

Maldives

National Health System Profile

1. TRENDS IN POLICY DEVELOPMENT

The health policy is guided by the government's commitment to the goal of *Health For All in the 21st century* and the goals set out at the World Summit for Children, the Earth Summit, the International Conference on Population and Development, the Social Summit, the International Conference on Women and Development, and the Millennium Summit with its Millennium Development Goals.

Ever since Maldives developed its first Country Health Plan in 1981, health has been deemed a basic right of every citizen and the government continues to strive towards the goal of *HFA* through the primary healthcare approach. The health policy aims to further increase life expectancy and improve the quality of life by reducing preventable deaths, disease, suffering and disability. To achieve these ends, the government continues to develop health infrastructure and provides medical and public health services within the overall framework of a sustainable health system. In framing health policy, special importance is given to preservation of environment, concept of regional development, central role of human beings and their quality of life, basic right to health and education, involvement of the people at community level, and the role of women in development.

2. TRENDS IN SOCIOECONOMIC DEVELOPMENT

2.1 Economic trends

The Maldivian economy has continued to grow at a remarkable rate despite its narrow base limited to only two sectors, fisheries and tourism, which account for more than 30 percent of the GDP. The GDP growth rate was 9.2 percent in 2002-03. Growing at an annual average of 7 percent, the GDP per capita reached at US \$ 2261 in 2003.

Health expenditure as a proportion of the national budget increased from 8.7 percent in 1998 to 11 percent in 2003.

HDI is 0.739 in the year 2004 as per Human Development Report, 2006.

The employment situation in the country is at crossroads. After years of virtual full-employment conditions with excess demand for both skilled and unskilled labour, there is now an acute shortage of jobs for the educated youth, particularly the increasing numbers of youngsters coming out of school (8574 in 2003), which has overstrained the capacity of the economy to generate new jobs. Despite this trend, ironically, the reliance on expatriate labour has not abated, with 33,765 expatriates employed in the country in 2003 (Statistical Yearbook 2004). This is due to the mismatch between the profiles of available job

opportunities and the requirements of the new entrants to the job market. The proportion of females in the labour force increased from 27 percent to 34 percent during 1995-2000.

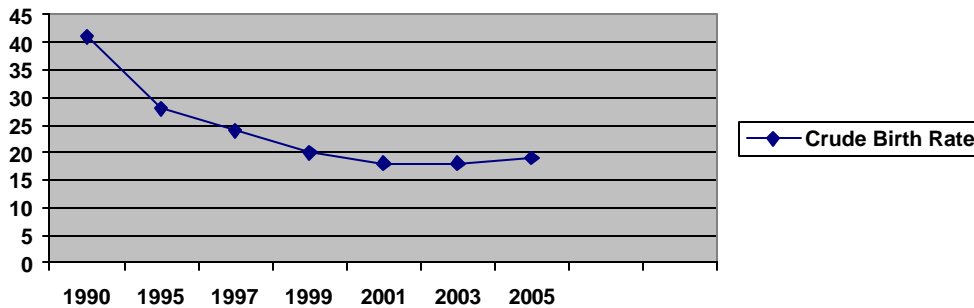
Less than 1 percent of population are living below poverty line and only 8 percent of population are below national poverty line (Human Development Report, 2006).

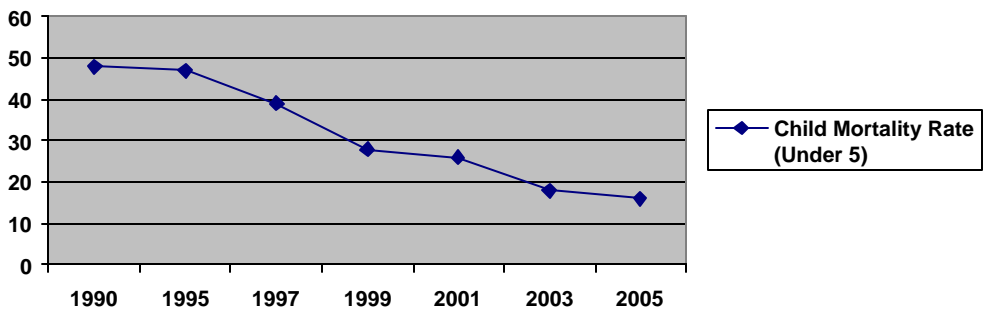
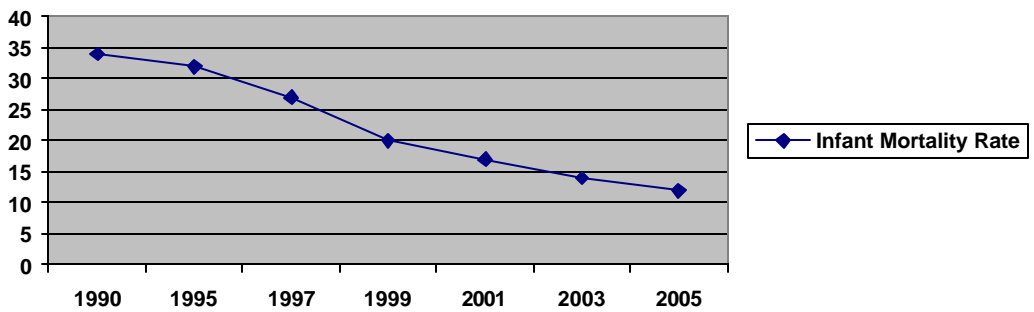
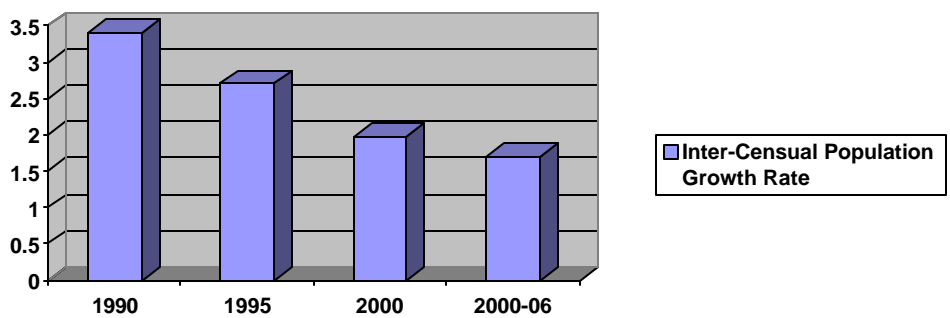
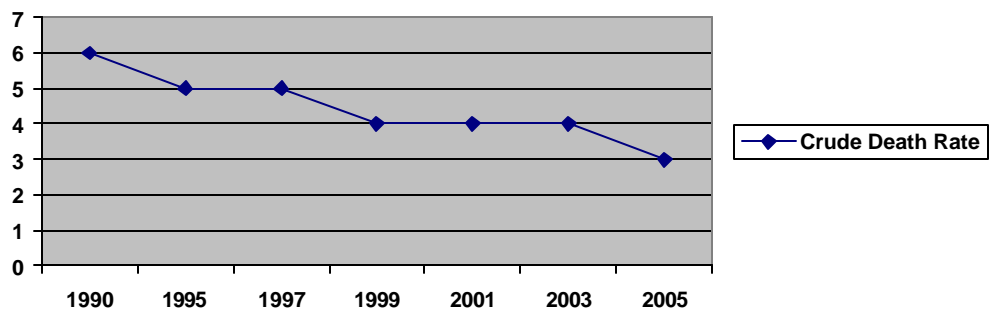
2.2 Demographic trends

During the period 1990-2003, Maldives made significant progress in stabilizing population growth. During this period, the crude birth rate (CBR) declined from 41 to 19 whereas the crude death rate (CDR) declined from 6 per 1000 population in 1990 to 3 in 2005. The total fertility rate (TFR) during 1990-2000 declined from 6.4 to 2.8. The average annual population growth rate reduced from 2.8 percent in 1990 to 1.69 percent in 2000-06. While this is a significant decline from its all time high of 3.4 percent in the late 80s, population growth is still critically high, given the size of the country and the available resources. The current population of Maldives is 298,842 in 2006 according to Maldives key indicators-2006.

Maldives also made significant progress in improving the child health during the period under reference. The Infant Mortality Rate (IMR) declined from 34 per thousand live births in 1990 to 12 in 2005. Similarly, the Child Mortality Rate (under 5) declined from 48 per thousand live births in 1990 to 16 in 2005 (Maldives key indicators- 2006).

The graphic representation of key demographic indicators during 1990-2003, is given below:





Age distribution of population shows that in the year 2005, 33 percent population was <15 years of age, 5.1 percent population was >60 years, and 61.9.4 percent in the age group of 15-59 years in 2005.

The declining fertility rate during the last decade has shifted Maldives into the second stage of demographic transition. In 2005, the population below 15 years was 33 percent and above 64 years of age was 3.7 percent, resulting in a high dependency ratio of 60 percent. In Maldives, 35 percent are urban population.

2.3 Social trends

The adult literacy rate in 2003 was 98.2 percent and there was hardly any difference by sex. However, no information on the trend is available.

Maldives has achieved a very high primary school enrolment during the last decade. It can be estimated from the annual school enrolment figures published that 100 percent of school-age children have the opportunity to join a regular school and to progress to Grade 7. However, the picture is very different from Grade 7 to Grade 10 despite the established system of automatic promotions. For example, in 1999 there were 13,584 students in Grade 7. Of these, only 6040 students were in Grade 10 in 2002. This means that only 44 percent of the original cohort completed 10 years of schooling. Further, only 850 of these students managed to get into higher secondary education and 2016 students were enrolled in the courses run by Maldives College of Higher Education after passing the GCE O' level examination. The educational achievements at O' level examinations are not readily available

In 2003, percentage of girls studying in schools in different classes was 48-49 percent except in lower secondary where they were 53 percent of total students.

Educated unemployment is increasing, as there is now an acute shortage of jobs for the educated youth, particularly the increasing numbers of youngsters coming out of school (8574 in 2003), which has overstrained the capacity of the economy to generate new jobs.

Maldives has 231 Primary, 101 Lower Secondary and 5 Higher Secondary Schools. Maldives College of Higher Education was established in 1999 to provide college-level education within the country. Under it, the Faculty of Health Sciences (previously, Institute of Health Sciences) provides basic professional training for major categories of allied health professionals. Maldives Accreditation Board was established in 2000 to support the development of a national framework for qualification and a mechanism for quality assurance that would, among other things, allow private parties to offer diploma and degree level academic programmes.

Maldives has Faculty of Engineering Technology, which provides courses such as Technician (2 years), Skilled Workers (2 years), Diploma (2 years), Advance Certificate (1.5 years) and Certificate III Course. In addition, there are also Regional Youth Vocational Training Centres providing the above courses except that of Technician.

2.4 Food supply and nutritional status

Maldives health statistics report 2006 revealed that 9 percent of newborns were weighing <2500 grams. However, no information is available on the trend.

Maldives health statistics report 2006 showed that 25 percent of children under five years of age were stunted and 27 percent underweight.

Anaemia is common, with 52 percent of children and 49.6 percent of non-pregnant women anaemic (MICS2 2001).

Anaemia is common, with 55.4 percent of pregnant women (MICS2 2001).

Lifestyle and risk factors

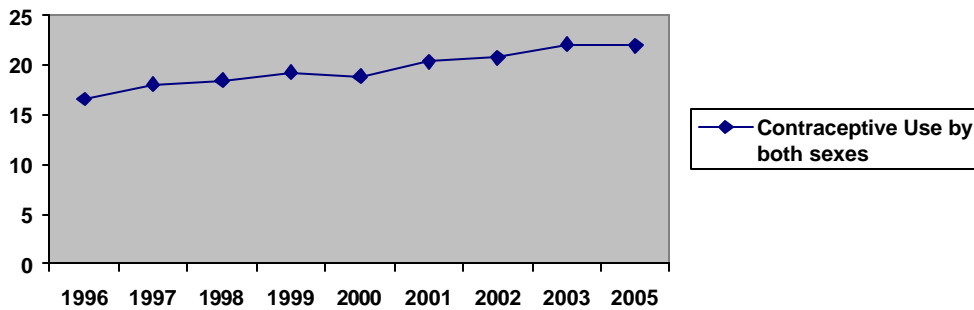
A Household and Income Expenditure Survey (MPD, 1993) showed that people considered vegetables to be luxury items, which were consumed more as incomes rose. Demand for other food items was inelastic. This was particularly so for rice, flour and sugar, with fish and powdered milk following close behind.

The Ministry of Health has identified promotion of healthy lifestyles as a priority public health function and is implementing it through multiple approaches. These include special School Health Programmes (e.g., Anti-Tobacco School Campaign) and multi-sectoral interventions (e.g., Sports for All) as well as the use of mass media and community based interventions.

The Government formulated a National Nutrition Strategic Plan 2002-2006, which was launched in 2003. The Plan mainly focuses on health education, and promotion of healthy diets. However, some direct interventions have been planned for specific target groups such as children under five, school-age children, adolescents, women of childbearing age, and older adults. Consumer protection has also been stressed.

The launching of the nutritional strategic plan is important because it recognizes, for the first time, malnutrition as a national problem. It is thus a symbolic first step. However, there is still a long way to go to identify the real cause of malnutrition and take meaningful steps to alleviate poverty, generate employment, and enhance agricultural production.

The overall contraceptive use in Maldives has increased from 16.6 percent in 1996 to 22 percent in 2005. The trend in contraceptive use is represented by graph below:



The economic disparity between the capital of Maldives, Malé, and other islands has led to a steadily increasing centripetal stream of migrants. Mostly young, single male's or married men without their wives, the migrants are often susceptible to drugs and prostitution, exposing them to the risk of diseases. A recent survey (RTI Study 2002) showed that 37 percent of the women studied had their husbands living away from the family.

The increasing stream of youngsters who drop out of school or fail at the GCEO' level examination (refer 2.3) has created an intractable drug addiction problem in the capital. The drug offender is usually a male who has not achieved his desired level of education (Rapid Situation Assessment of Drug Abuse in Maldives 2003). Drug abuse in Maldives is reported to have increased 40-fold between 1977 and 1995 (Jenkins 2000). Reported drug cases totalled 419 in 2003. It is generally believed that this is just the tip of the iceberg. In 2004, drug abuse cases reported is 797 (Maldives Police Service 2005).

The mal-distribution of wealth and non-availability of jobs suitable for the youth led to a steadily rising crime rate. In the age group of 15-19 years, 575 persons were sentenced in 2002, compared to 533 in 2001. The law and order situation has risen to crisis levels in Maldives, which, barely 25 years ago, was described by the Guinness Book of World Records as the most peaceful country on earth.

With a large number of young people living away from home or living on independent incomes, the traditional family support has collapsed; social norms, taboos and values are disappearing fast. Further, overburdened with an explosive growth in the student population and a chronic lack of teachers, the education system has not been able to inculcate good values in youngsters.

The prevalence of RTIs/STIs is low in Maldives (Study on Reproductive Tract and Sexually Transmitted Infection 2002). However, 11 persons of Maldivian origin were detected to be HIV-infected during 1991-2000 (Rapid Situation Assessment of Drug Abuse in Maldives 2003). While the Maldives is a low-prevalence country, it is potentially at high risk, given factors such as marital patterns and growing drug abuse among adolescents and youth (UNDAF - Maldives 2003-2007)

The Ministry of Health established a Drug Rehabilitation Centre on 26 June 1996 to cater to the needs of the increasing number of drug addicts. Later, the Centre was moved to the

Narcotics Control Board (NCB) established in 1997 under the direct supervision of the President's Office (NCB is now under the Ministry of Gender, Family Development and Social Services). The responsibilities for coordinating demand reduction efforts, management of rehabilitation programmes and maintaining liaison with national and international drug control and law enforcement agencies are entrusted to NCB. So far, these efforts do not appear to have had any impact either on the demand or the supply side of the problem. Faced with a crisis situation, the government promoted a national campaign in the year 2004 and followed it up with an invocation to Almighty Allah in mosques across the country on the occasion of International day against Drug Abuse and Illicit Trafficking.

While more than 40 percent of the population are suffering from minor to moderate malnutrition from causes linked to low income, a small proportion of the *nouveau riche* in the capital are suffering from diseases of plenty caused by unhealthy habits such as insufficient physical activity and exercise, increased consumption of fast/junk food and insufficient relaxation. Another worrying trend is the increasing numbers of motorcycle accidents, particularly among the youth.

3. HEALTH AND ENVIRONMENT

3.1 General protection of the environment

The deteriorating quality of the environment and its impact on health are emerging as areas of concern. Outdoor air pollution from dust, smoke, and fumes from motor vehicles is rising in Malé and some of the industrial islands. Noise pollution too is a growing problem in these islands. Indoor air pollution from wood-burning stoves is a serious problem in the rural islands. Most of the island communities lack a comprehensive, environmentally-sound system for collection and disposal of solid waste. The capital island and some of the congested islands have sewage systems. However, these systems discharge raw sewage into the lagoon or surrounding sea, causing environmental and health risks.

The question of food safety is receiving attention. With WHO assistance, food safety regulations have been drafted, but are yet to be approved and implemented. No regulations exist for the proper labelling of imported items. Overall, there is an urgent need to formulate a comprehensive Food Act to ensure the safety of foods and drinks.

The uneven population distribution within the archipelago gives rise to a range of housing and shelter problems. Malé, the capital island, is barely 1 km wide and 2 km long but has a population of over 74,000 leading to a density of 40,000 persons per sq. km., one of the highest in the world. Severe overcrowding is not confined to Malé. Three other islands have even higher population densities while lacking much of Malé's infrastructure and services. The extreme level of overcrowding places people at great risk of infection from contagious diseases (UNDAF, Maldives 2003-2007).

In order to address the problem of very high population density in the capital island, Malé, a land reclamation project has been launched in a lagoon near the capital.

3.2 Water supply and sanitation

According to the national target of 4 litres per capita, the urban population (Malé) has achieved 100 percent access to safe drinking water through desalination. Malé's population also depends on desalinated water for washing and cleaning purposes since the ground water, contaminated with sewage, is unfit for any use. In rural areas, only 72 percent of households have access to safe drinking water, the main source being rain water (MICS 2001).

The coverage pattern is similar for sanitary means of excreta disposal. While the coverage is 100 percent in Malé, it is only 76.9 percent in rural areas (MICS 2001). In fact, the rural coverage figure indicates a much rosier picture than the actual situation.

Even households with sanitary latrines often depend on septic tanks that contaminate the ground water. To address this problem, a small-bore sewerage system has been completed in three islands so far. The few islanders still without latrines use the beach or a *gifili* (derived from the Arabic word for lock/bolt, it means a closed compound where a hole is dug in the ground each time) for defecation.

4. HEALTH RESOURCES

4.1 Human Resources for Health (HRH)

The Government continues to give high priority to HRH development by allocating resources, both its own as well as external, for training in the country and abroad. Priority categories for human resource development have been doctors, Community Health Workers (CHWs), nurses, paramedical and management personnel. The HRH programme has achieved satisfactory results in training of medical doctors and diploma-level nurses. However, in the training of CHWs, paramedical and management personnel, the vertical training programme has failed to produce sufficient personnel to sustain the health status achieved during last two decades.

There has been policy changes vis-à-vis in-country training in order to meet the shortage of CHWs. In 2001, about 23 candidates were trained in Sri Lanka in community health; a second batch of 30 students was trained in 2003. This programme is planned to continue until the target of one CHW in each island is reached by 2005.

The CHW curriculum has been revised. The emphasis is now on training of preventive, management and paramedical support staff. However, due to financial resource shortage, the actual training conducted in these categories has been limited. The main sources of finance for training were WHO, UNFPA, IDB and the government. A large share of the WHO budget was spent for training of health personnel.

Over 85 percent of health professionals were employed in the public sector in 2003 compared to 90 percent in 2000. The distribution of health staff by geographical locations show that in 2003, 52 percent of medical and para-medical staff (including nurses) were deployed in the capital island of Malé whereas it was 48 percent in Atolls. In contrast, among Community

Health Personnel (2003), 99 percent were deployed in Atolls and only 1 percent in Malé. However, no information is available about rural/urban distribution of health staff.

Acute dearth of skilled personnel is a major constraint for sustainable health development in Maldives. In 2003, there were 315 doctors in the country giving a ratio of 1 doctor per 903 persons. However, 79 percent of the doctors are expatriates. The number of registered nurses totalled 915, of which 603 were diploma (and higher) level nurses (2003). At the community level, there were 454 paramedical workers in the public sector, 119 Community Health Workers (CHWs), 333 Family Health Workers (FHWs) and 409 Traditional Birth Attendants (TBAs) in 2003. In 2004, there were 302 doctors, 886 registered nurses, 457 paramedical staff, 172 community health workers, 343 family health workers, 404 midwives (Ministry of Health 2005)

4.2 Financial resources for health

With rapid expansion of health services during the 1990s, health expenditure increased. The government health expenditure as a proportion of the total government expenditure stood at 10.94 percent in 2003, representing a per capita expenditure of US \$ 102.83.

In the private sector, healthcare primarily covers outpatient and diagnostic services. In 1996, the first private hospital with 40 beds was opened in Malé. The government depends heavily on external funding for capital investment and human resource development in the health sector.

With this increase in expenditure, the system of free government healthcare came under serious strain. The options that were promoted to meet this situation included private sector and NGO participation, increased cost sharing with island communities, and the introduction of user fees at the IGMH and regional hospitals.

Total health expenditure, as percentage of GDP in 2003, was 6.2.

Per capita health expenditure in 2002 was US \$ 136.

4.3 Physical infrastructure for health

In 2004, there were two hospitals in Malé, six regional hospitals, ten atoll hospitals, 65 health centres and 52 Health Posts. The total number of hospital beds in (2004) was 759, with a population to bed ratio of 381. In addition, there were 30 private clinics in Malé and 17 in the atolls (2000). The existing health infrastructure development suffers from a lack of attention given to human resource needs and support services at the planning stage. An acute shortage of biomedical expertise has created major problems with regard to the maintenance and repair of equipment.

Health infrastructure at the central level includes the Faculty of Health Sciences under the Maldives College of Higher Education (previously the Institute of Health Sciences under the Ministry of Health). The National Thalassaemia Centre was established in 1994. A Public Health Laboratory was established and became functional during 1998. It has facilities for

water quality analysis, microbiological investigation of food samples, and diagnostic tests for disease control programmes. The laboratory is also responsible for quality control of fish exports.

4.4 Essential drugs and other supplies

A national drug policy has been launched and a draft formulary has been prepared. Drug utilization reviews are conducted regularly. The Ministry conducts regular workshops on rational drug use for health personnel in the country. Additionally, Ministry of health also conducts orientation interviews and provides rational drug use literature to all newly recruited doctors and pharmacists. In order to ensure affordability of drugs, the Ministry of Trade and the Ministry of Health have set a ceiling on retail price mark-up; the maximum allowed being 50 percent of the cost-insurance-freight (CIF) value.

As Maldives lacks any drug manufacturing capacity, all drugs are imported, either by the private or public sector. Procurement for government health facilities is done by the government procurement entity, the State Trading Organization (STO). In addition, the private sector also imports and distributes to private pharmacies in Malé and throughout the country. Drugs meant for regional hospitals are procured from STO and distributed by the regional hospital section of the Ministry of Health, while drugs meant for health centres are similarly procured and distributed by the medicinal supplies section of the Department of Public Health.

There are 222 pharmacies in Maldives (2004), of which STO runs a single hospital pharmacy in the main referral hospital, Indira Gandhi Memorial Hospital (IGMH). There are 46 pharmacies in the capital Malé (2000). However, many islands do not have pharmacies. The bulk of drugs are financed by out-of-pocket payments, except for certain drugs used in tuberculosis and Thalassaemia. Maldives has a regularly updated authorized drug list, and private and public sectors are allowed to import only those drugs included in the list. Since the beginning of 2002, the Ministry of Health has also instituted individual pharmaceutical product registration.

4.5 International partnership for health

During the last decade, a series of meetings were held with the donor community. The first was in Geneva in 1989, followed by a number of meetings in Colombo, actively assisted by UNDP. In 1995, with WHO assistance, a document, "Towards sustainable development of health," was presented at a donor meeting, which stimulated considerable interest. International assistance is critically needed for the reduction of maternal mortality, control of communicable diseases, nutrition, water and sanitation, and particularly, development of human resources for health.

5. DEVELOPMENT OF THE HEALTH SYSTEM

5.1 Health policies and strategies

The Government of Maldives considers that the enjoyment of the highest attainable level of health is a basic right of every citizen. Thus, it lays emphasis on the accessibility and affordability of healthcare services and the health of women and other vulnerable groups.

In order to achieve these objectives, there is a move to expand curative services to establish a multi-level referral system, which is more decentralized, and which has greater NGO and private sector involvement in service delivery. Efforts are also being made to establish a social security system, that includes basic healthcare, and to encourage individual organizations to establish mechanisms for covering the health expenses of their employees.

Millennium Development Goals (MDGs)

The progress made towards achievement of MDGs is given at Annex-2.

5.2 Inter-sectoral cooperation

There are many areas where close links have been established between the health and other sectors to achieve a common goal. For example, the MoH and Ministry of Education work closely on school health; MoH and the Ministry of Trade and Industries cooperate in food safety and sanitation; MoH and the Ministry of Atolls Development collaborate in delivering health services at peripheral level, etc. The National AIDS Council has representation from all related sectors including NGOs.

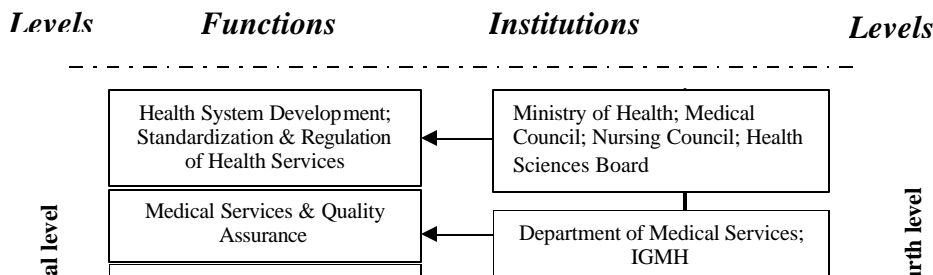
Since health receives priority in the country, the subject is included in all developmental plans, with the objective of fostering inter-sectoral cooperation for health. Recent outcome of these efforts has been the development of five-year strategic plans for priority issues such as health and environment, nutrition and HIV, as well as the mid-term review of the Health Master Plan (1996-2005).

5.3 Organization of the health system

The Health System of Maldives is organized into a five-tier referral system, comprising the central health services including the referral hospital, the regional hospitals, atoll hospitals, atoll health centres and island health posts. Figure 1 correlates this system with the geographical zoning of Maldives. It also depicts the lines of authority, descending from the Ministry of Health through the Department of Public Health (DPH) for preventive services and directly from the Ministry of Health for curative services.

Figure 1.

Organization of the Health system



Central Level

Central institutions functioning under the Ministry of Health include Department of Public Health, Department of Medical Services, Indira Gandhi Memorial Hospital, Maldives Food and Drug Authority. Their services embody the highest level of the health system.

The Ministry of Health is responsible for formulating overall health policy and health development plans and for monitoring and evaluating the health situation. The Department of Public Health is responsible for delivering preventive health programmes for the prevention and control of communicable diseases and for the promotion of health and well-being of mothers and children. It is also responsible for delivering basic healthcare (preventive, promotive, curative and rehabilitative) to the islands and atolls. IGMH delivers tertiary curative care, serving as the central referral hospital for the whole country. MWSA

is responsible for regulating and setting standards for water and sanitation services throughout the country.

Regional Level

At the fourth level are the regional hospitals. At this level there are six regional hospitals strategically located at Hithadhoo [Addu (Seenu) Atoll], Thinadhoo [Huvadhoo (Gaaf Dhaal) Atoll], Gan [Hadhhdhunmathi (Laamu) Atoll], Muli [Mulaku (Meemu) Atoll], Ugoofaaru [Maalhosmadulu (Raa) Atoll], and Kulhuduffushi [Thiladhunmathi (Haa Dhaal) Atoll]. These hospitals provide secondary level curative services and, through public health units, implement preventive health programmes and supervise third and second-level health services. They also take the responsibility to supervise atoll-level health service providers, including atoll hospitals. Public Health Units established in these hospitals are mandated to provide preventive and promotive health services and supervise similar work at atoll and island levels. These units have dual control, with administrative support coming from the hospital and technical support provided by the DPH.

Atoll Level

At the third level are the atoll hospitals. This is a recent addition to the four-level health system practised until 2001 and is still under development. There were six atoll hospitals functioning at the end of June 2003. These hospitals serve high-population atolls with difficult access to regional hospitals, with the aim of handling obstetric and surgical emergencies.

Sub-Atoll Level

At the second level is the atoll health centre. Each atoll has 1 to 3 health centres. Currently (end of June 2003), there were 53 health centres in operation. Their staff includes doctors for curative services and community health workers (CHWs) for preventive services. Upgraded with wards and labour rooms, many of them now offer a wide range of secondary care.

Island Level

At the first level is the island health post. There are 43 such Posts in operation. These health posts provide a clean environment for delivery, apart from the home for pregnant women, and are staffed with a Community Health Worker (CHWs) in some cases and Family Health Workers (FHWs) and TBAs in others. They provide simple curative and preventive services at the island level.

In the private sector, healthcare primarily covers outpatient and diagnostic services. In 1996, the first private hospital with 40 beds was opened in Malé. In addition, there were 30 private clinics in Malé and 17 in the atolls (2000).

The existing health infrastructure development suffers from a lack of attention given to human resource needs and support services at the planning stage. An acute shortage of biomedical expertise has created major problems with regard to the maintenance and repair of equipment.

5.4 Managerial process

The Ministry of Health is responsible for formulating overall health policy and health development plans for the country, in addition to monitoring and evaluation of the health situation. The Department of Public Health (DPH) is responsible for implementing preventive and promotive health programmes and for delivering basic healthcare services to the atolls and islands. Medium term (five-year) National Development Plans are guided by Maldives Vision 2020. Planning within the health sector is guided by Vision 2020, National Development Plan and the Health Master Plan 1996-2005. Based on these, a number of five-year strategic plans have been developed for specific issues. Monitoring and evaluation is done at ministry and departmental levels.

5.5 Health information system

Efforts have been made to improve and strengthen the Health Information System (HIS). These mainly include introducing standardized formats for reporting and building capacity for data management at different levels of the healthcare delivery system. The vital registration system was reformed during 2000 and 2002 to improve accuracy and efficiency of reporting and record keeping. Efforts are also being made to improve two-way communication within the HIS. The communicable disease surveillance system has started producing and delivering monthly feedback reports to service points.

The Ministry of Health publishes an annual health report based on data collected through the HIS. It uses compiled data to reflect major health issues and trends, and supports evidence-based health planning. During the last five years, several health research studies have been carried out in the areas of reproductive health, maternal and child health including nutrition, access to safe water and sanitation, and child rights indicators. Thus, appropriate data is available for planning, through the routine reporting system as well as surveys.

Despite these improvements, the HIS face major constraints due to lack of trained personnel, particularly at the peripheral levels. Building capacity at those levels would enable addressing local health issues more appropriately.

5.6 Community action

In Maldives the process of community organization and action has resulted in the establishment of Island Development Committees, Women's Development Committees, and Atoll Development Committees. These community groups have been instrumental in setting up drug cooperatives, raising funds for nutritional activities, and providing finances and labour for construction of health facilities, water tanks, etc. Community-based organizations such as youth clubs have been active in health areas like tobacco control and promotion of exercise at the island level.

5.7 Emergency preparedness

Maldives has national plans to meet certain kinds of emergency situations, such as plane crashes, oil spills and tidal waves. A multi-sector task force has been set up to promote preparedness and collaboration for emergencies. There is, however, no systematic plan for management of epidemics, which remains *ad hoc*. Currently an inter-sectoral task force has been set up to promote preparedness and collaboration for emergencies. An epidemic emergency preparedness plan will form part of the National Disaster Management Plan.

5.8 Health research and technology

Several research studies have been carried out in the recent past, mainly to assess prevailing situations in reproductive health, nutrition and some other disease conditions, along with assessing knowledge, attitudes and practices. Almost all these studies have been carried out with expatriate technical assistance, as the country does not have appropriately trained personnel. Clinical based research has not received due attention mainly because of lack of appropriate resources and manpower. However, this is an area the country needs to focus on.

6. HEALTH SERVICES

6.1 Health education and promotion

Health education is integrated into all public health programmes and is part of the curricula of all pre-service courses conducted at the Faculty of Health Sciences (FHS) under the Maldives College of Higher Education. International collaboration exists between the three key ministries of Health, Education, and Information and Culture

Health education and promotion has been strengthened by a newly-established media committee involving all concerned ministries and NGOs. Special emphasis is given to the areas of safe motherhood, child survival, prevention of thalassaemia and other Non Communicable Diseases (NCDs), reproductive health and family planning, prevention of substance abuse, and the promotion of healthy dietary habits and regular exercise.

6.2 Maternal and child health/family planning/adolescent health

Maternal health is a priority issue in Maldives. As a result of the safe motherhood programme, the maternal mortality ratio (MMR) has declined from over 400 per 100,000 live births in the early 90s to 160 in 2002 to 72 in 2005. The proportion of deliveries attended by qualified attended in 2004 is reported to be 87 percent. The major factors associated with the high maternal mortality are the geographical nature of the country, which makes access to essential obstetric services difficult in emergency situations, iron deficiency anaemia, late referral, and multi-parity often associated with closely spaced pregnancies.

6.3 Immunization

High levels of immunization coverage have been achieved for vaccine-preventable diseases of childhood, ranging from 98 percent for DPT, 98 percent for OPV, 97 percent for measles and 99 percent for BCG and 97.5 for Hepatitis B (2005). The proportion of pregnant women immunized against tetanus was 95 percent (2003).

6.4 Prevention and control of locally endemic diseases

Maldives has remained malaria-free since 1984. Other mosquito-borne diseases, however, continue as public health problems in varying degrees. Filariasis has been brought under control with no cases reaching advanced stages of the disease. Dengue continues to be endemic. An effective vector control programme continues to be sustained. The other diseases of public health concern are tuberculosis and leprosy. The DPH runs special programmes for the control of locally endemic diseases such as tuberculosis, leprosy, malaria and filariasis. Drugs required for these disease control programmes are provided free of cost to all registered patients.

A national system of disease and epidemic notification on a daily basis has been established throughout the country. For selected diseases, like AIDS and the EPI-target diseases, sentinel surveillance sites have been introduced.

The goal for the tuberculosis (TB) control programme was to reduce disease prevalence from 0.66 to 0.26 per 1000 population. This has now been achieved. The main strategies are intensified case detection, both active and passive, standardization of management, treatment of cases including children exposed to sputum positive cases, and introduction and expansion of directly observed treatment, short course (DOTS) to all diagnosed cases. The mainstay of the national tuberculosis control programme is DOTS. On the occasion of World Tuberculosis Day 2004, Maldives received an award from WHO for its success in expanding DOTS coverage.

The goal of the leprosy control programme is to achieve and maintain 100 percent multi-drug therapy (MDT) coverage for all diagnosed cases until zero incidence is reached. The main strategies are an effective surveillance system, increasing awareness on leprosy prevention and control, and early identification and management of cases. The leprosy prevalence rate decreased to 0.02 per 1000 population in 2003.

Maldives has a history of scrub typhus. An outbreak of 114 cases was reported among British troops stationed in Addu Atoll during the Second World War. However, recent information was not available until the outbreak in 2002. A total of 78 cases were reported in 2002 and 10 out of 78 died resulting in a case fatality rate of nearly 13 percent. In 2003 the number of reported cases increased to 258, which is nearly 3.3 times increase from 2002. However, due to the better case management, only 2 percent died from the disease.

6.5 Prevention, control and management of common diseases and injuries

Six regional hospitals provide medical care and overall health care at the regional level, including supervision of atoll hospitals and health centres. At present there are six atoll hospitals and 40 atoll health centres with both preventive and curative services, which include the management of common medical problems, maternal care and the treatment of minor surgical conditions. Until recently these centres were entirely managed by CHWs, but since 1993 doctors have been posted to these centres for medical services. At island level, health care is provided by FHWs and trained TBAs. The FHWs are initially trained for six months in simple curative and preventive care and supplied with a restricted list of drugs, which include anthelmintics, iron, folic acid, aspirin, paracetamol and septran (for management of ARI). In some of the larger islands, private clinics are run by doctors, and people also have recourse to the use of community or private pharmacies.

Accidents and injuries are mostly minor, resulting from daily life. The more serious accidents are due to fishing boat beaching/launchings, falls from coconut palm trees, and domestic burns/injuries following kitchen accidents and careless handling of petrol or kerosene.

The tertiary care hospital in Malé (IGMH) serves as the highest referral centre in the country. It provides cardiac and neurosurgery, and uro-surgical facilities including transurethral surgery. It also has facilities for early detection of breast cancer. However, details regarding provision of specialized services, such as treatment for cancer and diabetes, are not available.

7. TRENDS IN HEALTH STATUS

7.1 Life expectancy

Life expectancy was estimated at 71 years for males and 72 years for females in the year 2004.

7.2 Mortality

Adolescent pregnancies, inadequate antenatal care, lack of trained personnel, closely spaced pregnancies and limited access to emergency obstetric care are some of the main reasons for high maternal mortality.

Disease specific mortality for 1995 lists diseases of the circulatory system as the leading cause of death followed by respiratory diseases.

7.3 Morbidity

Acute respiratory infection (ARI) is one of the major health problems among children and adults. Tuberculosis (TB), regarded as one of the most fatal diseases in the history of Maldives, has still not been brought totally under control. The TB prevalence rate of 35 per

1000 population in 1974 declined to 0.26 in 2004. Childhood tuberculosis is almost zero in recent years due to the high BCG coverage of infants. Leprosy is well under control since the introduction of multidrug therapy in 1983. The prevalence rate for leprosy was 0.06 per 1000 population in 2005. With the successful implementation of the EPI, the vaccine-preventable diseases of childhood are well under control. No indigenous polio cases have been reported since 1981. The spread of HIV/AIDS is still at an early stage. Worm infestation is high in the country and 50-75% of children below five years of age are estimated to be affected by intestinal parasites.

Maldives has one of the highest incidences of thalassaemia <http://www.who.org.mv/EN/Section3/Section32.htm> in the world. One out of every six persons is a thalassaemia carrier and about 60 to 70 children are born every year with the disease. Needless to say, significant efforts are focused on this disease. Cardiovascular diseases and cancer are also perceived as important problems and an increasing trend is expected in the future. It is estimated that 37.4 percent males and 15.6 percent of females use tobacco (Smoking Survey 2001). The promotion of healthy lifestyles will be the main emphasis in the prevention of these non-communicable diseases.

7.4 Disability

Physical disability, blindness, deafness and mental illness are the most common causes of disability.

At present, efforts are underway to strengthen psychiatric services in the country and to expand physiotherapy facilities at the IGMH.

8. OUTLOOK FOR THE FUTURE

8.1 Overall assessment and strategic issues

Remarkable achievements have been made in the health status of the people. The successful implementation of the EPI has resulted in a major decline in vaccine-preventable diseases. Other public health programmes aimed at prevention and controls of communicable diseases have yielded good results, thus contributing to the quality of life of the people. Life expectancy has risen sharply while infant mortality has declined steeply. However, maternal mortality and fertility have remained high. Following a shift in the population and family planning policy to include the control of population growth, the growth rate has decreased to 1.69 percent. In keeping with the government policy that health is the basic right of every citizen, the main goal has been to improve the quality of life by reducing preventable diseases, dealing with disease problems, and minimizing disabilities. Also emphasized are strategies to promote healthy lifestyles to address some of the non-communicable diseases that have now become significant health concerns.

The number of adolescents and youth in Maldives has increased substantially and is rapidly approaching 40 percent of the country's total population. The adolescent age group is estimated to peak in 2004 and the young people age group will peak in 2011. A special

attention will be required to meet the health demands of the youth while using the opportunity to inculcate healthy lifestyles to curb the burgeoning burden of NCDs in the population.

Human resource development has been given high priority, but shortage of qualified health personnel remains a major constraint. To meet this situation, the government has attempted to increase in-country training capacity, as well as utilize training opportunities abroad and the services of expatriate health personnel. The four-tier system of health care delivery is being re-organized into a five-tier system to improve accessibility. Inter-sectoral collaboration for health is actively promoted.

Resources available to the health sector increased considerably during the 90s, mostly as a result of a booming economy, with a GDP growth rate of approximately 7 percent. However, the economy has a narrow base, which makes it sensitive to external factors. In future, the present high levels of health spending may be difficult to sustain.

External aid received by the country as well as the number of donors, have shown a downward trend in recent years. To counter this, the government in collaboration with WHO and UNDP, has taken the initiative to improve collaboration with donors.

8.2 Future vision

The health sector's vision is reflected in the National Vision 2020 statement that reads: "the people will have greater awareness of, and commitment to, healthy lifestyles. All citizens will have access to good quality health care close to their homes, and easy access to a health insurance scheme to meet their health expenditure."

The health policy aims to further increase life expectancy and improve the quality of life by reducing preventable deaths, disease, suffering and disability. To achieve these ends, the government continues to develop health infrastructure and provides medical and public health services within the overall framework of a sustainable health system. In framing health policy, special importance is given to preservation of the environment, concept of regional development, central role of human beings and their quality of life, basic right to health and education, involvement of the people at community level, and the role of women in development.

8.3 Proposed strategies

- Promote healthy lifestyles and communities
- Improve access to health care and provide management systems for health care delivery
- Increase the availability and accessibility of pharmaceuticals and essential drugs
- Improve the quality of health care delivery at all levels
- Foster and improve complementary/traditional medicine
- Develop the human resource capacity of the health sector
- Improve nutrition intake, focusing on maternal and child nutrition
- Ensure safe motherhood and provision of reproductive health services

- Maintain the current success in communicable disease control and further reduce the incidence of vector borne diseases
- Strengthen the non-communicable disease control programme in the country
- Reduce infant mortality rate
- Provide modern quality curative services

8.4 Basic Health Indicators including the U.N. Millennium Development Goals

See Annex-2. Annex-1

Country reported Data for Basic Health Indicators including health related MDG Indicators

Indicator	Latest available data	Year	Source	Remarks
POPULATION AND VITAL STATISTICS				
Total population (in thousands)	298	2006	10	
Sex ratio (Males per 100 females)	97.1	2006	10	
Population under 15 years (%)	33	2005	10	
Population 60 years and above (%)	5.1	2005	10	
Crude birth rate (per 1000 population)	19	2005	10	
Crude death rate (per 1000 population)	3	2005	10	
Annual (population) growth rate (%)	1.69	2000	11	Exponential rate
Total fertility rate (per woman)	2.8	2000	2	
Urban population (%)	35	2006	11	
SOCIOECONOMIC SITUATION				
Gross national income (GNI) per capita (US \$)	2390	2005	12	
Adult literacy rate (%) >15 years	96.3	2004	5	
Prevalence of low birth weight (weight <2500 grams at birth) (%)	9	2005	13	
Prevalence of underweight (weight-for-age) in children <5 years of age (%)	27	2004	9	
HEALTH SYSTEM				
INPUTS				
<i>Facilities</i>				
Number of hospital beds	759	2004	2	
Population per hospital bed	381	2004	2	

Indicator	Latest available data	Year	Source	Remarks
Hospital beds per 10,000 population	26.2	2004	2	
Number of health centres	65	2004	2	
<i>Human resources</i>				
Number of physicians	302	2004	2	
Population per physician	959	2004	2	
Nurses per 10,000 population	33	2003	13	
<i>Budgetary resources</i>				
Total Expenditure on Health (THE) as % of Gross Domestic Product (GDP)	6.2	2003	4	
Public Expenditure on Health (PHE) as % of Total Expenditure on Health (THE)	89	2003	14	
Private Expenditure on Health (PvtHE) as % of Total Expenditure on Health (THE)	11	2003	14	
Public Expenditure on Health (PHE) as % of General Government Expenditure (GGE)	10.94	2003	2	
Social Security Expenditure on Health (SSHE) as % of Public Expenditure on Health (PHE)	23	2003	14	
Per capita Total Expenditure on Health (THE) at official Exchange rate (X-Rate per US \$)	121	2003	14	
Per capita Total Expenditure on Health (THE) in international dollars (int'l \$)	324	2003	14	
FUNCTIONS				
Pregnant women attended by skilled personnel during pregnancy (%)	100	2004	2	
Deliveries attended by skilled personnel (%)	87	2004	9	
Contraceptive Prevalence (%)	22	2005	10	
Infants reaching their first birthday that have been fully immunized against diphtheria, tetanus, and whooping cough (%)	98	2005	1	
Infants reaching their first birthday that have been fully immunized against poliomyelitis (%)	98	2005	1	
Infants reaching their first birthday that have been fully immunized against measles (%)	97	2005	1	

Indicator	Latest available data	Year	Source	Remarks
Infants reaching their first birthday that have been fully immunized against tuberculosis (%)	99	2005	1	
Women that have been immunized with tetanus toxoid (TT) during pregnancy (%)	95.0	2003	2	
<i>Environment</i>				
Population with safe drinking water available in the home or with reasonable access (%)	76.5	2001	2	(including rainwater)
Population with adequate excreta disposal facilities available (%)	80.5	2001	2	
OUTCOMES				
Life expectancy at birth (years): Male Female	70.4 71.3	2003	2	Based on vital registration data
Infant mortality rate (per 1000 live births)	12	2005	10	
Healthy Life Expectancy at Birth Total Male Female	57.8 58.0 56.6	2002	8	
Under-five mortality rate (per 1000 live births)	16	2005	10	
Maternal mortality ratio (per 100,000 live births)	72	2005	1	
Out-of-Pocket Spending on Health (OOPS) as % of Private Expenditure on Health (PvtHE)	100	2003	14	
GENDER EQUITY				
Life expectancy at birth ratio (females as a % of males)	101	2003	2	Computed based on 70.4 Male and 71.3 female
Seats held in parliament (% of women)	12	2005	9	Computed based on 97.3 Male and 97.2 female
Professional and technical workers (% of total)	40	2004	5	
Adult literacy ratio (females as % of males)	99.8	2002	6	
Gross Primary school enrolment ratio (females as % of males)	91	2004	9	Computed value
Gross Secondary school enrolment ratio (females as % of males)	114.5	2002-2003	6	

Indicator	Latest available data	Year	Source	Remarks
MDG HEALTH RELATED INDICATORS				
G1.T2.I4 - Prevalence of underweight children (under-five years of age)	27	2004	9	
G1.T2.I5 - Proportion (%) of population below minimum level of dietary energy consumption				
G4.T5.I13 - Under-five mortality rate (probability of dying between birth and age 5)	16	2005	10	
G4.T5.I14 - Infant mortality rate	12	2005	10	
G4.T5.I15 - Proportion (%) of 1 year-old children immunised for measles	97	2005	1	
G5.T6.I16 - Maternal mortality ratio	72	2005	1	
G5.T6.I17 - Proportion (%) of births attended by skilled health personnel	87	2004	9	
G6.T8.I23b - Tuberculosis prevalence rate per 100,000	26	2002	9	Incidence rate
G6.T8.I24b - Proportion (%) of Smear-Positive Pulmonary Tuberculosis cases detected cured under directly observed treatment short course (DOTS)	100		9	
G7.T9.I29 - Proportion (%) of population using biomass fuels)	24	2004	9	
G7.T10.I30a - Proportion (%) of population with sustainable access to an	70		9	

improved water source, Atolls				
G7.T10.I30b - Proportion (%) of population with sustainable access to an improved water source, Male`	100		9	

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Annex - 2

Millennium Development Goals

The progress made towards achievement of MDGs is given here:

GOAL 1: ERADICATE EXTREME POVERTY AND HUNGER

TARGET 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Status and Trends

Prevalence of Underweight Children

The level of malnutrition amongst under five years children as measured by prevalence of underweight children is not available in the Maldives for 1990. However, recent studies on nutritional status of children indicate that the Maldives is likely to meet the MDG target of halving the prevalence of underweight in children by 2015.

The 1994 National Nutrition Survey estimated underweight as measured by 2 standard deviations below the universal weight for age measurements to be 43 per cent. The 1997 Vulnerability and Poverty Assessment estimated the prevalence of underweight in children under five years of age slightly higher at 45 per cent. Four years later, the 2001 Multiple Indicator Cluster Survey revealed that 30 per cent of children were underweight. The 2004 Vulnerability and Poverty Assessment showed that the prevalence of underweight in children under five years of age had further reduced to 27 per cent.

The analysis points to a steady decline in the prevalence of underweight in children in recent years. It can be reasonably assumed that the prevalence rate of underweight children would have been between 46-52 per cent in 1990.

Thus, the target of halving the proportion of underweight children implies a prevalence rate of about 23-26 per cent by 2015. Since the 2004 Vulnerability and Poverty Assessment indicate an underweight prevalence rate of 27 per cent, it can be reasonably concluded that the country is on schedule to meet the target of 23 per cent by 2015.

Challenges

Although Maldives is on track to reach the MDG target to reduce child malnutrition, the prevalence of underweight, stunting and wasting is still very high in the atolls of the Maldives. In 1997 VPA1 raised alarm bells that the nutritional situation in the country then was worse than that of Sub-Saharan Africa. The present estimates indicate that 1 in 4 children may be underweight even by 2015. Improving the nutrition status of children is a highly significant challenge.

There also exist apparent atoll variations in levels of malnutrition. As an example, the extent of stunting by atolls is given in Figure 4 as stunting is considered to be the more useful indicator of the nutritional status of children across the atolls.. Stunting is defined as the proportion of children with height for age under two standard deviations from the norm of the world average. Stunting is more prevalent in some atolls than others. The highest observed rates of stunting are among children in Gaafu Alif at 55%, Shaviyani (32%), Noonu (37%), Raa (31%) and Lhaviyani (39%). The lowest observed incidence of stunting are to be found among children in Meemu (7%) Haa Alifu and has Dhaalu (11%), Laamu (12%) Alifu Dhaalu (13%) Faafu and Gnaviyani (15%). Male' shows a higher prevalence of stunting than that of atolls at 17%.

GOAL 4: REDUCE CHILD MORTALITY

TARGET 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

During the last 10 years Maldives has achieved commendable progress in reducing child mortality relative to other least developed countries. It is highly likely that the Maldives will achieve the MDG target to reduce by two thirds the under five mortality rate of 1990 by 2015. At present, the key challenge is in reducing new born deaths in the Maldives.

Under Five Mortality Rate

The under five mortality rate stood at 48 per 1000 live births in 1990. By 2005 the rate has been reduced to 16 per 1000 live births. The MDG target 5 as applicable to the Maldives has already achieved the under five mortality rate to 16 per 1000 live births by 2015.

Closer examination of the decline in under five mortality shows that there is virtually no difference between the rates among the sexes. However, there is a significant gap between the rate of reduction between Male' and the atolls. At the same time, it can be seen that both the Male' and the atoll rates are also on course for achieving the target.

Infant Mortality Rate

Achievements in reducing the infant mortality rate (IMR) can be regarded as the key factor that has contributed to the reduction in child mortality rate. Significant progress has been achieved over the past 15 years in reducing the IMR. From 34 per 1000 live births in 1990 IMR has been reduced to 12 per 1000 live births by 2005.

Once again it is a remarkable achievement that there is virtually no difference between the IMR of girls and boys. However, the gap between the rates between Male' and the atolls is still pronounced.

Proportion of One-year old Children Immunized Against Measles

The Maldives has maintained close to universal vaccination for Expanded Programme of Immunization (EPI) for over 10 years and has one of the highest vaccine coverage within the South Asia region. Furthermore, the country has attained self procurement of all EPI vaccines; thus further strengthening the immunization programme. According to the Multiple Indicator Cluster Survey conducted in year 2001, it was shown that the Maldives has achieved close to universal coverage for vaccines in the EPI programme. For measles, the total coverage stands at 97 percent in 2005.

Challenges

The progress in reducing child mortality can be regarded as a success. The strategies implemented by the health sector have worked efficiently over the last 15 years. However, the gap between the rate at which child mortality is reduced between Male' and the atolls is increasing, both for infant as well as under-five mortality. A major challenge remains to reverse this trend.

There is also a need to reconsider the implementation of some strategies. For instance, the adoption of standardized protocols for acute respiratory infections (ARI) treatment in health facilities is open for question. Anecdotal evidence suggests that prescription of cough syrups and the indiscriminate use of antibiotics are high in both public and private health facilities. On the other hand reduction in mortality from childhood diarrhoea and successful home management would have contributed largely to the reduction in child mortality in the country.

A key challenge though remains due to the fact that implementation of preventive programmes has weakened in the past ten years. This is mainly due the human capacity constraints in the public health fields. Vigorous efforts are needed to ensure that capacity is built, both at central and peripheral levels in the area of prevention in order to sustain the implementation of proposed strategies.

GOAL 5: IMPROVE MATERNAL HEALTH

TARGET 6: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

Status and Trends

Maldives appears to have already achieved the MDG target 6 to reduce maternal mortality. The policies which contributed to this achievement include: providing easy access to services for all groups of people; special emphasis on under privileged people; focusing on awareness creation on high risk pregnancies; antenatal and postnatal care; all pregnant women to receive minimum of 3 antenatal checkups; and all deliveries to be conducted by trained personnel.

Maternal Mortality Rate

In the past few years the MMR has remained stable. Reliable data for MMR for the baseline year 1990 are not available and for the period 1990 to 1997, the available data should be interpreted cautiously. With the introduction of a maternal death audit in 1997, more reliable data on MMR are now available. In 1990 the maternal mortality rate stood at around 500 per 100,000 live births. By 2005 the rate has gone down to 72 per 100,000 live births. The target for 2015 based on 1990 baseline is to reduce the MMR to 125 per 100,000 live births.

Proportion on Birth Attended by Skilled Health Personnel

There are no baseline data on proportion of births attended by skilled personnel for 1990. According to the Multiple Indicator Cluster Survey of 2001, 48 per cent of the deliveries are conducted by doctors and 22 per cent by nurses. The 2004 routine vital statistics (Table 1) show that 55 per cent of deliveries were conducted by doctors, 30 per cent by nurses, 1 per cent by a health worker and 13 per cent by a traditional birth attendant.

Table 1: Deliveries Conducted by Type of Professionals, 2004

Delivery conducted by	Live births		Still births		Total births	
	Number	Percent	Number	Percent	Number	Percent
Doctor	2897	56%	22	38%	2919	56%
Nurse	1542	30%	23	40%	1565	30%
Health worker	75	1%	0	0%	75	1%
TBA	661	13%	12	21%	673	13%
Other	14	0%	0	0%	14	0%
Not stated	16	0%	1	1%	17	0%
Total	5205		58		5263	

Source: VRS, 2005 - Ministry of Health

Challenges

In maternal health there still remain challenges in quality of care and accessibility. Although many of the islands have a safe institution for deliveries, the personnel conducting these deliveries do not necessarily have the adequate training or equipment. At island level few deliveries are still conducted by traditional birth attendants or in few cases by a family health worker, none of whom are adequately trained to deal with complications during birth.

Improving the contraceptive prevalence rate remains a challenge. Especially among married women there is an unmet need for contraception that stands at 37%. Furthermore, there is evidence that an increase in unwanted pregnancies in unmarried youth is increasing. Thus expanding knowledge and use of contraception through increased accessibility and affordability will be important.

Births should be attended at least at the level of a community health worker or a nurse trained to take deliveries. One of the primary health care goals of the Health Master Plan is to ensure that all islands get the service of a community health worker, which remains yet to be achieved. Detection of high risk pregnancies and their referral to higher levels of the health system are also identified in the Health Master Plan as priorities. According to the maternal death review synthesis report, late referrals and non compliance to referrals may have lead to maternal deaths in the country.

The main challenge though is the diseconomies of scale in the very small islands and inaccessibility to transport when needed urgently. Mobile services to improve emergency evacuations are an absolute necessity.

Goal 6: Combating HIV/AIDS, Malaria and Other Diseases

Target 7: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS.

Status and Trends

Maldives is a low prevalence country for HIV/AIDS and malaria had been eradicated in the Maldives. The challenge is to maintain the current level of vigilance and policy attention to ensure that the achievements are sustained.

HIV Prevalence among 15-24 Year Old Pregnant Women

Since 1991 when screening for HIV was initiated, 13 local cases of HIV have been reported till 2003. However, over 100 cases were screened positive among foreign nationals posing a real threat to the increase spread of HIV in the country. There are no cases of HIV reported among pregnant women. However, large group of adolescents and young people as well as many men working overseas are subject to higher risk.

Condom Use Rate of the Contraceptive Prevalence Rate

Comparisons of the condom use rate of the contraceptive prevalence rate are available for 1999 and 2004. This shows that there is an increase of condom use rate from six per cent in 1999 to

nine per cent in 2004. However, the limitation in this figures are that these rates are for married women in the country. Condom use data for the high risk groups such as the resort workers and sailors are not available.

Condom Use at Last High-risk sex

Condom use rate for last high risk sex are also not available for most high risk groups. In 2004, the reproductive health survey collected information on sexual behaviour of unmarried youth 15 to 24 years of age. The figures show that 9 per cent of the youth have had sexual intercourse of which 14 per cent were men and 5 per cent women. Some 62 per cent of these young people reported to have had sex before the age 18 years. Among this sexually active high risk group, 45 per cent of them are subject to risk of HIV infection since they do not use condoms during intercourse, while 12 per cent reported that they always use a condom during intercourse.

Percentage of Population Aged 15-24 with Comprehensive Correct Knowledge of HIV/AIDS

Knowledge about HIV AIDS among youth is quite high. Some 97 per cent of unmarried youth knows about HIV/AIDS. Four per cent of the youth do not know any preventive measures that could be taken to avoid HIV infection. Knowledge on avoiding HIV infection is high among young women than in men.

Contraceptive Prevalence Rate

The contraceptive prevalence rate (CPR) is available for years 1999 and 2004. The CPR has reduced to 22 per cent in 2005 from 42 per cent in 1999. On closer examination though there is encouraging trends in the mix of contraceptive use. The use of modern contraceptive methods has increased from 33 per cent in 1999 to 34 per cent in 2004. Use of pills and injectables has remained unchanged, while condom use rate have increased. Over all CPR is higher for the atolls when compared with Male with 40 per cent in the atolls and 37 per cent in Male respectively. Figure 14 shows these results.

Challenges

The main challenge will be to ensure sustained low prevalence of HIV/AIDS in the country. Efforts are required to further strengthen the awareness programmes and to continuously measure the impact of these programmes. Timely intervention would be required for any adverse findings of the continuous assessments. Over all, the programme can be regarded to perform reasonably well.

There is a scarcity of evidence on sexual behaviour of high risk groups such as resort workers, sailors and adolescents. Hence planning and implementing targeted interventions remain a major challenge for the sustenance of low HIV/AIDS prevalence in the country.

Target 8: Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases

Status and Trends

Effective Malaria Prevention and Treatment Measures

Malaria has been eradicated and no indigenous cases have been detected since 1984. Notable achievements have been gained in the control of communicable disease in the Maldives.

Prevalence and Death Rates Associated with Tuberculosis and Cases Cured Under DOTS

Tuberculosis prevalence has also been reduced in the past decade. In 1995 the case fatality rate from tuberculosis stood at 5 per cent and has been reduced to zero by 2002. The incidence of TB has also been reduced 0.26 per 1000 population. TB patients are registered at the Chest Clinic and Directly Observed Treatment Short course (DOTS) is initiated to 100per cent of detected cases. Furthermore, there are no cases of TB reported in the under five population. This may be a real decline in childhood TB due to high BCG vaccination coverage.

Challenges

The performance of communicable disease control has been commendable in the Maldives. High immunization coverage has ensured low prevalence and elimination status of many diseases. However, a major challenge would be sustain these achievements over time. Since incidence of disease such as TB and other secondary infections are increased with high prevalence of HIV/AIDS, efforts on HIV/AIDS control as well as other communicable disease control activities has to be sustained further.

The overcrowding in Male remains a major threat to spread of diseases such as TB. Furthermore, many of these diseases are still stigmatized and there is hesitance to seek early treatment. Thus open cases remain untreated in the community posing a major risk to further spread of these diseases.

Despite the achievements, epidemic prone disease such as diarrhoea, acute respiratory infections, dengue and other emerging diseases such as scrub typhus pose a major risk to public health. A further challenge is the unavailability of essential medicines on many of the small islands. It is important that each island should have at least one person authorized to prescribe essential drugs. A presence of a community health worker in each island would solve this problem. At the same time, the government should also ensure that essential medicines are made available on all islands.

Goal 7: Ensure Environmental Sustainability

Target 9: Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources

Status and Trends

The Government of Maldives recognizes the special vulnerability of the nation and places a high priority on mainstreaming environmental sustainability and environmental protection into the national development planning process. The Government defines this role as one that will uphold socio-economic development, which is economically efficient, socially equitable, and improve the quality of human life while living within the carrying capacity of the supporting ecosystems. Since the Earth Summit in 1992, the government has developed and adopted a number of strategies and plans aimed at sustainable development of the Maldives that conform to the principles outlined in the Rio Declaration and Agenda 21. Furthermore, these strategies and plans pave the way to engage the community in meaningful dialogue to contribute to the successful implementation of sustainable development.

Proportion of Population Using Solid Fuels

In the Maldives the only solid fuel used is firewood and there has been a remarkable decline in the use of firewood since 1990. According to the 1990 Census, 79 per cent of the households used firewood for cooking. The proportion of households who use firewood had declined to 24 per cent by 2004 (VPA2).

However, there are significant inter atoll variations in the use of firewood as the main source of energy for cooking. The switch from firewood to kerosene and gas is particularly pronounced in Male' and Seenu Atoll. In Male' only 2 per cent of the households used firewood in 2000. In Seenu 33 per cent of households used firewood for cooking in 2000 compared with an estimated 90 per cent of the households in 1990. In 2004 except for Laamu atoll, the proportion of households using firewood has been reduced to 50% or less. In Laamu atoll, 73% of the households use firewood, while large populations such as Male, Gnaviyani and Seenu atolls do not use firewood for cooking any longer (VPA2).

It is noted that there are islands where fish is cooked or smoked as an economic activity and these islands would tend to have a higher use of firewood compared to those islands that do not specialize in fish processing.

Target 10: Halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Proportion of Population with Sustainable Access to an Improved Water Source

Maldivians traditionally depended on shallow wells to provide access to islands freshwater lenses for drinking water. These lenses are susceptible to pollution. As a result of declining quality of water in many islands, high priority has been given to the construction of rainwater tanks and rainwater collection schemes. The aim is to ensure that the total population has access to at least 10 liters of safe water for drinking and cooking per person per day. This policy has greatly facilitated the shift from well water to rain water in many islands. In the atolls, 90% of the households used rainwater as the principal source of drinking water in 2004. However, 30 per cent of the atoll population reports a drinking water shortage in 2004. At the moment rainwater is

considered the most sustainable improved water source for the atolls, although there are no measures of how safe the stored rainwater is.

In Male' 100 per cent of the population has access to an improved source of drinking water. The five wards of Male' have access to desalinated treated piped water supplied by Male' Water and Sewerage Company. However, it has to be noted that desalinated water is extremely costly and the dependency on imported fuel for desalination is an issue that needs consideration from a sustainability perspective.

Proportion of Population with Access to Improved Sanitation

In Male', all households are connected to a conventional gravity flow system with pumping stations to dispose the untreated sewage to the deep sea. In the atolls, the percentage of the atoll population without access to toilet facilities decreased from more than 60 percent in 1990 to six percent in 2004. Although the sanitation situation in the atolls show marked improvement over the last fifteen years, most households are still dependent on septic tanks. Ground water contamination from leakages caused by improper construction of septic tanks is a significant problem in the atolls. Many toilets still discharge sewage and human waste direct into the ground water. This ground water is used in many islands for cooking, washing and even for drinking water.