

# The hospital system in Sri Lanka

## Shortcomings and remedies

by

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**T**he origin of hospitals can be traced back to about the sixth century B.C., in places far apart both in the West and the East.

In ancient times the hospitals were symbiotic with religions and beneficent rulers since patient-care was recognised as a noble, meritorious act.

In Sri Lanka they were associated with Buddhism and with the kings who ruled the country. King Dutugemunu, 160 B. C. is recorded to have maintained hospitals in 18 places. King Buddhadasa in 341 A.D., not only provided hospitals for men and animals, but as history and legend have it, himself practised medicine and surgery.

From time immemorial, hospitals have occupied a prominent place in the health service systems and the economies of all societies. Hospital services are indispensable for patient-care.

In Sri Lanka the systems of medicine practised, to varying extents, include Western (Allopathic), Ayurvedic, Unani, Sidda and Homeopathy. The government support is mainly for the Western medicine sector which amounts to almost 95% of the government expenditure on health with the balance support for the Ayurvedic sector. The private health sector has practitioners in almost all types of medicine with more stress on the western medicine.

In the developing economy of Sri Lanka where the welfare factor makes a sizeable dent into the state coffers, the hospital system too is one sector that is heavily dependent on state funds.

The government contribution to the health sector at present stands at 5% of the total government expenditure. A review of data from 1970 to date pertaining to public investment in health reveals that as a percentage of the

GDP it has ranged from 1.5 to 1.8 (1995).

Despite the low GDP, the health indicators of the country are better than those of even some of the more developed countries of the world.

Table 1 shows the health indicators of a few selected countries for the purpose of comparison.

Figure I and II show improvements observed in the death rates, maternal and infant mortality rates within the past several decades.

Almost all countries experienced a steady increase in the costs of health care over the past three to four decades for numerous important reasons. One obvious reason is the marked improvement in the sphere of curative methods as against palliative care. Medico-technological advances have made rapid strides but involving heavy financial investments.

Table - 1

Health indicators of certain countries (early nineties)									
	No. of persons per doctor	Hospital beds per doctor	% of total Central Government expenditure	% of Children having acceptable weight for age.	Life expectancy at birth (years)	Infant mortality rate (/ 1000 live births)	Maternal mortality rate (/ 100,000 live births)		
					94	94	94		
Sri Lanka	3,992	9.7	4.80%	42%	72	24	16	-	30
India	2,162	1.8	4.08%	39%	-	88	70	400	437
Nepal	12,612	5.3	4.70%	38%	54	-	95	2000	-
Bangladesh	12,500	2.7	4.80%	45%	55	57	108	81	887
Myanmar	3,345	2.5	6.80%	71%	-	58	-	80	518
S. Korea	417	5.4	8.00%	95%	71	71	-	12	30
United Kingdom	581		13.00%	98%	76	76	-	12	25

Source:

# HEALTH

• Budget  
Tentative Capital Budget Estimate (1998 to 2002)

Description	1998	1999	2000	2001	2002	Total
	Rs.'000	Rs.'000	Rs.'000	Rs.'000	Rs.'000	Rs.'000
1 Construction of Buildings	284,100	467,500	326,000	483,500	157,500	1,718,600
2 Acquisition of Equipment.	194,300	88,000	35,250	51,750	16,500	385,800
3 Rehabilitation and Improvement of Capital Assets.	9,800	12,800	3,000	4,450	1,450	31,500
<b>Total :</b>	<b>488,200</b>	<b>568,300</b>	<b>364,250</b>	<b>539,700</b>	<b>175,450</b>	<b>2,135,900</b>

Source : Five Year Medium Term Plan  
The National Hospital of Sri Lanka 1998-2002

The conflict in the North and East renders it impossible to obtain accurate statistics regarding the hospitals islandwide. According to the available statistics there are 514 state hospitals and 76 private hospitals in Sri Lanka. So far as bed accommodation is concerned, the total bed strength in state hospitals is 48,061 and in the private sector 1,886 with 1,018 in Colombo. There are only 317 beds on a private fee - levying treatment basis in state hospitals of which 218 are in Colombo. Other districts with a reasonable number of beds in the private sector or on a fee-levying basis in the public sector are Kurunegala, Matara, Kandy and Galle. There are no such facilities in Nuwara Eliya, Hambantota, Mannar, Vavuniya, Mullaitivu, Ampara, Trincomalee, Anuradhapura, Polonnaruwa and Monaragala.

On an average there is a state hospital bed for every 375 persons in the community. However in Trincomalee and Vavuniya one state hospital bed is available for 600 people and the corresponding figure in Mullaitivu is even worse, a bed for 1,000 people.

A study of the distribution of general practitioners in the private sector shows that of the total of 900 practitioners (approximate) nearly 50% are in Colombo and many districts are not

served by general practitioners. Of the 558 Specialist Consultants (1995) in the public sector 41% are in Colombo, 12% in Kandy, 11% in Gampaha and 8% in Galle.

The figures are self-explanatory in that both public as well as private sector health facilities are concentrated in Colombo and around the main cities. In-patient and out-patient attendance at the government hospitals are tabulated below Refer Tables 3, 4, 5, 6, & 7

In 1995, Cancer Hospital, Maharama had the highest occupancy rate (123) followed by the Mental hospitals

(117). There is a definite overutilization at major hospitals and specialised hospitals and a gross underutilization at small hospitals below the level of base hospitals.

In 1995, there had been 349,596 live births in Sri Lanka, of which 297,949 (85.2%) were in government hospitals. The breakdown hospital-wise is tabulated below.

All these services are not available in all government hospitals. The network of curative institutions ranges from central dispensaries providing out-patient care to sophisticated teaching hospitals with specialised services. The distinction between hospitals is basically on the space available and the range of facilities provided. There are three levels of curative care institutions.

The central dispensaries, maternity homes, rural hospitals, peripheral units and district hospitals are primary health care institutions. The base hospitals and provincial hospitals are secondary care institutions and the teaching hospitals and the special hospitals are tertiary care institutions

## Problems, issues and remedies

The Health Service in Sri Lanka compares best with those of other countries of similar economic status. However, several problems and issues remain unsolved in this system, mainly with regard to the curative services.

Table 2

Year	In-patient and out-patient attendance and rate per 1000 population per year (1991 - 1995)			
	In-patients treated		Out-patients attendance (excluding clinics)	
	Number '000	Rate	Number '000	Rate
1991*	2,629	178.6	28,575	1,940.9
1992	3,029	173.7	36,827	2,115.9
1993	3,174	180.1	36,656	2,080.5
1994	3,204	179.3	35,276	1,974.6
1995**	2,953	179.3	32,084	1,947.7

Source: Medical Statistics Unit.

Excludes :

\* Northern and Eastern Provinces

\*\* Jaffna, Kilinochchi, Mullaitivu and Ampara districts

Table 3 gives the bed occupancy rates of different hospitals (1995).

**Table 3**

Bed occupancy rates of different hospitals (1995)		
Hospital category	No. of institutions	Bed occupancy rate
Teaching hospitals	12	89.0%
Maternity hospitals	02	84.0%
Provincial hospitals	06	97.0%
Base hospitals	24	88.0%
District hospitals	145	56.0%
Peripheral units	110	57.0%
Rural hospitals	121	44.0%
CD & MH	78	3.0%
Other hospitals	16	---
Total	514	

**Table 4**

Distribution of live births in government hospitals in 1995			
	No.	%	
Teaching hospitals	55,001	18.46%	67.0%
Maternity hospitals (02)	29,497	9.90%	
Provincial hospitals	51,009	17.12%	(A VOG is available in these hospitals)
Base hospitals	64,118	21.52%	
District hospitals	65,101	21.85%	
Peripheral units	21,065	7.07%	
Rural hospitals	9,326	3.13%	
CD & MH	2,832	0.95%	
Total	297,949	100.0%	

The distribution of medical, nursing and paramedical personnel is given in Table 5

**Table 5**

The distribution of medical, nursing and paramedical personnel (1995)		
	No.	Rate per 100,000 population
Medical Officers	4,627	25.5
Dental Surgeons	421	2.3
Registered/Assistant Medical Practitioners	1,376	7.6
Nurses	13,403	74.0
Public Health Nursing Sisters	174	1.0
Public Health Inspectors	949	5.2
Pharmacists	627	3.5
Radiographers	245	1.4
Medical Laboratory Technologists	620	3.4
Physiotherapists	175	1.0
ECG Recordists	100	0.6
EEG Recordists	18	0.1
Public Health Midwives	4,383	24.2
Hospital Midwives	2,288	12.6
Dispensers	617	3.4

Source: Medical Statistics Unit

## Overcrowding and underutilization

One of the key issues of the existing health care system is overcrowding of major hospitals whilst small hospitals are underutilized (Table 3). One main reason for this situation is the shortage of manpower, equipment and drugs in small hospitals. If the facilities could be provided at their doorstep, it is likely that the people would not hesitate to use them. It is necessary to equip well all these hospitals and appoint the necessary staff to man them. A proper referral system should be formulated so that major hospitals would not be burdened with patients that could have been managed at the primary care level. It is also essential to strengthen the back-referral system, which to be effective should have a sufficient flow of information and guidance to the practitioners of local hospitals, to provide efficient follow-up care to such patients. Initially the services of provincial hospitals could be restricted to the residents of the respective provinces and a referral letter should be made compulsory for patients seeking treatment from hospitals outside their province, except in case of emergencies.

## Manpower shortage

Shortages in all categories of staff are evident in all hospitals. The approved cadre for nursing officers at the National Hospital of Sri Lanka is 1,825, whereas only 1,400 nursing officers are available at present. The situation is the same with several other categories and with other hospitals. The availability of different categories of staff per unit of 100,000 population is given in Table 5. Apparently the present cadre strength is grossly inadequate to provide a reasonable service to the community. This is more so in case of specialist consultants (Table 6).

The accidents and trauma are on the increase at present. Though the general surgeons may be just enough, the four neuro surgeons and the ten orthopaedic surgeons are not adequate at all to meet the increasing demand. With regard to the other specialities too, it is more or less the same. This is a problem that has to be addressed immediately both with short-term and long-term approaches.

A cadre of recommended specialists should be worked out for base hospitals, provincial hospitals and teaching

Specialist consultants, population ratio is given in Table 6.

Table 6

Specialist consultants, population ratio (1995)		
	No.	Ratio (people per consultant)
General Physicians	82	219,512
General Surgeons	70	257,143
Obstetricians and Gynaecologists	77	233,766
Cardiologists	12	1,500,000
Neurologists	06	3,000,000
Dermatologists	11	1,636,364
Rheumatologists	07	2,571,429
Psychiatrists	33	545,455
Paediatricians	53	339,623
T. B. and Chest Physicians	04	4,500,000
ENT Surgeons	15	1,200,000
Eye Surgeons	26	692,308
Paediatric Surgeons	06	3,000,000
Orthopaedic Surgeons	10	1,800,000
Plastic Surgeons	04	4,500,000
Genito-Urinary Surgeons	03	6,000,000
Neuro - Surgeons	04	4,500,000
Cardio - thoracic Surgeons	07	2,571,429
Anaesthesiologists	44	409,091
Pathologists	21	857,143
Bacteriologists/Microbiologists	05	3,600,000
Biochemists	06	3,000,000
Radiotherapists/Oncologists	15	1,200,000
Radiologists	24	750,000
Others	13	1,384,615
Total	558	

hospitals. eg. A base hospital should have.

Physicians	- 2
Surgeons	- 2
V. O. G.	- 2
Paediatricians	- 2
Anaesthetists	- 2
Pathologists	- 2
Eye Surgeon	- 1
E. N. T. Surgeon	- 1
Dermatologist	- 1
Radiologist	- 1

Provincial hospital could have in addition the services of an orthopaedic surgeon, neuro surgeon, neurologist, histopathologist, physician with special interest in nephrology.

It was mentioned earlier that general practitioners available in the community are inadequate and many districts are not served by general practitioners. This had resulted in a large number of unqualified persons practising medicine in such districts. Unpublished data suggest that the total number of such personnel can be as

high as 30,000. Unqualified practitioners not only prescribe unnecessary drugs, but also create undue delay in patients getting the proper treatment, thereby aggravating the illness. Steps should be taken to ban unqualified personnel practising medicine.

#### Shortage of equipment

This is an area which needs heavy capital injection to rectify the situation. Achievements in medico-technology are so rapid and advanced that new inventions are brought forth almost overnight. It would be really impossible for a developing nation like Sri Lanka to keep pace with such trends. Yet some arrangement is necessary to provide the services of these machinery and equipment at least to a certain extent. eg. a MRI scanner cost about 40 - 50 million rupees and a modern CT scanner will cost about Rs. 15 to 20 millions.

Similar to specialists, there should be a list of special equipment recommended for each category of hospitals.

For example, a district hospital should have facilities to do blood counts, urine examinations, blood urea, serum electrolytes, blood sugar, serum bilirubin, liver enzymes, X-rays and ECG. A base hospital in addition should have scanning and X-ray screening facilities and provincial hospitals should have endoscopic facilities.

The shortage of equipment is also the result of frequent breakdown of equipment due to lack of preventive maintenance.

Each hospital or group of hospitals should have technicians trained for maintenance and repairs. Except the Bio-Medical Engineering Service division based in Colombo, no other system is available to the hospitals islandwide.

A systematic, regular maintenance of the available vital major equipment such as anaesthetic machines, ventilators, cardiac monitors, blood gas analysers, haemodialysis equipment, X-ray machines and CT and MRI scanners is a badly felt need. All such valuable equipment on purchase should have an extended guarantee and a service agreement including conditions for the supply of necessary spares, valid for more than 5 yrs (5 to 10 yrs).

#### Automating the management functions

The hospitals in Sri Lanka still continue with the old record keeping systems, and retrieval of information about patients is extremely difficult at present. This also results in duplication of work when the same patient gets admitted to the hospital several times with a similar complaint. The information system of all the hospitals should be upgraded and automating the management functions of at least the leading hospitals in the country deserves serious attention.

#### Private health care facilities

As described earlier the total number of beds in the private sector is 1,886 and paying beds in the public sector is 317. This is also limited to Colombo and a few other major cities. With several attractive insurance and medical schemes in which there are provisions for the payment of hospital bills, the number of beds available on a

fee levying basis is hardly adequate and as a result patients who could afford to pay are compelled to seek free treatment at the public sector hospitals. More paying wings in the major state hospitals and the expansion of services in the private sector will help to ease the congestion at government hospitals.

At present the income generated at the paying wards of the hospitals is directly credited to the Consolidated Fund of the Treasury. There is no incentive scheme for the health personnel to boost this activity. Like in the Customs Dept. there should be some encouragement to the staff who earn revenue for the department. It is better to divert some of these earnings for the development of the hospital concerned.

### Lack of a system of home follow-up care in the public sector

The home follow-up care in the public sector at present is limited to the perinatal care provided by the midwives after childbirth. Home follow-up for other conditions could be provided only through the general practitioners working in the community. In such instances the patients have to pay for their services. The overcrowding of government hospitals can be reduced to a greater extent if this facility too is provided through the Ministry of Health.

To provide this facility the services of the M.O.H. and their assistants could be used. Patients who have received treatment for uncomplicated illnesses such as pneumonia, urinary tract infection, typhoid or after operations such as appendectomy may be reviewed at the M.O.H. clinics thus decreasing the workload of the specialised units.

### Labour unrest - disruption of the health services

In the recent past trade union activities have been observed in the public as well as the private institutions. The health service is not an exception. In many such instances it was observed that there had been no proper communication between the management and the aggrieved party before the latter resorted to trade union action. This was due to a multitude of reasons. It is extremely essential for the adminis-

tration to have a continuous dialogue with all the relevant trade unions and the professional bodies to obtain their support and co-operation to maintain the services. Health care sector is a very sensitive area and also the bargaining power of the employees in this sector is extremely high and one cannot overlook their capacity to completely paralyse this essential service.

As health care personnel are an extremely important category of public servants, their problems should attract immediate attention and every possible attempt should be made to solve them without undue delay.

To minimise the inconveniences to the public in such situations, the public sector should have an alternative arrangement to utilise the private sector and possibly the health units of the armed forces. However, if the medical personnel including the consultants are involved in such protest activities as 'go-slow', 'work-to-rule' or 'not reporting for duty' the government runs into a serious impasse for the simple reason that replacements are not available even for a short while. Hence, the way out is constant communication between the two parties and the realisation that what is at stake is human life.

### Prioritisation and rationing

Considering the inexorable rise in the costs of health care, governments all over the world have sought ways of controlling it. Consideration has been given to cost containment, efficiency and efficacy which had led to prioritisation and rationing.

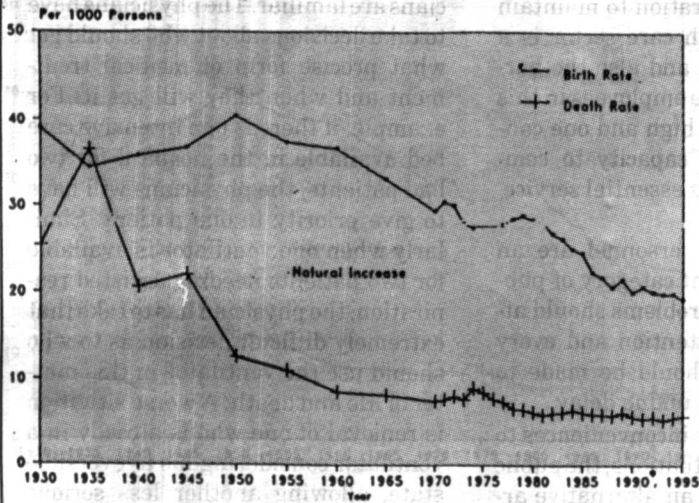
Table 7 gives the specialised services available in Govt. hospitals.

Table 7

#### Specialised services available in hospitals

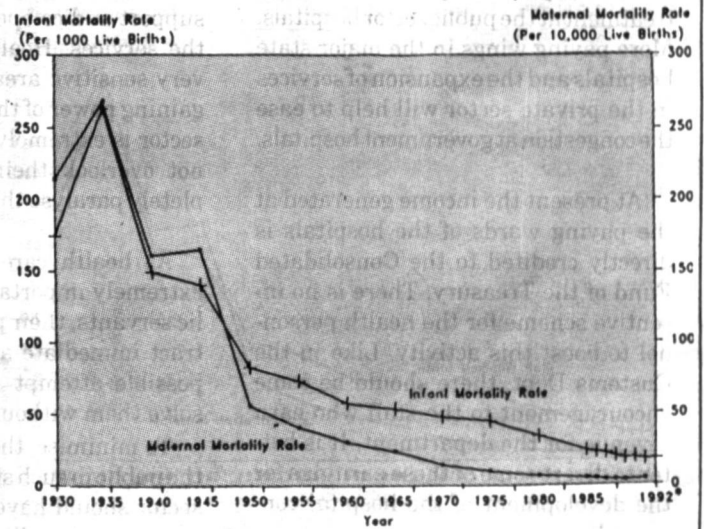
Anaesthesia and Intensive Care	Neurosurgery
Burns	Obstetrics and Gynaecology
Cardiology	Oncology
Cardio-thoracic Surgery	Orthopaedic Surgery
Dental Surgery	Oto-Rhino Laryngology (ENT)
Dermatology	Paediatrics
Eye Surgery	Paediatric Surgery
General Medicine	Pathology
General Surgery	Plastic and Reconstructive Surgery
Genito-Urinary Surgery (Urology)	Psychiatry
Neonatology	Radiology
Nephrology	Rheumatology and Rehabilitation
Neurology	Vascular Surgery

**Fig.1 - VITAL STATISTICS**  
(BIRTH AND DEATH RATES): 1930 - 1995



Source: Registrar General's Department

**Fig.1# - VITAL STATISTICS**  
(MATERNAL AND INFANT MORTALITY RATES): 1930 - 1992



\* Provisional

has two distinct meanings. Firstly, it refers to the distribution on the basis of specific criteria of resources which are in short supply in circumstances where the needs of the recipients are generally uniform.

For example, all patients who need to be dialysed for the rest of their life may need two sessions of dialysis per week (or 8 per month). The hospital may decide to provide one per week free of charge allowing them to get the balance at their expense.

Secondly, rationing can mean deliberately restricting access to needed and potentially beneficial resources on the ground of cost alone.

For example, when there are two regimes of treating a particular disease (eg. AIDS), one which is expensive and the other less expensive but has limitations, a decision may be taken to provide all such patients with the low cost regime.

As one would see, rationing is a more emotive process and the physicians tend to get into conflict with ethical issues, and it may also have a psychological impact on the physician.

The hospitals have no alternative but to engage in prioritising and to a certain degree rationing. Policy decisions or guidelines on these matters are imperative since these problems are likely to become intricate legal issues.

Certain types of medical interventions now carried out in government hospitals, cost a large sum of money. Among the expensive interventions available for patients are Coronary Artery Bypass Grafting (recurrent cost to the government in public hospitals is around Rs. 125,000/= without adding the fixed costs), Renal Transplantation (Rs. 400,00/= plus additional charges for dialysis), routine dialysis for chronic renal failure (about Rs. 250,000/= per patient per year), treatment for Thalassemia (about Rs. 150,000/= per year) and total hip replacement (prosthesis alone cost Rs. 130,000/=).

Facilities for bone marrow transplant are not available in Sri Lanka and they are available in our neighbouring country, India, at a cost of Rs. 1.5 - 2.0 millions. Most of our patients cannot afford this type of expensive procedures, unless they have the benefits of an insurance or other medical scheme.

Clear cut indications should be laid down for such expensive procedures, so that the waste of resources could be minimised. eg: Regular dialysis of chronic renal failure, free of charge in government hospitals, could be limited to those who have a definite plan for renal transplant and/or the patients who are below the age of 70 yrs. Such guidelines should be incorporated in the National Health Policy, without

leaving room for individual physicians to decide on such matters.

This will not only create a fair and just health care system, but also protect the physicians from allegations and possible litigations.

### Present pressing needs

This overview inter-alia highlights the general needs of the health system in Sri Lanka. The disturbances in the North and East for the past 10 to 15 years warrant a rethinking of the services - supply systems, the health care services in particular. The following factors may be taken into consideration as a short-term basis.

- (1) The budgetary restrictions on all the welfare services including the health care services at least temporarily.
- (2) Provision of health care to war-stricken areas
- (3) Provision of health facilities on a priority basis for soldiers getting injured in the battlefield.
- (4) Preparedness for civil disturbances, industrial disasters and other natural and man-made catastrophes and
- (5) Rehabilitation of war victims including soldiers.