



# Kiribati Annual Health Bulletin 2018

Produced by the Health Information Unit  
Ministry of Health and Medical Services  
Nawerewere, Tarawa, Kiribati



## **Minister's Foreword**

*Kam na bane ni mauri!*

The Ministry of Health and Medical Services (MHMS) is pleased to publish the Kiribati annual health bulletin 2018.

The publication of this Annual Health Bulletin (NHB) is aimed to make available the data both for policy directions and programmatic interventions through the compilation of health related data collected by the Health Information Unit. It also serves as an important source of information for many stakeholders including various sectors like UN partners, non-government organizations, Ministries within Kiribati, individuals with a keen interest in the nation's health status and many others.

The bulletin contains information on government health sector and presents information on four major areas namely: morbidity, mortality, resource availability, and provision of services. Through this publication health indicators can be measured to monitor the progress of the ministry towards the strategic objectives which were set through the ministry strategic plan 2016 to 2019. It indicates the progress of the health ministry towards their vision and mission on an annual basis.

My most sincere appreciation is extended to the staff of the Health Information Unit for their dedication and commitment in preparation of the report and all other officials who have given their generous support by making available health data from their respective programs.



Honorable Tauanei Marea  
Minister for Health and Medical Services

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**Acronyms & Abbreviations**

|      |   |
|------|---|
| ARI  | Acute Respiratory Infection                 |
| BH   | Betio Hospital                              |
| CBR  | Crude Birth Rate                            |
| CDR  | Crude Death Rate                            |
| HIU  | Health Information Unit                     |
| ICD  | International Classification of Diseases    |
| IMCI | Integrated Management of Children's Illness |
| IMF  | International Monetary Fund                 |
| IMO  | Intern Medical Officer                      |
| IMR  | Infant Mortality Rate                       |
| IUCD | Intra Uterine Contraceptive Device          |
| KFHA | Kiribati Family Health Association          |
| KHIS | Kiribati Health Information System          |
| LBW  | Low Birth Weight                            |
| LKH  | London Kiritimati Hospital                  |
| MA   | Medical Assistant                           |
| MHMS | Ministry of Health and Medical Services     |
| MMR  | Maternal Mortality Rate                     |
| MRD  | Medical Records Department                  |
| MS1  | Monthly Consolidated Statistical Report     |
| NCD  | Non Communicable Diseases                   |
| NMR  | Neonatal Mortality Rate                     |
| OPD  | Out Patients Department                     |
| PHN  | Public Health Nurse                         |
| SKH  | Southern Kiribati Hospital                  |
| STI  | Sexually Transmitted Infections             |
| TCH  | Tungaru Central Hospital                    |
| U5MR | Under-five Mortality Rate                   |



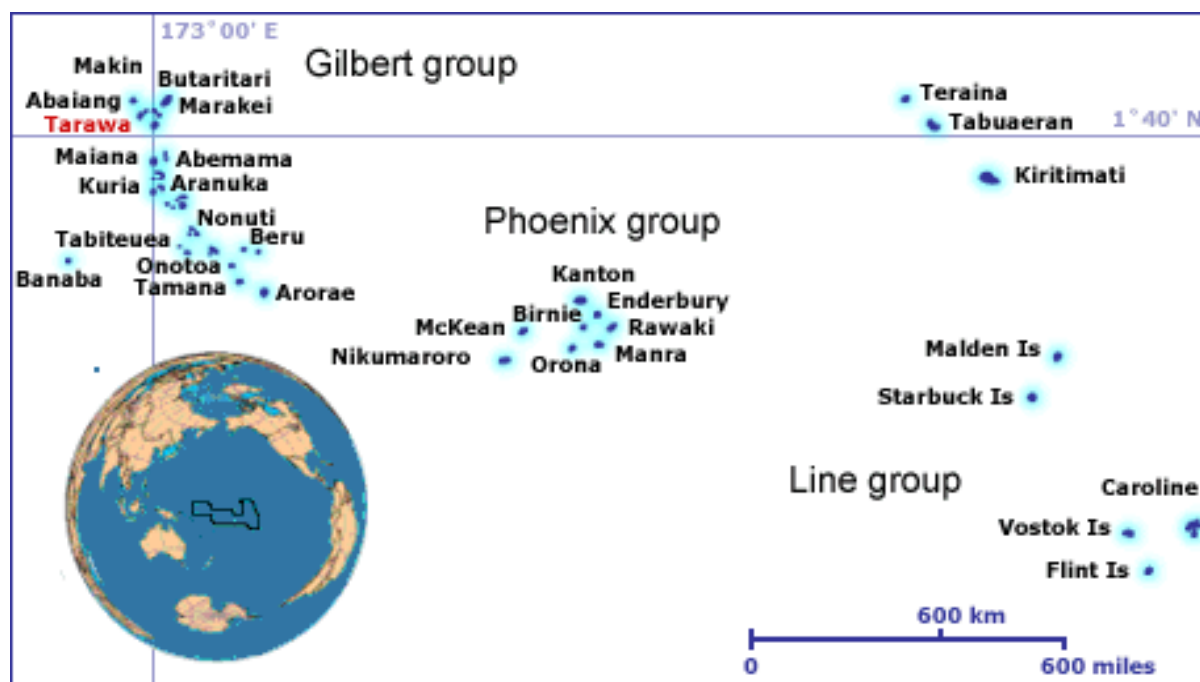
## Key Health Related Indicators at a glance

| Indicator   |        | Year | No.     | Rate     | Source                     |
|---|--------|------|---------|----------|----------------------------|
| Demographic   |        |      |         |          |                            |
| Total population  |        | 2018 | 120,139 |          | Unicef projection          |
| Crude Birth Rate (per 1,000 population)   |        | 2018 | 3,398   | 28.3     | KHIS & MS1                 |
| Crude Death Rate (per 1,000 population)   |        | 2018 | 636     | 5.3      |                            |
| Life expectancy at birth (years)  | Male   | 2018 | 66.6    | 69.0     | WHO, ANACoD 2018           |
|   | Female | 2018 | 71.0    |          |                            |
| Land area (Sq. km)  |        | 2015 | 726     |          | National Statistics Office |
| Health and Nutrition  |        |      |         |          |                            |
| Neonatal Mortality Rate (per 1,000 live births)   |        | 2018 | 44      | 12.9     | KHIS & MS1                 |
| Infant Mortality Rate (per 1,000 live births)   |        | 2018 | 96      | 28.3     |                            |
| Under-five Mortality Rate (per 1,000 live births)   |        | 2018 | 123     | 36.2     |                            |
| Maternal Mortality Rate (per 100,000 live births)   |        | 2018 | 4       | 117.3    |                            |
| Adult mortality rate from NCDs (30-69 years) (per 10,000 population 30-69 years)            |        | 2018 | 190     | 44.7     |                            |
| Mortality rate from road traffic injuries (per 100,000 population)                          |        | 2018 | 7       | 0.6      |                            |
| Adolescent birth rate for 10-14 years (per 1,000 girls in age group 10-14 years)            |        | 2018 | 2       | 3.4      |                            |
| Adolescent birth rate for 15-19 years (per 1,000 girls in age group 15-19 years)            |        | 2018 | 117     | 45.2     |                            |
| Contraceptive contacts (all forms) seen at health facilities per 1,000 Women age 15-49 yrs. |        | 2018 | 7,596   | 247.5    | MS1                        |
| Percentage of pregnant mothers received at least one home visit by PHN                      |        | 2018 | 322     | 9.3      |                            |
| Access to antenatal care  |        | 2018 | 14,025  | 4.0      | KHIS & MS1                 |
| Percentage of Low Birth Weight  |        | 2018 | 244     | 7.2      |                            |
| Malnourished children <5 years  |        | 2018 | 795     | 5.7      | MS1                        |
| Tuberculosis case notification rate (all forms, per 100,000 population)                     |        | 2018 | 294     | 315      |                            |
| TB treatment success rate   |        | 2017 | 360     | 91.4     | MS1 & TB control program   |
| Number of Leprosy cases (new and relapses)  |        | 2018 | 165     |          | MS1                        |
| Acute respiratory infection (ARI) in children treated at Tungaru Central Hospital (TCH)     |        | 2018 | 190     | 12.0     | KHIS                       |
| Children immunized against measles  |        | 2018 | 2,674   | 81.6     | MS1                        |
| Diabetes - Occasions of service (per 1000 population)                                       |        | 2018 | 14,457  | 49.7     | KHIS & MS1                 |
| Hypertension - Occasions of service (per 1000 population)                                   |        | 2018 | 13,640  | 46.9     |                            |
| Outpatient consultations per capita   |        | 2018 | 533,358 | 5.2      | MS1                        |
| Outpatient consultations per capita for TCH   |        | 2018 | 40,163  | 0.3      | KHIS                       |
| Tungaru Central Hospital (patient discharges/week)  |        | 2018 | 5,917   | 113.8    |                            |
| Tungaru Central Hospital (bed occupancy)  |        | 2018 |         | 98.9     |                            |
| Tungaru Central Hospital (average length-of-stay)   |        | 2018 |         | 7.0      |                            |
| Health Resources  |        |      |         |          |                            |
| Number of Hospital Beds per 1,000 population  |        | 2018 | 205     | 1.7      | KHIS                       |
| Availability of Medical Officers  |        | 2018 | 59      | 4.9      | MHMS Admin Division        |
| Population per Medical Officer  |        | 2018 |         | 2,036.3  |                            |
| Availability of Dental Surgeons   |        | 2018 | 6       | 0.5      |                            |
| Population per Dental Surgeon   |        | 2018 |         | 20,023.2 |                            |
| Availability of Medical Assistants  |        | 2018 | 42      | 3.5      |                            |
| Population per Medical Assistant  |        | 2018 |         | 2,860.5  |                            |
| Availability of Nurses  |        | 2018 | 372     | 31.0     |                            |
| Population per Nurse  |        | 2018 |         | 323      |                            |
| Availability of Midwives  |        | 2018 | 91      | 7.6      |                            |
| Population per Midwife  |        | 2018 |         | 1,320.2  |                            |
| Number of Pharmacists available   |        | 2018 | 5       |          |                            |
| Number of Physiotherapists available  |        | 2018 | 3       |          |                            |
| Number of Hospitals   |        | 2018 | 4       |          | KHIS                       |
| Number of Health Centers  |        | 2018 | 22      |          | MS1                        |
| Number of Village Clinics   |        | 2018 | 85      |          |                            |
| Number of Hospital Beds   |        | 2018 | 205     |          | KHIS                       |

## 1. General Information

### Country Background

Kiribati officially the Republic of Kiribati, is an island nation in the Central Pacific ocean. The nation comprises 33 atolls and reef islands and one raised coral island, Banaba. Kiribati has a total land area of 726 square kilometers and are dispersed over 3.5 million square kilometers of Ocean. Their spread straddles the equator and the International Date Line (Figure 1).



**Figure 1: Map of Republic of Kiribati displaying the groups of islands**

According to 2015 population and housing census the total population of Kiribati is 110,136 with 51% of that living on South Tarawa an island of 14 km<sup>2</sup>. The vast majority (>95%) of people inhabit the Gilbert Islands with a population density of 152 and an average household size of 6.

Kiribati became independent from the United Kingdom in 1979. The capital and now most populated area, South Tarawa, consists of a number of islets, connected by a series of causeways. These comprise about half the area of Tarawa Atoll. Kiribati is a member of the Commonwealth of Nations, the IMF and the World Bank, and became a full member of the United Nations in 1999.

### **Administrative divisions**

There are a total of 22 inhabited islands in Kiribati. Kiribati is divided into three island groups, and include Gilbert, Phoenix and Line Islands group. Most of the country's population lives in the Gilbert Islands group including the capital South Tarawa. Five of the Line Islands are uninhabited (Malden Island, Starbuck Island, Caroline Island, Vostok Island and Flint Island). The Phoenix Islands are uninhabited except for Kanton. Banaba itself is sparsely inhabited. Each of the 22 inhabited islands has a local council that takes care of the daily affairs. Tarawa Atoll has three councils; Betio Town Council, Te Inainano Urban Council (for the rest of South Tarawa) and Eutan Tarawa Council (for North Tarawa).

### **Ethnic groups**

The native people of Kiribati are called I-Kiribati. Ethnically, the I-Kiribati are Micronesians. Recent archaeological evidence indicates that Austronesians originally settled the islands thousands of years ago. Around the 14<sup>th</sup> century, Fijians, Samoans, and Tongans invaded the islands, thus diversifying the ethnic range and introducing Polynesian linguistic traits. Inter-marriage among all ancestral groups, however, has led to a population reasonably homogeneous in appearance and traditions.

### **Language**

The people of Kiribati speak an Oceanic language called 'Gilbertese'. Although English is also an official language, it is not used very often outside the island capital of Tarawa. It is more likely that English is mixed in its use with Gilbertese.

### **Religion**

Christianity is the major religion, having been introduced by missionaries in the 19<sup>th</sup> century. The population is predominantly Roman Catholic (57%), although a substantial portion of the population is Kiribati Uniting Church (31%). Many other Protestant denominations, including more evangelical types, are also represented. The Bahá'í faith religion also exists in Kiribati (2.1%), Latter Day Saints (5.3%) as well as other smaller denominations.

### **Health situation and trends**

While the country only has a total land area of 726 square kilometres, it covers over 3.5 million kilometres of ocean, presenting significant challenges for both the healthcare and social service systems. With such a widely dispersed population, those living on outlying islands are not always able to access (or afford) an airlift or boat to the nearest medical facilities. Furthermore, the low-lying atolls of Kiribati are very vulnerable to climate change and rising sea-levels, with issues already arising from groundwater depletion, marine-life and sea-water contamination from human and solid waste, and over-fishing of the reefs and lagoons. Protection of water sources from pollution, mainly from nearby sanitation systems, is a constant public health concern. High internal migration from the outer islands to the capital, South Tarawa, coupled with ad-hoc urban planning and management has resulted in overcrowding, and inadequate sanitation. As with many countries in the Pacific region, Kiribati now faces a 'double burden of diseases'. While many challenges remain in the areas of maternal and child health and in communicable diseases, there has been an important shift

in the burden of diseases – from infectious to non-communicable diseases (NCDs). Overall, life expectancy in Kiribati is low for the Pacific region. In 2017, life expectancy at birth was estimated at 61.7 for males and 72.1 for females according to 2017 Annual Health Bulletin.

### **Organization of the Health Sector**

Kiribati Ministry of Health and Medical Services (MHMS) functions and operate at four levels namely Central, District, Island and Community. The entire system from central to community level is publicly financed. Primary health care is provided through a network of health centres and outreach village clinics extending from district to community level. Essential referral care is provided through 4 referral hospitals and the main being the Tungaru Central Hospital (TCH) in South Tarawa.

### **Primary Health Care**

Administratively Kiribati is divided into six health districts namely Tarawa & Banaba, Central, Northern, South Eastern, South Western and Linnix. Primary health care services are provided within the district health structure through a network of island health centres and village clinics.

The smallest and lower most facility based primary care service at grass root level is named as Health clinics and are manned by a specially trained Public Health Nurse (PHN). They are able to deliver a minimum package of curative and preventive health care. Health clinics are situated in each village and number at present stand at 84.

At island level, health centres provides a higher and wider range of services than a Health clinic. They provide both inpatient and outpatient services manned by a Medical Assistant (MA). The MAs either possess a degree in bachelor of nursing or a public health degree. At least one health centre is situated in each inhabited island and at present the number stands at 22.

### **Hospital Care**

In Kiribati, secondary care is provided through four hospitals; 1 Main referral and 3 district hospitals. TCH as the main referral is the specialized 139 bedded hospital in the country located in Nowerewere, South Tarawa. It provides emergency & outpatient care facilities and in ward facilities in four major specialties namely Internal Medicine, Surgery, Paediatrics and Gynaecology & Obstetrics. In addition a special ward for Tuberculosis patients and a paying ward is also present at TCH. TCH is staffed with medical specialists as well as general medical officers. It also functions as a training centre for Intern Medical Officers (IMO) and for primary health care workers. The 3 district hospitals; Southern Kiribati Hospital (SKH) situated in Tabiteuea North is a 20 bed hospital while Betio Hospital (BH) located in Betio, South Tarawa consist of 29 beds. Another 17 bedded facility is located in Kiritimati, Line & Phoenix Islands called London Kiritimati Hospital (LKH).

### **Private Health Sector**

The private health care facilities are not available in Kiribati at present, except for a couple of registered shops selling pharmaceuticals.

### **Kiribati health system**

The government of Kiribati is the main provider of health services in the country. Government health facilities includes the four hospitals, 22 health centres and 86 village clinics. In addition to these health facilities there are 10 other health care providers that also report to the Health Information Unit (HIU) that include Integrated Management of Children's Illness (IMCI) clinic, TCH Outpatient Clinic, Gynaecology clinic, Kiribati Family Health Association (KFHA), Diabetic, ANC and Postnatal, TB, Leprosy Clinics, Youth Friendly Health Service and Healthy Family Clinic (GBV). All health care services are provided free to all Kiribati residents by the government and there is very minimal out-of-pocket spending for health. In 2018, the government spent approximately 14.2% of its total recurrent budget on health, a per capita expenditure on Health of AUD \$316 for Kiribati.

## 2. Key Health Related Indicators with definitions

| Table 1: Key Health Related Indicators with definitions |  |                |         |
|---|--|----------------|---------|
| #   | Indicator and Definition   |                | 2018    |
| <b>Demographic</b>                                      |  |                |         |
| 1.  | <b>Total population*</b><br><i>2018 Projected population (MHMS, UNICEF)</i>  |                | 120,139 |
| 2.  | <b>Crude Birth Rate (per 1,000 population*)</b><br><i>Number of live births per year (per 1,000 population)</i>  |                | 28.3    |
| 3.  | <b>Crude Death Rate (per 1,000 population*)</b><br><i>Number of deaths per year (per 1,000 population)</i>   |                | 5.3     |
| 4.  | <b>Life Expectancy at Birth (years)</b><br><i>2017 Annual Report MHMS</i>  | Male<br>Female | 69.0    |
| 5.  | <b>Land area (km<sup>2</sup>)</b><br><i>2015 Census (National Statistics Office)</i>   |                | 726     |
| <b>Health and Nutrition</b>                             |  |                |         |
| 6.  | <b>Neonatal Mortality Rate</b><br><i>Probability of dying between birth and age 28 days (per 1,000 live births)</i>  |                | 12.9    |
| 7.  | <b>Infant Mortality Rate</b><br><i>Probability of dying between birth and age 1 year (per 1,000 live births)</i>   |                | 28.3    |
| 8.  | <b>Under-five Mortality Rate</b><br><i>Probability of dying by age 5 years (per 1,000 live births)</i>   |                | 36.2    |
| 9.  | <b>Maternal Mortality Rate</b><br><i>Probability of a female dying due to a maternal cause (per 100,000 live births)</i>   |                | 117.7   |
| 10.   | <b>Adult mortality rate from NCDs*</b><br><i>Probability of dying between age 30-69 years from NCDs in a given year (per 10,000 population age 30-69 years)</i>    |                | 44.7    |
| 11.   | <b>Mortality rate from road traffic injuries*</b><br><i>Probability of dying from road traffic injuries in a given year (per 100,000 population)</i>               |                | 0.6     |
| 12.   | <b>Adolescent birth rate for 10-14 years*</b><br><i>Probability of giving birth between the age 10-14 years in a given year (per 1,000 girls age 10-14 years)</i>  |                | 0.3     |
| 13.   | <b>Adolescent birth rate for 15-19 years*</b><br><i>Probability of giving birth between the age 15-19 years in a given year (per 1,000 girls age 15-19 years)</i>  |                | 33.1    |
| 14.   | <b>Contraceptive contacts*</b><br><i>Total number of contraceptive contacts (all forms) seen at health facilities in one year (per 1,000 women age 15-49 yrs.)</i> |                | 247.5   |
| 15.   | <b>Access to antenatal care</b><br><i>The average number of antenatal clinic visits attended per mother in one year</i>  |                | 4.0     |
| 16.   | <b>Percentage of pregnant mothers received at least one home visit by PHN</b><br><i>The average number of home visits by PHN per mother in one year</i>            |                | 9.3     |

**Table 1: (continued) Key Health Related Indicators with definitions**

| #   | Indicator / Definition  | 2018  |
|-----|---|-------|
| 17. | <b>Percentage of Low Birth Weight</b><br><i>Percentage of having a low birth weight (&lt;2500g) baby (per 100 live births)</i>  | 7.2   |
| 18. | <b>Malnourished children &lt;5 years</b><br><i>Percentage of children (aged &lt;5 years) classified as malnourished or severely malnourished in the MS1 Health Facility Monthly Reporting Form</i>  | 5.7   |
| 19. | <b>Tuberculosis case notification rate*</b><br><i>The number of bacteriologically confirmed (new and relapse) tuberculosis cases in a given year (per 100,000 population)</i>   | 323.8 |
| 20. | <b>Tuberculosis treatment success rate</b><br><i>Percentage of new, bacteriologically confirmed smear-positive tuberculosis cases that were cured or in which a full course of treatment was completed</i>  | 91.4  |
| 21. | <b>Number of Leprosy cases (new and relapses)</b>   | 165   |
| 22. | <b>Acute respiratory infection (ARI) in children treated at Tungaru Central Hospital*</b><br><i>Number of children (aged 0-59) months who had 'presumed pneumonia' (moderate or severe ARI) and were taken to Tungaru Central Hospital (per 1,000 population)</i> | 12.0  |
| 23. | <b>Children immunized against measles*</b><br><i>Percent of children (aged &lt;1 year) who have received one dose of measles-containing vaccine in one year</i>   | 81.6  |
| 24. | <b>Diabetes</b><br><i>Occasion of service for diabetic cases to facilities, confirmed or suspected (per 1000 population)</i>  | 49.7  |
| 25. | <b>Hypertension</b><br><i>Occasion of service for hypertension cases to facilities, confirmed or suspected (per 1000 population)</i>  | 46.9  |
| 26. | <b>Outpatient consultations per capita*</b><br><i>Number of visits for ambulant care, not including immunizations, for the total population (including repeat visits) per capita</i>  | 5.2   |
| 27. | <b>Outpatient consultations per capita for Tungaru Central Hospital*</b><br><i>Number of visits to Tungaru Central Hospital for ambulant care, not including immunizations, for the total population (including repeat visits) per capita</i>                     | 4.4   |
| 28. | <b>Tungaru Central Hospital (patient discharges)</b><br><i>Weekly average number of patients discharged from all TCH wards in a given year</i>  | 113.8 |
| 29. | <b>Tungaru Central Hospital (bed occupancy)</b><br><i>Proportion of available acute inpatient beds that have been occupied over one year</i>  | 98.9  |
| 30. | <b>Tungaru Central Hospital (average length-of-stay)</b><br><i>Average number of days patients spend in hospital</i>  | 7.0   |

**Table 1: (continued) Key Health Related Indicators with definitions**

| #                       | Indicator / Definition  | 2018            |
|-------------------------|---|-----------------|
| <b>Health Resources</b> |   |                 |
| 31.                     | <b>Number of Hospital Beds per 1,000 population*</b>  | <b>1.9</b>      |
| 32.                     | <b>Availability of Medical Officers*</b><br><i>Number of Medical Officers in a given year (per 10,000 population)</i>     | <b>4.9</b>      |
| 33.                     | <b>Population per Medical Officer*</b><br><i>Population: Medical Officer ratio</i>  | <b>2,036.3</b>  |
| 34.                     | <b>Availability of Dental Surgeons*</b><br><i>Number of Dental Surgeons in a given year (per 10,000 population)</i>       | <b>0.5</b>      |
| 35.                     | <b>Population per Dental Surgeon*</b><br><i>Population: Dental Surgeon ratio</i>  | <b>20,023.2</b> |
| 36.                     | <b>Availability of Medical Assistants*</b><br><i>Number of Medical Assistants in a given year (per 10,000 population)</i> | <b>3.5</b>      |
| 37.                     | <b>Population per Medical Assistant*</b><br><i>Population: Medical Assistant ratio</i>                                    | <b>2860.5</b>   |
| 38.                     | <b>Availability of Nurses*</b><br><i>Number of Nurses in a given year (per 10,000 population)</i>                         | <b>30.9</b>     |
| 39.                     | <b>Population per Nurse*</b><br><i>Population: Nurse ratio</i>  | <b>323</b>      |
| 40.                     | <b>Availability of Midwives*</b><br><i>Number of Midwives in a given year (per 10,000 population)</i>                     | <b>7.6</b>      |
| 41.                     | <b>Population per Midwife*</b><br><i>Population: Midwife ratio</i>  | <b>1,320.2</b>  |
| 42.                     | <b>Number of Pharmacists available</b>  | <b>5</b>        |
| 43.                     | <b>Number of Physiotherapists available</b>   | <b>3</b>        |
| 44.                     | <b>Number of Hospitals</b>  | <b>4</b>        |
| 45.                     | <b>Number of Health Centers</b>   | <b>22</b>       |
| 46.                     | <b>Number of Village Clinics</b>  | <b>85</b>       |
| 47.                     | <b>Number of Hospital Beds</b>  | <b>205</b>      |



### 3. Demographic Information

**Crude Birth Rate:** Number of live births per year (per 1,000 population): **28.3**

|   |   |
|---|---|
| CBR =   | $\frac{\text{Number of live births (3,398)}}{\text{Total population (120,139)}} \times 1,000$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>• 2018 projected population is used as the base population</li> <li>• Data for 2017 has been sourced from the KHIS &amp; MS1</li> <li>• Births with unrecorded outcomes were counted as live births.</li> </ul> |   |

**Crude Death Rate:** Number of deaths per year (per 1,000 population): **5.3**

|   |  |
|---|--|
| CDR =   | $\frac{\text{Number of deaths (636)}}{\text{Total population (120,139)}} \times 1,000$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>• 2018 projected population is used as the base population</li> <li>• Data for 2018 has been sourced from the KHIS &amp; MS1</li> <li>• Mortality data is weak</li> <li>• Mortality data is derived from the final diagnoses documented in the Medical Records (MRs) since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.</li> <li>• Strengthened use of Death Certificate at TCH would also contribute to better quality number of deaths and cause of deaths.</li> </ul> |  |

## 4. Health Resources

**Table 2: Health institutions in Kiribati**

| Type of health facility                    | No.        |
|--|------------|
| Hospitals                                  | 4          |
| Island Health Centers                      | 22         |
| Village Clinics/Dispensaries               | 86         |
| <b>Total number of health institutions</b> | <b>112</b> |

Source: KHIS and MS1 as of 31.12.2018

**Number of Hospital Beds: 205**

**Table 3: Bed strength and location of leading hospitals**

| Hospital                         | Location                           | No. of Beds |
|----------------------------------|------------------------------------|-------------|
| Tungaru Central Hospital (TCH)   | Nawerewere, Tarawa                 | 139         |
| Southern Kiribati Hospital (SKH) | Tabiteuea, Southern Island         | 20          |
| Betio Hospital (BH)              | Betio, South Tarawa                | 29          |
| London Kiritimati Hospital (LKH) | Kiritimati, Line & Phoenix Islands | 17          |
| <b>Total bed strength</b>        |                                    | <b>205</b>  |

Source: KHIS as of 31.12.2018

**Number of Hospital Beds per 1,000 population: 1.7**

|   |   |
|---|---|
| Number of Hospital Beds per 1,000 population =  | $\frac{\text{Total number of Hospital Beds available (205)}}{\text{Total population (120,139)}} \times 1,000$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>2018 projected population is used as base population.</li> <li>Data for 2018 has been sourced from the KHIS.</li> </ul> |   |

**TCH Bed Occupancy Rate:** Proportion of available acute inpatient beds that have been occupied over one year: **98.9**

|   |  |  |
|---|--|--|
| TCH Bed Occupancy Rate = $\frac{\text{Total In-patient Service Days (41,173)}}{\text{Total Bed Days (41,610)}} \times 100$  |  |  |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>• Data for 2018 has been sourced from the KHIS</li> <li>• Strengthened reporting and timely completion of data loading to KHIS from TCH would contribute to more accurate figures.</li> </ul> |  |  |

**TCH (average length-of-stay):** Average number of day's patients spend in hospital: **7.0**

|   |  |  |
|---|--|--|
| TCH Average Length-of-stay = $\frac{\text{Total In-patient Service Days (41,173)}}{\text{Total number of admissions (5,917)}}$  |  |  |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>• Data for 2018 has been sourced from the KHIS</li> <li>• Strengthened reporting and timely completion of data loading to KHIS from TCH would contribute to more accurate figures.</li> </ul> |  |  |

**Table 4: In-patient days, Bed days and Bed occupancy rates for TCH**

| Ward           | In-patients days | Bed days      | Bed occupancy [%] |
|----------------|------------------|---------------|-------------------|
| TCH-Medical    | 8,012            | 8,030         | 99.8              |
| TCH-Surgical   | 7,542            | 8,030         | 93.9              |
| TCH-Paediatric | 6,314            | 9,855         | 64.1              |
| TCH-Obstetric  | 14,456           | 7,665         | 188.6             |
| TCH-Private    | 2,369            | 2,920         | 81.1              |
| TCH-ICU        | 2,480            | 5,110         | 48.5              |
| <b>Total</b>   | <b>41,173</b>    | <b>41,610</b> | <b>98.9</b>       |

Source: KHIS as of 31.12.2018

## 5. Country Health Manpower

**Availability of Medical Officers:** Number of Medical Officers (per 10,000 population): **4.9**

|  |  |
|--|--|
| Medical Officers per 10,000 population =   | $\frac{\text{Total number of Medical Officers enrolled for the year (59)}}{\text{Total population (120,139)}} \times 10,000$ |
| <b>Methodological/System Issues:</b>   |  |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2017 has been sourced from the Admin division, MHMS.</li> </ul> |  |

**Population per Medical Officer:** Population: Medical Officer Ratio: **2,036.3**

|  |   |
|--|---|
| Population per Medical Officer =   | $\frac{\text{Total population for the year (120,139)}}{\text{Total number of Medical Officers enrolled for the year (59)}}$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2017 has been sourced from the Admin division, MHMS.</li> </ul> |   |

**Availability of Dental Surgeons:** Number of Dental Surgeons (per 10,000 population): **0.5**

|  |  |
|--|--|
| Dental Surgeons per 10,000 population =  | $\frac{\text{Total number of Dental Surgeons enrolled for the year (6)}}{\text{Total population (120,139)}} \times 10,000$ |
| <b>Methodological/System Issues:</b>   |  |
| <ul style="list-style-type: none"> <li>2018 projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |  |

**Population per Dental Surgeon:** Population: Dental Surgeon ratio: **20,023.2**

|  |   |
|--|---|
| Population per Dental Surgeon =  | $\frac{\text{Total population for the year 120,139}}{\text{Total number of Dental Surgeons enrolled for the year (6)}}$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |   |

**Availability of Medical Assistants:** Number of Medical Assistants (per 10,000 population): **3.5**

|  |  |
|--|--|
| Medical Assistants per 10,000 population =   | $\frac{\text{Total number of Medical Assistants enrolled for the year (42)}}{\text{Total population (120,139)}} \times 10,000$ |
| <b>Methodological/System Issues:</b>   |  |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |  |

**Population per Medical Assistant:** Population: Medical Assistant ratio: **2,860.5**

|  |   |
|--|---|
| Population per Medical Assistant =   | $\frac{\text{Total population for the year (120,139)}}{\text{Total number of Medical Assistants enrolled for the year (42)}}$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |   |

**Availability of Nurses:** Number of Nurses (per 10,000 population): **31.0**

|  |   |
|--|---|
| Nurses per 10,000 population =   | $\frac{\text{Total number of Nurses enrolled for the year (372)}}{\text{Total population (120,139)}} \times 10,000$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |   |

**Population per Nurse:** Population: Nurse ratio: **323**

|  |  |
|--|--|
| Population per Nurse =   | $\frac{\text{Total population for the year (120,139)}}{\text{Total number of Nurses enrolled for the year (372)}}$ |
| <b>Methodological/System Issues:</b>   |  |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |  |

**Availability of Midwives:** Number of Midwives (per 10,000 population): **7.6**

|  |  |
|--|--|
| Midwives per 10,000 population =   | $\frac{\text{Total number of Midwives enrolled for the year (91)}}{\text{Total population (120,139)}} \times 10,000$ |
| <b>Methodological/System Issues:</b>   |  |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |  |

**Population per Midwife:** Population: Midwife ratio: **1,320.2**

|  |   |
|--|---|
| Population per Midwife =   | $\frac{\text{Total population for the year (120,139)}}{\text{Total number of Midwives enrolled for the year (91)}}$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Health manpower data for 2018 has been sourced from the Admin division, MHMS.</li> </ul> |   |

**Table 5: Health manpower for Kiribati health institutions**

| Hospital       | Medical Consultants | MOs | IMOs | Dental Surgeons | MAs | Nurses | PHN | Pharmacists | Physio's | Total |
|----------------|---------------------|-----|------|-----------------|-----|--------|-----|-------------|----------|-------|
| TCH            | 13                  | 34  | 7    | 5               | 4   | 158    |     | 5           | 3        | 229   |
| SKH            | 3                   | 1   |      |                 |     | 14     |     |             |          | 18    |
| BH             |                     | 3   |      |                 |     | 29     |     |             |          | 32    |
| LKH            | 3                   |     |      | 1               |     | 15     |     |             |          | 19    |
| Health Centre  |                     |     |      |                 | 22  |        |     |             |          | 22    |
| Village Clinic |                     |     |      |                 | 14  |        | 114 |             |          | 128   |
| Mental Ward    |                     | 2   |      |                 | 1   | 12     |     |             |          | 15    |
| Total          | 19                  | 40  | 7    | 6               | 41  | 228    | 114 | 5           | 3        | 463   |

Source: Admin, MHMS

**Table 6: Location and staff availability of Health Centers and Village Clinics**

| Island       | Health Centre | Village Clinic          | Staff availability |       |       |
|--------------|---------------|-------------------------|--------------------|-------|-------|
|              |               |                         | MA*                | SCH/N | PHN** |
| Makin        | Makin         | Anrawa                  | 1                  |       | 1     |
|              |               | Kiebu                   |                    |       | 1     |
| Butaritari   | Butaritari    | Kuma                    | 1                  | 1     | 1     |
|              |               | Nakiroro                |                    |       | 1     |
|              |               | Tekananea               |                    |       | 1     |
|              |               | Tanimaiaki (Butaritari) |                    |       | 1     |
|              |               | Ukiangang               |                    |       | 1     |
|              |               | Bikati                  |                    |       | 1     |
|              |               | Keuea                   |                    |       | 1     |
| Marakei      | Rawannawi     | Tekarakan               | 1                  |       | 1     |
|              |               | Bainuea                 |                    |       | 1     |
|              |               | Terawarawa              |                    |       | 1     |
|              |               | Raweai                  |                    |       | 1     |
| Abaiang      | Taburao       | Nuotaea                 | 1                  | 1     | 1     |
|              |               | Taniau                  |                    |       | 1     |
|              |               | Ribono                  |                    |       | 1     |
|              |               | Tebunginako             |                    |       | 1     |
|              |               | Koinawa                 |                    |       | 1     |
|              |               | Tanimaiaki (Abaiang)    |                    |       | 1     |
|              |               | Ubwarano                |                    |       | 1     |
|              |               | Tuarabu                 |                    |       | 1     |
| Tarawa North | Abaokoro      | Tearinibai              | 1                  | 1     | 1     |
|              |               | Buariki (Tarawa North)  |                    |       | 1     |
|              |               | Tabonibara              |                    |       | 1     |
|              |               | Taratai                 |                    |       | 1     |
|              |               | Tabiteuea               |                    |       | 1     |
|              |               | Nabeina                 |                    |       | 1     |
|              |               | Notoue                  |                    |       | 1     |
| TUC          |               | Bonriki 3               | 1                  |       | 2     |
|              |               | Temwaiku                | 1                  |       | 2     |
|              |               | Bikenibeu East          | 1                  |       | 2     |
|              |               | Bikenibeu West          | 1                  |       | 2     |
|              |               | Eita                    | 1                  |       | 2     |
|              |               | Ambo                    | 1                  |       | 1     |
|              |               | Banraeaba               | 1                  |       | 2     |
|              |               | Teaoraereke             | 1                  |       | 2     |
|              |               | Nanikai                 |                    |       | 1     |
|              |               | Bairiki                 | 1                  |       | 5     |
|              |               | Bonriki (Bentekota)2    |                    |       | 1     |
| BTC          |               | Temanoku (BTC)          | 1                  |       | 2     |
|              |               | Takoronga               | 1                  |       | 2     |
|              |               | Temakin                 | 1                  |       | 2     |
| Banaba       | Banaba        | -                       | 1                  |       | 1     |
| Maiana       | Tabontekeekee | Tekaranga               | 1                  |       | 1     |
|              |               | Bubutei                 |                    |       | 1     |

| Island     | Health Centre | Village Clinic     | Staff availability |       |       |
|------------|---------------|--------------------|--------------------|-------|-------|
|            |               |                    | MA*                | SCH/N | PHN** |
|            |               | Tebikerai42        |                    |       | 1     |
|            |               | Tanimaeeao         |                    |       |       |
| Kuria      | Kuria         | Oneke              | 1                  |       | 1     |
| Aranuka    | Aranuka       | Takaeang           | 1                  |       | 1     |
|            |               | Baurua             |                    |       | 1     |
| Abemama    | Kariatebike   | Abatiku            | 1                  | 1     | 1     |
|            |               | Tabiang            |                    |       | 1     |
|            |               | Tekatirirake       |                    |       | 1     |
|            |               | Baretoa            |                    |       | 1     |
|            |               | Kabangaki          |                    |       | 1     |
|            |               | Tebwanga           |                    |       | 1     |
| Nonouti    | Tebobonga     | Temotu             | 1                  |       | 1     |
|            |               | Teuabu             |                    |       | 1     |
|            |               | Abamakoro          |                    |       | 1     |
|            |               | Mataboou           |                    |       | 1     |
|            |               | Rotimwa            |                    |       | 1     |
|            |               | Taboiaki           |                    |       |       |
|            |               | Temanoku (Nonouti) |                    | 1     |       |
| Tab North  | Utiroa        | Tanaeang           | 1                  | 1     | 1     |
|            |               | Buota              |                    |       | 1     |
|            |               | Tenatorua          |                    |       | 1     |
|            |               | Aiwa               |                    |       | 1     |
|            |               | Tekabuibui         |                    |       | 1     |
|            |               | Kabuna             |                    |       | 1     |
|            |               | Tauma              |                    |       | 1     |
|            |               | Tekaman2           |                    |       | 1     |
| Tab South  | Buariki       | Tewai              | 1                  |       | 1     |
|            |               | Taku               |                    |       | 1     |
| Onotoa     | Buraitan      | Aiaki              | 1                  |       | 1     |
|            |               | Tabuarorae         |                    |       | 1     |
|            |               | Tekatana           |                    |       | 1     |
|            |               | Otoae              |                    |       | 1     |
| Beru       | Temara        | Namon              | 1                  | 1     | 1     |
|            |               | Aonnati            |                    |       | 1     |
| Nikunau    | Nikumatang    | Muritoa            | 1                  |       | 1     |
|            |               | Mwanrunga          |                    |       | 1     |
| Tamana     | Motoia        | -                  | 1                  |       | 1     |
| Arorae     | Taribo        | -                  | 1                  |       | 1     |
| Kiritimati | London        | London             | 2                  |       | 2     |
|            |               | Banana             |                    |       | 1     |
|            |               | Poland             | 1                  |       |       |
|            |               | Tabwakea           |                    |       | 1     |
| Tabuaeran  | Paelau        | Napali             | 1                  |       | 1     |
|            |               | Aramari            |                    |       | 1     |
| Teraina    | Arabata       |                    | 1                  |       | 1     |
| Kanton     | Canton        | -                  | 1                  |       |       |
| Total      |               |                    | 36                 | 7     | 101   |



## 6. Morbidity and mortality statistics for Tungaru Central Hospital (TCH)

**Outpatient consultations per capita for Tungaru Central Hospital:** Number of visits to Tungaru Central Hospital for ambulant care, not including immunizations, for the total population (including repeat visits) per capita: **0.3**

|   |  |
|---|--|
| OPD consultations per capita<br>(for TCH) =   | $\frac{\text{Total number of outpatient consultations at TCH for the year (40,163)}}{\text{Total population (120,139)}}$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the KHIS</li> <li>Strengthened reporting and timely completion of data loading to KHIS from TCH would contribute to more accurate figures.</li> </ul> |  |

**TCH (patient discharges):** Weekly average number of patients discharged from all TCH wards in a given year: **113.8**

|  |  |
|--|--|
| TCH (weekly patient discharges) =  | $\frac{\text{Total number of discharges for the year from TCH (5,917)}}{\text{Number of weeks per year (52)}}$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the KHIS.</li> <li>Strengthened reporting and timely completion of data loading to KHIS from TCH would contribute to more accurate figures.</li> </ul> |  |

**ARI in children treated at TCH:** Number of children (aged 0-5) years who had 'presumed pneumonia' (moderate or severe ARI) and were taken to TCH (per 1,000 population): **12**

|   |  |
|---|--|
| TCH ARI Moderate/Severe =   | $\frac{\text{Total number of ARI cases (0-5 years) seen at TCH 190}}{\text{Total (0-5 years) population (15,755)}} \times 1,000$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>2018 projected population is used as base population.</li> <li>Data for 2018 has been sourced from the KHIS and is likely to be affected by under-counting.</li> <li>Morbidity data is aggregated in MS1 and therefore unable to disaggregate into disease groups. Hence unable to separate 0-5 years ARI cases.</li> <li>This indicator requires a survey to be undertaken.</li> </ul> |  |

**Outpatient consultations per capita:** Number of visits for ambulant care, not including immunizations, for the total population (including repeat visits) per capita: **4.8**

|  |  |
|--|--|
| OPD consultations per capita<br>(all health institutes) =  | $\frac{\text{Total number of outpatient consultations for the year (531,939)}}{\text{Total population (110,136)}}$ |
| <b>Methodological/System Issues:</b> <ul style="list-style-type: none"> <li>2018 projected population is used as base population.</li> <li>Data for 2018 has been sourced from the KHIS &amp; MS1</li> </ul> |  |

**Table 7: Basic patient statistics for TCH**

| Category            | Grand Total  | Total |        | Less than 1yr |        | 1-4yrs |        | 5-15yrs |        | 16-29yrs |        | 30-69yrs |        | 70+yrs |        | Age unrecorded |        |
|---------------------|--------------|-------|--------|---------------|--------|--------|--------|---------|--------|----------|--------|----------|--------|--------|--------|----------------|--------|
|                     |              | Male  | Female | Male          | Female | Male   | Female | Male    | Female | Male     | Female | Male     | Female | Male   | Female | Male           | Female |
| OPD visit           |              | 7583  | 9104   | 164           | 165    | 419    | 332    | 712     | 969    | 2710     | 3477   | 3452     | 3987   | 108    | 162    | 18             | 12     |
| Special Clinics     |              | 11029 | 12456  | 431           | 399    | 616    | 418    | 1021    | 1025   | 1901     | 2457   | 6573     | 7439   | 387    | 589    | 100            | 129    |
| EOPD Encounter      | <b>3,540</b> | 1,618 | 1,922  | 185           | 121    | 236    | 200    | 172     | 165    | 292      | 466    | 677      | 887    | 55     | 81     | 1              | 2      |
| Hospital Admissions | <b>5,917</b> | 1789  | 4128   | 308           | 253    | 131    | 98     | 124     | 122    | 212      | 1806   | 923      | 1741   | 91     | 108    | 0              | 0      |
| EOPD Deaths         | <b>21</b>    | 9     | 12     | 0             | 0      | 0      | 0      | 0       | 0      | 1        | 3      | 6        | 8      | 2      | 1      | 0              | 0      |
| Inpatient Deaths    | <b>250</b>   | 123   | 127    | 23            | 35     | 3      | 5      | 5       | 2      | 9        | 8      | 69       | 62     | 14     | 15     | 0              | 0      |

*Source: KHIS as of 31.12.2018***Table 8: Indoor Morbidity Statistics for TCH: according to Age, Sex and Ward category**

| Ward Category      | Grand Total | Total       |             | Less than 1yr |            | 1-4yrs     |           | 5-15yrs    |            | 16-29yrs   |             | 30-69yrs   |             | 70+yrs    |            | Age Unrecorded |          |
|--------------------|-------------|-------------|-------------|---------------|------------|------------|-----------|------------|------------|------------|-------------|------------|-------------|-----------|------------|----------------|----------|
|                    |             | Male        | Female      | Male          | Female     | Male       | Female    | Male       | Female     | Male       | Female      | Male       | Female      | Male      | Female     | Male           | Female   |
| TCH-ICU            | <b>90</b>   | 34          | 56          | 2             | 1          | 0          | 0         | 2          | 1          | 8          | 21          | 18         | 30          | 4         | 3          | 0              | 0        |
| TCH-Medical        | <b>1138</b> | 570         | 568         | 0             | 0          | 0          | 0         | 8          | 8          | 81         | 112         | 431        | 389         | 50        | 59         | 0              | 0        |
| TCH-Obstetric      | <b>2276</b> | 0           | 2276        | 0             | 0          | 0          | 0         | 0          | 6          | 0          | 1448        | 0          | 822         | 0         | 0          | 0              | 0        |
| TCH-Paediatric     | <b>937</b>  | 517         | 420         | 301           | 247        | 127        | 96        | 89         | 75         | 0          | 1           | 0          | 0           | 0         | 1          | 0              | 0        |
| TCH-Private        | <b>311</b>  | 114         | 197         | 5             | 5          | 3          | 2         | 4          | 12         | 5          | 49          | 82         | 111         | 15        | 18         | 0              | 0        |
| TCH-Surgical       | <b>870</b>  | 511         | 359         | 0             | 0          | 0          | 0         | 18         | 8          | 105        | 56          | 367        | 270         | 21        | 25         | 0              | 0        |
| TCH-TB             | <b>89</b>   | 42          | 47          | 0             | 0          | 0          | 0         | 2          | 5          | 14         | 20          | 25         | 20          | 1         | 2          | 0              | 0        |
| TCH-GYNAE          | <b>206</b>  | 1           | 205         | 0             | 0          | 0          | 0         | 1          | 7          | 0          | 99          | 0          | 99          | 0         | 0          | 0              | 0        |
| <b>Grand Total</b> | <b>5917</b> | <b>1789</b> | <b>4128</b> | <b>308</b>    | <b>253</b> | <b>130</b> | <b>98</b> | <b>124</b> | <b>122</b> | <b>213</b> | <b>1806</b> | <b>923</b> | <b>1741</b> | <b>91</b> | <b>108</b> | <b>0</b>       | <b>0</b> |

*Source: KHIS as of 31.12.2018*

**Table 9: Inpatient Morbidity Statistics for Health Centers and Clinics**

| Service      | Month |     |     |     |     |     |     |     |     |     |     |     | Total |
|--------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|              | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |       |
| Admissions   | 260   | 222 | 225 | 245 | 251 | 236 | 257 | 269 | 205 | 289 | 222 | 177 | 2858  |
| Discharges   | 220   | 215 | 238 | 219 | 237 | 245 | 559 | 284 | 190 | 288 | 263 | 181 | 3139  |
| Patient days | 1090  | 970 | 880 | 734 | 865 | 787 | 867 | 876 | 883 | 933 | 988 | 793 | 10666 |

*Source: MS1 as of 31.12.2018*

**Table 10: Outpatient Morbidity Statistics for Health Centers and Clinics**

| Illness                          | Month        |              |              |              |              |              |              |              |              |              |              |              | Total         |
|----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
|                                  | Jan          | Feb          | Mar          | Apr          | May          | Jun          | Jul          | Aug          | Sep          | Oct          | Nov          | Dec          |               |
| (01)Diarrhoea                    | 1562         | 1304         | 1164         | 930          | 837          | 817          | 1177         | 922          | 698          | 765          | 1033         | 966          | 12175         |
| (02)Dysentery                    | 526          | 421          | 500          | 539          | 519          | 448          | 531          | 350          | 320          | 325          | 403          | 394          | 5276          |
| (03)ILI - Influenza like illness | 4211         | 3824         | 6300         | 5484         | 4565         | 4849         | 4041         | 3629         | 2939         | 2972         | 3131         | 2855         | 48800         |
| (04)ARI-Pneumonia                | 703          | 521          | 549          | 455          | 709          | 680          | 561          | 493          | 432          | 329          | 430          | 307          | 6169          |
| (05)Meningitis                   | 17           | 7            | 6            | 5            | 8            | 8            | 20           | 46           | 5            | 14           | 1            | 3            | 140           |
| (06)Conjunctivitis               | 521          | 448          | 608          | 747          | 892          | 728          | 773          | 690          | 658          | 788          | 750          | 684          | 8287          |
| (07)STI                          | 20           | 14           | 14           | 14           | 49           | 16           | 8            | 30           | 59           | 24           | 29           | 7            | 284           |
| (08)Prolonged Fever              | 788          | 638          | 1819         | 1047         | 1128         | 1451         | 1118         | 1027         | 593          | 498          | 466          | 423          | 10996         |
| (09)Acute fever + rash           | 12           | 30           | 42           | 50           | 94           | 31           | 82           | 70           | 63           | 21           | 24           | 18           | 537           |
| (10)Diabetes                     | 142          | 115          | 80           | 82           | 92           | 75           | 74           | 91           | 61           | 78           | 70           | 37           | 997           |
| (11)Hypertension                 | 143          | 119          | 53           | 64           | 99           | 66           | 91           | 119          | 78           | 68           | 60           | 46           | 1006          |
| (12)Mental illness               | 6            | 4            | 1            | 1            | 11           | 5            | 3            | 7            | 17           | 3            | 9            | 5            | 72            |
| (13)Fish poisoning               | 65           | 81           | 44           | 32           | 50           | 50           | 31           | 62           | 85           | 56           | 49           | 28           | 633           |
| (14)Night blindness              | 80           | 82           | 84           | 96           | 125          | 79           | 88           | 114          | 126          | 189          | 175          | 82           | 1320          |
| (15)Tinea Vesicolor              | 367          | 280          | 323          | 262          | 261          | 234          | 343          | 336          | 386          | 311          | 460          | 303          | 3866          |
| (16)Tinea Corporis               | 570          | 527          | 614          | 487          | 507          | 471          | 486          | 516          | 561          | 517          | 547          | 469          | 6272          |
| (17)Worm Infestation             | 501          | 370          | 382          | 318          | 317          | 335          | 386          | 319          | 388          | 402          | 307          | 286          | 4311          |
| (18)Scabies                      | 116          | 153          | 156          | 136          | 119          | 99           | 161          | 99           | 115          | 246          | 113          | 130          | 1643          |
| (19)Others                       | 32664        | 24353        | 35446        | 29300        | 31704        | 32121        | 27410        | 26856        | 23834        | 25029        | 25537        | 21929        | 336183        |
| <b>Total</b>                     | <b>43014</b> | <b>33291</b> | <b>48185</b> | <b>40049</b> | <b>42086</b> | <b>42563</b> | <b>37384</b> | <b>35776</b> | <b>31418</b> | <b>32635</b> | <b>33594</b> | <b>28972</b> | <b>448967</b> |

Source: MS1 as of 31.12.2018

**Table 11: Outpatient Morbidity Statistics according to districts**

| Illness                      | District     |               |              |              |              |              | Total         |
|------------------------------|--------------|---------------|--------------|--------------|--------------|--------------|---------------|
|                              | Northern     | Tarawa&Banaba | Central      | South West   | South East   | Linnix       |               |
| ILI - Influenza like illness | 5212         | 30966         | 3760         | 2577         | 3263         | 3022         | 48800         |
| Diarrhoea                    | 958          | 8005          | 878          | 821          | 570          | 943          | 12175         |
| Prolonged Fever              | 1455         | 5357          | 918          | 998          | 1169         | 1099         | 10996         |
| Conjunctivitis               | 574          | 6460          | 463          | 367          | 127          | 296          | 8287          |
| Tinea Corporis               | 748          | 4205          | 467          | 319          | 212          | 321          | 6272          |
| ARI-Pneumonia                | 851          | 3881          | 648          | 380          | 265          | 144          | 6169          |
| Dysentery                    | 407          | 2731          | 737          | 582          | 285          | 534          | 5276          |
| Worm Infestation             | 842          | 2593          | 339          | 227          | 140          | 170          | 4311          |
| Tinea Vesicolor              | 358          | 2821          | 271          | 117          | 147          | 152          | 3866          |
| Scabies                      | 258          | 776           | 91           | 68           | 93           | 357          | 1643          |
| Night blindness              | 190          | 424           | 213          | 314          | 109          | 70           | 1320          |
| Hypertension                 | 105          | 458           | 204          | 101          | 105          | 33           | 1006          |
| Diabetes                     | 116          | 491           | 141          | 108          | 84           | 57           | 997           |
| Fish poisoning               | 258          | 190           | 42           | 47           | 44           | 52           | 633           |
| Acute fever + rash           | 70           | 234           | 46           | 107          | 42           | 38           | 537           |
| STI                          | 57           | 190           | 14           | 17           | 2            | 4            | 284           |
| Meningitis                   | 71           | 39            | 14           | 10           | 1            | 5            | 140           |
| Mental illness               | 10           | 22            | 11           | 8            | 12           | 9            | 72            |
| Others                       | 27154        | 216047        | 21448        | 22622        | 16230        | 32682        | 336183        |
| <b>Grand Total</b>           | <b>39694</b> | <b>285890</b> | <b>30705</b> | <b>29790</b> | <b>22900</b> | <b>39988</b> | <b>448967</b> |

Source: MS1 as of 31.12.2018

**Table 12: Referrals to TCH from Health Centers and Clinics**

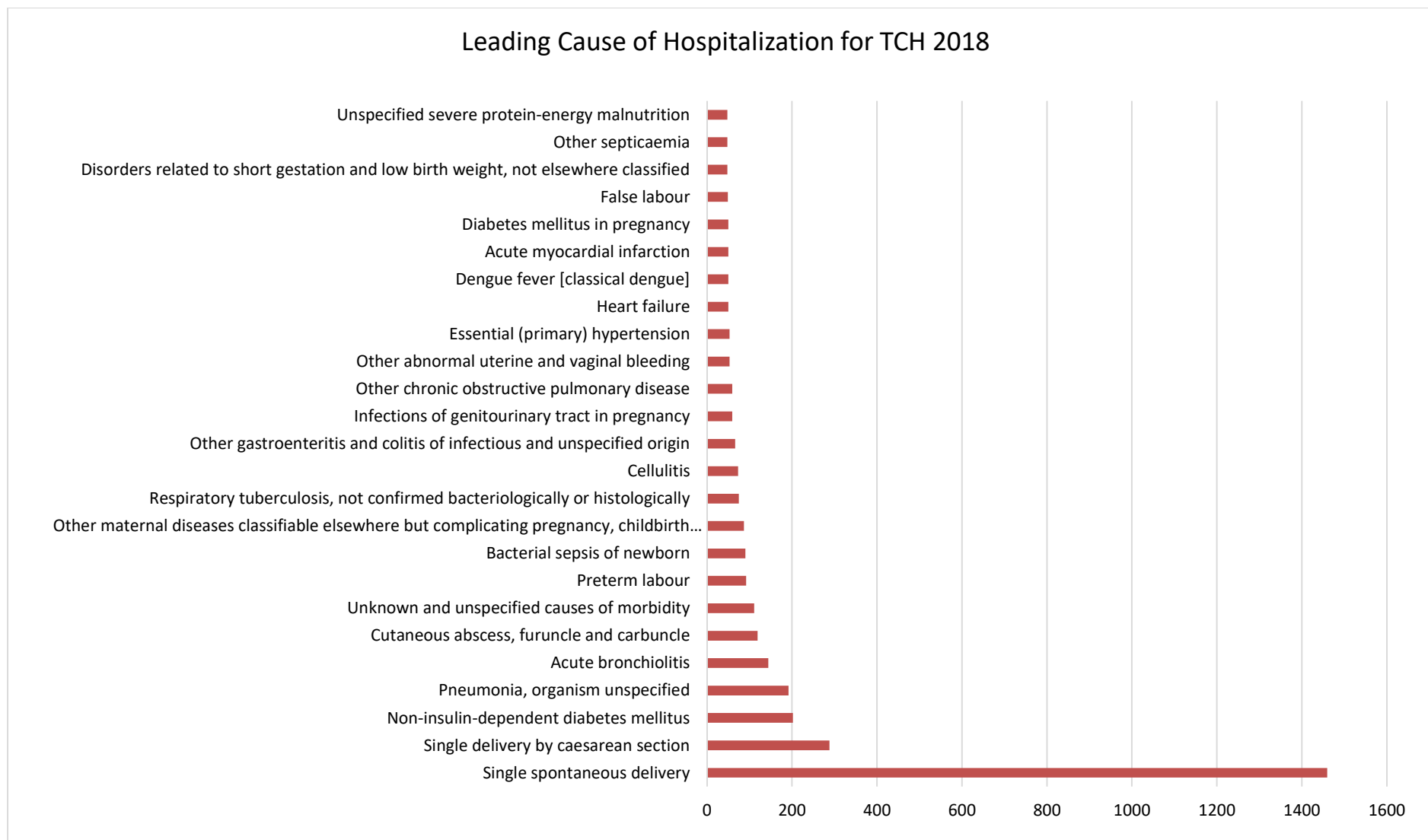
| Service            | Month     |           |            |            |            |            |            |           |            |            |            |            | Total       |
|--------------------|-----------|-----------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|-------------|
|                    | Jan       | Feb       | Mar        | Apr        | May        | Jun        | Jul        | Aug       | Sep        | Oct        | Nov        | Dec        |             |
| Aranuka            | 4         | 10        | 11         | 10         | 13         | 11         | 9          | 12        | 50         | 29         | 11         | 7          | 177         |
| Tarawa North       | 7         | 12        | 10         | 20         | 19         | 25         | 11         | 15        | 14         | 9          | 9          | 14         | 165         |
| Abemama            | 4         | 4         | 9          | 8          | 13         | 22         | 7          | 15        | 24         | 13         | 22         | 7          | 148         |
| Butaritari         | 6         | 8         | 13         | 16         | 14         | 13         | 10         | 8         | 23         | 7          | 10         | 17         | 145         |
| Abaiang            | 9         | 7         | 30         | 3          | 11         | 11         | 8          | 5         | 10         | 4          | 11         | 8          | 117         |
| Nikunau            | 5         | 7         | 2          | 3          | 16         | 5          | 8          | 4         | 12         | 6          | 23         | 13         | 104         |
| Marakei            |           | 8         | 5          | 15         | 8          | 3          | 10         | 8         | 11         | 5          | 5          | 6          | 84          |
| Nonouti            | 2         | 2         | 5          |            |            | 3          | 1          | 2         | 4          | 6          | 6          | 42         | 73          |
| Onotoa             | 7         | 7         |            | 2          | 6          | 8          | 5          | 3         | 7          | 1          | 12         | 6          | 64          |
| Maiana             | 8         | 6         | 5          | 4          |            | 12         | 7          | 8         | 2          | 8          | 1          | 3          | 64          |
| BTC                | 24        |           |            | 15         |            |            | 17         |           |            |            |            |            | 56          |
| Tab North          |           | 4         |            | 4          | 4          | 13         | 6          | 5         | 3          | 6          | 8          |            | 53          |
| Tab South          | 1         | 4         | 2          | 7          |            | 4          | 2          | 1         | 9          |            | 5          | 8          | 43          |
| Kuria              | 2         | 2         | 2          | 5          | 3          | 1          | 3          | 5         |            | 5          | 2          | 7          | 37          |
| Arorae             | 1         |           |            |            | 2          | 3          | 3          | 3         | 7          | 4          | 10         | 4          | 37          |
| Beru               | 2         | 2         |            | 1          | 1          |            | 6          | 2         | 3          | 7          | 8          | 4          | 36          |
| Tamana             | 1         | 1         | 4          | 5          | 1          | 4          |            |           |            | 4          | 8          | 3          | 31          |
| Makin              | 3         | 3         | 3          |            |            | 1          |            | 3         | 9          | 3          | 3          | 1          | 29          |
| Banaba             | 1         |           |            |            |            | 4          | 4          |           |            |            |            | 1          | 10          |
| Kiritimati         |           |           |            |            |            |            |            |           |            |            | 1          |            | 1           |
| <b>Grand Total</b> | <b>87</b> | <b>87</b> | <b>101</b> | <b>118</b> | <b>111</b> | <b>143</b> | <b>117</b> | <b>99</b> | <b>188</b> | <b>117</b> | <b>155</b> | <b>151</b> | <b>1474</b> |

Source: MS1 as of 31.12.2018

**Table 13: Leading Causes of Hospitalization for TCH**

| Rank               | ICD 10-3 | Cause of Hospitalization   | Gender      |             | Total       |
|--------------------|----------|--|-------------|-------------|-------------|
|                    |          |  | Male        | Female      |             |
| 1                  | O80      | Single spontaneous delivery  |             | 1460        | 1460        |
| 2                  | O82      | Single delivery by caesarean section   |             | 288         | 288         |
| 3                  | E11      | Non-insulin-dependent diabetes mellitus  | 95          | 107         | 202         |
| 4                  | J18      | Pneumonia, organism unspecified  | 88          | 104         | 192         |
| 5                  | J21      | Acute bronchiolitis  | 90          | 54          | 144         |
| 6                  | L02      | Cutaneous abscess, furuncle and carbuncle  | 77          | 42          | 119         |
| 7                  | R69      | Unknown and unspecified causes of morbidity  | 33          | 78          | 111         |
| 8                  | O60      | Preterm labour   |             | 92          | 92          |
| 9                  | P36      | Bacterial sepsis of newborn  | 44          | 46          | 90          |
| 10                 | O99      | Other maternal diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium |             | 87          | 87          |
| 11                 | A16      | Respiratory tuberculosis, not confirmed bacteriologically or histologically                              | 28          | 47          | 75          |
| 12                 | L03      | Cellulitis   | 33          | 40          | 73          |
| 13                 | A09      | Other gastroenteritis and colitis of infectious and unspecified origin                                   | 33          | 33          | 66          |
| 14                 | O23      | Infections of genitourinary tract in pregnancy   |             | 59          | 59          |
| 15                 | J44      | Other chronic obstructive pulmonary disease  | 30          | 29          | 59          |
| 16                 | N93      | Other abnormal uterine and vaginal bleeding  |             | 53          | 53          |
| 17                 | I10      | Essential (primary) hypertension   | 22          | 31          | 53          |
| 18                 | I50      | Heart failure  | 25          | 25          | 50          |
| 19                 | A90      | Dengue fever [classical dengue]  | 24          | 26          | 50          |
| 20                 | I21      | Acute myocardial infarction  | 35          | 15          | 50          |
| 21                 | O24      | Diabetes mellitus in pregnancy   |             | 50          | 50          |
| 22                 | O47      | False labour   |             | 49          | 49          |
| 23                 | P07      | Disorders related to short gestation and low birth weight, not elsewhere classified                      | 16          | 32          | 48          |
| 24                 | A41      | Other septicaemia  | 21          | 27          | 48          |
| 25                 | E43      | Unspecified severe protein-energy malnutrition   | 29          | 19          | 48          |
|                    |          | Pooled from all other causes   | 1066        | 1234        | 2301        |
| <b>Grand Total</b> |          |  | <b>1789</b> | <b>4127</b> | <b>5917</b> |
| ***                | R00-R99  | Ill-defined causes hospitalization (pooled)  | 88          | 90          | 178         |

Source: KHIS as of 31.12.2018



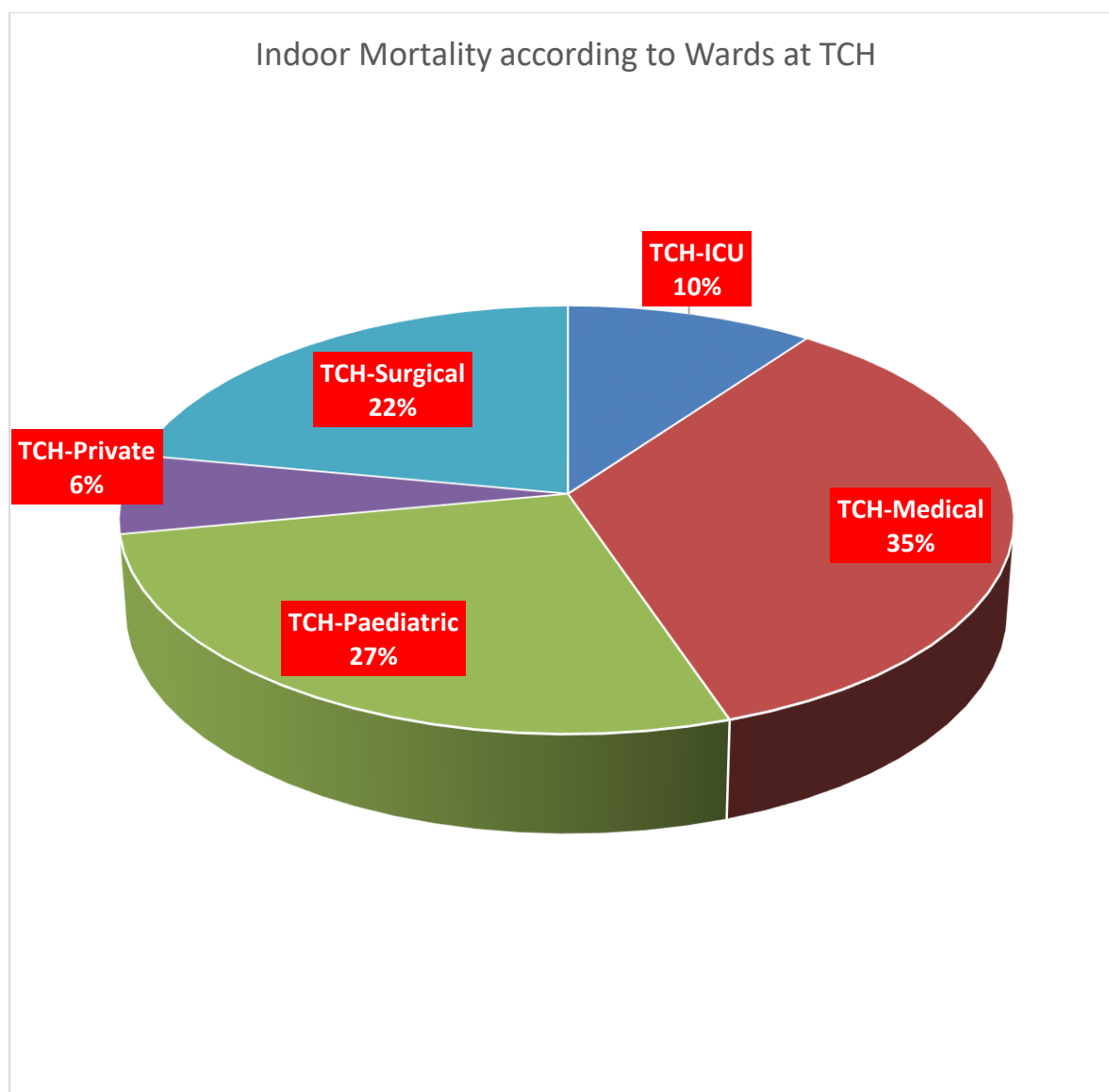
**Figure 2: Leading Causes of Hospitalization for TCH**



**Table 14: Indoor Mortality Statistics for TCH: according to Age, Sex and Ward category**

| Ward Category  | Sub Total | Total |        | Less than 1yr |        | 1-4yrs |        | 5-15yrs |        | 16-29yrs |        | 30-69yrs |        | 70+yrs |        | Age Unknown |        |
|----------------|-----------|-------|--------|---------------|--------|--------|--------|---------|--------|----------|--------|----------|--------|--------|--------|-------------|--------|
|                |           | Male  | Female | Male          | Female | Male   | Female | Male    | Female | Male     | Female | Male     | Female | Male   | Female | Male        | Female |
| TCH-ICU        | 25        | 13    | 12     | 0             | 1      | 0      | 0      | 1       | 0      | 3        | 2      | 9        | 8      | 0      | 1      | 0           | 0      |
| TCH-Medical    | 87        | 48    | 39     | 0             | 0      | 0      | 0      | 0       | 0      | 5        | 3      | 36       | 29     | 7      | 7      | 0           | 0      |
| TCH-Paediatric | 68        | 28    | 40     | 23            | 33     | 3      | 5      | 2       | 2      | 0        | 0      | 0        | 0      | 0      | 0      | 0           | 0      |
| TCH-Private    | 15        | 9     | 6      | 0             | 0      | 0      | 0      | 1       | 0      | 0        | 0      | 6        | 3      | 2      | 3      | 0           | 0      |
| TCH-Surgical   | 55        | 25    | 30     | 0             | 1      | 0      | 0      | 1       | 0      | 1        | 3      | 18       | 22     | 5      | 4      | 0           | 0      |
| TCH-TB         | 0         | 0     | 0      | 0             | 0      | 0      | 0      | 0       | 0      | 0        | 0      | 0        | 0      | 0      | 0      | 0           | 0      |
| TCH-OB         | 0         | 0     | 0      | 0             | 0      | 0      | 0      | 0       | 0      | 0        | 0      | 0        | 0      | 0      | 0      | 0           | 0      |
| TCH-Gynae      | 0         | 0     | 0      | 0             | 0      | 0      | 0      | 0       | 0      | 0        | 0      | 0        | 0      | 0      | 0      | 0           | 0      |
| Grand Total    | 250       | 123   | 127    | 23            | 35     | 3      | 5      | 5       | 2      | 9        | 8      | 69       | 62     | 14     | 15     | 0           | 0      |

Source: KHIS as of 31.12.2018



**Figure 3: Indoor mortality statistics according to wards: TCH**

**Table 15: Leading Causes of Hospital Inpatient Deaths\* for TCH (Categorized list)**

| Rank        | Cause of Death  | Gender |      | Total |
|-------------|---|--------|------|-------|
|             |   | Female | Male |       |
| 1           | Non-insulin-dependent diabetes mellitus                 | 15     | 9    | 24    |
| 2           | Bacterial sepsis of newborn                             | 9      | 10   | 19    |
| 3           | Unspecified severe protein-energy malnutrition          | 10     | 3    | 13    |
| 4           | Acute hepatitis B                                       | 2      | 10   | 12    |
| 5           | Other septicaemia                                       | 7      | 4    | 11    |
| 6           | Acute myocardial infarction                             | 3      | 5    | 8     |
| 7           | Malignant neoplasm of breast                            | 7      |      | 7     |
| 8           | Pneumonia, organism unspecified                         | 2      | 5    | 7     |
| 9           | Unspecified diabetes mellitus                           | 1      | 5    | 6     |
| 10          | Other diseases of digestive system                      | 2      | 3    | 5     |
| 11          | Chronic kidney disease                                  | 2      | 3    | 5     |
| 12          | Meningitis due to other and unspecified causes          | 4      | 1    | 5     |
| 13          | Respiratory distress of newborn                         | 3      | 2    | 5     |
| 14          | Malignant neoplasm of liver and intrahepatic bile ducts | 1      | 3    | 4     |
| 15          | Peptic ulcer, site unspecified                          | 2      | 2    | 4     |
| 16          | Chronic ischaemic heart disease                         | 2      | 2    | 4     |
| 17          | Heart failure   | 1      | 3    | 4     |
| 18          | Essential (primary) hypertension                        | 3      | 1    | 4     |
| 19          | Intracerebral haemorrhage                               | 2      | 2    | 4     |
| 20          | Other diseases of intestine                             |        | 3    | 3     |
| 21          | Other chronic obstructive pulmonary disease             | 1      | 2    | 3     |
| 22          | Malignant neoplasm of stomach                           | 2      | 1    | 3     |
| 23          | Malignant neoplasm of bronchus and lung                 |        | 3    | 3     |
| 24          | Intracranial and intraspinal abscess and granuloma      | 1      | 2    | 3     |
| 25          | Dengue fever [classical dengue]                         |        | 3    | 3     |
|             | Mortality from all other causes (pooled)                | 57     | 45   | 102   |
|             |   |        |      |       |
| Grand Total |   | 139    | 132  | 271   |

Source: KHIS as of 31.12.2018

\* Derived from data extracted from medical records

**Table 16: Leading Causes of Hospital Inpatient Deaths\* for TCH (Expanded list)**

| Rank | ICD 10-3 | Cause of Death  | Gender |        | Total |
|------|----------|---|--------|--------|-------|
|      |          |   | Male   | Female |       |
| 1    | E11      | Non-insulin-dependent diabetes mellitus   | 9      | 15     | 24    |
| 2    | P36      | Bacterial sepsis of newborn   | 10     | 9      | 19    |
| 3    | E43      | Unspecified severe protein-energy malnutrition                                      | 3      | 10     | 13    |
| 4    | B16      | Acute hepatitis B   | 10     | 2      | 12    |
| 5    | A41      | Other septicaemia   | 4      | 7      | 11    |
| 6    | I21      | Acute myocardial infarction   | 5      | 3      | 8     |
| 7    | C50      | Malignant neoplasm of breast  |        | 7      | 7     |
| 8    | J18      | Pneumonia, organism unspecified   | 5      | 2      | 7     |
| 9    | E14      | Unspecified diabetes mellitus   | 5      | 1      | 6     |
| 10   | K92      | Other diseases of digestive system  | 3      | 2      | 5     |
| 11   | N18      | Chronic kidney disease  | 3      | 2      | 5     |
| 12   | G03      | Meningitis due to other and unspecified causes                                      | 1      | 4      | 5     |
| 13   | P22      | Respiratory distress of newborn   | 2      | 3      | 5     |
| 14   | C22      | Malignant neoplasm of liver and intrahepatic bile ducts                             | 3      | 1      | 4     |
| 15   | K27      | Peptic ulcer, site unspecified  | 2      | 2      | 4     |
| 16   | I25      | Chronic ischaemic heart disease   | 2      | 2      | 4     |
| 17   | I50      | Heart failure   | 3      | 1      | 4     |
| 18   | I10      | Essential (primary) hypertension  | 1      | 3      | 4     |
| 19   | I61      | Intracerebral haemorrhage   | 2      | 2      | 4     |
| 20   | K63      | Other diseases of intestine   | 3      |        | 3     |
| 21   | J44      | Other chronic obstructive pulmonary disease   | 2      | 1      | 3     |
| 22   | C16      | Malignant neoplasm of stomach   | 1      | 2      | 3     |
| 23   | C34      | Malignant neoplasm of bronchus and lung   | 3      |        | 3     |
| 24   | G06      | Intracranial and intraspinal abscess and granuloma                                  | 2      | 1      | 3     |
| 25   | A90      | Dengue fever [classical dengue]   | 3      |        | 3     |
| 26   | L02      | Cutaneous abscess, furuncle and carbuncle   | 2      | 1      | 3     |
| 27   | A91      | Dengue haemorrhagic fever   | 1      | 2      | 3     |
| 28   | P07      | Disorders related to short gestation and low birth weight, not elsewhere classified | 1      | 2      | 3     |
| 29   | I63      | Cerebral infarction   |        | 3      | 3     |
| 30   | A15      | Respiratory tuberculosis, bacteriologically and histologically confirmed            | 1      | 2      | 3     |
| 31   | M60      | Myositis  | 1      | 1      | 2     |
| 32   | N49      | Inflammatory disorders of male genital organs, not elsewhere classified             | 1      | 1      | 2     |
| 33   | N17      | Acute renal failure   | 1      | 1      | 2     |
| 34   | B18      | Chronic viral hepatitis   | 1      | 1      | 2     |
| 35   | P21      | Birth asphyxia  | 1      | 1      | 2     |
| 36   | C71      | Malignant neoplasm of brain   |        | 2      | 2     |
| 37   | M72      | Fibroblastic disorders  | 2      |        | 2     |
| 38   | G93      | Other disorders of brain  |        | 2      | 2     |
| 39   | R99      | Unknown   |        | 2      | 2     |
| 40   | K74      | Fibrosis and cirrhosis of liver   | 1      | 1      | 2     |
| 41   | A16      | Respiratory tuberculosis, not confirmed bacteriologically or histologically         | 2      |        | 2     |
| 42   | E05      | Thyrotoxicosis [hyperthyroidism]  |        | 2      | 2     |
| 43   | I24      | Other acute ischaemic heart diseases  | 2      |        | 2     |
| 44   | P28      | Other respiratory conditions originating in the perinatal period                    | 1      | 1      | 2     |
| 45   | J90      | Pleural effusion, not elsewhere classified  | 2      |        | 2     |
| 46   | C76      | Malignant neoplasm of other and ill-defined sites                                   |        | 2      | 2     |
| 47   | J45      | Asthma  | 1      | 1      | 2     |
| 48   | N27      | Small kidney of unknown cause   | 1      |        | 1     |
| 49   | V22      | Motorcycle rider injured in collision with two-or three-wheeled motor vehicle       |        | 1      | 1     |
| 50   | A18      | Tuberculosis of other organs  |        | 1      | 1     |
| 51   | I67      | Other cerebrovascular diseases  | 1      |        | 1     |
| 52   | C85      | Other and unspecified types of non-Hodgkin's lymphoma                               |        | 1      | 1     |

**Table 16: (Continued) Leading Causes of Hospital Inpatient Deaths\* for TCH (Expanded list)**

| Rank        | ICD 10-3 | Cause of Death  | Gender |        | Total |
|-------------|----------|---|--------|--------|-------|
|             |          |   | Male   | Female |       |
| 53          | x59      | Exposure to unspecified factor  | 1      |        | 1     |
| 54          | I35      | Nonrheumatic aortic valve disorders   |        | 1      | 1     |
| 55          | C53      | Malignant neoplasm of cervix uteri  |        | 1      | 1     |
| 56          | Q24      | Other congenital malformations of the heart                                       |        | 1      | 1     |
| 57          | A09      | Other gastroenteritis and colitis of infectious and unspecified origin            |        | 1      | 1     |
| 58          | E13      | Other specified diabetes mellitus   | 1      |        | 1     |
| 59          | V89      | Motor-or nonmotor-vehicle accident, type of vehicle unspecified                   | 1      |        | 1     |
| 60          | D64      | Other anaemias  | 1      |        | 1     |
| 61          | E87      | Other disorders of fluid, electrolyte and acid-base balance                       | 1      |        | 1     |
| 62          | N75      | Diseases of Bartholin's gland   |        | 1      | 1     |
| 63          | J85      | Abscess of lung and mediastinum   |        | 1      | 1     |
| 64          | I48      | Atrial fibrillation and flutter   |        | 1      | 1     |
| 65          | E88      | Other metabolic disorders   |        | 1      | 1     |
| 66          | P78      | Other perinatal digestive system disorders  | 1      |        | 1     |
| 67          | J93      | Pneumothorax  |        | 1      | 1     |
| 68          | Q54      | Hypospadias   | 1      |        | 1     |
| 69          | J96      | Respiratory failure, not elsewhere classified                                     | 1      |        | 1     |
| 70          | V24      | Motorcycle rider injured in collision with heavy transport vehicle or bus         | 1      |        | 1     |
| 71          | K11      | Diseases of salivary glands   |        | 1      | 1     |
| 72          | C79      | Secondary malignant neoplasm of other sites                                       |        | 1      | 1     |
| 73          | C02      | Malignant neoplasm of other and unspecified parts of tongue                       |        | 1      | 1     |
| 74          | N13      | Obstructive and reflux uropathy   |        | 1      | 1     |
| 75          | K52      | Other noninfective gastroenteritis and colitis                                    |        | 1      | 1     |
| 76          | I26      | Pulmonary embolism  | 1      |        | 1     |
| 77          | K56      | Paralytic ileus and intestinal obstruction without hernia                         | 1      |        | 1     |
| 78          | I33      | Acute and subacute endocarditis   | 1      |        | 1     |
| 79          | C73      | Malignant neoplasm of thyroid gland   | 1      |        | 1     |
| 80          | O01      | Hydatidiform mole   |        | 1      | 1     |
| 81          | K65      | Peritonitis   | 1      |        | 1     |
| 82          | I38      | Endocarditis, valve unspecified   |        | 1      | 1     |
| 83          | K72      | Hepatic failure, not elsewhere classified   | 1      |        | 1     |
| 84          | C32      | Malignant neoplasm of larynx  |        | 1      | 1     |
| 85          | C41      | Malignant neoplasm of bone and articular cartilage of other and unspecified sites |        | 1      | 1     |
| 86          | P52      | Intracranial nontraumatic haemorrhage of fetus and newborn                        |        | 1      | 1     |
| 87          | K75      | Other inflammatory liver diseases   |        | 1      | 1     |
| 88          | Q01      | Encephalocele   |        | 1      | 1     |
| 89          | K81      | Cholecystitis   |        | 1      | 1     |
| 90          | Q43      | Other congenital malformations of intestine                                       | 1      |        | 1     |
| 91          | K83      | Other diseases of biliary tract   |        | 1      | 1     |
| 92          | R04      | Haemorrhage from respiratory passages   |        | 1      | 1     |
| 93          | H66      | Suppurative and unspecified otitis media  | 1      |        | 1     |
| 94          | V23      | Motorcycle rider injured in collision with car, pick-up truck or van              | 1      |        | 1     |
| 95          | C78      | Secondary malignant neoplasm of respiratory and digestive organs                  |        | 1      | 1     |
| 96          | V28      | Motorcycle rider injured in noncollision transport accident                       | 1      |        | 1     |
| 97          | L03      | Cellulitis  | 1      |        | 1     |
| 98          | L89      | Decubitus ulcer and pressure area   | 1      |        | 1     |
| 99          | J47      | Bronchiectasis  |        | 1      | 1     |
| 100         | J21      | Acute bronchiolitis   | 1      |        | 1     |
| Grand Total |          |   | 132    | 139    | 271   |

Source: KHIS as of 31.12.2018 \* Derived from data extracted from medical records

## 7. Country mortality statistics

**Neonatal Mortality Rate:** Probability of dying between birth and age 28 days (per 1,000 live births): **12.9**

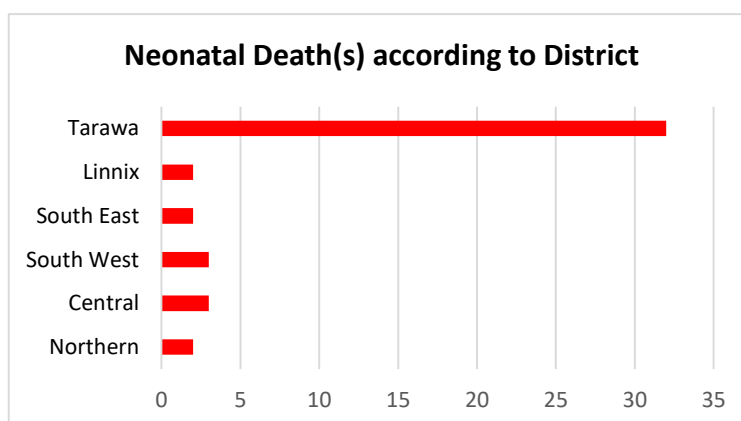
$$\text{NMR} = \frac{\text{Number of deaths of neonates aged 0-28 days (44)}}{\text{Number of live births (3,398)}} \times 1,000$$

### Methodological/System Issues:

- Data for 2018 has been sourced from the KHIS & MS1
- Births with unrecorded outcomes were counted as live births.
- Certification of cause(s) of death is poor resulting in weak mortality data
- It is likely that the number of neonatal deaths is under-reported.
- Mortality data is derived from the final diagnoses documented in the MRs since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.

**Table 17: Neonatal deaths according to districts\***

| District     | No.       |
|--------------|-----------|
| Northern     | 3         |
| Central      | 2         |
| South West   | 2         |
| South East   | 2         |
| Linnix       | 3         |
| Tarawa       | 32        |
| <b>Total</b> | <b>44</b> |



**Figure 4: Neonatal deaths according to districts**

Sources: KHIS & MS1 as of 31.12.2018

**Infant Mortality Rate:** Probability of dying between birth and age 1 year (per 1,000 live births): **28.3**

$$\text{IMR} = \frac{\text{Number of deaths of infants aged <1 year (96)}}{\text{Number of live births (3,398)}} \times 1,000$$

**Methodological/System Issues:**

- Data for 2018 has been sourced from the KHIS & MS1
- Births with unrecorded outcomes were counted as live births.
- Certification of cause(s) of death is poor in the country.
- It is likely that the number of infant deaths is under-reported.
- Mortality data is derived from the final diagnoses documented in the MRs since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.

**Table 18: Infant deaths according to districts**

| District      | No.       | Infant Death(s) according to District |  |
|---------------|-----------|---------------------------------------|--|
| Northern      | 8         |                                       |  |
| Central       | 2         |                                       |  |
| South Western | 10        |                                       |  |
| South Eastern | 7         |                                       |  |
| Linnix        | 7         |                                       |  |
| Tarawa        | 62        |                                       |  |
| <b>Total</b>  | <b>96</b> |                                       |  |

**Figure 5: Infant deaths according to districts**

Sources: KHIS & MS1 as of 31.12.2018

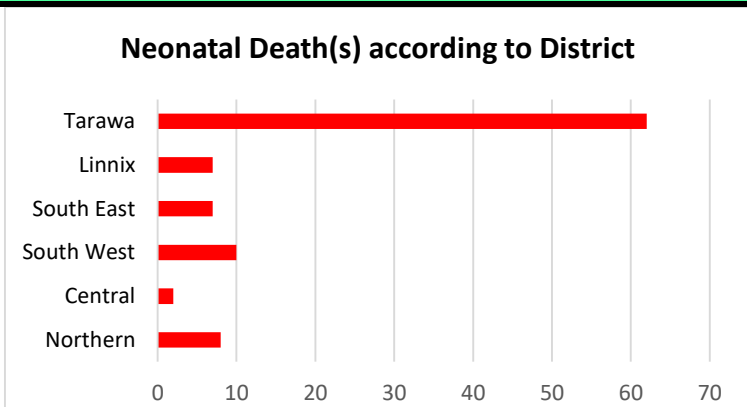
**Under-five Mortality Rate:** Probability of dying by age 5 years (per 1,000 live births): **36.2**

$$\text{U5MR} = \frac{\text{Number of deaths of children aged <5 years (123)}}{\text{Number of live births (3,398)}} \times 1,000$$

**Methodological/System Issues:**

- Data for 2018 has been sourced from the KHIS & MS1
- Births with unrecorded outcomes were counted as live births.
- Certification of cause(s) of death is poor resulting in weak mortality data
- It is likely that the number of under 5 year deaths is under-reported.
- Mortality data is derived from the final diagnoses, since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.

**Table 19: Under 5 year child deaths according to districts\***

| District      | No.        | <p><b>Neonatal Death(s) according to District</b></p>  |
|---------------|------------|---|
| Northern      | 11         |   |
| Central       | 4          |   |
| South Western | 10         |   |
| South Eastern | 13         |   |
| Linnex        | 12         |   |
| Tarawa        | 73         |   |
| <b>Total</b>  | <b>123</b> |   |

Sources: KHIS & MS1 as of  
31.12.2018

**Figure 6: Under 5 year deaths according to districts**



**Maternal Mortality Rate:** Probability of a female dying due to a maternal cause (per 100,000 live births): 1.1

$$\text{MMR} = \frac{\text{Number of maternal deaths (4)}}{\text{Number of live births (3,398)}} \times 100,000$$

**Methodological/System Issues:**

- Data for 2018 has been sourced from the KHIS & MS1
- Births with unrecorded outcomes were counted as live births.
- Challenges in conducting Maternal Death audits thus resulting in low maternal mortality records
- Mortality data is derived from the final diagnoses, since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.

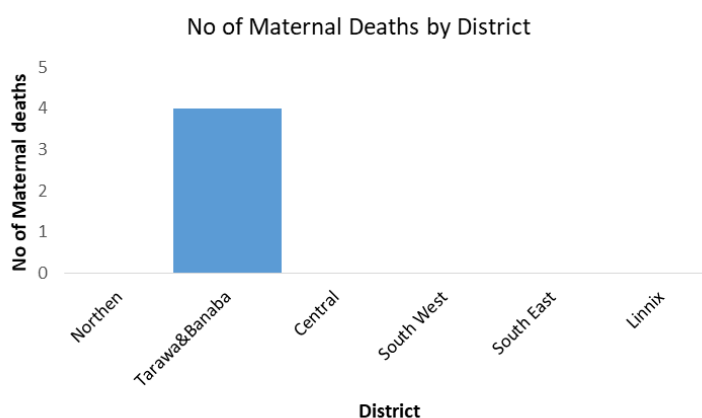
**Table 20: Maternal deaths for Kiribati**

| Rank                          | ICD-10-3 | Cause of Death        | Total    |
|-------------------------------|----------|-----------------------|----------|
| 1                             | O72      | Postpartum Hemorrhage | 2        |
| 2                             | O01      | Hydatidiform Mole     | 1        |
| 3                             | O60      | Preterm labour        | 1        |
| <b>Total Maternal Deaths*</b> |          |                       | <b>4</b> |

Sources: KHIS & MS1 as of 31.12.2018

**Table 21: Maternal deaths according to districts\***

| District        | No.      |
|-----------------|----------|
| Central         | 0        |
| Linnix          | 0        |
| Northern        | 0        |
| South Eastern   | 0        |
| South Western   | 0        |
| Tarawa & Banaba | 4        |
| <b>Total</b>    | <b>4</b> |



**Figure 7: Maternal deaths according to districts**

Sources: KHIS & MS1 as of 31.12.2018

**Adult Mortality Rate from NCDs:** Probability of dying between age 30-69 years from NCDs in a given year (per 10,000 population age 30-69 years): **54.8**

|  |   |
|--|---|
| Adult mortality rate from NCDs<br>(30-69 years) =  | $\frac{\text{Total number of deaths due to NCDs for the year (233)}}{\text{Total population (30-69 years) (42,480)}} \times 10,000$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the KHIS &amp; MS1</li> <li>Certification of cause(s) of death is poor resulting in weak mortality data</li> <li>It is likely that the number of under 5 year deaths is under-reported.</li> <li>Mortality data is derived from the final diagnoses, since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.</li> </ul> |   |

**Table 22: Adult deaths due to NCDs according to districts\***

| District        | No.        | Adult NCD death(s) according to District |
|-----------------|------------|--|
| Central         | 11         |  |
| Linnix          | 27         |  |
| Northern        | 16         |  |
| South Eastern   | 14         |  |
| South Western   | 20         |  |
| Tarawa & Banaba | 145        |  |
| <b>Total</b>    | <b>233</b> |  |

Sources: KHIS & MS1 as of 31.12.2018

**Figure 8: Adult deaths due to NCDs according to districts**

**Mortality rate from road traffic injuries:** Probability of dying from road traffic injuries in a given year (per 100,000 population) **5.8**

|  |   |
|--|---|
| Mortality rate from Road Traffic<br>Injuries =   | $\frac{\text{Total number of deaths due to RTIs for the year (7)}}{\text{Total population (120,139)}} \times 100,000$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the KHIS &amp; MS1</li> <li>Certification of cause(s) of death is poor resulting in weak mortality data</li> <li>It is likely that the number of under 5 year deaths is under-reported.</li> <li>Mortality data is derived from the final diagnoses, since death certificates are not issued to majority of deaths. Hence the actual underlying cause(s) of death could be deferent from the current cause(s) of death data.</li> </ul> |   |

**Table 23: Leading Causes of Death for Kiribati (Categorized list)\***

| Rank        | Cause of Death*   | Gender |        | Total |
|-------------|---|--------|--------|-------|
|             |   | Male   | Female |       |
| 1           | Non-insulin-dependent diabetes mellitus   | 15     | 26     | 41    |
| 2           | Other ill-defined and unspecified causes of mortality                               | 17     | 19     | 36    |
| 3           | Cardiac arrest  | 17     | 11     | 28    |
| 4           | Stroke, not specified as haemorrhage or infarction                                  | 17     | 11     | 28    |
| 5           | Acute myocardial infarction   | 19     | 4      | 23    |
| 6           | Other septicaemia   | 10     | 11     | 21    |
| 7           | Unspecified severe protein-energy malnutrition                                      | 7      | 14     | 21    |
| 8           | Pneumonia, organism unspecified   | 9      | 11     | 20    |
| 9           | Bacterial sepsis of newborn   | 10     | 9      | 19    |
| 10          | Acute hepatitis B   | 10     | 2      | 12    |
| 11          | Malignant neoplasm of breast  |        | 11     | 11    |
| 12          | Meningitis due to other and unspecified causes                                      | 5      | 6      | 11    |
| 13          | Fibrosis and cirrhosis of liver   | 5      | 5      | 10    |
| 14          | Malignant neoplasm of bronchus and lung   | 8      | 2      | 10    |
| 15          | Other gastroenteritis and colitis of infectious and unspecified origin              | 2      | 7      | 9     |
| 16          | Disorders related to short gestation and low birth weight, not elsewhere classified | 5      | 4      | 9     |
| 17          | Volume depletion  | 5      | 4      | 9     |
| 18          | Essential (primary) hypertension  | 5      | 4      | 9     |
| 19          | Unspecified kidney failure  | 5      | 3      | 8     |
| 20          | Heart failure   | 3      | 5      | 8     |
| 21          | Complications and ill-defined descriptions of heart disease                         | 5      | 3      | 8     |
| 22          | Peptic ulcer, site unspecified  | 6      | 2      | 8     |
| 23          | Malignant neoplasm of cervix uteri  |        | 7      | 7     |
| 24          | Other chronic obstructive pulmonary disease   | 4      | 3      | 7     |
| 25          | Other anaemias  | 2      | 4      | 6     |
| 26          | Other diseases of liver   | 4      | 2      | 6     |
| 27          | Malignant neoplasm of liver and intrahepatic bile ducts                             | 4      | 2      | 6     |
| 28          | Unspecified diabetes mellitus   | 5      | 1      | 6     |
| 29          | Dengue fever [classical dengue]   | 4      | 1      | 5     |
| 30          | Chronic kidney disease  | 3      | 2      | 5     |
| 31          | Other diseases of digestive system  | 3      | 2      | 5     |
| 32          | Respiratory tuberculosis, not confirmed bacteriologically or histologically         | 4      | 1      | 5     |
|             | Mortality from all other causes (pooled)  | 114    | 105    | 219   |
| Grand Total |   | 332    | 304    | 636   |

Sources: KHIS &amp; MS1 as of 31.12.2018

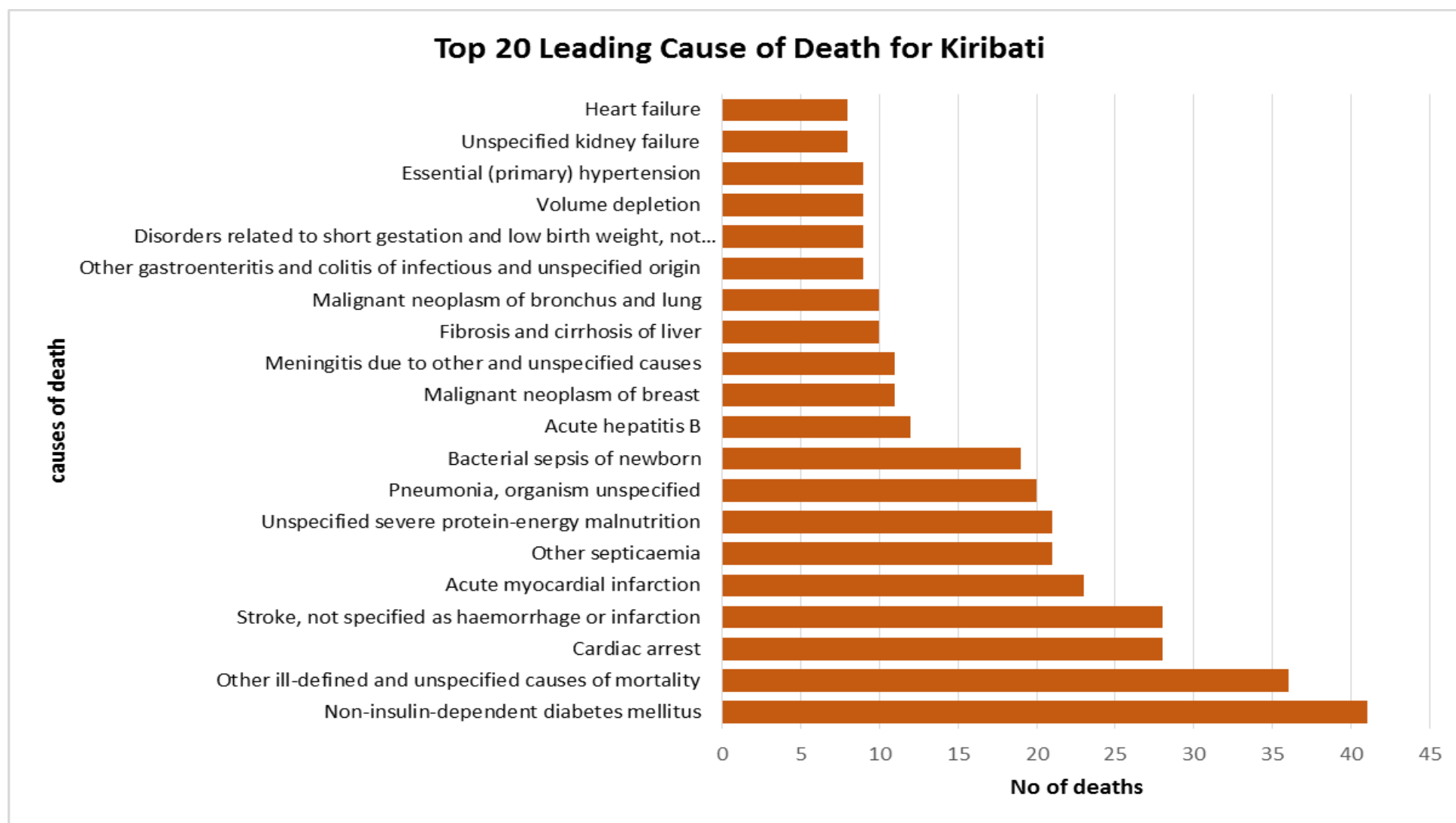


Figure 9: Leading Causes of Death for Kiribati

**Table 24: Leading Causes of Death for Kiribati (Expanded list)\***

| Rank | ICD-10-3 | Cause of Death  | Gender |        | Total |
|------|----------|---|--------|--------|-------|
|      |          |   | Male   | Female |       |
| 1    | E11      | Non-insulin-dependent diabetes mellitus   | 15     | 26     | 41    |
| 2    | R99      | Other ill-defined and unspecified causes of mortality                               | 17     | 19     | 36    |
| 3    | I46      | Cardiac arrest  | 17     | 11     | 28    |
| 4    | I64      | Stroke, not specified as haemorrhage or infarction                                  | 17     | 11     | 28    |
| 5    | I21      | Acute myocardial infarction   | 19     | 4      | 23    |
| 6    | A41      | Other septicaemia   | 10     | 11     | 21    |
| 7    | E43      | Unspecified severe protein-energy malnutrition                                      | 7      | 14     | 21    |
| 8    | J18      | Pneumonia, organism unspecified   | 9      | 11     | 20    |
| 9    | P36      | Bacterial sepsis of newborn   | 10     | 9      | 19    |
| 10   | B16      | Acute hepatitis B   | 10     | 2      | 12    |
| 11   | C50      | Malignant neoplasm of breast  |        | 11     | 11    |
| 12   | G03      | Meningitis due to other and unspecified causes                                      | 5      | 6      | 11    |
| 13   | K74      | Fibrosis and cirrhosis of liver   | 5      | 5      | 10    |
| 14   | C34      | Malignant neoplasm of bronchus and lung   | 8      | 2      | 10    |
| 15   | A09      | Other gastroenteritis and colitis of infectious and unspecified origin              | 2      | 7      | 9     |
| 16   | P07      | Disorders related to short gestation and low birth weight, not elsewhere classified | 5      | 4      | 9     |
| 17   | E86      | Volume depletion  | 5      | 4      | 9     |
| 18   | I10      | Essential (primary) hypertension  | 5      | 4      | 9     |
| 19   | N19      | Unspecified kidney failure  | 5      | 3      | 8     |
| 20   | I50      | Heart failure   | 3      | 5      | 8     |
| 21   | I51      | Complications and ill-defined descriptions of heart disease                         | 5      | 3      | 8     |
| 22   | K27      | Peptic ulcer, site unspecified  | 6      | 2      | 8     |
| 23   | C53      | Malignant neoplasm of cervix uteri  |        | 7      | 7     |
| 24   | J44      | Other chronic obstructive pulmonary disease   | 4      | 3      | 7     |
| 25   | D64      | Other anaemias  | 2      | 4      | 6     |
| 26   | K76      | Other diseases of liver   | 4      | 2      | 6     |
| 27   | C22      | Malignant neoplasm of liver and intrahepatic bile ducts                             | 4      | 2      | 6     |
| 28   | E14      | Unspecified diabetes mellitus   | 5      | 1      | 6     |
| 29   | A90      | Dengue fever [classical dengue]   | 4      | 1      | 5     |
| 30   | N18      | Chronic kidney disease  | 3      | 2      | 5     |
| 31   | K92      | Other diseases of digestive system  | 3      | 2      | 5     |
| 32   | A16      | Respiratory tuberculosis, not confirmed bacteriologically or histologically         | 4      | 1      | 5     |
| 33   | P22      | Respiratory distress of newborn   | 2      | 3      | 5     |
| 34   | R06      | Abnormalities of breathing  | 3      | 2      | 5     |
| 35   | W74      | Unspecified drowning and submersion   | 4      | 1      | 5     |
| 36   | X84      | Intentional self-harm by unspecified means  | 5      |        | 5     |
| 37   | L02      | Cutaneous abscess, furuncle and carbuncle   | 3      | 1      | 4     |
| 38   | C16      | Malignant neoplasm of stomach   | 1      | 3      | 4     |
| 39   | R62      | Lack of expected normal physiological development                                   | 1      | 3      | 4     |
| 40   | I25      | Chronic ischaemic heart disease   | 2      | 2      | 4     |
| 41   | P96      | Other conditions originating in the perinatal period                                | 1      | 3      | 4     |
| 42   | J45      | Asthma  | 1      | 3      | 4     |

**Table 24: (Continued) Leading Causes of Death for Kiribati (Expanded list)\***

| Rank | ICD-10-3 | Cause of Death   | Gender |        | Total |
|------|----------|--|--------|--------|-------|
|      |          |  | Male   | Female |       |
| 43   | I61      | Intracerebral haemorrhage  | 2      | 1      | 3     |
| 44   | R10      | Abdominal and pelvic pain  | 2      | 1      | 3     |
| 45   | I63      | Cerebral infarction  |        | 3      | 3     |
| 46   | A91      | Dengue haemorrhagic fever  | 1      | 2      | 3     |
| 47   | R54      | Senility   | 1      | 2      | 3     |
| 48   | J90      | Pleural effusion, not elsewhere classified   | 3      |        | 3     |
| 49   | R96      | Other sudden death, cause unknown  | 3      |        | 3     |
| 50   | K63      | Other diseases of intestine  | 3      |        | 3     |
| 51   | G06      | Intracranial and intraspinal abscess and granuloma                                 | 2      | 1      | 3     |
| 52   | C76      | Malignant neoplasm of other and ill-defined sites                                  | 1      | 2      | 3     |
| 53   | A15      | Respiratory tuberculosis, bacteriologically and histologically confirmed           | 1      | 2      | 3     |
| 54   | B18      | Chronic viral hepatitis  | 1      | 1      | 2     |
| 55   | R63      | Symptoms and signs concerning food and fluid intake                                |        | 2      | 2     |
| 56   | R14      | Flatulence and related conditions  | 1      | 1      | 2     |
| 57   | I24      | Other acute ischaemic heart diseases   | 2      |        | 2     |
| 58   | I11      | Hypertensive heart disease   | 1      | 1      | 2     |
| 59   | I48      | Atrial fibrillation and flutter  | 1      | 1      | 2     |
| 60   | R04      | Haemorrhage from respiratory passages  | 1      | 1      | 2     |
| 61   | C95      | Leukaemia of unspecified cell type   | 2      |        | 2     |
| 62   | R56      | Convulsions, not elsewhere classified  | 2      |        | 2     |
| 63   | C71      | Malignant neoplasm of brain  |        | 2      | 2     |
| 64   | W80      | Inhalation and ingestion of other objects causing obstruction of respiratory tract |        | 2      | 2     |
| 65   | E05      | Thyrotoxicosis [hyperthyroidism]   |        | 2      | 2     |
| 66   | P28      | Other respiratory conditions originating in the perinatal period                   | 1      | 1      | 2     |
| 67   | C73      | Malignant neoplasm of thyroid gland  | 1      | 1      | 2     |
| 68   | Q24      | Other congenital malformations of the heart  | 1      | 1      | 2     |
| 69   | J96      | Respiratory failure, not elsewhere classified                                      | 2      |        | 2     |
| 70   | R07      | Pain in throat and chest   | 1      | 1      | 2     |
| 71   | E16      | Other disorders of pancreatic internal secretion                                   | 1      | 1      | 2     |
| 72   | R18      | Ascites  | 1      | 1      | 2     |
| 73   | K75      | Other inflammatory liver diseases  | 1      | 1      | 2     |
| 74   | G93      | Other disorders of brain   |        | 2      | 2     |
| 75   | M60      | Myositis   | 1      | 1      | 2     |
| 76   | V89      | Motor-or nonmotor-vehicle accident, type of vehicle unspecified                    | 2      |        | 2     |
| 77   | M72      | Fibroblastic disorders   | 2      |        | 2     |
| 78   | x59      | Exposure to unspecified factor   | 1      | 1      | 2     |
| 79   | N17      | Acute renal failure  | 1      | 1      | 2     |
| 80   | P21      | Birth asphyxia   | 1      | 1      | 2     |
| 81   | N49      | Inflammatory disorders of male genital organs, not elsewhere classified            | 1      | 1      | 2     |
| 82   | R58      | Haemorrhage, not elsewhere classified  | 1      |        | 1     |
| 83   | I61      | Intracerebral haemorrhage  | 2      | 1      | 3     |
| 84   | Q43      | Other congenital malformations of intestine  | 1      |        | 1     |

**Table 24: (Continued) Leading Causes of Death for Kiribati (Expanded list)\***

| Rank | ICD-10-3 | Cause of Death   | Gender |        | Total |
|------|----------|--|--------|--------|-------|
|      |          |  | Male   | Female |       |
| 85   | X09      | Exposure to unspecified smoke, fire and flames                               | 1      |        | 1     |
| 86   | Y87      | Sequelae of intentional self-harm, assault and events of undetermined intent | 1      |        | 1     |
| 87   | I37      | Pulmonary valve disorders  | 1      |        | 1     |
| 88   | A08      | Viral and other specified intestinal infections                              |        | 1      | 1     |
| 89   | V23      | Motorcycle rider injured in collision with car, pick-up truck or van         | 1      |        | 1     |
| 90   | K52      | Other noninfective gastroenteritis and colitis                               |        | 1      | 1     |
| 91   | I67      | Other cerebrovascular diseases   | 1      |        | 1     |
| 92   | K56      | Paralytic ileus and intestinal obstruction without hernia                    | 1      |        | 1     |
| 93   | J21      | Acute bronchiolitis  | 1      |        | 1     |
| 94   | C61      | Malignant neoplasm of prostate   | 1      |        | 1     |
| 95   | R51      | Headache   |        | 1      | 1     |
| 96   | K65      | Peritonitis  | 1      |        | 1     |
| 97   | H66      | Suppurative and unspecified otitis media                                     | 1      |        | 1     |
| 98   | K72      | Hepatic failure, not elsewhere classified                                    | 1      |        | 1     |
| 99   | B19      | Unspecified viral hepatitis  | 1      |        | 1     |
| 100  | B94      | Sequelae of other and unspecified infectious and parasitic diseases          |        | 1      | 1     |
| 101  | Y09      | Assault by unspecified means   | 1      |        | 1     |
| 102  | C85      | Other and unspecified types of non-Hodgkin's lymphoma                        |        | 1      | 1     |
| 103  | Q05      | Spina bifida   |        | 1      | 1     |
| 104  | C78      | Secondary malignant neoplasm of respiratory and digestive organs             |        | 1      | 1     |
| 105  | C19      | Malignant neoplasm of rectosigmoid junction                                  | 1      |        | 1     |
| 106  | K81      | Cholecystitis  |        | 1      | 1     |
| 107  | R12      | Heartburn  | 1      |        | 1     |
| 108  | Y28      | Contact with sharp object, undetermined intent                               | 1      |        | 1     |
| 109  | R41      | Other symptoms and signs involving cognitive functions and awareness         | 1      |        | 1     |
| 110  | E51      | Thiamine deficiency  |        | 1      | 1     |
| 111  | J47      | Bronchiectasis   |        | 1      | 1     |
| 112  | C79      | Secondary malignant neoplasm of other sites                                  |        | 1      | 1     |
| 113  | J80      | Adult respiratory distress syndrome  |        | 1      | 1     |
| 114  | L03      | Cellulitis   | 1      |        | 1     |
| 115  | V09      | Pedestrian injured in other and unspecified transport accidents              |        | 1      | 1     |
| 116  | L89      | Decubitus ulcer and pressure area  | 1      |        | 1     |
| 117  | V28      | Motorcycle rider injured in noncollision transport accident                  | 1      |        | 1     |
| 118  | M00      | Pyogenic arthritis   |        | 1      | 1     |
| 119  | E13      | Other specified diabetes mellitus  | 1      |        | 1     |
| 120  | M19      | Other arthrosis  | 1      |        | 1     |
| 121  | J93      | Pneumothorax   |        | 1      | 1     |
| 122  | M54      | Dorsalgia  | 1      |        | 1     |
| 123  | P78      | Other perinatal digestive system disorders                                   | 1      |        | 1     |
| 124  | C02      | Malignant neoplasm of other and unspecified parts of tongue                  |        | 1      | 1     |
| 125  | Q01      | Encephalocele  |        | 1      | 1     |

**Table 24: (Continued) Leading Causes of Death for Kiribati (Expanded list)\***

| Rank        | ICD-10-3 | Cause of Death   | Gender |        | Total |
|-------------|----------|--|--------|--------|-------|
|             |          |  | Male   | Female |       |
| 126         | I26      | Pulmonary embolism   | 1      |        | 1     |
| 127         | J06      | Acute upper respiratory infections of multiple or unspecified sites                            | 1      |        | 1     |
| 128         | N13      | Obstructive and reflux uropathy  |        | 1      | 1     |
| 129         | Q54      | Hypospadias  | 1      |        | 1     |
| 130         | I33      | Acute and subacute endocarditis  | 1      |        | 1     |
| 131         | C80      | alignant neoplasm without specification of site  | 1      |        | 1     |
| 132         | E87      | Other disorders of fluid, electrolyte and acid-base balance                                    | 1      |        | 1     |
| 133         | G40      | Epilepsy   | 1      |        | 1     |
| 134         | C32      | Malignant neoplasm of larynx   |        | 1      | 1     |
| 135         | I35      | Nonrheumatic aortic valve disorders  |        | 1      | 1     |
| 136         | N27      | Small kidney of unknown cause  | 1      |        | 1     |
| 137         | R40      | Somnolence, stupor and coma  | 1      |        | 1     |
| 138         | B37      | Candidiasis  | 1      |        | 1     |
| 139         | R50      | Fever of other and unknown origin  | 1      |        | 1     |
| 140         | N75      | Diseases of Bartholin's gland  |        | 1      | 1     |
| 141         | G47      | Sleep disorders  |        | 1      | 1     |
| 142         | N94      | Pain and other conditions associated with female genital organs and menstrual cycle            |        | 1      | 1     |
| 143         | R57      | Shock, not elsewhere classified  | 1      |        | 1     |
| 144         | O01      | Hydatidiform mole  |        | 1      | 1     |
| 145         | J69      | Pneumonitis due to solids and liquids  |        | 1      | 1     |
| 146         | O60      | Preterm labour   |        | 1      | 1     |
| 147         | R95      | Sudden infant death syndrome   | 1      |        | 1     |
| 148         | O72      | Postpartum haemorrhage   |        | 1      | 1     |
| 149         | C49      | Malignant neoplasm of other connective and soft tissue   |        | 1      | 1     |
| 150         | A18      | Tuberculosis of other organs   |        | 1      | 1     |
| 151         | V22      | Motorcycle rider injured in collision with two-or three-wheeled motor vehicle                  |        | 1      | 1     |
| 152         | P10      | Intracranial laceration and haemorrhage due to birth injury                                    |        | 1      | 1     |
| 153         | V24      | Motorcycle rider injured in collision with heavy transport vehicle or bus                      | 1      |        | 1     |
| 154         | D69      | Purpura and other haemorrhagic conditions  | 1      |        | 1     |
| 155         | J85      | Abscess of lung and mediastinum  |        | 1      | 1     |
| 156         | E88      | Other metabolic disorders  |        | 1      | 1     |
| 157         | W75      | Accidental suffocation and strangulation in bed  |        | 1      | 1     |
| 158         | P24      | Neonatal aspiration syndromes  | 1      |        | 1     |
| 159         | W84      | Unspecified threat to breathing  |        | 1      | 1     |
| 160         | C17      | Malignant neoplasm of small intestine  | 1      |        | 1     |
| 161         | X49      | Accidental poisoning by and exposure to other and unspecified chemicals and noxious substances |        | 1      | 1     |
| 162         | C41      | Malignant neoplasm of bone and articular cartilage of other and unspecified sites              |        | 1      | 1     |
| 163         | I38      | Endocarditis, valve unspecified  |        | 1      | 1     |
| Grand Total |          |  | 332    | 304    | 636   |

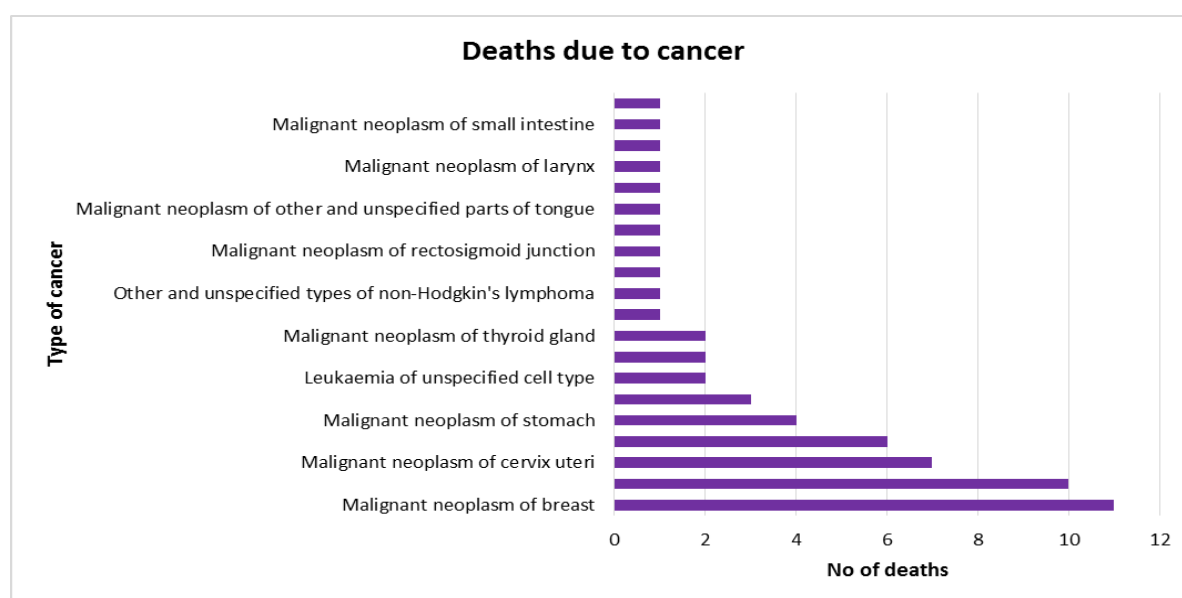
Sources: KHIS &amp; MS1as of 31.12.2018



**Table 25: Deaths due to cancer for Kiribati\***

| Rank  | ICD-10-3 | Type of Cancer  | Gender    |           | Total     |
|---|----------|---|-----------|-----------|-----------|
|   |          |   | Male      | Female    |           |
| 1   | C50      | Malignant neoplasm of breast  |           | 11        | 11        |
| 2   | C34      | Malignant neoplasm of bronchus and lung   | 8         | 2         | 10        |
| 3   | C53      | Malignant neoplasm of cervix uteri  |           | 7         | 7         |
| 4   | C22      | Malignant neoplasm of liver and intrahepatic bile ducts                           | 4         | 2         | 6         |
| 5   | C16      | Malignant neoplasm of stomach   | 1         | 3         | 4         |
| 6   | C76      | Malignant neoplasm of other and ill-defined sites                                 | 1         | 2         | 3         |
| 7   | C95      | Leukaemia of unspecified cell type  | 2         |           | 2         |
| 8   | C71      | Malignant neoplasm of brain   |           | 2         | 2         |
| 9   | C73      | Malignant neoplasm of thyroid gland   | 1         | 1         | 2         |
| 10  | C61      | Malignant neoplasm of prostate  | 1         |           | 1         |
| 11  | C85      | Other and unspecified types of non-Hodgkin's lymphoma                             |           | 1         | 1         |
| 12  | C78      | Secondary malignant neoplasm of respiratory and digestive organs                  |           | 1         | 1         |
| 13  | C19      | Malignant neoplasm of rectosigmoid junction                                       | 1         |           | 1         |
| 14  | C79      | Secondary malignant neoplasm of other sites                                       |           | 1         | 1         |
| 15  | C02      | Malignant neoplasm of other and unspecified parts of tongue                       |           | 1         | 1         |
| 16  | C80      | alignant neoplasm without specification of site                                   | 1         |           | 1         |
| 17  | C32      | Malignant neoplasm of larynx  |           | 1         | 1         |
| 18  | C49      | Malignant neoplasm of other connective and soft tissue                            |           | 1         | 1         |
| 19  | C17      | Malignant neoplasm of small intestine   | 1         |           | 1         |
| 20  | C41      | Malignant neoplasm of bone and articular cartilage of other and unspecified sites |           | 1         | 1         |
| <b>Total cancer deaths occurred at a health facility*</b> |          |   | <b>21</b> | <b>37</b> | <b>58</b> |

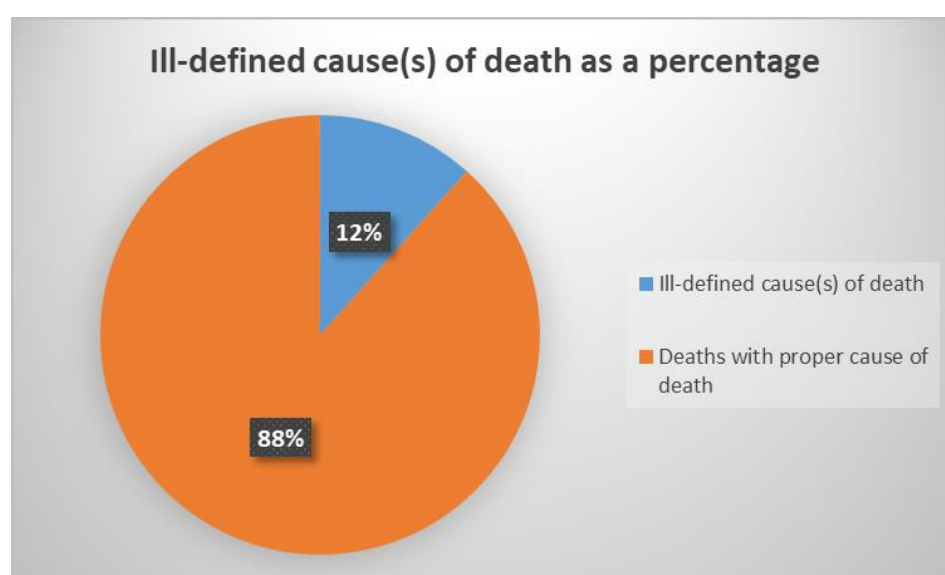
Sources: KHIS & MS1 as of 31.12.2018

**Figure 10: Mortality from cancers**

**Table 26: Ill-defined causes of death for Kiribati\***

| Rank  | ICD-10-3 | Ill-defined cause of death   | Gender    |           | Total     |
|---|----------|--|-----------|-----------|-----------|
|   |          |  | Male      | Female    |           |
| 1   | R99      | Other ill-defined and unspecified causes of mortality                | 17        | 19        | 36        |
| 2   | R06      | Abnormalities of breathing   | 3         | 2         | 5         |
| 3   | R62      | Lack of expected normal physiological development                    | 1         | 3         | 4         |
| 4   | R10      | Abdominal and pelvic pain  | 2         | 1         | 3         |
| 5   | R54      | Senility   | 1         | 2         | 3         |
| 6   | R96      | Other sudden death, cause unknown                                    | 3         |           | 3         |
| 7   | R04      | Haemorrhage from respiratory passages                                | 1         | 1         | 2         |
| 8   | R07      | Pain in throat and chest   | 1         | 1         | 2         |
| 9   | R14      | Flatulence and related conditions                                    | 1         | 1         | 2         |
| 10  | R18      | Ascites  | 1         | 1         | 2         |
| 11  | R56      | Convulsions, not elsewhere classified                                | 2         |           | 2         |
| 12  | R63      | Symptoms and signs concerning food and fluid intake                  |           | 2         | 2         |
| 13  | R12      | Heartburn  | 1         |           | 1         |
| 14  | R40      | Somnolence, stupor and coma  | 1         |           | 1         |
| 15  | R41      | Other symptoms and signs involving cognitive functions and awareness | 1         |           | 1         |
| 16  | R50      | Fever of other and unknown origin                                    | 1         |           | 1         |
| 17  | R51      | Headache   |           | 1         | 1         |
| 18  | R57      | Shock, not elsewhere classified                                      | 1         |           | 1         |
|   | R58      | Haemorrhage, not elsewhere classified                                | 1         |           | 1         |
|   | R95      | Sudden infant death syndrome   | 1         |           | 1         |
| <b>Total ill-defined deaths occurred at a health facility</b> |          |  | <b>40</b> | <b>34</b> | <b>74</b> |

Sources: KHIS & MS1 as of 31.12.2018

**Figure 11: Ill-defined cause(s) of deaths as a percentage of total deaths**

## 8. Maternal & Child Health and Family Planning Services

**Access to antenatal care:** The average number of antenatal clinic visits attended per mother in one year: **4.0**

|   |   |
|---|---|
| Access to antenatal care =  | $\frac{\text{Total number of antenatal visits (first \& revisits) (14,025)}}{\text{Total number of deliveries reported (3,466)}}$ |
| <b>Methodological/System Issues:</b>  |   |
| <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the MS1</li> </ul> |   |

**Table 27: Visits to Island Health Centers and Clinics**

| First Visits              | Month |      |      |      |      |      |      |      |      |      |      |      | Total        |
|---------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|--------------|
|                           | Jan   | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |              |
| Antenatal                 | 334   | 270  | 358  | 325  | 336  | 317  | 294  | 323  | 234  | 303  | 245  | 194  | <b>3533</b>  |
| Postnatal                 | 214   | 213  | 226  | 206  | 234  | 241  | 242  | 188  | 282  | 313  | 269  | 239  | <b>2867</b>  |
| Child Health: <1yr        | 358   | 279  | 300  | 262  | 335  | 363  | 271  | 311  | 358  | 412  | 383  | 371  | <b>4003</b>  |
| Child Health: 1-4yrs      | 394   | 221  | 259  | 169  | 288  | 250  | 108  | 194  | 166  | 205  | 210  | 182  | <b>2646</b>  |
| MCH Aides                 | 475   | 466  | 526  | 633  | 533  | 501  | 369  | 560  | 458  | 369  | 417  | 161  | <b>5468</b>  |
| Pap Smears                | 30    | 34   | 99   | 96   | 73   | 54   | 196  | 114  | 130  | 178  | 156  | 40   | <b>1200</b>  |
| <b>Re-visits</b>          |       |      |      |      |      |      |      |      |      |      |      |      |              |
| Antenatal 2nd             | 290   | 248  | 275  | 296  | 315  | 303  | 294  | 278  | 316  | 260  | 254  | 250  | <b>3379</b>  |
| Antenatal 3rd             | 197   | 174  | 243  | 187  | 200  | 213  | 253  | 243  | 226  | 246  | 258  | 167  | <b>2607</b>  |
| Antenatal 4 <sup>th</sup> | 139   | 142  | 143  | 159  | 201  | 161  | 200  | 205  | 189  | 193  | 179  | 150  | <b>2061</b>  |
| Antenatal 4<              | 170   | 148  | 179  | 223  | 250  | 231  | 211  | 253  | 217  | 269  | 275  | 199  | <b>2625</b>  |
| Postnatal                 | 50    | 90   | 65   | 140  | 79   | 69   | 118  | 119  | 48   | 22   | 56   | 84   | <b>940</b>   |
| Child Health: < 1yr       | 1236  | 1142 | 1082 | 1011 | 1151 | 1228 | 1064 | 1253 | 1185 | 1175 | 1098 | 884  | <b>13509</b> |
| Child Health: 1-4yrs      | 2047  | 2278 | 2171 | 2325 | 2258 | 2589 | 2253 | 2131 | 2538 | 2941 | 2008 | 1585 | <b>27124</b> |
| MCH Aides                 | 180   | 138  | 397  | 334  | 321  | 399  | 906  | 1079 | 406  | 194  | 162  | 88   | <b>4604</b>  |
| Pap Smears                | 4     | 10   | 29   | 8    | 7    | 12   | 9    | 44   | 26   | 29   | 6    | 77   | <b>261</b>   |

**Source: MS1 as of 31.12.2018**

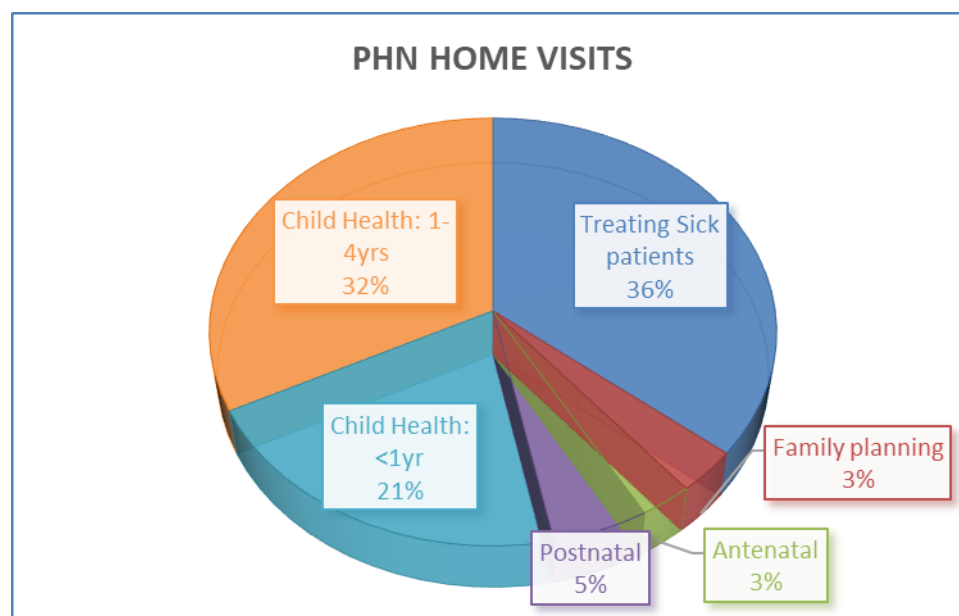
**Percentage of pregnant mothers received at least one home visit by PHN:** The average number of home visits by PHN per mother in one year: 9.3%

|   |  |
|---|--|
| $\frac{\text{\% of pregnant mothers received at least one home visit by PHN} \times \text{Number of home visits (322)}}{\text{Total number of deliveries reported (3,466)}} \times 100$ |  |
| <b>Methodological/System Issues:</b>  |  |
| <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the MS1</li> </ul>   |  |

**Table 28: PHN Home Visits**

| Service offered       | Month |     |     |     |     |     |     |     |     |     |     |     | Total       |
|-----------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
|                       | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |             |
| Sick patients treated | 368   | 320 | 266 | 338 | 302 | 278 | 266 | 310 | 321 | 283 | 297 | 227 | <b>3576</b> |
| Family planning       | 24    | 29  | 30  | 24  | 41  | 11  | 16  | 17  | 20  | 16  | 20  | 19  | <b>267</b>  |
| Antenatal             | 30    | 29  | 21  | 25  | 27  | 15  | 39  | 39  | 28  | 34  | 24  | 11  | <b>322</b>  |
| Postnatal             | 46    | 64  | 53  | 71  | 69  | 56  | 97  | 52  | 45  | 46  | 53  | 44  | <b>696</b>  |
| Child Health: <1yr    | 227   | 238 | 207 | 216 | 173 | 195 | 284 | 288 | 177 | 193 | 197 | 141 | <b>2536</b> |
| Child Health: 1-4yrs  | 311   | 422 | 413 | 278 | 289 | 376 | 517 | 400 | 296 | 374 | 347 | 156 | <b>4179</b> |

Source: MS1 as of 31.12.2018



**Figure 12: PHN home visits (as a percentage)**

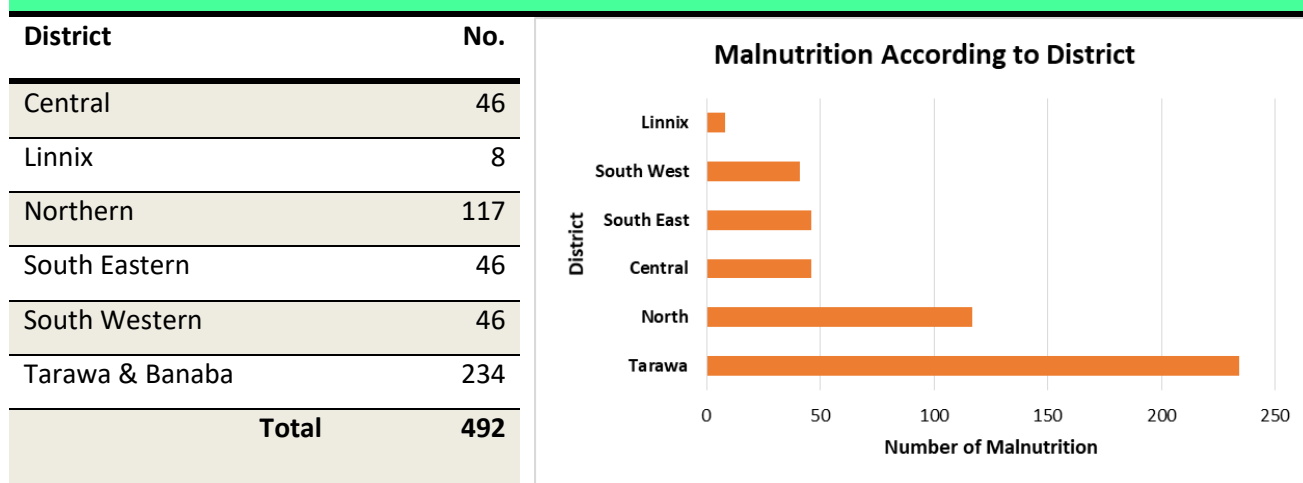
**Percentage of Low Birth Weight:** Percentage of having a low birth weight (<2500g) baby (per 100 live births): **7.2%**

|  |   |
|--|---|
| Percentage of LBW =  | $\frac{\text{Number of Low Birth Weight babies (<2500 gm) (244)}}{\text{Total number of live births (3,398)}} \times 100$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>Data for 2018 has been sourced from the KHIS &amp; MS1</li> <li>Births with unrecorded outcomes were counted as live births.</li> </ul> |   |

**Malnourished children:** Percentage of children (aged <5 years) classified as malnourished or severely malnourished in the MS1 Health Facility Monthly Reporting Form: **3.1**

|   |  |
|---|--|
| Percentage of Malnourished Children =   | $\frac{\text{Total number of malnourished children <5 years (492)}}{\text{Total population of children (<5 years) (15,775)}} \times 100$ |
| <b>Methodological/System Issues:</b>  |  |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Data for 2018 has been sourced from the MS1</li> <li>Strengthened and timely reported would contribute to more accurate figures.</li> </ul> |  |

**Table 29: Malnutrition among <5yr children according to districts**



Source: MS1 as of 31.12.2018

**Figure 13: Malnutrition among <5yrs according to districts**

**Table 30: Malnutrition among <5yr children**

| Island              | Month |     |     |     |     |     |     |     |     |     |     |     | Total |
|---------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|                     | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |       |
| TUC                 | 10    | 9   | 11  | 15  | 6   | 18  | 17  | 17  | 3   | 5   | 10  | 2   | 123   |
| Abaiang             | 11    |     | 3   | 2   | 9   | 7   | 20  | 3   | 2   | 1   |     | 3   | 61    |
| Tarawa North        | 27    | 5   | 6   | 6   | 1   | 5   |     | 2   | 1   | 2   |     | 1   | 56    |
| BTC                 | 9     | 10  | 6   | 2   | 3   | 1   | 3   | 6   | 3   | 6   | 2   |     | 51    |
| Onotoa              | 13    | 7   | 1   | 3   | 2   | 4   | 2   | 1   | 2   | 1   | 1   |     | 37    |
| Marakei             | 5     |     | 6   | 1   | 2   |     | 16  |     |     |     |     | 3   | 33    |
| Butaritari          |       | 4   | 8   |     |     | 6   |     | 2   |     | 1   | 1   |     | 22    |
| Beru                | 12    |     |     | 1   |     | 2   | 2   | 1   | 2   |     |     |     | 20    |
| Abemama             |       | 5   | 2   |     |     | 3   | 4   | 4   | 2   |     |     |     | 20    |
| Arorae              |       | 8   |     |     | 1   | 2   | 1   | 2   | 1   | 2   |     |     | 17    |
| Aranuka             | 2     | 3   |     |     | 3   | 6   |     | 2   |     |     | 1   |     | 17    |
| Nikunau             |       | 3   | 2   |     |     |     |     | 1   | 1   |     | 2   |     | 9     |
| Tab North           | 2     |     | 1   |     | 1   |     | 1   |     |     | 1   | 1   |     | 7     |
| Kuria               |       | 2   | 2   |     |     |     |     |     |     |     |     |     | 4     |
| Teraina(Washington) |       |     |     |     | 1   |     | 2   |     |     |     |     |     | 3     |
| Banaba              |       |     |     | 1   | 1   |     |     |     |     |     | 1   |     | 3     |
| Kiritimati          |       |     | 1   |     |     | 2   |     |     |     |     |     |     | 3     |
| Nonouti             |       |     |     |     |     | 1   |     |     | 1   |     |     |     | 2     |
| Tabuaeran(Fanning)  |       |     | 1   | 1   |     |     |     |     |     |     |     |     | 2     |
| TCH                 | 1     |     |     |     |     |     |     |     |     |     |     |     | 1     |
| Makin               |       | 1   |     |     |     |     |     |     |     |     |     |     | 1     |
|                     |       |     |     |     |     |     |     |     |     |     |     |     |       |
| Grand Total         | 92    | 57  | 50  | 32  | 30  | 57  | 68  | 41  | 18  | 19  | 19  | 9   | 492   |

Source: MS1 as of 31.12.2018



**Contraceptive use:** Total number of contraceptive contacts (all forms) seen at health facilities in one year (per 1,000 population): **247.5**

|   |   |         |
|---|---|---------|
| Contraceptive contacts (all forms) seen at health facilities =  | <u>Contraceptive contacts (all forms) seen at health facilities (7,596)</u><br>Women Age 15 – 49 yrs (30,692) | X 1,000 |
| <b>Methodological/System Issues:</b>  |   |         |
| <ul style="list-style-type: none"> <li>• 2018 projected population is used as base population.</li> <li>• Data for 2018 has been sourced from the MS1 and is likely to be affected by under-counting</li> <li>• Strengthened and timely reporting would contribute to more accurate figures.</li> </ul> |   |         |

**Table 31: Family Planning services**

| Method of FP | Category                   | Month |      |      |      |      |      |      |      |      |      |      |      | Total |
|--------------|----------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|
|              |                            | Jan   | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |       |
| Micro-lute   | Continuers from last month | 27    | 21   | 33   | 16   | 15   | 25   | 21   | 23   | 22   | 27   | 25   | 14   | 269   |
|              | New clients                | 2     | 2    | 6    | 4    | 7    | 6    | 1    | 3    | 4    | 3    |      | 4    | 42    |
|              | Restart                    | 2     |      | 1    |      |      | 1    | 1    | 1    |      | 2    | 1    | 3    | 12    |
|              | Discontinuers              | 8     | 1    | 2    | 3    | 1    | 2    | 3    | 5    | 1    | 10   |      | 3    | 39    |
|              | Lost contact               |       |      |      |      |      |      | 1    |      |      | 1    |      |      | 2     |
|              | Continuers at end of month | 22    | 21   | 38   | 19   | 21   | 29   | 21   | 21   | 27   | 22   | 25   | 18   | 284   |
| Micro-gynon  | Continuers from last month | 90    | 57   | 59   | 67   | 72   | 96   | 71   | 69   | 68   | 90   | 73   | 69   | 881   |
|              | New clients                | 8     | 5    | 5    | 12   | 10   | 7    | 10   | 15   | 6    | 27   | 14   | 4    | 123   |
|              | Restart                    | 4     | 1    | 3    | 2    | 3    | 6    | 3    | 4    | 3    |      | 1    | 1    | 31    |
|              | Discontinuers              | 14    | 7    | 8    | 7    | 2    | 11   | 19   | 8    | 4    | 17   | 18   | 6    | 121   |
|              | Lost contact               | 6     | 3    |      |      | 1    |      | 2    |      |      | 1    |      |      | 13    |
|              | Continuers at end of month | 79    | 54   | 58   | 70   | 72   | 96   | 62   | 74   | 75   | 97   | 66   | 58   | 861   |
| Depo Provera | Continuers from last month | 1442  | 1360 | 1302 | 1346 | 1363 | 1371 | 1405 | 1377 | 1390 | 1422 | 1384 | 1329 | 16491 |
|              | New clients                | 90    | 91   | 118  | 85   | 131  | 103  | 131  | 126  | 75   | 88   | 108  | 83   | 1229  |
|              | Restart                    | 38    | 41   | 56   | 40   | 46   | 50   | 41   | 45   | 41   | 28   | 47   | 49   | 522   |
|              | Discontinuers              | 116   | 130  | 115  | 121  | 126  | 90   | 122  | 108  | 64   | 137  | 139  | 98   | 1366  |
|              | Lost contact               | 32    | 29   | 10   | 14   | 23   | 1    | 109  | 1    | 4    |      | 42   | 13   | 278   |
|              | Continuers at end of month | 1418  | 1330 | 1346 | 1360 | 1389 | 1385 | 1359 | 1431 | 1449 | 1400 | 1344 | 1328 | 16539 |
| Condoms      | For Male                   | 450   | 803  | 218  | 346  | 279  | 400  | 199  | 314  | 517  | 405  | 384  | 278  | 4593  |
|              | For Female                 | 1     | 10   | 5    | 10   | 45   | 21   | 35   | 2    | 22   | 6    | 4    | 1    | 162   |
| Ovulation    |                            | 13    | 12   | 13   | 22   | 26   | 27   | 30   | 18   | 61   | 15   | 18   | 46   | 301   |
|              | Inserted this month        |       |      |      |      |      |      | 1    |      |      | 1    | 16   |      | 18    |
| IUCD         | Removed this month         |       | 2    | 1    |      |      | 1    |      |      |      |      | 1    |      | 5     |
|              | Inserted this month        | 18    | 30   | 18   | 28   | 48   | 23   | 47   | 59   | 38   | 51   | 41   | 24   | 425   |
| Jedell       | Removed this month         | 27    | 41   | 25   | 35   | 50   | 26   | 48   | 39   | 32   | 32   | 34   | 18   | 407   |
| Vasectomy    |                            | 1     |      |      | 1    |      |      |      |      |      | 1    |      |      | 3     |
| Tubectomy    |                            |       | 14   | 13   | 9    | 12   |      | 10   | 12   |      | 18   | 13   | 9    | 110   |

Source: MS1 as of 31.12.2018

## 9. Immunization Services

**Children immunized against measles:** Percent of children (aged 0-12months) who have received one dose of measles-containing vaccine in one year: **81.6%**

|  |   |
|--|---|
| Measles Coverage =   | $\frac{\text{Number of children aged <1 years receiving the MCV1 in a year (2,674)}}{\text{Total number of children aged <1 years (3,278)}} \times 100$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>• 2018 projected population is used as base population.</li> <li>• Data for 2018 has been sourced from the MS1</li> <li>• Strengthened and timely reporting would contribute to more accurate figures.</li> </ul> |   |

**Table 32: Immunization Overview (Children 0-12months) according to districts**

| Vaccine type         | District    |             |             |               |               |                 | Grand Total  |
|----------------------|-------------|-------------|-------------|---------------|---------------|-----------------|--------------|
|                      | Central     | Linnix      | Northern    | South Eastern | South Western | Tarawa & Banaba |              |
| BCG                  | 86          | 270         | 255         | 83            | 194           | 2468            | <b>3356</b>  |
| Failed BCG (no scar) |             | 18          | 7           | 3             | 8             | 2               | <b>38</b>    |
| HepB (<24 hrs)       | 83          | 277         | 259         | 81            | 190           | 2450            | <b>3340</b>  |
| HepB (>=24 hrs)      | 0           | 12          | 11          | 2             | 8             | 20              | <b>53</b>    |
| IPV                  | 180         | 178         | 304         | 129           | 229           | 1917            | <b>2937</b>  |
| MR1                  | 169         | 199         | 287         | 142           | 229           | 1648            | <b>2674</b>  |
| OPV1                 | 172         | 220         | 356         | 131           | 243           | 2152            | <b>3274</b>  |
| OPV2                 | 193         | 218         | 350         | 134           | 243           | 1967            | <b>3105</b>  |
| OPV3                 | 172         | 204         | 305         | 137           | 230           | 1909            | <b>2957</b>  |
| PENTAVALENT1         | 178         | 226         | 362         | 126           | 247           | 2160            | <b>3299</b>  |
| PENTAVALENT2         | 201         | 220         | 370         | 136           | 251           | 1977            | <b>3155</b>  |
| PENTAVALENT3         | 186         | 222         | 326         | 137           | 238           | 1906            | <b>3015</b>  |
| PNEUMOCCOCAL1        | 180         | 231         | 358         | 131           | 248           | 2150            | <b>3298</b>  |
| PNEUMOCCOCAL2        | 201         | 228         | 366         | 133           | 243           | 1969            | <b>3140</b>  |
| PNEUMOCCOCAL3        | 188         | 209         | 317         | 136           | 235           | 1912            | <b>2997</b>  |
| ROTA1                | 178         | 224         | 342         | 124           | 243           | 2145            | <b>3256</b>  |
| ROTA2                | 193         | 218         | 343         | 132           | 240           | 1974            | <b>3100</b>  |
| <b>Grand Total</b>   | <b>2560</b> | <b>3374</b> | <b>4918</b> | <b>1897</b>   | <b>3522</b>   | <b>30718</b>    | <b>43974</b> |

Sources: KHIS and MS1 as of 31.12.2018

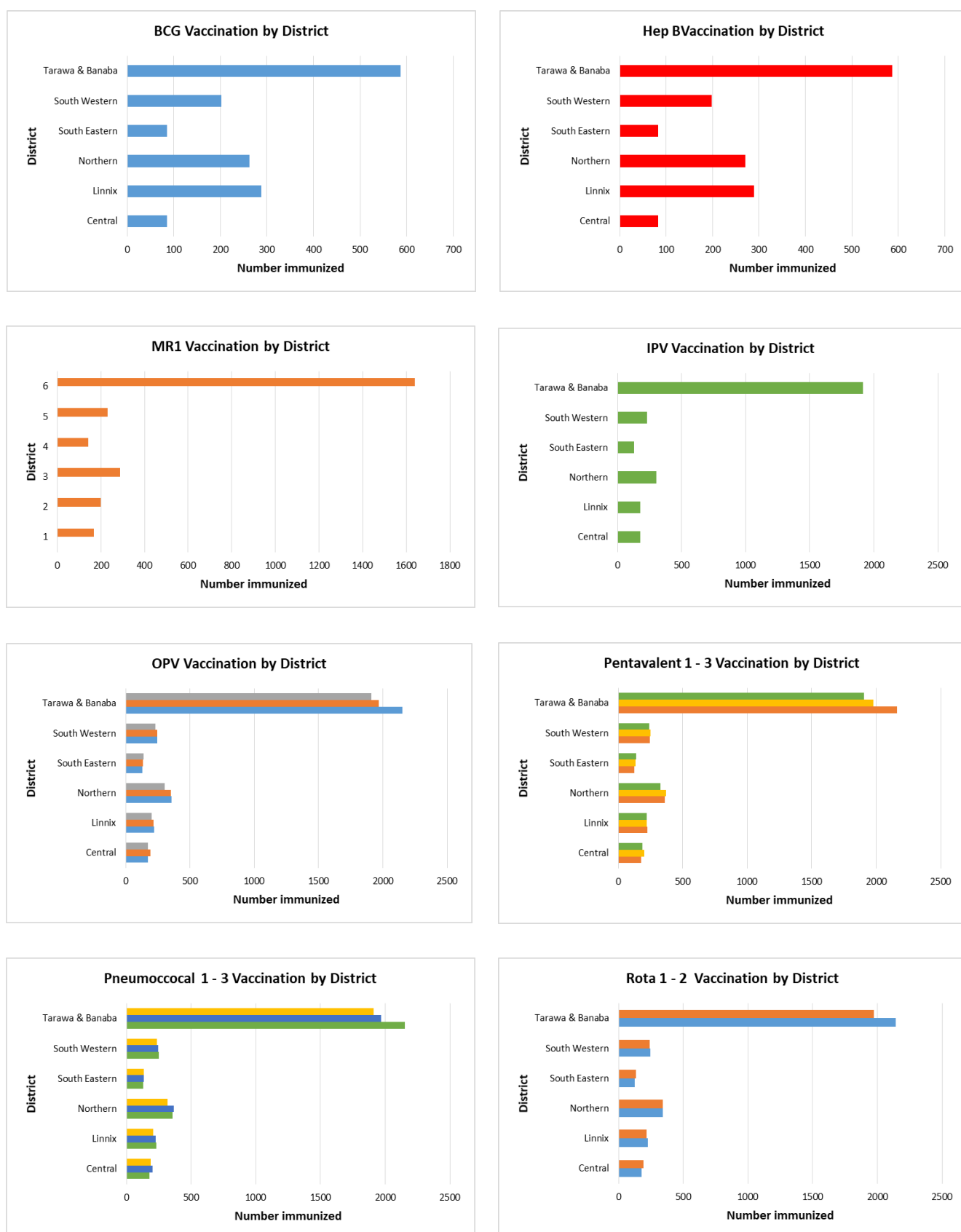


Figure 14: Immunization vaccination (Children 0-12months): district breakdowns

**Table 33: Immunization Overview (Children 0-12months)\***

| Vaccine type         | Month |     |     |     |     |     |     |     |     |     |     |     | Total       |
|----------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
|                      | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |             |
| HepB (<24hrs)        | 278   | 238 | 247 | 273 | 281 | 280 | 291 | 301 | 272 | 326 | 274 | 279 | <b>3340</b> |
| HepB (>=24hrs)       | 4     | 4   | 8   | 6   | 3   | 1   | 6   | 5   | 4   | 3   | 6   | 3   | <b>53</b>   |
| BCG                  | 281   | 241 | 255 | 276 | 287 | 275 | 307 | 291 | 275 | 318 | 275 | 275 | <b>3356</b> |
| Failed BCG (no scar) | 1     | 2   | 1   | 6   | 3   | 2   | 3   | 16  |     |     | 4   |     | <b>38</b>   |
| Pentavalent1         | 283   | 257 | 250 | 224 | 293 | 266 | 306 | 285 | 274 | 295 | 280 | 286 | <b>3299</b> |
| Pentavalent2         | 269   | 246 | 239 | 242 | 260 | 260 | 277 | 278 | 252 | 306 | 273 | 253 | <b>3155</b> |
| Pentavalent3         | 258   | 235 | 238 | 228 | 262 | 229 | 273 | 263 | 253 | 259 | 272 | 245 | <b>3015</b> |
| IPV                  | 257   | 232 | 234 | 223 | 241 | 213 | 270 | 255 | 250 | 257 | 265 | 240 | <b>2937</b> |
| Rota1                | 274   | 249 | 248 | 222 | 288 | 269 | 304 | 285 | 271 | 294 | 274 | 278 | <b>3256</b> |
| Rota2                | 267   | 235 | 235 | 225 | 254 | 257 | 277 | 277 | 252 | 313 | 275 | 233 | <b>3100</b> |
| Pneumococcal1        | 281   | 254 | 254 | 224 | 292 | 271 | 306 | 284 | 272 | 291 | 285 | 284 | <b>3298</b> |
| Pneumococcal2        | 271   | 237 | 235 | 239 | 259 | 257 | 279 | 280 | 252 | 307 | 276 | 248 | <b>3140</b> |
| Pneumococcal3        | 257   | 232 | 237 | 226 | 260 | 226 | 260 | 255 | 255 | 270 | 274 | 245 | <b>2997</b> |
| OPV1                 | 277   | 251 | 252 | 229 | 282 | 270 | 315 | 289 | 274 | 284 | 270 | 281 | <b>3274</b> |
| OPV2                 | 274   | 234 | 232 | 231 | 250 | 247 | 282 | 279 | 252 | 305 | 278 | 241 | <b>3105</b> |
| OPV3                 | 258   | 234 | 231 | 213 | 252 | 218 | 260 | 259 | 253 | 263 | 268 | 248 | <b>2957</b> |
| MR1                  | 222   | 198 | 191 | 191 | 232 | 207 | 280 | 248 | 187 | 265 | 244 | 209 | <b>2674</b> |

Sources: KHIS and MS1 as of 31.12.2018

**Table 34: Immunization Overview (Children 6-14yrs)**

| Vaccine type       | Month |     |     |     |     |     |     |     |     |     |     |     | Total       |
|--------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
|                    | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |             |
| DPT4 (All class 1) |       | 67  | 260 | 99  | 24  | 114 | 133 | 46  | 395 | 341 | 492 | 46  | <b>2017</b> |
| MR2 (All class 1)  |       | 42  | 294 | 117 | 206 | 95  | 139 | 315 | 450 | 275 | 415 | 42  | <b>2390</b> |
| TT5 (Form 1 girls) |       | 72  | 82  | 79  | 77  | 23  | 6   |     |     |     | 6   | 2   | <b>347</b>  |

Source: MS1 as of 31.12.2018

**Table 35: Immunization Overview (>15yrs)**

| Vaccine type               | Month |     |     |     |     |     |     |     |     |     |     |     | Total       |
|----------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
|                            | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |             |
| TT6 (1st pregnancy)        | 105   | 80  | 88  | 48  | 104 | 110 | 92  | 80  | 77  | 72  | 153 | 37  | <b>1046</b> |
| TT7 (2nd pregnancy)        | 56    | 53  | 70  | 50  | 69  | 67  | 80  | 56  | 53  | 68  | 55  | 31  | <b>708</b>  |
| TT8 (subsequent pregnancy) | 109   | 107 | 120 | 74  | 126 | 100 | 114 | 146 | 89  | 106 | 110 | 59  | <b>1260</b> |

Source: MS1 as of 31.12.2018

**Table 36: Immunization Overview (Others)**

|                         |                  | Month  |     |     |      |      |      |      |     |     |      |      |      | Total |       |
|-------------------------|------------------|--------|-----|-----|------|------|------|------|-----|-----|------|------|------|-------|-------|
|                         | Category         | Sex    | Jan | Feb | Mar  | Apr  | May  | Jun  | Jul | Aug | Sep  | Oct  | Nov  | Dec   |       |
| Vit A (prophylaxis)     | 6 - <= 12 mths   |        |     |     | 530  | 457  | 90   | 82   |     |     | 191  | 569  | 350  | 141   | 2410  |
|                         | 1 - <= 5 yr      |        |     |     | 3546 | 2955 | 688  | 743  |     | 98  | 1342 | 4241 | 2176 | 736   | 16525 |
|                         | Mothers P/partum |        |     |     |      |      |      |      |     |     |      |      |      |       | 0     |
| Deworming               | 1 yr             | Male   | 2   |     | 448  | 396  | 107  | 82   |     | 13  | 132  | 714  | 223  | 152   | 2269  |
|                         |                  | Female | 64  |     | 466  | 358  | 93   | 116  |     | 15  | 110  | 465  | 199  | 136   | 2022  |
|                         | 2 - 5 yr         | Male   | 29  |     | 1437 | 1342 | 331  | 375  |     | 50  | 567  | 1863 | 948  | 388   | 7330  |
|                         |                  | Female | 27  |     | 1408 | 1246 | 344  | 357  |     | 56  | 504  | 1343 | 964  | 344   | 6593  |
|                         | 6 - 14 yr        | Male   | 44  |     | 3463 | 2867 | 666  | 757  |     | 86  | 943  | 2751 | 1163 | 690   | 13430 |
|                         |                  | Female | 35  |     | 3475 | 2681 | 658  | 800  |     | 89  | 975  | 2730 | 1273 | 763   | 13479 |
|                         | 15 - 45 yr       | Male   |     |     | 1721 | 146  | 85   | 9    |     |     | 30   | 599  | 405  | 50    | 3045  |
|                         |                  | Female | 66  |     | 7535 | 5521 | 1327 | 1544 |     | 28  | 1614 | 4942 | 2282 | 1456  | 26315 |
| Exclusive breastfeeding | 0 - <= 6 mths    |        | 967 | 772 | 902  | 746  | 752  | 840  | 818 | 755 | 838  | 732  | 699  | 744   | 9565  |

Source: MS1 as of 31.12.2018



**Table 37: Immunization Overview for TCH (Children <1yr)**

| Vaccine type                  | Month |     |     |     |     |     |     |     |     |     |     |     | Total |
|-------------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
|                               | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |       |
| Hepatitis B                   |       |     |     |     |     |     |     |     |     |     |     |     |       |
| Vaccinated <24hrs after birth | 142   | 129 | 130 | 143 | 157 | 152 | 175 | 178 | 154 | 186 | 165 | 170 | 1881  |
| Vaccinated >24hrs after birth | 5     | 5   | 5   | 6   | 6   | 7   | 8   | 6   | 11  | 9   | 12  | 10  | 90    |
| Not given                     |       |     |     |     |     |     |     |     |     |     |     |     |       |
| Total                         | 147   | 134 | 135 | 149 | 163 | 159 | 183 | 184 | 165 | 195 | 177 | 180 | 1971  |
| BCG                           |       |     |     |     |     |     |     |     |     |     |     |     |       |
| Given                         | 142   | 129 | 130 | 143 | 157 | 152 | 175 | 178 | 154 | 186 | 165 | 170 | 1881  |
| Not given                     | 5     | 5   | 5   | 6   | 6   | 7   | 8   | 6   | 11  | 9   | 12  | 10  | 90    |
| Total                         | 147   | 134 | 135 | 149 | 163 | 159 | 183 | 184 | 165 | 195 | 177 | 180 | 1971  |

Source: KHIS as of 31.12.2018

## 10. Birth information: TCH

**Table 38: Birth outcomes according to mode of delivery at TCH**

| Mode of Delivery   | Outcome      |            | Sub Total    |
|--------------------|--------------|------------|--------------|
|                    | Live birth   | Stillbirth |              |
| Normal             | 1,540        | 35         | <b>1,575</b> |
| Caesarean Section  | 387          | 7          | <b>394</b>   |
| Forceps            | 1            |            | <b>1</b>     |
| Other              | 1            |            | <b>1</b>     |
| <b>Grand Total</b> | <b>1,929</b> | <b>42</b>  | <b>1,971</b> |

Source: KHIS as of 31.12.2018

**Table 39: Births outcomes according to type of delivery at TCH**

| Type of delivery   | Outcome      |            | Sub Total    |
|--------------------|--------------|------------|--------------|
|                    | Live birth   | Stillbirth |              |
| Vertex             | 1,898        | 39         | <b>1,937</b> |
| Breech             | 30           | 2          | <b>32</b>    |
| Face               | 1            | 1          | <b>2</b>     |
| <b>Grand Total</b> | <b>1,929</b> | <b>42</b>  | <b>1,971</b> |

Source: KHIS as of 31.12.2018

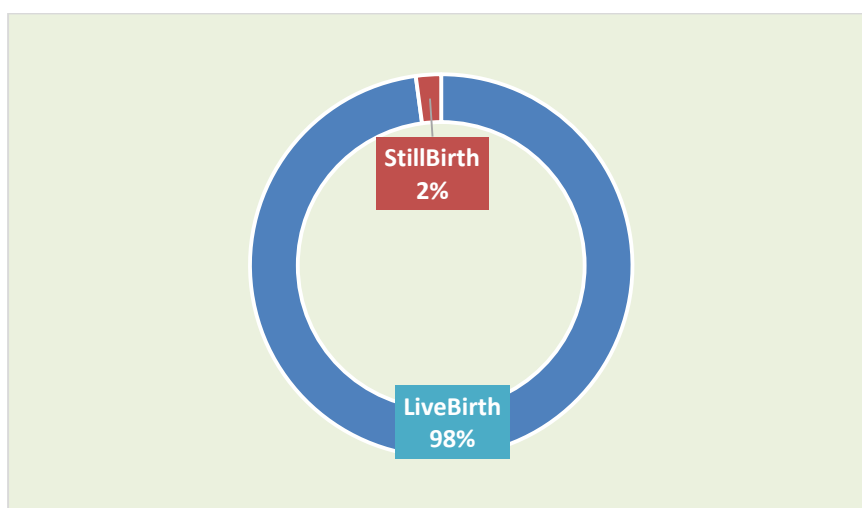


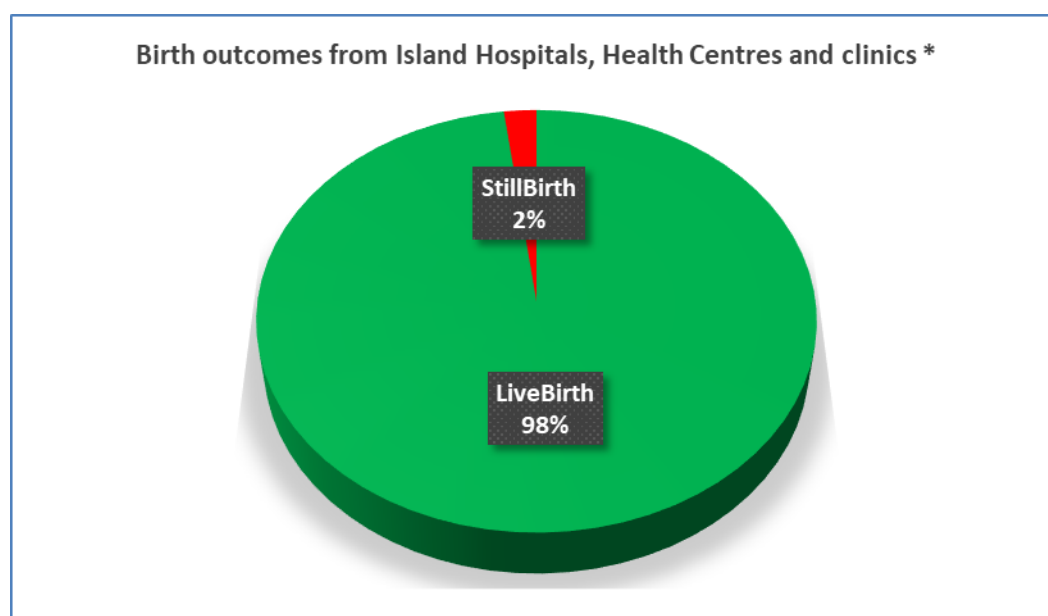
Figure 15: Birth outcome at TCH

## 11. Birth information: Island Hospitals, Health Centers and Clinics. (Excluding TCH births)

**Table 40: Birth outcomes reported from island Health Centers and clinics\***

| Outcome            | Number       |
|--------------------|--------------|
| Live birth         | 1,469        |
| Stillbirth         | 22           |
| IUD                | 4            |
| Outcome unrecorded |              |
| <b>Grand Total</b> | <b>1,495</b> |

*\*Data extracted from MS1 as at 31.12.2018*



**Figure 16: Birth outcomes reported from island Health Centres and clinics \*excluding TCH**

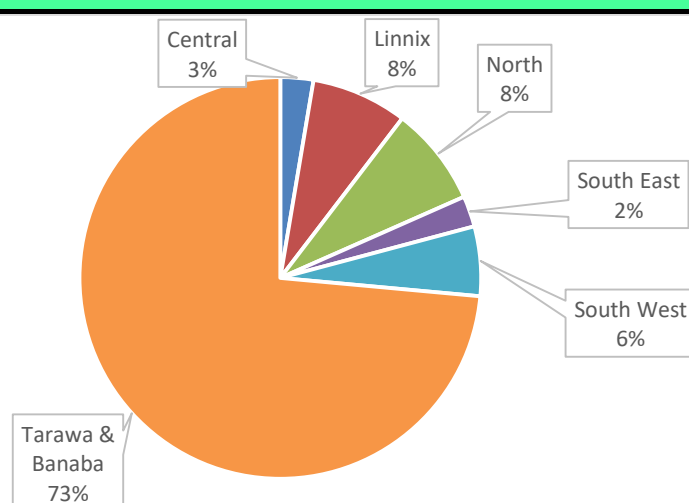
**Table 41: Deliveries at Island Hospital, Health Centers and clinics**

|                     | Total No. of Births |          | Sub Total |
|---------------------|---------------------|----------|-----------|
|                     | HC/Clinics          | Hospital |           |
| Abaiang             | 121                 |          | 121       |
| Abemama             | 48                  |          | 48        |
| Aranuka             | 8                   |          | 8         |
| Arorae              | 14                  |          | 14        |
| Banaba              | 6                   |          | 6         |
| Beru                | 28                  |          | 28        |
| BTC                 | 18                  | 424      | 442       |
| Butaritari          | 85                  |          | 85        |
| Kiritimati          | 12                  | 191      | 203       |
| Kuria               | 18                  |          | 18        |
| Maiana              | 18                  |          | 18        |
| Makin               | 19                  |          | 19        |
| Marakei             | 52                  |          | 52        |
| Nikunau             | 33                  |          | 33        |
| Nonouti             | 75                  |          | 75        |
| Onotoa              | 18                  |          | 18        |
| Tab North           | 9                   | 76       | 85        |
| Tab South           | 16                  |          | 16        |
| Tabuaeran(Fanning)  | 39                  |          | 39        |
| Tamana              | 11                  |          | 11        |
| Tarawa North        | 78                  |          | 78        |
| Teraina(Washington) | 26                  |          | 26        |
| TUC                 | 52                  |          | 52        |
| Grand Total         | 804                 | 691      | 1495      |

Source: MS1 as at 31.12.2018

**12. Birth information: District Breakdown****Table 42: Births according to districts\***

| District        | No. of Births |
|-----------------|---------------|
| Central         | 92            |
| Linnix          | 268           |
| Northern        | 277           |
| South Eastern   | 86            |
| South Western   | 194           |
| Tarawa & Banaba | 2549          |
| Grand Total     | 3,466         |



Source: KHIS &amp; MS1 as at 31.12.2018

**Figure 17: Births according to districts**

### 13. Country birth information

**Adolescent birth rate for 10-14 years:** Probability of giving birth between the age 10-14 years in a given year (per 1,000 girls age 10-14 years): **0.4**


|   |   |
|---|---|
| Adolescent birth rate<br>(10-14 years) =  | $\frac{\text{Total number of births in age group 10-14 years for the year (2)}}{\text{Total population of girls (10-14 years) (5,606)}} \times 1,000$ |
| <b>Methodological/System Issues:</b>  |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Data for 2018 has been sourced from the KHIS &amp; MS1</li> </ul> |   |

**Adolescent birth rate for 15-19 years:** Probability of giving birth between the age 15-19 years in a given year (per 1,000 girls age 15-19 years): **37.8**

|   |   |
|---|---|
| Adolescent birth rate<br>(15-19 years) =  | $\frac{\text{Total number of births in age group 15-19 years for the year (216)}}{\text{Total population of girls (15-19 years) (5,719)}} \times 1,000$ |
| <b>Methodological/System Issues:</b>  |   |
| <ul style="list-style-type: none"> <li>2018 Projected population is used as base population.</li> <li>Data for 2018 has been sourced from the KHIS &amp; MS1</li> </ul> |   |

**Table 43: Births reported from Hospitals, Health Centers and Clinics\***

| Outcome            | No.          |
|--------------------|--------------|
| Live birth         | 3,398        |
| Stillbirth         | 68           |
| Outcome unrecorded | 0            |
| <b>Grand Total</b> | <b>3,466</b> |



Sources: KHIS & MS1 as at 31.12.2018

**Figure 18: Country birth outcomes**

## 14. Non Communicable Disease (NCD) burden

**Diabetes:** Occasion of service of diabetic cases to health facilities, confirmed or suspected:  
**123.0**

|   |  |         |
|---|--|---------|
| % of Diabetes =   | <u>Number of people presenting to health facilities with Diabetes (14,789)</u> | X 1,000 |
|   | Total population (120,139)   |         |
| <b>Methodological/System Issues:</b>  |  |         |
| <ul style="list-style-type: none"> <li>• Data for 2018 has been sourced from the KHIS &amp; MS1 and is likely to be affected by under-counting and/or multiple counting.</li> <li>• 1<sup>st</sup> and revisits for diabetic cases over the total population</li> <li>• Strengthened and timely reporting of MS1 would contribute to more accurate figures</li> </ul> |  |         |

**Hypertension:** Occasion of service of hypertension cases to health facilities, confirmed or suspected: **118.4**

|   |  |         |
|---|--|---------|
| % of Hypertension =   | <u>Number of people presenting to health facilities with Hypertension (14,220)</u> | X 1,000 |
|   | Total population (120,139)   |         |
| <b>Methodological/System Issues:</b>  |  |         |
| <ul style="list-style-type: none"> <li>• Data for 2018 has been sourced from the KHIS &amp; MS1 and is likely to be affected by under-counting and/or multiple counting.</li> <li>• 1<sup>st</sup> and revisits for hypertension cases over the total population</li> <li>• Strengthened and timely reporting of MS1 would contribute to more accurate figures</li> </ul> |  |         |

**Table 44: NCD burden in Island Health Centers and Village Clinics**

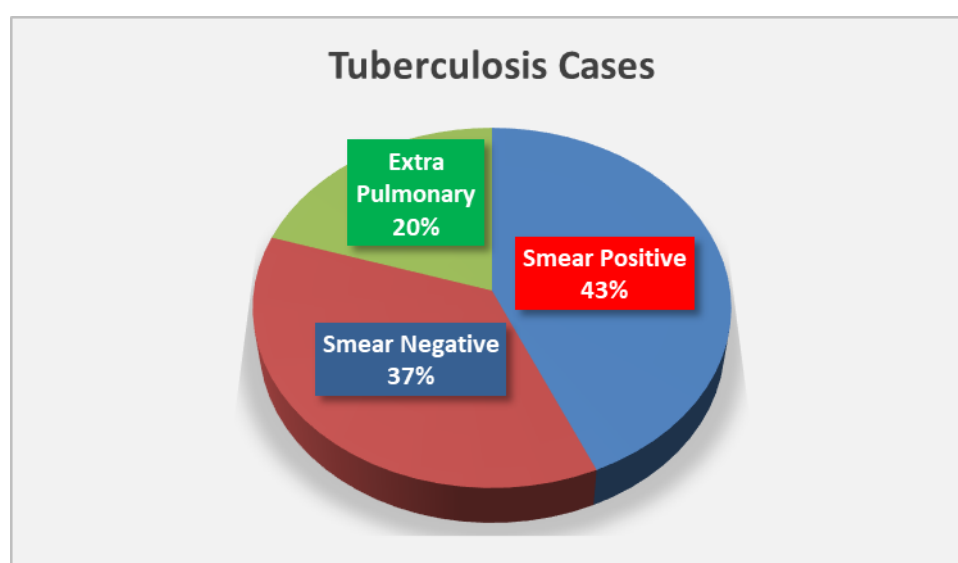
| NCD              | Patient registration & visit   | Month |      |      |      |      |      |      |      |      |      |      |      | Total        |
|------------------|--------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|--------------|
|                  |                                | Jan   | Feb  | Mar  | Apr  | May  | Jun  | Jul  | Aug  | Sep  | Oct  | Nov  | Dec  |              |
| Hypertension     | Patients registered for male   | 2060  | 1688 | 1604 | 1514 | 1304 | 1304 | 1075 | 1174 | 1134 | 1121 | 1129 | 1177 | <b>1177</b>  |
|                  | Patients registered for female | 508   | 404  | 516  | 671  | 802  | 811  | 891  | 1009 | 1145 | 1192 | 1320 | 1244 | <b>1244</b>  |
|                  | 1st visit                      | 214   | 133  | 52   | 108  | 97   | 78   | 78   | 91   | 62   | 65   | 46   | 22   | <b>1046</b>  |
|                  | revisits                       | 1099  | 1147 | 1031 | 1078 | 1074 | 1117 | 1337 | 1037 | 1120 | 1159 | 1023 | 966  | <b>13188</b> |
| Diabetes         | Patients registered for male   | 2310  | 1774 | 1571 | 1582 | 1329 | 1344 | 1037 | 1128 | 1058 | 1040 | 1059 | 1043 | <b>1043</b>  |
|                  | Patients registered for female | 580   | 491  | 606  | 766  | 989  | 988  | 1084 | 1211 | 1257 | 1358 | 1405 | 1398 | <b>1398</b>  |
|                  | 1st visit                      | 194   | 117  | 55   | 99   | 75   | 77   | 53   | 58   | 45   | 84   | 36   | 19   | <b>912</b>   |
|                  | revisits                       | 1262  | 1298 | 1045 | 1101 | 1170 | 1115 | 1253 | 1118 | 1088 | 1285 | 1166 | 999  | <b>13900</b> |
| Mental illnesses | Patients registered for male   | 79    | 182  | 197  | 216  | 236  | 260  | 295  | 280  | 336  | 320  | 339  | 575  | <b>575</b>   |
|                  | Patients registered for female | 82    | 244  | 227  | 271  | 290  | 328  | 384  | 403  | 443  | 440  | 476  | 474  | <b>474</b>   |
|                  | 1st visit                      | 4     | 6    | 18   | 1    | 15   | 29   | 18   | 40   | 12   | 5    | 9    | 5    | <b>162</b>   |
|                  | revisits                       | 18    | 241  | 239  | 276  | 288  | 323  | 412  | 403  | 413  | 488  | 522  | 422  | <b>4045</b>  |

Source: MS1 as at 31.12.2018

## 15. Tuberculosis burden

**Tuberculosis case notification rate:** The number of bacteriologically confirmed (new and relapse) tuberculosis cases in a given year (per 100,000 population): **244.7**

|  |   |
|--|---|
| Tuberculosis case notification rate =  | $\frac{\text{Number of bacteriologically confirmed (new \& relapse) TB cases (294)}}{\text{Total Population (120,139)}} \times 100,000$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>• 2018 Projected population is used as the base population</li> <li>• Data for 2018 has been sourced form MS1 (from TB reports only)</li> <li>• Strengthened and timely reporting of MS1 would contribute to more accurate figures</li> </ul> |   |



**Figure 19: Tuberculosis case notifications (new & relapsed) for 2017**

**Tuberculosis treatment success rate:** Percentage of new, bacteriologically confirmed smear-positive tuberculosis cases that were cured or in which a full course of treatment was completed: **91.4**

|  |   |
|--|---|
| Tuberculosis treatment success rate =  | $\frac{\text{Treatment completed + cured TB cases (360)}}{\text{Number of (new + relapsed) TB cases registered for the year (394)}} \times 100$ |
| <b>Methodological/System Issues:</b>   |   |
| <ul style="list-style-type: none"> <li>• There is a one year lag in reporting for TB treatment success rate</li> <li>• Data on treatment completed/Cured TB Cases (for 2017) were sourced form National Tb control program</li> <li>• Data for 2017 has been sourced from the MS1 (from TB reports only)</li> <li>• Strengthened and timely reporting of MS1 would contribute to more accurate figures.</li> </ul> |   |



**Table 45: Tuberculosis Reporting**

| Type            | Category    | Month |     |     |     |     |     |     |     |     |     |     |     | Total      |
|-----------------|-------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|
|                 |             | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |            |
| Smear Positive  | New Cases   | 11    | 11  | 12  | 6   | 8   | 9   | 16  | 7   | 12  |     | 7   | 14  | <b>113</b> |
|                 | Retreatment | 1     |     |     | 2   | 1   |     |     |     | 1   |     |     |     | <b>5</b>   |
|                 | Defaulted   |       |     |     |     |     |     |     |     |     |     |     |     |            |
|                 | Fail        |       |     |     |     |     |     |     |     |     |     |     |     |            |
| Smear Negative  | New Cases   | 12    | 9   | 14  | 12  | 10  | 4   | 5   | 21  | 4   |     | 10  | 3   | <b>104</b> |
| Extra Pulmonary | Retreatment |       |     |     |     |     |     |     |     |     |     |     |     |            |
|                 | New Cases   | 10    | 3   | 5   | 3   | 4   | 4   | 6   | 9   | 6   |     | 17  | 5   | <b>72</b>  |
|                 | Retreatment |       |     |     |     |     |     |     |     |     |     |     |     |            |

**Source: MS1 as at 31.12.2018**

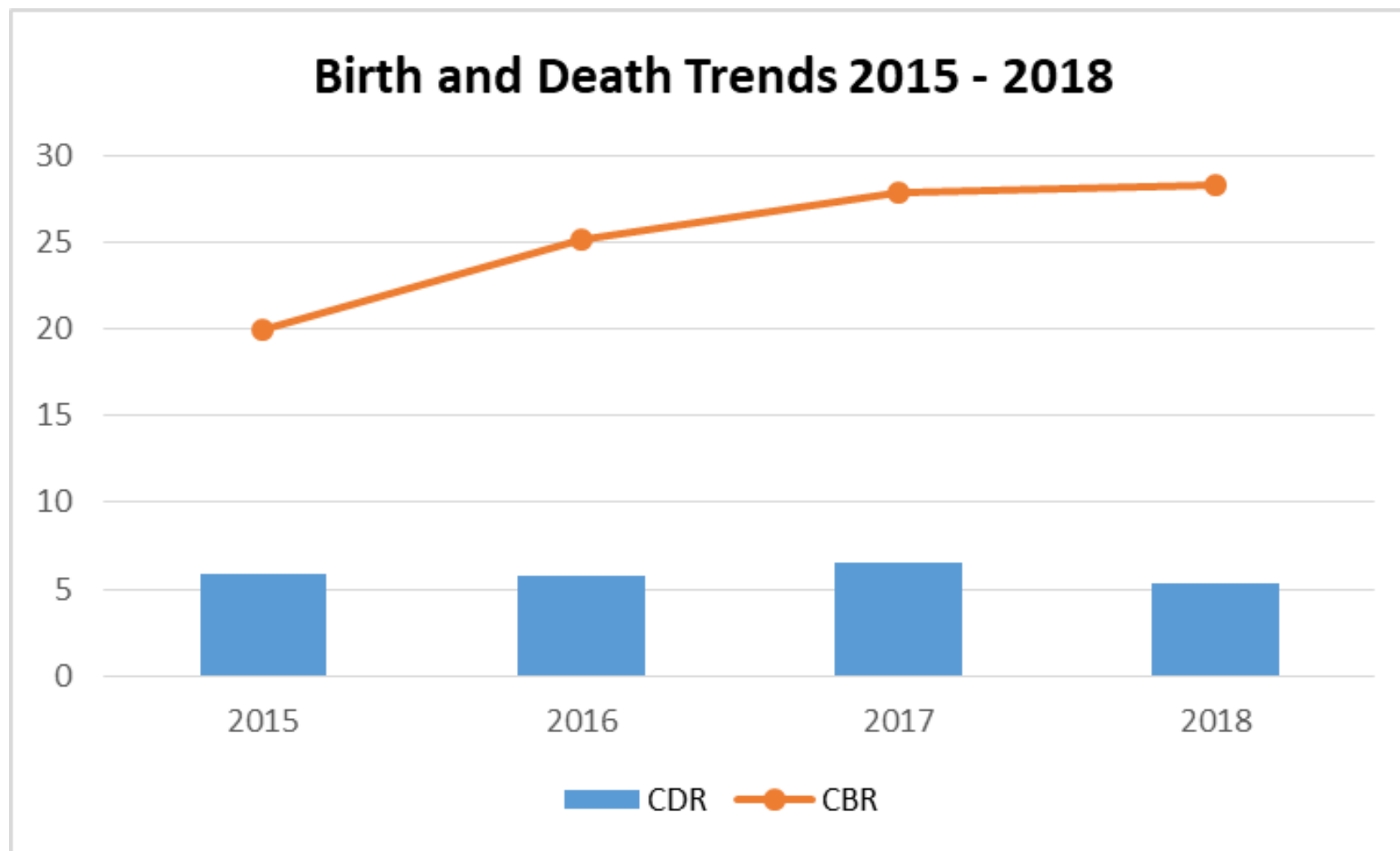
## 16. Leprosy burden

Table 46: Leprosy Reporting

| Type |                            | Category                   | Month |     |     |     |     |     |     |     |     |     |     |     | Total |   |   |
|------|----------------------------|----------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|---|---|
|      |                            |                            | Jan   | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |       |   |   |
| MB   | Adult                      | Continuers from last month | 123   | 113 | 119 | 119 | 127 | 128 | 133 | 135 | 141 | 140 | 141 | 141 | 1560  |   |   |
|      |                            | New clients                | 4     | 6   | 5   | 7   | 2   | 6   | 2   | 8   | 3   | 2   | 3   | 8   | 56    |   |   |
|      |                            | Restart                    |       |     |     |     |     |     |     |     |     |     |     |     | 2     | 2 |   |
|      |                            | Discontinuers              |       |     |     |     |     |     |     |     |     |     | 1   | 1   | 1     | 4 | 7 |
|      |                            | Lost contact               |       |     |     |     |     |     |     |     |     |     |     |     |       |   |   |
|      |                            | Continuers at end of month | 113   | 119 | 119 | 127 | 129 | 133 | 135 | 141 | 140 | 141 | 142 | 146 | 1585  |   |   |
|      | Child                      | Continuers from last month | 18    | 15  | 16  | 19  | 20  | 20  | 19  | 20  | 21  | 22  | 24  | 24  | 238   |   |   |
|      |                            | New clients                | 1     | 1   | 3   | 1   | 1   | 1   | 1   | 1   | 1   | 2   | 1   | 1   | 15    |   |   |
|      |                            | Restart                    |       |     |     |     |     |     |     |     |     |     |     |     |       |   |   |
|      |                            | Discontinuers              |       |     |     |     |     |     |     |     |     |     |     | 1   |       | 1 |   |
|      | Lost contact               |                            |       |     |     |     |     |     |     |     |     |     |     |     |       |   |   |
|      | Continuers at end of month | 15                         | 16    | 19  | 20  | 21  | 19  | 20  | 21  | 22  | 24  | 24  | 25  | 246 |       |   |   |
| PB   | Adult                      | Continuers from last month | 101   | 70  | 67  | 66  | 70  | 78  | 89  | 89  | 85  | 87  | 88  | 88  | 978   |   |   |
|      |                            | New clients                | 5     | 4   | 2   | 5   | 8   | 14  | 2   | 1   | 5   | 2   | 1   | 4   | 53    |   |   |
|      |                            | Restart                    |       |     |     |     |     |     |     |     |     |     |     |     | 3     | 3 |   |
|      |                            | Discontinuers              |       |     |     |     |     |     |     |     |     |     | 1   | 1   | 1     | 4 | 7 |
|      |                            | Lost contact               |       |     |     |     |     |     |     |     |     |     |     |     |       |   |   |
|      |                            | Continuers at end of month | 70    | 67  | 66  | 70  | 8   | 89  | 89  | 85  | 87  | 88  | 88  | 91  | 898   |   |   |
|      | Child                      | Continuers from last month | 62    | 40  | 41  | 42  | 43  | 46  | 50  | 50  | 45  | 47  | 49  | 49  | 564   |   |   |
|      |                            | New clients                | 3     | 3   | 1   | 1   | 3   | 5   | 1   | 1   | 3   | 3   | 3   | 8   | 35    |   |   |
|      |                            | Restart                    |       |     |     |     |     |     |     |     |     |     |     |     | 1     | 1 |   |
|      |                            | Discontinuers              |       |     |     |     |     |     |     |     |     |     | 1   | 1   | 2     | 3 | 7 |
|      | Lost contact               |                            |       |     |     |     |     |     |     |     |     |     |     |     |       |   |   |
|      | Continuers at end of month | 40                         | 41    | 42  | 43  | 46  | 50  | 50  | 45  | 47  | 49  | 50  | 55  | 558 |       |   |   |

Source: MS1 as at 31.12.2018

**Births and Deaths trend 2015-2018**



**Figure 20: Births and deaths trend 2015 to 2018**

**Indicator tracker 2015 - 2018**

| Indicator Tracker   | 2015    | 2016    | 2017    | 2018    | Δ |
|---|---------|---------|---------|---------|---|
| Total Population  | 103,058 | 110,136 | 110,136 | 120,139 | ↑ |
| Crude Birth Rate  | 20      | 25.2    | 27.9    | 28.3    | ↑ |
| Crude Death Rate  | 5.9     | 5.8     | 6.5     | 5.3     | ↓ |
| Life Expectancy at Birth  | 75.1    | 68.9    | 66.6    | 69.0    | ↑ |
| Land Area (klm2)  | 811     | 726     | 726     | 726     | ↔ |
| Neonatal Mortality Rate   | 10.2    | 14      | 11.1    | 12.9    | ↑ |
| Infant Mortality Rate   | 32.4    | 32.6    | 26.4    | 28.3    | ↑ |
| Under-five Mortality Rate   | 59.1    | 52.4    | 44      | 36.2    | ↓ |
| Maternal Mortality Rate   | 193.6   | 179     | 32.6    | 117.7   | ↑ |
| Adult mortality rate from NCDs  | 45.9    | 43.4    | 55.9    | 54.8    | ↓ |
| Mortality rate from road traffic injuries   | 1.9     | 1.8     | 10.9    | 0.6     | ↓ |
| Adolescent birth rate for 10-14 years   | 3.4     | 0       | 1.8     | 0.3     | ↓ |
| Adolescent birth rate for 15-19 years   | 33.1    | 37      | 45.2    | 40.4    | ↓ |
| Contraceptive use   | 531.2   | 336     | 264.6   | 63.2    | ↓ |
| Access to antenatal care  | 5.4     | 3.8     | 4.0     | 4.0     | ↔ |
| Percentage of pregnant mothers received at least one home visit by PHN            | 15.2    | 15.2    | 10.4    | 9.3     | ↓ |
| Percentage of Low Birth Weight  | 6.2     | 5.6     | 7.2     | 7.2     | ↔ |
| Malnourished children <5 years  | 5.7     | 6.2     | 5       | 3.1     | ↓ |
| Tuberculosis case notification rate   | 421.1   | 470     | 353.2   | 244.7   | ↓ |
| Tuberculosis treatment success rate   | 79.7    | 90      | 88.9    | 90      | ↑ |
| Number of Leprosy cases (new and relapses)  | 162     | 241     | 200     | 165     | ↓ |
| Acute respiratory infection (ARI) in children treated at Tungaru Central Hospital | 11.3    | 14.4    | 15.9    | 12.0    | ↓ |
| Children immunized against measles  | 89.2    | 82.9    | 92.2    | 81.4    | ↓ |
| Diabetes - Occasions of Service   | 129     | 150     | 162     | 120.3   | ↓ |
| Hypertension - Occasions of Service   | 123     | 145     | 147     | 113.5   | ↓ |
| Outpatient consultations per capita   | 5.2     | 4.9     | 4.8     | 4.4     | ↓ |
| Outpatient consultations per capita for Tungaru Central Hospital (TCH)            | 0.1     | 0.1     | 0.3     | 0.3     | ↔ |
| Tungaru Central Hospital (patient discharges)                                     | 96.1    | 104.8   | 104.8   | 113.8   | ↑ |
| Tungaru Central Hospital (bed occupancy)  | 102.8   | 83.4    | 85.3    | 98.9    | ↑ |
| Tungaru Central Hospital (average length-of-stay)                                 | 9.5     | 7.2     | 6.5     | 7.0     | ↑ |

|  |        |        |        |          |   |
|--|--------|--------|--------|----------|---|
| Number of Hospital Beds per 1,000 population | 1.7    | 1.9    | 1.9    | 1.7      | ↓ |
| Availability of Medical Officers             | 4.7    | 4.7    | 6      | 4.9      | ↓ |
| Population per Medical Officer               | 2,454  | 2,248  | 1,669  | 2,036.3  | ↓ |
| Availability of Dental Surgeons              | 0.6    | 0.5    | 0.5    | 0.5      | ↔ |
| Population per Dental Surgeon                | 17,176 | 18,356 | 18,356 | 20,023.2 | ↑ |
| Availability of Medical Assistants           | 3.8    | 3.2    | 3.7    | 3.5      | ↓ |
| Population per Medical Assistant             | 2,463  | 3,147  | 2,686  | 2,860.5  | ↑ |
| Availability of Nurses                       | 20.2   | 31.8   | 34.8   | 31.0     | ↓ |
| Population per Nurse                         | 495.5  | 315    | 287.6  | 323      | ↑ |
| Availability of Midwives                     | 10.2   | 7      | 6.8    | 7.6      | ↑ |
| Population per Midwife                       | 982    | 1,430  | 1,469  | 1,320.2  | ↓ |
| Number of Pharmacists available              | 5      | 5      | 5      | 5        | ↔ |
| Number of Physiotherapists available         | 3      | 3      | 3      | 3        | ↔ |
| Number of Hospitals                          | 4      | 4      | 4      | 4        | ↔ |
| Number of Health Centers                     | 21     | 22     | 22     | 22       | ↔ |
| Number of Village Clinics                    | 81     | 82     | 84     | 85       | ↑ |
| Number of Hospital Beds                      | 172    | 205    | 205    | 205      | ↔ |

## Monthly reports submitted in 2018

| Island     | Health Center         | Jan      | Feb      | Mar      | Apr      | May      | Jun      | Jul      | Aug      | Sep      | Oct      | Nov      | Dec      |
|------------|-----------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Makin      | MAKIN                 | 26/03/18 | 26/03/18 |          |          |          | 25/10/18 |          | 25/10/18 | 25/10/18 | 30/11/18 | 12/12/18 | 29/01/19 |
|            | ANRAWA                | 5/03/18  | 5/03/18  | 9/08/18  | 3/10/18  | 3/10/18  | 20/07/18 | 9/08/18  | 14/09/18 | 14/10/18 | 5/11/18  | 5/12/18  |          |
|            | KIEBU                 | 21/03/18 | 20/03/18 | 27/04/18 | 27/02/19 | 15/06/18 | 9/07/18  | 10/08/18 | 14/09/18 | 25/10/18 | 15/11/18 | 24/12/18 | 14/01/19 |
| Butaritari | BUTARITARI            | 15/02/18 | 14/03/18 | 13/04/18 | 15/05/18 | 12/06/18 | 8/07/18  | 15/08/18 | 10/09/18 | 19/10/18 | 12/11/18 | 11/12/18 | 15/01/19 |
|            | KUMA                  | 15/02/18 | 14/03/18 | 13/04/18 | 10/05/18 | 12/06/18 | 8/07/18  | 9/08/18  | 10/09/18 | 15/10/18 | 7/11/18  | 3/12/18  | 15/01/19 |
|            | NAKIRORO              | 15/02/18 | 14/03/18 | 13/04/18 | 10/05/18 | 13/06/18 | 8/07/18  | 15/08/18 | 4/09/18  | 15/10/18 | 12/11/18 | 3/12/18  | 11/01/19 |
|            | TEKANANUEA            | 15/02/18 | 14/03/18 | 13/04/18 | 14/05/18 | 14/06/18 | 8/07/18  | 15/08/18 | 10/09/18 | 14/10/18 | 14/11/18 | 11/12/18 | 17/01/19 |
|            | TANIMAIKI(Butaritari) | 15/02/18 | 14/03/18 | 13/04/18 | 15/05/18 | 12/06/18 | 8/07/18  | 9/08/18  | 10/09/18 | 15/10/18 | 5/11/18  | 3/12/18  | 15/01/19 |
|            | UKIANGANG             | 5/02/18  | 18/04/18 | 13/04/18 | 15/05/18 | 12/06/18 | 8/07/18  | 9/08/18  | 10/09/18 | 15/10/18 | 7/11/18  | 3/12/18  | 15/01/19 |
|            | BIKATI                | 15/02/18 | 16/03/18 | 13/04/18 | 15/05/18 | 13/06/18 | 8/07/18  | 13/08/18 | 10/09/18 | 15/10/18 | 5/12/18  | 14/01/19 | 17/01/19 |
|            | KEUEA                 | 15/02/18 | 14/03/18 | 13/04/18 | 10/05/18 | 13/06/18 | 8/07/18  | 9/08/18  | 10/09/18 | 15/10/18 | 8/11/18  | 11/12/18 | 11/01/19 |
| Marakei    | RAWANNAWI             | 15/02/18 | 14/03/18 | 6/04/18  | 7/05/18  | 7/06/18  | 8/07/18  | 15/08/18 | 10/09/18 | 8/10/18  | 12/11/18 | 14/12/18 | 11/01/19 |
|            | TEKARAKAN             | 15/02/18 | 14/03/18 | 6/04/18  | 7/05/18  | 7/06/18  | 8/07/18  | 15/08/18 | 10/09/18 | 8/10/18  | 12/11/18 | 14/12/18 | 11/01/19 |
|            | BAINUEA               | 15/02/18 | 14/03/18 | 6/04/18  | 7/05/18  | 7/06/18  | 8/07/18  | 15/08/18 | 10/09/18 | 8/10/18  | 12/11/18 | 14/12/18 | 11/01/19 |
|            | TERAWARAWA            | 15/02/18 | 14/03/18 | 6/04/18  | 7/05/18  | 7/06/18  | 8/07/18  | 15/08/18 | 10/09/18 | 8/10/18  | 12/11/18 | 14/12/18 | 11/01/19 |
|            | RAWELI                | 15/02/18 | 14/03/18 | 6/04/18  | 7/05/18  | 7/06/18  | 8/07/18  | 15/08/18 | 10/09/18 | 8/10/18  | 12/11/18 | 14/12/18 | 11/01/19 |
| Abaiang    | TABURAO               | 6/01/18  | 15/03/18 | 13/04/18 | 15/05/18 | 14/06/18 | 11/08/18 | 11/08/18 | 14/09/18 | 14/10/18 | 13/11/18 | 14/12/18 | 15/01/19 |
|            | NUOTAEA               | 6/01/18  | 1/05/18  | 1/05/18  | 15/05/18 | 14/06/18 | 11/08/18 | 9/08/18  | 16/10/18 | 14/10/18 | 13/11/18 | 14/12/18 |          |
|            | TANIAU                | 9/01/18  | 15/03/18 | 13/04/18 | 15/05/18 | 14/06/18 | 14/09/18 | 11/08/18 | 14/09/18 | 14/10/18 | 13/11/18 | 14/12/18 | 15/01/19 |
|            | RIBONO                | 1/05/18  | 1/05/18  | 11/08/18 | 15/05/18 | 14/06/18 | 14/09/18 | 11/08/18 | 14/09/18 | 14/10/18 | 14/11/18 | 14/12/18 | 15/01/19 |
|            | TEBUNGINAKO           | 15/12/18 | 16/03/18 | 13/04/18 | 15/05/18 | 13/06/18 | 11/08/18 | 14/08/18 | 14/09/18 | 14/10/18 | 4/11/18  | 14/12/18 | 15/01/19 |
|            | KOINAWA               | 15/03/18 | 15/03/18 | 15/05/18 | 15/05/18 | 14/06/18 | 14/09/18 | 11/08/18 | 14/09/18 | 14/10/18 | 13/11/18 | 14/12/18 | 15/01/19 |

|              |                      |            |            |            |            |            |            |            |          |          |          |          |          |
|--------------|----------------------|------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|----------|----------|
|              | TANIMAIAKI(Abaiang)  | 6/01/18    | 15/03/18   | 13/04/18   | 15/05/18   | 14/06/18   | 14/09/18   | 11/08/18   | 14/09/18 | 14/10/18 | 13/11/18 | 14/12/18 | 15/01/19 |
|              | UBWARANO             | 15/02/18   | 16/03/18   | 13/03/18   | 15/05/18   | 14/06/18   | 14/09/18   | 11/08/18   | 14/09/18 | 14/10/18 | 13/11/18 | 14/12/18 | 15/01/18 |
|              | TUARABU              | 1/02/18    | 15/03/18   | 13/04/18   | 15/05/18   | 14/06/18   | 14/09/18   | 11/08/18   | 14/09/18 | 14/10/18 | 13/11/18 | 14/12/18 | 15/01/19 |
| Tarawa North | ABAKORO              | 15/02/18   | 14/03/18   | 13/04/18   | 9/05/18    | 12/05/18   | 10/07/18   | 9/08/18    | 8/09/18  | 10/10/18 | 8/11/18  | 11/12/18 | 10/01/19 |
|              | TEARINIBAI           | 15/02/18   | 5/03/18    | 6/04/18    | 9/05/18    | 13/06/18   | 6/07/18    | 10/10/18   | 8/09/18  | 11/10/18 | 8/11/18  | 11/12/18 | 9/01/19  |
|              | BUARIKI(Tarawa.N)    | 9/02/18    | 5/03/18    | 13/04/18   | 10/05/18   | 12/06/18   | 10/07/18   | 10/08/18   | 8/09/18  | 11/10/18 | 14/11/18 | 11/12/18 | 9/01/19  |
|              | TARATAI              | 2/02/18    | 6/03/18    | 14/04/18   | 10/05/18   | 12/06/18   | 10/07/18   | 7/08/18    | 8/09/18  | 11/10/18 | 8/11/18  | 11/12/18 | 10/01/19 |
|              | TABITEUEA            | 15/02/18   | 15/03/18   | 13/04/18   | 15/05/18   | 18/06/18   | 17/07/18   | 1/08/18    | 4/09/18  | 9/10/18  | 8/11/18  | 4/12/18  |          |
|              | NABEINA              | 19/02/18   | 15/03/18   | 13/04/18   | 15/05/18   | 15/06/18   | 24/07/18   | 16/08/18   | 14/09/18 | 15/10/18 | 15/11/18 | 14/12/18 | 15/01/19 |
|              | TABONIBARA           | 15/02/18   | 14/03/18   | 13/04/18   | 9/05/18    | 12/06/18   | 10/07/18   | 10/08/18   | 8/09/18  | 11/10/18 | 8/11/18  | 18/12/18 | 28/01/19 |
|              | NOTOUE               | 15/02/18   | 14/03/18   | 13/04/18   | 9/05/18    | 12/06/18   | 10/07/18   | 14/08/18   | 14/09/18 | 11/10/18 | 8/11/18  | 11/12/18 | 15/01/19 |
| TUC          | TCH-OPD              | 12/02/18   | 1/04/18    | 6/04/18    | 10/05/18   | 13/06/18   | 16/07/18   | 2/08/18    | 2/09/18  | 3/10/18  | 13/11/18 | 10/12/18 | 15/01/19 |
|              | BWENTEKOTA (BONRIKI) | New Clinic | New Clinic | New Clinic | New Clinic | New Clinic | New Clinic | New Clinic | 11/09/18 | 12/10/18 | 8/11/18  | 11/12/18 | 10/01/19 |
|              | BUOTA(TUC)           | 14/02/18   | 14/03/18   | 13/04/18   | 15/05/18   | 15/06/18   | 10/07/18   | 14/08/18   | 11/09/18 | 12/10/18 | 15/11/18 | 11/12/18 | 15/01/19 |
|              | BONRIKI              | 13/02/18   | 14/03/18   | 13/04/18   | 15/05/18   | 15/06/18   | 10/07/18   | 14/08/18   | 14/09/18 | 15/10/18 | 15/11/18 | 14/12/18 | 14/01/19 |
|              | TEMWAIKU             | 15/02/18   | 15/03/18   | 13/04/18   | 10/05/18   | 14/06/18   | 15/07/18   | 3/08/18    | 6/09/18  | 10/10/18 | 1/11/18  | 3/12/18  | 4/01/19  |
|              | BIK.E                | 15/02/18   | 6/03/18    | 13/04/18   | 15/05/18   | 11/06/18   | 10/07/18   | 15/08/18   | 13/09/18 | 15/10/18 | 5/11/18  | 14/12/18 | 14/01/19 |
|              | BIK.W                | 1/01/18    | 1/03/18    | 4/04/18    | 7/05/18    | 1/06/18    | 2/07/18    | 1/08/18    | 3/09/18  | 2/10/18  | 5/11/18  | 3/12/18  | 3/01/19  |
|              | EITA                 | 14/02/18   | 14/03/18   | 12/04/18   | 15/05/18   | 15/06/18   | 10/07/18   | 15/08/18   | 14/09/18 | 15/10/18 | 15/11/18 | 14/12/18 | 15/01/19 |
|              | AMBO                 | 15/02/18   | 15/03/18   | 13/04/18   | 14/05/18   | 6/06/18    | 15/07/18   | 13/08/18   | 14/09/18 | 11/10/18 | 15/11/18 | 14/12/18 | 11/01/19 |
|              | BANRAEABA            | 15/02/18   | 14/03/18   | 13/04/18   | 12/06/18   | 12/06/18   | 16/07/18   | 15/08/18   | 14/09/18 | 15/10/18 | 14/11/18 | 11/12/18 | 15/01/19 |
|              | TEAORAEREKE          | 12/02/18   | 13/03/18   | 13/04/18   | 9/05/18    | 4/06/18    | 10/07/18   | 3/08/18    | 10/09/18 | 15/10/18 | 8/11/18  | 11/12/18 | 15/01/19 |
|              | NANIKAI              | 9/02/18    | 12/03/18   | 10/04/18   | 7/05/18    | 6/06/18    | 15/07/18   | 9/08/18    | 14/09/18 | 15/10/18 | 13/11/18 | 7/12/18  | 7/01/19  |
|              | BAIRIKI              | 14/02/18   | 7/03/18    | 13/04/18   | 15/05/18   | 15/06/18   | 10/07/18   | 10/08/18   | 12/09/18 | 12/10/18 | 12/11/18 | 7/12/18  | 15/01/19 |
| BTC          | BETIO HOSP           | 16/03/18   | 4/04/18    | 18/04/18   | 10/08/18   | 10/08/18   | 10/08/18   | 10/08/18   | 10/10/18 | 14/12/18 | 14/12/18 | 14/12/18 | 15/01/19 |

|         |               |          |          |          |          |          |          |          |          |          |          |          |          |
|---------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|         | TEMANOKU(BTC) | 19/02/18 | 1/03/18  | 5/04/18  | 2/05/18  | 1/06/18  | 2/07/18  | 2/08/18  | 4/09/18  | 4/10/18  | 2/11/18  | 3/12/18  | 4/01/19  |
|         | TAKORONGA     | 12/02/18 | 15/03/18 | 13/04/18 | 3/05/18  | 5/06/18  | 10/07/18 | 13/08/18 | 10/09/18 | 12/10/18 | 13/11/18 | 14/12/18 | 14/01/19 |
|         | TEMAKIN       | 15/02/18 | 15/03/18 | 15/04/18 | 15/05/18 | 29/06/18 | 2/07/18  | 15/08/18 | 14/09/18 | 15/10/18 | 15/11/18 | 14/12/18 | 18/01/19 |
| Banaba  | BANABA        | 15/08/18 | 16/03/18 | 12/04/18 | 23/05/18 | 15/08/18 | 13/08/18 | 13/08/18 |          | 15/10/18 | 15/11/18 | 12/12/18 |          |
| Maiana  | TABONTEKEKE   | 3/02/18  | 15/03/18 | 13/05/18 | 28/05/18 | 15/07/18 | 15/08/18 | 15/08/18 | 20/11/18 | 20/11/18 | 20/11/18 | 18/01/19 | 5/02/19  |
|         | TEKARANGA     | 2/03/18  | 15/03/18 | 13/04/18 | 28/05/18 | 15/08/18 | 15/08/18 | 15/08/18 | 14/09/18 | 22/10/18 | 30/11/18 | 4/03/19  | 4/03/19  |
|         | BUBUTEI       | 6/03/18  | 14/03/18 | 4/06/18  | 25/06/18 | 15/06/18 | 27/07/18 | 10/08/18 | 22/10/18 | 7/10/18  | 14/11/18 | 15/03/19 | 15/03/19 |
|         | TEBIKERAI     | 2/03/18  | 14/03/18 | 13/04/18 | 28/05/18 | 15/07/18 | 27/07/18 | 22/10/18 | 22/10/18 | 22/10/18 | 5/02/19  | 5/02/19  | 5/02/19  |
|         | TANIMAEAO     | 3/03/18  | 14/03/18 | 14/04/18 | 28/05/18 | 15/06/18 | 27/07/18 | 15/08/18 | 14/09/18 |          | 13/12/18 | 28/01/19 | 28/01/19 |
| Kuria   | KURIA         | 9/02/18  | 28/03/18 | 23/04/18 | 28/05/18 | 13/07/18 | 13/07/18 | 8/08/18  | 12/09/18 | 12/10/18 | 12/11/18 | 14/12/18 | 18/01/19 |
|         | ONEKE         | 9/02/18  | 28/03/18 | 23/04/18 | 25/06/18 | 25/06/18 | 13/07/18 | 8/08/18  | 12/09/18 | 12/10/18 | 12/11/18 | 14/12/18 | 18/01/19 |
| Aranuka | ARANUKA       | 19/02/18 | 6/03/18  | 5/04/18  | 7/05/18  | 11/06/18 | 5/09/18  | 8/08/18  | 5/09/18  | 9/10/18  | 14/11/18 | 13/12/18 | 9/01/19  |
|         | TAKAEANG      | 5/02/18  | 6/03/18  | 3/04/18  | 11/05/18 | 11/06/18 | 9/07/18  | 7/08/18  | 5/09/18  | 10/10/18 | 15/11/18 | 13/12/18 | 9/01/19  |
|         | BAURUA        | 9/02/18  | 6/03/18  | 5/04/18  | 15/05/18 | 11/06/18 | 16/07/18 | 8/08/18  | 5/09/18  | 9/10/18  | 15/11/18 | 13/12/18 | 9/01/19  |
| Abemama | KARIATEBIKE   | 9/02/18  | 8/03/18  | 4/04/18  | 8/05/18  | 3/06/18  | 10/06/18 | 15/08/18 | 4/09/18  | 9/10/18  | 5/11/18  | 12/12/18 | 9/01/19  |
|         | ABATIKU       | 9/02/18  | 8/03/18  | 12/04/18 | 14/05/18 | 14/06/18 | 10/07/18 | 8/08/18  | 10/09/18 | 12/10/18 | 6/11/18  | 14/12/18 | 14/01/19 |
|         | TABIANG       | 14/02/18 | 6/03/18  | 12/04/18 | 15/05/18 | 15/08/18 | 10/07/18 | 15/08/18 | 4/09/18  | 9/10/18  | 5/11/18  | 14/12/18 | 14/01/19 |
|         | TEKATIRIRAKE  | 9/02/18  | 8/03/18  | 12/04/18 | 9/05/18  | 3/06/18  | 10/07/18 | 15/08/18 | 4/09/18  | 4/10/18  | 5/11/18  | 6/12/18  | 18/01/19 |
|         | BARETOA       | 6/03/18  | 6/03/18  | 2/04/18  | 1/05/18  | 1/06/18  | 3/07/18  | 7/08/18  | 3/09/18  | 2/10/18  | 8/11/18  | 6/12/18  | 9/01/19  |
|         | KABANGAKI     | 2/02/18  | 13/03/18 | 6/04/18  | 8/05/18  | 8/06/18  | 10/07/18 | 15/08/18 | 4/09/18  | 9/10/18  | 9/11/18  | 6/12/18  | 9/01/19  |
|         | TEBWANGA      | 9/02/18  | 6/03/18  | 6/04/18  | 8/05/18  | 1/06/18  | 10/07/18 | 15/08/18 | 5/09/18  | 4/10/18  | 13/11/18 | 6/12/18  | 9/01/19  |
| Nonouti | TEBOBONGA     | 12/02/18 | 13/03/18 | 10/04/18 | 10/05/18 | 12/06/18 | 13/07/18 | 14/08/18 | 17/09/18 | 9/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|         | TEMOTU        | 12/02/18 | 13/03/18 | 10/04/18 | 15/04/18 | 12/06/18 | 16/07/18 | 14/08/18 | 17/09/18 | 9/10/18  | 12/11/18 | 11/12/18 | 15/01/19 |
|         | TEUABU        | 12/02/18 | 13/03/18 | 10/04/18 | 10/05/18 | 12/06/18 | 16/07/18 | 14/08/18 | 17/09/18 | 9/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|         | ABAMAKORO     | 12/02/18 | 13/03/18 | 10/04/18 | 15/05/18 | 12/06/18 | 16/07/18 | 8/08/18  | 17/09/18 | 9/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |



|           |                   |               |               |               |          |          |          |          |          |          |          |          |          |
|-----------|-------------------|---------------|---------------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|           | MATABOOU          | 12/02/18      | 13/03/18      | 10/04/18      | 15/05/18 | 12/06/18 | 16/07/18 | 14/08/18 | 17/09/18 | 9/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|           | ROTIMWA           | 12/02/18      | 13/03/18      | 10/04/18      | 14/05/18 | 12/06/18 | 13/07/18 | 14/08/18 | 17/09/18 | 9/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|           | TABOIAKI          | 13/02/18      | 13/03/18      | 10/04/18      | 10/04/18 | 12/06/18 | 13/07/18 | 14/08/18 | 17/09/18 | 9/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|           | TEMANOKU(Nonouti) | 12/02/18      | 13/03/18      | 10/04/18      | 10/05/18 | 12/06/18 | 13/07/18 | 14/08/18 | 10/10/18 | 2/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
| Tab North | SKH               | 3/05/18       | 13/03/18      | 13/04/18      | 1/05/18  | 18/10/18 | 18/10/18 | 18/10/18 | 18/10/18 | 18/10/18 | 14/11/18 | 14/12/18 |          |
|           | UTIROA            | 15/02/18      | 15/03/18      | 13/04/18      | 15/05/18 | 15/03/19 | 10/07/18 | 13/08/18 | 10/09/18 | 10/10/18 | 15/03/19 | 14/12/18 | 10/01/19 |
|           | TANAEANG          | 6/01/18       | 15/03/18      | 13/04/18      | 15/05/18 | 10/07/18 | 10/07/18 | 15/08/18 | 10/09/18 | 10/10/18 | 15/11/18 | 14/12/18 | 15/01/19 |
|           | BUOTA(Tab.N)      | 14/03/18      | 13/03/18      | 13/04/18      | 15/05/18 | 15/06/18 | 10/07/18 | 13/08/18 | 10/09/18 | 15/10/18 | 13/11/18 | 14/12/18 |          |
|           | TENATORUA         | 15/02/18      | 15/03/18      | 13/04/18      | 15/05/18 | 15/06/18 | 9/07/18  | 15/08/18 | 10/09/18 | 10/10/18 | 15/11/18 | 14/12/18 | 15/03/19 |
|           | AIWA              | 3/05/18       | 14/03/18      | 15/03/19      | 15/04/18 | 15/03/19 | 2/07/18  | 15/08/18 | 10/09/18 | 10/11/18 | 15/03/19 | 14/12/18 | 15/03/19 |
|           | TEKABUIBUI        | 12/02/18      | 15/03/18      | 13/04/18      | 15/05/18 | 15/06/18 | 16/07/18 | 15/08/18 | 10/09/18 | 15/10/18 | 9/11/18  | 14/12/18 | 16/03/19 |
|           | KABUNA            | 14/02/18      | 15/03/18      | 13/04/18      | 15/05/18 | 15/06/18 | 10/07/18 | 13/08/18 | 10/09/18 | 10/10/18 | 15/11/18 | 14/12/18 | 10/01/19 |
|           | TAUMA             | 15/02/18      | 15/03/18      | 13/04/18      | 15/05/18 | 15/06/18 | 10/07/18 | 15/08/18 | 10/09/18 | 10/10/18 |          | 14/12/18 | 10/01/19 |
|           | TEKAMAN           | New<br>Clinic | New<br>Clinic | New<br>Clinic | 15/04/18 | 15/06/18 | 10/07/18 | 15/08/18 | 10/09/18 | 15/10/18 | 15/11/18 | 14/12/18 | 10/01/19 |
| Tab South | BUARIKI(Tab.S)    | 14/02/18      | 18/04/18      | 13/04/18      | 4/05/18  | 18/06/18 | 16/07/18 | 21/08/18 | 10/09/18 | 9/10/18  | 3/11/18  | 10/12/18 | 13/02/19 |
|           | TEWAI             | 14/02/18      | 18/04/18      | 18/04/18      | 4/05/18  | 18/06/18 | 16/07/18 | 21/08/18 | 10/09/18 | 9/10/18  | 13/11/18 | 15/12/18 | 13/02/19 |
|           | TAKU              | 14/02/18      | 18/04/18      | 18/04/18      | 4/05/18  | 18/06/18 | 16/07/18 | 11/09/18 | 10/09/18 | 9/10/18  | 3/11/18  | 12/12/18 |          |
| Onotoa    | BURAITAN          | 15/02/18      | 8/03/18       | 13/04/18      | 15/04/18 | 11/06/18 | 10/07/18 | 14/08/18 | 11/09/18 | 9/10/18  | 9/11/18  | 14/12/18 | 15/01/19 |
|           | AIAKI             | 15/02/18      | 8/03/18       | 13/04/18      | 15/04/18 | 11/06/18 | 10/07/18 | 13/08/18 | 11/09/18 | 7/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|           | TABUARORAE        | 15/02/18      | 8/02/18       | 13/04/18      | 15/04/18 | 14/06/18 | 10/07/18 | 14/08/18 | 11/09/18 | 7/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|           | TEKATANA          | 15/02/18      | 8/03/18       | 13/03/18      | 15/05/18 | 15/06/18 | 10/07/18 | 13/08/18 | 3/09/18  | 7/10/18  | 9/11/18  | 11/12/18 | 15/01/19 |
|           | OTOAE             | 15/02/18      | 8/03/18       | 13/04/18      | 15/04/18 | 11/06/18 | 4/07/18  | 14/08/18 | 11/09/18 | 7/10/18  | 9/11/18  | 14/12/18 | 15/01/19 |
| Beru      | TEMARA            | 12/02/18      | 19/03/18      | 11/04/18      | 15/05/18 | 8/06/18  | 27/11/18 | 8/08/18  | 15/10/18 | 15/10/18 | 9/11/18  | 15/01/19 | 15/01/19 |
|           | NAMON             | 20/02/18      | 15/03/18      | 11/04/18      | 15/05/18 | 8/06/18  | 16/07/18 | 15/08/18 | 11/09/18 | 9/10/18  | 9/11/18  | 14/12/18 | 15/01/19 |
|           | AONNATI           | 12/02/18      | 20/03/18      | 18/04/18      | 15/05/18 | 8/06/18  | 16/07/18 | 15/08/18 | 10/09/18 | 9/10/18  | 10/11/18 | 11/12/18 | 15/01/19 |

|         |                               |          |          |          |          |          |          |          |          |          |          |          |          |
|---------|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Nikunau | MWANRUNGA                     | 12/02/18 | 13/03/18 | 4/04/18  | 9/05/18  | 15/06/18 | 10/07/18 | 9/08/18  | 2/10/18  | 2/10/18  | 9/11/18  | 18/12/18 | 14/01/19 |
|         | MURITOA                       | 12/02/18 | 15/03/18 | 4/04/18  | 15/05/18 | 15/06/18 | 4/07/18  | 9/08/18  | 4/09/18  | 2/10/18  | 9/11/18  | 14/12/18 | 14/01/19 |
|         | NIKUMATANG                    | 12/02/18 | 14/03/18 | 13/03/18 | 15/05/18 | 14/06/18 | 15/07/18 | 9/08/18  | 5/09/18  | 4/10/18  | 13/11/18 | 14/12/18 | 14/01/19 |
| Tamana  | MOTOIA                        | 9/02/18  | 13/03/18 | 13/04/18 | 10/05/18 | 14/06/18 | 4/07/18  | 15/08/18 | 5/09/18  | 3/10/18  | 9/11/18  | 6/12/18  | 9/01/19  |
| Arorae  | TARIBO                        | 23/03/18 | 6/03/18  | 13/04/18 | 10/08/18 | 15/06/18 | 14/08/18 | 2/10/18  | 6/09/18  | 3/10/18  | 15/11/18 | 11/12/18 | 11/01/19 |
| TCH     | TCH-DIABETIC                  | 19/09/18 | 4/04/18  | 4/04/18  | 19/09/18 | 15/06/18 | 19/07/18 | 16/08/18 | 19/09/18 | 16/10/18 | 13/11/18 | 12/12/18 | 10/01/19 |
|         | KFHA                          | 27/02/18 | 12/03/18 | 18/04/18 | 11/09/18 | 10/09/18 | 31/07/18 | 15/08/18 | 11/09/18 | 25/10/18 | 5/12/18  | 14/12/18 | 8/01/19  |
|         | TCH-GYNAE                     | 14/02/18 | 15/03/18 | 12/08/18 | 12/08/18 | 12/08/18 | 12/08/18 | 12/08/18 | 18/09/18 | 15/10/18 |          |          |          |
|         | TCH-TB                        | 15/02/18 | 14/03/18 | 15/05/18 | 15/05/18 | 12/06/18 | 9/07/18  | 15/02/19 | 14/09/18 | 9/10/18  |          | 14/12/18 | 14/02/19 |
|         | TCH-ANC                       | 15/02/18 | 15/03/18 | 13/04/18 | 2/07/18  | 3/01/19  | 10/07/18 | 14/08/18 | 3/01/19  | 14/11/18 | 14/11/18 | 3/01/19  | 3/01/19  |
|         | TCH-Leprosy                   | 28/02/18 | 14/03/18 | 16/04/18 | 24/05/18 | 15/06/18 | 22/06/18 | 22/08/18 | 20/09/18 | 7/03/19  | 7/03/19  | 7/03/19  | 7/03/19  |
|         | TCH-IMCI                      | 2/02/18  | 1/03/18  | 5/04/18  | 2/05/18  | 1/06/18  | 2/07/18  | 1/07/18  | 3/09/18  | 4/10/18  | 1/11/18  | 4/12/18  | 4/01/19  |
|         | HEALTHY FAMILY                | 15/02/18 | 19/03/18 | 10/04/18 | 15/06/18 | 15/06/18 | 14/07/18 | 12/08/18 | 5/03/19  | 16/10/18 | 5/03/19  | 5/03/19  | 5/03/19  |
|         | YOUTH FRIENDLY HEALTH SERVICE |          |          |          |          |          |          |          |          |          |          |          |          |
|         | RH                            | 7/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  | 8/11/18  |          |
|         | AHD                           |          |          |          |          |          |          |          |          |          |          |          |          |
|         | Anaieta Pharmacy              |          |          |          |          |          |          |          |          |          |          |          |          |
|         | Prison                        | 27/07/18 | 27/07/18 | 27/07/18 | 27/07/18 | 27/07/18 | 27/07/18 | 14/08/18 | 13/09/18 |          |          |          |          |

## Notes

This image shows a blank sheet of white paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.