

## Sri Lanka National Health Accounts 2013





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Health Economics Cell

Ministry of Health, Nutrition & Indigenous Medicine

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## Message of the Honourable Minister of Health

I take pride in sending this message on the occasion of launching the "National Health Accounts" for the year 2013 by the Ministry of Health, Nutrition and Indigenous Medicine. This is the first time the Ministry has compiled the National Health Accounts.

In striving towards achieving some of the common health care system goals of equity, efficiency and effectiveness, one of the key questions for policy makers is "How much do we spend on health, and is it measured in a comparable way?" National Health Accounts gives a complete picture of the health care financing of the country. Hence, this is a very important document for health policy makers. The importance is further augmented by the fact that this shows the positive effects of recent health financing strategies, on which the Government had recently allocated more funds for the health sector.

This Report will indicate where, and for what health services we should pay more attention from the perspectives of financing in addressing the country's disease burden.

Hon. Dr. Rajitha Senarathne

Minister of Health, Nutrition and Indigenous Medicine



# Message of the Secretary of the Ministry of Health, Nutrition and Indigenous Medicine

It is a pleasure to write a short message on publication of National Health Accounts 2013 by the Ministry of Health. This report fulfills a long felt need of the Ministry of Health, Nutrition and Indigenous Medicine to identify how the funds have been utilized for various diseases, hospitals and programs. It gives a coherent picture of the flow of funds through different channels.

National Health Accounts provides a range of information much demanded by the health analysts and policy makers. Thereby, it will help to guide policy formulation on health care expenditure.

Moreover, this report will be a useful text for any student, medical practitioner, medical administrator or medical specialist to apprehend the health care financing mechanisms in the country. Due to the use of an internationally accepted methodology in the preparation of this document, its usefulness go beyond the boundaries of Sri Lanka.

Finally, I would like to congratulate the team behind preparing this vital document.

Anura Jayawickrama Secretary Ministry of Health, Nutrition and Indigenous Medicine



#### Message of the Director General of Health Services

Health care systems in all countries continue to evolve in response to changing demographics and disease patterns, rapid technological advances and more and more complex financing and delivery mechanisms. Different countries in the world spend from 2% to 16% of GDP on health care expenditure.

To meet the increasing demand for health, policy makers need health expenditure information. A System of Health Accounts (SHA) proposed a framework for the systematic description of the financial flows related to Health Care. The aim of SHA is to describe the health care system from an expenditure perspective both for National and International purposes.

This document, National Health Accounts (NHA) 2013 Sri Lanka; will be immensely useful not only for Health policy makers but for practicing health managers, preventive specialists, clinicians and students studying health finance.

NHA 2013 had highlighted an important message; that the Government of Sri Lanka, is the largest health care producer to the nation, accounting for 55% of the total Health care provision of the country.

It is my duty to thank the entire team behind this report, who worked tirelessly under difficult circumstances to make it a success. In future, producing a National Health Accounts will be absorbed in to the routine health system.

Dr. P. G. Mahipala

Director General of Health Services

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Several other organizations helped us in collecting the data. Chairman and staff of the Insurance Board of Sri Lanka, Registrar of Companies, CEOs of Insurance companies and other Corporates and Banks are appreciated for providing the relevant data in preparation of NHA 2013.

Heads of UN 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 data timely for NHA.

Also officials from the Central Bank of Sri Lanka and Department of Census and Statistics have extended their fullest support in the preparation of NHA.

The NHA team also acknowledge all the officials from the Central and Provincial Health Ministries, who contributed to NHA production by providing relevant information and other inputs in data gathering process.

We hope we will get the same unstinted support in the future too, in preparation of National Health Accounts.

#### **Abbreviations**

AIDS	Acquired Immune Deficiency Syndrome	ICHA	International Classification of Health
CF	Capital Formation		Accounts
CHE	Current Health Expenditure	IEC	Information Education and Communication
CNS	Central Nerves System	IHAT	International Health Accounts Team
cvs	Cardio Vascular System	INGO	International Non-Government
DIS	Classification of Diseases / Conditions		Organizations
ENT	Ear, Nose, Throat	IPD	In Patient Days
FA	Financing Agents	LKR	Sri Lankan Rupees
FP	Factors of Health Care Provision	MCH FP	Maternal and Child Care and Family Planning
FS	Revenues of Health Care Financing Schemes	MSD	Medical Supplies Division
FS.RI	Institutional Units Providing Revenues to	n.e.c	not elsewhere classified
	Financial Schemes	NCD	Non Communicable Diseases
GBD	Global Burden of Diseases	NGO	Non-Government Organizations
GDP	Gross Domestic Product	NHA	National Health Accounts
GHED	Global Health Expenditure Database	NPISH	Non-Profit Institutions Serving
GP	General Practitioners		Households
HAAT	Health Account Analysis Tool	OOPS	Out of Pocket Spending
HAPT	Health Accounts Production Tool	OPD	Out Patient Department
НС	Health Care Functions	PMCU	Primary Medical Care Unit
HC.RI	Traditional, Complementary and	SHA	System of Health Accounts
	Alternative Medicine	SNL	Sub National Level
HF	Financing Schemes	STD	Sexually Transmitted Diseases
HIES	Household Income and Expenditure Survey	ТВ	Tuberculosis
HIS	Health Information System	TCAM	Traditional, Complementary and Alternative Medicine
HIV	Human Immunodeficiency Virus	US\$	United States Dollars
HK	Capital Account	WHO	World Health Organization
HP	Health Care Providers		Š
ICD	International Classification of Diseases		

#### **Executive Summary**

The National Health Accounts provides a systematic process to monitor the flow of money in the health sector. National Health Accounts 2013- Sri Lanka, systematically describes the financial flows related to the consumption of health care goods and services by Sri Lankan residents in 2013.

The first ever attempt of the Ministry of Health Sri Lanka to produce a National Health Accounts is fulfilled with the publication of this report. The report is based on the System of Health Accounts 2011, an internationally accepted methodology advocated by World Health Organization to prepare comparable National Health Accounts across countries.

The National Health Accounts 2013 report encompasses both current health expenditure and expenditures incurred on capital formation in Sri Lanka during the year 2013. It describes the expenditure along 11 expenditure classifications including expenditure by diseases.

National Health Accounts 2013 revealed that the total Current Health Expenditure of the year 2013 in Sri Lanka was 260 billion, while further Rs. 21 billion was invested on Capital formation. Taken together, these two types of health expenditures accounted for 3.2% of the GDP of the country for that year. Per capita current health expenditure was Rs. 12,636 (97.20 US\$).

The report recognizes that the government is the main financier of the health care expenditure. The government was responsible for providing 55% of total current health expenditure, while households

out of pocket expenditure contributed for further 40%.

By utilizing 91%, curative care functions (both government and private sectors) dominated the utilization of current health expenditure. Preventive care expenditures utilized 4.5%.

Collectively non communicable diseases consumed the largest share, 35%, of current health expenditure, while infectious and parasitic diseases consumed further 22%.

Macroscopically, current health expenditure shows a fairly equal distribution across most districts with the exception of districts from Western and Northern Provinces.

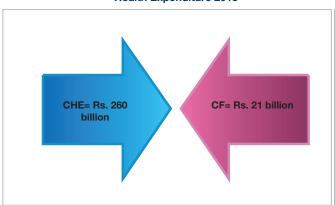
Hospitals as providers of health care, accounted for the largest share of current health expenditure by utilizing 57%.

Remunerations for health system employees and self-employed professionals such as general practitioners accounted for 37% of current health expenditure. Pharmaceutical cost was 24% of current health expenditure.

Traditional and complementary medicine services collectively provided health services worth of Rs. 2.3 billion.

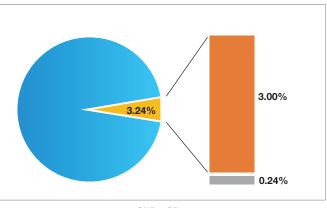
#### NHA 2013: Graphical Highlights

#### **Health Expenditure 2013**



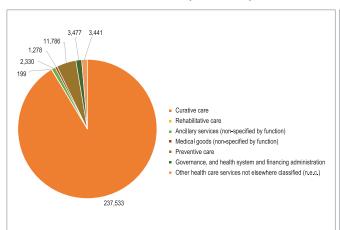
(CHE: Current Health Expenditure, CF: Capital Formation)

#### Health Expenditures in 2013 as a percentage of GDP

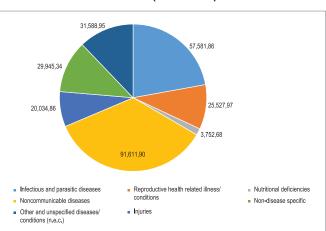


■ CHE ■ CF

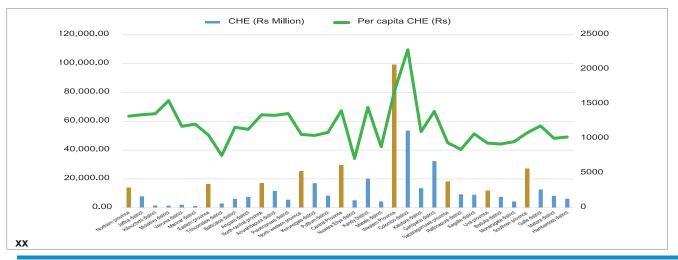
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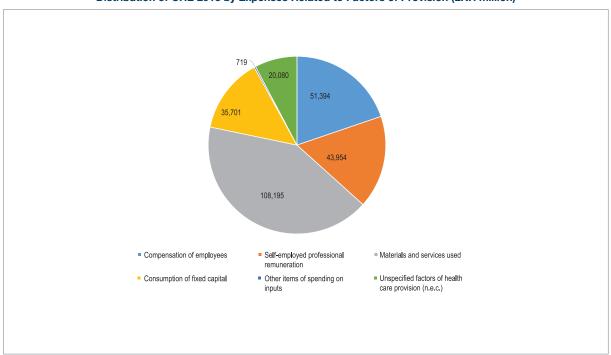
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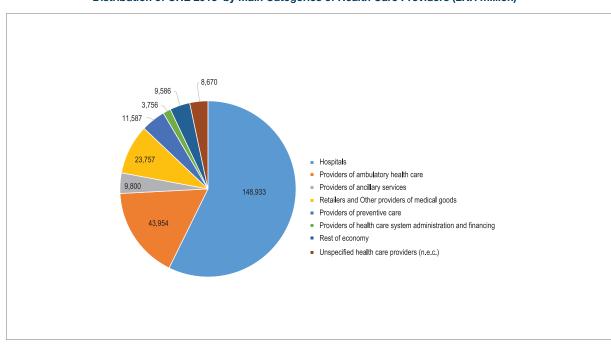
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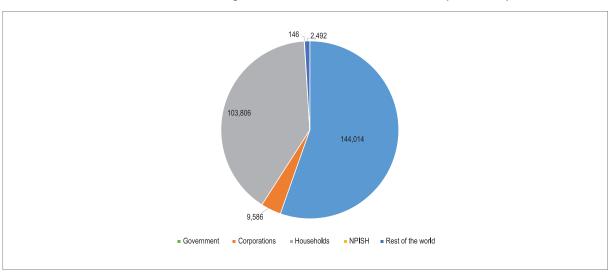
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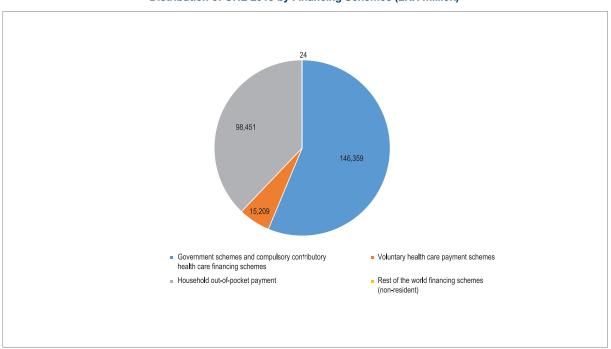
#### Distribution of CHE 2013 by Main Categories of Health Care Providers (LKR million)



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#### 01. Introduction

National Health Accounts (NHA) can be viewed as a systematic description of the financial flows related to the consumption of health care goods and services by the residents of a given country during a defined period of time. NHA becomes an indispensable tool required for good governance and decision making related to health system administration. It helps policy makers to capture financial flows related to health care provision, evaluate the financial gaps and appropriateness of spending in relation to access, epidemiology, dependency, and many other important aspects (1).

System of Health Accounts 2011 (SHA 2011) introduces the latest internationally accepted standard guidelines on producing national health accounts. It provides a framework for the systematic description of the financial flows related to a health system based on an array of classifications. These classifications focus on various policy related questions, such as, who provides funds for health care expenses, what kinds of mechanisms and agencies exist to channel these funds, what institutions provide health care using these funds, how these funds are distributed by different health care functions, diseases, geographical areas, age, gender and factors of provision etc. System of Health Accounts 2011 methodology advocates separate analysis of current health expending and capital formation along the angles defined by these classifications (1).

This report presents the methods and findings of the first National Health Accounts prepared by the Ministry of Health Sri Lanka. The NHA 2013, Sri Lanka, is also the first attempt of NHA production in Sri Lanka that was carried out following the guidelines of the System of Health Accounts 2011 (SHA 2011) using the software: Health Accounts Production Tool (HAPT) (2).

## 1.1 The Health Financing System of Sri Lanka

National Health Accounts 2013 Sri Lanka focuses, expenditures and investments related to health care needs of approximately 20.5 million resident population in the country. In 2013, government health system, alone reported approximately 5.9 million in-patient admissions and 53.8 million outpatient visits. The total number of patient load of the country is much larger than these figures, as a large number of patients seek care at private sector institutions. Lack of data on private health care precluded the quantification of the total number of patients.

Government health system also invests on several preventive health care programmes. Interventions carried out by these programmes included the provision of antenatal care to approximately 375,000 pregnant women, immunization, growth monitoring, nutrition and development promotion of nearly 2 million children, and provision of family planning to around 1.7 million women in reproductive ages. Furthermore, control of Malaria, Dengue, STD /AIDS, other communicable diseases, non-communicable disease and other emerging diseases were also included under the preventive care programmes.

In Sri Lanka, the government, households, employers, insurance companies, international donors and local NGOs are the funders of health

care expenses. They are engaged in a complex arrangement of financial schemes to guide the collection and pooling of money, and purchasing of health services. Government and private providers together were engaged in provision of both basic and intensive healthcare, which was almost universally accessible. Figure 1 depicts a schematic representation of financial flows related to the health financing system of Sri Lanka.

By maintaining free health care services that provide an indiscriminate access to all citizens, Sri Lankan government is the principle agency that bears the largest amount of health care expenses. The government has several financial arrangements (Financing Schemes) for managing, collecting, pooling of revenues and purchasing/producing health care 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 units), hospitals managed by Ministries of Defense (i.e. Army, Navy, Air force Hospitals, and Police hospital), and Justice (i.e. Prison hospitals). In addition, the government operates another financial arrangement identified as State/Regional/Local government scheme that manages finances related to health care services implemented by Provincial Governments (i.e. health care provided by Base Hospitals, Divisional Hospitals, Primary Care Units and Medical Officer of Health Units) and Local Governments (Municipal Council and Pradeshiya Sabha health clinics and other health related activities).

Funds for the Provincial and Local Government institutions are usually channeled through the

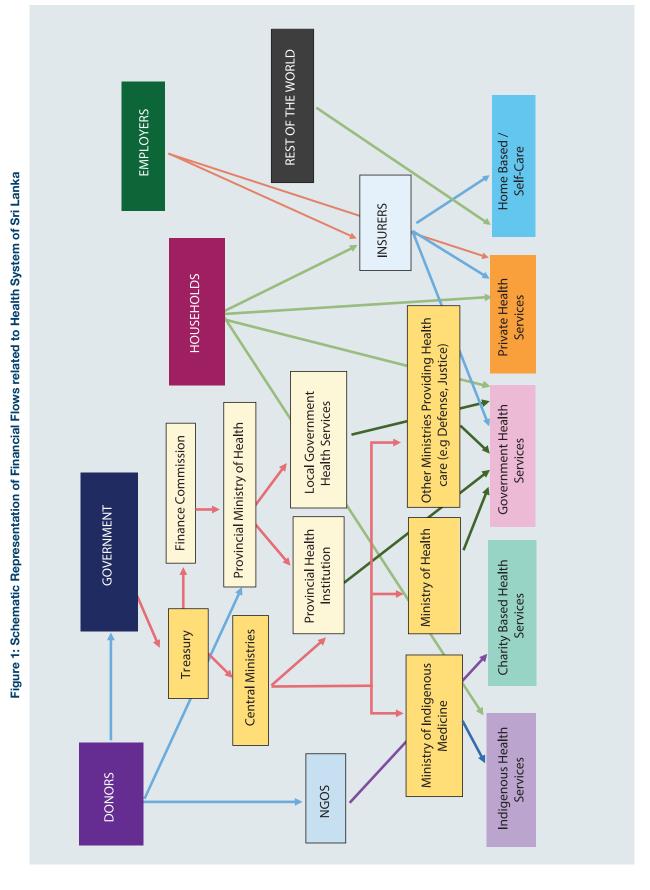
Finance Commission, while the funds related to central institutions are directly channeled through the budgets of respective ministries. In addition, the Central Ministry of Health directly channels a considerable amount of funds to provincial level institutions.

Moreover the Local Governments use funds generated by themselves for the provision of health services by their institutions. However, provincial heath budgets reimburse the salaries of health staff attached to the above mentioned Local Government Health Institutions.

A very small proportion of health care services provided to residents are managed by a financial arrangement recognized as *Rest of the World (RoW) Financing Scheme*. Financial arrangements handled by non-resident financing agents belong to this category. e.g. A resident in Sri Lanka purchases an insurance policy sold by a foreign insurance company and obtains payments for health care.

In Sri Lanka, the Ministry of Indigenous Medicine also implements a separate free of charge health care services. This system is financed by separate budgetary allocations assigned to the Ministry of Indigenous Medicine. System of Health Accounts 2011 advocates separate recognition of the health expenses related to indigenous medicine as HC:RI- Traditional. Complementary and Alternative Medicine (TCAM).

Usually, the government financing schemes are funded through domestic taxation.



Foreign Governments and International Non-Governmental Organizations (INGOs) contributed a much smaller proportion of revenue in terms of transfers to the Government Schemes.

Households in Sri Lanka also share a considerable burden of health care financing as Out-of-Pocket Spending (OOPS). Several distinct categories of OOPS can be identified. They include, payments for private outpatient care (general and specialized care), payments for private in patient care, payments for 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 payments by households include purchases of health insurance premiums.

Private corporations also participate in health care service provision for their employees and family members. Corporations either purchase group insurance schemes, reimbursement schemes or maintain their own health care facilities. In SHA 2011, corporate health financial arrangements are identified as *Enterprise Financing Schemes*.

In Sri Lanka there are 2 main insurance schemes for health care. The insurance scheme devoted to government employees is called "Agrahara fund" and several private companies in the country operate *voluntary contributory health insurance schemes*.

The contribution of Non-Profit Institutions Serving Households (NPISH) to health care financing 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 principle form of donor fund channeling in Sri Lanka is through government schemes. In addition donors provide funds to local NGOs. Though their contribution is small, some donors participate in direct service provision activities as well.

#### 1.2 System of Health Accounts 2011 and Health Account Production Tool

System of Health Accounts 2011 (SHA 2011) aims to standardize the process of production of health accounts in a defined territory. By defining boundaries based on a functional classification of health care services and goods, SHA 2011 facilitates the production of comparable health accounts both across countries, regions and between different periods. Health Accounts Production Tool, (HAPT) is a public domain windows based software program that can be used to digitalize health account details in a systematic manner and thereby facilitates the efficient production of health accounts. Health Accounts Production Tool is designed to be used with SHA 2011 having in-built classifications which are extended even beyond SHA 2011 taking country requirements into account.

HAPT requires data that are collected and collated according to SHA principles. Users of HAPT have to define classifications to be used in the country and identify data sources. Data from different sources

have to be gathered, processed and entered into the tool enabling a process called "mapping" to collate these data by different SHA classification characteristics. Successful completion of mapping allows creating of various tables and graphs related to health accounts.

Another software named Health Account Analysis Tool (HAAT) (3) helps to analyze health accounts data in relation to non-health indicators by synchronizing with the Global Health Expenditure Data base (GHED).

System of Health Accounts 2011 principles envisage a particular health financing system through three primary dimensions. They include: 1) Consumer Interphase 2) Provider Interphase and 3) Financing Interphase.

National Health Accounts 2013 study presented in this report used eleven SHA 2011 classifications, which attempt to answer various policy questions related to financial flows of Sri Lankan health financing systems. These questions and corresponding SHA 2011 classifications (presented within brackets) are as follows:

#### **Consumer Interphase**

- a. How health expenses are distributed by different health care functions (*HC- health* care functions)
- b. What amounts of national health expenses are spent on different types of illnesses (DIS- Classification of disease/conditions)

c. How national health expenses are disaggregated geographically (SNL: Sub National Level)

#### **Provision Interphase**

- a. What kinds of health care providers exist in Sri Lanka and how much money is paid for or utilized by these providers? (HP- Health care providers)
- b. What are the different cost elements in the Sri Lankan health system (e.g. Salaries of health workers, drug cost, and laboratory service cost etc.) and how health expenses are distributed among these elements? (FP: Factors of health care provision)

#### **Financing Interphase**

- a. Which institutions in Sri Lanka provide revenues for health care and services utilized by residents? (FS:RI- Institutional units providing revenues to financial schemes)
- b. What type of mechanisms are used in mobilizing revenues in various financing schemes and how much money is channeled through these mechanisms? (FS-Revenues of health care financing schemes)

- c. What kinds of financing arrangements (schemes) are available in the health system of the country and how much money is handled by each scheme? (*HF- Financing schemes*)
- d. Which agents manage health funds belonging to different financing schemes and what are the amounts handled by different agents? (FA- Financing agents)

In addition, NHA 2013 Sri Lanka focuses on separate classifications to describe financial allocations related to capital formation (*HK-Capital account*) and expenses for providing indigenous medicine (*HC:RI- Traditional. Complementary and Alternative Medicine (TCAMI*).

Please refer the section on methodology (Section 04) for more details on the process of production of NHA 2013.

#### 02. National Health Accounts 2013

In National Health Accounts 2013; health expenditures are considered under three main dimensions. These include the classifications of health care functions, health care providers, and health financing schemes. These three dimensions are related to 3 core questions:

a) What kinds of health care goods and services are consumed and what proportions of health expenditure is devoted to them?

- b) Which health care providers deliver these goods and services and what proportions of health care expenditures are consumed by them?
- c) Which financing schemes pay for these goods and services?

Each of these dimensions has further elaborated classifications as depicted in Figure 2.

The following sections present the salient findings related to the above dimensions based on the Sri Lanka National Health Accounts 2013. (Standard detailed NHA tables are presented at the end).

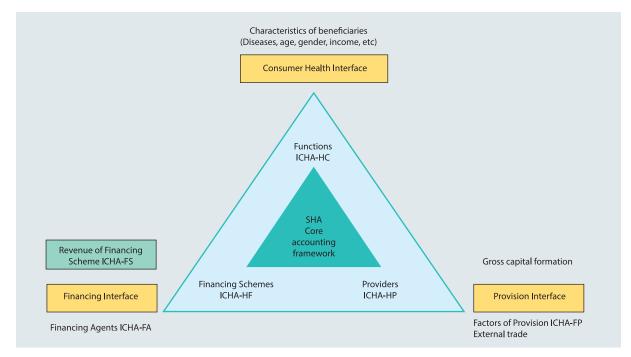


Figure 2: The Core and Extended Accounting Frameworks of SHA 2011

Source: IHAT for SHA 2011.

#### 2.1 Overall Health Expenses

SHA 2011, distinctly identifies 2 main element of health expenditures: Current Health Expenditure (CHE) and expenditure incurred for Capital Formation (CF).

CHE includes all forms of expenditure made by households, the Government, Enterprises and other NPISH 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 final consumption expenses made by households to directly purchase health services from private sector providers, the cost of health services and goods provided to households free of charge by the government, employers and NPISH institutions. In the case of the government, employers and NPISH provided health services, the expenditure consists of the sum of intermediate consumption, compensation of employees, taxes (less subsidies), and the consumption of fixed capital. 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 above health care providers.

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

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

## 2.1.1 Current Health Expenditure (CHE)

As per National Health Accounts 2013, approximately Rs. 260 billion (260,043,560,460) have been spent on providing health services and goods for Sri Lankan residents in 2013. This amount constitutes the expenses borne by all types of stakeholders: The Government, Households, Employers and NGOs. According to SHA 2011 guidelines this expenditure is defined as Current Health Expenditure (CHE) for the year 2013. This figure excludes the expenditures made on capital asset formation.

#### 2.1.2 Capital Formation (CF)

The money invested as capital formation (CF) amounts to Rs. 21 billion (21,105,766,000) in 2013. This amount reflects capital investments borne by the government, Donors, NGOs and private sector providers.

When, both current expenditure and capital investment considered together, around Rs. 281 billion (281,149,326,460) have been spent for health care purposes of Sri Lankan residents in 2013.

## 2.1.3 Health Expenditure as a Percentage of GDP

Sri Lanka's GDP for 2013 is reported as Rs. 8,674 billion (in market prices) (4). Figure 3 compares 3 types of health expenditures: Current Health Spending (CHE), Capital Formation (CF) and these two types of expenditures together as a percentage of GDP in 2013.

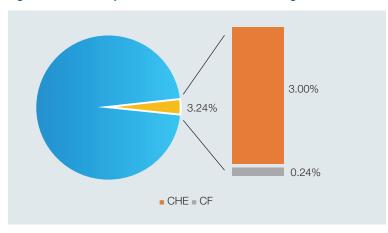


Figure 3: Health Expenditures in 2013 as Percentage of the GDP

(CHE: Current Health Expenditure, CF: Capital Formation)

As illustrated in Figure 3, in 2013 Current Health Expenditure (CHE) was around 3% and Capital Formation (CF) was around 0.24% of GDP respectively. Both current health and capital formation expenditures, taken together, equal to the 3.2% of the 2013 GDP.

In the same year the contribution of the Government to CHE was around 1.68% of GDP, while that for the CF was around 0.24% of GDP. In absolute figures a total of Rs. 165 billion were spent for CHE and CF, by the Government.

#### 2.1.4 Per capita Health Expenditure

Considering all financial sources, per capita current health expenditure of Sri Lanka in 2013 amounted to Rs. 12,636 (97.2 US\$). When CHE and CF expenses taken together, per capita expenditure in 2013 rose to Rs. 13,661 (105.09 US\$). Table 1 below indicates detailed per capita health expenditure.

**Table 1: Per Capita Health Expenditure in 2013** 

Indicator	Per Capita Expenditure		
maleato.	Sri Lankan (Rs)	US (\$)	
Annual per capita Current Health Expenditure (All sources)	12,636	97.20	
Annual per capita Capital Expenditure (All sources)	1,026	7.89	
Annual per capita Total Expenditure (All sources)	13,662	105.09	
Annual per capita Current Health Expenditure (GOSL)	7,112	54.71	
Annual per capita Capital Expenditure (GOSL)	925	7.11	
Annual per capita Total Expenditure (GOSL)	8,037	61.82	

# 2.2 Consumer Perspectives of the National Health Accounts 2013

Analysis of national health expense by consumer perspectives provides useful policy insights. These perspectives include: what kind of health care are utilized by residents and at what costs (Health Care Functions classification), how the national health expenditure is disaggregated by different illnesses (Disease Classifications), and is the health expenditure pattern varied by geographical area (Sub National Classification).

#### 2.2.1 Health Care Functions (HC)

Function, by financial terms means a type of need that a financial transaction aims to achieve. Figure 4 illustrates how the CHE in 2013 is divided by broader health care functions based on various health care needs of Sri Lankan residents.

Curative care includes both in-patient and outpatient care provided by government and private hospitals and ambulatory care provided by self-employed professionals including general medical practitioners, medical specialists, or other paramedical service providers.

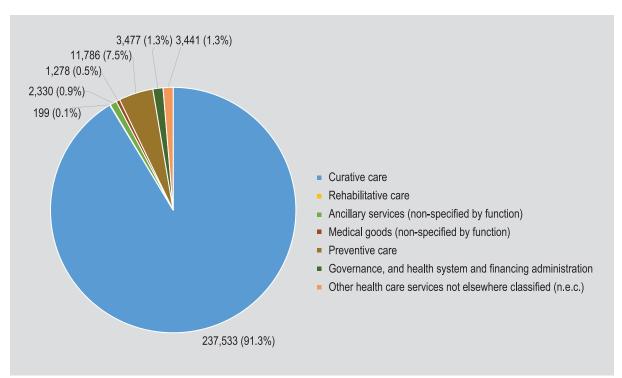


Figure 4: Distribution of CHE 2013 according to different Health Care Functions (LKR millions, %)

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.

"Medical goods non-specified by function" denotes therapeutic appliances, spectacles and hearing aids.

The nature of the structuring of Sri Lankan preventive care programs precluded the accounting, as per SHA 2011 categories of preventive care which are based on intervention based divisions (e.g.

information, education, counselling, immunization, etc.). Therefore, this section was revised to include categories that represent the existing preventive care service arrangement in the country (e.g. MCH FP preventive program, STD/AIDS control programme, Vector control programme, etc.).

The findings shows that nearly 91% of CHE in 2013 was spent on purchasing or producing the services that fulfilled the curative care needs of Sri Lankan residents. It is important to note that only 4.5 % of CHE has been invested in preventive care services.

Table 2 presents the detailed distribution of CHE 2013 by Health Care Functions.

Table 2: Distribution of CHE 2013 by Health Care Functions (LKR millions)

	Health care functions		Sri Lanka Rupees (LKR), Million	% of CHE
HC.1		Curative care	237,532.52	91.3
HC.1.1		Inpatient curative care	145,433.25	55.9
	HC.1.1.1	General inpatient curative care	10,415.26	4.0
	HC.1.1.2	Specialised inpatient curative care	135,017.99	51.9
HC.1.3		Outpatient curative care	84,615.95	32.5
	HC.1.3.1	General outpatient curative care	48,841.50	18.8
	HC.1.3.3	Specialised outpatient curative care	11,692.49	4.5
	HC.1.3.nec	Unspecified outpatient curative care (n.e.c.)	24,081.96	9.3
HC.1.nec		Unspecified curative care (n.e.c.)	7,483.32	2.9
HC.2		Rehabilitative care	198.76	0.1
HC.2.1		Inpatient rehabilitative care	198.76	0.1
HC.4		Ancillary services (non-specified by function)	2,329.83	0.9

#### Cont..

	Health care funct	ions		Sri Lanka Rupees (LKR), Million	% of CHE
HC.4.1			Laboratory services	121.50	0.05
HC.4.2			Imaging services	1,336.39	0.5
HC.4.nec			Unspecified ancillary services (n.e.c.)	871.94	0.3
HC.5			Medical goods (non-specified by function)	1,277.76	0.5
HC.5.2			Therapeutic appliances and Other medical goods	1,277.76	0.5
	HC.5.2.1		Glasses and Other vision products	957.71	0.4
	HC.5.2.2		Hearing aids	320.05	0.1
HC.6			Preventive care	11,786.44	4.5
HC.6.1			Information, education and counseling (IEC) programmes	143.94	0.1
	HC.6.1.1		Addictive substances IEC programmes	1.33	0.001
	Н	IC.6.1.1.nec	Other and unspecified addictive substances IEC programmes (n.e.c.)	1.33	0.001
	HC.6.1.2		Nutrition IEC programmes	8.59	0.003
	HC.6.1.5		Health education programme	134.02	0.1
HC.6.2			Immunisation programmes	1,013.37	0.4
HC.6.5			Epidemiological surveillance and risk and disease control programmes	737.76	0.3
	HC.6.5.1		Epidemilogical surveillance & communicable disease control	107.98	0.04
	HC.6.5.2		Monitoring & Evaluation (M&E)	0.77	0.0003
	HC.6.5.3		Procurement & supply management	257.80	0.1
	HC.6.5.5		STD/AIDS control programme	144.24	0.1
	HC.6.5.6		Vector borne disease control programme	202.66	0.1
	HC.6.5.7		Prograames of other communicable disease control	0.24	0.0001
	HC.6.5.8		Cancer control programme	0.20	0.0001
	HC.6.5.9		Other NCD control programmes	23.86	0.01
HC.6.7			MCH -FP programme (preventive)	9,345.64	3.6
HC.6.nec			Unspecified preventive care (n.e.c.)	545.74	0.2

#### Cont..

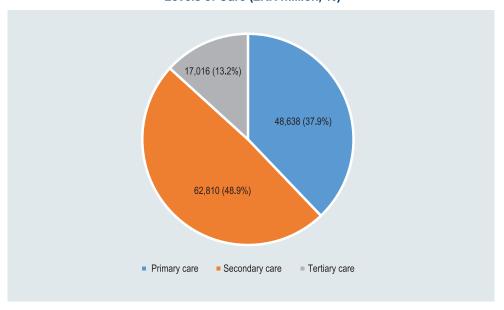
	Health care functions		Sri Lanka Rupees (LKR), Million	% of CHE
HC.7		Governance, and health system and financing administration	3,477.26	1.3
	HC.7.1	Governance and Health system administration	3,477.26	1.3
	HC.7.1.1	Planning & Management	2,406.97	0.9
	HC.7.1.3	Procurement & supply management	43.19	0.02
	HC.7.1.nec	Other governance and Health system administration (n.e.c.)	1,027.09	0.4
HC.9		Other health care services not elsewhere classified (n.e.c.)	3,440.99	1.3
All HC			260,043.56	100

Approximately Rs. 237.5 billion were spent on the curative care services provided by all types of service providers in 2013.

Hospitals under the Ministries of Health, Defense, and Justice collectively utilized Rs. 128 billion for

curative care services. The Figure 5, analyses how these expenditures were divided among different levels of care (Primary, secondary, and Tertiary level of care).

Figure 5: Distribution of Curative Care Expenditure by all Government Hospitals in 2013 by Levels of Care (LKR million, %)



The chart shows that most expenses on curative services were spent in specialist care hospitals (either Secondary or Tertiary). This observation is commensurate with the health seeking behaviors of residents, who often tend to bypass primary health care services and seek treatment at higher level hospitals.

Expenditure of around Rs. 9.8 billion were reported as spent on laboratory services, medical imaging and other ancillary services. However, it should be noted that the total expenditure on ancillary services may be much higher than this amount as similar services integrated in to curative care packages are already embedded as curative

care cost. Therefore, Rs. 9.8 billion represents the amounts directly spend on above services as self-prescribed purchases or services externally purchased as supplementary additions to curative care packages.

## 2.2.2 Current Health Expenditure by Diseases/Conditions

The following graph shows the disaggregation of CHE by a classification of diseases and conditions based on Global Burden of Diseases (GBD).

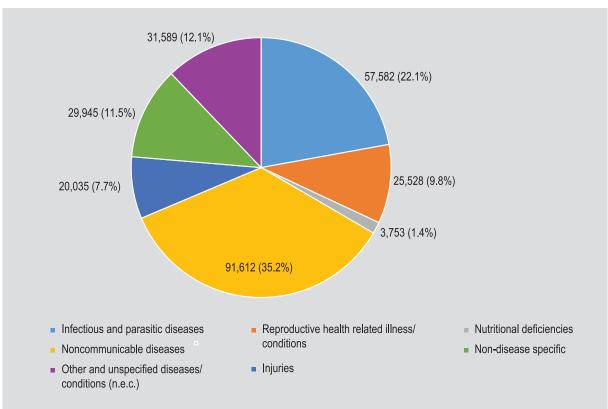


Figure 6: Distribution of CHE 2013 by Broader Categories of illnesses (LKR million, %)

This analysis shows that the largest share of CHE 2013 was attributed to non-communicable diseases (35%) followed by Infectious and parasitic diseases (22%). Reproductive health services accounted for nearly 10% of health expenditures, while injuries required 7.7%.

The table 3 presents more detailed description of disease related cost in 2013.

Table 3: Current Health Expenditure 2013 by Major Illness Groups

Class	ification of disea	ses / conditions		Sri Lanka Rupees (LKR), Million	% of CHE
DIS.1			Infectious and parasitic diseases	57,581.86	22.1
DIS.1.1			HIV/AIDS and Other Sexually Transmitted Diseases (STDs)	173.65	0.1
	DIS.1.1.1		HIV/AIDS and Opportunistic Infections (OIs)	137.34	0.1
		DIS.1.1.1.1	HIV/AIDS	94.84	0.04
		DIS.1.1.1.2	TB/HIV	14.17	0.01
		DIS.1.1.1.3	Other OIs due to AIDS	14.17	0.01
		DIS.1.1.1.nec	Unspecified HIV/AIDS and OIs (n.e.c.)	14.17	0.01
	DIS.1.1.2		STDs Other than HIV/AIDS	22.12	0.01
	DIS.1.1.nec		Unspecified HIV/AIDS and Other STDs (n.e.c.)	14.20	0.01
DIS.1.2			Tuberculosis (TB)	1,026.24	0.4
	DIS.1.2.1		Pulmunoray TB	906.53	0.3
		DIS.1.2.1.1	(PULMONARY TB)Drug-Sensitive Tuberculosis (DS-TB)	906.53	0.3
	DIS.1.2.2		Extra pulmunoray TB	119.71	0.05
DIS.1.3			Malaria	89.43	0.03
DIS.1.4			Respiratory infections	29,294.05	11.3

	Classification of diseas	ses / conditions	Sri Lanka Rupees (LKR), Million	% of CHE
DIS.1.5		Diarrheal diseases	4,321.44	1.7
DIS.1.6		Neglected tropical diseases	2,290.90	0.9
	DIS.1.6.1	Dengue illness	2,150.31	0.8
	DIS.1.6.nec	Other Neglected tropical diseases	140.59	0.1
DIS.1.7		Vaccine preventable diseases	1,157.03	0.4
DIS.1.nec		Other and unspecified infectious and parasitic diseases (n.e.c.)	19,229.12	7.4
DIS.2		Reproductive health	25,527.97	9.8
DIS.2.1		Maternal conditions	15,756.44	6.1
DIS.2.2		Perinatal conditions	3,973.40	1.5
DIS.2.3		Contraceptive management (family planning)	2,024.37	0.8
DIS.2.nec		Unspecified reproductive health conditions (n.e.c.)	3,773.75	1.5
DIS.3		Nutritional deficiencies	3,752.68	1.4
DIS.4		Noncommunicable diseases	91,611.90	35.2
DIS.4.1		Neoplasms	5,945.50	2.3
DIS.4.2		Endocrine and metabolic disorders	3,663.59	1.4
	DIS.4.2.1	Diabetes	2,913.88	1.1
	DIS.4.2.nec	Other and unspecified endocrine and metabolic disorders (n.e.c.)	749.71	0.3
DIS.4.3		Cardiovascular diseases	12,364.33	4.8
	DIS.4.3.1	Hypertensive diseases	2,201.55	0.8
	DIS.4.3.nec	Other and unspecified cardiovascular diseases (n.e.c.)	10,162.78	3.9
DIS.4.4		Mental & behavioural disorders, and Neurological conditions	8,316.77	3.2
	DIS.4.4.1	Mental (psychiatric) disorders	3,098.85	1.2
	DIS.4.4.2	Behavioural disorders	3.01	0.001
	DIS.4.4.3	Neurological conditions	4,929.65	1.9

	Classification of diseases / (	conditions	Sri Lanka Rupees (LKR), Million	% of CHE
	DIS.4.4.nec	Unspecified mental & behavioural disorders and neurological conditions (n.e.c.)	285.26	0.1
	DIS.4.5	Respiratory diseases	24,014.86	9.2
	DIS.4.6	Diseases of the digestive	9,555.23	3.7
	DIS.4.7	Diseases of the genito-urinary system	5,799.12	2.2
	DIS.4.8	Sense organ disorders	7,319.49	2.8
	DIS.4.9	Oral diseases	480.80	0.2
	DIS.4.nec	Other and unspecified noncommunicable diseases (n.e.c.)	14,152.19	5.4
DIS.5		Injuries	20,034.86	7.7
DIS.6		Non-disease specific	29,945.34	11.5
DIS.nec		Other and unspecified diseases/conditions (n.e.c.)	31,588.95	12.1
All DIS			260,043.56	100

Excluding non-disease specific and unidentified disease conditions, the highest share of 2013 CHE has been incurred by respiratory infections (11.4%). Further, 9.3% of CHE was spent on non-infective respiratory diseases such as Asthma and Bronchiectasis, making respiratory system related diseases are the largest cost driver of 2013 CHE. These 2 conditions together consumed nearly Rs. 53 billion worth of health goods and services. Injuries ranked the third place in terms of CHE by consuming nearly Rs. 19.8 billion.

## 2.2.3 Sub National Current Health Expenditure (SNL)

Table 4 and Figure 7 present the CHE 2013 by sub national levels. The largest share of CHE was

reported from Colombo district which includes the capital city, followed by Gampaha, Kandy and Kurunegala districts. These are the districts with largest shares of the population of the country. Several largest specialist hospitals are also situated in these districts. Further the highest per capita CHE is reported from the Colombo district. The lowest per capita expenditures were reported from Rathnapura and Trincomalee districts. However, as indicated by more or less horizontal aligning of per capita distribution lines across districts, CHE seems to have a reasonably fair distribution. The deviations can mostly be attributed to disproportionate access to specialized services in high per capita expenditure areas.

Table 4: Total CHE and Per Capita CHE by Provinces and Districts

	Sub-Nationa	al Level	Sri Lanka Rupees (LKR), Million	Per Capita CHE
SNL.1		Northern province	14,204.26	13,237.90
	SNL.1.1	Jaffna district	7,919.20	13,445.16
	SNL.1.2	Kilinochchi district	1,575.93	13,585.57
	SNL.1.3	Mulaitivu district	1,440.85	15,492.97
	SNL.1.4	Vavunia district	2,047.48	11,767.10
	SNL.1.5	Mannar district	1,220.82	12,087.30
SNL.2		Eastern province	16,551.01	10,508.58
	SNL.2.1	Trincomalee district	2,906.58	7,549.56
	SNL.2.2	Batticaloa district	6,175.91	11,630.72
	SNL.2.3	Ampara district	7,468.52	11,333.11
SNL.3		North central province	17,241.20	13,438.19
	SNL.3.1	Anuradhapura district	11,656.84	13,352.63
	SNL.3.2	Polonnaruwa district	5,584.36	13,620.39
SNL.4		North western province	25,469.72	10,590.32
	SNL.4.1	Kurunegala district	17,065.59	10,450.45
	SNL.4.2	Puttlam district	8,404.14	10,886.19

	Sub-Natio	onal Level	Sri Lanka Rupees (LKR), Million	Per Capita CHE
SNL.5		Central Province	29,646.04	14,030.31
	SNL.5.1	Nuwara Eliya district	5,149.79	7,112.97
	SNL.5.2	Kandy District	20,169.02	14,520.53
	SNL.5.3	Matale district	4,327.23	8,813.10
SNL.6		Western Province	99,407.14	16,860.10
	SNL.6.1	Colombo district	53,499.43	22,853.24
	SNL.6.2	Kalutara district	13,543.85	10,993.38
	SNL.6.3	Gampaha district	32,363.86	13,931.92
SNL.7		Sabaragamuwa province	18,334.16	9,397.31
	SNL.7.1	Ratnapura district	9,280.61	8,413.97
	SNL.7.2	Kegalle district	9,053.55	10,676.36
SNL.8		Uva province	11,994.43	9,334.18
	SNL.8.1	Badulla district	7,612.28	9,215.84
	SNL.8.2	Monaragala district	4,382.14	9,547.15
SNL.9		Southren province	27,195.60	10,847.86
	SNL.9.1	Galle district	12,694.64	11,830.98
	SNL.9.2	Matara district	8,264.91	10,030.23
	SNL.9.3	Hambantota district	6,236.05	10,223.03

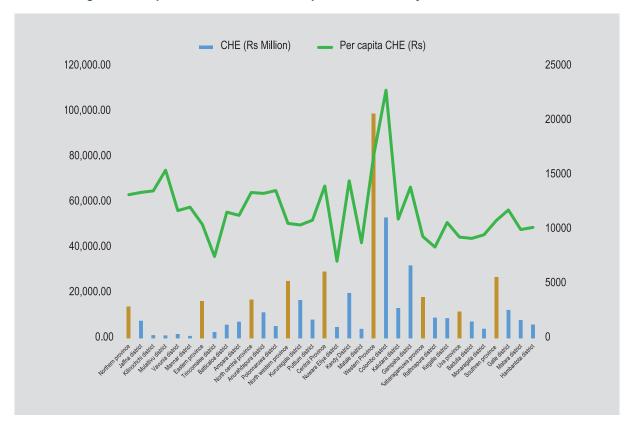


Figure 7: Comparison of Total and Per Capita CHE in 2013 by Provinces and Districts

# 2.3 Provider Perspectives of the National Health Accounts 2013

#### 2.3.1 Health Care Providers (HP)

Figure 8 presents how various categories of health care providers had contributed to the health care provision of Sri Lankan residents in terms of financial values of services provided.

Following SHA 2011 guidelines, health care providers of Sri Lanka can be broadly classified as hospitals (both government and privately managed), and ambulatory care services (private

outpatient care given by medical officers and medical specialists). In the above categorization, outpatient care given in hospitals (both government and private sector) was captured in the hospital provider cost.

Other types of health care providers include:

a) pharmacies and other retail providers who provide medical goods such as spectacles, prostheses, b) Government Preventive care service providers, c) Providers of Health care administration and financing, d) Rest of the World providers and e) Unspecified health care providers.

Figure 8 shows the expenses consumed by these main categories of health care providers.

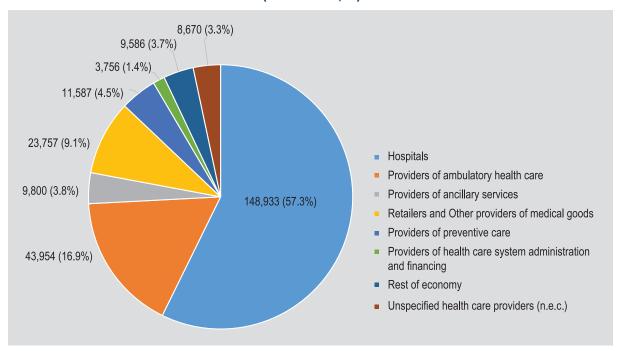


Figure 8: Distribution of CHE in 2013 by main categories of Health Care Providers (LKR millions, %)

Table 5 presents detailed disaggregation of CHE by health care providers in Sri Lanka.

Table 5: Distribution of CHE in 2013 by Main Categories of Health Care Providers

	Health care providers		Sri Lanka Rupees (LKR), Million	% of CHE
HP.1		Hospitals	148,932.50	57.3
HP.1.1		General hospitals	142,289.49	54.7
	HP.1.1.1	Ministry of health hosptials (Central & Provincial)	120,150.28	46.2
	HP.1.1.1.1	Tertiary Care Hospitals	42,417.71	16.3
	HP.1.1.1.2	Secondary Care Hospitals	61,139.51	23.5

	Health care pr	roviders		Sri Lanka Rupees (LKR), Million	% of CHE
		HP.1.1.1.3	Primary Care Hospitals	16,593.06	6.4
	HP.1.1.2		Private hospitals	20,468.57	7.9
	HP.1.1.3		Hospitals under other ministries	1,670.65	0.6
		HP.1.1.3.1	Armed forces hospitals	854.67	0.3
		HP.1.1.3.2	Police hosptal	785.90	0.3
		HP.1.1.3.3	Prison hosptal	30.08	0.01
HP.1.2			Mental health hospitals	766.98	0.3
HP.1.3			Specialised hospitals (Other than mental health hospitals)	5,452.97	2.1
	HP.1.3.1		Specialized maternity hospitals	1,543.46	0.6
	HP.1.3.2		Specialized pediatric hospitals	1,759.86	0.7
	HP.1.3.nec		Other Specialised hospitals (Other than mental health hospitals)	2,149.65	0.8
HP.1.nec			Unspecified hospitals (n.e.c.)	423.06	0.2
HP.3			Providers of ambulatory health care	43,954.40	16.9
HP.3.1			Medical practices	43,954.40	16.9
	HP.3.1.1		Offices of general medical practitioners	39,009.50	15.0
	HP.3.1.3		Offices of medical specialists (Other than mental medical specialists)	4,944.90	1.9
HP.4			Providers of ancillary services	9,799.82	3.8
HP.4.2			Medical and diagnostic laboratories	8,941.21	3.4
HP.4.9			Other providers of ancillary services	858.62	0.3

	Health care providers		Sri Lanka Rupees (LKR), Million	% of CHE
HP.5		Retailers and Other providers of medical goods	23,757.02	9.1
	HP.5.1	Pharmacies	22,479.26	8.6
	HP.5.2	Retail sellers and Other suppliers of durable medical goods and medical appliances	1,277.76	0.5
HP.6		Providers of preventive care	11,587.30	4.5
	HP.6.1	Maternal and child health care preventive providers	9,329.32	3.6
	HP.6.2	Providers STD/AIDS prevention	162.88	0.1
	HP.6.3	Providers of Malaria prevention	80.09	0.03
	HP.6.4	Providers of Dengue prevention	172.18	0.1
НР	?.6.nec	Other Providers of preventive care	1,842.83	0.7
HP.7		Providers of health care system administration and financing	3,756.05	1.4
	HP.7.1	Government health administration agencies	3,756.05	1.4
HP.8		Rest of economy	9,586.00	3.7
	HP.8.2	All Other industries as secondary providers of health care	9,586.00	3.7
HP.nec		Unspecified health care providers (n.e.c.)	8,670.46	3.3
All HP			260,043.56	100

Hospitals as the largest provider of health care in Sri Lanka, consumed 57.3 % of total CHE in 2013. Out of the Rs.149 billion used by all types of hospitals, nearly 86% were consumed by government hospitals. This amount, nearly Rs. 128 billion was utilized for 53.8 million out-patient encounters and 5.9 million in-patients in various government hospitals (Ministry of Health Hospitals and hospitals belong to the Ministry of Defense and Ministry of Justice).

Private hospitals accounted for Rs. 20 billion worth of provider share, predominantly in the form of inpatient care.

Around 17% of CHE was consumed by the providers of ambulatory care. Of which Rs. 39 billion was paid to general medical practitioners, while Rs. 4.9 billion, was paid to medical specialists for providing ambulatory care.

Providers of ancillary services such as diagnostic services (various laboratory testing including imaging) had charged Rs. 9.7 billion for their services and this amount accounted for 3.8% of CHE. Retailers, who provide drugs (pharmacies) and other long lasting medical appliances had charged Rs. 23.7 billion, which was around 9.1% of the CHE.

Only Rs. 11.6 billion, which amounted to 4.5% of CHE, was invested on preventive care providers. Provision of health care administration, which is classified as a separate provider in SHA 2011 required Rs. 3.8 billion amounting to 1.4 % of CHE.

Rest of the economy, which covers, organizations/ corporates who organize health care services for their employees as secondary providers, have provided health care services and goods worth of 9.6 billion rupees. This amount comprises 3.7% of CHE.

## 2.3.2 Factors of Health Care Provision (FP)

Analysis of CHE by Factors of Health Care Provision means disaggregation of annual CHE according to the cost of various types of service fees and item costs used for producing health services and goods. These include compensations paid for employees, remunerations collected by self-employed professionals providing care, money paid for health care services (e.g. laboratory and imaging services), money paid for purchasing pharmaceuticals, other health care goods (e.g. insecticides, injection supplies surgical consumables and equipment's etc.), fees for nonhealth care services (training, technical assistance, operational research), non-health care goods, consumption of fixed capital and other non-health care services.

Consumption of fixed capital is defined as the value of existing and new capital assets that can be assigned to the current year. This is an estimated value, which is somewhat akin to the depreciation of capital assets.

The Figure 9 shows relative proportions of CHE that can be attributed for different factors of healthcare provisions.

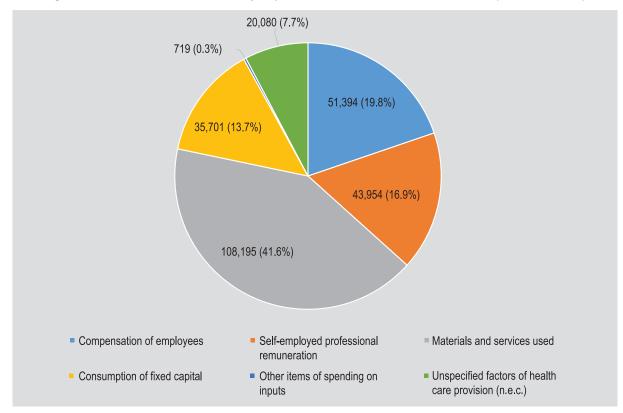


Figure 9: Distribution of CHE 2013 by Expenses related to Factors of Provision (LKR million, %)

Human resource expenses, either as compensation to health system employees or remunerations received by self-employed professionals consisted of nearly 37% of CHE. Pharmaceuticals required

around 23% of CHE. Figure 9 and table 6 present the amounts and percentages of total CHE allocated for various FP categories.

Table 6: Detailed Health Care Expenditure of 2013 by Factors of Provision

		Factors of health care provision		Sri Lanka Rupees (LKR), Million	% of CHE
FP.1			Compensation of employees	51,393.51	19.8
	FP.1.1		Wages and salaries	50,534.91	19.4
	FP.1.3		All Other costs related to employees	858.60	0.3
FP.2			Self-employed professional remuneration	43,954.40	16.9

Cont		Factors of health care pro	ovision		Sri Lanka	% of
					Rupees (LKR), Million	CHE
FP.3				Materials and services used	108,194.94	41.6
	FP.3.1			Health care services	29,292.40	11.3
		FP.3.1.1		Laboratory & Imaging services	8,819.71	3.4
		FP.3.1.nec		Other health care services (n.e.c.)	20,472.69	7.9
	FP.3.2			Health care goods	68,344.76	26.3
		FP.3.2.1		Pharmaceuticals	61,307.88	23.6
		FP.3.2.1.6		Drugs used in the treatment of respiratory illnesses	1,089.53	0.4
		FP.3.2.1.7		Drugs used in the treatment of endrocrine illnesses	1,777.64	0.7
		FP.3.2.1.8		Drugs used in the treatment of gastrointestinal illnesses	497.35	0.2
		FP.3.2.1.9		Drugs used in the treatment of eye illnesses	138.08	0.1
		FP.3.2.1.10		Drugs used in the treatment of ENT illnesses	1.77	0.001
		FP.3.2.1.11		Drugs used in the treatment of skin illnesses	459.23	0.2
		FP.3.2.1.12		Drugs used in the treatment of malignancies	5,127.10	2.0
		FP.3.2.1.13		Drugs used in obstetrics, gynaecology conditions	88.43	0.03
		FP.3.2.1.15		Drugs used in the treatment of musculoskeletal & joint illnesses	265.55	0.1
		FP.3.2.1.16		Immunological products & vaccines	2,227.31	0.9
		FP.3.2.1.17		Nutrients	4,250.40	1.6
		FP.3.2.1.18		Drugs used in the tretement of CNS illnesses	1,222.53	0.5
		FP.3.2.1.19		Durgs used for treating infections	4,492.66	1.7
		FP.3.2.1.20		Pain killers	288.19	0.1
			FP.3.2.1.20.1	Narcotics	177.66	0.1
			FP.3.2.1.20.nec	Other Pain Killers	110.54	0.0

	Factors	of health care provision		Sri Lanka Rupees (LKR), Million	% of CHE
		FP.3.2.1.21	Durgs used in the tretement of CVS illnesses	3,525.39	1.4
		FP.3.2.1.24	Drugs used in anesthesia	470.24	0.2
		FP.3.2.1.nec	Other pharmaceuticals (n.e.c.)	35,386.48	13.6
	FP.3.2.2		Other health care goods	7,036.87	2.7
		FP.3.2.2.2	Insecticides & spraying materials	40.72	0.02
		FP.3.2.2.3	Injection supplies	731.46	0.3
		FP.3.2.2.4	Diagnostic equipment	1,629.81	0.6
		FP.3.2.2.5	Surgical consumables	1,201.37	0.5
		FP.3.2.2.6	Surgical instruments & equipment	2,121.67	0.8
		FP.3.2.2.7	Dental instruments & appliances	16.90	0.01
		FP.3.2.2.nec	Other and unspecified health care goods (n.e.c.)	1,294.94	0.5
	FP.3.3		Non-health care services	7,673.15	3.0
	FP.3.3.1		Training	44.92	0.02
	FP.3.3.2		Technical Assistance	100.58	0.04
	FP.3.3.3		Operational research	48.97	0.02
	FP.3.3.nec		Other non-health care services (n.e.c.)	7,478.68	2.9
	FP.3.4		Non-health care goods	2,882.47	1.1
FP.	3.nec		Other materials and services used (n.e.c.)	2.17	0.001
FP.4			Consumption of fixed capital	35,701.37	13.7
FP.5			Other items of spending on inputs	719.38	0.3
	FP.5.2		Other items of spending	719.38	0.3
FP.nec			Unspecified factors of health care provision (n.e.c.)	20,079.97	7.7
All FP				260,043.56	100.0

# 2.4 Financing Perspectives of the National Health Accounts 2013

Financing perspectives include 4 main aspects. 1) Financing Schemes: the main types of financing arrangements, through which health services are paid for and obtained by people., 2) Types of revenues of health care financing schemes, and 3) Institutional units of health care financing systems that may play the role of providers of revenues (FS: RI), 4) Financing Agents that may manage/administer (revenue collection and /or purchasing of services).

#### 2.4.1 Financing Schemes (HF)

In 2013, the largest percentage of CHE, 56.3% (Rs. 146 billion) in Sri Lanka was handled by the Government health financing schemes. The household out of pocket scheme became the second largest financial scheme (37.9%), which amounted to Rs. 98.5 billion.

Table 7 presents the CHE accounts by financing schemes.

Table 7: Distribution of CHE 2013 by Financing Schemes

	Financing scl	nemes		Sri Lanka Rupees (LKR), Million	% of CHE
HE.1			Government schemes and compulsory contributory health care financing schemes	146,358.78	56.3
	HF.1.1		Government schemes	146,358.78	56.3
	HE1.1.1		Central government schemes	111,846.00	43.0
		HF.1.1.1.1	Ministry of Health Scheme	108,530.94	41.7
		HF.1.1.1.2	Defence Ministry Scheme	1,043.18	0.4
		HF.1.1.1.3	President Fund (Health) scheme	975.33	0.4
		HF.1.1.1.nec	Other Central government schemes	1,296.55	0.5
	HF.1.1.2		State/regional/local government schemes	34,089.73	13.1
	HF.1.1.nec		Unspecified government schemes (n.e.c.)	423.06	0.2
HF.2			Voluntary health care payment schemes	15,209.44	5.8

		Financing so	chemes		Sri Lanka Rupees (LKR), Million	% of CHE
	HF.2.1			Voluntary health insurance schemes	5,355.00	2.1
		HF.2.1.1		Primary/substitutory health insurance schemes	5,355.00	2.1
			HF.2.1.1.3	Other primary coverage schemes	5,355.00	2.1
	HF.2.2			NPISH financing schemes (including development agencies)	268.44	0.1
		HF.2.2.1		NPISH financing schemes (excluding HF.2.2.2)	268.44	0.1
			HF.2.2.1.2	National Health Development Fund Scheme	122.87	0.05
			HF.2.2.1.nec	Other NPISH financing schemes (excluding HF.2.2.2)	145.57	0.1
	HF.2.3			Enterprise financing schemes	9,586.00	3.7
		HF.2.3.1		Enterprises (except health care providers) financing schemes	9,586.00	3.7
HF.3				Household out-of-pocket payment	98,450.92	37.9
	HF.3.1			Out-of-pocket excluding cost-sharing	98,450.92	37.9
HF.4				Rest of the world financing schemes (non-resident)	24.42	0.01
	HF.4.2			Voluntary schemes (non-resident)	24.42	0.01
		HF.4.2.2		Other schemes (non-resident)	24.42	0.01
			HF.4.2.2.2	Foreign development agencies schemes	24.42	0.01
All FP					260,043.56	100.0

Out of Rs. 146 billion managed through government schemes, 76% was assigned to Central Ministry of Health Scheme, while Provincial Councils and Local Governments scheme accounted for 23 %. Defense Ministry scheme, President Fund (health) scheme, and other Central Government schemes handled relatively smaller percentages (Table 7).

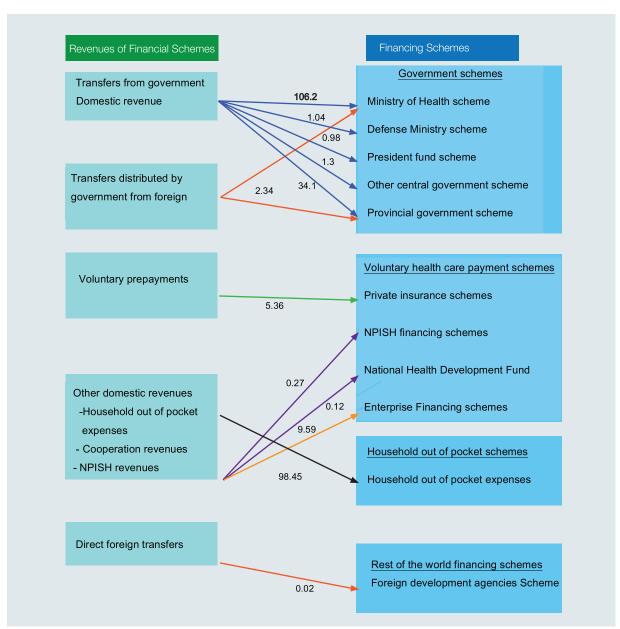
## 2.4.2 Revenues of Health Care Financing Schemes (FS)

This section describes the different types of revenues received by financing schemes. Analysis of revenue mechanisms revealed that the Government, as the principal stakeholder of health financing in Sri Lanka, provided nearly 55 % of total revenues of health care financing schemes.

The largest revenue for national health expenses was obtained from the government domestic revenues. The total transfers made to various relevant financial schemes amounted to Rs. 144

billion. Of this amount the largest share, Rs. 106 billion was allocated for the central Ministry of Health Scheme.

Figure 10: Relationship Between Different Types of Revenues of Financial Schemes of Sri Lankan Health Financing System (LKR, billions)



Further Rs. 34.1 billion were transferred for Provincial Health Ministries through Finance Commission. The rest, were transferred to health finance schemes of Ministry of Defense, President's Fund, and other central government schemes (Figure 10).

Two main revenues of voluntary health care payments comprised of private insurance contributions and employers' contributions to health expenses. Revenues raising from these two sources amounted to Rs. 5.4 billion and Rs. 9.6 billion respectively.

Revenue raised from households out of pocket was around Rs. 98.5 billion. Figure 10 depicts the detailed contributions.

## 2.4.3 Institutional Units Providing Revenues to Financial Schemes (FS: RI)

Government provided the largest share of revenues to health care in 2013. Nearly 55% of the revenues used for CHE in 2013 has been received through government allocations. Households became the second largest revenue provider in 2013, by providing around 40% of the total revenue in the year. Further this 40% contributed for 92% of the Total Private Expenditure. Corporations, NPISH (Non-Profit Institutions Serving Households) and rest of the world (foreign development agencies) also contributed to the revenue collection in relatively smaller proportions (Figure 11).

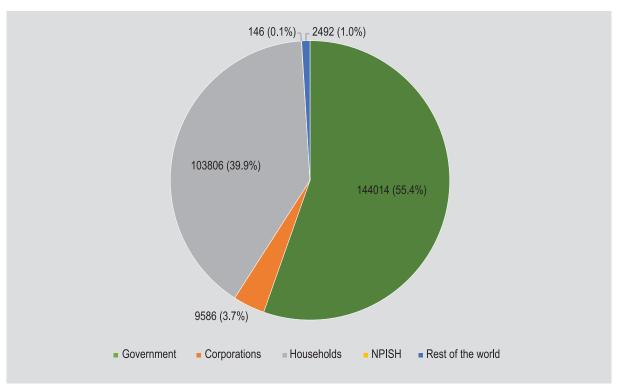


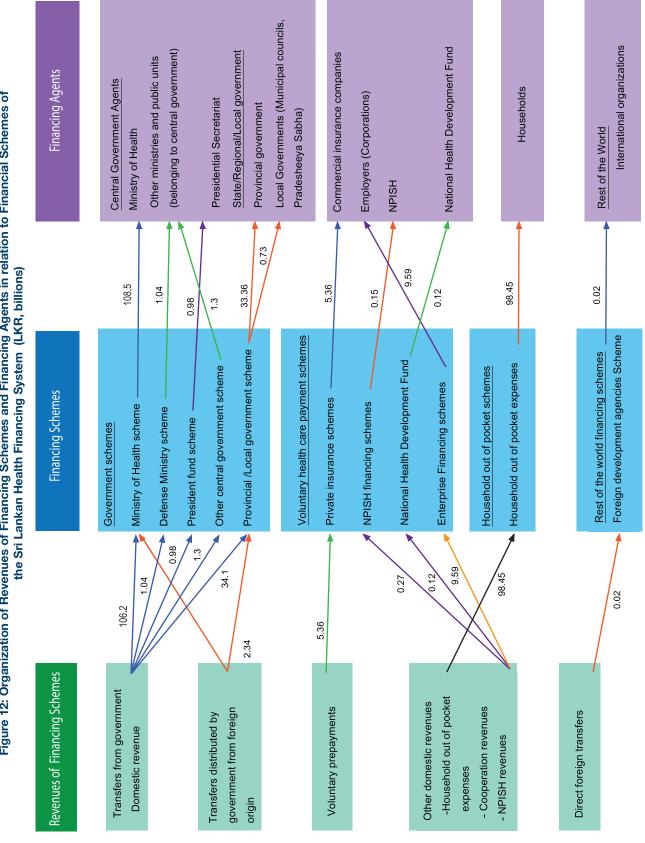
Figure 11: Institutional Units Providing Revenues to Financial Schemes (LKR millions)

#### 2.4.4 Financing Agents (FA)

Figure 12 presents the nature of fund flows between Revenues of Financing Schemes, Financing Schemes and Financing Agents. In 2013 Government as a financial agent, managed the largest share of health expenditure in Sri Lanka. Around Rs. 146.4 billion (56%) of CHE were channeled through government financial agents that included Ministry of Health, other Ministries (e.g. Ministry of Defense, Ministry of Justice), Presidential Secretariat, and Provincial and Local Governments providing health care. Central Ministry of Health and Provincial Government agents handled the largest share of CHE which was around 43% and 13% respectively. Households became a significant financial agent by managing around Rs. 98.45 billion (38%) of CHE.

As financial agents, commercial Insurance companies, employers, NPISH, National Health Development Fund and some international organizations were also responsible for managing relatively smaller amounts of funds.

Figure 12: Organization of Revenues of Financing Schemes and Financing Agents in relation to Financial Schemes of



#### 2.5 Capital Formation 2013

In 2013 around Rs. 21 billion was invested on capital assets by both government and private sectors. Of this amount Rs. 18.9 billion was invested by government and Rs. 2.1 billion by private sector providers.

It should be noted that existing data on CF expenses were relatively less detailed compared to CHE. Therefore sub digit level analysis of capital expenditure was not considered.

# 2.6 Traditional, complementary and alternative medicines (TCAM: HCRI)

Several forms of traditional, complementary or alternative medicine practices are seen in Sri Lanka. Among them the formal medical care systems implemented by the department of Ayurveda becomes the most widely reached by

people. In addition various small scale private Ayurveda physicians also practice in the country. The Department of Ayurveda is financed by the Government and the relevant accounts are routinely maintained. The details of the expenses on the services provided by privately operating Ayurveda physicians was estimated from the data of Health Income and Expenditure (HIES) Survey 2013.

Available data allowed the disaggregation of TCAM data as curative inpatient and outpatient basis and others. The other category included the expenses made on traditional medicine related research by the Department of Ayurveda. Table 8 shows the breakdown.

**Table 8: TCAM Expenditure in 2013** 

Expenditure Category	Amount (LKR milion)
Inpatient TCAM	577.2
Outpatient and home-based TCAM	1,602.7
Other TCAM (n.e.c)	83.3
Total TCAM	2, 263.2

### 03. Government Component of the National Health Accounts

The NHA described in the preceding chapters was based on SHA 2011 methodology. Due to two salient features of this methodology described below, it may be difficult to the reader to apprehend and hence interpret the Health expenses incurred by the Ministry of Health or by the Government.

- In SHA 2011, training related expenses incurred, other than the in-service training expenses, are not considered as current Health expenditure. Eg. money spent on training of Public Health Inspectors, Public Health Midwives, Nursing officers etc. Above training cost is shown as Memorandum items. However in the Financial statements of the Ministry of Health above training expenses are categorized under Recurrent expenditure.
- 2) In SHA 2011 Capital Consumption is calculated and added to Recurrent Expenditure. Capital Consumption is the value loss of all capital assets (equipment, building etc) due to usage during the year under consideration. (this may be considered analog to depreciation). However no such item of expenditure is considered in the Financial statements of the Ministry of Health as the ministry accounts are not kept on accrual basis.

The Current Health Expenditure illustrated in this chapter, are after adjusting for above mentioned methodological issues. Therefore these expenditures, should be comparable with the Financial statements of the Ministry of Health.

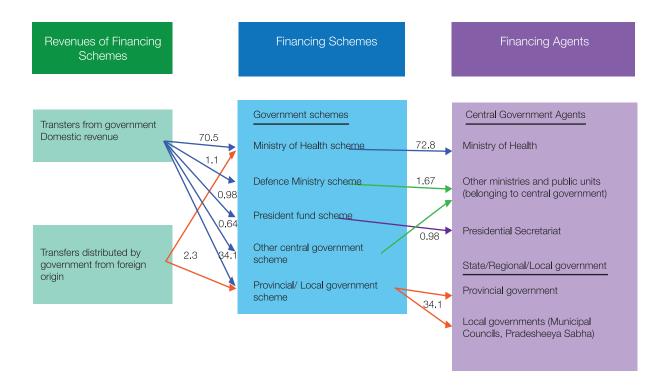
The total Government CHE in 2013 amounted to Rs. 109.6 billion. This amount comprised of Rs.107.3 billion belonged to Government Schemes, and Rs. 2.3 billion provided by Rest of the World Schemes (Foreign Development Agency Schemes). Figure 13 presents the financial flows related to Government CHE in relation to from where the revenues for government CHE are raised (FS), for which scheme these revenues are transferred (HF) and through which institutional agent (FA) these funds are pooled and used for purchasing or generating health services and goods.

The Ministry of Health had provided approximately Rs. 76 billion as recurrent expenses. This included around Rs. 3 billion spent on primary training purposes. Further, above Rs. 76 billion included Rs. 39 billion (51.3%) spent on salaries and wages, while Rs. 11 billion (10%) were spent on preventive care services.

Ministry of Health had incurred around Rs. 17 billion as capital expenses.

Provicial Ministries of Health spent approximately Rs. 34 billion as CHE, while capital expenses were around Rs.1.5 billion.

Figure 13: Organization of Revenues of Financing Schemes and Financing Agents in relation to Financial Schemes of the Sri Lankan Government Health Financing System (Amounts in LKR billions)



Over 98% of total government CHE was raised through routine domestic revenues. Only less than 2% of government CHE was made through foreign developmental agencies. The largest share (66.4%) of government CHE was channeled through the Ministry of Health Schemes while further 31.1% was directed towards Provincial Government Schemes.

The following table shows how the government CHE is distributed among different kinds of health care providers.

Table 9: Distribution of Government CHE 2013 by Health Care Providers

	Health care providers	Sri Lanka Rupees (LKR), Million	% of total government CHE
HP.1.1.1.1	Tertiary Care Hospitals	28,399.52	25.9
HP.1.1.1.2	Secondary Care Hospitals	42,086.86	38.4
HP.1.1.1.3	Primary Care Hospitals	14,513.82	13.2
HP.1.1.3.1	Armed forces hospitals	854.67	0.8
HP.1.1.3.2	Police hospital	785.9	0.7
HP.1.1.3.3	Prison hospital	30.08	0.03
HP.1.2	Mental health hospitals	766.98	0.7
HP.1.3.1	Specialized maternity hospitals	1,543.46	1.4
HP.1.3.2	Specialized pediatric hospitals	1,759.86	1.6
HP.1.3.nec	Other Specialized hospitals (e.g. Cancer Hospital, Chest Hospital etc.)	2,123.71	1.9
HP.4.2	Medical and diagnostic laboratories	121.5	0.1
HP.4.9	Other providers of ancillary services	852.59	0.8
HP.6.1	Providers of preventive care	10,919.35	10.0
HP.7.1	Government health administration agencies	2,979.02	2.7
HP. nec	Unspecified health care providers (n.e.c.)	1,860.98	1.7
All HP		109,598.31	100.0

Another important finding is the level of equity in health care expenses by the government. The following graph compares the provincial and district government CHE and district wise per capita government health expenses. The highest

government per capita health expenditure in 2013 was in Colombo district of the Western Province.

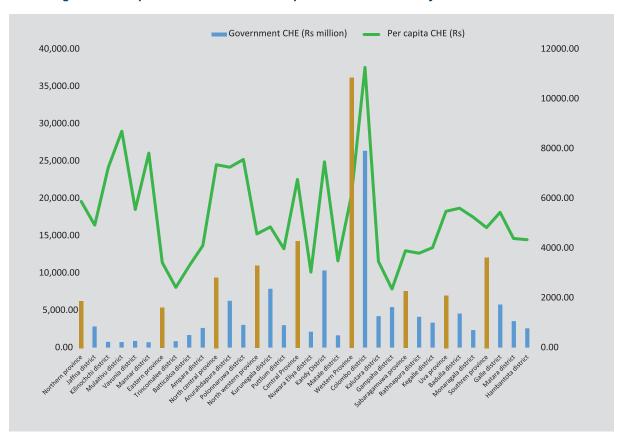


Figure 14: Comparison of Total and Per Capita Government CHE by Provinces and Districts

#### 04. Methodology

The process of production of the first NHA by the Ministry of Health, Sri Lanka was initiated following a capacity building session on SHA 2011 and HAPT utilization. This was conducted in 2014 at the request of Ministry of Health by two staff members of the Department of Health Financing and Governance, WHO (Geneva).

Following the training, the Ministry decided to institutionalize the production of National Health Accounts under the guidance of the Director General of Health Services. Accordingly, a Health Accounts production team was set up and a team lead and team members were identified. The Health Economic Cell of the Ministry of Health was entrusted the coordination of NHA 2013 study.

## 4.1 Customization of NHA Study:

A decision was taken to produce the first National Health Accounts for the calendar year 2013; NHA 2013.

System of Health Accounts 2011 guidelines were followed and HAPT tool 3.5.1.3 version was used to support the data management and report production. It was decided to limit the number of classifications used to the following:

- FS:RI- Institutional units providing revenues to financial schemes
- 2. FS-Revenues of health care financing schemes

- 3. HF- Financing schemes
- 4. FA- Financing Agents
- 5. HP- Health Care Providers
- 6. FP: Factors of Health Care Provision
- 7. HC- Health Care Functions
- 8. DIS- Classification of disease/conditions
- 9. SNL: Sub National Level
- 10. HC:RI- Traditional. Complementary and Alternative Medicine (TCAM).
- 11. HK-Capital Account

## 4.2 Data Sources and Data Collection

Following an initial desk review and several team discussions, the team lead prepared a list of relevant data sources and plan for collecting data. Then a stakeholder meeting was convened to inform potential data providers of the process and to request their concurrence and support for providing health finance data required for the production of NHA 2013. Following the stakeholder meeting official request letters were sent to all stakeholders, who were having NHA data. Team members were deployed to visit different stakeholder institutions and explain the data gathering procedures. After several attempts data collection was successful. It

was not feasible to use the survey questionnaires, proposed in the HAPT tool in data gathering. Data from all institutions were collected as secondary data. Tailor-made data extraction sheets with filling instructions were prepared for expenditure reporting by various institutions.

The Central Ministry of Health Finance Division had detailed accounts on 2013 current expenses and capital formation in central government managed health institutions. The data collection was further augmented by studying the Appropriation Account of the Ministry of Health.

Corresponding data from Provincial Health Ministries and Local Governments were gathered from provincial, district and local authorities. Further, they were also triangulated with the published accounts of the Department of National Accounts in the Ministry of Finance.

Household Out-of-Pocket Spending (OOPS) was estimated based on the relevant estimates of National Accounts of the Central Bank of Sri Lanka and Department of Census and Statistics (4,5). Household Income and Expenditure Survey (HIES) 2012-13 (6) and population figures reported from 2012 National Census (7).

Insurance related health expenditure was obtained from the premium revenue records collated in the Insurance Board of Sri Lanka.

Employer data were sought by contacting respective units of leading companies and banks. The final employer provided health expenditure was estimated using the annual reports of all registered public companies. It was not possible to gather the contribution of small scale employers due to lack of records in this sector.

Donor and NGO data were gathered by making official requests from respective heads of institutions.

#### 4.3 Data Import and Mapping

Data obtained from different sources were organized in excel columns to reflect 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 auto binding feature of the HAPT. Emphasis was made on reviewing any warning flags surfaced during 'auto binding' and import process.

Post data import mapping was carried out only for the expenditure items that are 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. Repeat mapping feature was used to expedite mapping of expenditure items with similar financial flows.

#### 4.3.1 Mapping of 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 (HC),

Disease (DIS) categories and Sub National (SNL) classifications of some of the expenditure items.

Basis for creating mapping rules of HC, DIS and SNL classifications were as follows.

A secondary data base 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 number of OPD visits. Average number of inpatient days by diseases (coded by ICD categories) were also available from a recently initiated electronic information system which cover around 80 % of total health institutions in Sri Lanka.

This secondary data base 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 average number of inpatient days (IPDs) to numbers of inpatient admissions taken from above mentioned hospital systems. This data base 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 data base was also added with the total number of OPD visits in each institution. The number of these OPD visits were 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, a special sample survey

was carried out to find out the OPD disease distributions. The study was carried out in a stratified cluster sample of 2012 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 in-patient days to in-patient equivalents of OPD visits in different types of curative care institutions were used to create mapping rules related to HC 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 in-patient 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 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 in-patient day totals. The sum of in-patient days and corresponding in-patient 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 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 in-patient 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, over all drug cost reported by the MSD was redistributed as 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.

#### 4.3.2 Mapping Household Data

Household expenditure was estimated based on Private Final Consumption Expenditure estimates of the Central Bank of Sri Lanka. 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 2012-13.

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.

#### 4.3.3 Mapping Employer Data

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

#### 4.3.4 Mapping Insurance Data

Insurance data was available as out-patient and in-patient totals. Data bases 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 2012-13.

## 05. Limitations and Recommendations

In addition to the NHA findings, production process of NHA 2013 provided several insights on methodological challenges and avenues for future data improvements. The following special activities could be recommended to ensure that more robust data will be available to improve the quality of various expenditure classifications related to SHA 2011 guidelines. These activities include:

- 1. At present the routine information systems do not gather data on outpatient diagnoses. Therefore in the present study, disease classifications were based on the findings of a rapid survey on OPD diagnoses conducted in a limited sample. More comprehensive sample surveys that identify the disease patterns among patients presenting to outpatient departments in government and private hospitals, pharmacies, GP practices and among those who received health insurance benefits, employer provided health benefits could further improve the precisions of disease based expenditure distributions in future NHA studies.
- Integration of a separate module that is customized to NHA data requirements in household health expenditures into HIES surveys.
- The lack of familiarity among Provincial and District Accountants on NHA concept made the collection of Provincial Health Accounts data a difficult process. It is recommended

that provincial and district accountants and other relevant stakeholders who provide NHA data are made aware of NHA process. Moreover establishment of NHA focal points who are knowledgeable in the NHA process at provincial and district levels of the Government health system could be recommended.

- 4. At present the drug purchase cost of the government sector was available as aggregated data. This required engagement in laborious processes of deriving required pro rata using other measures. It is recommended to conduct a detailed analysis of trends in the purchases of both centrally and locally purchased drugs by the government system.
- 5. It is required to further examine the possibilities of identifying Enterprise related health expenditure of the small scale companies and entities. This study's Enterprise related health expenditure was limited to the details of the banking sector, public quoted companies and several other large scale Enterprises.
- 6. Establish a robust system to ascertain the expenditure incurred on Rehabilitative care in the private sector. The present study could not identify the health expenditure data related to rehabilitative care provided by the private sector. However, the health expenditure related to this category is expected to be relatively small, thus mitigating the impact on the total expenditure values.

#### 06. References

- 1. OECD, Eurostat, WHO, A System of Health Accounts, OECD Publishing. 2011
- 2. WHO. Health Account Production Tool. Available from: http://www.who.int/health-accounts/tools/HAPT/en/
- 3. WHO. Health Account Analysis Tool. Available from: http://www.who.int/health-accounts/tools/HAAT/en/
- 4. Central Bank of Sri Lanka. Economic and Social Statistics of Sri Lanka. Central Bank Press. Colombo, 2013
- 5. Department of Census & Statistics, Sri Lanka. Sri Lanka National Accounts 2013. Department of Census and Statistics, Colombo, 2014
- 6. Department of Census & Statistics, Sri Lanka. Household Income and Expenditure Surveys 2012/13. Department of Census and Statistics, Colombo, 2015.
- 7. Department of Census & Statistics, Sri Lanka. Census of Population and Housing 2012. Department of Census and Statistics, Colombo, 2015

## **NHA Detailed Tables**

Table A: HF x FS Distribution of CHE 2013 by Health Financing Schemes and Revenues of Health Care Financing Schemes

	Revenues of health care financing schemes	FS.1.1	FS.1.2	FS.2	FS.5.1	FS.6.1	FS.6.2	FS.6.3	FS.7.3	All FS
Financing schemo	[Sri Lanka Rupees (LKR), billion] nes	Internal Transfers and Grants	Transfers by Government on behalf of specific groups	Transfers distributed by Government from foreign origin	Voluntary prepayment from individuals / Households	Other revenues from Households n.e.c	Other revenues from Corporations. n.e.c	Other revenues from NPISH, n.e.c	Other direct foreign transfers. n.e.c	
HF.1.1.1.1	Ministry of Health Scheme	106.19		2.34						108.53
HF.1.1.1.2	Defense Ministry Scheme	1.04								1.04
HF.1.1.1.3	President Fund (Health) Scheme		0.98							0.98
HF.1.1.1.nec	Other Central Government Schemes	1.30								1.30
HF.1.1.2	State/Regional/Local Government Schemes	34.09								34.09
HF.1.1.nec	Unspecified Government Schemes (n.e.c.)	0.42								0.42
HF.2.1.1.3	Other Primary Coverage Schemes				5.36					5.36
HF.2.2.1.2	National Health Development Fund Scheme							0.12		0.12
HF.2.2.1.nec	Other NPISH Financing Schemes (excluding HF.2.2.2)							0.15		0.15
HF.2.3.1	Enterprises (except Health Care Providers) Financing Schemes						9.59			9.59
HF.3.1	Out-of-Pocket (excluding cost-sharing)					98.45				98.45
HF.4.2.2.2	Foreign Development Agencies Schemes								0.02	0.02
All HF		143.04	0.98	2.34	5.36	98.45	9.59	0.27	0.02	260.04

Table B: HP x HF Distribution of CHE 2013 by Health Care Providers and Health Financing Schemes

	Financing schemes	HF.1.1.1.1	HF.1.1.1.2	HF.1.1.1.3	HF.1.1.1. nec	HF.1.1.2	HF.1.1.nec	HF.2.1.1.3	HF.2.2.1.2	HF.2.2.1. nec	HF.2.3.1	HF.3.1	HF.4.2.2.2	All HF
Health care pro	[Sri Lanka Rupees (LKR), billion] viders	Ministry of health Scheme	Defence Ministry Scheme	President Fund (Health) Scheme	Other Central Government Schemes	State / Regional / Local Government Schemes	Unspecified Government Schemes (n.e.c.)	Other Primary Coverage Schemes	National Health Development Fund Scheme	Other NPISH Financing Schemes (excluding HF 2.2.2)	Enterprises (except Health Care Providers) Financing	Out of Pocket (excluding cost sharing )	Foreign Development Agencies Schemes	
HP.1.1.1.1	Tertiary Care Hospitals	41.43		0.98					0.02					42.42
HP.1.1.1.2	Secondary Care Hospitals	40.44				20.68			0.02					61.14
HP.1.1.1.3	Primary Care Hospitals	10.83				5.77								16.59
HP.1.1.2	Private Hospitals											20.47		20.47
HP.1.1.3.1	Armed Forces Hospitals		0.85											0.85
HP.1.1.3.2	Police Hospital		0.18		0.61									0.79
HP.1.1.3.3	Prison Hospital				0.03									0.03
HP.1.2	Mental Health Hospitals	0.77												0.77
HP.1.3.1	Specialized Maternity Hospitals	1.54												1.54
HP.1.3.2	Specialized Paediatric Hospitals	1.76												1.76
HP.1.3.nec	Other Specialized Hospitals (Other than Mental Health Hospitals)	2.12							0.03					2.15
HP.1.nec	Unspecified Hospitals (n.e.c.)						0.42							0.42
HP.3.1.1	Offices of General Medical Practitioners											39.01		39.01
HP.3.1.3	Offices of Medical Specialists (Other than Mental Medical Specialists)											4.94		4.94
HP.4.2	Medical and Diagnostic Laboratories					0.12						8.82		8.94
HP.4.9	Other providers of Ancillary Services	0.86												0.86
HP.5.1	Pharmacies											22.48		22.48
HP.5.2	Retail sellers and Other Suppliers of Durable Medical Goods and Medical Appliances											1.28		1.28
HP.6	Preventive Care Providers	5.4	0.01			5.98			0.05	0.15				11.59
HP.7.1	Government Health Administration Agencies	1.54			0.66	1.55			0.01					3.76
HP.8.2	All Other Industries as Secondary Providers of Health Care										9.59			9.59
HP.nec	Unspecified Health Care Providers (n.e.c.)	1.84						5.36				1.45	0.02	8.67
All HP		108.53	1.04	0.98	1.30	34.09	0.42	5.36	0.12	0.15	9.59	98.45	0.02	260.04

Table C: HC x HF Distribution of CHE 2013 by Health Care Functions and Health Financing Schemes

	Financing schemes	HE1.1.1.1	HF.1.1.1.2	HF.1.1.1.3	HF.1.1.1.nec	HF.1.1.2	HF.1.1.nec	HF.2.1.1.3	HF.2.2.1.2	HF.2.2.1.nec	HF.2.3.1	HF.3.1	HF.4.2.2.2	All HF
Health care pro	[Sri Lanka Rupees (LKR), billion] oviders	Ministry of Health Scheme	Defense Ministry Scheme	President Fund (Health) Scheme	Other Central Government Schemes	State/Regional/Local Government Schemes	Unspecified Government Schemes (n.e.c.)	Other Primary Coverage Schemes	National Health Development Fund Scheme	Other NPISH Financing Schemes (excluding HF 2.2.2)	Enterprises (except Health Care Providers) Financing	Out of Pocket (excluding cost sharing)	Foreign Development Agencies Schemes	
HC.1.1.1	General Inpatient Curative Care	6.75				3.24	0.42							10.42
HC.1.1.2	Specialized Inpatient Curative Care	81.67	0.99	0.98	0.61	20.19		5.33			4.77	20.47		135.02
HC.1.3.1	General Outpatient Curative Care	4.08				2.52		0.02			4.81	37.41		48.84
HC.1.3.3	Specialized Outpatient Curative Care	6.20	0.04		0.02	0.49						4.94		11.69
HC.1.3.nec	Unspecified Outpatient Curative Care (n.e.c.)											24.08		24.08
HC.1.nec	Unspecified Curative Care (n.e.c.)											7.48		7.48
HC.2.1	Inpatient Rehabilitative Care	0.20												0.20
HC.4.1	Laboratory Services					0.12								0.12
HC.4.2	Imaging Services											1.34		1.34
HC.4.nec	Unspecified Ancillary Services (n.e.c.)	0.87												0.87
HC.5.2.1	Glasses and Other Vision Products											0.96		0.96
HC.5.2.2	Hearing Aids											0.32		0.32
HC.6	Preventive Care	5.67	0.01			5.98				0.13				11.79
HC.7.1.1	Planning & Management	0.20			0.66	1.55								2.41
HC.7.1.3	Procurement & Supply Management	0.04												0.04
HC.7.1.nec	Other Governance and Health System Administration (n.e.c.)	1.03												1.03
HC.9	Other Health Care Services not Elsewhere Classified (n.e.c.)	1.82							0.12	0.02		1.45	0.02	3.44
All HC		108.53	1.04	0.98	1.30	34.09	0.42	5.36	0.12	0.15	9.59	98.45	0.02	260.04

Table D: HC x HP Distribution of CHE 2013 by Health Care Functions and Health Care Providers

	Financing schemes	HE1.1.1.1	HP.1.1.1.2	HP.1.1.1.3	HP.1.1.2	HP.1.1.3.1	HP.1.1.3.2	HP.1.1.3.3	HP.1.2	HP.1.3.1	HP1.3.2	HP.1.3.nec	HP.1.nec	HP.3.1.1	HP3.1.3	HP.4.2	HP.4.9	HP.5.1	oli- s HP.5.2	HP.6	HP.7	HP.8.2	HP.nec	AIIHP
Health care provid	[Sri Lanka Rupees (LKR), billion] ers	Tertiary Care Hospitals	Secondary Care Hospitals	Primary Care Hospitals	Private Hospitals	Armed Forces Hospitals	Police Hospital	Prison Hospital	Mental Health Hospitals	Specialized Maternity Hospitals	Specialized Paediatric Hospitals	Other Specialized Hospi- tals (Other than Mental Health Hospitals)	Unspecified Hospitals (n.e.c.)	Offices of General Medical Practitioners	Offices of Medical Special- ists (Other than Mental Medical Specialists)	Medical and Diagnostic Laboratories	Other Providers of Ancillary Services	Pharmacies	Retail Sellers and Other Suppliers of Durable Medical Goods and Medical Appliances	Preventive Care Providers	Government Health Administration Agencies	All Other Industries as Secondary Providers of Health Care	Unspecified Health Care Providers (n.e.c.)	
HC.1.1.1	General Inpatient Curative Care			9.99									0.42											10.42
HC.1.1.2	Specialized Inpatient Curative Care	40.83	56.24		20.47	0.82	0.76	0.03	0.74	1.53	1.58	1.92										4.77	5.33	135.02
HC.1.3.1	General Outpatient Curative Care			6.60										37.41								4.81	0.02	48.84
HC.1.3.3	Specialized Outpatient Ourative Care	1.58	4.89			0.03	0.03		0.02	0.02	0.18				4.94									11.69
HC.1.3.nec	Unspecified Outpatient Curative Care (n.e.c.)													1.60				22.48						24.08
HC.1.nec	Unspecified Curative Care (n.e.c.)															7.48								7.48
HC.2.1	Inpatient Rehabilitative Care											0.20												0.20
HC.1.1+HC.2.1	Inpatient Curative and Rehabilitative Care	40.83	56.24	9.99	20.47	0.82	0.76	0.03	0.74	1.53	1.58	2.12	0.42									4.77	5.33	145.63
HC.1.3+HC.2.3	Outpatient Curative and Rehabilitative care	1.58	4.89	6.60		0.03	0.03		0.02	0.02	0.18			39.01	4.94			22.48				4.81	0.02	84.62
HC.1.nec + HC.2.nec	Other Curative and Rehabilitative Care															7.48								7.48
HC.4.1	Laboratory Services															0.12								0.12
HC.4.2	Imaging Services															1.34								1.34
HC.4.nec	Unspecified Ancillary Services (n.e.c.)																0.86							0.86
HC.5.2.1	Glasses and Other Vision Products																		0.96					0.96
HC.5.2.2	Hearing Aids																		0.32					0.32
HC.6.	Preventive Care																			11.5	0.26		0.02	11.79
HC.7	Governance and Health System Administration																				1.03			1.03
HC.9	Other Health Care Services not Elsewhere Classified (n.e.c.)	0.02	0.02									0.03									0.02		3.29	3.44
All HC		42.42	61.14	16.59	20.47	0.85	0.79	0.03	0.77	1.54	1.76	2.15	0.42	39.01	4.94	8.94	0.86	22.48	1.28	9.33	3.76	9.59	8.67	260.04

