National Health Accounts Sri Lanka 2017 & 2018

Ministry of Health 2022

National Health Accounts is produced by the Human Resource Management Coordinating Unit under the purview of the Additional Secretary (Medical Services), Ministry of Health.

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Message of the Honorable Minister of Health

I would like to congratulate and commend the National Health Accounts team & Human Resource Management Coordinating Unit of Ministry of Health for coming up with the estimates of National Health Accounts (NHA) for Sri Lanka for the years 2017 and 2018, which becomes the 6th consecutive annual National Health Accounts estimate carried out by the Ministry of Health, based on the System of Health Accounts 2011 framework recommended by World Health Organization.

This report provides a systematic description of the financial flows in Sri Lanka's health system by different sources, how the money is spent, how health care is provided, and the nature of services that are used. The National Health Accounts allow us to understand the rationality and the relative distribution of health expenditures among different health programs. The NHA estimates show the continued track of government expenditures on health.

The provision of Universal Health coverage with the Government playing a pivotal role is one of the important agendas of the Government. I am sure the vast and rich information published in the report will help the country to use its finances in a prudent manner to achieve Universal Health coverage.

Hon. Dr. Keheliya Rambukwella

Minister of Health – Sri Lanka

Message of the Secretary of the Ministry of Health

Sri Lanka is known as a country which has achieved remarkable health gains by spending relatively less on health. The health care system in Sri Lanka is complex, as in any other country, due to the nature of health care industry and participation of both public and private sectors in health care provision.

National Health Accounting is recommended by the World Health Organization as the best way of monitoring the national health spending made by different contributing partners. National Health Accounts allow health administrators to learn from past expenditure and improve planning and allocation of resources throughout the system, thereby increasing efficiency and accountability. The health accounts of successive financing intervals enable the Government to monitor the progress in reaching its goals in the health care delivery system.

I congratulate the National Health Account team & Human Reseource Mannagement Coordinating Unit of the Ministry of Health for the job well done in publishing the National Health Accounts 2017 and 2018.

S. Janaka Sri Chandraguptha

Secretary

Ministry of Health – Sri Lanka

Message of the Additional Secretary Medical Services

The National Health Accounts becomes an important evidence base for managing health finances. The System of Health Accounts (SHA) guidelines advocated by WHO lead to generate consistent and comprehensive data on health spending in a country, which in turn can contribute to evidence-based policymaking. Within this system, countries can track changes in policy priorities and understand if the introduction of reforms and new programs resulted in changes in health resources allocation and expenditure.

In this context, publishing of the National Health Accounts for Sri Lanka has become an important activity of the Ministry of Health. I am happy to appreciate the efforts of Dr Dileep De Silva & the staff of Human Resource Management Coordinating Unit and the valuable commitment of Dr.Neil Thalagala and the National Health Accounts team, which resulted in this National Health Accounts Report on 2017 and 2018. The Ministry is planning to further strengthen the process of National Health Accounting Procedure in the Ministry in the coming year.

Dr Sunil De Alwis

Additional Secretary Medical Services

Message of the Director-General of Health Services

Understanding the details of health spending is essential and allows the Ministry of Health funding adequacy and concerns related to different departments. National health accounts provide comprehensive insights into the nature and amounts of health spending by all different financiers of the country and highlight the investment gaps and imbalances.

The System of Health Accounts (SHA) is an internationally standardized framework that systematically tracks the flow of expenditures in the health system. Over 100 developing countries have completed NHA estimations, with support from WHO. The Ministry of Health Sri Lanka also in the process of producing National health accounts since 2013, and this report presents the health accounts for the years 2017 and 2018.

I appreciate the hard work of the Human Resource Management Coordinating Unit and National Health Account team, who work long hours to produce National Health Accounts for six consecutive years.

Dr. Asela Gunawardena

Director General of Health Services

Acknowledgments

This report of the National Health Accounts Sri Lanka, 2017 & 2018 is an outcome of the efforts of many people. Services and cooperation rendered by all of them are highly appreciated and acknowledged.

The National Health Accounts team is thankful to the Human Resource Manangement Coordinating Unit for coordinating this activity. Further I am thankful to the chief accountant of the Ministry of Health and all the Provincial Directors and Provincial Health Accountants, Regional Directorates, and Regional Health Accountants for providing expenditure data for the relevant years.

The National Health Accounts team wishes to express sincere gratitude to the WHO country Office Sri Lanka for their support. The team also would like to acknowledge the guidance given by Mr. Chandika Indikadahena of the Department of Health Financing and Governance, WHO, Geneva, during the NHA exercise.

Several other organizations helped us in collecting the data. Officials from the Department of Census and Statistics, Insurance Board of Sri Lanka, the Finance Commission, Insurance companies, NGO secretariat, and other Corporates and Banks are appreciated for providing the relevant data in preparation for NHA 2017 & 2018. Heads of U.N. organizations, INGOs, NGOs and the Heads of Defense Medical Corps, Police and Prisons Hospitals and relevant officers are remembered with gratitude for their support by providing timely data for accounts.

The National Health Accounts team hopes we will get the same unstinted support from all concerned in the future, too, in preparation for National Health Accounts.

Dr Neil Thalagala

NHA Team Lead

Executive Summary

This report presents the National Health Accounts of Sri Lanka for 2017 and 2018. It reports both recurrent (Current Health Expenditures) and capital expenditures (Capital Formation). Reports also outline: a) the flow of money spent on health from their sources of origin to the point of utilization, b) describe where the funds were utilized, and c) indicate for what purposes and on which illnesses.

National Health Accounts were formulated following the guidelines given by the System of Health Accounts 2011, published by the World Health Organization. The analysis of data and the report production were facilitated by the Health Account Production Tool, which is also a standard software developed by the World Health Organization for this purpose.

The total current health expenditure in 2017 was around Sri Lankan rupees billion 479.2, and that of 2018 was around Rs. 559.1 Bn, respectively. Capital investments made on the health sector for the same years were Sri Lankan rupees billion 44.3 and 40.2, respectively. The current health expenditures in 2017 were around 3.6% of the GDP, and that of 2018 was 3.9% of GDP. Per capita, current health expenditure in 2017 was Rs 22,314. In 2018 the per capita current health expenditure was Rs. 25,778.

The pattern of current health expenditures on various healthcare functions had similar compositions in both years. Around 73% to 74% of total current health expenditure was spent on curative healthcare in 2017 and 2018, respectively. This included inpatient and outpatient care covering the cost of the complete medical care package given by hospitals from both Government and the private sector. Preventive care expenditures were found to be around 2% of the national current health expenditure in both years. Around 40% of current health expenditure was spent on primary health care.

Around 40 to 45% of current health expenditure was utilized for purchasing drugs, other supplies, and private medical investigations, including imaging services.

Disaggregation of current health expenditures by diseases showed that non-communicable diseases consumed around 30% of current health expenditure in 2017 and 2018. Around 18 % of current health expenditure in 2017 and 20% of current health expenditure in 2018 were spent on infectious and parasitic diseases. Reproductive healthcare, mainly maternal and child healthcare and care for injuries, utilized around 7% of current health expenditures of respective years.

Analysis of current health expenditures by providers showed that in two years in focus, nearly 40% (2017) to 45% (2018) of current health expenditure was spent on healthcare obtained at hospitals. The second highest expenses were attributed to the care received from the general practice providers (around 20%). Around 13% to 14 % of current health expenditure was spent on drugs purchased at pharmacies and for other medical goods. Approximately, 6% of current health expenditure was spent in private laboratories and imaging service provider institutions. Preventive care providers used 2.5% of current health expenditure.

Analysis of current health expenditure by districts indicated that the highest average per capita current health expenditure was from the Colombo district. This may partially reflect the presence of a relatively higher number of specialist hospitals in the district. The second-highest per capita current health expenditure was reported from the Gampaha district. National per capita current health expenditure was around Rs. 25778.

Assessment of current health expenditure by sources of funds revealed that households and government sources had been the main sources of revenues for the current health expenditure in both years. Around 51% of current health expenditure in 2017 and 49% of current health expenditure in 2018 were borne through household out-of-pocket expenditures. Government resources funded 40% of current health expenditure in 2017. In 2018 the government contribution was around 45% of current health expenditure. Corporations have contributed around 5% of current health expenditure in both years. The contribution made by the foreign governments and development agencies (The Rest of the world) was around 3% of current health expenditure in 2017, while that was around 1.5% in 2018.

1 Introduction

National health Accounts 2017 and 2018 systematically describe the financial flows related to healthcare consumption by Sri Lankan residents during these two years. The study of the health financing system allows us to understand who finances healthcare. It also allows identifying arrangements operating to pool funds and the ways of using those funds to purchase or produce healthcare. Further, health accounts describe what type of providers are involved, how much funds they utilize, what kinds of healthcare are consumed, how the funds are distributed among different diseases, and regional differences in healthcare resource utilization. This information is indispensable for good governance and health system administration decisions. National Health Accounts help policymakers capture financial flows related to healthcare provision, evaluate the financial gaps and appropriateness of spending concerning access, epidemiology, dependency, and many other vital dimensions [1].

System of Health Accounts 2011 (SHA 2011) provides the latest internationally accepted standard guidelines on producing national health accounts. It proposes a framework for systematically describing the financial flows related to a health system based on an array of classifications. These classifications focus on various policy-related questions mentioned in the preceding paragraph [1].

This report of the Ministry of Health Sri Lanka presents the methods and findings of National Health Accounts for the years 2017 and 2018. These National Accounts were produced following SHA 2011 guidelines and using the software: Health Accounts Production Tool (HAPT) version 4.0.0.6. [2].

2 The Health Financing System of Sri Lanka

Multiple stakeholders are involved in financing the healthcare needs of Sri Lankans. They include the Government, individual citizens (households), employers, insurance companies, international donors, and local NGOs. Figure 1 shows the organizational framework of the health financing system of Sri Lanka.

The Government has several financial arrangements (Financing Schemes) to manage, collect, pool revenues, and purchase/produce healthcare services. The Central Government scheme covers the hospitals that are directly managed under the Central Ministry of Health (i.e., Teaching, General, Specialized Hospitals), and vertical preventive/disease control programs, hospitals managed by Ministries of Defense (i.e., Army, Navy, Air force, and Police hospital), and Justice (i.e., Prison hospitals).

The Provincial government scheme manages finances related to healthcare services implemented by Provincial Governments (i.e., healthcare provided by some Base Hospitals, Divisional Hospitals, Primary Care Units, and Medical Officer of Health Units) and Local Governments (Municipal Council and Pradeshiya Sabha health clinics).

The funds meant for the central institutions are directly channeled through the budgets of respective ministries. Government funds for the Provincial and Local Government institutions are usually channeled through the Finance Commission. In addition, the Central Ministry of Health directly issues

a considerable amount of funds to provincial-level institutions. Moreover, the Provincial and Local Governments use funds generated by themselves to provide health services through the institutions under their administrative guidance. Provincial Governments also receive direct donor funds.

A total of 6,910,249 and 7,116,268 inpatients were treated in 1146 government hospitals from 2017 to 2018, respectively. The number of outpatients treated in the above government hospitals was reported as 55,399,335 in 2017 and 57,363,473 in 2018 [3].

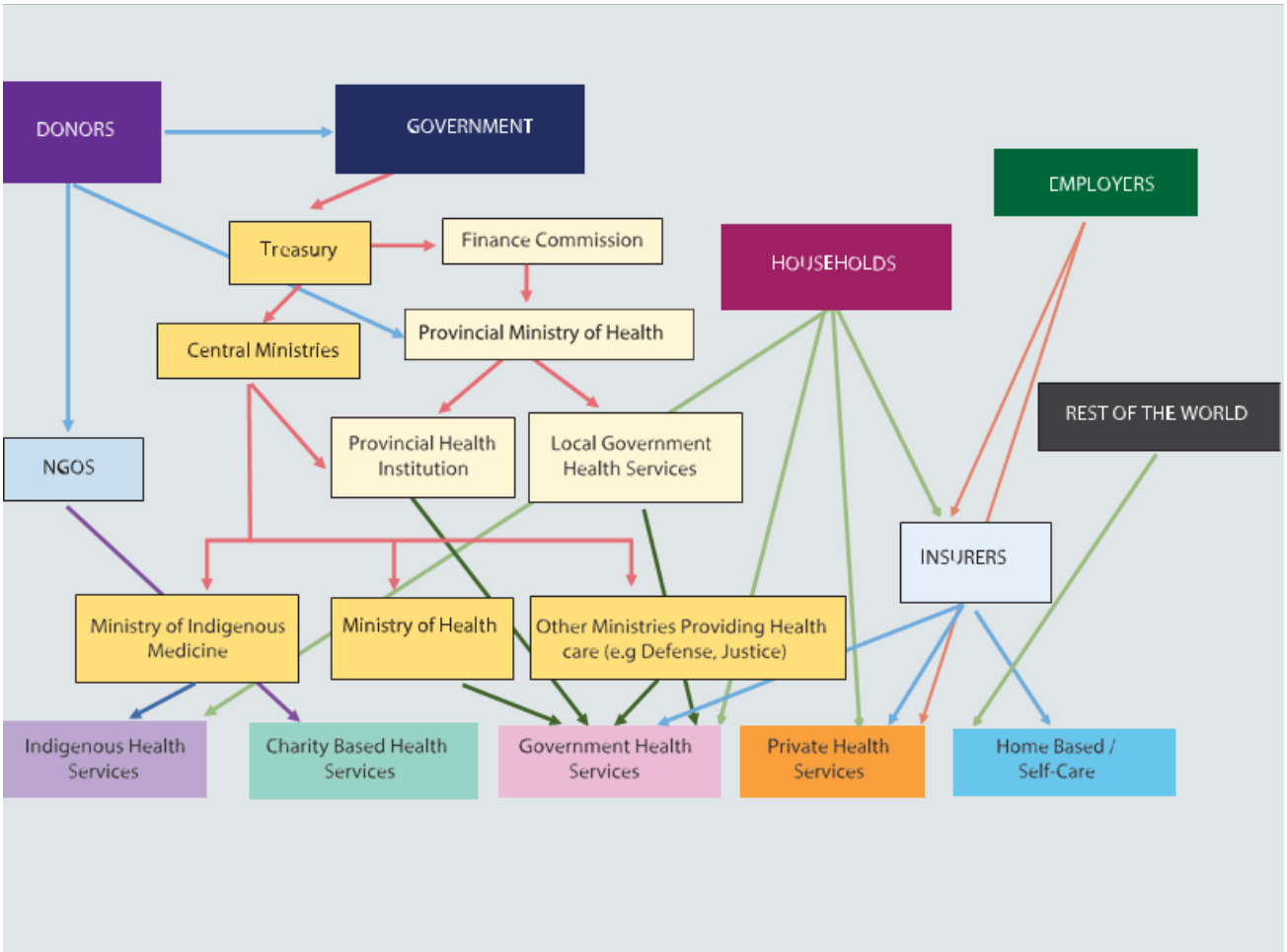

Figure 1 Health Financing System in Sri Lanka

The Government also invests in several preventive healthcare programs. Interventions carried out by these programs include a) provision of early childcare and development interventions to nearly 2 million children, b) provision of family planning to around 1.7 million women in reproductive ages c) control of Malaria, Dengue, STD /AIDS, other infectious diseases, d) control of non-communicable disease and other emerging diseases.

Sri Lankans also contribute a significant share of health expenditure as Out-of-Pocket Spending (OOPS) for CHE . Several distinct categories of OOPS can be identified. They include payments for private outpatient care (general and specialized care), payments for private inpatient care, payments for purchasing pharmacy drugs (self-prescribed or physician prescribed), payments for other health-related materials (e.g., spectacles, prostheses), payments for laboratory investigations, payments for dental care, and payments for indigenous treatment. Another kind of health-related payment by households includes purchases of health insurance premiums. These expenditures are usually incurred for obtaining healthcare from private providers, purchasing over-the-counter and prescribed medicines and other medical goods from pharmacies, and paying for private investigation services.

Private corporations also contribute to the financing of healthcare services utilized by their employees and family members. Corporations either purchase health insurance schemes, reimburse health expenditures or run their own health facilities.

Two main health insurance schemes exist In Sri Lanka. The social insurance scheme devoted to government employees is called the “Agrahara fund”. Several private companies operate voluntary contributory health insurance schemes.

The financial contribution by the Nonprofit Institutions Serving Households (NPISH) for healthcare in Sri Lanka is relatively small. The main revenues of NPISH financing schemes are from local or international donors.

Usually, donors contribute as providers of revenue. The main form of donor fund channeling in Sri Lanka is through government schemes. Some donors directly provide funds to local NGOs.

3 Health Expenditures in Sri Lanka

Sri Lanka National Health Accounts 2017 & 2018 distinguishes two main types of health expenditures: these include: 1) Current Health Expenditure (CHE) and 2) expenditure incurred for Capital Formation (C.F.) as recommended in SHA 2011 guidelines.

CHE includes all forms of expenditures made by households, the Government, enterprises, nonprofit institutions serving households (NPISH), and the Rest of the world entities for purchasing or producing the health services and goods consumed by the residents within a year. It is important to note that CHE includes, in addition to the cost of direct final consumption expenses made by the above parties, the cost of consumption of fixed capital incurred in the government health system. The consumption of fixed capital is defined as the decline, during the accounting period, in the current value of the stock of fixed assets owned by government healthcare providers.

Capital formation includes all investments made on infrastructure, equipment, etc., less disposals of capital assets.

CHE is concerned with the expenses devoted for the accounting year, whereas the purpose of capital expenditure may extend beyond a calendar year.

3.1 Total CHE in 2017 & 2018

Total CHE in 2017 was Rs. 479,232 million, and that of 2018 was around Rs. 559,100 million. The CHE in 2017and 2018 amounted to 3.6% and 3.9 % of GDP at current prices, respectively.

3.2 Capital Formation – 2017 & 2018

Around Rs. 44,308 million was spent on capital formation activities in the health sector in 2017. The health sector capital formation incurred in 2018 was Rs 40,230 million.

4 Per Capita Health Expenditures – 2017 & 2018

Table 1 shows per capita total CHE in 2017 & 2018.

Table 1 Per capita CHE in Sri Lanka 2017 -2018 (LKR /$ in current prices)

Expenditure type	2017		2018	
	Rs	US$	Rs	US$
Per capita CHE	22,314	146	25,778	163
Per capita CF	2,066	13.6	1,856	11.4
Per capita GCHE	9,599	63	11,927	73

5 Consumer Perspectives of CHE: 2017-2018

Analysis of national health expenditures by consumer perspectives provides answers to the following questions.

1. What types of healthcare have been utilized by residents, and at what costs? (Healthcare Functions classification)
2. What are the proportional allocations of national health expenditures for different illnesses? (Disease Classifications)
3. Does the health expenditure pattern vary by geographical area? (Sub National Classification)?

5.1 CHE by Healthcare Function (HC) : 2017 & 2018

Function, by financial terms, in NHA contexts, means a type of need that a financial transaction aims to achieve. Figure 2 and Table 2 illustrate how the CHE from 2017 to 2018 was attributed to various healthcare functions based on the healthcare needs of Sri Lankan residents.

Curative care includes both inpatient and outpatient care provided by the Government and private hospitals and ambulatory care provided by general medical practitioners, medical specialists, or other paramedical service providers. Rehabilitative care expenditure in this NHA report represents only the amount of expenditure made by government rehabilitation hospitals. “Ancillary services not specified by function” includes laboratory testing, medical imaging and other supportive services paid by private sector providers outside government services. “Medical goods non-specified by function” denotes therapeutic appliances, spectacles and hearing aids obtained from private sector providers. Preventive care includes all the services offered by the Medical Officer of Health teams around the country and the supplementary functions of the vertical programs. (e.g. Family health program, STD AIDS program, Malaria control program etc.)

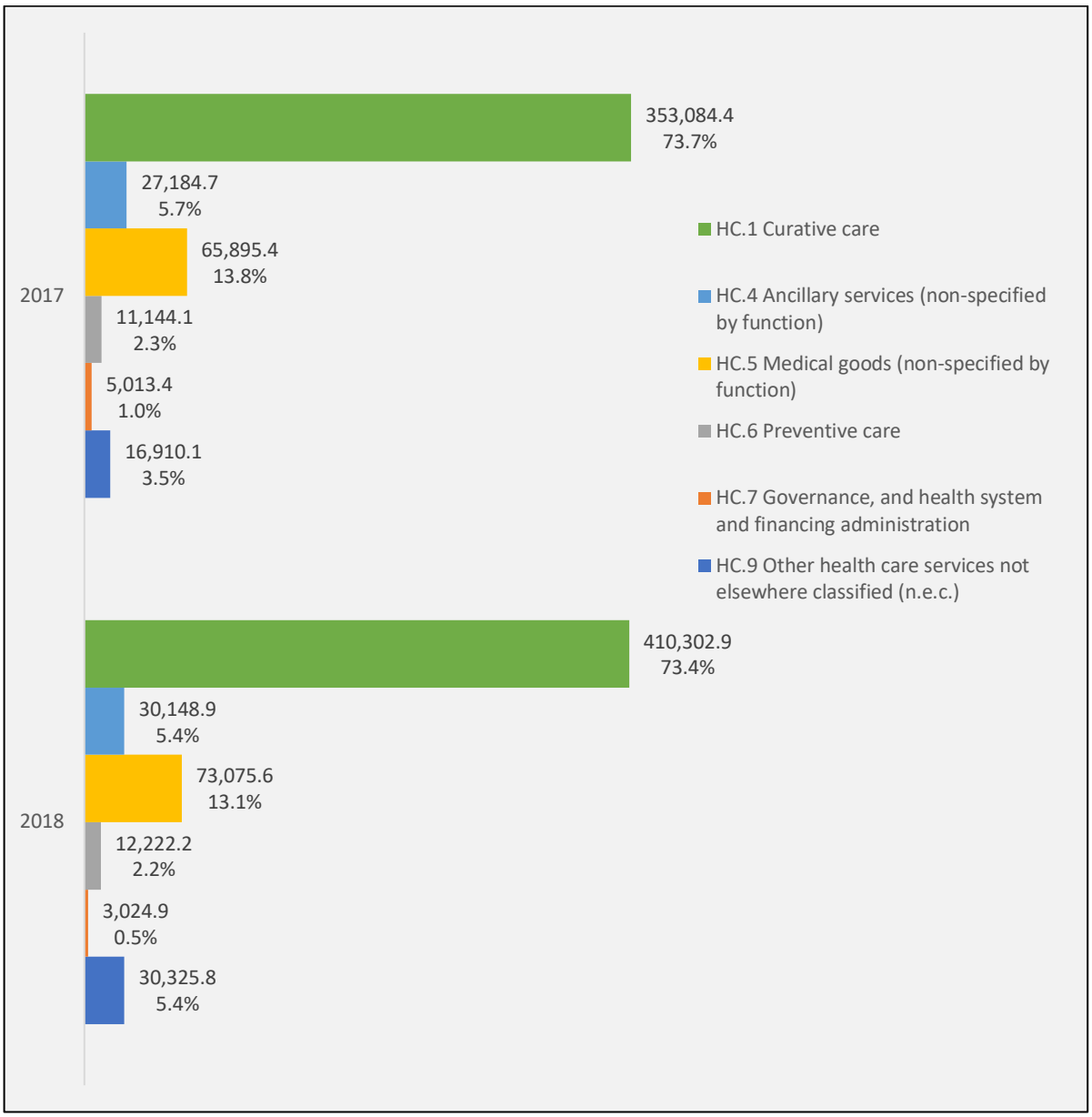

Figure 2 Percentage distribution of CHE by Healthcare Functions (H.C.): 2017 & 2018 (LKR Mn- Current Prices)

In 2017 and 2018, nearly 74% of the CHE was spent on curative care services. The preventive care expenditure was relatively lower in both 2017 and 2018 (Figure 2).

Table 2 Distribution of CHE by Healthcare Functions (H.C.): 2017 and 2018 (LKR Mn- Current Prices)

Health care functions		2017		2018	
		#	%	#	%
HC.1	Curative care	353,084.4	73.7%	410,302.9	73.4%
HC.1.1	Inpatient curative care	222,306.9	46.4%	250,992.1	44.9%
HC.1.1.1	General inpatient curative care	5,296.0	1.1%	30,297.1	5.4%
HC.1.1.2	Specialized inpatient curative care	217,010.9	45.3%	220,695.0	39.5%
HC.1.3	Outpatient curative care	125,159.2	26.1%	157,883.5	28.2%
HC.1.3.1	General outpatient curative care	110,926.7	23.1%	142,099.0	25.4%
HC.1.3.3	Specialized outpatient curative care	14,232.6	3.0%	15,784.5	2.8%
HC.1.nec	Unspecified curative care (n.e.c.)	5,618.3	1.2%	1,427.3	0.3%
HC.4	Ancillary services (non-specified by function)	27,184.7	5.7%	30,148.9	5.4%
HC.4.1	Laboratory services	20,989.1	4.4%	23,277.7	4.2%
HC.4.2	Imaging services	6,195.7	1.3%	6,871.2	1.2%
HC.5	Medical goods (non-specified by function)	65,895.4	13.8%	73,075.6	13.1%
HC.5.1	Pharmaceuticals and Other medical non-durable goods	62,887.8	13.1%	69,745.1	12.5%
HC.5.1.1	Prescribed medicines	31,443.9	6.6%	34,872.5	6.2%
HC.5.1.2	Over-the-counter medicines	31,443.9	6.6%	34,872.5	6.2%
HC.5.2	Therapeutic appliances and Other medical goods	3,007.6	0.6%	3,330.5	0.6%
HC.5.2.1	Glasses and Other vision products	2,602.9	0.5%	2,884.6	0.5%
HC.5.2.2	Hearing aids	396.8	0.1%	440.1	0.1%
HC.5.2.3	Other orthopedic appliances and prosthetics (excluding glasses and hearing aids)	7.9	0.0%	5.8	0.0%
HC.6	Preventive care	11,144.1	2.3%	12,222.2	2.2%
HC.6.1	Information, education and counseling (IEC) programmes	1,668.1	0.3%	59.6	0.0%
HC.6.1.2	Nutrition IEC programmes	1,614.1	0.3%	-	0.0%

Health care functions		2017		2018	
		#	%	#	%
HC.6.1.5	Health education programme	54.0	0.0%	59.6	0.0%
HC.6.2	Immunization programmes	1.9	0.0%	1,249.5	0.2%
HC.6.5	Epidemiological surveillance and risk and disease control programmes	887.3	0.2%	2,512.0	0.4%
HC.6.5.5	STD AIDS control programme	329.0	0.1%	792.6	0.1%
HC.6.5.6	Vector borne disease control programme	239.1	0.0%	687.3	0.1%
HC.6.5.7	Programs of other communicable disease control	306.2	0.1%	1,012.7	0.2%
HC.6.5.9	Other NCD control programmes	13.0	0.0%	19.4	0.0%
HC.6.7	MCH -FP programme (preventive)	7,268.2	1.5%	7,562.7	1.4%
HC.6.nec	Unspecified preventive care (n.e.c.)	1,318.5	0.3%	838.4	0.1%
HC.7	Governance, and health system and financing administration	5,013.4	1.0%	3,024.9	0.5%
HC.7.1	Governance and Health system administration	5,013.4	1.0%	3,024.9	0.5%
HC.7.1.1	Planning & Management	5,013.4	1.0%	3,024.9	0.5%
HC.9	Other health care services not elsewhere classified (n.e.c.)	16,910.1	3.5%	30,325.8	5.4%
All HC		479,232.1	100.0%	559,100.2	100.0%

The largest share of the CHE by healthcare function has been attributed to the specialized inpatient curative care in 2017 and 2018 which had been 45.3% and 39.5% of the total CHE. These expenditures comprise the expenditures incurred for providing specialized inpatient care in both government and private sector, secondary and tertiary care hospitals around the country.

General inpatient curative care comprises the government health expenditure incurred in the inpatient wards of the Primary Healthcare Hospitals.

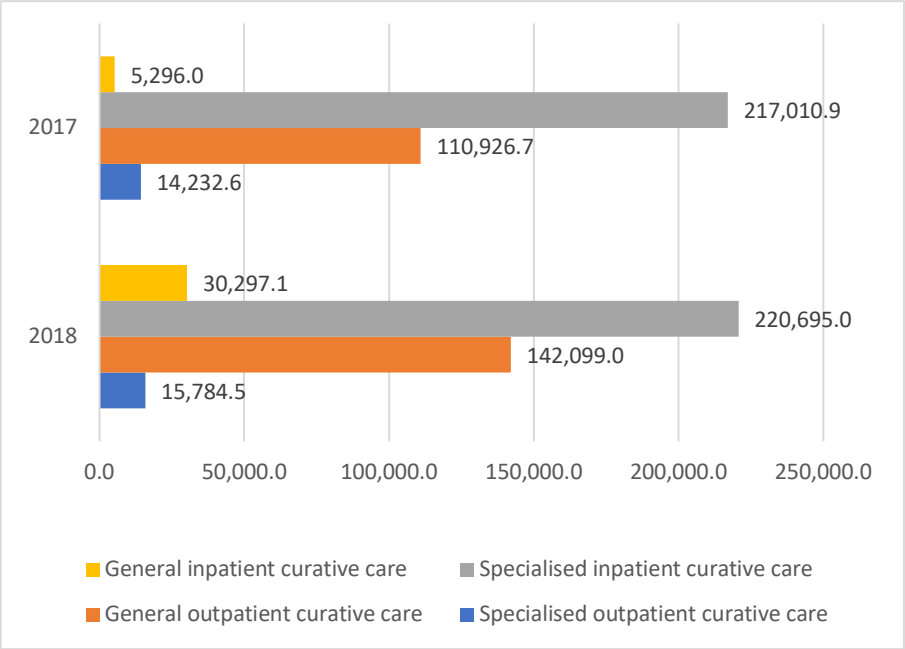

Figure 3 Percentage share of curative care CHE expenses by the level of care (LKR Mn- Current Prices)

The total expenses incurred at government outpatient departments and private general practices are included in the General outpatient curative care. It contributes to the next larger share of CHE, which had been 23.1% in 2017 and 25.4% in 2018). A relatively smaller share of curative care CHE was attributed to specialized outpatient curative care. In 2017, 3% and 2.8% in 2018 of specialized outpatient curative care CHE covered the out-of-pocket expenditures made on specialized outpatient care obtained at hospitals.

Ancillary services unspecified by function, which consumed 5 to 6% of CHE, include the out-of-pocket expenditures made on laboratory investigations and medical imaging. These expenditures comprise expenses of health services that are directly sought at private hospitals or general practices as well as the out-of-pocket expenditure made by patients for ancillary services based on the request of government hospitals.

Fourteen percent of CHE was spent on medical goods non-specified by function. The percentage has not significantly changed from the previous years. They include the expenditures made on the over-the-counter medicines purchased by patients, expenditures for purchasing government hospital prescriptions at pharmacies, and the expenses made on purchasing therapeutic appliances such as spectacles and hearing aids at private providers.

5.2 CHE for Primary Healthcare

In Sri Lanka, the PHC expenditures include expenditures related to general outpatient care provided by non-specialist medical officers at divisional and specialist hospitals, inpatient care given at divisional hospitals, and all the services given by *the Medical Officer of Health* Teams and the ambulatory

services offered by general practitioners. In addition, the expenditures made on over-the-counter self-medication and expenditures involved in purchasing medical appliances are factored into the PHC costs. Figure 4 presents the composition of the PHC expenditure in Sri Lanka in 2018.

Around 40% of total CHE in the year 2018 was devoted to PHC provision.. Of PHC, the largest share was spent on for paying general outpatient care and purchasing over-the-counter medicines.

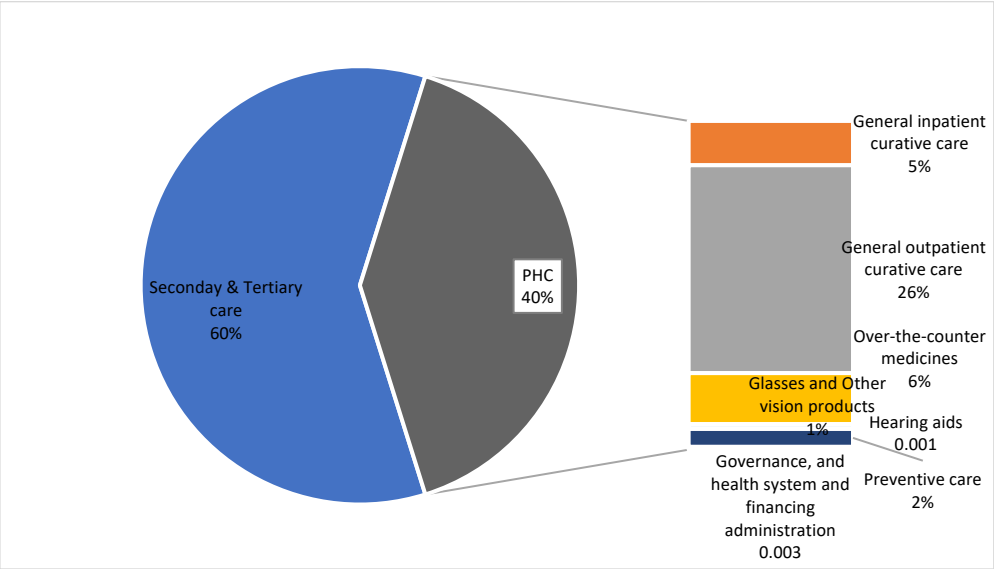

Figure 4 The percentage share of PHC expenditure in 2018

6 CHE by Diseases (DIS): 2017-2018

Figure 5 presents the percentage distribution of CHE by broader disease groups. The largest share of CHE in both years was spent on the prevention and control of non-communicable diseases. The second highest expenditures (29.7% in 2017 and 27.7 in 2018%) were for managing and controlling infectious diseases. Reproductive health-related health conditions consumed 7.3% in 2017 and 6.8% in 2018. Injuries consumed approximately 6% of CHE. CHE on nutritional issues around 1% of CHE.

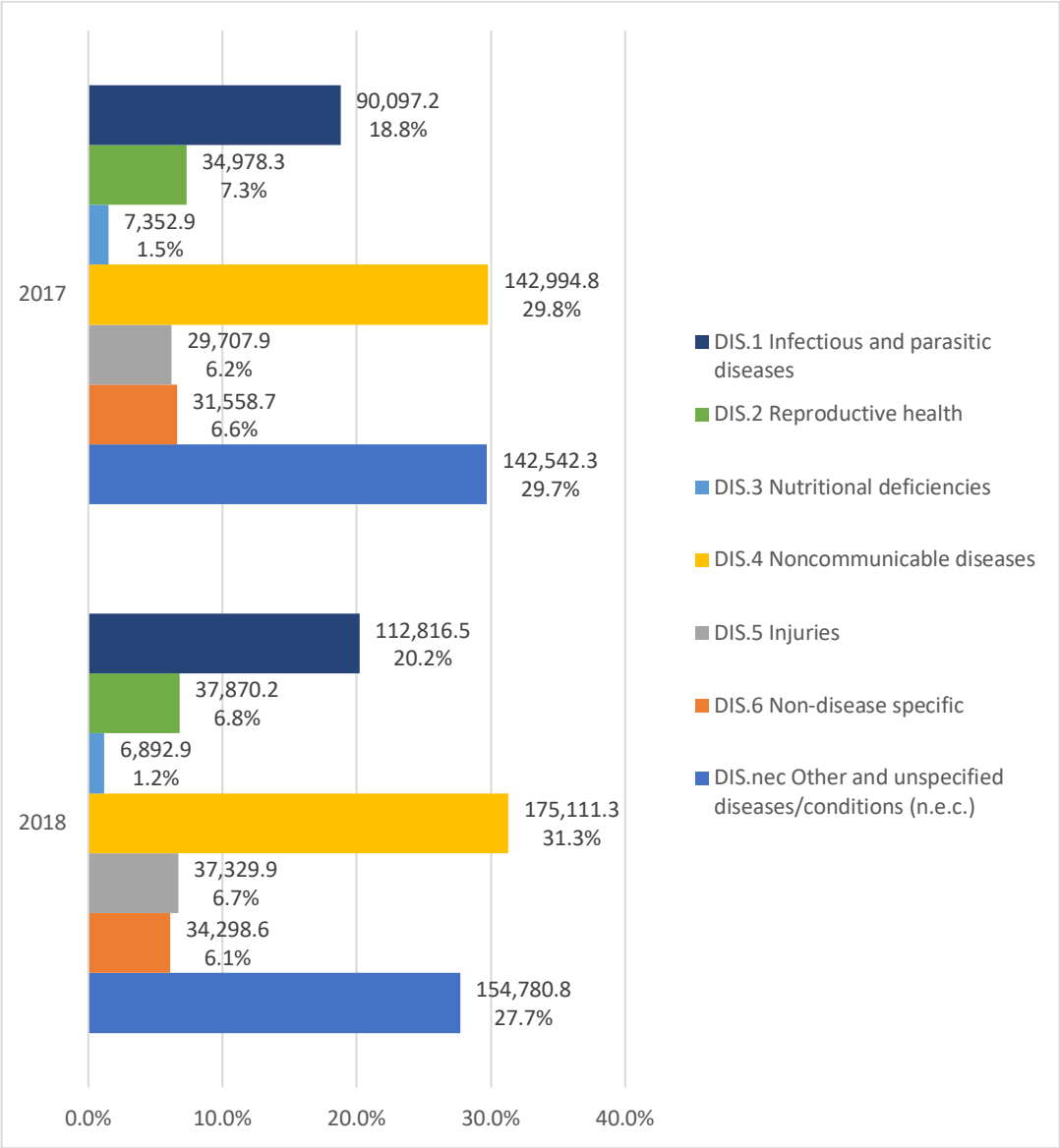

Figure 5 Percentage distribution of CHE by Diseases(DIS) : 2017 to 2018 (LKR Mn- Current Prices)

Table 3 presents the CHE by subcategories of illnesses. When ranked for the total CHE shared, the non- infective respiratory diseases, cardiovascular diseases, and diseases of the digestive system showed the first 3 highest spending non-communicable illnesses.

Table 3 Distribution of CHE by Diseases (DIS): 2017and 2018 (LKR Mn- Current Prices)

Code	Classification of diseases / conditions	2017		2018	
		#	%	#	%
DIS.1	**Infectious and parasitic diseases**	90,097.2	18.8%	112,816.5	20.2%
DIS.1.1	**HIV/AIDS and Other Sexually Transmitted Diseases (STDs)**	2,016.3	0.4%	2,073.4	0.4%
DIS.1.1.1	**HIV/AIDS and Opportunistic Infections (OIs)**	1,325.8	0.3%	806.4	0.1%
DIS.1.1.1.1	**HIV/AIDS**	1,325.8	0.3%	806.4	0.1%
DIS.1.1.2	**STDs Other than HIV/AIDS**	226.4	0.0%	166.7	0.0%
DIS.1.1.nec	**Unspecified HIV/AIDS and Other STDs (n.e.c.)**	464.1	0.1%	1,100.4	0.2%
DIS.1.2	**Tuberculosis (TB)**	1,304.2	0.3%	1,915.1	0.3%
DIS.1.2.1	**Pulmonary TB**	600.7	0.1%	707.4	0.1%
DIS.1.2.1.1	**Drug-Sensitive Tuberculosis (DS-TB)**	600.7	0.1%	707.4	0.1%
DIS.1.2.2	**Extra pulmonary TB**	109.7	0.0%	126.7	0.0%
DIS.1.2.nec	**Unspecified tuberculosis (n.e.c.)**	593.7	0.1%	1,081.0	0.2%
DIS.1.3	**Malaria**	136.0	0.0%	139.6	0.0%
DIS.1.4	**Respiratory infections**	42,884.1	8.9%	54,238.8	9.7%
DIS.1.5	**Diarrheal diseases**	7,093.0	1.5%	9,173.7	1.6%
DIS.1.6	**Neglected tropical diseases**	2,234.2	0.5%	2,789.1	0.5%
DIS.1.6.1	**Dengue illness**	2,068.7	0.4%	2,562.1	0.5%
DIS.1.6.nec	**Other Neglected tropical diseases**	165.5	0.0%	220.7	0.0%
DIS.1.7	**Vaccine preventable diseases**	2,176.8	0.5%	2,028.0	0.4%
DIS.1.nec	**Other and unspecified infectious and parasitic diseases (n.e.c.)**	32,252.4	6.7%	40,458.8	7.2%
DIS.2	**Reproductive health**	34,978.3	7.3%	37,870.2	6.8%
DIS.2.1	**Maternal conditions**	22,101.1	4.6%	24,844.0	4.4%
DIS.2.2	**Perinatal conditions**	4,011.7	0.8%	4,438.3	0.8%

Code	Classification of diseases / conditions	2017		2018	
		#	%	#	%
DIS.2.3	Contraceptive management (family planning)	2,156.7	0.5%	2,200.1	0.4%
DIS.2.nec	Unspecified reproductive health conditions (n.e.c.)	6,708.8	1.4%	6,387.8	1.1%
DIS.3	Nutritional deficiencies	7,352.9	1.5%	6,892.9	1.2%
DIS.4	Non-communicable diseases	142,994.8	29.8%	175,111.3	31.3%
DIS.4.1	Neoplasms	9,288.9	1.9%	8,174.5	1.5%
DIS.4.2	Endocrine and metabolic disorders	7,021.8	1.5%	8,646.5	1.5%
DIS.4.2.1	Diabetes	5,069.7	1.1%	6,519.9	1.2%
DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	1,952.1	0.4%	2,126.6	0.4%
DIS.4.3	Cardiovascular diseases	19,655.9	4.1%	24,251.6	4.3%
DIS.4.3.1	Hypertensive diseases	3,919.1	0.8%	5,226.4	0.9%
DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	15,736.8	3.3%	19,025.1	3.4%
DIS.4.4	Mental & behavioral disorders, and Neurological conditions	11,060.2	2.3%	13,976.1	2.5%
DIS.4.4.1	Mental (psychiatric) disorders	2,722.1	0.6%	3,192.4	0.6%
DIS.4.4.2	Behavioral disorders	9.3	0.0%	13.5	0.0%
DIS.4.4.3	Neurological conditions	6,965.8	1.5%	8,825.7	1.6%
DIS.4.4.nec	Unspecified mental & behavioral disorders and neurological conditions (n.e.c.)	1,363.0	0.3%	1,944.5	0.3%
DIS.4.5	Respiratory diseases	37,090.3	7.7%	47,506.9	8.5%
DIS.4.6	Diseases of the digestive	16,036.3	3.3%	19,966.8	3.6%
DIS.4.7	Diseases of the Genito-Urinary system	8,724.1	1.8%	10,268.7	1.8%
DIS.4.8	Sense organ disorders	11,455.2	2.4%	13,967.2	2.5%
DIS.4.9	Oral diseases	784.2	0.2%	956.3	0.2%
DIS.4.nec	Other and unspecified noncommunicable diseases (n.e.c.)	21,877.9	4.6%	27,396.6	4.9%
DIS.5	Injuries	29,707.9	6.2%	37,329.9	6.7%
DIS.6	Non-disease specific	31,558.7	6.6%	34,298.6	6.1%

Code	Classification of diseases / conditions	2017		2018	
		#	%	#	%
DIS.nec	Other and unspecified diseases/conditions (n.e.c.)	142,542.3	29.7%	154,780.8	27.7%
All Dis		479,232.1	100.0%	559,100.2	100.0%

7 CHE by Geographical Regions (SNL) : 2017& 2018

Table 4 presents the distribution of CHE by sub-national regions. The largest share of CHE was spent in the Western Province, followed by the Central province in 2017 and 2018, respectively.

Table 4 Distribution of CHE by provinces and Districts (SNL): 2017 and 2018 (LKR Mn- Current Prices)

Province/District		2017		2018	
		#	%	#	%
SNL.1	**Northern province**	24,134.3	5.0%	25,929.8	4.6%
SNL.1.1	Jaffna district	14,324.8	3.0%	15,137.7	2.7%
SNL.1.2	Kilinochchi district	2,427.8	0.5%	2,674.4	0.5%
SNL.1.3	Mulaitivu district	2,087.7	0.4%	2,305.6	0.4%
SNL.1.4	Vavunia district	3,401.4	0.7%	3,712.8	0.7%
SNL.1.5	Mannar district	1,892.6	0.4%	2,099.3	0.4%
SNL.2	**Eastern province**	32,956.9	6.9%	37,758.1	6.8%
SNL.2.1	Trincomalee district	6,635.9	1.4%	7,574.5	1.4%
SNL.2.2	Batticaloa district	11,173.9	2.3%	13,388.5	2.4%
SNL.2.3	Ampara district	15,147.2	3.2%	16,795.1	3.0%
SNL.3	**North central province**	27,490.0	5.7%	29,051.3	5.2%
SNL.3.1	Anuradhapura district	18,458.0	3.9%	19,082.3	3.4%

Province/District		2017		2018	
		#	%	#	%
SNL.3.2	Polonnaruwa district	9,032.0	1.9%	9,969.0	1.8%
SNL.4	**Northwestern province**	45,501.1	9.5%	48,541.7	8.7%
SNL.4.1	Kurunegala district	30,180.1	6.3%	31,962.4	5.7%
SNL.4.2	Puttalam district	15,321.0	3.2%	16,579.3	3.0%
SNL.5	**Central Province**	53,028.0	11.1%	56,826.7	10.2%
SNL.5.1	Nuwara Eliya district	9,154.3	1.9%	10,249.9	1.8%
SNL.5.2	Kandy District	36,330.2	7.6%	38,299.8	6.9%
SNL.5.3	Matale district	7,543.6	1.6%	8,277.0	1.5%
SNL.6	**Western Province**	196,844.3	41.1%	252,723.5	45.2%
SNL.6.1	Colombo district	106,483.8	22.2%	157,083.2	28.1%
SNL.6.2	Kalutara district	23,832.4	5.0%	25,541.2	4.6%
SNL.6.3	Gampaha district	66,528.1	13.9%	70,099.1	12.5%
SNL.7	**Sabaragamuwa province**	34,785.1	7.3%	38,370.1	6.9%
SNL.7.1	Rathnapura district	17,182.8	3.6%	19,089.6	3.4%
SNL.7.2	Kegalle district	17,602.3	3.7%	19,280.5	3.4%
SNL.8	**Uva province**	19,332.0	4.0%	21,727.9	3.9%
SNL.8.1	Badulla district	12,523.9	2.6%	14,053.1	2.5%
SNL.8.2	Monaragala district	6,808.1	1.4%	7,674.8	1.4%
SNL.9	**Southern province**	45,160.3	9.4%	48,171.2	8.6%
SNL.9.1	Galle district	20,361.3	4.2%	20,902.8	3.7%

Province/District		2017		2018	
		#	%	#	%
SNL.9.2	Matara district	15,314.0	3.2%	16,822.1	3.0%
SNL.9.3	Hambantota district	9,485.0	2.0%	10,446.3	1.9%
All	**Sri Lanka**	22314.0	100.0%	25,778.0	100.0%

Figure 6 shows the distribution of CHE and per capita CHE by districts and provinces for the year 2018.

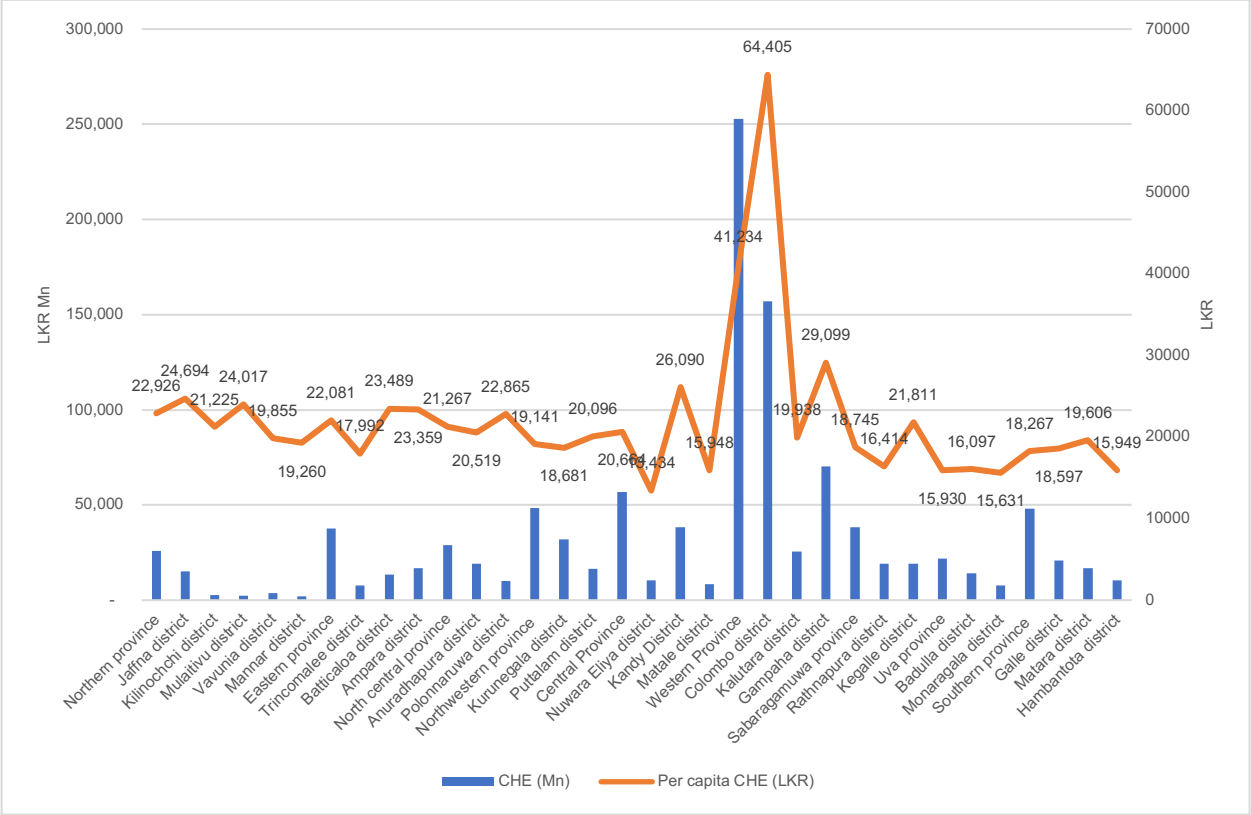

Figure 6 CHE and per capita CHE by districts and provinces for year 2018

The highest per capita CHE 2018 period was reported from the Colombo district. The presence of the highest number of speculated hospitals could be a reason for this high consumption of total CHE by the Colombo district. The second-highest per capita CHE was reported from the Gampaha district. National per capita CHE was around 25801 per the period, and only 3 out of 25 districts (Colombo, Gampaha, Kandy districts) had a per capita expenditure less than the national average, indicating the skewed nature of per capita expenditure

8 Provider perspectives of CHE

SHA 2011 categorizes healthcare providers as hospitals, general practices (ambulatory healthcare), providers of ancillary services (medical laboratories and imaging services), pharmacies (retailors and other medical goods providers), preventive care providers and providers of health system administration.

8.1 CHE by Providers of Healthcare (H.P.): 2017-2018

In 2017 and 2018, hospital-based healthcare consumed approximately half of CHE. General practice providers account for nearly 20% of CHE. Fourteen percent of CHE was spent at pharmacies and other providers of medical goods using out-of-pocket expenses. Further, private laboratories and imaging service providers consumed around 6% of the CHE. Figure 7 presents the CHE in 2017 and 2018 by health care providers.

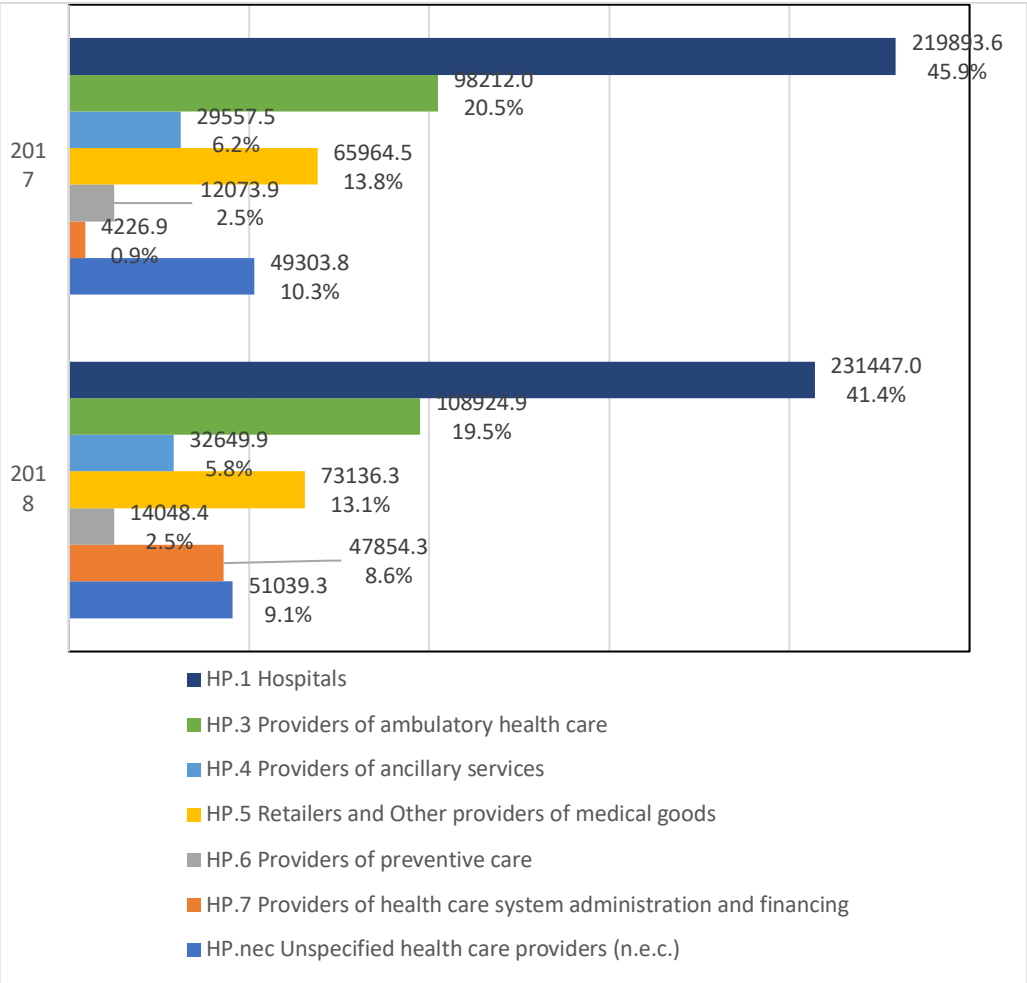

Figure 7 Percentage distribution of CHE by Healthcare Providers (HP): 2017 to 2018 (LKR Mn- Current Prices)

The relative share of CHE by preventive care providers falls down near 2.5% of CHE in both 2017 and 2018. This is a further reduction from the previous 4% of CHE spent by preventive care providers during 2014 – 2016 period.

Table 5 presents the detailed disaggregation of CHE from 2017 to 2018.

Table 5 Distribution of CHE by Healthcare Providers (HP): 2017 and 2018 (LKR Mn- Current Prices)

Health care functions		**2017**		**2018**	
		#	**%**	**#**	**%**
HP.1	**Hospitals**	219,893.6	45.9%	231447.0	41.4%
HP.1.1	General hospitals	200,495.7	41.8%	219168.2	39.2%
HP.1.1.1	Ministry of health hospitals (Central & Provincial)	153,939.1	32.1%	168040.1	30.1%
HP.1.1.1.1	Tertiary Care Hospitals	72,737.6	15.2%	79041.5	14.1%
HP.1.1.1.2	Secondary Care Hospitals	60,940.3	12.7%	66692.2	11.9%
HP.1.1.1.3	Primary Care Hospitals	20,261.3	4.2%	22306.5	4.0%
HP.1.1.2	Private hospitals	38,967.6	8.1%	43216.6	7.7%
HP.1.1.3	Hospitals under other ministries	7,589.1	1.6%	7911.5	1.4%
HP.1.1.3.1	Armed forces hospitals	6,467.7	1.3%	6498.0	1.2%
HP.1.1.3.2	Police hospital	1,121.4	0.2%	1413.5	0.3%
HP.1.2	Mental health hospitals	799.2	0.2%	1062.9	0.2%
HP.1.3	Specialized hospitals (Other than mental health hospitals)	12,951.8	2.7%	9657.6	1.7%
HP.1.3.1	Specialized maternity hospitals	1,934.2	0.4%	2241.1	0.4%
HP.1.3.2	Specialized pediatric hospitals	3,153.6	0.7%	2514.0	0.4%
HP.1.3.3	Dental care institutes	86.3	0.0%	118.9	0.0%
HP.1.3.nec	Other Specialized hospitals (Other than mental health hospitals)	7,777.6	1.6%	4783.7	0.9%
HP.1.nec	Unspecified hospitals (n.e.c.)	5,646.9	1.2%	1558.3	0.3%
HP.3	**Providers of ambulatory health care**	98,212.0	20.5%	108924.9	19.5%

Health care functions		2017		2018	
		#	%	#	%
HP.3.1	Medical practices	98,212.0	20.5%	108924.9	19.5%
HP.3.1.1	Offices of general medical practitioners	83,411.3	17.4%	92506.4	16.5%
HP.3.1.3	Offices of medical specialists (Other than mental medical specialists)	14,232.6	3.0%	15784.5	2.8%
HP.3.1.nec	Unspecified medical practices (n.e.c.)	568.1	0.1%	634.0	0.1%
HP.4	**Providers of ancillary services**	29,557.5	6.2%	32649.9	5.8%
HP.4.2	Medical and diagnostic laboratories	27,484.2	5.7%	30474.5	5.5%
HP.4.9	Other providers of ancillary services	2,073.2	0.4%	2175.4	0.4%
HP.5	**Retailers and Other providers of medical goods**	65,964.5	13.8%	73136.3	13.1%
HP.5.1	Pharmacies	62,969.8	13.1%	69815.1	12.5%
HP.5.2	Retail sellers and Other suppliers of durable medical goods and medical appliances	2,994.7	0.6%	3321.2	0.6%
HP.6	**Providers of preventive care**	12,073.9	2.5%	14048.4	2.5%
HP.6.1	Maternal and child health care preventive providers	7,789.2	1.6%	10388.1	1.9%
HP.6.2	Providers STD/AIDS prevention	257.9	0.1%	673.5	0.1%
HP.6.3	Providers of Malaria prevention	357.3	0.1%	814.2	0.1%
HP.6.nec	Other Providers of preventive care	3,669.4	0.8%	2172.6	0.4%
HP.7	**Providers of health care system administration and financing**	4,226.9	0.9%	47854.3	8.6%
HP.7.1	Government health administration agencies	4,226.9	0.9%	47854.3	8.6%
HP.nec	**Unspecified health care providers (n.e.c.)**	49,303.8	10.3%	51039.3	9.1%
All HC		479,232.1	100.0%	559100.2	100.0%

Hospitals have consumed 46 % and 41 % of CHE in 2017 and 2018 respectively. Though the relative share is less, overall expenditure consumed by hospitals increased from LKR . 219,893.6 in 2017 to LKR 231,447.0 Mn in 2018.

Figure 8 presents the percentage distribution of CHE used by government hospitals in 2016 by levels of care. The largest share of CHE had been consumed by the secondary care hospitals (51.6%) followed by tertiary care hospitals (38.8%).

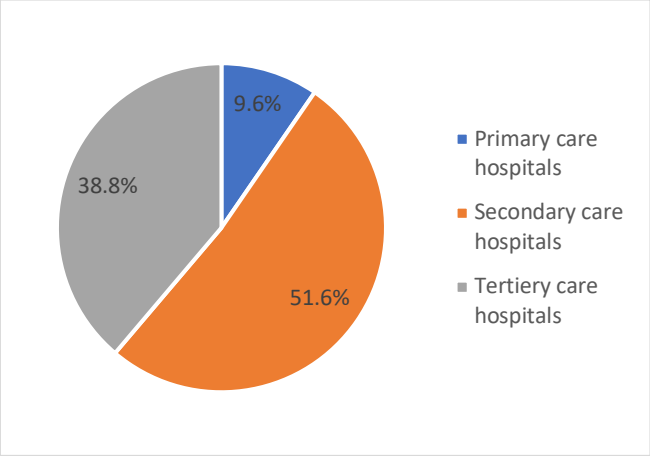

Figure 8 Percentage distribution of CHE utilization in government hospitals in 2018

8.2 CHE by Factors of Healthcare Provision (F.P.): 2017 & 2018

The classification of Factors of Healthcare Provision (F.P.) attempts to disaggregate the CHE into several categories. They include; 1) expenditures attributed to human resource payments in hospitals and other health institutions (compensation of employees), 2) self-employed professional remuneration (fees received by general practitioners, which may involve the cost of drugs, and infrastructure items in additions to payments to human resources and profit. 3) cost of materials and services used in the healthcare production, and 4) cost of consumption of fixed capital (loss of value due to obsoleting and usual wear and tear of capital assets used in healthcare provision. Figure 9 presents the CHE in 2017 and 2018 by F.P.

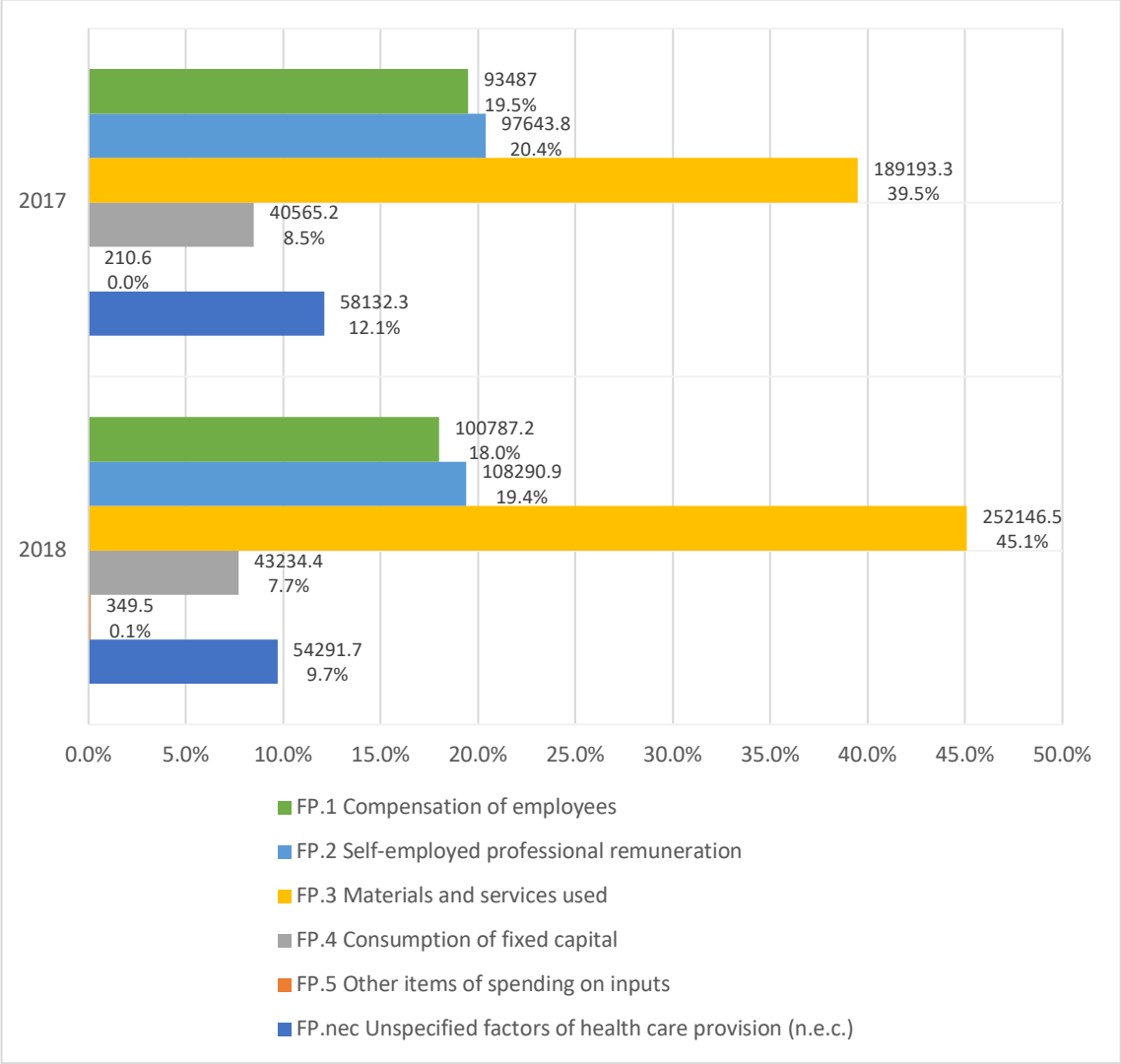

Figure 9 Percentage distribution of CHE by Factors of Healthcare Provision (F.P.): 2017 & 2018 (LKR Mn- Current Prices)

In both years, the largest share of CHE was spent on cost of materials and services used in the healthcare provision (39.5% - 2017, 45.1%-2018). The second largest share of CHE was spent on the private general practice (20.4% - 2017, 19.4%-2018) marked as self-employed professional remuneration. Salaries and other emolument of employees in health services used further 19.5% - 2017, 18% - 2018 of CHE. Consumption of fixed capital amounted to 8.5% - 2017 to 7.7% 2018 of CHE.

Table 6 presents the detailed disaggregation of CHE by the Factors of Healthcare Provision.

Table 6 Distribution of CHE by Factors of Healthcare Provision (F.P.): 2017 and 2018 (LKR Mn- Current Prices)

Health care functions		2017		2018	
		#	%	#	%
FP.1	**Compensation of employees**	93,487.0	19.5%	100,787.2	18.0%
FP.1.1	**Wages and salaries**	56,846.8	11.9%	62,649.0	11.2%
FP.1.2	**Social contributions**	52.7	0.0%	318.1	0.1%
FP.1.3	**All Other costs related to employees**	36,587.4	7.6%	37,820.1	6.8%
FP.2	**Self-employed professional remuneration**	97,643.8	20.4%	108,290.9	19.4%
FP.3	**Materials and services used**	189,193.3	39.5%	252,146.5	45.1%
FP.3.1	**Health care services**	66,157.7	13.8%	73,365.5	13.1%
FP.3.1.1	**Laboratory & Imaging services**	27,190.1	5.7%	30,148.9	5.4%
FP.3.1.nec	**Other health care services (n.e.c.)**	38,967.6	8.1%	43,216.6	7.7%
FP.3.2	**Health care goods**	108,053.1	22.5%	162,660.5	29.1%
FP.3.2.1	**Pharmaceuticals**	105,052.1	21.9%	159,339.3	28.5%
FP.3.2.1.1	**ARV**	116.4	0.0%	293.9	0.1%
FP.3.2.1.2	**TB drugs**	32.0	0.0%	39.0	0.0%
FP.3.2.1.3	**Antimalarial medicines**	6.3	0.0%	16.0	0.0%
FP.3.2.1.3.2	**Other antimalarial medicines**	6.3	0.0%	16.0	0.0%
FP.3.2.1.4	**Vaccines**	714.2	0.1%	482.2	0.1%
FP.3.2.1.nec	**Other pharmaceuticals (n.e.c.)**	104,183.4	21.7%	158,508.1	28.4%
FP.3.2.2	**Other health care goods**	3,001.0	0.6%	3,321.2	0.6%
FP.3.2.2.nec	**Other and unspecified health care goods (n.e.c.)**	3,001.0	0.6%	3,321.2	0.6%
FP.3.3	**Non-health care services**	9,251.9	1.9%	8,970.1	1.6%
FP.3.3.1	**Training**	7.1	0.0%	4.6	0.0%

FP.3.3.nec	**Other non-health care services (n.e.c.)**	9,244.8	1.9%	8,965.5	1.6%
FP.3.4	**Non-health care goods**	3,916.1	0.8%	4,634.4	0.8%
FP.3.nec	**Other materials and services used (n.e.c.)**	1,814.5	0.4%	2,515.9	0.4%
FP.4	**Consumption of fixed capital**	40,565.2	8.5%	43,234.4	7.7%
FP.5	**Other items of spending on inputs**	210.6	0.0%	349.5	0.1%
FP.5.1	**Taxes**	181.7	0.0%	336.3	0.1%
FP.5.2	**Other items of spending**	28.9	0.0%	13.2	0.0%
FP.nec	**Unspecified factors of health care provision (n.e.c)**	58,132.3	12.1%	54,291.7	9.7%
		479,232.1	100.0%	559,100.2	100.0%

9 Financial perspectives of CHE

Analysis of CHE by health financing perspectives describes how the funds related to health care flow from various fund *providers (Institutional units providing revenues to financing schemes - FSRI).* The fund flows in various revenue mechanisms *(Revenues of Financing Schemes -F.S.),* financing arrangements *(Health Financing Schemes -HF.),* and financing agents (Financing Agents -FA). Ultimately the funds are utilized to purchase or produce the healthcare services offered by all providers. For example, Figure 10 shows the financial flows related to CHE in the Sri Lankan context. Government and households are the principal providers of health financing resources. The contributions made by corporations, NGOs, and the Rest of the World Donors are relatively small.

Government funds reach health services as internal transfers and employers' contribution of the social insurance (Agrahara). Household funds channel through different revenue mechanisms. They include the funds used for purchasing primary insurances schemes *(Voluntary prepayment from individuals/households)* ,the direct payments for private healthcare as Other revenues from households n.e.c. (OOPS) and the remaining share of the Agrahara comes from households.. Corporations funds channel through two revenue mechanisms. i.e. *Voluntary insurance prepayment from employers* and *Other revenues from corporations n.e.c.* which covers the reimbursement of healthcare bills of employees and maintaining workplace-based healthcare delivery points.

The 'Rest of the World' financing sources rely on the Government to distribute the significant share of their contribution to the country through the revenue mechanism called Transfers Distributed by Government from Foreign Origin. The remaining portion of the Rest of the World's funds was added as Direct Foreign Transfers.

The Government uses several financing schemes (Ministry of Health Scheme, Defense Ministry Scheme, President Fund (Health) Scheme, Other Central government Schemes, and the social health insurance scheme (Agrahara)) to handle its funds. Revenue mechanisms of these financing schemes follow somewhat complex arrangements, as indicated by the crossing arrows of figure 10. The financing schemes related to private health expenditures have more or less direct correspondence with the respective revenue mechanisms.

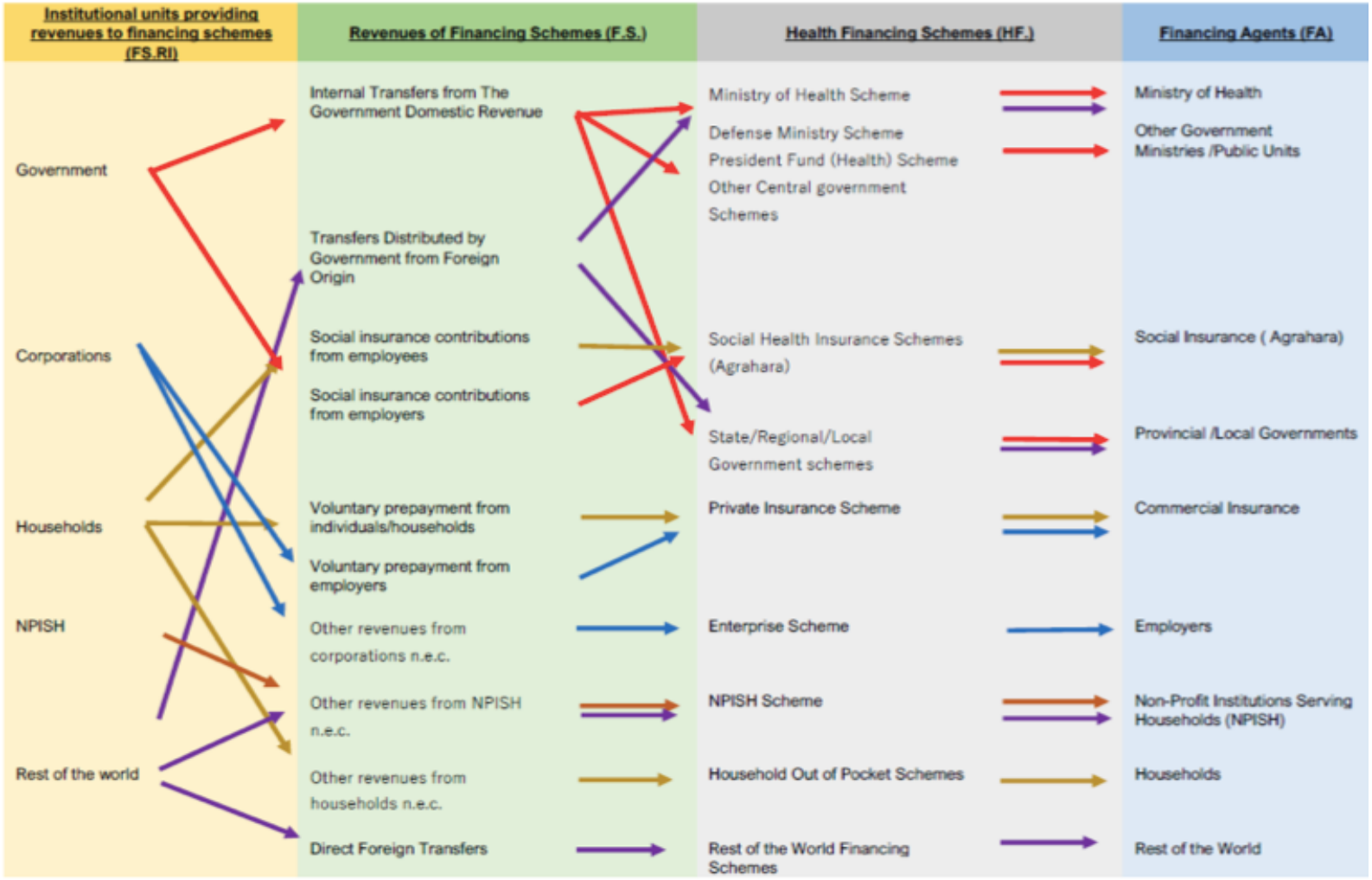

Figure 10 Financial flows related to CHE in Sri Lanka

9.1 CHE by Institutional Units Providing Revenues (FS:RI) : 2017 & 2018

Figure 11 presents the distribution of CHE from 2017 and 2018 according to the institutions providing the revenues. Households and government sources have been the primary source of revenue to the CHE. The household revenue, which was the highest, reduced from 51.5% in 2017 to 48.8% by 2018. Government resources provided 40.2% to 44.8% of CHE during the two years of concern, respectively. Corporations and NPISH resources contributed to 5.7 in 2018.

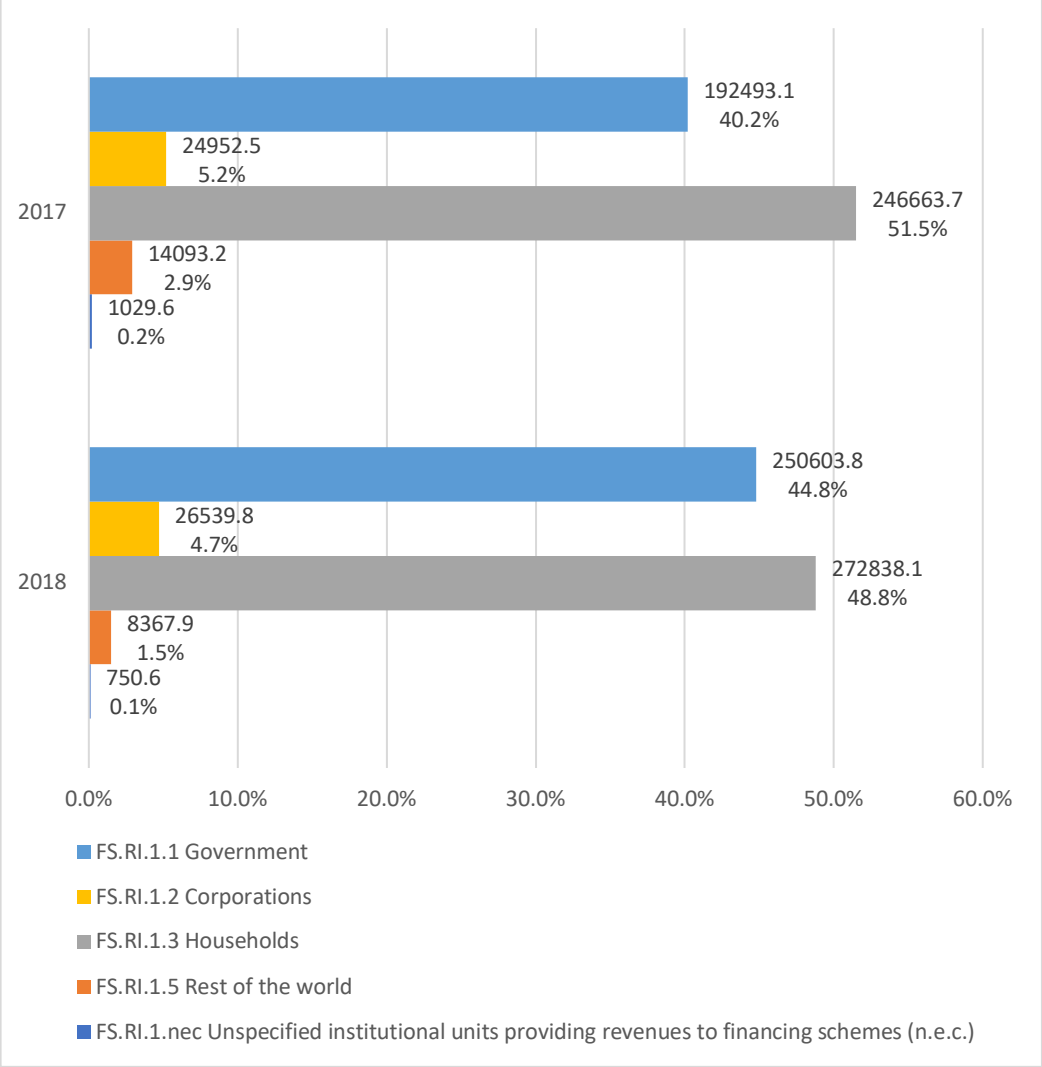

Figure 11 CHE according to the Institutional units providing revenues to financing schemes (FS.RI) 2017 & 2018 (LKR Mn-Current Prices)

Table 7 presents the detailed disaggregation of CHE by various sources of funding.

Table 7 Distribution of CHE by Institutional Units Providing Revenues to Financing Schemes (FS.RI): 2017 and 2018 (LKR Mn- Current Prices)

Health care functions		2017		2018	
		#	%	#	%
FS.RI.1.1	Government	192,493.1	40.2%	250,603.8	44.8%
FS.RI.1.2	Corporations	24,952.5	5.2%	26,539.8	4.7%
FS.RI.1.3	Households	246,663.7	51.5%	272,838.1	48.8%
FS.RI.1.5	Rest of the world	14,093.2	2.9%	8,367.9	1.5%
FS.RI.1.5.1	Bilateral donors	3,916.5	0.8%	2,825.0	0.5%
FS.RI.1.5.1.nec	Other and Unspecified bilateral donors (n.e.c.)	3,916.5	0.8%	2,825.0	0.5%
FS.RI.1.5.2	Multilateral donors	10,172.6	2.1%	5,122.6	0.9%
FS.RI.1.5.2.4	AsDB	0.1	0.0%	94.3	0.0%
FS.RI.1.5.2.9	IDA + IBRD (World Bank)	8,464.4	1.8%	3,587.6	0.6%
FS.RI.1.5.2.15	UNFPA	2.9	0.0%	2.5	0.0%
FS.RI.1.5.2.16	UNICEF	6.6	0.0%	7.0	0.0%
FS.RI.1.5.2.nec	Other and Unspecified multilaterial donors (n.e.c.)	1,698.7	0.4%	1,431.1	0.3%
FS.RI.1.5.3	Private donors	4.1	0.0%	420.3	0.1%
FS.RI.1.5.3.nec	Other and Unspecified private donors (n.e.c.)	4.1	0.0%	420.3	0.1%
FS.RI.1.nec	Unspecified institutional units providing revenues to financing schemes (n.e.c.)	1,029.6	0.2%	750.6	0.1%
All FS.RI		479,232.1	100.0%	559,100.2	100.0%

9.2 CHE by Revenues of Healthcare Financing Schemes (F.S.) : 2017 -2018

This section presents the amounts of CHE channeled through various revenue mechanisms. Revenue mechanisms are the mode of transferring the funds of different sources. More than half of CHE (53%), was received as *Other Domestic Revenues n.e.c.* which includes revenues from households, corporations and NPISHs. Transfers from domestic government revenue accounted for 43.5 % of CHE

revenues. Voluntary prepayments accounted for 2 % of CHE, while social insurance did so for only 0.4% of CHE. Direct foreign transfers and transfers distributed by the Government of foreign origin accounted for around 1% of CHE (Figure 12 & Table 8).

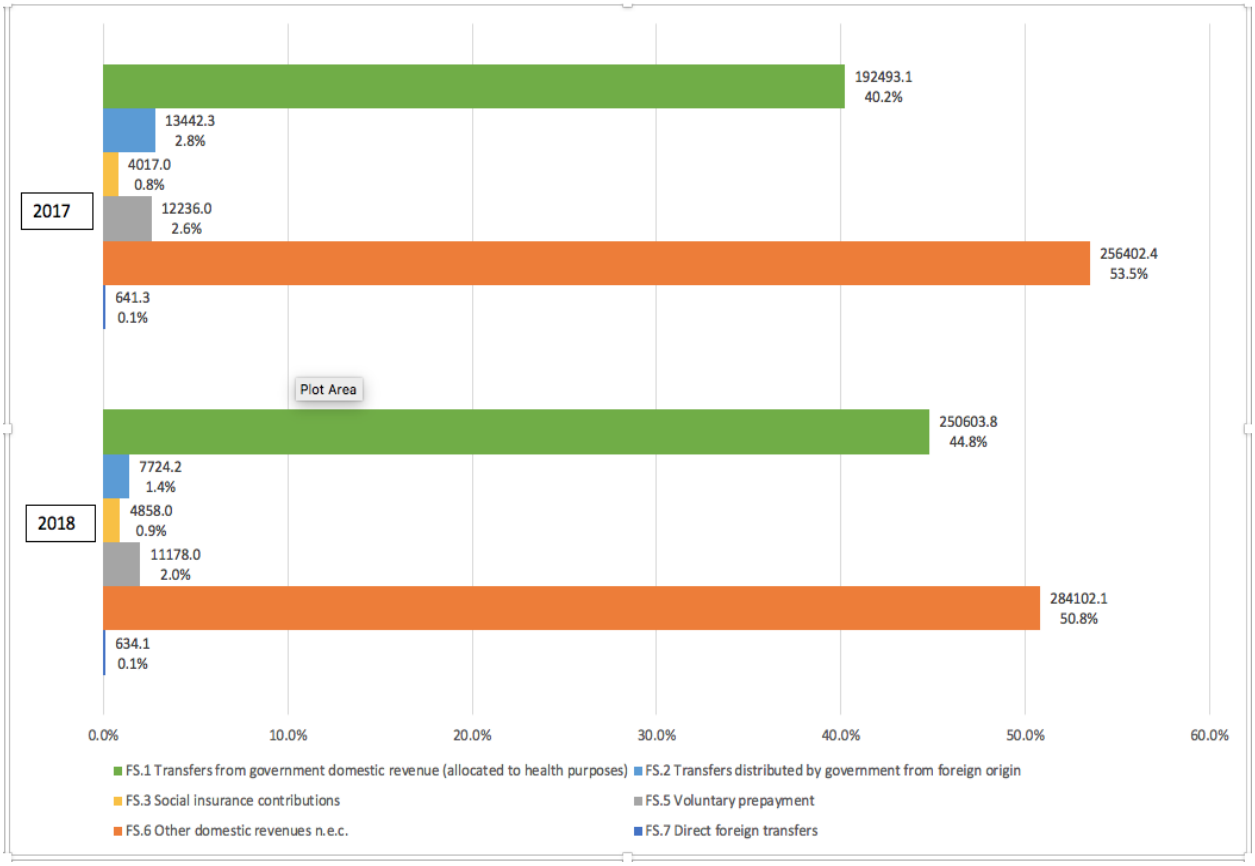

Figure 12 CHE by Revenues of Healthcare Financing Schemes (F.S.): 2017 & 2018 (LKR Mn- Current Prices)

Table 8 Distribution of F.S. by Revenues of Healthcare Financing Schemes (F.S.): 2017 and 2018 (LKR Mn- Current Prices)

Code	Revenues of health care financing schemes	2017		2018	
		#	%	#	%
FS.1	Transfers from government domestic revenue (allocated to health purposes)	192493.1	40.2%	250603.8	44.8%
FS.1.1	Internal transfers and grants	191416.6	39.9%	249778.3	44.7%
FS.1.2	Transfers by government on behalf of specific groups	574.8	0.1%	507.4	0.1%
FS.1.4	Other transfers from government domestic revenue	501.7	0.1%	318.1	0.1%
FS.2	Transfers distributed by government from foreign origin	13442.3	2.8%	7724.2	1.4%
FS.2.3	World Bank funds	8464.4	1.8%	3587.6	0.6%
FS.2.4	UNFPA funds	2.9	0.0%	2.5	0.0%
FS.2.nec	Other Transfers distributed by government from foreign origin	4975.0	1.0%	4134.1	0.7%
FS.3	Social insurance contributions	4017.0	0.8%	4858.0	0.9%
FS.3.1	Social insurance contributions from employees	2008.5	0.4%	2429.0	0.4%
FS.3.2	Social insurance contributions from employers	2008.5	0.4%	2429.0	0.4%
FS.5	Voluntary prepayment	12236.0	2.6%	11178.0	2.0%
FS.5.1	Voluntary prepayment from individuals/households	6613.7	1.4%	6210.1	1.1%
FS.5.2	Voluntary prepayment from employers	5622.4	1.2%	4967.9	0.9%
FS.6	Other domestic revenues n.e.c.	256402.4	53.5%	284102.1	50.8%
FS.6.1	Other revenues from households n.e.c.	236033.0	49.3%	261770.0	46.8%
FS.6.2	Other revenues from corporations n.e.c.	19330.2	4.0%	21571.9	3.9%
FS.6.3	Other revenues from NPISH n.e.c.	1039.3	0.2%	760.2	0.1%

FS.7	**Direct foreign transfers**	641.3	0.1%	634.1	0.1%
FS.7.1	**Direct foreign financial transfers**	641.3	0.1%	634.1	0.1%
FS.7.1.1	**Direct bilateral financial transfers**	245.8	0.1%	221.0	0.0%
FS.7.1.2	**Direct multilateral financial transfers**	395.5	0.1%	413.0	0.1%
All FS		479232.1	100.0%	559100.2	100.0%

9.3 CHE by Financing Schemes (HF) : 2017 -2018

Financing schemes (HF) are the main arrangements used by various health financing agents to handle the funds made available through the different revenue mechanisms. Figure 13 presents the distribution of CHE by F.S. during the period from 2017 to 2018. In 2017 the largest share of CHE was from households out of pocket expenditures (49.3%), followed by government schemes. In 2018 the government schemes (47.1%) and households (46.8%) provided almost equal and lager share of CHE.

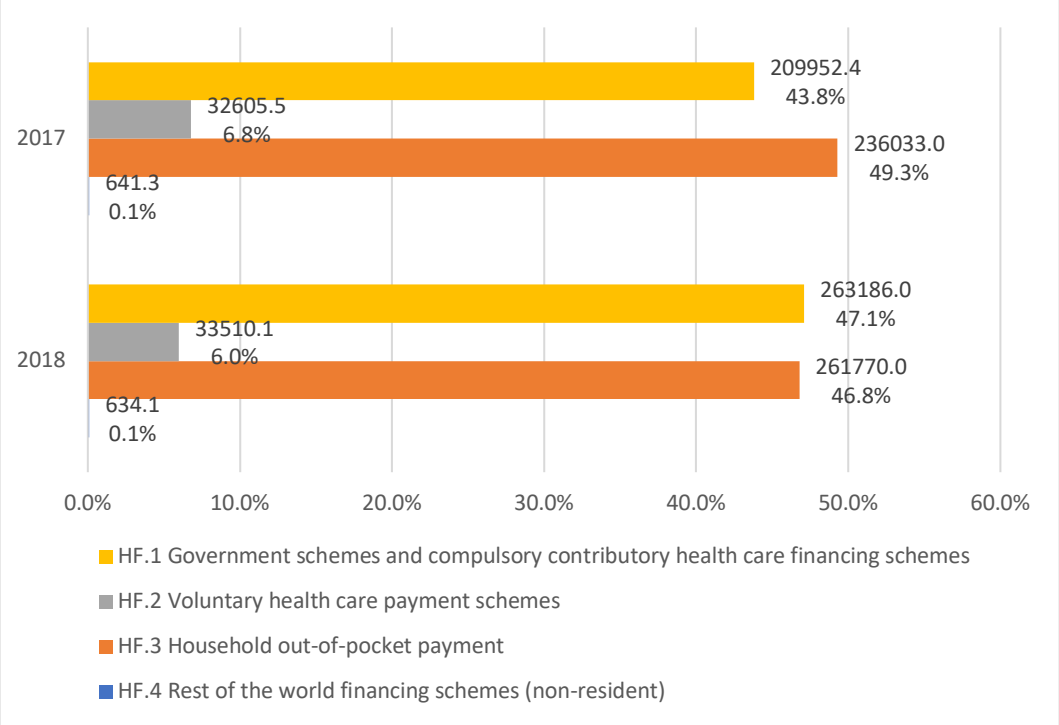

Figure 13 CHE by Financing schemes (HF.):2017 & 2018 (LKR Mn- Current Prices)

Table 9 presents the distribution of CHE by the financial arrangement handled them.

Table 9 Distribution of CHE by Healthcare Financing Schemes: 2017 and 2018 (Rs. Mn in current prices)

Health care functions		**2017**		**2018**	
		#	**%**	**#**	**%**
HF.1	**Government schemes and compulsory contributory health care financing schemes**	**209,952.4**	**43.8%**	**263,186.0**	**47.1%**
HF.1.1	Government schemes	205,935.4	43.0%	258,328.0	46.2%
HF.1.1.1	Central government schemes	155,179.5	32.4%	201,028.4	36.0%
HF.1.1.1.1	Ministry of Health Scheme	149,690.4	31.2%	193,525.9	34.6%
HF.1.1.1.2	Defence Ministry Scheme	3,176.2	0.7%	5,118.7	0.9%
HF.1.1.1.3	President Fund (Health) scheme	574.8	0.1%	507.4	0.1%
HF.1.1.1.nec	Other Central government schemes	1,738.1	0.4%	1,876.4	0.3%
HF.1.1.2	State/regional/local government schemes	50,755.9	10.6%	57,299.6	10.2%
HF.1.2	Compulsory contributory health insurance schemes	4,017.0	0.8%	4,858.0	0.9%
HF.1.2.1	Social health insurance schemes	4,017.0	0.8%	4,858.0	0.9%
HF.2	**Voluntary health care payment schemes**	**32,605.5**	**6.8%**	**33,510.1**	**6.0%**
HF.2.1	Voluntary health insurance schemes	12,236.0	2.6%	11,178.0	2.0%
HF.2.1.1	Primary/substitutory health insurance schemes	12,236.0	2.6%	11,178.0	2.0%
HF.2.1.1.1	Employer-based insurance (Other than enterprises schemes)	5,622.4	1.2%	4,967.9	0.9%
HF.2.1.1.3	Other primary coverage schemes	6,613.7	1.4%	6,210.1	1.1%
HF.2.2	NPISH financing schemes (including development agencies)	1,039.3	0.2%	760.2	0.1%
HF.2.2.1	NPISH financing schemes (excluding HF.2.2.2)	1,039.3	0.2%	760.2	0.1%
HF.2.2.1.nec	Other NPISH financing schemes (excluding HF.2.2.2)	1,039.3	0.2%	760.2	0.1%
HF.2.3	Enterprise financing schemes	19,330.2	4.0%	21,571.9	3.9%

HF.2.3.1	Enterprises (except health care providers) financing schemes	19,330.2	4.0%	21,571.9	3.9%
HF.3	**Household out-of-pocket payment**	**236,033.0**	**49.3%**	**261,770.0**	**46.8%**
HF.3.1	Out-of-pocket excluding cost-sharing	236,033.0	49.3%	261,770.0	46.8%
HF.4	**Rest of the world financing schemes (non-resident)**	**641.3**	**0.1%**	**634.1**	**0.1%**
HF.4.2	Voluntary schemes (non-resident)	641.3	0.1%	634.1	0.1%
HF.4.2.2	Other schemes (non-resident)	641.3	0.1%	634.1	0.1%
HF.4.2.2.2	Foreign development agencies schemes	641.3	0.1%	634.1	0.1%
All HF		**479,232.1**	**100.0%**	**559,100.2**	**100.0%**

9.4 CHE by Financing Agents (F.A.) : 2017 -2018

Financing agents are the actual institutional agencies who collect, pool, and direct funds for healthcare service production and purchasing. Government financing agents include Central Government, Provincial and Local Governments, and the National Insurance Agency, Agrahara. Households and government agencies were the main financing agents

Figure 14 and Table 10 present the distribution of CHE by different financing agents during the 2017 to 2018 period.

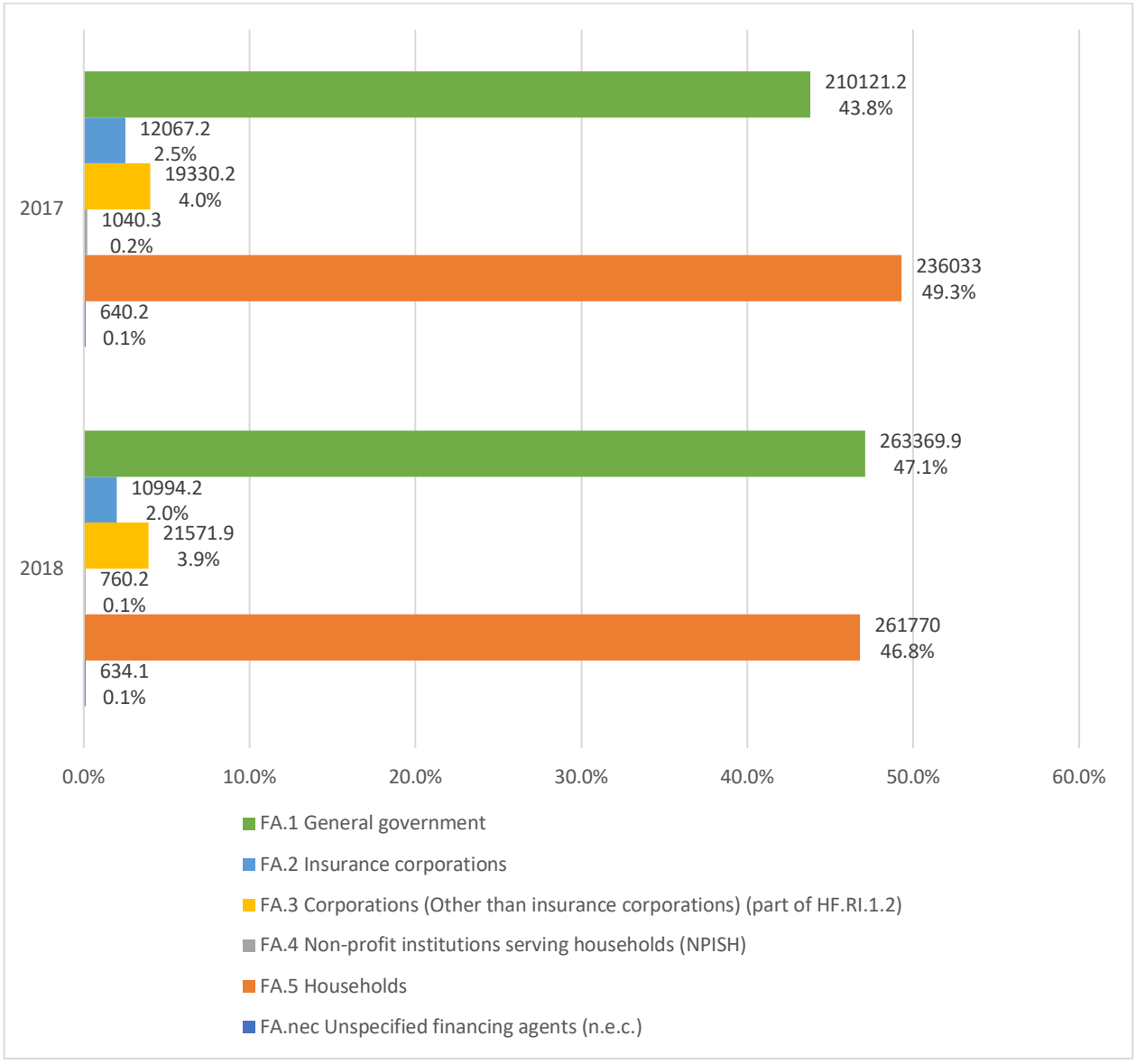

Figure 14 Distribution of CHE by Financing Agents (FA) :2017 & 2018 (LKR Mn- Current Prices)

Table 10 Distribution of CHE by Financing Agents (FA) : 2017 and 2018 Figure 14 shows the distribution of CHE by different financing agents during the 2017 to 2018 period.

Health care functions		2017		2018	
		#	%	#	%
FA.1	**General government**	210121.2	43.8%	263369.9	47.1%
FA.1.1	Central government	159604.5	33.3%	206070.3	36.9%
FA.1.1.1	Ministry of Health	145769.5	30.4%	190668.3	34.1%
FA.1.1.2	Other ministries and public units (belonging to central government)	9074.5	1.9%	9852.7	1.8%
FA.1.1.4	National Health Insurance Agency	4185.8	0.9%	5041.8	0.9%
FA.1.1.5	Presidential Secretariate	574.8	0.1%	507.4	0.1%
FA.1.2	State/Regional/Local government	50516.7	10.5%	57299.6	10.2%
FA.1.2.1	Provincial government	50295.8	10.5%	56618.1	10.1%
FA.1.2.2	Local Governments (Municipal councils, Pradesheeya Sabha)	220.9	0.0%	681.4	0.1%
FA.2	**Insurance corporations**	**12067.2**	**2.5%**	**10994.2**	**2.0%**
FA.2.1	Commercial insurance companies	12067.2	2.5%	10994.2	2.0%
FA.3	**Corporations (Other than insurance corporations) (part of HF.RI.1.2)**	**19330.2**	**4.0%**	**21571.9**	**3.9%**
FA.3.2	Corporations (Other than providers of health services)	19330.2	4.0%	21571.9	3.9%
FA.4	**Non-profit institutions serving households (NPISH)**	**1040.3**	**0.2%**	**760.2**	**0.1%**
FA.4.nec	Other Non-profit institutions serving households (NPISH)	1040.3	0.2%	760.2	0.1%
FA.5	**Households**	**236033.0**	**49.3%**	**261770.0**	**46.8%**
FA.nec	**Unspecified financing agents (n.e.c.)**	**640.2**	**0.1%**	**634.1**	**0.1%**
All FA		**479232.1**	**100.0%**	**559100.2**	**100.0%**

10 NHA Detailed Cross Tables

10.1 HF. x F.S. Distribution of CHE 2017 by Health Financing Schemes and Revenues of Healthcare Financing Schemes (Rs. Billion)

Sri Lanka Rupees (LKR	Revenues of health care financing schemes	FS.1	FS.2	FS.3	FS.5	FS.6	FS.7	All FS
Financing schemes	*Sri Lanka Rupees (LKR), Million*	Transfers from government domestic revenue (allocated to health purposes)	Transfers distributed by Government from foreign origin	Social insurance contributions	Voluntary prepayment	Other domestic revenues n.e.c.	Direct foreign transfers	
HF.1	**Government schemes and compulsory contributory health care financing schemes**	**192,493.1**	**13,442.3**	**4,017.0**				209,952.4
HF.2	**Voluntary health care payment schemes**				**12,236.0**	**20,369.4**		32,605.5
HF.3	**Household out-of-pocket payment**					**236,033.0**		236,033.0
HF.4	**Rest of the world financing schemes (non-resident)**						**641.3**	641.3
All HF		**192,493.1**	**13,442.3**	**4,017.0**	**12,236.0**	**256,402.4**	**641.3**	479,232.1
Memorandum items								
Financing schemes and the related cost-sharing together		**192,493.1**	**13,442.3**	**4,017.0**	**12,236.0**			222,188.5
HF.RI.2	Governmental schemes and compulsory contributory health insurance schemes together with cost sharing (HF.1 + HF.3.2.1)	**192,493.1**	**13,442.3**	**4,017.0**				209,952.4
HF.RI.3	Voluntary health insurance schemes together with cost sharing (HF.2.1+HF.3.2.2)				**12,236.0**			12,236.0

10.2 H.P. x HF. Distribution of CHE 2017 by Healthcare Providers and Health Financing Schemes (Rs. Billion)

Sri Lanka Rupees (LKR) / Health care providers	Financing schemes / *Sri Lanka Rupees (LKR), Million*	HF.1 Government schemes and compulsory contributory health care financing schemes	HF.2 Voluntary health care payment schemes	HF.3 Household out-of-pocket payment	HF.4 Rest of the world financing schemes (non-resident)	All H.F.	Memorandum items	Financing schemes and the related cost-sharing together	HF.RI.2 Governmental schemes and compulsory contributory health insurance schemes together with cost sharing (HF.1 + HF.3.2.1)	HF.RI.3 Voluntary health insurance schemes together with cost sharing (HF.2.1+HF.3.2.2)
HP.1	**Hospitals**	**180,776.7**	**149.3**	**38,967.6**		**219,893.6**	**180,926.1**	**180,926.1**	**180,776.7**	**149.3**
HP.3	**Providers of ambulatory health care**		**568.1**	**97,643.8**		**98,212.0**				
HP.4	**Providers of ancillary services**	**2,372.7**		**27,184.7**		**29,557.5**	**2,372.7**	**2,372.7**	**2,372.7**	
HP.5	**Retailers and Other providers of medical goods**	**82.0**		**65,882.5**		**65,964.5**	**82.0**	**82.0**	**82.0**	
HP.6	**Providers of preventive care**	**11,033.6**	**1,039.3**		**1.1**	**12,073.9**	**11,033.6**	**11,033.6**	**11,033.6**	
HP.7	**Providers of health care system administration and financing**	**4,226.9**				**4,226.9**	**4,226.9**	**4,226.9**	**4,226.9**	
HP.nec	**Unspecified health care providers (n.e.c.)**	**11,460.5**	**30,848.7**	**6,354.4**	**640.2**	**49,303.8**	**23,547.2**	**23,547.2**	**11,460.5**	**12,086.7**
All HP		209,952.4	32,605.5	236,033.0	641.3	479,232.1	222,188.5	222,188.5	209,952.4	12,236.0

10.3 H.C. x HF. Distribution of CHE 2017 by Healthcare Functions and Health Financing Schemes (Rs. Billion)

Sri Lanka Rupees (LKR)	Financing schemes	HF.1	HF.2	HF.3	HF.4	All HF.	Memorandum items			
	Sri Lanka Rupees (LKR), Million	Government schemes and compulsory contributory health care financing schemes	Voluntary health care payment schemes	Household out-of-pocket payment	Rest of the world financing schemes (non-resident)			Financing schemes and the related cost-sharing together	HF.RI.2 Governmental schemes and compulsory contributory health insurance schemes together with cost sharing (HF.1 + HF.3.2.1)	HF.RI.3 Voluntary health insurance schemes together with cost sharing (HF.2.1+HF.3.2.2)
Health care functions										
HC.1	**Curative care**	**184,884.5**	**31,541.7**	**136,611.4**	**46.8**	**353,084.4**	**197,096.1**	**197,096.1**	**184,884.5**	**12,211.6**
HC.4	**Ancillary services (non-specified by function)**			**27,184.7**		**27,184.7**				
HC.5	**Medical goods (non-specified by function)**		**13.0**	**65,882.5**		**65,895.4**	**13.0**	**13.0**		**13.0**
HC.6	**Preventive care**	**9,923.2**	**1,039.3**		**181.6**	**11,144.1**	**9,923.2**	**9,923.2**	**9,923.2**	
HC.7	**Governance, and health system and financing administration**	**5,013.4**				**5,013.4**	**5,013.4**	**5,013.4**	**5,013.4**	
HC.9	**Other health care services not elsewhere classified (n.e.c.)**	**10,131.3**	**11.5**	**6,354.4**	**412.9**	**16,910.1**	**10,142.8**	**10,142.8**	**10,131.3**	**11.5**
All HC		209,952.4	32,605.5	236,033.0	641.3	479,232.1	222,188.5	222,188.5	209,952.4	12,236.0

10.4 HC x H.P. Distribution of CHE 2017 by Healthcare Functions and Healthcare Providers (Rs. Billion)

Sri Lanka Rupees (LKR) *Sri Lanka Rupees (LKR), Million* Health care functions	Health care providers	HP.1 Hospitals	HP.3 Providers of ambulatory health care	HP.4 Providers of ancillary services	HP.5 Retailers and Other providers of medical goods	HP.6 Providers of preventive care	HP.7 Providers of health care system administration and financing	HP.nec Unspecified health care providers (n.e.c.)	All HP
HC.1	**Curative care**	**218,050.1**	**98,212.0**	**2,073.2**	**82.0**	**1,297.3**	**2,491.3**	**30,878.5**	353,084.4
HC.4	**Ancillary services (non-specified by function)**			**27,184.7**					27,184.7
HC.5	**Medical goods (non-specified by function)**	**5.0**			**65,882.5**			**7.9**	65,895.4
HC.6	**Preventive care**	**187.0**				**10,775.5**		**181.6**	11,144.1
HC.7	**Governance, and health system and financing administration**	**351.6**					**1,735.6**	**2,926.2**	5,013.4
HC.9	**Other health care services not elsewhere classified (n.e.c.)**	**1,300.0**		**299.5**		**1.1**		**15,309.6**	16,910.1
All HC		219,893.6	98,212.0	29,557.5	65,964.5	12,073.9	4,226.9	49,303.8	479,232.1

10.5 HF. x F.S. Distribution of CHE 2018 by Health Financing Schemes and Revenues of Healthcare Financing Schemes (Rs. Billion)

Financing schemes	Revenues of health care financing schemes *Sri Lanka Rupees (LKR), Million*	FS.1 Transfers from government domestic revenue (allocated to health purposes)	FS.2 Transfers distributed by Government from foreign origin	FS.3 Social insurance contributions	FS.5 Voluntary prepayment	FS.6 Other domestic revenues n.e.c.	FS.7 Direct foreign transfers	All FS
HF.1	**Government schemes and compulsory contributory health care financing schemes**	**250,603.80**	**7,724.22**	**4,858.00**				263,186.02
HF.2	**Voluntary health care payment schemes**				**11,177.99**	**22,332.13**		33,510.11
HF.3	**Household out-of-pocket payment**					**261,770.00**		261,770.00
HF.4	**Rest of the world financing schemes (non-resident)**						**634.08**	634.08
All HF		**250,603.80**	**7,724.22**	**4,858.00**	**11,177.99**	**284,102.13**	**634.08**	559,100.21
Memorandum items								
Financing schemes and the related cost-sharing together		**250,603.80**	**7,724.22**	**4,858.00**	**11,177.99**			274,364.00
HF.RI.2	Governmental schemes and compulsory contributory health insurance schemes together with cost sharing (HF.1 + HF.3.2.1)	**250,603.80**	**7,724.22**	**4,858.00**				263,186.02
HF.RI.3	Voluntary health insurance schemes together with cost sharing (HF.2.1+HF.3.2.2)				**11,177.99**			11,177.99

10.6 HP x HF. Distribution of CHE 2018 by Healthcare Providers and Health Financing Schemes (Rs. Billion)

Health care providers	Financing schemes *Sri Lanka Rupees (LKR), Million*	HF.1 Government schemes and compulsory contributory health care financing schemes	HF.2 Voluntary health care payment schemes	HF.3 Household out-of-pocket payment	HF.4 Rest of the world financing schemes (non-resident)	All HF.	Memorandum items	Financing schemes and the related cost-sharing together	HF.RI.2 Governmental schemes and compulsory contributory health insurance schemes together with cost sharing (HF.1 + HF.3.2.1)	HF.RI.3 Voluntary health insurance schemes together with cost sharing (HF.2.1+HF.3.2.2)
HP.1	Hospitals	188,063.51	166.91	43,216.61		231,447.04	188,230.43	188,230.43	188,063.51	166.91
HP.3	Providers of ambulatory health care		634.03	108,290.90		108,924.93				
HP.4	Providers of ancillary services	2,501.00		30,148.94		32,649.94	2,501.00	2,501.00	2,501.00	
HP.5	Retailers and Other providers of medical goods	70.00		73,066.29		73,136.29	70.00	70.00	70.00	
HP.6	Providers of preventive care	13,288.23	760.21			14,048.44	13,288.23	13,288.23	13,288.23	
HP.7	Providers of health care system administration and financing	47,854.31				47,854.31	47,854.31	47,854.31	47,854.31	
HP.nec	Unspecified health care providers (n.e.c.)	11,408.97	31,948.96	7,047.27	634.08	51,039.28	22,420.04	22,420.04	11,408.97	11,011.07
All HP		263,186.02	33,510.11	261,770.00	634.08	559,100.21	274,364.00	274,364.00	263,186.02	11,177.99

10.7 H.C. x HF. Distribution of CHE 2018 by Healthcare Functions and Health Financing Schemes (Rs. Billion)

Health care functions	Financing schemes *Sri Lanka Rupees (LKR), Million*	HF.1 Government schemes and compulsory contributory health care financing schemes	HF.2 Voluntary health care payment schemes	HF.3 Household out-of-pocket payment	HF.4 Rest of the world financing schemes (non-resident)	All HF.	Memorandum items	Financing schemes and the related cost-sharing together	HF.RI.2 Governmental schemes and compulsory contributory health insurance schemes together with cost sharing (HF.1 + HF.3.2.1)	HF.RI.3 Voluntary health insurance schemes together with cost sharing (HF.2.1+HF.3.2.2)
HC.1	**Curative care**	**237,055.04**	**21,735.36**	**151,507.51**	**4.96**	**410,302.86**	**237,218.48**	**237,218.48**	**237,055.04**	**163.44**
HC.4	**Ancillary services (non-specified by function)**			**30,148.94**		**30,148.94**				
HC.5	**Medical goods (non-specified by function)**		**9.28**	**73,066.29**		**73,075.57**	**9.28**	**9.28**		**9.28**
HC.6	**Preventive care**	**10,971.72**	**760.21**		**490.27**	**12,222.21**	**10,971.72**	**10,971.72**	**10,971.72**	
HC.7	**Governance, and health system and financing administration**	**3,009.41**			**15.44**	**3,024.85**	**3,009.41**	**3,009.41**	**3,009.41**	
HC.9	**Other health care services not elsewhere classified (n.e.c.)**	**12,149.84**	**11,005.26**	**7,047.27**	**123.41**	**30,325.79**	**23,155.11**	**23,155.11**	**12,149.84**	**11,005.26**
All HC		263,186.02	33,510.11	261,770.00	634.08	559,100.21	274,364.00	274,364.00	263,186.02	11,177.99

10.8 H.C. x H.P. Distribution of CHE 2018 by Healthcare Functions and Healthcare Providers (Rs. Billion)

Currency: Sri Lanka Rupees (LKR)

	Health care providers	HP.1	HP.3	HP.4	HP.5	HP.6	HP.7	HP.nec	All HP
Health care functions	*Sri Lanka Rupees (LKR), Million*	Hospitals	Providers of ambulato	Providers of ancillary	Retailers and Other	Providers of preventiv	Providers of health care	Unspecifi ed health care	
HC.1	Curative care	229,679.27	108,924.93	2,175.41	70.00	2,463.99	46,046.42	20,942.85	410,302.86
HC.4	Ancillary services (non-specified by function)			30,148.94					30,148.94
HC.5	Medical goods (non-specified by function)	3.47			73,066.29			5.81	73,075.57
HC.6	Preventive care	205.96				11,525.97		490.27	12,222.21
HC.7	Governance, and health system and financing administration						1,807.89	1,216.96	3,024.85
HC.9	Other health care services not elsewhere classified (n.e.c.)	1,558.33		325.60		58.47		28,383.39	30,325.79
All HC		231,447.04	108,924.93	32,649.94	73,136.29	14,048.44	47,854.31	51,039.28	559,100.21

This NHA report covers the current and capital expenditures incurred in Sri Lanka in 2017 and 2018. A separate NHA was prepared for each year. The data collection was carried out by the members of the NHA team with the help of 2 data collection assistants.

Data were processed and pre-coded using Microsoft Excel sheets. The Health Account Production Tool (HAPT) SHA 20111 (v 4.0.0.6) was used for the production of accounts.

10.9 Customization of NHAs

A separate account was prepared for each calendar year. The scope of the NHAs was limited to the following SHA 2011 classifications.

1. F.S.: R.I.- Institutional units providing revenues to financial schemes
2. F.S.- Revenues of health care financing schemes
3. HF.- Healthcare financing schemes
4. F.A.- Financing Agents
5. H.C.- Healthcare functions
6. H.P.- Healthcare providers
7. F.P.- Factors of provision
8. SNL- Sub-national
9. DIS- Classification of diseases /conditions
10. H.K.- Capital accounts
11. HC.RI.- Traditional. Complementary and Alternative Medicine (TCAM).

Current values of expenditures were used each year.

10.10 Data Sources and Data Collection

Data sources were identified based on the experiences gained during the production of NHA 2013. The request letters were sent to stakeholders to obtain the health expenditure data for the years concerned. All the data were gathered as secondary data.

Government data was gathered from the Accounts Division of the Ministry of Health. The provincial health expenditures were obtained from 2 sources: the Finance Commission and from respective accounts divisions of Provincial Directorates. The data from donors were obtained as secondary data. Donor and NGO data were gathered by sending direct requests to respective Donors and health-related NGOs registered in the NGO secretariat. NGO secretariat supported this activity. Expenditures related to NGOs that did not respond to the data request were imputed based on existing data on

expenditures. Employers' expenditures were also obtained as secondary data. Nonresponding employers had to be omitted.

Household out-of-pocket expenditures were obtained from the health component of the private consumption expenditure (PCE) estimates made by the Sri Lanka National Accounts. The Department of Census and Statistics, which prepare National Accounts, recently adjusted the base year of its estimates to 2010.

10.11 Data processing, importing, and mapping

Data obtained from different sources were organized in excel files, by making excel columns reflecting expenditure values and various descriptive and classification codes.

The mapping process was expedited by pre entering respective classification codes to the data columns that were matched for HAPT base column headings and executing the auto binding feature of the HAPT. Emphasis was made on reviewing any warning flags during the 'auto binding' and import process.

Post-data import mapping was carried out only for the expenditure items that were distributed across more than one classification category. For these items respective mapping assumptions/rules were identified on pro-rata basis that reflected attribution of funds to related expenditure categories. A repeat mapping feature was used to expedite the mapping of expenditure items with similar financial flows.

10.11.1 Mapping government data

Financial data of the Central Government institutions were available by each institution disaggregated as traditional budget categories (personnel emoluments, travelling, supplies etc.). This allowed most items to be easily assigned to a single classification category. However, mapping rules were required for Heath Care functions (H.C.), Disease (DIS) categories and Sub National (SNL) classifications of some (e.g. drugs) of the expenditure items.

The basis for creating mapping rules of H.C., DIS and SNL classifications were as follows.

A secondary database on disease burden as reflected by inpatient days and inpatient equivalents of outpatient visits were created using the data of the routine hospital information system (HIS). In Sri Lanka, each curative health institution routinely reports the number of admissions by ICD disease categories and the number of OPD visits. The average number of inpatient days by diseases (coded by ICD categories) were also available from a recently initiated electronic information system which covers around 80 % of total health institutions in Sri Lanka.

This secondary database comprising of total number of inpatient days by ICD disease categories spent at all curative care institutions in the year 2013 was created by applying the average number of inpatient days (IPDs) to the numbers of inpatient admissions taken from above mentioned hospital systems. This database provided the basis for identifying proportional allocation of inpatient days by broader disease groups (based on Global Burden of Diseases Classification) by health institutions situated in different districts.

The total number of OPD visits in each institution was also added to the same data file as an additional variable column. The number of these OPD visits was converted to IPD equivalents based on average OPD patient care cost to Inpatient care cost ratios calculated by Sri Lankan hospital cost center studies.

As routine information system does not record OPD visits by disease. This information was obtained from a special sample survey data conducted in 2013 to find out the OPD disease distributions. The study was carried out in a stratified cluster sample of OPD patients, who were distributed among 8 out of 25 districts and represented patients attending all major types of hospitals (teaching, general, base, Divisional and PMCU). OPD disease distributions by ICD classifications were obtained after analyzing this survey data, which reported diagnoses of OPD patients seen by medical officers.

The ratios of total inpatient days to inpatient equivalents of OPD visits in different types of curative care institutions were used to create mapping rules related to H.C. classification. Separate HC mapping rules were created for Teaching, Provincial and General Hospitals, Base Hospitals, Divisional Hospitals and Children's Hospitals

While preparing disease classifications for different types of curative care institutions, the proportional distribution of total inpatient days pertaining to the GBD groups were used as the basis. Separate mapping rules were created for Teaching, Provincial and General Hospitals, Base Hospitals, Divisional Hospitals, Children's Hospitals, and hospitals of Defense Forces.

Mapping rules for Disease disaggregation of OPD health services were based on the proportional distribution of OPD diagnoses by GBD classification. Considering clinical experience of many experts, OPD disease distribution patterns were assumed to be similar in all types of institutions.

Another mapping rule was created to reflect the overall disease distribution of the entire country. To create this, the IPD equivalents related to OPD visits paid for different illnesses were added to respective national inpatient day totals. The sum of inpatient days and corresponding inpatient equivalents of OPD visits pertaining to each disease was used as the pro rata basis for disaggregating expenditure items such as expenses borne by the Ministry of Health by Disease classifications.

As institutions in the data base could be easily identified by geographical distribution, the same data bases could be easily used to estimate disease distributions by districts. It was assumed that sub-national variations in disease distributions are too small for considering separate disease mapping rules per district (Sub-national unit). Hence, whenever necessary mapping rules for SNL distributions of curative health services were based on the proportional allocation of total patient days (IPD plus IPD equivalents of OPD visits) in each district. Sub National Level (SNL) distributions of expenditure borne by National Level Governance /Administration Institutions such as the Ministry of Health was based on the probabilities proportional to the sizes of the population in each district.

In Sri Lanka, all drugs used in government institutions are procured and distributed by the Medical Supplies Division of the Ministry of Health. A small proportion of drugs are locally purchased by hospitals. The total purchase cost of drugs, proportional distribution of drugs by major disease classes, types of institutions that received drugs were available.

One of the main constraints in describing expenditure patterns by diseases was the assumption that expenditure by diseases were proportional to the number of total inpatient days utilized by each type of illness. While it may be assumed that hotel costs (i.e. cost of accommodation, water, electricity and other utilizes) are proportional to the time spent in a hospital irrespective of the disease, the same

assumption may not be applicable to drug costs. In order to reduce this bias, overall drug cost reported by the MSD was redistributed as the cost of ear marked drugs that can be directly assigned to specific diseases or a disease group (e.g. surgical drugs that can be assigned by a special mapping rule based on surgical conditions). Only remaining drug costs were assigned by using total patient days-based mapping rules.

Separate mapping rules were created for assigning expenditure items related to different preventive programs implemented by the Ministry of Health to disease classifications. These mapping rules were created based on the service provision indicators reflecting shared contribution to different disease conditions focused by these programs.

10.11.2 Mapping household data

Household expenditure was estimated based on Private Final Consumption Expenditure estimates of the Sri Lanka National Accounts. The total amount of household expenditure obtained in this manner was further disaggregated as: Health expenses, Fees for private medical practices, Fees for Ayurveda practitioners, Consultation fees for specialists, payments to medical laboratories, payments to private hospitals/ nursing homes, purchase of medical/ pharmacy products, spectacles, hearing aids, scans, X-rays and others; based on proportional distribution of these items as enumerated by Household Income and Expenditure Survey (HIES) Sri Lanka 2016.

The same pro rata used for government inpatient and outpatient care expenses were also used to assign the expenses to disease classification in relevant categories of household expenditure. Mapping rules for SNL classifications were based on estimates of district level OOPs computed based on the district level per household expenses determined in HIES survey 2016.

10.11.3 Mapping employer data

It was assumed that OPD and inpatient disease patterns among employed people were more or less similar to the corresponding patterns observed in government hospital settings. Hence, the same disease mapping rules used to map government data were used for employer data as well. It was not possible to obtain the sub- national level distribution among employer healthcare receivers. The relative proportions related to the distribution of total number of employed populations in districts were used as a proxy variable that reflect distribution of employer based healthcare expenses.

10.11.4 Mapping insurance data

Databases maintained by two large insurance companies provided disease classification data required for creation of mapping rules related to disease classifications of insurance data. The mapping rules for SNL distribution of insurance data were based on the relative proportions of insurance premium purchase amounts by districts. These proportions were estimated based on the relative sizes of household expenditure related to purchase of insurance services by districts as estimated in HIES survey 2016.

10.12 Calculation of consumption of fixed capital

Consumption of fixed capital (CFC) for buildings, vehicles and equipment (Medical and other) and furniture belonging to the Ministry of Health were calculated for each year. The number and types of capital items that prevailed during the past years were listed by reviewing past annual health bulletins and other relevant reports. Then for each year, annualized capital cost (CFC) for corresponding items were calculated. Annualized capital cost was based on the following formula [7]:

$CFC_{it} = (RC_{it} / \text{Annualization factor}_{it})$

Where

CFD_{it} = Consumption of Fixed Capital of infrastructure item i in year t)

RC_{it} = Replacement cost of infrastructure item i at the end of year t =(Present cost * (1+ real r)

Real r = real interest rate = **[(1+nominal interest rate)/ (1+annula inflation)]-1**

Annualization factor = **$(1/r) \times [1 - (1 / (1+r)^{n})]$**:

where; r = real interest rate, n = life span of the infrastructure

Real interest rate was calculated using the nominal interest rates and inflation rates pertaining to each year. Life span of building were set at 60 years, while those for vehicles and equipment assumed to be 10 and 5 years respectively.

11 Conclusions

National Health Account 2017 & 2018 has described the healthcare financing from different perspectives as suggested by the WHO. It describes the source of funding, channeling of funding and the end users of funding in the complex and dynamic health system of the country. Disease specific expenditure is a dimension that only few countries had tried to emulate. This dimension is also available in the Sri Lanka National Health Account. Though it is a combined publication for years 2017 and 2018, it clearly gives the break down figures for each year separately. It is noteworthy that this production is done using WHO's Health Account Production tool (HAPT).

It is of the view of the NHA team that this production will help not only the Ministry of Health, Nutrition and Indigenous Medicine but also the private sector healthcare providers in their strategic planning for better delivery of healthcare in Sri Lanka.

NHA team plans to further improve the data collection methods and address any methodological concerns in its future productions.

12 References

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