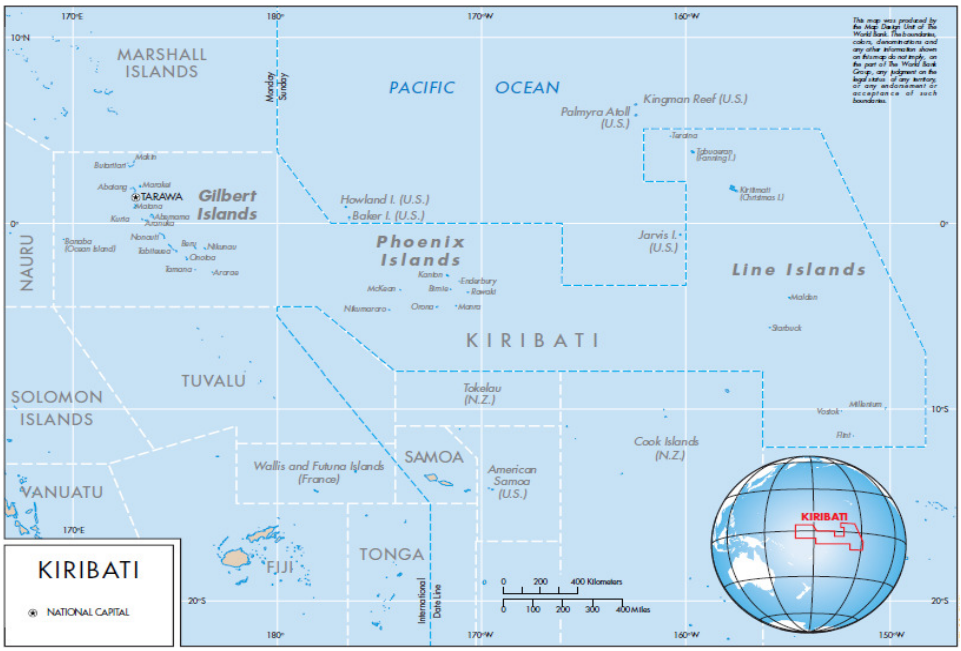
Health Service Delivery Profile

Kiribati

2012



Compiled in collaboration between
WHO and Ministry of Health and Medical Services, Kiribati

Republic of Kiribati health service delivery profile

Demographics and health situation

The Republic of Kiribati includes three island groups – Gilbert, Phoenix and Line – and comprises 32 atolls and one elevated coral island with a total land area of 811 square kilometres dispersed over five million square kilometres of ocean (see Annex 1). [1-4] The terrain of Kiribati is low-lying; most islands are less than two kilometres wide and less than two meters above sea level, making it extremely vulnerable to climate change and natural hazards.

In 2010, Kiribati's population was estimated at 103,371. The population profile is young, with 38% under the age of 15, only 12% above the age of 50, and a median age of 21 years. [5-6] The persistently high fertility rate, estimated at 4. 5 births per woman in 2005, causes stress on the environment, schools and labour markets. [7-8] With the current growth rate, the population of Kiribati will double by 2025; however with steady migration to the capital, the population of South Tarawa will double by 2015. [7]

South Tarawa, part of the Gilbert island group, is the only part of Kiribati considered 'urban' and contains almost half of the population. Population density in parts of South Tarawa have reached as much as 8,000 persons per square kilometre (making it one of the most densely populated islands in the world); contrasting with other areas, such as the Line and Phoenix Island Groups, where population density is around 20 people per square kilometre. [3,9] Five islands are home to fewer than 1,000 people each. [10] It is the wide dispersal of small population groups and the infrequency of transportation servicing them that poses significant challenges to the timely provision of health services.

Table 1. Key development indicators, Kiribati

Indicator	Measure	Year
Human development index	0. 5	2006
Adult literacy rate (%)	92. 0	2005
Proportion of people living below national poverty line (%)	50. 0	2006
Total health expenditure (% of GDP)	12. 5	2008
Literacy rate (%)	91	2005
Life expectancy at birth (years)	61. 0	2007
Crude birth rate (per 1,000 people)	10. 7	2010
Crude death rate (per 1,000 people)	6. 3	2010
Infant mortality rate (per 1,000 live births)	47. 0	2006
Number of maternal deaths in one year*	3	2011

Sources: UNESCO 2009;[3] MFEP 2007;[11] World Bank 2007;[12] MHMS 2010;[13] WHO 2011[14]
** Maternal mortality rate is difficult to calculate accurately in countries with small populations.*

Basic development indicators for health, education and life expectancy in Kiribati are among the poorest in the Pacific region. While life expectancy at birth is slowly increasing, infant and child mortality rates remain particularly high. Overcrowding and lack of safe water and sanitation are impacting health. Kiribati has high rates of infectious diseases, including respiratory infections, diarrhoeal diseases, skin diseases and hepatitis A and B. [15] Lifestyle diseases that have accompanied economic growth and urbanisation are on the rise, especially diabetes and sexually transmitted infections. Kiribati's rate of incidence for HIV/AIDS is among the highest in the Pacific. [7,10] New cases of diabetes increased tenfold over the period from 1992 to 2001, and new cases of hypertension almost quintupled over the same period. [8]

Health strategies, objectives and legislation

The Ministry of Health and Medical Services ('the Ministry') works within a comprehensive framework of plans, policies, documents and service delivery guidelines. Some of these have been developed outside the Ministry through donor-assisted programs and, although the level of ownership is good, capacity to implement, enforce and monitor is variable. [16] The Ministry's overarching goal is, 'c*ontinuous improvement in the provision and delivery of preventative and curative health services and equitable distribution of the benefits attained nationwide through effective and efficient allocation of scarce resources and good governance (accountability and transparency)'*. [17]

To achieve this goal, the *Ministry of Health and Medical Service's Strategic Plan* (2012-2015) has six Objectives:

The strategic objectives for the MHMS for the period 2012–2015 are: [17]

1. Increase access to and use of high quality, comprehensive family planning services, particularly for vulnerable populations including women whose health and wellbeing will be at risk if they become pregnant
2. Improve maternal, newborn and child health
3. Prevent the introduction and spread of communicable diseases, strengthen existing control programmes and ensure Kiribati is prepared for any future outbreaks
4. Strengthen initiatives to reduce the prevalence of risk factors for NCDs, and consequently reduce morbidity, disability and mortality from NCDs
5. Address gaps in health service delivery and strengthen the pillars of the health system
6. Improve access to high quality and appropriate health care services for victims of gender based violence, and services that specifically address the needs of youth

Other important strategies and legislation include:

- **Kiribati Development Plan** (2008-2011). Major issues for health include maternal and child health; tuberculosis; NCDs, HIV/AIDS, STIs and hepatitis; medical supplies and facilities and population growth
- **Kiribati National Development Strategies (NDS)** (2008-2011). The Plan is strongly aligned with the MDGs, and includes health as one of its six priority areas
- **National Population Policy** (2005). Establishes the clear target to stabilise the population by 2025
- **Medical Services Act** (1996). The objective is to control the registration and discipline of all health professionals (except traditional healers)
- **National HIV and STI Strategic Plan** (2005-2008). Contains three priority areas: treatment, care and support; prevention; and coordination of the national multi-sectoral response.

Service delivery model

Kiribati has a well-established, publicly-funded and provided health system administered by the Ministry of Health and Medical Services. The system comprises of four hospitals, supported by a primary health care network that consists of health centres and health clinics of varying capacity. [18] However, hospitals provide most of the care for the population. With no private or church-provided health services, the Government, for all intents and purposes, is the only provider of health services in Kiribati.

The provider network

Four levels of health facilities exist within Kiribati:

1. The **central referral hospital**, Tungaru Central Hospital , located in the capital, South Tarawa, receives referrals from the hospitals and health centres
2. There are three other **referral hospitals** – one based at Betio (Tarawa), one at Kiritimati Island (for the Line and Phoenix Island Groups) and one at Tabiteuea North (for the southern Gilbert Islands). The hospitals receive referrals from health centres and are operated by doctors, nurses and allied health staff
3. In the rural outer islands where there are no hospitals, two levels of health facilities exist. **Health Centres** provide primary health care curative and preventive services and are staffed by medical assistants (registered nurses who have undertaken additional training). These nurses are the key health personals on each island
4. **Health Clinics** (also referred to as dispensaries) are staffed by community nurses and nurse aids. Nurse aids do not dispense medicines but are trained to recognise the danger signs of illness[19-21]

Table 2. Summary of health services by facility type in Kiribati, 2012

Facility	Essential Services		Expanded Services
	Public health, prevention and outreach	**Clinical (primary and secondary)**	
Health Clinics (75)	• Public health education and awareness programs • Immunisation	• Basic primary care	

Health Centres (30)	• *As for health clinics*
	• Family planning
	  ○ Minimal essential package
	  ○ STI prevention and treatment
	  ○ HIV prevention
		• Primary care
		• Midwifery, maternal and child health
		• Limited dental care
		• Laboratory services
		• Ambulance services
		• Medication
			• Outreach to islands with no health facilities (not all centres)

Referral Hospitals (3)	• *As for health centres*	• General outpatient and inpatient care • Emergency care • Betio Hospital (10 beds) • Kiritimati Hospital (7 beds) ○ Specialist maternity care	• Emergency evacuations from Kiritimati by plane to Fiji

Central Referral Hospital (1)	• *As for sub-divisional hospitals*
	• Family planning
	  ○ Infertility counselling
	  ○ Cervical cancer screening and treatment
		• 120 beds
		• General outpatient and inpatient care
		• Emergency care
		• Comprehensive range of secondary curative services
		• Laboratory
		• Radiology
		• Pharmacy
		• Physiotherapy
		• Mental health inpatient unit
			• Emergency evacuations by plane to Fiji
			• Visiting specialised clinical services
			  ○ Cardiology
			  ○ Ophthalmology
			• Overseas referrals (specialised secondary or tertiary care)

Sources: Nawadra-Taylor 2008;[4] ADB 2009;[15] MHMS 2007;[17] Bryant & Kerse 2010;[18] FSM 2011;[19] Jones 1993;[22] Lam, Weinstein & Tiban 2007;[23] WHO 2009; [24] Government of Kiribati n. d;[25] WHO 2011;[26] Lamia 2011[27]

Visiting Specialised Clinical Services

Specialised clinical services are currently not routinely offered in Kiribati. Almost all specialised clinical services are offered by visiting teams, or are accessed through off-shore referrals. Visiting specialised clinical teams to Kiribati comprise teams from the Royal Australian College of Surgeons (RACS), Taiwan Medical teams, the Osakawa Eye Team from Japan, and volunteering obstetrics and gynaecology specialists from NZ (through NZ Medical Treatment Scheme – managed by Health Services Limited). All these teams deliver their services at Tungaru Central and Kiritimati Hospitals.

In recent years, USA-based specialists have occasionally visited Kiritimati Island, via the air link from Honolulu. [15] The Pacific Island Medical Aid (PIMA) program has supported the hospital with pharmaceuticals, medical supplies, improved communications and recently visiting gynaecologist and cardiologist. In 2010, there were a total of 14 visiting specialised clinical teams to Kiritimati Island. [19]

Traditional medicine practice

In parallel with the Government system, a traditional health system exists in which traditional healers and traditional birth attendants provide local medicines, massage and antenatal, delivery and postnatal care. Most people use both systems, however there is no formal coordination or collaboration between the two systems and traditional healers are not included in the formal health system or regulations. [5,20] Traditional healers receive food and/or money in compensation for their work, with amounts paid in urban areas roughly twice those in rural. Anecdotal evidence suggests that numbers of traditional healers are diminishing. [20]

Health financing

In 2010, the total recurrent budget provision for the Ministry of Health was just over USD $14. 1 million and this has remained constant over recent years. [16,19,18] Clinical hospital services and curative care get the largest share of expenditure (52%), followed by pharmaceuticals (17%), primary care and public health (16%) and administration (15%). [13] The New Zealand Aid Program also provides funding for medical referrals to New Zealand. In 2010, a total of USD $630,000 was spent for referrals of 57 patients to overseas hospitals. [19]

Kiribati, like many small island states, is heavily reliant on international development cooperation flows. Net flows to Kiribati in recent years have reached slightly over USD $40 million per annum, equivalent to about 25% of gross domestic product (GDP). [28] With the assistance of this international aid, per capita spending on social assistance transfer programs is high and government spending on health is above the World Health Organization's 2001 GDP per capita regression line for lower-income Western Pacific countries. [8]

As health care services are provided free-of-charge to all Kiribati residents by the government, there is very minimal out-of-pocket spending for health. [13] All non-I-Kiribati tourists and travellers, and foreign seamen are charged for any medical services offered to them. There are also charges for patients admitted to the private ward. [29]

Human resources

Kiribati has a similar level of healthcare professionals as other countries in the Pacific, with 0. 4 doctors per 1,000 population (in 2010), 3. 19 nurses, 0. 72 midwives, 0. 04 dentists, and 1. 14 paramedical professionals. [14] The health workforce is ageing and relies on retired health staff employed on contract to fill some nursing and medical positions. Several disciplines rely on untrained staff and have insufficient staff to operate effectively. The current intake of health workers for training is unlikely to meet future requirements. [20]

With no doctors in the majority of Kiribati, nurses provide the backbone of the health work force, comprising about 70% of all health sector employees, and the scope of nursing is wide and varied. [5,18] Like many other countries in the Pacific, Kiribati is a beneficiary of a Cuban Medical Brigade. A reciprocal program sees I-Kiribati high school graduates awarded scholarships to study in Cuba.

Table 3. Health professionals, Kiribati, 2009-2011

Registered healthcare professional	Total	Year	Notes
Physicians	34	2011	20 I-Kiribati (3 PH, 17 curative) 3 Cuban
Nurses, midwives and health assistants	386	2009	10 undergone specialist nursing training or attachments
Dentists and technicians	18	2009	
Pharmacists and technicians	22	2011	6 have a formal qualification
Environmental and public health workers	13	2009	
Laboratory technicians	23	2011	10 have a formal qualification
Other health workers	34	2009	
Community health workers	0	2009	
Administrative and support staff	32	2009	
Nursing school staff	20	2009	
Total	**560**	-	

Sources: HRH Hub 2009;[5] Bryant & Kerse 2010;[18] FSM 2011[19]

In March 2001, Cabinet approved the appointment of an inter-Ministry Working Group on Traditional Medicine, whose terms of reference included the formulation of law to govern the practice of traditional medicine and licensing of traditional healers. [20] This law is considered to still be under development by the Attorney General's Office. There is no agreement if they should practice as health professionals and ongoing questions include who should be the controlling body for traditional healers.

Medicines and therapeutic goods

The Pharmacy Department is responsible for medicines management for all disease programs for the country, and the budget estimate for procurement of medicines in 2009 was USD $1. 8 million. [30] The distribution system operates on four levels: international to regional; regional to central; central to service delivery providers; and between providers. [4] There are no retail pharmacies in Kiribati, with pharmaceuticals and medical supplies distributed to the outer island hospitals and health clinics via Tungaru Central Hospital, which in turn is supplied from Australia, Fiji, the Netherlands, and India (from the Global Drug Facility for TB drugs) . [4,15] Urgent supplies are ordered by phone and be flown in from Fiji. Supplies to clinics on the outer islands are irregular and rely on weekly flights (if there is an airstrip) or local ferries.

There is no medicines legislation at present. Medicines legislation was drafted in 2004; however it is still work in progress. Without medicines legislation in place, medicines can be imported and sold without regulations. [30] The Kiribati Essential Drug List is the basis for distribution and it is revised annually in line with standard treatment guidelines. There is no formal procedure for including new medicines into the essential list. Four booklets of national standard treatment guidelines detail appropriate medicines for: 1) emergency drugs; 2) cardiovascular, neurological, psychiatric and diabetes; 3) gastrointestinal and respiratory; and 4) obstetrics, gynaecology, paediatrics and dental. [30]

Referrals and linkages through the provider network

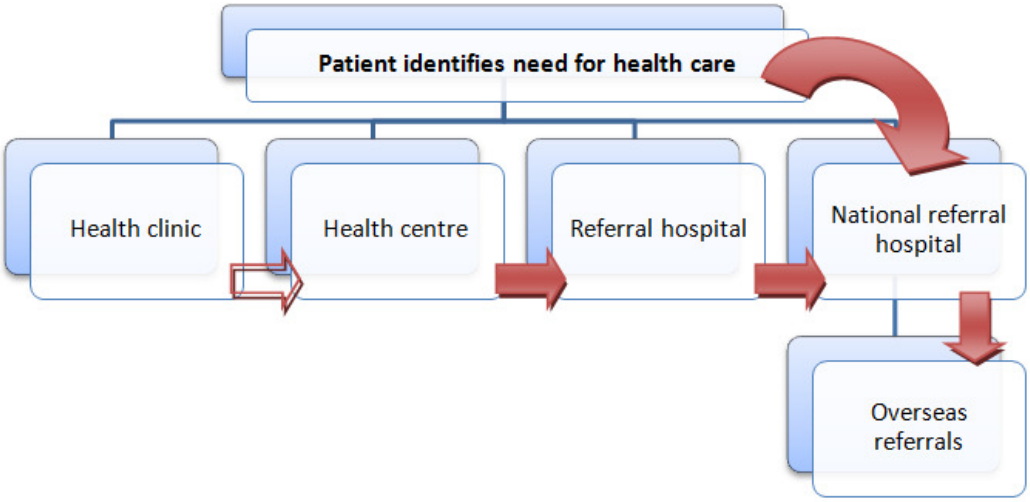
While the Ministry of Health and Medical Service's *Referral and Caretaker Policy* (2011), sets out a standard referral process between facilities and islands (Figure 1), the reality is very different. Urban residents of South Tarawa and Betio increasingly bypass primary-level facilities and use outpatient hospital facilities for all levels of care as hospitals are easily accessible. [12] On the other hand, residents of the outer islands who live a long distance from hospitals and incur high transportation costs to access that level of care, generally present very late to hospitals (if at all).

The Ministry is responsible for organising and funding the transport of patients and caretakers approved for referral from their home island to the referral hospital and back home afterwards. Patients are referred from outer islands to Tungaru Central Hospital on the advice of a doctor after consultation with medical assistants or nursing officers on the islands. To minimise 'unnecessary referrals', referrals are not accepted from public health nurses working in the health centres or clinics; only in cases of emergencies that nurses working on isolated islets can directly seek assistance from the on-call doctor at the referral hospital. [31]

Overseas Medical Referrals

Offshore referrals for specialized clinical care are coordinated by the Director of Hospital Services in collaboration with the Technical Advisory Committee. Referral of patients offshore for specialized clinical care is guided by the *Referral and Caretaker Policy*. Offshore referrals are made to Taiwan, India, New Zealand, Fiji and the United States of America (from Kiritimati only).

Figure 1 . Typical sequence and referral pathways to hospital in Kiribati, 2012



Quality

As in many Pacific Island Countries and Territories, delivery of health services and progress towards health outcomes are hampered by systemic factors including difficulty meeting the recurrent costs of service delivery, and the age and condition of health infrastructure. No formal mechanisms make providers accountable to clients or clients accountable to providers for their own health maintenance. All visiting specialised clinical teams are required to make a report of their visit. Formal evaluation of the benefits/outcomes of the services provided by the visiting team is not routinely done in Kiribati. [19]

Equity

People living in the outer islands are recognised as the most disadvantaged group in Kiribati, despite new public sector investment in the outer islands and a growing level of access to social services. [32] The outer islands, except for Kiritimati and Tabiteua North, have no doctors. Curative care competes with preventive health care for public resources, with a disproportionate share allocated to the central hospital on South Tarawa. [7] Access to quality drinking water is variable with a significant gap between urban (77%) and rural areas (53%), and within island groups. [3,14] The situation is similar for access to sanitation, with 46% of the urban population and only 20% of the rural population having access to improved sanitation facilities. [14]

As elsewhere, gender inequality is prevalent in Kiribati and impacts health through violence against women, lack of decision-making power and unfair divisions of work, in addition to limited access to health care services. [33] Improved access to services for women is a priority outcome of Kiribati's *National Policy on Gender Equality and Women Development* (2010). [34]

Demands and constraints on the service delivery model

It is costly and challenging organisationally to provide curative and preventive health services in Kiribati. [36] The great distance between the islands and the dispersion of the population makes health care delivery difficult. Domestic air and sea transportation are not uniform and can be infrequent. Throughout Kiribati there is a lack of infrastructure and few transport links, both between the islands and externally.

The capacity of the Government to deliver services is constrained by Kiribati's demographics as well as public service weaknesses such as a small pool of public servants with high-level skills, compulsory retirement age of 50 years, and poor incentives for public servants to achieve good performance within the challenges of a communal society. [37] Challenges in providing health care are further exacerbated by the fact that many trained and qualified doctors, nurses and medical assistants leave the islands for work abroad where better job opportunities exist.

For over a decade, the Kiribati government has adopted decentralisation policies to strengthen the role of local-level authorities in development. However, full administrative devolution has been unrealistic, as responsibilities have not been matched with sufficient finances and this has resulted in poor service delivery and diminished confidence by local communities in the ability of local governments to deliver. [35] Many laws need updating and regulation developed to meet current and future health situations in Kiribati and to meet international requirements. [17]

Indicators of progress

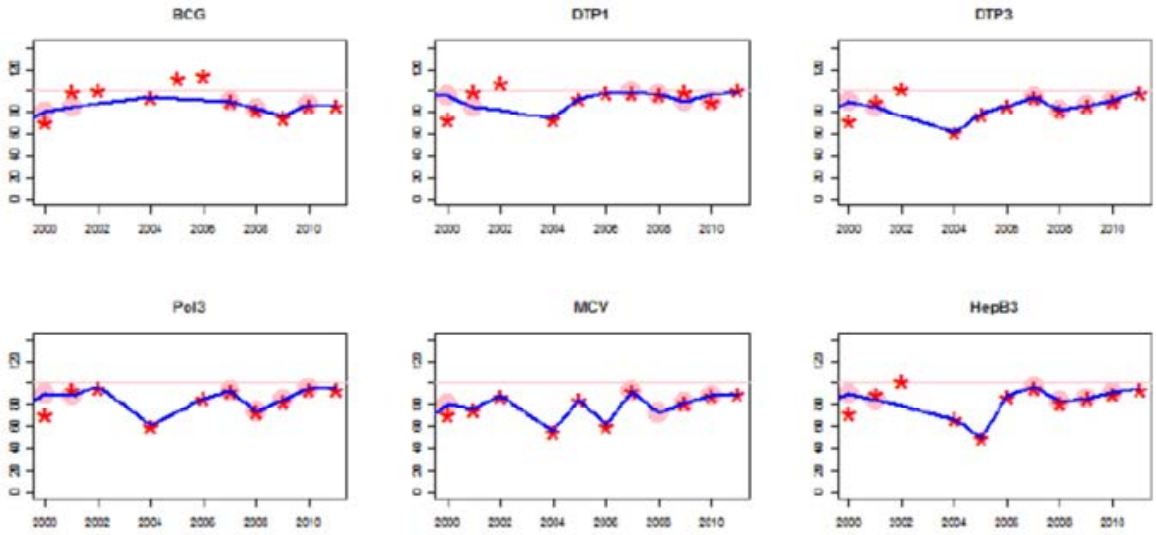
The Government has introduced a performance-based planning process that requires all line ministries to develop annual output-based operational plans known as Ministry Operational Plans (MOPs). [5] MOPs are the only comprehensive statement of the Ministry's responsibilities and access to resources. They describe the activity programs and targets output of the Ministry, and are used for quarterly reporting on performance. [38]

In terms of basic health indictors, on average, I-Kiribati have shorter life spans than those most other Pacific Island populations. Despite progress on some key indicators, Kiribati is not yet on track to achieve its health-related Millennium Development Goal (MDG) targets:

- **Reduce child mortality**. While infant and child mortality rates have been decreasing, they have recently stalled and will not reduce enough to meet the MDG targets. A high rate of under-five mortality still exists in Kiribati and it is among one of the highest rates in the Pacific
- **Improve maternal health**. The maternal mortality ratio has decreased between 1995 and 2000, and the proportion of births attended by skilled health personnel has increased from 71% in 1990 to 88% in 2004. However these outcomes are variable

- **Combat HIV/AIDS, malaria and other diseases**. Tuberculosis incidence is high, but the rate has been declining over the last six years. The first case of HIV was diagnosed in 1991 and since then the number has steadily increased such that Kiribati now has one of the highest infection rates per capita in the Pacific. Malaria is not endemic in Kiribati. [3,11,16]

Kiribati: WHO and UNICEF estimates of immunization coverage: 2011 revision



Source: http://www. who. int/gho/countries/kir/country_profiles/en/index. html

Kiribati

URBAN SANITATION Estimated coverage 2012 update				
Year	Improved	Shared	Other unimproved	Open defecation
1990	36%	7%	16%	41%
1995	41%	8%	10%	41%
2000	47%	9%	3%	41%
2005	49%	10%	0%	41%
2010				

RURAL SANITATION Estimated coverage 2012 update				
Year	Improved	Shared	Other unimproved	Open defecation
1990	21%	2%	12%	65%
1995	21%	2%	17%	60%
2000	22%	2%	21%	55%
2005	22%	2%	23%	53%
2010				

TOTAL SANITATION Estimated coverage 2012 update				
Year	Improved	Shared	Other unimproved	Open defecation
1990	28%	4%	13%	57%
1995	28%	4%	15%	53%
2000	33%	5%	13%	49%
2005	34%	5%	13%	48%
2010				

Kiribati

URBAN WATER Estimated coverage 2012 update					
Year	Total improved	Piped onto premises	Other improved	Other unimproved	Surface water
1990	76%	46%	30%	24%	
1995	77%	47%	30%	23%	
2000	77%	48%	29%	23%	
2005	77%	49%	28%	23%	
2010					

RURAL WATER Estimated coverage 2012 update					
Year	Total improved	Piped onto premises	Other improved	Other unimproved	Surface water
1990	33%	13%	20%	67%	
1995	41%	17%	24%	59%	
2000	50%	21%	29%	50%	
2005	53%	22%	31%	47%	
2010					

TOTAL WATER Estimated coverage 2012 update					
Year	Total improved	Piped onto premises	Other improved	Other unimproved	Surface water
1990	48%	25%	23%	52%	
1995	54%	28%	26%	46%	
2000	62%	33%	29%	38%	
2005	63%	34%	29%	37%	
2010					

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