ANNUAL HEALTH BULLETIN SRI LANKA

1982

PLANNING DIVISION
MINISTRY OF HEALTH

CORRIGENDUM

Contents

5. socio economic situation should read " socio economic situation 1982 ".

Preface

2nd line : cost should read costs
3rd paragraph 1st line : " Analth " should read " Annual Health "

Page 8

Last paragraph : " 1863 Lay Registrars and about 80 Medical Registrars " should read " 1,202 Lay Registrars and about 73 Medical Registrars. "

Page 15

Figure 4.9 : Key :————Oral cancer
————Other cancer

Figure 4.10 : Key :————Syphilis
————Gonorrhoes

Page 17

Table 4.4 last line of title should be read
"———— By Districts (F and NPPD Surveys) Rural

Page 18

Socio Economic situation should read socio economic situation 1982

Page 26

7.3 *Health Facilities* 1st paragraph 1st line :
After " Sri Jayawardena pura " insert the word " was ".
3rd paragraph, 1st line, last but one word: " dg " should read " during "

Page 34

Figure 9.2 : Key : ————Total Attendances
———— First Attendances

Page 37

Table 10.1 The total in the last but one column should read " 100.0 "

Page 38

Under 11.1.1 *Programme Components*
Insert "(VI) care of the pre-school child
screening
detection of abnormalities
correction of defects "

Page 47

12.1 Anti-Malaria Campaign : The first word in the last but one line of the pennetimate paragraph should read " Zones ".

Page 57

14.4 *HFA Strategy Implementation*

First paragraph 4th line : The last but one word " aso " should read " also ".

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PREFACE TO 1982 ISSUE

Most countries in the world are faced with the dilemma of increased demand for health care services and the escalating cost of providing such services. However only limited resources are available to governments of developing countries such as Sri Lanka to provide these services. It is of paramount importance that the meagre resources available are put to optimal use.

Efficient management is necessary for this and it cannot be attained without relevant information being available in the right form at the right time to the right person to make the correct decision. Also the increasing collaboration with foreign and local donor agencies and other organisations has stressed the need for concise, up to date health information.

In order to meet these needs the Ministry of Health in 1980 intiated the issue of an Analth Bulletin of which this is the third issue.

This year an editorial board was established to assist the Planning Division of the Ministry in the preparation of the Bulletin. I thank all members of this group for the assistance provided.

S. D. M. FERNANDO
Director Health Services

August 1983.

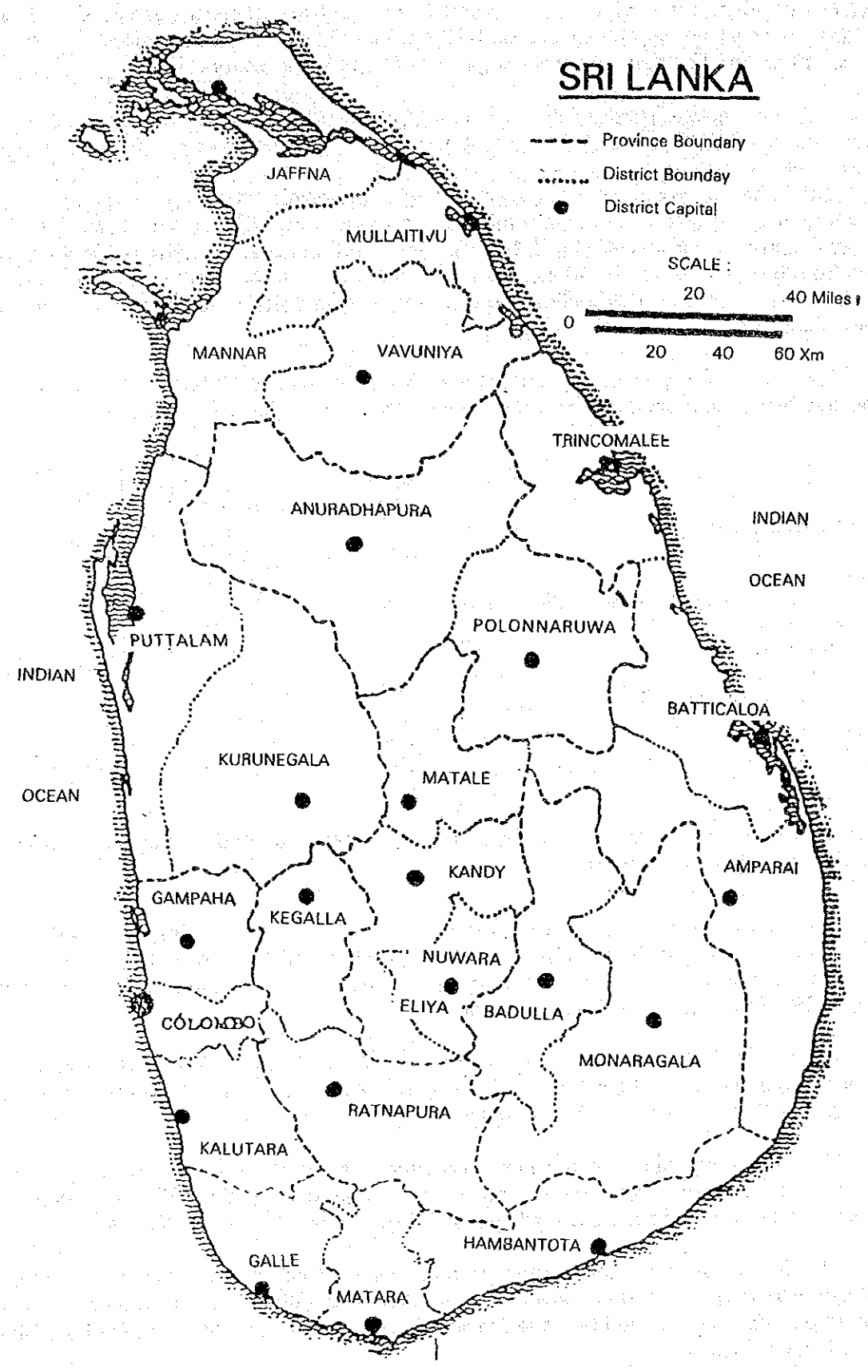
INTRODUCTION

The objectives of this bulletin is to provide relevant information on the health sector in the country to health professionals, other government officers, non government organisations and foreign donors. The great demand for copies of this bulletin and favourable comments made indicate that this publication is being found useful.

This year many improvements have been made to the contents with emphasis in providing a comprehensive picture of the health situation and services in the country. The new sections include information on nutritional status, dental health and environmental health. This year's special section is on diarrhoeal diseases, a current problem against which an integrated control programme is now being implemented.

To further improve the Bulletin it is essential that comments and constructive criticism by readers continue to guide the producers of the Bulletin. You are requested therefore to fill in the detachable form and send it in to the following address.

Annual Health Bulletin
c/o Asst. Director (Planning)
Planning Division
Ministry of Health
Inland Revenue Building
Colombo 2


SRI LANKA
Province Boundary
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PUTTALAM
POLONNARUWA
INDIAN
OCEAN
BATTICALOA
KURUNEGALA
MATALE
KANDY
AMPARAI
GAMPAHA
KEGALLA
NUWARA
ELIYA
BADULLA
CÓLOMBO
MONARAGALA
RATNAPURA
KALUTARA
HAMBANTOTA
GALLE
MATARA

1. GENERAL COUNTRY INFORMATION

1.1 The Democratic Socialist Republic of Sri Lanka is situated in the Indian Ocean between the Northern Latitudes 5° 55′ and 9° 50′ and the Eastern Longitudes 79° 42′ and 81° 52′. It is an island with an area of 65,610 sq. kilometers (25,332 sq. miles), of which about 958 sq. kilometers (370 sq. miles) is comprised of large inland waters

1.2 Physically, the island has a central mass of mountains surrounded by broad coastal plains. The rivers of the island radiate around the central mountain core and flow into the sea.

1.3 Climate conditions throughout Sri Lanka are mainly dependent on the monsoons and the elevation above sea level. Mean temperatures range from 26° C to 28° C (79° F to 82° F) In the low country, and from 14° C to 24° C (58° F to 75 F)) in the hill country. The annual rainfall varies from below 1,000 mm (40 inches) in the driest zone in the north-west and south-east of the island, to 5,000 mm (200 inches) in the wet zone at certain places on the south-western slopes of the hills.

1.4 The country is mainly agricultural. Tea, Rubber and Coconut are the main export crops and Paddy the main domestic crop. Land utilization is as follows :

	Million Hectares	*Percentage*
Tea, Rubber and Coconut	1.12	17.1
Paddy	0.66	10.1
Temporary Crops	0.36	5.5
Forests, Forest Reserves, National Parks and Intermediate Zones	2.38	36.3
Grass & Scrubland	0.07	1.1
Large Inland Waters	0.09	1.4
Built Up Area and Unproductive Land	1.88	28.7
Total	6.56	100.0

There are mineral resources which have only been partly tapped. Since the 1960s, a few industries have also been established.

1.5 The estimated mid year population of Sri Lanka was for 1982 approximately 15.2 million, with males slightly outnumbering females (51% to 49%). About 35% of the population was under 15 years of age. The population growth rate was estimated to be 1.7% per year. Around 78% of the population lives in rural areas.

1.6 In 1982, the per capita GNP at current prices was Rs. 5,904 or US $ 284. The real per-capita income rose by 3.5% from 1981 to 1982. This compares well with per-capita rates of 3.6% and 2.4% in 1980 and 1981 respectively.

1.7 Sri Lanka, though a developing country, has a well developed social infra-structure. Health services and education are provided free of charge to all. At the 1981 Population Census, the literacy rate was found to be 86.5%, 90.5% for males and 82.4% for females.

1.8 Sri Lanka is a Parliamentary Democracy in which sovereignity of the people and legislative powers are vested in Parliament, and executive authority is exercised by a Cabinet of Ministers presided over by an Executive President. The Ministry of Health is one of the Ministries under a Cabinet Minister.

2. POPULATION

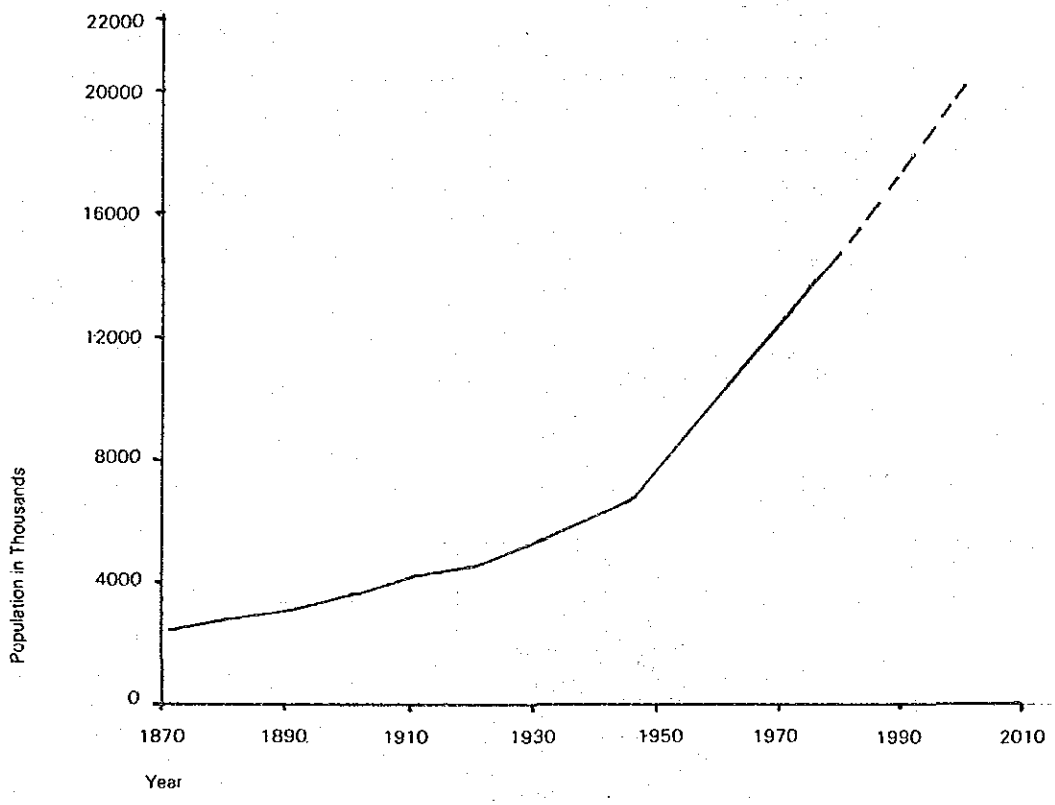
2.1 The last decenial census held in 1981 recorded a population of 14.85 million. This corresponds to a six fold increase since the first National census in 1871, which recorded a population of 2.4 million.

2.2 Until the second World War, Sri Lanka's annual rate of population growth was approximately 1.4%. The growth rate then rose to 2.8% per annum between 1946 and 1953, largely because of the dramatically reduced death rate. The population growth rate dropped to 2.3% between 1963 and 1971, after which it dropped further to 1.7%, where it has remained since 1977. If the current trend in population growth continues, it is estimated that the population of Sri Lanka will exceed 20 million by the year 2000 as shown in *Figure 2.1.*

FIGURE 2.1

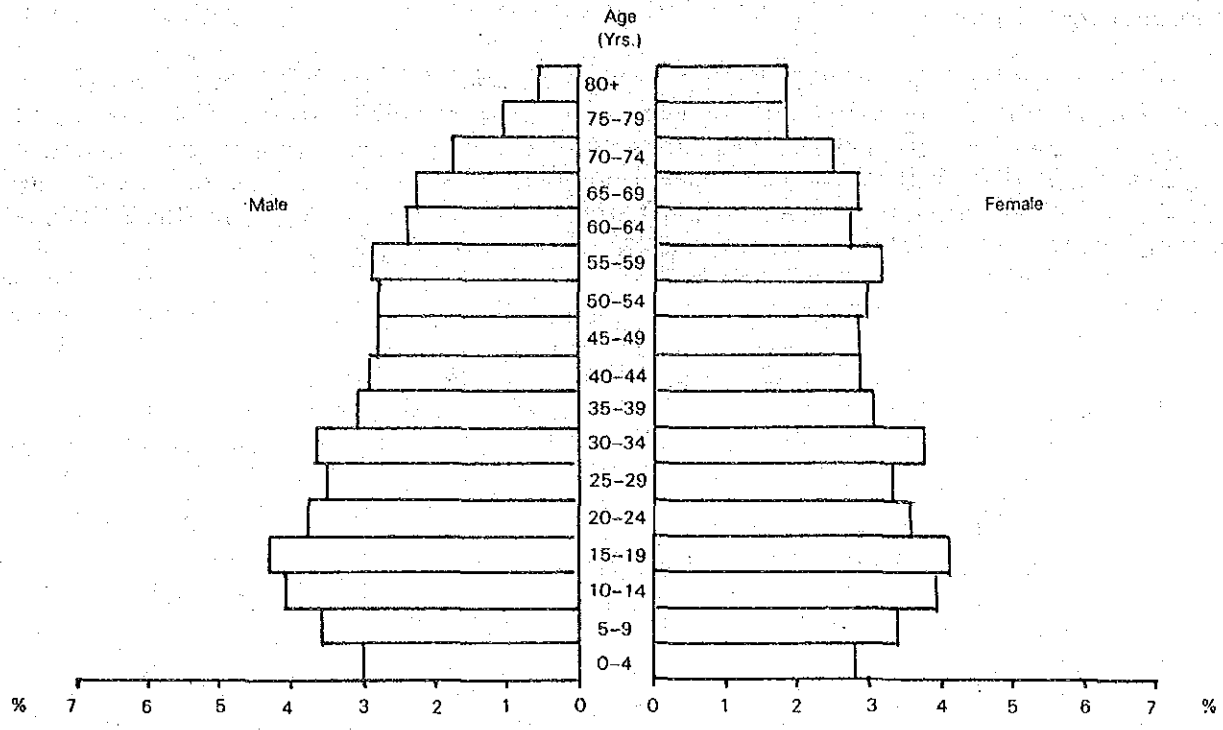
SRI LANKA POPULATION TREND 1871-2001

(Census figures are used for 1871-1981 and estimates for 1991 and 2001)



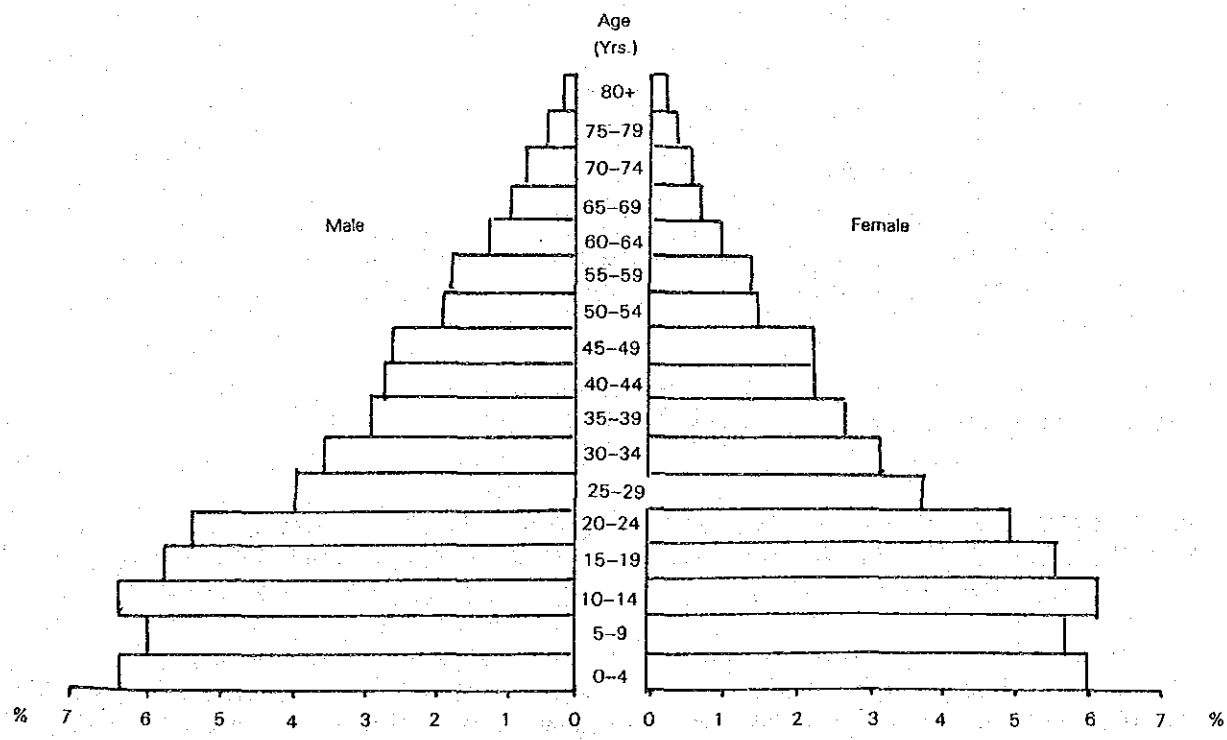
Source : 1871 – 1981 Census Reports
1991 – 2001 Estimates

FIGURE 2.2 POPULATION PYRAMIDS FOR SRI LANKA AND UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND



UK 1980

Source : Demographic Indicators of Countries–United Nations, New York, 1982.



SRI LANKA 1981

Source : Department of Census and Statistics

2.3 The population pyramids presented in *Figure 2.2* show the percentage distribution by age and sex of the population of Sri Lanka and Great Britain and Northern Ireland (U.K.). The base of the pyramid for Sri Lanka is considerably broader than the one for U.K., indicating a much younger population in Sri Lanka. In fact, 35.3% of the population of Sri Lanka is less than 15 years of age, the corresponding figure for U.K. is 20.8%. The population of 60 years or more in Sri Lanka is 6.6%, whereas in U.K. it is 19.9%.

In 1963, there were 40.9% under 15 years in Sri Lanka, and only 3.8% in the age group 60 years or more. The approximate 25% decrease in the birth rate and 30% decrease in the death rate experienced in Sri Lanka over the last two decades have resulted in a narrowing of the base of the population pyramid and a broadening at the top. If this trend continues, the age distribution of the population of Sri Lanka will become similar to the one in U.K. *Table 2.1* gives the age and sex distribution of the population of Sri Lanka in 1981.

2.4 The 1981 population distribution by province and district is shown in *Table 2.2* This table also provides information on population density and the estimated mid-year population in 1982 and 1983.

2.5 The district with the largest land area is Anuradhapura District (7,129 sq. km.) and the one with the smallest land area is Colombo District (652 sq. km.). The highest district population figure is for Colombo District (1,698,322), and the lowest for Mullaitivu District (77,512).

2.6 The population density, i.e. the number of people per square kilometer, ranges from 2603.Colombo District to 36.3 in Vavuniya District.

3. VITAL STATISTICS

3.1 The trend in birth and death rates during the period 1945 – 1981 can be seen from *Table 3.1*

TABLE 2.1

POPULATION OF SRI LANKA BY AGE GROUP AND SEX–1981

Age Group	Population (Thousands)*			% Distribution		
	Male	Female	Total	Male	Female	Total
Under 1 year	207	199	406	2.7	2.7	2.7
1–4 years	742	709	1,451	9.8	9.7	9.8
5–9 years	858	832	1,689	11.3	11.4	11.4
10–14 years	864	826	1,690	11.4	11.3	11.4
15–19 years	815	792	1,608	10.8	10.9	10.8
20–24 years	753	756	1,510	9.9	10.4	10.2
25–29 years	638	636	1,273	8.4	8.7	8.6
30–34 years	570	553	1,123	7.5	7.6	7.6
35–39 years	423	416	839	5.6	5.7	5.7
40–44 years	361	338	698	4.8	4.6	4.7
45–49 years	309	301	610	4.1	4.1	4.1
50–54 years	284	258	543	3.8	3.5	3.7
55–59 years	222	201	422	2.9	2.8	2.8
60–64 years	184	158	342	2.4	2.2	2.3
65–69 years	134	122	256	1.8	1.7	1.7
70–74 years	98	83	181	1.3	1.1	1.2
75 years and over	107	100	208	1.4	1.4	1.4
Total	7.568	7,280	14,848	100.0	100.0	100.0

*Figures rounded to the nearest thousand.

Source : Department of Census & Statistics. Population distribution based on 10% sample–February 1982

TABLE 2.2

POPULATION DISTRIBUTION BY DISTRICT 1981–1983

Administrative Area (Province/District)	Population Census 1981				Estimated Mid-Year Population* (Thousands)	
	Land Area (Sq. km)	Population	Population Density (Persons per sq. km.)	Percentage Distribution of Population	1982	1983
SRI LANKA	64,652	14,850,001	229.7	100.0	15,189	15,444
Western Province	3,658	3,915,001	1070.3	26.4	3,991	4,047
Colombo	652	1,698,322	2603.0	11.4	1,727	1,749
Gampaha	1,399	1,389,490	993.4	9.4	1,422	1,446
Kalutara	1,607	827,189	514.9	5.6	841	852
Central Province	5,590	2,005,956	358.8	13.5	2,012	2,018
Kandy	2,158	1,126,296	522.0	7.6	1,129	1,132
Matale	1,995	357,441	179.1	2.4	364	368
Nuwara-Eliya	1,437	522,219	363.4	3.5	519	517
Southern Province	5,513	1,882,912	341.5	12.7	1,915	1,940
Galle	1,674	814,579	486.7	5.5	826	834
Matara	1,246	644,231	516.9	4.3	652	658
Hambantota	2,593	424,102	163.5	2.9	437	447
Northern Province	8,685	1,111,468	128.0	7.5	1,151	1,180
Jaffna	2,072	831,112	401.1	5.6	852	867
Mannar	2,002	106,940	53.4	0.7	113	117
Vavuniya	2,645	95,904	36.3	0.6	102	107
Mullaitivu	1,966	77,512	39.4	0.5	84	89
Eastern Province	9,622	976,475	101.5	6.6	1,020	1,052
Batticaloa	2,465	330,899	134.3	2.2	343	352
Amparai	4,539	388,786	85.6	2.6	409	423
Trincomalee	2,618	256,790	98.1	1.7	268	277
North Western Province	7,750	1,706,099	220.2	11.5	1,753	1,788
Kurunegala	4,773	1,212,755	254.1	8.2	1,241	1,262
Puttalam	2,977	493,344	165.7	3.3	512	526
North Central Province	10,533	850,575	80.8	5.7	904	944
Anuradhapura	7,129	587,822	82.5	4.0	623	649
Polonnaruwa	3,404	262,753	77.2	1.8	281	295
Uva Province	8,399	922,636	109.9	6.2	941	955
Badulla	2,818	642,893	228.1	4.3	646	649
Moneragala	5,581	279,743	50.1	1.9	295	306
Sabaragamuwa Province	4,902	1,478,879	301.7	10.0	1,503	1,521
Ratnapura	3,239	796,468	245.9	5.4	815	829
Kegalle	1,663	682,411	410.4	4.6	688	692

* Based on intercensal growth 1971–81. Additions do not tally because of rounding of figures.

Source : Department of Census and Statistics and Office of the Medical Statistician.

TABLE 3.1

VITAL STATISTICS 1945-1981

Year	Estimated Mid-Year Population ('000)	Crude Birth Rate	Crude Death Rate	Maternal Death Rate	Infant Mortality Rate
1945	6,650	36.6	21.9	16.5	140
1950	7,678	40.4	12.6	5.6	82
1955	8,723	37.3	10.8	4.1	71
1960	9,896	36.6	8.6	3.0	57
1965	10,903	33.1	8.2	2.4	53.2
1970	12,516	29.4	7.5	1.5	47.5
1971	12,608	30.4	7.7	1.4	44.8
1972	12,861	30.0	8.1	1.3	45.6
1973	13,091	28.0	7.7	1.2	46.3
1974	13,284	27.5	9.0	1.0	51.2
1975	13,496	27.7	8.5	1.0	45.1
1976	13,717	27.8	7.8	0.9	43.7
1977	13,942	27.9	7.4	1.0	42.4
1978	14,190	28.4	6.6	0.8	37.1
1979	14,471	28.7	6.5	0.8*	37.7*
1980	14,738	27.6*	6.1*	...	...
1981	14,988*	28.0*	6.0*	...	...

* Provisional

Source : Registrar General's Department

The crude birth rate (i.e. births per 1,000 population per year), exceeded 35 during the period 1945-1960, but started decreasing from then on till 1974, when it reached 27.5. A marginal increase has occurrred in recent years, and the rate now seems to remain around 28.

The crude death rate (i.e. deaths per 1,000 population per year) has dropped dramatically in the last four decades. Among the most important factors contributing to this decline must be counted the various public health measures instituted during this period. The crude death rate dropped from 21.9 in 1945 to 6.0 in 1981. The maternal death rate (i.e. maternal deaths per 1,000 births) dropped from 16.5 in 1945 to 0.8 in 1979, and the infant mortality rate (i.e. infant deaths per 1,000 live births) fell during the same period from 140 to 37.7.

3.2 The most recent vital statistics available by district are presented in *Table 3.2*. A significant variation in rates is seen from district to district, the extreme values being found as follows :

Crude Birth Rate	:	From 45.1 in Vavuniya to 20.7 in Gampaha District
Crude Death Rate	:	From 9.0 in Colombo to 2.9 in Mullaitivu District
Maternal Death Rate	:	From 1.7 in Nuwara Eliya to 0.0. in Mullaitivu District
Infant Mortality Rate	:	From 79.2 in Nuwara Eliya to 17.5 in Mullaitivu District

3.3 Life expectancy at birth increased during the period 1945-1970 from 46.8 years to 64.2 years for males and from 44.7 to 67.0 years for females.

TABLE 3.2

VITAL STATISTICS BY DISTRICT

District	Crude Birth Rate Rate* (1981)	Crude Death Rate * (1981)	Maternal Death Rate (1979)	Infant Mortality Rate (1979)
SRI LANKA	28.0	6.0	0.8	37.7
Colombo	27.7	9.0	0.5	49.5
Gampaha	20.7	6.3	0.3	26.0
Kalutara	27.2	5.5	0.5	34.3
Kandy	25.6	6.9	1.2	60.3
Matale	30.3	5.2	0.6	31.0
Nuwara Eliya	27.9	7.0	1.7	79.2
Galle	24.0	6.0	0.9	38.4
Matara	29.0	5.6	1.1	35.7
Hambantota	30.8	4.5	0.4	23.7
Jaffna	27.9	5.2	0.2	18.0
Mannar	40.4	5.9	1.4	25.1
Vavuniya	45.1	5.2	1.2	26.3
Mullaitivu	32.6	2.9	0.0	17.5
Batticaloa	34.7	8.0	1.3	35.2
Amparai	30.6	4.7	1.2	23.5
Trincomalee	36.4	4.1	0.9	18.9
Kurunegala	26.4	5.4	0.6	32.4
Puttalam	32.8	5.5	0.5	21.9
Anuradhapura	36.7	4.9	0.6	21.1
Polonnaruwa	35.1	4.8	0.7	17.8
Badulla	26.0	5.9	0.9	56.6
Moneragala	38.7	3.5	1.2	22.4
Ratnapura	33.2	6.1	1.0	55.0
Kegalle	22.7	5.2	0.6	33.6

*Provisional

Source : Registrar General's Department.

4. HEALTH SITUATION

4.1 Morbidity and Mortality

In Sri Lanka, morbidity data is available only of patients who seek treatment in Government Health Institutions. Though an extensive network of Government health institutions are available in the country, it is estimated that about 40% of patients seek outdoor care at private institutions. However, as regards in-patient care, over 95% of patients enter government health institutions.

The trend of disease as reflected by cases discharged from Government Hospitals is shown in *Table 4.1*. Certain specific diseases/disease groups are shown in *Table 4.2*.

The major causes for admissions are (*a*) infectious and parasitic disease (of which approximately 50% are due to intestinal infections), (*b*) diseases of the respiratory system,(*c*) causes related to pregnancy and child-birth (of which over 60% is for normal

deliveries) and (*d*) injuries and poisoning. Ill-defined conditions have shown a gradual increase from 1.8% of all causes in 1965 to 8.5% in the 1980's. Though a decreasing trend of admissions due to preventable diseases is seen, it is evident that more cases of intestinal infections are being admitted to Government hospitals than in previous years.

The trend of certain specific diseases is shown in Figures 4.1 to 4.11. *Figures 4.1 to 4.4* show the impact of the immunization programme against Poliomyelitis, Whooping Cough, Diphtheria and Tetanus.

Figure 4.5 shows the decrease in the admissions due to Neonatal Tetanus following the inclusion of immunization of pregnant mothers against Tetanus in the Expanded Programme of Immunization from 1978.

Figures 4.6 and 4.7 show a resurgence of Malaria and the epidemics of Bacillary Dysentery in the recent past.

Figures 4.8 and 4.9 show the steady increase in admissions due to Heart Diseases and Neoplasms attributable to the increase in expectancy of life and resultant increase in the elderly population.

Figure 4.10 shows the increase in S.T.D. cases in the late seventies. Since 1976, the decrease in the reported number of cases has been attributed to patients seeking private treatment.

Figure 4.11 shows the impact of the Rabies Control Programme on Rabies deaths in the island.

Registration of Deaths in Sri Lanka is done by Registrars of Births and Deaths. There are 862 Lay Registrars and about 80 Medical Registrars in a few proclaimed areas. In government medical institutions, deaths are registered by qualified medical practitioners trained in the western system, and therefore provides us with a reasonably accurate picture of the cause of death. Hospital mortality per 100,000 population is shown in *Table 4.1,* and mortality due to selected specific diseases/disease categories in Table 4.2. When interpreting this data, it should be remembered that certain diseases may be under-represented in hospital figures, such as causes that lead to sudden death prior to admission to hospital.

TABLE 4.1

HOSPITAL MORBIDITY AND MORTALITY IN SELECTED YEARS 1965-1982

Disease Groups (*ICD Ninth Revision Grouping*)	Cases Discharged from Government Hospitals per 100,000 Population					Deaths in Government Hospitals per 100,000 Population				
	1965	1970	1975	1980	1982	1965	1970	1975	1980	1982
1. Infectious and Parasitic Diseases	1,731.8	3,206.1	2,703.0	2,065.4	2,132.2	32.5	43.3	42.1	23.1	24.2
2. Neoplasms	122.3	137.4	155.7	129.6	123.6	8.3	10.3	8.8	6.4	7.4
3. Endocrine, Nutritional and Metabolic Disorders and Immunity Disorders	837.2	338.9	325.2	234.1	219.2	8.6	7.1	15.9	3.5	3.4
4. Diseases of Blood and Blood-Forming Organs	611.7	533.9	450.9	359.0	348.9	8.3	6.7	10.5	3.5	3.1
5. Mental Disorders	133.2	176.8	174.3	226.9	200.8	1.0	0.6	1.5	2.2	0.4
6. Diseases of the Nervous System and Sense Organs	405.6	397.2	350.3	398.0	415.4	10.8	6.6	7.1	6.6	7.3
7. Diseases of the Circulatory System	520.7	528.7	574.9	617.4	656.6	32.0	35.4	42.1	33.7	38.6
8. Diseases of the Respiratory System	2,699.9	3,053.7	2,341.2	2,342.6	2,541.4	29.7	30.3	30.5	19.1	21.0
9. Diseases of the Digestive System	1,486.0	883.0	899.7	692.0	672.0	27.0	11.6	12.5	8.4	8.8
10. Diseases of the Ganito-Urinary System	468.3	598.3	577.1	662.3	650.0	5.1	5.1	4.8	3.0	3.6
11. Complications of Pregnancy, Childbirth and the Puerperium	2,844.6	2,739.7	2,998.1	3,427.6	3,218.4	6.6	3.2	2.4	1.5	1.2
12. Diseases of the Skin and Sub-cutaneous Tissues	490.8	651.0	711.4	596.8	625.6	0.5	0.3	1.2	0.5	0.3
13. Diseases of the Musculo-Skeletal and Connective Tissues	443.9	338.0	350.4	414.7	439.1	0.4	0.3	0.2	0.2	0.2
14. Congenital Anomalies	22.7	56.6	34.0	30.6	19.4	2.4	5.4	5.7	3.3	1.6
15. Certain conditions Originating in the Perinatal Period	167.0	104.0	89.6	90.4	84.2	23.8	23.9	17.7	20.0	17.5
16. Symtoms, Signs and Ill-Defined Conditions	264.7	711.5	920.4	1,154.9	1,307.8	11.6	10.5	15.6	14.1	12.2
17. Injury and Poisoning	1,523.3	2,055.0	1,750.7	1,743.3	1,753.0	20.6	17.8	21.2	27.5	23.4
TOTAL (ALL DISEASES)	14,773.9	16,509.8	15,406.9	15,185.4	15,407.8	229.1	218.5	239.8	176.7	174.1

Source : Office of the Medical Statistician.

TABLE 4.2

TREND IN MORBIDITY AND MORTALITY RATES FOR SELECTED DISEASES[1]

Disease Groups (ICD Ninth Revision Code Numbers)	Cases Per 100,000 Population					Deaths Per 100,000 Population				
	1965	1970	1975	1980	1982	1965	1970	1975	1980	1982
Intestinal Infections (001-009)	458.7	948.6	942.0	964.9	1,100.4	5.6	19.3	18.2	10.4	11.8
Tuberculosis (All Forms) (010-018)	120.3	102.6	114.1	42.5	76.3	8.7	6.6	8.3	4.3	4.1
Poliomyelitis (045)	3.2	3.2	2.9	1.8	0.7	0.3	0.3	0.2	0.0	0.0
Helminthiasis (120-124, 126-129)	616.6	516.5	230.5	209.5	171.8	5.3	3.5	1.6	0.5	0.5
Malignancies (140-239)	122.3	137.4	155.7	129.6	106.2	7.1	9.3	8.8	6.4	7.1
Nutritional Deficiencies (240-279)	173.3	151.4	197.7	135.7	124.9	2.4	1.7	10.4	1.3	1.3
Anaemias (280-289)	424.3[2]	507.8	430.8	338.1	330.7	5.2[2]	5.7	9.4	3.3	3.0
Hypertension & Ischaemic Heart Disease (401-405, 410-414)	129.1[3]	166.8	198.0	303.0	337.0	3.8[3]	9.3	13.6	17.6	20.0
Abortions (630-639)	179.9	150.2	196.3	207.8	222.1	0.5	0.3	0.3	0.1	0.1
Normal Deliveries (650)	...	1,841.1	1,768.1	2,081.5	1,985.7	...	0.0	0.1	0.1	0.1
Ill-defined Causes (780-799)	264.7	711.5	920.4	1,154.9	1,295.7	11.6	10.5	15.6	14.1	12.2
Injury and Poisoning (800-999)	1,523.3	2,055.0	1,750.7	1,743.3	1,729.7	20.6	17.8	21.2	27.5	23.4

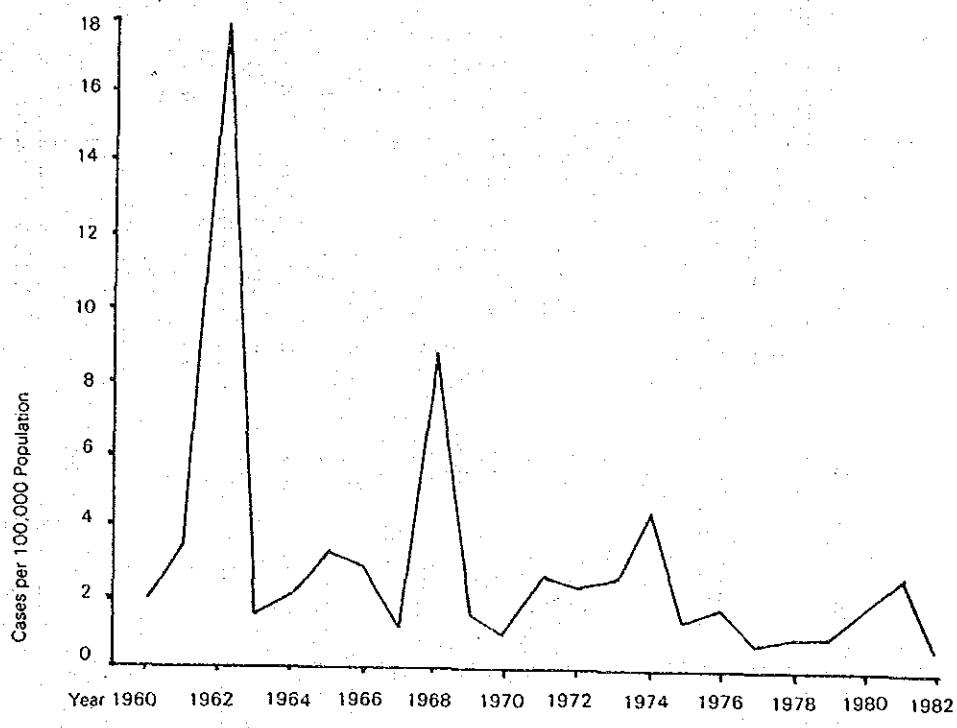
[1] Patients admitted to Government Hospitals, excluding Peradeniya Teaching Hospital

[2] Iron Deficiency Anaemias only

[3] Hypertensive Diseases only

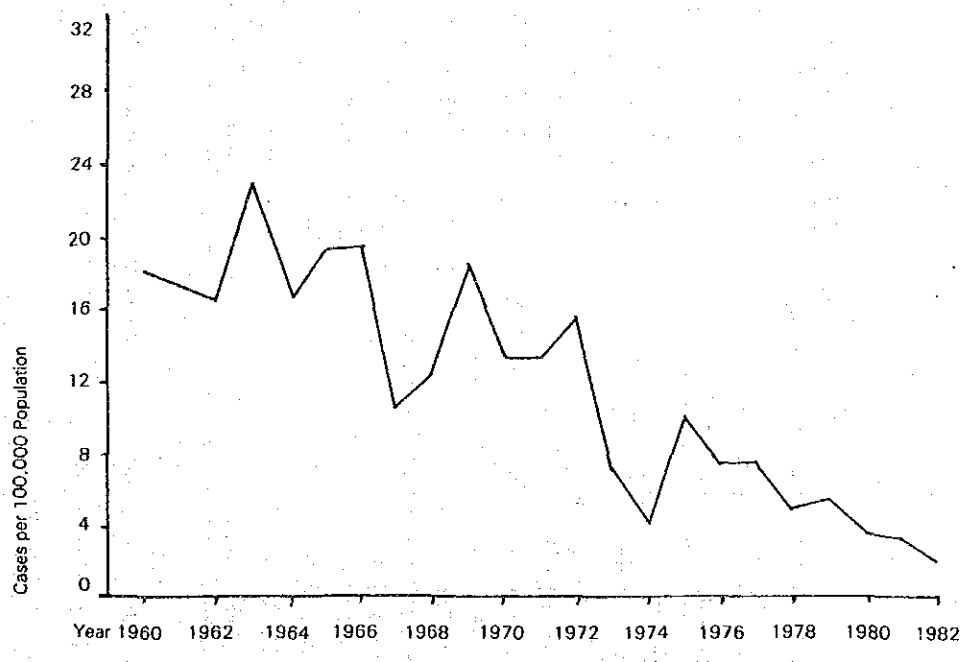
Source : Office of the Medical Statistician.

FIGURE 4.1 : POLIOMYELITIS 1960 – 1982



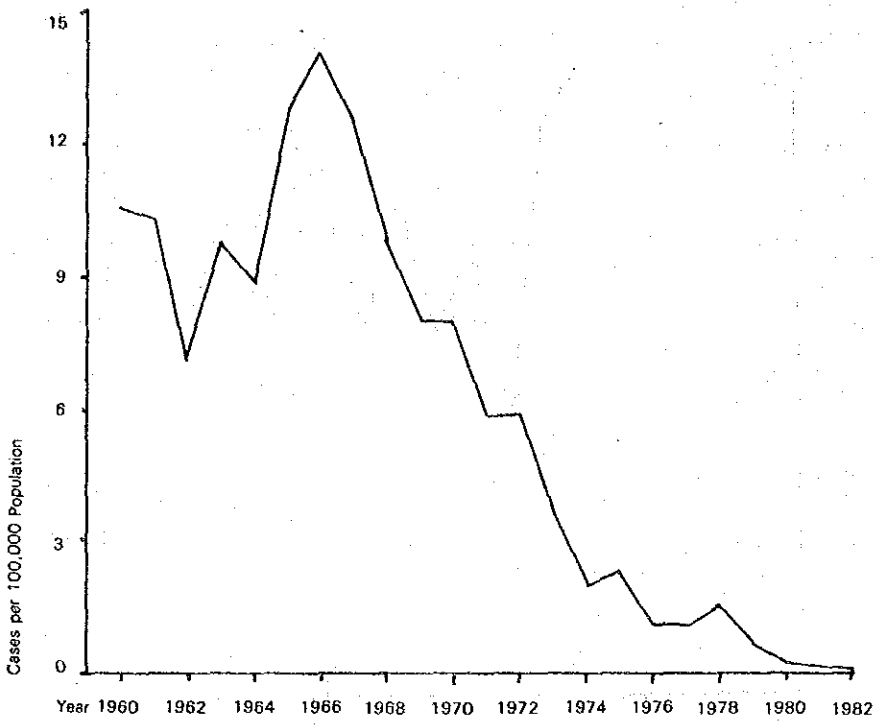
Source : Epidemiological Unit

FIGURE 4.2 : WHOOPING COUGH 1960 – 1982



Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.3 : DIPHTHERIA 1960 – 1982

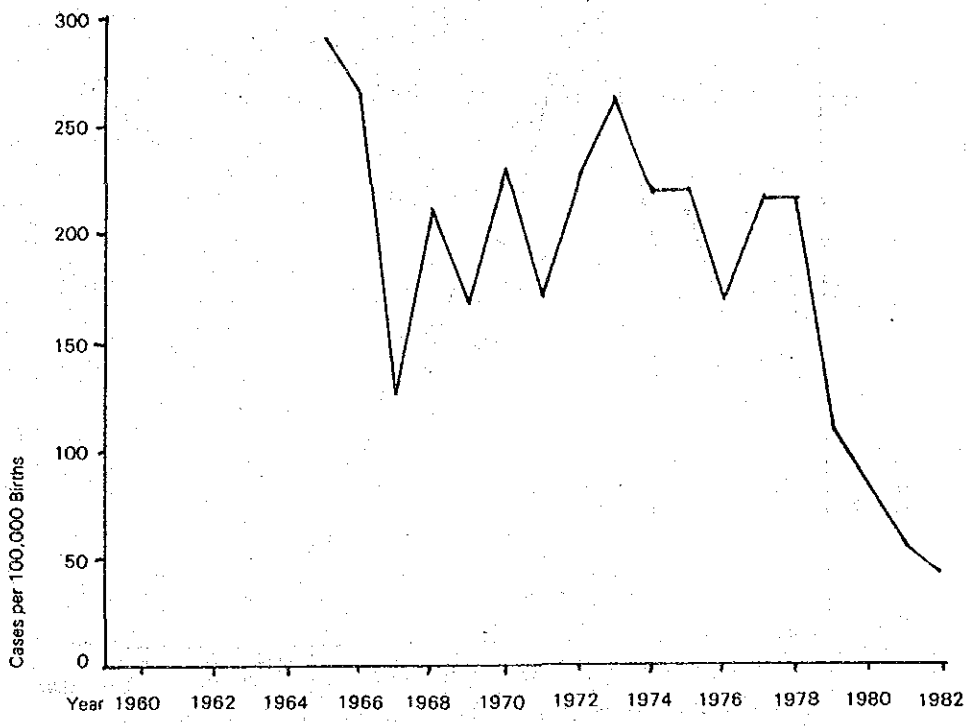


Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.4 : TETANUS, ALL FORMS OTHER THAN TETANUS NEONATORUM, 1965 – 1982

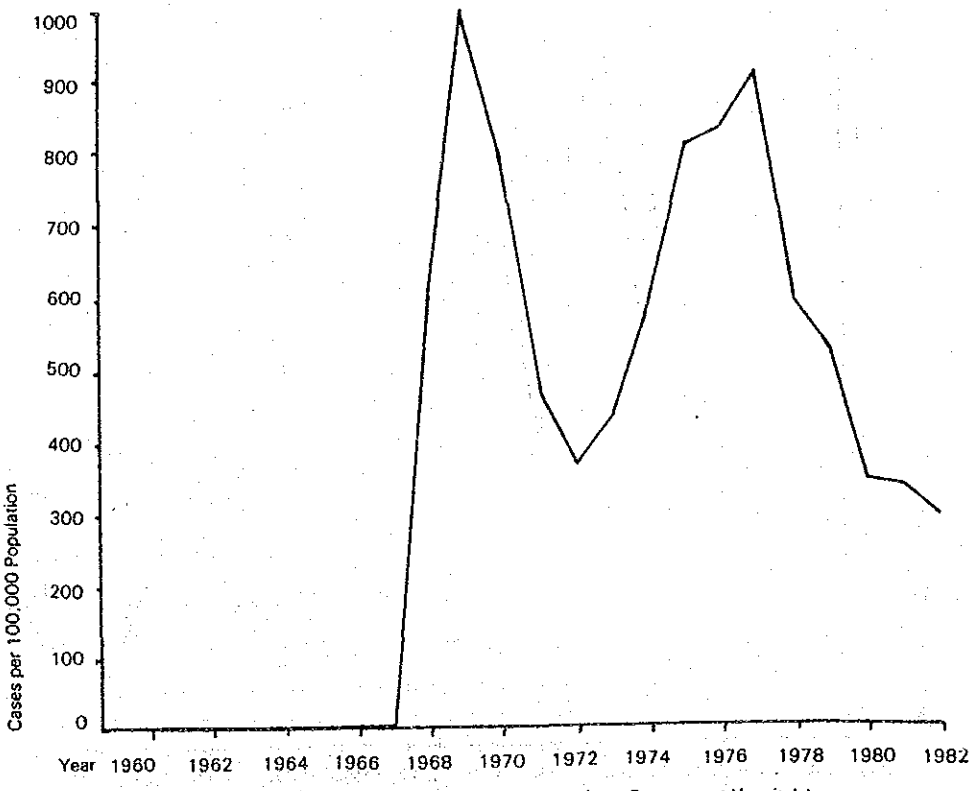
Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.5 : TETANUS NEONATORUM 1965 – 1982



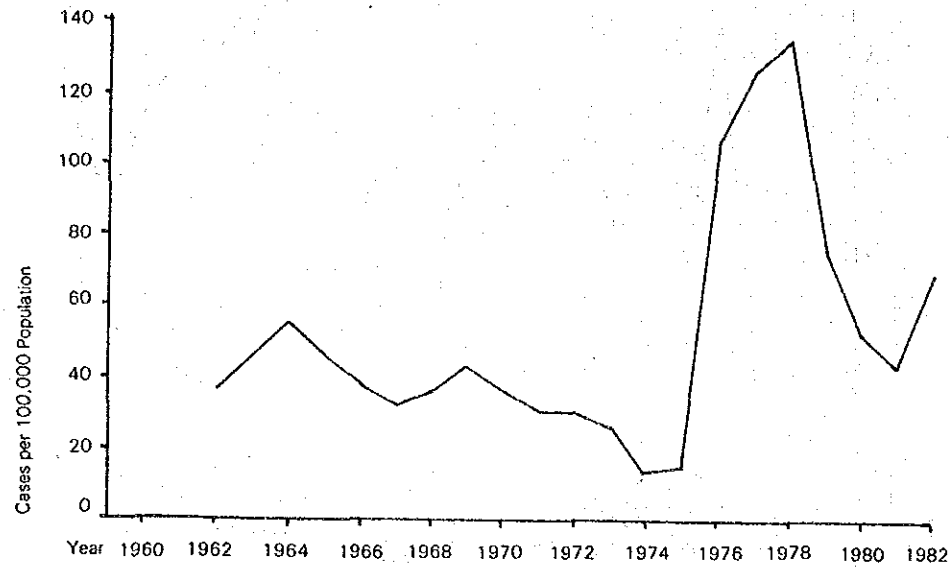
Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.6 : MALARIA 1960 – 1982



Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.7 : BACILLARY DYSENTERY 1962 – 1982

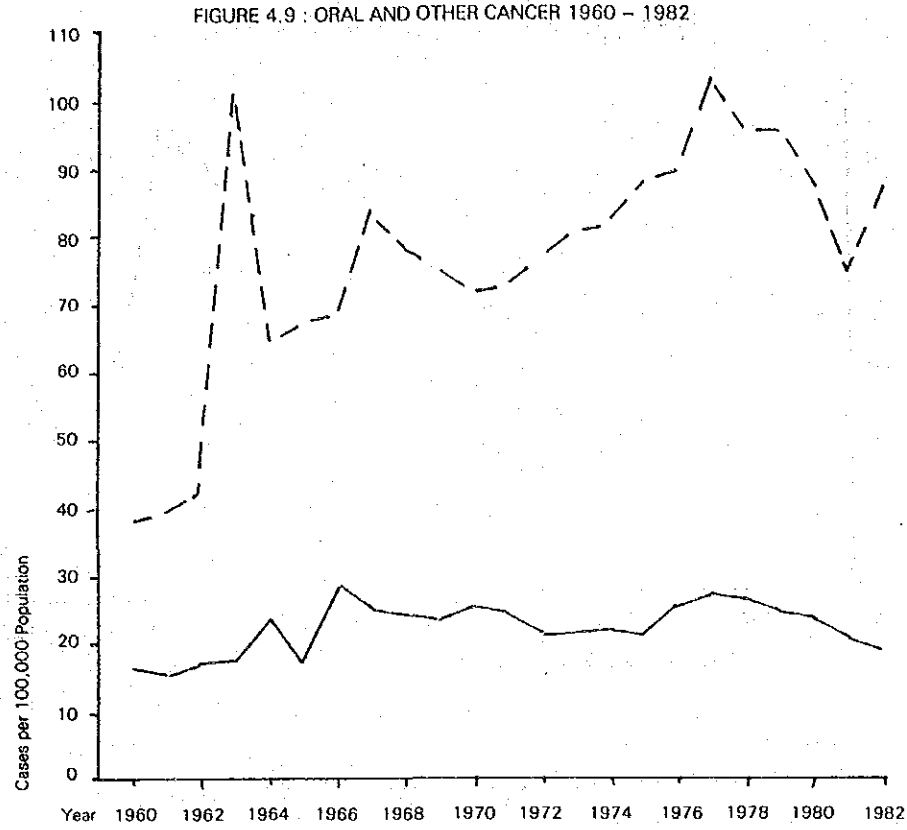


Source : Office of the Medical Statistician (Discharges from Government Hospitals).

FIGURE 4.8 : HEART DISEASES (ICD NO. 390 – 429) 1962 – 1982

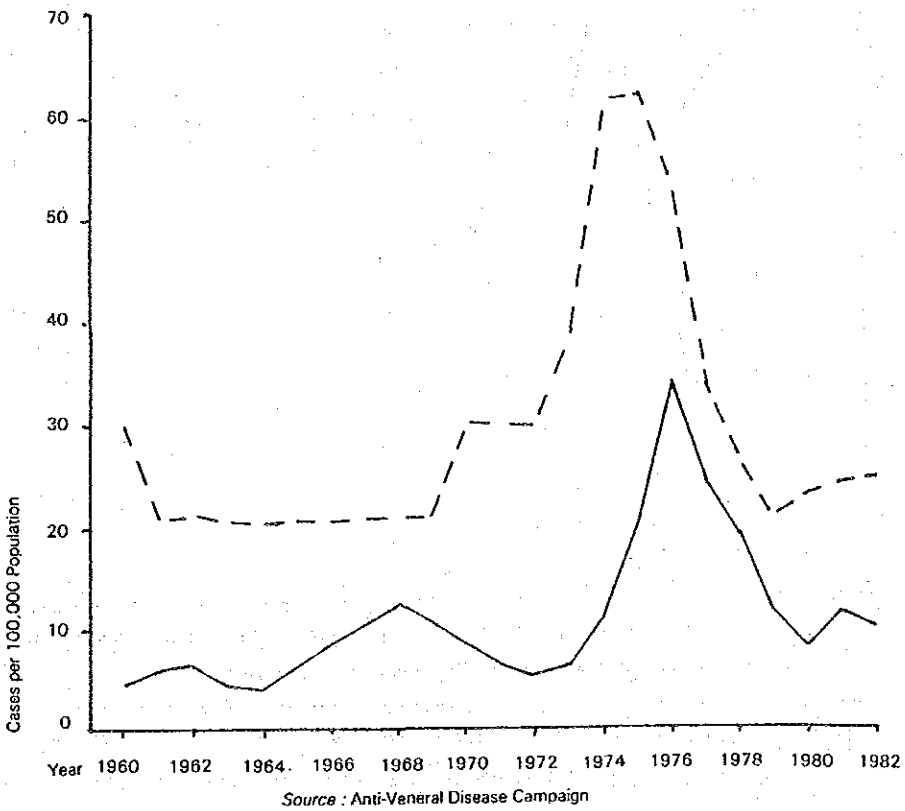
Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.9 : ORAL AND OTHER CANCER 1960 – 1982



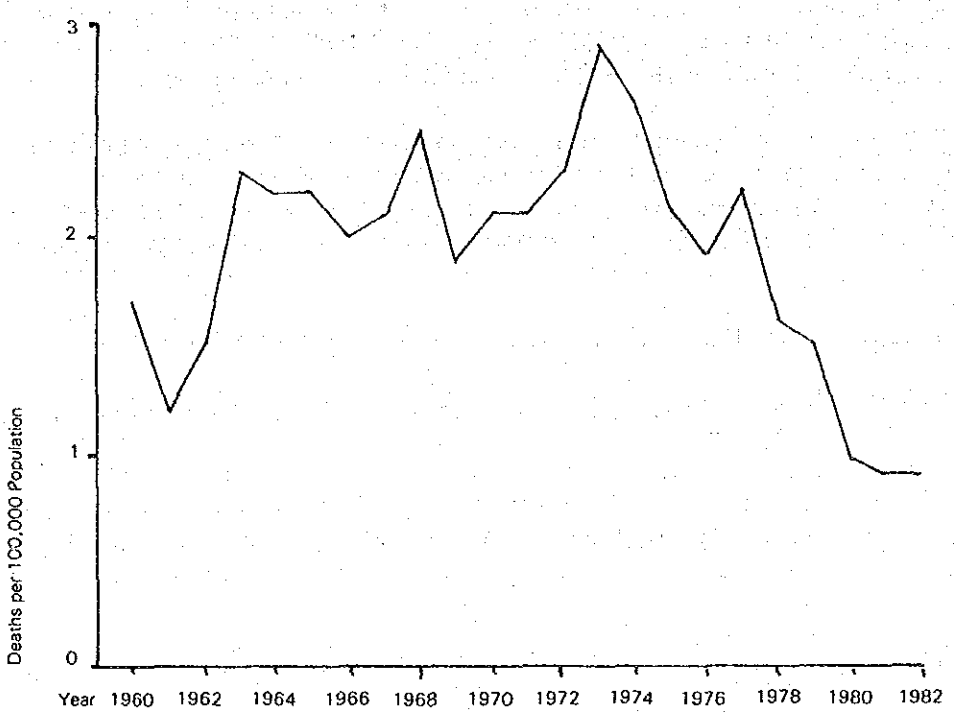
Source : Office of the Medical Statistician (Discharges from Government Hospitals)

FIGURE 4.10 : SEXUALLY TRANSMITTED DISEASES 1960 – 1982



Source : Anti-Venereal Disease Campaign

FIGURE 4.11 : RABIES DEATHS 1960 – 1982



Source : Rabies Control Programme

4.2 Nutritional Status

An island-wide survey of nutritional status of " pre-school " children in Sri Lanka was conducted by the Ministry of Health in 1975/76 with technical assistance from the Centre for Disease Control, Atlanta, Georgia, USA, and financial assistance from USAID. The main findings are shown in *Table 4.3*.

TABLE 4.3

PROTEIN-ENERGY MALNUTRITION IN CHILDREN (6–71 MONTHS) BY SHS DIVISION

SHS Division	Acute Undernutrition %	Chronic Undernutrition %	Acute & Chronic Undernutrition %
Colombo	3.0	18.8	1.9
Kalutara	2.8	23.4	3.4
Kandy	3.0	44.1	5.5
Matale	3.4	35.1	3.8
Galle	4.1	29.2	4.1
Matara	3.8	27.5	2.2
Jaffna	2.1	26.8	1.6
Vavuniya	3.5	27.3	2.3
Batticaloa	4.4	32.5	4.0
Kurunegala	3.4	28.1	2.3
Puttalam	3.2	22.5	1.9
Anuradhapura	4.0	27.8	2.9
Badulla	1.8	45.4	4.0
Ratnapura	4.7	33.2	4.1
Kegalle	3.1	35.6	4.0

Source: Sri Lanka Nutrition Status Survey (1975/76) U.S.DHEW, CDC.

The findings of the surveys conducted by the Food & Nutrition Policy Planning Division (F & NPPD) of the Ministry of Plan Implementation, jointly with the Ministry of Health from September 1979 to January 1982, may be examined against the 1975-76 " baseline ", paying due regard to the time and sampling frames as well as the definition of a " pre-school " child.

The F & NPPD surveys of Matara and Hambantota, maintained both the sampling methodology and the definition of a " pre-school " child, i.e. 06–71 months of age, used in the 1975-76 survey. In the subsequent surveys, the age-group was restricted to 06–60 months. Furthermore, in the F & NPPD surveys rural and estate populations in relevant " districts " were sampled separately.

The findings of these District Surveys are indicated in *Tables 4.4* and *4.5*.

The F & NPPD Surveys reveal substantial increases in the proportion of pre-school children affected by " Acute Undernutrition ", in the critical age-group 06-24 months, in many parts of the country. The magnitudes of weight-deficits and their associated potential functional implications are greatest in those diagnosed as suffering from " acute " as well as " chronic " Protein-Energy Malnutrition, concurrently ; high prevalence rates of the latter condition have been reported from many districts in the recent surveys, embracing the infants and younger pre-school children.

TABLE 4.4

THE PERCENT PREVALENCE OF PROTEIN-ENERGY MALNUTRITION IN SRI LANKA BY DISTRICTS (F & NPPD SURVEYS)

District (Rural Sector)	Acute Undernutrition	Chronic Undernutrition	Acute & Chronic (Concurrent) Undernutrition
Hambantota	6.7	21.3	1.4
Matara	5.8	19.0	2.0
Nuwara-Eliya	5.6	34.6	2.6
Matale	4.7	22.1	2.0
Moneragala	8.7	17.9	2.8
Puttalam	10.2	15.0	4.0
Vavuniya	4.6	22.0	4.3
Kurunegala	8.3	15.5	2.6
Ratnapura	8.1	22.5	0.7
Kegalle	6.4	22.6	2.4
Kandy	6.1	31.1	3.5
Amparai	9.7	26.9	3.2
Mullaitivu	4.9	28.1	1.0
Badulla	7.0	31.6	2.9
Gampaha	7.7	13.9	1.6
Galle	8.0	17.7	2.7
Kalutara	7.9	15.6	1.6
Mannar	6.4	26.7	4.1
Batticaloa	10.3	27.4	7.8
Trincomalee	11.8	22.4	4.2
Colombo	7.6	9.5	1.8
Anuradhapura	9.4	19.4	3.4
Polonnaruwa	7.7	14.6	3.7
Jaffna	4.9	25.0	1.6

Source : " Nutritional Status, Its Determinants & Intervention Programmes " Final Report, F & NPPD, Ministry of Plan Implementation. Publication No. 12 (January 1983)

TABLE 4.5

PERCENT PREVALENCE OF CONCURRENT ACUTE & CHRONIC PROTEIN–ENERGY MALNUTRITION IN INFANTS AND YOUNG CHILDREN

District (Rural Sector)	Age Categories (Months)			
	06–12	13–24	25–36	37–48
Batticaloa	1.2	5.2	13.9	5.4
Vavuniya	–	5.8	7.6	1.1
Trincomalee	–	6.4	8.1	1.7
Mannar	–	14.5	4.0	–
Puttalam	1.5	4.6	5.3	3.0
Polonnaruwa	–	2.7	9.3	0.7
Kandy	0.6	2.6	8.5	1.5
Anuradhapura	–	4.7	7.1	1.1
Amparai	–	5.5	5.5	0.7
Badulla	–	3.0	6.9	0.5
Moneragala	0.9	2.9	5.5	1.2
Kurunegala	0.5	3.0	3.0	3.8
Nuwara-Eliya	–	4.3	2.9	1.0
Galle	–	4.1	5.5	0.5
Kegalle	–	2.7	3.6	0.3
Matale	1.8	1.6	2.5	1.2
Matara	3.4	1.7	1.6	1.6
Colombo	–	2.5	3.7	0.3
Sri Lanka Profile* 1975–76	1.6	3.8	4.0	3.4

*Sri Lanka Nutrition Status Survey (1975-76), CDC-USDHCW.

Source : Final Report on : " Nutritional Status, Its Determinants & Intervention Programmes ", F & NPPD, Ministry of Plan Implementation. Publication No. 12, January, 1983.

5. SOCIO-ECONOMIC SITUATION

It is five years since the present government changed the direction of the socio-economic policy in its program of economic reforms to liberalize the economy and stimulate growth and employment. The most notable success of these were to break out of the low investment and growth patterns of the pre 1977 era. During the initial period significant progress has been made, but financial imbalances in the budget has led to high inflation and a widening deficit in the balance of payment.

A brief summary of statistics on the socio-economic situation in 1982 relative to 1981 is given below :

In 1982, Sri Lanka's growth rate of the Gross National Product (GNP) was 4.9%, marginally improving on the 4.1% growth rate of 1981. The real Gross Domestic Product (GDP) increased by 5.1% as against a growth rate of 5.8% recorded in 1981. For an estimated population growth of 1.7% this gives a real per capita increase of 3.5% in 1982, as against 2.4% in 1981. The GNP per capita was Rs. 5,904 or US $ 284 for 1982.

Effects of adverse international terms of trade resulted in the terms of trade index (Base year 1978 = 100), declining from 46 in 1981 to 38 in 1982.

Continued tight monetary policies and stability of prices of some of the imported goods due to lower inflation rates in the world contributed to a significant abatement of the rate of inflation. The Colombo Consumers Price Index had an annual rate of increase of 10.8% as against 18% in 1981. The Wholesale Price Index increase in 1982 was only 5.5% as against 17% in 1981.

Despite tighter policies, the budget deficit increased from 17.5% of GDP in 1981 to 20.2% of GDP in 1982. The actual account deficit of the balance of payments was Rs. 11,793 million, the highest on record, and as a percentage of GDP increased from 11% in 1981 to 13% in 1982. Increased receipts from private transfers (consisting essentially of remittances of Sri Lankans employed abroad), accounting for Rs. 5,789 million as against Rs. 4,430 million in 1981, and larger net inflow of capital as direct investments and long-term foreign loans, resulted in an overall balance of payment marginally lower than 1981 (SDR 24 million in 1982 as against SDR 26 million in 1981).

Available data on the employment front showed 34,000 new employment opportunities created during the year in the organised sector. The corresponding figures for 1980 and 1981 were 18,035 and 40,622 respectively. The major share of this was in the organized private sector, which accounted for 25,625. Provisional estimates from the Consumer Finance Survey of the Central Bank of 1981/82 provides a rate of unemployment of the labour force at 13.1%.

Though unfavourable external factors in the year 1982 have increased the external debt, it is expected that the moderations in the monetary expansion and reduction of inflationary rate will contribute towards a more stable economy.

6. STATE HEALTH SERVICES

6.1 Ministry of Health

In 1982, the Ministry of Health comprised of the parent Ministry under a Cabinet Minister and two Project Ministries, the Ministry of Colombo Hospitals and Family Health and the Ministry of Indigenous Medicine under two Project Ministers.

The administrative organisation of the Ministry of Health is presented in *Figure 6.1*. The Director of Health Services who is responsible for the curative and preventive health services throughout the country is assisted by a number of technical officers. The organisational structure of the technical services of the Department of Health is given in *Figure 6.2*. At Divisional level, the authority of the Director of Health Services is delegated to the Superintendent of Health Services, who is responsible for all health services in the Division. The health services organisation at this level is presented in *Figure 6.3*.

6.2 Other Ministries

Health services are also provided for specified categories by other Ministries. The chief among them is the Ministry of Local Government, which provides a limited curative service and preventive services for the Municipal Council populations. These services are provided in Colombo, Dehiwala-Mt. Lavinia,Kandy, Galle and Jaffna.

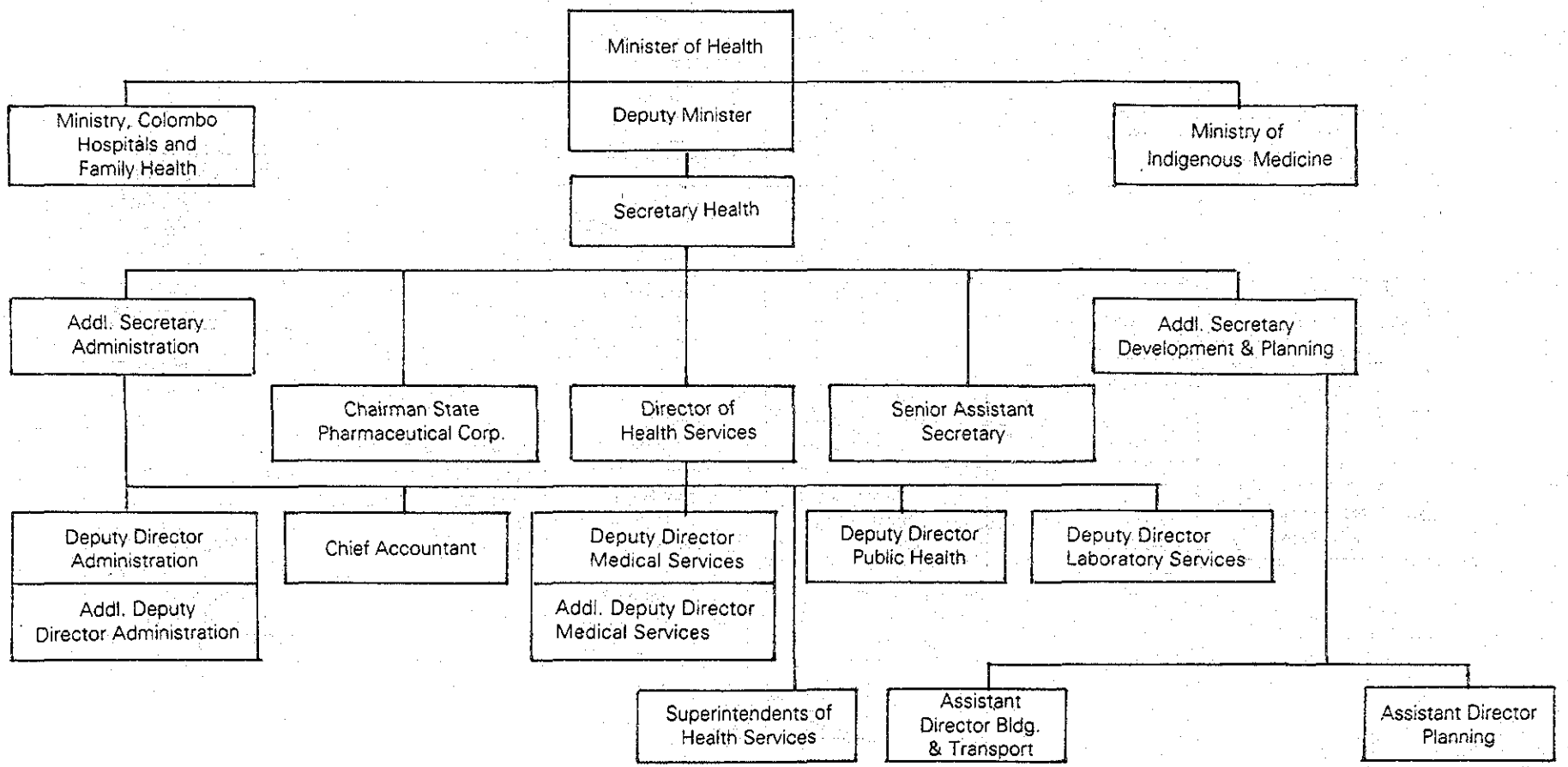
Medical services for the Army, Navy, Air Force and Police are provided separately. The Ministry of Plantation Industries provides medical services for the estate workers through the State Plantation Corporation and the Janata Estate Development Board.

The Ministry of Plan Implementation gives an incentive bonus to Family Planning acceptors and also provides for capital expenditure for health components under the Integrated Rural Development Projects.

FIGURE 6.1

MINISTRY OF HEALTH, SRI LANKA

ORGANIZATION CHART



MINISTRY OF HEALTH SRI LANKA

ORGANISATION OF TECHNICAL SERVICES OF THE DEPARTMENT OF HEALTH

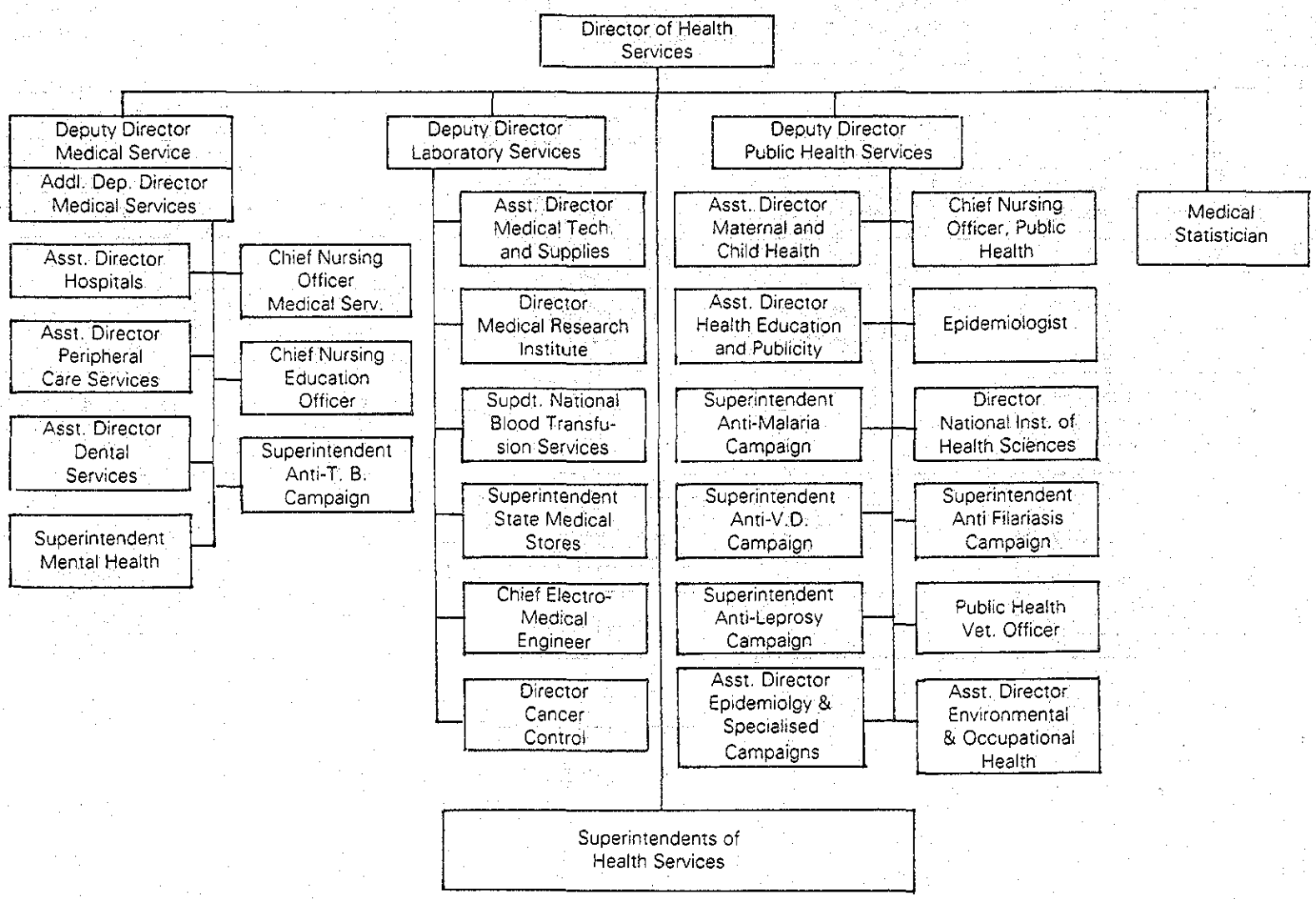
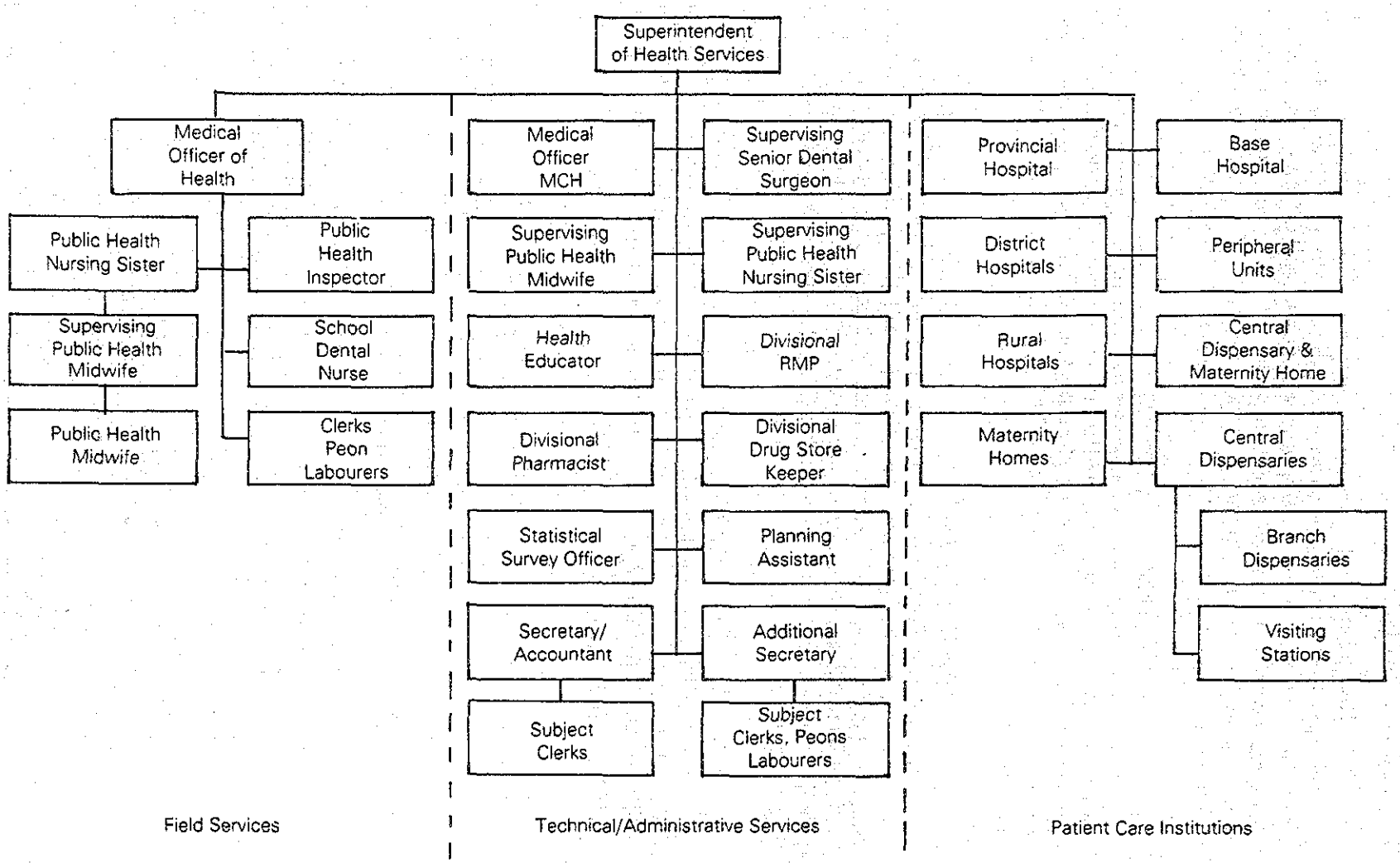


FIGURE 6.3

MINISTRY OF HEALTH, SRI LANKA

ORGANISATION OF DIVISIONAL HEALTH SERVICES



7. HEALTH RESOURCES

7.1 Health Financing

In July, 1982, the Planning Division of the Ministry completed a detailed study of health care costs and financing under the guidance of Professor Brian Abel Smith, who was recruited as a Consultant with WHO assistance. A comprehensive report with cost projections upto 1990 and alternatives for financing health care was submitted to the Cabinet by the Minister of Health and is now being scrutinised by the Committee of Development Secretaries.

7.1.1 Health Budget and Expenditure

The Government of Sri Lanka uses a programming and performance budgeting system by which money is annually "apportioned" to various projects and programmes based on estimates of expenditure. The actual expenditures of the Ministry of Health and the Ministry of Colombo Hospitals and Family Health are given in *Table 7.1*. The breakdown of 1982 actual expenditure by major expense classification is given in *Table 7.2*.

7.1.2 Capital Investment

The Medium Term Investment Programme for 1982–1986 provides the basis for capital expenditure by the Government. The Government's policy of capital expenditure for health as stated in this document is "Preventive sevices will be given the highest priority and co-ordinated with related Nutrition and Family Planning, Water and Sanitation Programmes. Therefore, the PHC programme will be the main programme of the Health Ministry." This is reflected in the 1982–1986 Public Investment Programme as shown in *Table 7.3*.

7.1.3 Foreign Aid Utilisation

A significant proportion of capital expenditure is financed by foreign aid, both in the health and health related sectors. Projects with foreign assistance and the utilisation of such resources in 1982 are given in *Table 7.4*, to provide information of the variety of activities and sources of finance.

TABLE 7.1

MINISTRY OF HEALTH–SRI LANKA
SUMMARY OF EXPENDITURE 1981 & 1982

Programme	Actual 1981 (Rs. '000)	Actual 1982 (Rs. '000)	% Increase (Decrease) from 1981
Recurrent Expenditure :			
1. General Administration and Staff Services	59,368	70,032	18.0
2. Patient Care Services	594,151	792,906	33.4
3. Community Health Services	178,167	238,206	33.7
Total Recurrent	831,686	1,101,144	32.4
Capital Expenditure :			
1. General Administration and Staff Services	13,407	3,392	(74.7)
2. Patient Care Services	67,777	73,263	8.1
3. Community Health Services	18,345	9,868	(46.2)
Total Capital	99,529	86,523	(13.1)
Source of Funds :			
Consolidated Fund	886,543	1,148,281	29.5
Foreign Aid	44,672	39,386	(11.8)
Grand Total	931,215	1,187,667	27.5

Source : Finance Branch, Ministry of Health

TABLE 7.2

MINISTRY OF HEALTH–SRI LANKA
1982 RECURRENT EXPENDITURE BY OBJECT ITEM

Object	Amount (Rs. 000's)	% of Total
Personal Emoluments	598,630	54.4
Travelling Expenses	27,519	2.5
Fuel & Lubricants*	17,078	1.6
Drugs*	131,179	11.9
Medical & Surgical Supplies*	41,447	3.8
Malathion	66,000	6.0
Diet*	85,746	7.8
Other Supplies & Requisites*	45,124	4.1
Repairs	6,117	0.6
Transport Communication & Miscellaneous	45,525	4.1
Grants & Contributions	36,779	3.3
Total Recurrent Expenditure	1,101,144	100.0

Source : Finance branch, Ministry of Health
*Figures for Ministry of Colmbo Hospitals and Family Health are based on estimates.

TABLE 7.3

PUBLIC INVESTMENT PROGRAMME 1982–1986
(Rs. Million)

	1982	1983	1984	1985	1986
Health	239	537	643	726	860
(1) Equipment	61	90	96	112	117
(2) NIHS Kalutara	7	12	15	16	18
(3) Sterile Water Plant	–	–	22	40	–
(4) Anti Malaria Campaign	5	5	6	7	7
(5) Sri Jayawardenapura Hospital	130	330	320	–	–
(6) Staff Quarters	5	10	15	30	35
(7) Other	27	64	73	96	88
(8) PHC (ADB)	4	26	46	75	–
(9) PHC Master Plan	–	–	50	350	595

Source : Ministry of Finance and Planning

TABLE 7.4

FOREIGN AID UTILISATION – 1982

Funding Agency	Project Title and Period	Total Commitment (US $'000)	Aid Utilised in 1982 (US $ '000)	Aid Utilised upto 31.12.82 (Cumulative) (US $ '000)
Government of Japan	1. Sri Jayawardenapura Hospital (1980–1983)	37,273	15,909	31,818
NORAD	1. Hambantota Integrated Rural Development Programme *(Health Component)* (1981–)	183	17	73
U.S. AID	1. Malaria Control (Loan) (1978–1984)	16,000	3,705	13,952
	2. N.I.H.S. (Grant) (1980–1984)	2,200	45	45
	3. Jaffna Town Water (Grant) (1980–1984)	2,000	1,178	1,178
	4. Rural Family Health Projects (1980–1985)	724	142	250
	5. PL. 480–Title II (Grant) Food Aid :			
	(*a*) Maternal/Child Feeding	–	2,752	–
	(*b*) School Feeding		3,103	
SIDA	1. Family Planning Programme	4,453	466	4,076
Govt. of Netherlands	1. Cardiology Unit, Colombo (1977–)	98	45	45
	2. Rehabilitation Medical *Institutions* (1978–)	197	42	191
UNDP	1. UNV Technical Assistance in Strengthening Health Services (1978–1984)	5,000	1,188	4,807
WHO	1. 1982/1983 Programme Budget	2,830	2,670*	2,670*
UNICEF	1. Rural MCH Services (1979–1983)	1,050	284	1,043
	2. Expanded Programme of Immunisation (1979–1983)	1,074	108	836
	3. Health Manpower Development (1979–1983)	728	113	531
UNFPA	1. Manpower Development (Training of staff in Family Health & Family Planning) (1973–1982)	3,776	585	–
	2. Hospital Based F.P.** Services (SRL/77/P02)	889	53	–
	3. Salary Supplement to Doctors who perform sterilizations (SRL/73/P08)	394	88	–
	4. Supply of contraceptives (SRL/81/P06)	1,900	177	–
	5. Other health related activities	4,173	358	–

* Obligated and under process.

** Norwegian Govt., funds in Trust with UNFPA.

Source : Planning Division, Ministry of Health.

7.2 Health Manpower

A staffing study was carried out by the Planning Division in 1980, where actual and required staff by job category was identified. This report was considered by the Standing Committee on Health Manpower Development and a course of action for implementation of its recommendations was delineated.

Statistics of staff collected from SHS divisions have been utilised to provide numbers and rate per 100,000 population of key health personnel in *Table 7.5*. Taking into context the plan for re-structuring of the health care delivery system, the essential Public Health Staff categories are also shown in this table. It is laid down in the plan to provide a Public Health Midwife per 3,000 population, i.e., approximately 33 per 100,000 are needed in each division. It is seen that except for Kegalle division, all other divisions are considerably behind in this respect. It is envisaged that with the appointment of the second batch of Public Health Midwives, these shortages will be lessened.

The shortage of Medical Officers continues and 157 doctors from the UNDP Volunteer Programme were in service in the country in 1982.

7.2.1 Health Manpower Training

Since 1980, there has been a marked increase in the training of key health personnel in an attempt to reduce the gap between actual and required staff. However, the service needs have not yet been met.

Categories of personnel and the training capacities of institutions, as well as the output in 1981 and 1982 are shown in *Table 7.6*.

7.3 Health Facilities

Work on the new 1,001 bed hospital at Sri Jayawardenapura commenced on 4th November, 1981. It is expected to be completed before the end of 1983.

During 1982, the first stage of work at the new hospital at Karapitiya, Galle, was completed and six wards were opened. A major portion of the construction work at the National Institute of Health Sciences complex at Kalutara has been completed. A ward of 24 beds and quarters at Alutgama were also completed.

A Cardiac Theatre and a Medical Intensive Care Unit with 14 beds were completed dg the year at the General Hospital, Colombo. Seven new wards and three Central Dispensaries (with AMP quarters) were constructed during the year.

Although new constructions of Dental Clinics were not undertaken in 1982, nine Dental Clinics were established in buildings completed in the previous year.

The Health institutions by type and bed strength are shown in *Table 7.7*. As most of the specialised Institutions are located in Colombo SHS Division, for comparison of service availability, general hospital beds only are shown in *Table 7.8* by SHS Division.

7.4 Transport

Transport is an essential support service for the proper functioning of the referral system and distribution of supplies to the periphery. Distribution of vehicles by decentralised units is shown in *Table 7.9*.

TABLE 7.5

KEY HEALTH PERSONNEL BY SHS DIVISION–1 AUGUST 1982

SHS Division	Medical Officers[1]		RMP/AMP		Nurses[2]		MOH		PHN		PHI		PHM	
	No.	Rate[3]	No.	Rate[3]	No.	Rate[3]	No.	Rate[3]	No.	Rate[3]	No.	Rate[3]	No.	Rate[3]
All Island	1942	12.9	884	5.9	6931	45.9	93	0.6	241	1.6	962	6.4	2296	15.2
Colombo	598	34.8	43	2.5	1760	102.3	13	0.8	47	2.7	65	3.8	98	5.7
Gampaha	129	9.1	73	5.2	482	34.1	9	0.6	20	1.4	66	4.7	228	16.1
Kalutara	69	8.2	31	3.7	337	40.2	8	1.0	46	5.5	63	7.5	188	22.4
Kandy	197	17.4	72	6.4	745	65.9	6	0.5	18	1.6	80	7.1	240	21.2
Matale	37	5.8	43	6.7	177	27.7	2	0.3	4	0.6	39	6.1	77	12.1
Nuwara Eliya	27	5.2	...	...	103	19.8	2	0.4	–	–	9	1.7	20	3.8
Galle	59	7.2	50	6.1	307	37.3	6	0.7	37	4.5	48	5.8	148	18.0
Matara	54	5.0	49	4.5	252	23.2	7	0.6	10	0.9	65	6.0	174	16.1
Jaffna	147	17.4	67	7.9	330	39.0	7	0.8	3	0.4	48	5.7	155	18.3
Vavuniya	22	7.5	39	13.3	54	18.4	2	0.7	–	–	18	6.1	31	10.6
Batticaloa	40	11.8	30	8.8	106	31.3	3	0.9	1	0.3	12	3.5	28	8.3
Amparai	18	4.5	29	7.2	44	10.9	1	0.2	–	–	20	5.0	58	14.4
Kurunegala	88	7.1	92	7.5	458	37.1	6	0.5	18	1.5	69	5.6	271	22.0
Puttalam	31	6.1	41	8.1	155	30.6	4	0.8	7	1.4	21	4.1	60	11.8
Anuradhapura	69	16.6	72	17.0	276	31.4	4	0.5	5	0.6	39	4.4	92	10.5
Badulla	65	10.1	39	6.0	248	38.4	2	0.3	5	0.8	24	3.7	106	16.4
Monaragala	9	3.1	23	7.9	42	14.5	2	0.7	–	–	11	3.8	...	...
Ratnapura	86	10.6	44	5.4	298	36.7	3	0.4	7	0.9	41	5.1	122	15.0
Kegalle	43	6.3	40	5.8	266	38.8	6	0.9	12	1.8	47	6.9	200	29.2
Special Campaigns	71	0.5	6	0.0	253	1.7	–	–	–	–	160	1.1	–	–
Others	83	0.5	1	0.0	238	1.6	–	–	1	0.0	17	0.1	–	–

[1] Excluding MOH

[2] Excluding 1531 Student Nurses

[3] Rate per 100,000 population

Source : Office of the Medical Statistician.

TABLE 7.6

HEALTH MANPOWER TRAINING

Category and Duration	Training Institution	Annual Intake		Annual Output	
		1981	1982	1981	1982
Doctors (5 years)	Medical Faculty (Colombo	198	184	148	166
	Medical Faculty (Peradeniya	90	90	89	88
	Medical Faculty (Jaffna	75	75	–	–
	Medical Faculty (Galle	50	50	–	–
Assistant Medical Practitioners (3 years)	(Colombo	55	–	40	16
	Medical Faculty (Peradeniya	65	–	49	04
	Medical Faculty (Jaffna	46	–	24	03
	NIHS Kalutara	50	54	–	–
Nurses (3 years)	NTS–Colombo	102	111	135	190
	,, Kandy	60	59	71	98
	,, Galle	76	72	63	71
	,, Ratnapura	27	27	40	30
	,, Kurunegala	65	30	72	69
	,, Anuradhapura	49	21	39	62
	,, Jaffna	13	35	53	84
	,, Batticaloa	12	09	13	13
Pharmacists (2 years)	Medical Faculty, Colombo	50	73	12	–
Physiotherapists & Occup. Therapists (2 years)	School of Physio. & Occ. Therapy	45	–	12	–
Radiographers (2 years)	G.H. Colombo	56	–	28	–
M.L.T. (2 years)	M.R.I. Colombo	64	–	28	–
P.H.N.S. (1 1/2 years)	N.I.H.S. Kalutara	–	–	40	–
P.H.I. (1 year)	N.I.H.S. Kalutara	67	84	67	–
School Dental Nurses (2 years)	School of Dental Nurses, Maharagama	18	25	22	18

7.5 Drugs and Medical Supplies

Drug costs represent 11.9% and Medical and Surgical Supplies 3.8% of the total Ministry of Health recurrent budget for 1982 (Table 7.2)

Expenditure on drugs and surgical supplies by decentralised units in 1981 as obtained from the advanced accounts of the State Medical Stores is given in Table 7.10

8. LEGISLATION

In 1980, Food Act, No. 26 of 1980 and Cosmetic Devices and Drugs Act of 1980 were enacted to replace the old Food and Drugs Act. In December 1980, legislation was passed in Parliament to set up the Health Development Fund (Act No. 13 of 1981). In 1982, there has been no new health legislation introduced.

Work is underway in drafting new legislation in the areas of rabies control, health services dealing with organisation and service delivery, and medical ordinance dealing with registration of medical practitioners and para-medical staff, professional conduct and other matters.

The Acts and Ordinances for which the Ministry of Health is responsible for implementation either directly or in an advisory capacity are listed in Table 8.1

TABLE 7.7

NUMBER AND BED STRENGTH OF HEALTH INSTITUTIONS BY TYPE
SRI LANKA – 1982

Type of Institution	Number	Beds
Provincial Hospital[1]	12	10,768
Base Hospital	17	5,551
District Hospital	114	12,221
Peripheral Unit	110	4,423
Rural Hospital	112	2,494
Maternity Hospital	2	700
Mental Hospital	2	1,884
Chest Hospital	3	1,277
Leprosy Hospital	2	393
Cancer Hospital	1	462
Children's Hospital	1	614
Eye Hospital	1	471
Dental Hospital	1	42
Maternity Home[2] and Central Dispensary	102	1,132
Other Hospital	13	957
Central Dispensary	338	–
Total	831	43,389

[1] Includes Teaching Hospitals

[2] Includes 19 Maternity Homes in charges of Midwives

[3] In addition, there are about 650 Branch Dispensaries and Visiting Stations where an AMP is usually available once a week or fortnight.

Source : Office of the Medical Statistician.

TABLE 7.8.

DISTRIBUTION OF GENERAL HOSPITAL BEDS* BY SHS DIVISIONS
SRI LANKA – 1982

SHS Division	Total No. of Beds	Beds per 1,000 Population
Colombo	4,739	2.8
Gampaha	2,891	2.0
Kalutara	1,956	2.3
Kandy	4,132	3.7
Matale	1,643	2.6
Nuwara Eliya	1,105	2.1
Galle	1,830	2.2
Matara	2,354	2.2
Jaffna	2,650	3.1
Vavuniya	714	2.4
Batticaloa	793	2.3
Amparai	647	1.6
Kurunegala	2,945	2.4
Puttalam	1,120	2.2
Anuradhapura	2,170	2.5
Badulla	1,657	2.6
Moneragala	620	2.1
Ratnapura	2,365	2.9
Kegalle	1,638	2.4
All Island (Total)	37,969	2.5

* Excluding beds in specialised hospitals.

Source : Office of the Medical Statistician.

TABLE 7.9

DISTRIBUTION OF VEHICLES BY SHS DIVISIONS AND SPECIALISED UNITS
SRI LANKA–1982

Division/Unit	Ambu-lances	Vans	Jeeps	Cars	Lorries	Buses	Bowsers	Total
SHS Division								
1. Amparai	06	01	03	–	01	–	–	11
2. Anuradhapura and Trincomalee	21	03	05	02	03	–	–	34
3. Badulla	13	06	03	02	01	–	–	25
4. Batticaloa	05	04	02	–	01	–	–	12
5. Colombo	11	05	01	02	01	–	–	20
6. Gampaha	10	05	07	01	01	–	–	24
7. Galle	11	06	06	01	01	01	–	26
8. Jaffna	06	06	03	06	02	–	–	23
9. Kegalle	17	04	–	02	01	–	–	24
10. Kalutara	08	04	05	02	01	–	–	20
11. Kandy	09	14	07	01	04	–	–	35
12. Kurunegala	25	06	13	02	02	–	–	48
13. Matara	15	11	10	02	02	–	01	41
14. Matale	14	01	07	01	01	–	–	24
15. Moneragala	09	03	02	–	01	–	–	15
16. Nuwara Eliya	08	03	04	–	01	–	–	16
17. Puttalam	10	03	05	01	01	–	–	20
18. Ratnapura	14	08	03	01	01	–	–	27
19. Vavuniya	05	01	05	01	01	–	–	13
Sub-Total	217	94	91	27	27	01	01	458
Campaigns								
Anti Malaria	–	03	189	1	07	–	–	200
Anti Filariasis	–	02	03	–	–	–	–	5
Anti V.D.	–	03	05	–	–	–	–	8
Anti Leprosy	–	–	05	–	–	–	–	5
Anti T.B.	02	06	–	10	–	–	–	18
Sub-Total	02	14	202	11	07	–	–	236
Others								
Ministry	–	05	–	19	–	–	–	24
Colombo General Hospital	06	01	–	01	03	–	01	12
Colombo Group of Hospitals	03	05	–	01	04	–	–	13
Ministry of Colombo Hospitals & F.H.	–	01	–	02	–	–	–	03
Family Health Bureau	–	10	–	01	04	–	–	15
Health Education Bureau	–	04	01	01	01	–	–	07
National Blood T.S.	–	02	03	03	–	–	–	08
State Medical Stores	–	01	02	01	07	–	–	11
Electro Medical Engineer	–	05	04	01	01	–	01	12
Public Health Vet. Surgeon	–	05	06	01	06	–	–	18
Epidemiologist	–	03	–	02	–	–	–	05
Mental Hospital–Angoda	01	04	–	–	02	–	–	07
Sub-Total	10	46	16	33	28	–	02	135
Total	229	154	309	71	62	01	03	829

Source : Transport Division–Ministry of Health.

TABLE 7.10

EXPENDITURE ON DRUGS AND MEDICAL SUPPLIES–1981

(In Rs. '000)

SHS Division		*Specialised Campaigns and Others*	
Amparai	2,105	Anti-TB Campaign	5,487
Anuradhapura	7,431	Anti Leprosy Campaign	129
Badulla[1]	7,683	Anti Malaria Campaign	407
Batticaloa	6,389	Anti Filariasis Campaign	92
Colombo	11,371	Quarantine Services	0.2
Gampaha	15,834	Mental Health Services	1,677
Galle	10,924	Medical Research Institute	33
Jaffna	10,895	Headquarters	2,247
Kalutara[2]	4,673	General Hospital, Colombo	38,772
Kandy	16,846	Colombo Group of Hospitals	20,550
Kegalle	4,805	Peradeniya General Hospital	2,126
Kurunegala	8,879		
Matale	6,004		
Matara	8,678		
Nuwara-Eliya	3,125		
Puttalam	4,904		
Ratnapura	13,631		
Vavuniya	4,162		
TOTAL	148,339	TOTAL	71,520.2

Source : State Medical Stores

[1]Includes Moneragala

[2]Includes National Institute of Health Sciences

TABLE 8.1

MINISTRY OF HEALTH – SRI LANKA

ACTS AND ORDINANCES

	Chapter
Medical Ordinance	105
Bread Ordinance	217
Poisons, Opiums and Dangerous Drugs Ordinance	218
Health Services Act	219
Nursing Home (Regulation) Act	220
Corneal Grafting Act	221
Quarantine and Prevention of Diseases Ordinance	222
Contagious Diseases Ordinance	223
Venereal Diseases Ordinance	224
Diseases among Labourers Ordinance	225
Medical Wants Ordinance	226
Mental Diseases Ordinance	227
Lepers Ordinance	228
Vaccination Ordinance	229
Nuisances Ordinance	230
Cemeteries Ordinance	231
Wells and Pits Ordinance	232
Suburban Dairies and Laundries Ordinance	233
Municipal Dairies and Laundries Ordinance	234

9. PATIENT CARE SERVICES

9.1 Medical Care Services

In recent years the increase in the work load at hospitals is seen to be due to in-patient care. *Table 9.1*, *Figure 9.1* and *Figure 9.2* show the trends from 1960. It is significant that out-patient attendances per 1,000 population shows a marked decrease from that seen in the 1960's. Meanwhile, though the hospital discharges as a rate per 100,000 population does not show much change, a significant increase of discharges per hospital bed is depicted in *Figure 9.2*.

TABLE 9.1

HOSPITAL DISCHARGES AND OUTPATIENT ATTENDANCES

SRI LANKA – 1960-1982

Year	DISCHARGES		OUTPATIENT ATTENDANCES (TOTAL VISITS)	
	No. in Thousands	Rate Per 1,000 Population	No. in Thousands	Rate Per 1,000 Population
1960	1392	141.9	28,852	2,915.6
1965	1643	150.6	31,258	2,866.7
1970	2054	164.1	34,895	2,783.2
1975	2146	159.0	27,654	2,049.0
1980	2295	156.7	31,892	2,176.9
1981	2220	149.5	30,439	2,049.8
1982	2465	162.2	31,696	2,085.3

Source : Office of the Medical Statistician

Table 9.2 gives a summary of hospital statistics by type of hospital for 1982. The death rate per 1,000 patients admitted and the still-birth rate are as expected higher in larger hospitals, as the more complicated cases tend to be admitted or referred to them.

TABLE 9.2

HOSPITAL STATISTICS BY TYPE OF HOSPITAL–SRI LANKA–1982

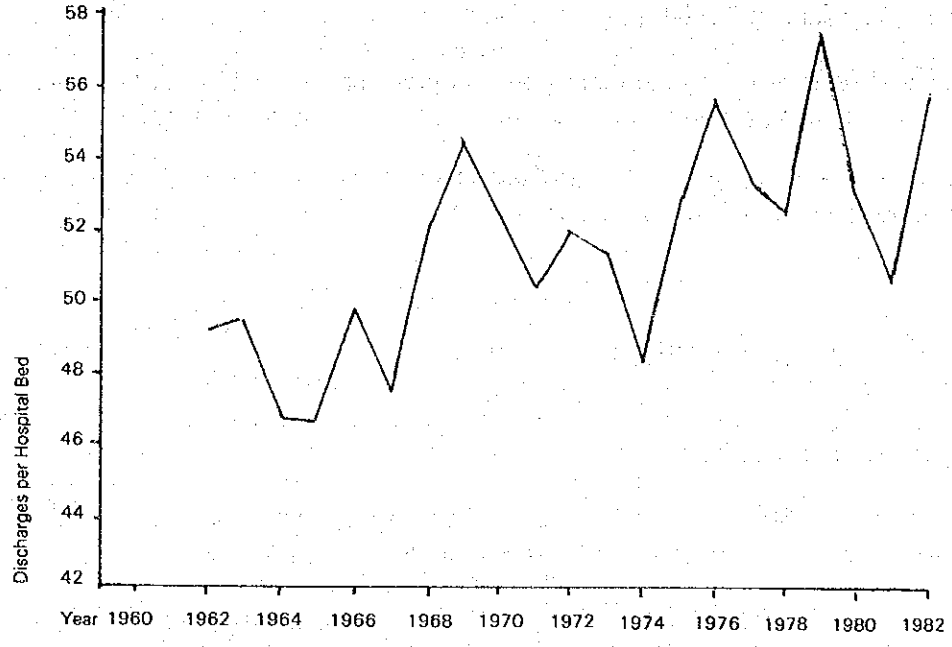
Type of Institution	No. Treated	Deaths		No. of Insti-tutions	No.of Beds as on 31.12.82	Av. Daily Occupancy	Bed Occupncy Rate	Av Duration of Stay	Gen. O P D. Attendance	Births			Maternity Beds as on 31.12.82
		No.	Rate							No. of Live Born	Still Born		
											No.	Rate	
1. General Hospital, Colombo	126,225	4,318	34.2	1	2,371	2,630	111	7.6	1,123,390	–	–	–	–
2 Provincial Hospitals *	465,698	10,797	23.2	10	7,934	9,080	114	7.1	2,620,140	55,385	2,232	38.7	1,170
3 Base Hospitls	392,414	5,553	14.1	17	5,551	5,717	103	5.3	2,746,264	51,237	1,304	24.8	893
4 District Hospitals	831,046	4,959	6.0	113	12,197	9,355	77	4.1	8,559,908	97,853	1,697	17.0	2,528
5 Peripheral Units	309,959	578	1.9	110	4,423	3,306	75	3.9	5,011,905	52,147	673	12.7	1,386
6. Rural Hospitals	163,005	146	0.9	109	2,462	1,980	80	4.4	2,939,605	22,703	337	14.6	689
7 Maternity Homes[1] & Central Dispensaries	20,466	1	0.0	102	1,132	237	21	4.2	1,969,744	13,596	154	11.2	1,132
8. Maternity Hospitals	39,167	28	0.7	2	700	552	79	5.1	–	63	378	16.7	505
9. Mental Hospitals	16,160	226	14.0	2	1,884	2,462	131	55.6	17,771				
10 Chest Hospitals	7,888	189	24.0	3	1,277	822	64	38.1	–				
11. Leprosy Hospitals	358	9	25.1	2	393	303	77	308.9	950				
12. Cancer Hospitals	7,725	525	68.0	1	462	487	105	23.0	–				
13. Children's Hospitals	54,566	934	17.1	1	614	519	85	3.5	666,116				
14. Eye Hospitals	9,815			1	471	399	85	14.8	212,585				
15. *Dental Hospitals*	1,339			1	42	25	60	6.8	153,958				
16. Other Hospitals	19,582	177	9.0	13	957	431	45	8.0	158,343				
17. Central Dispensaries									5,513,654				
TOTAL :	2,465,413	28,440	11.5	488	42,870	38,305	89	5.7	31,696,333	315184	6,775	21.0	8,303

* Excludes Teaching Hospital–Peradeniya, 463 beds, DH Mulleriyawa 24 beds, RH Ratgama 14 beds, RH Parasangahawewa 12 beds and RH Hambegamuwa 6 beds.

[1]Includes Maternity Homes in charge of Mid-wives.

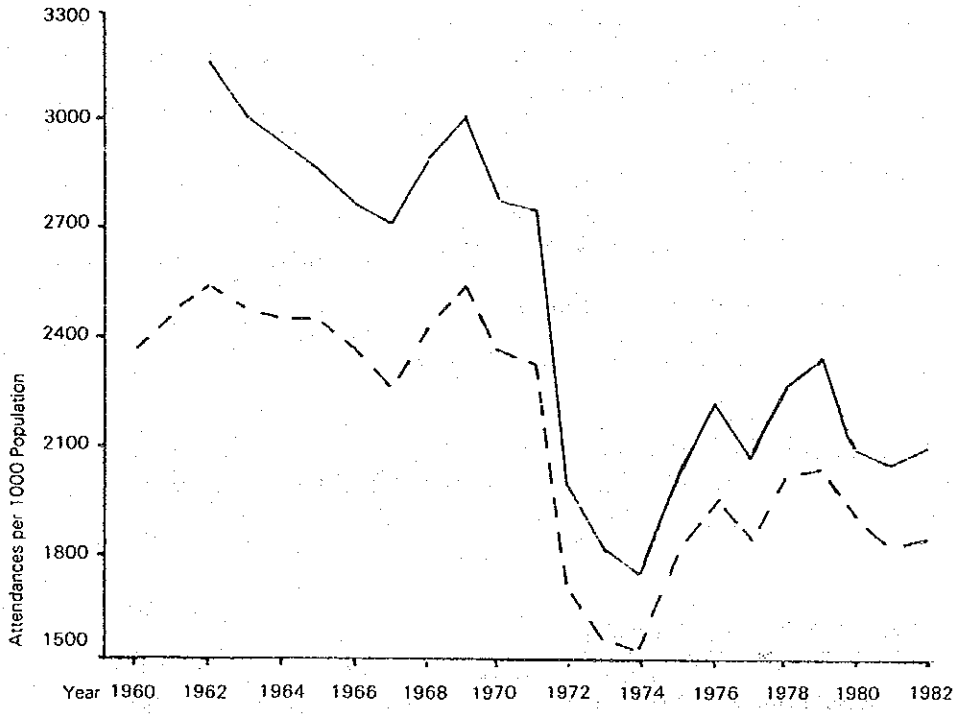
Source : Office of the Medical Statistician.

FIGURE 9.1 : DISCHARGES PER HOSPITAL BED PER YEAR 1962–1982



Source : Office of the Medical Statistician (Government hospital data)

FIGURE 9.2 : GENERAL OUTPATIENT ATTENDANCE PER 1000 POPULATION PER YEAR. FIRST VISITS 1960–1982 AND TOTAL ATTENDANCES 1962–1982



Source : Office of the Medical Statistician (Data from Government health institutions)

The average duration of stay ranges from 3.9 days in Peripheral Units to 7.6 days in the General Hospital, Colombo, corresponding to 53 patients being treated per bed per year in the General Hospital Colombo against 70 in a Peripheral Unit. It is noteworthy that on the average the bed occupancy rate is only 21% in Maternity Homes.

If re-admissions are not taken into consideration, on an average one in every six persons enters hospital and each person has 2.1 attendances to an outpatient department.

A total of 315,184 out of an estimated 418,800 births or 75% of all births took place in institutions of the government health services.

9.2 Dental Health Services

There were 168 Dental Clinics in the country staffed by qualified Dental Surgeons, with 12 Regional Dental Sugeons supervising the work at these clinics. Consultant Dental Surgeons were available in six General Hospitals.

A total of 205 School Dental Clinics function throughout the island, providing care for school children and pre-school children between the ages of 4 and 13 years.

There were 410 School Dental Nurses in these clinics, while another 25 new students were taken in for training at the Dental Nurses Training School, Maharagama.

As a preliminary to the National Oral Health Survey to be conducted in 1983, a path finder survey was done in a few provinces of the country. Some of the results of the survey are as follows :

1. Dental Caries
   - 1.1 Mean DMFT at 12 years of age (Decayed, missing and filled teeth) = 1.82
   - 1.2 Mean DMFT at 15 years of age = 3.45
2. Periodontal Disease
   - 2.1 Gingivitis experience at 12 years
     - 2.1.1 Mean number of segments affected per child = 2.6
     - 2.1.2 Percentage of children with gingivitis = 91
   - 2.2 Gingivitis experience at 15 years
     - 2.2.1 Mean number of segments affected per child = 3.0
     - 2.2.2 Percentage of children with gingivitis = 97

At a Workshop on Planning Primary Oral Health Care services, the goals in Oral Health for the country were defined. Strategies to achieve the set goals were listed, and a curriculum in Oral Health for Primary Health Care workers was also drafted.

10. LABORATORY SERVICES

10.1 Medical Research Institute

This Institute functions as the main reference and research laboratory for the Health Services. It provides routine laboratory services which are utilized to a varying extent by hospitals throughout the island.

It is also responsible for the production of certain vaccines, physiological solutions and reagents for the Health Service.

It trains Medical Laboratory Technologists and in addition the Staff of the MRI participate in undergraduate and post-graduate medical education.

10.1.1 *Routine Work*

A brief summary of the work output by Section is given below :

Section	*Work Output*
(i) General Bacteriology	Tests done–9,184 Production of Antibiotic discs–190,000
(ii) Entero-Bacteriology	Tests done–7,813
(iii) Food & Water Bacteriology	Tests done–3,802
(iv) Mycology	Tests done–1,007
(v) Natural Products	Preparation of Parenteral solutions (saline, bicarbonate, citrate, glucose, distilled water)–2,795.8 litres
(vi) Parasitology	Tests done–6,042
(vii) Pharmacology	Hormone assays–365
(viii) Vaccine	Anti-Typhoid Vaccine–84,350 ml. Anti-Cholera Vaccine–65,900 ml. Anti-Rabies Vaccine–367,600 ml.
(ix) Virology	Tests for Rabies–1,022 Tests for other viruses–7,733
(x) Pathology	Tests done–15,484
(xi) Bio-Chemistry	Tests done–18,339
(xii) Medical Entomology	Mosquito surveillance at ports and airports, Colombo City and other areas
(xiii) Serology	Tests done–13,686
(xiv) Leptospirosis	Tests done–278

10.1.2 *Research*

There were 33 Research Projects carried out in 1982–some with MRI funds and the others on grants from national and foreign (mainly WHO) sources.

10.1.3 *School of Medical Laboratory Technology*

No new students were taken in during 1982. The training of 73 students, which commenced in 1981 was continued.

10.2 National Blood Transfusion Service

The National Blood Transfusion Service has in addtion to the Central Blood Bank, 20 Regional Blood Banks and 15 Emergency Bleeding Centres which are situated in the Provincial and Base Hospitals as well as in some of the District Hospitals.

In the year 1982, 47,232 units (500 ml. each) of blood were collected from 57,459 donors and thus the target of 42,000 units set for 1982 was exceeded by 5,232. There has also been a marked improvement in the percentage of free donations which rose from 95.7 in 1981 to 97.0 in 1982, which is the highest figure recorded to date.

Two projects were initiated in 1982.

(*a*) A Workshop for production of ABD Blood Grouping Reagents by immunisation and plasmaphoresis of volunteers was started at the Central Blood Bank in January 1982 with WHO assistance. The reagents prepared under this project were tested abroad and found to be up to the standard of potency required. The quantities of the different reagents prepared in 1982 were as follows :

Anti A – 5,275 ml.
Anti B – 13,625 ml.
Anti AB – 15,250 ml.

In April, 1982, another blood grouping reagent–Anti A, Lectin was prepared for the first time from the seeds of a local plant Dolichos biflorus. In August, 1982, two further batches of the same reagent were prepared by an improved technique from both local Dolichos biflorus seeds and Indian Dolichos biflorus seeds sent by the WHO. Samples from both batches were tested abroad and found to be potent.

(*b*) The Project on Preparation of Blood Components which was initiated at the Central Blood Bank in September/October 1981 made good progress in 1982, as shown by the statistics given below :

Blood Component	*No. of Units Prepared*	*No. of Units Issued*
Fresh Frozen Plasma	469	479*
Cryoprecipitate	550	535

* This figure is higher than the number prepared in 1982, as there was a balance left over from 1981.

10.3 National Cancer Control Programme

The National Cancer Control Programme was established in June, 1980. The objectives are to reduce the morbidity and mortality due to cancer by early case detection and diagnosis.

The National Cancer Registry continued to function as a hospital based registry for the Government Cancer Institute, Maharagama. A total of 3,656 new cases were seen at this Institute in 1979. The distribution of cancer by anatomical sites is shown in *Table 10.1*.

TABLE 10.1

CANCER INCIDENCE AT THE GOVERNMENT CANCER INSTITUTE MAHARAGAMA 1978 AND 1979

Site	ICD	Total No. of Cases		Percentages	
		1978	1979	1978	1979
Mouth	(140–145)	996	929	25.8	25.4
Pharynx	(146–149)	189	157	4.9	4.3
Oesophagus	150	369	337	9.6	9.2
Stomach	15)152–158)	40	49	1.0	1.3
Small Intestine, Colon, Pancreas	161	119	118	3.1	3.2
Larynx	(162–163)	107	99	2.8	2.7
Lung	169	104	95	2.7	2.6
Haematopoetic and Reticuloendothelial System	170	220	197	5.7	5.4
Bones	171	110	58	2.9	1.6
Connective Tissues	173	17	27	0.4	0.7
Skin	174	40	48	1.0	1.3
Female Breasts	175	359	360	9.3	9.8
Male Breasts	(179 & 182)	5	6	0.1	0.2
Uterus	180	32	–	0.8	–
Cervix Uteri	(181, 183–189)	468	433	12.1	11.8
Other Genitourinary Organs	190	286	287	7.4	7.9
Eye and Lacrimal Gland	(191–192)	19	51	0.5	1.4
Nervous System	193	50	–	1.3	–
Thyroid Gland	the rest	72	72	1.9	2.0
Others		254	333	6.6	9.1
TOTAL	(140–239)	3856	3656	10.0	100.0

The Cancer Registry was extended to Galle, Kandy and Jaffna during the year. There has been a total of 497 new cases of cancer seen in the General Hospital Kandy.

Cancer Health Education was carried out in the SHS Divisions of Galle and Kandy by the Health Education Bureau where a week's training programme was given to 222 Public Health Midwives.

An Oral Cancer Detection Project was commenced in the MOH areas of K.K.S. and Unawatuna. Initial training of the Public Health Midwives was completed in these two areas and work commenced in Unawatuna in October, 1982.

11. COMMUNITY HEALTH SERVICES

11.1 Family Health Services

11.1.1 *Programme Components*

The Family Health programme of the Ministry of Health is implemented through the existing health infrastructure and is the responsibiity of the Family Health Bureau, which functions under the Project Ministry of Colombo Hospitals and Family Health.

The Components of the Family Health Services are :

(i) Antenatal, Natal and Postnatal Services

(ii) Family Planning – Information
– Instruction
– Contraceptive Services

(iii) Immunization Services – Expanded Programme of Immunisation

(iv) Nutrition – Nutrition Education
– Correction of Nutritional Defects
– Supplementary Feeding Programme

(v) Care of the infant – Screening
– Detection of Abnormalities
– Correction of Defects

(vii) School Health Services

(viii) Family Health Education.

11.1.2 *Special Programmes*

In addition to the routine programme of work, the Family Health Bureau has undertaken special projects funded by foreign agencies to strengthen its services. The special projects are :

1.	Strengthening of Family Health Services SRL/81/P05 and MCH 007 (*a*) Strengthening of Hospital Based F.P. Services (*b*) Training in Family Health for Health Workers	– Funded by UNFPA/WHO
2.	Strengthening of Research & Evaluation Unit at FHB–SRI/81/P07 and MCH 008	– Funded by UNFPA/WHO
3.	Training of Ayurvedic Practitioners SRL/81/P08	– Funded by UNFPA/WHO
4.	MCH/FP for Estate Workers SRL/81/P09	– Funded by UNFPA/UNICEF
5.	Supply of Contraceptives and other F.P. Support	– Funded by SIDA
6.	Training of RMPP/AMPP in MCH/FP including insertion of IUCD	– Funded by SIDA and USAID
7.	Integrated Parasite Control, Nutrition and Family Planning	– Funded by JOICFP

8. Development of Rural MCH Services – Funded by UNICEF

9. Immunization and MCH Services to Children in Estate Areas – Funded by UNICEF

10. Expanded Programme on Immunization – Funded by UNICEF/WHO

11.1.3 *Training*

The following Training Courses on Family Health were conducted during 1982 at the Family Health Bureau (*Table 11.1*) :

TABLE 11.1

TRAINING COURSES 1982

Course	No. of Courses	Duration of Course	Category Trained	Total Number Trained
Orientation in Family Health Manual Based Training	2	5 days	Peripheral level Instructors and Supervisors	
Similar Training Programmes were conducted at MOH level	19	3 days	Peripheral Public Health Staff	
Orientation for Matrons, Tutors and Sisters	7	5 days	Matrons, Tutors in Public Health, Tutors in Nursing Schools and Nursing Sisters	
Orientation for Local Government Officials	2	5 days	LGS Officials from Colombo, Kandy, Galle, Negombo	39
Training in Family Health	5	10 days	Peripheral level Supervisors and Instructors	157
Training of RMPP/AMPP in MCH/FP including IUCD insertion	5	3 months	AMPP and RMPP	Health Ministry–199 Estate–20
Training of Ayurvedic Practitioners in Family Planning Service delivery	1	4 days	Co-ordinators of Ayurvedic Practitioners	18
Similar training programmes were conducted at Ratnapura, Kurunegala, Gampaha, Kandy, Galle, and Matara	10	3 days	Ayurvedic Practitioners	251
Workshop on Health Programmes, Plantation Sector	1	5 days	Health Co-ordinators of JEDB & SLSPC and MO Estates	
Workshop on Logistics Supply Management	1	3 days	Store Keepers and Stores Clerks at Central & Divisional level	
Workshop on Research & Evaluation	1	11 days	Statistical Survey Officers	19

11.1.4 Summary of MCH Activities performed by Public Health Midwives

Some measures of the work performance by Public Health Midwives for maternal and child health is shown in *Table 11.2*.

TABLE 11.2

MCH ACTIVITIES BY PUBLIC HEALTH MIDWIVES

Activity	No. performed for 1982
Home visits	
Ante natal–new	219,093
Post natal–new	249,958
Clinic visits	
Ante natal–new	279,004
Infants–new	253,831
Preschool Children–new	159,045
Deliveries	
Conducted by PHM	10,644

Source : Office of the Medical Statistician.

11.1.5 *Family Planning Performance*

(*a*) Family Planning Acceptance

TABLE 11.3

FAMILY PLANNING NEW ACCEPTORS

1978 to 1982

Method	1978	1979	1980	1981	1982*
Vasectomy	2325	5640	51284	30333	12789
Tubectomy	19624	30003	61642	46300	43266
IUCD Insertion	23085	20187	19232	14833	16205
Oral Pills	31146	30394	29296	22189	25979
Injectables	3046	5932	9706	8142	9456
Total	79226	92156	171160	121797	107695

Source : Evaluation Unit, Family Health Bureau.

*Provisional.

(*b*) *Family Planning Prevalence*

The National Family Health Impact Survey–1982 conducted by the Family Health Bureau revealed that 47.8 percent of the respondents practised some form of contraception. 33.7 percent practised a modern method, while 14.1 percent relied on traditional methods.

The use of most of the modern methods of contraception has increased between 1975 World Fertility Survey (WFS) and 1982, as illustrated in *Table 11.4*. The increase is most marked for sterilizations, while the use of IUCD's has decreased.

TABLE 11.4

FAMILY PLANNING

PERCENTAGE OF CURRENT USE BY METHOD

Method	WFS Sri Lanka 1975	F.H. Impact Survey 1982 (n = 4,555)
Modern Methods	18.8%	33.7%
Tubectomy	9.2%	20.0%
Vasectomy	0.7%	3.9%
IUCD	4.7%	3.1%
Oral Pills	1.5%	2.5%
Injectables	0.4%	1.4%
Condoms	2.3%	2.8%
Traditional Methods	13.2%	14.1%
Rhythm	8.0%	10.3%
Withdrawal	1.5%	3.6%
Others	3.7%	0.2%
Total Respondents	32.0%	47.8%

11.1.6 *Expanded Programme on Immunization*

The coverage obtained in 1982 for the different types of immunization under this programme showed an improvement over the previous year as shown in *Table 11.5*. The number of immunization given in 1982 is shown in *Table 11.6*.

TABLE 11.5

VACCINATION COVERAGE (1981 & 1982)

Vaccine/Dose		1981	1982
Triple Vaccine	1st	76.5%	79.1%
	2nd	63.9%	70.3%
	3rd	46.3%	56.0%
Oral Vaccine	1st	75.3%	78.3%
	2nd	63.1%	69.8%
	3rd	47.2%	55.5%
Tetanus Toxoid*	1st	57.7%	57.9%
	2nd and Booster	47.5%	47.1%

* Tetanus Toxoid for pregnant women.

Source : Epidemiological Unit.

Of the 1,020 returns which should have been received by M.OO.H. from the 255 hospitals and P.UU submitting quarterly immunization returns, 207 returns (20%) from 86 institutions had not been sent.

Since the coverage is based on the data in the immunization returns, this would indicate a much higher coverage, particularly as regards Tetanus Toxoid coverage of pregnant women as this is the most frequent immunization carried out in hospitals.

A National EPI Mid-level Managers' Training Course was conducted in January, 1982. In June, a WHO Inter-Regional EPI Planning & Management Training Course was held where there were 52 participants from 27 countries plus 17 course facilitators.

TABLE 11.6

IMMUNIZATIONS GIVEN IN SRI LANKA – 1982

(Based on Returns)

Vaccine	Dose	Children under 1 year	Children 1-4 years	School children	Pregnant women	Other groups or unspecified	Total
B.C.G.	First Vaccination	265,928	81,435	158,661	–	–	506,024
	Re-Vaccination	–	–				
D.P.T.	1st dose	329,498	60,640	–	–	–	390,138
	2nd dose	292,824	60,114	–	–	–	352,938
	3rd dose	233,381	89,177	–	–	–	322,558
O.P.V.	1st dose	326,233	66,673	–	–	–	392,906
	2nd dose	290,511	63,109	–	–	–	353,620
	3rd dose	231,313	82,136	–	–	–	313,449
	Booster	–	58,837	–	–	–	58,837
D.T.	1st dose	–	–	56,995	–	–	56,995
	2nd dose	–	–	23,733	–	–	23,733
	Booster	–	–	27,558	–	–	27,558
Tetanus Toxoid	1st dose	–	–	–	241,221	143,814	385,035
	2nd dose	–	–	–	175,289	29,599	204,888
	3rd dose	–	–	–	–	15,332	15,332
	Booster	–	–	–	21,125	15,611	36,736
T.A.	1st dose	–	–	–	–	22,822	22,822
	2nd dose	–	–	–	–	15,344	15,344
	Booster	–	–	–	–	8,949	8,949
Cholera	1st dose	–	–	–	–	2,967	2,967
	2nd dose	–	–	–	–	1,212	1,212
	Booster	–	–	–	–	3,705	3,705

Source : Epidemiological Unit.

Two EPI Cluster Sample Surveys were conducted in the Kotte-Nugegoda and Colombo M.C. areas as part of the EPI Training Courses. Findings obtained at these and other coverage assessment surveys are shown in *Table 11.7*

The incidence of the EPI Target diseases has declined still further :

	1981		1982	
	No. of cases	Rate per 100,000 Population	No. of cases	Rate per 100,000 Population
Diphtheria	36	0.2	20	0.13
Pertussis	501	3.4	271	1.8
Neonatal tetanus	185	45.9	169	40.5
Poliomyelitis	254	1.7	84	0.56

The number of cases Poliomyelitis reported in 1982 was the lowest in almost 30 years.

11.1.7 *School Health*

In 1982, 1,828 schools were taken up for medical inspection out of a total of 9,177 schools giving a coverage of only 19,9%. The medical inspection in these 1828 schools were done by the following personnel :

By RMPP/AMPP	. .	820 (45%)
By MOOH	. .	690 (38%)
By School Medical Officers (6)	. .	78 (4%)
By Other Medical Officers	.	240 (13%)

Of about 2,054,610 primary school children, only 72,496 have been screened, that is 3.5 percent of the total.

60,167 have been detected to have one or more defects, giving a figure of 83.0% children with one or more defects. Only 29,6% of those screened attended central clinics for treatment.

The main defects reported are shown in *Table 11.8.*

TABLE 11.7

E. P. I. COVERAGE ASSESSMENT SURVEYS

Date		Apr. 1980	Oct. 1980	Aug. 1981	Nov. 1981	Nov. 1981	Nov. 1981	Jan. 1982	Jun. 1982
Area		Colombo M. C.	Colombo M. C.	Dehiwela Mt. Lavinia	Ratnapura	Kurune-gala	Batticaloa	Kotte/ Nugegoda	Colombo M. C.
Population		607,284	607,284	173,732	796,466	1,212,755	330,899	225,467	684,523
No. of Children		210	214	212	210	210	212	215	212
No. of Houses		1,575	1,513	1,976	1,381	1,984	1,034	1,589	2,052
B.C.G.		85.2	87.0	95.8	92.9	92.4	76.4	96.7	91
D.P.T.	1	72.9	78.0	91.5	88.1	90.5	75.5	96.3	86
	2	64.8	71.0	87.2	81.4	80.5	64.2	90.7	83
	3	46.2	55.0	60.8	65.8	57.6	45.3	74.9	68
O.P.V.	1	72.9	83.0	91.5	88.1	90.0	75.0	97.2	86
	2	64.0	73.0	85.3	80.9	79.0	64.2	92.1	83
	3	43.3	56.0	59.4	63.8	57.6	44.8	85.8	67
Fully Immunized		39.5	49.0	51.9	61.9	56.2	42.9	70.7	62
Fully immunized Pregnant Women (T.T. 2 doses or Booster)					64.3	78.1	47.6	82.3	59

Source : Epidemiological Unit

TABLE 11.8

SCHOOL MEDICAL INSPECTION
PERCENTAGE DEFECTS
1982

Defect	%
Dental Caries	45.7%
Underweight	6.9%
Anaemia	6.1%
Angular Stomatitis	3.4%
Mosaic Skin	3.5%
Phrynoderma	2.9%
Overweight	1.1%
Defective Vision	0.9%
Erosion of Tongue	0.5%

Source : Office of the Medical Statistician.

Immunization : BCG immunizations given to school children in 1982 as reported by the Medical Records Officer, Anti Tuberculosis Campaign, are as follows

	Grade 1	*Grade 5*
Total in grade	247,392	174,557
No. with exemptions (with scars etc.)	157,011	13,381
Total eligible	90,381	161,136
No. given Primary vaccinations	56,471	12,410
No. given Revaccinations	–	131,447

11.2 Health Education

Health Education activities carried out by the Health Education Bureau under the following sub-programmes are as given below :

11.2.1 *Community Health Education*

Volunteer Health Workers Programme (Family Health Education Action Programme) was extended to new villages, while it was further strengthened in the ongoing areas. There were approximately 250 new programmes in 1982 and 5,000 volunteers trained. This compares well with 215 programmes and 2,936 volunteers trained in 1981.

11.2.2 *Hospital Health Education*

Extension of this activity was mainly in district and peripheral institutions. Each Health Educator was given the task of developing at least one institution in his/her area. The number of institutions, by category, where this activity was undertaken in 1982 is shown below along with the corresponding figure for 1981.

	1981	1982
1. General Hospitals	1	7
2. Base Hospitals	–	8
3. District Hospitals	17	40
4. Rural Hospitals	3	21
5. Central Dispensaries & Maternity Homes	5	15

11.2.3 *Research in Health Education*

The data collection of the study to test the effectiveness of Village Health Volunteers was completed and findings are now being analysed. The study involved 102 Public Health Midwife areas with 10,200 families in all SHS divisions in the country.

11.2.4 *School Health Education*

Following the development of a new integrated Health Science curriculum, it became necessary to train teachers to use the new curriculum.

A team of Regional Trainers consisting of Medical Officers of Health, Health Educators and Divisional Training Instructors were trained. In 1981, 3,500 teachers were trained by them, selecting two teachers from each school. This was continued in 1982, and a further 1,212 (including 21 Circuit Education Officers) were trained.

11.2.5 *Health Education in Specialised Campaigns*

Two to three days per month were devoted to Malaria Education work by the Divisional Health Educators in their respective divisions.

In stations with a Medical Officer (V.D. Clinics), Health Education Programmes were planned and carried out in schools and the community.

A Training Programme in cancer education for staff was carried out in 4 MOH areas in Galle and 2 MOH areas in Kandy.

11.2.6 *Dental Health Education*

These activities are reported in *Section 9.2.*

11.2.7 *Communications*

The following activities were undertaken during the year :

(i) Sepatha (Quarterly Journal)	–	4 issues	– 80,000 copies
(ii) Sepatha Supplements	–	2 issues	– 35,000 copies
(iii) Radio Programmes	–	112	
(iv) T.V. Films	–	4	

11.3 Environmental Health

11.3.1 *Environmental Sanitation*

The aided scheme of latrine construction pays a subsidy of Rs. 250/= to householders who construct latrines. 13,100 latrines were constructed under this scheme in 1982.

11.3.2 *Water Quality Monitoring*

Routine bacteriological examinations were undertaken on samples of water from 56 Rural Water Supply Schemes installed with UNICEF assistance. 190 samples have been analysed by the Medical Research Institute under this programme. Public Health Inspectors working in areas where these schemes were established have been trained in the collection and despatch of water samples.

Provincial Laboratories at the General Hospitals at Ratnapura and Kurunegala have been strengthened to assist in this task.

11.3.3 *Food Control Services*

The new Food Act brought into operation in 1981 was implemented in the entire island during 1982. The enforcement of the Act was undertaken by 14 Food and Drugs Inspectors attached to the Decentralized Units, assisted by Public Health Inspectors trained in this activity. 169 Departmental P.H.II and 13 P.H.II from the Local Government Service were trained for this purpose during this year, thus bringing the total number trained to 348 departmental P.H.II and 17 P.H.II in the Local Government Services.

11.3.4 *Occupational Health*

Close liaison continued to be maintained between the Factories Division and the Occupational Hygiene Division of the Labour Department and the Health Department. Several joint inspections were done and control measures recommneded particularly in instances of environmental polution caused by industrial undertakings.

A programme for training Medical Officers of Health, Public Health Inspectors and Public Health Nurses in Occupational Health was initiated with WHO assistance, in collaboration with the Faculty of Medicine and the Department of Labour. 22 Medical Officers of Health, 16 Public Health Inspectors and 3 Public Health Nurses were trained during this year. It is expected that these officers will be competent to establish Occupational Health Services on a Health Unit basis to provide services, particularly, to the underserved small industrial undertakings.

11.3.5 *Estate Health*

The new Estate Health Act is still under preparation with the Legal Draftsman. It is expected that the final draft will be ready by 1983. This Act will replace the Medical Wants Ordinance and the Diseases among Labourers Ordinance which will be repealed.

11.4 Port Health Services

This service is manily concerned with the implementation of the International Health Regulations and the prevention of the entry of major quarantinable diseases–Plague. Yellow Fever and Cholera (Small-pox is now globally eradicated.) No quarantinable diseases were detected during 1982.

11.4.1 *Plaque*

Eradication of Rodents in the port premises is done by routine poison baiting and trapping. Certain types of cargo, specially cereals, which could harbour rat fleas–the vector for Plague–are fumigated before discharge at the port if coming from a Plague infected country unless fumigation has already been done at the port of loading.

Ships are also fumigated for purpose of granting Deratting Certificates which is a requirement under the International Health Regulations. Deratting Certificates were granted to six ships after fumigation. Also, 156 ships were inspected and granted Deratting Exemption Certificates.

11.4.2 *Yellow Fever*

Spraying of mosquito breeding places is carried out at the Part of Colombo and at the International Air Port Katunayake, to eradicate Aedes Aegypti–the vector for Yellow Fever.

Field investigation work is also done to detect breeding and prevalance of the vector mosquito. The Aedes Aegypti Container Index for 1982 was 3.8%.

Persons coming into the country from Yellow Fever infected countries are required to have a valid certificate of immunization against Yellow Fever.

11.4.3 *Cholera*

Immunization against cholera is no longer a requirement for entry into the country.

11.4.4 *Other Services*

The Port Health Office also provides a day and night Radio Medical (advisory) service to ships out at sea. Such service was provided to twenty ships during 1982.

The Port Health Office and the Office of the Asst. Port Health Officer (Immigration) at Deans Road, Colombo, provide immunization to ships, crews and travellers leaving the country. The Port Health Office is the only Centre in the country for Yellow Fever Immunization.

12. SPECIALIZED PROGRAMMES

12.1 *Anti-Malaria Campaign*

During the year, the Northern dry zone and the Eastern foot hills of the country were the areas most affected by Malaria. There has been reduction in the number of microscopically positive cases compared to previous years (*Table 12.1*)

TABLE 12.1

BLOOD FILM EXAMINATIONS 1970–1982

Year	No. of Blood Films Examined	No. Positive	P. Vivax	P. Falciparum & Mixed
1970	1,541,570	468,199	466,587	1,610
1972	1,545,699	132,604	129,109	3,495
1974	1,423,010	315,448	289,242	26,206
1976	1,400,416	301,946	283,262	18,684
1978	968,327	69,685	67,809	1,876
1980	803,692	47,949	46,474	1,475
1981	892,143	47,383	46,143	1,240
1982	1,127,605	38,566	36,967	1,599

Source : Anti-Malaria Campaign

During the year, the Anti-Malaria Campaign carried out a new plan of operation for residual insecticide spraying. All malarious parts of the country were not placed under the usual 3 monthly cycle of insecticide (malathion) residual spray. The malarious areas were stratified into three zone : one round of spraying in the Jaffna Peninsula, two rounds in the Northern dry belt and the usual 4 rounds in the highly malarious areas.

The objective of the 1982/86 Plan of Operations is to achieve an Annual Parasite Incidence (API) of 2.0 by the year 1986. During the year, out of 108 Health Areas in the country, 25 recorded an API of over 2 compared to 40 in 1981.

12.2 Anti-Tuberculosis Campaign

12.2.1 *Case Finding*

7,334 new Tuberculosis patients were registered in the Central Tuberculosis Register in 1982. 7,027 patients were removed from the register during the year bringing the total to 38,629 as at 31.12.1982. The incidence by type of tuberculosis is given in *Table 12.2*

The variation between districts and age and sex groups is seen in *Table 12.3*

177 health institutions participated in case finding and 8,925 syptomatics were selected for sputum examination. Of these, 245 had bacteriologically positive tuberculosis.

TABLE 12.2

TUBERCULOSIS INCIDENCE 1970–1982

Year	Estimated Mid-Year Population in 1,000's	Number of Cases			Incidence Per 100,000 Population		
		Pulmonary	Extra Pulmonary	Total	Pulmonary	Extra Pulmonary	Total
1970	12,516	4,921	841	5762	39.3	6.7	46.0
1975	13,496	6,402	922	7324	47.4	6.8	54.3
1980	14,738	5,379	833	6212	36.5	5.7	42.1
1981	14,988	5,492	796	6288	36.6	5.3	42.0
1982	15,189	6,433	901	7334	42.4	5.9	48.3

Source : Anti-Tuberculosis Campaign

12.2.2 *Treatment Services*

The Integrated Tuberculosis Control Programme was introduced in 1973. Divisional Tuberculosis Control Officers are in charge of co-ordination of Activities with the general health service.

In the 19 chest clinics and 23 branch chest clinics 109,526 persons were examined in 1982. 2,598 patients received supervised treatment at these clinics.

12,264 patients were provided 523,214 patient days of care in the three Chest Hospitals and 17 Tuberculosis Wards which had a total bed strength of 1,975.

12.2.3 *Preventive Services*

The B.C.G. Vaccination is under the purview of the Expanded Programme of Immunization. Out of 196,306 births (occurring in 146 institutions), 157,583 (76.6%) new borns were vaccinated. Of the total births in the country, coverage at birth is estimated at 36.5%.

During 1982, 86,540 infants and 14,743 pre-school children were vaccinated. A total of 268,226 eligible school children were vaccinated during 1982, of which 171,279 were re-vaccinations.

12.3 Anti-Filariasis Campaign

There has been a slight increase in the microfilaria rate from 1981 to 1982 (*Table 12.4*)

TABLE 12.4

MICROFILARIA RATE–1978-1982

	1978	1979	1980	1981	1982
No. of persons examined	1,500,552	1,477,532	1,378,957	1,425,443	1,379,889
No. Positive	3,831	4,329	4,438	3,483	3,996
Mf. Rate %	0.21	0.29	0.32	0.24	0.29

Source : Anti-Filariasis Campaign.

TABLE 12.3

TUBERCULOSIS – REGISTRATIONS BY AGE, SEX AND DIVISION – 1982

S.H.S. DIVISIONS / AGE & SEX		COLOMBO M.C	COLOMBO SOUTH	COLOMBO NORTH	KALUTARA	KANDY	MATALE	NUWARA-ELIYA	HAMBANTOTA	MATARA	GALLE	JAFFNA	VAVUNIYA	MANNAR	TRINCOMALEE	AMPARAI	BATTICALOA	PUTTALAM	KURUNEGALA	POLONNARUWA	ANURADHAPURA	BADULLA	MONERAGALA	RATNAPURA	KEGALLE
0-4	M	13	5	11	7	4	1	–	–	1	–	5	1	–	–	–	1	–	1	–	3	–	–	1	1
	F	16	2	10	3	4	–	–	1	–	6	2	–	–	2	–	–	1	5	1	1	–	–	2	2
5-9	M	18	12	13	2	7	–	–	1	–	3	3	–	–	–	1	1	–	2	–	1	2	1	6	–
	F	18	7	3	2	3	–	–	1	–	–	–	–	–	2	1	4	–	2	–	2	2	–	3	2
10-14	M	4	2	2	1	2	–	–	–	2	2	2	–	–	4	1	–	–	3	–	2	2	–	3	1
	F	6	5	9	5	5	1	–	–	3	5	–	–	–	1	–	1	–	–	–	1	2	–	3	2
15-19	M	17	22	11	7	8	3	–	–	2	5	6	–	–	2	5	5	1	5	–	4	5	–	8	7
	F	17	16	14	8	12	2	1	3	7	4	10	–	–	2	1	3	1	7	2	1	4	4	7	8
20-24	M	65	40	26	16	23	6	1	4	12	18	11	1	1	5	7	11	3	10	–	9	15	3	24	13
	F	50	40	35	23	23	5	4	4	3	10	9	1	1	8	2	7	–	9	2	3	3	3	18	24
25-29	M	60	48	42	37	30	4	4	8	12	20	22	3	–	5	12	12	2	20	6	18	10	5	38	20
	F	48	45	36	25	29	6	5	13	17	23	9	1	–	2	9	7	2	15	3	11	18	6	27	19
30-34	M	80	80	52	36	29	9	2	5	13	33	22	10	3	6	17	13	8	27	6	9	9	8	21	14
	F	33	57	31	38	14	4	1	7	10	11	9	5	1	6	7	6	–	17	2	3	3	2	25	17
35-39	M	61	59	43	33	25	5	4	5	8	35	24	5	–	7	20	15	4	19	2	6	4	5	15	21
	F	27	34	27	16	15	1	3	7	5	18	10	4	–	8	8	9	4	12	2	2	5	3	14	14
40-44	M	76	60	47	32	22	10	3	3	14	26	32	4	1	7	17	13	7	28	8	11	11	2	26	20
	F	20	30	16	13	9	2	2	3	11	11	11	1	–	1	7	10	2	6	3	5	9	1	7	15
45-49	M	71	56	52	30	21	3	1	10	11	17	51	–	–	13	22	12	13	22	5	14	10	1	23	20
	F	17	20	27	19	13	1	1	5	8	11	11	4	–	2	7	11	2	3	–	9	2	–	11	13
50-54	M	69	72	67	39	26	7	3	4	13	31	36	13	1	11	24	21	12	40	5	15	11	3	18	25
	F	20	20	32	12	13	1	–	5	7	9	12	2	–	5	5	7	3	7	1	10	3	2	8	14
55 +	M	150	141	155	74	55	12	1	29	44	65	85	11	–	25	53	48	15	89	19	40	16	7	53	75
	F	40	61	58	36	18	3	2	13	27	23	33	1	–	4	16	15	8	24	–	8	4	–	24	51
TOTAL :		996	934	819	514	410	86	38	131	230	386	415	67	8	128	242	232	88	373	60	188	150	56	385	398
rate per 100,000 Pop		150.6	86.9	58.0	60.6	35.8	23.4	7.3	29.9	34.6	46.3	48.6	37.4	7.2	47.9	60.3	67.6	17.2	29.9	22.1	30.9	23.1	19.2	47.2	57.3

There was an increase in clinic attendance due to a reorganization and an addition of clinics, with an increase in the number of patients presenting with clinical manifestation of Filariasis (*Table 12.5*).

TABLE 12.5
PATIENTS PRESENTING WITH CLINICAL MANIFESTATIONS

	1978	*1979*	*1980*	*1981*	*1982*
Total Attendance	3831	4329	4450	4944	9673
First Visits	1525	1720	1504	1606	2676

Source : Anti-Filariasis Campaign.

12.3.1 *Special Investigations and Surveys*

Special Surveys were conducted outside the endemic belt to ascertain the spread of Filariasis into these areas. Twenty eight areas were selected, which covered a reasonable part of the island. Night blood filming was done at General Hospitals, Base Hospitals, District Hospitals and in P.H.II areas.

12.3.2 *Research*

1. Studies were conducted to determine the present status of Brugian Filariasis in Sri Lanka. Ten areas have been covered and a total of 20,422 people have been examined. So far, 58 cases detected were infections of *Wuchereria bancrofti.* This study is partly funded by the Post Graduate Institute of Medicine.

2. In collaboration with the Parasitologist M.R.I. a comparative study was done to determine the efficacy of the J.S.B. and Giemsa stains in routine parasitological examinations. This study was suggested by Dr. A. S. Dissanaike, Filariasis Officer of the WHO Geneva. From the results obtained so far, there appears to be no significant difference.

3. The effect of mebendezole (' Vermox ') as a therapeutic measure in Filariasis is being studied in the Tangalle M.O.H. Area. The areas selected were Nakulugamuwa and Kadawella. This research study is sponsored by the J.O.I.C.F.P. Project in Sri Lanka. This project is still in progress.

12.4 **Anti-Venereal Disease Campaign**

12.4.1 *Incidence of Sexually Transmitted Diseases (S.T.D.)*

The number of new STD cases detected in 1982 were :

Infectious Syphilis	817
Late Syphilis	761
Congenital, Syphilis : Early	08
Congenital, Syphilis : Late	10
Gonorrhoea	3,728
B. Lactamase	71

There has been a decline of early infectious Syphilis and a slight increase in Gonorrhoea from 1981 to 1982.

In 1981, 964 cases of infectious Syphilis and 3,532 cases of Gonorrhoea gave a rate of 6.4 per 100,000 population for infected Syphilis and 23.6 per 100,000 population for Gonnorhoea. In 1982, 817 new cases of infectious Syphilis and 3,728 new cases of Gonorrhoea gave a rate of 5.4 per 100,000 population for infectious Syphilis and 24.5 per 100,000 population for Gonorrhoea.

The total number of laboratory tests done in the year 1982 was 146,267.

12.4.2 *Control Programme*

All known contacts of infectious Syphilis and Gonorrhoea were traced and brought for treatment. 1,151 contacts including family contacts were treated at all clinics in the year 1982.

There were 71 cases of Penicillinase Producing Neisseria Gonorrhoea strains registered for the year 1982, not responding to penicillin therapy. They were successfully treated using either Kanamycin or Spectinomycin.

Mass Blood Surveys were carried out for ante-natal mothers and six special categories of persons. The results are shown in *Table 12.6.*

TABLE 12.6

MASS BLOOD SURVEYS FOR S. T. D.–1982

Population Group	No. Examined	No. Reactive	No. Treated
Ante-natal Mothers	34,356	244	228
Estates	640	17	17
Service Personnel	1,026	05	05
Vagrants	41	01	01
Villages	317	11	11
Schools	998	01	01
Blood Bank	1,219	21	21
Total	38,597	300	284

12.5 Anti-Leprosy Campaign

As at the end of 1982, a total of 9,821 cases were on record. 757 new cases were registered during the year. 1,889 were removed from control (discharged as cured) and 432 deaths were discovered.

The prevalence rate for the country as a whole is 0.66/1,000 population. The rates for the Provinces are given below :

Western Province	–	1.4
Central Province	–	0.2
Southern Province	–	0.8
Northern Province	–	0.5
Eastern Province	–	0.6
North Western Province	–	0.3
North Central Province	–	0.3
Uva Province	–	0.2
Sabaragamuwa Province	–	0.3

There were 37,851 patient-visits to the 82 Leprosy Clinics in the Island.

A new multi-drug regime advised by WHO commenced in July at all clinics.

Leprosy control activities in the country are assisted by a voluntary organization, the Leprosy Relief Work, Emmaus-Switzerland, for case finding, follow-up and treatment.

12.6 Rabies Control Programme

1982 was the second year of operation of the Accelerated Intensive Rabies Control (5 year) Programme. Vaccination and elimination activities were greatly intensified. Jaffna, Matale, Polonnaruwa, Trincomalee, Badulla and Moneragala districts were taken up for immunization of dogs for the first time, and the districts of Kandy, Matara, Nuwara Eliya and Puttalam were extensively covered by the mass vaccination programme. Special monthly vaccination programmes were launched in the Gampaha and Colombo SHS Division to enable the public to get new born pups vaccinated through the year.

Elimination of stray dogs was done in 17 Districts. Joint programmes for vaccination and stray dog elimination were carried out with the Veterinary Department of the Colombo Municipal Council.

Intensification of control activities has resulted in lowering the number of human deaths from Rabies. The number recorded for the year 1982 is 134, which is the lowest recorded for the last 3 decades.

TABLE 12.7

RABIES CONTROL ACTIVITIES (1977–1982)

Year	Elimination of Stray Dogs	Vaccination of Dogs	Human Deaths
1977	3,031	85,798	312
1978	7,986	1,11,299	234
1979	22,434	1,27,070	214
1980	36,845	1,20,143	153
1981	37,733	1,35,266	136
1982	49,030	1,89,600	134

Source : Office of the Public Health Veterinary Officer.

13. INDIGENOUS MEDICINE

13.1 Ayurvedic Medicine

13.1.1 *Curative Services*

The number of patients treated at the 16 Central Dispensaries and Hospitals of the Ayurvedic Department during the years 1981 and 1982 are as follows :

Institution	No. of Outdoor Patients		No. of Indoor Patients	
	1981	1982	1981	1982
Colombo	185,605	192,935	3,440	2,951
Anuradhapura	76,688	79,123	1,715	1,901
Ratnapura	102,767	98,322	1,097	1,166
Kurunegala	93,990	88,264	3,235	3,287
Beliatta	49,446	38,122	1,397	1,091
Jaffna	17,927	15,163	689	795
Nawinna	62,541	53,812	638	830
Neboda	39,756	37,720	725	750
Megahajandura	21,419	17,635	462	459
Meegoda*	–	65,825	–	423
Galle*	–	79,584	–	528
Murutenge	19,645	15,094	–	–
Diyatalawa	45,977	43,845	–	–
Lunawa	49,093	44,569	–	–
Pallekelle	45,116	45,142	–	–
Bandagiriya	19,993	19,042	–	–
Total	829,963	934,197	13,398	14,181

* Opened in 1982

The number of patients treated at the 234 free Ayurvedic Dispensaries run by Local Authorities during the year under review was 1,653,051. In 1981 it was 1,786,259.

13.1.2 *Family Health Activities*

During the year 1982, WHO, the Ministry of Family Health and the Ayurveda Department jointly conducted courses in selected districts for the training of Ayurvedic Physicians in Family Health Activities. Under this scheme about 300 physicians were trained.

13.1.3 *Ayurvedic Medical Council*

The Medical Council which is a statutory Board held six meetings and 48 interviews for the selection of doctors, during this year. Out of 575 doctors who appeared for these interviews, 175 were successful. The Ayurvedic Medical Council registered 280 Ayurvedic Medical Practitioners during 1982.

1. General	–	43
2. Special	–	93
3. Graduates	–	144
Total		280

13.1.4 *Ayurvedic Educational and Hospital Board*

Examinations held by the Board

Examination	*College*	*Year*	*No. Sat*	*No. Passed*
D. A. Examination	Colombo	1981	59	11
Siddhayurveda	Jaffna	1981	74	14
Siddhayurveda	Yakkala	1982	58	24

13.1.5 *Seminars for Traditional Ayurvedic Medical Practitioners*

A series of seminars were held on a District basis from 1980, for training of Traditional Ayurvedic physicians who had not received institutional training. Certificates were awarded to 711 physicians who participated in these seminars.

13.1.6 *Programme Expenditure*

Recurrent Expenditure	(Rs. '000)
1. General Administration Services	1,473.5
2. Curative Services	22,180.7
3. Research Expenditure	1,599.6
Sub-Total	25,253.8
Capital Expenditure :	
1. Equipment	1,140.0
2. Contribution to Gampaha Wickramarachchi College	1,426.5
Sub-Total	2,566.5
TOTAL	27,820.3

Assistance given by the Department to free Dispensaries run by Local Authorities during the year 1982 amounted to Rs. 6,196,493.75.

13.1.7 *Sri Lanka Ayurvedic Drugs Corporation*

Value of drugs supplied to Ayurvedic Hospitals and Local Authorities 1982 :

1. Ayurvedic Hospitals	–	Rs. 2,271,207.49
2. Local Authorities	–	Rs. 3,596,967.51
		Rs. 5,868,175.00
Value of Drugs supplied to the Private Sector during the year	–	Rs. 2,367,996.00

Export Project No. 1 – Goda Kaduru (Strychnos Nux Vonica) to the value of Rs. 798,406 was exported during the year.

The cadre of the Corporation at the end of the year was 234. Recruitments during the year was 17.

13.2 Homeopathic Medicine

This system of medicine where specially prepared medicines given in minute doses act by stimulating the natural defences of the body is practised in many countries. Homeopathy was recognised in Sri Lanka by Act No. 7 of 1970.

The first Homeopathic Council was appointed by the Minister of Health on 1st March, 1970. The Council has registered almost all the institutionally qualified practitioners (numbering 22), and is in the process of registering the balance. The WHO is assisting in the recruitment of an internationally reputed Homeopath to assist in this work. The Minister of Health has appointed a board comprising of four local Homeopathic practitioners to help the WHO Expert in the task of assessing the eligibility for registration of practitioners without institutional qualifications, but with at least 10 years experience.

The Council intends to open free clinics in Colombo and suburbs. It has also requested the Mayor of Colombo to include a section for Homeopathy in the proposed Poly Clinic in Colombo. The Council has expressed its willingness to supply the medicines free of cost to the Poly Clinic.

The Council has also taken steps to request land for a Homeopathic Medical College, teaching hospital, research centre and laboratory. In the meantime, it has explored the possibility of obtaining scholarships for students to study in one of the leading Colleges in India until such time that a training institution is established in Sri Lanka.

14. HEALTH FOR ALL BY THE YEAR 2000

14.1 National HFA Strategies

National strategies for Health for All by the Year 2000 were formulated and adopted in 1980. The main features of the strategies were :

(*a*) establishment of a National Health Development Network to ensure intrasectoral and intersectoral coordination for health development activities (*Figure 14.1*)

(*b*) to place greater emphasis on decentralization of health administration.

(*c*) priority identification of Primary Health Care (PHC) components and development of an implementation model for application on a national scale.

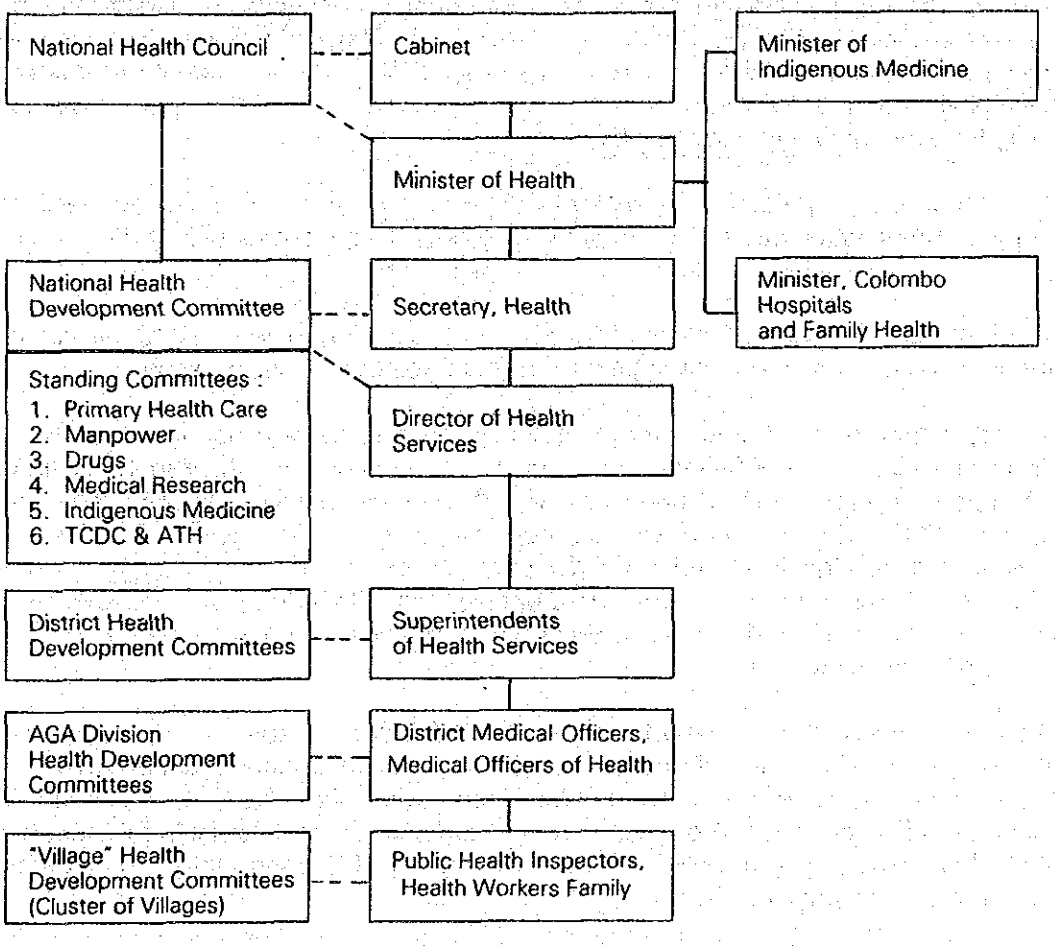
14.2 Primary Health Care

On the basis of the recommendations of the International Conference on Primary Health Care held at Alma Ata, USSR in 1978, the Standing Committee on PHC identified the following seventeen areas of activity for developing Primary Health Care :

1. Proper and adequate nutrition
2. Safe water
3. Basic sanitation and hygiene
4. Maternal care
5. Child care (with emphasis on the infant and pre-school child)
6. Family Planning
7. Immunization
8. Prevention and control of common communicable diseases
9. Prevention and control of common non-communicable diseases

10. Appropriate and early management of common minor ailments and injuries
11. Simple rehabilitation
12. Mental health
13. School health
14. Oral health
15. Occupational health
16. Prevention of blindness and visual impairment
17. Health education and Community Organisation for PHC

FIGURE 14.1
HEALTH DEVELOPMENT NETWORK IN SRI LANKA



14.3 Plans of Action for Implementation

The main plan of action for implementation of the PHC strategy in brief is :

(*a*) Generation of political leadership through seminars, conferences for Ministers, Membes of Parliament, Members of Local Authorities.

(*b*) Establishment of health sub-committees of District Development Councils, Pradeshiya Mandalayas and Gramodaya Mandalayas.

(*c*) Mobilisation of more resources to raise percentage health expenditure to 5% of GNP

(*d*) Formulation of a programme of infrastructure development of the periphery below the level of District Hospitals and its adoption by the Government.

(*e*) To develop a programme to improve and strengthen the main referral hospitals (District and Provincial) and teaching hospitals of the country.

(*f*) Increase the capacity of training facilities for critical categories of health manpower.

(*g*) Develop and improve essential support systems to provide essential drugs, logistic support and storage facilities in the context of PHC.

(*h*) A plan of action for the development of the Indigenous System of Medicine and its collaboration in the general health services of the country.

14.4 HFA Strategy Implementation

One of the most important steps taken has been the successful establishment of the National Health Development Network. The National Health Council was set up under the Chairmanship of the Prime Minister in 1980. The National Health Development Committee, under the Chairmanship of the Secretary, Health, and its six standing committees have aso been functioning for over two years (*Figure 14.1*)

Developments in the local government administration of the country have facilitated the inter-linking of the network with the appropriate local government authorities as depicted in *Figure 14.1*

A preliminary analysis of health financing was undertaken with WHO assistance, and recommendations of an expert were submitted to the Cabinet for consideration.

A programme to re-structure the health care delivery system has been formulated and adopted by the Government of Sri Lanka. This envisages the provision of a "Family Health Worker" for 3,000 population for the most peripheral unit of the health delivery system, the Gramodaya Health Centre (GHC). Through upgrading, strengthening and establishment of new institutions, it is planned to provide first level and second level referral units at Sub-Divisional and Divisional Health Centres. Taken together, these will comprise the "PHC Complex". (*Figure 14.2*). This programme which is estimated to cost over US $ 186 million is to be implemented over a period of 10 years, commencing 1982.

As a pre-requisite for implementation of the PHC Strategy, training capacities have been strengthened at the National Institute of Health Sciences at Kalutara, under a Multi-Agency Programme. Training programme for Public Health Midwives, Nurses, Assistant Medical Practitioners and Doctors have also taken in more students. Several curricula for personnel have been revised in keeping with the PHC strategy. Re-training of existing cadres to incorporate the PHC strategy has been organised.

Plans of action for the development of the Indigenous Systems of Medicine in the country have been prepared. These comprise the registration of practitioners of traditional medicine, training of practitioners, development of medicinal plants, production of Ayurvedic drugs and improvement of Ayurveda education and research.

14.5 Health and Population Project

An appraisal mission of the Asian Development Bank (ADB) visited Sri Lanka in March, 1982, and arrived at an understanding with the Government to finance a Health and Population

project. The project consists of :

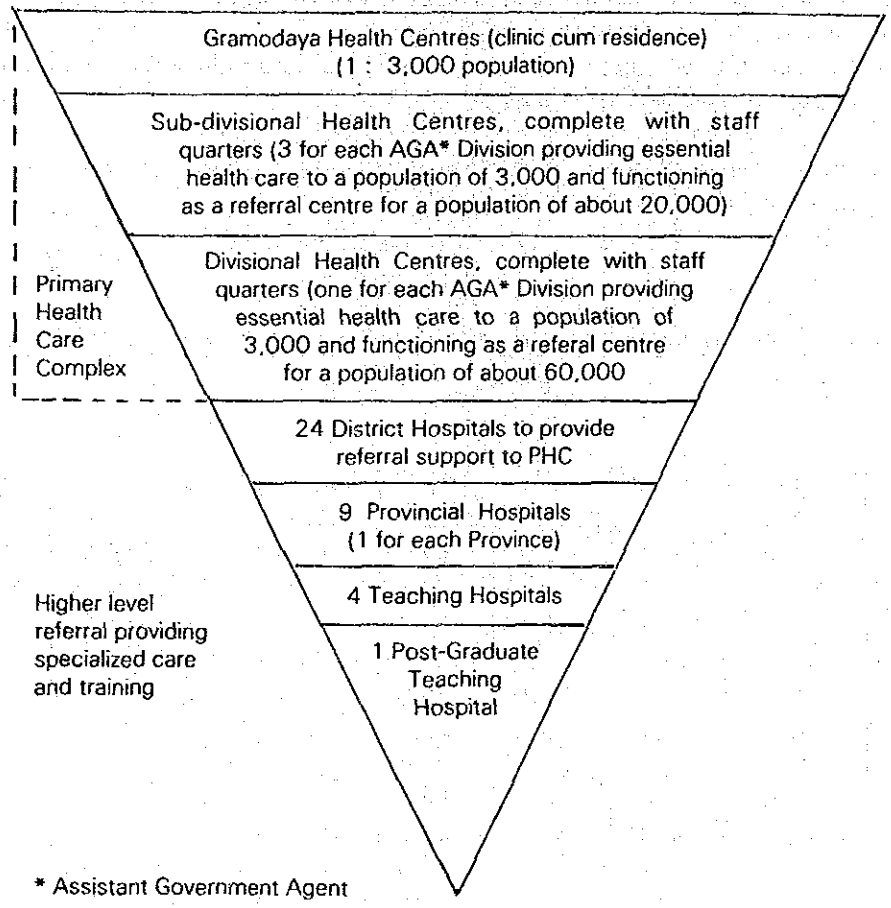
(i) Part A–the construction of and providing equipment to 400 Gramodaya Health Centres, upgrading of 75 Sub-divisional Health Centres and 30 Divisional Health Centres.

(ii) Part B–support to in-service training in Family Planning and Community Health for selected personnel.

(iii) Part C–provision of Consultant Services for monitoring and evaluation of the project.

FIGURE 14.2

PHC DELIVERY AND SUPPORT SYSTEM



The total estimated cost of the project is US $ 12.21 million, made up of a loan of US $9.3 million from the A.D.B. and a Government contribution to the equivalent of US $2.91 million. The foreign currency expenditure component of the project is US $4.93 million, while the local currency expenditure is the equivalent of US $7.28 million. The Loan Agreement was formally signed in Manila in June, 1982, and has been declared effective in October 1982. For the first stage, the bank has given a loan of US $9.3 million.

A Project Implementation Committee (PIC) was constituted with the Director Health Services as its Chairman. A Project Manager was appointed and released for project work on a full time basis with effect from 1st September 1982. Four task forces were constituted under the

P.I.C. and reports of two of them were submitted by the end of the year. A project coordinating committee under the chairmanship of the Secretary Health was constituted to conduct the project activities.

Appointments to the first batch of 663 Public Health Midwives trained under the revised curriculum were given in June. The second batch of 553 who were successful at the final examination held in October were awaiting posting in January, 1983.

In-service training of 600 Public Health Midwives and 250 Public Health Inspectors was completed in a decentralised basis by divisional trainers trained at the National Institute of Health Sciences.

15. DIARRHOEAL DISEASES

The acute diarrhoeal diseases which include Cholera, typhoid, Paratyphoid Fever and other samonella infections, Bacillary Dysentry and Amoebiasis. Enteritis and other diarrhoeal diseases have maintained their position as the leading causes of morbidity and mortality in Sri Lanka, particularly amongst young children.

Reports on the cause of death to the Registrar General provide information on the relative importance of diarrhoeal diseases mortality.

TABLE 15.1

MORTALITY PER 100,000 DUE TO DIARRHOEAL DISEASES BY YEAR & SELECTED DISTRICTS SRI LANKA 1971–1979

	1971	1972	1973	1974	1975	1976	1977	1978	1979
Sri Lanka	39.3	46.5	48.8	53.1	46.3	54.4	50.5	53.2	31.1
Amparai	118.7	144.9	137.4	157.9	141.1	135.8	94.9	80.5	85.7
Batticaloa	88.2	103.2	118.6	129.5	144.7	135.9	116.0	89.1	117.6
Mannar	99.9	102.6	82.1	112.9	83.1	63.8	67.8	45.2	43.5
Kandy	35.3	55.4	50.7	80.4	61.2	77.1	60.6	50.8	43.1
Matale	45.9	52.3	68.4	71.0	65.6	126.2	93.2	42.1	38.4
Nuwara Eliya	54.8	72.9	55.6	84.2	56.9	90.1	61.8	66.6	32.7
Matara	17.4	20.7	25.0	23.1	22.4	25.3	32.8	19.7	16.2

Source : Epidemiological Unit, Ministry of Health

On an average, around 6,500 deaths occur annually due to diarrhoeal diseases. *Table 15.1* gives the mortality rates per 100,000 population for Sri Lanka and some selected districts. The mortality rate for the country as a whole has increased since 1971, reaching a peak in 1976, due to the epidemic of Sh. dysenteriae I followed by a large drop in 1979. The districts of Amparai, Batticaloa and Mannar showed a particularly high mortality rate followed by the Kandy, Matale and Nuwara Eliya Districts. Matara District has the lowest mortality rate for diarrhoeal diseases.

Deaths due to diarroheal diseses represent about 8% of the total deaths and rank as the third leading cause of death in the country. Around 48.5% of all deaths due to diarhoeal diseases

affect children under 5 years. 46.5% of these deaths occur in infants. Approximately 25% of all deaths under 5 years are due to diarrhoeal diseases.

For the period 1952–1980, hospital indoor morbidity statistics indicate that of the common infectious diseases, diarhoeal diseases have maintained a permanent position throughout this period with no substantial decline.

It is now the number one cause of hospitalization. *Table 15.2* shows the morbidity and mortality due to diarrhoeal diseases from hospital sources. Annually, around 2,500 deaths due to diarrhoeal diseases are reported from hospitals, giving a Case Fatality Rate (C.F.R.) of around 1.4%

TABLE 15.2

REPORTED HOSPITALIZATION AND HOSPITALIZED DEATHS DUE TO DIARRHOEAL DISEASES – 1970–1979

Year	Total Admissions*	Diarrhoeal Diseases(DD)			% D.D. of Total Admissions
		Cases	Deaths	C.F.R. %	
1970	1,805,940	183,375	2,853	1.6	10.2
1971	1,727,567	187,604	2,328	1.2	10.9
1972	1,768,084	174,430	2,172	1.2	9.9
1973	1,638,536	201,006	2,564	1.3	12.3
1974	1,744,532	156,199	2,504	1.6	9.0
1975	1,786,052	161,987	2,672	1.6	9.1
1976	1,885,157	218,816	3,779	1.7	11.6
1977	1,790,277	189,372	3,269	1.7	10.6
1978	1,737,868	193,742	2,397	1.2	11.0
1979	1,929,181	171,332	1,289	0.8	8.9

*Excluding maternity cases.

Of the total admissions (excluding maternal cases) around 10% are due to diarrhoeal diseases.

An informal survey of paediatric wards in General Hospitals indicate that between 20% and 30% of beds are often occupied by children with diarrhoea.

In infancy, diarrhoeal diseases is the fifth leading cause of death, with a mean mortality rate of 264.7/100,000 live births for the period 1971–1979.

A Morbidity/Mortality Survey conducted in the Colombo M.C. area in October, 1982, showed that on an average the morbidity due to diarrhoeal diseases in children under 5 years was one episode of diarrhoea annually. The survey revealed that 12 deaths had occured in the previous year in children under 5 years (mortality rate 4/1,000). Of these deaths, six (50%) were associated with diarrhoea. Five of the six diarrhoea deaths occured in the first year of life.

A National Diarrhoeal Diseases Control Programme implemented by the Ministry of Health is being jointly sponsored by UNICEF and WHO.

The UNICEF commitments to this programme include :

(i) Assistance to the State Pharmaceuticals Corporation in the local production of Oral Rehydration Salts (ORS). Initially ORS packets will be supplied by UNICEF.

(ii) Preparation of local training material.

(iii) Training of staff.

(iv) Monitoring, research and evaluation.

The WHO commitments include :

(i) Training.
(ii) Consultants
(iii) Fellowships
(iv) Research and evaluation.

Programme Objectives and Targets

(i) To assist in the reduction of morbidity in children less than five years caused by acute diarrhoea diseases by 15% by the end of 1988, by establishing early treatment at the home level with the active involvement of the mother.

(ii) To eventually reduce hospitalization due to acute diarrhoeal diseases by 20% by the end of 1988.

(iii) To reduce reported institutional case fatality rate for acute diarrhoeal diseases by 25% by end of 1988, through home and community level mechanisms to support early management outside the institution at the home level.

(iv) To contribute to improvements in the nutritional status of children under five years due to early arrest of diarrhoea.

(v) To ensure suitable links with potable water programme being implemented by other programmes.

(vi) To strengthen and expand sanitation activities enlisting the support of all Public Health Staff, health volunteers and voluntary organizations highlighting the importance of general and personal hygiene in terms of their direct association with diarrhoea and malnutrition.

A National Advisory Committee for Control of Diarrhoeal Diseases (CDD) has been formed with the Director Health Services as Chairman.

A programme will be implemented through the S.H.S. of each of the nineteen health divisions.

The M.OO.H. will be responsible for programme implementation in their respective areas, utilizing existing health facilities and staff (P.H.NN., P.H. II., F.H.WW.) and available community resources.

ORS will be made available through hospitals, clinics, etc., which will function as fixed facilities. In addition to the national network of fixed facilities, ORS would be delivered through the FHW and Voluntary Health Workers if required.

Since all diarrhoeas do not need treatment with ORS, an education programme will be implemented to emphasize the importance of traditional preparations such as "rice conjee" which could be used as a primary intervention for diarrhoeas.

The programme will be implemented as follows :

Year	*No. of SHS Divisions Implementing Programme*	*Cumulative % of Total Population Coverage*
1983	06	42.0
1984	05	65.6
1985	05	84.3
1986	03	100.0

The strategies employed in the CDD Programme are :

1. Proper case management

2. Epidemic control

3. Promotion of MCH practices including breast-feeding, proper weaning practices, nutritional guidance for pregnant and lactating women, and good hygiene in the home.

4. Promotion of environmental health practices through education, including the correct use and maintenance of water supplies and proper excreta disposal practices.

Implementation of this programme will not only reduce the number of cases of Diarrhoea seeking outdoor treatment at institutions, but also reduce the number of cases admitted to hospitals. It is also envisaged that improvements in the clinical management of acute diarrhoeal diseases will result in a saving on intravenous fluids and the use of antibiotics and other drugs now far too commonly used for diarrhoeas.

To : Assistant Director (Planning),
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Sir Chittampalam A. Gardiner Mawatha,
Colombo 2.

ANNUAL HEALTH BULLETIN 1982 AND 1983

The following persons have received or wish to receive a copy of the Annual Health Bulletin 1982 and would like to receive a copy of the 1983 issue when published :

Name	Designation	AHB 1982		AHB 1983
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