Chapter 7

# Better Health for More People: Self-help and Outreach in Health Services

## Achievements and Policy

There have been notable achievements in the health sector in Kiribati. Despite the constraints of distance, transport, and telecommunications, all islands have access to health facilities. It was estimated by the Ministry of Health (MOH) in 1999 that 100% of the population had access[79] to a public health facility. All these facilities have qualified staff, either public health nurses or medical assistants, supported by nurse aides who are appointed and paid for by Island Councils. As a result there have been improvements in many of the key health indicators over the last few years.

The basis of a good data collection system exists and is already used to monitor diseases and health center activity. The data indicate that many common health problems have declined over the last decade (Table 7.1). A feature of the health problems that have declined is the erratic nature of their progress, with cyclical steep increases followed by repeated gradual declines reflecting influenza epidemics, and outbreaks of disease that have been brought under control. There has been a decrease in both the incidence of and deaths from communicable diseases.

**Table 7.1: Total Fertility Rate, Infant Mortality Rate, and Population Growth Rate**

| Years for TFR & IMR | Total Fertility Rate (TFR) | | Infant Mortality Rate (IMR) | | Population Growth Rate (%) | Years for Population Growth |
|---|---|---|---|---|---|---|
| | Rate | % Change | Rate | % Change | | |
| 1965 | 7.1 | | | | 1.59 | 1968–1973 |
| 1970–1975 | 5.7 | -19.7 | 120 | | 2.00 | 1973–1978 |
| 1980–1885 | 4.9 | -14.0 | 82 | -31.7 | 2.10 | 1978–1985 |
| 1989–1994 | 3.8 | -22.4 | 65 | -20.7 | 2.24 | 1985–1990 |
| 1995–2000 | 4.3 | +13 | 43 | -33.8 | 1.69 | 1995–2000 |

Source: Ministry of Health.

The national priorities for health in the NDS 2000–2003, shown below, have no clear priority.

The country is in a health transition, with infectious diseases, complications of pregnancy, and postnatal problems still major causes of death. At the same time there is an increased incidence of noncommunicable diseases, such as heart disease, diabetes, liver disease, and cancer.

The health priority strategies stated in the current NDS are

- upgrading the standard of health care at all levels;
- making the primary health care system more responsive to community needs;
- improving outer island health services and referral system;
- development and implementation of a human resources plan for nursing and other medical staff that includes upgrading training facilities and courses;
- increasing the cost recovery of health services;
- working closely with all stakeholders through a multisectoral approach; and
- integration of traditional medicine into public health care.

In recent years, the Government has allocated 10–14% of its annual budget to health. As a ratio of GDP, health expenditure in the budget has ranged from 8% to 12%, with a decline in allocation since 1997. The $9 million recurrent budget allocation for 2002 was $0.5 million less than the 2001 revised estimate and almost 13% of the total recurrent budget.

Given the complexity of health issues and the 2002 budget, it will be difficult for many of the NDS to be realized. Delivery of health services is costly because of the wide dispersal of population and expensive transport and communications services. A strong fiscal commitment to covering the recurrent costs of health services is essential if past gains are to be maintained.

## Budget and Performance

Many of the outputs described in the 2002 health budget are actually education and training activities, which appear to be mostly delivered at the central level. Where resources are limited, it is necessary to target them to obtain specific results rather than take a general centralized approach. For example, the most common reasons for visits to health centers and clinics (see Statistical Appendix) suggest that respiratory tract infections and diarrheal diseases, nutritional conditions, and lifestyle diseases occur more frequently in some areas than others. Betio is an area of high risk for respiratory tract infection, diarrhea, tuberculosis, and gonorrhea, while Banaba has high levels of nutritional problems and lifestyle diseases. Other islands with higher than average levels of particular diseases are Tamana for respiratory tract infection and diarrhea; Marakei, Abiang, and Kiritimati for lifestyle diseases; and Kuria and Marakai for fish poisoning. Subject to check of the data, some of which may be unreliable because of small numbers, targeting of activities and funds could still be warranted. Such site-specific problems could well be targeted for maximum health benefits.

General observations and comments noted during consultations for the present report indicate that in many instances, skills and knowledge delivered in health training are not being applied in the workplace or, in the case of the public, in the home. Observations

by MOH managers and nurses indicate that basic hygiene principles are often not applied in hospital settings. It has been reported by the MOH that there is a 40% take-up rate of public health education principles. There is a need to monitor the effect of management actions and directions, for example, the direct effect of education programs and the application of basic hygiene principles.

An intention to implement cost recovery in the NDS is reflected in an expectation of almost $94,000 in fees (the same as in 2001) under administration and $130,00 in fees under nurses and medical assistants training (for students from overseas). The administrative fees generally come from the issue of medical certificates and medical clearances. Income from fees is to increase and private sector participation in the health care sector is to be encouraged. This will be achieved through doctors' participation in private practice and investigation of contracting out services such as food, laundry, and transport. Little action by MOH to charge fees or for doctors to provide private services appears to have been taken to date. The political sensitivity of charging fees for services that have previously been free is understandable. However, charging fees while maintaining free basic services and ensuring equity, will strengthen the health system and give it access to further funding. South Tarawa and Betio are the locations where most employment exists. Charging a small fee for clinic visits in these locations could recover some costs and allow people in the outer islands to retain their smaller incomes for other necessities.

Given the amount of remittances coming from overseas workers, a market study regarding private provision of health services could be undertaken. Samoa supports a small private hospital and several doctors in private practice; these activities are viable because of the large contribution of remittances to the economy.

## Basic Health Indicators

The population reached about 87,000 in 2002, reflecting an increase in population growth rate and fertility rate since the 1995 census. This gives cause for concern when about 47% of the population is currently under 18 years of age, and a signal that

population growth will increase. Given the pressure on the limited resources, the reason for this rise in fertility rate also needs to be identified and consideration given to ways in which it can be lowered.

The implications for future pressure on the health system are enormous. By the end of another decade, the health system will be required to attend to an additional 600 births a year, and to provide immunization and maternal and child care to these additional babies. Meanwhile, the elderly are likely to exhibit increasing diabetes, cardiovascular diseases, and hypertension.

The infant mortality rate fell from 120 in the mid-1970s to 42 in 2000, while life expectancy increased from 50.3 years for males and 54.5 for females to 58.2 for males and 67.3 for females. I-Kiribati born today can expect to live longer than their parents did and they will generally have better access to health services. This is a reflection of increased budget allocation and improved management of performance in the MOH over the last 5 years (Table 7.2).

As noted earlier, several improbable statistics have been noted in the data on health and education. An example is the divergence

**Table 7.2: Basic Health Indicators**

| Indicator | | Measure as of 1995 | Measure as of 2000 |
|---|---|---|---|
| Population[a] | – total | 77,658 | 84,494 |
| | – 0–14 yrs | 31,957 | 33,772 |
| | | (41%) | (40%) |
| | – 50+ yrs | 8,414 | 9,290 |
| | | (11%) | (11%) |
| Crude birth rate /1,000 population | | 32.2 | 26.4 |
| Infant mortality rate (per 1,000 live births) | | 65 | 43 |
| Maternal mortality rate (per 100,000 live births) | | 225 | 56 |
| Life expectancy at birth | | | |
| | – male | 57.2 | 62.3 |
| | – female | 58.2 | 67.3 |
| Total fertility rate | | 3.8 | 4.3 |
| Population served with safe water | | 51% [b] | |
| Population served with adequate sanitary facilities | | 46% [b] | |

[a] Kiribati Statistics Office 1997, and Republic of Kiribati 2001b.
[b] WHO Country Liaison Officer Tarawa (1999), WHO 2001.
Source: 2000 census and World Health Organization.

between the crude birth rate and the total fertility rate in Table 7.2. The Ministry of Health has commented on the difficulty of collecting reliable statistics relating to childbirth, and infant and maternal mortality. The increase in total fertility corresponds to a reported decrease in the use of family planning methods, and is considered more likely than the reported crude birth rate to reflect the actual trend in total fertility. More generally, all data currently collected by field posts need to be treated with caution. Total numbers in Kiribati are small, and an error of a few units in one or two islands can have a significant distorting effect on national statistics.

Water and sanitation indicators for Kiribati compare poorly with those of other Pacific island countries, mainly because of the nature of the atoll environment and the particular problems of South Tarawa, where nearly half the population live in exceptionally crowded conditions. In the outer islands, the freshwater lenses are less exposed to surface pollution and—with normal rainfall—better able to deliver a safe water supply, while traditional waste disposal can be practised, using reasonable care, with much less risk to public health.

The improvements now planned to the water and sanitation systems in South Tarawa through the ADB-funded Sanitation and Public Health Education (SAPHE) Project are expected to have a marked impact on general health and amenity, and to reduce the incidence of intestinal and skin infections in urban areas. Implementation of this project should see halve the proportion of people in Kiribati without access to safe drinking water, enabling Kiribati to meet this millennium development goal. In Kirimati, the construction phase of an AusAID-funded project to construct a piped water supply from protected freshwater lenses to the main residential areas, and to provide a large-scale trial of composting household latrines, is being completed in 2002.

The expected improvements in South Tarawa and the recent investments in Kiritimati will, however, be at risk unless the refurbished systems are maintained; the Government continues to regularly invest in water and sanitation provision in the future; and social change programs are implemented to address social attitudes regarding using the beach for defecation, especially in urban areas.

The history of the performance of the Ministry of Works and Energy with the PUB regarding maintenance of water and sanitation provision indicates that future maintenance of the water and sanitation systems could be in doubt.

## Health Trends

An overview of the purpose of outpatient visits to health centers and dispensaries from 1992 to 2000 (Table 7.3) indicates that rates of most diseases and other health problems have fallen. There have been falls in the rate of such childhood diseases as measles and whooping cough, indicating the effectiveness of programs in these areas.

**Table 7.3: Purpose of Visits to Health Centers and Dispensaries ('000 visits)**

| Ailment | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|
| Respiratory tract infection | 95.7 | 122.7 | 109.4 | 105.7 | 121.5 | 142.4 | 86.6 | 80.6 | 72.1 |
| Wound/accidents | 21.2 | 26.8 | 23.7 | 15.9 | 15.8 | 16.5 | 18.7 | 17.4 | 16.0 |
| Diarrheal diseases | 23.7 | 19.2 | 17.2 | 14.2 | 14.4 | 16.2 | 14.4 | 14.7 | 12.4 |
| Skin diseases | 15.0 | 19.1 | 16.5 | 9.6 | 9.3 | 11.7 | 11.5 | 9.6 | 8.1 |
| Noncommunicable diseases | 0.40 | 0.4 | 0.4 | 0.50 | 0.7 | 0.8 | 1.2 | 1.6 | 1.6 |
| Anemia and nutritional disorders | 1.7 | 1.5 | 1.3 | 1.0 | 1.2 | 1.5 | 1.3 | 1.5 | 1.3 |
| Communicable diseases | 5.7 | 1.3 | 1.2 | 0.7 | 1.3 | 1.6 | 1.4 | 0.8 | 0.5 |
| **Total** | **163.4** | **191.1** | **169.8** | **147.5** | **164.2** | **190.1** | **135.2** | **126.3** | **112.1** |

Source: Ministry of Health records and WHO 2001.

These improvements can be attributed to the use of health statistics as a management tool to give staff feedback and also to plan future actions along with increased budget allocations. The rates of respiratory tract infections, diarrheal diseases, and skin diseases are still unacceptably high. The death rate for children under 5 years of age is higher than for any other Pacific island country except the Marshall Islands.[80] Kiribati and Solomon Islands are the

only two Pacific island countries in which diarrhea is one of the top three causes of death.[81] Diarrhea and respiratory infections are the main killers, while water and food borne diseases are major causes of illness.

Flies, mosquitoes, rats, and scavenging dogs are important disease carriers, and the lack of waste disposal facilities exacerbates this problem. Overcrowding, scarcity of clean water, and poor sanitary conditions hinder the control of communicable diseases in Betio in particular, where the rates for most respiratory infections and diarrhea are highest.

## Emerging Diseases

There is evidence that diseases associated with diet and lifestyle, such as diabetes and hypertension (noncommunicable diseases), are increasing. Cancer and tuberculosis are emerging as serious and increasing problems. Tobacco is smoked in more 80% of households.[82] Motor vehicle accidents and domestic violence are increasing and are often accompanied by alcohol consumption. There are verbal reports of increasing consumption of alcohol related to under-age drinking[83] and hospital staff have observed more accidents (at home, during social functions, and on the road) related to under-age drinking. Hospital staff also report increasing problems of drinking by overseas seafarers both during training and in their working lives.

Many people have poor diets because traditional foods have been replaced by large quantities of imported foods, such as white flour, sugar, and fatty meat. Particularly in South Tarawa, people have acquired a taste for these foods without realizing the associated health risks. The imported foods are also cheaper and usually easier to prepare than traditional foods, which are limited, particularly in South Tarawa, because of poor quality soil, scarcity of land, and poor rainfall. Adults suffer from diet-related conditions, such as obesity, diabetes, and heart disease. Anemia is a significant problem for women of childbearing age. The lack of exercise undertaken by many people exacerbates these dietary problems.

**Table 7.4: Five Leading Causes of Morbidity and Mortality, July 1999**

| Morbidity | No./100,000 Persons | Mortality | No./100,000 Persons |
|---|---|---|---|
| Acute respiratory infections | 106,881 | Cardiovascular diseases | 93 |
| Wounds and sores | 23,102 | Perinatal period deaths | 63 |
| Diarrheal diseases | 18,054 | Liver diseases | 57 |
| Infectious skin diseases | 14,200 | Intestinal infectious diseases | 27 |
| Conjunctivitis | 6,478 | Diseases of the respiratory system | 27 |

Source: WHO 2001.

Nutrition-related diseases are now a major heath concern among children as well as adults. The MOH has instituted a Vitamin A supplement program for children, but Vitamin A deficiency is still high in some of the outer islands.

There is no specific surveillance of sexually transmitted disease (STD) in Kiribati, other than for gonorrhea. STDs are, however, an emerging concern. Cervical cancer, which is often preceded by STD, is now the most common form of cancer.

HIV/AIDS is identified in the routine tests for merchant seafarers taking up new contracts and hepatitis B (along with tuberculosis) is identified as part of the medical test for applicants for the FTC. The MOH estimated in 1995 that as much as 30% of the population are hepatitis B positive.[84]

There were 38 cases of HIV/AIDS reported by September 2001 (up from 3 in 1995) and 17 people had died from AIDS.[85] Most of the people infected were seafarers and their wives and children. While the tracing of contacts of HIV-positive people is MOH policy, confidentiality of the HIV-positive person is also policy. The result is that contacts are not as routinely traced as would be desired. Many people have multiple sex partners; although condoms are freely available, they have a poor acceptance rate.

Youth suicide was identified as an emerging issue in an earlier economic report, but at this stage is not regarded as a problem. Given the trends in other countries, however, MOH officers are alert to this possible emerging problem.

Mental illness also appears to have increased. The number of reported cases increased from 43 in 1999 to 125 in 2000.[86] It is possible that the large increase is the result of higher reporting or an

error in collection of data. Two areas need further investigation: the reliability of the data and, if this trend is verified, the implications for budget allocations and management strategies.

## Women's Health

The issue of women's health is clouded by traditional attitudes toward women, which have discouraged discussion of their health problems. These attitudes are changing, particularly in South Tarawa, but their effects are evident. Data on women's health are presented in broad terms, but the specific health problems of women as they relate to their reproductive role are not dealt with in a consistent manner.

The most common reasons for women to be hospitalized relate to their reproductive health and associated internal conditions (some of which often precede cervical cancer). It is estimated that about 25% of women (generally in the outer islands) do not have access to health services prior to giving birth.[87] Data are not collected on the range of problems that women might experience related to reproductive functions and complications of childbirth.

Data relating to maternal mortality are also regarded as unreliable[88] because of the small population size. The figures available in 1993 suggested that the level of maternal mortality then (225/100,000) was the fourth highest of 16 Pacific island countries. The MOH suggests that the maternal mortality rate would have improved since then, but data are not available. The MOH estimates that unsupervised traditional birth attendants attend 25–30% of deliveries and it aims to work closely with them. However, most traditional birth attendants prefer to work independently rather than share their traditional knowledge with health professionals.

The most common cause of death among women is classified as "ill defined conditions."[89] A recent UN report suggested that the cause of some of these deaths could be abortion, which is illegal but practised.[90] Information and access to different forms of family planning are readily available in South Tarawa but limited in the outer islands. In 2001, coverage of family planning information and access were reported by MOH to be 18.6%, a decline from 28% in the early 1990s.

## Family Planning

The decline in family planning coverage has been attributed by the MOH partly to the change in orientation, from a program in the 1970s that focused on family planning to the integrated primary health care approach, adopted in the early 1980s. Additionally, the attitude of some churches that deter contraceptive use, the reluctance of men to allow their wives to use contraceptives, poor ordering and distribution systems, and problems with staff capacity and workload at the clinic level, have all contributed to the decline in family planning coverage.

The MOH view is that health issues related to reproduction should be openly discussed and addressed. For example, condoms are freely available in health clinics and a teenage health clinic has recently been established at Betio. There are reports however, that patient confidentiality is not respected in MOH clinics, which would deter women from seeking assistance from them. In Tarawa, families also have access to family health services through the Kiribati Family Health Association, an NGO that provides confidential information and services regarding family planning and women's health, and also distributes free condoms through supermarkets and bars.

It is timely now for the national Government to adopt a national policy to promote the considered planning of the size of families. Implementation of such a policy will require that the community be given information about the implications of continued increases in population, allocation of resources to implement family planning activities, and a review of family planning management systems and services to increase the coverage of family planning methods.

## Services in Outer Islands

There is a noticeable difference between the health care available in South Tarawa and that in the outer islands. Health clinics in South Tarawa are better stocked, more accessible because of their proximity to the population they serve and their hours of operation, have more reliable cold chain facilities, and have better communications. Also, patients can easily be transferred to Tungaru

Hospital. A survey of families in a typical village in Butaritari (see Annex E) during consultations for this report indicated that people have faith in their health center or clinic. But experiences reported in the village indicated that while health staff could deal with mild conditions they could not treat more serious conditions, such as severe burns or complications in pregnancy. The availability of staff in the outer islands is also an issue. Every health center and clinic has a qualified nurse or medical assistant but they need to take leave, are sometimes sick themselves, and sometimes are just not available.

Problems encountered by outer island health centers and clinics also relate to availability of drugs. The ordering and transportation system appears to be unreliable and clinic staff stated that they often did not receive stocks they had ordered, so medications were not available. The use of two-way radios to communicate with MOH headquarters is often not effective. Radios are broken and not serviced, and the attitude of "It's not my responsibility to get it fixed, I have reported it," is widespread. Solar batteries to maintain cold chains (for storing vaccines) are ageing and expensive to replace. As a result, cold chains in the outer islands can be ineffective.

Given the uneven spread of medical practitioners (currently 22 doctors in Kiribati: 21 in South Tarawa and one in Kiritimati Island), much of the population does not have access to a doctor. Theoretically this situation could be improved through access to advice from a doctor on the two-way radio or the ability to transfer patients to Tungaru Hospital by air. In fact, communications to the outer islands are frequently unserviceable and air services are undependable, hampered by lack of funding and safety concerns. Regular island visits by doctors based in Tarawa would help to raise standards on the outer islands.

## Policy Challenges

### The Interdependence of Health-related Services

The progress by MOH over the last few years with many infectious and communicable diseases decreasing in incidence is

laudable, but while management can continue to improve and funds may increase, there must be an improvement in supporting services if the health of I-Kiribati is to be comparable to the health of other peoples in the Pacific.

Activities that affect health are not confined to the health sector. Services that support health include water, sanitation, and waste management (Box 7.1). The past provision of services in South Tarawa, especially Betio, has been substandard and has contributed directly to the poor health of people living there, particularly the vulnerable group of infants and under-5 children. In the outer islands, transport and telecommunications are also vital. In order for the health system to be able to deal with future pressure, it is essential that these related services be much improved.

It is unrealistic to expect that each outer island will be serviced by its own doctor. It is not unrealistic, however, to expect that with advances in telecommunications an accessible and reliable telecommunications system could be installed and operational on a cost-recovery basis in the outer islands. Likewise the provision of a reliable domestic air service would appear to be an essential investment for a country with the geographic features and economic income of Kiribati.

## Limiting Future Health Costs

Population increase and the spread of lifestyle diseases are health issues that will have a strong effect on the government budget and economy in future.

Lifestyle diseases are costly to treat but can be contained through preventive programs. Changes in diet and exercise levels, consumption of alcohol, and tobacco are all choices that can be made and implemented by individuals. The challenge for MOH is to monitor the effectiveness of their public education programs and to change their approaches to public education and introduce additional activities as needed. The public education sessions broadcast regularly on the radio are well presented and have a wide audience, but more effective public education is needed in view of the increase in these lifestyle diseases.

## Box 7.1: Water, Sanitation, and Waste Management in South Tarawa

Households in South Tarawa, including Betio, receive intermittent supplies of water that is not potable. It was estimated in 1995 that the daily consumption of water in Tarawa probably averaged no more than 25 liters per person per day, almost down to a "lifeline" level of supply.[91]

Water must be boiled for drinking, there is insufficient water to maintain hygienic conditions through washing and bathing, and a heavy workload and responsibility fall on women and children, who bear the burden of water provision.

Betio Health Centre, which functions as a satellite hospital, has had to rely on a twice-daily delivery of water that is grossly insufficient to meet its needs, resulting in unhygienic and unsanitary conditions. Schools rarely have adequate access to potable drinking water. Few households or public buildings have rainwater tanks. A major ADB-funded water and sanitation project (the SAPHE Project) is providing a microcredit facility for people to purchase rainwater tanks through the Housing Corporation.

The situation regarding sanitation is equally serious. In South Tarawa, the 2000 census reported that 53% of households regularly used the ocean beach or lagoon beach as their toilet. In an urban environment, this practice poses a public health risk, particularly on the lagoon beach. About 30% of households in South Tarawa use water-seal toilets, which contribute to polluting the water lens that feeds household wells. Cost and culture are factors in the choice of toilet types and the desire of most people now is for a flush toilet. It is unlikely that the Government or households can fund the

## Better Management and Improved Outreach of the Health System

MOH has developed planning procedures to address the multiple health problems of a country in transition, which is still experiencing the problems of communicable diseases while noncommunicable and lifestyle diseases are increasing. Management systems are needed that focus on the achievement of outputs through streamlined implementation, supervision of staff, monitoring of results, and redesign of activities and systems as required.

**Box 7.1 (continued)**

provision of flush toilets for all households. Consideration may have to be given to encouraging a change in cultural habits and subsidy of cost-effective alternatives such as composting toilets (now being installed on a major trial scale in Kiritimati). The management of sanitation will become more serious as the population of South Tarawa continues to expand. Garbage disposal presents a problem and the management of waste disposal sites has not been addressed.

The SAPHE Project will bring water from a North Tarawa water source to increase the available water and restore or connect water to about 3,000 houses in South Tarawa. The project will also rehabilitate the existing sewerage system, which was constructed about 30 years ago, and facilitate household garbage removal.

There is an expectation in government circles that the SAPHE Project will solve the water sanitation and waste management problems that have dogged South Tarawa for the last 20 years or so. Actually, it will give the Government only a short time in which to plan and mobilize resources for future infrastructure maintenance and development for South Tarawa. Past arrangements for water and sewerage planning, maintenance, and operations have not worked. Population trends indicate that the population of South Tarawa will continue to grow, probably doubling in the next 10–15 years. This situation requires that the Government adopt a proactive approach to the management, maintenance, and development of the water supply and sanitation system.

The targeting of results to be achieved in the outer islands and the allocation of resources to achieve those results will enable MOH to quantify its commitment to raising the standards of service in the outer islands. A suggested strategy is to identify in the budget document the outputs to be achieved and the resources to be allocated to the outer islands. The availability of this information would illustrate MOH commitment and provide information to the public about government activities that will improve their health services.