

PRIMARY HEALTH CARE SYSTEMS (PRIMASYS)

Case study from Sri Lanka



Alliance for
Health Policy and
Systems Research



World Health
Organization

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Abbreviations

BSc	Bachelor of Science	MDG	Millennium Development Goal
CSTH	Colombo South Teaching Hospital	MRCGP	Membership of the Royal College of General Practitioners
DOTS	directly observed treatment, short course	MSc	Master of Science
GCE A/L	General Certificate of Education Advanced Level	NCD	noncommunicable disease
GDP	gross domestic product	NGO	nongovernmental organization
GNI	gross national income	PHSRC	Private Health Services Regulatory Council
GP	general practitioner	PPP	purchasing power parity
MBBS	Bachelor of Medicine, Bachelor of Surgery (Latin: <i>Medicinae Baccalaureus, Baccalaureus Chirurgiae</i>)	SLMC	Sri Lanka Medical Council
MCGP	Membership of the College of General Practitioners of Sri Lanka	UNICEF	United Nations Children's Fund
MD	Doctor of Medicine	WHO	World Health Organization

Background to PRIMASYS case studies

Health systems around the globe still fall short of providing accessible, good-quality, comprehensive and integrated care. As the global health community is setting ambitious goals of universal health coverage and health equity in line with the 2030 Agenda for Sustainable Development, there is increasing interest in access to and utilization of primary health care in low- and middle-income countries. A wide array of stakeholders, including development agencies, global health funders, policy planners and health system decision-makers, require a better understanding of primary health care systems in order to plan and support complex health system interventions. There is thus a need to fill the knowledge gaps concerning strategic information on front-line primary health care systems at national and subnational levels in low- and middle-income settings.

The Alliance for Health Policy and Systems Research, in collaboration with the Bill & Melinda Gates Foundation, is developing a set of 20 case studies of primary health care systems in selected low- and middle-income countries as part of an initiative entitled Primary Care Systems Profiles and Performance (PRIMASYS). PRIMASYS aims to advance the science of primary health care in low- and middle-income countries in order to support efforts to strengthen primary health care systems and improve the implementation, effectiveness and efficiency of primary health care interventions worldwide. The PRIMASYS case studies cover key aspects of primary health care systems, including policy development and implementation, financing, integration of primary health care into comprehensive health systems, scope, quality and coverage of care, governance and organization, and monitoring and evaluation of system performance.

The Alliance has developed full and abridged versions of the 20 PRIMASYS case studies. The abridged version provides an overview of the primary health care system, tailored to a primary audience of policy-makers and global health stakeholders interested in understanding the key entry points to strengthen primary health care systems. The comprehensive case study provides an in-depth assessment of the system for an audience of researchers and stakeholders who wish to gain deeper insight into the determinants and performance of primary health care systems in selected low- and middle-income countries. Furthermore, the case studies will serve as the basis for a multicountry analysis of primary health care systems, focusing on the implementation of policies and programmes, and the barriers to and facilitators of primary health care system reform. Evidence from the case studies and the multi-country analysis will in turn provide strategic evidence to enhance the performance and responsiveness of primary health care systems in low- and middle-income countries. .

Abstract: Primary health care system in Sri Lanka

Introduction

The Sri Lankan health system is pluralistic, and largely adopts an allopathic approach. Early organized systems of care provision began with the initiation of the health unit as the basis for community-based care in 1926. Alternative health care methods, such as ayurveda and traditional healing, were functioning even at that time. Currently the allopathic system encompasses curative and preventive health care through a decentralized management approach that operates throughout the country in the public sector, whilst the private sector provides services according to market demand. The health system has seen incremental changes over the years and was largely set up during the time when communicable diseases were prevalent and episodic management was a key feature. The present health burden of noncommunicable diseases needs to be addressed and further changes to the organization of primary care are in progress.

The purpose and objective of the study is to describe the present system for primary care at national and subnational levels in a pluralistic health care delivery context, identifying key entry points to strengthen the system. The allopathic system is emphasized in this study, as it is the dominant health care component.

Methodology

A matrix to describe the primary health care system was mapped according to the areas of structure, process and outcomes. The following themes were identified and analysed: governance, financing, human resources, service organization, planning and implementation, regulatory processes, monitoring and information systems, equity of access, appropriateness and responsiveness of services, and quality and safety of care.

A literature review, secondary data analysis, key informant interviews and focus group discussions were the main methods used to collect data. Ethical clearance was obtained. Expert group discussions were conducted to synthesize the findings.

Key findings

Primary care has been the backbone of the Sri Lankan health care system. Attention is now being focused on reorganizing the primary care system, following a phase where the emphasis has been on strengthening specialized care. The main thrust is on curative care, as it has greater potential for improvement towards addressing chronic noncommunicable diseases. Existing legal frameworks have to be better used to improve the quality and standards of private sector entities and of health care professionals overall.

1. Overview of the primary care system

1.1 Introduction

The Sri Lankan health system is pluralistic, and largely adopts an allopathic approach. Early organized systems of care provision began with the initiation of the health unit as the basis for community-based care in 1926 (1, 2). Alternative health care methods, such as ayurveda and traditional healing, were functioning even at that time. Currently the allopathic system encompasses curative and preventive health care through a decentralized management approach that operates throughout the country in the public sector, whilst the private sector provides services according to market demand. The government health care delivery system is free to all citizens at the point of delivery and it has been the commitment of successive governments of Sri Lanka to maintain this policy (3).

The health system was largely set up during the time when communicable diseases were prevalent and episodic management was a key feature, and has seen incremental changes over the years. The present health burden of noncommunicable diseases (NCDs) needs to be addressed, and in this regard, changes to the organization of the primary care system are already in progress.

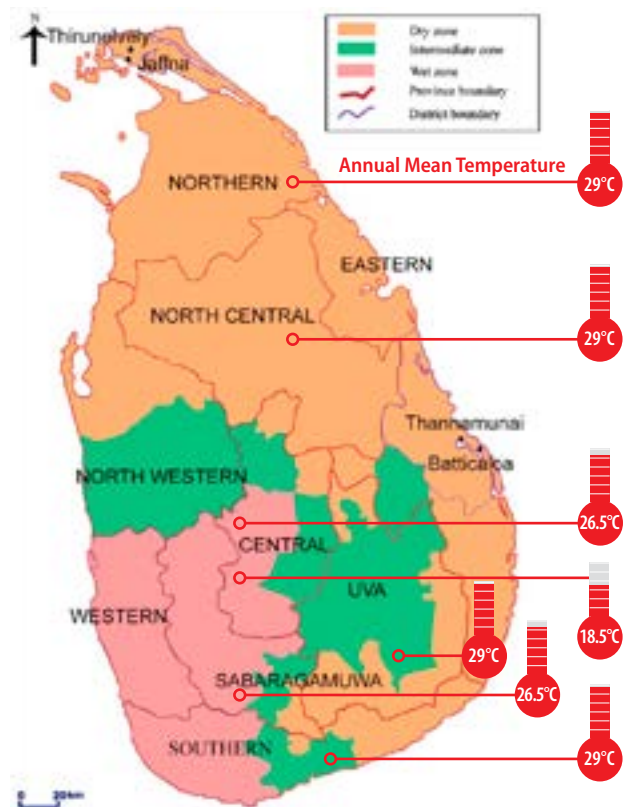
1.2 General information on the country and its people

1.2.1 Terrain, climate and rainfall

Sri Lanka, the “pearl of the Indian Ocean”, known as Ceylon before 1972, is an island situated in the Indian Ocean to the south-east of southern India (Figure 1). It has a length of 433 kilometres and width of 226 kilometres, and covers an area of 65 610 square kilometres. The country has varying rainfall, producing wet and dry zones. Sri Lanka is a tropical country that enjoys a warm climate, with the average temperature in the range 25–32°C in the lowlands and a cooler climate in the range 10–20°C in the highlands. The country comes under two monsoonal systems when

relatively high winds usher in heavy rains. The rains bring in their wake floods, landslides, increased respiratory illnesses, injuries and dengue epidemics due to increased breeding of mosquitoes, burdening the health system. The geography consists of a central highland area rising to 2500 metres above sea level. In a stepwise pattern, this highland is surrounded by upland ridges and valleys and a lower zone of rolling flat land. A coastal fringe consisting of sandbars and lagoons skirts the island. Considering the diversity in terrain, temperatures and rainfall and the “hot spot” biodiversity characteristics, many challenges are posed in the provision of primary health care (PHC). Malaria and filariasis, diseases that were once endemic and are now eliminated, were confined to specific areas in the country due to this diversity (4, 5).

Figure 1. Terrain and climate of Sri Lanka



Source: Ramasamy R, Surendran S. N., Jude P. J., Dharshini S., Vinobaba M. (2011).

1.2.2 People of Sri Lanka

The estimated midyear population of the country for 2016 was 21 203 000, with an estimated population growth of 0.8% per annum. Of this population, 18.3% live in urban areas, 77.3% in rural areas, and 4.4% in the estate sector. There are more females than males, and 70% are aged over 18 years. The elderly population accounts for 12.7% and is expected to rise to 20.7% by 2030. Sri Lanka is a multiethnic and multicultural country; the majority are Sinhalese (74.9%), followed by Sri Lankan Tamil (11.2%), Indian Tamil (4.2%), Moors (9.2%), and others (0.5%). Regarding religion, the majority (70.2%) are Buddhists, 12.6% are Hindus, 9.7% are Muslims, and 7.4% are Christians. Sinhala is the official language while Sinhala and Tamil are national languages. English, spoken competently by about 10% and commonly used in government, is referred to as the link language (4, 5).

Sri Lanka has a smaller formal employment sector compared to those in informal employment. In 2015, 8 554 000 persons were employed. Gross domestic product (GDP) was US\$ 82.3 billion and the gross national income (GNI) per capita was US\$ 3924. There was a steady rise in GNI per capita from US\$ 860 in 2002 to US\$ 1970 by the end of the war in 2009. In 2015, the government spent 1.6% of GDP on health. A comparatively high Human Development Index of 0.757 was achieved in 2014, with a world ranking of 73rd and significantly above the South Asian average of 0.607 (4, 5).

1.2.3 Government policies affecting health access

Sri Lanka has been a democratic socialist republic since 1978. The executive powers are vested in the President and the Cabinet of Ministers while the legislative powers are vested in Parliament, and judicial power is exercised by the Judiciary. The directive principles of State policy and fundamental duties have been laid down as a guide to the government. Among other duties, the State is pledged to undertake complete eradication of

illiteracy and to assure to all persons the right to universal and equal access to education at all levels.

Sri Lanka has provision for universal access to education through a free education system and the country has achieved near universal coverage of primary and secondary education. Free education up to graduate level has increased opportunities for employment and raised social status for many. It is also responsible for the high literacy rate, which in turn helps in effective health education, accounting for the successes of the public health sector. The empowerment of girls and women through equal access to free education has also contributed to reduction in maternal and child mortality in the country. On average, 93.3% of those aged over 15 years can read and write, while 24.2% can use a computer (5).

As per the Constitution, the State is also pledged to the realization by all citizens of an adequate standard of living for themselves and their families, including adequate food, clothing, and housing, the continuous improvement of living conditions, and the full enjoyment of leisure, social and cultural opportunities. Currently around 1.35 million people are estimated to be below the poverty level and 90% of them live in rural areas; 81.7% have permanent housing units and 18.3% have semi-permanent housing units. The average household size is 3.8 persons. Of all households, 89.7% have safe drinking water, 98.5% have access to electricity, and 79% have water-sealed toilets exclusive to the household (5).

1.2.4 Physical access to health

There is now reasonable road access to many parts of the country, which is motorable from north to south or from east to west within a day. New roads have been built, old roads have been repaired, and there is reasonably good road access to health care institutions in all parts of the country. As more people now own trishaws and motorcycles, modes of transport within the country have improved tremendously within the last 10 years. With the introduction of mobile phones, communication

has been facilitated and this has added to the improvement of transport facilities for people and patients, even in remote areas of the country. In 2013 there were 19.5 million mobile phones in use. A dedicated free ambulance service is provided in the Western and Northern provinces for speedy transportation of patients who are acutely ill (5).

1.3 Providers and different stakeholders in the health system

1.3.1 Characteristics of Sri Lankan health system

The Sri Lankan health system, though pluralistic, is dominated by an allopathic approach. Early organized systems of care provision began with the initiation of the health unit as the basis for community-based care in 1926. Alternative health care methods, such as ayurveda and traditional healing, were functioning even at that time. Currently the allopathic system encompasses curative and preventive health care through a decentralized management approach that operates throughout the country in the public sector, whilst the private sector provides services according to market demand. The health system has seen incremental changes over the years and was largely set up during the time when communicable diseases were prevalent and episodic management was a key feature. The present health burden of NCDs needs to be addressed and further changes to the organization of primary care are in process.

The government health care delivery system is free to all citizens at the point of delivery and it has been the commitment of successive governments of Sri Lanka to maintain this policy.

1.3.2 Primary care system

The primary care system in Sri Lanka has several providers belonging to both the government and private sectors, and to the allopathic and alternative medicine sectors. Nongovernmental organizations (NGOs) also provide limited health services.

Providers deliver curative and preventive health services in variable proportions. People are given the liberty to access care at their convenience and a gatekeeping system does not operate for the curative system.

The allopathic curative system provides hospitalization (the dominant provider being the government with a total of 1100 hospitals, of which 960 are primary care) and outpatient care (distributed almost equally between the private and governmental sectors) (4). As all government doctors are allowed dual practice (including private practice after hours), a significant proportion of non-specialist doctors provide primary care in the private sector. Specialty training in family medicine has been introduced and small numbers of practitioners are being deployed in primary-level hospitals. This number is expected to increase to support primary care reforms.

Community health services (preventive) in the government allopathic system are provided throughout the country, demarcated by distinct geographical areas conforming to local administrative divisions. Generally people register for and access free preventive health services within their area of residence. They can also access private general practitioners (GPs) who provide preventive health care.

Due to the absence of a gatekeeping mechanism to access specialized services, there is an increasing trend towards self-driven access to specialists in the private sector, even for first-contact primary care.

The Sri Lankan health care system is presently in a state of transition as it adjusts to better address the emerging problems of NCDs and an ageing population. A recent review of primary care in Sri Lanka carried out by the Ministry of Health revealed deficiencies in comprehensive, people-centred health care provision and in continuity of care. It is important in the context of the current health care burden of NCDs that systems are reorganized and retooled. The country has an islandwide distribution of curative health facilities,

which could be effectively utilized to implement changes. The national government's recent policy statements indicate a change towards deployment of medical officers responsible for smaller populations delivering comprehensive care within the government allopathic system.

1.4 Good health outcomes at low cost

Sri Lanka performed well in its efforts to attain the health-related Millennium Development Goals (MDGs), and the targets set for 2015 for child mortality, maternal mortality, reproductive health, and eradication of malaria were met.

In the past, successive Sri Lankan governments have faced the challenge of satisfying the health care needs of a population that was mainly rural and was faced with poverty and high mortality rates, especially from communicable diseases. Much success was achieved, despite the fact that Sri Lanka was a low-income country.

Several hypotheses have been put forward to explain the successes achieved in providing health care at low cost to the country. It has been argued, for example, that the introduction of democracy in the country gave the poor and the rural majority a voice in policy-making at national level. In the search for votes, the elected and successive governments expanded free public health services throughout the country. The elected members from each area were responsible for the welfare of the public, which strongly demanded good-quality, accessible health care services.

At the level of the Ministry of Health, a major development was the introduction of the health unit system, mainly focusing on prevention and maternal and child health, with almost complete islandwide immunization coverage and the introduction of a national surveillance system for many public health issues.

Another major contribution to good health care, with cost-effective, positive impacts on health indicators, was the introduction of the free education

system in the 1950s and the education policy to enrol all children in schools, irrespective of gender. The empowerment of females thus contributed to successes in health education, leading to prevention and early treatment of major communicable diseases.

The introduction of a large number of curative care centres, which acted as central dispensaries delivering ambulatory care to the public, and of divisional hospitals with both ambulatory and inpatient care at primary level, gave the public access to health care without having to travel long distances.

The medical education system, which expected high standards from its students, produced graduates of high calibre whom the government managed to retain in service by introducing a dual-practice system whereby all doctors were entitled to engage in private general practice in their off hours irrespective of their jobs in the government sector. This provision gave the doctors an incentive to practise in remote areas at hours suitable for the working public, and in locations where the ministry was unable to place medical officers and which were therefore mainly served by assistant medical officers with minimal training. This too improved islandwide coverage of health care services.

Devolution of power, through the formation of nine provincial councils with responsibility for the administration of provincial health services, has given a certain amount of autonomy to the provinces, where innovative provincial directors have brought in progressive changes.

The fact that health care could be accessed by any citizen of Sri Lanka at any public health institution in the country within hours at no cost also contributed to improved health outcomes at a time when the country was experiencing shortages in clinical specialties.

The general motivation of health workers, particularly doctors and nurses, is observed to be positive, though emoluments and incentive systems are not always supportive. The commitment of health staff is generally high, especially in rural

Sri Lanka. For doctors, entry into medical school is very competitive and is based on merit, and many enter motivated by high ideals to serve the country. The majority of Sri Lankan doctors are perceived to work with commitment towards better patient care, given a proper working environment. A general trait for compassion in Sri Lankans may also be a factor that has contributed to success in achieving health outcomes. All these hidden factors may have contributed to the provision of good healthcare at low cost in Sri Lanka.

1.5 A system in transition

According to some studies, the early achievements in health were sustained by broad-based social welfare measures adopted by successive governments since political independence in 1948. This was the

key strategy of the selective primary care measures promoted by the Rockefeller Foundation (1,2).

Currently Sri Lanka is facing the challenges of a rapidly ageing population and an increase in NCDs. To maintain efficiency at low cost, there is a need to deliver a comprehensive package of health services at the point of entry into primary care with longitudinal continuity and coordination with secondary and tertiary care services. This should go hand in hand with health promotion, disease prevention, early detection and treatment. A shared care model incorporating a family medicine approach in the government-led allopathic system is in the initial stage of implementation. The medical curricula should place greater focus on training geared to primary care and family practice.

2. Purpose of the study

The purpose and objective of the study is to describe the present system for primary care at national and sub national levels in a pluralistic health care delivery context, identifying key entry points to strengthen the system.

Specific objectives are as follows:

- to describe epidemiological, demographic, and socioeconomic trends that have influenced the development of PHC in Sri Lanka;
- to describe the evolution of policies that have contributed to PHC reform;
- to describe strengths and gaps in the present service delivery structure and the governance systems pertaining to PHC;
- to describe key policy reforms pertaining to PHC.

3. Methodology

The PRIMASYS case study was performed as two components. The first component was a desk review and the second component comprised qualitative research. The first component was conducted to achieve all four specific objectives, whereas the second component was conducted to contextualize and triangulate the data relevant to all four specific objectives that emerged from the first component. Desk reviews were performed by all experts in the team. A number of databases were used to gather the quantitative data.

Nominal group discussions were held and the major gaps that needed further exploration from the desk reviews were identified for the second component of the study.

As depicted in Figure 2, the components of a generic health system model are based on demand, supply and policy requirements. Relevant stakeholders were identified and interviewed in order to collect information on the identified gaps.

The study used two main qualitative methods to gather data:

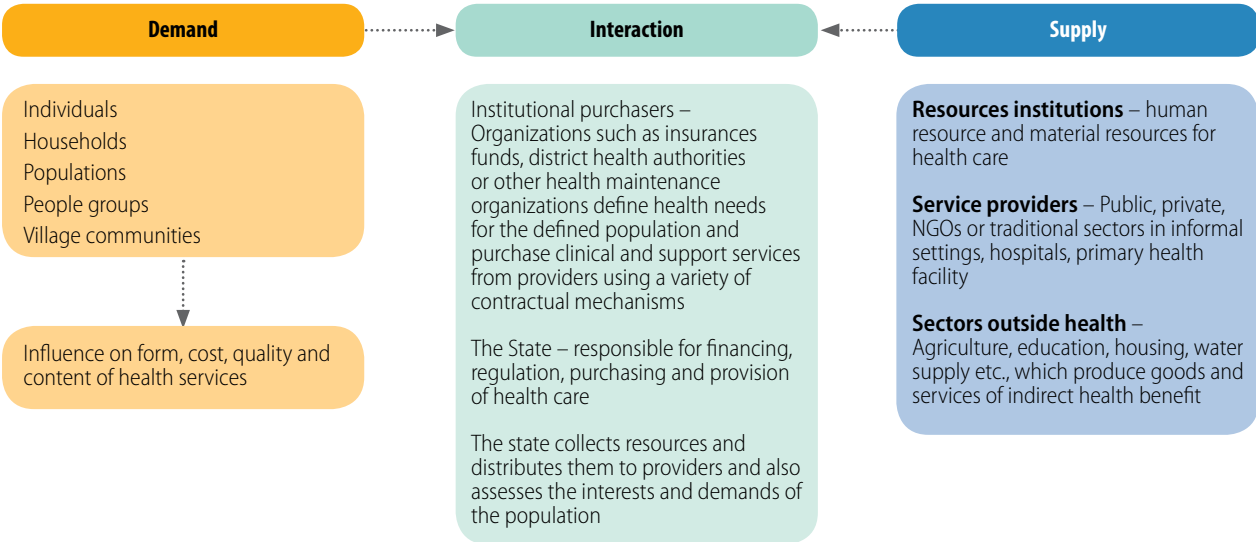
- key informant interviews
- focus group discussions.

Stakeholders were therefore classified either as key informants or as focus group participants (for example, patients attending health facilities).

Two interview guides were prepared for the key informants (Annex 1) and for the focus group discussions (Annex 2). The interviews were held at a private location acceptable and convenient for the key informants. All interviews were recorded to ensure quality. Focus group discussions were held in two PHC institutions where privacy was ensured.

The recordings from the interviews were transcribed but were not translated, as all interviews were conducted in English. Recordings of the focus group discussions were transcribed and then translated. Qualitative data were analysed using deductive methods in order to understand the context of primary care systems and to identify the priorities for action, effective entry points into the PHC system, and gaps. The main aim was to contextualize and triangulate the data gathered from the desk reviews through stakeholders’ interpretations of the utility and application of the findings. The number of interviews was based on the information gaps that emerged in component 1 and the saturation levels to be achieved with component 2.

Figure 2. Components of generic health system model



Key informants were selected mainly based on the information gaps identified in the quantitative component of the study. The research team, based on their experience, collectively decided which categories to include and which informants to interview. Except for the provincial directors of health services, the

Regional Director of Health Services and the directors of a private hospital, all other categories only had one probable informant. The reasons for inclusion of the key informant categories and the criteria used to select the key informants when there were more than one in the category are given in Table 1.

Table 1. Key informants and selection criteria

Descriptor	Expertise	Main constituency represented	Remarks
Health Minister of Sri Lanka	Administrator and politician	People seeking PHC services in Sri Lanka	The key informant who represents the public of Sri Lanka and the main authority over health at national level. His perceptions on the future of the PHC system were also considered valuable information to be included.
Three provincial directors of health services	As health services are devolved in Sri Lanka, provincial directors have the authority and responsibility to develop the PHC systems in their respective provinces. There are nine provincial directors of health services. The research team decided that interviewing three provincial directors would be adequate and selected them using judgemental sampling. The reasons for selection of each provincial director are mentioned in the respective rows of the key informants.		
Provincial Director of Health Services, Western province	Public health	People seeking public PHC services in Western province, Sri Lanka	While she acts as the Provincial Director of Health Services, Western province, she has also worked in other PHC areas and was thus able to provide information on, for example, the basic health unit in Sri Lanka, and the responsibilities of the medical officer of health.
Provincial Director of Health Services, Northern province	Public health	People seeking public PHC services in Northern province, Sri Lanka	The Northern province was within the war zone for more than three decades, and is now in a phase of reconciliation, thus the need to include the Provincial Director of Health Services for Northern province.
Provincial Director of Health Services, Sabaragamuwa province	Public health	People seeking public PHC services in Sabaragamuwa province, Sri Lanka	Sabaragamuwa province is in the process of developing its own PHC system under the guidance of the Provincial Director of Health Services.
Regional directors of health services	Regional directors of health services function under the guidance of the provincial directors of health services, and do not have the authority to function independently. Based on that, and the fact that all provincial directors have had experience in working as regional directors, the research team perceived that interviewing only one regional director was adequate ($N=25$). The reasons for selecting that specific regional director are given below.		
Regional Director of Health Services from one of the three districts of Western province	Public health	One of the three districts in Western province, Sri Lanka – Colombo district. The main constituency represented is the people seeking public health care services in the above district	The Regional Director of Health Services, Colombo district, was included to help fill gaps in the human resources section of the case study. He has a public health background and experience in medical administration, and has also functioned as a Deputy Director in the National Institute of Mental Health, the national hospital providing psychiatric care in Sri Lanka.
Director, Training, Ministry of Health, Sri Lanka	Public health	Training of staff in the government health care system	The Director was interviewed to help fill information gaps related to training of health care workers.
Chairman of the University Grants Commission and the former dean of one of the medical faculties	Administrator and academic	Health care workers of the country	This informant was included to help fill information gaps related to the training of health care workers. He is a senior academic with experience as dean of a medical faculty in the state university system.
Director, Private Health Sector Development, Ministry of Health	Medical administrator	Health care services from the private sector of Sri Lanka	The Director was included to help fill information gaps in the data obtained from the private sector, which proved to be inadequate for the case study.
Full-time general practitioner in the private sector and director at a private hospital	General practitioner	People seeking private health care services from the private sector of Sri Lanka	This informant was included to help fill information gaps related to the private sector, which is part of the PHC system of Sri Lanka. The key informant plays a dual role as a general practitioner in the private sector and director at a private hospital.

In addition to the key informants identified in Table 1, stakeholders were also interviewed. The distinction between stakeholders and key informants was not hard and fast –several key informants helped to fill the gaps identified in component 1, as they were in a position to provide first-hand information on PHC services.

Where appropriate, to ensure availability of a wide range of information, a stakeholder was identified based on their experience in and particular perspective of the PHC system. Details of other stakeholders identified are included in Table 2.

Table 2. Details of stakeholders participating in study

Descriptor	Main constituency represented	Level of health system at which active	Remarks
Director of an NGO	NGO for elders	PHC	This organization extends services to elders at community level
Executive Secretary of an NGO	NGO	PHC	Has an islandwide network at community level, especially focusing on the poor
Part-time general practitioner; Secretary of the College of General Practitioners and a trainee in this field	General practitioner	Primary medical care and family practice	A doctor who has experience in primary care, both in the State and private sectors, and a postgraduate trainee in family medicine

Focus group discussions were conducted to obtain data on clients’ perceptions related to the outcomes of the PHC system (equitable access, appropriateness and responsiveness of services, and quality and safety of care). Based on the limited time frame and feasibility issues, focus group discussions were limited to two, with a mixed group of participants accessing primary-level health care services. The distribution of participants according to their age and sex is presented in Table 3.

Table 3. Distribution of focus group discussion participants according to age and sex

Age category	Males	Females	Total
Less than 35 years	2	3	5
35 to 59 years	3	3	6
60 or more years	4	2	6
Total	9	8	17

Ethical clearance was sought and obtained from the Ethics Committee of the Faculty of Medical Sciences, University of Sri Jayewardenepura (Annex 3).

4. Results and discussion

4.1 Health profile, demography and macroeconomic situation

This section attempts to understand the primary care system in Sri Lanka in relation to the health profile, demography and macroeconomic situation. Selected indicators used in the study are presented in this section in tabular form. Table 4 presents data related to the demographic profile of Sri Lanka.

Table 4. Demographic profile of Sri Lanka

Year	Results	Source of information	Remarks
Total population of country			
1981	14.8 million	Census report, Sri Lanka, 2012	Age-sex pyramids have been developed for 1995, 2005, 2015, 2025
2001	18.7 million		
2012	20.3 million		
Sex ratio, male:female (%)			
1981	51:49	Census report, Sri Lanka, 2012	There is a gradual shift towards a relative increase in the female population
2001	49.8:50.2		
2012	48.4:51.6		
Population growth rate (%)			
1981	1.16	Census report, Sri Lanka, 2012	Population growth rate shows a reducing trend
2001	0.87	World Bank data	
2012	0.91	World Bank data	
Population density (people/sq. km)			
1981	230	Census report, Sri Lanka, 2012	
2001	300		
2012	325		
Distribution of population: urban percentage			
1981	21.5	Census report, Sri Lanka, 2012	In 1987 there was a change in the demarcation of urban and rural areas
2001	13.1		
2012	18.2		
Life expectancy at birth (years)			
1981	68.68	World Bank data	
2001	71.11		
2012	74.53		

The population age structure is changing and the need to address the PHC requirements of an ageing population is apparent. A key concern is also whether primary care comprehensively addresses the continuing challenge of maternal and child health, in the context of a decline in the population growth rate. There have been noteworthy achievements, for example reductions in maternal mortality and infant mortality, though abortion rates have increased and PHC services that address unmet needs for family planning for different clients need consideration.

The expansion of health care facilities is in keeping with the distribution of population in Sri Lanka, though more effort is needed to ensure that the distribution of human resources for health matches institutional distribution. Section 4.5 considers the distribution and availability of human resources for health at subnational level.

The epidemiological transition indicates multiple burdens of disease for both communicable and noncommunicable diseases, but also an unfinished agenda in maternal and child health. While malaria and filariasis have been eliminated, vaccine-preventable diseases have been controlled through a national programme, and an islandwide community health programme at primary level is in place, challenges still exist regarding control of intestinal infections, dengue and possibly other mosquito-borne diseases. Sri Lanka was the first country in the South-East Asia region to achieve its measles elimination goal, in 2011. However, in 2012, the measles immunization schedule was changed from a measles vaccine at age 9 months to a measles, mumps and rubella vaccine at 12 months. In 2013, Sri Lanka reported its worst recent outbreak of measles, as reflected in the statistics for 2014. The immunization schedule has been shifted to 9 months again with a target of less than one case per 1 million of population by 2020.

Intersectoral action is needed to combat challenges posed by environment health and food sanitation, including to promote individual and community behaviour change. The epidemiological shift towards NCDs has been occurring over some decades, fuelled not only by the demographic transition but also by a lifestyle transition. Changes to the primary care architecture that will address NCDs have only recently received attention. These changes are levelled mainly at the primary care curative health system (described in section 4.3). There is a general understanding that the primary care model for preventive health –the health unit system in community health services – has largely contributed to the positive outcomes previously mentioned, and the same system can be applied to emerging challenges. Past attempts to amalgamate preventive and curative systems have not been successful.

Tuberculosis control in Sri Lanka comes under the National Programme for Tuberculosis Control and Chest Diseases, a decentralized unit under the Ministry of Health. According to the annual health bulletin, population coverage of directly observed treatment, short course (DOTS) is 100%, including the northern and eastern districts, and treatment outcome of new smear-positive pulmonary tuberculosis cases in 2013 was 85.2%, according to the annual health bulletin for 2014.

Table 5 presents data on key health indicators for Sri Lanka, and Table 6 presents trends in diseases leading to hospitalization.

Table 5. Key health indicators, Sri Lanka

Year	Figure	Source
Infant mortality rate (per 1000 live births)		
1981	36.8	World Bank data
2001	13.6	
2012	8.9	
2015	8.4	
Under-5 mortality rate(per 1000 live births)		
2000	16.3	Registrar General's Department
2008	11.1	
2013	10.0	
Maternal mortality ratio (per 100 000 live births)		
2014	32.0	Annual health bulletin, 2014 (4)
Immunization coverage under 1 year (including pneumococcal and rotavirus)		
Note: Sri Lanka does not give pneumococcal and rotavirus vaccines		
2004	97.0%	WHO/UNICEF estimate
2010	99.0%	WHO/UNICEF estimate
2014	99.1%	Annual health bulletin, 2014 (4)

Table 6. Hospitalization trends for selected diseases: top 10, 1985–2014 (number of hospitalizations per 100 000 persons)

1985	1995	2005	2014
Intestinal infections and parasitic diseases	Asthma	Asthma	Asthma
Malaria	Intestinal infections and parasitic diseases	Intestinal infections	Intestinal infections
Asthma	Hypertensive disease	Hypertensive disease	Ischaemic heart disease
Anaemia	Ischemic heart disease	Ischemic heart disease	Hypertensive disease
Hypertensive disease	Malaria	Diabetes mellitus	Diabetes mellitus
Ischaemic heart disease	Anaemia	Liver diseases	Anaemia
Helminthiasis	Diabetes mellitus	Anaemia	Liver diseases
Nutritional deficiencies	Liver diseases	Tuberculosis	Septicaemia
Diabetes mellitus	Viral hepatitis	Malaria	Tuberculosis
Tuberculosis	Helminthiasis	Viral hepatitis	Measles

Source: compiled from annual health bulletins, 2003 and 2014.

Macroeconomic data indicate that low spending on health has continued, and the challenge will be maintaining the same levels of efficiency in view of the change in the disease burden (Table 7).

In Sri Lanka, the patient has autonomy in accessing primary, secondary or tertiary care hospitals for first-contact care, and there is no referral system in place. Patients therefore tend to access larger institutions with better facilities, bypassing smaller medical intuitions with minimal facilities for patient care. There is thus underutilization of smaller institutions and overcrowding of larger institutions. Three indicators have been used to calculate the level of

utilization of medical institutions, using data from their medical statistics units: average duration of stay, bed occupancy rate and bed turnover rate.

In 2014, primary care divisional hospitals with inpatient facilities showed bed occupancy rates of less than 40%, compared to much higher rates (up to 100%) in secondary or tertiary care hospitals, with some variations according to the facilities available at different locations.

Government curative institutions have provided services to around 6 million inpatients, 55 million outpatients, and 24 million patients attending various clinics.

Table 7. Macroeconomic profile

Indicator	Results	Source of information	Remarks
GDP per capita	US\$ 3610 (2013)	Sri Lanka socioeconomic data, 2015 (6)	
Income or wealth inequality (Gini coefficient)	0.48	Household Income and Expenditure Survey, 2012/2013 (7)	Gini coefficient of household income
Total health expenditure as proportion of GDP	3.2%	National Health Accounts, 2013 (8)	
PHC expenditure as % of current government health expenditure	2%	Primary Health Care Performance Initiative: http://www.phcperformanceinitiative.org/south-asia/sri-lanka	Reflects % of current government health spending dedicated to PHC. This core health financing indicator reflects government investment in and commitment to PHC and enables increased accountability of governments on their PHC investments.
% total health sector expenditure on PHC		No data available	
Per capita current primary health care expenditure (PPP)	US\$ 24.6	Primary Health Care Performance Initiative	Total current PHC spending per person is measured in purchasing power parity (PPP) and contributes to the understanding of the priority and importance a country and population places on PHC. Total current PHC spending per person does not include capital expenditure.
Public expenditure on health as proportion of current health expenditure	55%	National Health Accounts, 2013 (8)	
Out-of-pocket payments as proportion of current health expenditure	39.9%	National Health Accounts, 2013 (8)	
Voluntary health insurance as proportion of current health expenditure	2.1%	National Health Accounts, 2013 (8)	
Proportion of households experiencing catastrophic health expenditure	1.24% (2010)	Govindaraj et al. (9)	Taken as 40% of share of non-food expenditure (%)

4.2 Policy background

4.2.1 Timeline

Figure 3 presents the history of policy development and other measures of relevance to PHC in Sri Lanka.

4.2.2 Chronological development of PHC-related policies and other measures

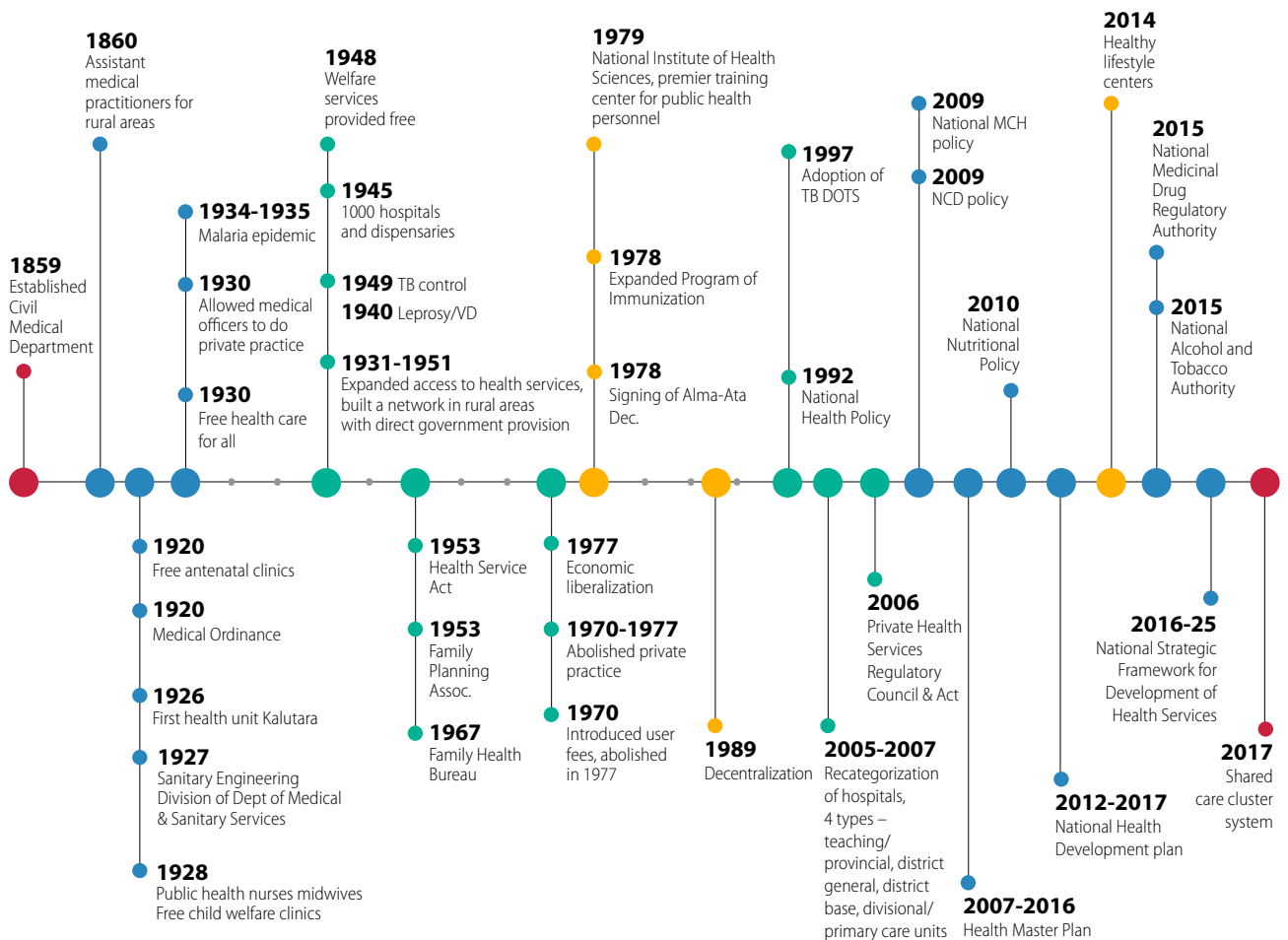
The policies that have influenced primary care development in Sri Lanka are listed below in chronological order, along with the relative successes arising from their adoption and implementation. The Sri Lankan health system has offered a network of services consisting of both indigenous and allopathic medical systems. Initially, preventive efforts were

concentrated on prevention of the spread of major communicable diseases.

1859. The Civil Medical Department was established (later to become the Department of Health Services, and subsequently the Ministry of Health).

1860. Assistant medical officers in Sri Lanka can be traced back to the 1860s. From the beginning, their training followed an allopathic, evidence-based model. Assistant medical officers have played a key role in rural and peripheral health care through staffing of government central dispensaries and maternity homes, and have contributed to Sri Lanka's favourable health outcomes (10).

Figure 3. PHC policy measures in Sri Lanka



1916. Inauguration of the hookworm campaign by the International Health Board of the Rockefeller Foundation. The Rockefeller Foundation was the first international organization to assist Sri Lanka's health services. The hookworm campaign was an important landmark in the public health services of the country. The project director, Dr W.P. Jacocks, proposed that in addition to carrying out treatment for hookworm infection in villages and towns, a survey should be taken to determine the prevalence of major health problems and their underlying causes across the island. Although the hookworm control campaign on plantations failed to achieve its intended goal, it provided a window of opportunity for International Health Board representatives in Sri Lanka to gain first-hand knowledge of the socioeconomic conditions related to health across the country under colonial rule. It also gave them an opportunity to reflect more closely on the importance of sanitation and public health in preventing disease (1, 2, 11–15).

1921. First organized effort to control malaria began.

1924. Medical Ordinance established guidance on training and qualification standards for different types of health professionals –doctors, pharmacists, nurses, midwives, dentists, etc. – and rules on professional conduct (16).

1926. Establishment of the first health unit in Kalutara and commencement of the Health Unit Programme. The government's reorientation towards public health in the country created space for the International Health Board of the Rockefeller Foundation to play an active role without being perceived as interfering with the government's affairs. An understanding was reached between the International Health Board and the government that a programme must be developed to address basic sanitary services, vaccination for communicable diseases, maternal health and childcare, and public health education and training in the country. If successful results could be achieved in developing an effective programme in one district, it should be used as a model for others. The International Health Board, together with local health officials,

developed a complex plan that was embedded into the governmental administrative mechanism. Positions were added to the existing administrative apparatus, and their mandates were extended and animated to carry out new duties related to public health. This programme became the framework and impetus for the remarkable achievements in public health in Sri Lanka.

The general objective of the Health Unit Programme was "to meet the health needs of populations living in rural and semi-rural areas", and the core principles of the programme were disease prevention and health education, using the services of standard public health organizations, through which all recognized health activities were carried out.

A "health unit" is a geographical area comprising up to 80 000 to 100 000 inhabitants. Early research revealed the nature of the anticipated work: for a population of 40 000, the programme recommended one medical officer, five public health nurses, five sanitary inspectors, and ten midwives. Two office workers and a labourer were required for record keeping and maintenance. They were expected to work as a team in their field operations. The Rockefeller Foundation and the Department of Public Health and Medical Services of Sri Lanka led teams of medical and public health experts in designing and implementing the programme, under which the island would be divided into approximately 63 health units. It was estimated that the average population of a health unit would be 83 000 people. The three levels of cooperation – individual citizens, community organizations and local authorities – were engaged in the development of the Health Unit Programme.

The medical officer of health, who served as the director of the health unit, was expected to coordinate all activities to ensure that public health inspectors, nurses, and midwives carried out their work as planned. The medical officer investigated health problems in the area, made regular visits to schools, oversaw clinics for vaccinations, maternity and child welfare services, and ensured provision of health education through various media. The

health units did not provide curative services, except when conducting hookworm and malaria control campaigns, and referred patients to the local hospital or dispensaries for curative services. The medical officer was also responsible for bringing the social and economic problems of the community that had health implications to the attention of local authorities and relevant government departments for action.

The World Health Organization (WHO) points out that Sri Lanka's success story of health achievements is, in large measure, due to its early start with a solid foundation for an equitable and community-based approach to PHC, and acknowledges that equality of access to health and education at all levels for both men and women was one of the core principles of national health priorities and development policies in Sri Lanka, contributing to success in achieving health indicators. Undoubtedly, the health unit system was the forerunner of Sri Lanka's continuing commitment to progressive health policies and development strategies.

1920s. Free antenatal care was introduced. The first antenatal clinic was started at the De Soysa Lying-in Home.

1926. Specific regulations were enacted in 1926 regarding the operation of restaurants, bakeries, butcher's shops, fish and vegetable markets, dairy farms and laundries. All trade premises were regularly inspected by sanitary inspectors to ensure that the owners complied with regulations.

1926. Large-scale sanitary projects commenced in all health unit areas with the inauguration of a Sanitary Engineering Division in the Department of Medical and Sanitary Services. This division spearheaded the campaign to improve public health. Sanitary officers were appointed to control infectious diseases and epidemics, and to ensure adequate sanitation in bazaars, urban areas and rural estates. General public health activities remained the responsibility of the Ministry of Health. Specialized campaigns for disease control were implemented as required. A mass

immunization campaign for typhoid and smallpox was carried out in all health unit areas.

1929. Free maternal and child welfare clinics were introduced. A special programme for recruiting and training public health nurses and midwives was introduced by the Department of Medical and Sanitary Services in the latter part of 1929. The maternal and child health infrastructure that commenced through the health unit system was linked to the expanding Malaria Control Programme.

1929. By the end of 1929 there were five health units across the country serving approximately 225 000 people, about 5% of the total population of the country. The community-based Health Unit Programme was the origin of the concept of selective PHC. It was developed by the International Health Board of the Rockefeller Foundation in collaboration with Sri Lankan public health experts before WHO began to discuss PHC for developing countries. Unlike the comprehensive PHC of the Alma-Ata Declaration, which recommended broad social and economic reforms to promote health, the Health Unit Programme restricted itself to the most serious health problems in the community and attacked their root causes in accordance with their importance for the health of the people by using available techniques and local resources. The health unit system that was developed took account of local conditions and utilized the available resources and administrative mechanisms in partnership with the local people. In the process, people became stakeholders of the health unit system, contributing to its practicality and inexpensiveness.

1930s. Free access to health care for all was introduced. Medical officers were allowed to supplement their official salary by doing private practice outside official work hours and off government premises. This enabled the health department to recruit and retain medical staff.

1931. The departments for local government and health were brought under one ministry.

1934/1935. Rural economies ravaged by malaria epidemic.

1936–1947. Expansion of government medical services into rural areas.

1939–1945. During World War II, British rulers expanded the western medical services in line with the British Medical Service.

By 1945, the Ministry of Health was operating more than 1000 hospitals and dispensaries for a population of only 7 million. Later, after the network was in place, further expansion shifted to upgrading and expanding existing facilities, a process that continues today.

The prioritization of hospitals in the health ministry budget was thus an important feature of official health policy from the 1930s and marked a major change from British colonial policy, which had concentrated on preventive, sanitation, and quarantine measures for the rural population.

1931–1951. During this period, Sri Lanka expanded access to health services by using direct government provision to build a highly dispersed health facility network in rural areas. The easy access to and use of modern medical services by the population resulted in a change in health-seeking behaviour as rural Sri Lankans switched from traditional to modern medical care.

1940. Control programmes were established for venereal diseases and leprosy.

1948. Universal welfare services were provided by the State, including free rice, education and health services. Free education from kindergarten to university was established in Sri Lanka in 1947, and health services were expanded to primary, secondary and tertiary levels of care.

1949. Tuberculosis: the first islandwide, regular BCG immunization programme was established (17).

1951. User fees at government hospitals were abolished. In common with most British colonies, government hospitals charged user fees prior to

the 1930s. However, a means-tested exemption was provided to those considered poor, and the income limit was set so high that most rural patients did not pay. Yet in the electoral scenario that emerged after 1931, even these limited fees were considered unreasonable. User fees were abolished in 1951 by the United National Party Government in power at the time but were reintroduced in 1971. Demand for health services, especially by the poor, immediately plummeted, and the fees were again abolished by the next United National Party Government in 1977. Consequently, in Sri Lanka user charges have rarely been a barrier to access by the poor, and the national policy of free care has been firmly supported by all major political parties.

1951. Sri Lanka was able to achieve quantitative levels of health service access comparable to many middle-income developing countries, and substantially equalize use of modern medical treatment between rich and poor. This expansion of coverage involved access not only to primary care services but also to general hospital services, including inpatient treatment. The aggregate increase in population coverage was between 200% and 300% over a 20-year period.

1953. Enactment of the Health Service Act saw the establishment of Superintendent of Health Services units to cover the entire country. The units were responsible for the preventive, curative and administrative components of health care. The act paved the way for the establishment of the National Health Council, headed by the Prime Minister, which aimed to ensure that “good health” was being delivered to the people and that preparations were in place for interventions in situations of national crisis.

1958. With the support of the Family Planning Association, the Family Health Programme was implemented. Attention was mainly focused on family welfare with a view to reducing maternal mortality, infant mortality and malnutrition.

1967. The Family Health Bureau was established as the central organization of the Ministry of Health

responsible for planning, coordination, direction monitoring and evaluation of the Family Health Programme (18).

The Family Health Programme covers a wide spectrum of services comprising:

- maternal care;
- infant and child care, which provides for immunization against six common childhood diseases;
- monitoring of growth and development;
- psychosocial development of the child;
- control of diarrhoeal diseases;
- treatment for acute respiratory infections;
- nutrition for pregnant women and children;
- care of schoolchildren;
- adolescent health;
- family planning.

The Family Health Programme reaches almost all families throughout the country, forming a well organized health care system implementing services through 338 divisional health units, termed medical officer of health areas. Services are carried out by medical officer of health teams under the administrative supervision of the provincial and regional directorates of health. Improved maternal health is a major objective, including reduction of maternal mortality, reduction of infant mortality, increased skilled attendance at delivery, and reduction of child malnutrition.

1970–1977. When private practice was abolished during this period, the distribution of government doctors to rural areas suffered, as did overall retention of medical officers in the health ministry. An important pre-1930s reform concerning private practice had facilitated expansion of coverage to rural areas. When the health department was first established, medical officers were not permitted to engage in private business, consistent with general civil service regulations. However, the department discovered that it was hard to recruit medical officers from the United Kingdom to work in Sri Lanka owing to the difficult working conditions and low pay. It was therefore decided to allow medical officers to supplement

their official salary by doing private practice outside official work hours and off government premises. This enabled the department to recruit and retain medical staff. This policy was in effect in the 1930s, by when most new recruits were local graduates. It supported expansion of coverage into rural areas, because the Ministry of Health could not afford to pay market wages to entice doctors, but doctors could substantially raise their incomes through private practice. In rural areas, where government medical officers were usually the only physicians, private practice could be lucrative. Consequently, abolition of private practice during the period 1970–1977 had a negative impact on the employment of government doctors in rural areas and on retention of medical officers in the Ministry of Health.

1977. Economic liberalization allowed State health sector medical officers and other technical personnel to practise privately outside their working hours, and the term “channelling” was introduced.

1978. The Alma-Ata Declaration was signed, inspiring formulation of the National Health Development Matrix, which introduced intersectoral collaboration. Community participation was encouraged and health care was made available for all. The importance of addressing the social determinants of health was recognized, and Health for All by the year 2000, as espoused by the Alma-Ata Declaration, was a key goal. Intersectoral Action for Health – involving symbiosis between health and other sectors – was recognized as a vital mechanism for addressing the social determinants of health.

1978. The Expanded Programme of Immunization was introduced. The history of immunization against vaccine-preventable diseases dates back to the 19th century and continues to date. At the commencement of the Expanded Programme of Immunization in 1978, the focus was on control of childhood tuberculosis, tetanus, whooping cough, diphtheria, polio and neonatal tetanus. In 1988 the focus shifted to disease elimination, resulting in a decline in vaccine-preventable diseases over the years.

1979. The National Health Development Council was established in 1979 with the major responsibility of coordinating and reviewing policy implementation in the health and health-related sectors and reporting their strengths and weaknesses to the government. To further its commitment to provide Health for All by the year 2000, the Prime Minister and the Minister of Health, together with WHO, signed the Charter for Health Development. Accordingly, the National Health Development Network was established to address Intersectoral Action for Health. Towards the end of 1980, the National Health Council, chaired by the Prime Minister, was confirmed as the governance tool at Cabinet level to implement and coordinate Intersectoral Action for Health. Consequently, the National Health Council came to be seen as an apex body, ensuring political commitment to Intersectoral Action for Health. The functions of the National Health Council were primarily related to policy formulation and implementation. However, the National Health Council appears not to be operational at present. A variety of fragmented committees and task forces have been established in the health sector to consider the social determinants of health with the support of other sectors. Such bodies include the National Nutrition Committee and the Presidential Task Force on Dengue. These entities can make an adequate impact on national health outcomes.

1979. The Kalutara health unit was expanded, and the National Institute of Health Sciences was created in 1979, which today is the country's premier training centre for public health personnel.

1987. State Pharmaceutical Manufacturing Corporation established.

1989. Decentralization to the provinces commenced.

1992. National Health Policy implemented.

1997. DOTS introduced for tuberculosis.

2005. The Sri Lanka Nurses Council Act laid down standards for recruitment, education and professional practice of nurses, and provided for the registration

of nurses. The Nurses Council was established in 2014 (19).

2006. Act No. 21 of 2006 was enacted, by which Sri Lanka engaged in a bold experiment to change the regulation of private sector services by moving responsibilities to an independent Private Health Services Regulatory Council (PHSRC). The PHSRC is an independent statutory body established by the Private Medical Institutions (Registration) Act, and is responsible for licensing, regulating and monitoring the standards of private medical institutions.

Assessment of the PHSRC shows that it is completely ineffective, failing to discharge most of its envisaged functions. The one function it does attempt is the annual licensing of private medical providers, but analysis shows that it does this badly, with most private hospitals failing to obtain their annual licence, and an even greater proportion of other providers also not doing so. Performance of PHSRC licensing is actually deteriorating over time, with some evidence pointing to the adverse effects of conflicts of interest between those of the private sector representatives and the PHSRC's regulatory objectives. It is recommended that the PHSRC be abolished, and private sector regulation be transferred back to the Ministry of Health, as in other similar countries such as Malaysia and Singapore.

2007–2016. Health Master Plan.

2009. Development of the National Policy and Strategy Framework For Prevention and Control of Chronic NCDs, including cardiovascular diseases (coronary heart disease, cerebrovascular disease and hypertension), diabetes, chronic respiratory disease and chronic renal disease and their major modifiable risk factors (smoking, unhealthy diet, physical inactivity, and harmful alcohol use). Since independence, Sri Lanka has come a long way from its focus on control of communicable diseases, for example by improving maternal and child health, and it has virtually eliminated vaccine-preventable diseases. Currently, chronic NCDs are overtaking communicable diseases as the dominant health

problem, and are now the leading causes of mortality, morbidity and disability (20).

2008–2013. Piloting of shared care cluster system.

2012–2017. National Health Development Plan (21).

2014. Healthy lifestyle centres established, with 826 centres in place in 2016 (22).

2015. Amendment of National Authority on Tobacco and Alcohol Act, introduced in 2006. This has resulted in the implementation of such measures as the printing of warnings on cigarette packs. The legislation aims to protect public health through the elimination of tobacco- and alcohol-related harm, including through the assessment and monitoring of the production, marketing and consumption of tobacco products and alcohol products, and making provision to discourage persons, especially children, from smoking or consuming alcohol by curtailing their access to tobacco products and alcohol products (23).

2015. Establishment of the National Medicines Regulatory Authority, responsible for the regulation and control of registration, licensing, manufacturing, and importation of medicines, and the conduct of clinical trials, with the objective of ensuring the availability of efficacious, safe and good-quality medicines. Three conditions need to be fulfilled prior to registration of medicinal drugs: quality, safety and efficacy. However, the cost factor (related to the need for affordable drugs) has not been considered (24).

2016–2025. National Strategic Framework for Development of Health Services.

2017. Policy proposal on introduction of shared care cluster system.

Today, within a radius of 3 kilometres, every Sri Lankan has access to a primary care hospital.

4.3 Governance

4.3.1 Key primary care organizational structures

A visual map of key PHC organizational structures and decision-making bodies in the health system is presented in Figure 4. Key organizations delivering primary care and inter linkages and referral systems are captured.

Sri Lanka is a country with a pluralistic healthcare system. Allopathic medicine, along with ayurveda, siddha, unani and traditional medicine, is practised in Sri Lanka. The period of colonization under British rule led to establishment of an allopathic system throughout the country. The initiatives taken by Sri Lankan politicians in and around the time of independence, such as free healthcare at the point of delivery, led to expansion of the allopathic system as the major healthcare system in the country.

The Sri Lankan Ministry of Health, Nutrition and Indigenous Medicine provides services through the allopathic and ayurvedic medicine systems. However, most of the fund allocation is to the allopathic system, as it is the main service provider to the citizens of Sri Lanka.

4.3.2 Health care institutions

The main responsibility of the Ministry of Health is to deliver allopathic healthcare services to the citizens of Sri Lanka. It provides these services through 1435 healthcare institutions. Of these 1435 institutions, 622 are classified as hospitals, which provide ambulatory care as well as inpatient hospitalized care. These 622 hospitals currently have 80 105 hospital beds, with 3.9 beds per 1000 population of the country (4). There are 435 primary medical care units, which provide only ambulatory care through their outpatient departments. In addition, there are 338 medical officer of health units, which provide preventive and promotive healthcare services, including maternal and child care services and NCD prevention and promotion services.

The above-mentioned health institutions treated 6 120 000 people in 2014 (4). In addition, around 55 million patients were seen as outpatients, giving an outpatient attendance rate of 2653 per 1000 people.

There are some specific clinics conducted and managed by vertical programmes at the field level that provide primary care services. These services are not integrated with the medical officer of health units. These include venereology clinics, tuberculosis and chest clinics, filariasis regional centres and antimalarial clinics. People can directly walk into these clinics without a referral.

4.3.3 Alternative health services

Traditional medicine plays a vital and important role in PHC. Certain beliefs emanating from traditional medicine are known to also influence health practices and affect compliance when seeking care in the allopathic system. Sri Lanka has had its own

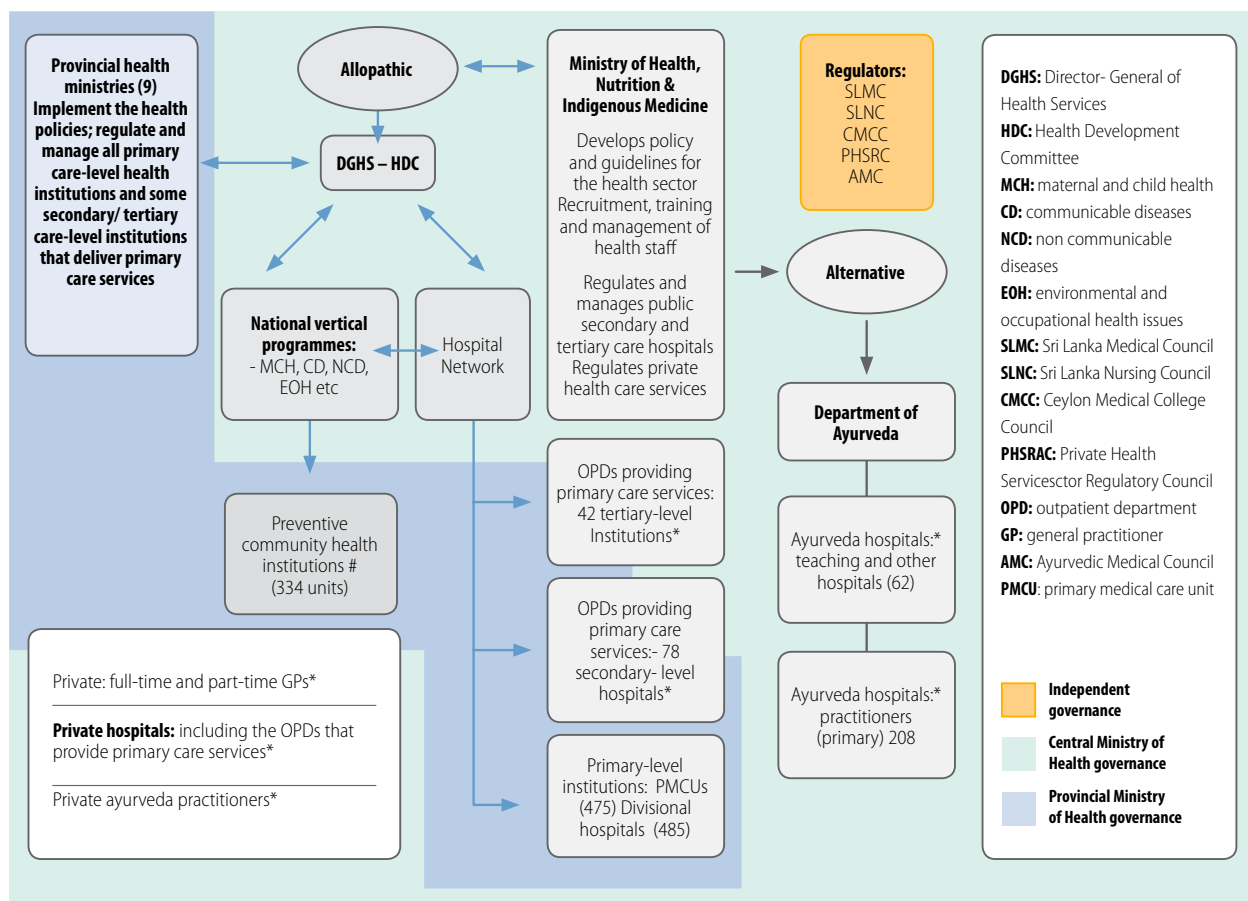
traditional system of medicines from ancient history. The popularity of indigenous medicine has reduced since the propagation of Western medicine.

According to Section 89 of Act No. 31 of 1961, Sri Lanka has identified four systems that are recognized as falling within the purview of traditional systems, namely ayurveda, siddha, unani and desiya chikitsa (25). Of these four systems, ayurveda is the most widely practised in Sri Lanka. In this context the term is used in its ordinary (rather than legal) sense as applying to the ancient system developed in India more than 3000 years ago.

4.3.4 Allopathic medicine system

Currently, the allopathic public health system is devolved, in accordance with the Constitution (26). Healthcare service delivery is managed by the central Ministry of Health and the nine provincial ministries of health. The health services administrative

Figure 4. Visual map of key PHC organization and decision-making bodies and their linkages



* Patient has autonomy to visit any institution without any geographical barriers. # Geographically defined catchment areas.

structure of the allopathic system is headed by the Cabinet Minister of Health. There are nine provincial ministers of health working in each province. The central ministry is responsible for national policy development related to healthcare services, recruitment and training of most of the health staff, and administration of several categories of health staff, including medical officers. The central ministry manages all teaching hospitals and most of the tertiary care hospitals. Management of secondary and PHC institutions is the responsibility of the provincial health authorities.

The central ministry currently manages about 108 healthcare institutions, which mainly function as specialist hospitals (27). All of the non-specialist divisional hospitals as well as primary medical care units are managed by the provincial health authorities. Policy decisions related to the health sector are the responsibility of the central ministry. It is expected that provincial ministries of health adjust their services, strategies and action plans according to the national policies and guidelines set out by the central Ministry of Health. Governance related to human resources is divided between the central and provincial ministries. Medical officers belong to all-island services and recruiting them and transferring them between different institutions is a central responsibility (28). For other categories, recruitment and placement is also managed by the central ministry. The central ministry coordinates with the provincial health authorities to establish new cadres and to identify vacancies and priorities for placement. The salaries of the central ministry institutions are paid directly by the central ministry, and provincial ministries are responsible for the payments of the provincial health staff.

Medical products and pharmaceuticals are procured as a central mechanism; therefore, the central ministry purchases and distributes all these items, even among the provincial health authorities.

4.3.5 Governance of traditional medicine

Governance of indigenous medical practitioners started in 1949. Later, the Department of Indigenous Medicine was established in 1957, and a commissioner appointed (25). The Ayurveda Act was passed in 1961 and a Ministry of Indigenous Medicine formed in 1980, later upgraded to a Cabinet ministry in 1994.

Relative role and contribution of government, private sector, and development partners in delivery of health services

The key providers of health care are the government and the private sector. Patient visits to the allopathic system are significantly higher than to the ayurveda system. For the ayurveda system, the coverage through private providers is higher than for the government system. The role of NGOs in care provision is insignificant, though the Sarvodaya network is extensive and is able to mobilize the community for health improvement.

Governance and related institutions

The Commissioner for Ayurveda, subject to the direction and control of the Ministry of Indigenous Medicine, is responsible for the supervision and administrative control of the department. The commissioner is assisted by a deputy commissioner, an assistant commissioner (administration) and an administrative officer (29). There is no organization at the district level for supervision, and the work of the institutions is directly supervised by the Head Office.

The Department of Ayurveda executes some of the functions assigned to it through its own administrative network. The rest of the functions are performed through three statutory bodies set up under the Ayurveda Act, namely the Ayurvedic Medical Council, the Ayurveda Education and Hospital Board and the Ayurvedic Research Committee; one non-statutory committee, namely the Ayurveda Formulary Committee; and the Research Institute at Nawinna.

Ayurvedic Medical Council

The Ayurvedic Medical Council was constituted under Section II (i) of Ayurveda Act No. 31 of 1961, as amended by Ayurveda (Amendment) Law No. 7 of 1977. In terms of Section II (i) of Ayurveda Act No. 31 of 1961 (25), the Ayurvedic Medical Council is empowered to:

- make recommendations to the minister as to whether any institute for teaching ayurveda should be approved by the minister for the purposes of the act;
- register names of persons as ayurveda practitioners;
- register names of persons as ayurveda dispensers;
- register names of persons as ayurveda nurses;
- cancel or suspend such registrations;
- make regulations for regularization and control of professional behaviour of ayurveda physicians, ayurveda dispensers, and ayurveda nurses;
- make regulations required for any matter referred to with regard to the above.

Ayurveda Education and Hospital Board

The Ayurveda Education and Hospital Board is constituted under Section 22 (I) of Ayurveda Act No. 31 of 1961 as amended by Ayurveda (Amendment) Law No. 7 of 1977 (25). In the original enactment "ayurvedic medicine" was styled as one of its principal functions. With the decision of the government to affiliate the college to the University of Ceylon as one of its institutions, the board was relieved of its responsibility for running the college. Consequently the board was reconstituted under the name and style Ayurveda Education and Hospital Board, by an amendment to the principal enactment.

Ayurvedic Research Committee

Section 33 (1) of Ayurveda Act No. 31 of 1961, as amended by Ayurveda (Amendment) Law No. 7 of 1977, provided for the appointment of an Ayurvedic Research Committee. It consists of the commissioner (who functions as chairperson) and nine other members, appointed by the minister.

Of the members, one shall be from the teaching staff of the Institute of Ayurveda of the University of Colombo and another shall be from the regular medical staff of the Central Hospital of Ayurveda (25). The Ayurvedic Research Committee has the following responsibilities:

- maintenance of libraries, museums, herbaria, laboratories or other institutions;
- publication of ayurvedic manuscripts, ayurvedic textbooks and other ayurvedic journals or papers;
- compilation and publication of an ayurvedic pharmacopoeia;
- standardization of ayurvedic drugs;
- all such other matters as may be necessary for the performance of the duties specified in subsection (1).

The committee is in overall charge of directing and monitoring the progress of all the research activities in the field of ayurveda. Meetings are regularly held at the institute itself. An assistant director of the Research Institute, Nawinna, functions as the secretary to this committee.

Formulary Committee

According to the Ayurvedic Pharmacies Regulation 21 (I), "every formulae for the preparation of any drugs to be sold to the public shall be first approved by the Formulae Committee set up for purpose".

Subsection (2) of Section 21 further provides that "any alteration or addition made to or any omission from any formulae already approved shall require the approval of such formulary committee".

In terms of this regulation the Minister of Indigenous Medicine has appointed a Formulary Committee consisting of nine members, of which seven are ayurvedic physicians.

Provincial council ayurveda health care centres

Provincial indigenous secretaries and provincial ayurveda commissioners are responsible for administration of the ayurveda sectors in provinces.

4.3.6 Private health care institutions

Private health care institutions mainly provide allopathic medical services. Sri Lanka is a country that allows dual practice of services for health professionals. Most health professionals work in the private healthcare institutions on a part-time basis, while being permanently employed in the government sector. A survey conducted in 2011 found 125 private hospitals with inpatient facilities (30). The total number of beds available within those facilities was 4210. These private institutions admitted about 260 000 patients and treated approximately 50 million patients in outpatient departments.

4.3.7 Private medical dispensaries

As Sri Lanka allows dual practice of services, most of the government-employed doctors are engaged in private practice after working hours. In addition, most private medical dispensaries provide services by non-specialist general medical officers. Currently there are 17 615 non-specialist medical officers. Of these the exact number engaged in part-time private practice after government sector working hours is not known. There are approximately 500 full-time GPs engaged in private health service provision. The number of patient consultations provided by these doctors has not been established.

4.3.8 Nongovernmental organizations (NGOs)

Health care services provided by NGOs are limited, as there is an efficient distribution of public healthcare services. Some international NGOs, such as Médecins Sans Frontières, have provided medical care services in conflict-affected areas for a limited time period. Organizations providing specific services, such as counselling or rehabilitation services, have only operated for limited periods. The Family Planning Association of Sri Lanka has continued to provide family planning services to Sri Lankans for the past 50 years (31). Some agencies such as Help Age International, are providing PHC services specifically targeting older people in the community. Some government agencies work in close collaboration with NGOs in delivering primary care services to

hard-to-reach populations. The role of NGOs in providing such services is diminishing as government services expand their coverage. The National STD/AIDS Control Programme continues to work with NGOs to promote prevention activities among at-risk populations.

4.3.9 Key features of the governance and architecture of health systems

Following independence, the Government of Sri Lanka initiated an extensive development programme, which aimed to provide comprehensive health care for the entire population. This started with the establishment of further medical care facilities and expansion of the medical unit system for preventive health services. In 1948, the government decided that centralization of health activities within the Department of Medical and Sanitary Services was hampering the aim of the government to expand health services. Therefore, in 1954, the decentralization process of the Sri Lankan health system started, following a report developed by Dr J.H.L. Cumpston. Under the current decentralized system, health services are devolved through a provincial health care system (26).

Governance of healthcare services is undertaken by the central Ministry of Health and other licensing and regulatory authorities. The Medical Services Act specifies the services, recruitment criteria and other matters related to the operation of the Ministry of Health. The establishment code and financial regulations of the Government of Sri Lanka apply to all government health staff. These regulatory mechanisms govern the disciplinary codes and use of resources in government services. Other special circulars, rules and procedures issued by the Ministry of Health give further guidelines on administration matters.

The Sri Lanka Medical Council (SLMC), together with the Ceylon Medical College Council, is responsible for licensing, approval of training institutes, and investigation of medical negligence. Sri Lanka has a

Medical Ordinance that is more than 100 years old and is updated from time to time (32).

There are several mechanisms to improve coordination between the central and provincial health authorities, as both authorities are interlinked in providing health services. The Health Development Committee is a regular platform that takes place every two months. It is chaired by the Director-General of Health Services (33). The Health Development Committee is formalized through approval by the Cabinet of Ministers and dates back to the time of the Alma-Ata Declaration and the consequent commitment of the Government of Sri Lanka to PHC, which led to establishment of a health matrix network, a coordinating mechanism of which the Health Development Committee is the only regularly functioning body. At its meetings, which are attended by all the health institution heads and the provincial health authorities, discussions focus on implementation of health services and operationalization of policies. Requirements for the cadres, health personnel, and finances are also discussed in the meeting, and allocation of budgets from central ministries to the district health authorities is negotiated. The topics discussed are varied, and include primary care services.

The Directorate of Primary Health Care Services within the Ministry of Health is responsible for overseeing the development and regulation of activities related to PHC. Its tasks include conducting facility assessments, identifying the requirements of health personnel, and lobbying for allocation of resources for PHC institutions. The Planning Unit of the Ministry of Health supports the Directorate of Primary Health Care Services with the development of supervision tools and performance indicators to monitor the progress of service provision.

There are 17 vertical public health programmes that oversee and provide technical guidance to the PHC institutions for the management and provision of services for both preventive and curative healthcare. They regulate services through conducting annual

reviews on such matters as maternal mortality and immunization.

4.3.10 Role of development partners in planning and administration

Development partners range from international to local agencies. Local development partners include other government stakeholders, private sector institutions with specific interests, and local leaders and donors who can influence and contribute to the development agenda.

United Nations agencies are particularly active in contributing to the sustainable development agenda. Agencies such as WHO, the World Bank, and the United Nations Children's Fund (UNICEF) have their own country cooperation strategies for the health sector that are in most instances developed in consultation with ministries of health. Although the overall contribution from external donor funding is considered small, the technical inputs that have resulted from the development agendas of these agencies have made significant impact overtime. The WHO Country Cooperation Strategy also identifies primary care strengthening as a priority and has supported the agenda of the Planning Unit in conducting pilot studies for improvement of PHC.

4.3.11 De facto approach to cyclical planning in the health system

The Ministry of Health is responsible for developing overall health policy, while being guided by national government policy (though such policy linkages are not always explicitly stated in documents). A recent trend noted is the development of sector policies and programme policies. The Health Master Plan, which was developed for a 10-year period, is responsible for shaping the policies related to health care delivery. The next Health Master Plan is currently under preparation. Sri Lanka has maintained free healthcare at the point of delivery in the government sector as a major policy maintained by successive governments, and the government takes the lead role in planning.

The approach to health planning in Sri Lanka is linked with the development plans of the Government of Sri Lanka. The Ministry of Health, in consultation with the other stakeholders, develops a Health Master Plan for every 10-year period. This plan is based on the development vision of the country and the disease burden and priorities of the country. The process is coordinated by the Management Development and Planning Unit of the Ministry of Health. Once the 10-year Health Master Plan is available, a 5-year midterm plan is developed to ensure the strategies taken are on the correct path. It is expected that all health institutions as well as vertical programmes align their action plans based on the Health Master Plan and midterm plans. The cyclical planning process is augmented by review systems under the vertical programmes. The Maternal and Child Health Programme reviews the activities of all the district health units. In these reviews, identified actions are promoted to priorities for the next annual planning process. Similarly, immunization programmes and several communicable disease programmes review the progress of the district health systems. Technical inputs provided by the national programmes help to strategize the annual action plans.

4.3.12 Main structures of public health and primary health care

The PHC institutions in Sri Lanka mainly divide into two categories, namely preventive healthcare institutions (community health services) and curative healthcare institutions. The country is divided into 338 preventive healthcare areas, each with a preventive healthcare institution overseen by a medical officer of health, who is responsible for all the preventive healthcare activities of the allocated area. All the areas are headed by at least one medical officer of health, with one or two additional officers depending on the population size. In addition, field health officers, such as public health midwives, public health inspectors and their supervising officers, are attached to the health care institution under the medical officer of health. These preventive health care institutions are responsible

for providing antenatal and postnatal care services, immunization services, family planning services, nutrition care for children through field clinics, and domiciliary services by the field officers. Control of communicable diseases, inspection of occupational settings, environmental health and food safety, surveillance and notification of notifiable diseases are also responsibilities of the medical officers of health and their staff.

Curative sector PHC institutions include divisional hospitals and primary medical care units (34). The divisional hospitals are further classified into three categories – A, B and C district hospitals (Table 8). The main difference between these categories is the number of beds available in the institution. All divisional hospitals are managed by a medical officer in charge who is accountable to the regional directors of health services of the district. Divisional hospital type A usually has a bed capacity of above 50 at one institution. Apart from the medical officer in charge, there are few medical officers attached to each type of divisional hospital. The Ministry of Health is now appointing family medicine specialists to work in type A divisional hospitals. Type B divisional hospitals usually have the services of two to three medical officers per institute. The bed capacity of these institutes is usually between 20 and 50. Type C institutes have a bed capacity of less than 20, and are also served by one to two medical officers with other staff. All these divisional hospitals provide maternity care services, and labour rooms are available for utilization.

Table 8. Distribution of PHC institutions in the government sector

PHC institutions	Number in Sri Lanka
Divisional hospital type A	45
Divisional hospital type B	134
Divisional hospital type C	291
Primary medical care units	475
Medical officer of health areas	338

Source: Annual health bulletin, 2014 (4).

Primary medical care units have outpatient services only. They provide services during the daytime and are closed during the night.

Divisional hospitals and medical officers of health work in close collaboration to provide some of the services.

Unlike the government system, private sector health services (hospitals and GP practices) are concentrated in the main towns of Sri Lanka. Part-time practices are found islandwide, even in the rural areas. Key informants observed: “Full-time GPs are rare as the government allows dual practice for medical officers in the public sector”; and, “No funds are obtained from the government and the costs are covered by the patients.”

Table 9 shows information relevant to the organization and provision of primary care services.

4.4 Overview of health sector financing

Sri Lanka is known to have produced good health outcomes at relatively low cost (13). Over the past 10 years the percentage of GDP spent on healthcare has remained below 4%. Successes in the health system

can be attributed to the efficient delivery of health services through the islandwide network of health institutions.

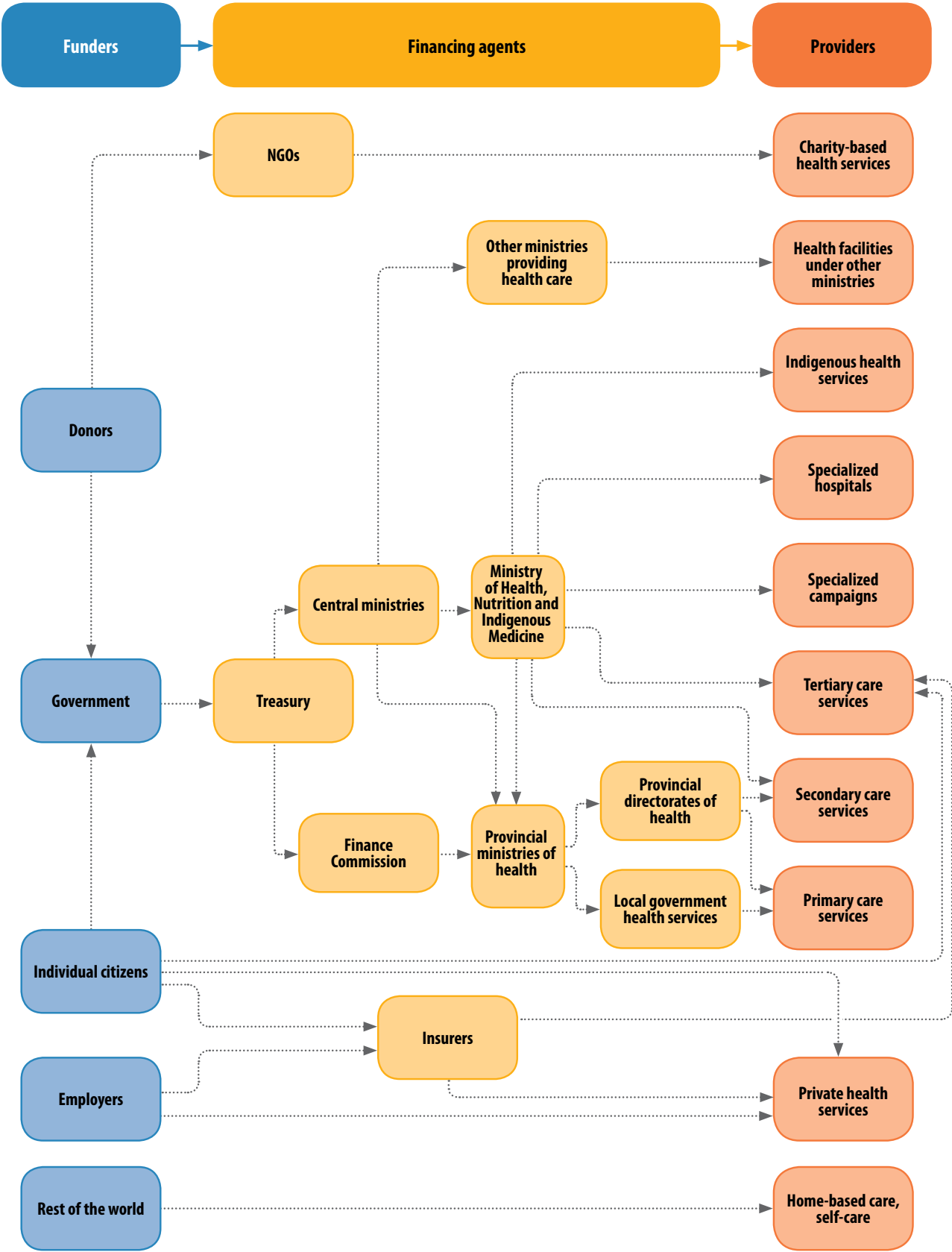
The policy of the Government of Sri Lanka is to provide health services free of charge at the point of delivery. In fulfilling its mandate to ensure non-discriminatory access to health services, the government has become the principal funder of the health services of the country. With the advent of the NCD epidemic and increasing income levels, coupled with a demand for better care, out-of-pocket expenditure on health has continued to rise over the years relative to government expenditure on health. This poses a critical challenge in ensuring universal access to health services. In 2013, households accounted for 40% of current health expenditure in revenue generation for healthcare. The other contributors were employers, insurance companies, international donors and local NGOs. These financiers employ different financial schemes for the collection and pooling of money and purchase of health services (8). Figure 5 illustrates the financing system related to health care provision in Sri Lanka. See Table 7 for the macroeconomic profile and expenditure on health.

Table 9. Organization and provision of primary care services

Sector	Type of facility	Mode of employment	Range of services	Remarks
Public	Hospitals: divisional/primary medical care units	Government	Ambulatory care, monthly clinic care –maternal, child, NCDs	These are mainly identified as primary-level institutions
Public	Secondary/tertiary care hospitals	Government	Ambulatory care, inward facilities	No specific PHC approach, but PHC services provided to the patients, who visit the hospitals due to proximity and other reasons
Public	Medical officers of health areas – clinics	Government	Maternal and child care, NCD preventive care	Services limited to preventive aspect only; maternal and child care clinics provide antenatal care, immunization services
Private	GP centres	Dual practice medical officers mainly, small % of full-time private practice services	Ambulatory care	Fee for service required
Private	Hospitals	Majority dual practice services	Ambulatory and inward services	

Source: Annual health bulletins of Sri Lanka.

Figure 5. Financing system related to health care provision



Source: Modified from National Health Accounts, 2013 (8).

In 2013, the government was responsible for 55% of total current health expenditure, while households spent a further 40% as out-of-pocket expenditure. The contribution by voluntary health insurance schemes was relatively low, at only 2.1% of current health expenditure. Per capita current health expenditure was 12 636 Sri Lankan rupees (US\$ 97.2) (8).

The funds for the public health sector are channelled through several financial arrangements within the national government. The two main financing schemes are the central government scheme and the state, regional and local government scheme. These schemes are generally funded through domestic taxation.

The central government scheme finances the hospitals that are directly managed by the central Ministry of Health and the Ministries of Defence and Justice. The state, regional and local government scheme is responsible for financing the health services delivered by the provincial government and local government funds, which are channelled through the Finance Commission established under the 13th Amendment to the National Constitution, on devolution of power (8). The Finance Commission is entrusted with the task of achieving balanced regional development in the country. The annual budgetary allocations to provinces are made on the recommendations of, and in consultation with, the Finance Commission. The Finance Commission makes recommendations to the President on the principles to be observed in apportioning funds between the provinces. Although power has been devolved to the provinces they are not financially independent, and support from the central Treasury is essential to provide free health care. Figure 6 depicts the types of grants allocated to provinces.

Several socioeconomic indicators are taken into account in apportioning funds among the provinces under the province-specific development grants and criteria-based grants. The health-specific indicators include neonatal mortality rates and birthweights recorded in each province (35).

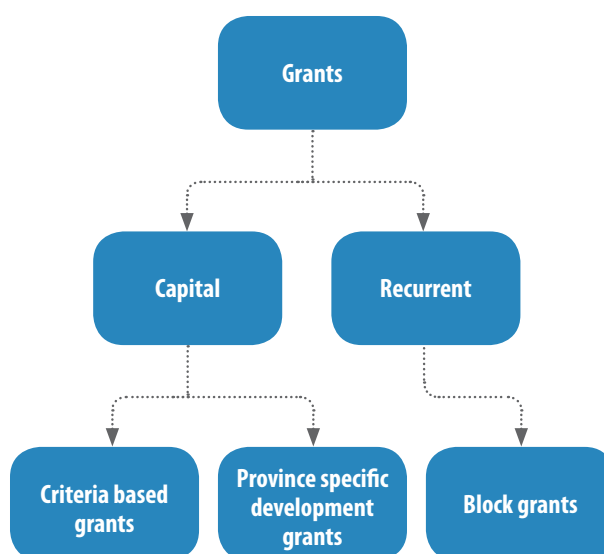
4.4.1 Funding of primary care services in the government sector

The delivery of curative and preventive PHC by the Government of Sri Lanka is through two parallel systems that are integrated at points of referral. Curative primary care is provided through a network of hospitals dedicated to delivery of primary care in addition to and as an extension of services delivered through secondary- and tertiary-level hospitals. The preventive primary care system is a well established service delivery structure that has contributed to the achievement of maternal and child health targets in the country.

4.4.2 Funding of preventive primary care services in the government sector

The basic service delivery points in the preventive primary care system are the health units under medical officers of health. The capital expenditures incurred by these units are chiefly paid for by the state, regional and local government scheme. Whilst remuneration for all categories of health staff attached to these units is paid through the same funds, the medicines, vaccines and family planning devices are provided by the National Programmes on Maternal

Figure 6. Types of grants allocated to provinces



Source: Annual report of Finance Commission, 2015 (35).

and Child Health and Immunization. In addition, vertical disease control programmes, such as the Malaria Control Programme and the National STD/AIDS Control Programme, deliver services through the curative or preventive service delivery structure (8).

4.4.3 Funding of curative primary care services in the government sector

Curative primary care services in the government sector are provided through a network of primary-level hospitals, which come under the purview of the regional health services. These institutions, known as divisional hospitals and primary medical care units, are funded by the state, regional and local government scheme.

Primary care services are also provided by secondary- and tertiary-level hospitals through their general outpatient services. Whilst secondary-level hospitals are under provincial government administration, tertiary-level hospitals are managed by the central Ministry of Health.

The provincial health funds channelled through the Finance Commission, which is the responsible authority for the apportionment of funds between the nine provinces, are supplemented by additional funds from the central Ministry of Health (8).

Figure 7 shows the distribution of curative care expenditure by all government hospitals in 2013.

The proportion spent on primary-level hospitals is relatively low compared to the other levels of hospitals in the government sector. This observation is commensurate with the health-seeking behaviours of residents, who often tend to bypass PHC services and seek treatment at higher-level hospitals.

4.4.4 Funding of primary care services in the private sector

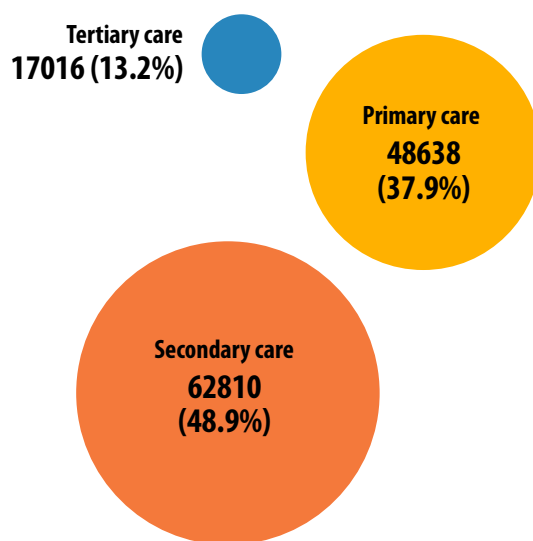
Private sector services are solely financed by out-of-pocket expenditure borne by the patients. The provision of preventive services in the private sector is very limited compared to the public sector.

Foreign government and international NGOs contribute a small proportion of revenue to the government scheme. In 2013, less than 2% of the current health expenditure of the government was contributed by foreign development agencies (8).

Sri Lankan demographic, macroeconomic and health profile indicators (section 4.1) point to some challenges of relevance to the financing of PHC. Given that the scope of primary care needs to change in response to current challenges, consideration needs to be given to whether the present financing strategy can continue, or whether sources of additional financing need to be mobilized.

The government recently adopted the Senaka Bibile Drug Policy, which has resulted in drastic reductions in the prices of essential drugs, affecting current health expenditure. The intervention is seen as good example for further efficiency gain.

Figure 7. Distribution of curative care expenditure by all government hospitals in 2013 by level of care (million Sri Lankan rupees; %)



Source: National Health Accounts, 2013 (8).

4.5 Human resources for health

4.5.1 Background to human resources for health

The government-employed primary care workforce in Sri Lanka is employed in both the preventive and curative sectors. There is an organized preventive care network led by the medical officers of health with the support of public health nursing sisters, public health inspectors and public health midwives throughout the country. The curative primary care human resources network is not as well organized, a

deficiency reflected even in the availability and quality of the related data. The private sector concentrates mainly on curative primary care and services are provided through the outpatient departments of private hospitals and independent practitioners.

Table 10 shows the different staff categories employed in PHC.

Table 11 shows the availability of selected categories of health personnel in the government health workforce. Notably the total physicians (medical officers) referred to would be employed at different levels of the health system. Data on primary care doctors are

Table 10. Staff categories employed in PHC

	Allopathic		Alternative	
	Curative	Preventive	Curative	Preventive
Public	Specialist in family medicine Hospital manager Medical officer Assistant medical officer Nursing officer Pharmacist Medical laboratory technician Support staff(labourers and attendants)	Specialist in community medicine Medical officer of health Public health inspector Public health nursing sister Public health midwife Public health field officer	Ayurvedic physicians	Community health officers Assistant ayurvedic medical officers
Private	Full-time general practitioner Part-time general practitioner Medical officer in private hospital outpatient department Nursing assistant Support staff		Traditional medical practitioners (ayurveda, unani, siddha and homeopathy)	

Table 11. Availability of health workforce

Category	Results	Source of information	Remarks
Physicians	84.8 per 100 000 population	Annual health bulletin, 2014 (4)	Refers to all non-specialist doctors in the government sector
Nurses	185.1 per 100 000 population	Annual health bulletin, 2014 (4)	Refers to all nurses in the government sector
Community health workers: Public health inspectors Public health midwives	7.3 per 100 000 population 28.7 per 100 000 population	Annual health bulletin, 2014 (4)	
Relative geographical distribution(rural/urban) of doctors, nurses, community health workers	Refer to Figures 9 and 10		
Proportion of informal providers, and practitioners of traditional complementary and alternative medicine, out of the total health care workforce	22 672 registered ayurveda practitioners	Central Bank report, 2015 (5)	Of these, 1187 in government ayurveda hospitals

available in Table 12. Currently as there is no specific gatekeeping mechanism and patients can access health care at their choice, doctors at all levels can be considered to provide primary care.

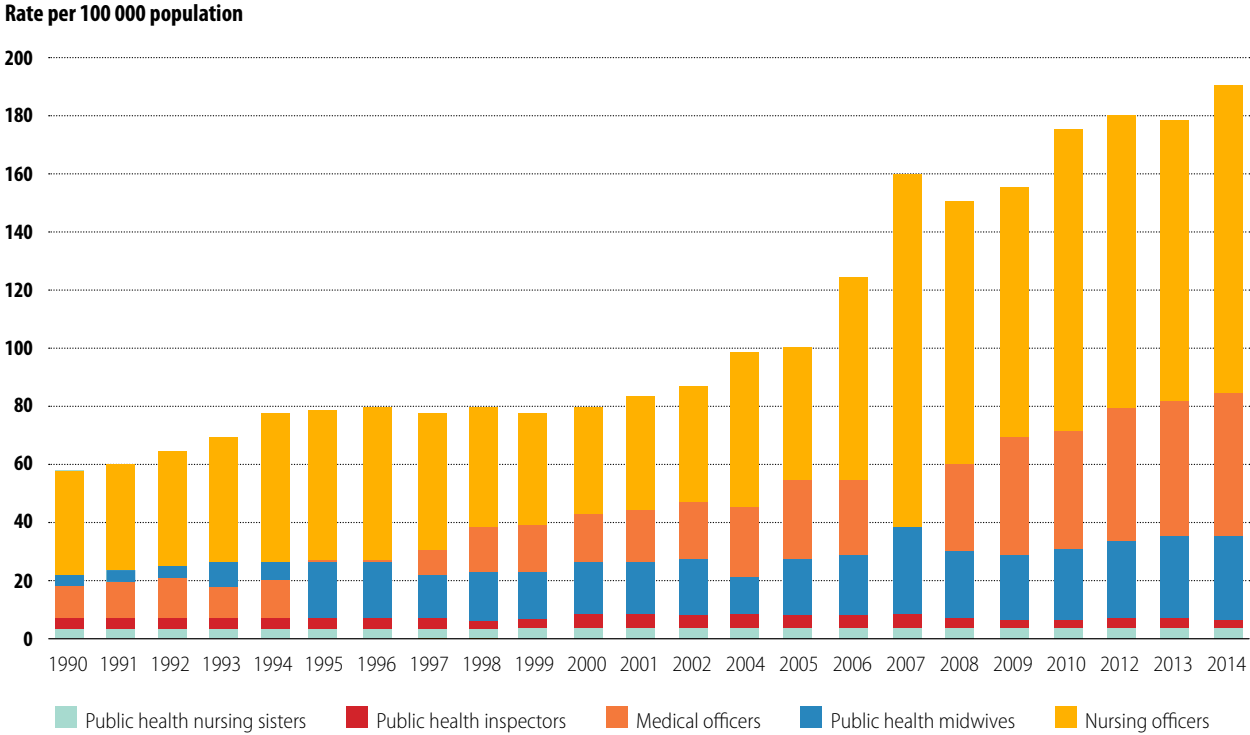
The supply of human resources for health has grown substantially over the years. According to the annual health bulletin for 2014, Sri Lanka has 84.8 medical officers, 185.1 nurses, 7.3 public health inspectors and 28.7 public health midwives per 100 000 population (4). This refers to all categories of medical officers working at different levels of the system. As depicted in Figure 8, the number of medical officers and nurses per 100 000 population has increased remarkably over the years. The rapid increase in nurses from the year 2000 (76.0 per 100 000), approaching a nurse–population ratio of 185 per 100 000 in 2014, is a remarkable achievement considering the financial constraints that exist. However, the availability of public health inspectors, public health midwives and public health nursing sisters, who are the preventive

healthcare personnel at the grass-roots level, has not shown any significant growth.

Among the job categories mentioned in Table 10, public health nursing sisters, public health inspectors, supervising public health inspectors, supervising public health midwives, public health midwives and public health field officers work only in PHC institutions, while medical officers and nurses work in PHC institutions as well as other health care institutions. Information on the number of health workers currently employed in PHC has many inconsistencies due to the limitations in the Human Resource Information System (36). The total healthcare workforce in PHC by selected categories and the staff–population ratio, according to the annual health bulletin (2014), are given in Table 12.

As indicated earlier, Sri Lanka has 84.8 medical officers and 185.1 nurses per 100 000 population. When the number of medical officers (31.0 per 100 000) and nurses (32.1 per 100 000) working in

Figure 8. Staff categories per 100 000 population in allopathic public sector, 1990–2014



Source: Annual health bulletins, Sri Lanka.

the PHC sector is compared to the totals, it is obvious that there is an asymmetrical distribution of the workforce between PHC and other institutions. All provincial directors from the three different provinces who participated in the study as key informants highlighted the inadequate numbers of medical officers and nurses for primary care, especially in rural areas.

Medical officers working in the public sector are free to work in the private sector on a part-time basis, and anecdotal evidence indicates that around 40% of medical officers do part-time general practice. There are about 500 full-time GPs registered with the PHSRC (37). Many key informants in the study perceived that part-time GPs contributed to filling the gap between the need for and the supply of primary care curative services. However, the discrepancy between urban and rural areas prevails in private care services as well, with urban areas having more part-time GPs than rural areas.

Table 12. Workforce total and ratio in PHC by selected categories, 2014

Category	Total in workforce in PHC (2014)	Staff population ratio (per 100 000 population)
Medical officers:	6 261	31.0
Government	7 000 part-time basis (estimated)	
Private	500 full-time basis	
Nurses	6 499	32.1
Public health nursing sisters	277	1.3
Public health inspectors	1 526	7.3
Supervising public health inspectors	232	1.1
Supervising public health midwives	322	1.6
Public health midwives	5 954	28.7
Public health field officers	372	1.9

Sources: Annual health bulletin, 2014, and Management Development and Planning Unit, Ministry of Health

4.5.2 Basic training

Most of the medical officers providing primary care in the allopathic arm have only a Bachelor of Medicine, Bachelor of Surgery (MBBS) degree. No further training is required to practise as a primary care physician. However, SLMC registration is required for legitimate practice.

The key informants of the study perceived that even though the subject benchmark statement from the SLMC mandates training undergraduates in primary care, most medical faculties in Sri Lanka do not provide adequate exposure to primary care in their undergraduate curricula. There are eight government medical faculties, and one faculty attached to the Ministry of Defence. In addition, foreign graduates of recognized universities are recruited into the system after a qualifying exam. Out of the eight government medical faculties, only two faculties have separate departments of family medicine, and one medical faculty has a family medicine unit. In two faculties, family medicine is combined with the community medicine department. Other medical faculties do not have academic staff designated to teach family medicine. The Defence University has short but structured teaching programmes in the fourth year. The curricula of these universities are not uniform and vary from a final year professorial appointment to a few GP attachments without any formal teaching about family medicine. A key informant – chairperson of the University Grants Commission – confirmed the lack of uniformity in primary care exposure and expressed willingness to support curricular changes in this regard. The Ministry of Health has also identified this as a gap in the basic training of medical undergraduates and has proposed to the University Grants Commission that primary care teaching be strengthened at undergraduate level. Thus the steps have been taken to review the medical undergraduate training relevant to primary care.

At present, most of the other technical categories (nurses, public health midwives, public health inspectors) who serve in the Department of Health

Services have their pre-service basic training in the training institutions managed by the Department of Health Services. The training programmes conducted are specific for each category. Training is according to an approved curriculum and all training centres for a specific staff category follow the same curriculum. Based on the Public Service Commission (PSC) approved selection criteria, the trainees are selected for the specific training programmes.

The selected candidates for nursing courses have to follow the basic training course conducted by the nursing training schools registered with the SLMC. There are 16 such nursing training schools managed by the Ministry of Health. The course of training is three years' duration. Nursing training schools are located islandwide, including in Colombo, Rathnapura, Kandy, Anuradhapura, Anuradhapura (military), Jaffna, Batticaloa, Kurunegala, Badulla, Kandana, Galle, Jayawardanapura, Ampara, Matara, Hambanthota and Nuwara Eliya. All of these are affiliated to the teaching hospital, general hospital or base hospital in the district for clinical skills training. On successful completion of the training course, a diploma certificate is awarded. Apart from these, a Bachelor of Science (BSc) Degree in Nursing is being awarded by five State universities. For these degree programmes, direct entry from General Certificate of Examination Advanced Level (GCE A/L) or lateral entry for already practising nurses after a qualifying exam is considered. The Open University of Sri Lanka also awards a BSc nursing degree for practising nurses. When already practising nurses apply for these, necessary leave facilities are given by the medical officer of health. These nurses also contribute to the national health system. As medical officers, nurses also work part time in the private sector, contributing to filling the gap between demand and supply. The private curative health services also have "nurse assistants", individuals who are trained in nursing care by the same institution or a private nursing school, but are not registered as nurses with the SLMC. They function under a registered, trained nurse, as it is obligatory, according to the regulations related to private health care services, to have registered nurses

in those institutions if they are to obtain registration with the Ministry of Health.

The selected candidates for public health inspector and public health midwife training have to undergo an 18-month training programme, and they are offered a diploma after completion of training. The National Institute of Health Sciences is the leading institute for training public health inspectors and public health midwives, along with several other institutions situated around the country. They receive an extensive training in PHC involving both theoretical and practical fieldwork during the training period, as the majority of their work will be related to provision of PHC services once they are recruited into the system.

There are also many other practitioners who deliver curative PHC services to the public without any registration at either the SLMC or alternative system council.

4.5.3 Recruitment

For each approved service in the public sector, there is a service guidance note ("service minute"), and for each post falling outside those services, there is a scheme of recruitment. All appointments in the public service, other than casual and substitute appointments, shall be made in accordance with the service minute or the scheme of recruitment of the respective post.

Based on the availability of cadre positions approved by the Public Service Commission, recruitment of the relevant categories is carried out. Accordingly, the medical practitioners who have SLMC registration are employed in government service after completion of the professional qualification (pathway 1) (Table 13). Certain other categories (nurses, public health inspectors and public health midwives) are recruited as trainees based on their educational performance in the GCE A/L examination. After successful completion of the training they are employed in the department (pathway 2). The recruitment of these categories is managed by the Education, Training and Research Unit of the Ministry of Health.

Table 13. Pathways of recruitment of health staff under the Ministry of Health

Pathway	Definition	Cadres	Remarks
Pathway 1	Categories with professional qualifications	Medical officers	Trained outside the health sector (by the universities under the Ministry of Higher Education)
Pathway 2	Categories with basic educational qualification + post-recruitment training	Nurses, public health inspectors and public health midwives	Training by the health sector; all are successfully trained and most are guaranteed placement

Except for the recruitment of medical officers, staff in other categories are not recruited annually or in a planned manner. A key informant – Deputy Director, Education, Training and Research Unit, Ministry of Health – stated that though the training institutions have the capacity to train the staff annually, the training and recruitment depends on the number of vacancies available in the respective staff category. As per the above statement and other key informants’ perceptions, failure to revise the cadres to suit the growing population and their needs, or to implement the cadre projections established in 2007, have generated a gap between the supply of and demand for health staff categories in PHC.

4.5.4 Deployment

Staff deployment for both line ministry and provincial-level health institutions is controlled by the Ministry of Health. There is no explicit policy for deployment. Preference on the basis of merit is followed for most categories. The emphasis has been on filling the vacancies in peripheral institutes. In doing so, there is also provision for those that are currently serving in difficult or rural areas to be transferred out after a shorter interval than the usual four-year period. Due to the lack of a precise deployment plan, this “policy” is not being implemented properly, and deployment is prone to be influenced by pressure from a number of factions, including trade unions, political affiliations and personal interests. For the annual transfers, islandwide vacancies are considered for medical officers, and on a provincial basis for other staff. According to the findings of the qualitative component, the transfer scheme is not implemented optimally, leading to human resource-related issues.

4.5.5 Distribution of staff categories working in PHC institutions

Distribution or availability of staff by district can be defined in terms of population rates. Figures 9 and 10 depict the district-level distribution of medical officers, nurses, public health inspectors and public health midwives working in PHC institutions per 100 000 population.

According to the key informants, distributional imbalances occur between rural and urban areas within some districts, with some institutions well staffed while others are inadequately staffed. Shortage of staff is mostly seen in the rural areas, as some institutions situated in these areas are deemed less attractive due to their location and lack of available facilities, causing an imbalance in distribution of staff. As a consequence, the quality of service provision can be compromised in rural areas compared to urban areas.

When the deployment pattern is further examined by category of institution, it is noted that although there is a large number of primary-level institutions, the bulk of the medical officers and nurses are deployed in teaching hospitals and base hospitals (Table 14). This can be justified with the argument that the type of care to be provided necessitates high availability of both medical officers and nurses, but in-depth analysis of the types of actual care provided by tertiary- and secondary-level institutions has not been carried out to validate that argument.

Figure 9. Distribution of medical officers and nurses working in PHC by district (per 100 000 population)

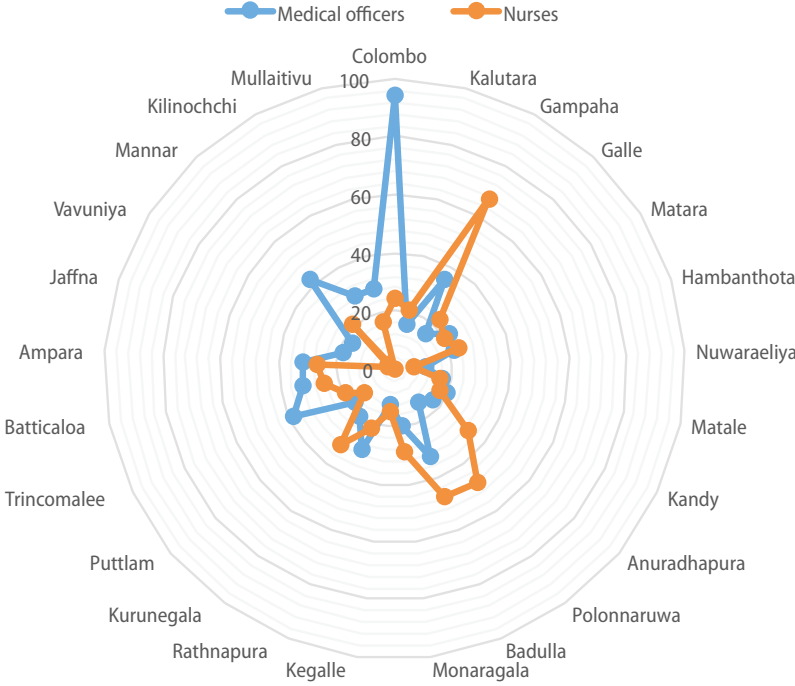
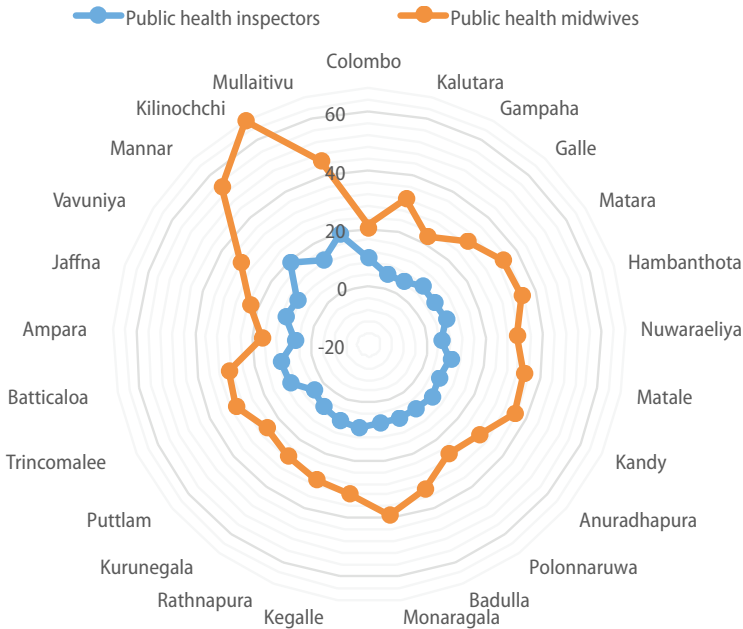


Figure 10. Distribution of public health inspectors and public health midwives working in PHC by district (per 100 000 population)



Source: Health Management Information System, Management Development and Planning Unit, Ministry of Health.

Table 14. Availability of medical officers and nurses in different institution categories

Institution category	Medical officers		Nurses	
	Number	%	Number	%
PHC institutions	6 261	32.5	5 562	17.1
Other institutions	13 064	67.5	26 871	82.9
Total	19 325	100.0	32 422	100.0

Note: "Other institutions" include teaching hospitals, provincial hospitals, base hospitals and district hospitals.

Source: Health Management Information System, Management Development and Planning Unit, Ministry of Health.

4.5.6 Human resources for health attrition

Different causes of attrition can be identified. Permanent external migration, leaving government service to take up full-time employment in the private sector, early retirement, scheduled retirement, and death are some of the reasons for attrition of the government health sector workforce.

Migration

Sri Lanka has experienced high out-migration of doctors in recent times, but there is little updated information on migration for most categories. According to a recent analysis, about 70% of Sri Lanka's medical doctors (those with active full registration with the SLMC) are employed in the Ministry of Health, about 3% are in the universities, about 12% are in the private sector, and the remaining 15% are overseas (30).

Retirement

Unless otherwise specifically stated, an officer who has completed 20 years' service in the public service may retire at their own discretion. However, they shall be entitled to a pension only from the date of attaining 55 years of age. According to the Public and Judicial Officers (Retirement) Ordinance, the optional age of retirement of an officer shall be 55 years and the compulsory age of retirement shall be 60 years.

4.5.7 Enhancing worker performance: post-basic training and in-service training

The Postgraduate Institute of Medicine, University of Colombo, is the main institute that provide postgraduate education to medical practitioners in Sri Lanka. There are limited opportunities for postgraduate training in primary care for medical officers. The Diploma in Family Medicine is a full-time, one-year teaching programme organized by the Postgraduate Institute of Medicine. The annual intake is 50 students, and it is a 52-credit-hour teaching programme. There are about 1300 graduates so far. However, as there is no policy on deployment, most of these doctors do not get placements in primary care settings to serve after the diploma.

The Doctor of Medicine (MD) Degree in Family Medicine by Clinical Training is a full-time, three-year programme from the Postgraduate Institute of Medicine. At present, there are 11 boards certified as specialists in family medicine, and they function as specialists in family medicine at divisional hospital level. The MCGP (Membership of the College of General Practitioners of Sri Lanka) and MRCP (Membership of the Royal College of General Practitioners)¹ are two programmes conducted by the College of General Practitioners of Sri Lanka to enhance the knowledge and skills of medical officers in primary care. Both are recognized qualifications by the SLMC.

Master of Science (MSc) Degree in Community Medicine and MD in Community Medicine are two other postgraduate courses offered at the Postgraduate Institute of Medicine that are related to PHC. A Master's Degree in Community Medicine has been conducted since 1987/1988 by the Postgraduate Institute of Medicine. This is a programme that covers all the areas relevant to the practice of public health and is based on the application of the principles of PHC. Accordingly, it deals with comprehensive health care services, including preventive, promotive, curative and rehabilitative services, thus addressing

¹ Including MRCPG [INT]: Membership of the Royal College of General Practitioners [International].

the needs of both ill and well populations at the grass-roots level in the community.

MSc and MD in Medical Administration, which aim to produce specialist medical administrators, also cover PHC in the degree courses. The graduate doctors, who are appointed as medical officers of health, receive structured training at the National Institute of Health Sciences before their placements.

Regular in-service training programmes are conducted in the preventive health care sector of the PHC system, led by the national-level vertical programmes (for example, Maternal and Child Health Programme, NCD Prevention Programme), or by the district-level technical focal points (for example, medical officer for maternal and child health, regional epidemiologist), or by technical persons in the medical officer of health unit (for example, medical officer of health, public health nursing sister). It should be highlighted that most of these programmes are conducted without proper training needs assessments. Further, it has been observed over the years that participation in these programmes by different staff categories at divisional and district levels is lower than expected, as participation in the programmes has not been made compulsory. According to the findings of the qualitative component, there are no systems to ensure whether the trainings produce the desired impact.

The training programmes conducted for the national-level vertical programmes are usually conducted by the national-level technical experts, thus the quality of such programmes is expected to be of superior quality. Most of the national-level vertical programmes conduct training of trainers programmes for the district-level health staff, expecting that they will conduct the same programme for the rest of the staff in the district. But due to poor follow-up mechanisms at the central level, this practice has become a rarity.

Though regular in-service programmes are conducted at medical officer of health level, since

the programmes are conducted by local resource personnel, the common belief is that the quality of the training is below the expected standards. Lack of supervision from both district-level and national-level technical experts could contribute to this.

In contrast to the preventive sector, in-service programmes for curative sector health staff working in PHC are hardly conducted, and there are minimal opportunities to update the knowledge of curative health staff.

4.5.8 Continuing professional development

Currently, continuing professional development is not a mandatory requirement for any health staff category to practise in either the preventive or the curative sector.

There are no structured regular programmes for continuing professional development or reaccreditation processes for medical officers or for any other category at present. Practising as a first-contact doctor without any training is a problem, especially with regard to patient safety. Therefore, the College of General Practitioners of Sri Lanka has initiated steps to set up a separate GP register to identify primary care givers and to ensure their training.

Though there are many opportunities available locally and overseas in particular professional areas, these are not explored and streamlined. Even the limited overseas opportunities received are not properly utilized due to the absence of organized mechanisms to select the trainees and to reutilize what they have gained through service provision.

4.5.9 Supervision

Staff supervision mechanisms of most categories of staff in the curative sector are not explicitly documented. The preventive sector has an identified system of supervision, even though there are deficiencies in implementation. There are well established routine information systems, including daily, weekly, monthly, and quarterly reporting

formats, that are in place in the preventive sector. Based on the reported data, each level (divisional level, district level and central level) is supervised and monitored according to a set of indicators with clearly defined targets for each level. Review meetings are conducted quarterly or annually, depending on the programme areas, with the participation of the national-level programme managers, and these lay the platform for the supervision of work performed at divisional level. However, after a supervisory review, little effort is currently being made to follow up and assess whether the recommendations that emerged during the review have been acted upon.

When performed well, the supportive supervision that exists in the field of public health can contribute significantly to health worker's self-efficacy and motivation. A similar system is needed for the curative health care system.

4.5.10 Performance review

Deficiencies exist in performance review. A formal system is in place for the preventive health cadres, and an opportunity exists to introduce performance review in all categories. Changes in job description involve detailing of key performance indicators. Schemes of appraisal, however, are not strictly followed.

4.5.11 Quality and productivity of human resources for health

The time health workers allocate to patient care, outreach activities, administrative tasks, meetings, training activities, cleaning, preparation and maintenance, research, and other activities has not been studied in a comprehensive way. Time and motion studies need to be carried out to measure staff productivity.

The Ministry of Health has developed a formal set of indicators to measure and compare institutional productivity. The preventive health system uses selective productivity measures for public health midwives. A productivity award mechanism is in place that looks at quality aspects of the hospital

environment and in particular client friendliness. The Japanese 5S system was introduced to initiate a culture change towards this process. The achievement of targeted clinical outcomes and patient safety and satisfaction has to be measured objectively.

Several focus group discussions were conducted during the current survey and the following results were indicated.

Participants were satisfied about the quality of services:

"This is my first visit. I was told the care given in this hospital is good. So I came."

It was perceived that the quality of services was better compared to the tertiary-level hospital:

"I had a respiratory problem and I was not admitted to CSTH [Colombo South Teaching Hospital]. I was given medicine and sent away. When I came here they observed me and followed up at a clinic."

"I can get drugs from here without delay and get back to work sooner than going to CSTH even though it is closer to my home. We do not like to go there due to overcrowding. Even though the distance to this hospital is more than CSTH, I prefer to come to this hospital as the service is efficient and fast. But investigation facilities are lacking."

Perceived quality of services depended on the doctor's interest:

"The doctor who came to the hospital three years ago took an interest ... and started developing the hospital.... After the reopening and the development done to the hospital now people come from far to attend the clinics and there are no queues as the patients are given 15 minute time slots."

Several quality indicators were identified by participants as unsatisfactory:

- lack of security inside the hospital
- no or lack of nurses

- low number of female staff
- doctors not treating all medical conditions (for example skin conditions, eye conditions)
- doctor–patient ratio not upgraded according to the population increase
- equipment and facilities not upgraded according to the population increase
- doctors not given residential facilities to prevent delays and unavailability
- not having a system to account for unavailability of laboratory services.

Further, the current system does not have a clear functioning system that recognizes performance management or performance appraisal at individual level that can contribute to productivity. This can be largely attributed to the lack of a formalized reward system that recognizes good performance.

4.6 Planning and implementation

The overall direction for planning is provided through:

- national government policy direction and political manifestos;
- annual budget speech containing policy directions, which also deal with budgetary provision;
- Health Master Plan;
- Specific national programme policies and guidelines, for example NCD Policy and Strategic Framework, Accident and Emergency Policy.

The government provides overall policy direction to the organization of health services in the health sector. The national health sector policies are formulated by the Ministry of Health in coherence with the government's mandate to meet overall social and economic goals (38). These policies are translated into strategic policy directives in the Master Plan of the Ministry of Health, which outlines the envisaged health service development and organization for the next 10 years (21).

National health programmes also influence decentralized health care delivery for primary care, for example in the areas of maternal and child health, NCDs, school health, and communicable diseases,

all of which have primary-level interventions that are part of provincial health plans to deliver PHC. Provincial health authorities allocate funds for these activities as well as for infrastructure improvement and procurement of medical equipment. A drawback of decentralization in Sri Lanka has been reliance on central Treasury funds, as resource generation at provincial level is insignificant, except in the case of Western province. The diminishing availability of health financing for provincial councils has resulted in meagre allocation for improvements at primary level when compared to facilities at secondary level in specialized hospitals. Due to the close links maintained between the centre and the provinces, the provincial system benefits from allocations received from time to time from the central ministry for capital improvements – indicative of a general concern for health development in the country and recognition that decentralization mainly pertains to managerial functions. Of note is the central procurement system for medicinal drugs, which are procured based on the requirements of individual institutions, including primary care institutions.

According to the qualitative study findings, the purchase of equipment does not follow a similar organized system. Medical equipment has to be purchased from provincial development grant funding. Every institution makes a request to the regional director of health services for its medical equipment needs. The regional director of health services will make decisions based on the availability of funds, and the prioritized equipment will be purchased. This system is being further improved with price reductions through the recently strengthened National Medicines Regulatory Authority, which is expected to ensure a continuous supply of essential medicines throughout the country. The resulting price regulation and reduction in market prices will not only benefit the government sector but will also benefit the public through lower out-of-pocket expenditure (24).

The Ministry of Health develops a five-year midterm plan based on the Health Master Plan to implement the strategies outlined in the Master Plan (39). All

provincial ministries of health and institutions, and vertical programmes under the purview of the central ministry, are expected to align their annual action plans with the Health Master Plan and midterm plans.

Difficulties in financing healthcare, especially for capital improvements, have resulted in continuous proposals being directed from provincial authorities to the central ministries requesting financial support. Some of these are large amounts that may be taken up for external donor support or for long-term soft loans.

4.6.1 Planning for primary care capital improvements

Provincial health authorities are perceived to prioritize developments in larger hospitals rather than in primary care facilities.

The Organization Development Unit in the Planning Section of the Ministry of Health, in the early stages of developing a rational healthcare delivery system, observed that primary care institutions were inadequately supervised by the authorities and developments were infrequently discussed. Recent emphasis on strengthening primary care and the development of supervision checklists and performance indicators have created a shift in emphasis (40). These are still felt as incremental changes to the system, and there is no uniformity or universality in the efforts taken by different provincial authorities or regional officers to put more emphasis on planning at primary care level.

Planning for human resources for health and implementation of human resource plans, such as the annual transfer schemes whereby medical officers are deployed in different institutions after a four-year period of service in one place, has not adequately taken into consideration the expansion required in strengthening primary care.

With the shared care cluster system implemented at full scale (Annex 5), the Organization Development Unit has supported the Directorate of Primary Care

Services with new job descriptions for medical officers who are to assume duties as “family doctors” within a government-led system.

4.6.2 Planning in the private sector

Ministry of Health guidelines are available on its website, which also reach the private sector. Although provision is made through the Private Medical Institutions (Registration) Act (41), there is little influence over individual organizational plans with regard to patient care. It is noted that the regulations available can be used to obtain more information regarding patient episodes and disease profiles, which will further support national efforts for improvement in the sector.

4.6.3 Citizens’ voice and civil society

Case studies

Box 1 presents a case study on the People’s Health Movement, while Box 2 considers civil society’s contribution to policy-making.

Suggestions for improving citizens’ voice

According to a key informant: “In Jaffna there are patient welfare societies in most hospitals. Involve the community in the development and the day-to-day activities of the hospital, with more efficiency, representing people’s views. They can maintain their own account, registered under the DS office as a social service organization. It will help in improving resources (e.g. collecting funds to purchase land).”

Another informant stated: “Every community facility, state facility, should have a committee with representatives from the community... you should have an agreement what are the key tasks... at least ensure quality of care, even support and they can mobilize resources in private sector and they can improve facilities. It’s happening... it can be improved.”

Box 1. Case study on the People's Health Movement

Narration by Dr Vinya Ariyaratne, National Coordinator, People's Health Movement

"More than 50 organizations are represented in a bigger movement –the People's Health Movement. The People's Health Movement was started in the year 2000 by a group of health activists around the world who were working for health rights, parallel to the launching of the People's Health Charter. The People's Health Charter advocates health as a right, and that it is primarily a State responsibility. The movement is not against privatization, but the basic health needs of the people should be met by the State, and systems need to be evolved for that. We were the founding members of the movement globally as well as in Sri Lanka. From 2000 onwards we have been working on various issues like the rights of HIV-affected persons and sex workers, then the LGBT community, and also drug policy and the right to health. The network includes NGOs working on health-related issues around the country, plus trade unions. Some trade unions are also members. It is a loose network, completely voluntary, and it's a very unique model, where there is a convener and I am the national coordinator, and it's an open platform for everybody to identify what are the needs and then have constructive discussions."

Box 2. Civil society contribution to policy development

There are two main contributions of civil society to policy development:

1. identifying needs for policy changes and new policies and directing them to relevant authorities;
2. providing civil society perspectives when requested, using two main mechanisms – formal and informal.

Formal: submissions when the government seeks public views

"For example, during December they were asking public views on poverty. 2017 has been declared as the year for eliminating poverty in Sri Lanka. So in such formal calls for expression of views and ideas we give formal submissions."

Informal: lobbying

"We were already working for the right to health to be included in the Constitution of Sri Lanka in the fundamental rights chapter. So we have been for more than two years actually directly lobbying for that and made submissions ... and also for example the drug policy, before it was adopted there were consultations and we were having poster campaigns and also linking with government officials and parliamentarians lobbying for adoption of a drug policy in Sri Lanka."

Effectiveness of civil society engagement in policy processes

Was perceived as equivocal:

"Yes and No."

"You know the problem in Sri Lanka is not really the policy but its policy implementation."

Similar views were given by a provincial director in South West who commented: "People complain via village committees or field officers (health and non-health)."

4.7 Review systems

The aim of reviews is to measure financial performance and physical performance. The financial performance of the health sector is reviewed regularly by the Management Development and Planning Unit of the Ministry of Health, the central coordinating body for planning implementation. Review mechanisms have been a key feature in public health programmes (preventive). The preventive health services conduct annual reviews to appraise performance against key performance indicators such as maternal mortality reviews, maternal and child health reviews and immunization reviews. At present reviews mainly capture preventive public health aspects, and monitoring of hospital-based curative services needs to be strengthened. The Ministry of Health conducts regular meetings to discuss issues relevant to implementation, including the Health Development Committee meeting and hospital directors' meeting. The latter is mainly for large institutions, while the primary level is represented by provincial and regional directors of the provincial health system. This is at present only subjective feedback, and regular monitoring of targets is not done.

A National Health Performance Framework (42) has been developed to bridge this gap and to make monitoring of health service delivery more effective. A recent development has been the assessment of institutional performance, based on selected key performance indicators that will be introduced to the primary level health institutions in the near future.

Whilst the financial performance review (43) is straightforward, challenges are seen in reviewing physical performance, which is often limited to measuring outputs in annual action plans or measuring a few typical indicators, such as those selected in the MDGs, or more public health-related indices. The requirement for an objective

performance measurement framework has been long felt in the curative sector as a whole, let alone at the primary care curative level. A challenge has been accountability when applying population-based rates or gauging the usefulness of hospital admission information.

Reviews of primary care preventive health programmes take place at district level and provincial level, though they are less relevant to primary care curative institutions.

Recently a list of indicators to review primary curative institutions was introduced by the Organization Development Unit after piloting. This has been approved by the Ministry of Health and is awaiting implementation. The concept of a results framework at hospital level is being introduced to link annual reviews using output indicators with outcome indicators in medium- or long-term plans.

There are many entry points for the citizens' voice and civil society engagement in planning. Hospital development committees have as committee members interested individuals and local government stakeholders who will voice opinions when engaged in hospital development work. Similarly, representatives from community health services are invited to village-level activities, where inputs are conveyed for local health development. Members of civil society organizations and others who represent specific target groups are often invited to discussions on national-level policy development activities.

Most recently the Government of Sri Lanka has adopted an open government partnership approach whereby civil society organizations are invited to take a lead role in planning and providing feedback on implementation.

Statutes have been passed by Parliament to ensure consumer protection, including the Food Act and the Consumer Affairs Authority Act. The former resulted in the formulation of a Food Advisory Committee at the Ministry of Health, Nutrition and Indigenous Medicine, and the chief food authority

is the Directorate-General of Health Services. The Consumer Affairs Authority Act has resulted in the establishment of an authority for protection of consumers. This act also deals with fair trading and price regulation. Numerous directives have been issued under the Consumer Affairs Authority Act. At primary level, it is the public health inspector (from the preventive care team) who is appointed as the authorized officer with provision for prosecution in a court of law.

The Cosmetic Devices and Drugs Act ensures the quality of drugs and cosmetic devices. Any complaints can be made to the Cosmetic Devices and Drugs Technical Advisory Committee, which is chaired by the Directorate-General of Health Services. The authorized officers who are empowered to investigate violations under this act are medical officers of health, public health inspectors and food and drug inspectors. Violation of these regulations can result in the offenders being sued by the affected individuals under civil law and being prosecuted under criminal law.

4.8 Regulatory bodies

Regulatory processes apply to health professionals, the functioning of health care institutes and the regulation of private sector health institutions.

4.8.1 Regulation of health professionals

Medical Ordinances have established the professional bodies that give legal authority to the different medical professions to be self-regulated and defend their interests (for example the SLMC). They set:

- the training and qualifications standards for different types of health professionals (including doctors, pharmacists, nurses, midwives, and dentists);
- the rules on professional conduct and rules regarding registration with the SLMC (44).

It is illegal to practise any of the medical professions without being registered. This registration procedure, and the SLMC's power to refuse or withdraw

registration, is therefore the main regulatory mechanism that controls the quality and quantity of health care professionals in Sri Lanka, including those working in the private sector.

Other than the SLMC and the provisions of normal law, the medical professions are largely left to themselves. It is hoped that they themselves will use peer pressure to enforce standards. Other than the SLMC there is, however, no other body capable of enforcing standards.

There are private sector organizations that perform representational roles, such as the Independent Medical Practitioners Association and the Association of Private Hospitals and Nursing Homes, but these rarely attempt to set standards. The College of General Practitioners does however attempt to encourage higher standards through providing formal training programmes and a system of qualifications to recognize additional training in family medicine.

Ministry of Health informants argue that the specialists and doctors working in private nursing homes would, as professionals, ensure that standards were maintained. According to this view, the culture and practice of self-regulation has advantages:

- Doctors and their professional organizations have relatively easy access to information about provider behaviour.
- They have the professional knowledge enabling them to self-regulate.
- It is in the interests of the profession to identify impostors and those who will bring the profession a bad name.

Nevertheless, self-regulation raises questions about regulatory effectiveness because the interests and objectives of the regulatory actors may be similar to those being regulated.

4.8.2 Private Medical Institutions (Registration) Act

In 2006, Sri Lanka engaged in a bold experiment to change the regulation of private sector services by

moving responsibilities to an independent Private Health Services Regulatory Council (PHSRC) (37). The PHSRC is an independent statutory body established by the Private Medical Institutions (Registration) Act (41). It is responsible for licensing, regulating and monitoring the standards of private medical institutions.

Assessment of the PHSRC shows that it is completely ineffective, failing to discharge most of its envisaged functions. The one function it does attempt is the annual licensing of private medical providers, but analysis shows that it does this badly, with most private hospitals failing to obtain their annual licence, and an even greater proportion of other providers also not doing so. Performance of PHSRC licensing is actually deteriorating over time, with some evidence pointing to the adverse effects of conflicts of interest between those of the private sector representatives and the PHSRC's regulatory objectives. It is recommended that the PHSRC be abolished, and private sector regulation be transferred back to the Ministry of Health, as in other similar countries such as Malaysia and Singapore.

Private medical institutions are defined as: "any Institution or establishment used or intended to be used for the reception of, and the providing of medical and nursing care and treatment for persons suffering from any sickness, injury or infirmity, a Hospital, Nursing Home, Maternity Home, Medical Laboratory, Blood Bank, Dental Surgery, Dispensary and Surgery, Consultation Room, and any establishment providing health screening or health promotion service, but does not include a house of observation, Mental hospital, Hospital, Nursing Home, dispensary, Medical Centre or any other premises maintained or controlled by the State, any private dispensary or Pharmacy or drug stores exclusively used or intended to be used for dispensing and selling any drug, medical preparation or pharmaceutical product, or any Institution or premises registered for any purpose under the provisions of Ayurveda Act, No. 31 of 1961 and the Homeopathy Act, No. 7 of 1970."

According to the legislation, the duties and functions of the council are (a) licensing and registration of private medical institutions; (b) formulation and monitoring of quality assurance programmes for patient care in private medical institutions; (c) maintenance of minimum standards for recruitment of all staff engaged or employed in private medical institutions; (d) collection and publication of relevant health information and statistics; and (e) implementation of a method of grading according to the facilities offered by the respective private medical institutions.

To implement these functions, the PHSRC is given considerable powers, including the power to levy fines or imprison offenders for non-compliance via prosecution in a magistrates' court, and the mandate for its authorized officers to enter and inspect the premises of private medical institutions without prior notice. It may also advise the minister to set forth regulations for various aspects of the functioning of private medical institutions.

The provincial directors of health services may submit project proposals on private sector development activities to the PHSRC and request allocation of funds for these projects, for example training health care personnel in the private sector.

The provincial directors of health services and their teams are required to inspect all private hospitals that were not previously registered. All other private hospitals previously registered and other medical institutions are not routinely inspected unless there are complaints against those institutions. If the institutions do not qualify for accreditation, sufficient time is given to correct the shortcomings to achieve the standards required to qualify for accreditation.

Private providers are required by implementing the regulations to renew their registration annually in order to operate. For the renewal of the registration the institutions have to submit fresh application forms together with the specified renewal fees. Although providers are supposed to renew their registrations every year, the current practice is that the PHSRC

permits established private medical institutions that have obtained registrations previously to renew their registrations even after a lapse of few years without a penalty. In these cases, the establishment would have to pay the fees due for the years they have not registered along with the current year's payment.

With regard to offences and penalties, according to the act, any registered person or body of persons who fails to comply with the provisions of the act or any regulation or rule made under the act, or who is guilty of an offence that involves causing injury to human life or seriously jeopardizing public health or public safety, can be charged with a fine not exceeding 50 000 Sri Lankan rupees after a summary trial before a magistrate. In case of contravening or failing to comply with any provisions contained in any certification of registration, they can be fined an amount not exceeding 10 000 rupees for the first offence or not exceeding 20 000 rupees for the second or subsequent offences, and a fine not exceeding 1000 rupees per each day or imprisonment

not exceeding six months or both for continuing offences. A magistrates' court convicting a person or body for a second offence shall cancel any certificate, authorization or permit granted under the act.

Whilst the PHSRC has created regulations and procedures for licensing, actual design, implementation and enforcement of the licensing function has been weak and ineffective.

In a key informant interview, an authority on the private sector in the Ministry of Health stated: "We regulate the private sector through registration, which is a legal requirement, and that the regulatory council is a team and that the team is represented by both government and the private sector people and that the guidelines and other materials to the registered institutions are provided through the web." The key informant also emphasized that "at any one point that any institution registered once then failed to do so, will have to pay the penalty to regain the registration".

5. Way forward

PHC in Sri Lanka has supported universal health access in the past, and major changes are needed to address health needs. The current agenda for primary care strengthening is based on incremental improvements. The proposed reform agenda requires strong leadership. The agenda was introduced in Parliament at the budget debate for 2017.

The reform has several elements, as outlined below.

5.1 Leadership reforms

Already advocacy has had its rewards, as the Minister of Health has publicly stated that it is his concept to implement a system whereby each family doctor will serve a population of 5000 people throughout Sri Lanka. Advocacy needs to be strengthened further to establish a strong primary care system embracing other stakeholders such as educators, other health care professionals, insurance agencies and the public.

5.2 Educational reforms

Medical curricula do not adequately emphasize training for primary care. For all undergraduates,

greater focus should be placed on training for primary care and adoption of a family practice approach. Doctors in primary care need different competencies, and generalists who choose to work in primary care can be given opportunities for specialty training in family medicine. Considering that not all would want to become specialists in family medicine, there is a need to have continuous professional development that supports in-service training. These reforms would aim to produce a “fit-for-purpose” doctor in primary care to manage problems presented at first-contact encounters and ensure continuity of personalized and family-centred care.

Currently Sri Lanka is facing the problems of a rapidly ageing population and an increasing epidemic of NCDs. Currently primary care doctors lack competencies to address these issues. There is a need for a policy on continuous professional development that would make selective training compulsory for service continuation. Elderly care and basic emergency care are also important in primary care. Box 3 presents information on future plans to strengthen PHC services.

Box 3. Future plans to strengthen PHC services

Narration by the Minister of Health

“The plan is to start a family physician system as in a developed country. Now, even for a small illness people go to a specialist because there is no referral system. So the main concept is to create a family physician system and get 5000 population under one physician registered. The physician must keep records on their health twice a year. We are going to implement it via a shared care cluster system. There are main hospitals that would be considered as apex hospitals, such as provincial and provincial general, district general and base hospitals. Then we will have cluster of divisional hospitals and peripheral units with a demarcated population for each apex hospital. Then the family physician system would be established according to that cluster and family physicians would be registered and monitored. So all the patients, all 5000, will be under the care of a physician – a family doctor who can refer the patients to any institution they feel the need to. The family doctor can refer to another consultant, and that consultant decides what type of a consultant to refer to. However, we have to operationalize this carefully as otherwise private practitioners will lose their practice if all the patients are taken under the government system. This may not have been a problem in other countries as there are no free health services.”

5.3 Service delivery reforms

The shared care cluster system is a delivery reform that will create clusters of institutions whereby an apex specialist institution has a surrounding group of primary care referral institutions. The cluster can also be considered as a performance management unit. The catchment population of the institution is further demarcated into populations of approximately 5000, for which a primary care doctor (family doctor) is responsible. The name of the “shared care cluster system” derives from the fact that the care of an individual is shared between primary and other specialized services in the cluster. Within the cluster there can also be sharing of resources to improve efficiency in service delivery.

Annex 5 further describes the features of the proposed model. Introduction of the personal health record further improves patient understanding and continuity of care. Establishment of a referral system within the cluster, and training of doctors in coordination of care, which can be carried out by the specialists for the other non-specialist primary care doctors, is also being piloted. Provision of laboratory services through the cluster system will improve the utilization of primary care.

Key informants perceived that outpatient care is well utilized in PHC centres, though the wards are underutilized. The perceived reasons for the discrepancy were the absence of a referral system and client preference for treatment from specialists. However, the clients revealed that lack of laboratory facilities and ambulance services, and non-availability of doctors after working hours, also contributed to their decision to bypass the primary health care services.

5.4 Financial reforms

The national government has pledged to increase financing for the health sector. Previously, the trend has been to channel more funds towards development of high-cost specialized services. Primary care reforms need to be prioritized. The

increase in the percentage of GDP allocated to health should be reflected in reforms for primary care.

Discussions are underway to identify whether financing strategies need to be changed. A national insurance plan has been suggested but the concept is still being explored, as there are many ways in which further efficiency can be gained.

5.5 Better citizens’ engagement in improving primary care services

Many opportunities exist for citizens’ engagement in improving primary care services. These range from hospital development activities to harnessing health literacy in improving health-related behaviours. Hospitals too have a role to play in fostering community participation in order to support important health challenges in the community. This can be addressed through the community health programme, but can easily be further supported through primary care curative service institutions.

Sporadic examples of doctors in primary care who have been able to mobilize communities are noted. These can be further fostered through skills development at different stages in a transformative education programme towards strengthening primary care.

According to one key informant, in Jaffna the welfare committees are known to be very supportive, and there are patient welfare societies in most hospitals. They involve the community in the day-to-day activities of the hospital, increasing efficiency and representing people’s views. The committees are registered under the divisional secretariat’s office as social service organizations and maintain their own financial accounts. Office bearers are selected from the hospital staff and the public. The committees help in improving resources (for example by collecting funds to purchase land).

Annex 1. Key informant interview guide

Key informant interview guide for governance

1. Explain on the organizational arrangements that can facilitate the efficient, equitable and appropriate delivery of integrated, high-quality primary care services.
2. Explain the standards of PHC facilities and their availability.
3. What is the relative role and contribution of government, private for-profit and not-for-profit sectors, and development partners in the delivery of health services?
4. Summarize key features of the governance and architecture of health systems.
5. What are the administrative and geographical tiers in the health system (e.g. National Health Service, national insurance systems), and the relationships between them?
6. What is the role of development partners in planning and administration?
7. What is the de facto approach to cyclical planning in the health system?
8. What are the main structures of public health and primary health service provision in the government health system?

Key informant interview guide for financing

1. Describe the financial flows that are relevant for the primary care system in your area.
2. Please describe the information on funding, distribution, expenditure and public/private shares, to show the financial structures of the PHC system.
3. What is the extent and magnitude of inequitable and inefficient financing mechanisms, reflected in such measures as
 - a. proportion of out-of-pocket expenditure
 - b. proportion of households experiencing catastrophic health expenditure
 - c. prevalence of user fees?
4. What is your opinion on the government's relative commitment for primary-level care?
5. What is the proportionate allocation for primary care out of total government allocation for health?
6. What do you think about the government and development partner commitment to strengthening horizontal systems? What is the proportionate allocation by government and development partners for general health services in relation to allocation for vertical health programmes?

Key informant interview guide for human resources

1. Can you explain on the adequacy, quality and appropriateness of professional education and in-service training for different cadres of primary care professionals in the country?
2. What is the regularity and quality of supervision and performance review of facilities and primary care teams?

3. Are there clearly demarcated strategies for in-service support, including decision support, training, recognition and retention, for front-line providers?
4. To what extent are these strategies implemented? How effective are they?

Key informant interview guide for planning and implementation

1. Is there a system to identify, measure and respond to disease burden in the population, including emerging health priorities such as multiple morbidity, mental health, and epidemics?
2. To what extent is this system capacitated, functional and effective?
3. Are there policies supporting the deployment of primary care teams with clearly identified roles (rather than stand-alone front-line providers) and responsibility for a specified population?
4. To what extent are such primary care teams actually deployed?
5. Are necessary equipment and medical products regularly available and utilized in the treatment of complaints and conditions at point of care?
6. Discuss the adequacy and quality of systems for referral and counter-referral between different tiers of care, including gatekeeping, patient transport and information tracking.
7. Comprehensiveness of services: comment on the existence and effectiveness of strategies to make promotive, preventive and curative services all available at point of care.
8. Therapeutic comprehensiveness: comment on the existence and effectiveness of strategies for availability of care/referral for a wide range of complaints and conditions at point of care.
9. What institutional mechanisms are in place to represent citizens' voice and civil society engagement in health service organization and planning?
10. To what extent are these capacitated, functional and effective?
11. Longitudinal continuity: comment on the existence and effectiveness of strategies for user engagement with primary care team across separate illness episodes.

Key informant interview guide for regulatory processes

1. Is the government capacitated to regulate the quality of services and medical products in the non-State health care sector?
2. Are provisions for punitive action adequate and effective?
3. Is the government capacitated to regulate standards of professional education for different cadres of primary care providers?

Key informant interview guide for monitoring and information systems

1. Discuss what is known about front-line provider adherence to standard treatment practices, as reflected in monitoring data or survey results on treatment of major therapeutic categories, e.g. chronic diseases, mental health, maternal and child health, infectious disease.
2. How reliable are current health information management systems in tracking major primary care delivery indicators and health outcomes?
3. Discuss what is known about user satisfaction with primary care services, such as reflected in user perception surveys.

Annex 2. Focus group discussion guide: stakeholders

Outpatient department care at primary medical care units/divisional hospitals delivering primary care

1. Please explain your experience in getting treatment from the outpatient department (primary medical care units)/the divisional hospital (outpatient department/inward)
2. Are you happy about the infrastructure and services offered?
3. What about the access? (prompt for all three aspects)
4. What factors made you unhappy during your past experiences related to receiving care?
5. Did you ever feel marginalized/discriminated against during obtaining care?
6. Do you have any suggestions to improve the current condition?

Annex 3. Letter of approval of Ethics Review Committee



Ethics Review Committee

A SIDCER (Strategic Initiative for Developing Capacity in Ethical Review) recognized ERC

Faculty of Medical Sciences, University of Sri Jayewardenepura
Gangodawila, Nugegoda, Sri Lanka



Chairperson

Prof. R. Wickremasinghe

Secretary

Dr. M. Gamage

Committee Members

Prof.K. Wanigasuriya

Dr. B. Seneviratne

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Dr. C. Nahallage

Dr. Helani Munasinghe

Dr. Prathibha

Mahanamahewa

Dr. Chandana Hewage

Dr. Madura Jayawardane

Dr. T. Amarasekara

Dr. Vajira Seneviratne

28.10.2016

Our ref:52/16

ERC meeting date: 27.10.2016

Prof. M.S.A.Perera,
Department of Family Medicine,
Faculty of Medical Sciences,
University of Sri Jayewardenepura.

Dear Prof. Perera,

Application Number: 52/16

Title: Primary Health Care Systems Profile & Performance (PRIMASYS): A Case Study For Sri Lanka.

I am pleased to inform you that the FMS/USJP ERC at its meeting held on the above mentioned date has granted ethical approval for your project as per details given below.

Document	Version No	Date of submission
Project proposal	01	30.09.2016
Study instrument - English	01	30.09.2016
Study instrument - Sinhala	01	30.09.2016
Study instrument - Tamil	-	-
Participant information sheet - English	01	30.09.2016
Participant consent forms - English	01	30.09.2016
Participant information sheet - Sinhala	01	30.09.2016
Participant consent forms - Sinhala	01	30.09.2016
Participant information sheet - Tamil	-	-
Participant consent forms - Tamil	-	-

The ethical approval for your project is effective from the above mentioned ERC meeting date.

Address all correspondence to: Secretary, Ethics Review Committee,
Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka.
Tel.94-11-2758588, Fax 94-11-2811480, erc.fms.usjp@gmail.com



Ethics Review Committee

A SIDCER (Strategic Initiative for Developing Capacity in Ethical Review) recognized ERC



Faculty of Medical Sciences, University of Sri Jayewardenepura
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Mr. G. V. A. Goonetilleke

Dr. C. Nahallage

Dr. Hefani Munasinghe

Dr. Prathiba

Mahanamahewa

Dr. Chandana Hewage

Dr. Madura Jayawardane

Dr. T. Amarasekara

Dr. Vajira Seneviratne

We affirm that none of the proposed study team members were present during the decision making process of the ERC. The quorum requirements were met.

The **approval is valid until one year from the date of sanction**. You may make a written request for renewal / extension of the validity, along with the submission of annual status report. **Please note that ethical approval would be revoked if any alteration is made to the project without obtaining prior written consent from the ethics review committee.**

As the Principal Investigator you are expected to ensure that procedures performed under the project will be conducted in accordance with all relevant national and international policies and regulations that govern research involving human participants.

Please note that this approval is subjected to the following condition:

- An ERC approved stamped ICFs are attached herewith. Please ensure that the stamped ICF are provided to the participants.
- Progress reports to be submitted at **six monthly intervals**.
- All serious adverse events (SAEs) that may occur in Sri Lanka should be reported within 14 calendar days of their occurrence to the ERC, FMS USJ
- Any serious adverse event, which has arisen during the clinical trial or which has come to your knowledge from reports other participating trial sites should be informed in writing to ERC FMS, USJ within 30 working days.
- The adverse events should be reported in the format of the attached adverse events reporting form.
- The final report to be submitted at the completion of the study.
- In the event of any complaints from the participants, these should be reported to the Secretary, ERC FMS USJ.
- In the events of any protocol amendments, ERC must be informed and the amendments should be highlighted in clear terms as follows:
 - a. The exact alteration/amendment should be specified and indicated where the amendment occurred in the original project. (Page no. etc.)
 - b. If the amendments require a change in the consent form, the copy of revised Consent Form should be submitted to Ethics Committee for approval

Prof. Renu Wickremasinghe
Chairperson

Dr. Manori Gamage
Secretary

Address all correspondence to: Secretary, Ethics Review Committee,
Faculty of Medical Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, Sri Lanka.
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Annex 4. Trends in leading causes of hospital deaths

Rank	1995	2000	2006	2010	2014
1	IHD ICD 120–125	IHD	IHD	IHD	IHD
2	CVD 160–169	GIT	PUL	NEO	NEO
3	GIT K20–92	CVD	NEO	PUL	Zoonotic A22–A49
4	PUL 126–151	PUL	CVD	CVD	PUL
5	NEO C00–D48	NEO	GIT	RS J20–J22 J40–J98	CVD

IHD – ischaemic heart disease (ICD 120–125)

CVD – cerebrovascular disease (ICD 160–169)

GIT – diseases of the gastrointestinal tract (K20–92)

PUL – pulmonary heart disease and diseases of the pulmonary circulation (ICD 126–151)

NEO – neoplasms (C00–D48)

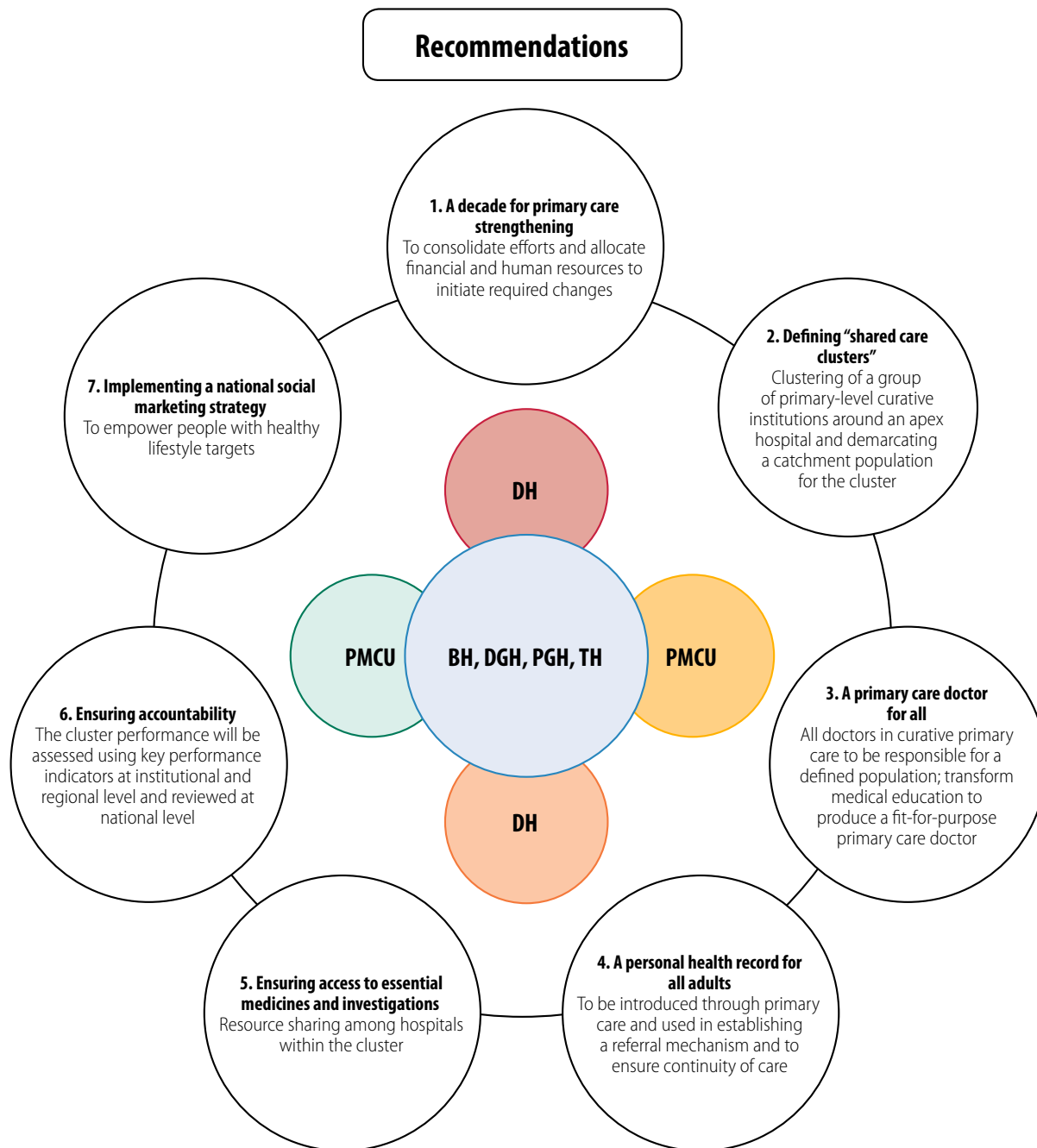
RS – diseases of respiratory system, excluding diseases of upper respiratory tract and influenza (ICD J20–J22/J40–J98)

Zoonotic – other bacterial diseases (A22–A49)

ICD – International Classification of Diseases and Related Health Problems

Source: Annual health bulletins of Sri Lanka, 2003–2014.

Annex 5. Proposed shared care cluster system



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- TH:** teaching hospital
 - PGH:** provincial general hospital
 - DGH:** district general hospital
 - BH:** base hospital
 - DH:** divisional hospital
 - PMCU:** primary medical care unit
-

Annex 6. Contributors

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References

1. Hewa S. Sri Lanka's approach to primary health care: a success story in South Asia. *Galle Medical Journal*. 2011;16(2).
2. Hewa S. Sri Lanka's Health Unit Program: a model of "selective" primary health care. *Hygiea Internationalis*. 2011;10(2):7–33.
3. National Health Policy of Sri Lanka: abridged version. 1992 (<http://pgimrepository.cmb.ac.lk:8180/handle/123456789/13833>, accessed 2 September 2017).
4. Annual health bulletin 2014. Medical Statistics Unit, Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka. 2014 (<http://www.health.gov.lk/enWeb/publication/AHB2014/AHB2014.pdf>, accessed 2 September 2017).
5. Annual report of the Monetary Board to the Hon. Minister of Finance 2015. Central Bank of Sri Lanka; 2015.
6. Sri Lanka socioeconomic data 2015: volume XXXVIII. Central Bank of Sri Lanka; 2015.
7. Household Income and Expenditure Survey. Department of Census and Statistics, Sri Lanka; 2012.
8. National Health Accounts 2013. Health Economics Cell, Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka; 2016.
9. Govindaraj R, Navaratne K, Cavagnero E, Seshadri SR. Health care in Sri Lanka: what can the private health sector offer? Health, Nutrition and Population (HNP) discussion paper. Washington (DC): World Bank; 2014 (<http://documents.worldbank.org/curated/en/423511468307190661/Health-care-in-Sri-Lanka-what-can-the-private-health-sector-offer>, accessed 3 September 2017).
10. De Silva V, Strand de Oliveira J, Liyanage M, Østbye T. The assistant medical officer in Sri Lanka: mid-level health worker in decline. *Journal of Interprofessional Care*. 2013;27(5):432–3.
11. Ariyaratne VS. Role of primary health care in the 21st century. *Journal of the College of Community Physicians of Sri Lanka*. 2012;16(2) (<http://jccpsl.sljol.info/articles/abstract/10.4038/jccpsl.v16i2.4575/>, accessed 3 September 2017).
12. Rannan-Eliya RP, Sikurajapathy L. Sri Lanka: "good practice" in expanding health care coverage. In: Good practices in health financing: lessons from reforms in low- and middle-income countries. Washington (DC): World Bank; 2008:311–54.
13. Hsiao WC, Li KT. A preliminary assessment of Sri Lanka's health sector and steps forward. 2000.
14. Jones M. Health policy in Britain's model colony, Ceylon (1900–1948). Orient Longman; 2004.
15. Fernando D. Health care systems in transition: Sri Lanka – an overview of Sri Lanka's health care system. *Journal of Public Health Medicine*. 2000;22(1):14–20.
16. Medical Ordinance of Sri Lanka. Legislative Enactments of the Democratic Socialist Republic of Sri Lanka, volume VI, chapter 113. 1972;(1):37–63.
17. Jones M. Policy innovation and policy pathways: tuberculosis control in Sri Lanka, 1948–1990. *Medical History*. 2016;60(4):514.
18. National Policy on Maternal and Child Health. Extraordinary Gazette No. 1760/32 of Democratic Socialist Republic of Sri Lanka of 2012.05.31.
19. Sri Lanka Nurses Council (Amendment) Act No. 35 of 2005. Government of Sri Lanka; 2005.
20. The National Policy and Strategic Framework for Prevention and Control of Chronic Non-Communicable Diseases 2009. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka; 2009.
21. National Health Development Plan 2016–2025. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka.
22. Mallawaarachchi DSV, Wickremasinghe SC, Somatunga LC, Vithanage TSKS, Gunawardena NS. Healthy lifestyle centres: a service for screening noncommunicable diseases through primary health-care institutions in Sri Lanka. *WHO South-East Asia Journal of Public Health*. 2016;5(2).
23. National Authority on Tobacco and Alcohol Act, No. 27 of 2006 (<http://www.nata.gov.lk/>, accessed 4 September 2017).
24. National Medicines Regulatory Authority Act, No. 5 of 2015. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka.
25. Ayurveda Act No. 31 of 1961. Democratic Socialist Republic of Sri Lanka (http://www.ayurvedicmedicoun.gov.lk/web/images/pdf_folder/1961_en.pdf, accessed 4 September 2017).
26. The Constitution of the Democratic Socialist Republic of Sri Lanka. Parliament Secretariat, Sri Lanka.
27. Information Unit, Management Development and Planning Unit. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka; 2016.

28. Medical service minute of Sri Lanka health service. Public Service Commission, Sri Lanka; 2014.
29. Ayurveda Medical Council performance report, 2013 (<https://www.parliament.lk/uploads/documents/paperspresented/annual-report-ayurveda-medical-council-2013.pdf>, accessed 4 September 2017).
30. Amarasinghe S, De Alwis S, Saleem S, Rannan-Eliya RP, Dalpatadu S. Private health sector review 2012. Colombo, Sri Lanka: Institute for Health Policy; revised edition, 2015 (<http://www.ihp.lk/publications/docs/HES1403.pdf>, 4 September 2017).
31. Family Planning Association of Sri Lanka: Strategic Framework, 2016 (www.fpasrilanka.org, accessed 4 September 2017).
32. Medical Ordinance of Sri Lanka. Legislative Enactments of the Democratic Socialist Republic of Sri Lanka, Vol. VI, Chap. 113. 1972;(1):37–63.
33. Health development matrix. Management Development and Planning Unit, Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka; 1993.
34. Hospital re-categorization circular, 02/61/2005. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka; 2005.
35. Annual report 2015. Finance Commission of Sri Lanka; 2015.
36. Human Resources for Health Strategic Plan, 2009–2018. Ministry of Health; 2009.
37. Private Health Services Regulatory Council, Ministry of Health, Nutrition and Indigenous Medicine (<https://www.facebook.com/PHSRC/>, accessed 5 September 2017).
38. Guidelines for preparation of action plans for the year 2016. Official Circular MNEPA/PLN/APGH/15. Ministry of National Policies and Economic Affairs; 2015.
39. Health Master Plan 2017–2025. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka.
40. Supervision on primary healthcare curative institutions. General Circular 02-166/2015. Ministry of Health, Nutrition and Indigenous Medicine, 2015.
41. Private Medical Institutions Registration Act No. 21 of 2006. Democratic Socialist Republic of Sri Lanka; 2006.
42. National Health Performance Framework. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka.
43. Performance and progress report: 2015–2016. Ministry of Health, Nutrition and Indigenous Medicine, Sri Lanka: July 2017.
44. Sri Lanka Medical Council (www.srilankamedicalcouncil.org, accessed 5 September 2017).

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