50	2002	25-64	45.20	38.50	52.70
17	Micronesia, Federated States of	2002	25-64	73.90	65.40	83.10	2002	25-64	43.50	30.50	57.30
18	Mongolia	1999	35+	52.00	44.00	57.00			…	…	…
19	Nauru	2004	25-64	93.30	92.80	93.80	2004	25-64	74.70	72.10	77.30
20	New Caledonia	1992-94	30-59	…	…	70.40			…	…	…
21	New Zealand	2002-03	15+	57.00	63.00	51.10	2002-03	15+	22.50	21.90	23.20
22	Niue			…	…	…			…	…	…
23	Northern Mariana Islands			…	…	…			…	…	…
24	Palau			…	…	…			…	…	…
25	Papua New Guinea			…	…	…			…	…	…
26	Philippines	1998	20+	20.20	17.00	23.30	1998	20+	3.30	2.10	4.40
27	Pitcairn Islands			…	…	…			…	…	…
28	Republic of Korea	1998	19+	26.30	26.00	26.50	1998	19+	2.40	1.70	3.00
29	Samoa	2002	25-64	86.10	82.20	90.80	2002	25-64	57.30	48.40	67.90
30	Singapore	1998	18-69	30.40	33.90	27.00	1998	18-69	6.00	5.30	6.70
31	Solomon Islands			…	…	…			…	…	…
32	Tokelau			…	…	…			…	…	…
33	Tonga			…	…	…	2004	…	60.00 [bn]	…	…
34	Tuvalu			…	…	…	1983	…	…	75.00	50.00
35	Vanuatu	1998	20+	48.90	45.90	51.90	1998	20+	15.90	12.20	19.60
36	Viet Nam			…	…	…			…	…	…
37	Wallis and Futuna			…	…	…			…	…	…
	WESTERN PACIFIC REGION			**…**	**…**	**…**			**…**	**…**	**…**

Table 7. Environmental Health and Prevalence of Tobacco Use Indicators

	Country/ area	Percentage of population with				Estimated smoking prevalence among adults				Youth prevalence on tobacco use			
		Year	Access to improved water source (%)	Year	Access to improved sanitation (%)	Year	Total (%)	Male (%)	Female (%)	Year of survey	Total (%)	Male (%)	Female (%)
1	American Samoa	2004	99.00	2004	99.00	2006	29.90	38.10	21.60		…	…	…
2	Australia	2004	100.00	2004	100.00	2001	…	21.00	18.00	2001	15.10	14.10	16.20
3	Brunei Darussalam	2005	99.00	2002	80.00	1997	…	36.10	6.40		…	…	…
4	Cambodia	2005	55.60 [bo]	2005	21.60	1999	…	66.70	10.00	2003	8.80	11.40	3.20
5	China	2004	77.00	2004	44.00	1998	…	53.40	4.00	1999	8.60	11.10	6.40
6	Cook Islands	2004	94.00	2004	100.00	2006	33.30	37.50	28.90	2003	43.60	39.90	46.70
7	Fiji	2004	47.00	2004	72.00	2006	14.30 [br]	28.10 [br]	4.40 [br]	1999	15.10	24.10	13.40
8	French Polynesia	2004	100.00	2004	98.00	1995	…	36.00	36.00		…	…	…
9	Guam	2004	100.00	2004	99.00	1999	…	37.70	26.90		…	…	…
10	Hong Kong (China)	2006	100.00	2006	99.00	1998	…	27.10	2.90	1999	…	17.00	13.00
11	Japan	2004	100.00	2004	100.00	2000	…	47.40	11.50		…	…	…
12	Kiribati	2004	65.00	2004	40.00	1999	…	56.50	32.30	1981	…	95.00	63.00
13	Lao People's Democratic Republic	2004	51.00	2004	30.00 [a]	1995	…	41.00	15.00		…	…	…
14	Macao (China)	2006 est	100.00	2006 est	100.00	1997	…	31.58	4.18	2001	8.00	9.40	6.20
15	Malaysia	2004	99.00	2004	94.00	1986	…	41.00	4.00		…	…	…
16	Marshall Islands	2004	87.00	2004	82.00	2006	16.50	34.10	5.20		…	…	…
17	Micronesia, Federated States of	2004	94.00	2004	28.00	1994	…	42.00	0.60	2006/07	37.50 [bs]	44.20 [bs]	30.40 [bs]
18	Mongolia	2004	62.00	2004	59.00	2006	24.20	43.10	4.10	2001	…	18.80	8.20
19	Nauru	2003	100.00	2003	100.00	2006	48.20	45.50	50.80		…	…	…
20	New Caledonia		…		…	1992	…	28.00	34.00		…	…	…
21	New Zealand		…	2002	100.00	2001	…	25.10	24.80	2001	…	16.30	22.00
22	Niue	2004	100.00	2004	100.00	1980	…	58.00	17.00	1980	…	43.00	15.00
23	Northern Mariana Islands	2004	99.00	2004	95.00		…	…	…	2000	62.40	68.40	57.10
24	Palau	2004	85.00	2004	83.00	1998	…	14.00	4.00	2001	71.00	…	…
25	Papua New Guinea	2004	39.00	2004	44.00	1990	…	76.00	80.00	2006/07	19.80 [bt]	24.50 [bt]	14.10 [bt]
26	Philippines	2004	85.00	2004	72.00 [a]	2001	…	50.60	8.00	2000	23.30	37.30	18.40
27	Pitcairn Islands		…		…		…	…	…		…	…	…
28	Republic of Korea	2005	90.70	2005	83.50	1997	…	65.00	4.40	1998	…	29.00	13.00
29	Samoa	2004	88.00	2004	100.00	2006	34.60	49.40	18.00	2006/07	19.70 [bs]	23.20 [bs]	15.30 [bs]
30	Singapore	2006	100.00	2006	100.00	2001	…	24.20	3.50	2000	9.10	13.40	8.80
31	Solomon Islands	2004	70.00	2004	31.00	1989	…	…	33.00	1989	…	…	10.00
32	Tokelau	2004	88.00	2004	78.00	2006	46.40	47.30	45.60	1994	…	50.50	47.40
33	Tonga	2004	100.00 [a]	2004	96.00	1991	…	62.40	14.20	1994	…	14.30	0.00
34	Tuvalu	2004	93.00	2004	90.00	1976	…	51.00	31.00	2006/07	14.30 [bs]	14.80 [bs]	12.00 [bs]
35	Vanuatu	2002	60.00	2002	50.00	2006	12.60	23.50	4.60	1998	…	58.20	17.70
36	Viet Nam	2004	85.00	2004	61.00	1997	…	50.70	3.50	1995	…	20.00	…
37	Wallis and Futuna	2004	100.00	2004	80.00	1996	…	42.00	18.00		…	…	…
	WESTERN PACIFIC REGION	**2004 est**	**79.99 [bp]**	**2004 est**	**51.80 [bq]**		**…**	**…**	**…**		**…**	**…**	**…**

Table 8. Health Workforce and Infrastructure Indicators

	Country/ area	Health workforce				
		Physicians			Nurses	
		Year	*Number*	*Rate per 10 000*	*Number*	*Rate per 10 000*
1	American Samoa	2003	49	7.83	127	20.29
2	Australia	2007p	57 000	27.71	182 200	88.42
3	Brunei Darussalam	2005	390	10.54	1789	48.34
4	Cambodia	2004	2122	1.62	4516	3.45
5	China	2006	1 994 854	15.50	1 426 339	11.10
6	Cook Islands	2004	22	12.20	52	28.85
7	Fiji	2006	315	3.69 [ag]	1673	19.60 [ag]
8	French Polynesia	2005	676	26.02	1141	43.90
9	Guam	2005	244 [bu]	14.14	…	…
10	Hong Kong (China)	2006p	11 739 [bv]	17.01 [bv]	36 444 [cb]	52.81 [cb]
11	Japan	2004	270 371	21.17	1 146 181 [cc]	89.77
12	Kiribati	2006	30	3.20	(2004) 238	26.50
13	Lao People's Democratic Republic	2005	1283	2.26	5291 [cd]	9.32
14	Macao (China)	2006	1540 [bw]	30.87	1212	24.30
15	Malaysia	2006	21 937	8.23	47 642	17.88
16	Marshall Islands	2004	31	5.06	115	18.78
17	Micronesia, Federated States of	2005	62	5.43	229	20.07
18	Mongolia	2006	7079	27.28	8 359	32.22
19	Nauru	2004	5	4.95	48	47.52
20	New Caledonia	2006	519	21.59 [ag]	1029	42.80 [ag]
21	New Zealand	2003	8790	21.90	(2004) 34 660 [ce]	85.40
22	Niue	2006p	4	23.12	13	75.14
23	Northern Mariana Islands	1999	31	4.47	123	17.74
24	Palau	2006	26	13.06	117	58.77
25	Papua New Guinea	2005	750	1.26	8914	14.98
26	Philippines	2004	93 862	11.35	352 398	42.63
27	Pitcairn Islands		…	…	…	…
28	Republic of Korea	2007p	92 056	18.90	235 965	48.45
29	Samoa	2005	50	2.74	136	7.47
30	Singapore	2006	6931 [bx]	15.50	20 615 [cf]	46.00
31	Solomon Islands	2005	89	1.86	620	12.97
32	Tokelau	2003	3	20.00	10	66.67
33	Tonga	2003	32 [by]	3.90	342	33.70
34	Tuvalu	2003	4	4.18	30 [cg]	31.38
35	Vanuatu	2005	29	1.30	312	14.06
36	Viet Nam	2005	50 106 [bz]	6.03 [bz]	52 115 [ch]	6.27 [ch]
37	Wallis and Futuna	2004	13 [ca]	8.72	47 [ci]	31.54
	WESTERN PACIFIC REGION		…	…	…	…

Health workforce				Health infrastructure		
Midwives		Total	Density	Hospital beds		
Number	*Rate per 10 000*	*(physicians, nurses, midwives)*	*(per 10 000 population)*	Year	*Number*	*Rate per 1000 population*
1	0.16	177	28.83	2003	128 [cr]	2.08 [a]
16 800	8.15	256 000	124.24 [co]	2004-05	82 101 [cs]	4.04
748	20.21	2927	79.09	2005	1113 [ct]	3.01
1 754	1.34	8392	6.41	2004	1770 [a,cu]	0.14 [a]
(2001) 42 000	0.30	… [cq]	… [cq]	2006	2 933 705 [cv]	2.23
11	6.10	85	60.71	2005	127 [cw]	6.29
…	…	… [cp]	… [cp]	2005	1 768	2.09
131	5.04	1948	76.51	2005	909	3.57
…	…	… [cp]	… [cp]	2005	187	1.11
4 648 [cj]	6.74 [cj]	52 831	77.05	2006	34 532 [cy]	5.04
25 257	1.98	1 441 809	112.92	2005	1 798 473	14.08
(2004) 32	3.60	… [cq]	… [cq]	2005	140 [cz]	1.51
…	…	… [cp]	… [cp]	2005	6739	1.20
…	…	… [cp]	… [cp]	2006	1120 [da]	2.18
16 667 [ck]	6.25	86 246	32.37	2006p	50 262 [da]	1.89
…	…	… [cp]	… [cp]	1999	105 [db]	2.07 [a]
20	1.75	311	27.26	2006	365	3.31
646	2.49	16 084	61.99	2006	16 636	6.41
2	1.98	55	54.46	2004	60	5.94 [a]
96	3.99 [ag]	1644	68.39	2005	934 [dc]	3.99
(2004) 3780 [cl]	9.30	… [cq]	… [cq]	2002	23 825	5.99 [a]
2	11.56	19	116.56	2006	8 [cz]	4.91 [a]
14	2.02	168	33.04	2000	82	1.18 [a]
1	0.50	144	71.86	2006	118	5.89
567	0.95	10 231	17.19		…	
136 036	16.46	582 296	70.44	2006	106 316 [dc]	1.25
…	…	…	…		… …	
8 711	1.79	336 732	69.72 [co]	2006	417 387 [da]	8.64
37	2.03	223	12.15	2005	177 [a,cr]	0.96
312	0.70	27 858	77.20	2006	11 545	3.20
74	1.55	783	16.38	2005	691 [dd]	1.45
(2000) 3	20.00	… [cq]	… [cq]	2003	18 [cz]	12.00
(2002) 21	2.08	… [cq]	… [cq]	2004	296 [de]	2.91 [a]
10	10.46	44	43.14	2001	56 [cx]	5.56
50	2.22	391	17.62	2005	906 [cw]	4.08
18 313 [cm]	2.23 [cm]	120 534	14.50	2005	212 464	2.56
11 [cn]	7.38 [cn]	71	47.65	2004	59 [cz]	3.96
…	…	…	…		…	…

Table 9. Morbidity and Mortality Indicators

	Country/ area	Communicable Diseases									
		Cholera			Dengue fever/ DHF			Leprosy		Malaria	
		Year	Cases	Deaths	Year	Cases	Deaths	Year	Cases	Year	Cases	Deaths
1	American Samoa	2003	0	0	2001	3196	...	2004	3		...	...
2	Australia	2006	3	(2004) 0	2006	187	(2004) 1	2004	5	2006	771	(2004) 1
3	Brunei Darussalam	2005	0	0	2005	68	0	2005	1	2005	0	0
4	Cambodia		...	...	2006	16 649	158	2005	429	2005	49 436	296
5	China	2006	159	2	2006	1044	0	2005	1658	2005	21 935	48
6	Cook Islands	2005	0 [df]	0	2005	0 [df]	0	2005	0	2005	0 [df]	0
7	Fiji	2005	0	0	2005	27	...	2005	3	2005	0	0
8	French Polynesia	2005	0 [dg]	0	2005	11 [dg]	0	2005	10	2005	0	0
9	Guam	2003	0	0		...	...	2005	6		...	...
10	Hong Kong (China)	2005p	5 [dh]	0	2005p	31 [dh]	0	2005p	4 [dh]	2005p	32 [dh]	2
11	Japan	2005	43	0	2005	...	1	2005	6	2005	...	1
12	Kiribati	2005	0	0	2004	0	0	2005	34		...	...
13	Lao People's Democratic Republic	2002	1272	...	2006	6356	6	2005	140	2006	24 253	21
14	Macao (China)	2006	0	0	2006	2	0	2005	0	2006	0	0
15	Malaysia	2006p	237	2	2006p	7008 [dj]	23	2006p	115	2006p	3188 [dj]	5
16	Marshall Islands	2005	0	0	2004	0	0	2005	44		...	...
17	Micronesia, Federated States of	2006	0	0	2006	2	...	2005	260		...	...
18	Mongolia	2006	0	0		...	...	2005	0		...	...
19	Nauru	2002	0	0		...	...	2005	1		...	...
20	New Caledonia		...	...	2005	46	0	2005	4		...	...
21	New Zealand	2005	1	0	2004	8	0	2005	2	2004	33 [dl]	0
22	Niue	2005	0	0	2005	0	0	2005	0	2005	0	0
23	Northern Mariana Islands		...	...		...	...	2003	4		...	...
24	Palau	2006	0	0	2006	26	0	2006	4	2006	0	0
25	Papua New Guinea	2000	0	0	2002	22	...	2005	381	2005	98 762 [dm]	725
26	Philippines	2004	351	(2002) 23	2006	36 712	378	2005	3130	2005	46 485	145
27	Pitcairn Islands		...	...		...	...		...		...	...
28	Republic of Korea	2005	16	0	2005	34	...	2005	15	2005	1323	0
29	Samoa	2004	0	0	2005	28	0	2005	7		...	...
30	Singapore	2006	0	0	2006	3127	...	2006	12	2006	124	...
31	Solomon Islands		...	...	2004	0	0	2005	26	2005	76 762	38
32	Tokelau		...	...		...	...	2005	0		...	...
33	Tonga	2002	0	0	2004	3	0	2005	0		...	...
34	Tuvalu	2005	0	0	2004	0	0	2004	0		...	...
35	Vanuatu	2005	1 [a]	0	2005	0	0	2005	0	2005	9834	...
36	Viet Nam	2005	0	0	2005	59 550	54	2005	746	2005	19 497	18
37	Wallis and Futuna		...	...		...	...	2003	0		...	...
	WESTERN PACIFIC REGION	**2005**	**1165** [di]	**5**	**2004**	**160 372**	**571**	**2005**	**7201** [dk]	**2005**	**343 062** [dn]	**1385** [dn]

Vaccine preventable diseases --- Number of reported cases								
AFP *2005*	**Congenital rubella** *2006*	**Diptheria** *2006*	**Hib meningitis** *2005*	**Measles** *2006*	**Mumps** *2006*	**Neonatal tetanus** *2006*	**Pertussis** *2006*	**Poliomyelitis** *2006*
0	0	0	0	0	0	0	0	0
26	(2005) 1	(2005) 0	2	(2005) 10	(2005) 240	(2005) 0	(2005) 11 277	(2005) 0
2	(2005) 0	(2005) 0	0	(2005) 9	(2005) 25	(2005) 0	(2005) 0	0
111	NR	0	…	188	NR	69	474	1 [dp]
5448	…	1	…	99 602	273 242	2519	2595	0
0	0	0	0	6	0	0	0	0
1	0	0	…	136	1020	0	0	0
0	0	0	0 [dg]	0	(2005) 0 [dg]	0	(2005) 0 [dg]	0
0	0	0	0	0	3	0	64	0
22	0	0	0 [do]	106	184	0	21	0
0	(2004) 1	(2004) 0	…	(2004) 8752	(2004) 84 672	…	(2004) 1534	0
0	0	0	0	0	0	0	0	0
59	NR	2	264	58	NR	8	182	0
1	0	0	0	2	66	0	0	0
140	…	0p	…	603p	…	11p	4p	0p
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
8	0	0	(2006) 65	22	5073	0	0	0
0	0	0	0	0	0	0	0	0
0	…	0	0	0	…	0	…	0
9	0	0	0	20	48	0	1122	0
0	(2005) 0	(2005) 0	0	(2005) 0	(2005) 0	(2005) 0	(2005) 0	0
0	0	0	0	0	0	0	1	0
0	…	0	0	0	0	0	0	0
18	NR	0	…	1	NR	58	3051	0
352	NR	47	0	9	NR	161	41	0
…	…	…	…	…	…	…	…	…
17	…	0	NR	25	2090	0	17	0
0	0	0	1	0	0	1	24	0
10	0	0	4	23	844	0	2	0
2	0	0	…	0	0	1	24	0
0	0	0	0	0	0	0	0	0
1	0	0	0	0	8	0	2	0
0	0	0	0	0	4	0	0	0
0	NR	…	(2003) 20	0	50	0	0	0
469	…	25	…	1978	…	27	144	0
1	(2004) 0	(2004) 0	(2004) 0	(2004) 0	(2004) 0	(2004) 0	(2004) 0	0
6697	**…**	**…**	**…**	**111 378**	**…**	**…**	**…**	**…**

Table 9. Morbidity and Mortality Indicators

	Country/ area	Vaccine preventable diseases --- Number of reported cases			Immunization coverage (%)		
		Rubella *2006*	Total tetanus *2006*	Yellow fever *2006*	BCG *2006*	DTP1 *2006*	DTP3 *2006*
1	American Samoa	0	0	0	(2005) NR	97.00	87.00
2	Australia	(2005) 31	(2005) 2	(2005) 0	(2005) NR	...	(2005) 92.30
3	Brunei Darussalam	(2005) 0	(2005) 0	...	(2005) 96.00	(2005) 100.00	(2005) 100.00
4	Cambodia	508	(2004) 1041	NR	87.00	85.00	80.00
5	China	37 137	...	...	92.00	99.00	93.00
6	Cook Islands	0	0	NR	100.00	100.00	100.00
7	Fiji	10	0	0	93.40	84.00	81.40
8	French Polynesia	(2005) 0 [dg]	0	0	99.00	99.00	97.00
9	Guam	0	0	0	...	...	89.00
10	Hong Kong (China)	35	2	0	99.00	95.00	95.00
11	Japan	(2004) 2794	(2004) 69	...	...	...	(2004) 100.00
12	Kiribati	0	0	0	100.00	98.00	86.00
13	Lao People's Democratic Republic	NR	17	0	96.00	68.00	81.00
14	Macao (China)	0	0	0	100.00	93.00	90.00
15	Malaysia	...	26p	0	100.00	90.00	99.20
16	Marshall Islands	0	0	0	92.00	90.00	74.00
17	Micronesia, Federated States of	0	0	0	55.00	...	81.00
18	Mongolia	1229	0	...	98.20	99.00	99.00
19	Nauru	0	0	0	100.00	98.00	72.00
20	New Caledonia	...	...	0	100.00	100.00	100.00
21	New Zealand	8	(2005) 1	0	...	92.00	89.00
22	Niue	(2005) 0	(2005) 0	0	100.00	100.00	100.00
23	Northern Mariana Islands	0	0	0	NR	97.00	73.00
24	Palau	0	0	0	...	98.00	98.00
25	Papua New Guinea	NR	58	NR	75.00	85.00	75.00
26	Philippines	NR	1232	NR	82.00	82.00	88.00
27	Pitcairn Islands	...	...	...	...	...	...
28	Republic of Korea	18	10	0	98.00	98.00	98.00
29	Samoa	0	4	0	84.00	80.00	56.00
30	Singapore	90	0	0	98.00	96.00	95.00
31	Solomon Islands	0	4	0	95.00	85.00	83.00
32	Tokelau	0	0	0	100.00	100.00	100.00
33	Tonga	0	0	0	100.00	100.00	100.00
34	Tuvalu	0	0	0	100.00	99.00	97.00
35	Vanuatu	NR	0	NR	92.00	90.00	85.00
36	Viet Nam	3403	57	...	95.00	94.00	94.00
37	Wallis and Futuna	(2004) 1	(2004) 0	...	(2002) 73.50	...	(2002) 100.00
	WESTERN PACIFIC REGION	**...**	**...**	**...**	**91.23** [dq]	**...**	**92.14** [dr]

Immunization coverage (%)						
HepB birth dose *2006*	**HepB3** *2006*	**Hib3** *2006*	**MCV1** *2006*	**MCV2** *2006*	**POL3** *2006*	**VitA1** *2004*
…	74.00	74.00	90.00	74.00	87.00 [dt]	(2003) NR
…	(2005) 94.60	(2005) 94.00	(2005) 93.40 [ds]	(2005) 85.00	(2005) 92.20	NR
(2005) 96.00	(2005) 100.00	(2005) 100.00	(2005) 97.00	(2005) 97.00	(2005) 100.00	NR
…	NR	NR	78.00	NR	80.00	75.00
88.00	91.00	…	93.00	94.00	94.00	(2003) NR
100.00	100.00	…	100.00	100.00	100.00	…
…	81.00	80.60	100.00	100.00	82.80	…
99.00	95.00	96.00	96.00	…	97.00	…
97.00	91.00	87.00	85.00	…	85.00 [dt]	NR
100.00	95.00	…	95.00	98.00	95.00 [dt]	(2003) NR
…	…	…	(2004) 100.00	…	(2004) 97.00	…
68.00	88.00	…	61.00	…	87.00	58.30
3.00	57.00	…	70.00	…	80.00	42.00
100.00	90.00	…	90.00	85.00	92.00	NR
90.00	89.90	90.00	100.00	90.00	99.50	(2003) NR
90.00	97.00	60.00	96.00	60.00	95.00	46.00
74.00	84.00	59.00	83.00	70.00	81.00	NR
98.00	98.50	98.00	98.90	96.00	98.30	…
100.00	100.00	NR	100.00	97.00	45.00	…
…	99.00	100.00	99.00	78.00	100.00 [dt]	…
NR	87.00	80.00	82.00	…	89.00 [dt]	…
70.00	100.00	100.00	100.00	100.00	100.00 [dt]	…
…	89.00	76.00	84.00	81.00	87.00 [dt]	..
98.00	98.00	98.00	98.00	98.00	98.00	…
35.00	80.00	NR	70.00	55.00	80.00	…
…	69.00	NR	92.00	NR	80.00	89.00
…	…	…	…	…	…	…
98.00	99.00	…	100.00	100.00	98.00 [dt]	…
71.00	56.00	…	54.00	21.00	57.00	…
…	94.00	…	93.00	95.00	95.00	…
…	83.00	NR	75.00	NR	80.00	…
100.00	100.00	100.00	100.00	34.00	100.00	(2003) NR
100.00	100.00	100.00	99.00	99.00	100.00	…
100.00	97.00	…	84.00	83.00	97.00	…
92.00	85.00	NR	99.00	NR	85.00	(2003) NR
64.00	93.00	…	93.00	…	94.00	82.60
…	(2002) 100.00	…	(2002) 100.00	…	(2002) 100.00	…
…	**88.57** [dr]	**…**	**92.38** [dr]	**…**	**92.11** [dr]	**…**

Table 9. Morbidity and Mortality Indicators

	Country/ area	HIV/AIDS		Lymphatic filariasis	
		Estimated HIV prevalence rate in adults (%) [6] *2005*	% of HIV/AIDS patients receiving adequate antiretroviral therapy (ART) [7] *as of June 2007*	Reported MDA coverage among total population at risk (%) *2006*	Number of MDA rounds *2006*
1	American Samoa	…	…	69.53	6
2	Australia	0.10	…	…	…
3	Brunei Darussalam	0.10	…	…	…
4	Cambodia	0.90 [du]	75.20 [ep]	78.50	2
5	China	0.10	31.60 [eq]	…	…
6	Cook Islands	…	…	94.33	6
7	Fiji	0.10	>14.00	63.94	5
8	French Polynesia	…	…	106.96	7
9	Guam	…	…	…	…
10	Hong Kong (China)	…	…	…	…
11	Japan	<0.10	…	…	…
12	Kiribati	…	…	(2005) 86.00	5
13	Lao People's Democratic Republic	0.10	…	…	..
14	Macao (China)	…	…	…	…
15	Malaysia	0.50	42.00 [er]	…	3
16	Marshall Islands	…	…	…	…
17	Micronesia, Federated States of	…	…	…	1--3
18	Mongolia	<0.10	…	…	…
19	Nauru	…	…	…	…
20	New Caledonia	…	…	…	0
21	New Zealand	0.10	…	…	…
22	Niue	…	…	(2004) 85.20	5
23	Northern Mariana Islands	…	…	…	…
24	Palau	…	…	…	…
25	Papua New Guinea	1.80 [dv]	25.70 [es]	…	2
26	Philippines	<0.10	13.80 [er]	68.00	3--4--5
27	Pitcairn Islands	…	…	…	…
28	Republic of Korea	<0.10	…	…	…
29	Samoa	…	…	75.67	6
30	Singapore	0.30	…	…	…
31	Solomon Islands	…	…	…	..
32	Tokelau	…	…	…	…
33	Tonga	…	…	97.00	…
34	Tuvalu	…	…	(2005) 80.80	5
35	Vanuatu	…	…	(2004) 85.00	5
36	Viet Nam	0.50	22.80 [ep]	88.85	3--4
37	Wallis and Futuna	…	…	52.37	5
	WESTERN PACIFIC REGION	**0.10**	**…**	**…**	**…**

Tuberculosis						
Prevalence rate (per 100 000 population) 2005	Incidence rate (per 100 000 population) 2005		Mortality rate (all cases per 100 000 population)	Cure rate (smear positive cases in DOTS areas)	Case detection rate of smear-positive cases (2005)	
All forms	*All forms*	*Smear-positive cases*	*2005*	*2004*	*DOTS*	*Total*
9.00	9.00	4.00	1.00	67.00	114.00	114.00
6.00	6.00	3.00	1.00	85.00	42.00	47.00
63.00	54.00	24.00	5.00	71.00	112.00	112.00
703.00	506.00	226.00	87.00	91.00	70.00	66.00
208.00	100.00	45.00	16.00	94.00	80.00	80.00
26.00	16.00	7.00	3.00	(2002) 100.00	77.00	77.00
30.00	23.00	10.00	4.00	(2003) 86.00	72.00	72.00
32.00	28.00	13.00	4.00	80.00	65.00	65.00
39.00	38.00	17.00	3.00	100.00	93.00	93.00
77.00	75.00	34.00	6.00	80.00	53.00	67.00
38.00	28.00	13.00	4.00	57.00	57.00	67.00
426.00	380.00	171.00	49.00	94.00	73.00	73.00
306.00	155.00	69.00	24.00	86.00	68.00	68.00
87.00	81.00	36.00	9.00	89.00	81.00	81.00
130.00	102.00	46.00	16.00	56.00	73.00	73.00
269.00	224.00	101.00	32.00	90.00	77.00	77.00
123.00	105.00	47.00	14.00	80.00	61.00	61.00
206.00	191.00	86.00	23.00	88.00	82.00	82.00
156.00	108.00	49.00	18.00	(2002) 50.00	57.00	0.00
30.00	25.00	11.00	3.00	94.00	67.00	67.00
9.00	9.00	4.00	1.00	66.00	51.00	51.00
87.00	44.00	20.00	9.00	(2002) 100.00	(2002) 314.00	0.00
92.00	76.00	34.00	11.00	88.00	54.00	54.00
61.00	52.00	23.00	7.00	100.00	64.00	64.00
475.00	250.00	111.00	46.00	64.00	21.00	28.00
450.00	291.00	131.00	47.00	87.00	75.00	75.00
…	…	…	…	…	…	…
135.00	96.00	43.00	11.00	80.00	18.00	56.00
27.00	20.00	9.00	3.00	100.00	66.00	66.00
28.00	29.00	13.00	3.00	81.00	100.00	100.00
201.00	142.00	64.00	23.00	87.00	55.00	55.00
112.00	56.00	25.00	12.00	…	…	0.00
32.00	25.00	11.00	3.00	(2002) 83.00	96.00	96.00
495.00	305.00	137.00	55.00	100.00	35.00	35.00
84.00	60.00	27.00	10.00	90.00	61.00	61.00
235.00	175.00	79.00	23.00	93.00	84.00	84.00
61.00	47.00	21.00	7.00	100.00	31.00	31.00
206.00	**110.00**	**49.00**	**17.00**	**91.00**	**76.00**	**78.00**

Table 9. Morbidity and Mortality Indicators

	Country/ area	Tuberculosis			
		DOTS coverage (%)	TB Notification rate (per 100 000 population) 2005		HIV prevalence in adult incident TB cases (%)
		2005	*All cases*	*Smear-positive cases*	*2005*
1	American Samoa	100.00	9.25	4.62	...
2	Australia	88.00	5.13	1.21	2.92
3	Brunei Darussalam	100.00	43.60	27.02	0.18
4	Cambodia	100.00	252.54	149.25	6.01
5	China	100.00	67.97	35.93	0.48
6	Cook Islands	100.00	5.57	5.57	...
7	Fiji	100.00	15.57	7.43	0.66
8	French Polynesia	100.00	24.55	8.18	...
9	Guam	100.00	37.14	15.92	...
10	Hong Kong (China)	100.00	81.21	22.51	0.55
11	Japan	83.40	21.23	8.53	0.72
12	Kiribati	100.00	334.17	124.81	...
13	Lao People's Democratic Republic	100.00	63.76	47.37	0.72
14	Macao (China)	100.00	77.15	29.55	...
15	Malaysia	100.00	60.53	33.32	2.77
16	Marshall Islands	100.00	179.14	77.47	...
17	Micronesia, Federated States of	100.00	88.70	28.96	...
18	Mongolia	100.00	174.50	70.58	0.18
19	Nauru	100.00	80.67	0.00	...
20	New Caledonia	100.00	20.69	7.60	...
21	New Zealand	100.00	8.02	2.06	...
22	Niue	100.00	0.00	0.00	...
23	Northern Mariana Islands	100.00	70.54	18.56	...
24	Palau	100.00	50.13	15.04	...
25	Papua New Guinea	53.00	213.41	30.66	9.71
26	Philippines	100.00	165.07	98.31	0.15
27	Pitcairn Islands	...	...	...	...
28	Republic of Korea	100.00	80.08	24.34	1.22
29	Samoa	100.00	12.97	5.95	...
30	Singapore	100.00	31.35	12.76	8.08
31	Solomon Islands	100.00	83.10	35.37	...
32	Tokelau	0.00	0.00	0.00	...
33	Tonga	100.00	17.59	10.75	...
34	Tuvalu	100.00	114.93	47.89	...
35	Vanuatu	100.00	35.96	16.56	...
36	Viet Nam	99.90	112.77	65.97	2.98
37	Wallis and Futuna	100.00	45.22	6.46	...
	WESTERN PACIFIC REGION	**98.49**	**72.72**	**38.33**	**0.97**

Anti-tuberculosis drug resistance						
Year	New cases				Previously treated	
	Number	*Isoniazid*	*Any resistance*	*Multidrug resistance*	*Numbers*	*MDR*
	…	…	…	…	…	…
2005	808 [dw]	0.20 [dw]	10.00 [dw]	1.50 [dw]	…	…
	…	…	…	…	…	…
2001	638	6.40	10.30	0.00	96	3.10
2001-04	… [dx]	… [dy]	… [dz]	… [ea]	… [eb]	… [ec]
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
2005	3271	5.00	11.10	0.90	163	8.00
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
2005	265	10.60	15.80	2.30	19	15.80
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
2005	247	6.50	13.40	0.40	14	21.40
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
2005	895	3.40	6.50	0.20	105	1.00
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…
	…	…	…	…	…	…

Table 9. Morbidity and Mortality Indicators

	Country/ area	Noncommunicable diseases								
		Year	Cancer	Year	Diseases of the circulatory system	Year	Motor and other vehicular accidents		Year	Suicide rate (per 100 000 population) [ag]
			Deaths		*Deaths*		*Cases*	*Deaths*		*Male* / *Female*
1	American Samoa	2002	37	2002	88	2002	101	5		… / …
2	Australia	2004	37 989 [a]	2005	46 134	2003	25 382	(2005) 1638	2005	16.15 / 4.29
3	Brunei Darussalam	2005	215	2005	310	2005	425	45	2005	3.07 / 0.57
4	Cambodia	2005	23		…	2002	…	535		… / …
5	China		…		…		…	…	1999	13.00 [eg] / 14.80 [eg]
6	Cook Islands	2005	7	2005	31	2005	105	6	2005	… [eh] / … [eh]
7	Fiji		…		…	2005p	745	76		… / …
8	French Polynesia	2005	293	2005	319	2005	…	38	2005	… [eh] / … [eh]
9	Guam	2000	125	2000	246	2000	…	23	2000	34.10 / 2.64
10	Hong Kong (China)	2005	12 310	2005	10 138	2005	…	176	2005	21.59 / 11.94
11	Japan	2005	325 941	2005	329 475	2005	…	10 028	2005	35.67 / 12.71
12	Kiribati	2005	27	2005	84	2005	…	3	2005	… [eh] / … [eh]
13	Lao People's Democratic Republic		…		…		…	…		… / …
14	Macao (China)	2005	485	2006	381	2006	…	17	2006	13.47 [b] / 6.51 [b]
15	Malaysia	2006	4229	2006	9977	2006	85 109	1675	2006	0.39 / 0.24
16	Marshall Islands	1998	12		…		…	…		… / …
17	Micronesia, Federated States of	2000	51 [ed]		…	2000	…	4 [ed]		… / …
18	Mongolia	2006	2899	2006	5938	2006	…	554	2006	33.04 / 4.81
19	Nauru	2002	13	2002	14	2002	…	0	2002	19.46 / 0.00
20	New Caledonia		…	2005	285	2005	713	13		… / …
21	New Zealand	2003	7932	2003	11083	2003-04	13 125 [ef]	(2003) 582	2003	19.25 [ei] / 6.97 [ei]
22	Niue		…		…		…	…		… / …
23	Northern Mariana Islands	1998	26		…	2000	555	(1998) 7		… / …
24	Palau	2006	31	1998	38	1998	77	4		… / …
25	Papua New Guinea	2000	268		…	2000	504	19	2000	0.00 / 0.04
26	Philippines	2002	38 821	2002	119 742	2002	…	6131	2002	2.50 / 0.77
27	Pitcairn Islands		…		…		…	…		… / …
28	Republic of Korea	2005	65 479	2005	56 576	2005	…	7957	2005	33.18 [ej] / 16.62 [ej]
29	Samoa	2004	12	2004	37	2002	129	4		… / …
30	Singapore	2006	4677	2006	5441	2006	…	198	2006	14.54 [b] / 8.73 [b]
31	Solomon Islands		…		…		…	…		… / …
32	Tokelau		…		…		…	…		… / …
33	Tonga	2002	76	2002	192	2002	109	0	2002	1.95 [ek] / 0.00 [ek]
34	Tuvalu	2004	0		…	2001	1	0		… / …
35	Vanuatu	2005	51	2005	44 [ee]	2005	65	…	2003	… [eh] / … [eh]
36	Viet Nam	2005	465	2005	3026	2005	149 055	11 184		… / …
37	Wallis and Futuna		…		…		…	…		… / …
	WESTERN PACIFIC REGION		**…**		**…**		**…**	**…**		**… / …**

Table 10. Millennium Development Goals Indicators

	Country/ area	Goal 1: Eradicate extreme poverty and hunger		Goal 4: Reduce child mortality					
		Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger		Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate					
				Mortality rates					
		Year	Prevalence of underweight children under five years of age	Year	Under-five	Year	Infant	Year	Proportion of 1 year-old children immunised against measles
1	American Samoa		…	2002	4.90	2005	7.00 [a]	2006	90.00
2	Australia	1995-1996	0.00 [ba]	2005	5.90	2005	5.00	2005	93.40 [ds]
3	Brunei Darussalam	1995-1996	14.00	2005	9.40	2005	7.40	2005	97.00
4	Cambodia	2005	35.55	2005	83.00	2005	66.00	2006	78.00
5	China	2002	7.88	2005	22.50	2005	19.00	2006	93.00
6	Cook Islands		…	2005	11.00	2006p	10.80	2006	100.00
7	Fiji	1993	7.90	2005	25.81	2005	16.30	2006	100.00
8	French Polynesia	2004	3.10	2005	14.70	2005	5.30	2006	96.00
9	Guam		…	2005 est	10.00	2004	12.30	2006	85.00
10	Hong Kong (China)		...	2006p	2.36 [o]	2006p	1.84 [o]	2006	95.00
11	Japan		…	2005	3.90	2005	2.80	2004	100.00
12	Kiribati	1999	13.00	2005	69.00	2005	52.00	2006	61.00
13	Lao People's Democratic Republic	2000	40.00	2005	97.60	2005	70.00	2006	70.00
14	Macao (China)		…	2006	3.20	2006	2.71	2006	90.00
15	Malaysia	2005	8.10 [az]	2006 est	8.50	2006 est	6.60	2006	100.00
16	Marshall Islands	1999	27.00	1999	48.00	FY2004	23.00	2006	96.00
17	Micronesia, Federated States of		…	2003	23.00 est	2003	21.00	2006	83.00
18	Mongolia	2006	6.70	2006	24.04	2006	19.78	2006	98.90
19	Nauru		…	2002	19.10	2002	12.70	2006	100.00
20	New Caledonia	1996	… [bb]	2002	9.06	2006p	5.70	2006	99.00
21	New Zealand		…	2003	6.34	2006	4.80	2006	82.00
22	Niue	2005	0.00	2005	0.00	2005	0.00	2006	100.00
23	Northern Mariana Islands		…	1999	7.43	2005 est	7.11	2006	84.00
24	Palau	1997	1.40	2004	23.11 [a]	2004	16.22	2006	98.00
25	Papua New Guinea	2005	31.00	2000	88.00	2000	64.00	2006	70.00
26	Philippines	2003	27.60	1998-2003	40.00	1998-2003	29.00	2006	92.00
27	Pitcairn Islands		…		…		…		…
28	Republic of Korea	1997	3.00 [bc]	2005	6.23	2003	5.30	2006	100.00
29	Samoa	1999	1.90	2002	13.70	2004	13.00	2006	54.00
30	Singapore	1995-2003	14.00	2006	3.70	2006	2.60 [b]	2006	93.00
31	Solomon Islands	1999	21.00	2005 est	52.00	2005-10	31.40	2006	75.00
32	Tokelau		…	1999	0.00	1997-2000	33.00	2006	100.00
33	Tonga		…	2001	16.59	2005	11.80	2006	99.00
34	Tuvalu		…	2003	32.40	2003	21.60	2006	84.00
35	Vanuatu	1996	12.00	2005	2.80	1999	27.00	2006	99.00
36	Viet Nam	2005	25.20	2005 est	27.50	2005 est	17.80	2006	93.00
37	Wallis and Futuna		…	2003 est	…	2003 est	5.90	2002	100.00
	WESTERN PACIFIC REGION		**…**	**2000-05**	**39.50**	**2000-05**	**33.80**	**2006**	**92.38 [dr]**

Table 10. Millennium Development Goals Indicators

	Country/ area	Goal 5: Improve maternal health				Goal 6: Combat HIV/AIDS, malaria and other diseases			
		Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio				Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS		Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it	
		Year	Maternal mortality ratio	Year	Proportion of births attended by skilled health personnel	Year	Estimated HIV prevalence rate in adults (%) [substitute for 18]	Year	% of HIV/AIDS patients receiving adequate antiretroviral therapy (ART)
1	American Samoa	2002	123.00	2002	100.00		…		…
2	Australia	2000–02	11.00	2004	99.50	2005	0.10		…
3	Brunei Darussalam	2005	14.40	2005	99.70	2005	0.10		…
4	Cambodia	2005	472.00	2005	43.80	2006	0.90	2007	75.20 [ep]
5	China	2005	47.70	2006	97.80	2005	0.10	2007	31.60 [eq]
6	Cook Islands	2005	0.00	2005	100.00		…		…
7	Fiji	2005	50.49		…	2005	0.10	2007	>14.00
8	French Polynesia	2005	0.38	2004	99.97		…		…
9	Guam	2003	0.00		…		…		…
10	Hong Kong (China)	2006p	0.00	2006	100.00		…		…
11	Japan	2005	5.80		…	2005	<0.10		…
12	Kiribati	2005	158.00	2005	89.65 [ag]		…		…
13	Lao People's Democratic Republic	2005	405.00	2000	21.00	2005	0.10		…
14	Macao (China)	2006	0.00	2006	100.00		…		…
15	Malaysia	2006p	30.00	2005	100.00	2005	0.50	2006	42.00
16	Marshall Islands	FY 2004	0.00		…		…		…
17	Micronesia, Federated States of	2003	317.00 [aq]		…		…		…
18	Mongolia	2006	69.70	2006	99.70	2005	<0.10		…
19	Nauru	2002	300.00		…		…		…
20	New Caledonia	2005	32.90	2005	91.97		…		…
21	New Zealand	2004	6.81		…	2005	0.10		…
22	Niue	2006	0.00	2006	100.00		…		…
23	Northern Mariana Islands	2000	0.00		…		…		…
24	Palau	2004	11.58	2006	100.00		…		…
25	Papua New Guinea	2000	330.00	2005	38.20	2007	1.80	2007	25.70
26	Philippines	1998	172.00	1998-2003	58.20	2005	<0.10	2006	13.80
27	Pitcairn Islands		…		…		…		…
28	Republic of Korea	2003	15.00	2006	100.00	2005	<0.10		…
29	Samoa	2004	5.30	2004	100.00		…		…
30	Singapore	2006	5.20		…	2005	0.30		…
31	Solomon Islands	2005	236.00		…		…		…
32	Tokelau	2001-02	0.00		…		…		…
33	Tonga	2005	227.80	2004	99.00		…		…
34	Tuvalu	2002	0.00		…		…		…
35	Vanuatu	2005	36.90	2005	91.97		…		…
36	Viet Nam	2005 est	80.00	2005	96.10 [at]	2005	0.50	2007	22.80 [ep]
37	Wallis and Futuna		…		…		…		…
	WESTERN PACIFIC REGION	**2000 est**	**81.00**		**…**	**2005**	**0.10**		**…**

Goal 6: Combat HIV/AIDS, malaria and other diseases							
Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases							
Year	Malaria prevalence rate per 100 000 population	Year	Malaria death rate per 100 000 population	Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures			
				Year	Proportion of children under 5 sleeping under insecticide-treated bednets	Year	Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs
	…		…		…		…
2006	3.70	2004	0.00		…		…
2005	0.00	2005	0.00		…		…
2005	333.00	2005	2.00		…		…
2005	2.00	2005	0.00		…		…
	…		…		…		…
	…		…		…		…
	…	2005	0.00		…		…
	…		…		…		…
2005p	0.47 [dh]	2005p	0.03		…		…
	…	2005	0.00		…		…
	…		…		…		…
2006	308.00	2006	0.37	2006	75.00		…
2006	0.00	2006	0.00		…		…
2006p	11.97	2006p	0.02		…		…
	…		…		…		…
	…		…		…		…
	…		…		…		…
	…		…		…		…
	…		…		…		…
	…		…		…		…
	…		…		…		…
	…		…		…		…
2006	0.00	2006	0.00		…		…
2005	1657.00 [dm]	2005	12.17 [dm]		…		…
2005	56.00	2005	0.18		…		…
	…		…		…		…
2005	3.00	2005	0.00		…		…
	…		…		…		…
	…		…		…		…
2005	15 231.00	2005	7.54		…		…
	…		…		…		…
	…	2000 est	1.00		…		…
	…		…		…		…
2005	4430.00	2005	0.00		…		…
2005	23.00	2005	0.02		…		…
	…		…		…		…
2005	**22.00** [el]	**2005**	**0.09** [el]		**…**		…

Table 10. Millennium Development Goals Indicators

	Country/ area	Goal 6: Combat HIV/AIDS, malaria and other diseases							
		Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases							
		Year	Tuberculosis prevalence rate per 100 000	Year	Tuberculosis death rate per 100 000	Year	Proportion of tuberculosis cases detected under directly observed treatment short course (DOTS)	Year	Proportion of tuberculosis cases cured under directly observed treatment short course (DOTS)
1	American Samoa	2005	9.00	2005	1.00	2005	114.00	2004	67.00
2	Australia	2005	6.00	2005	1.00	2005	42.00	2004	85.00
3	Brunei Darussalam	2005	63.00	2005	5.00	2005	112.00	2004	71.00
4	Cambodia	2005	703.00	2005	87.00	2005	70.00	2004	91.00
5	China	2005	208.00	2005	16.00	2005	80.00	2004	94.00
6	Cook Islands	2005	26.00	2005	3.00	2005	77.00	2002	100.00
7	Fiji	2005	30.00	2005	4.00	2005	72.00	2003	86.00
8	French Polynesia	2005	32.00	2005	4.00	2005	65.00	2004	80.00
9	Guam	2005	39.00	2005	3.00	2005	93.00	2004	100.00
10	Hong Kong (China)	2005	77.00	2005	6.00	2005	53.00	2004	80.00
11	Japan	2005	38.00	2005	4.00	2005	57.00	2004	57.00
12	Kiribati	2005	426.00	2005	49.00	2005	73.00	2004	94.00
13	Lao People's Democratic Republic	2005	306.00	2005	24.00	2005	68.00	2004	86.00
14	Macao (China)	2005	87.00	2005	9.00	2005	81.00	2004	89.00
15	Malaysia	2005	130.00	2005	16.00	2005	73.00	2004	56.00
16	Marshall Islands	2005	269.00	2005	32.00	2005	77.00	2004	90.00
17	Micronesia, Federated States of	2005	123.00	2005	14.00	2005	61.00	2004	80.00
18	Mongolia	2005	206.00	2005	23.00	2005	82.00	2004	88.00
19	Nauru	2005	156.00	2005	18.00	2005	57.00	2002	50.00
20	New Caledonia	2005	30.00	2005	3.00	2005	67.00	2004	94.00
21	New Zealand	2005	9.00	2005	1.00	2005	51.00	2004	66.00
22	Niue	2005	87.00	2005	9.00	2002	314.00	2002	100.00
23	Northern Mariana Islands	2005	92.00	2005	11.00	2005	54.00	2004	88.00
24	Palau	2005	61.00	2005	7.00	2005	64.00	2004	100.00
25	Papua New Guinea	2005	475.00	2005	46.00	2005	21.00	2004	64.00
26	Philippines	2005	450.00	2005	47.00	2005	75.00	2004	87.00
27	Pitcairn Islands		...		...		...		...
28	Republic of Korea	2005	135.00	2005	11.00	2005	18.00	2004	80.00
29	Samoa	2005	27.00	2005	3.00	2005	66.00	2004	100.00
30	Singapore	2005	28.00	2005	3.00	2005	100.00	2004	81.00
31	Solomon Islands	2005	201.00	2005	23.00	2005	55.00	2004	87.00
32	Tokelau	2005	112.00	2005	12.00		...		...
33	Tonga	2005	32.00	2005	3.00	2005	96.00	2002	83.00
34	Tuvalu	2005	495.00	2005	55.00	2005	35.00	2004	100.00
35	Vanuatu	2005	84.00	2005	10.00	2005	61.00	2004	90.00
36	Viet Nam	2005	235.00	2005	23.00	2005	84.00	2004	93.00
37	Wallis and Futuna	2005	61.00	2005	7.00	2005	31.00	2004	100.00
	WESTERN PACIFIC REGION	**2005**	**206.00**	**2005**	**17.00**	**2005**	**76.00**	**2004**	**91.00**

Goal 7: Ensure environmental sustainability									
Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources		Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation						Target 11: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	
Year	Proportion of population using solid fuels	Proportion of population with sustainable access to an improved water source			Proportion of population with access to improved sanitation			Year	Proportion of households with access to secure tenure
		Year	Urban	Rural	Year	Urban	Rural		
	…	2004	99.00	99.00	2004	99.00	99.00		…
2002	<5.00	2004	100.00	100.00	2004	100.00	100.00	2001	99.50 [en]
	…	2005	… [eo]	… [eo]	2002	… [eo]	… [eo]		…
2005	97.90	2005	67.30 [em]	53.70 [em]	2005	56.10	15.70		…
2002	80.00	2004	93.00	67.00	2004	69.00	28.00		…
2001	10.90	2004	98.00	88.00	2004	100.00	100.00		…
2002	40.00	2004	43.00	51.00	2004	87.00	55.00		…
	…	2004	100.00	100.00	2004	99.00	97.00		…
2003	<5.00	2004	100.00	100.00	2004	99.00	98.00		…
	…	2006	100.00	100.00	2006	… [eo]	… [eo]		…
2002	<5.00	2004	100.00	100.00	2004	100.00	100.00		…
	…	2004	77.00	53.00	2004	59.00	22.00		…
2002	>95.00	2004	79.00	43.00	2004	67.00 [a]	20.00 [a]		…
	…	2006 est	100.00	NA	2006 est	100.00	NA	2006	99.60
2002	<5.00	2004	100.00	96.00	2004	95.00	93.00		…
1999	29.90	2004	82.00	96.00	2004	93.00	58.00		…
	…	2004	95.00	94.00	2004	61.00	14.00		…
2002	51.00	2004	87.00	30.00	2004	75.00	37.00		…
	…	2003	100.00	NA	2003	100.00	NA		…
	…		…	…		…	…		…
2002	<5.00	2004	100.00	…	2002	100.00	100.00		…
2006	12.00	2004	100.00	100.00	2004	100.00	100.00	2006	100.00
	…	2004	98.00	97.00	2004	94.00	96.00		…
2000	1.00	2004	79.00	94.00	2004	96.00	52.00		…
2002	90.00	2004	88.00	32.00	2004	67.00	41.00		…
2002	45.00	2004	87.00	82.00	2004	80.00	59.00	2002	66.50
	…		…	…		…	…		…
2002	<5.00	2005	98.30	56.90	2005	… [eo]	… [eo]		…
2002	70.00	2004	90.00	87.00	2004	100.00	100.00		…
2002	<5.00	2006	100.00	NA	2006	100.00	NA		…
2002	95.00	2004	94.00	65.00	2004	98.00	18.00		…
2001	14.50	2004	NA	88.00	2004	NA	78.00		…
2002	56.00	2004	100.00	100.00	2004	98.00	96.00		…
	…	2004	94.00	92.00	2004	93.00	84.00		…
2003	79.00	2002	85.00	52.00	2002	78.00	42.00	1998	90.00
2002	70.00	2004	99.00	80.00	2004	92.00	50.00		…
	…	2004	NA	100.00	2004	NA	80.00		…
	…		…	…		…	…		…

Notes

a	Revised data
b	Figure refers to resident population
c	Figure refers to usual resident population. Usual resident population includes those residents who are present and those who are temporarily elsewhere in New Zealand. Residents who are temporarily overseas were not counted
d	Interpolated based on 2000 and 2005 population estimates in World Population Prospects: The 2002 Revision, UN Economic and Social Affairs
e	Figure excludes some areas of which boundaries are not yet fixed
f	Figure excludes inland waters and oceanic areas
g	Figure includes Christmas Island, Cocos (Keeling) Islands and Norfolk Island
h	Figure based on all WPR countries and areas except Pitcairn Island, Tokelau, and Wallis and Futuna
i	Interpolated based on 2000 and 2005 population estimates in World Population Prospects: The 2000 Revision, UN Economic and Social Affairs
j	Figure refers to 0-14 years old
k	Figure refers to 0-19 years old
l	Figure refers to 60 years and above
m	Figure is computed per thousand resident population as of 1992
n	Figure was computed by Health Information and Evidence for Policy Unit of the WHO Regional Office of the Western Pacific based on projected population for 2004
o	The figure includes unknown sex
p	The average number of children that would be born alive to a hypothetical cohort of women if, throughout their reproductive years, the age-specific fertility rates for the specified year remain unchanged
q	Data for 15-year-old schoolchildren. Literacy defined as Levels 2-5 using OECD PISA (Programme for International Student Assessment) standards
r	Figure refers to 1999/2000 schoolyear and census data
s	The figures refer to the percentage of population aged 15 and above with primary or above educational attainment
t	Literacy defined as levels 2-5 using OECD PISA (Programme for International Student Achievement) standards
u	Figure refers to 15-24 years old
v	Figure refers to population aged 10 years and over
w	Figure refers to aged 19 years and above
x	Figure refers to per capita GDP (goods and services)
y	Figure reported as Gross Island Product
z	Converted to US$ using available exchange rates nearest to the period, i.e. 2003
aa	Figure refers to per capita GNP at current market prices (US$)
ab	The figure is compiled based on the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005 per mid-2005 population
ac	Figure is in New Zealand dollars
ad	The figure compiled is based on the summation of public health expenditure in the financial year 2005/06 and private health expenditure in the calendar year 2005 as percentage of GDP in the calendar year 2005
ae	Figure refers to percentage total expenditure on public health as to total government expenditure
af	The figure refers to public health expenditure as percentage of overall public expenditure
ag	Computed by Health Information and Evidence for Policy Unit of the WHO Regional Office for the Western Pacific
ah	Accession
ai	Succession
aj	The situation in the Solomon Islands was examined without reporting in 1999
ak	Data refer to the most recent year available during the period specified
al	Data refer to a period other than that specified
am	Data as as of 31 May 2006, unless otherwise specified. Where there are lower and upper houses, data refer to the weighted average of women's shares of seats in both houses
an	Does not currently have a parliament
ao	To aid in demographic analysis, the 191 Member States of WHO have been divided into mortality strata on the basis of their level of child (5q0) and adult mortality (45q15). For the Western Pacific Region, the division is as follows: A= Very low child, very low adult; B= Low child, low adult. Countries belonging to strata A are Australia, Brunei Darussalam, Japan, New Zealand and Singapore. Countries belonging to strata B are Cambodia, China, Cooks Islands, Fiji, Kiribati, Lao PDR, Malaysia, Marshall Islands, Federated States of Micronesia, Mongolia, Nauru, Niue, Palau, Papua New Guinea, Philippines, Republic of Korea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, and Viet Nam

Notes

ap	Estimates derived by regression and similar estimation methods
aq	Figure is based on childbearing age 15-44 years old
ar	Percentage of women aged 18-49 (or their partners) reporting using contraceptive methods (including hysterectomy, tubal ligation and partner vasectomy)
as	Figure refers to contraceptive prevalence rate
at	Figure applies to public health facilities
au	Figure refer to the cases known to the maternity homes, public and private hospitals
av	Best estimated figure
aw	Figure applies to clinics only
ax	Figure refers to birthweight equal to 2501 grams and above
ay	Figure excludes those with unknown birthweight
az	Figure refers to moderately and severely underweight children under 5 years old
ba	Figure applies to agegroup 24-95 months
bb	Figure 1.60 in the southern province and 4.40 in the northern province
bc	Data from a subnational survey
bd	Figure for 1998 are 32.00 for males and 40.00 for females
be	Figure applies to national rural (covering >85% of total population)
bf	Figure for 1998 are 5.80 for males and 7.00 for females
bg	Figure applies to babies at 4 months
bh	Figure applies to babies <4 months
bi	Figure applies to babies 4-5 months
bj	Identifies countries that have achieved a second round of Vitamin A coverage greater than one or equal to 70%
bk	Figure applies to children 6 to 36 months
bl	The recommended BMI cut-off point for overweight among Chinese is 24
bm	The recommended BMI cut-off point for obesity among Chinese is 28
bn	Figure refers to BMI>30 among adults
bo	Figure applies to dry season
bp	Figure was computed by Health Information and Evidence for Policy Unit of the WHO Regional Office of the Western Pacific based on 29 WPR countries
bq	Figure was computed by Health Information and Evidence for Policy Unit of the WHO Regional Office of the Western Pacific based on 28 WPR countries
br	Unweighted data
bs	Figure refers to students 13-15 years old
bt	Figure applies among students 13-15 years old in the national capital district
bu	Figure refers to physicians in Guam Memorial Hospital and includes licensed military physicians working on part-time basis
bv	Figure refers to number of physicians, regardless of whether they are actually working in the profession or not, with full registration on both the local and overseas lists
bw	Figure refers to 1149 physicians and 391 traditional Chinese medicine doctors
bx	Figure includes 460 physicians who are not in active practice
by	Figure refers to government doctors
bz	Figure refers to physicians in the public sector only
ca	Figure refers to physicians and specialists
cb	Figure refers to registered nurses and enrolled nurses, regardless of whether they are actually working in the profession or not
cc	Figure includes nurses, public health nurses and assistant nurses
cd	Figure includes medical assistants
ce	Figure refers to nurses (registered) and midwives. There were 958 registered nurses without reported gender
cf	Figure refers to 15452 registered nurses and 5163 enrolled nurses
cg	Figure refers to bachelor and diploma graduate nurses
ch	Figure refers to nurses in the public sector only
ci	Figure includes one nurse anaesthesia and four unauthorized nurses

Notes

cj	Figure refers to number of midwives, regardless of whether they are actually working in the profession or not
ck	Figure refers to JD/midwives
cl	Figure was also included in the registered nurses. There were 86 midwives without reported gender
cm	Figure refers to midwives in the public sector only
cn	Figure includes one unauthorized midwife
co	Figure was computed by Health Information and Evidence for Policy Unit of WHO Regional Office for the Western Pacific based on the 2006 population
cp	Incomplete data
cq	Figures on health workforce (physicians, nurses and midwives) refer to different years
cr	Figure refers to beds in general hospitals and primary health care centres only
cs	Figure refers to beds in general hospitals, specialized hospitals and private hospitals only
ct	Figure include beds in general hospitals, district/ first level referral hospitals, primary health care centres and private hospitals
cu	Figure refers to beds in specialized hospitals only
cv	Figure includes beds in general hospitals, specialized hospitals and primary health care centres only
cw	Figure includes beds in general hospitals, specialized hospitals, district/ first level referral hospitals and primary health care centres
cx	Figure includes beds in general hospitals, primary health care centres and private hospitals only
cy	Figure includes beds in general hospitals, primary health care centres, private hospitals and nursing homes
cz	Figure refers to beds in general hospitals only
da	Figure includes beds in general hospitals, specialized hospitals, primary health care centres only and private hospitals only
db	Figure include beds in general hospitals, district/ first level referral hospitals and primary health care centres only
dc	Figure include beds in general hospitals, specialized hospitals, district/ first level referral hospitals and private hospitals
dd	Figure includes beds in public health facilities only
de	Figure include beds in general hospitals and district/ first level referral hospitals only
df	Figure refers to registered case
dg	Figure provided by dispensaries and isolated posts only. It does not represent the whole public and private data
dh	Figure refers to the cases reported to the Department of Health for the listed Statutory Notifiable Diseases (except Encephalitis, Gonorrhea, Hib meningitis and syphilis)
di	Figure is inclusive of imported cases and deaths
dj	Figure refers to confirmed cases
dk	Figure refers to new detected cases
dl	Figure refers to imported cases
dm	Due to limited diagnostic facilities, a majority of suspected cases are treated on clinical ground and therefore not included among confirmed cases
dn	Figure refers to microscopically diagnosed cases in 10 endemic countries namely Cambodia, China, Lao People's Democratic Republic, Malaysia, Papua New Guinea, Philippines, Republic of Korea, Solomon Islands, Vanuatu and Viet Nam
do	Figure refers to cases reported to the Department of Health
dp	Due to circulating vaccine derived poliovirus (1 more laboratory confirmed case plus 1 epidemiologically linked case in 2005)
dq	Figure is weighted average based on births from 27 countries. Coverage data from the 2006 WHO/UNICEF Joint Reporting Form
dr	Figure is weighted average based on births from 32 countries. Coverage data from the 2006 WHO/UNICEF Joint Reporting Form
ds	Measles as at age 2
dt	Given as inactivated vaccine
du	Figure is as of 2006 from the National concensus meeting in 2007
dv	Figure applies to 2007 from the 2007 Estimation report on HIV Epidemic in Papua New Guinea
dw	Figure refers to combined cases
dx	Number of new drug resistant TB cases in China: Beijing (2004) 1043, Heilongjiang (2004) 1574, Henan (2001) 1222, Hunan (2002) 1101, Inner Mongolia (2003) 806 and Shanghai (2004) 764
dy	Percentage of new TB cases in China who are resistant to INH (isoniazid): Beijing (2004) 8.70, Heilongjiang (2004) 17.00, Henan (2001) 17.00, Hunan (2002) 9.80, Inner Mongolia (2003) 20.30 and Shanghai (2004) 11.10
dz	Percentage of new TB cases in China who are resistant to any TB drug: Beijing (2004) 17.90, Heilongjiang (2004) 36.10, Henan (2001) 29.80, Hunan (2002) 23.50, Inner Mongolia (2003) 35.00 and Shanghai (2004) 15.40
ea	Percentage of new TB cases in China who are multi-drug resistant: Beijing (2004) 2.30, Heilongjiang (2004) 7.20, Henan (2001) 7.80, Hunan (2002) 2.80, Inner Mongolia (2003) 7.30 and Shanghai (2004) 3.90

Notes

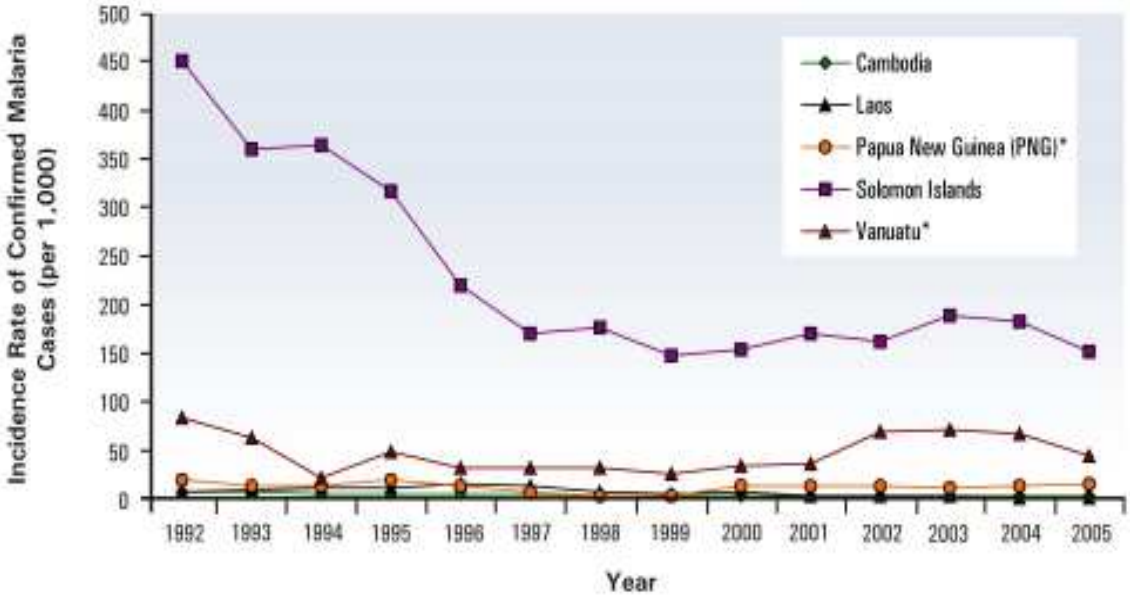
eb	Number of previously treated drug resistant TB cases in China: Beijing (2004) 154, Heilongjiang (2004) 421, Henan (2001) 265, Hunan (2002) 216, Inner Mongolia (2003) 308 and Shanghai (2004) 200
ec	Percentage of previously treated multidrug resistant TB cases in China: Beijing (2004) 11.70, Heilongjiang (2004) 30.40, Henan (2001) 36.60, Hunan (2002) 20.40, Inner Mongolia (2003) 41.90 and Shanghai (2004) 12.50
ed	Death certificates based on underlying causes
ee	Figure refers to hospital data only
ef	Figure refers to hospitalizations - 1st reported e-code
eg	Figure refers to selected urban and rural areas in mainland China
eh	No available population size by gender
ei	Figure computed by using 2002 resident population by gender
ej	Figure computed using 2006 estimated population by gender
ek	Figure computed using 2001 estimated population by gender
el	Figure refers only to the 10 endemic countries namely Cambodia, China, Lao People's Democratic Republic, Malaysia, Papua New Guinea, Philippines, Republic of Korea, Solomon Islands, Vanuatu and Viet Nam
em	Figure applies to dry season
en	Persons without secure tenure include those sleeping rough (primary homeless), in stop-gap housing (secondary homeless) and boarding house residents (tertiary homeless)
eo	No available data by urban and rural areas
ep	Figure as of first quarter of 2007
eq	Figure computed using 2007 numerator and 2006 denominator (2007 estimate not yet available)
er	Figure as of December 2006
es	Data source is National consensus report 2007

Other sources

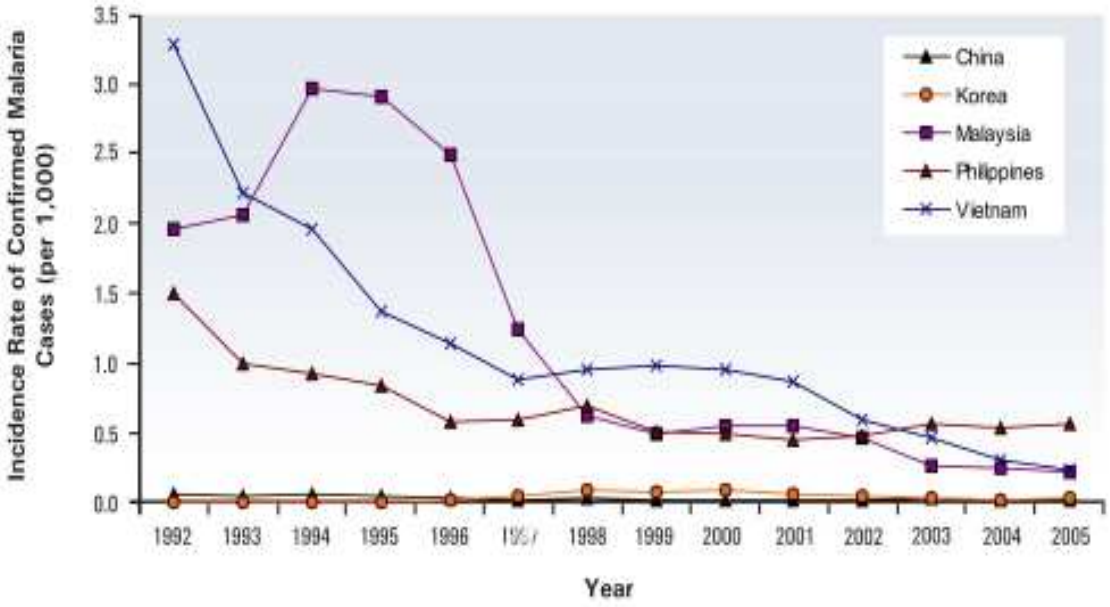
1	Demographic Tables for the Western Pacific 2005-2010. Manila, World Health Organization Regional Office for the Western Pacific, 2005.
2	Office of the United Nations High Commissioner for Human Rights [http://www.ohchr.org/english/countries/ratification/11.htm]
3	Convention on the Elimination of all Forms of Discrimination against Women. Division for the Advancement of Women, Department of Economic and Social Affairs. [http://www.un.org/womenwatch/daw/cedaw/states.htm]
4	Office of the United Nations High Commissioner for Human Rights [http://www.ohchr.org/english/countries/ratification/3.htm]
5	Human Development Report 2006: Beyond scarcity, power, poverty and the global water crisis. United Nations Development Programme, New York USA 2006. [http://hdr.undp.org/hdr2006/pdfs/report/HDR06-complete.pdf].
6	Report on the Global Aids Epidemic, UNAIDS-WHO, 2006.
7	2006 country reports on Universal Access progress, WHO Global Report on UA progress 2006, update through WHO country offices.

Annex Charts

Figure 1. Annual Incidence Rate of Confirmed Malaria Cases per 1,000 population, Western Pacific Region, 1992-2005

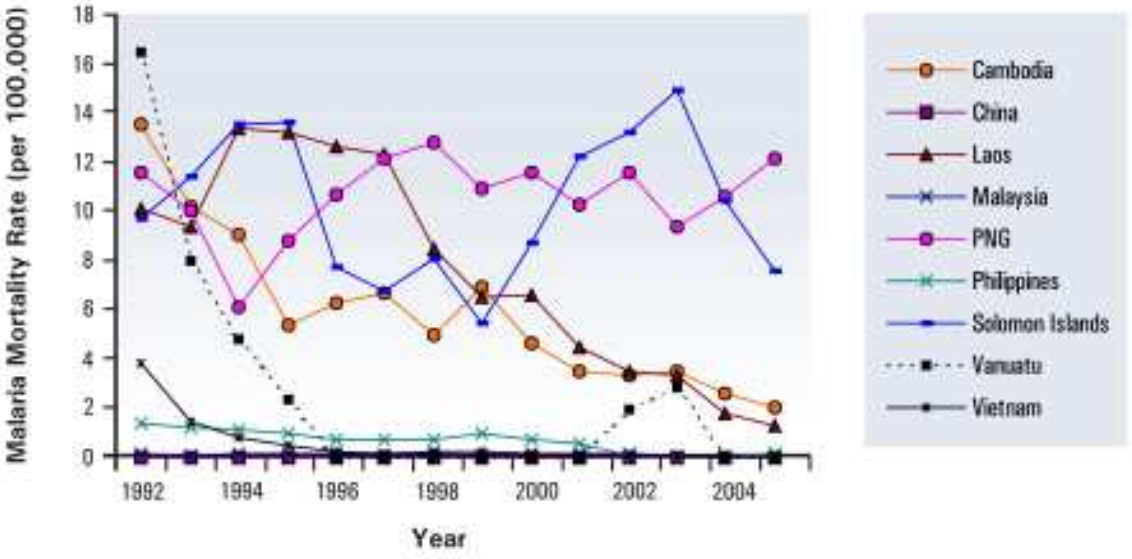


* Number of confirmed cases is not reflective of actual case numbers as laboratory confirmation is limited



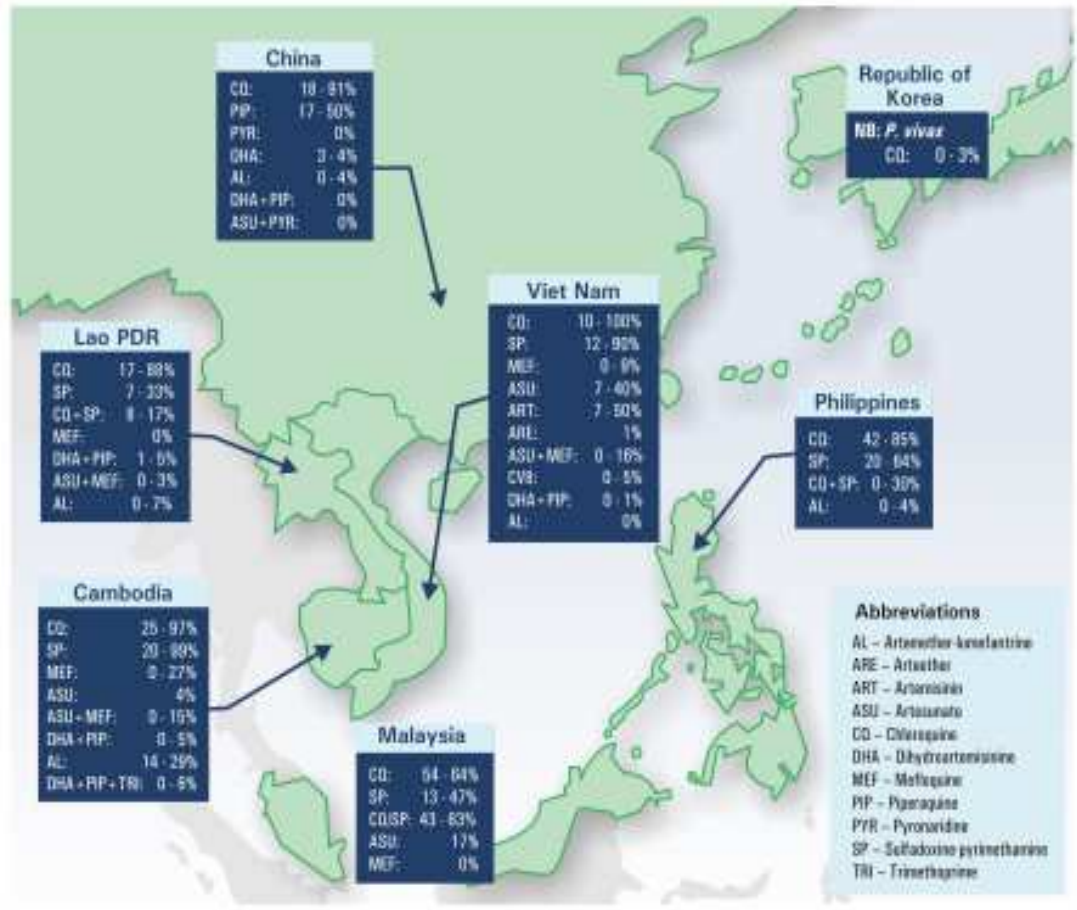
Source: WHO, based on data of National Malaria Control Programmes

Figure 2. Annual Malaria Mortality Rate (per 100,000 population), Western Pacific Region, 1992-2005



Source: WHO, based on data of National Malaria Control Programmes

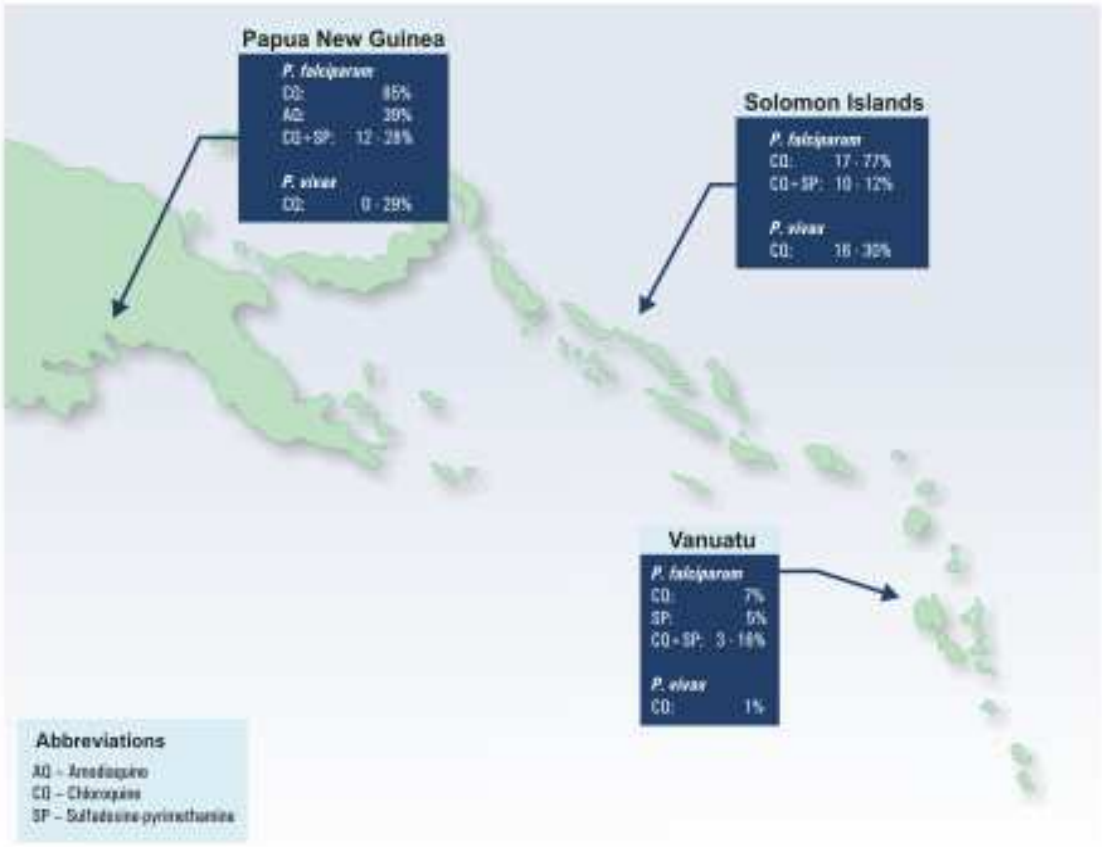
Figure 3. Range of reported *in vivo* antimalarial drug treatment failures for *P. falciparum* malaria in Asian countries of the Region, 1981-2006



Note: Summary of published and unpublished studies done in different parts of the countries. Doses and duration of treatment and sampling methods vary between studies. Where possible, the 28 day follow-up results were used.

Source: Review of the malarial drug efficacy situation in 10 countries of the WHO Western Pacific Region, 1987-2003.

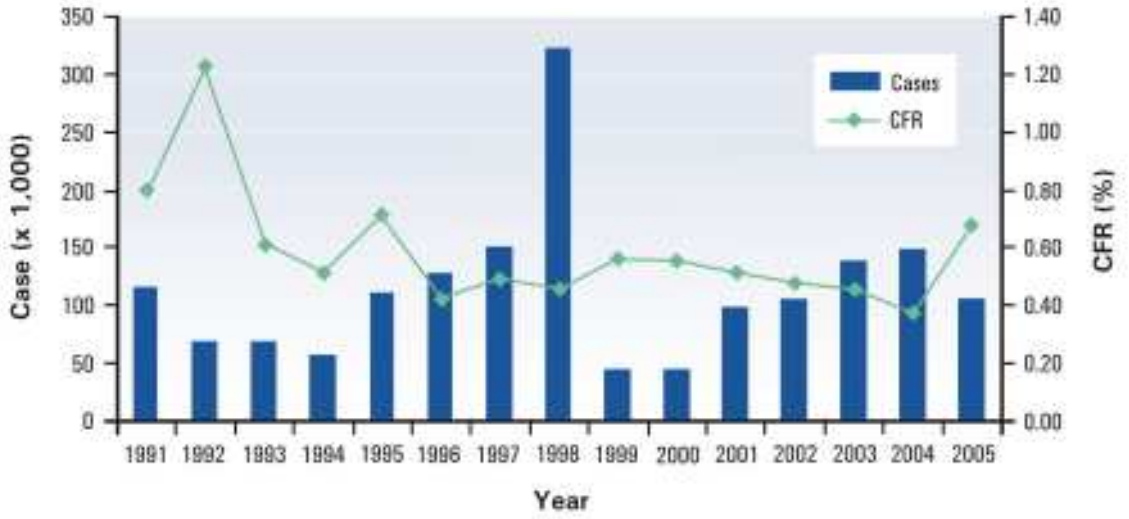
Figure 4. Range of reported *in vivo* antimalarial treatment failures for *P. falciparum* and *P. vivax* malaria in the Pacific, 1991-2006.



Note: Summary of published and unpublished studies done in different parts of the countries. Doses and duration of treatment and sampling methods vary between studies. Where possible, the 28 day follow-up results were used.

Source: Review of the malarial drug efficacy situation in 10 countires of the WHO Western Pacific Region, 1987-2003.

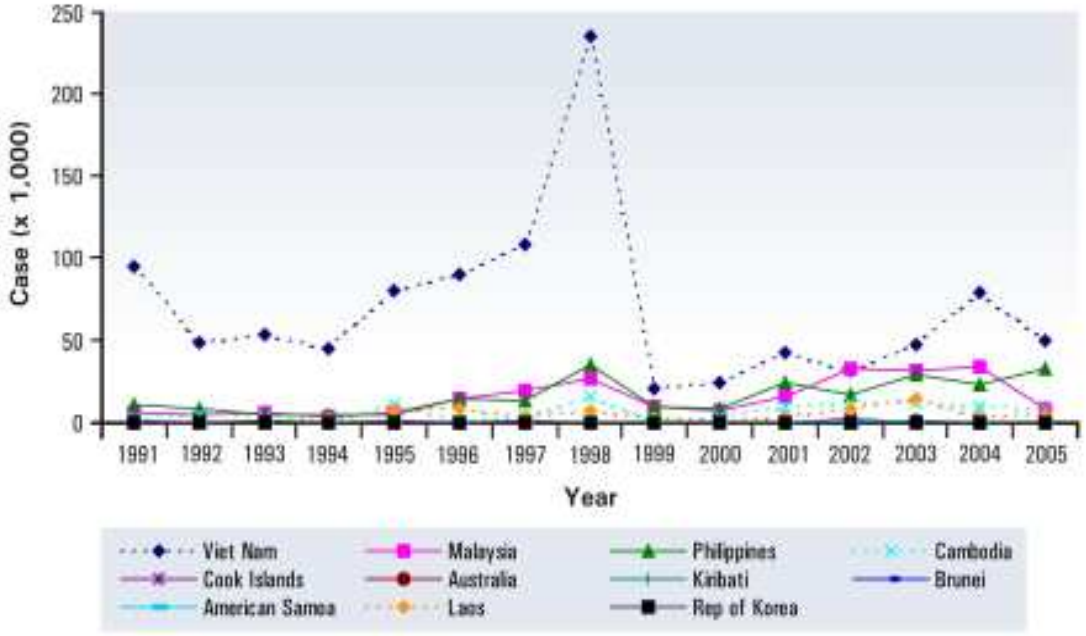
Figure 5. Number of reported dengue cases and Case Fatality Rate (CFR) (%) in 11 countries* from the Western Pacific Region, 1991-2005.



*American Samoa, Australia, Brunei Darussalam, Cambodia, Cook Islands, Kiribati, Lao People's Democratic Republic, Malaysia, The Philippines, The Republic of Korea and Viet Nam

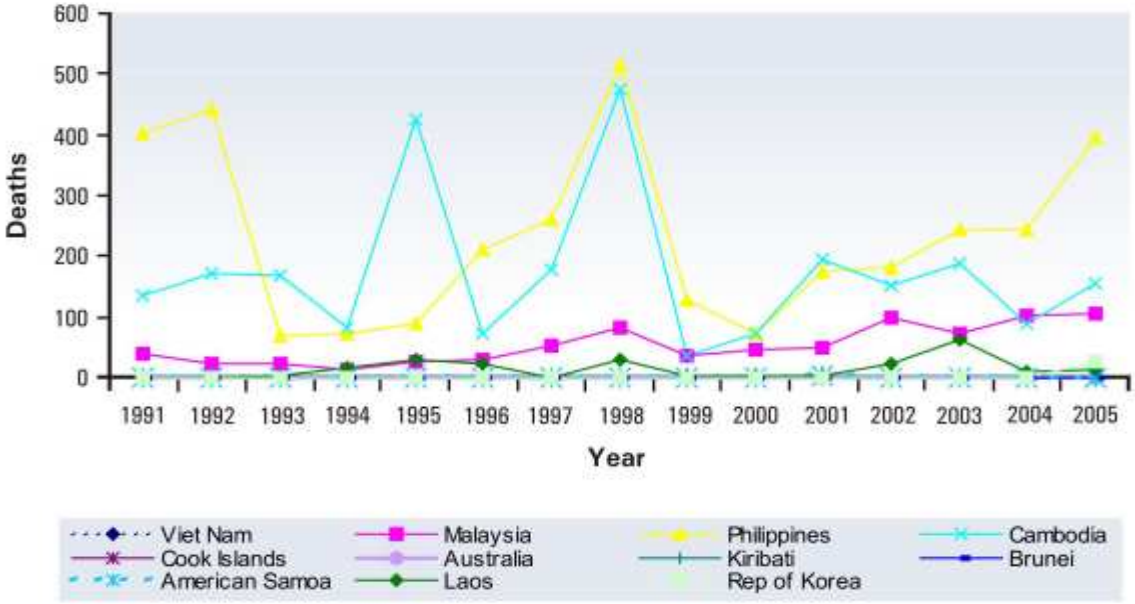
Source: Official data provided by Ministry of Health, Ministry of Health-appointed agency, WHO DengueNet or country national website

Figure 6. Number of dengue cases in 11 countries of the Western Pacific Region, 1991-2005.



Source: Official data provided by Ministry of Health, Ministry of Health-appointed agency, WHO DengueNet or country national website

Figure 7. Number of dengue deaths in 11 countries of the Western Pacific Region, 1991-2005.



Source: Official data provided by Ministry of Health, Ministry of Health-appointed agency, WHO DengueNet or country national website

Figure 8. Major Emergencies and Disasters in the Western Pacific Region, 2006-2007

Appendix: Glossary of Terms

Acute respiratory infections, cases and deaths. The number of cases and deaths recorded or estimated from respiratory infections during the most recent year for which valid statistics are available. Disaggregated by 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.

Adult literacy rate. The percentage of 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 population growth rate. (See Population growth rate)

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 which is situated in wards or a part of the hospital where continuous medical care for inpatients is provided. The total 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.

Body mass index (BMI). Calculated as weight in kilograms (kg) divided by height in square metres (m^2).

Cancers, cases and deaths. The number of new cases detected due to all types and specific types of cancer during the reporting year. The number of deaths due to all types and specific types of cancer that occurred during the reporting year. Disaggregated by sex.

Causes of morbidity. (See Leading causes of morbidity)

Causes of mortality. (See Leading causes of mortality).

Circulatory system diseases, cases and deaths. The number of cases and deaths resulting from any form of circulatory system disease. Disaggregated by sex.

Condom use rate of the contraceptive prevalence rate. The number of women aged 15-49 in marital or consensual unions who are practising contraception by using condoms as a proportion of all women of the same age group in consensual unions 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 plus 65 years and above) to those in the "economically productive" age group (15-64 years), expressed as a percentage.

Diabetes mellitus, cases and deaths. The number of 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. The number of cases of and/or recorded or estimated deaths from all types of diarrhoeal diseases during the most recent year for which valid statistics are available. Disaggregated by sex.

Discharges (including deaths). The number of 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 re-treatment regimen.);

(4) a regular, uninterrupted drug 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)

Estimated population. (See Population)

Estimated HIV prevalence in adult incident TB cases. Estimated percentage of TB in HIV-positive adults ages 15-49 years.

External source of government health expenditure. Pertains to 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 % of general government expenditure on health. The ratio of external resources for health to total general government expenditure on health, expressed as a percentage.

GDP per capita annual growth rate (%). Least squares annual growth rate, calculated from constant price GDP in local currency units.

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). General government expenditure on health refers to expenditures incurred by central, state/regional and local government authorities, excluding social security schemes. Included are non-market, non-profit institutions that are controlled and mainly financed by government units.

Government expenditure on health. The sum of outlays by government entities to purchase health care services and goods, notably by ministries of health and social security agencies. The revenue base may comprise multiple sources, including external funds. (See also External source of government health expenditure)

(1) **Amount.** Government expenditure on health expressed in US dollars or another indicated currency.

(2) **General government expenditure on health as % of total expenditure on health.** The ratio of government expenditure on health to total expenditure on health expressed as a percentage.

(3) **General government expenditure on health as % of total general government expenditure.** The ratio of government expenditure on health to total government expenditure, expressed as a percentage.

Growth rate. (See also Population growth rate)

Gross domestic product (GDP). 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.

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, i.e. urban or 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**. The number of hospitals which provide a range of different services for patients of various age groups and with varying disease conditions.

- **Specialized hospital**. The number of hospitals 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.** The number of hospital at the first referral level that is 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 district hospitals 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**. The number of centres that serve as 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 hospitals. The number of hospitals not owned by government or parastatal organizations. It would include both private-not-for profit, e.g. owned by religious organizations, and private-for-profit.

Health insurance coverage as % of total population. The percentage of the population covered by health insurance, both private and public health insurance schemes.

Health workforce.

- **Physicians**. All graduates of any faculty or school of medicine, actually working in the country in any medical field (practice, teaching, administration, research, laboratory, etc.)

The **number of physicians** actually working in the country in any medical field (practice, teaching, administration, research, laboratory, etc.). Also expressed as number of physicians per 10 000 population. Disaggregated by sex.

Public. The number of physicians working in any medical field (practice, teaching, administration, research, laboratory, etc.) and employed in the public sector of the country. Also expressed as number of physicians employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of physicians working in any medical field (practice, teaching, administration, research, laboratory, etc.) and employed in the private sector of the country. Also expressed as the number of physicians employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

- **Dentists**. All graduates of any faculty or school of dentistry, odontology or stomatology, actually working in the country in any dental field.

The **number of dentists** actually working in the country in any dental field. Also expressed as number of dentists per 10 000 population. Disaggregated by sex.

Public. The number of dentists working in any dental field and employed in the public sector of the country. Also expressed as number of dentists employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of dentists working in any dental field and employed in the private sector of the country. Also expressed as the number of dentists employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

- **Pharmacists**. All graduates of any faculty or school of pharmacy, actually working in the country in pharmacies, hospitals, laboratories, industry, etc.

The **number of pharmacists** actually working in the country in pharmacies, hospitals, laboratories, industry, etc. Also expressed as number of pharmacists per 10 000 population. Disaggregated by sex.

Public. The number of pharmacists working in pharmacies, hospitals, laboratories, industry, etc. and employed in the public sector of the country. Also expressed as number of pharmacists employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of pharmacists working in pharmacies, hospitals, laboratories, industry, etc. and employed in the private sector of the country. Also expressed as the number of pharmacists employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

- **Nurses**. All 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.

The **number of nurses** actually working in the country. Also expressed as number of nurses per 10 000 population. Disaggregated by sex.

Public. The number of nurses actually working in the country and employed in the public sector. Also expressed as number of nurses employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of nurses actually working in the country and employed in the private sector. Also expressed as the number of nurses employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

- **Midwives**. All 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 person may or may not have prior nursing education.

The **number of midwives** actually working in the country. Also expressed as number of midwives per 10 000 population. Disaggregated by sex.

Public. The number of midwives actually working in the country and employed in the public sector. Also expressed as number of midwives employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of midwives actually working in the country and employed in the private sector. Also expressed as the number of midwives employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

- **Other paramedical staff.** This includes medical assistants, laboratory technicians and X-ray technicians, among others, who are actually working in the country.

The **number of paramedical staff** actually working in the country. Also expressed as number of paramedical staff per 10 000 population. Disaggregated by sex.

Public. The number of other paramedical staff actually working in the country and employed in the public sector. Also expressed as number of other paramedical

staff employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of other paramedical staff actually working in the country and employed in the private sector. Also expressed as the number of other paramedical staff employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

- **Other health personnel**. Other health personnel include all workers who respond to the national definition of health care providers and are not physicians, midwives, nurses, dentists or pharmacists, who are actually working in the country.

The **number of other health personnel** actually working in the country. Also expressed as number of other health personnel per 10 000 population. Disaggregated by sex.

Public. The number of other health personnel actually working in the country and employed in the public sector. Also expressed as number of other health personnel employed in the public sector of the country per 10 000 population. Public sector refers to government-owned or controlled agencies.

Private. The number of other health personnel actually working in the country and employed in the private sector. Also expressed as the number of other health personnel staff employed in the private sector per 10 000 population. Private sector refers to nongovernmental ownership or control and includes for-profit and nonprofit agencies.

HIV prevalence among 15–24 year-old pregnant women. Percentage of pregnant women aged 15–24 whose blood samples test positive for HIV.

HIV percentage in general population based on HIV estimates in adults. Proportion of the general population positive for HIV. Notes are made if a special population was surveyed e.g. sex workers or injecting drug users.

HIV percentage in a high-risk group based on sentinel surveillance. Proportion of population in the high-risk group (sex workers, men who have sex with men or injecting drug users, or as indicated) infected with HIV based on sentinel surveillance. Notes are made if a special population was surveyed e.g. patients with sexually-transmitted infections.

Hospital bed. (See Bed)

Human Development Index (HDI). The HDI measures 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, DPT3, OPV3, measles and hepatitis B3).

Infant mortality rate. The registered number of 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. The recorded or estimated number of diseases/injuries and deaths related to motor and other vehicle accidents; suicide; homicide and violence; and work accidents. 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.

- **Motor and other vehicular accidents, cases and deaths.** The total number of cases refers to injuries (non-fatal and fatal) from motor and other vehicular accidents, while 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. Also expressed as a proportion to the general population. Disaggregated by sex.

Inpatient. A person admitted to a health care facility and who usually occupies a bed in that health care facility.

(1) **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. Morbidity can be described in terms of the incidence and/or prevalence of certain diseases. 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) under which the greatest number of deaths have been reported during a given year. Causes of mortality are all those diseases, morbid conditions, or injuries which either resulted in or contributed to death, and the circumstances of the accident or violence which 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.

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 prevalence 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 deaths**, resulting from obstetric complications of the pregnant state (pregnancy, labour and the puerperium), from interventions, omissions, incorrect treatment or from a chain of events resulting from any of the above; and

(2) **indirect obstetric deaths,** resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but was aggravated by the physiological effects of pregnancy.

Maternal mortality ratio. The registered number of 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.

Mental disorders, cases and deaths. The number of 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**.

Motor and other vehicular accidents. The total number of cases refers to injuries (non-fatal and fatal) from motor and other vehicular accidents while total number of deaths refers only to the fatal injuries.

Multi-drug resistant Tuberculosis (MDR-TB). Describes strains of tuberculosis that are resistant to at least the two main first-line TB drugs— isoniazid and rifampicin.

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.

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 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 registered number of deaths in the neonatal period per 1000 live births in a given year or period of time. Disaggregated by sex.

Neonatal period. Commences at birth and ends 28 completed days after birth.

Number of children orphaned by HIV/AIDS. The estimated number of children who have lost one or both parents to AIDS before age 15. Used as a proxy to the MDG indicator 20: ratio of orphans to non-orphans who are in school through the ratio of school attendance of orphans to school attendance of non-orphans aged 0-14.

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 lymphatic filariasis.

Obese. A person whose calculated body mass index (BMI) is 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 person whose calculated body mass index (BMI) is greater than or equal to 25 kg/m^2.

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). The per capita GNP is obtained by dividing the total gross national product by the total population.

(1) the gross domestic product (GDP), which measures 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, plus

(2) 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.

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 gender. The percentage of the male and the female population aged 60 years or older in a given period of time.

Percentage distribution of population less than 15 years. (See Percentage of the population below 15 years of age or above 65 years of age)

Percentage distribution of population above 65 years. (See Percentage of the population below 15 years of age or above 65 years of age)

Percentage of condom use. Proportion of sex workers who reported having consistently used a condom in the past week (or month, three months or year, as indicated). Notes are made if the estimate was derived using a different population

e.g. patients with sexually-transmitted infections.

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 the newborns. Estimated in this CHIPS publication using two indicators:

(1) **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 the newborn. Expressed as a percentage of total deliveries.

(2) **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, DPT3, POL3, measles, hepatitis B3 and DTP1, HepB birth dose, MCV2 and 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 2 doses) and hepatitis B3 and HepB birth dose. Includes also immunization coverage Vitamin A1.

Percentage of newborn infants weighing at least 2500 grams at birth. The percentage of newborn infants whose birth weight is equal or greater 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 HIV/AIDS in need of and receiving adequate treatment, including antiretroviral therapy (ART). The proportion of those with HIV/AIDS and still living who are in need of ART (i.e. people with advanced HIV infection) and receiving adequate treatment, including ART.

Percentage of the 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, aged 5 to 14 years, or 65 years and above in a given period of time.

Percentage of teenage pregnancy. Percentage of pregnant women aged 19 years or younger in a given period of time.

Percentage of pregnant women cared for by skilled health personnel. The percentage of pregnant women who have had at least one consultation with skilled health personnel during pregnancy. Expressed as a percentage of all live births since the number of pregnant women is generally not available.

Percentage of the population with access to safe water. (See Proportion of the population with sustainable access to an improved water source)

Percentage of the population with access to excreta disposal facilities. (See also Proportion of the population with access to improved sanitation)

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 women immunized with tetanus toxoid (TT2) during pregnancy)

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 e.g. married women only.

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 and the infant.

Population. All the inhabitants of a given country or area considered together. Estimates are based on a recent census, official national data or United Nations projections. Presented in thousands or actual value. Disaggregated by sex.

Population density. Population 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, households acting as complementary funders to the previously cited institutions or disbursing unilaterally on health commodities. This would include out-of-pocket health expenditure, patient co-payments, private health insurance premiums, and health expenditures by nongovernmental organizations.

Private expenditure on health as % of total expenditure on health. The percentage share of the private expenditure on health to the total expenditure on health.

Proportion of babies exclusively breast-fed for the first six months. Proportion of babies exclusively breast-fed for the first six months i.e. given only breast milk except for drops or syrups consisting of vitamins, minerals or medicines.

Proportion of babies aged 6-9 months receiving breast milk and complementary food. Proportion of babies aged 6-9 months receiving breast milk and complementary food i.e. 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 children 0-59 months of age who had diarrhoea in the past two weeks and were treated with ORT. Proportion of children ages 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) or increased fluids and continued feeding.

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 ages 0-59 months with suspected pneumonia in the two weeks preceding the survey taken to an appropriate health-care provider.

Proportion of households with access to secure tenure is 1 minus the percentage of the urban population that lives in slums. In the absence of data on the number of slum dwellers, the United Nations Human Settlements Programme (UN-HABITAT) produces estimates based on a definition of slums as agreed by the Expert Group Meeting on Urban Indicators in 2002.

Proportion of population in malaria-risk areas using effective malaria prevention measures. Percentage of children aged 0–59 months sleeping under insecticide-treated bednets.

Proportion of population in malaria-risk areas using effective malaria treatment measures. Proportion of children aged 0–59 months who were ill with the fever in the two weeks before the survey and who received appropriate antimalarial drugs.

Proportion of the population using solid fuels. The proportion of the population that relies on biomass (wood, charcoal, crop residues and dung) and coal as the

primary source of domestic energy for cooking and heating. Disaggregated by location, i.e. urban or rural.

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 the population with access to improved sanitation. 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, i.e. urban and rural.

Proportion of the population with sustainable access to an improved 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 and rural.

Proportion of vehicles using unleaded gasoline (%). The proportion of motor vehicles that use unleaded gasoline as their primary fuel. Expressed as a percentage of the total number of motor vehicles. Disaggregated by location, i.e. urban and rural.

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 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.

Secure tenure refers to households that own or are purchasing their homes, are renting privately, are in social housing or are subtenants. Households without secure tenure are defined as squatters (whether or not they pay rent), the homeless and households with no formal agreement.

Selected communicable diseases, cases and deaths. The number of new cases and deaths due to hepatitis viral types A, B and C, E and unspecified, cholera, dengue/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. The number of reported cases and deaths due to a specific disease among selected preventable diseases (AFP, congenital rubella syndrome, diphtheria, hib meningitis, measles, mumps, neonatal tetanus, pertussis, poliomyelitis, rubella, total tetanus and yellow fever) in a specific country or area over a given year.

Skilled health personnel or skilled birth attendants. Includes those who are properly trained and who have appropriate equipment and drugs. Excludes traditional birth attendants, even if they have received a short training course.

Slum. A slum household is defined by UN-HABITAT as a group of individuals living under the same roof who lack one or more (in some cities, two or more) of the following conditions: security of tenure, structural quality and durability of dwellings, access to safe water, access to sanitation facilities and sufficient living area.

Smoking prevalence among adults. The proportion of the adult population (15 years and over) who are smokers (both daily and occasional) at a point in time.

Stunting. (See National underweight, stunting and wasting prevalence)

Surface area. (See Area)

Total fertility rate. The number of children who would be born per woman if the woman was 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)

(1) **Amount.** Total health expenditure expressed in US dollars or another indicated currency.

(2) **Total health expenditure on health as % of GDP (or GNP).** The percentage share of total expenditure on health with respect to a country's GDP (or GNP).

(3) **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 diagnosed by a clinician.

- **All types, cases and deaths**. The total number of new pulmonary smear-positive pulmonary, relapse, new pulmonary smear-negative, and extrapulmonary tuberculosis cases and deaths.

- **New pulmonary tuberculosis (smear-positive), cases and death**. The total number of patients and deaths among those who have never received treatment for tuberculosis or have taken anti-tuberculosis drugs for less than four weeks 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 treating medical officer; 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 cure rate. (See Tuberculosis success rate)

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 DOTS coverage. The percentage of the national population living in areas where health services have adopted the DOTS strategy.

Tuberculosis incidence rate, all cases. 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 per capita rate.

Tuberculosis prevalence, all cases. The 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. The number of sputum-smear positive cases of tuberculosis in a population in a year or given period of time. Expressed as number of sputum-smear positive cases per 100 000 population in a given year.

Tuberculosis success rate 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.

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.

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.

Underweight. (See National underweight, stunting and wasting prevalence)

Urban population. The percentage of 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 and provincial capitals is classified as "urban". Expressed as a percentage. Disaggregated by sex.

Vitamin A supplementation to children 6-59 months old. Percentage of children aged 6-59 months who have received a high dose of vitamin A capsules within the last six months.

Wasting. (See National underweight, stunting and wasting prevalence)

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. The total number of physicians, dentists, pharmacists, nurses, midwives, other nursing/ auxiliary staff, and other paramedical staff who has left the local health workforce due to retirement, death, outmigration or resignation in a given period of time. Disaggregated by sex.

Yearly new graduates - physicians. (See Health workforce, physicians).

Yearly new graduates - nurses. (See Health workforce, nurses).

Youth prevalence of tobacco use. Proportion of youths (aged 15-24 years) who smoked or used other tobacco products within 30 days preceding the survey. Notes are made for instances where only cigarette use was considered.