

# Health Master Plan

No.

MINISTRY OF HEALTH, NUTRITION & WELFARE,  
THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA (MOH)  
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MASTER PLAN STUDY FOR STRENGTHENING HEALTH SYSTEM  
IN THE DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

VOLUME II  
**ANALYSIS, STRATEGIES  
AND PROGRAMMES**



**HEALTHY & SHINING ISLAND IN THE 21ST CENTURY**

**FINAL REPORT**

NOVEMBER 2003  
PACIFIC CONSULTANTS INTERNATIONAL

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The following foreign exchange rate is applied in the study:  
US\$ 1.00 = 95 Sri Lanka Rupees (as of November 2003)

**Message from Vice President,  
Japan International Cooperation Agency (JICA)**

In response to a request from the Government of the Democratic Socialist Republic of Sri Lanka, the Government of Japan decided to provide technical cooperation for establishing of a health master plan which will be effective for the next decade for the improvement of the health system in Sri Lanka. JICA selected and dispatched the study team headed by Dr. Katsuhide Nagayama of Pacific Consultants International to Sri Lanka between March 2002 and November 2003.

I am pleased that the Health Master Plan, presented herewith by Ministry of Health, Nutrition and Welfare, was a fruit of close collaboration with the Study Team. I hope the Health Master Plan, whose ownership is assured by Ministry of Health, Nutrition and Welfare, will contribute to the promotion of the health system in Sri Lanka.

Finally, I wish to express my sincere appreciation to all the officials concerned of the Government of Sri Lanka for their enthusiastic effort exhibited in the process of formulating the Health Master Plan.

November 2003

**Kazuhisa Matsuoka**

Vice President

Japan International Cooperation Agency

November 2003

Mr. Kazuhisa MATSUOKA  
Vice President  
Japan International Cooperation Agency  
Tokyo, Japan

## **Letter of Transmittal**

Dear Sir,

We are pleased to formally submit herewith the Final Report of “The Master Plan Study for Strengthening Health System in the Democratic Socialist Republic of Sri Lanka.”

This report compiles the results of the Study which was conducted from March 2002 through November 2003 by the Study Team organized by Pacific Consultants International under the contract with JICA.

The report compiles the Sri Lanka Health Master Plan covering both reform and development of the health sector in Sri Lanka. The plan consists of 1) vision, goals and objectives; 2) overall basic strategies; 3) frameworks for health sector reform and development; and 4) priority programmes.

We would like to express our sincere gratitude and appreciation to the officials of your agency and the JICA advisory Committee. We also would like to send our great appreciation to all those who extended their kind assistance and cooperation to the Study Team, in particular to the Ministry of Health, Nutrition & Welfare and provincial/district health officials concerned.

We hope that the Master Plan will be able to contribute significantly to the improvement of the health sector and development in Sri Lanka.

Very truly yours,

Katsuhide NAGAYAMA, Ph.D

Team Leader,

Master Plan Study for Strengthening Health System in  
the Democratic Socialist Republic of Sri Lanka

# PREFACE

The outcomes of the Sri Lanka Health Master Plan Study, for which efforts were made from November 2001 through September 2003, are compiled in six volumes of reports prepared by the JICA Study Team in close collaboration with Ministry of Health, Nutrition and Welfare.

The Health Master Plan addresses government policies and strategies based on such a long-term vision that the health service delivery system shall be improved for all people in Sri Lanka, regardless of sex, age, ethnicity and economic class. Necessary actions are delineated to achieve the vision in forms of programs and projects in the next decade time horizon. The Master Plan espouses the slogan *“Healthy & Shining Island in the 21<sup>st</sup> Century”*. This implies a hope that Sri Lanka will become a healthier, more secure and more liveable nation where all people can enjoy their vividly shining lives, overcoming latent constraints and difficulties lying on the currently transitional health situation in terms of demography and epidemiology. To this end, the Master Plan underlines an innovative challenge required by not only the government sector but also each community and individual.

This section provides with a general insight into the basic structure of the Master Plan, explaining:

- Structure of the Final Report;
- Synopsis of the Strategic Framework; and
- Profile of the Health Master Plan Study.

## A. STRUCTURE OF THE FINAL REPORT

Health Master Plan (HMP). The HMP is composed of three volumes and three supporting documents (Table A.1).

**Table A.1 Six Documents of the Health Master Plan**

Volume Number	Title
I	HMP Summary
II	HMP Analysis, Strategies, and Programmes
III	HMP Project Profiles
Supporting Document I	HMP Situational Analysis
Supporting Document II	HMP Surveys and Study Datasets
Supporting Document III	HMP Maps

### **Volume I**

This volume contains the main message of the Health Master plan (2004-2015). It summarizes the analytical framework of the health sector, the identified issues based on the analysis of the situation, the planning framework, the strategic objectives and approaches, and the policy recommendation for the implementation of the Health Master Plan.

**Volume II**

This volume presents the direction of the health sector of Sri Lanka by the strategic framework and describes the strategies and programmes/projects to achieve the strategic objectives of the health sector in the next 11 years. The aim of this particular discussion is to serve as a guide to future health development efforts.

**The Basic Frame of the HMP Volume II;**

<b>Introduction:</b>	<b>Key Principles in the Institutional Reform and in the Service Delivery Reform,</b>
<b>Part 1:</b>	<b>Situation Analysis and Identified Institutional Challenges, Future Perspective of Health Needs and Demands, and</b>
<b>Part 2:</b>	<b>Strategic Framework and Programs, and</b>
<b>Part 3:</b>	<b>Principles towards Implementation.</b>

**Introduction:** Key Principles in the Institutional Reform and in the Service Delivery Reform, discusses the future direction of the health sector in this country based on the global trends and experiences and lessons learned in other countries. The analyses lay out the scientific evidence of health transition along with the demographic, social and economic transition happening in this country, and also points out the fact that Sri Lanka is now at the turning point of low-cost service demands to high-cost service demands at the turn of the 21st century. The country's health services will soon face enormous financial gaps and their manipulation by any self-coping mechanisms would inevitably fail.

**Part 1:** Situation Analysis and Future Perspective of Health Needs and Demand, shows the evidences to prove the conclusion of the first part.

**Part 2:** Strategic Framework, discusses the strategic objectives of the health sector in the next 11 years and shows the strategic approaches to achieve these objectives by coming up with Strategic Programs. The Strategic Programs are divided into five areas, namely: Health Service Delivery, Community Empowerment and Client Satisfaction, Human Resource Development, Financing, Resource Allocation & Utilisation, and Stewardship & Management of the Health Sector. In each area, comprehensive programs are formed to achieve each sub-sector objectives.

**Part 3:** Principles Toward Implementation, lays out the steps towards implementation after drawing up the HMP. The steps are Platform Building for Political Endorsement of Policy Recommendations, Institutionalisation for the Master Plan, Social Mobilisation/Sensitisation, Formulation of Action Plan for Priority Programs/Area, Political Decision-making for the Implementation, Capacity Building for Program Management, Resource Mobilisation, Program Implementation, Monitoring/Supervision of the Implementation, and Evaluation. In Chapter 14, the policy recommendations as a base of implementation are spelled out in detail.

The HMP is a rolling plan and a midterm review will be necessary to evaluate the output of activities and make corrections on the plan according to the evaluation. Priority Projects are identified in the first five-year timeframe to achieve the five-year objectives in the long-term perspective of 10 years. The first mid-term review is expected to take place in 2006.

### **Volume III**

The priority projects mentioned in Vol. II above are the subject of this volume. The profile for each project provided herein contains a Project Summary and the following items:

- 1) Project Title
- 2) Project Number
- 3) Project Priority
- 4) Focal Point
- 5) Implementing Agencies
- 6) Starting Fiscal Year
- 7) Project Duration
- 8) Target Areas and Beneficiaries
- 9) Justification
- 10) Important Assumptions/Risks/Conditions
- 11) Project Objective – including indicators and means of verification
- 12) Project Output/product – including indicators and means of verification
- 13) Related Projects – including ongoing projects and projects under the Health Master Plan
- 14) Relevant Agencies to be Coordinated
- 15) Monitoring and Evaluation
- 16) Major Activities – including expected results and process indicators

### **Supporting Document I**

Supporting Document I, Situational Analysis, contains the review and analysis of present conditions of health sector in Sri Lanka. The structure of the volume is as follows.

- 1) Situation Analysis: Its Framework

This chapter describes “research issues” which lead to the discussion of the following chapters.

- 2) The External Environment and its Effects on Health and Health System

This chapter analyses various external environments and their effects on health in this country. These external environments are geography, socio-cultural environment, politics, policies and government, economics, and various marginalised groups.

- 3) Health system Activities

This chapter analyses the existing activities of the public allopathic sector and indigenous systems of medicine and private sectors. It encompasses the broad spectrum of activities - preventive, promotive, curative, rehabilitative and social services.

- 4) Management of Resources for Health

This chapter examines the management of the following resources: Human Resources, Drug, Medical Equipment, Physical Facility, Funds, and Foreign Aid.



5) Stewardship of the Health Sector

This chapter deals with the stewardship function of the MoH. These functions are policy formulation, planning, priority-setting and resource allocation, regulation, legislation, accountability, M&E, coordination, public/private partnership, information generation, dissemination and use, and resource and research management.

6) North and East Provinces

This chapter looks into the situation of health in N&E Provinces. The existing issues and the transitional strategies are identified.

7) Assessment of the Health System

This chapter analyses and assesses the health sector from the various dimensions of health outcome, responsiveness and patient satisfaction, fairness in financing and equity, quality and safety, and efficiency.

8) Health Transition and Future Health Needs and Demands

The chapter discusses the demographic transition and health transition in Sri Lanka and their implication on the service demands. In addition, the future health expenditures are projected by macro and micro approach for the next 10 years.

9) Opportunities for Consensus Building

This chapter discusses the consensus building within and without the health sector which is a key element in the implementation phase of the master plan. In order to do this, the planners need to consider the following: 1) Lessons learned from previous health sector program, 2) the stakeholders' involvement, and 3) public opinion.

10) Conclusions

This chapter provides answers to the "Research Issues" described in Chapter 1.

### **Supporting Document II**

Supporting Document II: Surveys and Study Datasets, contains the activity records and outputs of surveys/review works/consultation meetings with stakeholders.

Twenty-five (25) surveys were carried out during the first phase of the study and the survey results are summarized in this volume.

### **Supporting Document III**

Supporting Document III, HMP Maps, compiles Maps of GIS (Geographic Information System) database on health facilities and health indices, and the Dataset.

## **B.** SYNOPSIS OF THE STRATEGIC FRAMEWORK

The major planning issues are:

- 1) Incomplete decentralization of the health sector
- 2) Lack of Monitoring & Evaluation mechanism
- 3) Insufficient management capacity at all levels
- 4) Compartmentalized functions at the central MoH
- 5) Weak intersectoral coordination on some important health issues
- 6) Weak coordination mechanism with other health sectors such as private sector and Indigenous Medicine sector
- 7) Weak coordination mechanism of Human Resource Development Functions at the central MoH level
- 8) No integration of curative and preventive services at any levels
- 9) No mechanism for people to participate for monitoring of services
- 10) Financial constraints in preventive services and primary level health care services.

The Vision, Mission and Goal of the Master Plan are:

### ***VISION:***

**A healthier nation that contributes to its economic, social, mental and spiritual development**

### ***MISSION:***

**To achieve the highest attainable health status by responding to people's needs, working in partnership, to ensure access to comprehensive, high quality, equitable, cost-effective and sustainable health services**

### ***GOAL:***

**A strengthened health system that strives for excellence to improve the health outcomes of the people in Sri Lanka**

The vision of improving the health status of the people will be achieved through addressing the following strategic objectives:

- 1. To improve comprehensive health services delivery and health actions, which reduce the disease burden and promote health;**
- 2. To empower community towards more active participation in maintaining and promoting their health;**
- 3. To improve the management of human resources for health;**
- 4. To improve health finance mobilisation, allocation and utilisation; and**
- 5. To strengthen stewardship and management functions of the health system.**

Figures B.1 and B.2 are diagrammatic representations of the dynamic relationships among the Strategic Objectives.

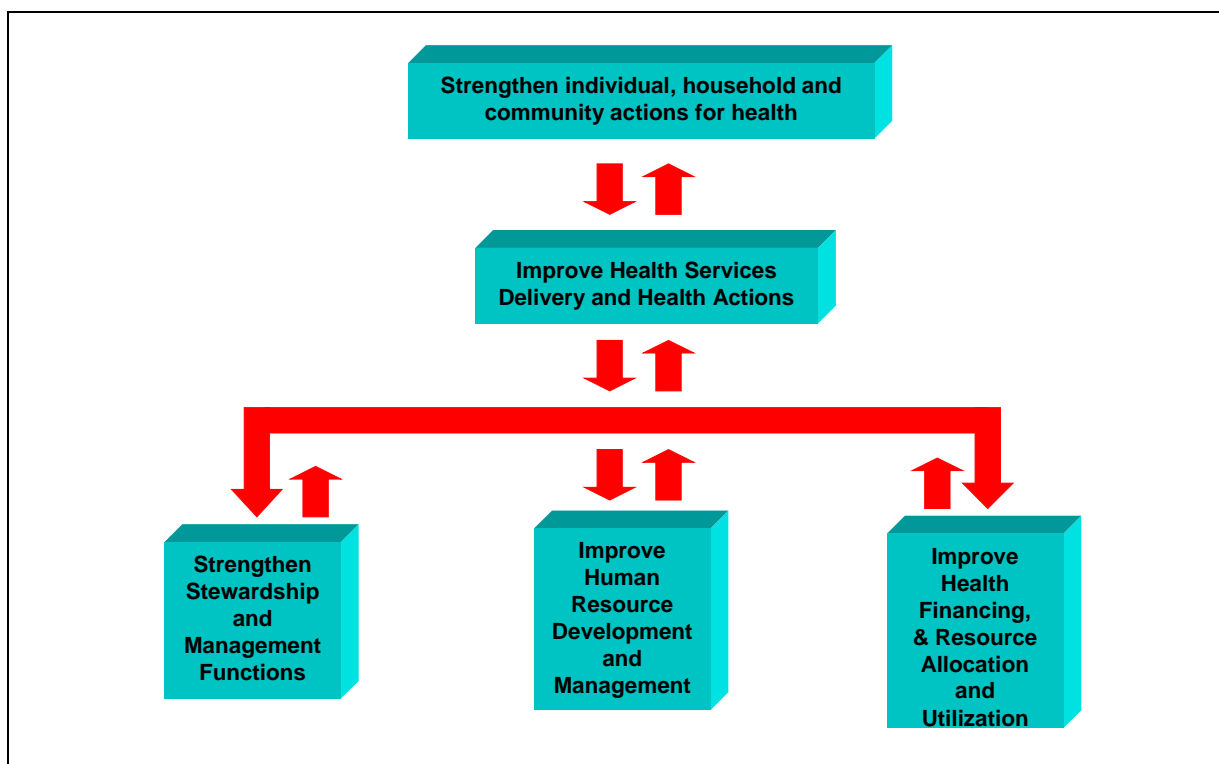


Figure B.1 Inter-relationships among the Five Strategic Objectives

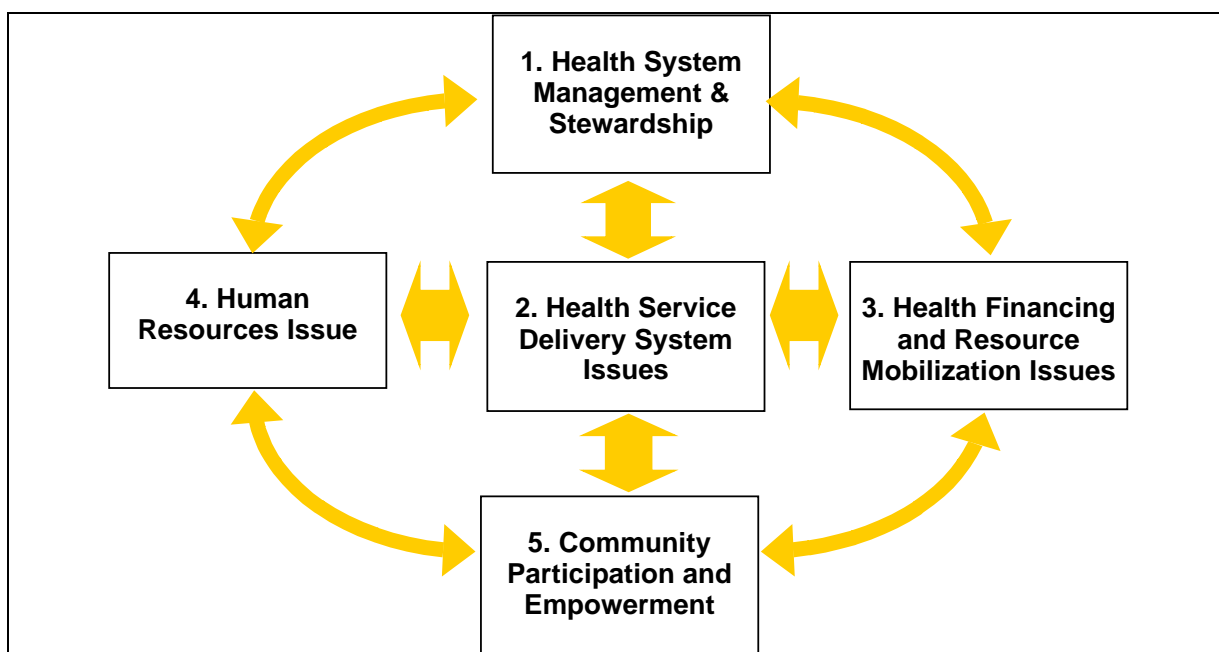


Figure B.2 Inter-relationships among the Five Strategic Objectives

## C. PROFILE OF THE HEALTH MASTER PLAN STUDY

### (1) Background

In response to the request of the Government of Democratic Socialist Republic of Sri Lanka (hereinafter referred to as “GOSL”), the Government of Japan (hereinafter referred to as “GOJ”) decided to finance a “Master Plan Study for Strengthening of the Health System in the Democratic Socialist Republic of Sri Lanka” (hereinafter referred to as “the Study”).

The Japan International Cooperation Agency (hereinafter referred to as “JICA”) is the official agency responsible for the implementation of technical cooperation programs of the GOJ. On November 9, 2001, it undertook the Study in close cooperation with GOSL authorities based on the Scope of Work agreed upon between the JICA Preparatory Study Team and the GOSL, represented by the Ministry of Health, Indigenous Medicine and Social Services. According to the official regulations on consultant procurements, JICA selected Pacific Consultants International for the Study Team, headed by Dr. Katsuhide Nagayama, and dispatched the Study Team to Sri Lanka.

The Ministry of Health, Nutrition & Welfare (hereinafter referred to as “MoH”) acts as the Counterpart Agency for the Study Team on behalf of the GOSL. The MoH is responsible for coordinating the implementation of the Study with other related government agencies, international donor agencies and international non-governmental organizations.

In the past, while the government of Sri Lanka pursued a policy of economic growth, equity has been emphasised as one of the primary concerns together with self-reliance. Even under the new economic policy the political commitment to equity remains.

The public health sector has provided not only basic but also higher-level health services and has built up an extensive network of health facilities. At the same time, private health providers have increased and flourished by attracting relatively affluent people residing in the greater Colombo area. As a result, Sri Lanka has achieved better health indicators than other comparable lower-middle income countries with relatively few resources.

However, it has become increasingly difficult to maintain this high performance with growing financial constraints and escalating prices for goods and services. The good performance contributed to the epidemiological transition; statistics show that more and more people are suffering from chronic diseases. With continuously declining mortality rates in association with lowered fertility, the national average life expectancy is expected to be at the level of the industrial countries by 2020. The rapid increase of the ageing population will necessitate public health policy change

In light of these trends past health policies must be reviewed and new policies issued to facilitate the country’s continued progress in health in the opening decades of the 21<sup>st</sup> century.

### (2) Study Objective

The objective of the Study is to formulate a Master Plan for strengthening and improving the health system in Sri Lanka, by 2015.

### (3) Study Approaches

The Master plan Study has used four main approaches, to develop its work.

#### **Locally-Initiated and Owned**

The formulation of master plan was initiated by the Government of Sri Lanka asking the Government of Japan to give technical support in the process. The major steps to be taken to formulate the master plan were discussed and decided between MoH coordinators and JICA Study Team members. The question of fostering ownership has been discussed from the beginning of the study in order to ensure the Master Plan is adopted, advocated and implemented. This approach has been adopted throughout the planning work and promotes active participation of the MoH in the study. In conclusion, MoH and JICA have agreed to give authorship of the Master Plan to the Sri Lankans to increase the ownership and hopefully implementation of the plan.

### **Sector-Wide and Participatory**

The planning process adopted a sector wide and participatory approach in order to solicit various stakeholders' opinions and ideas. The Study Team held various meetings and workshops to involve all health sector stakeholders from the beginning of the study. These stakeholders represent not only the national level MoH, but also different levels of sub-national health officials, private sector medical practitioners, traditional medicine sector, researchers and professional groups, other Ministries such as Ministry of Finance, other donor agencies, NGOs and communities. The issues existing in the health sector were widely discussed among stakeholders; the process of discussion was organized in a systematic way to improve the efficiency of the study process

### **Building on Achievements and Lessons Learned**

In the 1990's, there were several health policy formulation exercises. Several different levels of plans were formulated, however, none of them have been implemented with any degree of consistency.

Lessons learned from the previous policies and plans are many. First, it is essential to involve key stakeholders in health sector in the planning process. Key stakeholders in health not involved in the planning would not be interested to implement the plans.

Second, previous experiences have taught that discussion and a participatory process are the best ways to address any significant policy changes. Again the discussions among key stakeholders are important because each stakeholder has different interests and information. There is a need to identify these differences in opinion and information and build consensus through further discussion. Without deep and serious discussion to minimize the conflict over policy issues, naturally it will not be easy to implement plans.

Third, it is necessary to have a proper monitoring system to ensure implementation. Measurable indicators of performance should be developed during the planning stage. The monitoring unit should be close to the planning unit and their activities need to be connected through a common flow of information

### **Evidence-Based Strategic Planning**

The Study team collected most of the existing secondary data and literature. The Study team also conducted over 20 surveys and studies of various health sector issues. The situation of the health sector was analysed by looking at the physical reality, by analysing existing data and information, and by analysing data that came out of extensive field surveys. The plan has been designed based on scientific evidence and data

The Study team found out that some concerns are not covered by any data collection or have poor quality data in the existing MOH information system. These findings are important as they identify aspects that need to be strengthened in the existing information system so that ongoing evidence-based decision-making becomes possible.

## **(4) Phases of the Study**

The Study for formulating the Health Master Plan was divided into three phases, namely:

- Phase I:** Review and Baseline Surveys of the Health Sector  
(April, 2002-September, 2002, 6 months)
- Phase II & III:** Formulation of a Master Plan  
(October 2002-August 2003, 10 months)

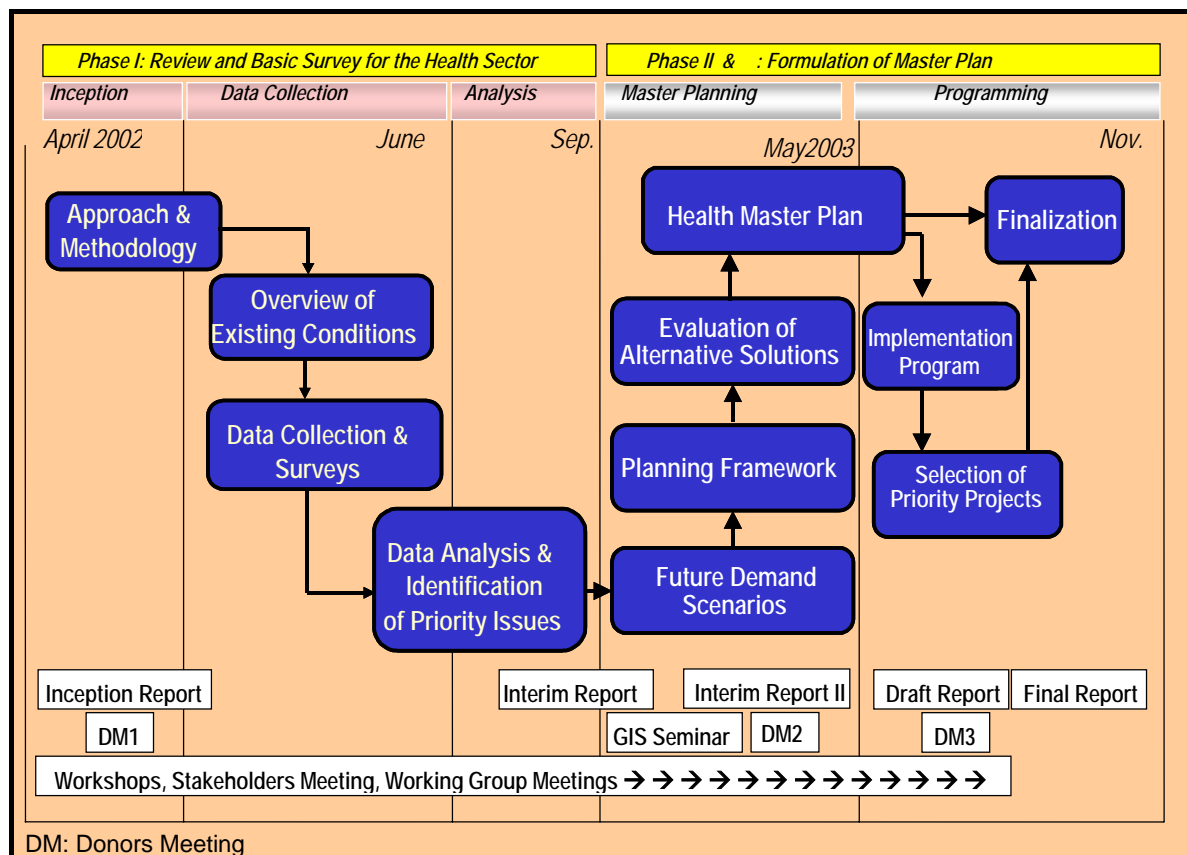


Figure C.1 Phases of the Study



Map of Sri Lanka



## ABBREVIATION AND ACRONYM

ACCDC	All Ceylon Community Development Council
ACD	Ayurvedic Classification of Diseases
ADB	Asian Development Bank
AHPB	Ayurveda Health Promotion Bureau
AHPO	Ayurvedic Health Promotion Officer
AIDS	Acquired Immune Deficiency Syndrome
ALOS	Average Length Of Stay
AMO	Assistant Medical Officer
AMP	Assistant Medical Practitioner
ANC	Ante Natal Care
ARF	Ayurveda Research Fund
ARI	Acute Respiratory Infections
ARTI	Acute Respiratory tract infection
BAMS	Bachelor of Ayurvedic Medical Science
BC	Before Christ
BES	Bio-Medical Engineering Services or BMES
BH	Base Hospital
BMARI	Bandaranayakie Memorial Ayurveda Research Center
BMES	Bio-Medical Engineering Services or BES
BOI	Board of Investment
BS	Birth Spacing
BSMS	Bachelor of Siddha Medical Science
BUMS	Bachelor of Unani Medical Science
CADR	Cardiographer
CBO	Community Benefit Organization
CBO	Community Based Organization
CBR	Crude Birth Rate
CC	Conciliation Committee
CD	Compact Disc
CD	Central Dispensary
CD & MH	Central Dispensary and Maternity Home
CDD	Control of Diarrhoeal Diseases
CDDA	Cosmetics, Devices and Drugs Act
CDR	Crude Death Rate
CEA	Central Environmental Authority
CFR	Case Fatality Rate
CFS	Consumer Finance Survey
CHDR	Child Health Development Record
CIC	Ceylinco Insurance Co, Ltd.
CIC-E	CIC Eagle Insurance Co. Ltd.
CIGAS	Computerised Integrated Government Accounting System
CME	Continuous Medical Education
CMR	Child Mortality Rate

COHRD	Council on Health Research for Development
CPC	Committee for Planning and Cooperation
CPD	Continuous Professional Development
CWC	Ceylon Workers Congress
D/MTS	Director Medical Technology and Supplies
DALY	Disability Adjusted Life Year
DDHS	Divisional Director of Health Services
DDT	Dichlorodiphenyltrichloroethane
DGHS	Director General of Health Services
DH	District Hospital
DHO	District Health Office
DM	Diabetes Mellitus
DMO	District Medical Officer
DoA	Department of Ayurveda
DP	Divisional Pharmacist
DPMU	Drug Processing and Manufacturing Unit
DQAL	Drug Quality Assurance Laboratory
DRA	Drugs Regulatory Authority
DS	Dental Surgeon
DS	Divisional Secretariat
D-SNO	Staff Nursing Officer working in District Hospitals
DTRU	Demography, Demographic Training and Research Unit, University of Colombo
ECCD	Early Childhood Care and Development
EmOC	Emergency Obstetric Care
ENHR	Essential National Health Research
EPDP	Eelam People's Democratic Party
EPF	Employees Provident Fund
EPI	Expanded Programme of Immunization
EPR	Emergency Preparedness & Response
ETU	Emergency Treatment Unit
EU	European Union
FA	Field Assistant
FAO	Food and Agricultural Organization of the United Nations
FHB	Family Health Bureau
FP	Family Planning
F-PHM	Field Public Health Midwife
GAHR	Government Ayurvedic Health Resort
GAP	Good Agricultural Practices
GDCF	Gross Domestic Capital Formation
GDP	Gross Domestic Product
GFCP	Good Field Collection Practices
GFR	Gross Fertility Rate
GH	General Hospital
GMOA	Government Medical Officers Association
GMP	Good Manufacturing Practices
GNP	Gross National Product
GOSL	Government of Sri Lanka
GP	General Practitioner

G-SNO	Staff Nursing Officer working in General Hospitals & Base Hospitals
GST	General Sales Tax
GTZ	German Technical Cooperation Agency
GWAI	Gampaha Wickramarachchi Ayurveda Institute
HC	Health Centre
HCW	Health Care Worker
HDR	Human Development Report
HEB	Health Education Bureau
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HRD	Human Resource Development
HSPI	Health Service Providing Institute
HSR	Health Systems Research
HVC	Health Vigilance Committee
IA	Impact Assessment
ICSL	Insurance Corporation of Sri Lanka
ICU	Intensive Care Unit
IDRC	International Development Research Center (Head Office locates in Ottawa, Canada)
IEC	Information, Education and Communication
InEC	Institutional Equipment Committee
IHD	Ischaemic Heart Disease
IIM	Institute of Indigenous Medicine
IK	Indigenous Knowledge
IMMR	Indoor Morbidity, Mortality Return
IMPA	Independent Medical Practitioners Association
IMR	Infant Mortality Rate
IP	Industrial Package
IPD	In Patient Department
I-PHM	Public Health Midwives working in hospitals
IPR	Intellectual Property Rights
IPS	Institute of Policy Studies
IPS HPP	IPS Health Policy Programme
ISM	Indigenous System of Medicine
JE	Japanese Encephalitis
JEDB	Janatha Estate Development Board
JICA	Japan International Cooperation Agency
JMO	Jurisdictional Medical Officer
JOCV	Japan Overseas Cooperation Volunteers
JVP	Janata Vimukti Peramuna
KAP	Knowledge, Attitudes and Practices
LAN	Local Area Network
LMP	Licensed Medical Practitioner
LSSP	Lanka Sama Samaja Party
LTTE	Liberation Tigers of Tamil Eelam
MC	Municipal Council
MCH	Maternal and Child Health
MCHC	Maternal and Child Health Centre

MDPU	Management Development and Planning Unit of MoH
MICR	Microscopist
MIM	Ministry of Indigenous Medicine
MIS	Management Information System
MLT	Medical Laboratory Technologist
MO/ MCH	Medical Officer, Maternal and Child Health
MoF	Ministry of Finance
MOH	Medical Officer of Health
MoH	Ministry of Health
MOHIM	Ministry of Health and Indigenous Medicine
MOMCH	Medical Officer for Maternal and Child Health
MoU	Memorandum of Understanding
MP	Medicinal Plants
MPCA	Medicinal Plant Conservation Area
MSD	Medical Supplies Division
MSF	Medicins Sans Frontieres
MSU	Medical Statistical Unit
MTIP	Medium Term Investment Programme
NA	Needs Assessment
NADCDA	National Ayurvedic Drugs, Cosmetics and Devices Authority
NAHF	National Ayurvedic Hospital Formulary
NEM	New Economic Mechanism
NEP	North and East Province(s)
NGO	Non Governmental Organization, (= NGOO)
NHA	National Health Accounts
NHC	National Health Council
NHE	National Health Expenditures
NHSL	National Hospital of Sri Lanka (formerly known as Colombo General Hospital)
NIC	National Insurance Corporation
NID	National Immunization Day
NIE	National Institute of Education
NIHS	National Institute of Health Science
NISD	National Institute of Social Development
NITM	National Institute of Traditional Medicine
NMR	Neonatal Mortality Rate
NNP	National Nutrition Programme
NO	Nursing Officer
NQAL	National Quality Assurance Laboratory
NSC	National Statistical Centre
NTRB	National Traditional Resource Bureau
OLS	Ordinary Least Square
OPD	Outpatient Department
ORS	Oral Rehydration Salt
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PA	People's Alliance
PAEHS	Planters Association Estates Health Scheme
PBN	The Post-Basic School of Nursing

PC	Provincial Council
PDHS	Provincial Director of Health Services
PEM	Protein Energy Malnutrition
PERC	Provincial Equipment Review Committee
PG	Post Graduate
PH	Provincial Hospital
PHA	Provincial Health Authority
PHAR	Pharmacist
PHC	Primary Health Care
PHCU	Primary Health Care Unit
PHI	Public Health Inspector
PHM	Public Health Midwife
PHNO	Public Health Nursing Officer
PHNS	Public Health Nursing Sister
PHO	Provincial Health Office
PHYS	Physiotherapist
PIP	Public Investment Programme
PMEU	Planning Monitoring and Evaluation Unit
PMS	Performance Management System
PMU	Project Management Unit
PNC	Post Natal Clinic
PPO	Programme Planning Officer
PR	Proportional Representation
PR	Progress Review
PTC	Provincial Training Center
PTF	Presidential Task Force
PTF1	1992 Presidential Task Force on National Health Policy
PTF2	1997 Presidential Task Force on National Health Policy
QCS	Quality Control Specifications
RADI	Radiographer
RCS	Rehabilitative Care Services
RDF	Revolving Drug Fund
RE	Regional Epidemiologist
RH	Reproductive Health
RMO	Registered Medical Officer
RMSD	Regional Medical Supplies Division
RTC	Regional Training Center
SCFA	Save the Children Fund Australia
SHS	Superintendent of Health Service
SIDA	Swedish International Development Agency
SJGH	Sri Jayawardanapura General Hospital
SLAAS	Sri Lanka Association for Advanced Science
SLADC	Sri Lanka Ayurvedic Drugs Corporation
SLAMA	Sri Lanka Ayurveda Medical Association
SLFP	Sri Lanka Freedom Party
SLIC	Sri Lanka Insurance Corporation Ltd.
SLMA	Sri Lanka Medical Association
SLMC	Sri Lanka Muslim Congress

SLNHA	Sri Lanka National Health Accounts
SLSPC	Sri Lanka State Plantations Corporation
SNO	Staff Nursing Officer
SOP	Standard Operating Procedures
SPC	State Pharmaceutical Corporation
SPMC	State Pharmaceutical Manufacturer Corporation
SPHM	Supervising Public Health Midwife
SSO	Survey Statistical Officer
STD	Sexually Transmitted Disease
STDs	Sexually Transmitted Diseases
TAC	Technical Advisory Committee
Tb	Treasury bills
TB	Tuberculosis
TBA	Traditional Birth Attendant
TF	Task Force
TFR	Total Fertility Rate
TK	Traditional Knowledge
TM	Traditional Medicine
ToR	Terms of Reference
ToT	Training of Trainers
TP	Traditional Practitioners
TR	Traditional Resources
TULF	Tamil United Liberation Front
U5MR	Under-Five Mortality Rate
UAL	Union Assurance Ltd.
UG	Under Graduate
UGC	University Grant Commission
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNP	United National Party
USAID	United States Agency for International Development
VAD	Vitamin A Deficiency
VHV	Village Health Volunteer
VMA	Value for Money Audit
WB	World Bank
WAN	Wider Area Network
WBC	Well Baby Clinic
WFP	World Food Programme
WHO	World Health Organization
WTO	World Trade Organization



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# CHAPTER 1

## INTRODUCTION

# 1 INTRODUCTION

Over the years, Sri Lanka has accomplished some of the Health Goals and brought reasonable improvement in the health status of its people. In achieving these goals, the Ministry of Health has initiated a number of programs of health development through its network of institutions. The achievement it has made is high in comparison to its Gross National Product. This is mainly due to the social policies adopted by the successive governments. The benefits of free education, free health services and subsidies for essential consumer items have helped Sri Lanka to achieve a high Human Development Index when compared to its neighbours in the region. Poverty alleviation measures including a safety net for the poor were in place in the 1980s in the form of *Janasaviya* programme and were adopted in 1995 to a comprehensive *Samurdhi* programme. After two decades of conflict, the government is committed to translate the ongoing cease-fire into a permanent peace. It is also determined to implement a policy package intended to accelerate economic growth and improve productivity in all sectors, as spelt out in the National Policy Framework "Regaining Sri Lanka".

## 1.1 STATE POLICY FOR HEALTH

The government continues to support its long-standing policy of providing universal health services of good quality with equity of access to its people, free of charge at all government institutions, and sustenance of a strong primary health care network that has been the pillar of strength for several decades. Financing policy has been based on a universal tax based model. However, over time, government has allowed steady growth of the private sector in order to gradually trim its role in providing services to those who can pay in favour of the poor and less privileged. It is committed to the policy of strengthening primary health care and encouraging more integrated and community based approaches to health care.

The policies of the government have been framed to reflect the health concerns of the vulnerable populations such as in the estates, remote rural areas, and conflict-affected areas. Special emphasis is given to improvement of nutrition among infants, preschool children and pregnant mothers. Reduction of incidence of non-communicable diseases and communicable diseases such as Vector-Borne Diseases, Immunisable Diseases, and STD/AIDS is backed by relevant policies.

There has been a great interest over the years to understand and develop a policy process. The first such action was the formulation of policy in 1992 by a Presidential Task Force which based its policy options on the following guiding principles:

- Respect the dignity of user/patient in health care settings;
- Recognition of the right of the people in the planning process of health actions;
- Assurance that health services of desirable quality are equitable, easily accessible and available at free of cost;
- Assurance that the health resources are optimally utilised; and

- Recognition that health and other sectoral developments are mutually interdependent and therefore they function in a coordinated manner to ensure health development.

Later in 1997, this policy was reviewed and a fresh policy document was developed. These policies were in line with the previous policies and were to be implemented through central and provincial ministries of health. The health policy of the Government would be directed at consolidating the earlier gains as well as adapting new policies to improve the health status of the people.

The broad aim of the present health policy is to further increase life expectancy and improve the quality of life by reducing preventable deaths and disabilities due to both communicable and non-communicable diseases; and to provide quality healthcare services and access to all levels of health care in an equitable manner.

The key policy objectives and guiding principles as formulated in 1997 policy document are:

- To focus as much on the promotion of good health and the prevention of diseases as on the treatment care and rehabilitation of those who fall ill or those who need continued support while ensuring that work on either is not at the expense of the other;
- To provide high quality services to meet the challenges or increasing demand;
- To recognise that the concerted action needed calls for greater cooperation between those involved at national and local levels within and outside the health sector;
- To secure a proper balance between central strategic direction and local and individual discretion, flexibility and initiative; and
- To secure the best possible use of resources, human as well as monetary.

Although there have been political changes in the last decade that has led to two major reviews of policy, the overall policy has remained consistent. The main goals of government health policy could be summarised into following eight broad areas:

- 1) Reform the organisational structure and management to improve efficiency, effectiveness and accountability.
- 2) Establish mechanisms to provide need-based care, set priorities and allocate resources equitably.
- 3) Focus on vulnerable groups and community needs that required special attention; the elderly, disabled and mental health.
- 4) Improve patient care provision and quality by reorganising the healthcare delivery system especially at district and provincial levels.
- 5) Rationalise Human resource development.
- 6) Increase life expectancy by reducing preventable deaths from both communicable and non-communicable diseases.

- 7) Improve Quality of Life through Healthy Lifestyles and by reduction of preventable diseases and disabilities.
- 8) Intensify Health Promotion through IEC activities and through media.

A major change in health policy arena was observed in 1989 as the government proceeded to change the management structures, roles and responsibilities of the Central Ministry that operated through a deconcentrated district health system before 1989.

The 13<sup>th</sup> amendment to the Constitution in 1989 saw devolution of some powers and functions to the Provincial Councils that have established their own provincial ministries and provincial health departments. The devolved functions involved administration and management of provincial hospital network and field health services. Management of Teaching Hospitals, Training Institutions and Human Resources in Medical and Paramedical Grades were kept with the centre. Over the last several years, a few more hospitals were added to the Teaching Hospital list.

Yet another change was observed when the Regional Directors of Health Services, who managed the District Health System, were made responsible for both the Central and Provincial Ministries of Health. They were renamed as Deputy Provincial Directors of Health Service. An attempt has also been made to integrate the curative and preventive health services at the Divisional level by placing this responsibility on a team headed by the Divisional Director of Health Services (DDHS) to Health Division, previously known as Medical Officer of Health (MOH) Divisions. This change was in line with the government policy of establishing divisional secretariats headed by a divisional secretary in charge of public administration of the division.

Both the centre and the provinces have policymaking roles that have brought in many problems due to divided responsibility. Since mid-2000 funds that were allocated by the central health ministry previously are now allocated directly by the Treasury, to offer greater financial authority for the provinces.

A further change of structure and function of the central ministry was observed in 1999 when the Department of Health Services that was within the Ministry of Health was separated. But with the change of government in late 2001, these two structures were recombined to enhance policy making and monitoring evaluation efforts and to reduce duplication. Another change that was observed as a result of a policy change was the expansion of the technical directorate of the Ministry of Health to Directors in 1992.

Recognising the emerging needs and structural weaknesses of the system, several attempts have been made to rationalise the health care system as well as develop its human resources as spelled out in its policy statements but the progress of such reform has been slow. The Ministry of Health, like in most developing countries, lacks full potential, authority and the capacity for policy implementation that are required for taking up a strategic change role.

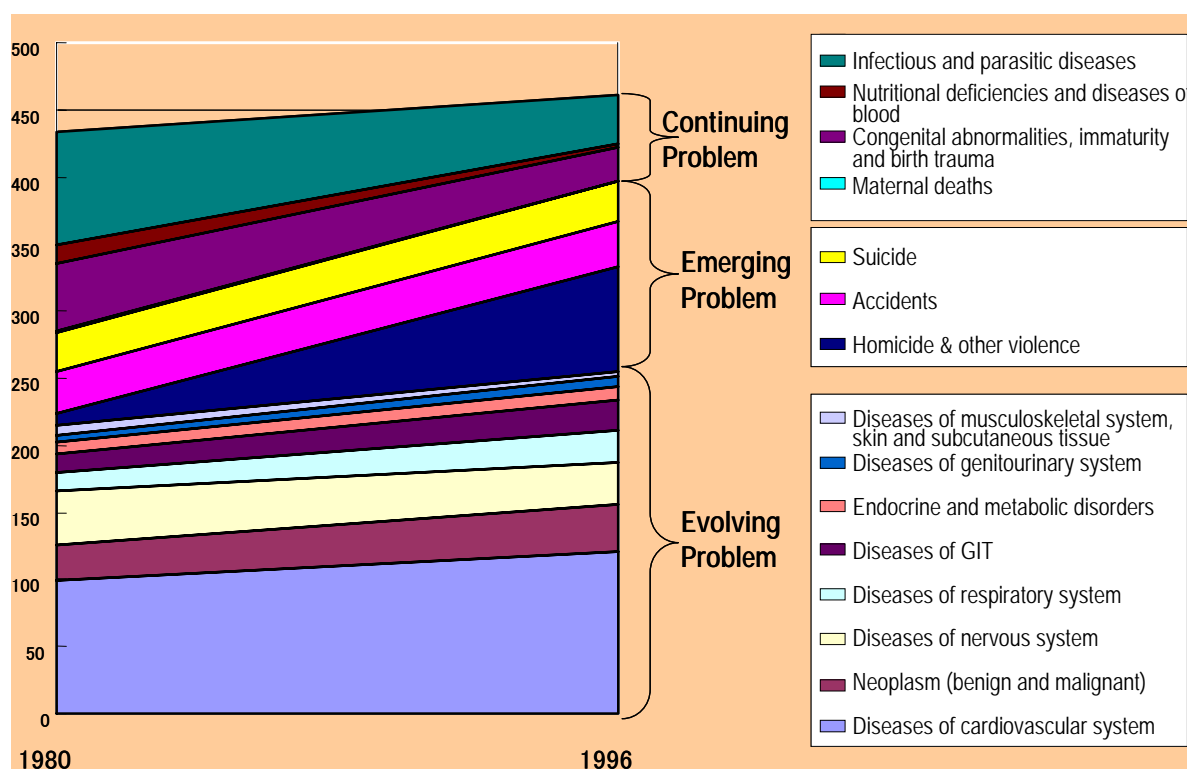
## 1.2 HEALTH IN TRANSITION

This section discusses the situation of health transition in Sri Lanka, implications on service delivery and finance, and policy direction suggested to respond to changing scenarios in health. Health transition is a historical phenomenon which many developed and developing countries are now experiencing. It is a system transition responding to a set of health-related factors—demographic and epidemiological, socioeconomic and health resource, health care delivery and management reform triggered by political initiatives or economic crisis, depending on the country. But most of the countries share common underlining factors, i.e., transition in epidemiologic patterns, change in patient expectation, and societal demand for efficiency of healthcare system management.

The Sri Lanka health sector has been a successful model of “good outcome at low costs” in the 20<sup>th</sup> century. According to the World Health Report 2002, Sri Lankan life expectancy at birth for the entire population is 68.8, occupying 97<sup>th</sup> place among 191 WHO member states, although its GDP per capita is in the 128<sup>th</sup> place. Among the countries with GDP per capita below \$1,000, Sri Lanka ranks 7<sup>th</sup> among 73 countries. While the success so far achieved is commendable, failure looms large if action is not taken to face the rapidly changing scenario from a health transition.

### (1) EPIDEMIOLOGICAL TRANSITION

Sri Lanka is in the midst of health transition in terms of epidemiology of disease. Figure 1.2.1 shows the epidemiological transition pattern in Sri Lanka during a period of 20 years.



**Figure 1.2.1 Causes of Deaths, 1980 to 1996**

Source: Sri Lankan Govt. Register General, Vital Statistics 1980-1996

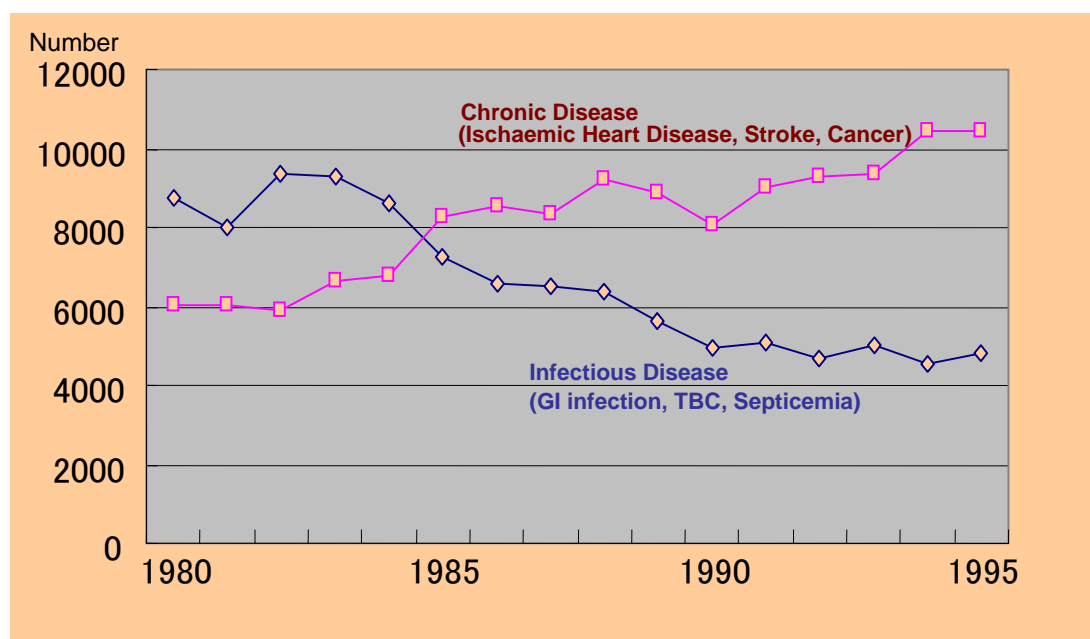
It shows that target diseases are rapidly changing. Mortality due to non-communicable diseases such as Ischaemic Heart Disease, Stroke and Cancer is increasing. Though on the decrease, communicable diseases and MCH-related conditions remain a problem and their control faces an unfinished agenda. At the same time, certain emerging diseases and conditions such as Accidents, Suicides and Homicides are showing a clearly increasing trend.

A heavy share of the disease burden in Sri Lanka is borne by a set of diseases and conditions related to lifestyle changes. These include non-communicable diseases amongst which mental disorders occupy a significant place.

The natural history and the characteristics of these diseases and conditions have helped them to be categorized into three groups.

### **Group 1: Continuing Problem**

In the developing world, prominent diseases have been infectious and MCH-related diseases. This group of diseases and conditions poses a continuing problem and consists of diseases and conditions that had a high mortality and morbidity in the past but are under fair control now. Yet, pockets exist where morbidity remains high. Vector-borne Diseases, such as Malaria, Dengue and Filariasis, continue to affect the population while a third of preschool children remain malnourished.

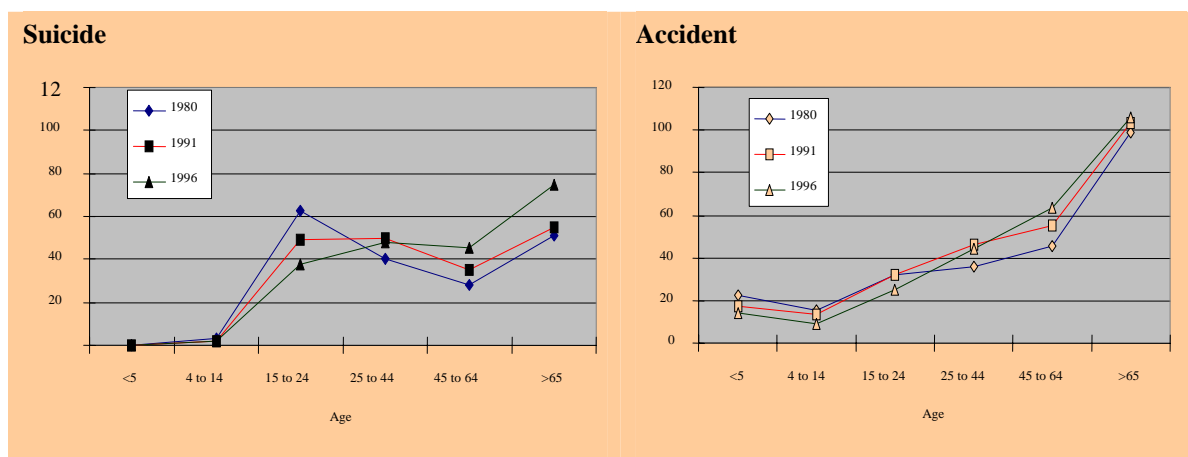


**Figure 1.2.2 Trend of Cause of Death**

Source: Register General, Vital Statistics 1980-1995

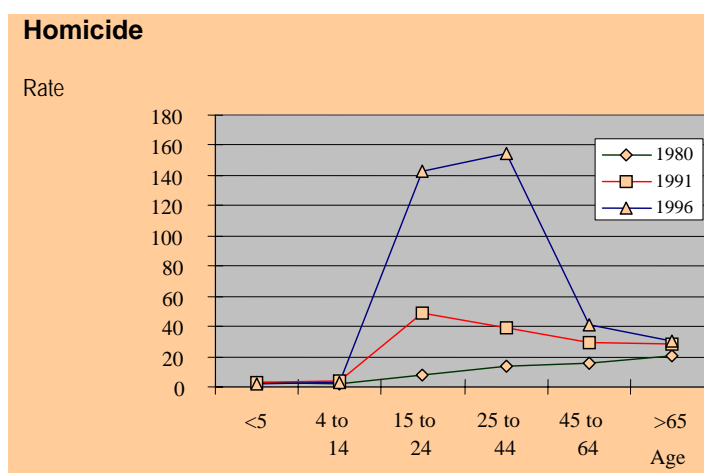
### **Group 2 : Emerging Problem**

This group is classed as an emerging problem that has resulted from societal changes due to rapid urbanization and industrialization. These emerging problems include road Accidents, Injuries, and Violence. Statistics show an increase of accidents and suicides in middle and old age as shown in Figure 1.2.3. A striking phenomenon is the surge of homicides in the young-age group in recent years.



**Figure 1.2.3 Trend in Rates of Suicides and Accidents by Age Group**

Source : Sri Lankan Govt. Register General, Vital Statistics 1980-1995



**Figure 1.2.4 Trends in Rates of Homicides by Age Group**

Source : Sri Lankan Govt. Register General, Vital Statistics 1980-1995

Traffic and industrial accidents due to development of society and violence due to the breakdown of traditional society has become a cost of industrialization in both developed and developing countries. Sri Lanka also faces an emerging problem of HIV/AIDS. Neighbouring India already faces a growing HIV epidemic.

**Group 3: Evolving Problem**

This group consists of an evolving problem mostly as a result of change of lifestyles, people’s behaviour and stress in daily life that are increasingly been faced by people. The diseases and related conditions include non-communicable diseases such as Cancers, Heart Diseases and Mental disorders. The latter tends to have been neglected for some time in spite of its importance. Social breakdown due to pressures from industrialization has created prolonged mental stress leading to many mental disorders.

In Sri Lanka, where communicable diseases and MCH-related diseases have been drastically curtailed, early degenerative diseases such as Ischaemic Heart Disease and Cancer have evolved as a major problem and are more visible due to prolongation of life of its society. Thus, the country has to bear a double burden of disease, namely communicable and non-communicable diseases. In India and Brazil, Obesity, Diabetes Mellitus and Ischaemic Heart Disease have become so prevalent they have almost



become like an epidemic and sit alongside communicable diseases. These new evolving diseases are the challenges to health care systems of the developing world.

The three groups of diseases and conditions described above can be distinguished by their characteristics and natural history as summarised in the diagram below.

	Disease	Natural History	Characteristics
<b>Group I</b> Continuing Problem	MCH Related Disease	Cause: Nutrition, Maternal State	Large Component of Primary Care
	Infection Disease	Cause: Environment & Agent Nutrition & Environment Important	Less Costly Intervention Still Endemic TBC,AIDS Some New Emergence, SARS
<b>Group II</b> Emerging Problem	Road Accident	Cause: Multi Sectorial Cause	Increasing Problem
	Homicide	Cause: Social Breakdown	
<b>Group III</b> Evolving Problem	Life Style Related Disease	Cause: Individual Life Style Long Natural History Severe Consequence	Long Natural History Expensive Curative Life Course Approach for Prevention
	Mental Health	Cause: Stress	Neglected Problem Community Support

Figure 1.2.5 Evolving, Emerging and Continuing Health Problems

## (2) IMPLICATION OF HEALTH TRANSITION ON HEALTHCARE DELIVERY SYSTEM AND REQUIRED ACTIONS

The challenges posed by this transition have to be faced by the service delivery system by making changes in its functions. Analysis of health care delivery system can be made by type of delivery that fit into three categories, namely the preventive, curative and welfare. The natural history showing stages of development of disease condition and broad interventions at each stage is shown in Figure 1.2.6.

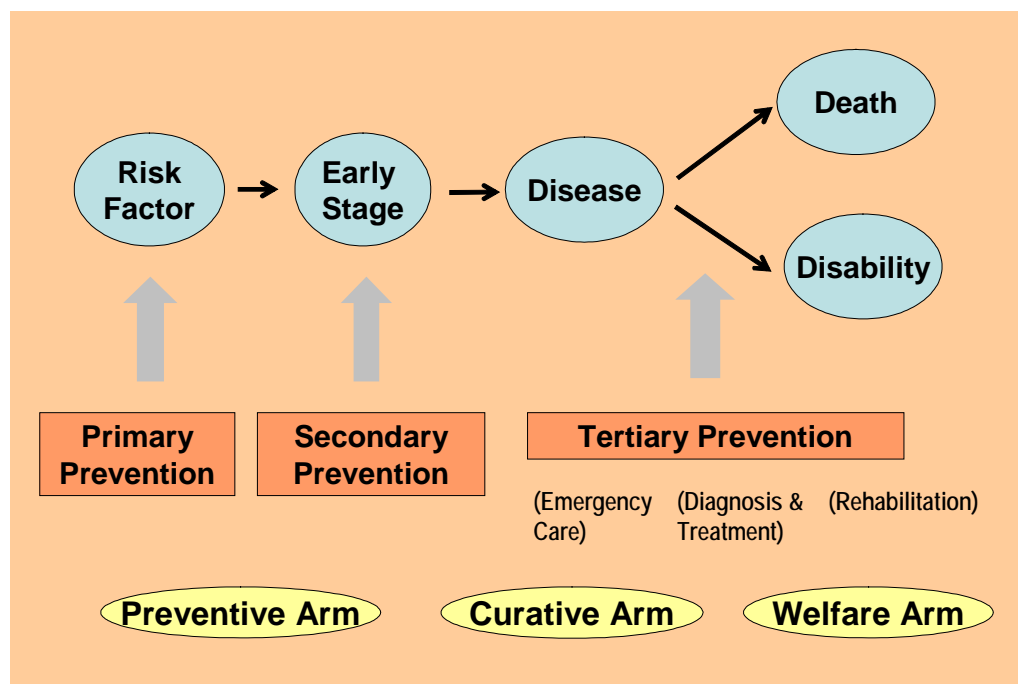


Figure 1.2.6 Natural History of Diseases and Required System

The required interventions and changes in the system are as listed below:

### **Continuing diseases and conditions**

- 1) Identification of the vulnerable groups and implementation of accelerated programs with targeted interventions to control communicable diseases and malnutrition among these groups should be a priority.
- 2) Focused attention has to be given to pre and neonatal care and to combat malnutrition among preschool children and anaemic among mothers through an integrated approach.
- 3) Disease control programs should be reviewed and evaluated to explore and develop new strategies.
- 4) Linkages between service and system have to be strengthened to support more comprehensive and integrated programming.

Interventions for communicable diseases can be relatively low-cost methods, such as immunisation for prevention and antibiotics for treatment. However, other public health measures such as improved sanitation, safe drinking water, solid waste management, improvement of nutrition, and health promotion are found to be more effective in control of these conditions and bear a greater importance than curative measures.

### **Emerging diseases and conditions**

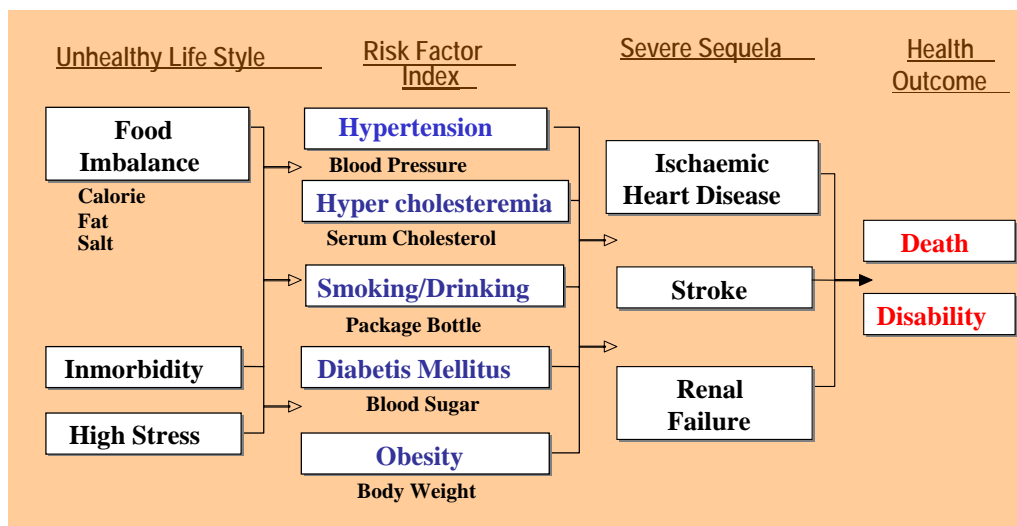
- 1) These issues in fact need multisectoral coordination for effective action. For example, for prevention of road accidents, road and city construction sector, police sector and social service sector, coordination is required.

- 2) For treatment to be effective, emergency medical network, transportation facilities, proper referral and skilled specialists are required. An aggressive integrated public health program for control of HIV/AIDS is also required.

### **Evolving diseases and conditions**

- 1) The preventive arm has to be drastically reoriented because this group consists of individual lifestyle-related diseases and centralized methods are less effective and feasible. In addition, they develop over a long latent period and by interactions of many risk factors; therefore, intervention in early life stage is required.

An example showing the natural history of one evolving condition, namely circulatory disease, is shown below. It depicts the chain of events, including risk factors, leading to poor health outcome of a circulatory disease.



**Figure 1.2.7 Natural History of Circulatory Disease**

- 2) Curative arm also has to be restructured drastically with the demand for high-cost and high-skilled procedures to diagnose and treat the evolving disease conditions.
- 3) As the complicated nature of these diseases and their treatment are known to cause aetrogenic diseases, vigorous quality and safety control measures by training of specialists, accreditation of hospital and standardization of care are necessary.

Figure 1.2.8 summarises interventions required for maintaining quality and safety.

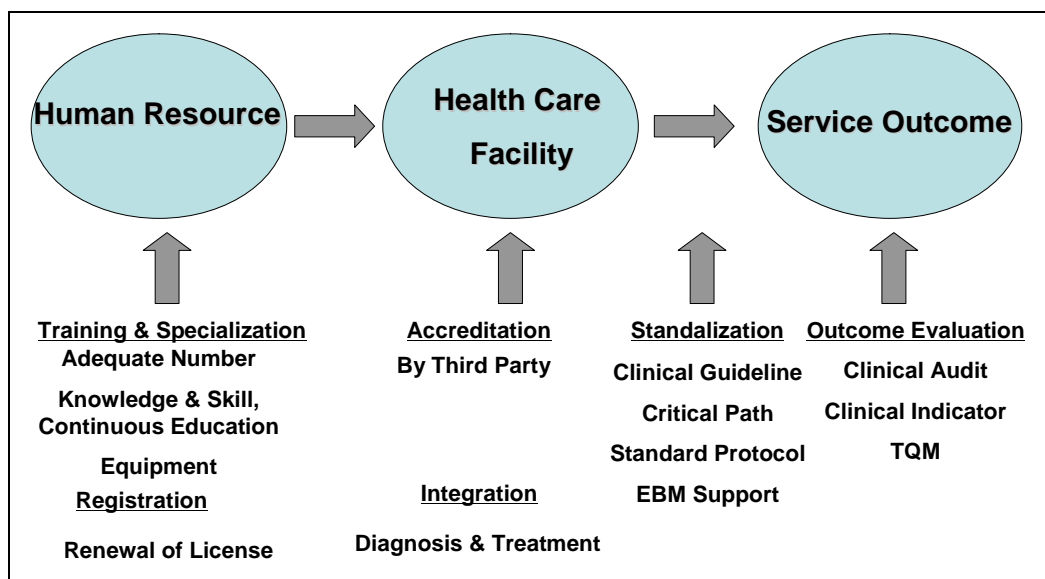


Figure 1.2.8 Quality & Safety Interventions

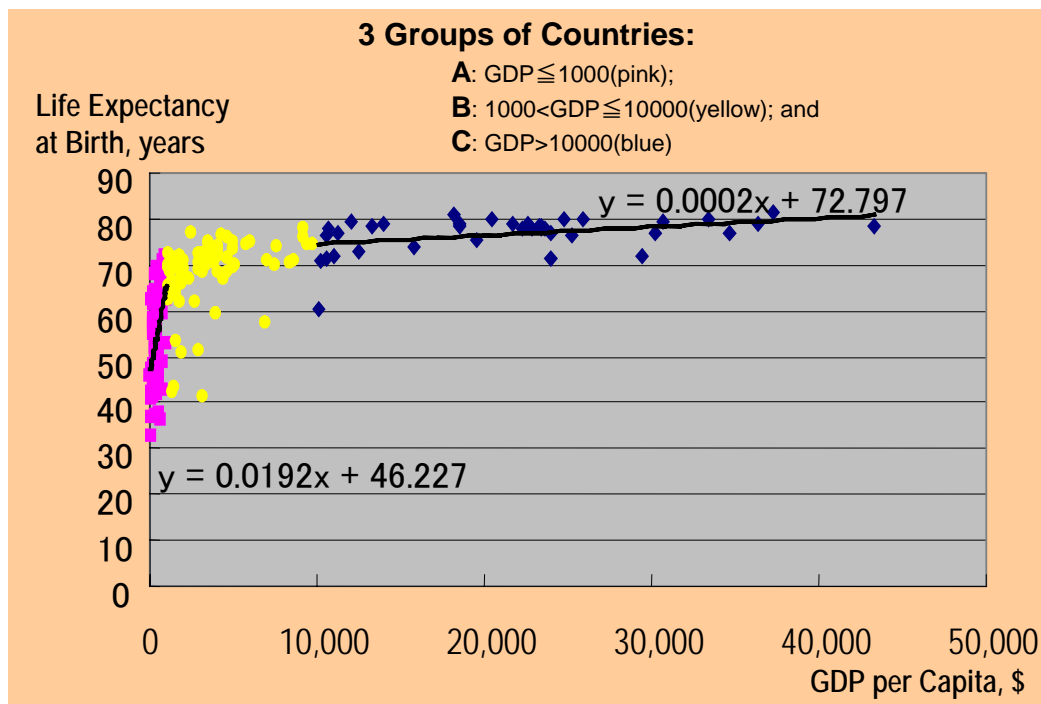
- 4) The process of care is different from infectious diseases care. Continuity and compliance of care are extremely important especially because of the long treatment. Therefore, participation of patients in treatment is crucial. The patient-provider relationship should change from the paternalistic approach to partnership.
- 5) The evolving problem of mental disorders that include depression, psychotic conditions, epilepsy, etc. has to be tackled through an integrated approach needing team work of doctors, other health staff and family support.

Every attempt has to be made to sustain the gains by maintaining the successful programs and adopting new strategies to overcome problems faced by them.

#### (4) IMPLICATION OF HEALTH TRANSITION ON FINANCE AND REQUIRED ACTIONS

To design a new system to fit to those changing demands as a result of transition, it is required to examine every new strategy under the light of costs and effectiveness because of limited resources.

An economic analysis of health and development shows that the increment of longevity with economic development slows down after a very rapid increment up to GDP per capita by US\$1,000 as shown in Figure 1.2.9.

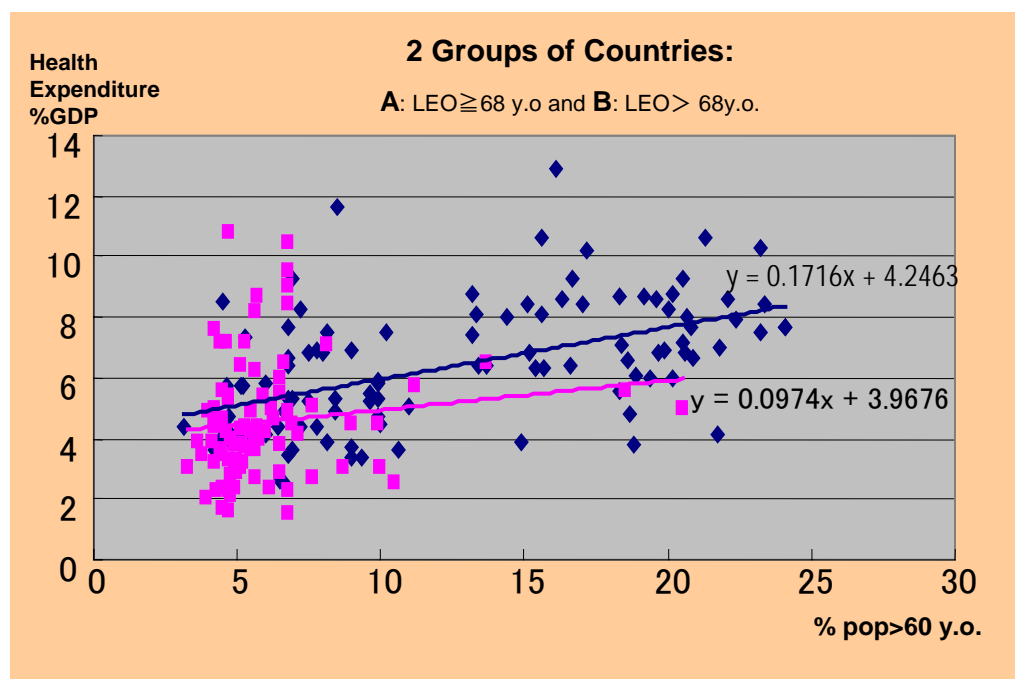


**Figure 1.2.9 Longevity and Economy**

Source: World Health Report 2000, WHO

It is partly due to the high cost of intervention in high-income countries but also due to the target shift to more costly diseases such as ischaemic heart disease, stroke and cancer. As life expectancy at birth increases, health expenditure per capita increases slowly at the beginning and then rapidly at the age around 68. The formula when applied to the countries with GDP per capita lower than US\$1,000 such as Sri Lanka indicates that it requires US\$31 per capita per year for health expenditure. It is exactly the same amount it is actually spending. However, when the formula is used for the country with GDP per capita of more than \$10,000, then Sri Lanka requires US\$529.5. Thus, this comparison shows that, though Sri Lanka is moving to have a similar disease pattern as high GDP countries, Sri Lanka can spend US\$31 per capita to cover only the traditional target like infectious diseases.

Similar estimation was carried out through old age fraction over 60. For a shorter life expectancy at birth less than 68, Sri Lanka requires health expenditure 4.87% of GDP in average as shown in Figure 1.2.10. But if the formula among countries whose life expectancy is over 68 is used, 5.84% is required. Both figures are much more than the current real figure of 3.4%.



**Figure 1.2.10 Ageing and Health Expenditure**

Source: World Health Report 2000, WHO

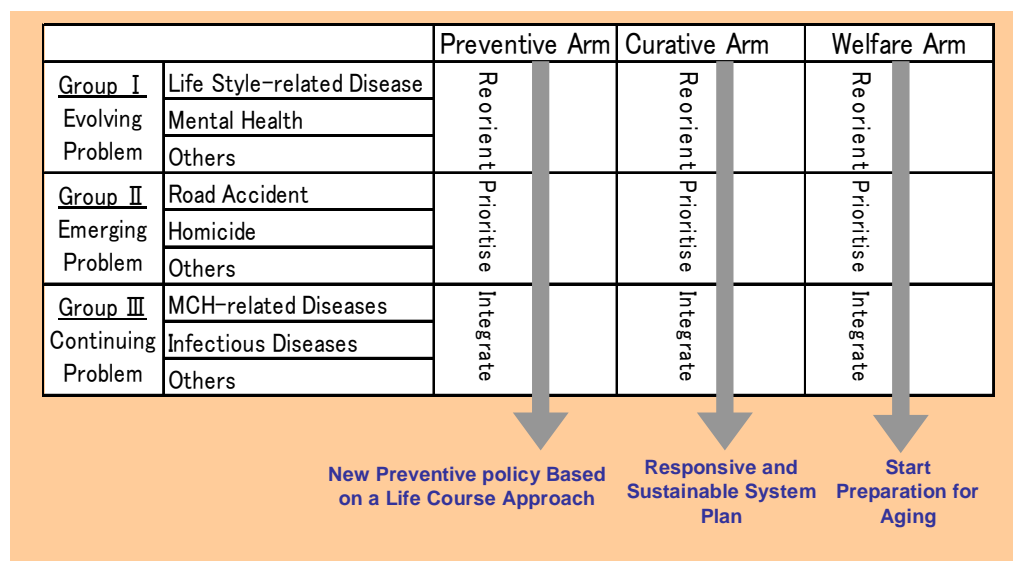
Ageing requires resources not only for health sector but also for many other sectors. Japan is expected to be a leading aged society in the world around 2050 and forty percent of the population is going to be over 65. The pattern of ageing of Sri Lanka looks very similar to the situation of Japan 30 to 35 years ago.

A large resource gap exists in the Sri Lanka health sector and now it seems time for Sri Lanka to consider alternative financing mechanism in order to fill the gap and stop reverse the outcome of its health programme. Appropriate mixture of funding methods—taxation, donation and social insurance—has to be explored.

## (5) STRATEGIES AND POLICY RESPONSES

This section discusses the policy direction in view of new strategies required to face the challenges of health transition in service delivery. The new strategies have been designed to respond to three issues, namely, to respond to epidemiology, to respond to patient expectation and to respond to efficacy of the system.

Services and systems have also to be reoriented and linked to respond adequately. The policy on reorientation of health care thus should be based on a new preventive health policy based on a life-course approach, a curative policy of implementing a responsive and a sustainable system plan and both of these supported by a strong welfare plan that would prepare for ageing population.



**Figure 1.2.11 Strategies and Policy Actions**

### **Responding to Epidemiology of Disease**

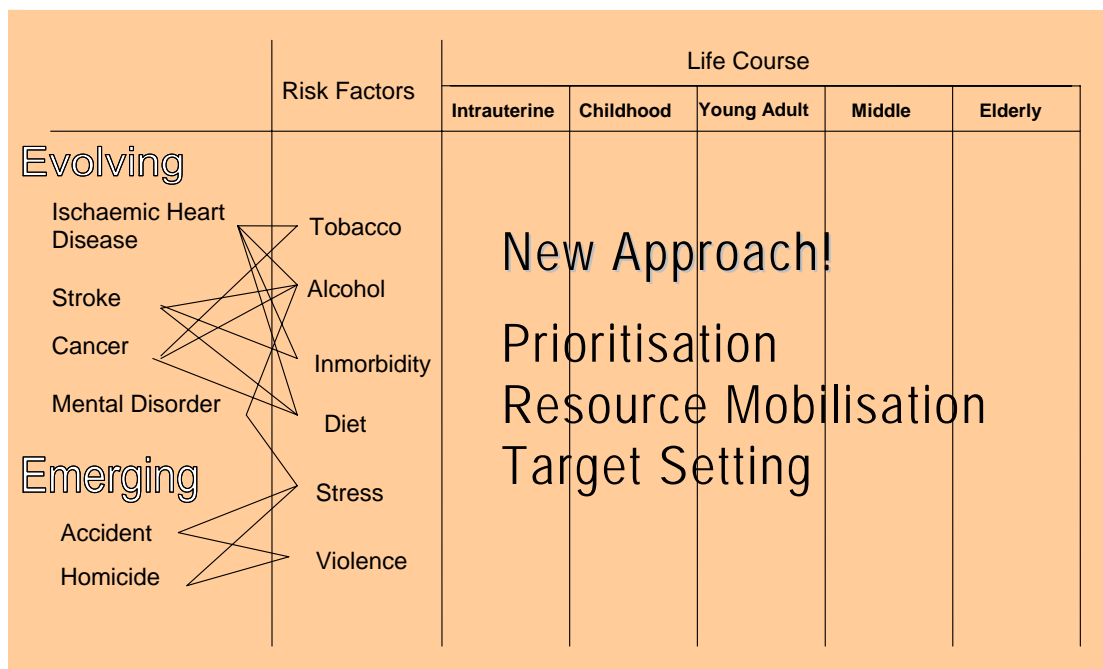
Prioritisation and categorisation of the disease groups according to their natural history and characteristics would help in planning and managing the service delivery. The three disease groupings shown earlier are an example where interventions can be planned accordingly.

First group of MCH-related conditions, malnutrition and communicable diseases, have to have integrated programs. Group 2 of emerging problems, requires prioritised actions under the three broad categories of service areas, namely, preventive, curative and welfare, study of underline determinants and follow up with intersectoral action programs. Group 3 of lifestyle-related diseases calls for all services to be reoriented to a life-course approach.

#### 1) Preventive Care

Policy for integration within the preventive area has to be based on tackling the risk factors from foetal stage to old age. This is the life-course approach. The evolving and emerging diseases are heavily based on people's behaviour and lifestyles. Whole set of integrated actions need to be implemented vigorously. New policies such as that developed for tobacco control recently is a good beginning for this change.

Alcohol, Hypertension, Tobacco, Overweight and Cholesterol are the highest risks, which create the major burden of diseases. According to a WHO study on ageing, there is a critical window for the exposure of risk factors in the early stage of life to cause degenerative diseases at later age, proven by recent epidemiological data of life-course approach. So the appropriate preventive intervention in different age groups has to be designed to fit to these evolving diseases.



**Figure 1.2.12 Integration of Preventive Activity**

2) Curative Care

The policy on curative care should be to reorient the services by reviewing the functions at different healthcare facilities, namely, primary, secondary and tertiary care facilities. These functions have to be redefined according to the evolving disease pattern and integrated to a primary care network, an emergency healthcare network and a rehabilitative community support network.

3) Comprehensive Care

Health Policy focus on comprehensive care should be towards integration of preventive, curative elements and welfare so that all these elements work as a whole and not in a fragmented manner as happening now.

Example of how functionally different services are integrated under primary, secondary and tertiary care is depicted below.



	1° care	2° care	3° care	Rehabilitation
<b>Evolving</b>				
IHD	Hypertension Control	Emergency Care	Open Heart Surgery	Cardiac Rehabilitation
Stroke	BP Control	Emergency Care	Brain Surgery	Early Rehabilitation
Cancer	Screening		Surgery, Radiation & Chemotherapy	Community Support
Mental Disorder	Consultation		Intensive Treatment	
<b>Emerging</b>				
Accident		Resuscitation	Trauma Center	Physical Rehabilitation
Homicide				
<b>Continuing</b>				
MCH	Prenatal Care	Delivery		
Infection	Most Care	Severe Case		

**Figure 1.2.13 Functional Differentiation & Integration of Curative Care**

### **Responding to Patients' Rights and Client Satisfaction**

Not only through the global awakening of patient's right and equity, but also by looking at the characteristics of the disease itself, patient participation and satisfaction bears greater importance in the success of treatment.

Greater effort is needed in educating patients to make better choices when seeking health care. Dignity, equity and access should be cornerstone in protecting rights of patients.

Except for occasional news item in the media, government gets minimal feed back from the consumers on how they feel about the services and in general on patient satisfaction. Systematic feedback from the clients of a service about their satisfaction should be an integral part of the information system and quality assurance program. Provision of basic amenities, cutting down the waiting times, quick response to their needs, good communication and courteousness would go a long way in improving patient satisfaction.

### **Responding to Efficacy of System**

Reorientation of health sector organisation, management and information systems are required to respond to efficacy of the system. In the changing situation it must reframe its mission to provide for a system that is more efficient, more flexible and more accountable. In the past the Ministry of Health has focused heavily on improving capacities in health care delivery.

Adequate capacity has not been developed in vital areas such as policy analysis, monitoring and evaluation, health promotion and consumer education. With the devolution of powers to the Provincial ministries of health from 1987 constitutional amendments, provincial authorities were handed over new responsibilities without preparing them for the same. This has also brought about many inefficiencies and inequities.

Newly required system is costly. Selection of cost-effective interventions by technological assessment is essential. Even in the current services, management should be reoriented toward efficiency. To become efficient, continuous analysis of demand and the effort to match supply to demand is needed. To use

limited resources in changing environment, flexibility is a useful operation principle. The system has to be accountable to people who receive the care and pay for the service. Transparency and information openness should be a policy.

To be accountable, flexible and efficient, good management information system is essential to link consumed resources to service output. Intra-hospital and nationwide standardized information system to measure outcome and cost for defined service package have to be developed. Information systems in Sri Lanka are quite inadequate under the traditional financing system as one could expect. Data on the extent of private service use are not regularly monitored. Similarly in government health facilities there are inadequate data compiled on Outpatients or visits to specialist clinics. Inpatient data are often incomplete and partial. Financial information is on a simple, single entry bookkeeping.

Though below average expenditures on health can bring about some efficiency gains, in the long run the under funding can erode the system due to its negative impact on service quality.

However there has been little evidence of under funding for health care, thanks to implicit coping mechanisms in the Sri Lanka health sector and by its patients. In reality, the total expenditure on health care in Sri Lanka by the government has been since 1990 about 1.5% of GDP (in 2002 it was only 1.1% of GDP). The degree of free medical care offered is believed to fluctuate according to the financial position of the hospital, and medical personnel costs are largely externalised into private service, by permitting government employees to work also in the private sector. Consequently, the under funding is largely concealed. But the fact remains that public financial funding have to increase over the next few years and government should spell out policies to achieve this.

## (6) CONCLUSION

A sense of crisis does not seem very strong within the central MoH. This is dangerous in light of the sharp transition of health care needs, and further development of private services encouraged by increasing capital inflows to Sri Lanka. Moreover, under the current epidemiological change, and with the introduction of new and more costly technology and drugs, and dissemination of knowledge through the media, patient expectations are rising. Patients will increasingly move to the private sector, if the difference in technological level and responsiveness continues to grow, but this tendency is constrained by rapidly rising prices for private sector services. The underlying contradictions in the system are bound to affect people seeking care and unless due notice and action is taken, health services in the country would fail to keep to the standards of the past compounded by increasing client dissatisfaction.

However, on the positive side, Sri Lanka can be the leading model in the 21<sup>st</sup> century again by setting into action new long-term strategic health policy that would enhance responsiveness of health system to emerging needs and changing burden of disease. Sri Lanka can achieve good health at low costs even for the new emerging and evolving target diseases by an innovative preventive and curative care policy. People in Sri Lanka would then enjoy a reasonable, responsible and reliable healthcare delivery system.

## 1.3

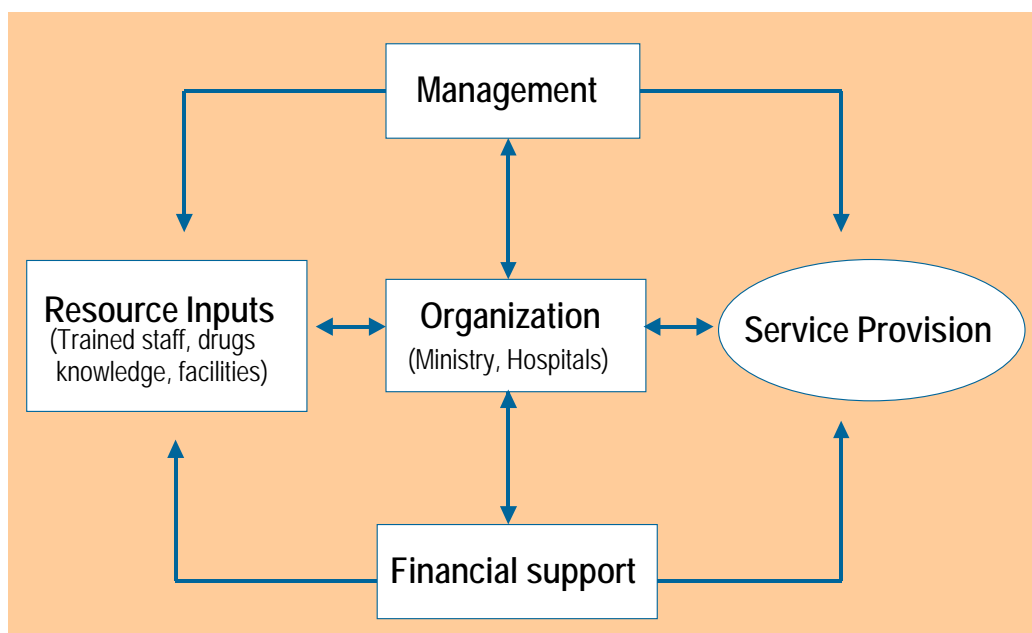
HEALTH SECTOR REFORM :  
GLOBAL & SRI LANKAN CONTEXT

## (1) HEALTH SECTOR AS AN ORGANIC SYSTEM

Health sector reform is now taking place in many countries throughout the world. This need for reform stems from several inter-related factors:

- 1) Rising health care costs;
- 2) Changing perceived and professionally recognized health needs, due to demographic and epidemiological transition;
- 3) Political commitment to improve coverage and access to health services; and
- 4) Insufficiency of existing structures and management methods to increase cost effectiveness of the provision of health care and assure its quality.

Reform must be undertaken in a wide range of areas, such as organizational structure, roles and relationships, resource mobilization, the level and distribution of health care, and costs and pricing. Thus, a comprehensive overview of a country's health sector is useful to gain full understanding of the situation and the breadth of change required.



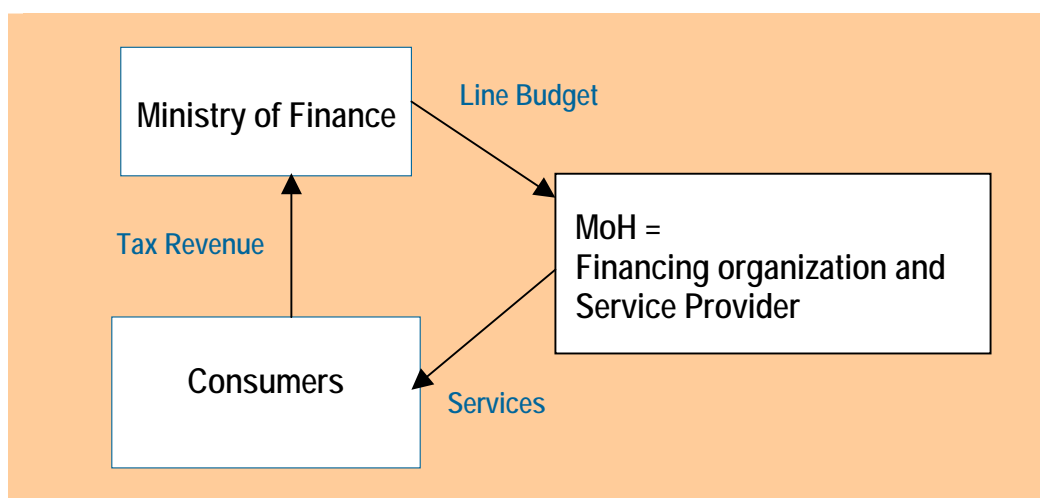
**Figure 1.3.1** Five Elements of Health System

To grasp how health care funding mechanisms work, it is crucial to understand the health sector as a complex organic system in which resources, organization, financing and management all lead to the provision of health services (Figure 1.3.1). The numerous parts of this complex system can be classified into five core elements, with the first four leading to the fifth:

- 1) Organization and service providers (health ministry, public hospitals, private providers, etc.);

- 2) Management (regulation, registration, planning, administration);
- 3) Financing (tax revenues, insurance, registration fees, out-of-pocket expenses etc.), which sustain the fourth core element;
- 4) Resource inputs (trained staff, drugs, materials, facilities, knowledge); and
- 5) Service delivery (promotive, preventive and curative services).

Moreover, the flow of resources is far more complex in the health sector than in most service sectors that have a common pattern of bilateral exchange between consumers and providers. In the health sector, third party payers such as insurers or a state financing organization (e.g. Sri Lanka's system) are essential to protect people from the uncertainty of illness, and ensure wide risk pooling across the nation (Figure 1.3.2).



**Figure 1.3.2** Current Trilateral Exchange Model for Health services

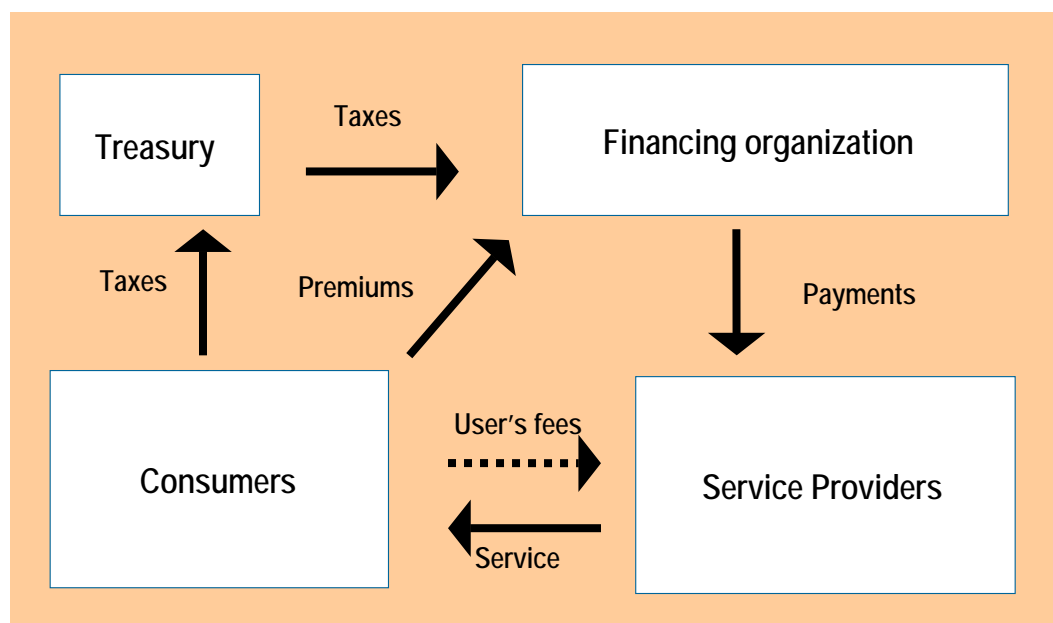
It is not surprising, considering the long-standing vertical, compartmentalized approach in health ministries, that the health sector has not been clearly recognized as an organic system needing a good management mechanism. In particular, on the clinical front, variation in quality and nature of services is pervasive, a situation which does not facilitate good functioning management mechanisms in hospitals or other health facilities. Hospital management is not a well-developed area, compared with the management guidelines used for running airports or large manufacturing entities.

The concept of modern management in the health sector is not well supported in many developing countries, and this is coupled with both a generally conservative response to initiatives to improve hospital management and frequently, political inertia among the health authorities. In some countries, the power of the medical profession is supportive of practical initiatives for strengthening management capacity.

In parallel to this, a series of donor-driven project aid approaches, often ill coordinated with other health interventions, are responsible for compartmentalization in the health ministries of many developing countries, and for fragmentation in their health sectors. This fragmentation has hindered the development of systemic capacities in the health sector, which are essential for coherent development over the long term.

In recent years, there has been increasing interest in the issue of how health sectors should be financed. The form that financing should take and the level of coverage are now major policy issues and it is essential for developing countries and also donor agencies to have a clear understanding of the

implications of alternative courses of action. As mentioned earlier, this chapter outlines a theoretical basis for formulating health-financing policy that can be referred to as a reliable chart to navigate a path through financial constraints.



**Figure 1.3.3 Model for Exchange of Health Services and Goods with a Split between Providers and Financial Organisation and Payments to Providers Linked to Performance**

## (2) COMMON DIFFICULTIES EXPERIENCED WORLDWIDE IN REFORMING HEALTH SECTORS

Reforming the health sector is often pointed out as one of the most complex tasks among all government sectors. How to allocate health care resources, namely the level and distribution of health care, can have an enormous impact on the well-being of groups and individual members of society. The subject also implies ethical and political considerations and debate.

As mentioned above, a widely different range of inputs are usually involved in a health system, and a number of administrative processes are required, but it is not necessarily evident how best to allocate resources, or regulate individual providers.

Reform may be seen as requiring diverse types of expertise, ranging from a capacity for sophisticated ethical arguments, to biomedical professionals for evaluating service performance, and to still unfamiliar disciplines in the health sector, such as health economists and accountants. These professional contributions need to be integrated and should support consistent and holistic policy design.

Policy implementation is a further issue. Within a complex health system with a weak management climate in hospitals and other health facilities, policy implementation is likely to face numerous obstacles. A long-standing vertical approach has supported fragmentation and other institutional barriers to good managerial coordination in health ministries in many developing countries.

### (3) KEY PRINCIPLES IN INSTITUTIONAL REFORM

As already discussed, health sector reform is institutionally intricate, requiring various sorts of expertise. However, the most pervasive effect of the reform must be financial restructuring, through which all core functions in the health sector are re-organized, i.e., the role of MoH, institutional relationships, decentralization and devolution, management and accountability, budgeting and planning.

#### **Reform of Tax-based Financing Model**

In terms of the public financing of health care there are two main approaches used: 1) tax based, and entitlement depending on citizenship and or residence status, and (2) social insurance based on the payment of a premium for the entitled. Health care financing in Sri Lanka is of the first type, tax based.

Tax revenues have often been used in countries such as the U.K., New Zealand, and Denmark, where the government operates the health services. The government directly owns, operates, and manages the facilities. This approach provides the greatest amount of integration between financing, payment and organization of delivery.

In the Scandinavian countries and the U.K., the structure of the welfare state and financing mechanisms were developed out of the statutory allocation of government budgets. A typical example was the early British National Health Service. However, this model has already been greatly reformed in the U.K., New Zealand and Denmark.

#### **Purchase-Provider Split**

Tax revenue has often been used in countries mentioned above, where the government operates some health services, and need to raise revenue to support those services. It is generally argued that tax-based funding systems lack direct links between financing mechanisms and expenditure, resulting in no incentive to minimize costs. These systems also are generally characterized by sloppy accounting and weak, delayed reporting of financial performance.

Countries with state financed systems have initiated a fundamental reform measure known as the **purchase-provider split** (Figure 1.3.3). These governments separate public purchasing (payment for the services) from public providers (supply of services). This is a central policy component for “managed competition”, which aims at improving efficiency and maintaining cost control through cash limits. This split creates a situation closer to the **third-party-payer mechanism in social insurance**, where the service provider is always obliged to make a claim to the insurer for disbursement based on its service record. This mechanism is typically used as the institutional basis for a more accountable system (Figure 1.3.3).

Interestingly, under the traditional system, where financing, payment and the organization of service delivery are under the same authority but without explicit links, the provider (hospital) has little real organizational incentive to develop a functional system of medical information. The purchaser-provider split creates that incentive, as the payment organization requires detailed information to justify the reimbursement of provider entities.

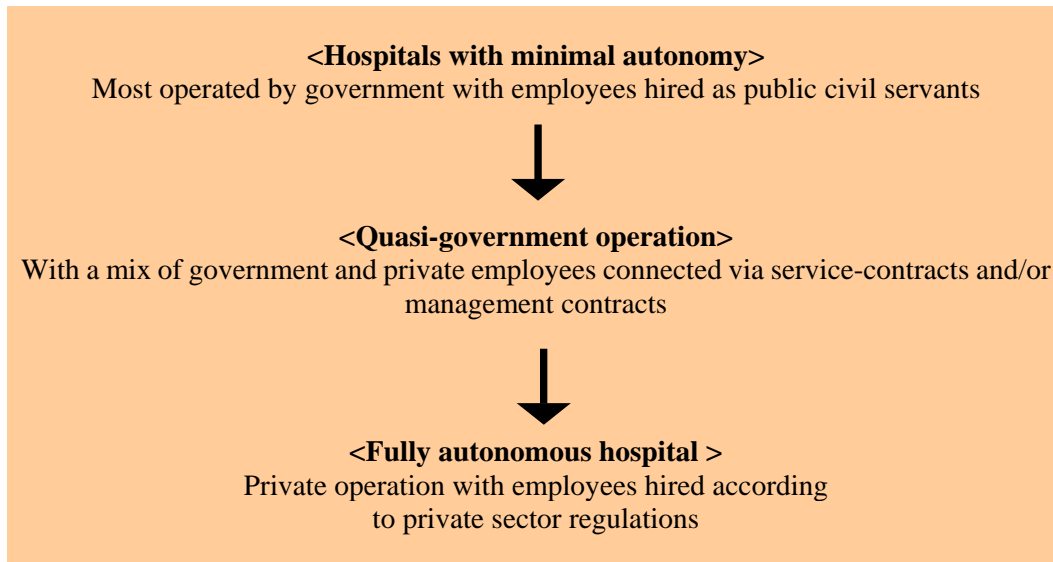
#### **Hospital-based Management**

Based on the policy of **purchase-provider-split**, governments can improve hospital and other health facilities management. Decentralization is very often equated with devolution of responsibility from the centre to control by local governments. Hospital-based management is another form of devolution.

The term “**hospital-based management**” can be rephrased as a “**system of autonomous hospitals**”. However, “**autonomy**” is a slippery word, and its usage can vary. In Sri Lanka, hospital autonomy may be equated with the Sri Jawardenapura General Hospital (SJGH). However, SJGH is not the only

possible type of autonomous set-up. The levels of hospital autonomy can have a wide range shown below in Figure 1.3.4.

Some variations of autonomous management have been found. Since the 1980s, there have been many cases where public sector hospital management has been reformed. Successful examples are found in Thailand, Indonesia and the U.K. one common approach has moved away from centralized bureaucratic control toward increasing reliance on hospital-based management and financing.



**Figure 1.3.4** Illustrative Range of Levels of Hospital Autonomy





**PART I :**

**SITUATION, CHALLENGES, NEEDS & DEMANDS**

## **CHAPTER 2**

# **SITUATIONAL ANALYSIS**

## 2 SITUATIONAL ANALYSIS

This chapter gives an overview of analytical findings on characteristics and current problems of the health sector in Sri Lanka, which point to a number of key planning issues to be addressed in order to strengthen the health system.

### 2.1 EXTERNAL ENVIRONMENT

#### (1) SOCIAL, POLITICAL AND ECONOMIC ENVIRONMENT

Sri Lanka's GNP per capita has been around US\$700 on the average for the last decade or GDP in USPPP 3,279. Out of 150 countries, it ranks 81<sup>st</sup> on the Human Development Index. As well known worldwide, its social indicators are impressive for a low-income country as indicated by its infant mortality rate: 17 per 1,000, the expectation of life at birth: 72 years, adult literacy: 92%, (UNDP Human Development Index based on 1999 figures).

These successes were promoted and realized by the socialist welfare package, introduced in the 1940s. A massive expansion of health and education services was realized throughout the country in the 1950s and 1960s. However, it was getting more difficult in the 1970s and 1980s to maintain service quality due to adverse economic conditions. Furthermore, the structural adjustment programs in the 1980s contributed to a decline in combined public expenditures for social services, which resulted in increased income disparities. However, because of the long-standing principles of equal access to social services, cost recovery on any significant scale has not been regarded as a socially acceptable option in either the education or health care sectors.

In contrast with the progress in the social sector, Sri Lanka's economic development lagged for half a century after independence. Sri Lanka was late in adopting economic development strategies such as market liberalization and export orientation designed to increase economic growth. Since the 1970s, economic growth has averaged 4.2% per year. The economic growth rate increased in the 1990s to about 5%, aided by the increase of exports, but both budget deficits and external debts have worsened. The economic structural reforms promoted private enterprises and reduced the public sector in size and employment providing mixed results.

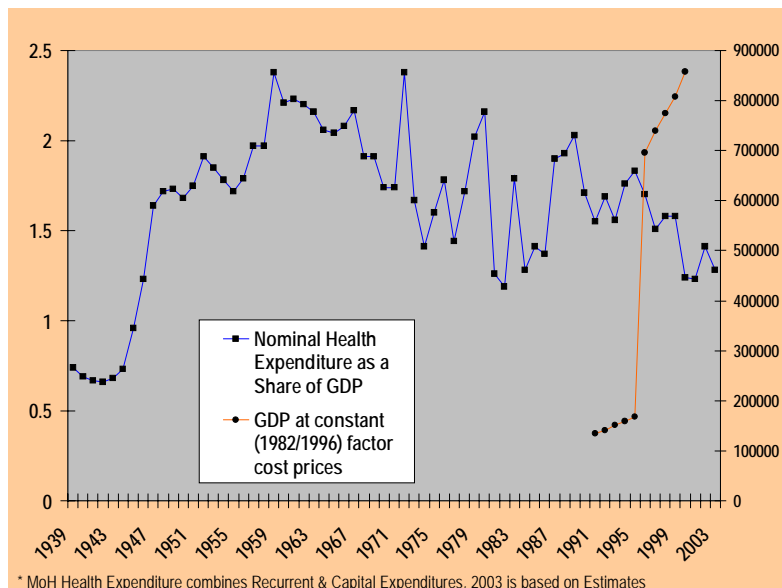
#### **Does Health Expenditure Benefit from Economic Growth?**

In Sri Lanka, economic growth is not tantamount to better expenditure for the health sector. Figure 2.1.1 shows that the rapid expansion in GDP during the 90s was actually accompanied by a declining trend in nominal health expenditure as a share of the GDP. Why was this so? During the same period, it seems public funds for the social sector was diverted for purposes of the military (Figure 2.1.1). The study of Arunatilake showed how the buildup of military expenditures has changed the sectoral allocation of public funds over the 1984-1996 periods.<sup>1</sup>

Whether the forecast for the next five years is optimistic or pessimistic, the issue remains. Should the health sector take a more pro-active role to justify an increase in public allocation? Should it reinforce its capacity to advocate and negotiate for a fairer share of the national budget?

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<sup>1</sup>N. Arunatilake, S. Jayasuriya, and S. Kelegama, *The Economic Cost of the War in Sri Lanka* (Institute of Policy Studies, 2000).



**Figure 2.1.1 GDP (1990-200) and Health Expenditure as a Share of the GDP (1939 to 2003)**

Sources: MoH, MoF, Central Bank of Sri Lanka, Data compiled by MoH-JICA Study Team.

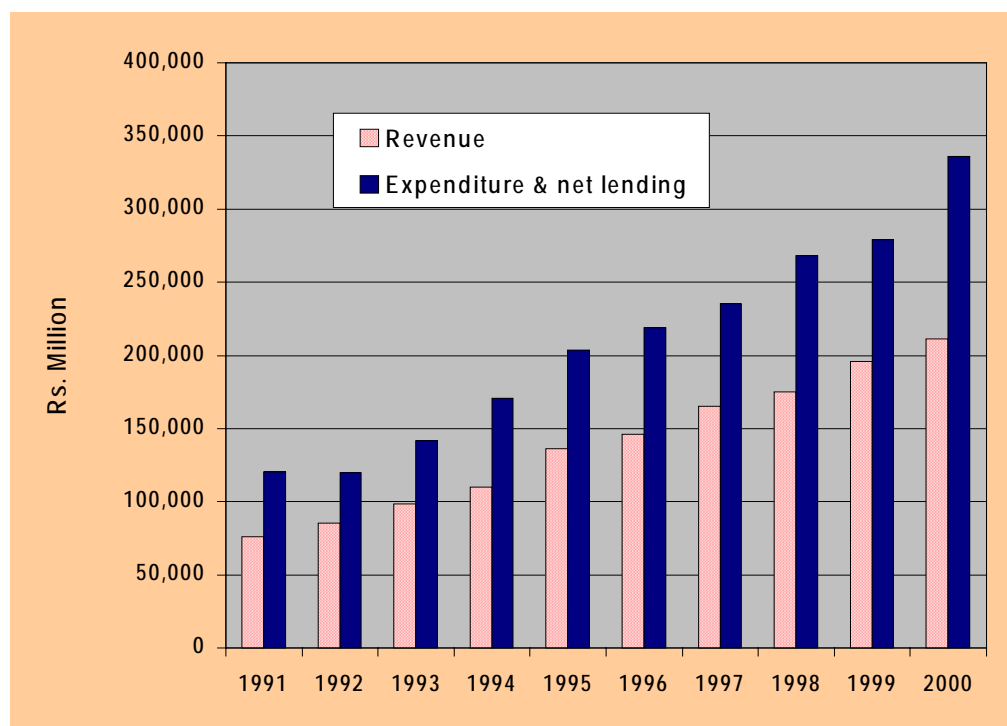
The Government invests in people to build the human resource base for a just and prosperous society. Ensuring the provision of basic needs and opportunities to each citizen to realise their fullest potential is central to the Government's efforts to address poverty. A larger role for the private sector in the provision of health services is envisioned, enabling the Government to focus its resources on improving access and service quality in poor communities.

### Government Capacity to Generate Revenues

#### 1) Government Finance

From 1991 to 2000, the government budget deficit has increased three-fold (Figure 2.1.2).

The revenues come primarily from taxes on goods and services (60% in 2000). Income tax and taxes on international trade contributed a quarter of the 2000 revenues. However, the government spent more than what it could generate.



**Figure 2.1.2 Government Revenue vs. Expenditure, 1991-2000**

Source: Central Bank of Sri Lanka, Economic and Social Statistics of Sri Lanka, 2001.

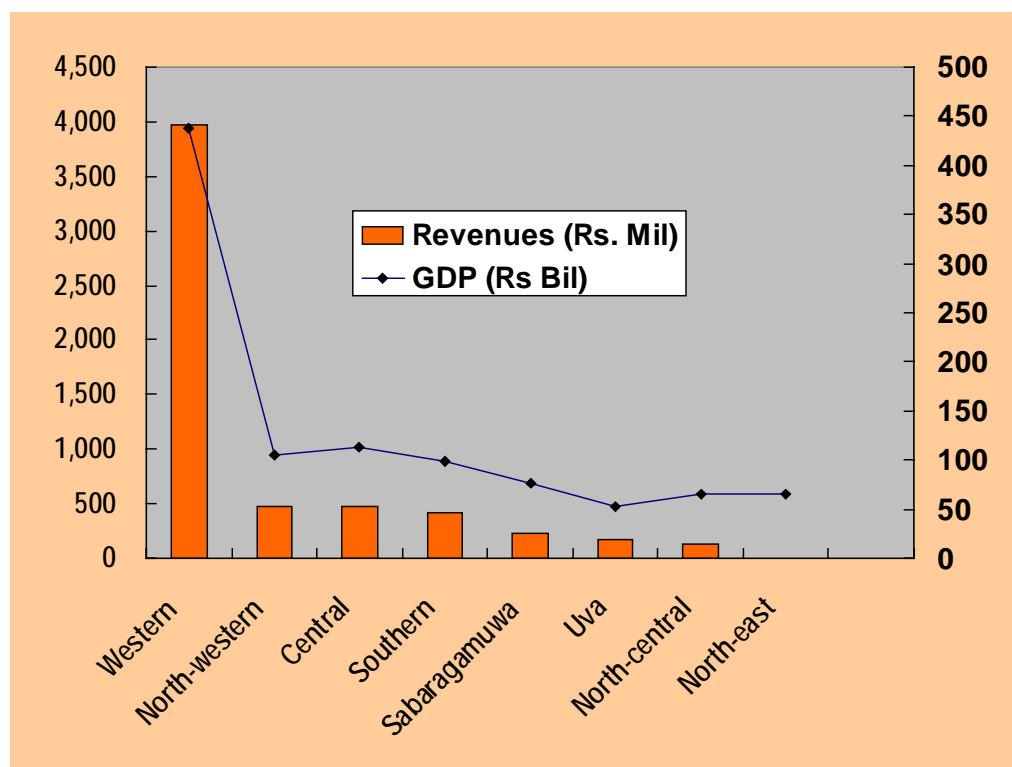
To finance the budget deficit, the government has heavily relied on domestic borrowing from banks and other sources. Foreign financing and grants have been consistent source of supplementary fund. Privatisation activities peaked in 1997.

**Considering the precarious fiscal condition of the government, what then should the health sector do? Should it continue to rely on the current system of financing health? Could it further optimise the allocation and use of available resources? Could it mobilise resources from non-traditional sources?**

### Provincial Councils

There is a wide disparity in the capacity of Provincial Councils to generate revenue (Figure 2.1.3). The Western Province dominates the other provinces in terms of economic indicators. Its revenue is thirty times more than that of North-Central or thirteen times more than the average of the other provinces. Its GDP is eight times more than Uva and five times more than the average of the other provinces.

**The economic disparity across provinces is one of the hurdles that should be addressed when implementing decentralisation.** As responsibilities are devolved, so should authorities. However, even if the Provincial Councils are authorised to mobilise resources, it seems some provinces can do so but only minimally compared to the Western Province. If left to its own, therefore, there will be inequity in the provision of health services.



**Figure 2.1.3 Province-wise Revenue Collection 1998 (Rs. Million)**

Source: Decentralization and Provincial Finance in Sri Lanka. Colombo: Institute of Policy Studies, 2000.

### **Peace: Tapping Its Potential Dividend for Health**

The peace process, as of July 2003, is still trying to deal with the degree of political and financial decentralisation both central government and LTTE can live with at the provincial level. Internationally less known is that other Sri Lankan provincial authorities are demanding also more clear rules of decentralisation, especially with clearer decentralisation of authority.

So, for the Health Master Plan implementation it is not yet clear what the exact rules of political, administrative decentralisation will be, but it is important that this crucial policy be clearly defined and implemented for the success of the HMP. For most efficient implementation in the long term, there would also need to be decentralisation to districts and divisions. It is understood that besides political will this will take capacity reinforcement. The Sri Lankan government currently is engaged in modernising the rules of financial reporting in state organisations, especially in those with a commercial role. The MoH has to fit with the nationwide decisions on political decentralisation and seek to be included early in administrative and financial capacity reinforcement. Even so, it needs to be realised that the health sector will need to pursue its own decentralisation for technical reasons primarily.

Peace is not only desirable in and of itself. Its potential saving on military expenses can instead be channelled back to health and other sectors. Through the rehabilitation programmes, the social and economic infrastructure in the northern and eastern provinces will be rebuilt to an equitable level. The issue at this point is not whether peace will result to better health particularly to people affected by the conflict. **The fundamental issue is whether the military expenses will be reduced and whether the health sector will receive the financial dividend. Instead of raising these issues and waiting for answers, what should the health sector do? Should it act only when peace is finally achieved? Should it take a more pro-active role to ensure that there is peace dividend and that a part of it is used to invest in health?**

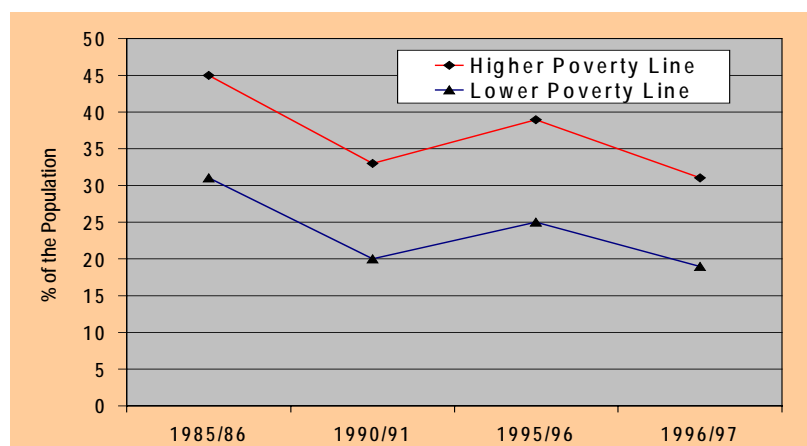
## (2) NATIONAL LEVEL POLICIES RELATED TO HEALTH

### Poverty and Health Policies

It is known since centuries that poverty breeds ill health and ill health impoverishes. This vicious circle is hard to break as **poverty comes with difficult access to basic needs** such as clean air, safe water, sufficient and high quality food, hygiene and sanitation, decent housing, education even for life skills and vital information. This has been well documented in the PRSP and the document on 'Regaining Sri Lanka', both of which explicitly show the government's road map for poverty alleviation.

#### 1) Percentage of Poor is on the Decline but the Poorest has the Least Access

The percentage of people below the poverty line has been generally on the declining trend between 1985 and 1997 (Figure 2.1.4). It increased though in 1995/96. Unfortunately, there is no evidence whether it further improved or stayed stable after 1996/97.



**Figure 2.1.4 Incidence of Consumption Poverty, 1985/86 – 1996/97**

Note: The DCS used a lower poverty line of Rs.791 and a 20 percent higher poverty line of Rs.950 while the CB used a lower poverty line of Rs.860 and a 20 percent higher poverty line of Rs.1,032 per person per month, to estimate the incidence of consumption poverty.

Sources: Household Income and Expenditure Survey 1990/91 and 1995/96, Department of Census and Statistics (DCS), Consumer Finances and Socio-Economic Survey 1996/97, and Central Bank. (Central Bank estimates are not strictly comparable with DCS estimates.)

Table 2.1.1 gives a picture of about Sri Lankan poor and their access to basic needs. The steepest differentials are in overall consumption, safe cooking fuel, access to electricity, safe sanitation and safe drinking water and least in latrines.

**Table 2.1.1 Average Consumption and Access to Basic Infrastructure Services by Consumption Quintile, 1999/2000**

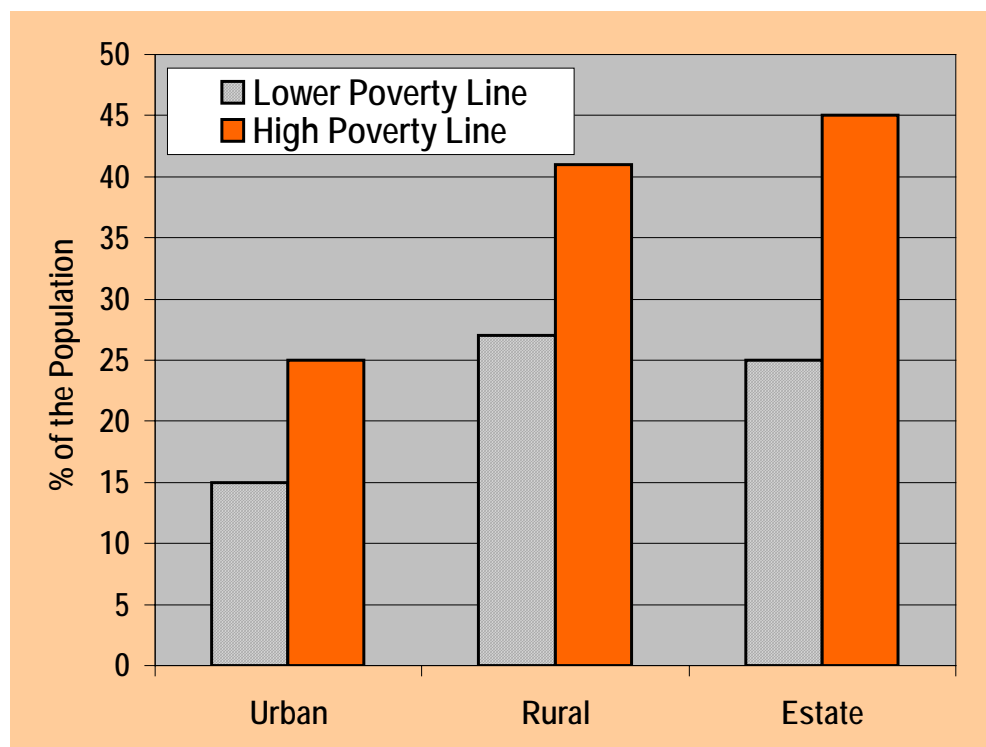
Consumption Quintile	Monthly average consumption per capita (SL Rupees)	Access to Safe Drinking Water %	Latrine %	Safe Sanitation %	Safe Cooking Fuel %	Electricity %
Poorest	821	61	84	55	2	38
Second	1,211	74	85	67	5	49
Third	1,537	78	89	75	8	60
Fourth	1,986	82	90	82	22	67
Richest	3,860	89	94	89	51	82

Note: A household has access to “safe drinking water” if it obtains its drinking water from protected well, public tap, tube well, tap within unit and tap outside unit. A household has access to “safe sanitation” if the type of latrine it uses is either water seal or flush toilet. A household has access to “safe cooking fuel” if it has either gas or electricity for cooking.

Source: World Bank, based on 1992/2000 Sri Lanka Survey

2) Estate is the Worst Off

Poverty is overwhelmingly in rural and estate areas (Figure 2.1.5) but the urban area has its share. Particular groups, the estate workers, are especially vulnerable as many of them are poor. Unfortunately, health services and environmental conditions are also weakest in rural and estate areas. Table 2.1.2 shows these disparities by region.



**Figure 2.1.5 Incidence of Poverty by Sector, 1995/96**

Source: Household and Income Expenditure Survey 1995/96, Department of Census and Statistics.

**Table 2.1.2 Average Consumption and Access to Basic Infrastructure Services by Sector, 1999/2000**

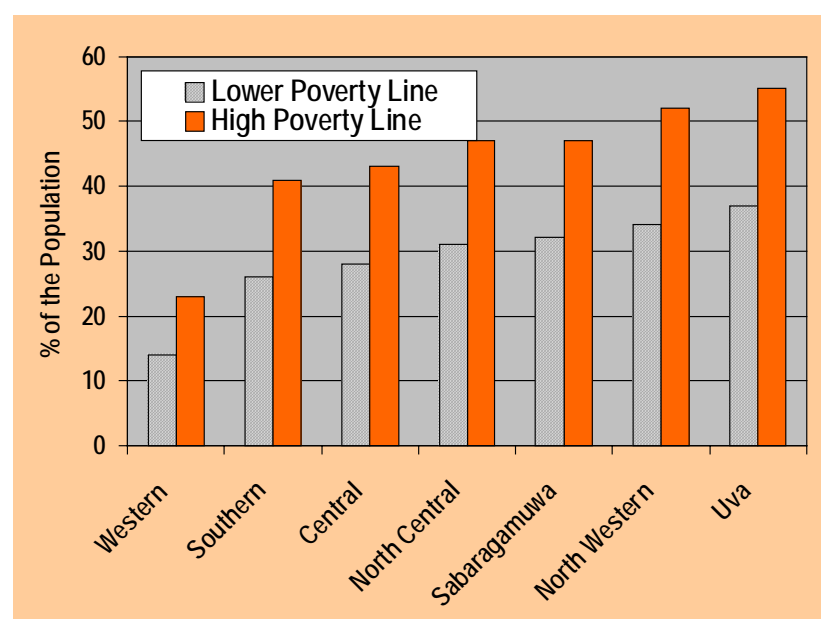
Sector	Monthly average consumption per capita (SL Rupees)	Access to Safe Drinking Water %	Latrine %	Safe Sanitation %	Safe Cooking Fuel %	Electricity %
Urban	2,809	97	94	91	51	84
Rural	1,816	74	88	72	14	57
Estate	1,449	72	76	60	3	43

Note: A household has access to “safe drinking water” if it obtains its drinking water from protected well, public tap, tube well, tap within unit and tap outside unit. A household has access to “safe sanitation” if the type of latrine it uses is either water seal or flush toilet. A household has access to “safe cooking fuel” if it has either gas or electricity for cooking.

Source: World Bank, based on 1992/2000 Sri Lanka Survey.

### 3) Uva Province is the Worst Off<sup>2</sup>

The percentage of poor is very different from province to province (Figure 2.1.6). From having the most to the least proportion of their residents being poor, the provinces are Uva, North-Western, Sabaragamuwa, North-Central, Central, Southern, then Western. If the higher poverty line is used, then the percentage of poor people in Uva is two times more than in Western Province. If the lower poverty line is used, then the difference is even greater.

**Figure 2.1.6 Incidence of Poverty by Province (No Data for North-East), 1995/96**

Source: Household Income and Expenditure Survey 1995/96. Dept. Census and Statistics.

### 4) Analysis on Income and Human Poverty, Health and Survival by Province

Table 2.1.3 shows income and human poverty in relation to health and survival by province. The differentials in performance between provinces are quite sizeable. A graphical analysis<sup>3</sup> between incidence of income poverty and access to basic services revealed the disparity among provinces with the following being the three worst off: Uva, Central and North-Central Provinces. Aside from having the highest percentage of poor people, Uva suffers the most when it comes to having no access to safe sanitation facilities, births not in institutions and adult illiteracy.

<sup>2</sup> The analysis in this section is constrained by absence of comparative data for the Northern and Eastern Provinces.

<sup>3</sup> Detailed discussions are shown in Volume 4, Chapter 2, 2.2: Economic Environment, pp. 2-14 to 2-29.



**Table 2.1.3 Income and Human Poverty, Health and Survival by Province (Percentage of Population)**

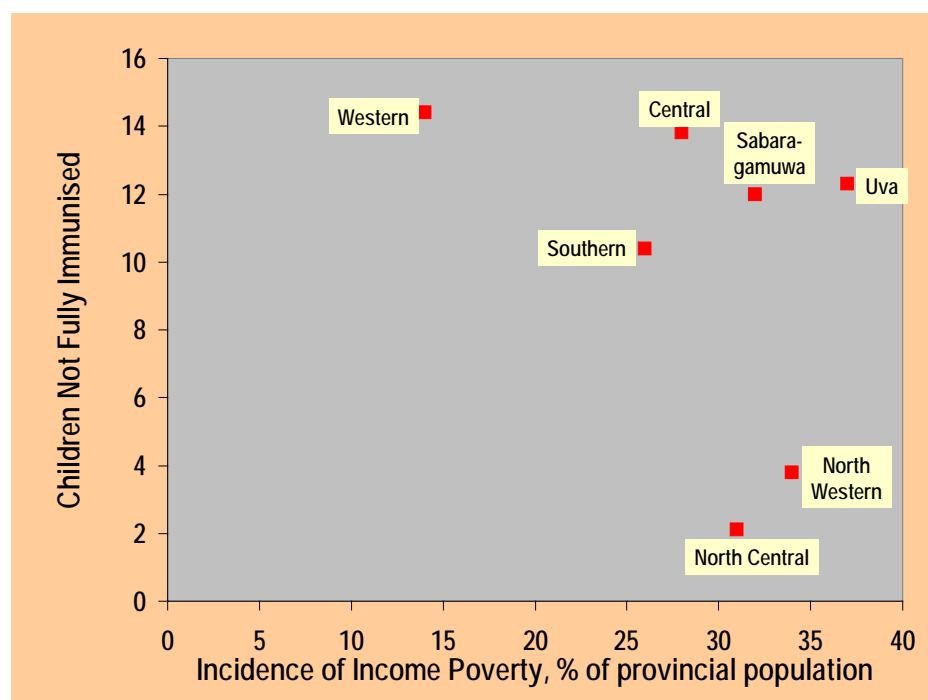
	Population 1994 (millions)	Population density per sq. km. (1997)	Income poverty incidence	Deaths before age 40	Adult illiteracy	No access to safe drinking water	Children not fully immunised	Birth not in institution	No access to electricity	No access to safe sanitation
Western	4.7	1327	14	0.09	6.2	18.2	14.4	3.0	35.3	11.2
Central	3.9	422	28	0.10	15.3	26.1	13.8	21.5	65.0	24.4
Southern	2.6	449	26	0.07	11.2	35.0	10.4	8.6	59.2	20.3
N. Western	2.0	295	34	0.09	8.1	34.6	3.8	12.8	68.7	30.3
N. Central	1.3	116	31	0.15	9.6	48.0	2.1	21.0	72.2	31.7
Uva	1.0	137	37	0.10	17.1	44.6	12.3	36.1	73.5	34.1
Sabaragamuwa	1.1	362	32	0.07	11.2	32.1	12.0	16.9	74.4	22.7

Note: Data not available for North and East Provinces.

Source: Kelegama, Saman (2001), Poverty Situation and Policy in Sri Lanka (mimeo), Asian Development Bank (2001), Poverty Reduction in Sri Lanka: Maximizing the Asian Development Bank’s Contribution.

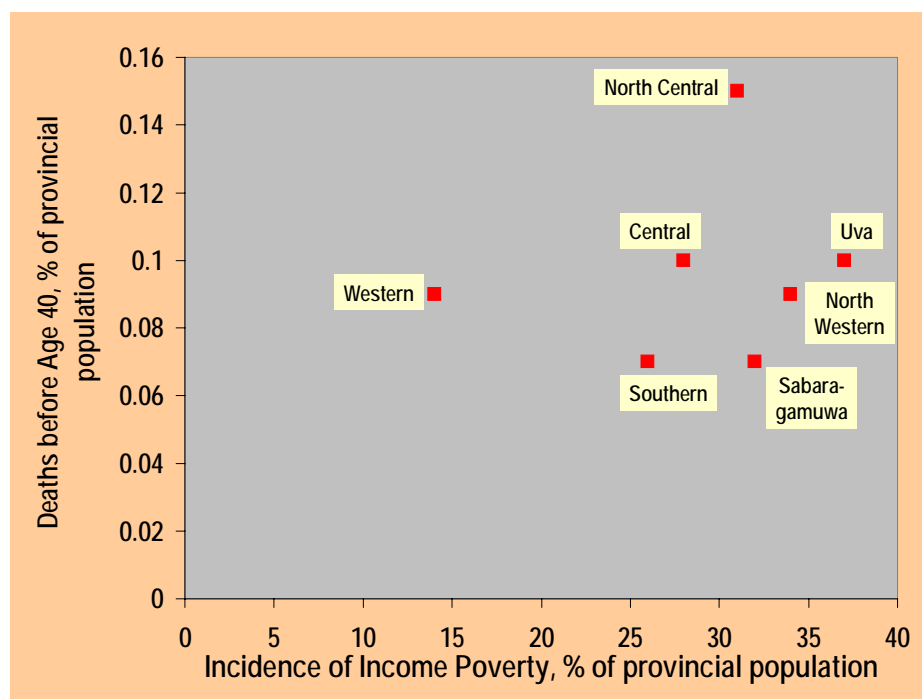
However, other graphical analysis (Figures 2.1.7 and 2.1.8) shows that there seems to be no clear pattern between the incidence of income poverty and two variables, namely, deaths before age 40 and percentage of children not being fully immunised. It could be that the immunisation coverage of the country has reached a level such that there is hardly any differentiation among provinces. Public health services in this country have been really reaching to the poor population through the out-reach program, and death is also a complex phenomenon that poverty alone cannot explain.

The HMP endorses the emphasis of the government’s strategy on pro-poor service delivery including the primary and secondary services most relevant to the poor and give priority to develop these services in areas where a large number of people are impoverished.



**Figure 2.1.7 Relationship between Percentage of Population who are Poor and Percentage of Children not Fully Immunised, 1995/6**

Source: MoH-JICA Study Team



**Figure 2.1.8 Relationship between Percentage of Population who are Poor and Deaths before the Age of Forty, 1995/6**

Source: MoH-JICA Study Team

### Food and Nutrition Policies

Food and Nutrition policies have been a major concern of the Government of Sri Lanka since gaining its independence. The Government of Sri Lanka has formulated several policies and plans variably by the Ministry of Plan Implementation 1984, by the Ministry of Policy Planning and Implementation (2003); the policies involve also the Ministry of Agriculture, Ministry of Commerce, Ministry of Education and Ministry of Health.

#### 1) Food Availability

The Food Balance Sheet data of the Dept. of Census and Statistics show that, since 1970, sheer average availability of calories has been improving even though slowly, coming from 2,127 Kcal and exceeding in 2000 on the average 2,654 Kcal.

#### 2) Food Security

Since Sri Lanka achieved its independence in 1948, its Food Security Strategy has been determined by three priorities:

- National self-sufficiency in basic food items;
- A public basic food distribution system through a multi-purpose Cooperative System and public institutions; and
- Welfare programmes that included either food subsidy/stamps or an income transfer component.

For paddy rice, the Mahaweli irrigation scheme helped to achieve higher acreage under paddy and higher yields per hectare (from 3,452 kg in 1990 to 3,957 kg in 2001). This assures a 90% national self-sufficiency for paddy. At the same time, consumption of rice per capita has decreased as bread has

become more popular. For all items, the difference between local production and need has to be compensated by imports.

Whenever food availability and national food security are assured, disparities and deficiencies in nutritional intake are due to:

- Financial access to market or capacity for household production;
- Loss of food through spoilage;
- Market and distribution deficiencies; and
- Consumer preferences, cultural taboos and food habits.

The other important factors within the food and nutrition policy framework are emphasis placed on financial access to market spoilage, post harvest management and food preservation, market distribution differences and consumer preferences versus nutrition education programs.

### 3) Consumer Preferences vs. Nutrition Education/Communication

The food preferences play a role in all age groups, but are most constraining for babies and toddlers and the pregnant mothers.

**Table 2.1.4 Provincial Variation in Child Malnutrition (%)**

Province	Poverty Rank worst to best	Anaemia among children <5y years	Vitamin A deficiency
Western	7	47	24
Central	5	36	22
Southern	6	48	42
North western	2	57	46
North Central	4	55	57
Uva	1	36	35
Sabaragamuwa	3	43	51
Sri Lanka		45	36

Source: (a) Mudalige, R and P. Nestel (1996), Prevalence of Anaemia in Sri Lanka, Ceylon Journal of Science. (b) Nutrition and Health Status of Children, 1993, Nutritional and Poverty Policy Division, Ministry of Policy Planning and Implementation. (c) Medical research Institute, 1998. Vitamin A deficiency: Status of Children, Sri Lanka 1995.

Moreover, there is no quantitative relation between the poverty rank and these micronutrient deficiencies. This might be explained by food preferences and taboos. A Nutrition Education Policy was proposed in 1986 but never implemented as such.

Still many governmental and non-governmental bodies have tried to respond to the obvious need for nutrition education on infant and child feeding. There is an obvious need for a clear policy on nutrition education as a matter of national urgency, to cover maternal, infant and child nutrition as well as lifelong prevention of non-communicable diseases.

Since March 2002, there has been a Task Force to develop a Food and Nutrition Policy for Sri Lanka in the Ministry of Policy Planning working closely with the Nutrition Coordinating directorate of MoH. A new policy is expected soon. When a new Food and Nutrition Policy would be declared, there is a need to include a food surveillance and a nutrition surveillance system permitting to judge progress and needed to readjust delivery of services.

The HMP seeks to embody the understanding that Food and Nutrition is par excellence intersectoral, that food security at household level should now be aimed for and will need interventions by different

sectors, and that nutrition education is very important and will become even more important as more Sri Lankan households reach food security. A major change in national food habits for mothers and children will take a national effort where MoH can play a guiding and mobilising role, facilitating NGO and community groups' involvement. Even more a fundamental change in food preferences for adults is needed and will similarly need a national effort, where MoH can guide and stimulate NGOs and civil society.

### **Health System Reform Policies**

These past decades have seen many attempts at reform of health systems in developed and developing countries, as there “is an enormous gap between the potential of health systems and actual performance” (World Health Report, WHO 2000). These attempts have helped in better conceptualization of the imperfections of the health market, and the potential roles of the state. The experience has revealed governmental strengths and limitations: in direct provision of care, as guarantor of access to care for all citizens, as guarantor of quality of care, and in cost containment in the sector.

There has so far been no formal Health System Reform in Sri Lanka except for some reorganisation of the central Ministry and Departments and some decentralisation (see separate section on decentralisation). HMP organised an HSR survey of 100 key officials and some of the results are highlighted below.

Table 2.1.5 shows that, of the needs that prompted the MoH to consider reforms, four factors stood out with 60% or more votes. They were: increased health demands, financial constraints, pressure from donors and political reasons. Equity issues come next with 45%.

**Table 2.1.5 Factors that have Forced the MoH Sri Lanka to Consider Reforms**

<b>Factor</b>	<b>Frequency</b>	<b>%</b>
Increasing health demands	52	70.
Financial constraints	47	64
Pressure from donors	47	64
Political reasons	44	60
Equity issues	33	45
Public pressure	22	30
Overall reform of the government	14	19

Source: Health System Report Survey 2002, MoH-JICA HMP Study, Sri Lanka.

A study conducted on issues related to health sector reforms highlighted the views of key informants, which are given below in brief.

**Table 2.1.6 Areas in which Sri Lanka should Undergo Reforms**

Area	Frequency	%
Reorganisation of the Ministry of Health	21	28.
Decentralisation (transfer of authority to smaller institutions) and/or reorganisation of Provincial Ministries	21	28
Increasing responsiveness to local needs	37	50.
Improving efficiency	44	60
Improving effectiveness	36	49
Improving equity	40	54.
Reducing cost for the health system	34	46
Development of human resources for health	23	31.
Responding to changes in socio-cultural dimensions	22	30
Alternative approaches for financing for health	35	48
Enhancing Private-Public mix	24	32.

Note: Multiple answers were provided.

Source: Health System Report Survey 2002, MoH-JICA HMP Study, Sri Lanka.

On a question about the key HSR stakeholders, Table 2.1.7 shows that the MoH officials recognise most, if not all, potential stakeholders.

**Table 2.1.7 Key Stakeholders of Policy Development for Health Sector Reforms**

Organization	Frequency	%
Health Ministry	69	93.2
Provincial Governments	61	82.4
Professional Associations	60	81.1
Private Health Sector	59	79.7
Health-related Ministries	59	79.7
Community Groups	54	73.0
Municipalities and Local Govt:	45	60.8
Trade Unions	42	56.8
Health Industries, e.g. Pharmaceuticals	37	50.0
Non-Governmental Organizations	37	50.0
UN Agencies	30	40.5
Legislative Groups	29	39.2
International NGO'S	26	35.1
Mass Media	21	28.4
Bilateral Donors	20	27.0
Religious Bodies	12	16.2
Development Banks	9	12.2

Note: Multiple answers were provided

Source: Health System Report Survey 2002, MoH-JICA HMP Study, Sri Lanka.

HMP therefore embraces a step-by-step approach to recognition of problems, corrective planning and evolutionary change of the system, which can reflect the felt need for HSR and avoid the danger of an overly ambitious overhaul that might come at high opportunity costs.

### **Decentralisation Policies**

Decentralisation in Sri Lanka was introduced in 1988 in an attempt to find a peace accord in the civil strife. The establishment of the Provincial Councils intended to be a solution to the North and East conflict, however, was introduced throughout the country. It was perceived as constituting a radical

departure from the centralised form of governance Sri Lanka had practiced since emerging from colonial rule.

The “Provincial Councils System” that has been functioning for over a decade has passed through several rounds of elections and constitutes a legal and administrative reality for managing public affairs and human development in the country. Even so it is not yet complete as several provinces have not been given full statutory power and the financial decentralisation everywhere is very limited.

It is also interpreted by some as a case of deconcentration to all provinces and devolution to some of responsibilities but often without commensurate authority especially in the financial matters. In most provinces of Sri Lanka, there has been very little decentralization to districts and even less to Divisions. Such decentralisation would need a very clear definition of roles and intense capacity reinforcement but it may be one of the pillars of success of HMP.

The peace process as at today is still under negotiation for political and financial decentralisation both central government and LTTE can live with at the provincial level. Whether these terms will be extended to other provincial authorities is still not clear.

Therefore, for the HMP implementation it is not yet clear what the exact rules of political and administrative decentralisation will be, but it is important that this crucial policy be clearly defined and implemented for the success of the HMP. For most efficient implementation in the long term there would also need to be decentralisation to districts and divisions. It is understood that, besides political will, this will take capacity reinforcement. The Sri Lankan government currently is engaged in modernising the rules of financial reporting in state organisations, especially in those with a commercial role.

MoH has to fit with the nationwide decisions on political decentralisation and seek to be included early in administrative and financial capacity reinforcement. Even so, it needs to be realised that the health sector will need to pursue its own decentralisation for technical reasons primarily.

### (3) STAKEHOLDERS ANALYSIS

During the development of the Health Master Plan, a wide ranging attempt was made to involve all stakeholders directly related to the Ministry of Health at central, provincial and district level, as well as relevant health NGOs. The perception of the health problems and the problems with the health delivery system are widely shared among these stakeholders. Differences seem to arise more in what solutions are ideally suited and are feasible. It was, therefore, a very important process for the health master plan to be adaptable to the different stakeholders in the health sector.

There is still a big need to create an ongoing dialogue with stakeholders, which should accompany the implementation phase, since the implementation is to be intersectoral and participatory. This list of stakeholders should not be considered final and complete but it shows the great diversity of stakeholders and the need to try to reach out to those most relevant to the subject to be studied or the plan to be launched.

#### Overview of Stakeholders

##### 1) COLLABORATING GOVERNMENT AGENCIES

- **Ministry of Health** *line ministry*, **Ministry of Indigenous Medicine and Disaster Relief** *line Ministry*
- **Ministry of Finance and Planning** *budget, financial management and accounting, TQC*

- **Ministry of Policy Development and Implementation** *Food and Nutrition policy, Policies necessary for HMP? Policies for Intersectoral Health-related activities, TQC*
- **Ministry of Education**, *School Health, detection of chronic illness, child abuse, Health Education of Children, Life skills, Healthy living style in school (school canteens, sanitation, hand washing, exercise), HRD for nursing and paramedics*
- **Ministry of Labour**, *standards for work environment, ergonomics, occupational health, preventive screening, accident prevention, prevention of environmental pollution*
- **Ministry of Transport**, *vehicle control, drivers license, road design, traffic rules*
- **Ministry of Agriculture**, *implementation of Agri extension for improved access to vegetables, fruits and protein, improved rural marketing of such produce, improved market responsive cultivation of herbs for IM*
- **Ministry of Interior**, *family violence, conflict management, first aid at accidents and injuries and burns*
- **Ministry of Defence**, *riot control, conflict management, first aid at accidents and injuries and burns, agreement on best practice for traumatology and surgical emergencies (MoD has its own hospital and traumatology unit), collaboration in disaster preparedness and HRD*
- **Ministry of Mass Communication**, *health journalists to popularize HMP and major health education messages*
- **Ministry of Higher Education**, *HRD for allopathic and indigenous doctors, potentially for leadership in nursing and paramedical as well as hospital administrators*
- **Ministry of Women's Affairs**

## 2) PRIVATE SECTOR HEALTH INSTITUTIONS

- Private Hospital Association, Pharmaceutical Companies, Independent Medical Practitioners Association

## 3) PROVIDERS AND SUPPORT STAFF IN ALLOPATHIC / INDIGENOUS MEDICINE

- Professional Bodies
- Trade Unions list
- Health Teams by Facility

## 4) POLITICAL PARTIES LIST AND EVENTUAL HEALTH PLATFORM

There are 51 Political Parties registered with the Office of the Commissioner of Elections in Sri Lanka as at 31<sup>st</sup> January 2002

The Major Political Parties are:

- The United National Party (UNP)
- Sri Lanka Freedom Party (SLFP)
- People's Liberation Front (JVP)
- People's Alliance (PA)
- Eelam People's Democratic Party (EPDP)
- Communist Party of Sri Lanka (CP)
- Ceylon Workers Congress (CWC)
- Sri Lanka Muslim Congress (SLMC)

## 5) DISTRICT AND DIVISIONAL HEALTH AND DEVELOPMENT COMMITTEES

- 6) PROVINCIAL COUNCILS & LOCAL GOVERNMENT BODIES
- 7) UN ORGANIZATIONS: WHO, UNICEF, UNFPA, UNHCR, WB-IDA
- 8) REGIONAL AND BILATERAL BODIES: ADB, NORAIID, JICA
- 9) HEALTH-RELATED NON-GOVERNMENTAL ORGANIZATIONS LIST (Reference: Directory of Health-Related NGOs, Sri Lanka. World Health Organization, Colombo, Sri Lanka, January 2003)
  - Family Health related
  - HIV-AIDS/STDs related
  - Mental Health related
  - Nutrition related
  - Primary Health Care related
  - Rehabilitation of Disable related
  - Substance Abuse related
  - Water/Sanitation related
- 10) RESEARCH INSTITUTIONS INCLUDING UNIVERSITIES SL LIST
 

Central Bank of Sri Lanka, Institute of Policy Studies, Institute of Fundamental Studies, Ceylon Institute of Scientific and Industrial Research, Sri Lanka Standards Institute, Department of Census and Statistics, Registrar General's Office, Medical Research Institute, Government Analyst, Agrarian Research Institute, Water Board
- 11) SERVICE- RELATED NON-GOVERNMENTAL ORGANIZATIONS
 

Lions International / Rotary International / Jaycees International / Weerasebala Foundation / Dharmavijaya Foundation
- 12) STATE AND PRIVATE SOCIAL SECURITY SCHEMES
 

YASIRU Insurance Scheme
- 13) RELIGIOUS BODIES
 

Buddhist	–	Young Men's Buddhist Association (YMBA)
Christian	–	YMCA / YWCA
Muslim	–	Young Men's Muslim Association (YMMA)
Hindu	–	Ramakrishna Mission

### **MoH - JICA Survey**

#### 1) Stakeholder Analysis<sup>4</sup>

A survey of key personnel in and out of the health structure in Sri Lanka was commissioned by the JICA Study Team in October 2002 to gauge opinion of stakeholders on who should be and who are playing a role in health sector reform in Sri Lanka. A majority of respondents feel that the line and provincial Health Ministries should take leadership in health reforms.

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<sup>4</sup> Detail discussions are shown in Volume 4, 9.2 Stakeholder Analysis page 9-5 to 9-12



**Table 2.1.8 Organizations that should take Leadership in Reforms**

Organization	Frequency	%
Ministry of Health	44	59.5
Ministry of Health with the support of Provincial Health Ministries	5	6.8
Political Leadership	3	4.1
Nominees of the President/Prime Minister	2	2.7
Government	15	20.3
No response	5	6.8
<b>Total</b>	<b>74</b>	<b>100.0</b>

Source: Stakeholders Opinion Survey 2002, MoH-JICA HMP Study for Sri Lanka.

However, a majority of respondents (>80%) identified non-state organizations as those playing an active role in reforms.

**Table 2.1.9 Organizations that play an active role in HSR**

ORGANIZATIONS	FRQUENCY	%
Private Organizations	27	36.5
Non-Governmental Organizations	22	29.7
Consumer Groups	13	17.6
Ministry of Finance Planning, Policy Planning	24	32.4
Trade Unions	3	4.1
Ministry of Health	9	4.1
Medical, Paramedical Organizations	1	1.4
Provincial Health Ministries	8	10.8
Professional Organizations	4	5.4
Universities	2	2.7

Note: Multiple answers were provided.

Source: Stakeholders Opinion Survey 2002, MoH-JICA HMP Study for Sri Lanka.

A review of stakeholder analysis reveals that key respondents identified the stakeholders who should be involved in health sector reforms and those who are actively involved in reform separately. They identified the government sector as those who should take leadership in health sector reforms. But they identified the non-government sector as those who are active in health sector reforms. As can be seen there is a gap between what is perceived and what is practiced. This gap could be a barrier in building consensus among stakeholders in health sector reforms. It is evident that there should be a partnership between the government and non-government stakeholders.

On the question of the factors that forced MoH to consider reforms, four stood out with 60% or more votes. They are increased health demands, financial constraints, pressure from donors and political reasons. Next come equity issues with 45%.

**Table 2.1.10 Factors that have forced the MoH Sri Lanka to Consider Reforms**

Factor	Frequency	%
<b>Increasing health demands</b>	52	70.
<b>Financial Constraints</b>	47	64
<b>Pressure from donors</b>	47	64
<b>Political reasons</b>	44	60
Equity issues	33	45
Public pressure	22	30
Overall reform of the government	14	19

Source: Health System Report Survey 2002, MoH-JICA HMP Study, Sri Lanka.

On the question of the importance of HSR in a country, the answers seemed very positive and convinced. However, when asked to apply the same question regarding Sri Lanka, the answers were less emphatic. Even so, most areas for reform have more than 30% of officials agreeing, with almost 50% and more agreeing on responsiveness, efficiency and equity. They agreed that effectiveness need improvement.

**Table 2.1.11 Areas in which Sri Lanka should Undergo Reforms**

Area	Frequency	%
Reorganisation of the Ministry of Health	21	28.
Decentralisation (transfer of authority to smaller institutions) and/or reorganization of Provincial Ministries	21	28
<b>Increasing responsiveness to local needs</b>	37	50.
<b>Improving efficiency</b>	44	60
<b>Improving effectiveness</b>	36	49
<b>Improving equity</b>	40	54.
<b>Reducing cost for the health system</b>	34	46
<b>Development of human Resources for health</b>	23	31.
<b>Responding to changes in socio-cultural dimensions</b>	22	30
<b>Alternative approaches for financing for health</b>	35	48
<b>Enhancing Private-Public mix</b>	24	32.

Note: Multiple answers were provided.

Source: Health System Report Survey 2002, MoH-JICA HMP Study, Sri Lanka.

The participatory modalities proposed represent a wide array but are still heavily weighted to MoH centred formal mechanisms even though there seems an over tune to the use of mass media.

HMP therefore embraces a step-by-step approach to recognition of problems, corrective planning and evolutionary reform of the system, which can reflect the felt need for HSR and avoid the danger of an overly ambitious overhaul that might come at high opportunity costs.

## 2) Private Sector Stakeholder Analysis

In light of these findings, the JICA Study Team commissioned a study on private cooperation and collaboration in health systems in Sri Lanka.<sup>5</sup> The study revealed that with the rapid development of the Private Sector, the Sri Lankan health system has been challenged in few, but yet, important issues. There have been many questions raised in many forums for discussion, but these have remained unanswered. They are:

- Should the Government get actively involved in collaboration with the Private Sector? What are the views of the Government health officials and the Private Sector representatives in this regard?
- In such collaboration, what support does the Private Sector expect from the Government/ Government Health Sector?
- Similarly, what does the Government expect from the Private Sector in order to maximise the efforts for provision of better health care?
- Can the two parties arrive at a consensus and identify areas in which both parties are willing to provide for each other for the benefit of the Consumers?

Another aspect that should be studied in order to enhance the Private-Public collaboration is to carefully review what elements are being presently shared by the Government and the Private Health Sectors.

<sup>5</sup> MoH/JICA Study No. 5.2.

- What is the disparity between the ideal and the reality?
- Can this disparity be minimised? And how?

The third aspect is to determine, what action has been proposed by the Government Health Sector to coordinate and to regulate the Private Health Sector.

- Does the bill addresses the issues that will be identified by the above questions?

A fourth, and one of the most important aspect, is to explore for the opinions of Consumers in this regard.

- Do the Consumers expect the Government health system to cooperate and collaborate with the Private health system effectively?
- What is the Consumer's opinion on the Government's action to regularise the Private Sector?

The study concluded with the following recommendations to strengthen the partnership between government and non-government stakeholders.

- A policy should be developed to maximise the cooperation and collaboration of certain activities between the Ministry of Health and the Private Health Sector.
- As an initial measure, a core group within the MoH should be identified to study the areas of cooperation and collaboration with the PHS. Members from various disciplines should be mobilised as the members of the core group whom, in turn should propose a mechanism to enhance the collaborative process.
- A committee comprising representatives from the MoH, Private Health Sector, and other Sectors should be formulated to study the existing drawbacks and obstacles for such collaboration and to propose mechanisms to establish the collaborative process. This group may be strengthened with few Consumer/ Community representatives in order to bring in proposals from the Consumers of Health Care.
- Few costing studies on the cost efficiency of certain services and investigations in the Government Hospital settings and in the Private Health Sector institutions should be carried out. Any decisions on out-sourcing of services should be carefully considered based on the results of these studies.
- The Private Health Sector has a definite role to play in the information sharing process, sharing Human Resource Development and in-joint quality control mechanisms. Their maximum participation of the PHS in these areas should be encouraged.
- The Government/MoH should assist the Private Health Sector development by extending certain assistance to the PHS, such as certain types of financial assistance, free accessibility to relevant information, and sharing technical knowledge on Human Resource Development, and by assisting them in developing quality control programmes.

### **Role of professional associations, trade unions and other stakeholders**

There are many stakeholders in the health sector. There are no official channels to consult and have a dialogue with them. In Phase II, the Study will investigate how this dialogue could be started and maintained.

In this regard, the government appointed a cabinet sub-committee to consult the stakeholders within the government sector. The terms of reference of the sub-committee were:

- 1) Service issues of the health sector were divided into four groups:
  - Current and emerging service requirements.
  - Human Resource Development needs to meet above requirements.
  - Continuing professional development needs of Human Resource for health.
  - To examine the above in the context of the contents of Trade Unions, Professional bodies, Academics and the civil society.
- 2) To study the submissions forwarded by the relevant TUs and identify the main goals/service issues identified by them and evaluate them, taking into consideration the overall organisational needs of the health sector.
- 3) To contact and consult any person or organization with regard to above service issues.
- 4) To submit the comprehensive report on matters observed with recommendations before 28<sup>th</sup> February 2003.

The final report of the sub-committee was published in July 2003 by the Ministry of Health, Nutrition & Welfare. Forty-five (45) trade union within government health sector submitted proposals to the committee below.

The recommendations of the committee are extensive and specific. These recommendations indicate the direction of change within the health sector and can be used for consensus building within the government health sector.

## 2.2

## OVERALL ASSESSMENT OF THE HEALTH SYSTEM

In this chapter, the focus will not be the individual parts but the totality of the health system. The health system will be taken as a unit; at times, though, the unit refers primarily to the government sector. Although some would disagree, the system is presumed to work in unison towards common goals. Furthermore, the discussion assumes there is consensus on the goals.

The common goals of the health system are reflected in the vision<sup>6</sup> of the Ministry of Health:

**Vision:** To contribute to social and economical development of Sri Lanka by achieving the highest attainable health status through promotive, preventive, curative and rehabilitative services of high quality made available and accessible to people in Sri Lanka

Health attainment is the foremost goal. Provision of quality services is another one. Making services available and accessible to people in Sri Lanka may be interpreted as representing the aim of the system for achieving equity. The vision seems silent on two other system goals that were included in the World Health Report 2000 – responsiveness and system performance or efficiency.

In this chapter, the assessment will be limited to how the entire system and not specific programmes has improved:

- 1) Health outcome;
- 2) Equity;
- 3) Efficiency;
- 4) Satisfaction, Responsiveness & Quality

### (1) HEALTH OUTCOME

The fundamental goal of a health system is to improve the health status of its people. It is the traditional objective and it will always be the foremost one. It may fail in achieving other objectives but its people and government will hold it accountable for its health. What is health? How does one assess improvements in health? Is there a single indicator that could be used to reflect the impact of a broad spectrum of activities of the health sector towards better health? Considering the dependency of health on various health-related sectors, could improvement (or lack of it) in health status be rightfully and solely be attributed to the health sector?

In this section, the traditional vital indicators and contemporary ones advocated by the WHO are employed to reflect the evolving nature of health, goals of health system and measurements of both. Specifically, they are the population, birth and death rates, life expectancy and equality of child survival. They are meant to measure not the individual programmes, conditions or diseases<sup>7</sup> but the outcome of improvements in their entirety. To avoid the issue of attribution, the concept of health system, which includes all the players, whose activities are geared towards better health, and not sector.

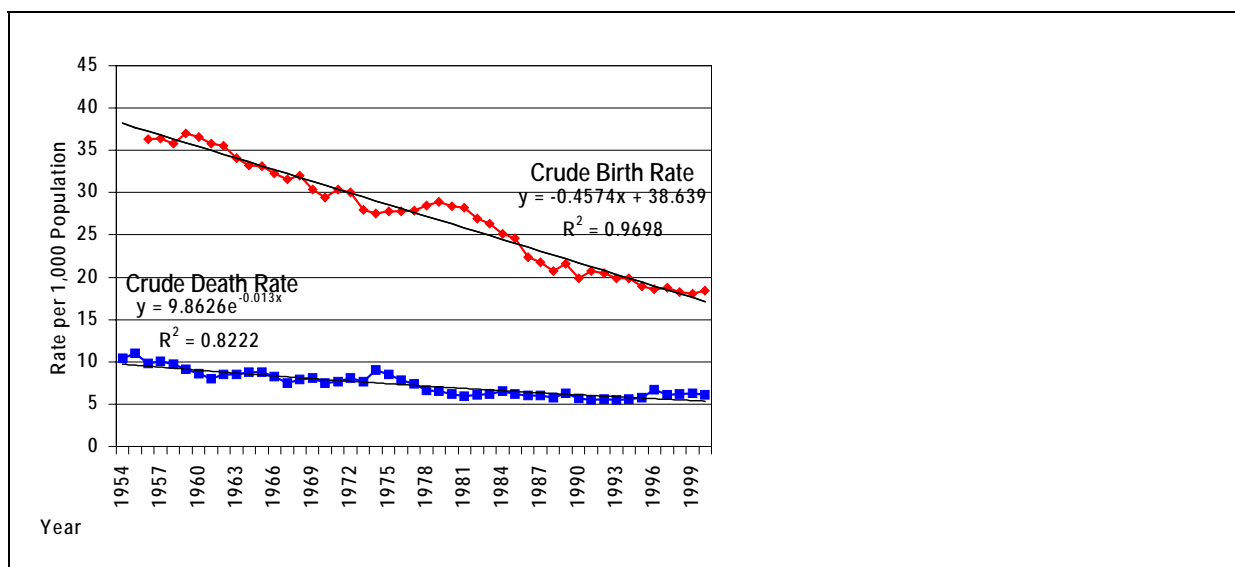
<sup>6</sup> Ministry of Health, Progress and Performance Report 2002.

<sup>7</sup> Refer to Chapter 8 for discussions on causes of consultations, admissions and future trends in demography and epidemiology.

## Birth and Death Rates

### 1) Crude Rates

The population increase in Sri Lanka was not merely a baby boom phenomenon. During the rapid growth phase, the crude birth rates were also on the decline. As such, the population boom was partly because fewer people were dying relatively. Figure 2.2.1 graphically demonstrates that while the crude birth rates were decreasing arithmetically by about 4 to 5 per 100 population, the crude death rates were in fact declining faster exponentially.



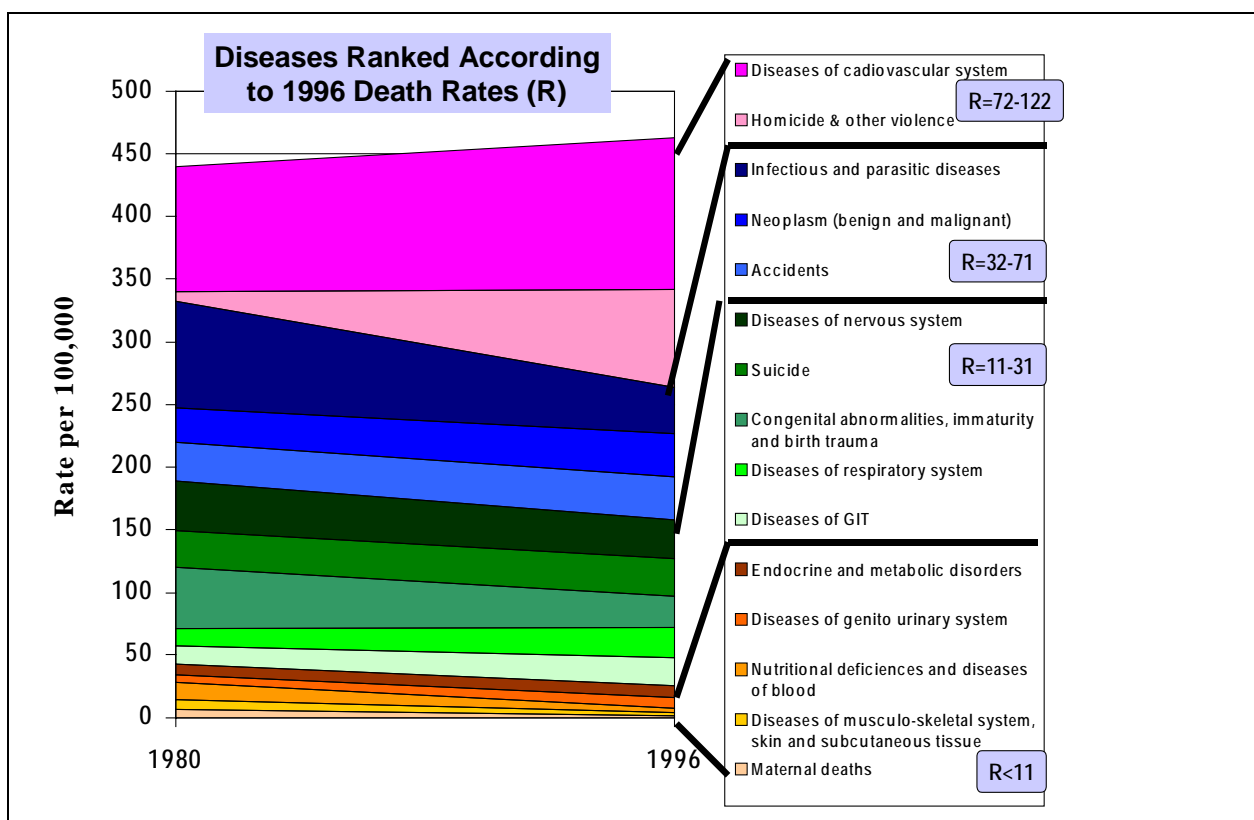
**Figure 2.2.1 Crude Birth and Death Rates, 1954-2000.**

Source: Data is from the Department of Census and Statistics, Statistics Abstract 2001.

What are the causes of deaths? Based on reports to the Registrar-General office, which is said to represent 98% of the actual deaths, the common causes<sup>8</sup> in 1996 can be categorised into four according to the rates (Figure 2.2.2):

- Group A (Death Rate= 72-122 per 100,000 population): Diseases of cardio-vascular system; Homicide and other violence;
- Group B (R=12-71): Infectious and parasitic diseases; Neoplasm (benign and malignant); Accidents;
- Group C (R=11-31): Diseases of nervous system; Suicide; Congenital abnormalities, immaturity and birth trauma; Diseases of respiratory system; Diseases of GIT; and
- Group D (R=10 or less): Endocrine and metabolic disorders; Diseases of genito-urinary system; Nutritional deficiencies and diseases of blood; Diseases of musculo-skeletal system, skin and subcutaneous tissue; Maternal deaths.

<sup>8</sup> Refer to Chapter 8 for further discussion on communicable and non-communicable causes of deaths.



**Figure 2.2.2 Common Causes of Deaths Categorized According to Death Rates in 1996**

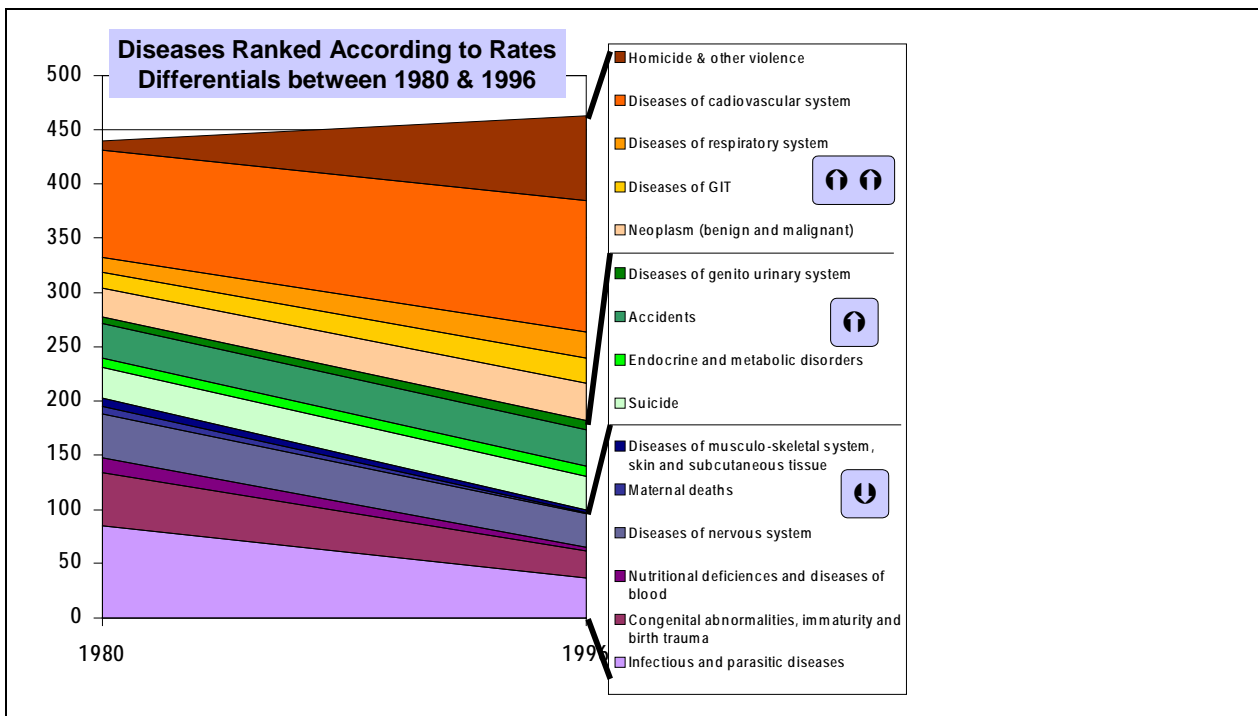
Source of Data: Registrar General Office.

Another way of classifying the common causes of deaths is according to the change in the rates between 1980 and 1996 (Figure 2.2.3). Based on this, the causes can be categorised into 3:

- Group I (Significant Increase): Homicide & other violence; Diseases of cardiovascular system; Diseases of respiratory system; Diseases of GIT; Neoplasm (benign and malignant);
- Group II (Minimal Increase): Diseases of genito-urinary system; Accidents; Endocrine and metabolic disorders; Suicide; and
- Group III (Decrease): Infectious and parasitic diseases; Congenital abnormalities, immaturity and birth trauma; Nutritional deficiencies and diseases of blood; Diseases of nervous system; Maternal deaths; Diseases of musculo-skeletal system, skin and subcutaneous tissue.

If the two criteria are employed, then it seems that the top five important causes of deaths are as follows:

- 1 Homicides and other violence;
  - Diseases of the cardio-vascular system;
  - Neoplasms (either benign or malignant);
  - Diseases of the respiratory system; and
  - Accidents.



**Figure 2.2.3 Common Causes of Deaths Categorized According to Differences in Death Rates between 1980 and 1996**

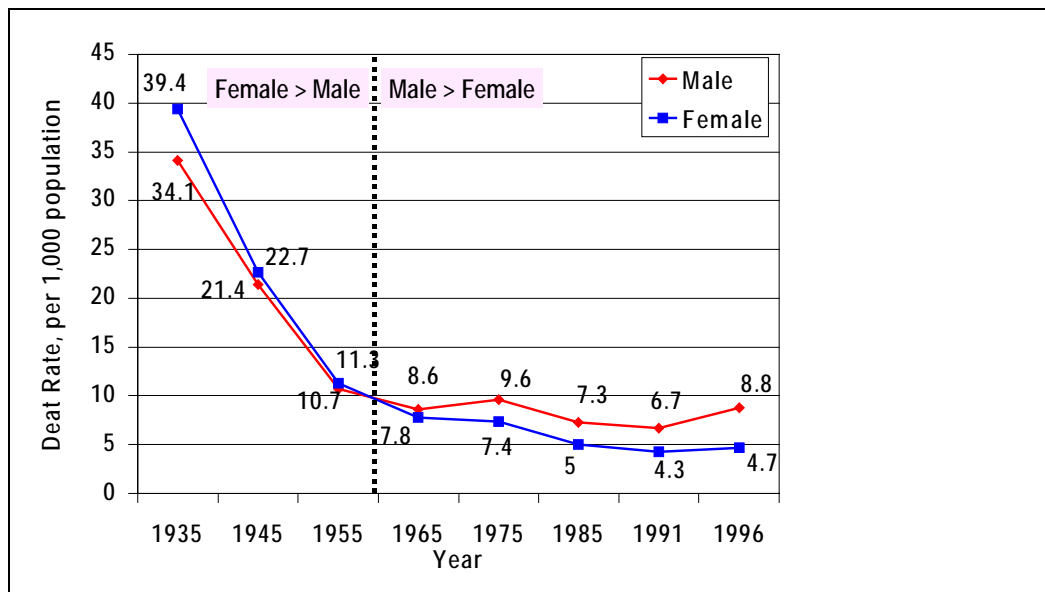
Source of Data: Registrar General Office.

## 2) Gender- and Age-Specific Death Rates

- Males are Worse Off

From 1935 to 1996, two patterns were observed in the gender-specific death rates (Figure 2.2.4). A shift in trends transpired sometime in the late 50s or early 60s. Prior to this period, the probability of women dying is higher. Afterwards, though, the males started to be at a disadvantage. The gender gap persists to widen. For every 10 thousand population, only 8 more men than women died in 1965; but 41 more men than women died in 1996.



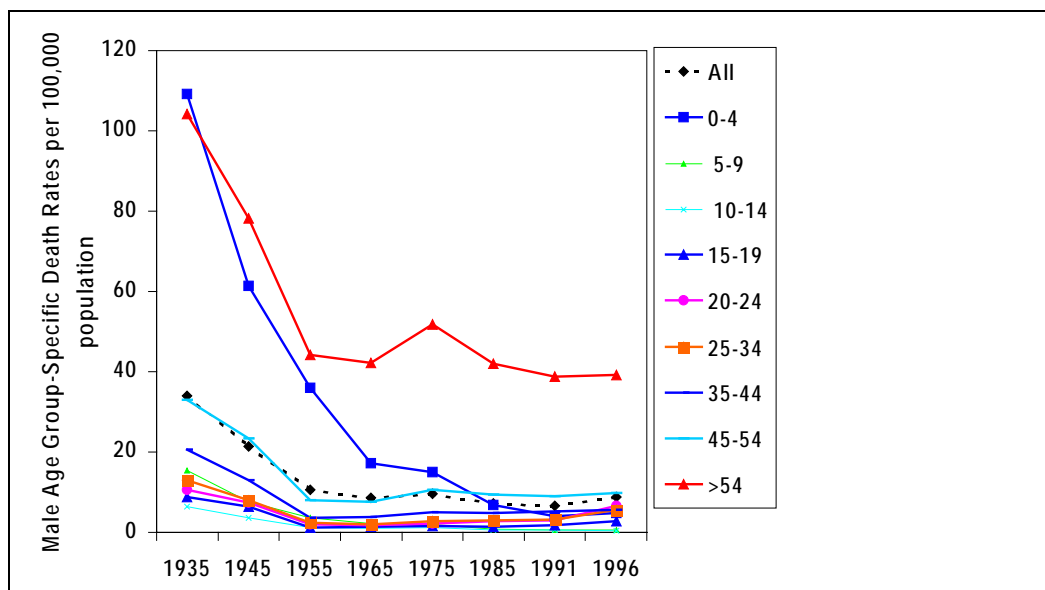


**Figure 2.2.4 Gender-Specific Death Rates, 1935-1996.**

Source: Data is from the Registrar General Office.

- Older Generations are Worst Off

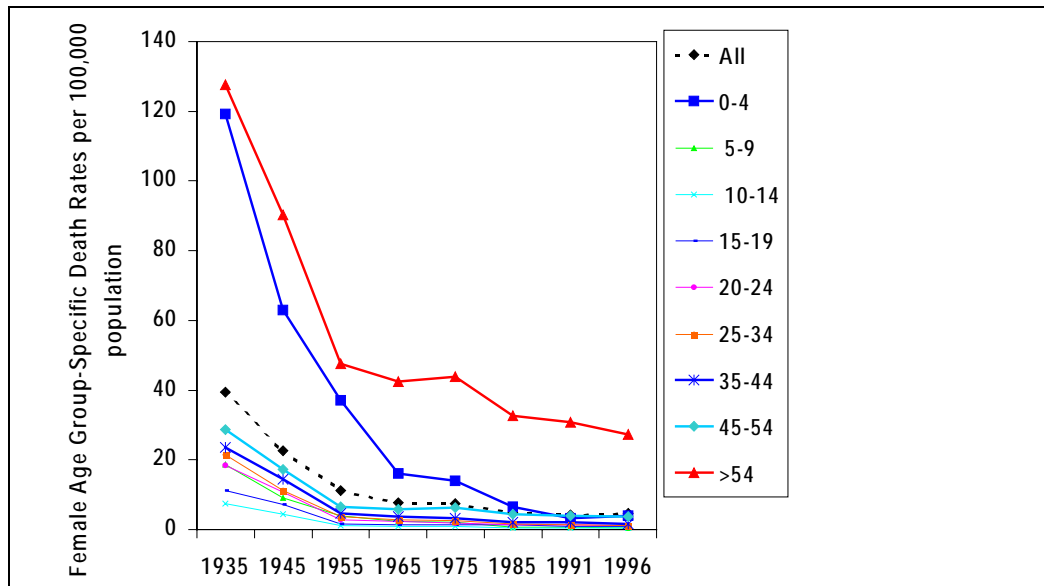
In 1935, the age-specific death rates between the youngest and the oldest generations were about the same (Figure 2.2.5). Afterwards, the difference in the rates has widened such that by 1996 those who are older than 54 years have a risk eight times higher than who are under the age of five years old. In fact, while the under-fives ranked first previously, they later ranked 6<sup>th</sup> next to the following age groups: older than 54, 45-54, 20-24, 35-44, and 25-34. This trend may reflect the ageing of the population, which in turn reflects successes in the control of preventable deaths especially from communicable diseases, low IMR, and longer life expectancy.



**Figure 2.2.5 Age-Specific Death Rates for Males, 1935-1996.**

Source: Data is from the Registrar General Office.

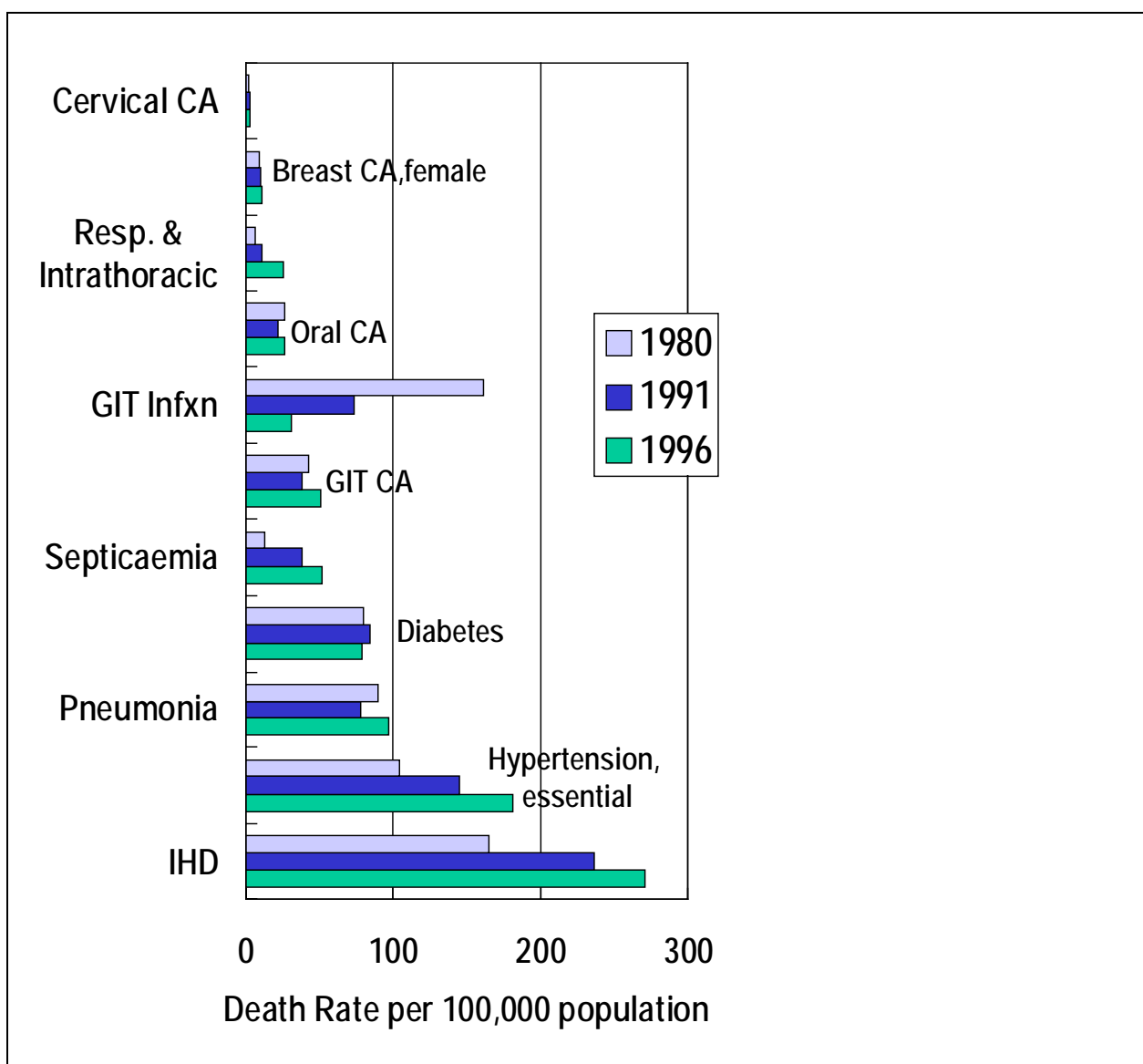
Among females, the risk of dying of the eldest age group is seven times than those of the youngest age group (Figure 2.2.6). Unlike their male counterparts, the female under-fives have death rate that is second to the eldest population. The generally higher mortality rates among men, particularly the adults, can explain this phenomenon.



**Figure 2.2.6 Age-Specific Death Rates for Females, 1935-1996.**

Source: Data is from the Registrar General Office.

Deaths within the age group of 45-54 could be interpreted in some ways as premature. What are the common causes?

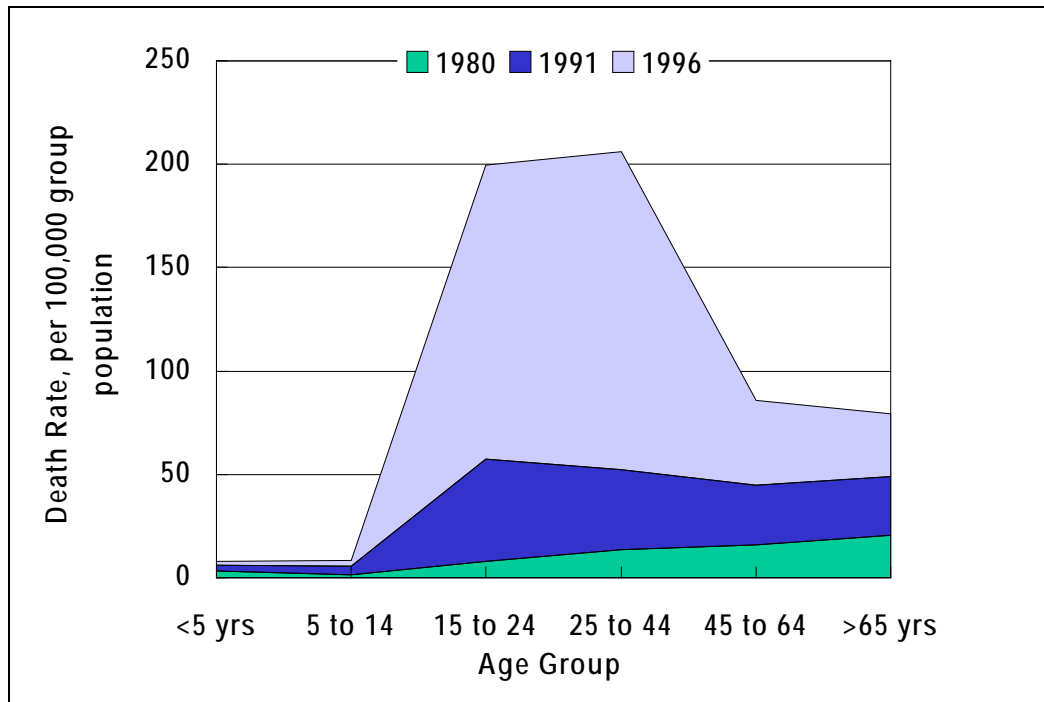


**Figure 2.2.7 Death Rates for 45-64 years olds per 100 thousand, 1980, 1991 & 1996.**

Source: Data is from the Registrar General Office

Figure 2.2.7 shows at least three patterns. The top two causes in 1991 and 1996 are cardio-vascular diseases. Pneumonia, diabetes and septicaemia complete the top five. While gastro-intestinal infection ranked 2<sup>nd</sup> in 1980, since then its death rate has been declining such that it ranked 7<sup>th</sup> only by 1996. Could other infectious causes of deaths (i.e. pneumonia and septicaemia) follow the same pattern in the future? Could deaths due to them be prevented?

The age group that has the third, fourth and fifth highest mortality rate is the 20-24 years, 35-44, and 25-34 years old, respectively. Once more, most of these deaths could be interpreted as untimely. Figure 2.2.2 shows that homicides and other violence was the second most common cause overall in 1996. Figure 2.2.3 documents the biggest jump between the 1980 and 1996 death rates was with homicides and other violence. An examination of the age distribution of homicides and other violence reveals that, whereas in 1980 the elderly were the most common victims; in recent years, the young adults or those in their most productive years are at substantially higher risks.

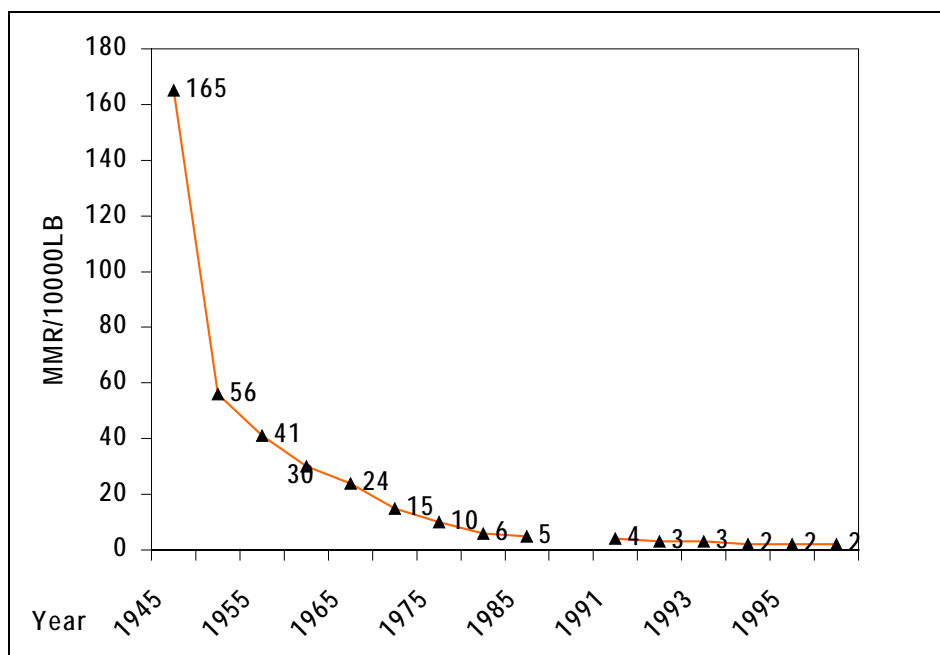


**Figure 2.2.8 Age-Specific Death Rates for Homicides and Other Violence, 1980, 1991 & 1996.**

Source: Data is from the Registrar General Office.

### 3) Maternal Mortality Rate

The risk of dying due to the process of pregnancy, childbirth and puerperium were reduced to a significantly low level of 5 per 10,000 live birth almost two decades ago (Figure 2.2.9). Further decline in its latest level of 2 is a challenge. Should Sri Lanka aim for Zero-Tolerance to maternal deaths? What is needed to achieve that level? Is this a better use of resources?



**Figure 2.2.9 Maternal Mortality Rates, 1935-1996.**

Source of Data: Annual Health Bulletin 2000.

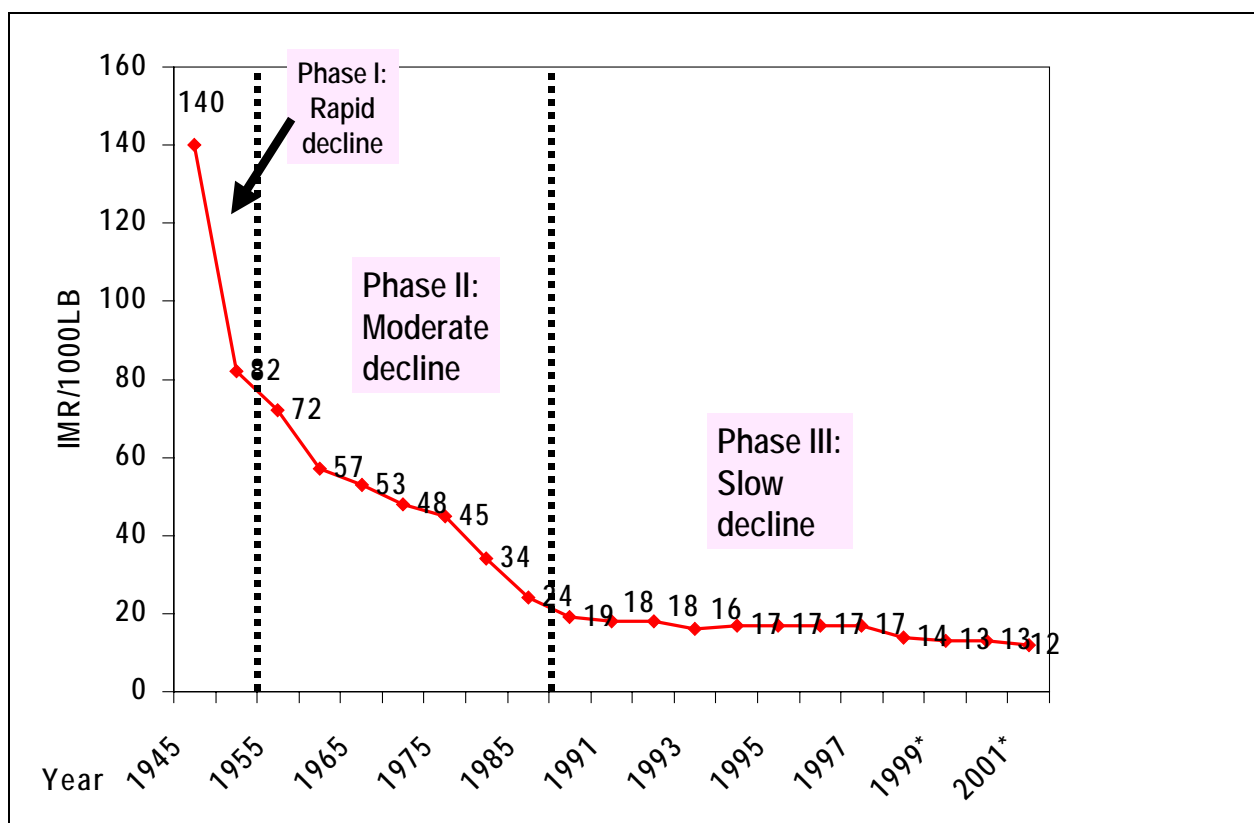
#### 4) Infant Mortality Rate<sup>9</sup>

- Lowest in the Region

Compared to other South-Asian countries, even to Thailand, Indonesia and Myanmar, Sri Lanka has the lowest infant mortality rate

- Phases of Decline in National IMR

The downward trend in the IMR has been significant. Its most rapid reduction was seen in the 40's up to the early 50's (Figure 2.2.10). The moderate decline followed until the IMR reached about 24 per 1000 live births in 1985. Since then, it still maintains its trend such that by 2001 it was reported to be 12 already.



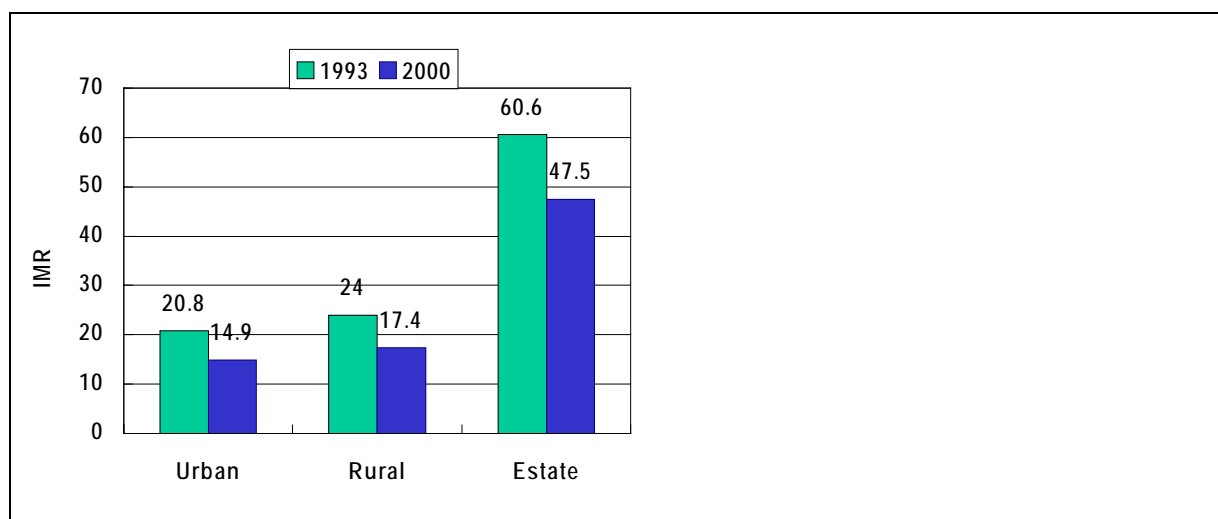
**Figure 2.2.10 Trends in Infant Mortality Rates, 1945-2001**

Source: Annual Health Bulletin 2001.

- Pockets of High IMR: Estates & 12.5% of Divisional Secretary Areas

There are pockets of high IMR in Sri Lanka. Aside from variations among districts as discussed in Chapter 8, there are significant differences across geographical sectors, too. Children in the estates seem to be consistently worst off in both 1993 and 2000.

<sup>9</sup> Although technical it is also an age-specific rate, the IMR is discussed as a separate subsection.



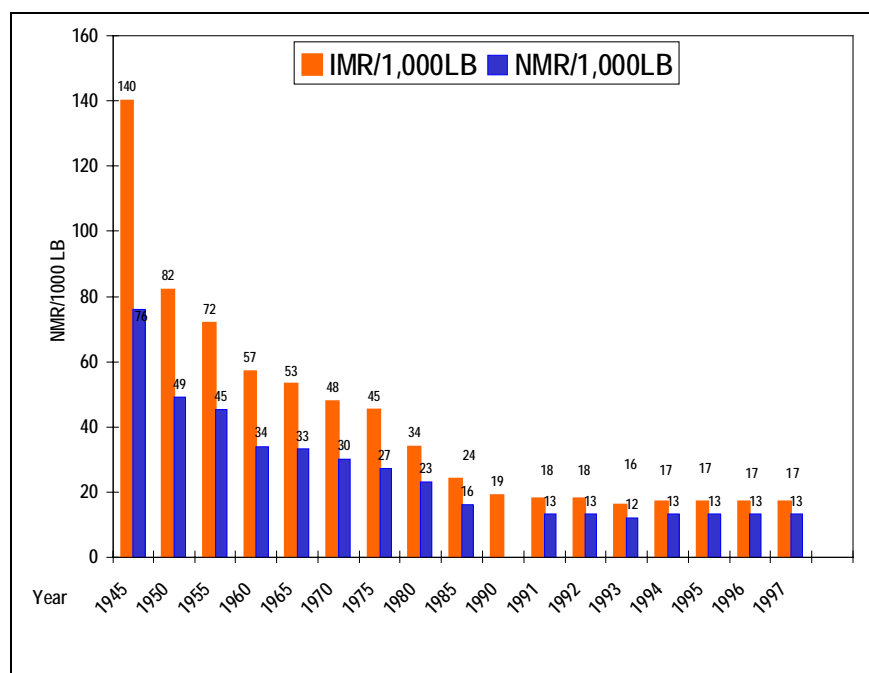
**Figure 2.2.11 Infant Mortality Rates in Urban, Rural & Estate Areas, 1993 & 2000**

Source: Annual Health Bulletin 2001.

The specific pockets of worst off localities with poor IMR are in 41 Divisional Secretary Areas. They represent about one in every eight DSAs in the country.

- 76% of Infant Deaths are due to Neonatal Deaths

The key to the further reduction of IMR is in the prevention of deaths during the first four weeks of a child's life. Figure 2.2.12 demonstrates that whereas neonatal deaths account only for 54% of infant deaths in 1945, by 1996 the percentage rose to 76% already. Since 1991, the neonatal mortality rates have remained mostly in the 13 per 1000 live births level. There is hardly any progress in this area.

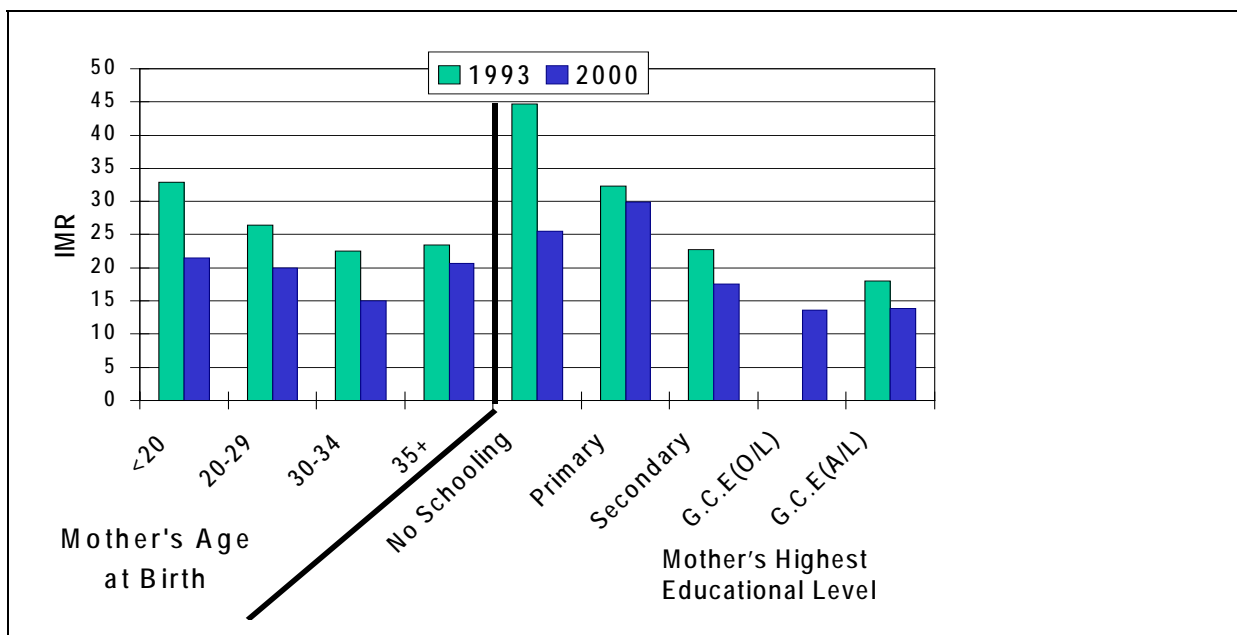


**Figure 2.2.12 Infant Mortality Rates by Divisional Secretary Areas 1994-1996**

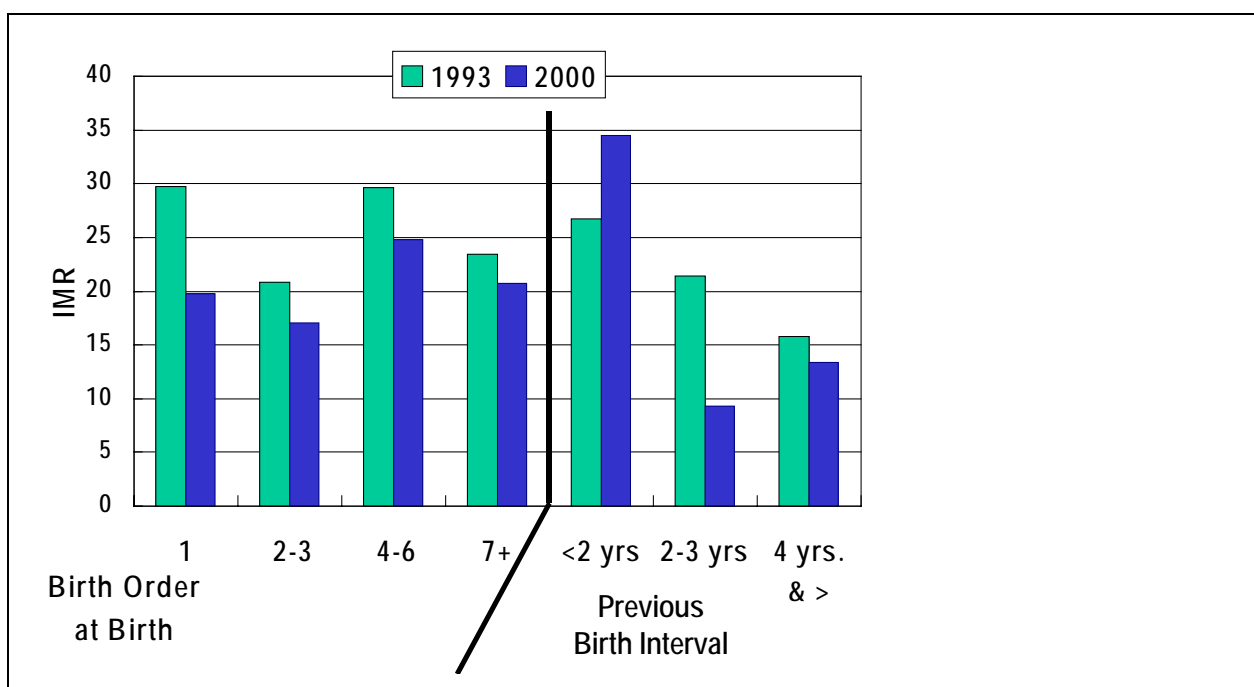
Source: Annual Health Bulletin 2000.

- Some IMR Risk Factors

Like in experiences in other countries, infants in Sri Lanka who are at higher risk are those with mothers who gave birth at relatively young or older age and have had no or limited schooling (Figure 2.2.13). The IMR seems to be higher also among infants who are first born, born after their mothers have had four or more pregnancies, and born within less than two years after the previous one (Figure 2.2.14).



**Figure 2.2.13 Infant Mortality Rate & Mother's Age & Schooling**  
Source: Annual Health Bulletin 2000.

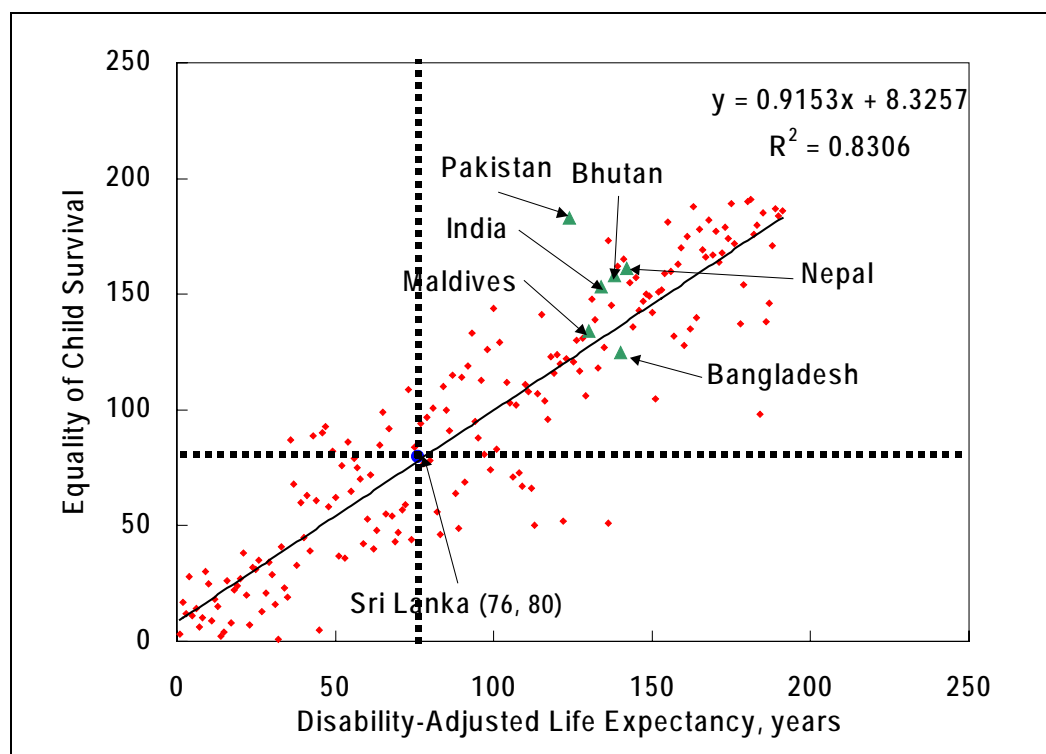


**Figure 2.2.14 Infant Mortality Rate and Birth Spacing**  
Source: Annual Health Bulletin 2000.

### Life Expectancy and Equality of Child Survival

Two relatively new indicators are used in this sub-section. The traditional life expectancy has been modified by the WHO to account for a person's quality of life. The proposed indicator is called disability-adjusted life expectancy (DALE). Equality of child survival, the second indicator being advocated by the WHO, is a derivative of under-five mortality rate but it also an attempt to capture another equally important concept, that is, providing similar opportunities for all children. It is invariably an indicator of equity but is presented in this section together with DALE because of their close linkage. Figure 2.2.15 shows that the ranks of a state with respect to DALE and equality of child survival change in the same direction and more or less the same degree.

Out of 191 member states of the WHO, Sri Lanka ranks 76<sup>th</sup> when it comes to the disability-adjusted life expectancy (DALE) and 80<sup>th</sup> to reducing the probability of dying of children under the age of five. It is far ahead of Maldives, the country in South Asia with the second best DALE with a rank of 130, and Bangladesh, the country with a rank of 125 that is the second best equality of health outcome indicator in the region. Its ranks for both indicators are half of the ranks of the worst off neighbours. Nepal is ranked 142 for DALE and Pakistan 183 for equality of child survival.



**Figure 2.2.15** Disability-Adjusted Life Expectancy and Equality of Child Survival in WHO Member States, 1997 estimates

Source: WHO, WHR 2000.

Although Sri Lanka has achieved significant gains when improving health of children under the age of five years, certain areas in the country have been left behind. About one out of ever five Divisional Secretary Areas has under-five mortality rates higher than the national average. Interesting, 29 DSAs have both IMR and UFMR that are worse and these are the following: Colombo, Homagawa, Nugegoda, Hanwella, Gampaha, Negambo, Attanagalla, Panadura, Kalutara, Kandy, Matale, Ambagamuwa,



Nuwaraeliya, Bentota, Galle, Matara, Jaffna, Nedunkerny, Ampara, Kuliyaipitiya, Kurunegala, Puttalam, Chilaw, Nuwaragamapalata, Tamankaduwa, Badulla, Ratnapura, Kegalle, and Dehiowita.

## (2) EQUITY IN HEALTH

What is equity in health? “Equity is essentially about fairness, and implies that the most vulnerable and needy groups within a society require access to greater resources than those communities that are more robust. In relation to health, such an approach is intended to improve the health of the most vulnerable at a faster rate than those whose health status is ‘better’, thereby reducing the gap.”<sup>10</sup> In this concept, the three operational terms are fairness, access to greater resources for special groups and reducing the gap.

Equity is an ethical principle; it is closely related to human rights principles. Why should health systems then be concerned with equity? Equity in health is important because “inequities in health systematically put groups of people who are already socially disadvantaged (for example, by virtue of being poor, female, and/or members of a disenfranchised racial, ethnic, or religious group) at further disadvantage with respect to their health; health is essential to well-being and to overcoming other effects of social disadvantage”<sup>11</sup>.

In the Health Master Plan Study, three sub-types of equity are considered:

- Equity in the burden of disease/condition (or health outcome);
- Equity in the burden of financing; and
- Equity in accessing and utilizing health resources (i.e. health services, facilities, human resources, drugs).

Equity in health outcome has been elaborated already in the previous section focusing on equity across gender, age, and geographical areas. This section examines the remaining two sub-types.

When it comes to equity in the burden of disease/condition and equity in benefits, the three operational terms mentioned in the first paragraph of this section apply directly. Because there are some groups that are disadvantaged when it comes to having poorer health status and access to benefits, the situation demands fairness for what are due them and providing them better access so as to reduce the gaps. However, the equity concept needs re-translation when it comes to the burden of financing. In this case, the gold standard is not minimising the differences among groups; instead; the concept of equity implies that payment for health should be according to people’s ability to pay.

### **Equity in the Burden of Financing**

#### 1) Overall Fairness in Financing: 4<sup>th</sup> of 7 South-Asian Countries

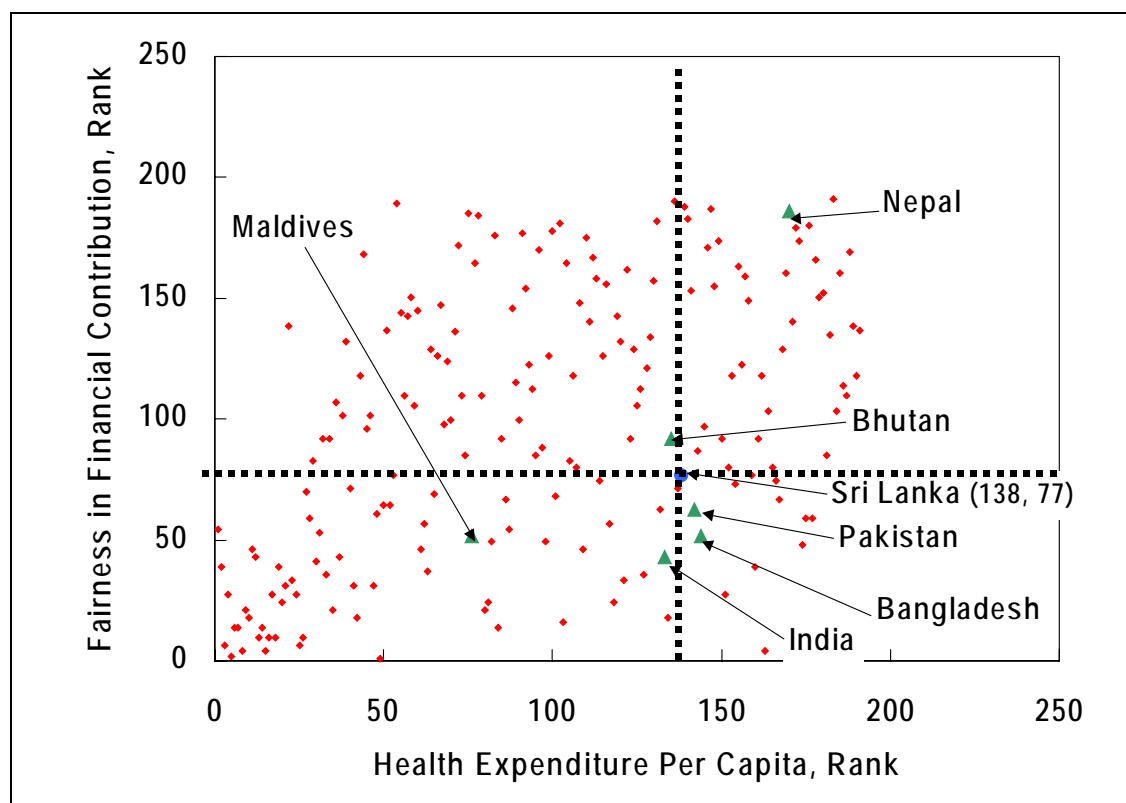
The per capita total health expenditure of Sri Lanka (\$77 at international dollars) is relatively comparable to that of India (\$84), Bhutan (\$82), Pakistan (\$71) and Bangladesh (\$79). However, it is a lot lower than that of Maldives (\$248) and higher than that of Nepal (\$41). The total health expenditure is 3.0% of the GDP, which is the lowest in South Asia.

Among South-Asian countries, Sri Lanka ranks only fourth when it comes to equitably distributing the burden of financing across households. It is ahead of Bhutan and Nepal only. Worthy to note at this

<sup>10</sup> The Equity Gauge: An Approach to Monitoring Equity in Health and Health Care in Developing Countries. Report of a Meeting held in South Africa, August 7 to 20, 2000.

<sup>11</sup> Braveman, P. and Gruskin, S., Defining Equity in Health, Journal of Epidemiology and Community Health, 2003 April; 57(4), 254-8.

juncture that Dorabawila et al. from the Institute of Policy Studies of Sri Lanka raised concerns about fairness in financing as a narrow concept of equity and reliability of household surveys in generating data for inter-country comparisons<sup>12</sup>. Inasmuch as equity in health outcomes are discussed in the previous section and equity in access or use of services and resources are in the next subsection, there is still room for using the concept of fairness in financing as one of the indicators for assessing equity in health. The findings of the WHO is definitely not the final verdict but may serve as the starting point for further deliberation, research and action to promote the various dimensions of equity.



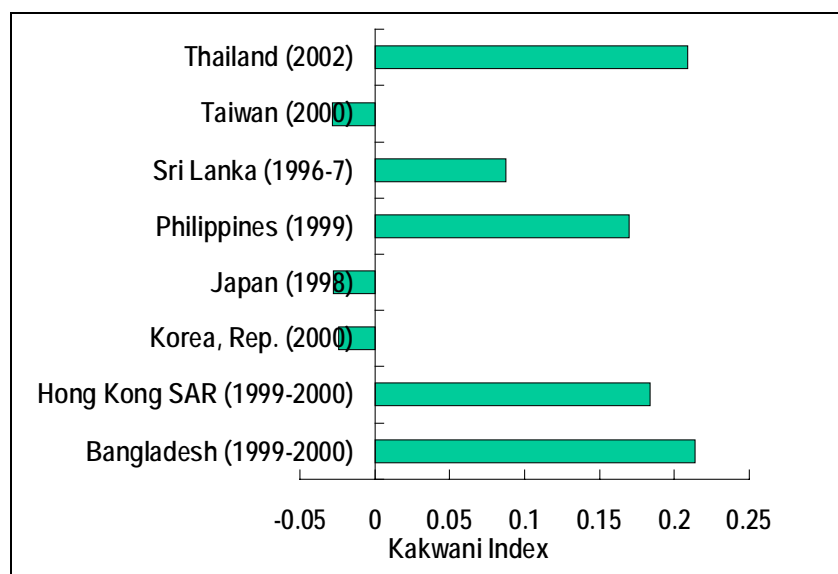
**Figure 2.2.16 Equity in Financing among 191 WHO Member States, estimates for 1997**

Source: WHO, WHR 2000.

Another study on Equity in Financing was conducted by the Institute of Policy Studies and reported by Somanathan<sup>13</sup>. It supported the findings of the WHO that indeed Bangladesh is more progressive than Sri Lanka when it comes to the total payments for health care (Figure 2.2.17). A word of caution is in order. The rankings of some Asian countries based on the Kakwani index for progressivity is different from those in the WHR 2000 (Table 2.2.1). Indeed there is a need for a coming up with a consensus on the concept and measurement of equity. It is also possible because equity is primarily an ethical principle, divergence in analytical approaches are inevitable.

<sup>12</sup> Dorabawila, T., De Silva, S., Mendis, J., and Rannan-Eliya, R.P., WHO Fairness in Financing Study: Estimates for Sri Lanka 1995/96 using WHO Methodology, Institute of Policy Studies of Sri Lanka, February 2001.

<sup>13</sup> Somanathan, A. Equity Performance of Asian Health Systems in Financing: Incorporating Equity Analysis into National Health Accounts.



**Figure 2.2.17 Equity in Financing among Some Asian Territories/States**

Source: Somanathan, A. Equity Performance of Asian Health Systems in Financing: Incorporating Equity Analysis into National Health Accounts.

**Table 2.2.1 Comparison of Ranking of Some Asian Territories/States according to Equity in Health Financing**

Territories/States	World Health Report 2000 (ranking compared to 191 member states)	Institute of Policy Studies of Sri Lanka (Figure in parenthesis is the Kakwani Index)
Bangladesh	51.5	1 (0.2133)
Hong Kong SAR		3 (0.1833)
Korea	53	6 (-0.0239)
Japan	9.5	7 (-0.0278)
Philippines	129	4 (0.1695)
Sri Lanka	77	5 (0.0879)
Taiwan		8 (-0.0284)
Thailand	129	2 (0.2086)

Source: WHO, WHR 2000 and Somanathan, A. Equity Performance of Asian Health Systems in Financing: Incorporating Equity Analysis into National Health Accounts.

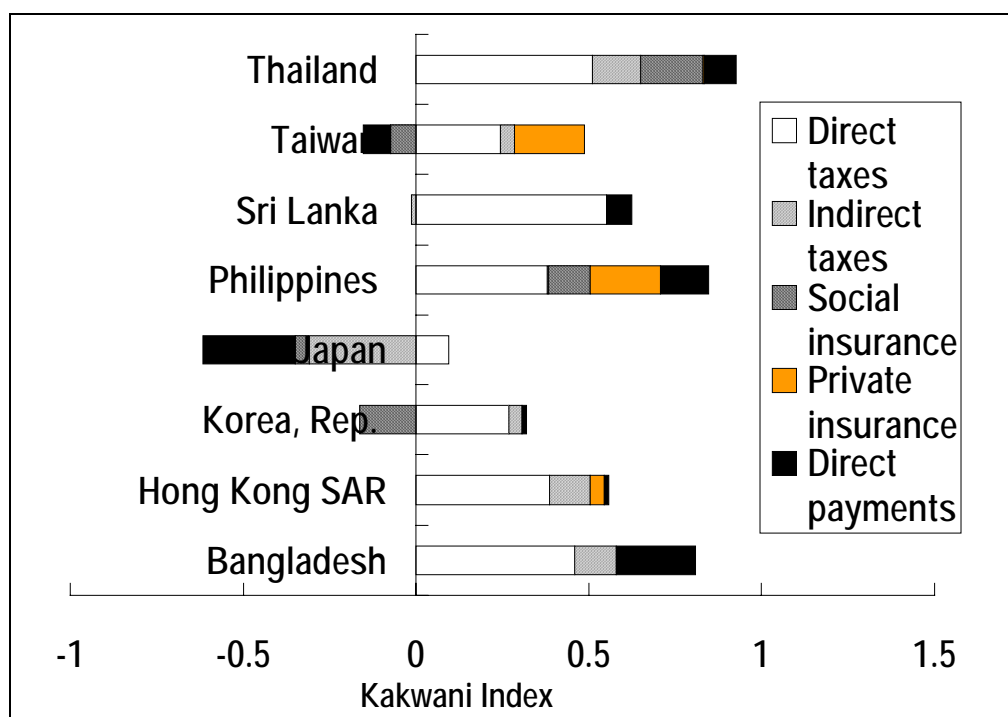
2) Equity in Government Financing

The government, through taxes, is estimated to have financed close to half (49%) of the total health expenditure in 1997. If that is the case, therefore, then two questions arise. Is the government taxation system equitable? Has spending for health been equitable?

- Resource Generation: Direct Taxation is the Most Progressive; only 17% of Taxes for Health Services are from Direct Taxes in 1995/96

Somanathan’s analysis of the progressivity of five payment schemes revealed several interesting points (Figure 2.2.18). Direct taxes are always and the most progressive among all categories. Indirect taxes in Sri Lanka and Japan are regressive. Social insurance is not always progressive as in the cases of Taiwan, Japan and South Korea, where it was abandoned in 2002. When they

operate, private insurance can be progressive. Except in Taiwan and Japan, direct payments are not necessarily regressive.

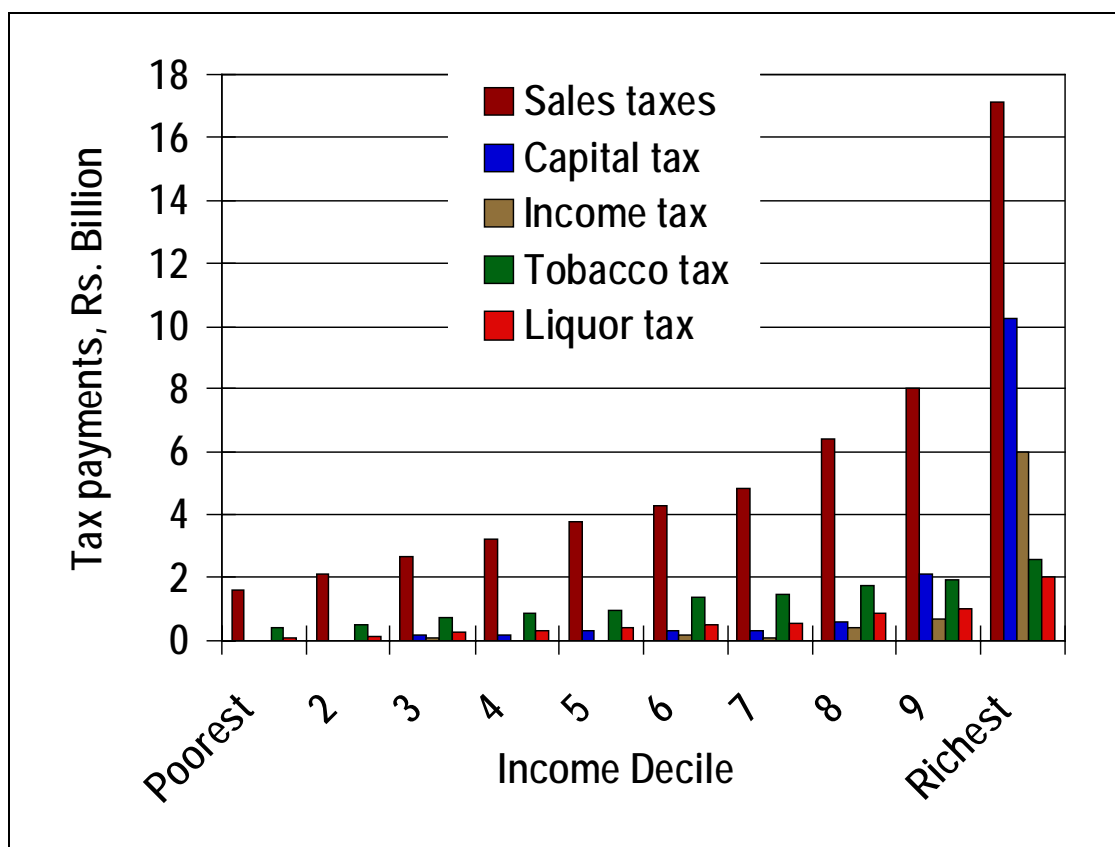


**Figure 2.2.18 Comparison of Progressivity of Payment Schemes in Some Asian Territories/States**

Source: Somanathan, A. Equity Performance of Asian Health Systems in Financing: Incorporating Equity Analysis into National Health Accounts.

Figure 2.2.19 is another representation of the taxation system in Sri Lanka. It shows the tax payments in terms of rupees and not as a share of payment. In 1995/96, 42% of all taxes, or Rs. 53.5 billion were generated from sales taxes, 14.2 from capital tax, 12.2 from tobacco taxes, 7.4 from income tax, and 5.9 from liquor tax. The richest decile paid for 72% of the capital tax and 81% of the income tax. Ninety-five percent (95%) of the income tax and 91% of the capital tax were contributed by the top three richest deciles. On the other hand, the richest decile only paid a third of the sales and liquor taxes as well as a fifth only of the tobacco taxes.

Considering the results of Somanathan's study that direct taxes are consistently the most progressive among the payment schemes and indirect taxes in Sri Lanka are regressive, and of the Sri Lanka Health Income and Expenditure Survey that only 17% of the total taxes used for health services are from direct taxes and 57% are from indirect taxes, one may surmise, therefore, that indeed there seems to be a room for further improving fairness in financing health in Sri Lanka.



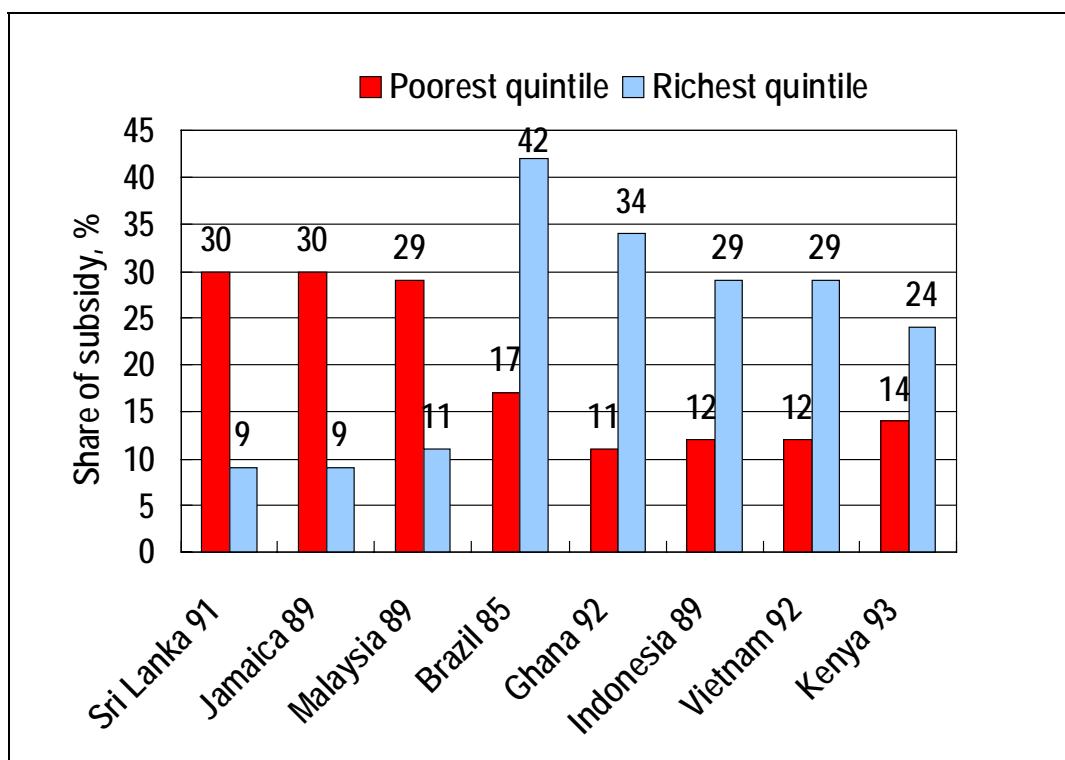
**Figure 2.2.19 Share of Tax Payments by Income Decile**

Source of Data: Sri Lanka Household Income and Expenditure Survey 1995/96.

- Are Government Subsidies Shifting Away from the Poorest of the Poor?

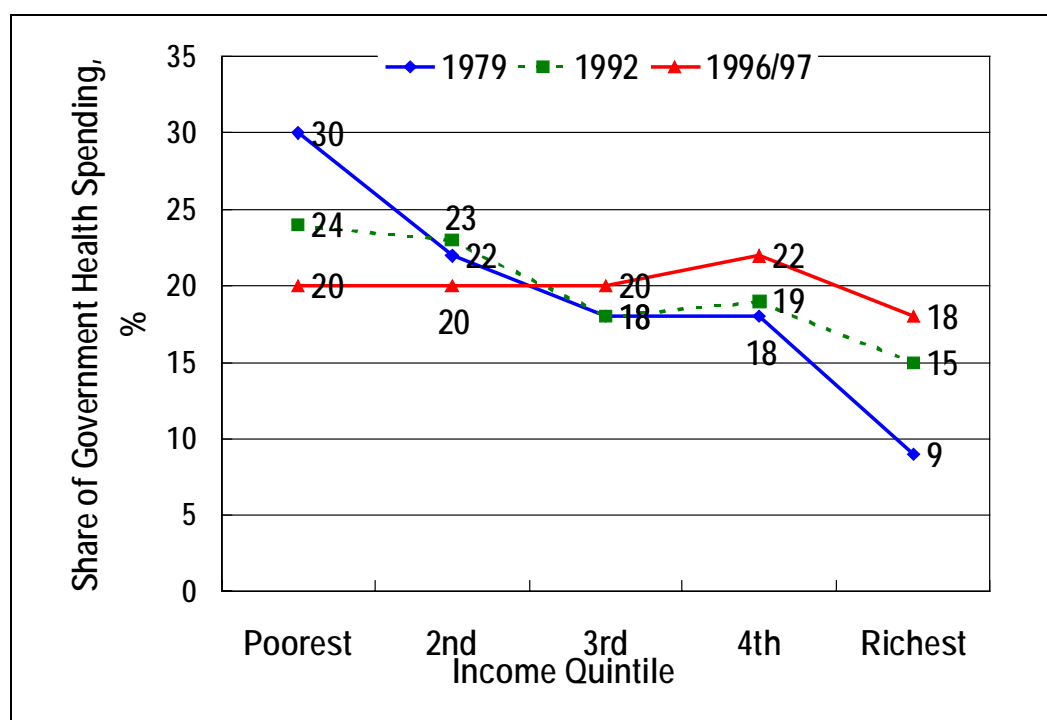
Figure 2.2.20 depicts the contrast between a pro-poor and pro-rich policy among selected countries. One side of the pole are the countries that subsidises the poorest decile more than the richest decile and these are Sri Lanka in 1991, Jamaica and Malaysia. The other side of the pole are the countries that spend more for the richest deciles and these are Brazil, Ghana, Indonesia, Vietnam, and Kenya.

Has Sri Lanka been consistently pro-poor since 1991 until the present? Has there been a re-allocation of subsidy? There has been no single study yet or a set of comparable studies that could help shed light on this issue. Nevertheless, Hsiao cited the studies of Alailima and Mohideen in 1983 to derive the incidence of public health spending in 1979. He used the 1991 World Bank-sponsored Household Health Expenditure Survey to estimate the 1992 figures. He estimated the 1996/97 incidence of government spending based on Consumer Finance Survey for that period. These estimates are reflected in Figure 2.2.21. Even if they are only indicative in nature, could these estimates reflect a shift in the way government allocates its resources from being highly pro-poor to one that tends to be equity-neutral?



**Figure 2.2.20 Share of Government Spending for Health in Selected Countries**

Source: Hsiao, William with IPS Health Policy Programme, A Preliminary Assessment of Sri Lanka's Health Sector and Steps Forward, Cambridge: Harvard University, 2000.



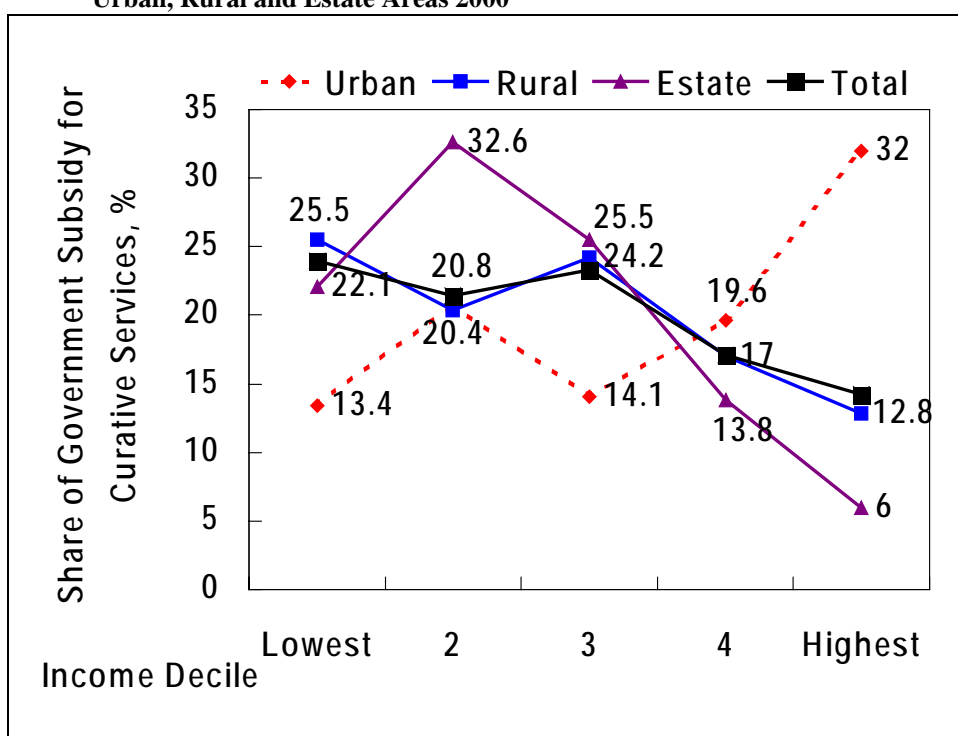
**Figure 2.2.21 Shifting Trends in Shares of Government Spending for Health in Sri Lanka, 1979, 1992, 1996/7**

Source: Hsiao, William with IPS Health Policy Programme, A Preliminary Assessment of Sri Lanka's Health Sector and Steps Forward, Cambridge: Harvard University, 2000.

- Subsidising the Richest Urbanites and the Middle Classes in Rural & Estate Areas

Akin and Hutchinson<sup>14</sup> analysed government subsidy for curative services in 2000 (Figure 2.2.22). They seemed to have documented several interesting patterns. For one, overall, the middle quintiles appear to have benefited from the shift of government subsidy from the poorest quintile. This is more prominent particularly in the estate sector. While the richest quintile received the lowest subsidy overall and in other sectors, this is not the case in the urban areas. In fact, while in 1979 the poorest received 30% and the richest 9%, the scale tilted to the opposite direction in 2000 such that 32% of subsidy went to the richest and 13.4% to the poorest urbanites. Another loser in this area appears to be the middlemost quintile.

**Figure 2.2.22 Share of Government Subsidy Based on Quintile Distribution of Curative Care Visits in Urban, Rural and Estate Areas 2000**



Source : Akin, JS and PL Hutchinson. 2003. “Benefit-Incidence Analysis of Government Health Inputs in Sri Lanka, 1992 and 2000”, Draft. Department of Economics, University of North Carolina at Chapel Hill and Department of International Health and Development School of Public Health and Tropical Medicine, Tulane University. Data compiled by MoH-JICA Study Team

- Three Patterns in Distribution of Subsidy by Province<sup>15</sup>

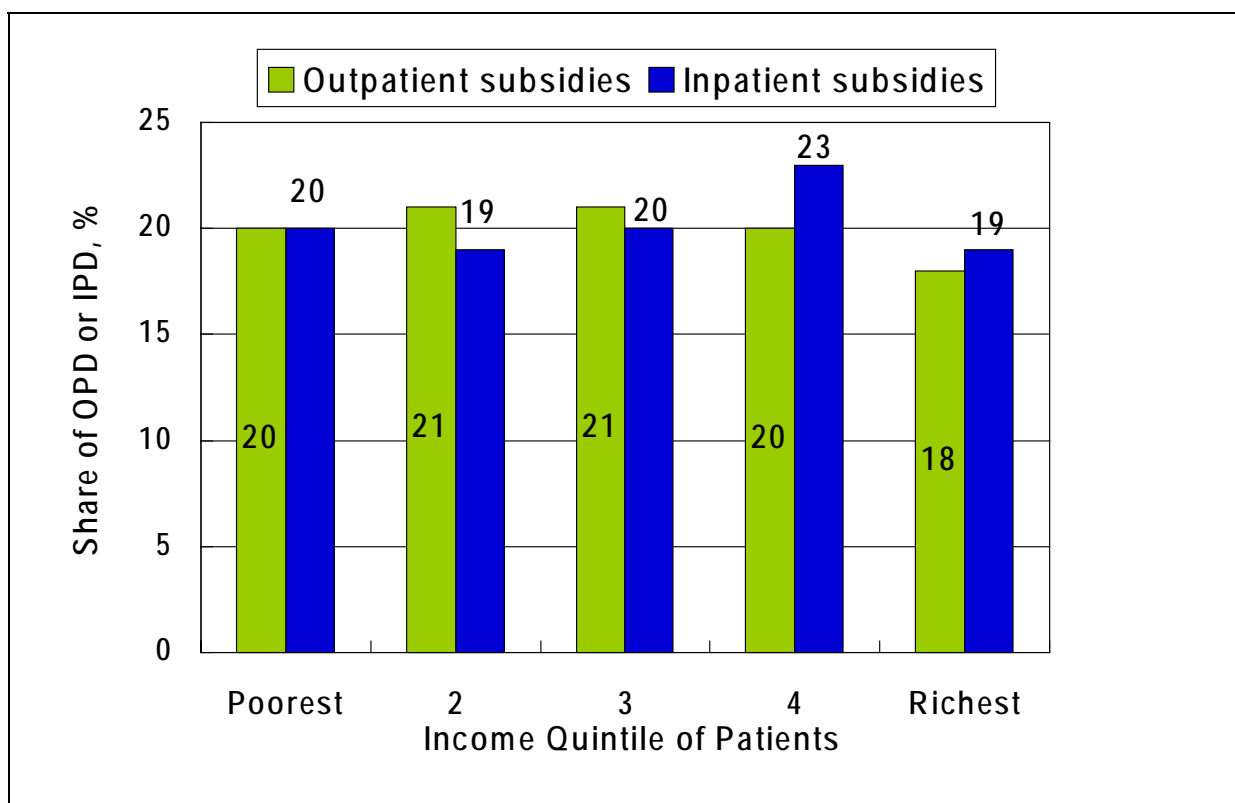
The provinces can be classified into three according to the distribution of government subsidies among income quintiles documented by Akin and Hutchinson. Type A provinces are essentially progressive and they include Central, Southern and Sabaragamuwa . The major beneficiaries of government subsidies in Type B provinces (i.e. North-Central, North-Western & Uva) are those in the middle class. The rich quintiles benefited the most in North-Eastern and most especially in Western provinces.

<sup>14</sup> Akin, JS and PL Hutchinson. 2003. “Benefit-Incidence Analysis of Government Health Inputs in Sri Lanka, 1992 and 2000”, Draft. Department of Economics, University of North Carolina at Chapel Hill and Department of International Health and Development School of Public Health and Tropical Medicine, Tulane University.

<sup>15</sup> Detailed discussions are shown in Volume 4, Chapter 7, 7.2 Equity in Health, pp7-26 to 7-28

- Poorest Quintile is the Biggest Loser

The Sri Lanka National Health Accounts data for 1996/97 seems to demonstrate also that the middle and high-income groups receive comparable subsidies from the government (Figure 2.2.23). For inpatient services, in fact the second highest quintile received the most from the government. If indeed the poorest quintile received 30% in 1979, then it is the biggest loser 17 years hence.



**Figure 2.2.23 Distribution of Government Health Subsidies by Income Quintile**

Source: Ravi Ranan-Eliya, Health Financing Seminar, MoH and JICA, March 7-8, 2003.

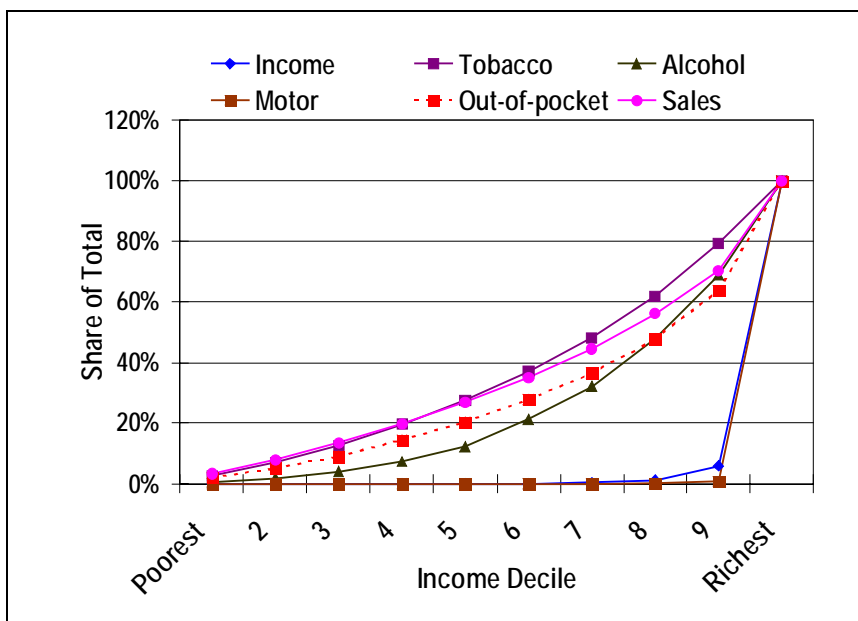
### 3) Equity in Household Financing or Out-of-Pocket Spending

- Out-of-Pocket Spending is Modestly Progressive

As described earlier, out-of-pocket mode of payment accounted for 44% of the total health expenditure in 1997. Compared to other forms of taxes, it is more progressive than generating revenue from tobacco and sales taxes (Figure 2.2.24). However, it is less progressive than using income, capital<sup>16</sup>, alcohol and motor taxes.

<sup>16</sup> Although not shown in the graph, the capital tax more or less simulates the progressivity of income tax.



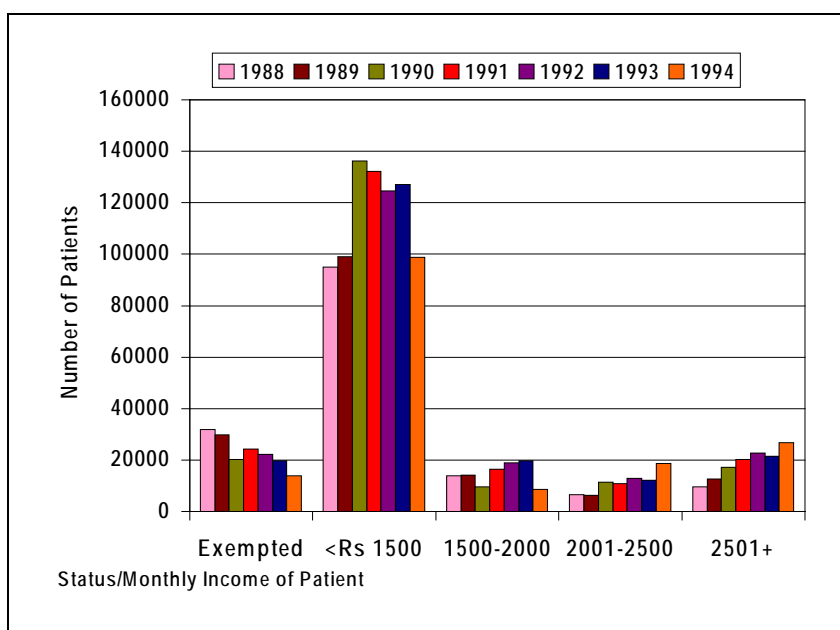


**Figure 2.2.24 Progressivity of Out-of-Pocket Payments vs. Some Taxes in Sri Lanka, 1997**

Source: Ravi Ranan-Eliya, Health Financing Seminar, MoH and JICA, March 7-8, 2003.

- Out-of-Pocket for User Charges and Pay-Beds at SJGH

Households financing are also used to pay for user fees or pay-beds in some government hospitals. In Sri Lanka, the Sri Jayawardenapura General Hospital (SJGH) introduced user charges from all patients since it was established in 1984. Its cost-recovery scheme is being unable to generate half of its total operating cost due to the efforts to prevent the use of out-of-pocket expense not to work in favour of the rich. SJGH seems to be caught in a dilemma which they has to increase generated income as they are expected to do as an autonomous hospital, but they don't want to suffer the equity as a public sector hospital.



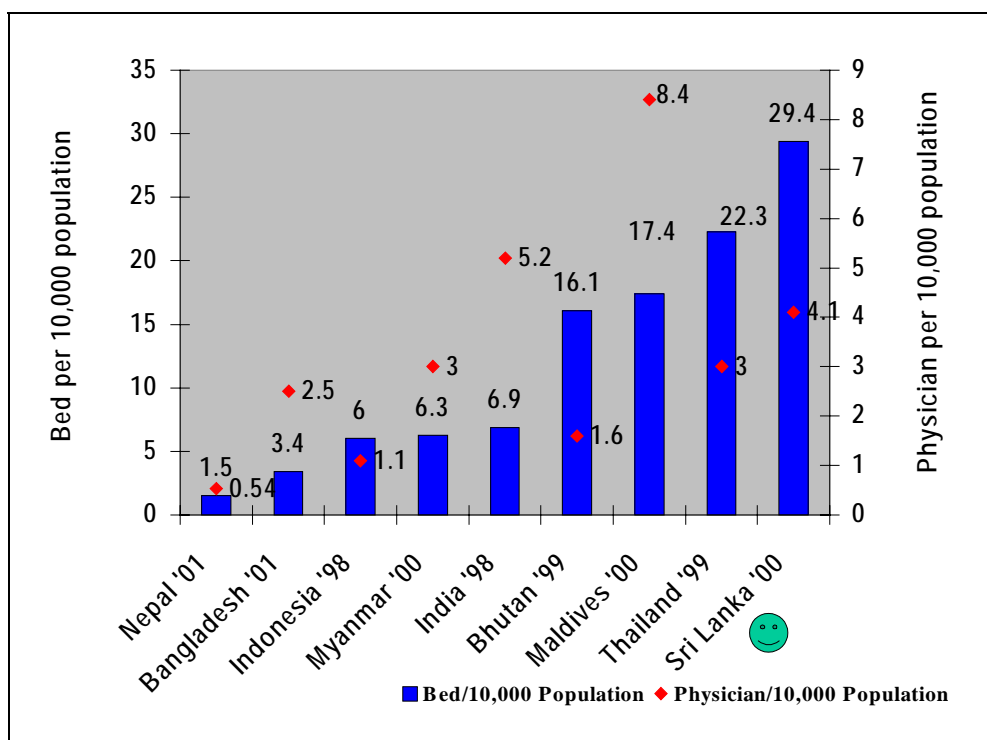
**Figure 2.2.25 Number of Patients Admitted by Income Level, 1988-1994**

Source: The University of Birmingham, The Role of Government in Adjusting Economies – Sri Lanka Reforming the Health Sector: Does Government Have the Capacity?

### Equity in Accessing or Utilising Services and Resources

#### 1) Equity in Accessing Physical Facilities: Best in SEARO

Although there are differences in bed and facility to population ratio among districts, although there is no formal referral system that can facilitate transfer of patients and specimens to appropriate level of health facilities, physical access to health facilities in Sri Lanka is practically not a problem. The establishment of an extensive transportation network and a number of health facilities throughout the island support equity in access to physical facilities. In fact, Sri Lanka has the highest bed per population ratio not only in South-Asia but also among members of the SEARO (Figure 2.2.26).



**Figure 2.2.26** Bed and Physician per 10,000 Population in Sri Lanka and other Asian Countries

Source: SEARO

#### 2) Equity in Accessing Human Resources: Limited mainly by Mal-distribution and partly by Inadequacies

Equity of access to human resources for health; herein lies a possible area for improvement. As Figure 2.2.31 illustrates, the physician per population ratio in Sri Lanka ranks third only next to Maldives and India. For a discussion on the mal-distribution of human resources, refer to section 2.5. In general, there seems to be limited equity among districts in the availability of all types of cadres. The differences among districts in the ratio of public health midwives to population seem to be the smallest. Nevertheless, this cadre is in short supply in Jaffna, Kilinochchi, Mullaitivu, Mannar, and Vavuniya.

#### 3) Equity in Utilising Services

Figure 2.2.27 can be interpreted in many ways. For one it reflects the health-seeking behaviours at a certain point in time. On the other hand, it may also provide the probabilities that these behaviours will be exhibited in the future. Nonetheless, it shows that the poor more than the rich do access government

health facilities whether for outpatient or inpatient services. This finding is supported by that of the MoH-JICA Study No. 1.11

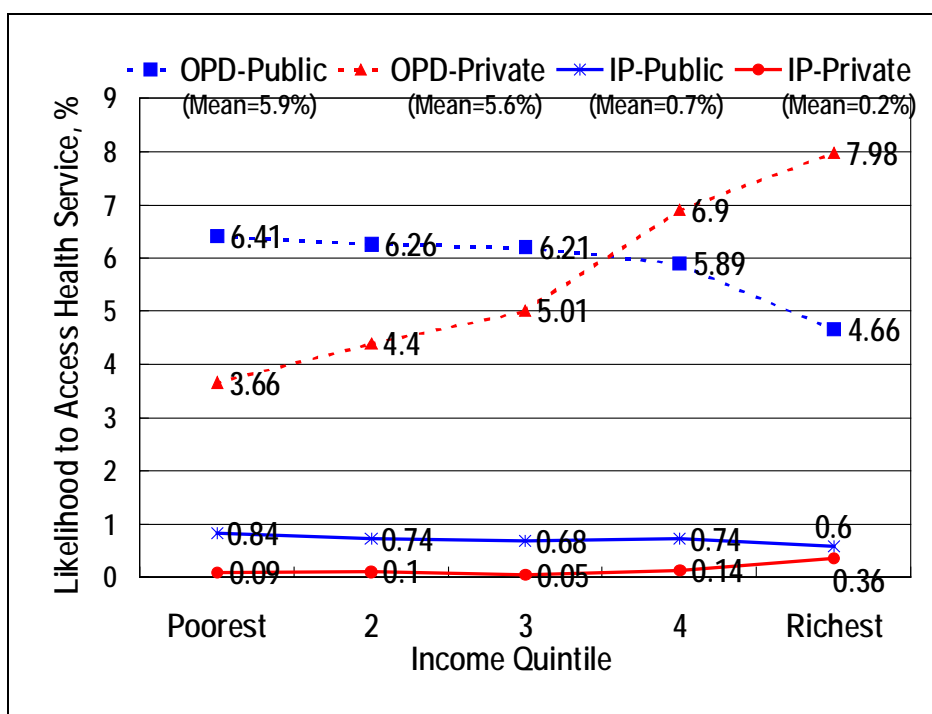


Figure 2.2.27 Likelihood to Access Health Services by Income Quintile, 1997

Source: Institute of Policy Studies of Sri Lanka

The KAP Survey had a sample of households with an average monthly income of Rs. 5,393 for all, Rs. 6,702 for urban, Rs. 5,383 for rural and Rs. 3,171 for the estate sector. The income levels of households that sought treatment from public allopathic sector are relatively lower than the levels of households who sought private allopathic treatment. While a household that used public allopathic outpatient care earned a monthly income of Rs. 4,674, this figure stands at Rs. 6,754, against 6,080, and 8,023 respectively for those who seek allopathic treatment from private outpatient providers, from private inpatient care and private outpatient care from public doctors. In the urban sector, the households that sought Ayurvedic treatment appear to be belonging to high-income brackets.

All these observations do imply that affordability of health services do influence utilisation. More importantly, they imply that the government health facilities do provide that access to services for those who want and for those who can hardly afford.

### (3) EFFICIENCY

The Harvard School of Public Health Professor Marc J. Roberts defines efficiency as the state of “using resources in the best possible way to achieve goals”<sup>17</sup>. He differentiated two types of efficiency: producing outputs at minimum costs (technical efficiency) and producing the right outputs to achieve the goals (allocative efficiency). The former type emphasises how things should be produced to meet a given objective (e.g. what is the least cost method of undertaking blood tests) while the latter what things are worthwhile to produce (e.g. should a screening programme be undertaken, how often should a test be

<sup>17</sup> Roberts, Marc J. Intermediate Outcomes. Presentation for the Flagship Programme – Health Sector Reform and Sustainable Development. Washington: World Bank Institute. January 2003.

undertaken). While achieving technical efficiency is mainly dependent on managers of health systems, that of allocative efficiency is more difficult because it is dependent on planners, regulators, financiers, and payers particularly when they are the potential losers.

Should assessment of a health system include efficiency?

In the British Journal of Medicine, Dr. Loewy expressed succinctly one of the root causes for some health professionals, politicians and policy-makers in Sri Lanka and other countries not being comfortable in using efficiency for evaluation of a health system, in general, and health programmes or interventions, in particular:

"A physician who changes his or her way of practicing because of costs rather than purely medical considerations has indeed embarked on the "slippery slope" of compromised ethics and waffled priorities."<sup>18</sup>

Some health practitioners may be purists, meaning, they do espouse Loewy's assertion of pure medical considerations. In reality, however, many non-medical factors influence the practice of medicine in ensuring the health of individuals and groups of individuals. They include values and preferences of patients, interests of families, costs (time, suffering and finance) to every one in society, and competing interests for the time of health providers themselves.

Because health needs change, health expectations are insatiable, the options to respond to the needs and expectations are at times numerous and many of the options are beneficial, resources for health are not unlimited, therefore, choice cannot be avoided and making decisions are inevitable. Herein lies the importance of assessing the efficiency of health systems, institutions and interventions or programmes in Sri Lanka - when there are competing needs for resources and comparison are essential.

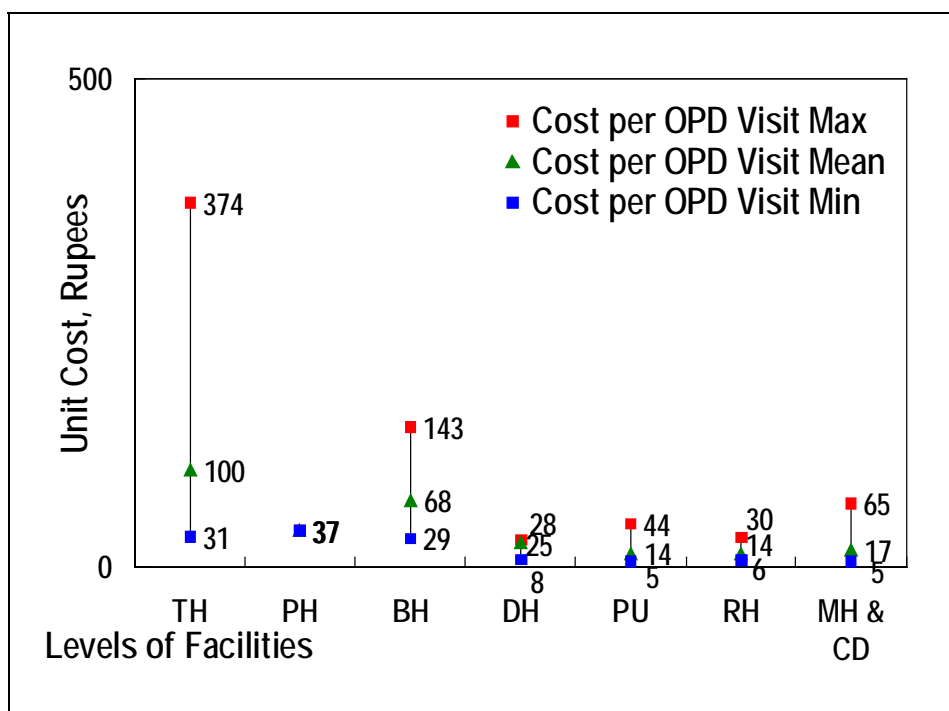
In this section, the assessment of efficiency will be in the three major areas:

- Intra-governmental health institutions;
- Inter-sector - Public vs. Private sectors; and
- Inter-country.

Although there are many production units in the Sri Lankan health system, the discussion will primarily focus on outpatient and inpatient services because mainly of constraints in information availability. The existing body of literature on efficiency often does not include information on preventive and promotive services as well as on laboratory services.

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<sup>18</sup> Loewy, Erich H. New England Medical Journal. (1980). 302 (12): 697.



Note: OPD=Out-Patient Department; TH=Teaching Hospital, PH=Provincial Hospital, BH=Base Hospital, DH=District Hospital, PU=Peripheral Unit, RH=Rural Hospital, MH&CD= Maternity Home & Central Dispensary  
 Source of Data: Hsiao, William with IPS Health Policy Programme. A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward. Cambridge: Harvard University. 2000.

Figure 2.2.27b Mean, Maximum and Minimum Unit Costs of OPD Visits in Public Sector Facilities at Different Levels in Four Districts, 1992

1) Intra-Government Comparison<sup>19</sup>

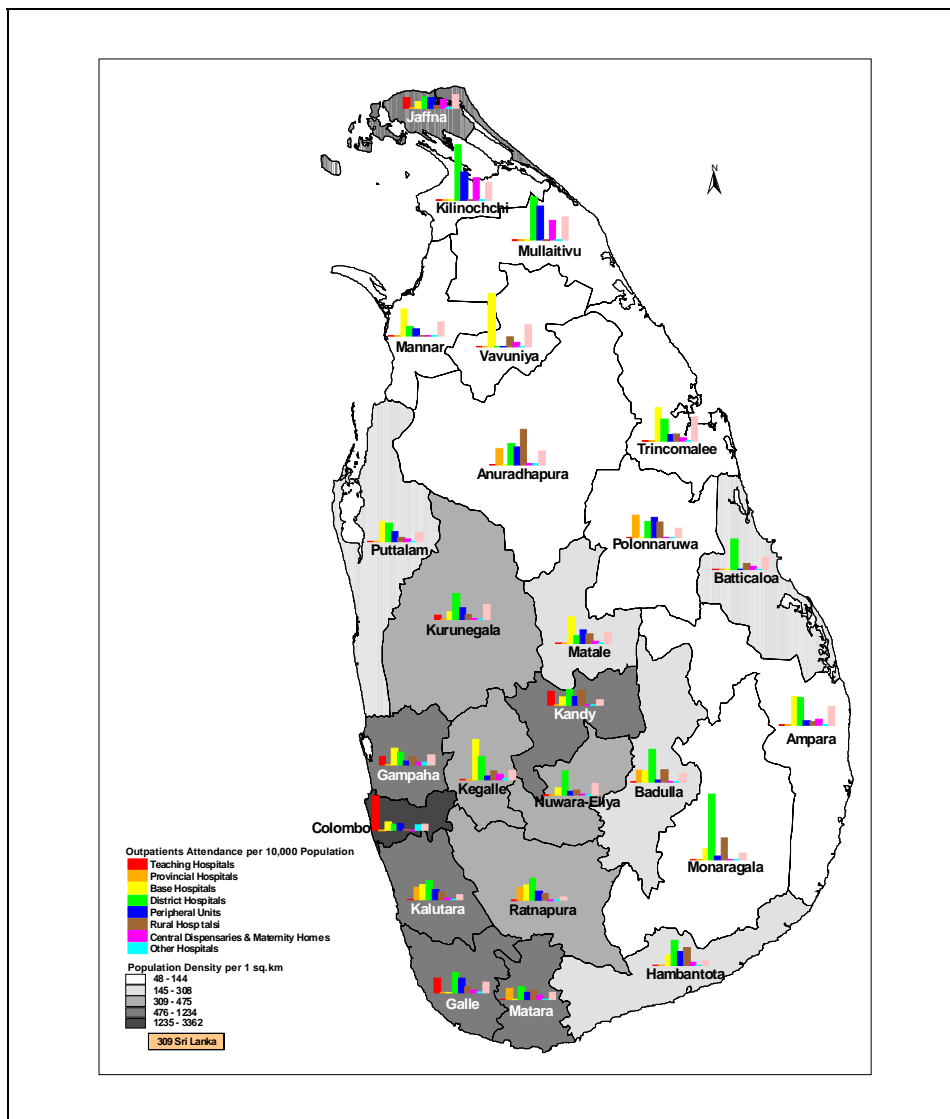
**Outpatient Visits: Highest Mean Unit Cost in Teaching Hospital**

Among government health facilities in the four districts (Colombo, Galle, Matale, and Polonnaruwa) surveyed in 1992, the lower level health facilities in general seem to cost less in providing OPD services (Figure 2.2.27b). The average cost at the only provincial hospital in the survey, though, is lower than that at base hospitals. OPD visits in MH and Central Dispensaries are a little more expensive than in peripheral units and rural hospitals.

The range in the cost per OPD visit varies remarkably. Among teaching hospitals, the difference between the most and least expensive is 343 Rs., base hospitals is 114 Rs, and maternity homes and central dispensaries is 60 Rs. On the contrary, the costs of OPD visits to district hospitals vary minimally by 20 Rs only, peripheral units by 39 Rs and rural hospitals by 24 Rs. The disparity in the cost within the same level of health facility could be attributed partly to the nature of diseases or conditions seen but it could also be a reflection of relative efficiency, which could be a function of the total cost or number of patients seen.

<sup>19</sup> For discussion on government/public and private allocation of financial resources, refer to Section 4.5. Analysis of efficiency in the management of public health programmes is not included in this section because of insufficient information.

### Outpatient Visits: Rate Per District Population Generally Higher in Lower Level Facilities



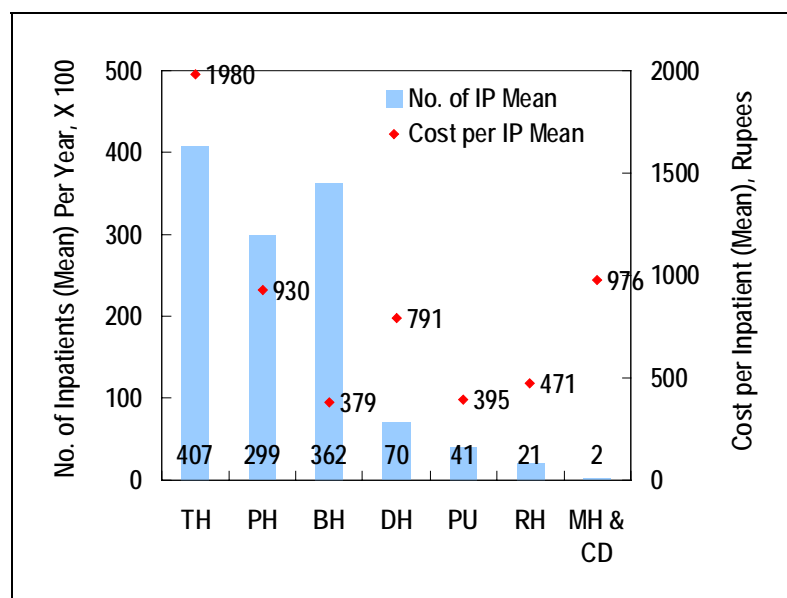
Source of Data: Annual Health Bulletin 2000.

Figure 2.2.28 Out-Patient Department Attendance or Consultations Per Population by Level of Facility and District, 2000

Figure 2.2.28 reflects the rates of OPD visits to different health facilities in all the districts in Sri Lanka. If the rate of OPD visits is to be one of the measures of performance and, consequently, of efficiency, then it seems the highest-level health facilities within districts do not necessarily attract the most number of patients. In fact, the district hospitals account for many of the OPD visits in 14 out of 25 districts. If one considers both the district and rural hospitals, then **the number of districts with primary level facilities as the one with the best performance in terms of OPD visit will be 15 out of the 25 districts.**

### Care of Inpatients: Higher Mean Unit Costs in Teaching Hospitals, Maternity Homes & Central Dispensaries

The average cost of taking care of an inpatient is cheapest in base hospitals, which have the second highest average number of inpatients (Figure 2.2.29). Peripheral units, rural hospitals and district hospitals appear to be cost-efficient, too, even if the average number of inpatients is low.



Note: IP=In-patient; TH=Teaching Hospital, PH=Provincial Hospital, BH=Base Hospital, DH=District Hospital, PU=Peripheral Unit, RH=Rural Hospital, MH&CD= Maternity Home & Central Dispensary

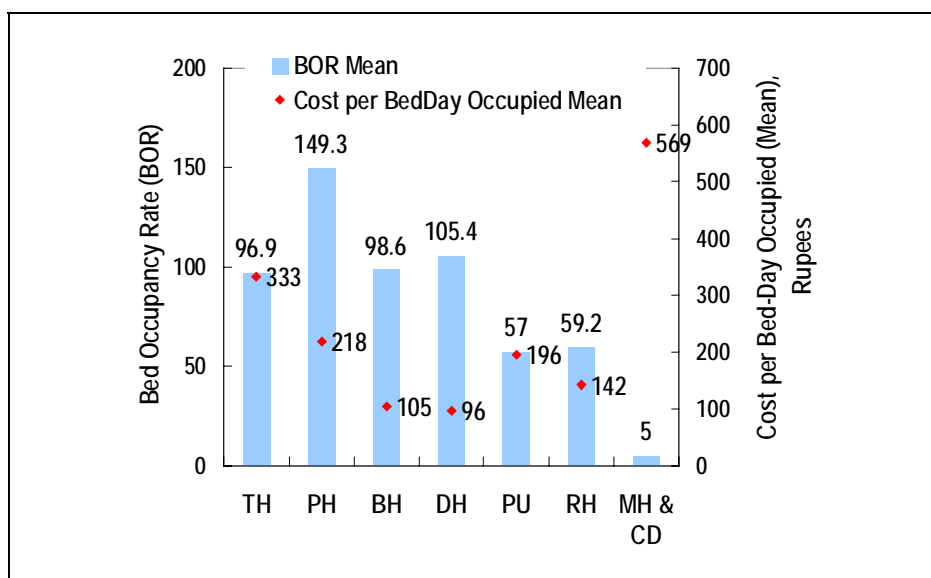
Source of Data: Hsiao, William with IPS Health Policy Programme. A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward. Cambridge: Harvard University. 2000.

**Figure 2.2.29 Mean Number of Inpatients Per Year and Cost Per Inpatient in Public Sector Facilities at Different Levels in Four Districts, 1992**

At the other end of the efficiency scale are the teaching hospitals, maternity homes and central dispensaries, and provincial hospitals. The high number of inpatients was not enough to offset the high cost to maintain teaching and provincial hospitals. The financial burden of taking care of two hundred inpatients on the average per year at maternity homes and central dispensaries is two and a half times than if these patients were confined in base hospitals. While patients admitted at lower-level facilities could generally be admitted at higher-level facilities, the converse is not always true. As such, if the higher financial burden in teaching hospitals could be due to more complicated cases that could not be taken care of adequately in lower-level facilities; then the cost could be justified. However, if there are many simple cases that occupy teaching hospital beds, then that is debatable. Unfortunately, a study on appropriateness of admissions has yet to be done in Sri Lanka.

Comparison of the performance within specific levels of health facilities revealed that the differences between the maximum and minimum unit costs of teaching hospitals, district hospitals, maternity homes and central dispensaries are 4025, 6314 and 1586 Rupees respectively. Although the unit cost per inpatient can be used as a rough index of efficiency, one word of caution is in order. In Sri Lanka, the standard package of services per level of health facility has yet to be established. To date, there is variation in the capabilities in terms of bed capacity as well as in the availability of human resources and services that can be provided even among health facilities belonging to the same level. This variation may partly account for the wide range in unit costs.

More detail discussions on the analysis of number of inpatients and cost per inpatient is described in the Supporting Document I, Chapter 7, 7.3 Efficiency.



Note: TH=Teaching Hospital, PH=Provincial Hospital, BH=Base Hospital, DH=District Hospital, PU=Peripheral Unit, RH=Rural Hospital, MH&CD= Maternity Home & Central Dispensary

Source of Data: Hsiao, William with IPS Health Policy Programme. *A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward*. Cambridge: Harvard University. 2000.

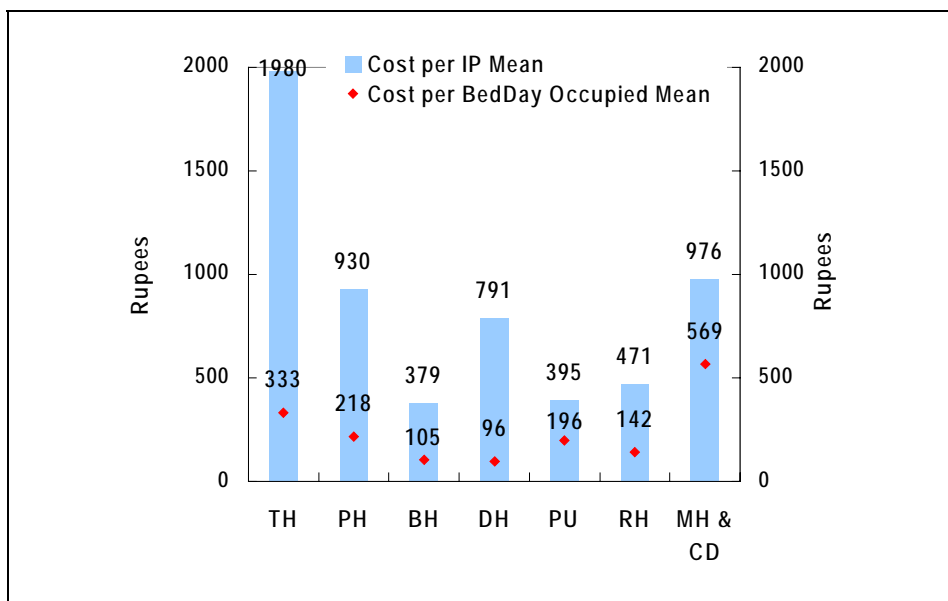
**Figure 2.2.30 Mean Bed Occupancy Rate and Mean Cost Per Bed-Day Occupied in Public Sector Facilities at Different Levels in Four Districts, 1992**

The bed-occupancy rate and cost per bed-day occupied are other indicators of efficiency in the care of inpatients. Among government health facilities, bed-occupancy rate is lowest among lower-level health facilities (Figure 2.2.30). What is the optimal bed occupancy rate? “In acute hospitals, an optimal average bed occupancy rate lies in the region of 80-85%; rates much below 80% are clearly inefficient, while average rates over 90% give rise to an increasing probability that, on any given day, the hospital in question may have insufficient beds available to meet random daily fluctuations in demand for care.”<sup>20</sup> In this regard, none among the levels of hospitals in Sri Lanka has achieved the optimal level. Nonetheless, base and district hospitals deserve special mention. They have very high occupancy rate and the lowest cost per bed-day occupied.

Considering both the cost per inpatient and cost per bed-day occupied, which health facilities are better off than others? Figure 2.2.31 essentially demonstrates the **relative cost-efficiency of managing inpatients in base hospitals, peripheral units, rural hospitals, and district hospitals**. Interestingly, district hospitals turned out to be the cheapest when it comes to cost per bed-day occupied although it ranked 4<sup>th</sup> only in terms of cost per inpatient. The extreme value (maximum of 6469 Rs and minimum of 155 Rs) in the cost per inpatient in district hospitals might have pulled its mean (791 Rs) higher than the means of other health facilities. While the mean cost per bed-day occupied in district hospitals is 96 Rs, the maximum is 187 and the range is only 156 Rs.

<sup>20</sup> Hensher, M. Financing Health Systems through Efficiency Gains. Working Paper for the Commission on Macroeconomics and Health. South Africa. July 8 2001.





Note: IP=In-patient; TH=Teaching Hospital, PH=Provincial Hospital, BH=Base Hospital, DH=District Hospital,

PU=Peripheral Unit, RH=Rural Hospital, MH&CD= Maternity Home & Central Dispensary

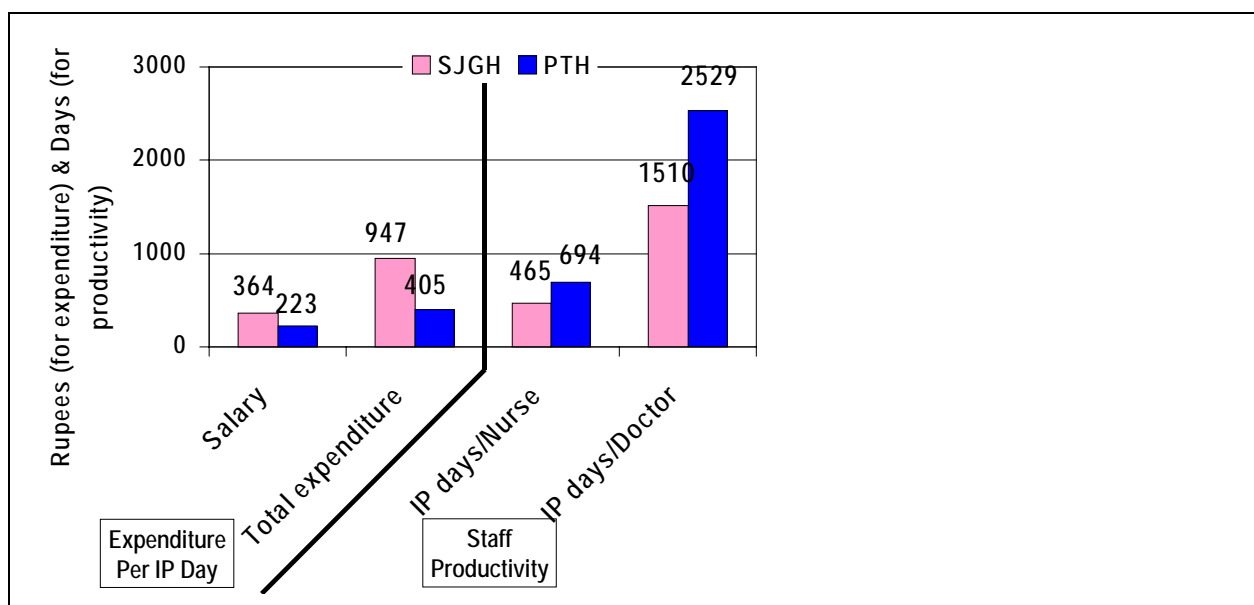
Source of Data: Hsiao, William with IPS Health Policy Programme. *A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward*. Cambridge: Harvard University. 2000.

**Figure 2.2.31 Mean Cost Per Inpatient and Mean Cost Per Bed-Day Occupied in Public Sector Facilities at Different Levels in Four Districts, 1992**

**Is the Autonomous Hospital More Efficient than a Non-Autonomous One?**

Does providing autonomy to government hospital improve efficiency? The comparative study<sup>21</sup> between the SJGH, an autonomous hospital, and the Peradeniya Teaching Hospital, a non-autonomous hospital, shows consistent results (Figure 2.2.32). The staff and total expenditure per in-patient day are higher in the autonomous hospital. For every 1 rupee used as salary in the non-autonomous hospital in 1995, a rupee and a half (1.6 exactly) was spent in the autonomous hospital. When all the expenditure are considered, then the cost of supporting one inpatient day in the autonomous hospital is more than twice (2.3 times) than that in non-autonomous hospital. The productivity performances of nurses and doctors seem to indicate more favorable situation in non-autonomous hospital, too. One inpatient day per nurse and another one per doctor in autonomous hospital were outmatched by fifty percent and seventy per cent more, respectively, in non-autonomous hospital.

<sup>21</sup> The University of Birmingham, *The Role of Government in Adjusting Economies: Sri Lanka Reforming the Health Sector – Does Government Have the Capacity?*



Source of Data: University of Birmingham, The Role of Government in Adjusting Economies: Sri Lanka Reforming the Health Sector – Does Government Have the Capacity?

**Figure 2.2.32 Expenditure per IP Day and Staff Productivity: Comparison between Autonomous (SJGH) and Non-Autonomous Hospital (PTH), 1995**

Using the expenditure and productivity indicators, the study of SJGH and PTH seem to indicate a better efficiency in the non-autonomous hospital. However, it deferred making definitive conclusion. Further investigation is required that will include a review of other non-autonomous hospitals comparable to SJGH and will employ other efficiency indicators.

## 2) Inter-Sector Comparison

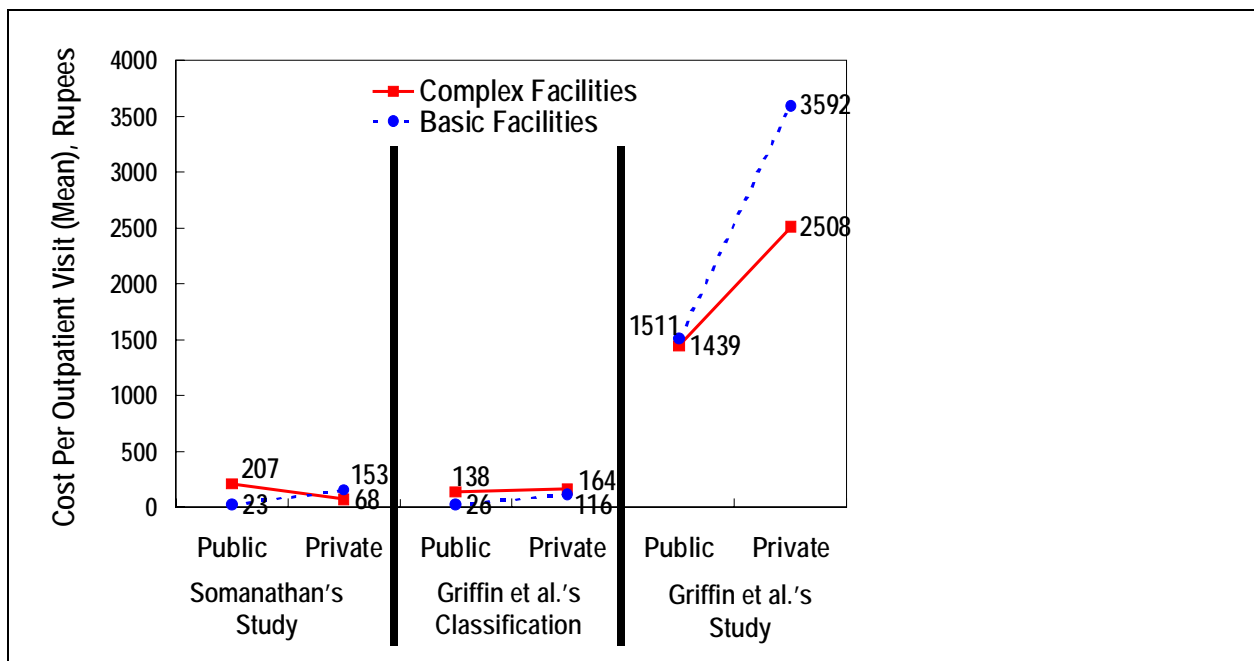
### **Outpatient Visits: Private Sector is Essentially More Costly (Except in Somanathan's Calculation of Complex Facilities)**

Somanathan analysed the 1992 unit cost (limited to recurrent cost only) of public and private health facilities and compared her findings with those of Griffin et al. Both studies were based on the 1992 Facility Health Survey. Somanathan calculated the unit costs of facilities that were considered as either complex or basic using Griffin's definition and her own. The third category of facilities refers to those providing outpatient services only. However, Somanathan suggested disregarding the costs of this category for the private sector as they are "severely under reported"<sup>22</sup>. As such, the following discussion is limited to two categories of facilities only – complex and basic.

All the calculations showed consistent results for basic facilities – private are more expensive than public (Figure 2.2.33). A private patient paid seven times more than his counterpart in the public sector according to Somanathan's Study, four times more if Griffin et al.'s classification is used, and two times more if Griffin's study is the basis. The differences in the results can be attributed to differences in definitions of complex and basic facilities as well as to categorization of facilities.

<sup>22</sup> Somanathan, A. Unit Cost Analysis of Public and Private Health Facilities in Sri Lanka in 1992. Institute of Policy Studies of Sri Lanka. 1998.

When it comes to complex facilities, though, the results are mixed. Somanathan found the cost per OPD visit in private facilities was only a third of that in public facilities. On the contrary, Griffin et al. found the private facilities to be more expensive.

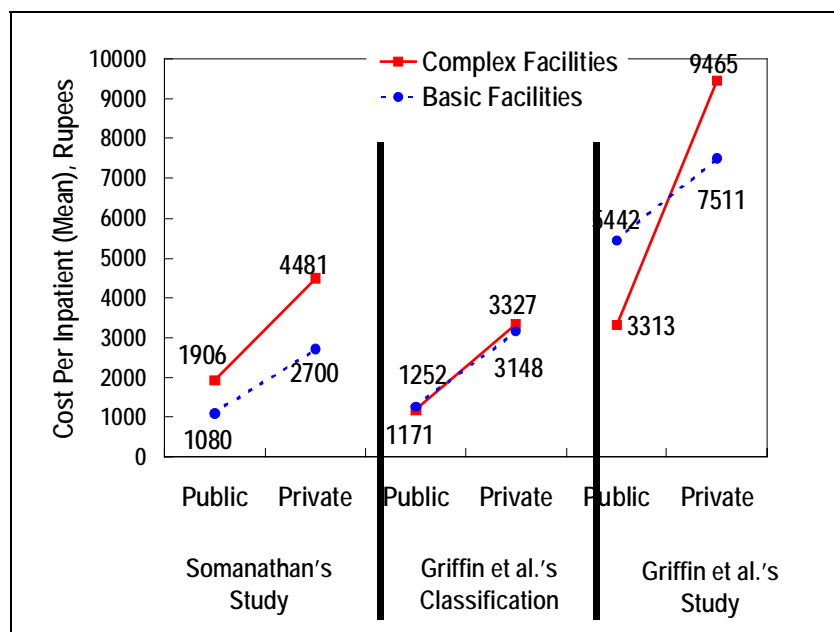


Source of Data: Somanathan, A. Unit Cost Analysis of Public and Private Health Facilities in Sri Lanka in 1992. Institute of Policy Studies of Sri Lanka. 1998.

**Figure 2.2.33 Mean Cost Per Outpatient Visit: Public vs. Private Facilities, 1992**

**In-Patient Care: Private Sector is Essentially More Costly (Except in Griffin’s Study of Cost Per Bed-Day Occupied of Basic Facilities)**

Indicators used for comparing admissions included cost per inpatient, per bed-day occupied and per bed-day available (Figure 2.2.34A to Figure 2.2.34B). They all point to the private sector as more costly than the public sector. The only exception to this trend is in the cost per bed-day occupied in basic facilities as reported by Griffin et al (Figure 2.2.34B).



Source of Data: Somanathan, A. Unit Cost Analysis of Public and Private Health Facilities in Sri Lanka in 1992. Institute of Policy Studies of Sri Lanka. 1998.

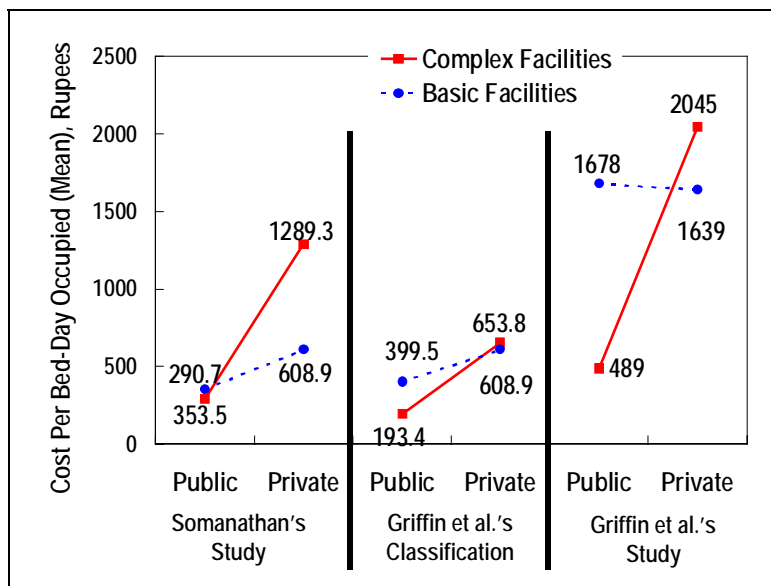
**Figure 2.2.34A Mean Cost Per In-Patient or Admission: Public vs. Private Facilities, 1992**

By how much are the costs of private sector more expensive? An analysis of the proportions of costs between private and public revealed the following ranges:

- 1.4 - 2.5 for the Cost of Admission to Basic Facilities;
- 2.4 - 2.9 for the Cost of Admission to Complex Facilities;
- 0.98 - 1.7 for the Cost per Bed-Day Occupied in Basic Facilities;
- 3.4 - 4.4 for the Cost per Bed-Day Occupied in Complex Facilities;
- 2.4 - 5.0 for the Cost per Bed-Day Available in Basic Facilities; and
- 3.2 - 4.9 for the Cost per Bed-Day Available in Complex Facilities.

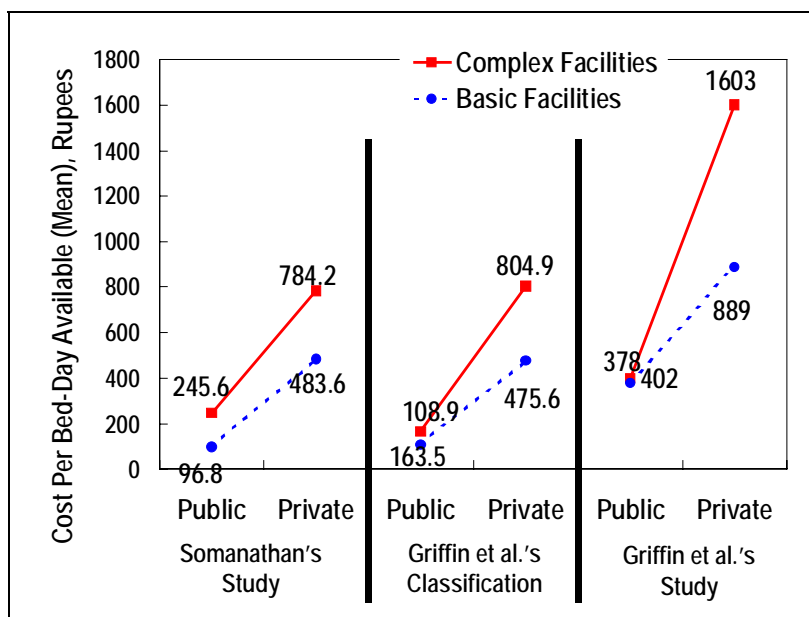
Further interpretation of the cost analysis studies is limited because of several reasons. For one, the raw data included only the recurrent cost. Another issue pertains to methodology. Should cost analysis exclude mark-ups so that the fundamental productivity or efficiency will be the only ones compared? How does one explain the unexpected finding in Griffin et al.'s study - the public sector is a little bit more costly than the private sector when it comes to the cost per bed-day occupied in basic facilities? Could this be simply attributed to misclassification of facilities or was it due to differences in the costing techniques that appeared to have been corrected by Somanathan in her re-calculation using Griffin's original classification?

Finally, one begs the question – so what if the private sector is more expensive. Isn't gaining profit inherent in this sector? The relevant issue for planning and policy-formulation is not whether one sector is generally more costly but in which specific expenditure item is one sector more efficient. For example, if the private complex facilities are more cost-efficient, considering other things being equal, in the laboratory testing of malaria, then will the entire health system be benefited if this test is outsourced to these facilities? On the other hand, if the public complex facilities are documented to be more cost-efficient, considering other things such as quality being equal, in the treatment of severe forms of malaria, then should these public facilities be designated as referral centres? As such, for results of future comparison of the efficiency of public and private facilities to be relevant for policy-makers and planners, cost analysis of more specific items may be recommended.



Source of Data: Somanathan, A. Unit Cost Analysis of Public and Private Health Facilities in Sri Lanka in 1992. Institute of Policy Studies of Sri Lanka. 1998.

**Figure 2.2.34B Mean Cost Per Bed-Day Occupied: Public vs. Private Facilities, 1992**



Source of Data: Somanathan, A. Unit Cost Analysis of Public and Private Health Facilities in Sri Lanka in 1992. Institute of Policy Studies of Sri Lanka. 1998.

**Figure 2.2.34C Mean Cost Per Bed-Day Available: Public vs. Private Facilities, 1992**

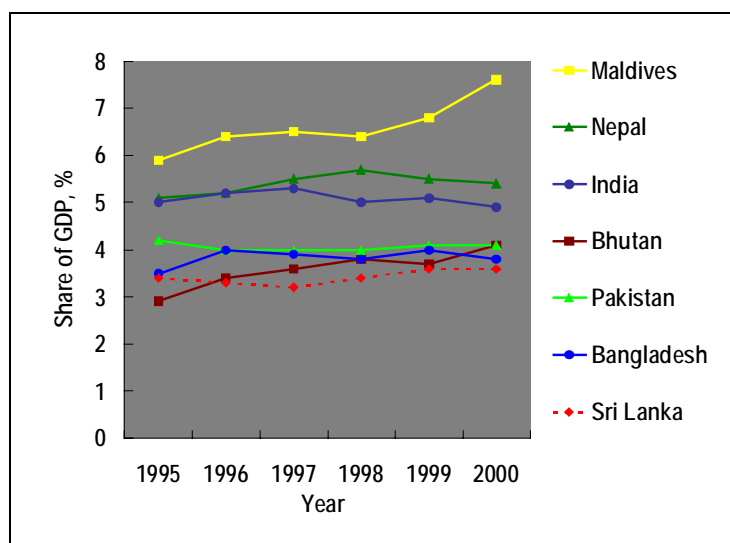
3) Inter-Country Comparison

**Macro-Efficiency**

1) The Second Highest Spender Per Capita in South Asia

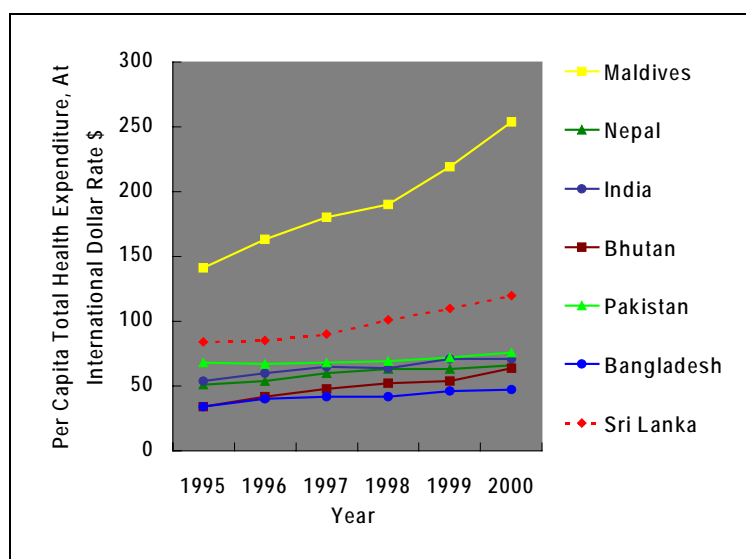
As a share of the GDP, the total health expenditure in Sri Lanka has been the smallest in South Asia from 1996 to 2000 (Figure 2.2.35). It ranges from 3.2 to 3.6% of the GDP. In 1995, Bhutan had the lowest

share but since then, it has caught up. Maldives consistently spends the most in terms of share of the GDP.



Source: WHR 2002

**Figure 2.2.35 Total Health Expenditures as Percentage of GDP, 1995-2000**



Source: WHR 2002

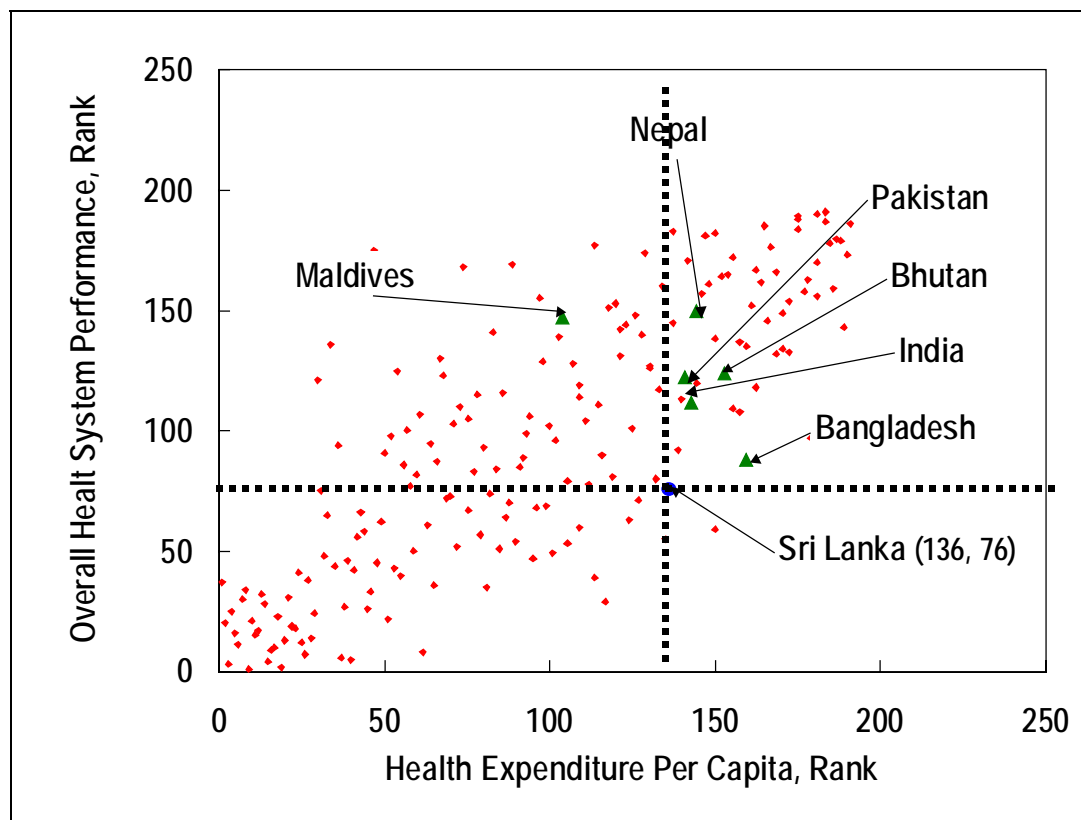
**Figure 2.2.36 Per Capita Total Health Expenditure at International Dollar Rate, 1995-2000**

While Sri Lanka seems to be the lowest spender in terms of the share of GDP, this has not been the case when one examines the total health expenditure on a per capita basis. In fact, it becomes the second highest spender next only to Maldives (Figure 2.2.36).

## 2) Overall Health System Performance: The Best in the Region

The World Health Report 2000 employed the overall health system performance as the efficiency index. While it ranked 136<sup>th</sup> in terms of per capita health expenditure, Sri Lanka ranked 76<sup>th</sup>, making it a part of the top 40%, when it comes to the overall health system performance (Figure 2.2.37). Among the countries with the same health expenditure, it is the most efficient. It is number one in South Asia. Bangladesh is the second in the region but ranks 88<sup>th</sup>, far behind Sri Lanka. Although ranks of India and

Pakistan are close to that of Sri Lanka in terms of per capita health expenditure, their efficiency levels are 112<sup>th</sup> and 122<sup>nd</sup> compared to all the other 191 member-states of the WHO.



Source of Data: WHR. 2000.

**Figure 2.2.37 Overall Health System Performance, 2000.**

### Micro-Efficiency

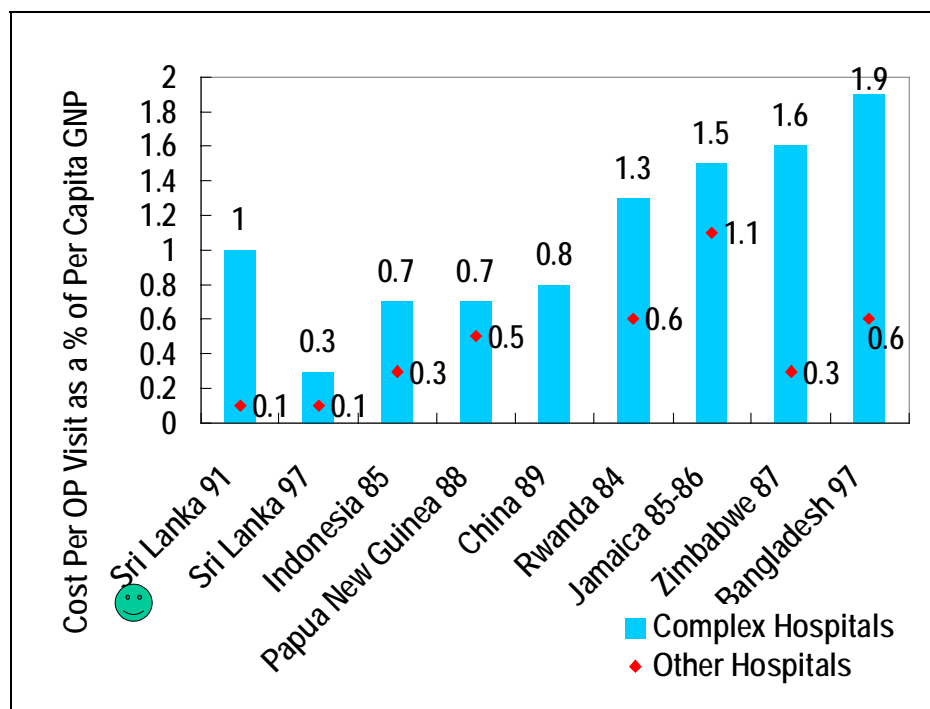
Although some economists are of the opinion that “inter-country comparisons of unit costs are unlikely to yield meaningful conclusions”<sup>23</sup>, planners and policy-makers may find a description of micro-efficiency of the health system in Sri Lanka useful such as for external benchmarking. The discussion that follows was based on Rannan-Eliya’s transformation of unit costs into unit costs as a percentage of per capita GNP<sup>24</sup>. Although the selection include countries outside of South Asia, which is the primary focus of inter-country comparison for reasons explained in the introduction to this chapter, that situation is primarily influenced by data availability and not by faulty design.

#### 1) Out-Patient Visits: Generally More Expensive in Complex Hospitals

Figure 2.2.38 shows that the cost of outpatient visit is consistently higher in complex facilities than in intermediate or basic ones. As a percentage of per capita GNP, the cost of outpatient visit between 1991 and 1997 in other hospitals of Sri Lanka has remained stable while in complex hospitals has reduced remarkably from 1 to 0.3%. The corresponding percentages for facilities in Bangladesh appear to be considerably higher.

<sup>23</sup> Hensher, Martin. Financing Health Systems through Efficiency Gains. Working Paper for the Commission on Macroeconomics and Health. South Africa. 8<sup>th</sup> July 2001.

<sup>24</sup> Rannan-Eliya, Ravi. Strategies for Improving the Health of the Poor –The Sri Lankan Experience. Institute of Policy Studies of Sri Lanka. 2001.



Note: Data not available for "Other Hospitals" in China

Source of Data: Rannan-Eliya, R. Strategies for Improving the Health of the Poor – The Sri Lankan Experience. Institute of Policy Studies of Sri Lanka. 2001.

Figure 2.2.38 Per Outpatient Visit Unit Costs as a Percentage of Per Capita GNP for Selected Countries: Complex vs. Intermediate & Basic Hospitals

2) In-Patient Care: Financial Burden on the Sri Lankan National Economy is the or one of the Lowest  
Three indicators for the cost of inpatient care were used for comparison: cost per admission, cost per inpatient day and cost per bed. Regardless of the indicators, it shows consistent trend. The financial burden of caring for inpatients in complex hospitals on the national economy is lowest in Sri Lanka among the selected countries. The cost in maintaining a hospital bed in Sri Lanka is 30% more expensive or even more than fourfold than the per capita GNP. This requires further investigation although the situation is worst in other countries.

3) Staff Productivity: High Number of Bed-Days Per Staff while Maintaining Reasonable Number of Physicians per Bed

Though information is limited to hospital setting, Figure 2.2.39 shows that the Sri Lankan staff were responsible for the highest number of inpatient bed-days while maintaining a reasonable number of key staff. Sri Lanka physicians were responsible for five beds on the average compared to 10 beds in Bangladesh. The high number of inpatient bed-days was not because patients were kept for a long time in the hospitals. In fact, Sri Lanka has the shortest length of hospital stay. As such, each staff in Sri Lanka actually took care of more inpatients compared to their counterparts in the selected countries.

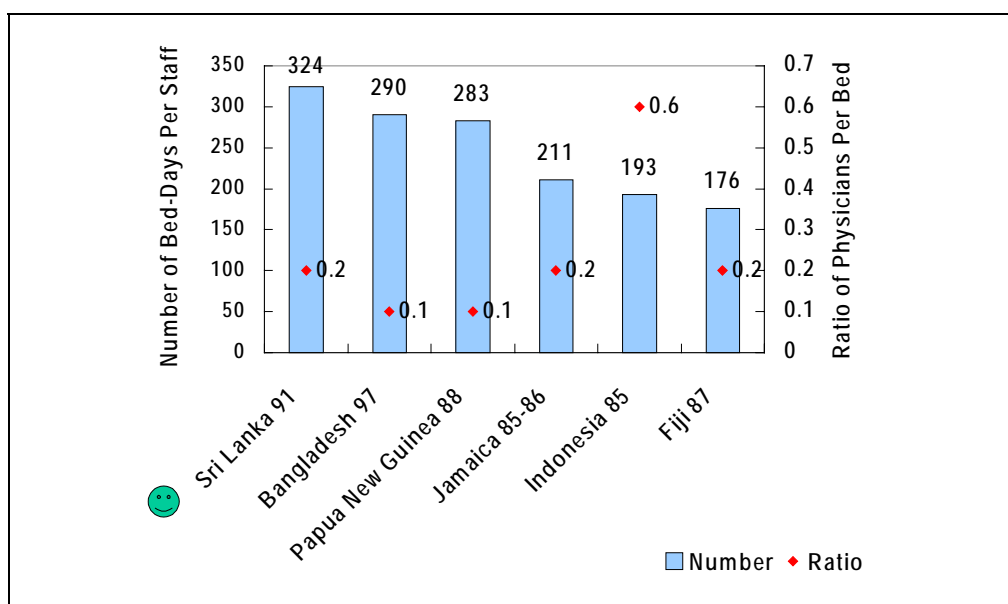
4) Hospital Efficiency in Sri Lanka: Not Optimum

Bed occupancy rate is one of the commonly used general indicators for hospital efficiency. The management goal is not maximization but optimisation of this indicator. Using 80-85% as the optimum level<sup>25</sup>, only the complex hospitals Papua New Guinea in 1988 and Fiji in 1987 were efficient (Figure 2.2.40). Not a single intermediate or basic hospital was efficient. Either in 1991 or in 1997, the bed

<sup>25</sup> Hensher, M. *Financing Health Systems through Efficiency Gains*. Working Paper for the Commission on Macroeconomics and Health. South Africa. July 8 2001.

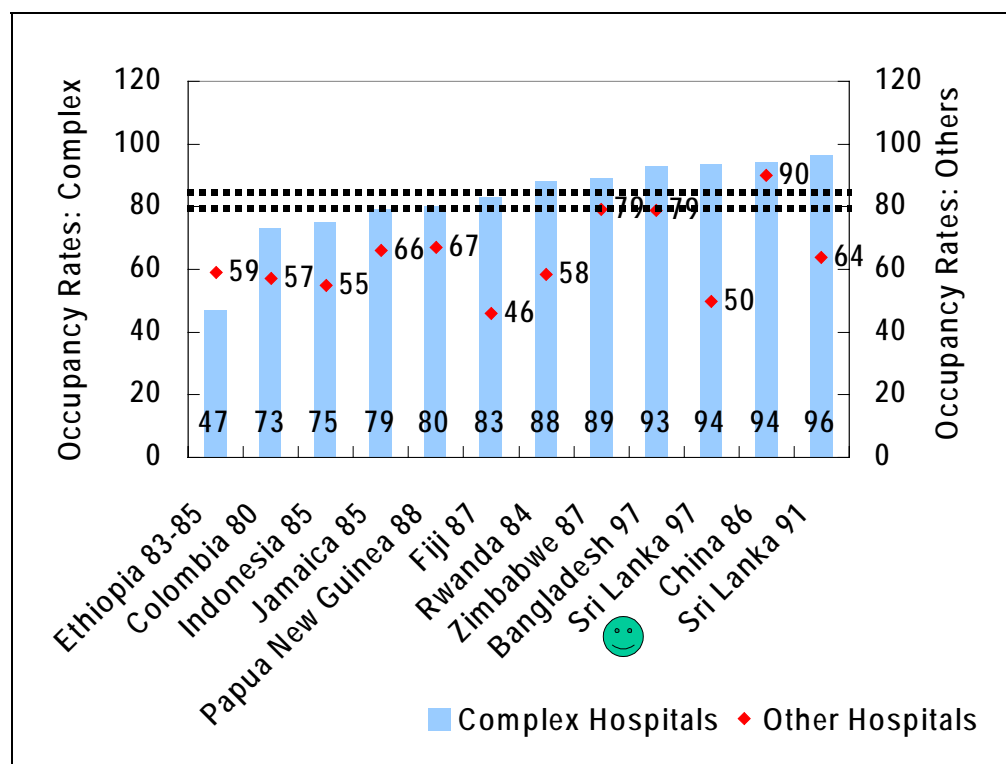


occupancy rates in Sri Lanka for complex hospitals were above and for other types of hospital were below the optimum level.



Source of Data: Source of Data: Hsiao, William with IPS Health Policy Programme. A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward. Cambridge: Harvard University. 2000. (Hsiao cited the original source to be Barnum and Kutzin (1993) and IPS database as reported in Rannan-Eliya and Somanathan (1999).)

**Figure 2.2.39 Productivity (Number of Bed-Days Per Staff and Ratio of the Numbers of Physician and Bed) for Selected Countries: Complex vs. Intermediate & Basic Hospitals**



Source of Data: Rannan-Eliya, R. Strategies for Improving the Health of the Poor – The Sri Lankan Experience. Institute of Policy Studies of Sri Lanka. 2001.

**Figure 2.2.40 Bed Occupancy Rates for Selected Countries: Complex vs. Intermediate & Basic Hospitals**

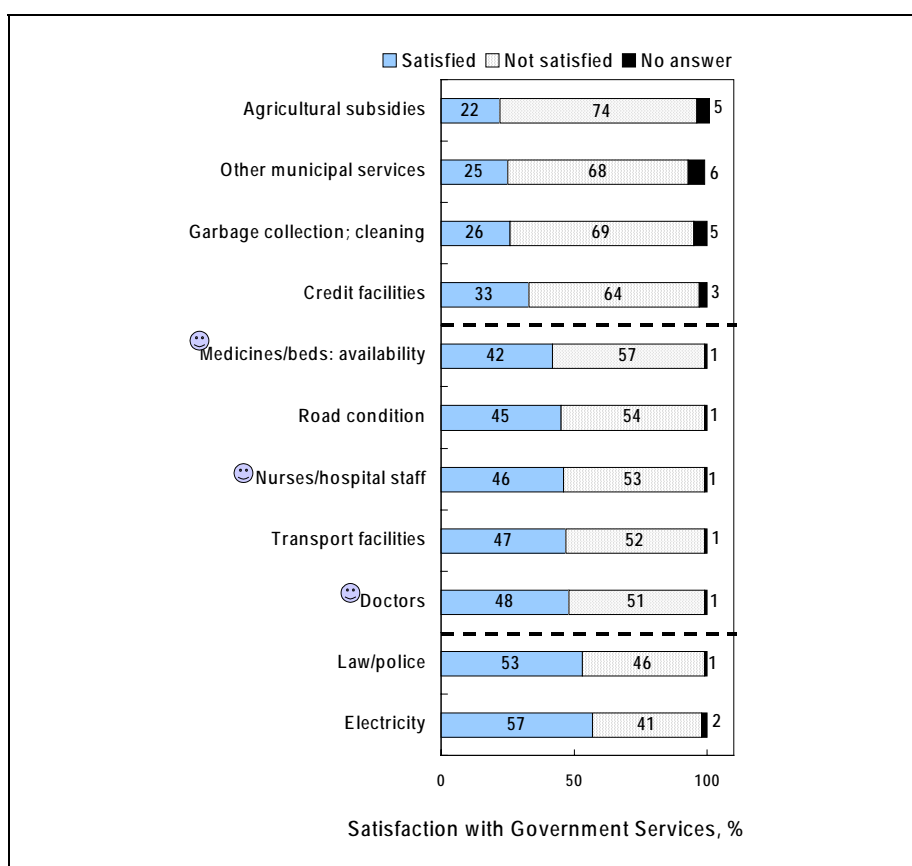
#### (4) SATISFACTION, RESPONSIVENESS & QUALITY

This section deals with three closely linked issues:

- Satisfaction of clients;
- Responsiveness of health system; and
- Quality and safety.

The relationship is such that the last two issues contribute to achieving the first one. Clients would hardly be satisfied if the health system is not responsive to their needs and the services do not meet even their minimum quality threshold.

##### 1) Satisfaction of Clients



Source of Data: Opinion poll of 3,500 persons in the sample by Research International in March 1995 [cited in: Hsiao, William with IPS Health Policy Programme. A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward. Cambridge: Harvard University. 2000.]

**Figure 2.2.41 Comparison of Public's Satisfaction with Some Government Services, 1995**

#### **Compared to Other Government Services: Health Services followed Electricity and Services provided by Law/Police Institutions**

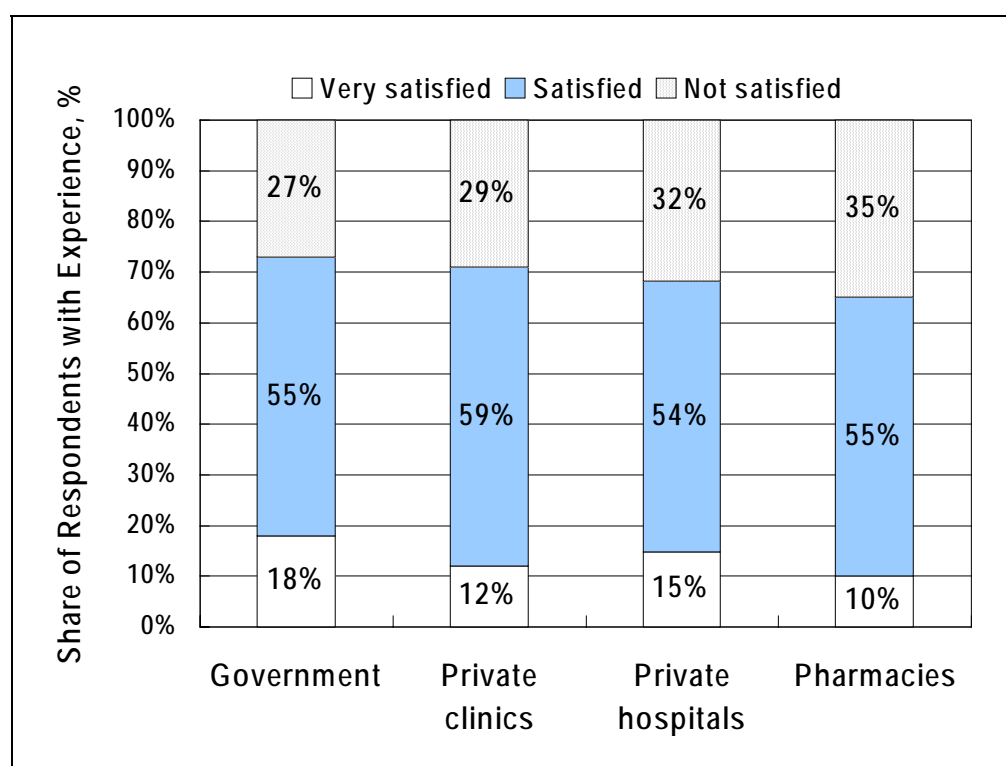
In Sri Lanka, the government has been responsible for providing basic services, many of which have been free or subsidized. Figure 2.2.41 depicts the results of a nationwide (except Northern Province) opinion poll in 1995 by the Institute of Policy Studies of Sri Lanka and the Research International. Among the eleven services included in the survey, none was rated satisfactorily by more than 60% of the respondents. Electricity (57%) and services provided by law/police authorities (53%) were the only ones that reached the 50% level.

Only between four or five out of ten respondents were satisfied with services from doctors, nurses and other hospital staff as well as with the availability of medicines and hospital beds. The level of people’s perception of services from these health staff appears to be comparable to their perception of transport facilities and road conditions.

When it comes to services that affect the health of communities, the survey revealed a low satisfactory rating for garbage collection and cleaning with only one of four respondents being satisfied.

When flipping coins, the chance of getting heads is fifty percent. Should the satisfaction threshold for government services be any thing lower? Specifically for health services, shouldn’t the cut-off be higher than chance?

**Compared with Other Providers: Government Health Institutions Elicited the Lowest Level of Dissatisfaction**



Note: Graph reflects the per cent after adjusting for experience. The trends for shares with and without experience are similar. Source of Data: Opinion poll with 2,312 interviewees by IPS Health Policy Programme and Research International in March 1995 [cited in: Hsiao, William with IPS Health Policy Programme. A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward. Cambridge: Harvard University. 2000.]

**Figure 2.2.42 Comparison of Clients’ Satisfaction with Health Services from Government and Private Providers, 1995**

In another 1995 opinion poll conducted by the Research International, respondents were asked to rate their satisfaction with health services from government facilities vis-à-vis those from private providers. The satisfaction level seemed to have rocketed up to more than the 50% level. In fact, 73% of them were either satisfied or very satisfied (Figure 2.2.42).

Across all types of health providers, about three to four of ten respondents were dissatisfied. In terms of percentage, the differences among dissatisfaction levels may appear to be small. However, the Chi-Square test revealed that these differences are significant (p=0.000). In other words, dissatisfaction

appears to be associated with the source of health services. The dissatisfaction rate was lowest among those who have experience with government health facilities.

The higher dissatisfaction with private facilities was observed mainly among respondents who are poorer and have lower educational attainment<sup>26</sup>. On the contrary, the dissatisfaction with public facilities was strongly a phenomenon among the richest (38%) than the very poor (21%) respondents. **Many factors influence client satisfaction. In this respect, it seems the respondents' financial capacity is one of them.**

## 2) Responsiveness of the Health System

### **In South Asia, Sri Lanka is the Most Responsive to Non-Medical Needs**

One of the three health system goals in the WHO framework for health system performance is responding to people's non-medical expectations. It has six components:

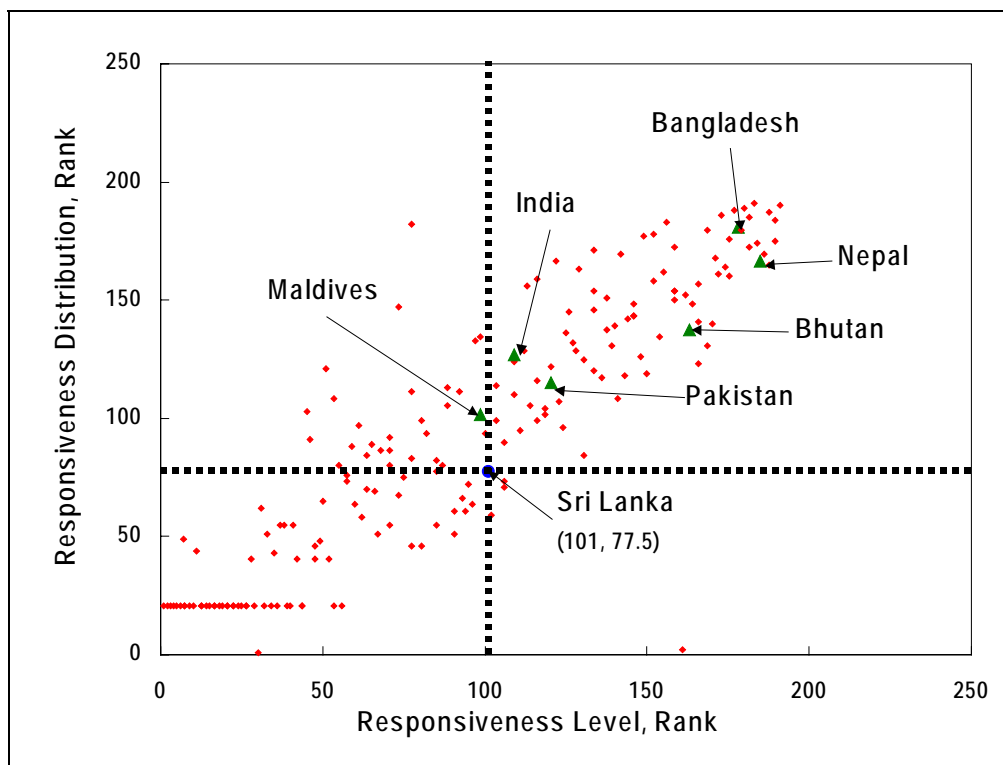
- Dignity - being treated as a person not a patient;
- Autonomy - being able to choose care providers and type of treatment;
- Prompt attention – speedy access to care;
- Quality of basic amenities – cleanliness, etc.;
- Confidentiality; and
- Access to social care support.

In South Asia, Sri Lanka ranks (101 out of 191 member states) second only to Maldives (ranks 98.5) in terms of the level of responsiveness. However, with respect to the distribution of responsiveness, it is way ahead of Maldives as the former ranks 77.5 while the latter ranks 101.5. These suggest that the health care system in **Sri Lanka is the most empowering and accords the highest respect for human dignity in the region.**

Despite its status within the region, Sri Lanka needs further improvement so that its global standing can be advanced. To identify the specific areas within each component that require attention, the MoH has participated in the WHO-sponsored Responsiveness Survey. Data-collection has been completed. Results of the Survey are not yet available.

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<sup>26</sup> Hsiao, William with IPS Health Policy Programme. A Preliminary Assessment of Sri Lanka Health Sector and Steps Forward. Cambridge: Harvard University. 2000.



Source of Data: WHR 2000.

**Figure 2.2.43 Responsiveness of Health Systems in 191 Member States of the World Health Organization**

The six components of responsiveness has been criticized for being applicable only to clinical or hospital setting. As such, there is a need to include components appropriate for public health or community situations.

**Responsiveness to Health Needs: For Further Study**

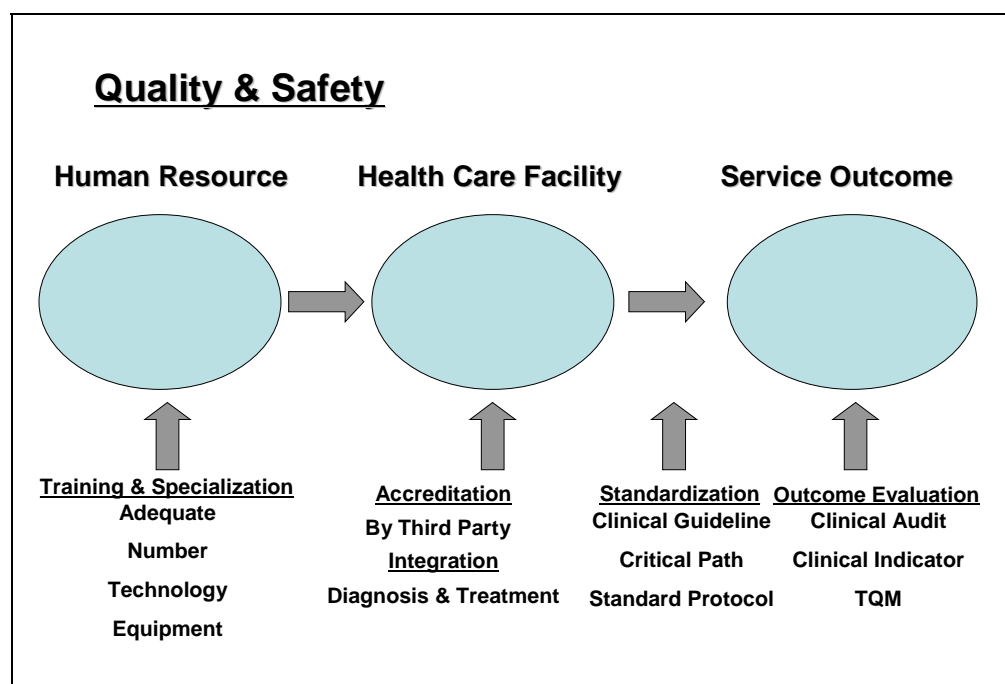
Another dimension of responsiveness is that with respect to medical needs. The fundamental question here is whether the health system as a whole and its organic components are and can be responsive to the present and future health events, concerns and priorities. The system may have been effective in its role in the control of diseases in the past. However, its previous performance is not a guarantee for its ability to successfully address the current and impending needs.

Is the health system organised, manned and equipped to face the challenges of a rapidly greying society? Are resources, training and systems available to simultaneously and strategically manage the entire spectrum of health problems – continuing, emerging and re-emerging, evolving, and emergencies? Are the policies, plans and programmes as well as the quality standards, clinical guidelines or protocols updated? These are but some of the questions that need to be answered to fully assess the responsiveness of the health system, its responsiveness to health needs. These will require further studies.

## 3) Quality and Safety

**Quality and Safety: A Broad Domain**

The health system is multi-dimensional. It has many products and production units. As such, an assessment of its quality necessitates a look at all its dimensions. Figure 2.2.44 highlights most of the important issues, many of which are discussed in different sections of Supporting Document I. Specifically, quality issues related to training and specialization of as well as logistical support for human resources are incorporated in Supporting Document I, Chapter 4, accreditation in Chapter 5, integration and standardization of services in Chapter 3, and outcome evaluation partly in Chapter 5. The perspective of the clients on services is in this chapter on client-satisfaction and its behavioural manifestation in Chapter 2. The quality of basic amenities in health facilities is a component of the WHO Responsiveness to non-medical needs.



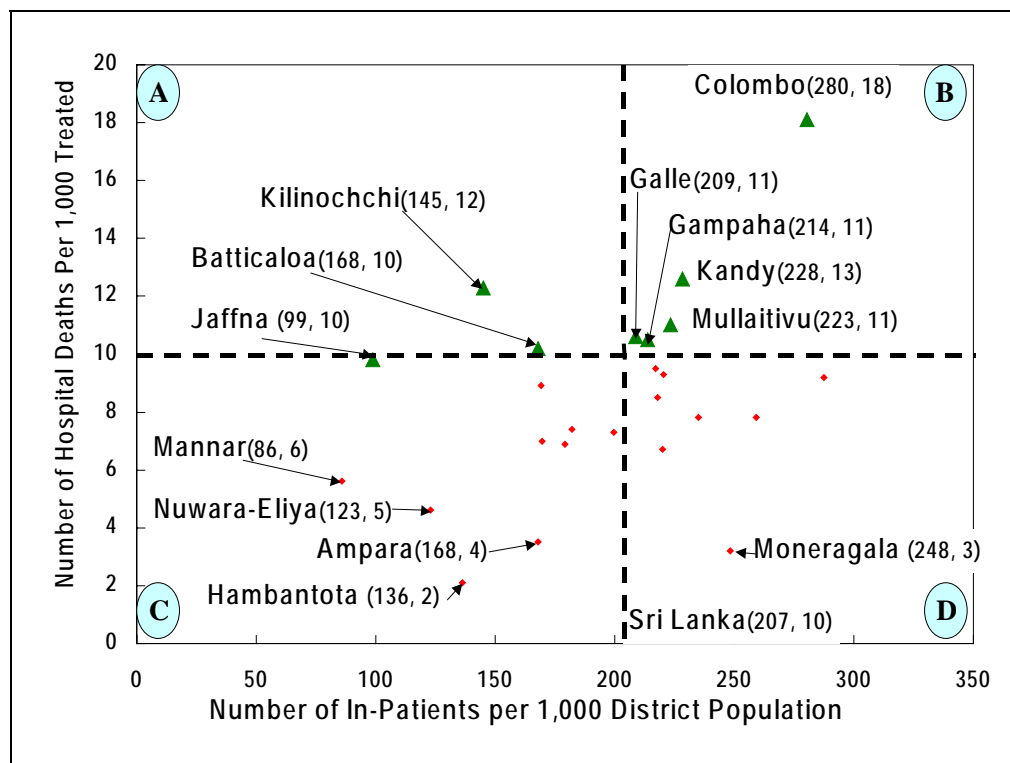
Source: MoH-JICA Study Team

**Figure 2.2.44 Quality and Safety: The Major Components**

**Hospital Deaths: Could it be a Quality Indicator?**

Health outcome was discussed in the initial section of this chapter. Could health outcome, mortality in general, be used as one of the quality indicators? Could hospital deaths reflect some or the entire spectrum of quality and safety in government health facilities? If yes, then where are the areas for improvement? What can one infer from the hospital data?

**One**, data on hospital deaths aggregated at the district level showed hardly any association with the volume of in-patients (Figure 2.2.45). Does this imply that quality can still be achieved even with a number of patients? Considering all things (e.g. ratio, skills and commitment of staff, availability of appropriate and functional technology) being equal, does it mean that poor service can also be observed even when there are few patients?



Note: A, B, C and D refer to quadrants that were formed to divide the districts by using the national rates of 207 in-patients and 10 hospital deaths as cut-off marks.

Source of Data: MoH. Annual Health Bulletin. 2000.

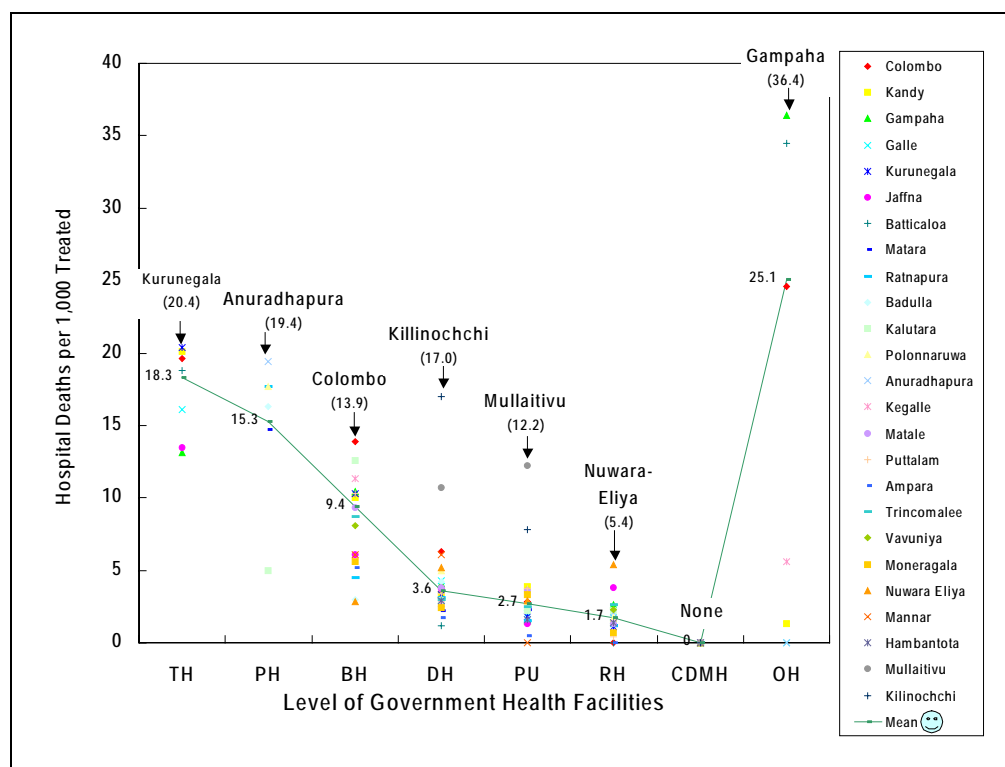
**Figure 2.2.45 Plot of Rates of In-Patients against Hospital Deaths: District-Aggregated Data, 2000**

**Two**, the eight districts with hospital death rates equal to or greater than the national rate are, in descending order: Colombo (18 per thousand); Kandy (13); Kilinochchi (12); Mullaitivu, Galle and Gampaha (11 for each); Batticaloa and Jaffna (10 for each). Six of these districts have teaching hospitals located within their geographical boundaries. If teaching hospitals were the apex of the hierarchy of facilities, if they have the best of the facilities and brightest of the health professionals, why then would the rates be the highest? Could there be factors that confound the issue of quality in these districts?

**Three**, the three districts with the lowest hospital death rates are Hambantota (2 per thousand treated), Moneragala (3) and Ampara (4). Overall, is Moneragala the best district considering, because of or despite, it has the 4th heaviest volumes of in-patients relative to its population? In contrast, the in-patient rates for the other districts are lower than the national rate. By achieving both low mortality and high volume, can Moneragala serve as a paragon of service with quality? Hence, could it serve as an internal benchmark?

**Four**, when the data are disaggregated by level of government health facilities, higher hospital death rates appear to be associated with higher-level facilities (Figure 2.2.46). The “Other Hospitals” refer to special or specialists hospitals that may explain the highest mean of 25.1 per thousand treated. There are no deaths reported in central dispensaries and maternity homes as the system dictates referral of severe or difficult cases to higher levels. Once more, this begs the question – why is the probability of dying in higher-level facilities high? Is this an issue of quality of care within the teaching hospitals, for example? Is this an issue of quality of the referral system among the various units such that patients are not immediately or appropriately transferred? Is this an issue of poor quality of management in lower-level facilities? If the rate of referral is not significant in some districts, could this be an issue of quality of public health education programmes in encouraging early consultation? Could it be a simple problem of

the nature of diseases that are being handled in higher-level facilities – that they are more difficult to diagnose and manage, they are at an advanced stage and, at times, that they are terminal cases?



Source of Data: MoH. Annual Health Bulletin. 2000.

**Figure 2.2.46** Distribution of Hospital Death Rates across Levels of Government Health Facilities, 2000.

**Finally**, Kilinochchi, Mullaitivu and Hambantota are the three districts in Sri Lanka that have only the district hospital as the highest-level government facility. Their hospital death rates are on opposite poles. On one hand, Kilinochchi and Mullaitivu have death rates above the national average of 10 per thousand treated. On the other hand, Hambantota has the lowest among all the 25 districts. Like the four preceding observations regarding hospital deaths, this phenomenon requires further investigation. Why are the death rates in Mullaitivu peripheral unit and Killinochchi district hospital the highest in Sri Lanka in their respective categories?

Based on the above discussion, hospital death rate may serve as an indicator of quality but it cannot stand on its own. It has to be interpreted within a context because death by itself is a phenomenon due to many quantifiable and non-quantifiable factors. Furthermore, because quality is a broad domain, it will be difficult to have a single indicator that will be specific and sensitive at the same time. Hence, when death rate is measured for purposes of health systems assessment, other attributes of hospital services have to be considered. When adopted, its interpretation has to account for the other components of quality.

### Better Quality in Autonomous Hospital

The University of Birmingham observed that the autonomous hospital SJGH was better off than the non-autonomous hospital Peradeniya Teaching Hospital in terms of the cleanliness of toilet, maintenance of equipment and surgical theatres, availability of higher quality drugs and minimizing shortages of those in the essential list, and staff input.<sup>27</sup> It noted that the overall cleanliness of buildings

<sup>27</sup> The University of Birmingham. The Role of Government in Adjusting Economies: Sri Lanka Reforming the Health Sector – Does Government Have the Capacity? 1997.



in both hospitals were good or very good. It attributed the merits of the autonomous hospital to “greater management autonomy, for example freedom and flexibility to procure supplies and drugs, and SJGH’s ability to charge fees and retain revenue, which in itself decentralises financial authority to the hospital”.

***In closing***, the approach of this chapter in compartmentalizing the assessment of the health systems into its individual goals is a technique to simplify data-collection, analysis and reporting. Indicators used for one goal may serve the purpose of another goal. Without labouring the issue, the point is that these goals are highly inter-related. Which one is the most important? Some policy analysts and planners pit the domains of health outcomes, equity, efficiency, client-satisfaction, responsiveness, and quality against one another. During the course of the HMP Study, participants were at times challenged to come up with priorities, be they priority health problems, priority planning issues or concerns, priority policies, priority objectives, priority programmes, priority projects and many others. To facilitate the process, different techniques were employed such as problem-tree and objective-tree analysis, economic studies, scenario building, workshops, seminars, discussion groups among experts and the MoH leadership, flowcharting, and scoring system. One theme stood out during those activities – the health system is complex. Its priorities cannot be reduced to simplistic models wherein one and only one goal is the answer. Its priorities 10 years ago need not be the same as today and 10 years hence fundamentally because if they are the same then it has accomplished nothing.