

# KIRIBATI

## 1. CONTEXT

### 1.1 Demographics

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

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

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

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

### 1.2 Political situation

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

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

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

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

### 1.3 Socioeconomic situation

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

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

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

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

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

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

#### **1.4 Risks, vulnerabilities and hazards**

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

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

## **2. HEALTH SITUATION AND TREND**

### **2.1 Communicable and noncommunicable diseases, health risk factors and transition**

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

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

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

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

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

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

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

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

### **2.2 Outbreaks of communicable diseases**

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

### **2.3 Leading causes of mortality and morbidity**

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

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

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

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## 2.4 Maternal, child and infant diseases

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

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

## 2.5 Burden of disease

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

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

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

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

# 3. HEALTH SYSTEM

## 3.1 Ministry of Health's mission, vision and objectives

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

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

## 3.2 Organization of health services and delivery systems

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

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

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

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

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

### **3.3 Health policy, planning and regulatory framework**

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

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

### **3.4 Health care financing**

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

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

### **3.5 Human resources for health**

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

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

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

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

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

### 3.6 Partnerships

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

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

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

### 3.7 Challenges to health system strengthening

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

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

## 4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

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

## 5. ADDRESSES

### MINISTRY OF HEALTH AND MEDICAL SERVICES

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## 6. ORGANIZATIONAL CHART: Ministry of Health

