Sri Lanka

National Health System Profile – January 2005

1. TRENDS IN POLICY DEVELOPMENT

Sri Lanka is a Democratic Socialist Republic. The legislative powers of the country are vested in parliament, and the executive authority is exercised by a Cabinet of Ministers presided over by an Executive President. The President and members of the parliament are elected on the basis of adult franchise in separate elections conducted every six years. In addition to the President and Parliament, there are Provincial Councils to administer provinces, Municipal Councils and "Pradeshiya Saba" for local administration.

A Governor, nominated by the President, heads the provincial administration. A Board of Ministers headed by Chief Minister is the executive body responsible for provincial administration and development in respect of the transferred subjects. Chief Minister, Ministers and Provincial Councillors are also selected once in five years by adult franchise. The Provincial Council system was introduced as an attempt to decentralize the power as a solution to the ongoing armed conflict for two decades. The North and East Provinces (conflict areas) are temporarily merged and managed by a Governor with a civil administration. Other seven provinces namely, Western, Southern, Central, Sabaragamuwa, Uva, North Central and North Western have provincial administration headed by a Governor, Chief Minister, Provincial Ministers and Provincial Councillors.

An executive council elected from adult franchise, which is the fourth kind of election held in the country, is in place for each Divisional Secretariat, which is the lowest level of administration unit under the Pradeshiya Saba (local authority) and Municipal Councils. Administrative decentralisation has taken place to a significant extent with the introduction of provincial councils in 1989, and Divisional Secretariats have been established in 1991 under the provincial councils.

Sri Lanka has maintained its democratic institutions and its socialistic principles, subject to certain circumstantial limitations at some point in time. The overall emphasis of the state policy is on the social justice and equity, economic well-being and individual rights. The overall policy of the state, particularly with regards to health and social welfare, has remained fairly consistent and stable, despite the changes of government and political structures. As a result, the process of health services development has continued over the years, resulting in improved health status.

As a result of the pursuance of the social welfare-oriented state policy over the five decades, Sri Lanka has outstanding achievements in literacy and health status of its people. The overall economic policy of the government is being increasingly oriented towards free market mechanisms, aiming at improving efficiency as well as preserving achievements in equity, economic well being and individual rights. The process of disinvesting public enterprises has been on for quite sometime. The government policy in health is to promote harmonious growth of both public and private sectors in order to widen people's choice in seeking care and ease out increasing burdens on government health institutions.

Inter-sectoral collaboration in health development is demonstrated in national health policy through multi-sectoral councils and committees at different levels.

The governments of Sri Lanka make substantial investments in health, education and poverty alleviation programmes. The poor segments of the population have been much benefited due to such investments.

The community action for health has since been given consideration in planning and management of health services. Under the Janasaviya programme initiated in 1989, individuals and groups were given opportunities to participate in development activities. The Samurdi (Prosperity) movement was launched in 1994. The target families, selected on the basis of family needs, skills and assets, are given a welfare allowance to engage in economic activities. The 1.5 million housing programme started in 1987 has immensely benefited the poor.

The overall social status of women is satisfactory. The societal attitude is liberal with women's role and responsibility in economic and social activities outside home.

Sri Lankan policy, irrespective of the government in power, has always regarded education and health as crucial to socioeconomic development, while the concept of equity and social justice in favour of the underprivileged has also been a feature of state policy. This has resulted in a high literacy rate of 90.1 percent (1994) and a life expectancy at birth of 70.7 for males and 75.4 for females (1996/2001). There is also substantial investment in poverty alleviation. The overall social status of women is satisfactory and women constitute 42 percent of the occupational workforce (1985-86).

Armed conflict that was raging for more than two decades in the North and East of the country has been a major constraint to the development of the country. There was migration and displacement of population of severely affected areas to safer places, resulting in problems of food, shelter, sanitation and provision of preventive and curative healthcare.

Since late 2001, situation in Sri Lanka has shown noticeable improvements. On the peace front, a memorandum of understanding signed between the government of Sri Lanka and the Liberation Tigers of Tamil Eelam (LTTE) in February 2002 has resulted in a cease-fire. Five successful rounds of peace discussions - facilitated by Norway - have taken place and significant advances have been made for a resolution of the long standing conflict. As a solution to the armed conflict, further changes in administration can be anticipated with ongoing peace negotiations between the government and armed groups, who have captured a part of the land through an armed struggle.

2. TRENDS IN SOCIOECONOMIC DEVELOPMENT

2.1 Economic trends

The economy has witnessed a moderately high growth since 1989/1991. The annual growth rate of the GNP increased from 4.6 percent in 1991 to 59 percent in 1995. The GNP per capita increased from US $ 345 in 1989 to US $ 856 in 2000 and to US $ 1000 in 2004.

The Sri Lanka's Gross Domestic Product (GDP) in 1945 was 2.66 billion rupees (nominal) and it rose to 13.71 billion rupees in 1970 and it continued to rise and showed a figure of 64.59 in 1980. The GDP in 1990 was 290.6 and rose to 1255.5 billion rupees in the year 2000. The GDP in 2003 was 1822.09 billion rupees. The GDP per capita increased from US $ 899 in 2000 to US $ 947 in 2003 (Economic and Social Statistics of Sri Lanka, 2004, Central Bank of Sri Lanka).

This moderately high growth rate was supported by continuity in reforms towards a market-oriented environment, a strong export performance, and an improvement in primary commodity prices. Economic growth in 1995 was spearheaded by the manufacturing sector, while other major contributory sectors were trade, agriculture, transport, communication and financial services.

Some Macro-economic indicators 1981-2001

Indicator	**2000**	**2001**	**2002**	**2003**
GDP (US $ Billions)	16.6	15.7	16.5	18.2
GDP per capita at market prices (US $)	899	841	870	947
External debt service ratio	14.0	12.7	17.9	19.6

Source: Economic and Social Statistics of Sri Lanka, 2004, Central Bank of Sri Lanka

Human Development Index (HDI)

Sri Lanka has not performed well in the area of Human Development, as HDI value is 0.740, ranking 96th among 177 countries in 2002. However, Human Development Index value has increased from 0.613 in 1975 to 0.740 in 2002.

Gender Development Index (GDI)

Sri Lanka has not performed well in the area of Gender Development, GDI value was 0.748, ranking it 73rd among 177 countries in 2002, though it is better than HDI (Human Development Report, 2005).

Unemployment

The unemployment rate in 2003 was around 8.4 percent as against 13.8 percent in 1991. Increased foreign employment contributed to easing the labour market pressure. Women have entered the labour force at a faster rate than men, but taken on lower pay and less prestigious jobs. Infrastructural deficiency has been a serious impediment and the government has accepted in principle the need for wider private sector participation. The public sector health services are almost fully financed by the government, with the services available free of direct cost to the consumer.

The unemployment rate for female is still high though the rate shows a downward trend. In 1991 the unemployment rates for males and females were 10.1 and 23.0 percent, respectively whereas the corresponding rates in 2003 were 6.0 and 13.2 percent, respectively.

Labour force

In Sri Lanka, labour force participation rate has been fluctuating during 1991-2003, at 50 percent, which was 49.8 percent in 1991 and 48.9 percent in 2003. The female participation rate has declined from 35 percent in 1991 to 31.4 percent in 2003 whereas male participation rate has increased from 64.8 percent in 1991 to 67.2 percent in 2003 (Report on Employment and Unemployment in Sri Lanka, Department of Census and Statistics).

In Sri Lanka, around 7.6 percent population was spending below US $ 1 per day as per survey conducted in 1999-2000 (World Development Indicators, 2005).

Poverty

There has been steady decline in poverty in Sri Lanka, as 26.1 percent of population were below poverty line in 1990-91 whereas 22.7 percent population was suffering with extreme poverty in 2002. Urban poverty has declined at fast pace from 16.3 percent in 1990-91 to 7.9 percent in 2002, whereas rural poverty has declined at slow pace - from 29.4 percent in 1990-91 to 24.7 percent in 2003 (Statistical Pocket Book - 2004, Department of Census and Statistics, Sri Lanka).

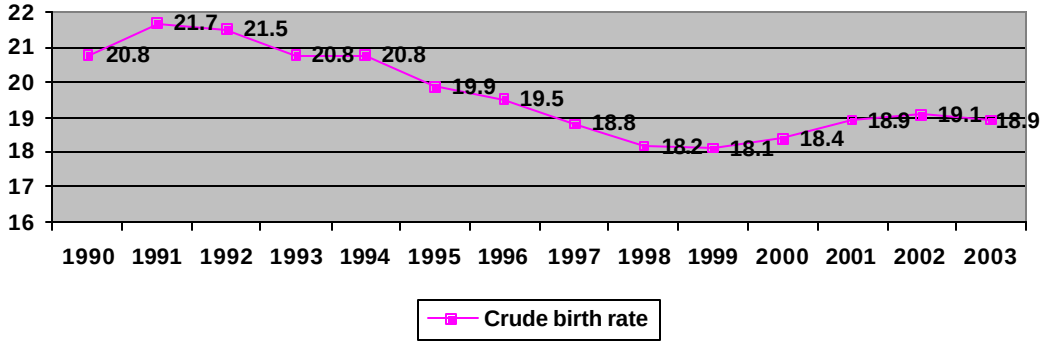
2.2 Demographic trends

The last census in 1981 recorded a population of 14.85 million. The mid-year population in 2003 was estimated to be 19.25 million. The annual population growth rate in 2003 was 1.2 percent. The Total Fertility Rate during 1995-2000 was 1.9 [Demographic and Health Survey (DHS) 2000].

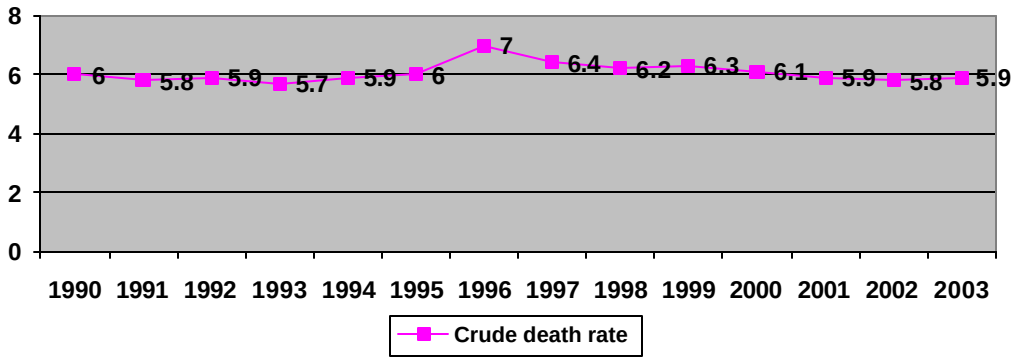
The population is projected to stabilize at 23 million by the year 2036 with an annual growth rate of 0.3 percent. The population growth rate is declining, although the absolute population will continue to increase at over 0.2 million a year until 2006.

The median age of the population is also projected to increase from 23 years in 1998 to 40 years in 2025. The population age structure of the country is also changing with base of the population pyramid contracting. In 2001, total population of Sri Lanka was 18,732,000 of which population under 15 years of age was 4,987,000, the population between 15 and 59 years was 11,995,000, and the population over 60 years was 1,750,000.

Sri Lanka has passed through the classical phases of demographic transition to reach the third phase of a declining birth rate as it has stabilized at 19 per 1000 population during 2000-2003 and showed a relatively stable low death rate at 6 per thousand population during the same period (Statistical Pocket Book – 2004, Department of Census and Statistic, Colombo, Sri Lanka).



Note: Values of CBR for the years 1998-2003 are provisional.
Source: Statistical Pocket Book – 2004, Department of Census and Statistic, Colombo, Sri Lanka



Note: Values of CDR for the years 1998-2003 are provisional.
Source: Statistical Pocket Book – 2004, Department of Census and Statistic, Colombo, Sri Lanka.

The base of the population pyramid is contracting. In 2001, the population over 60 years was 9.3, the population under 15 years was 26.6 percent and the population aged 15-59 years was 64.1 percent.

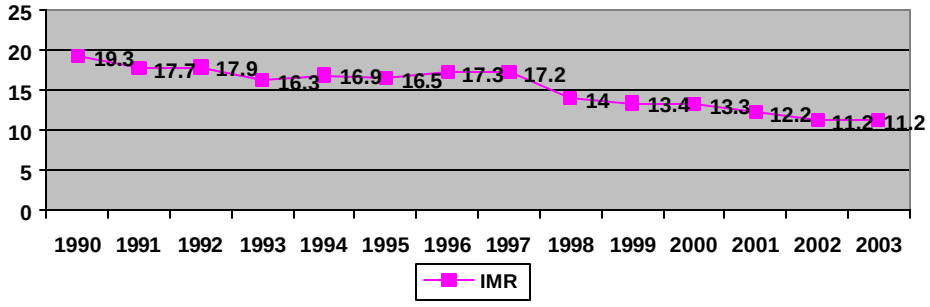
Life expectancy at birth

Life expectancy at birth increased from 43 years in 1946, to 70 in 1981, 72 in 1991 and 73 in 1996. The life expectancy in 2001 for males was 70.7 years; for females, it was 75.4 years. The rapid increase in the average life span, together with the widening of the gap between male and female longevity, reflects a dramatic improvement in the survival of those groups that were most vulnerable and exposed to high risk of mortality, namely, infants and children in the age group 1-4 and women of the child bearing age (Department of Health Services, Ministry of Health, Annual Health Bulletin 2002).

Infant Mortality Rate (IMR)

In 1935, a very high IMR (263) was recorded. A decline in the IMR is observed after 1946. It continued to decline during the past few decades, and in 1997 it remained at 16.3. In Sri Lanka, infant mortality rate has declined from 17.7 per 1000 live births in 1991 to 11.2 in 2003 (Statistical Pocket Book – 2004, Department of Census and Statistic, Colombo, Sri Lanka).

The trend in IMR over the periods is shown in figure below:



Note: Values of IMR for the years 1998-2003 are provisional.
Source: Statistical Pocket Book – 2004, Department of Census and Statistic, Colombo, Sri Lanka.

The urban population was reported 21.5 percent in 1981 and 23.2 percent in 1999. It is expected to rise to 41.9 percent in 2030.

2.3 Social trends

Education is one of the measures of social and economic development of the population. With the intention of providing education to every citizen of the country, the government of Sri Lanka introduced free education to every citizen of the country from grade one to university education in 1946. As a result of this action a notable progress was achieved in the literacy rate of the population. The gradual narrowing of the gender inequality in education is also a significant achievement.

The national literacy rate increased steadily within short period from 57.8 percent in 1946 to 87.2 percent in 1981. The female literacy rate increased at a greater speed reducing the gap between the rates of entry for males and females into the labour force at all levels. The national literacy rate in 1994 was 90.1 percent while rates for males and females were 92.5 percent and 87.9 percent respectively. By the year 2001, adult literacy rate (age of 15-24 years) has reached 95.6 percent, with 95 percent for male and 96 percent for female (Draft Report on Millennium Development Goals: Sri Lanka's Progress, September 2004).

In Sri Lanka, Gross Enrolment Ratio (GNR) in primary education has increased from 109 percent in 1998-99 to 112 percent in 2002-03 for both sexes. Male and female GNR in primary education has increased from 111 percent and 108 percent respectively to 113 percent and 112 percent during same period. Similarly, in secondary education there is very nominal increase from 86 percent in 2002-03, for both sexes, to 87 percent in 2003-04. In case of male and female, there is no increase as it has stabilized at 84 percent and 89 percent respectively during same period (UNESCO).

The rate of females continuing their education into the secondary level in Sri Lanka is high compared to most of the developing countries. The number of educated females for hundred males in 1988 was 93 at the primary level, while at the secondary level it was 106. Education gap between males and females has reduced very fast.

In Sri Lanka, total number of schools (Government and others) is reported as 10,475 in 2003. Universities are 13 and technical colleges are 36 as per 2003 data (Statistical Pocket Book - 2004, Department of Census and Statistic, Colombo, Sri Lanka).

Despite the increasing numbers of specific categories of human resources in the health sector, the past years have witnessed many problems and challenges. One of the recurrent constraints for improving the effectiveness of human resource policy and planning in the health sector is the lack of a comprehensive human resource strategy and lack of coordination among all units concerned in the Ministry of Health and Ministry of Education.

The current major problems are imbalance in production of staff, geographic inequity in distribution, and a gap between expected job performance and training.

2.4 Food supply and nutritional status

Intrauterine growth period is the first stage of growth and development of a human where linear growth velocity is highest and adequate nutrition is of great importance. The initial nutrition status of the newborn is indicated by the birth weight. At present, the national average for newborns weighing less than 2500 g is 17.2 percent.

It is well documented that adequate growth and development in the five-year age group, and particularly those less than three years of age, is vital to attain the full genetic potential of growth and development of the child. Under-nutrition in this group has a long-term consequence on the growth and development of the child.

Three anthropometric measures have been used to ascertain the level of nutrition among the children in the country. Heights for age, weight for height, and weight for age were the three indicators used to obtain the extent of stunting, wasting and under-weight among the children. The DHS 2000 reports national percentage for stunting as 14 percent, with highest percentage reported in estate sector (33.5 percent). Information on obese children in Sri Lanka is scarce and incidence is still much lower than that of under-nutrition.

Prevalence of under-nutrition by sectors (percent)

Sector	Stunting			Wasting			Underweight		
	1987	1993	2000	1987	1993	2000	1987	1993	2000
Colombo	22	20	07	13	12	10	28	31	18
Other Urban	16	17	09	10	17	06	27	30	21
Rural	26	23	13	14	16	16	39	38	31
Estate	60	51	34	07	10	12	53	52	44

Source: DHS 1987, 1993, 2000

Sri Lanka has three micronutrient deficiencies that have been identified as public health problems, namely, iron, vitamin A and iodine. They are also known as "hidden hunger" as many deficiencies are unnoticed by the individual until symptoms become a hindrance. The latest survey information is only available in terms of iron deficiency anaemia conducted in 1994 by the Ministry of Planning and Implementation, and by the Medical Research Institute in 2001. Vitamin A deficiency Survey was conducted by the Medical Research Institute in 1995/96. The last Iodine deficiency Survey was conducted in 1986 and this has not yet been updated.

Prevalence of Iron deficiency is more acute among the under-two years old children than the older age group; but as for vitamin A, there is no significant difference with age. Overall 35 percent of the under-five years old children are vitamin A deficient, and 30 percent are anaemic.

Micronutrient deficiency by age groups

Age groups in months	Iron deficiency prevalence (%)		Vitamin A deficiency prevalence (%) (1996)	
	1994	2001	Age (Months)	Percent
3-5	52.7	-	6-23	34.8
6-11	56.0	57.6	24-47	34.2
12-17	56.9	38.3	48-71	36.6
18-24	54.1	-	-	-
24-35	45.8	29.7	-	-
36-47	40.8	21.4	-	-
48-59	30.7	15.1	-	-
3-59	**45**	**29.9**	**6-71**	**35.3**

Sources: 1995/96 – Vitamin A status Survey, MRI (1996); Mudalige & Nestal: 2001; Anaemia Survey, MRI

Seventy percent of the population live in areas where iodine deficiency exists and some areas (districts) have shown goitre prevalence among school children of 5-18 years as high as 25-30 percent. In response, the government has initiated a programme for the universal iodization of salt.

Poor maternal nutrition and health during pregnancy is mainly due to inadequate diet, low in energy, protein and micronutrients, infections and inadequate rest. Another contributory factor is food taboos and beliefs that prevent certain nutritious food being consumed. The average weight gain during pregnancy is 7.5 kg compared to the acceptable minimum of 9.5 kg. Further, 36 percent pregnant women are found to be anaemic. According to international studies in developing countries, low weight gain in pregnancy may account for 18.5 percent of Intra-Uterine Growth Retardation (IUGR).

Breast feeding promotion programme, which is being carried out through home visits, at clinics, and at hospitals have not achieved the desired objectives. Lactational management programme is being conducted by the Family Health Bureau (FHB) for their peripheral staff who are expected to implement breast-feeding promotion activities at the periphery. Certain hospitals were declared as "Baby Friendly Hospitals" to actively promote exclusive breastfeeding. The Sri Lanka Breast Feeding Code, which was brought into effect from 1983 as a legal and ethical instrument, has been effective in regulating the sale of breast milk substitutes and related products.

2.5 Lifestyle and Risk Factors

Urbanization and changes in life styles carry a set of issues that affect the health and nutritional welfare of the communities. The incidence of over-nutrition and diet related degenerative diseases such as obesity, hypertension, diabetes, coronary heart disease and stroke are on the increase. The factors which are thought to be responsible are the changing food habits and preferences; stressful life styles, time constraints and lower physical activities; switching over to fast and convenient foods; and relatively high price of fruits and vegetables. Negative effects that arise from a more sedentary life style are associated with lowered physical activity; issues related to time allocation; tendency to consume more convenient foods; and preference to settle for less strenuous recreational activities. The occupational types have also changed over the last decade where heavy work activities such as labour in agriculture, forestry and fishing have declined. A shift in the labour force towards more sedentary type jobs has increased, while a decrease in manual jobs is apparent.

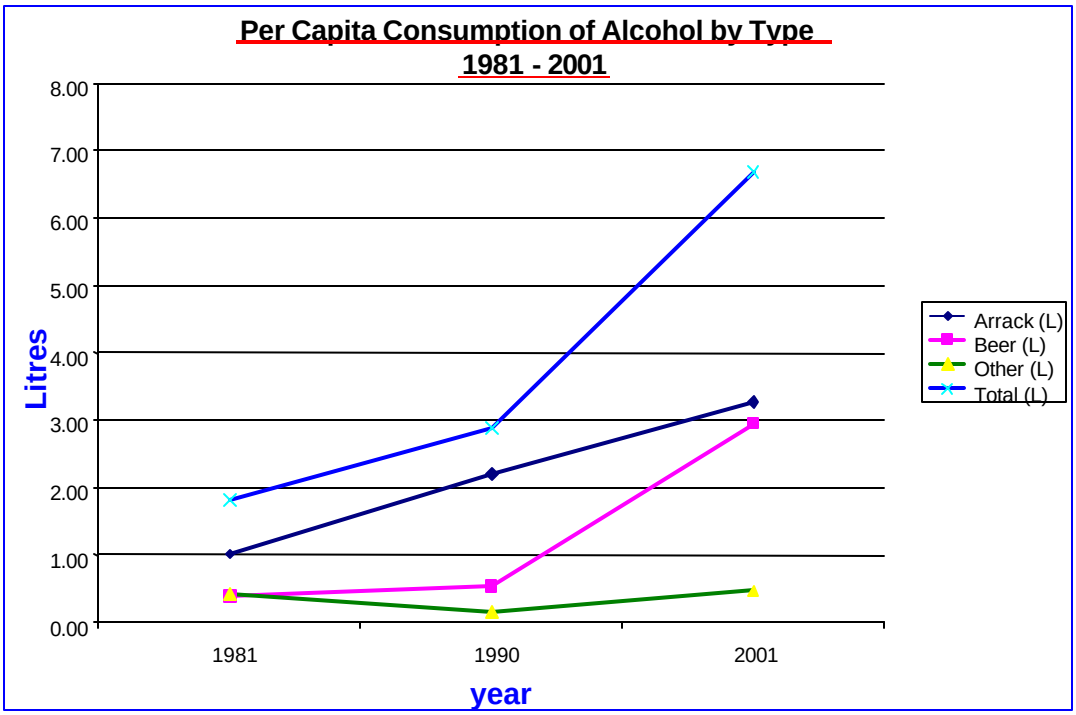
Alcohol

The per capita alcohol consumption in Sri Lanka

Per capita alcohol consumption of Sri Lanka for the period of 1981 to 2001 is given below.

Year	Arrack in litres	Beer in Litres	*Other products in litres	Total in litres
1981	1.01	0.39	0.41	1.80
1990	2.19	0.54	0.15	2.88
2001	3.27	2.95	0.46	6.68

* Other = Whiskey, Wine, Brandy, Gin, Rum, Vodka, Toddy



According to the chart, the per capita alcohol consumption in litres in Sri Lanka shows a very rapid increase during 1990s. The per capita alcohol consumption in 1981 was 1.88 L, while it increased to 2.88 L in 1990. The consumption has gone up to 6.68 litres in 2001. The consumption of Beer has increased very rapidly during the period and it has mainly contributed to the rise in total consumption.

Tobacco

Among the males over 15 years, 58 percent are calculated to be smokers.

Integrated approaches to alcohol, tobacco and drug prevention programmes have proved viable, with necessary impetus being given by non-governmental organizations that play the role of catalyst in motivating organizations and institutions to integrate tobacco and drug prevention programmes into their own activities.

Policies and programmes related to physical activity and health-behavioural changes

The determinants for behavioural and lifestyle changes are multi-factorial. They are multi-faceted and are densely interwoven to the social fabric that has been enriched by ideas, norms, values and beliefs of people. The effort needed to achieve a positive behavioural change in selected population risk groups needs to be equally shared by civil, non-governmental and other governmental organizations as well. In selected areas, the programme will work with relevant government departments aiming to achieve healthy public policies and interventions in all sectors. Similarly, the community groups and other non-governmental organizations too will be encouraged to participate in these activities.

The Ministry of Health will lead in planning and sponsoring a major national behaviour change communication programme and set off activities aimed at healthy life style changes in targeted

population groups. It will be carried out through inter-sectoral and multi-sectoral collaboration with relevant departments and agencies. The objective will be to reduce preventable risk factors and the main stakeholders are the people themselves. The ministry of health in collaboration with other partners will identify the target group and the needed lifestyle changes based on evidence of epidemiology, treatment cost and effectiveness factors. These will include optimising health, productivity and educational performance and ageing through nutrition, exercise, relaxation and sleep, through avoidance of tobacco, alcohol intake, substance abuse, unsafe sex, and observance of road safety including seatbelt use. Behavioural change advertising and lobbying companies will be contracted to design, pre-test, implement and manage these programmes.

Trends in abortion rates

As in many other countries, in Sri Lanka too, a significantly large number of women in reproductive ages are faced with unwanted pregnancies, and an increasingly large proportion of them use abortion to prevent births. In spite of it being widely practised, abortion largely remains a taboo subject because of its legal, religious and cultural implications. Legally induced abortion is not permitted by law except in the case of threat to mother's life.

Only a very limited number of research investigations have been conducted in Sri Lanka on any aspect of the abortion issues up to now. No precious statistics could be collected from private practitioners and private hospitals about their services related to induced abortion. The estimated incidence of induced abortions in Sri Lanka is thought to be between 150,000 and 175,000.

3. HEALTH AND ENVIRONMENT

3.1 General protection of the environment

The Constitution of Sri Lanka makes it "duty of every person in Sri Lanka to protect nature and conserve its riches." The national environmental policy acknowledges this duty and seeks to provide the direction according to which steps will be taken to conserve and manage Sri Lanka's environment in all its aspects.

Sri Lanka has an impressive portfolio of environmental legislation and a set of standards for the quality of air, water, food safety and the workplace.

The national environment policy renews commitment of government, in partnership with the people, to manage effectively the environment for the benefit of present and future generations. The aim of this policy is to ensure sound environmental management within a framework of sustainable development in Sri Lanka. The policy is supported by many other policies and strategies developed for other sectors.

Under the National Environment Act of 1980, an environmental council was established in 1982 with representatives from different ministries, including health, which has functions related to the environment. Under the guidance of the council, a central environmental authority is responsible for implementation of activities that include development of standards and guidelines for pollution control, monitoring major water bodies, control of toxic chemicals, hazardous waste management, chemical and microbiological impact assessment of major development activities, and public information and education utilizing the mass media, schools, NGOs and other community based organizations. A national environment action plan was

prepared in 1991 and a set of policy measures for environmental health suggested by a presidential task force in 1992.

The past decade has seen many activities designed to address environmental issues but these activities have fallen well short of what is required to maintain a stable, balanced environment in the face of the increasing demands by a growing population on the island's limited natural resources. The national environment policy provides the direction and framework for a systematic and coordinated effort towards addressing environment concerns.

3.2 Water supply and sanitation

There have been some improvements in the availability of safe drinking water during the last decade. In 2001, the overall percentage of the population with safe drinking water available at home or in the vicinity was 82 percent (81 percent rural and 95 percent urban). The proportion of the population with access to safe latrine in urban and rural areas in 2001 was 80 percent. In 1995, the corresponding figures were 70 percent for safe drinking water availability (65 in rural and 88 in urban areas) and 75 percent for population with latrine facilities (70 percent for rural and 81 percent for urban areas) (Draft Report on Millennium Development Goals: Sri Lanka's Progress, September 2004).

The Ministry of Health is not directly responsible for provision of water to the country. However, through its field health personnel, health education is carried out to motivate people to consume water that is safe: usually boiled cooled water.

The Public Health Inspectors (PHI) conduct routine tests for adequate chlorination of sources of drinking water during epidemics of bowel diseases (diarrhoea and gastro-enteritis) and other disaster situations like floods, etc. When approving applications for construction of buildings, the health authorities ensure that there will be no contamination of sources of drinking water from toilets and other sources.

The use of latrines by the community is promoted through health education as well as by enforcing the provisions of relevant legislation related to housing. All new houses have to process toilet facilities in order to obtain approval from the local authorities. The department of health services provides financial assistance to those without toilets and those unable to construct one with their own resources.

4. HEALTH RESOURCES

4.1 Human resources for health

There had been several initiatives to develop human resources for health. In the 1960s, a task force, set up by the Ministry of Health, designed a national health plan. In 1975, a health manpower study was undertaken. In the late 1970s and early 1980s, two studies, one on cadre determination of medical, nursing and paramedical personnel and other on nursing, were under taken. In 1992, a national health policy was initiated. In 1993, a study was undertaken by the human resource development council on human development in the health sector.

A perspective plan for health development in Sri Lanka (1995-2004) was formulated in 1994. The ministry of health has been implementing annual health development plans, reviewing policy and planning initiatives, training key health workers, issuing Human Resources for

Health (HRH) policy guidelines, and conducting consultative meetings, among others, to develop HRH in Sri Lanka.

A study on HRH in the health sector in Sri Lanka (1993) finds that health manpower planning in Sri Lanka has been episodic and to a large extent limited in scope; health manpower development in the private sector has not been given due consideration; and the demand pattern for services and the technological changes have not been taken into account. It has recommended that the training of health manpower be vested in the education system.

Sri Lanka's commitment to attaining the goal of health for all by the year 2000 necessitated the orientation of primary healthcare workers towards community health, restructuring training programmes and curricula to produce personnel of various grades of required skill and competencies, and training and recruiting health volunteers.

Further significant improvement in the health manpower situation for primary healthcare was an outcome of Sri Lankan strategic policy on primary healthcare approach. As a result, the Public Health Midwives (PHM) increased from one per 5000 population to one per 3000 population. There were increases in the number of Public Health Inspectors and the Medical Officers of Health/Divisional Health Officers, which made the geographic area of operation smaller than before.

There have been significant increases in the number of various categories of manpower in the public sector. The government is absorbing all the medical graduates passing out from the medical faculties. The total number of medical officers rose from 6994 in 1999 to 8384 in 2001. Accordingly, persons per doctor improved to 1996 in 2992 from 2431 in 2000. The number of nurses per 100 000 population increased from 75 in 1997 to 77 in 1998 and gradually decreased to 76 in 2000 but again increased to 89 in 2002. It is estimated that there is a shortage of over 3000 nursing staff in government hospitals. Also, a shortage of qualified paramedical staff, such as pharmacists, Medical Laboratory Technicians, Radiographers, Physiotherapists and ECG Technicians, still exists.

A wide disparity in the regional distribution of health personnel is evident. The Colombo district has a high concentration of most categories of health personnel except public health staff. In 2001, 35 percent of the specialists were concentrated in the Colombo district. The Districts of Kilinochchi, Mullativu and Mannar did not have a single specialist, and the absence of specialists in four basic clinical specialities is also noteworthy. During 2001, the Department of Health Services recruited 167 foreign qualified medical graduates.

Manpower Output in the Health Service in 2001

Medical Officers	610
Nurses	2360
Pharmacists	32
Physiotherapists	14
Occupational Therapists	2
Radiographers	48
Medical Laboratory Technologists	34
Public Health Midwives	273

The precise picture on the private sector is not available. However the availability must have definitely increased, as the number of private healthcare providers has rapidly increased.

4.2 Financial resources for health

The government health sector takes care of healthcare needs of the vast majority of the population. The private sector in health had been small in terms of service provisions and financing. It is only recently that the private sector has been growing mostly in urban areas. The private sector contribution has been mainly in urban areas. In 1998, the total health expenditure as a portion of GDP amounted to 3.4 percent, and the government health expenditure constituted 51.3 percent of total health expenditure. The health expenditure for 2001 was Rs 22,899 million, which is an increase of 20 per cent over the previous year. This increase is higher compared with the increase in 2000 (6 percent) over 1999. During 2001, the proportion of public health expenditure on health service was 1.6 per cent of the GDP and 4.9 per cent of the national expenditure. The per capita health expenditure was increased to Rs 1,222 in 2001. In 2002, the total health expenditure as a proportion of the GDP amounted to 3.7 percent, and the government health expenditure formed 48.7 percent of total health expenditure. The per capita government health expenditure was US $ 16.

Recurrent Health expenditure accounted for 81 percent of the total expenditure. A major proportion of the health expenditure is utilized by the patient care services. In 2001, patient care services utilized 66 percent of the health expenditure, while community health services utilized only 8 percent. Of the balance, 22 percent were spent for general administration and staff services and 3 percent were spent on training and scholarships.

During 2001, the Department of Health Services of the Ministry of Health released the first estimates from the Sri Lanka National Health Accounts System (SLNHA). This system was developed to establish a permanent expenditure monitoring system for the country and also to meet international standards for reporting of health expenditure data. It is a framework based on the "System of Health Accounts" published by the Organization of Economic Development and Cooperation (OECD) in 2000.

Total expenditure on health (TEH) is defined to include all expenditures on personnel health services, community (Public Health and Preventive) health services and gross capital formation in healthcare providers. TEH as estimated to be Rs 28.3 billions in 1997, with per capita spending equivalent to Rs 1,530. This was equivalent to US $ 26 per capita, or 3.2 percent of GDP.

Public expenditures on health grew from Rs 5.6 billion in 1990 to Rs 14 billion in 1997. Private expenditures grew from estimated Rs 5.6 billion to 14.3 billion. Throughout the decade, government and private sources accounted for approximately 50 percent each of total financing, or about 1.7 percent of GDP.

Central government ministries and departments accounted for a growing share of total public sector expenditure during 1990-1999. The provincial councils share declined to 31 percent. The bulk of central government expenditures are from the Ministry of Health. Household out-of-pocket spending accounts for the largest share of private spending (43 percent of national total), which accounts for less than 5 percent of total national spending. Personnel health services accounted for the largest share of total health spending (78 percent). In-patient expenditures accounted for 23-25 percent. Preventive and public health expenditures declined as a share of the national total from 11 percent in 1990 to 6 percent in 1999. The bulk of preventive health expenditures and most in-patient expenditures are funded by the government sector. Most

private expenditures are for out-patient primary care services, and purchases of medicines from pharmacies and shops.

Each year Ministry of Health receives foreign aid in the form of money, materials, drugs, medical equipment and technical inputs. During 2001, foreign aid component of the health expenditure was Rs 501 million. This accounted for 3.6 percent of the health expenditure. This proportion has decreased over the years. The foreign aid component during 1998 and 1999 was 10 and 5 percent, respectively of the total health expenditure.

4.3 Physical infrastructure for health

Adequate emphasis is given in the past in building physical infrastructure, including facilities and equipment, as a means of developing national healthcare system. This has lead to a countrywide, comprehensive network of health centres, hospitals and other medical institutions.

Health Facilities and hospital beds 2002

Health Institution	Number of Institutions	Average number of patient beds
	2002	2002
Teaching	16	1008.5
Provincial Hospitals	6	854.8
Base Hospitals	38	264.5
District Hospitals	155	88.2
Peripheral Units	94	49.0
Rural Hospitals	177	25.9
CD & MH	69	9.4
CD	411	
Other	261	
Total		**59144**

Source: Annual Health Bulletin 2001

There is no explicit, clearly laid down formal policy on development of physical infrastructure. Hospitals and dispensaries had been considered to ensure planned development and maintenance of physical infrastructure.

There is a comprehensive network of health centres, hospitals and other medical institutions located countrywide, with about 576 medical institutions with in-patient facilities and 411 Central Dispensaries in 2002 compared to 569 and 406, respectively in 2001. The national rate of beds for in-patient care was 3.1 per 1000 persons (2002).

4.4 Essential drugs and other supplies

National Medicinal Drug Policy (NMDP)

Sri Lanka had a written/unwritten Drug Policy since 1960s. It was "written" as elements of a policy, beginning from selection of drugs for the government drug supply and the Ceylon Hospitals Formulary in early 1960s, the Bibile Wickremasinghe report in 1971, the Cosmetics Devices and Drugs Act (1980). However there was no comprehensive document.

There were attempts to develop a NMDP in 1991 & 1996; while the documents were accepted by the Ministry of Health, they did not reach the final step of cabinet approval. Hence no comprehensive document exists at present. The present effort of building upon previous efforts brings together the elements of a National Medicinal Drug Policy in one document and has been developed based on WHO documents through discussion with all stakeholders. It is hoped that this effort will see a formal National Medicinal Drug Policy being adopted by the cabinet for the country.

The objectives of the Sri Lankan National Medicinal Drug Policy are:

1. To ensure the availability, affordability of efficacious, safe and good quality medicines relevant to the healthcare needs of the people in a sustainable and equitable manner.
2. To promote the rational use of these medicines by healthcare professionals and consumers.
3. To promote local manufacture of Essential Medicines.

The Sri Lankan National Medicinal Drug Policy will:

1. be within the overall health policy of the country
2. be based on the Essential Medicines Concept
3. be focused on the health sector but include the relevant areas such as education, finance, pharmaceutical industry and trade
4. safeguard the rights of the patients/consumers

An NMDP should cover all systems of medicine including allopathic, homeopathy, ayurveda, sidda, unani and any other systems recognized in the country. The primary concern of this policy is allopathic medicines; however policies for the others systems of medicines will be developed in consultation with stakeholders of those systems.

The Sri Lankan NMDP will have the following elements:

1. Selection of essential medicines
2. Affordability and Equitable Access
3. Financing options
4. Supply systems and Donations
5. Regulation and quality assurance
6. Quality Use of Medicines
7. Research
8. Human resources
9. Viable Local Pharmaceutical Industry
10. Monitoring and evaluation

Essential Medicine list

All drugs in the essential drug list are available in government hospitals for free of charge but uniform availability throughout the year is not ensured. Medical and paramedical professionals are educated in the use of essential drugs during their academic training. Workshops and seminars are held in order to make them aware of the essential drug concept. Local drug manufacturers are always encouraged to manufacture drugs in the essential drug list. Priority is given for essential drug list at the time of drug registration.

Rational Use of Medicine

The Ministry of Health has developed standard treatment guidelines for the treatment of major conditions in 1980s. But unfortunately, almost all the young doctors do not know about them, and hence not practised properly. Copies are not made available to them and not consulted. Therefore, most of the time, instructions are not followed.

National medicine formulary manual was printed in 1994. Public education campaigns for rational use of medicine are incorporated into the course curricula for medical students and for pharmacy students. In 2003, national legislation has been modified to implement *the Trips Agreement*. However, the draft bill was challenged in the courts. The courts ruled that there were sections in the draft bill which are unconstitutional. The state was requested to re-draft the bill.

All drugs on the essential drug list are available in state hospitals free of cost, but no revision in the list has taken place since 1988. An educational programme ensures that medical and paramedical personnel are informed regarding the use of essential drugs. Local manufacturers are encouraged to manufacture essential drugs, with priority given to essential drugs at the time of registration. Major constraints include the promotional activities of pharmaceutical companies towards the use of expensive brand names that have higher profit margins, and lack of knowledge among consumers. Currently, the essential drugs list is being revised and more emphasis is being given to educating health professionals and the public on the essential drugs concept.

4.5 International partnership for health

Sri Lanka has all along been active in promoting international cooperation and partnership for health development at country level and in the region specially with members of various international organizations like WHO, UNICEF, UNFPA, JICA, JBIC, IMF, WB, ADB, etc. Sri Lanka has committed to the goals of socio-economic and health development by means of international solidarity and mutual cooperation. Financial support from external sources to health service development in Sri Lanka has been an important positive factor. During 2001, foreign aid component of the health expenditure was Rs 501 million. This accounted for 3.6 percent of the health expenditure. This proportion has decreased over the years. The foreign aid component during 1998 and 1999 was 10 percent and 5 percent respectively of the total health expenditure.

Health economics is being introduced as a management tool for more efficient utilization of resources, with more awareness creation on the critical importance of productivity. The main constraints include differing priorities at times between donors and the government, and the lack of flexibility on the part of donors to meet changing situations that would allow for mid--course corrections during implementation.

5. DEVELOPMENT OF THE HEALTH SYSTEM

5.1 Health policies and strategies

The broad aim of the health policy of Sri Lanka is to increase life expectancy and improve quality of life. This is to be achieved by controlling preventable diseases and by health promotion activities. The concern of the Sri Lankan government is to address health problems

like inequities in health service provision, care of elderly and disabled, non-communicable diseases, accidents and suicides, substance abuse and malnutrition.
The president appointed a presidential task force in 1997 to formulate a health policy and to suggest strategies to address health problems and issues. The policy addresses the need of expanding services to people with special needs (the elderly, disabled, victims of war and conflict, occupational health problems, mental health services). It also focuses on resource mobilization and management, including alternative financing mechanism, resource sharing between private and public sectors, and rationalized human resource development. The thrust areas will be addressed through western, Ayurvedic and all other systems of medicine. The government will take every effort to maximize the financial allocations on health development. This will enable the government to provide an efficient health service throughout the country, accessible to the needy people.

Millennium Development Goals

The progress made towards achievement of health related MDGs is given in Annex-2

5.2 Inter-sectoral cooperation

The National Health Policy of Sri Lanka clearly identifies inter-sectoral action for health as an important element in the health development process. A national health council presided over by the prime minister has been established. It is supported by a national advisory committee, and task force of experts deal with specific health concerns. A secretariat has also been established to coordinate NGO activities.

Inter-sectoral action has influenced the health status of the people positively in most instances. Making the health related sectors and their contribution for health transparent has paved the way for developing new strategies and timely decision-making for improving health sector, resulting in health development. There is no direct evidence to say that inter-sectoral action has negative influence on the health status of the people. But there are experiences of motivation for health staff, where NGOs pay them for new projects whereas government is unable to do so.

A constraint to inter-sectoral coordination has been the weak horizontal linkages between health related ministries and the Ministry of Health, as well as the lack of appreciation of importance. New Strategies that have proved successful were in the integration of healthcare into rural development projects and programmes.

The creation of the Civil Medical Department under a Principal Civil Medical Officer (PCMO) in 1858 can be considered as the beginning of the health service in Sri Lanka. The department initially concentrated on establishment of new hospitals in large towns. Then the primary care facilities at the village level were initiated in 1877. Initially preventive medicine was confined to measures aimed at preventing spread of major communicable diseases. The concept of establishing specialised campaigns for the control of major diseases was initiated by the Rockefeller foundation, which was the first international organization to assist Sri Lanka's health services.

Following the declaration of Alma-Ata in 1978, Sri Lanka signed the charter for Health Development in 1980 for achieving the goal of Health For All by the year 2000, adopting a strategy for primary healthcare. A health development network for Sri Lanka was established in 1980, which comprises the National Health Council chaired by Prime Minister; the National

Health Development Committees chaired by the Secretary, Health; and the District Health Development Committees chaired by the district minister.

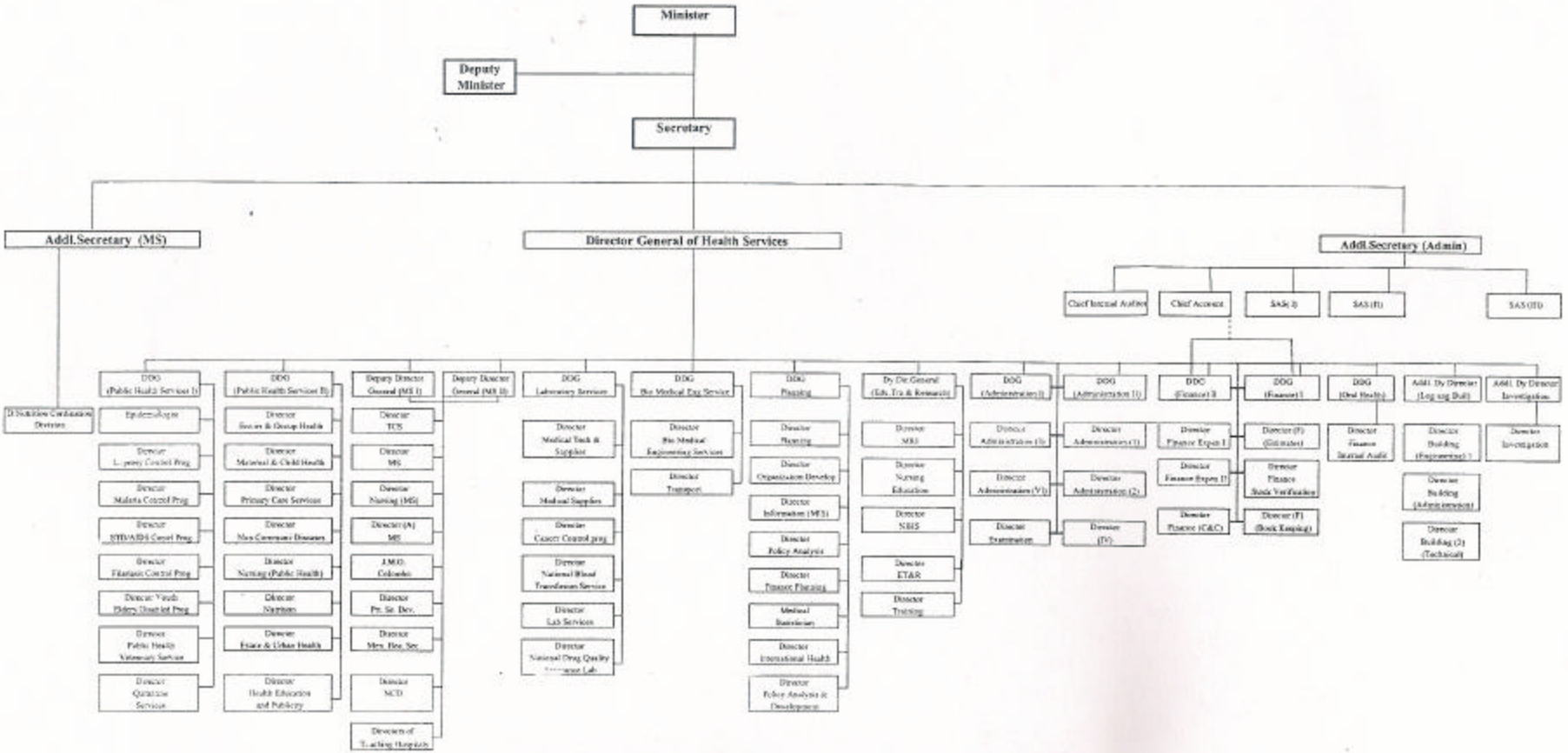
With the introduction of provincial council system in 1989, the entire Provincial, District and Divisional level administration was restructured. With the devolution of powers and functions to the provincial councils, several functions have been transferred to the Provincial Ministries of Health. Management of all healthcare institutions, other than teaching hospitals and field services, is the responsibility of the provincial councils.

Further decentralization of powers was introduced in 1992 by appointing Divisional Directors of Health Services (DDHS) to provide comprehensive healthcare to a population ranging from 60,000 to 80,000. The Provincial Director of Health Services (PDHS) supervises the DDHS administratively. Full financial control is delegated to the DDHS from the Provincial Health Directorate to implement the health activities.

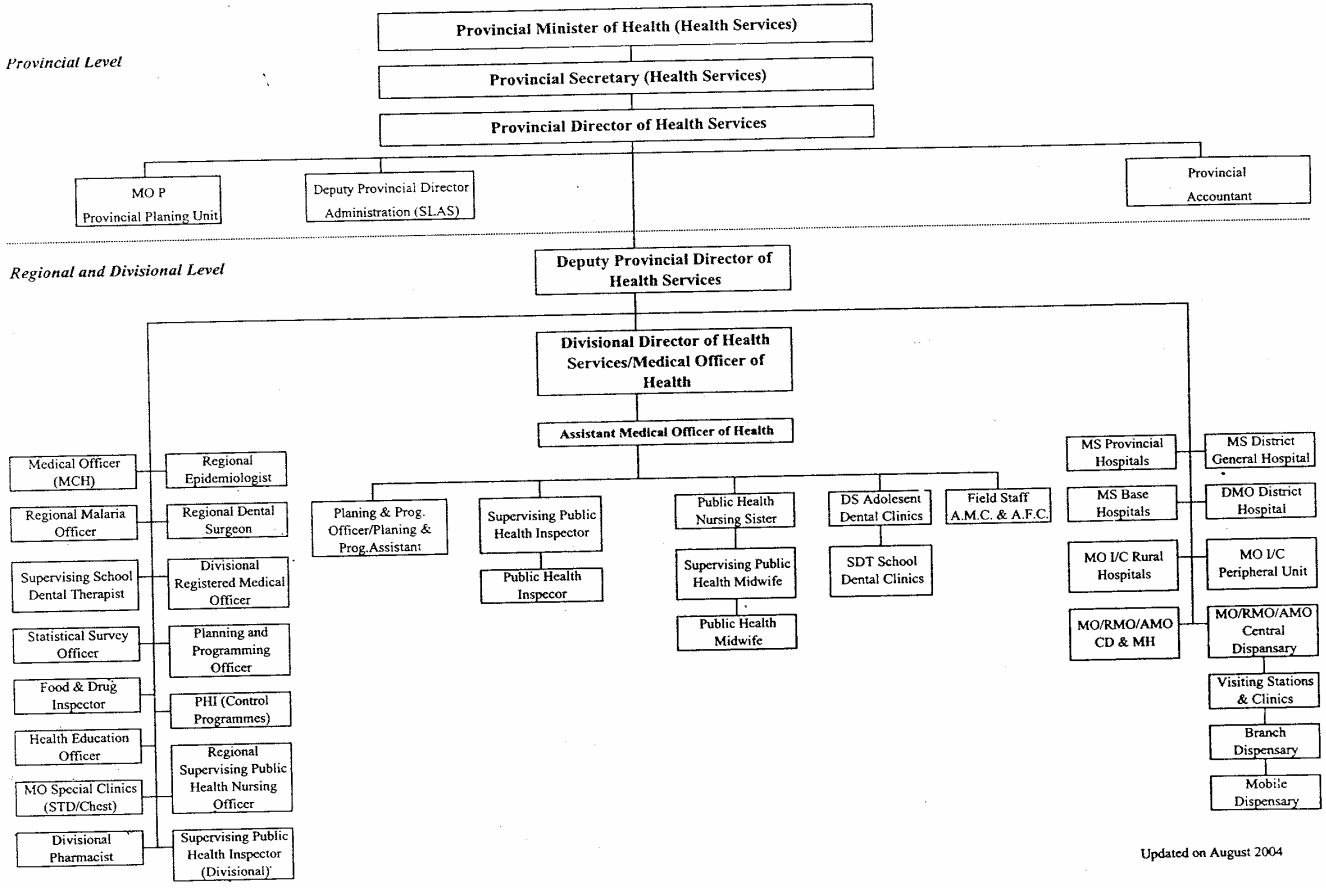
In 2001 there were 25 Deputy Provincial Directors of Health Services (DPDHS), to assist the eight Provincial Directors of Health Services. DPDHS areas are similar to administrative districts, except for Killinochchi DPDHS area, which is amalgamated with Mullativu and Ampara districts subdivided to form two DPDHS areas: Ampara and Kalmunai.

In 1999, the Ministry of Health was restructured, which resulted in the separation of the Department of Health Services from the Ministry of Health. The Director General of Health Services heads the Department and has immediate support from Deputy Directors General (DDG) of Health, each in charge of a special programme area. They have, under their jurisdiction, a number of Directors responsible for different programmes and organizations.

ORGANIZATION CHART OF THE DEPARTMENT OF HEALTH SERVICES



Organization Chart for the Health Services Under Provincial Councils



Updated on August 2004

Structure of Private Health system

Private Health System consists of Allopathic (Western), Ayurvedic, Siddha-Ayurvedic, Unani-Ayurvedic, Homeopathy and Acupuncture streams. But over 80 percent of the population seek western medicine stream when they are sick. The Western Private Health Sector consists of large hospitals with all the finer specialities including open heart surgeries, medium size hospitals with basic specialities (General Surgery, General Medicine, Paediatrics, Obstetrics and Gynaecology with operation theatre facilities) and small hospitals with MBBS qualified doctors who are catering for Obstetrics, General Surgery, General Medicine, Paediatric services, etc. In addition to these hospitals, there are large number of "Channelling Centres" that serve as ambulatory care clinics conducted by government doctors at off-duty hours. There are over 750 registered General Practitioners (with MBBS or more qualifications), conducting day and night clinic service. There are large number of laboratories and pharmacies in the private sector to cater for the needs of laboratory investigations and drug dispensing.

Private-Public sector linkage

The private sector will be encouraged to develop with a view to providing a good quality health service, especially for those who can afford. New regulations are underway to promote and regulate the private health sector in the country in order to provide good quality treatment for sick people.

Careful cost effectiveness studies will be carried out comparing acquisition and use of technology with purchasing of services from the private health sector for state sector patients, thus encouraging private-public partnership. The state sector will be encouraged to pilot such partnerships.

Referral system and its efficiency

Although there is a referral system in the government health sector, its practice is not proper. Bypassing of facilities is a very common phenomenon and all the secondary and tertiary care centres are overcrowded while primary care institutions are under-utilized. Several studies have been carried out to establish a good referral system, but without success. The main obstacle is that there is no clearly demarcated geographical area or a draining population for hospitals in the country. Also, the very relaxed admission policy of the government hospitals contributes to a greater extent for poor referral system in the country.

The constraints have been the shortage of experienced medical staff to take on the positions of Divisional Directors of Health Services (DDHSs) and the paucity of financial resources for improving physical infrastructure and for providing supplies and equipment.

5.4 Managerial process

The managerial process for health development has been in place at different levels of the administration. The Ministry of Health is responsible for developing health policy, management of tertiary hospitals, special programmes and teaching hospitals; bulk purchase of pharmaceuticals and equipment; personnel administration of doctors and

dental surgeons; enforcement of regulations concerning health; providing guidelines on administrative and professional matters; mobilization of resources; and inter-sectoral and international coordination in health matters.

At provincial level, mechanisms for policy planning, coordination and development are in place.

The main constraints are inadequate inter-sectoral coordination in planning and programme management.

5.5 Health information system

The national Health Information System (HIS) consists of following subsystems:

- Maternal and Child Health Information System
- Epidemiological Surveillance System
- Hospital Information System
- Special Disease Surveillance system
- Public Health Information System
- Human Resource Information System
- Administrative Information System including healthcare financing systems
- Vital registration system for births, death and marriages

Although there are several components in the national health information system data recording, collection, and compilation at institutional level and transmission are done using manual paper based systems. Data analysis is done using computers, only at national level institutions.

The Health Information Centre (HIC) of the Management Development and Planning Unit of the Ministry of Health has developed four different software programmes for Hospital Management, Human Resource Management, Drugs and Logistics Supply Management, and to manage an Office of the Medical Officer of Health. Also, the HIC has established a dedicated e-mail service and web service for the ministry and is planning to establish a Wide Area Network (WAN) for the government health sector connecting all provincial, district, and divisional offices and large hospitals to the Ministry of Health using "Internet Protocol – Virtual Private Network" (IPVPN) technology. The planned IPVPN will be the information super highway of the Ministry of Health during coming years.

The appointment of a Director for Health Information has administratively strengthened the process of HIS development. A steering committee has also been set up to network institutions and programmes for data collection, analysis, use and feedback.

5.6 Community action

National Health Policy recognizes community participation as an important component of the health development process. Health volunteers have been used to assist health department personnel in the work situations, especially in the rural set up. Another positive contribution made through community action is the improvement or strengthening of activities for early childhood development. Apart from the contribution made by community involvement for improving health service provision, infrastructure

facilities for health service delivery have been provided by community action in some areas. In addition, maintenance of medical care institutions also has been done through community participation in certain areas.

In cases of natural or man-made disasters, community action has contributed to healthcare delivery. Initiations of emergency blood donation campaigns, supply of drugs and basic amenities, food, water, clothes, etc., have contributed to government efforts and also have saved lives of people. But the tendency of people to give priority to material comfort and hence the need for more and more money for personal living has created a vacuum in some areas where health volunteers used to contribute a lot.

The Government has taken some measures to obtain community participation effectively. They are:

- Establishment of Village level health committees, Divisional level committees and District level committees.
- Establishment of Hospital Committees to support, monitor and evaluate the healthcare facilities available in the local hospital. This activity has paved the way to strengthen infrastructure facilities in the local hospitals in some places.
- Use of mass media to highlight positive and important contributions made by the community for betterment of their health status. This type of publicity tends to stimulate others for provision of food supplement.
- Promotion of parent/teacher participation in school health activities.
- Appointment of Samurdhi animators who are the members of the same locality to identify problems and to find ways and means of resolving them.

5.7 Emergency preparedness

The government of Sri Lanka has a set of guidelines issued to the different departments and agencies at different levels. A multi-sectoral emergency preparedness committee is in place and guidelines have been issued. A multi-disciplinary health emergency management committee is also in place and guidelines for emergency preparedness in the health sector have been issued. Emergency preparedness training and education programmes are ongoing activities.

A national multi-disciplinary health emergency management committee is in place chaired by the Deputy Director General (Medical Services). There are committees at other levels of the administration. Every teaching, provincial and base hospital has a disaster management committee. A circular setting out the guidelines for emergency preparedness in the health sector is available to all institutes. All medical institutions in conflict areas are well prepared in terms of drugs, manpower and other service provisions to manage health emergencies.

5.8 Health research and technology

The promotion and development of research is a prerequisite to overall national development of any country. The importance of health research as a strategy for improving health services has long been recognized in Sri Lanka. Many individuals, institutions and organizations have been engaged in health research over the years. With the increasing realisation of the positive contribution that research can make towards

health development, research activities have been expanded considerably during the last few years.

Medical Research Institute (MRI), which is situated in Colombo, is responsible for carrying out biomedical research. The institute deals with clinical biochemistry, microbiology, virology, parasitology, entomology, rabies diagnosis, vaccine production and laboratory technology.

The faculties of medicine in the universities also carry out biochemical, clinical and epidemiological research. Clinicians in major hospitals also carry out clinical research. Various units under Ministry of Health and other related ministries carry out limited research in their respective areas (e.g., Family Health Bureau, Epidemiology Unit, and Specialised Campaigns).

The trainees attached to Post Graduate Institute of Medicine conduct research as requirement for their postgraduate degrees. There are many institutes other than health sector that conduct research on health related issues (e.g., Ministry of Environment, Institute of Fundamental Studies, Central Environment Authority, Family Planning Association, National Water Supply and Drainage Board, etc.).

The Health System Research (HSR) programme of the Ministry of Health was established at the National Institute of Health Sciences (NIHS). The objectives of the HSR programme were to implement, coordinate, monitor and evaluate a programme of research on priority health problems; provide technical and financial assistance; disseminate research findings; and ensure that such findings are implemented.

The National Resources, Energy and Science Authority (NARESA) promotes health research by awarding grants and disseminating research information. A separate unit (Education, Training and Research Unit) to promote health research is established at the Ministry of Health under a Deputy Director General of Health Services. Priority areas of research are updated regularly and informed to the prospective researchers and research institutes.

The main constraints have been inadequate funding, minimal health research utilizing a multidisciplinary and inter-sectoral team approach, inadequate dissemination of information, and under-utilization of research findings.

6. HEALTH SERVICES

6.1 Health education and promotion

The Health Policy of Sri Lanka has recognized health education and promotion as a strategy for improving health of the people. Legislations like Consumers Protection Act, Cosmetic Devices and Drugs Act and the Food Act support this policy.

Health Education Bureau is the main organization under the Ministry of Health, which is responsible for Health Education and Promotion. The Health Education Bureau works in close collaboration with the Family Health Bureau, Epidemiology Unit, Population Division of the Ministry of Health, specialised campaigns, training units and NGOs.

At the provincial level, there are Health Education Officers attached to the offices of the Deputy Provincial Directors of Health. They are responsible for providing technical assistance to the Regional Health Education Officers in the performance of their functions.

Main Activities carried out by the Health Education Bureau:

- Mass Media Education
- Promotion of Estate Health
- School Health Education
- Oral Health Education Programme
- Hospital Health Education Programme
- Reproductive Health Education Programme
- Research and Evaluation

6.2 Maternal and child health/family planning/adolescent health

Successive governments of Sri Lanka have shown greater commitment to strengthen Family Planning and MCH services. Most areas in Sri Lanka have fairly satisfactory access to MCH/FP services. But there are areas that need more attention. This is evident from the district disparity of the maternal mortality in 2001. The maternal mortality ratio of Sri Lanka in 2001 was 47/100,000 Live Births, while it was 169 for 100,000 Live Births in Nuwara Eliya district.

The MCH service has received very high priority and has now been expanded to take on the broader concept of reproductive health.

The total fertility rate, which was 2.3 in 1993, has progressively decreased over the years and has reached 1.9 (1995-2000). But many studies have revealed that quite a large number of induced abortions are taking place in the country despite legal restrictions. This indicates the high proportion of unmet needs of family planning.

The prevalence for modern contraceptive methods was 49.5 percent and the overall contraceptive prevalence rate was 72 percent in 2001.

Well Women Clinics were incorporated into the Family Health Services with the introduction of the concept of reproductive health in 1996. At the end of year 2000, 295 Well Women Clinics were functioning in the country, which were mostly based at MOH offices. These clinics provide screening services for women over 35 years of age against common non-communicable diseases. Of these 295 clinics established in 2000, 140 clinics provide pap smear screening facility.

The community involvement is a part of the implementation of the family health activities. The Public Health Midwife (PHM) who is the grass root level family health worker, works closely with village volunteers.

Monitoring and evaluation system is built into the MCH/FP programme by the information system, which links service providers and programme planners at all levels. But information system need to be further strengthened and should be altered to cater for the changing needs of the system.

6.3 Immunization

The immunization coverage against 7 diseases under the Expanded Programme of Immunization (EPI) has been achieved and maintained even in very remote under-served areas. In 2000, the reported national coverage of infants reaching their first birthday with all EPI vaccines was 81 percent.

Immunization coverage of DPT 3/OPV 3
The immunization coverage of 100 percent has been reported from seven districts. The coverage is 95 to 99 percent in 12 districts, while three districts namely, Matara, Nuwara Eliya and Gampaha report a coverage of 90 to 94 percent.

Immunization coverage of BCG
Except for 6 districts, all other districts have achieved BCG immunization coverage of over 95 percent. These 6 districts report immunization coverage of 85.9 to 93.4 percent.

Immunization coverage for Measles
The national immunization coverage for measles is 90.1 percent. The coverage in the district of Killinochchi, which is affected by Civil War, is 78.8 percent while the Nuwaraeliya district reports a coverage of 81.0 percent. Data are not available from Mannar and Mullativu districts. Four districts, namely Puttlam, Chilaw, Ampara and Batticaloa, report coverage of 95 to 100 percent.

Tetanus Immunization Coverage
The tetanus immunization coverage of pregnant mothers is over 85 percent in all districts other than five districts out of which two are from the central province.

6.4 Prevention and control of locally endemic diseases

The notifiable disease list of Sri Lanka has 22 diseases. The strategies adopted by Sri Lanka for the prevention and control of communicable diseases are:

- Immunization against vaccine preventable diseases
- Enhanced disease surveillance and control of notifiable diseases
- Training of medical and public health staff in prevention and control
- Environmental interventions related to health

The main constraints identified are inadequacy of the environmental interventions, poor socio-economic conditions and the nutritional status of the under-served and marginalized populations.

Sexually Transmitted Diseases (STD)/Acquired Immune Deficiency Syndrome (AIDS) Control

The National STD/AIDS Control Programme (NSACP) is responsible for the implementation and coordination, at the central and regional levels, of the activities related to prevention and control of STDs, and AIDS. Early case detection and management, partner notification, contact tracing, health education, counselling, condom promotion, surveillance and dissemination of information are the major strategies adopted by the NSACP. During 2001, 19 full-time STD clinics and 14 branch clinics functioned in the island.

Sri Lanka is considered a low prevalence country for HIV infection. Prevalence of HIV among pregnant mothers and orphan of HIV related deaths are negligible in the country.

Leprosy

During the last two decades, Sri Lanka has made much progress in eliminating leprosy. The introduction and expansion of Multi Drug Therapy (MDT) in 1982, an effective chemotherapy of short term duration and the launching of the awareness campaign, and the social marketing campaign in 1990 to educate the general public about early signs of leprosy and to dispel misconceptions surrounding the disease, have resulted in the achievement of the WHO leprosy elimination goal at the national level in 1995. This is five years ahead of the targeted year, 2000.

With the integration of leprosy services to the general health services, new case detection has increased. But registration and recycling of patients were observed in various districts. Percentage of multi-bacillary patients remained same as the previous year. Both child and deformity rates have come down indicating that transmission is disrupted and patients are detected in the early stages respectively.

Tuberculosis

The control of tuberculosis in Sri Lanka comes under the National Programme for Tuberculosis and Control of Chest Diseases. The resurgence of tuberculosis globally and its association with HIV, and the emergence of multi-drug-resistant TB, top priority has been accorded for its control.

During the year 2001, 8418 new cases of tuberculosis cases, 410 relapses, and 31 treatment failures were registered. The notification rate was 42.9 per 100,000 population. Out of the new cases, 80.2 percent were cases of pulmonary TB. The total number of deaths notified among the TB cases was 376.

Malaria

Malaria continues to be a major public health problem and socio-economic burden in Sri Lanka. Several countrywide epidemics have occurred in the past. The activities of the Anti-Malaria Campaign (AMC) were decentralized in 1989. Since then, the AMC Directorate has been involved in the formulation of the national malaria control policy, and monitoring in the country.

During 2001, 1.35 million blood smears of fever patients were screened in government medical institutions for malaria. Of these, 4.9 percent were positive, compared to 11.8 percent during 2000. Plasmodium vivax infections accounted for 84 percent of the caseload and Plasmodium falciparum infections comprised the balance. A 68 percent decrease in the total reported cases of malaria and a decrease of 82 percent in P. falciparum infections comprised the balance. Like in the previous years, 66 percent of patients reported during 2001 were from the North and East provinces.

Roll Back Malaria Initiative

Sri Lanka has been one of the first countries in Southeast Asia to adopt the current priority programme of the World Health Organization's Roll Back Malaria Initiative. Five districts have been selected initially, viz. Jaffna, Killinochchi, Mullativ, Monaragala and Anuradhapura. A need assessment was completed and a 5-year strategic plan for malaria control in Sri Lanka was developed. Provincial and District core-groups were established. Different elements of the Roll Back Malaria Initiative have been incorporated into the Control Programme.

6.5 Prevention, control and management of common diseases and injuries

Acute Respiratory Infection (ARI)

The main objective of the ARI control programme is to reduce the mortality from acute lower respiratory infections, in particular, pneumonia in children under 5 years of age. The basic strategy of the programme is the introduction of standard case management of ARI in children within the whole healthcare delivery system. This included development of the skills in the health personnel in early detection of pneumonia and reduction of major risk factors like low birth weight, malnutrition, indoor air pollution, parental smoking habits, and the highest possible quality coverage in the Expanded Programme on Immunization.

Delay in implementation of the ARI activities in the regional and peripheral level was mainly due to the non-availability of coordinating officers at regional levels and poor cooperation from the regional level staff.

Control of Diarrhoeal Diseases

This programme was started in 1983 and implemented throughout the country in 1985. The objectives of the programme were:

- Reduction of mortality due to diarrhoeal diseases
- Reduction of hospitalisation by proper management at home
- Reduction of morbidity due to diarrhoeal diseases
- Improvement in the nutritional status by early arrest of diarrhoeal diseases

The main approach in the standard case management of watery diarrhoea was the introduction of oral rehydration therapy for all cases from the onset of illness. In the management of dysentery, the main strategy was to use appropriate antibiotics as early as possible. In both types of diarrhoea, maintaining the nutrition status was also considered an important step in the management.

Training of hospital and field staff, establishment of diarrhoeal training units, and educational activities through mass media played a major role and resulted in early recognition of dehydration and its correction, by using oral redydration fluid. All these factors have led to significant reduction in the death rate due to diarrhoeal diseases. But morbidity due to diarrhoeal diseases has not decreased at a similar pace.

During the last 20 years, admission to government hospitals due to diarrhoeal diseases has been fluctuating between 676.1 and 961.3 cases per 100,000 population. During 2001, the cases treated in government hospitals for diarrhoeal diseases per 100,000 population increased to 857.3 from 742.8 in 2000, and these ranked as the sixth leading cause of

hospitalisation. It is likely that diarrhoeal diseases will continue to be an important public health problem in Sri Lanka.

Measles

Measles is an important childhood disease in Sri Lanka. According to hospital inward statistics, the annual prevalence of measles in Sri Lanka has gone down after the introduction of measles vaccination. A measles outbreak is observed in every 6 to 9 years.

During 2001, 267 cases of measles were notified to the epidemiological unit, of which 131 cases were confirmed as measles. Analysis of vaccination status of these cases showed that the vaccination were highest among the age group1-4 years.

Service utilization across geographic regions

- **Out-patient attendance in Government Hospitals**

On an average, 2410 out-patient visits are made by 1000 population to government hospitals annually. This range varies from 1608 in Nuwaraeliya district to 3560 per 1000 population at Ampara district. Although this geographical disparity is seen, the difficult geographical terrain in certain districts seems to have no influence on the service utilization.

- **In-patients treated by Government Hospitals**

On an average, 212.7 patients per 1000 population seeks in-patient care at government medical institutions. However, a wide geographical variation in this figure is seen, which ranges from 7.1 admissions in Killinochchi district to 307.2 admissions per 1000 population in Colombo district. The low figure in Killinochchi district could be due to gross under-reporting and shortage of in-patient care facilities in the district.

7. TRENDS IN HEALTH STATUS

7.1 Life expectancy

Year	Male	Female
1946	43.9	41.6
1953	58.8	57.5
1963	61.9	61.4
1967	64.8	66.9
1971	64.2	67.1
1981	67.8	71.7
1991-1996	69.5	74.2
1996-2001	70.7	75.4

Source- Department of census and statistics

Life expectancy at birth increased from 43 years in 1946, to 70 in 1981 and to 73 in 1996 (estimated). The rapid increase in the average life span, together with the widening of the gap between male and female longevity, reflects a dramatic improvement in the survival

of those age groups that were most vulnerable and exposed to high risk of mortality, namely infant and children in the age group 1-4 and women of the child bearing age.

In Sri Lanka, Healthy Life Expectancy at birth was estimated to be 61.6 years with 59.2 years fpr male and 64 years for female in 2002 (as per World Health Report 2004).

7.2 Mortality

Trends in Infant Mortality Rate

The IMR also shows a similar trend in decline as the MMR. In 1935, a very high IMR (263/1000 Live Births) was recorded. A decline in IMR is observed after 1946. The IMR in 2003 is reported to be 11.2 (provisional) per 1000 live births (Statistical Pocket Book - 2004, Department of Census and Statistics, Colombo, Sri Lanka).

Few districts with large hospitals report (in comparison) a high IMR because of the earlier stated problem in death registration. District of Anuradhapura reported the highest IMR during the year 2001. During this period, the Anuradhapura hospital served as a referral centre to several neighbouring districts including those from the war affected Northern Province.

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Trends in Under-5 mortality Rate

In Sri Lanka, Under-5 mortality rate per 1000 live births was 14.6 in 2001 (Millennium Development Goals Country Report 2005: Sri Lanka).

Trends in Maternal Mortality Ratio

MMR has been very high in the past, fluctuating between 265 in 1935 and 155 in 1946 per 10 000 live births. A dramatic decline was observed in the post war period. The most recent MMR released by the Registrar General's Department is 2.3 per 10 000 live births. According to hospital records (Government Institutions only), MMR is 3.9 for the year. The maternal mortality reported by Family Health Bureau after reviewing all maternal deaths was 46 per 100,000 live births. In this calculation, the Maternal Deaths have been allocated to the district of residence of the pregnant mother, overcoming the issue of death registration. The Millennium Development Goals Report 2005, Sri Lanka, reports a maternal mortality ratio of 47 per 100,000 live births in 2001.

A wide range of district disparity exists in MMR. The highest MMR is reported for the district of Nuwara Eliya in the year 2001 according the Family Health Bureau.

The mortality pattern in Sri Lanka is in a transitional stage. It appears to be changing from a pattern seen in developing countries to a pattern in developed countries. The trends in mortality indicate a decrease in deaths resulting from infectious and parasitic diseases, diseases of the nervous system and sense organs and of the respiratory system, whereas a substantial increase in the death rates associated with diseases of the circulatory system, injury and poisoning is evident.

Perinatal disorders were the leading cause of death during infancy. Premature deliveries was the main contributory factor. Diseases of the respiratory system, excluding diseases

of the upper respiratory tract, ranked within the first five leading causes of death in all age groups, except for 15-24 and 25-49 years. Similarly, diseases of the pulmonary circulation and other forms of heart diseases were among the five leading causes of death in all age groups, except the 15-24 year age group.

Symptoms and signs of ill defined conditions were an important cause of mortality in all age groups.

It is significant that external causes of injury and poisoning are the leading cause of death in all ages, except in infancy and above 50 years of age. Homicide and injury purposely inflicted by other persons was the leading cause of death in the age groups of 15-24 and 25-49 years, respectively.

7.3 Morbidity

Overall morbidity, based on in-patient and out-patient records, has shown a decrease. However, this decline has been due solely to a drop in out-patient attendance, while in-patient care has increased. The latter may be due to wider service provisions for curative care and the increasing proportion of the elderly. Remarkable achievements have been made in the reduction of mortality in respect of the EPI-target diseases. All other communicable diseases have also shown a decline since 1991, but non-communicable diseases have shown a two-fold increase during the past two decades. Injuries and poisoning have increased since early 1990s. The trends in hospital morbidity and mortality are given in table below:

Table: Trends in Hospital Morbidity and Mortality by Broad Disease Groups, 1980 - 2002

International Classification of Diseases (10th Revision)	Cases per 100,000 Population							Deaths per 100,000 Population						
	1980	1985	1990 [3]	1995 [4]	2000	2001	2002	1980	1985	1990 [3]	1995 [4]	2000	2001	2002
1. Certain infectious and parasitic diseases	2,054.2	2,080.3	2,382.6	1,758.7	2,431.7	2149.4	2195.2	23.9	19.3	14.2	13.2	13.5	13.3	10.9
2. Neoplasms	128.3	121.3	142.1	190.1	260.2	287.4	301.7	6.4	7.4	10.2	11.6	13.2	14.3	11.7
3. Diseases of the blood & blood- forming organs & Certain disorders involving the immune mechanism	356.7	287.1	168.0	152.2	111.0	104.5	87.4	3.4	2.5	1.5	1.0	0.9	0.6	0.7
4. Endocrine, nutritional and metabolic diseases	232.6	225.5	139.4	205.8	278.4	327.5	304.5	3.5	3.5	2.6	3.8	4.3	4.1	3.5
5. Mental and behavioural disorders	225.2	207.0	211.3	261.6	247.0	256.6	222.0	2.1	1.1	0.4	0.6	0.7	0.4	0.2
6. Diseases of the nervous system	114.9	134.1	126.6	172.4	243.4	261.6	264.9	6.5	6.6	3.7	2.9	3.3	3.0	3.0
7. Diseases of the eye and adnexa	183.1	181.8	166.4	276.6	299.9	347.9	349.3	-	-	-	-	-	-	-
8. Diseases of the ear and mastoid process	97.3	92.4	58.4	66.6	86.8	88.2	88.9	-	-	-	-	-	-	-
9. Diseases of the circulatory system	613.3	658.8	645.4	925.5	1,153.0	1269.8	1223.5	33.4	38.4	41.7	50.6	54.0	54.8	51.7
10. Diseases of the respiratory system	2,327.2	2,180.1	2,057.2	2,088.7	2,313.4	2301.5	2441.1	19.0	17.1	13.3	16.0	18.1	18.2	18.1
11. Diseases of the digestive system	687.5	613.0	528.8	739.2	1,056.7	1147.4	1128.4	8.4	8.4	9.2	13.6	16.4	17.9	17.5
12. Diseases of the skin and subcutaneous tissue	592.9	535.2	471.5	529.2	566.6	594.8	593.9	0.4	0.4	0.2	0.2	0.3	0.2	0.1
13. Diseases of the musculoskeletal system and connective tissue	412.0	398.6	565.1	627.9	612.3	621.4	619.8	0.2	0.2	0.2	0.2	0.1	0.1	0.1
14. Diseases of the genitourinary system	727.2	685.6	746.6	998.9	1,124.8	1,216.0	1,206.0	3.1	3.2	2.6	4.8	5.9	6.3	5.7
15. Pregnancy, childbirth and the puerperium [1,5]	2,421.9	1,806.0	1,945.2	2,207.3	3,122.6	3,382.6	3,525.4	6.4	4.2	1.8	1.3	1.1	3.0	2.2
16. Certain conditions originating in the perinatal period [2]	3,081.9	2,914.3	2,848.0	4,986.5	9,108.9	9,505.2	9,284.3	664.4	733.8	387.8	505.4	599.8	592.2	494.6
17. Congenital malformations, deformations and chromosomal abnormalities	30.4	24.2	32.3	52.8	54.8	61.9	63.3	3.3	2.2	1.3	2.5	2.7	2.8	2.5
18. Symptoms,signs and abnormal clinical and laboratory findings not elsewhere classified	1,078.1	1,352.6	1,134.9	1,311.6	1,061.0	1,193.3	1,198.0	13.9	11.2	7.0	5.0	8.5	8.2	7.0
19. Injury, poisoning and certain other consequences of external causes	1,731.8	1,669.4	1,799.8	2,552.1	3,345.7	3,618.7	3,412.9	27.3	25.9	23.3	22.7	23.6	22.8	18.6

[1] Rate Per 100,000 females of the reproductive age group

[2] Per 100,000 live births / infant population

Excludes:

[3] Northern and Eastern Provinces.

[4] Jaffna, Kilinochchi, Mullaitivu,and Ampara diistricts.

[5] Spontaneous delivery, false labour and those admitted and discharged before delivery.

Source: Table 19, Annual Health Bulletin 2002, Department of Health Services, Ministry of Health, Colombo, Sri Lanka.

7.4 Disability

In Sri Lanka, total disability rate was 162.9 per 10,000 population in 2001. It was 189.9 for males and 136.4 for females. The prevalence of blindness was 41 per 10,000 persons (42.5 for males and 39.5 for females). The disability rate due to hearing/speaking was 43.5 per 10,000 persons (48.6 for males and 38.4 for females). Highest disability rates, in seeing of 70.1 and hearing/speaking of 62.6 per 10,000 persons, have been reported for Hambanthota district (Report on Disability Statistics of Sri Lanka, 2004).

8. OUTLOOK FOR THE FUTURE

8.1 Overall assessment and strategic issues

Health status of the population

The country's health indicators show a steady improvement over recent decades, particularly in maternal and infant mortality, and life expectancy. The Maternal Mortality Ratio of 2.3/10,000 live births in 2000 is an exceptional achievement for a developing country with an income level of about US $ 800 per capita. The improvement of these indicators are predominately attributed to the maternal and child healthcare programme implemented nationally as an integral component of the state healthcare system. Similarly, the Infant Mortality Rate of 16.3 per 1000 live births has been achieved by effective and widely accessible prevention and primary healthcare strategies including treatment of minor infections. However, while post neonatal mortality has declined significantly, prenatal and neonatal mortality efforts have been less successful. A neonatal mortality rate of 12.9 per 1,000 live births suggested limited progress in improving the quality of labour and delivery and also the relatively poor health of mothers, which results in premature deliveries and low birth weights.

Life expectancy has risen steadily to around 75 for females and 71 for males (1997), and the fertility rate has declined to around 2.0 - below population replacement level. With the rapid ageing of the population and success in combating the major communicable diseases, the disease burden has started shifting rapidly towards non-communicable diseases including mental diseases, accidents and injuries. The leading causes of death (by percentage of total mortality for year 2000) are ischaemic heart disease (10.6 percent), diseases of the intestinal tract (9.3 percent), cardiovascular diseases (9.0 percent), pulmonary heart disease and diseases of the pulmonary circulation (8.6 percent), and neoplasms (7.5 percent). Infectious and parasitic diseases have declined in importance, while cardiovascular diseases and homicides have increased in a proportionate manner. In 1996, violence (accidents, suicides and homicides) accounted for 22 percent of the deaths, while cardiovascular diseases and diabetes accounted for another 24 percent, which indicates that the epidemiological transition is rapidly in progress.

Nutritional status has improved but remained a serious problem among the poorer and vulnerable communities, and even on average is unsatisfactory. This brief analysis is based on information related to the whole country and does not address the disparities that exist among provinces. But when the provincial or district level figures on infant and maternal mortality are compared, there seems to be great disparities, some of which may be due to

differential under-reporting or the referral of cases. In particular, information on the conflict affected areas and the estates shows significant variation among and within the provinces.

Health Policy

The broad aim of the health policy of Sri Lanka is to increase the life expectancy and improve the quality of life. This is to be achieved by controlling preventable diseases and by health promotion activities. However, the concern of the Sri Lankan government is to address health problems like inequities in health services provision, care of elderly and disabled, non-communicable diseases, accidents and suicides, substance abuse and malnutrition. A presidential task force was appointed in 1997 to formulate a health policy and to suggest strategies to address health problems and issues.

Recommendations made by task force:

- Improve one hospital in each district in a planned manner, to reduce inequities in the distribution of services and to provide high quality facilities to people living in remote areas
- Expand the services to areas of special needs
- Develop health promotional programmes with special emphasis on revitalizing the school health programme
- Reforms of the organizational structure, to improve efficiency and effectiveness, especially in the context of devolution
- Resource mobilization and management, including alternative financing mechanisms, resource sharing between private and public sectors, and rationalized human resource development

The government will take every effort to maximize the financial allocations on health development to ensure provision of an efficient and cost effective health services throughout the country, accessible to the needy people.

Health Resources

Sri Lanka has achieved extraordinary good health outcomes compared to the level of spending on health. The total expenditure on health was Rs 222 899 million in 2001. During 2001, the provision of public expenditure on health services was 1.6 percent of the GNP and 4.9 percent of national expenditure. The per capita health expenditure was Rs 1 222 in 2001. Recurrent expenditure amounted for 81 percent of the total expenditure.

A major proportion of the health expenditure is utilized by the patient care services. In 2001, patient care services utilized 66 percent of the health expenditure, while community health services utilized only 8 percent. Of the balance, 22 percent were for general administration and staff services and 3 percent were spent on training and scholarships.

The Ministry of Health and the Department of Health Services (Central) utilized 74 percent of the total health expenditure. It utilized 74 percent of the expenditure on patient care services, and 39 percent of the expenditure on general administration and staff services.

Development of Health System

The services in the state sector are characterized by a very busy and overcrowded system of National, Provincial, General and Base hospitals and a widely spread network of district hospitals and healthcare units operating at lower levels of utilisation and occupancy.

Sri Lanka reported 0.2 per capita in-patient admissions in 1997. This heavy demand may be due to a number of factors including insufficient diagnostic capabilities in lower primary care and out-patient departments and patients being admitted when, with better primary care, they could have been treated on an ambulatory basis. Also, it is observed that patients bypass the lower level services keeping occupancy rates low at peripheral hospitals, in favour of larger city and provincial hospitals, thereby overcrowding at these facilities. This is aggravated by an absence of clear admission and referral policies.

The fast growing segment of private sector healthcare is out-patient or ambulatory care. Over 36 million out-patient visits were estimated to have taken place in 1997, an increase of 2 million over 1990 estimate. Reintroduction of private practice for government doctors, liberalisation of drug imports and service provision deficiencies in government hospitals have resulted in the growth of private hospitals in urban centres.

As the size of the population served varies with population density, the volume of services planned too would vary from institution to institution. But the services offered should be uniform with each level of services and should be clearly known to everyone.

A primary care and curative follow-up activities with screening of diseases and work towards patient and family-centred promotion and prevention needs to be in place. But the scope of such preventive facilities and the number of workers required to fulfil these tasks is not clear.

There are various branches of medicine in Sri Lanka, which contribute to the national health. They include Ayurveda, Siddha, Unani, and Homeopathy and other systems of medicine. All of them collectively constitute an integral part of the health sector and must be included in the planning process. The development of these systems needs to be ensured by a clearer conceptual basis for coordination of health services, coupled with adequate resource allocation and the strengthening of existing institutions.

8.2 Future vision

Development of National Health Objectives and Targets

The MDGs have set the agenda for social development in the 21st century. In the health sector, it encompasses reducing maternal mortality, under-five mortality and malnutrition, halting and reversing HIV/AIDS epidemic and incidence of Malaria and Tuberculosis, and provision of access to affordable essential drugs. In addition, it targets to halve by 2015 the proportion of people without sustainable access to safe drinking water and sanitation.

The future health scenario in Sri Lanka desired by the year 2020 encompasses the following ten dimensions.

- Disease elimination/eradication (Polio/Neonatal Tetanus/Measles/Leprosy, etc)
- Mortality reduction (Mainly communicable diseases)
- Disease containment (Mainly non-communicable diseases, HIV/AIDS and hepatitis)
- Mitigation of specific concerns (Substance abuse, alcoholism, suicide, poisoning and accidents)
- Improvements in health status indicators (Life expectancy, Infant Mortality Rate, Neonatal Mortality Rate, under-5 mortality rate, crude death rate, maternal mortality ratio, contraceptive prevalence rate and socio-economic productivity)
- Improvement in nutritional status
- Issues relating to health and environment
- Health planning and management
- Socio-economic aspects related to health
- Improvement in health system management

8.3 Proposed strategies

The proposed strategies for future national health development, which will constitute a renewed commitment to health for all, are as follows:

- To consolidate the achievements in infrastructure development, service provision and disease prevention

- To meet the challenges to health posed by new, emerging and re-emerging diseases and non-communicable/degenerative diseases, substance abuse and environmental degradation.

- To sustain the process of health development, emphasising the quality of care, and equity and efficiency issues, particularly in the context of a free market economy

- To sustain and strengthen programme planning and management

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

See Annex-1

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 million)	19.252	2003	1	Provisional
Population density (persons per sq km)	307	2003	1	Provisional
Sex ratio (males per 100 female births)	1047	2003	1	Provisional
Population under 15 years (%)	26.6	2001	8	Census 2001
Population 60 years and above (%)	9.3	2001	8	Census 2001
Crude birth rate (per 1000 population)	18.9	2003	1	Provisional
Crude death rate (per 1000 population)	5.9	2003	1	Provisional
Annual population growth rate (%)	1.3	2003	1	Provisional
Total fertility rate (per woman)	1.9	1995-2000	2	From DHS 2000
Urban population (%)	23.2	1999	1	
SOCIOECONOMIC SITUATION				
Gross domestic product per capita (US $)	947	2003	8	At market price
Adult Literacy Rate				
Total	95.6	2001	9	
Male	95.1	2001	9	
Female	96.0	2001	9	
Prevalence of low birth weight (weight <2500 grams at birth) (%) per 100 live births in Govt. Hospitals	17.2	2002	5	Medical Statistics Unit
Prevalence of underweight (weight-for-age) in children <5 years of age (%)	29.4	2000	5	
Prevalence of stunting (height-for-age) in children <5years of age (%)	13.5	2000	5	
HEALTH SYSTEM				
INPUTS				
Facilities				
Number of hospital beds	59,144	2002	5	Medical Statistics Unit
Hospital beds per 1,000 population	3.1	2002	5	Medical Statistics Unit
Number of hospitals	576	2002	5	Medical Statistics Unit
Number of central dispensaries	411	2002	5	Medical Statistics Unit

Human resources				
Physicians per 100,000 population	50.1	2002	5	Medical Statistics Unit
Population per physician	1996	2002	5	Medical Statistics Unit
Nurses per 100,000 population: Professional nurses	89.1	2002	5	
Public Health Midwives per 100,000 population	24.6	2002	5	Medical Statistics Unit
Budgetary resources				
Total Expenditure on Health (THE) as % of Gross Domestic Product (GDP)	3.7	2002	4	
Public Expenditure on Health (PHE) as % of Total Expenditure on Health (THE)	48.7	2002	4	
Private Expenditure on Health (PvtHE) as % of Total Expenditure on Health (THE)	51.3	2002	4	
Public Expenditure on Health (PHE) as % of General Government Expenditure (GGE)	6.0	2002	4	
Social Security Expenditure on Health (SSHE) as % of Public Expenditure on Health (PHE)	0.0	2002	4	
Tax funded Health Expenditure (TaxFHE) as % of Public Expenditure on Health (PHE)	96.0	1998	4	
External Resources for Health (Ext Res HE) as % of Public Expenditure on Health (PHE)	4.0	1998	4	
Per capita Total Expenditure on Health (THE) at official Exchange rate (X-Rate per US $)	32	2002	4	
Per capita Public Expenditure on Health (PHE) at official Exchange rate (X-Rate per US $)	16	2002	4	
Per capita Total Expenditure on Health (THE) in international dollars (int'l $)	131	2002	4	
Per capita Public Expenditure on Health (PHE) in international dollars (int'l $)	64	2002	4	
FUNCTIONS				
Pregnant women attended by trained personnel during pregnancy (%)	96.0	2000	5	
Deliveries attended by trained personnel (%)	97.0	2000	9	

Infants attended by trained personnel (%)	98.0	1996		
Women of childbearing age using family planning (%)	49.5	2000	5	Modern Methods
Infants reaching their first birthday that have been fully immunized against diphtheria, tetanus, and whooping cough (%)	99.9	2002	5	Epidemiological Unit
Infants reaching their first birthday that have been fully immunized against poliomyelitis (%)	99.9	2002	5	
Infants reaching their first birthday that have been fully immunized against measles (%)	88	2000	9	Millennium Development Goals Country Report 2005
Infants reaching their first birthday that have been fully immunized against tuberculosis (%)	99.5	2002	5	
Women that have been immunized with tetanus toxoid (TT) during pregnancy (%)	96.4	2003	3	
Private Insurance for Health Risks (Pvt ins HE) as % of Private Expenditure on Health (PvtHE)	No data			
Environment				
Population with safe drinking water available in the home or with reasonable access (%)	82	2001	9	
Population with adequate excreta disposal facilities available (%)	80	2001	9	
OUTCOMES				
Life expectancy at birth (years): Total Male Female	73.0 70.7 75.4	1996-01 1996-01 1996-01	1 1 1	
Infant mortality rate (per 1000 live births)	11.2	2003	1	Provisional
Under-five mortality rate (per 1000 live births)	14.6	2001	9	
Maternal mortality ratio (per 100,000 live births)	47	2001	9	
Out-of-Pocket Spending on Health (OOPS) as % of Private Expenditure on Health (PvtHE)	95.1	2002	4	

GENDER EQUITY				
Life expectancy at birth ratio (females as a % of males)	106	1996-2001	5	Computed value
Seats held in parliament (% of women)	4.4	2004	6	
Professional and technical workers (% women)	49	1992-2001	6	
Ratio of earned income (females as a % of males)	0.57	1991-2001	6	
Adult literacy ratio (females as a % of males)	101	2001	9	Computed value
Primary school enrolment ratio (females as a % of males)	99.1	2002-03	7	Computed value
Secondary school enrolment ratio (females as a % of males)	105.9	2002-03	7	Computed value

Indicator	Latest available data	Year	Source	Remarks
MDG HEALTH RELATED INDICATORS				
G1.T2.I4 - Prevalence of underweight children (under-five years of age) (%)	29.4	2001	5	
G1.T2.I5 - Proportion (%) of population below minimum level of dietary energy consumption	51.3	2002	9	
G4.T5.I13 - Under-five mortality rate (per 1000 live births)	14.6	2001	9	
G4.T5.I14 - Infant mortality rate (per 1000 live births)	11.2	2003	1	Provisional
G4.T5.I15 - Proportion (%) of 1 year-old children immunized for measles	88	2000	9	
G5.T6.I16 - Maternal mortality ratio (per 100,000 live births)	47	2001	9	
G5.T6.I17 - Proportion (%) of births attended by skilled health personnel	97	2001	9	
G6.T7.I18 - HIV prevalence among young people	35 cases	2004	9	
G6.T7.I19 - Condom use in high risk population	No data	--		
G6.T7.I20 - Ratio children orphaned / non-orphaned in schools	No data	---		
G6.T8.I21a - Malaria death rate per 100,000 in children (0-4 years of age)	No data	--		
G6.T8.I21b-Malaria death rate per 100,000 (all ages)	No data	---		
G6.T8.I21c - Malaria prevalence rate per 100,000	No data	---		
G6.T8.I22a - Proportion (%) of population under age 5 in malaria risk areas using insecticide-treated bed nets	No data	---		
G6.T8.I22b - Proportion (%) of population under age 5 with fever being treated with anti-malarial drugs	No data	---		
G6.T8.I23a - Tuberculosis death rate per 100,000	1.8	2001	9	
G6.T8.I23b - Tuberculosis prevalence rate per 100,000				

Indicator	Latest available data	Year	Source	Remarks
G6.T8.I24a - Proportion (%) of Smear-Positive Pulmonary Tuberculosis cases detected and put under directly observed treatment short course (DOTS)	No data			
G6.T8.I24b - Proportion (%) of Smear-Positive Pulmonary Tuberculosis cases detected cured under directly observed treatment short course (DOTS)	75	2001	9	
G7.T9.I29 - Proportion (%) of population using biomass fuels)	80.2	2001	9	
G7.T10.I30a - Proportion (%) of population with sustainable access to an improved water source, rural	81	2001	9	
G7.T10.I30b - Proportion (%) of population with sustainable access to an improved water source, urban	95	2001	9	
G7.T11.I31 - Proportion (%) of urban population with access to improved sanitation	>80	2001	9	
G8.T17.I46 - Proportion (%) of population with access to affordable essential drugs on a sustainable basis	No data			

Sources:

1. Statistical Pocket Book-2004, Department of Census & Statistics, Sri Lanka
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3. WHO , CORE INDICATORS 2005
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9. Millennium Development Goals Country Report 2005: Sri Lanka

Annex-2

Millennium Development Goals

The progress made towards achievement of health related 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**			
Indicator	**1990**	**2002**	**MDG Target**	
			2015	**Status**
4. Prevalence of underweight children under-5 years of age	38*	29**	19	On track
5. Proportion of population below minimum level of dietary energy consumption	50.9	51.3 (2002)	25	Not on track

* 1993, ** 2000, *Note:* North & East not covered due to data limitation, *Source:* DHS/DCS

Status and Trends

Malnutrition followed by poverty is an acute problem especially among pre-school children in Sri Lanka. The human body requires a certain amount of macro-nutrients such as energy, protein, fats and micro-nutrients to maintain good health. Any nutritional disorder caused by inappropriate dietary intake is referred to as malnutrition. Malnutrition can be categorized into four main groups, namely over-nutrition, dietary deficiency, secondary-malnutrition and under-nutrition. In the third world countries including Sri Lanka, under-nutrition is the most common phenomenon found largely among pre-school children. This is mainly due to the shortage of calories and/or protein, which are necessary for normal growth and body maintenance. This condition is technically referred as the Protein Energy Malnutrition (PEM).

Despite large and diverse investments in development and poverty alleviation, and comparatively high human development indicators, under-nutrition levels have remained substantial over several decades. The prevalence of malnutrition among children aged 3-59 months is commonly measured using three anthropometric indices; i.e., stunting (height-for-weight), wasting (weight-for-height) and under-weight (weight-for-age). Though child malnutrition in Sri Lanka has been declining over the past decades, still 13.5 percent of children below the age of 5 years are stunted, while 14 percent and 29.4 percent are wasted and under-weight, respectively (Department of Census and Statistics, 2000).

Sri Lanka has three micro-nutrient deficiencies that have been identified as public health problems: Iron, Vitamin A and Iodine. Applying 1995 nutritional assessment to present-day population estimates, the number of pre-school children suffering from stunting is about 0.33 million; while 0.21 million are wasted; and 0.54 million are under-weight. Furthermore, 0.66 million children suffer from Vitamin A deficiency while 0.72 million pre-school children are anaemic.

The small sample Nutrition and Health Surveys (NHS) carried out at national level between 1993 and 1995 found that: (a) rural and estate sectors have a higher prevalence of under-nutrition than urban areas; (b) stunting and under-weight are highest in the Central Province, while wasting is highest in the Sabaragamuwa Province; (c) under-nutrition is related to low income, poor housing and sanitation; (d) under-nutrition is also related to low birth weight and age (one in five children are born with low birth weight), but not to gender; and (e) the critical period of human vulnerability for Sri Lankan children is during the first 18 months of their lives.

The prevalence of underweight is also high among adults. Based on their Body Mass Index (BMI), 36 percent of men and 33 percent of women were found under-nourished (having a BMI below 18.5) in 1994; 9 percent of women and 5 percent of men were found suffering from chronic energy deficiency.

While Sri Lanka's food supplies are generally adequate to meet the average daily minimum per capita calorie requirements of the population, surveys have shown that serious calorie deficiencies are being experienced by the lowest population quintile; while the second quintile hovers around the norm. However, income is not the only determining factor of nutritional adequacy. Iodine deficiency disorders are also a major health problem. One out of every five children suffers from iodine deficiency disorders - the single most important preventable cause of physical and mental retardation. A more recent study identified poor caring and feeding practices, high morbidity, and poverty-related factors such as lack of access to adequate food, adequate housing, clean water and safe sanitation, and maternal under-nutrition as the key causes of child malnutrition.

Challenges

- Maintenance of the nation's and individual households' food security.
- Improvement in the quality of food consumed.
- Accelerating the impact on nutrition of low/rising income groups.

Supportive Environment

Public nutrition policy has been designed to operate on all three causative factors, i.e., income, disease and behaviour, with the emphasis changing as considered appropriate, from time to time. The main instruments have been the provision of a safety net for food consumption, cash transfers targeted to improve the food intake of the poor and a package of preventive and curative services delivered through the widespread health network.

Over the three and a half decades prior to 1979, government attempted to maintain stability in the availability of the most important foods consumed in Sri Lanka, in aggregate terms, by developing a complex system of subsidies and controls. In times of good agricultural performance, the system worked well by distributing the available surplus to the poor and malnutrition was low. However, in times of drought and shortages, it precipitated severe hardship and starvation. As the net subsidy grew rapidly, this scheme was replaced by non-price-indexed food stamps; but with liberalisation of the economy, price increases eroded the real value of the stamps, and nutrition status became far more sensitive to declines in real income.

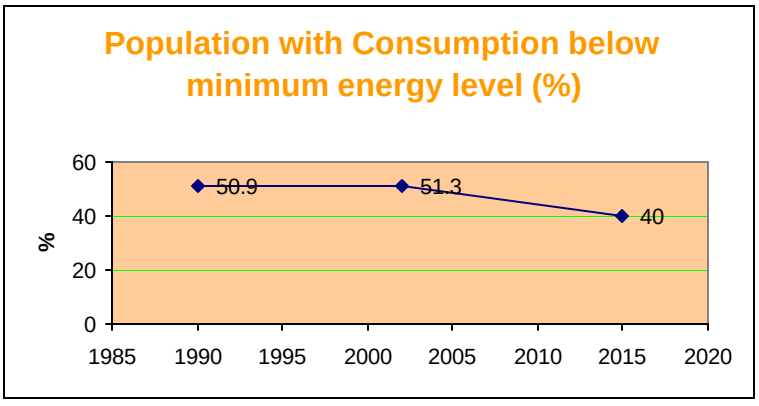
These stamps were subsequently replaced by cash grants to identified poor families to shore up the purchasing power of the poor. Even though targeting of the poor has not been efficient, the funds that have been spent in rural areas generated demand for local products and activated the rural economy. Combined with GDP growth rates averaging 5 percent, these programmes have contributed substantially to the improvement in malnutrition levels during the nineties.

Health policies and programmes on nutrition have centred on the treatment of specific nutritional conditions and an integrated package of preventive services including immunization, sanitation and hygiene, birth spacing and control; food supplementation for 180 days of pregnancy with 200 calories a day, and iron and folic acid tablets; and nutrition education, and growth monitoring. This has reduced ignorance, use of improper diets and feeding practices, and sickness (particularly infectious diseases), and undoubtedly contributed to the increase in the duration of breast feeding from 23.5 months in 1993 to 27.5 months in 2000, and the decline in low birth weight babies during the last decade.

Priorities for Development

The strategy elaborated above for dealing with poverty is essentially the same as that required for reducing malnutrition and has to be accompanied by nutrition education to change behaviour and strengthening of the health service package. However, until the economic and climatic swings can be mitigated and more stable and productive employment created, income support will have to be continued to shore up the purchasing power of the poor and create demand in the rural economy.

The nutrition levels of the poor are now very sensitive to their income levels. The relationship between their sources of income (by way of wages or sale of produce) and the prices of their staple food is a crucial one. As the purchasing power of the poor becomes more dependent on wages, they become more vulnerable to economic swings, and those dependent on agricultural production are subject to the vagaries of the weather.



In addition, it would be necessary to focus also on

- Improvement of maternal nutrition and reduction in the incidence of low birth weight babies.
- Reduction of the high incidence of malnutrition in children under-5 years.
- Reduction of the incidence of micronutrient deficiencies in all population groups.

- Increasing the awareness and information on appropriate nutrition and health practices and life styles.
- Development of partnerships with NGOs and the private sector for improving food security and quality.

GOAL 4: REDUCE CHILD MORTALITY

TARGET 5	**Reduce by two-thirds between 1990 and 2015, the under-five mortality Rate**			
Indicator	**1990**	**2000**	**MDG Target**	
			2015	**Status**
13. Under-five mortality rate per 1000 Live Births	22.2*	18.8**	12	On track
14. Infant mortality rate per 1000 Live Births	19.3	12.2	12.8	On track
15. Proportion of 1-year-old children immunized against measles	80	88	99	On track

Source: (13, 14) – RGO, (15) – Ministry of Health
* 1991, ** 1999; (13, 14) – North and East not covered due to data limitations

Status and Trends

Sri Lanka has long been cited as an example of a low income country that has achieved remarkable progress in health and social development, particularly relative to comparable low income countries and its neighbouring South Asian counterparts. Sri Lanka has adopted various policies related to childcare for several decades since independence, which have contributed to the consistent decline in infant and under-five mortality rates.

Infant mortality in Sri Lanka in 2002 was only 17 per 100,000 live births while under-five mortality was 19 per 1,000 live births, the lowest rates in the WHO South East Asian Region:[1] The establishment of a widespread system of Maternal and Child Health (MCH) clinics as well as an outreach of MCH care through home visits by Public health Midwives, supported by family planning programmes particularly family spacing, and a reduction in home deliveries have contributed to declining mortality.

Since 1990, overall infant mortality rates have declined only marginally. Between 1991 and 1996 infant mortality rates increased in the Southern, Northern, North Central, Uva and Sabaragamuwa provinces and subsequently showed a declining trend. In 2002, infant mortality rates per 1,000 live births was the highest in the North Central (17.2) and Central (14.2) provinces. District wise, the highest was recorded from Anuradhapura, (16.8), Polonnaruwa (16.5) and Colombo (16.3) districts.[2]

Female mortality rates are lower than that of males; however, this has shown a slight increase since 1991. On the other, male mortality rates have decreased by 1 percent since 1991. District

[1] WHO
[2] Selected MDG indicators – Department of Census & Statistics, Sri Lanka, 2005

wise, both female and male mortality rates were the highest in North Central and Central Provinces. According to data from the Family Health Bureau of the Ministry of Health, approximately 83 percent of the reported infant deaths have occurred during the neonatal period (28 days), while 61.5 percent occurred during the early neonatal period (during the first 7 days).

As per Demographic Health Survey 2000, mortality rates were relatively high in the estate sector, where nearly one in every 20 babies died in the first year of life. Under-five mortality is the lowest in the urban sector, while it is the highest in the estate sector. Mortality levels are the highest among children born of women below 20 years of age, especially infant mortality where 21.5 out of every 1,000 births occur. Post-neonatal mortality was highest (6.1 per 1,000 live births) among women in the 20-29 age group.

Under-5 mortality rates have also declined over the years, while the rate of decline was slow between 1991 and 1996. In 1991, under-5 mortality was 22.2 per 1,000 live births; this decreased to 19 in 1999. As in the case of infant mortality, under-5 mortality has increased in the North Central and Central provinces during 1991-96.

In Sri Lanka, the most challenging task is to reduce pre-natal and neonatal mortality. The reasons for such mortality rates could be linked to the mother's health and nutrition status during pregnancy and her access to quality pre-natal care at delivery and post-natal care thereafter. Maternal under-nutrition such as anaemia complicating pregnancy, low birth weight, poor quality antenatal care, poor management of pregnancy complications, sepsis during delivery and lack of proper newborn care including lack of means for resuscitation are other contributing factors.

Recipients of pre-natal care are numerous, as 94 percent of children are born to mothers who have visited maternal clinics during pregnancy, while 84 percent were visited by family health workers. Mothers in the estate sector and with no formal education are the least likely to receive home visits from family health workers. Only 42 percent of the mothers in the estate sector were visited by health workers in comparison to 90 percent in urban areas.

In Sri Lanka, mothers are issued with a Child Health Development Record (CHDR) by the health authorities at the birth of their child. In 2000, approximately 86 percent of children under-five years of age had a CHDR. Children with full immunisation coverage from Polio and Measles were 88 percent and 86 percent respectively. Progress of measles coverage has also been successful with the number of measles cases declining since 1980.

Data from UNICEF show that in 2003, 99 percent of children were immunized against measles. In 2000 the coverage was the highest in the Central province (97.1 percent) while the lowest recorded was in the Uva province where only 88 percent were immunized against measles. Most recent data available from the North East (2001) showed that only 69 percent of children aged 1-59 months were immunized against measles in the Trincomalee district, followed by Ampara (71.8 percent) and Jaffna (73.5 percent) districts. However, immunization against measles in the estate sector still remains low in comparison to other areas with the number declining since 2000.

The National Immunization Programme, which supports vaccine preventable diseases, has continued under constraints due to the irregular supply of vaccines, inability to maintain an effective chain of cold storage, and lack of transport and trained personnel.

Challenges

- Most of the deaths that occur among children under-five are between the neo-natal and pre-natal stages. The causes are closely linked to pregnancy, antenatal, natal and postnatal care, and newborn and neonatal care. However, the lack of data prevents a comprehensive analysis of the reasons for such deaths. Data on these indicators need to be improved further and resources allocated towards preventive care.
- Conflict-affected areas and the estate sector need to be given special priority in terms of infrastructure, experienced health personnel and awareness building.
- The peripheral health network suffers from limited development in human resources and from inadequate geographical distribution. Many of the medical professionals are unwilling to work in the peripheral areas due to the lack of incentives and are largely concentrated in the urban areas.
- Recording of mortality rates needs to be improved. There is a possibility of poor registration of infant deaths in remote and conflict affected areas, which needs further examination.
- Pre-natal and neonatal mortality rates need to be reduced. Issues in relation to the well being of pregnant women during the antenatal period, delivery and postnatal period need to be addressed.
- Greater priority should be placed on the quality of care during the prenatal and neonatal periods. Skill development programmes for midwives, public health nurses and health professionals need to be provided.
- Immunization programmes need to be provided at an aggregate level.

Present Supportive Environment

The Government's emphasis on social development has given priority to health and schooling for both men and women. In turn, this has increased individual demand for healthcare services. The extensive network of health facilities throughout the country has also contributed low mortality rates among children. With the exception of the North and East, healthcare of some sort is available within 1.4 kilometres from most homes and, on average, free state-provided allopathic healthcare is available within 4.8 kilometres.

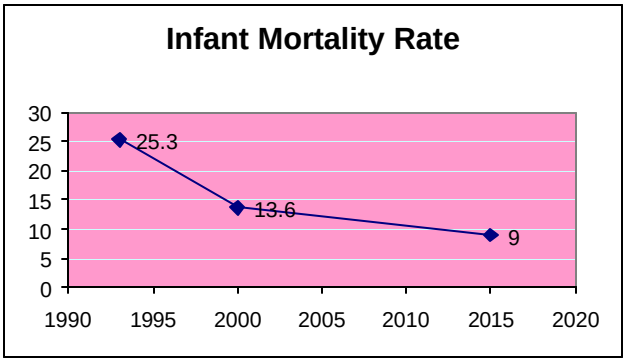
At present, medical officers are available at the lowest level of the hierarchy (rural hospitals) and services of specialist paediatricians are available at the level of base hospitals and above. Data from various household and consumer finance surveys show that approximately 8 percent of individuals experiencing an illness obtained treatment from western hospital outpatient facilities or private clinics. According to the DHS, all households reported that sick children were taken to a hospital within 2-3 days of the onset of an instance of episode, unless they resided in very remote areas of the North and East provinces. Midwives are also well trained in dealing with and managing various health symptoms. In rural communities, most have accepted Public Health Midwife as a health professional in her own right.

Preventive care is provided through a system of Health Units manned by a Medical Officer of Health (MOH), Divisional Directors of Health Services (DDHS), Public Health Nurses and Public Health Inspectors (PHI). This system is well organized and effective in most districts in delivering preventive and promotive health services to the population. Variations in health

infrastructure and professionals are the main reasons for district level disparities in infant mortality rates and therefore further policies need to be implemented in addressing this disparity.

Priorities for Development

Clinic attendance of pregnant mothers and infants receiving care at clinics has steadily increased. Therefore, improvements in the quality of care and the services provided to them to ensure safe delivery and survival during the first month after delivery need greater focus. The staffs needs regular updating of skills, and quality assurance for the services provided has to be introduced. The facilities available for emergency care of the newborn also need to be strengthened.



In particular, in the northeast and adjacent conflict-affected areas and other under-served areas, such as the plantations, the early filling of vacancies of health staff needed for child health activities (PHM, PHNs, and MOH) is essential. The use of dedicated groups of health volunteers selected from the affected areas and the provision of basic training and amenities for them should be done as an interim measure until trained health staff can be appointed. The necessary infrastructure has also to be developed, with regular mobile clinics being conducted in these areas in the meantime.

Parents' awareness of the development that takes place during childhood is low. As a result, children do not receive sufficient care to optimize the synergistic relationship between health, nutrition and psycho-social well-being. Greater attention has to be paid by NGOs and health professionals in educating parents on the importance of cognitive, emotional and psycho-social development during childhood.

GOAL 5: IMPROVE MATERNAL HEALTH

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

Indicator	**1990**	**2001**	**MDG Target**	
			2015	**Status**
16. Maternal Mortality Ratio Per 1000 live births	0.92	0.47	0.36	On track
17. Proportion of births attended by skilled health personnel	-	97	99	On track

Source: (16) – Family Health Bureau

Status and Trends

Sri Lanka's achievement in reducing the maternal mortality ratio is a widely accepted success story. Sri Lanka's consistent decline in maternal mortality for over 5 decades is attributed to a wide network of maternal services, which has been integrated with childcare and a trained cadre of Public Health Midwives.

The declining trend in maternal mortality in Sri Lanka started in the 1930s, and is associated with the control of malaria and access to a wide network of free health services throughout the country, particularly in maternal services, which include antenatal care, care at delivery and postnatal care. Family planning services were also provided through the network of primary heath care facilities since the late 1960s. This has been more recently extended to cover STI/AIDS and cancers of the reproductive organs within the broader framework of reproductive health.

A significant feature of the cost-effective strategy adopted by Sri Lanka in the early years was that of using trained midwives for home deliveries, while developing an institutional structure for deliveries in institutions and access to emergency obstetric care. In the 1950s, home deliveries began to decline and by 2000 only 3 percent of deliveries took place at home. The government maternal and child healthcare system currently provides domiciliary and clinic services to about 80 percent of pregnant women and infants. However, postnatal care is weak, i.e., in 2000, a public health midwife visited only 77 percent of mothers at home. The coverage of this service has to be improved, especially as most mothers are discharged from hospital after 24-48 hours of a normal delivery.

According to DHS 2000, 98.4 percent of the mothers, who had a live birth within the preceding five years, had antenatal care, 94.5 percent had visited a clinic at least once, and 84 percent had a midwife visiting their home. The Sri Lanka Health and Demographic Survey (SLDHS) carried out in the conflict-affected areas of Sri Lanka in 2001 also indicated that among a comparable group of mothers, 99.8 percent received antenatal care, 96.8 percent of them had visited an antenatal clinic, and 45.7 percent had been visited at home by the midwife (This survey was limited to areas that were accessible to the interviewers, i.e., "cleared areas").

As per World Bank Report, *Investing in Maternal Health 2003*, review of the time period has been taken to reduce the Maternal Mortality Rates (MMR) per 100,000 by 50 percent, demonstrating an interesting pattern. It took 17 years (1930-47) for MMR to decline from more than 2,000 to about 1,000. In the next 3 years (1947-50), the MMR diminished by a further 50 percent. Subsequent 50 percent reductions have been achieved during periods of 8 to 13 years.

The inter-district variations in MMR are an area of concern. To a large extent, these differentials could be attributed to two main areas, the plantation sector and the conflict affected districts.

As per information available in 2000 (*Family Health Bureau - Maternal Death Review)*, the maternal death reviews have shown that more than 70 percent of maternal deaths are due to direct obstetric causes, haemorrhage being the leading cause. Septic abortion contributes to 8

percent of the maternal deaths showing the urgent need for family planning services. Around 23 percent of maternal deaths are due to medical causes aggravated by pregnancy, especially heart diseases, liver diseases, pneumonia and tuberculosis.

Although maternal mortality is relatively low in Sri Lanka, it is above the national average in disadvantaged populations in the estates and in conflict-affected areas, mainly due to poverty associated maternal malnutrition and poor access to emergency obstetric care. Even today, the majority of maternal deaths of a preventable nature are due to health service factors, reproductive health factors and socio-economic concerns. Postpartum care is weak and access to emergency obstetric care varies widely and is inadequate in several districts where one facility covers around 1,000 to 2,000 square kilometres.

Challenges

- To provide support to families to have the number of children they desire, and thereby eliminate unsafe abortion.
- Improve the quality of antenatal care and link it to post-natal care; and improve the coverage and quality of obstetric services and post-natal care.
- To identify and address the special problems of the under-served and underprivileged segments of the population, particularly relating to maternal nutrition, i.e., inadequate weights gain in pregnancy.

Supportive Environment for the Reduction in MMR

Decline in MMR observed during the past decades could be attributed to a multitude of factors, many of which are related to the key strategies adopted by the health sector. Programmes implemented through the health sector ensuring availability of family planning services, antenatal services, skilled attendance at birth, improved access to blood transfusion services and other specialized care, have contributed significantly to the decline in the MMR.

The state played a major role in providing services for maternal care, with a focus on improving access and quality of services. These services are continued to date. To further reduce the MMR, the expansion of services to improve antenatal and natal care has to be linked with adequate utilization of the services provided. Available information indicates a high degree of utilization of all services related to maternal care. Other measures such as enforcement of legal enactments that necessitated registration of midwives, registration of vital statistical data, and development of an information system, contributed to the development of services aimed at improving maternal health. In addition, the adoption of a comprehensive national population and reproductive health policy was as important measure towards improving maternal health.

Priority Developme nt Areas

- To improve the quality of family planning services to couples, including a wider choice of contraceptive methods and better counselling services for the clients to make informed choices and prevent unsafe abortions.
- It is important to examine in greater detail the rising level of abortions, which are illegal, and their impact on maternal mortality and morbidity, and to promote use of modern methods of contraception as well as encourage male participation.

- To improve access and the quality of antenatal and natal care with greater attention to postnatal care with special attention to access to emergency obstetric care.
- To improve maternal under-nutrition with emphasis on promoting adequate weight gain in pregnancy and the control of anaemia.
- To identify and address the special problems of the under-served and underprivileged segments of the population in special geographic localities.
- Provide adolescents and youth access to reproductive health information and services.
- It is necessary to establish an accurate database, which reflects the overall maternal mortality situation as well as district level disparities; since the numbers are relatively few, even divisional level may need to be considered to plan interventions.
- Policies on access to Emergency Obstetric Care and the quality of services particularly in terms of reducing intra-district variations and disparities need to be implemented efficiently.

GOAL 6: COMBAT HIV, MALARIA AND OTHER DISEASES

TARGET 7	**Have halted by 2015 and begun to reverse the spread of HIV/AIDS**

Indicator	**2001**	**MDG Target**	
		2015	**Status**
18. HIV prevalence among 15-24 old pregnant women*	As Sri Lanka is an HIV low prevalence country, the antenatal population is not screened for HIV		
*19. HIV prevalence rate among women (15-24) attending antenatal clinics	<0.1%	<1% To remain below 1%	On track
*19.1 Increase the percentage of sex workers who report condom use with most recent client	40%	80%	On track
*19.2 Increase the percentage of sex workers who report using condom at least in commercial sex	30%	70%	On track
20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14	At present there are only 6 such orphans.		

Source: STD/AIDS
* Country specific indicators

Status and Trends

The first case of HIV infection was reported in 1986 and the cumulative total reported as at the end of 2004 was 614. Of these, 363 were male and 251 were female. The reported number of deaths due to AIDS was 131 as of 2004 end. The estimated HIV prevalence of 15-49 years old in 2003 was less than 0.1 percent. This is low for the South Asian region and very low in comparison with sub Saharan Africa. It is estimated that 3,500 persons are living with HIV in Sri Lanka at the end of 2003. According to the UNAIDS classification, Sri Lanka is a country of "low level HIV epidemic," but there is potential for spread. Behavioural factors that facilitate the spread of infection are prevalent in the country, such as the presence of large number of sexually

active youth, an increasing number of sex workers, and overseas migration. These pose the threat that the disease can become concentrated in highly vulnerable groups and then become generalized if not combated at the early stages. There were 35 cases of HIV among young people of the group of age 15-24 years at the end of 2004, according to the NSACP.

In 86 percent of HIV cases, transmission was through heterosexual contact. Other modes of transmission include homosexual/bisexual contact, through infected blood and blood products, and transmission from an infected mother to child. Eleven percent of the reported HIV infections were due to homosexual/bisexual transmission. Since homosexual behaviour is illegal, interventions targeted at this group are limited. The male to female ratio of HIV infection was 1.4:1, as of the end 2004. However, the proportions of females infected are increasing over the years.

The vulnerable groups for HIV infection include women employed in factories in the free trade zones, persons seeking foreign employment, workers in the plantation sector and the fishing community. In 2001, 48 percent of HIV cases were among women (housemaids) who sought employment abroad. The percentage of injected drugs users in Sri Lanka is estimated to be less than 1 percent of all drug users. The only case of HIV transmission attributed to injecting drugs was reported in 2004.

To date, there are only 3 cases of HIV infection reported through blood transfusion. This is because Sri Lanka was one of the first countries in South Asia to reform its blood transfusion services to prevent HIV transmission. As a result, screening of donor blood for HIV antibodies commenced in 1987. In addition to the Central Blood Bank in Colombo, there are 56 regional blood banks throughout the country that screen donated blood on site.

The underlying factors for sexual transmission due to high partner exchange are mainly poverty, deteriorating economic and social conditions, armed conflict, the presence of a large military force, youth and women migrants.

Challenges

- Expanding prevention programmes for highly vulnerable groups (sex workers, men having sex with men) and the general population, particularly youth.
- Need to strengthen the facilities at Hospitals where AIDS patients are admitted.
- One of the key factors precipitating the spread of HIV is sexually transmitted infections. Therefore, the provision of comprehensive care in the management of sexually transmitted infections remains an important strategy both in the private and public sector.
- As the spread of HIV/AIDS has economic and social consequences, a multi-sectoral approach needs to be adopted in addition to medical interventions. Ministries such as Education, Defence, Labour and Women's and Youth Affairs should participate in HIV prevention programmes.
- HIV interventions are primarily implemented through STD clinics, which still have low coverage. The community based approaches and engagement with civil society should be encouraged.
- To curb the spread of HIV infection:

- Encourage the political leadership to break the silence in order to inspire people to learn how to protect themselves, and how to show respect and compassion for those living with HIV (thus reducing stigma and discrimination).
- Expand intervention on population thought to be at high risk (e.g., sex workers and their partners, homosexuals), while at the same time spread the message on prevention widely to the general population.
- Provide anti-retroviral drugs for those who are medically eligible to receive them, and ensure that these drugs are taken consistently and properly to avoid the possibility of drug resistance.

Supportive Environment

In 1992, the government of Sri Lanka initiated HIV prevention and control efforts through the National STD AIDS Control Programmes (NSACP). This programme is implemented in collaboration with provincial directors of health services, STD clinics and the National Blood Transfusion Service. The NSACP has also taken measures to increase awareness on HIV/AIDS among the general public as well as specific target groups on a large scale through production and distribution of education material, TV spots, drama, etc. The World Bank and UN agencies have provided financial and technical assistance to the government and NGOs in carrying out targeted interventions among vulnerable groups and the general public, strengthening STD services through refurbishment of clinics, laboratories, provision of equipment and training of health staff.

Many government organizations (outside the health sector), e.g., education, labour, youth, military, and women are participating in the national STD/AIDS prevention activities. The government has recognized that although the total number of people living with HIV and AIDS in Sri Lanka is low, there is no guarantee that this number would remain low tomorrow. This is particularly true in the light of the several risk factors that could spread infection. These include:

- Having a significant number of commercial sex workers, specially in the areas close to military camps, increasing the risk of HIV among military service personnel.
- Large numbers of military service personnel, who are living away from their homes and families.
- Low use of condoms.
- High incidence of STDs.
- External migration.
- Presence of men who have sex with men.
- Beach boys and others who are involved in commercial sex trade with tourists.
- The Free Trade Zone area, where many young women work, away from home, family and social support structures.
- A large youth population.

Priorities for Development

- Support training of HIV/AIDS prevention measures at workplace.
- Provide young people with accurate information on STIs and HIV/AIDS and access to youth friendly services.
- Further strengthen advocacy to empower the groups at risk to better protect themselves and demand better prevention and care services.

- Standardize STI treatment by training of general practitioners in Syndromic management.
- Put in place a strong programme for comprehensive care and treatment for HIV infected people.

TARGET 8	Have halted by 2015 and begun to reverse the incidence of Malaria and other diseases

Indicator	1990	2001	MDG Target	
			2015	Status
21. a) Incidence of Malaria /100,000	1520	350	-	On track
b) Death rate associated with Malaria (Nos.)	50	53	-	On track
22. Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures	This is a new indicator for Sri Lanka and the data is not available			
23 (a) Incidence of TB/100,000	2.4	1.8	0.7	Not on track
(b) Death rates (per 100,000) associated with TB	2.4	1.8	-	On track
24. Proportion of TB cases detected and cured under directly observed short course (DOTS)	-	75%	100%	On track

Source: (21) – Malaria Campaign, (24) – Ministry of Health

Status and Trends

i. Incidence of Malaria

Malaria has been a major public health problem throughout Sri Lanka's history, with recurring major epidemics. The Malaria Control Programme, which began in 1945 with Dichloro-Diphenyl-Trichloroethane (DDT) spraying, was associated with a 100-fold reduction in morbidity and mortality over the following ten years, and gave way to the Malaria Eradication Programme in 1958. DDT spraying ceased in 1964 and the result was a resurgence of infection. In Sri Lanka, the incidence of malaria reached its lowest point in 1963, when 17 cases were reported. By 1969, the number of registered cases increased up to more than half a million. After the discovery of DDT resistance in 1969, malathion spraying took over in 1973. Today Sri Lanka, like most other malarious countries, is still struggling to control the disease. Mortality rates since 1960 have however remained lower than at any other previous time. DDT has over many decades proven the most effective chemical for malaria (mosquito) control, but its use is often restricted on environmental grounds.

Containment of the disease has been difficult due to population increases, large-scale human settlement in disease-endemic areas, rapid agro-ecological change, and altered patterns of population mobility. Malaria in Sri Lanka is unstable and fluctuate intensity both spatially and temporally. Thus, resources have to be spread to cover all potential risk areas, regardless of whether the outbreak will occur or not at a given point in time.

By 2002, all provinces except the North and East experienced a decline in the incidence of malaria. The number of malaria cases increased by 92.3 percent. The total number of malaria deaths has increased from 50 in 1994 to 53 in 2001. Difficulties in detection, the inability for patients to obtain prompt treatment and carrying out anti-malaria operations in the districts might have been the reasons for such increase.

Challenges

? To completely interrupt the local transmission of Malaria.

Supportive Environment

Current strategy focuses on reducing high parasite reservoirs by conducting out-reach clinics to detect and treat malaria patients, and concentrating on areas, which are far from medical institutions; using Rapid Diagnostic Tests (the antigen detection method) to confirm the diagnosis in areas where microscopes are in short supply; and detecting and treating asymptomatic parasite carriers among pregnant women and school children. Training is also being provided to private practitioners and NGOs to improve detection and treatment of malaria.

Prevention measures include the dissemination of skills and knowledge necessary for community-based activities, health education, insecticide spraying, and the use of treated bed-nets; and the breeding and distribution of larvivorous fish to mosquito breeding sites. The development of partnerships in these areas with the community and service organizations is being sought, particularly in the production of low-cost treated bed nets, use of locally available mosquito repellents, and larvivorous fish breeding.

Being provided with funds, the research institutes and universities have started operational research on alternative drug combinations for the treatment of drug-resistant malaria. Till day, resistance is confined to Chloroquine.

Priorities for Development

- Improved water management - reducing the amount of time that paddy is wet, either by changing flooding schedules or alternating rice cultivation with a dry-land crop such as soya. In addition to limiting the mosquitoes habitat, planting soya could boost income and improve nutrition.
- Biological control - introduce naturally occurring bacteria into stagnant water to kill mosquito larvae during the peak breeding season. Such biological control agents would be harmless to humans and other animals.
- Mosquito nets - providing insecticide treated bed nets for high-risk groups: young children and pregnant women.
- The major constraint to a more focused approach to malaria control is the lack of a forecasting system. Geographic and seasonal specificity of impending malaria risk will be particularly useful in communicating with environmental managers such as irrigation engineers who can use water management techniques to reduce mosquito breeding in pools and river beds.

ii. Prevalence of Tuberculosis

The prevalence of Tuberculosis (TB) in Sri Lanka is on the rise. The number of cases increased from 6,174 in 1991 to 8,884 in 2002.

The country's vulnerability to an HIV epidemic highlights concerns over the resurgence of TB. TB has been considered as the principal killer of HIV infected persons worldwide. At the national level, in 2001 only 75 percent of cases were detected using DOTS. As per Respiratory Disease Control Programme, Ministry of Health, the proportion of TB cases detected under DOTS provincially ranges from 6.01 percent in the Eastern to 80.61 percent in the Southern province. Differences in inter-district rates could be due to the extent of the usage of the DOTS strategy for TB detection. However, it is interesting to note that in 2003, 99 percent of one-year old children were immunized against TB.

Factors that could have led to an increase in the incidence of TB include urban migration and significant internal migration within the country, alteration and restrictions to the operation of the national programme for the prevention of TB, which has been affected by the decentralization of the health system management to provincial and district level, the lack of resources and support, and also weak infrastructure and lab capacities. As a result, Sri Lanka's ability to reach the MDG targets by 2015 is questionable.

Challenge

? To reverse the rising trend in Tuberculosis incidence.

Supportive Environment

The TB control programme functions through a network of 23 district chest clinics and 2 chest hospitals and 10 chest wards, in close coordination with other general health institutions. Case finding and follow-up of treatment depend mainly on sputum smear examination: but microscopy centres are limited, thereby retarding diagnosis and treatment. Microscopy services, drugs and treatment are provided free to the patient.

DOTS services are being expanded to cover the whole country by 2005. This will entail training key staff in DOTS implementation, involving community groups and leaders and developing a more advanced information system. Research is also being undertaken into approaches to reduce defaulter rates, especially in urban areas, and to develop pilot drug-resistant TB treatment projects and protocols for testing models for effective care. Innovative approaches to early TB case detection and cure and enhanced social mobilization are being sought through partnerships with NGOs.

Routine monitoring of HIV/STD and TB prevention and control activities is being upgraded through the installation of a management information system and is supported by surveillance systems to provide feedback that will enable interventions to be suitably modified.

The programme has a good working partnership with the Ceylon National Association for the Prevention of Tuberculosis (CNAPT), an NGO. About 35 percent of the tuberculosis patients are managed outside the government programme, by the private medical sector.

Operational research on developing alternative models on DOTS and determining trends in the prevalence of drug-resistance in TB patients has been started.

Priorities for Development

Improvement is being reflected in the coverage and quality of TB case detection and treatment as per available statistics. The target is to improve TB cure rates from 80 percent to above the global target of 85 percent and focus on earlier detection to prevent transmission; and to reduce default rates of new and retreated cases (from 12 percent at present), especially in concentrated urban populations and in groups that are potentially at high risk of contracting HIV/AIDS. This will require

- Strengthening of the provincial/district facilities, so that they can provide effective diagnostic and treatment services, oversight and outreach; and improving their mobility to enable closer supervision and monitoring, thereby increasing the efficiency and coverage of the DOTS programme.
  i. Drugs, equipment, and supplies have to be provided to chest clinics and wards.
  ii. Capacity at central and peripheral levels to undertake DOTS (including supervision, monitoring, evaluation and logistics) has to be improved.
  iii. Infrastructure at the national and district levels has to be strengthened, especially through the provision of microscopy centres in chest clinics and primary healthcare institutions.
  iv. Mobile facilities should be provided as an interim measure to facilitate early diagnosis in asymptomatic patients. Lack of transport for mobile diagnostic services, timely distribution of drugs to DOTS centres, defaulter tracing, and monitoring and supervision has also hindered the programme.
  v. Defaulter tracing can be improved with assistance from rural health committees.
  vi. DOTS training material has to be developed and public health personnel retrained on DOTS. The national manual and guidelines have to be improved and updated.
- Enhanced political commitment and development of stronger partnerships with the private sector and NGO partners to organise and implement social rehabilitation programmes for those affected.
- Production of IEC material and awareness programmes to improve the knowledge, attitude and practice of patients, school children, and the general public so as to improve case finding, compliance with treatment, and treatment outcomes.
- Sensitisation of general practitioners to the correct management of TB patients.
- Establishment of a chest hospital in Jaffna, to serve those in the northern part of the country.

GOAL 7: ENSURE ENVIRONMENTAL SUSTAINABILITY

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

Indicator	**1990**	**2001**	**MDG Target**	
			2015	**Status**
26. Ratio of area protected to maintain biological diversity to surface area (%)	13.0	-	-	Not on track

27. Carbon dioxide emissions (per capita and consumption of ozone-depleting CFCs (ODP tons)	0.201	*0.382	-	Not on track
28. Proportion of population using solid fuels	89.0*	80.2	-	Not on track

Source: (25, 26, 28) – Ministry of Environment, (29) – HIES/DCS.
* 1994

Status and Trends

i. Biodiversity

In terms of biological biodiversity, it is defined as the variability among living organisms from all sources including land based and aquatic ecosystems, and the ecosystems of which they are a part of. Sri Lanka is endowed with rich biodiversity and is considered as one of the biodiversity hotspots in the world. The ratio of area protected to maintain biological diversity is relevant in the context of environmental sustainability as protected areas contain the highest biodiversity.

The land set apart for protection of biodiversity is 13 percent of the islands total land area. This has increased from the 1950s where the land area was only 8 percent. Of the lands total area *12.5 percent* is administered by the Department of Wildlife Conservation, while the Forest Department manages 18 percent of the islands natural habitats set aside for forestry. As biodiversity is highest under wet tropical conditions, maintaining these areas should be of highest priority.

Sri Lanka's coastal zone contains diverse sites of archeological, historical and cultural significance and also of natural value. The Coastal Conservation Act requires that these sites and the coastal zone's scenic beauty is preserved. Sri Lanka's ecological system faces great threats due to habitat losses. The loss of wetlands for housing, mangroves for prawn farming, coral reefs blown up for building materials, blast fishing and the growing market in ornamental fishing are some such contributing factors. Presently Sri Lanka faces a threat to biodiversity with poor prognosis for the year 2015.

Supportive Environment

Over the past 20 years the government has made concerted efforts to contain and prevent biodiversity loss from the country. Attention was forced on capacity development, assessment of biodiversity at national and international levels encouraging the participation of local communities, and for the state to exercise sovereign rights to protect, foster and exploit biological resources. A framework for action on the Conservation of Biological Diversity in Sri Lanka was also prepared with cabinet approval.

Priority for Development

- Address the major impediments in achieving biodiversity and adopt policies to ensure sustainability
- Mobilize financial and technical resources

- Conduct an evaluation of biodiversity for all goods and services and provide eco-systems in order to fully appreciate their importance and justify their maintenance

ii. Carbon Dioxide Emissions

Industrialization has resulted in air pollution becoming a serious issue in urban areas, especially in the Western Province. This results in greater health hazards to children, senior citizens, agriculture, and livestock. Presently, the consumption of fossil fuels by the transport, industry and power generation is estimated at 80 percent, 12 percent and 8 percent respectively. A 10 percent rate of increase per year is estimated in these sectors, (which use fossil fuels) thus aggravating air pollution. Air pollution is largely caused by uncontrolled emissions from vehicles, which currently accounts for 65 percent of air pollution in urban areas. The subsidized price for diesel in the local market has lead to an increase in demand for diesel driven vehicles, thus further increasing the level of carbon dioxide emissions.

Supportive Environment

The Government of Sri Lanka in the 1990s formulated various programmes that compromised three main components for the protection of the atmosphere from air pollution. This includes vehicle emission reduction, quality improvement in gasoline, tax polices on fuels and vehicles. Other supportive programmes include the adoption of Clean Air Action Plan in 1992 to achieve emission reduction by 2000. As per State on the Environment, Report on Air Pollution the highest percentage of carbon dioxide emissions through energy generation between 1990 and 2005 (prediction for 2005), is from the transport sector, and during 2000-2005 from the power sector.

Energy Use

Energy supply in Sri Lanka is based on three primary sources, hydroelectricity biomass and petroleum. In 2000, out of the total 8,384 thousand tons of oil equivalents, *9 percent* was attributable to hydroelectricity while 49 percent was from biomass. Petroleum oil products on the other hand contributed to 42 percent of the total. Growth in energy demand increased annually by approximately 3-3.5 percent during the last three decades and is expected to grow at similar levels in the future. In addition other forms of energy such as solar and draft power are used. Hydro-power and biomass based supplies, which are the only large scale indigenous primary energy source available are expected to remain fixed in the future. With the increasing demand, future energy requirements would mainly have to be supplied by imported fossil fuels.

As per Sri Lanka Energy Balance 2000, Energy Conservation Fund the consumption of fuel wood was high in all districts; reliance on it has been decreasing over time, while the consumption of gas and kerosene is increasing. The highest is in the Colombo district. However, with increases in petroleum prices there is a shift towards renewable energy sources. Energy from wind, solar, hydro-power are being encouraged.
The high use of biomass as cooking fuel, poses a serious health problem in poor households which are badly ventilated. Smoke and particle inhalation associated with firewood use often results in serious health problems, with a disproportionate incidence among women and children.

What matters in energy for the poor is not the supply as much as the actual end services that are available.

Challenges and Recommendations

- Due to intensive harnessing, the potential of hydroelectricity is almost complete, greater emphasis is now placed on diesel which is causing severe environmental damage. The use of energy sources that are environmentally friendly should be encouraged
- There should be a strong reliance on education and training to encourage the adoption of more efficient and environment-friendly energy practices
- Mobilization of government support for the introduction of energy-efficient technology

Priorities for Development to Achieve overall Environmental Sustainability

Improvements in the environment would help the process of achieving all of the MDGs, and neglecting the environment will undermine long-term poverty alleviation. People suffering from poverty rely on the environment for food and fuel and suffer most from flooding and natural disasters. Women face the greater burden of environmental degradation since it is they who have to find food and firewood. Achievements of Goals 3 to 6, which are health related, are also dependent on improving environmental conditions e.g. waste disposal.

Priorities that have been identified for investment:

- Solid Waste Management
- Integrated Natural Resources Management (or land resource use) – includes watershed management, soil erosion protection, biodiversity conservation, carbon sequestration and landscaping
- Sand mining
- Wetland management
- Organic Industry best management – includes organic agriculture and certification of production systems for trade purposes

Other priorities include improving access to

- Safe drinking water and sanitation (discussed below)
- Reliable energy sources – including development of rural energy sector with particular emphasis on renewable energy

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

Indicator	**1990**	**2001**	**MDG Target**	
			2015	**Status**
30. Proportion of population with sustainable access to an improved water source, urban and rural	72	82	86	On track
31. Proportion of urban and rural population with access to improved sanitation	73	80.2	93	On track

Source: DS 1994, PHC 2001/DCS

(30, 31) –North & East not covered due to data limitations

Status and Trends

i. Water

In Sri Lanka, approximately 21.5 percent of the total population lives in urban areas, which cover 0.5 percent of the country's total land area. While 75 percent of the urban population is served with pipe born water, only 14 percent of the rural population has that benefit. However 65 percent of the population in Sri Lanka has water available through protected wells. Only 14 percent of the rural population has access to piped water. In 2001, 82 percent population had access to improved water source in Sri Lanka. As per Demographic Survey 1994 and 2001, 91 percent of the population in the Western province had access to safe drinking water, with Colombo district recording the highest of 95 percent. From the available data the lowest was in the Mannar district of 21.2 percent.

The World Water Supply and Sanitation Decade during 1980-1990 proved to be an important turning point in planning investments for the water supply sector. Before 1980, 50 percent of the population in the urban sector and 56 percent of those in the rural sector had access to safe drinking water.

The National Water Supply and Drainage Board have set its own target for the supply of safe water to the entire population at 85 percent for 2010 and 100 percent achievement by 2025. By 2001, almost 100 percent of the population in the Colombo metropolitan area had access to safe drinking water. However, this figure still remains low in the Estate Sector.

ii. Sanitation

The National Housing Development Authority (NHDA) has the responsibility of implementing the Urban Basic Services Programme within the housing sector to improve the living conditions of slum and shanty dwellers. Under this programme direct assistance is provided to improve sanitation, waste disposal facilities, surface drainage and community services in shanty areas.

In 2001, 80 percent of the population had access to safe sanitation. Sri Lanka's position in terms of access to safe sanitation is higher than that for world sanitation where the overall access to safe sanitation of the population is 61 percent. It is well above that for Developing and South Asian countries, which is 51 percent and 37 percent respectively.

Province wise, 97 percent of households had access to safe sanitation in comparison to 86 percent of households in the North Western Province. Batticaloa district had the lowest access with only 57 percent of the households having access to safe sanitation.

As per Report on the Consumer Finances and Socio-Economic Survey- Sri Lanka, 1986-87 and 1996-97, Central Bank of Sri Lanka that only marginal achievements have been made in this sector. Although the government has adopted the ambitious international targets of providing adequate access to water and sanitation to the total population by the year 2020, it was soon realized that reaching the 6.5 million rural populations to fulfil this target would be unrealistic.

Challenges

- Ensuring that the unserved, mostly poor, those in conflict-affected and water stress areas, and schools and hospitals receive priority attention for future investment in water supply and sanitation; and that cross subsidization is designed to benefit the poor alone.
- Maximizing the benefits of service provision through complementary education in good hygienic practices, pollution control and water resource preservation.
- Raising awareness of the limits of the available water resources, the beneficial impact of water demand management and conservation on the cost of water and the environment, particularly the need for economies in irrigation water us (or wastage) to meet the needs of domestic water supply.
- Balancing competing demand for irrigation and domestic supply through a suitable water allocation policy and mechanisms, to ensure equitable water right allocation, particularly for vulnerable groups.
- Development of alternate water borne sewerage disposal, since it runs contrary to the principals of water conservation, pollution abatement and environmental protection.

Supportive Environment

The provision of water and sanitation in Sri Lanka requires the collaborative efforts of several government agencies, the private sector and community-based organizations. A Public Utilities Regulatory Commission has been set up by parliament to provide a level playing field for all investors thereby encouraging private sector investment. The National Water Supply and Drainage Board is the lead agency for developing urban and rural pipe water schemes, urban sewerage schemes and rural non-piped water supply based on drilled wells. All rural projects must be channelled through the Provincial Councils and local authorities. Local and international NGOs are also playing an important role in meeting needs in these areas. The Department of Health through its preventive health staff, provides health and hygiene education and promotes the construction of water sealed latrines through a subsidy scheme.

With the development of local know how and capability, responsibility for these services will be gradually devolved to local authorities and community based organizations (CBO). Participatory decision-making and management approaches are being promoted through community beneficiary involvement. In some schemes the beneficiaries are now identifying their own requirement, preparing their plans, constructing facilities and taking on responsibility for operation and maintenance. This approach is being replicated in 5 major schemes designed to cover 5 million peo ple.

Priorities for Development

To provide improved water and sanitation infrastructure to those currently underserved, over the next 10 years, the investment required would far exceed government's institutional and financial capacity. The rehabilitation of water supply schemes in the Northeast Province alone is expected to cost around Rs. 5.6 billion, while for the rest of the country the figure is around Rs. 175 billion. While donor support is necessary, new models for delivery of safe water and primary sanitation will have to be developed which increasingly rely on public and private community partnerships.

Small-scale private service providers can also be encouraged to supply water to unconnected marginalized communities.

The facilities which have installed and provided need to retain their economic value and functional quality over a considerable period on time. Therefore, sustainability and all its ramifications have to be incorporated into the planning and management of water supplies and sanitation.

Further decentralization of the NWSDB activities and responsibilities to local government authorities and Community Based Organisations (CBOs) is to be pursued while building up their know-how and capability. The NWSDB will continue to provide technical support and facilitate implementation. Increased accountability and efficiency has to be built in at all levels e.g. to reduce illegal connections and unaccounted for water.

Coordination of the parallel programs implemented by the NGOs, CBOs and government agencies is necessary to derive the optimum benefits from the investments made. Strategies and mechanisms for better communication, collaboration and accountability need to be developed to avoid haphazard selection of project areas, adoption of different policies and standards, etc.

The management and preservation (including restoration) of water resources requires high priority. The catchments areas and watersheds of these sources need to be continuously protected and upgraded to ensure perennial flows. The sharing of existing sources reserved or developed for irrigation needs has to be promoted in view of the limited availability of water. The reuse and recycling of wastewater, particularly by large industrial and commercial users has to be encouraged.

Legal and institutional measures need to be taken to prevent the pollution of water sources through the dumping of solid waters, etc. These have to be accompanied by awareness-raising activities, advocacy, adoption of water-saving technologies, etc.

Children can be placed at the centre of water supply and sanitation information dissemination system. As change agents they can play a catalytic role in their homes and communities. Water and sanitation concerns should become and integral part of the school curriculum and special projects implemented in all schools. An island wide school children's volunteer network could be set up to spread messages on hygiene and promote the rational utilization of natural resources.