



SRI LANKA

HEALTH AT A GLANCE

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Overall health sector performance

Government of Sri Lanka spends more on health sector development compared to other south Asian countries. It was around 5 percent of total government expenditure during the recent past years.

Due to the significant resources devoted by the Ministry of Health to conduct public health programs, develop health researches, improve health education and installation of medical equipments health sector of the country has been improved.

Most of the indicators shows that over the years, many diseases have been controlled. As a result, mobility and mortality has substantially declined. Increasing number of admissions, bed occupancy, bed turnover, OPD attendance and admissions to maternal care units indicate that many people used public health facilities.

Further, numbers of hospitals and available facilities such as number of beds, modern medical equipments have been improved continuously. During the past three years, more medical officers, nurses, technical and non technical assistants have been recruited by the Ministry.

Table 1 presents capacity building development in health sector during past three years. Through out the period an increasing trend can be seen in all types of categories.

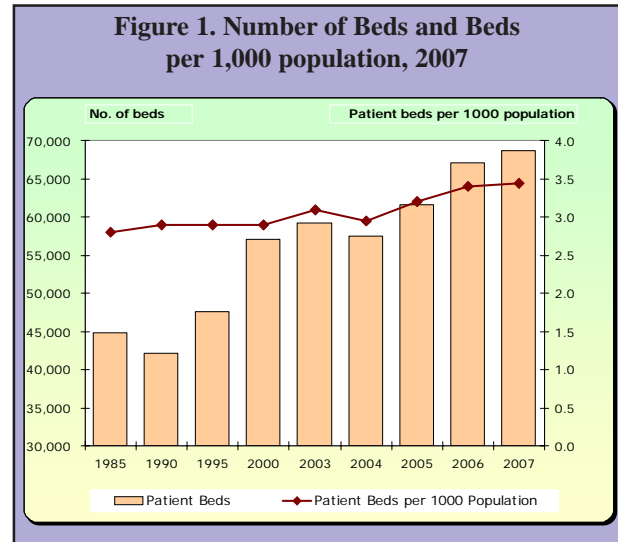


Table 1. Key Health Indicators

Indicator	2005	2006	2007
Government Expenditure on Health (Rs Million)	43,564	54,363	43,022
Government Health Expenditure as % of GNP	1.85	1.95	1.22
Government Health Expenditure as % of total Government Expenditure	5.4	7.6	4.9
Per Capita Health Expenditure (Rs.)	2,215	2,734	2,151
Medical Officers per 100,000 population	51.9	51.7	55.1
Population per Medical officer	1,927	1,935	1,815
Dental Surgeons per 100,000 population	4.9	5.9	6.6
Nurses per 100,000 population	101.4	125.7	157.3
Public Health Midwives per 100,000 population	24.9	25.5	30.8

Source : Annual Health Statistics

Health care Utilization and Resources

Total number of health institutions was increased from 608 to 615 between 2005 and 2007. Table 3 shows distribution of health facility providers by type of institution. According to the data present in the table 3, coverage of the other health institution category has almost doubled during the three year period. Cancer Hospitals, Mental Hospitals, Leprosy Hospitals, Chest Hospitals, Leprosy, Fever, Police, Dental Hospitals and Rehabilitation Hospitals are categorized as other health institutions.

The increasing trend in other hospitals category indicates that Sri Lanka faces challenge of non communicable diseases at present.

Table 2. Mortality Indicators

Mortality Indicator	Year	Indicator
Neonatal Mortality Rate (per 1,000 live births)	2002	8.4
Infant Mortality Rate (per 1,000 live births)	2003	11.17
Under-Five Mortality Rate (per 1,000 live births)	2002	13.39
Maternal Mortality Ratio (per 100,000 live births)	2002	14.3

Source : Annual Health Statistics

Table 3. Number of Health Institutions and Beds by Type, 2005 - 2007

Type of Institute	2005		2006		2007	
	Number of Hospitals	Bed Strength	Number of Hospitals	Bed Strength	Number of Hospitals	Bed Strength
1 Teaching Hospitals	16	15,938	16	18,526	16	18,451
2 Provincial/ General Hospitals	8	5,493	8	6,070	12	7,799
3 Base or District Base Hospitals	40	11,230	45	12,633	44	12,391
4 District Hospitals	160	14,130	155	13,920	161	14,417
5 Peripheral Units	101	4,927	101	5,184	95	5,127
6 Rural or Estate Hospitals	196	4,879	196	5,400	182	5,180
7 Cen Disp. & Mat. Homes	62	623	67	629	59	596
8 Other Health institutes	25	4,374	35	4,662	46	4,733

Source : Annual Health Statistics

Table 4. Bed Occupancy Rate, Bed Turnover Rate and Average Duration of Stay, 2005 - 2007

Hospital Type	Bed Occupancy Rate			Bed Turnover Rate			Average Duration of Stay		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
1 Teaching Hospitals	97.8	89.4	82.6	81.0	90.8	81.8	4.4	3.6	3.7
2 Provincial/ General Hospitals	104.7	87.5	94.8	99.4	107.4	102.1	3.8	3.1	3.3
3 Base or District Base Hospitals	79.0	72.5	70.0	96.7	115.8	108.4	3.0	2.3	2.3
4 District Hospitals	35.0	40.9	39.4	58.9	77.1	71.0	2.2	2.1	2.1
5 Peripheral Units	33.0	40.1	40.1	59.9	72.0	71.9	2.0	2.2	2.1
6 Rural or Estate Hospitals	28.8	37.4	40.6	54.1	77.1	77.5	1.9	2.0	1.9
7 Central Disp. & Mat. Homes	N/A	87.5	108.6	N/A	103.8	140.3	N/A	2.8	2.6
8 Other Hospitals	N/A	64.7	57.7	N/A	26.0	17.8	N/A	27.9	27.4

Source : Annual Health Statistics

Hospital Beds

Number of hospital beds is considered as an indicator used to measure quality of health sector. Table 3 shows that hospital bed strength has been increased in all types of hospitals during 2005 and 2007. According to the figure 1 beds per 1,000 population shows an increasing trend since 1985.

Bed Occupancy Rate, Bed Turnover Rate and Average duration of stay in a health care institution are the indicators for health sector development of a country. On average 2 to 3 days spend in a health institution at present. Data shows declining trend of average duration of stay in all types of institutions.

Outpatient and Clinic Visits

In year 2005, total out patient visits to OPD is recorded as 42,482,620 and this has been increased to 43,073,772 in year 2007. Table 6 shows that clinic visits to provincial/ general hospitals, district hospitals, peripheral hospitals have been increased while teaching hospitals, base hospitals and rural /estate hospitals have been slightly decreased. Further, number recorded for clinic visits to other health institution have been doubled during this period.

Table 5. Key Health Personal, 2005 - 2007

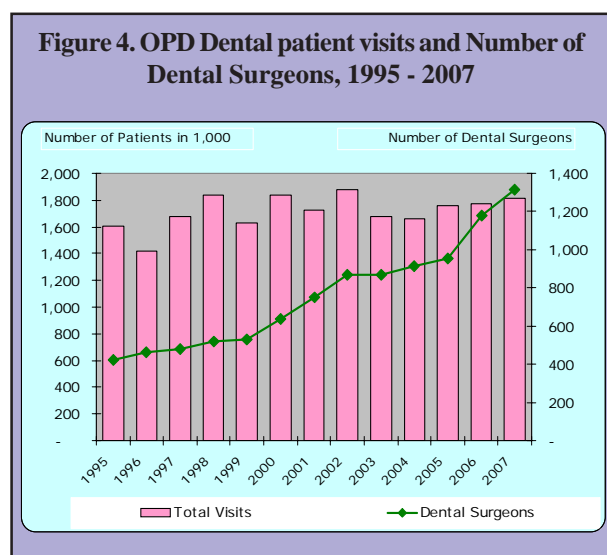
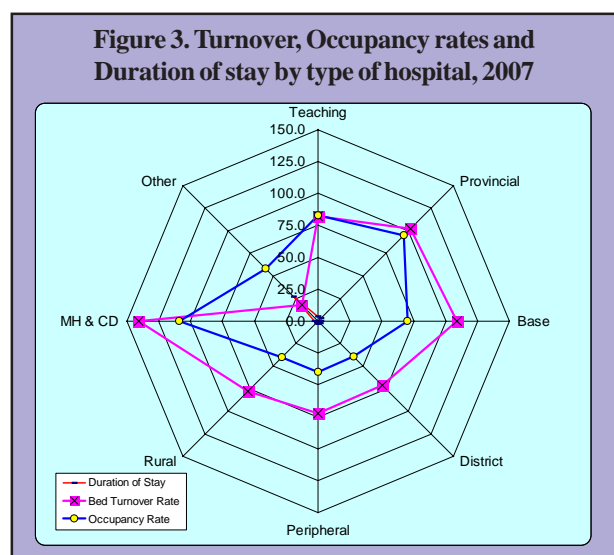
Key Health Personal	2005		2006		2007	
	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population	Number	Rate per 100,000 Population
Medical Officers	10,198	51.9	10,279	51.7	11,023	55.1
Dental Surgeons	954	4.9	1,181	5.9	1,314	6.6
Registered/ Assistant Medical Officers	1,274	6.5	1,183	5.9	1,194	6.0
Nurses	19,934	101.4	24,988	125.7	31,466	157.3
Public Health Nursing Sisters	313	1.6	299	1.5	290	1.4
Public Health Inspectors	1,512	7.7	1,535	7.7	1,740	8.7
Public Health Midwives	4,896	24.9	5,080	25.5	6,167	30.8
Hospital Midwives	2,371	12.1	2,555	12.8	2,828	14.1

Source : Annual Health Statistics

Table 6. Out Patient (OPD) and Clinic Visits by Type of Hospital

Type of Institute	Out Patient (OPD) Visits			Clinic Visits	
	2005	2006	2007	2006	2007
1 Teaching Hospitals	4,986,430	5,125,243	5,739,317	5,651,384	5,409,396
2 Provincial/ General Hospitals	2,255,329	1,403,217	2,397,005	1,160,367	2,063,073
3 Base or District Base Hospitals	6,824,379	7,176,943	6,822,443	3,132,325	3,103,141
4 District Hospitals	10,733,843	10,216,949	10,241,157	2,380,637	2,474,663
5 Peripheral Units	4,492,221	5,495,851	4,241,262	1,113,467	1,121,362
6 Rural or Estate Hospitals	5,492,819	4,248,983	5,356,134	989,945	966,509
7 Central Disp. & Mat. Homes	1,306,660	1,287,309	1,113,659	180,427	177,523
8 Other Health Institutes	638,901	655,870	1,002,766	237,692	498,951
9 Central Dispansary	5,752,038	5,819,411	6,160,029	856,168	963,364

Source : Annual Health Statistics



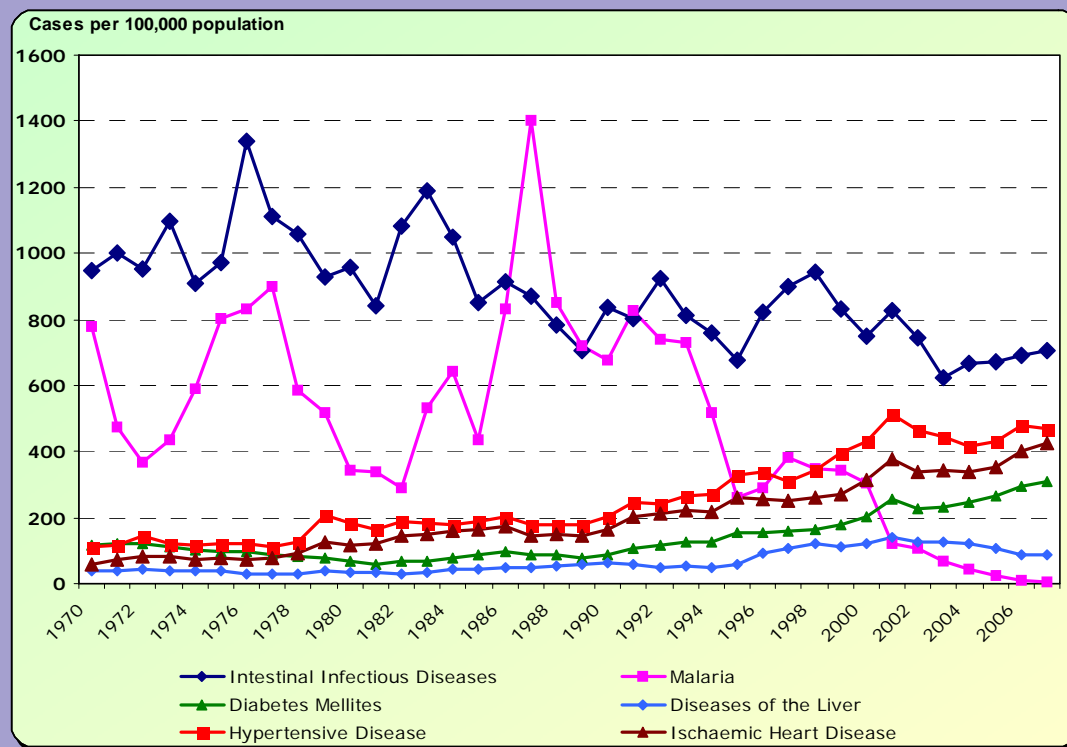
Inpatient Morbidity

Non-communicable diseases that emerge with the transition in the demographic profile and increased life expectancy are on the increase.

This is reflected by the increasing trend in hospitalization for diseases such as diabetes mellitus, hypertensive disease and ischemic

heart diseases, neoplasms, diseases of the circulatory system, diseases of the genitourinary system, diseases of the digestive system, diseases of the musculoskeletal system and diseases of the nervous system the cases per 100,000 population of diseases of the respiratory system has not been significantly changed for last few years.

Figure 5. Trends in Hospitalization for selected diseases, 1970 - 2007



The number of visits to hospitals to get treatment for the diseases of the digestive system, circulatory system and genitourinary system and eye and adnexa has almost doubled during the recent past period.

Another noteworthy feature is that the patients getting treatment for injury poisoning and other consequences of external causes has also doubled during the last twenty years period.

A substantial increase is seen in hospitalization for injury and poisoning. An increasing trend in hospitalization is evident since last few years for disorders in the perinatal period and also for diseases related to pregnancy, childbirth and the puerperium.

In addition to that, congenital malformations deformations and chromosomal abnormalities have also increased during the last few years period. The number of patients seeking treatment for mental disorders has increased over the years.

A dramatic increase in the number of cases hospitalized for diabetes mellitus, hypertensive disease and ischemic heart diseases is observed in the recent past.

The main contributing factors to this situation are urbanization, changes in life style and aging of population.

Hospitalization for diseases of the intestinal infectious diseases had decreased slightly when compared with 1980's, but still fluctuates at a very high level.

Another noteworthy feature is that the patients getting treatment for malaria disease fluctuated at considerable level before 1997 and substantially decreased after that. At present hospitalization for malaria disease is not very significant.

Before 1990s, the number of patients seeking treatment for diseases of the liver did not fluctuate rapidly and remained in very low level. It has increased over the years after 1990s but at low level and has reduced after 2000.

At present a clear decreasing trend is seen in hospitalization due to diseases of the liver.

Table 7. Leading Causes of Hospital Admissions (most aggregated level), 2005 - 2007

Causes of Hospitalization	Proportionate (%) Morbidity			Rate (per 100,000 population)		
	2005	2006	2007	2005	2006	2007
Number of All Causes*	3,388,026	3,656,146	3,776,825	3,388,026	3,656,146	3,776,825
Traumatic injuries	16.2	17.0	16.1	2,797.0	3,119.7	3,032.9
Diseases of the respiratory system, excluding diseases of upper respiratory tract	9.3	10.4	9.7	1,599.2	1,903.3	1,827.8
Symptoms, signs and abnormal clinical and laboratory findings	7.7	8.4	8.7	1,317.9	1,553.3	1,633.4
Viral diseases	5.0	7.3	6.4	868.7	1,338.2	1,204.5
Diseases of the gastrointestinal tract	5.9	5.9	5.9	1,015.3	1,077.4	1,119.4
Direct & indirect obstetric causes	4.7	5.1	5.4	817.5	941.3	1,013.2
Diseases of the urinary system	4.0	3.9	4.0	689.1	714.2	758.6
Diseases of the skin and subcutaneous tissue	3.4	3.6	3.9	591.7	664.7	730.5
Intestinal infectious diseases	3.9	3.8	3.7	670.7	692.9	706.8
Diseases of the musculoskeletal system and connective tissue	3.4	3.3	3.3	585.2	605.3	614.4
Hypertensive diseases	2.7	2.6	2.5	457.7	480.4	469.7

* Excluding selected cases

Source : Annual Health Statistics

Table 8. Leading Causes of Hospital Deaths (most aggregated level), 2005 - 2007

Causes of Deaths	Proportionate Mortality			Rate (per 100,000 population)		
	2005	2006	2007	2005	2006	2007
Number of All Causes*	33,046	32,650	34,593	33,046	32,650	34,593
Ischamic heart diseases	11.4	12.6	13.1	19.3	20.7	22.7
Neoplasms	8.3	9.9	10.1	14.1	16.3	17.5
Pulmonary heart diseases and diseases of of the pulmonary circulation	9.1	10.0	10.1	15.4	16.5	17.4
Cerebrovascular diseases	7.7	8.9	9.2	13.1	14.5	16.0
Diseases of the gastrointestinal tract	8.5	6.9	7.0	14.4	11.3	12.1
Diseases of the respiratory system, excluding diseases of the upper respiratory tract	7.3	6.9	6.5	12.4	11.4	11.3
Zoonotic and other bacterial diseases	4.2	4.9	5.6	7.1	8.0	9.6
Symptoms, signs and abnormal clinical laboratory findings	5.3	4.7	5.3	9.1	7.7	9.1
Diseases of the urinary system	3.8	4.7	5.2	6.5	7.8	9.0
Traumatic injuries	5.0	3.8	4.0	8.4	6.2	6.9
Pneumonia	4.3	4.4	4.0	7.3	7.3	6.9

* Excluding selected cases

Source : Annual Health Statistics

Trends in Mortality

The mortality pattern in Sri Lanka is in a transitional stage. It appears to be changing from a pattern seen in developing countries to a pattern in developed countries.

increase in the death rates associated with diseases of the circulatory system and injury and poisoning is evident.

The trends in mortality indicate a decrease in deaths resulting from infectious and parasitic diseases, diseases of the nervous system and sense organs and of the respiratory system, whereas a substantial

Table 9. Age and Sex distribution of Hospital Morbidity, 2007

Age Group	Hospital Live Discharges		
	Male	Female	Total
Below 1 Year	94,303	80,277	174,580
1 - 4 Years	167,433	144,147	311,580
5 - 16 Years	261,376	210,183	471,559
17 - 49 Years	907,364	1,294,360	2,201,724
50 - 69 Years	501,097	445,861	946,958
70 & above Years	222,168	201,991	424,159
Age Not Available	19,446	20,936	40,382
Total Live Discharges	2,173,187	2,397,755	4,570,942

Source : Medical Statistics Unit

Hospital Mortality

It is estimated that only 30-40 per cent of registered deaths occur in government hospitals. This proportion is higher for deaths related to puerperal causes, heart diseases, respiratory diseases, etc

For the years 2006 to 2007, ischaemic heart diseases, diseases of gastrointestinal tract, Pulmonary heart disease-and-diseases of the pulmonary circulation and cerebrovascular diseases, ranked as the first few leading causes of hospital deaths.

These diseases accounted for about 40 per cent of analysed deaths. Additionally these diseases together with the diseases of the respiratory system have become one of the ten leading causes for most of the districts.

In 2007, 38,550 deaths reported in government hospitals compared to 36,345 in 2006.

A significant undiagnosed deaths reported during the period and it was 3,695 and 3,957 respectively for the years 2006 and 2007.

Figure 6. Leading Causes of Hospitalization, 2007

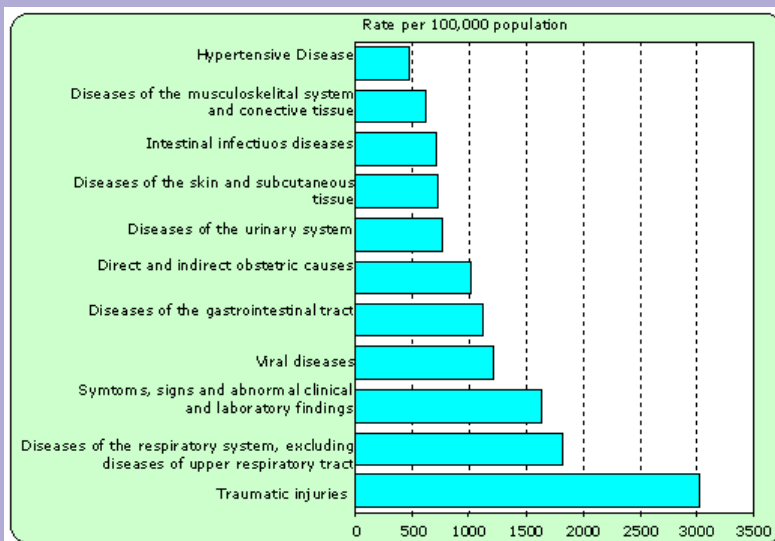
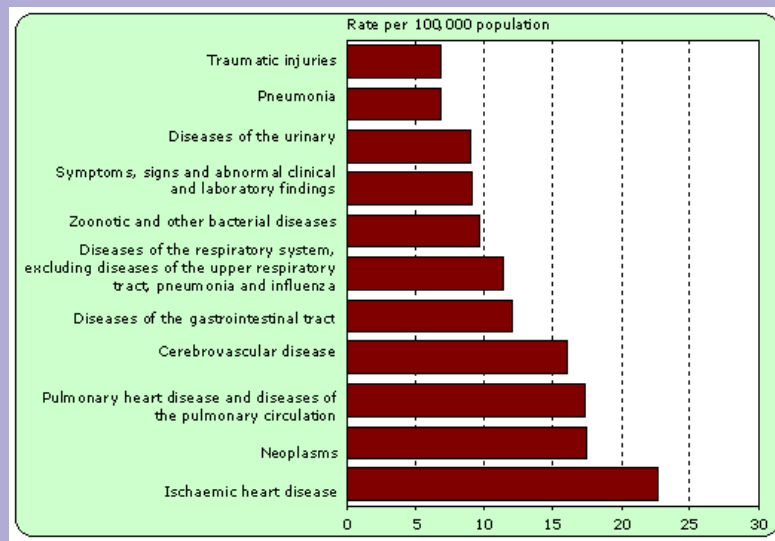


Figure 7. Leading Causes of Hospital Deaths, 2007



Gender difference in Morbidity pattern

Other viral diseases(includes viral fever), Asthma, Superficial injury, Open wounds and injuries to blood vessels, Other injuries, Diarrhoea and gastroenteritis and Other diseases of the respiratory system are the common cases in the country for the year 2007.

More female admissions were reported related to the pregnancy and its complications while more male admissions were related to the injuries.

Sex and age differentials in mortality

The mortality rates in the past have been higher for females than for males. In 1960's it equalized and remained some years as equal and after which the male mortality became higher for females.

In 2007, it is significant that among hospital deaths, male deaths percentage for the total deaths is higher than female deaths percentage (Table 10). That means, male deaths are two third of the total deaths in 2007.

When the age group below one year is considered, the difference of the percentage of deaths for males and females is not much significant, but in older ages, male deaths take higher values (around two third of total deaths) than females.

Table 10. Age and Sex distribution of Hospital Mortality, 2007

Age Group	Hospital Deaths		
	Male	Female	Total
Below 1 Year	1,498	1,105	2,603
1 - 4 Years	191	130	321
5 - 16 Years	265	258	523
17 - 49 Years	5,469	2,243	7,712
50 - 69 Years	9,622	4,673	14,295
70 & above Years	7,035	4,976	12,011
Age Not Available	718	367	1,085
Total Hospital Deaths	24,798	13,752	38,550

Source : Medical Statistics Unit

Table 11. Leading Causes of Hospital Morbidity, Male, 2007

Rank	Disease (with IMMR code)	Below 1 Yrs	1 - 4 Yrs	5 - 16 Yrs	17 - 49 Yrs	50 - 69 Yrs	70 & above Yrs	Age Not Available	Live Discharges Male	Live Discharges Female
1	Persons encountering health services for examination, investigation and for specific procedures of health care (243)	7,577	12,345	18,978	47,090	31,127	18,434	348	135,899	127,255
2	Superficial injury (220)	699	5,480	18,325	71,138	16,630	4,438	468	117,178	53,908
3	Open wounds and injuries to blood vessels (227)	559	5,423	17,270	65,380	18,655	5,498	563	113,348	47,636
4	Other viral diseases (includes viral fever) (042)	6,303	14,221	18,497	52,574	15,624	5,801	157	113,177	97,180
5	Asthma (150)	-	7,464	12,536	20,981	28,422	18,421	2,257	90,081	87,975
6	Other injuries of specified, unspecified and multiple body regions (230)	566	3,984	11,812	51,175	12,592	3,330	347	83,806	39,377
7	Other diseases of the respiratory system (152)	10,167	15,262	8,439	11,136	9,099	5,841	124	60,068	52,418
8	Diarrhoea and gastroenteritis of presumed infectious origin (006)	8,540	16,127	9,449	14,124	6,850	3,689	162	58,941	61,866
9	Infections of skin and subcutaneous tissue (167)	1,086	3,926	6,597	24,166	15,136	5,836	90	56,837	39,853
10	Gastritis and duodenitis (156)	-	944	4,639	29,934	13,022	4,613	436	53,588	54,293
11	Fractures (221)	202	1,450	9,579	28,915	7,954	2,611	162	50,873	22,003
	Undiagnosed / Uncoded (245)	4,592	6,980	12,881	68,185	40,088	14,567	2,857	150,150	141,270
	All Causes	94,303	167,433	261,376	907,364	501,097	222,168	19,446	2,173,187	2,397,755

Source : Medical Statistics Unit

Table 12. Leading Causes of Hospital Morbidity, Female, 2007

Rank	Disease (with IMMR code)	Below 1 Yrs	1 - 4 Yrs	5 - 16 Yrs	17 - 49 Yrs	50 - 69 Yrs	70 & above Yrs	Age Not Available	Live Discharges Female	Live Discharges Male
1	Single spontaneous delivery (195)	-	-	1,192	227,036	-	-	2,719	230,947	-
2	Other complications of pregnancy and delivery (196)	-	-	598	141,179	-	-	857	142,634	-
3	Persons encountering health services for examination, investigation and for specific procedures of health care (243)	6,709	9,725	14,272	60,724	25,631	9,935	259	127,255	135,899
4	Other viral diseases (includes viral fever) (042)	5,583	13,203	15,033	38,893	17,583	6,557	328	97,180	113,177
5	Asthma (150)	-	5,860	10,608	28,645	26,091	14,842	1,929	87,975	90,081
6	Other disorders of the female genito-urinary system (186)	66	161	1,828	59,596	12,982	1,631	47	76,311	-
7	Diarrhoea and gastroenteritis of presumed infectious origin (006)	6,973	14,653	9,101	16,250	9,448	5,263	178	61,866	58,941
8	Gastritis and duodenitis (156)	-	990	6,776	28,774	11,892	5,509	352	54,293	53,588
9	Superficial injury (220)	642	4,216	9,661	26,909	9,099	3,229	152	53,908	117,178
10	Other diseases of the respiratory system (152)	7,455	12,908	7,321	10,183	8,452	5,977	122	52,418	60,068
11	Symptoms and signs involving the digestive system and abdomen (211)	1,282	2,456	7,600	27,273	8,146	3,370	73	50,200	46,001
	Undiagnosed / Uncoded (245)	4,563	6,919	11,444	70,513	33,219	12,812	1,800	141,270	150,150
	All Causes	80,277	144,147	210,183	1,294,360	445,861	201,991	20,936	2,397,755	2,173,187

Source : Medical Statistics Unit

Table 13. Leading Causes of Hospital Morbidity, 2007

Rank	Disease (with IMMR code)	Live Discharges Male	Live Discharges Female	Total Live Discharges
1	Persons encountering health services for examination, investigation and for specific procedures of health care (243)	135,899	127,255	263,154
2	Single spontaneous delivery (195)	-	230,947	230,947
3	Other viral diseases (includes viral fever) (042)	113,177	97,180	210,357
4	Asthma (150)	90,081	87,975	178,056
5	Superficial injury (220)	117,178	53,908	171,086
6	Open wounds and injuries to blood vessels (227)	113,348	47,636	160,984
7	Other complications of pregnancy and delivery (196)	-	142,634	142,634
8	Other injuries of specified, unspecified and multiple body regions (230)	83,806	39,377	123,183
9	Diarrhoea and gastroenteritis of presumed infectious origin (006)	58,941	61,866	120,807
10	Other diseases of the respiratory system (152)	60,068	52,418	112,486
11	Gastritis and duodenitis (156)	53,588	54,293	107,881
12	Infections of skin and subcutaneous tissue (167)	56,837	39,853	96,690
13	Other diseases of the urinary system (180)	47,263	49,278	96,541
14	Symptoms and signs involving the digestive system and abdomen (211)	46,001	50,200	96,201
15	Other signs and symptoms and abnormal clinical findings (217)	42,195	40,722	82,917
16	Essential hypertension (125)	34,116	48,434	82,550
17	Other disorders of the female genito-urinary system (186)	-	76,311	76,311
18	Fractures (221)	50,873	22,003	72,876
19	Other ischaemic heart disease (129)	33,504	31,972	65,476
20	Bitten or struck by dog (229)	36,058	26,104	62,162
	Undiagnosed / Uncoded (245)	150,150	141,270	291,420
	All Causes	2,173,187	2,397,755	4,570,942

Source : Medical Statistics Unit

Gender difference in Mortality pattern

Acute myocardial infarction, Cerebrovascular disease, Heart failure, Septicaemia, Renal failures are common and most dangerous diseases lead to death among both males and females.

More male deaths reported for Alcoholic liver disease and Renal failures compared to female deaths.

Among female deaths, breast cancers (IMMR-064), burns and corrosions (IMMR-233), cancers of female genital organs (IMMR-068) and cancers of cervix uteri (IMMR-065) were the most leading causes absolutely. Those are the most death cases related to the females and more than 100 deaths reported last year, 2007.

Table 14. Leading Causes of Hospital Mortality, 2007

Rank	Disease (with IMMR code)	Deaths Male	Deaths Female	Total Deaths
1	Cerebrovascular disease (134)	1,895	1,298	3,193
2	Acute myocardial infarction (128)	1,914	1,041	2,955
3	Heart failure (132)	1,206	1,036	2,242
4	Septicaemia (022)	967	726	1,693
5	Renal failure (177)	1,192	498	1,690
6	Other ischaemic heart disease (129)	948	633	1,581
7	Pneumonia (145)	938	442	1,380
8	Ill-defined and unknown causes of mortality (219)	835	418	1,253
9	Alcoholic liver disease (162)	1,114	51	1,165
10	Other heart diseases (133)	604	400	1,004
11	Other diseases of liver (163)	668	221	889
12	Toxic effects of organophosphate and carbamate insecticides (235)	687	166	853
13	Slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight (199)	414	345	759
14	Intracranial injuries (224)	609	124	733
15	Asthma (150)	435	286	721
16	Bronchitis, emphysema and other chronic obstructive pulmonary disease (149)	574	143	717
16	Other diseases of the respiratory system (152)	404	312	716
17	Intrauterine hypoxia, birth asphyxia and other respiratory disorders originating in the perinatal period (201)	261	183	444
18	Essential hypertension (125)	235	202	437
19	Malignant neoplasm of trachea, bronchus and lung (059)	344	78	422
20	Other injuries of specified, unspecified and multiple body regions (230)	313	65	378
	Undiagnosed / Uncoded (245)	2,634	1,323	3,957
	All Causes	24,798	13,752	38,550

Source : Medical Statistics Unit

Births in Hospitals

Because of enforcing a law to register the all births in 1980's by the government, it can be clearly shown a sudden increase in 1980 for both registered births and hospital births.

Table 15. Leading Causes of Hospital Mortality, Male, 2007

Rank	Disease (with IMMR code)	Below 1 Yrs	1 - 4 Yrs	5 - 16 Yrs	17 - 49 Yrs	50 - 69 Yrs	70 & above Yrs	Age Not Available	Deaths Male	Deaths Female
1	Acute myocardial infarction (128)	-	-	-	233	930	740	11	1,914	1,041
2	Cerebrovascular disease (134)	-	-	-	208	790	866	31	1,895	1,298
3	Heart failure (132)	-	-	-	102	498	585	21	1,206	1,036
4	Renal failure (177)	-	6	4	248	609	322	3	1,192	498
5	Alcoholic liver disease (162)	-	-	-	479	533	96	6	1,114	51
6	Septicaemia (022)	97	13	14	194	373	264	12	967	726
7	Other ischaemic heart disease (129)	-	-	-	88	411	432	17	948	633
8	Pneumonia (145)	50	16	18	204	327	316	7	938	442
9	Ill-defined and unknown causes of mortality (219)	35	12	10	233	293	232	20	835	418
10	Toxic effects of organophosphate and carbamate insecticides (235)	-	1	7	417	195	60	7	687	166
11	Other diseases of liver (163)	4	3	7	192	344	117	1	668	221
	Undiagnosed / Uncoded (245)	77	19	36	629	892	611	370	2,634	1,323
	All Causes	1,498	191	265	5,469	9,622	7,035	718	24,798	13,752

Source : Medical Statistics Unit

Table 16. Leading Causes of Hospital Mortality, Female, 2007

Rank	Disease (with IMMR code)	Below 1 Yrs	1 - 4 Yrs	5 - 16 Yrs	17 - 49 Yrs	50 - 69 Yrs	70 & above Yrs	Age Not Available	Deaths Female	Deaths Male
1	Cerebrovascular disease (134)	-	-	-	90	413	777	18	1,298	1,895
2	Acute myocardial infarction (128)	-	-	-	75	433	522	11	1,041	1,914
3	Heart failure (132)	-	-	-	60	341	601	34	1,036	1,206
4	Septicaemia (022)	66	20	35	135	252	214	4	726	967
5	Other ischaemic heart disease (129)	-	-	-	21	251	355	6	633	948
6	Renal failure (177)	-	1	9	96	240	152	-	498	1,192
7	Pneumonia (145)	31	10	18	60	137	185	1	442	938
8	Ill-defined and unknown causes of mortality (219)	21	5	5	92	145	144	6	418	835
9	Other heart diseases (133)	-	-	-	72	137	155	36	400	604
10	Slow fetal growth, fetal malnutrition and disorders related to short gestation and low birth weight (199)	345	-	-	-	-	-	-	345	414
11	Other diseases of the respiratory system (152)	18	8	7	37	102	139	1	312	404
	Undiagnosed / Uncoded (245)	46	10	28	258	390	418	173	1,323	2,634
	All Causes	1,105	130	258	2,243	4,673	4,976	367	13,752	24,798

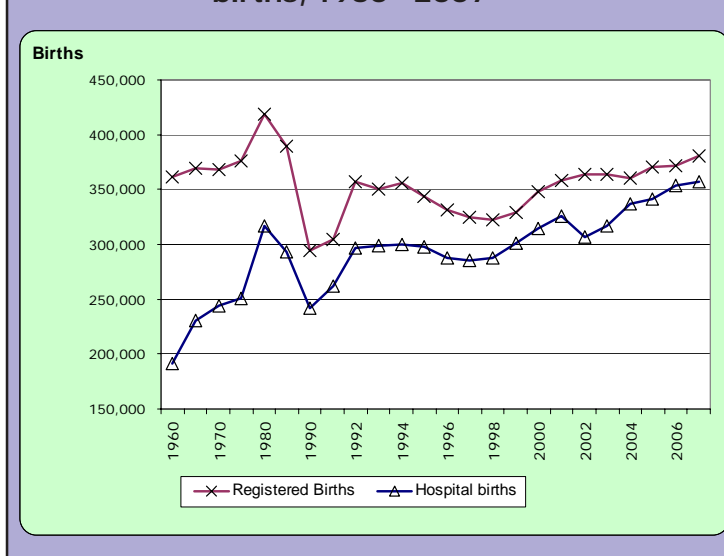
Source : Medical Statistics Unit

From 1990s, when compared to the previous year births occurred in government hospitals though decreased in some years, in general the population of births occurs in government hospitals are increasing.

In Sri Lanka more than 90% of live births occur in the government hospital at present and it is around 3 millions. During 2007, a total of 356,852 live births and 3,184 still births took place in government hospitals.

According to the maternal services provided by the hospitals, there were 356,995 deliveries occurred in government hospitals and it is evident that the teaching hospitals and the four maternity hospitals accounted around 35% of the total deliveries.

Figure 8. Registered Births Vs. Hospital births, 1960 - 2007



Box 1. Low Birth Weight

At the time of birth, a healthy baby has at least 2500 grams of birth weight. Birth weight is measured within an hour of birth to avoid weight drop during postpartum. In Sri Lanka, almost all births now occurred inside a safe health facility under the assistance of skilled health professional and at the time of birth all live births are measured and recorded by the skilled health professional.

Birth weight of a new born baby is a predictor for child's survival and ability of bearing risks face in early childhood. Malnutrition of mother, shorted duration of pregnancy, mother's age at child birth and having multiple births are several common reasons for low birth weight.

Sri Lanka Demographic and Health Survey (SLDHS) 2006/07 reported that one in five live births (17%) had birth weight less than 2,500 grams. Incidences of low birth weight babies are higher in estate sector than in rural and urban sectors.

In estate sector one in every three mothers had low birth weight baby while incidences in Rural and Urban sectors are not that worst. But they also had around 15 percent of live births with low weights.

District variation of low birth weight is significant. Colombo reported the lowest percentages while Nuwaraeliya reported the highest. Matale, Badulla, Kegalle, Galle, and Matara also reported higher percentages of low birth weights.

It was observed from survey data that higher the level of education of mother or the wealth of her family, likelihood of having a low birth weight baby is lesser. Mother's age at child birth is another predictor variable for low birth weight baby. Teenage mothers raise percentages of low birth weight babies. Survey reported that one in every four teenage mother reported a case. This proves poverty, lack of knowledge or experience, and malnutrition are crucial factors for low weight babies.

(Source: Department of Census & Statistics, "Demographic & Health Survey 2006-07", final report)

Table 17. Registered Births and Hospital births

Year	Registered Births in Department of Register General	Hospital Statistics						
		Live Births	Maternal Deaths		Still Births		Low Birth Weights	
			Number	Rate (per 10,000 live births)	Number	Rate (per 1,000 births)	Number	Rate (per 100 live births)
2005	370,424	341,539	105	3.1	3,638	10.5	60,012	17.6
2006	371,264	353,361	81	2.3	3,175	8.9	60,125	17.0
2007	380,069	356,852	61	1.7	3,184	8.8	61,887	17.3

Source : Annual Health Statistics

Table 18. Maternal Services By Type of Hospital, 2007

Type of Institution	Method of Deliveries			Total Deliveries	Outcome of Delivery		
	Single	Twin	Other		Normal	Forceps	Caesarean
Teaching Hospitals	116,978	1,204	24	118,206 (33%)	79,014	1,773	37,419
Provincial Hospitals	78,190	751	12	78,953 (22%)	56,493	566	21,894
Base Hospitals	115,468	850	8	116,326 (33%)	87,657	996	27,673
District Hospitals	30,124	85	2	30,211 (8%)	29,898	63	250
Peripheral Units	5,559	25	-	5,584 (2%)	5,539	23	22
Rural Hospitals	6,595	24	-	6,619 (2%)	6,532	0	87
Maternity Homes	1,088	8	-	1,096 (0%)	1,096	-	-
Sri Lanka	354,002	2,947	46	356,995 (100%)	266,229	3,421	87,345

Source: Annual Health Statistics

Box 2. Indoor Morbidity and Mortality Statistics

Data on Indoor Morbidity and Mortality are collected from relevant institutions on a quarterly basis. At the end of each quarter, the MSU mails out forms through the deputy director of the provincial health services (DPDHS or RDHS), the Indoor Morbidity and Mortality Return (IMMR) to all government institutions that treat patients indoors, for completion and return.

MSU mails out directly statistical returns to institutions that do not fall under the purview of the provincial administration.

Based on the collection from government medical institutions on inpatients the MSU compiles statistics on the numbers of patients discharged or admitted by principle diagnosis and in case of deaths, the underlying cause of death.

The principle diagnosis (or the cause of death) is coded according to the International Classification of Diseases (ICD). Since 1997, the tenth revision the ICD-10 has been in use.

From 2002, the MSU revised the IMMR several times to include broad age groups and the sex of the discharged patients and in order for institutions to provide breakdown for age and sex a special register was introduced by MSU to record the required details of each patient discharged.

Institutions are required to enter on the register details on the discharged patients (Bed Head Ticket (BHT) number, sex, age-group, and principle diagnosis) on a daily basis.

At the end of the quarter institutions are able to aggregate the numbers in each column in the register and transfer that information on to the IMMR.

Box 3. Medical Statistics Unit

Medical Statistics Unit (MSU) is the unit of collecting and analysing health information of the country. It functions under the Department of Health, Ministry of Health and technical staffs are from the Department of Census & Statistics.

MSU is responsible for publishing the Annual Health Bulletin (AHB) and producing Health Statistics for various other publications.

Following are the main functions of the unit;

1. Collecting Hospital Statistics
2. Analysing Hospital Statistics
3. Publishing health statistics
4. Training of medical recording staff
 - a. ICD
 - b. Hospital Statistics
5. Distributing Registers, Schedules, & Manuals (ICD 10 Etc.)
6. Maintaining the list of health institutions
7. Maintaining the list of GN areas by MOH divisions
8. Estimating the Population by MOH division

MSU maintains a number of statistical collections from all the government health institutions and following are the regular returns;

1. Indoor Morbidity and Mortality Statistics - *Quarterly*
2. Maternal Statistics - *Monthly*
3. Number of Bed's by type of ward - *Annually*
4. Manpower Statistics - *Annually*
5. Statistics on Specialists - *Annually*
6. OPD & Clinics Statistics - *Quarterly*
7. Dental Statistics – *daily summary by Monthly*
8. Institution list by DPDHS areas- *Annually*
9. GN divisions by MOH areas - *Annually*

Table 19. Indoor Morbidity & Mortality Statistics by Broad Disease Groups, 2005 - 2007

Disease Group (with ICD-10 code)	2005		2006		2007	
	Live Discharges	Deaths	Live Discharges	Deaths	Live Discharges	Deaths
1 Intestinal infectious diseases (A00-A09)	131,492	431	137,716	78	141,354	76
2 Tuberculosis (A15-A18)	8,152	333	7,103	282	6,745	288
3 Other bacterial diseases (A20-A49)	8,741	1,379	8,069	1,598	8,220	1,923
4 Infections with sexual mode of transmission (A50-A64)	283	1	238	-	236	-
5 Viral diseases (A80-B34)	170,390	459	265,788	319	240,856	175
6 Malaria (B50-B54)	4,789	3	2,275	1	1,031	1
7 Helminthiases (B76,B77,B79,B80)	820	-	459	-	294	-
8 Other infectious and parasitic diseases	5,869	1	6,626	2	5,967	2
9 Neoplasms (C00-D48)	52,746	2,753	57,611	3,241	62,340	3,498
10 Iron deficiency anaemias (D50)	5,250	23	7,781	26	8,323	16
11 Haem. con. and other diseases of blood and ... (D51-D89)	11,105	62	9,068	73	10,765	52
12 Diabetes mellitus (E10-E14)	51,476	675	58,429	597	60,944	545
13 Malnutrition and vitamin deficiencies (E40-E46,E50-E56)	2,263	30	1,339	25	1,407	12
14 Oth eno, nutr and metabo... (E00-E07,E15-E34,E58-E89)	14,048	87	15,295	57	17,374	77
15 Mental and behavioural disorders (F00-F99)	42,433	-	41,985	-	40,333	-
16 Diseases of the nervous system (G00-G98)	48,741	463	54,619	533	58,154	535
17 Diseases of the eye and adnexa	82,332	-	91,104	-	102,443	-
18 Dis of the ear.. (H60-H61,H65-H74,H80-H83,H90-H95)	18,979	-	21,659	-	25,887	-
19 Rheum. fever and rheum. heart dis. (I00-I02,I05-I09)	6,205	92	4,989	49	4,982	37
20 Hypertensive diseases (I10-I15)	89,249	767	94,947	593	93,402	583
21 Ischaemic heart disease (I20-I25)	65,836	3,762	75,399	4,125	80,919	4,536
22 Other heart diseases (I26-I51)	24,998	2,991	25,069	3,276	26,352	3,490
23 Cerebrovascular disease (I60-I69)	19,215	2,549	22,487	2,893	24,921	3,193
24 Other diseases of the circulatory system (I70-I84)	27,245	180	28,984	123	30,506	139
25 Influenza (J10-J11)	1,811	32	1,364	1	1,430	10
26 Pneumonia (J12-J18)	19,694	1,417	20,363	1,448	17,328	1,380
27 Other dise. of the upper respir. tract (J00-J06,J30-J39)	83,120	124	106,380	21	94,096	52
28 Diseases of the resp. system exclu... (J20-J22, K40-J98)	312,124	2,408	376,232	2,258	363,481	2,260
29 Diseases of teeth and supporting structure (K00-K014)	12,825	-	13,214	-	13,756	-
30 Diseases of the gastrointestinal tract (K20-K92)	196,876	2,804	211,991	2,255	221,553	2,431
31 Diseases of skin ad subcutaneous tissue (L00-L08,L10-L98)	116,378	-	132,183	-	146,175	-
32 Disorders of the musculoskeletal system (M00-M99)	114,976	115	120,267	112	122,905	31
33 Diseases of the urinary system (N00-N39)	134,261	1,272	149,042	1,551	159,121	1,805
34 Diseases of the male genital organs (N40-N50)	17,523	-	19,743	-	18,988	-
35 Disor. of female genito-urinary sys. (N70-N98, N99.2, N99.3)	74,175	10	80,749	7	85,362	8
36 Abortions (O00-O08)	39,974	20	46,323	3	47,555	3
37 False labour and those admitted... (O47)	40,701	-	56,533	-	43,188	-
38 Other obstetric conditions	160,614	168	187,148	47	202,666	77
39 Single spontaneous dilivry (O80)	217,483	76	240,120	2	230,947	1
40 Slow fetal growth, fetal malnutrition and... (P05-P07)	6,827	726	6,790	743	6,927	759
41 Other conditions originating in the perinatal period	23,643	822	25,784	776	27,283	784
42 Congenital malformations deformations... (Q00-Q99)	11,286	467	11,905	538	12,215	568
43 Signs, symptoms and abnormal clinical findings (R00-R99)	257,438	1,767	307,347	1,541	325,016	1,829
44 Traumatic injuries (S00-T19)	548,471	1,637	619,150	1,227	667,663	1,389
45 Burns and corrosion (T20-T32)	11,998	337	12,452	317	13,117	292
46 Toxic effects of pesticides (T60.0,T60.1-T60.9)	15,640	1,270	16,276	1,242	16,575	1,148
47 Snake bites (T63.0)	36,727	134	39,693	100	39,230	91
48 Tox. effe. of ot. sub. oth tha.. (T36-T59,T61-T62,T63.1-T65)	35,249	381	37,804	455	44,585	413
49 Effects of unspecified external causes... (T33-T35,T66-T79)	20,626	57	23,970	71	27,097	74
50 Complications of surgical and medical care... (T80-T88)	4,194	32	4,631	22	4,878	9
51 Sequelae of injuries, poisoning and of other... (T90-T98)	3,876	5	3,481	22	1,842	1
52 Persons encountering health services.... (Z00-Z13,Z40-Z54)	167,716	-	221,419	-	263,154	-
53 Sterilizations (Z30.2)	5,997	-	10,177	-	7,634	-
54 Undiagnosed/Un-coded (245)	329,436	4,711	285,096	3,695	291,420	3,957
Total	3,914,316	37,833	4,426,666	36,345	4,570,942	38,550

Source: Annual Health Statistics

All the statistics in this bulletin covered only the Government Hospitals and other Government Health Institutions and this bulletin is a summary of health statistics. "Annual Health Bulletin" and "Annual Health Statistics" are the annual publications for the detailed statistics on health.