



MALAYSIA
NATIONAL HEALTH ACCOUNTS
HEALTH EXPENDITURE REPORT
1997- 2019



MALAYSIA

NATIONAL HEALTH ACCOUNTS

Health Expenditure Report

1997-2019

MALAYSIA NATIONAL HEALTH ACCOUNTS SECTION
PLANNING DIVISION
MINISTRY OF HEALTH
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Website: www.moh.gov.my
Email: mnha@moh.gov.my

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MESSAGE FROM THE SECRETARY-GENERAL MINISTRY OF HEALTH, MALAYSIA

Globalization has greatly altered economies and societies across the globe, bringing with it significant development and so economic transformation. On one hand, with rising material wealth and advances in science and technology, human civilization has evolved as never before. On the other hand, it has also posed a large burden on human health worldwide. If previously infectious diseases were the leading cause of death and disability amongst communities, today non-communicable diseases have increasingly threatened the physical health and economic security of many countries including Malaysia. Given the current unprecedented times, Malaysia needs to narrow the window of opportunity to alter this course.

Health expenditure is one of the key determinants of health status and economic development of a nation. National health accounts (NHA) constitute a systematic, comprehensive and consistent monitoring of health expenditure flows in a country's health system. NHA is designed to facilitate the successful implementation of health system goals and is one of the few sources of internationally comparable health expenditure data. The importance of NHA data has moved from being just another set of statistics to a vital source of timely information on national health spending.

Malaysia National health accounts (MNHA) has successfully analysed all the resources that flow through Malaysia's health system over time and across country into a traceable flow. The latest MNHA Health Expenditure Report 1997-2019 encompasses 23 years of our country's health spending data, which can contribute to evidence-based policy making. The availability of this data enables identification of resource allocation and allows recognition of areas of priorities. It also permits global comparison of selected indicators across various countries.

I wish to extend my deep appreciation to all public and private stakeholders for providing the necessary data. My sincere thanks to Planning Division especially MNHA for the ceaseless production of the series. I hope that this report will help the policymakers, researchers and all stakeholders of the health system in strengthening equitable and efficient health system.

Dato' Mohd Shafiq bin Abdullah
Secretary-General
Ministry of Health, Malaysia



MESSAGE FROM THE DIRECTOR-GENERAL OF HEALTH, MALAYSIA

National Health Accounts (NHA) report has become a cardinal tool to assist in evidence-based planning and over the years has been the reference document for understanding expenditure flows in Malaysia's health system. Regular tracking and reporting of health expenditure flows is vital in monitoring the development of Malaysia's health system which in turn contribute to the health and well-being of the nation. The Malaysia National Health Accounts (MNHA) report provides meaningful information about the flow of healthcare funds through three dimensions encompassing sources of financing, providers of healthcare and functions of healthcare. It is important to note that this report provides macro national health expenditure estimations based on the MNHA framework.

The country's total health expenditure (TEH) for 2019, was RM 64.3 billion or 4.3 percent of Gross Domestic Product (GDP). Public sources of financing remained higher than private, with total public sector health expenditure of RM33.7 billion or 52.5 percent. During the same year, public sector health expenditure as percentage of public sector expenditure was 7.7 percent. Out-of-pocket (OOP) expenditure is the second highest source of funding after Ministry of Health (MOH). The highest health expenditure was in hospitals at RM35.5 billion or 55 percent of TEH followed by ambulatory care providers. Based on functions, for the same year, spending for curative care services was the highest at RM 43.6 billion or 68 percent of TEH.

I gratefully acknowledge the cooperation from various public and private sectors organizations, encompassing government ministries, insurance firms, non-governmental organizations (NGOs) and other agencies, in providing all relevant data for MNHA analysis of health expenditure. I hope the good support continues. Last but not least, special appreciation goes to the MNHA team for their dedication and persistent effort in producing this evidence-based report.

Tan Sri Dato' Seri Dr. Noor Hisham bin Abdullah
Director-General of Health Malaysia



ACKNOWLEDGEMENT

MNHA team gratefully thanks both YBrs. Dr. Hj. Nordin bin Saleh, the Director of Planning Division and YBrs. Dr. Rozita Halina binti Tun Hussein, Senior Deputy-Director of Planning Division, for their continuous expert advice, support and encouragement throughout the process of completing this report.

We wish to acknowledge the crucial role of the MNHA Steering Committee members, co-chaired by Director-General of Health Malaysia and Secretary-General, Ministry of Health for their guidance and endorsement of all the data in this report.

Furthermore, we would like to express our deepest appreciation to the MNHA Technical Advisory Committee members for all their recommendations and suggestions. Our special gratitude also goes out to the Editors for their time and dedication. Thank you all for the important input which has contributed to improvement of this report.

The production of this report was also greatly assisted by the fundamental contributions from various public and private agencies who provided invaluable data. MNHA Team are very much obliged to all these agencies for their cooperation and support.



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LIST OF ABBREVIATIONS

AADK	<i>Agensi Anti Dadah Kebangsaan</i> (National Anti-Drug Agency)
AG	Accountant General
AGD	Accountant General's Department of Malaysia
APM	<i>Angkatan Pertahanan Awam Malaysia</i> (Malaysia Civil Defence Force)
BNM	<i>Bank Negara Malaysia</i> (Central Bank of Malaysia)
CHE	Current Health Expenditure
CKAPS	<i>Cawangan Kawalan Amalan Perubatan Swasta, Bahagian Amalan Perubatan</i> (Private Medical Practice Control Section, Medical Practice Division)
COICOPS	Classification of Individual Consumption by Purpose
CORPS	Corporations
DC	Day care
DOSH	Department of Occupational Safety and Health
DOSM	Department of Statistics Malaysia
DSWM	Department of Social Welfare Malaysia
EPF	Employees Provident Fund
EMRS	Emergency Medical Rescue Services
EPU	Economic Planning Unit
FOMCA	Federation of Malaysia Consumers Association
FOMEMA	Foreign Worker's Medical Examination Monitoring Agency
FT	Federal Territory
GDP	Gross Domestic Product
GHED	Global Health Expenditure Database
HC	ICHA code for function of health services
HC.R	ICHA code for health-related services
HER	Health Expenditure Report
HES	Household Expenditure Survey
HIES	Household Income and Expenditure Survey
HF	ICHA code for sources of financing for health services
HH	Household consumption
HP	ICHA code for providers of health services
HQ	Headquarters



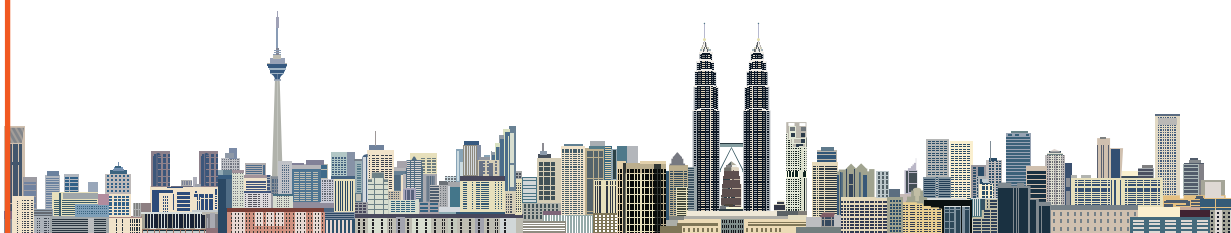
ICHA	International Classification for Health Accounts
IJN	<i>Institut Jantung Negara</i> (National Heart Institute)
IMF	International Monetary Fund
IP	In-patient
ISN	<i>Institut Sukan Negara</i> (National Sports Institute)
JBA	<i>Jabatan Bekalan Air</i> (Water Supply Department)
JAKOA	<i>Jabatan Kemajuan Orang Asli</i> (Department of Orang Asli Development)
JKM	<i>Jabatan Kebajikan Masyarakat</i> (Social Welfare Department)
JPA	<i>Jabatan Perkhidmatan Awam</i> (Public Service Department)
KL	Kuala Lumpur
KN	<i>Kerajaan Negeri</i> (State Government)
KWAP	<i>Kumpulan Wang Persaraan</i>
KWSP	<i>Kumpulan Wang Simpanan Pekerja</i> (Employees Provident Fund)
LA	Local Authorities
LPPKN	<i>Lembaga Penduduk dan Pembangunan Keluarga Negara</i> (National Population and Family Development Board)
LTH	<i>Lembaga Tabung Haji</i> (Pilgrims Fund Board)
MAIN	<i>Majlis Agama Islam Negeri</i> (Zakat Collection Centre)
MCO	Managed Care Organization
MF	MNHA code for functions of health care
MNHA	Malaysia National Health Accounts
MOD	Ministry of Defence
MOF	Ministry of Finance
MOH	Ministry of Health
MOE	Ministry of Education
MOSTI	Ministry of Science Technology and Innovation
MP	MNHA code for providers of health care
MR	MNHA code for health-related functions
MS	MNHA code for sources of financing
NCU	National Currency Unit
NGO	Non-Government Organization
NHA	National Health Accounts
NHMS	National Health Morbidity Survey
NIOSH	National Institute of Occupational Safety and Health
NRI	Non-residual items



OECD	Organization for Economic Co-operation and Development
OFA	Other Federal Agencies
OOP	Out-of-Pocket
OP	Out-patient
OTC	Over the counter
PBT	<i>Pihak Berkuasa Tempatan</i> (Local Authorities)
PC	Primary Care
PEMANDU	Performance Management and Delivery Unit
PHC	Primary Health Care
PNI	Professional and Industrial Survey
PSD	Public Service Department
PSE	Public Sector Expenditure
PSHE	Public Sector Health Expenditure
RI	Residual items
RM	<i>Ringgit Malaysia</i> (Malaysia Currency)
ROW	Rest of the world
SHA	System of Health Accounts
SHA 1.0	System of Health Accounts, Version 1.0 (published in 2000)
SHA 2011	System of Health Accounts, 2011 Edition
SOCISO	Social Security Organization
SODO	Specific object and detailed object code
SSB	State Statutory Body
SSM	<i>Suruhanjaya Syarikat Malaysia</i> (Company Commission of Malaysia)
TCM	Traditional and Complementary Medicine
TEH	Total Expenditure on Health
UK	United Kingdom
UKAS	<i>Unit Kerjasama Awam Swasta</i> (Public Private Partnership Unit)
UN	United Nations
UNDP	United Nations Development Programme
USA	United States of America
USD	US Dollar
WHO	World Health Organization
WB	World Bank



EXECUTIVE SUMMARY 2019



MALAYSIA

is an upper middle-income country with a health system that delivers a comprehensive range of services through a combination of public and private providers.

- ☒ MNHA Framework is based on the SHA 1.0 classification with some minor modifications to suit local policy
- ☒ Macro level health expenditure information
- ☒ 23 years of National health expenditure data (1997-2019)

4.3%

Total Expenditure on Health (TEH) as percentage of GDP

52.5%

Public sources of financing as percentage of TEH

47.5%

Private sources of financing as percentage of TEH

3.8%

Current Health Expenditure (CHE) as percentage of GDP

35%

OOP expenditure as percentage of TEH

44.9%

MOH expenditure on health as percentage of TEH

19%

Primary care as percentage of TEH

22%

Primary health care as percentage of TEH

RM1,974

Per capita Expenditure on health

Source: MNHA Database 1997-2019



REPORT INFORMATION

MNHA HER (1997-2019) contains twenty three years of national health expenditure data from 1997 to 2019, estimated using standardised and internationally acceptable National Health Accounts (NHA) methodology.

The 'Malaysia National Health Accounts: Health Expenditure Report 1997-2019' has a total of ten chapters.



CHAPTER 1: BACKGROUND

Provides a comprehensive background of the establishment of the MNHA section and subsequent production of multiple series of MNHA Health Expenditure Reports.

CHAPTER 2: MALAYSIA NATIONAL HEALTH ACCOUNTS (MNHA) SUMMARY OF FRAMEWORK

Explains the MNHA Framework which is based on the SHA 1.0 classifications. It further unravels the three main entities of the framework: Sources of financing (MS), Providers of health care (MP) & Functions of Health care (MF).



CHAPTER 3: METHODOLOGY OF DATA COLLECTION AND ANALYSIS

Explains general methodology that includes data collection, analysis and data processing techniques used for various agencies. This chapter also unfolds the constant value extension techniques.

CHAPTER 4: TOTAL EXPENDITURE ON HEALTH

Encompass Total Expenditure on Health (TEH) trends from year 1997 to 2019 as percentage of Gross Domestic Product (GDP) per capita health expenditures for the same time period and stable disaggregation of health expenditure.



CHAPTER 5: HEALTH EXPENDITURE BY SOURCES OF FINANCING

Shows data on the major categories of the sources of financing, namely the public and private sectors, which are separately cross-tabulated with the dimensions of providers and functions of health care. Also contains Public Sector Health Expenditure (PSHE) which is equivalent to General Government Health Expenditure (GGHE) as percentage of Public Sector Expenditure (PSE).



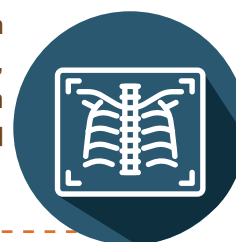
CHAPTER 6: HEALTH EXPENDITURE TO PROVIDERS OF HEALTH CARE



Provides data on the Total Expenditure on Health by providers of health care. This chapter includes data on separate cross-tabulations between hospital and ambulatory care expenditure with sources of financing. A section regarding Primary Care (PC) and Primary Health Care (PHC) expenditure is also included.

CHAPTER 7: HEALTH EXPENDITURE BY FUNCTIONS OF HEALTH CARE

Provides data on the Total Expenditure on Health by functions of health care. Data on separate cross-tabulations of curative care function, expenditures for public health programmes (including health promotion and prevention) and expenditures for health education and training by sources of financing are also available in this chapter.



CHAPTER 8: MOH HEALTH EXPENDITURE

Shows Ministry of Health's (MOH) expenditures as share of TEH and as percentage of national GDP. Also contains data on separate cross-tabulations between MOH hospital expenditure with sources of financing and functions of health care.

CHAPTER 9: OUT-OF-POCKET HEALTH EXPENDITURE


Shows OOP share of total and private sector expenditures as percentage of GDP. OOP as share of national GDP, as well as OOP by providers and functions of health care.



CHAPTER 10: INTERNATIONAL NHA DATA

Contains international comparisons of MNHA data with NHA data from neighbouring and regional countries as well as some developed countries.

Colour Schemes for Charts/Figures:

-  Public sectors
-  Private sectors
-  Private & public sectors



CHAPTER 1

BACKGROUND

National health accounts (NHA) are systems that track and quantify the flow of health expenditure throughout the health system. This tool can provide better understanding of the financial dimensions within any country's health system because it is based on standardized definitions and accounting methods. The origins of NHA development began with a study to compile comparable health services expenditure of six countries in the 1960s. The importance of health accounts is evident with the increasing number of countries participating in tracking the flow of health expenditures.

In Malaysia, discussions on initiating the NHA in Malaysia began as early as 1999. Upon securing the funds from the United Nations Development Programme (UNDP) in 2001, the Ministry of Health (MOH) Malaysia in a concerted effort with the Economic Planning Unit (EPU) of the Prime Minister's Office launched the "Malaysia National Health Accounts (MNHA) Project". The outcome of the project was the production of the report on MNHA Classification System (MNHA Framework) and the first MNHA Health Expenditure Report (HER) report. The completion of the MNHA project put forth the benefits of having health accounts as an evidence-based tool in making health policy decisions, leading to the establishment of the MNHA Section under Planning & Development Division of MOH.

After its institutionalization, the MNHA Section, under the guidance of an international consultant proceeded to further standardize the methodology used. Following this, health expenditure time series reports were published annually. In 2020, MNHA produced the annual time series data spanning over a 23-year period using similar methodology and reporting format. The chapters in this publication encompassed health expenditures by sources of financing, expenditures to providers of health care, and expenditures by functions of health care analysed based on the MNHA Framework. In addition to this, a chapter containing international NHA data extracted from the Global Health Expenditure Database (GHED) is also included.

We would like to inform the readers regarding the colour scheme used in charts of this report. All public sectors are highlighted in blue while private sectors are in red. Purple is used for combination of both private and public sectors. Components on tables may not add to total of 100% due to rounding up. **Due to the methodology in which NHA data are produced, the data in the most current report replaces all annual data stated in previous publications.** It is reminded that most of the data are in nominal Ringgit Malaysia (RM) values unless indicated otherwise.



CHAPTER 2

MALAYSIA NATIONAL HEALTH ACCOUNTS (MNHA): SUMMARY OF FRAMEWORK

National Health Accounts is a tool composed from standard set of tables to capture both public and private sectors health expenditure flow within a country over a specified period. Information such as input, output and resource use, obtained from this tool is essential to examine performance of any health system. Identical set of rules and methodology needs to be used to ensure information from NHA is comprehensive, consistent, comparable and timely.

2.1. THE MNHA CLASSIFICATION DATA

The MNHA Framework is based on international NHA classifications with some minor modifications to suit local policy needs (Appendix Tables A2.1, A2.2, and A2.3). The data in all chapters (except Chapter 10) are based strictly on the MNHA Framework. The framework classifies all expenditures into three main entities:

- Sources of financing (MS)
- Providers of health care (MP)
- Functions of health care (MF)

Sources of financing are defined as entities that directly incur the expenditure and hence control and finance the amount of such expenditure. It includes the public sector expenditure inclusive of the federal government, state government, local authorities, social security funds and all other public entities, and the private sector consisting of private health insurance, managed care organizations, out-of-pocket expenditure, non-profit institutions and corporations.

Providers of health care are defined as entities that produce and provide health care goods and services. These include categories of hospitals,

nursing and residential care facility providers, ambulatory health care providers, retail sale and medical goods providers, public health programme providers and general health administration.

Functions of health care are categorized as core functions of health care and health-related functions. Functions of health care include services of curative care, rehabilitative care, long term nursing care, ancillary services, out-patient medical goods, public health services, health administration and health insurance. Health-related functions include capital formation, education and training of health personnel, research and development in health.

2.2. OVERVIEW TOTAL EXPENDITURE ON HEALTH

In the MNHA Framework, TEH comprises expenditures from both public and private sectors, which consist of both 'health expenditures' and all 'health-related expenditures' components. 'Health expenditures' as defined in the MNHA Framework, consists of all expenditures or outlays of medical care, prevention, promotion, rehabilitation, community health activities and health administration and regulation with the predominant objective of improving health, and these are reflected by core function classifications under the codes MF1-MF7. 'Health-related expenditures' classification under the codes MR1, 2, 3 and 9 include expenditures of 'capital formation of health care provider institutions', 'education and training of health personnel', 'research and development in health' and 'all other health-related expenditures'. For easier understanding, components that make up TEH according to MNHA Framework are as illustrated in Figure 2.1

**FIGURE 2.1: Total Expenditure on Health in MNHA Framework**

TEH according to MNHA Framework	
Code	Core Functions
MF1	Services of curative care
MF2	Services of rehabilitative care
MF3	Services of long-term nursing care
MF4	Ancillary services to health care
MF5	Medical goods dispensed to out-patients
MF6	Prevention and public health services
MF7	Health program administration and health insurance
Code	Health-Related Functions
MR1	Capital formation of health care provider institutions
MR2	Education and training of health personnel
MR3	Research and development in health
MR9	All other health-related expenditures

2.3. OVERVIEW CURRENT HEALTH EXPENDITURE

To address the need for methodological consistency when comparing health expenditure across different countries, World Health Organization (WHO), Eurostat and related international organizations of Organization for Economic Co-operation and Development (OECD) produced a manual known as “A System of Health Accounts”. The latest edition of this manual is known as the SHA 2011. It is important to understand the differences when comparing data based on MNHA framework to

data based on SHA 2011 framework. As described earlier, MNHA framework captures and reports health spending as total health expenditure (TEH) whereas current health expenditure (CHE) is used when reporting based on SHA 2011. Health spending based on CHE is a lower value as it excludes capital spending. Since 2017, both OECD and WHO countries use CHE for international reporting and inter-country comparisons of national health expenditures. Components that make up CHE according to SHA 2011 are as illustrated in Figure 2.2.

FIGURE 2.2: Current Health Expenditure in SHA 2011

CHE according to SHA 2011	
Code	Core Functions
HC.1	Services of curative care
HC.2	Services of rehabilitative care
HC.3	Services of long-term nursing care
HC.4	Ancillary services to health care
HC.5	Medical goods dispensed to out-patients
HC.6	Prevention and public health services
HC.7	Health administration and health insurance



CHAPTER 3

METHODOLOGY OF DATA COLLECTION AND ANALYSIS

3.1 GENERAL METHODOLOGY

A general understanding of the methodology in NHA estimation provides better appreciation of the data. The previous MNHA HER produced data from 1997-2018 and current report contains data from 1997-2019. Data in this report over the same time period may show some variations compared to the previous report. Changes in the times series data may reflect incorporation of recent developments with previous data from various censuses and surveys (when using secondary data); may reflect genuine structural changes; may be caused by variations in responses from multiple data sources at each cycle of estimation; or access to new data that is used to replace previous estimations. These variations are an acceptable phenomenon under NHA. Complete lists of the data sources are documented at every cycle of analysis (Appendix Table A1.1, A1.2). It is difficult to obtain near 100% response rate from all data sources. Any improvements in data responses will minimize estimations of non-responders and reflects a better true data.

3.2 DATA COLLECTION AND ANALYSIS

The method of data collection and analysis used in this report conforms to the method used in the previous cycle whereby detailed definitions of what constitutes health expenditure, institutional entities and types of disaggregation were drawn up based on inputs from several documents, committee meetings, and consultative advice from the internal and external MOH sources. Both primary and secondary data were used in this analysis (Appendix Table A1.1 and A1.2). Agencies from both the public and private sectors provide primary data in several formats. These data were obtained through multiple MNHA surveys. The secondary

data were retrieved from various data sources, reports, bulletins and other documents.

All these data were analysed separately by identified group of agencies. Upon verification, all data were entered into various dummy time series spreadsheets. Verification of data is important as it affects the quality of final outputs. The data sets from each agency were processed differently depending on the availability and completeness of data. Data classification for each agency was carried out based on the tri-axial MNHA entities of sources, providers and functions. The MNHA framework enables health expenditure disaggregates to the lowest possible code. Any data gaps in each of these disaggregated data from each agency were then subjected to imputation methods recommended by NHA experts and these imputation methods may vary from agency to agency.

The final analysis data of each agency were coded according to the MNHA framework. State codes were also assigned to every set of analysis. All stages of analyses were highly technical, involve several methods that were tailored to specific agencies and require a good understanding of MNHA framework. The processes of data entry and analysis were carried out using Microsoft excel and statistical software Stata. After initial data preparation, analysis, and coding, measures were taken to ensure quality of data. Several additional verification methods are put in place before producing the final database. This involves validation of total estimates and combination of codes for each data source, prior to merging for the production of final database. Data from each agency were then collated. Subsequently, NHA data extraction is carried out to populate various tables and figures that are easily understood by policy makers and other stakeholders



Considering to continually improving NHA estimations and reporting, MNHA reviewed and refined its methodology in several phases. During the first round of refinement, analyses to standardize hospital reporting were applied. In short, this led to inclusion of all costs incurred for ancillary services such as pharmacy charges (drugs and non-durable products), surgical costs, laboratory tests and radiological investigations as curative care expenditure whenever they are delivered as part of curative care service package. Hospital care as defined in NHA embodies all services provided by a hospital to patients. In accordance with this, analysis of all public and private hospitals was disaggregated and reported as expenditure for in-patient, out-patient and day-care services only. On the other hand, expenditures incurred at standalone laboratories and radiological investigations are reported under another function code. This is strictly in-keeping to definitions of functions codes under MNHA Framework for curative care services and provider of health care boundary for standalone ambulatory health care centers.

Further refinement was carried out to address concerns of double counting. When producing a country's health account, it is essential to recognize the equal importance of each dimension of the NHA. Focusing on collecting data from one dimension tends to underestimate expenditure as health spending from other entities via different NHA dimension is not captured. It is important to quantify all health expenditure from various information sources along all NHA dimensions. However, estimations of expenditure along more than one dimension increases the likelihood of double counting. In the Malaysian context, estimated total health expenditure for all public hospitals are obtained from the respective data sources who are also providers of health care services. In addition to this, surveys were done to collect health spending by various public and private sector employers/companies that also capture claims or reimbursements. It is significant to note that claims and reimbursement encompass expenditure for curative care services obtained from public hospitals.

Therefore, after carefully scrutinizing all details, the refined methodology is a downward revision to health care expenditures, resulting from removal of various agencies reimbursements when it involves claims for treatment received at public MOH and non-MOH hospitals and clinic. Corresponding to this, all claims or reimbursement at these providers are grouped as in-patient, out-patient and day-care services. This enables MNHA to maintain exhaustive accounting of health spending that is also mutually exclusive and standardized.

All subsequent reporting of MNHA maintains the above explained refinement. Peer review workshops are conducted annually to examine, discuss and verify the validity and reliability of final data outputs of each agency. This involves validation of all codes and total estimation used for each data source prior to merging into a final database. This report only highlights some selected findings, which may be of use for health policy development and health planning of the country. Further detailed data extractions with cross-tabulations are normally produced based on requests by policy makers and stakeholders.

3.3 DATA PROCESSING OF VARIOUS AGENCIES

The methods used for data processing varies according to the availability, completion and source of data as follows:

3.3.1 Public Sector

3.3.1.1 Ministry of Health (MOH)

Health expenditure data of the MOH were obtained from the Accountant-General's Department of Malaysia (AGD), under the Ministry of Finance (MOF). The Accountant-General (AG) raw database for the MOH is the primary source of data whereby expenditure data is entered as line item. All health expenditures are disaggregated into the tri-axial coding system under the dimensions of sources of financing, providers and functions of health care based on the MNHA framework, omitting double



counting. Assigning of MNHA codes is based on examining available budgetary allocations data and further additional details captured via MNHA surveys.

3.3.1.2 Ministry of Education (MOE)

Health expenditure under the MOE includes two main functions. Firstly, provision of health care services by university hospitals for the general population and outpatient medical clinics meant only for students and university community. Second, health expenditure from this agency is on health-related training and research expenditure. Other than these institutions, data on the cost of training health professionals are also obtained from various private training colleges, Public Service Department (PSD) and other agencies.

3.3.1.3 Other Federal Agencies (including Statutory Bodies)

The agencies under “Other Federal Agencies” currently consists of seventeen public agencies which include the National Anti-Drug Agency, Prison Department, Malaysia Civil Defence Force, Pension Department of Public Service Department (KWAP), National Heart Institute of Malaysia, Social Welfare Department of Malaysia, Department of Orang Asli Development, National Population and Family Development Board Malaysia, National Institute of Occupational Safety and Health Malaysia (NIOSH), Department of Occupational Safety and Health Malaysia (DOSH), National Sports Institute of Malaysia, Ministry of Science, Technology and Innovation (MOSTI), Federal Statutory Bodies, Higher Education Institutes, Pilgrims Fund Board and Emergency Medical Rescue Services (EMRS). The expenditure on health of other Federal Agencies (including Statutory Bodies) was captured through MNHA surveys questionnaires. Data from this survey also assist to estimate and disaggregate expenditure along the providers and functions of health care dimensions for agencies with incomplete or no data. Expenditures under this group are mainly for curative care services, retail sales and medical goods, and research.

3.3.1.4 Local Authorities

Health expenditure data of the Local Authorities were collected from 155 agencies of locals/ municipal governments in Malaysia. Health expenditure data captured from this entity encompasses expenditure of services provided to general public and expenditure that covers health care services provided for staffs.

3.3.1.5 (General) State Government

This consists of health expenditure by all thirteen state governments and three Federal Territories which include Kuala Lumpur, Putrajaya and Labuan. Most of the state expenditure is analysed based on services provided to general community which is mainly for preventive care such as environmental health covering water treatment; and on reimbursements expenditure for state government employees mainly for curative care and ancillary services.

3.3.1.6 Ministry of Defence (MOD)

The MOD provides health services through its Army Hospitals and Armed Forces Medical and Dental Centres (*Rumah Sakit Angkatan Tentera dan Pusat Pergigian Angkatan Tentera*). Details on MOD health expenditure is captured through MNHA annual survey and is mainly for curative care services.

3.3.1.7 Social Security Funds

There are two major organizations providing social security funds; the Employees Provident Fund (EPF) and the Social Security Organization (SOCSO), both of which are mandated by the government. MNHA annual survey captures total health expenditure by state for both of these organizations. Further breakdown to disaggregate expenditure to providers and functions are based on previous field survey that collected details based on samplings of the medical bill claims.

3.3.1.8 Other State Agencies (including statutory bodies)

Other state agencies consist of statutory bodies and Zakat Collection Centre (MAIN). MNHA survey for MAIN captures data on curative care



reimbursement, retail sales & medical goods reimbursement and various other services provided to the community. MNHA survey for statutory bodies is carried out to collect health expenditure data which includes total health expenditure, data for provider and function dimensions. Information on number of employees obtained from JPA and disaggregated proportions of provider and function is used to estimate health expenditure of statutory bodies with incomplete or no data.

3.3.2 Private Sector

3.3.2.1 Household Out-of-Pocket (OOP) Health Expenditure

Internationally, there are several methods to estimate household out-of-pocket (OOP) health expenditure. MNHA uses Integrative approach to estimate OOP expenditure. The integrative approach involves examining expenditure flows from the perspective of all agents in the system.

This approach comprises several different health expenditure flows in the system from different perspectives: (i) from the source of financing or consumption (example: Household Expenditure Survey or Household Income and Expenditure Survey (HES/HIES) and (ii) from the provider side (example: private hospital and clinic survey). This combination approach is the best method and highly recommended by NHA international standards.

3.3.2.1.1 Integrative Approach

In the integrative approach, the gross of direct spending from the consumption, provision and financing perspective is estimated after deduction of the third-party source of financing payer reimbursements. This deduction is done to avoid double counting and over estimation of the OOP expenditure. The integrative approach under the MNHA Framework uses the formula below to derive the estimated OOP expenditure:

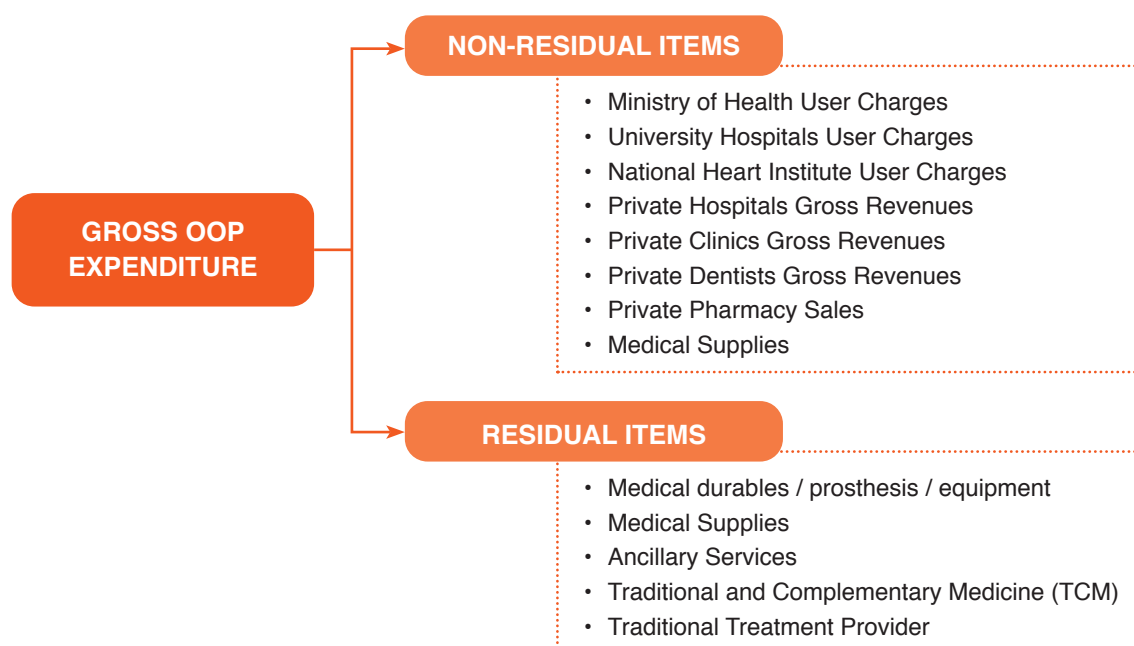
$$\text{OOP Health Expenditure} = (\text{Gross OOP Health Expenditure} - \text{Third Party Payer Reimbursement}) + \text{OOP Expenditure for Health Education \& Training}$$

3.3.2.1.2 Data Source Compilation

(a) Gross OOP Expenditure

The gross OOP expenditure is the net reconciliation of various datasets using the consumption and

provider approaches. It consists of two groups, namely Residual Items (RI) and Non-Residual Items (NRI) as shown below.



(b) Third Party Payer Reimbursement

The third-party payer re-imbursements are the finances claimed from the various agencies such as Private Insurance Enterprises, Private Corporations, Employees Provident Fund (EPF), Social Security Organization (SOCSO), Federal and State Statutory agencies by the OOP payee after the OOP payment is made. Each item in the gross spending and third-party payer data can be obtained from several data sources (Appendix Table A1.1 and A1.2).

3.3.2.1.3 Residual Items Estimation

Residual Items (RI) consists of gross direct spending for medical durables, medical supplies, ancillary services, TCM and traditional treatment provider. The RI data source is from Household Expenditure Survey (HES) or Household Income and Expenditure Survey (HIES) reported by Department of Statistics Malaysia (DOSM). There are several steps in estimating RI as follows:

(a) Code and Grouping of HES/HIES

The first step is to study similarities and differences in Classification of Individual Consumption by Purpose (COICOP). The codes for items under health services and medical goods which are usually either group 5 or group 6 in all the different series of HES/HIES surveys is mapped based on definitions used in DOSM survey.

(b) Additional Data or Surveys

Additional data used for expenditure adjustment in OOP analysis are from MNHA surveys by other agencies (example: Accountant General (AG), IQVIA (formerly known as IMS) and data from others agencies surveys (example: Gross Domestic Product (GDP), Household Consumption, National Health Morbidity Survey (NHMS).

(c) Analysis of RI Expenditure

Re-group all items of group 5 or 6 items codes for different series HES/HIES surveys based on COICOP with weighted expenditures in all series into groups as listed below:

Pharmaceutical - Prescription
Pharmaceutical - Over the counter (OTC)
Pharmaceutical - Supplement
Pharmaceutical - TCM
Other medical products - Medical supply
Therapeutic appliances- Medical durable
Medical OP - Government
Medical OP - Private
Medical OP - Government Corporation
Dental OP - Government
Dental OP - Private
Dental OP - Government Corporation
Ancillary Services
Ancillary Services-TCM
Ancillary Services-TCM Provider
Hospital IP-Government
Hospital IP-Private
Hospital IP- Government Corporation

The group above is subsequently reassigned to the below categories after considering data captured for IMS (Pharmaceuticals, Supplies and TCM)

Government Facility User Charges
Private Hospitals Gross Revenues
Private Clinics Gross Revenues
Private Dentists Gross Revenues
Pharmacy Purchases
Medical durables / prosthesis / equipment
Medical Supplies
Ancillary Services
TCM
Traditional Treatment Provider

Various analytical techniques (straight line imputation/interpolation/extrapolation) are used to address data gaps and sampling issues etc. Subsequently, proportions are derived for



adjustment of HES/HIES to other available estimates for OOP such as Professional and Industrial Survey (PNI) and Household Consumption (HH). Both direct and indirect methods are used to generate expenditure for residual items as a share of GDP. Linear interpolation method was used to estimate expenditure for non-survey years.

(d) Coding of RI Expenditure to State, Provider and Function Codes

The first step is selecting relevant COICOP codes from each HES/HIES which are RI (exclude NRI and IQVIA data). For each year of RI re-align/map codes in various HES/HIES surveys to have the same representation for all series HES/HIES surveys. Assign MNHA MP, MF codes and state codes for each COICOP code. Finally, the individual COICOP code is grouped into 10 different combinations of MNHA MP and MF codes.

3.3.2.1.4 Non-Residual Items Estimation

(a) Government Facility User Charges

Government facilities collect revenues from patients in the form of official user charges. MOH user charges extracted from AG data by SODO Codes for OP, IP and DC are selected and assigned MNHA Provider (MP) and Function (MF) codes. Data from MOE and IJN MNHA Survey are used to assign MP, MF and state codes.

(b) Private Facilities Gross Revenue

This category consists of revenue at private hospital, medical clinics and dental clinics. The data gathered is from Professional and Industrial Survey (PNI) produced by DOSM and MNHA Private Hospital Survey. PNI is a rolling survey which has data gaps and requires being processed using linear interpolation based on GDP values. MNHA Private Hospital Survey data is used to assign MP, MF and state codes. Hospital grouping is based on Medical Practice Division, MOH list.

(c) Private Pharmacy Purchases

Pharmaceutical data from IQVIA is used for OOP estimation which includes product groups

as ethical/prescription, pharmacy and over the counter (OTC). Since IMS data is warehouse price, some estimation is done to get retail price. Each of the three product groups is assigned MP and MF codes. Assignment of state coding is based on number of private stand-alone pharmacies in each state obtained from MOH Pharmacy Division.

(d) Private Haemodialysis

Private Haemodialysis data source is from MNHA Private Haemodialysis Survey based on Medical Practice Division, MOH (CKAPS) list. Data from each respondent are assigned MP, MF and state codes

3.3.2.1.5 Deduction of Third-Party Payers

The summation of all gross revenues is considered as OOP and non-OOP health expenditure. The non-OOP health expenditure has to be deducted as the refundable payments (private insurance, private corporations, SOCSO, EPF and statutory bodies) to estimate the net OOP expenditure. This deduction is done to avoid double counting and over estimation of the OOP expenditure.

3.3.2.1.6 Training Expenditure Estimation

This data is obtained from public universities, private universities and training institutions conducting training in the field of health. Data on health personnel in-service training expenditure is currently not available, in part due to the resource intensiveness in the manner of capturing or extracting this type of expenditure which is embedded in other expenditures, such as expenditure for administration at each hospitals and health departments. Data from each respondent are assigned MP, MF and state codes. Data gaps are addressed using linear interpolation method.

3.3.2.2 Private Corporations / Private Companies

The labour force within the private sector may gain medical benefits through the private employer medical benefit scheme. The average per capita health expenditure is calculated based on the



various industrial surveys conducted by Department of Statistic Malaysia (DOSM) and excludes group health insurance purchases for employees.

3.3.2.3 Private Health Insurance

The health expenditure of private health insurance is calculated based on the Medical Health Insurance data from the Central Bank of Malaysia. The data includes individual and grouped insurances data. The proportions for providers and functions of health care are obtained via the MNHA survey of insurance companies.

3.3.2.4 Non-Government Organizations (NGOs)

Non-government organizations (NGOs) are also involved in health-related activities. Health expenditure incurred by the NGOs is obtained through the MNHA survey of these organizations. The survey also enables this expenditure's disaggregation to providers and functions of health care.

3.3.2.5 Managed Care Organizations (MCO)

Under the MNHA analysis, only data related to health administration of health insurance is obtained from MCO.

3.4 MNHA ESTIMATION OF CONSTANT VALUE

Current or Nominal value of health expenditure refers to expenditures reported for a particular year, unadjusted for inflation. Constant value estimates indicate what expenditure would have been when anchored to a particular year value,

such as 2018 values applied to all years. As a result, expenditures in different years can be compared on a *Ringgit-for-Ringgit* basis, using this as a measure of changes in the volume of health goods and services. Constant expenditure adjusts current or nominal values which aim to remove the effects of inflation. Hence, when making health expenditure comparisons over a time series it is more meaningful to use constant values rather than current or nominal values.

$$\text{GDP Deflator} = \frac{\text{GDP Current}}{\text{GDP Constant}} \times 100$$

In health expenditure estimations under NHA usually the constant value is estimated using GDP deflator. The GDP deflator is a measure of the level of prices of all new, domestically produced, final goods and services in an economy. It is a price index that measures price inflation or deflation. GDP deflator can be calculated using above formula for every series in different base year for GDP current and constant values. GDP current and GDP constant time series data is published every year by Department of Statistics Malaysia (DOSM).

The constant value estimation requires a two-step method whereby the first step involves estimation of a set of GDP deflators. Based on advice from NHA experts, the splicing method on series in different base year from 2000 to 2010 can be used to get a series of GDP deflator as shown in Table 3.4a. The second step involves application of this estimated GDP deflator to nominal values for estimation of constant values.

TABLE 3.4a: Example of Splicing Method with Different Base Year

Year	2005	2006	2007	2008	2009	2010	2011
Deflators Base Year 2005	100	104	109	120	113	118	
Deflators Base Year 2010						100	105
GDP Deflator Base Year 2010 (Splicing Method)	<i>85</i>	<i>88</i>	<i>92</i>	<i>102</i>	<i>96</i>	<i>100</i>	<i>105</i>

Note: Derived values in italics



Example of splicing method using base year 2010 to derive at new GDP deflator for year 2009:

$$= (100/118) \times 113$$

$$= 96$$

For year 2008:

$$= (100/118) \times 120$$

$$= 102$$

Constant value estimates can be obtained by calculating GDP deflator base year 2016 from the

derived values of GDP deflator base year 2010 which then can be applied to the nominal value of health expenditure. As a result, nominal value increases when expressed in constant value at a particular base year.

This estimation can be demonstrated using 2016 base year and a set of GDP deflator values as shown in Table 3.4b.

TABLE 3.4b: Example of Calculating Total Expenditure on Health in Constant Value Base Year 2016

Year	2009	2010	2011	2012	2013	2014	2015	2016
GDP Deflator Base Year 2010 (Splicing Method)	96	100	105	106	107	108	109	111
TEH Nominal (RM Million)		32,000	35,000	39,000	41,000	46,000	49,000	51,000
TEH Constant (RM Million)		35,520	37,000	40,840	42,533	47,278	49,899	51,000

Monetary values expressed in current values can be converted to constant values base year 2016 using the formula:-

$$V_{\text{cox}} = V_{\text{curx}} * (D_i / D_x)$$

Where:-

- V_{cox} is the value expressed in constant values for the year for which constant prices are to be calculated (Year x)
- V_{curx} is the value expressed in the current values applying in Year x
- D refers to the GDP deflator applying in Years x and i, with i being the base year

For example, using the above formula to calculate TEH 2015 in constant value:-

- $V_{\text{curx}} = \text{RM}49,000$
- $D_i = 111$
- $D_x = 109$

$$\begin{aligned} \text{Then: } V_{\text{cox}} &= \text{RM}49,000 \times (111/109) \\ &= \text{RM}49,899 \end{aligned}$$

Thus the value to be used, expressed as constant values at the base year 2016, is RM49,899 rather than the current value of RM49,000.



CHAPTER 4

4.1 TOTAL EXPENDITURE ON HEALTH

The total expenditure on health (TEH) is the sum of aggregate public and private health expenditure in a given year, calculated in Ringgit Malaysia. TEH mentioned in this report is based on MNHA framework which consists of core functions and health related function as shown in Figure 2.1. TEH

for Malaysia between 1997 to 2019 is as illustrated in Table 4.1 and Figure 4.1. There is a gradually ascending trend of the TEH. Meanwhile, TEH as a share of Gross Domestic Product (GDP) for the same period ranged from 3.04 percent to 4.26 percent of GDP.

TABLE 4.1: Total Expenditure on Health, 1997-2019 (RM Million & Percent GDP)

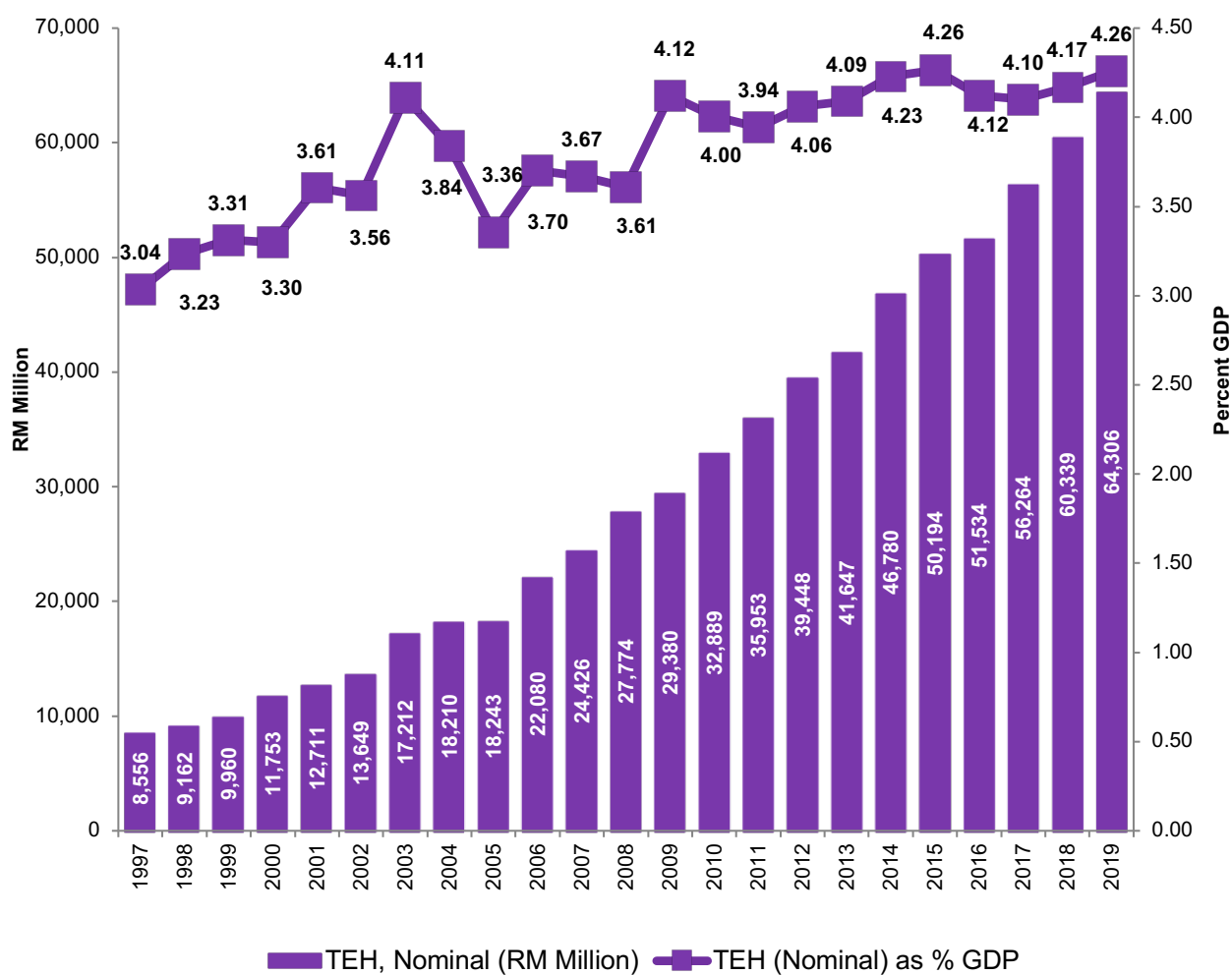
Year	TEH, Nominal (RM Million)	TEH, Constant (RM Million)*	Total GDP, Nominal (RM Million)**	MNHA Derived GDP Deflator*	TEH (Nominal) as % GDP
1997	8,556	15,448	281,795	59	3.04
1998	9,162	15,261	283,243	64	3.23
1999	9,960	16,590	300,764	64	3.31
2000	11,753	18,617	356,401	67	3.30
2001	12,711	20,544	352,579	66	3.61
2002	13,649	21,405	383,213	68	3.56
2003	17,212	25,965	418,769	70	4.11
2004	18,210	25,986	474,048	74	3.84
2005	18,243	24,910	543,578	78	3.36
2006	22,080	28,990	596,784	81	3.70
2007	24,426	30,599	665,340	85	3.67
2008	27,774	31,604	769,949	93	3.61
2009	29,380	35,503	712,857	88	4.12
2010	32,889	38,059	821,434	92	4.00
2011	35,953	39,468	911,733	97	3.94
2012	39,448	42,876	971,252	98	4.06
2013	41,647	45,188	1,018,614	98	4.09
2014	46,780	49,535	1,106,443	100	4.23
2015	50,194	53,345	1,176,941	100	4.26
2016	51,534	53,876	1,249,698	102	4.12
2017	56,264	56,679	1,372,310	105	4.10
2018	60,339	60,377	1,447,451	106	4.17
2019	64,306	64,306	1,510,693	106	4.26

Note: *Constant values estimated using MNHA derived GDP deflators

Source: **Department of Statistics Malaysia (DOSM) published in May 2020



FIGURE 4.1: Trend for Total Expenditure on Health, 1997-2019 (RM Million & Percent GDP)





4.2 PER CAPITA HEALTH EXPENDITURE

Per capita expenditure on health in nominal value ranged from RM393 in 1997 to RM1,974 in 2019.

In constant values, per capita health expenditure

ranged from RM710 in 1997 to RM1,974 in 2019 (Table 4.2 and Figure 4.2).

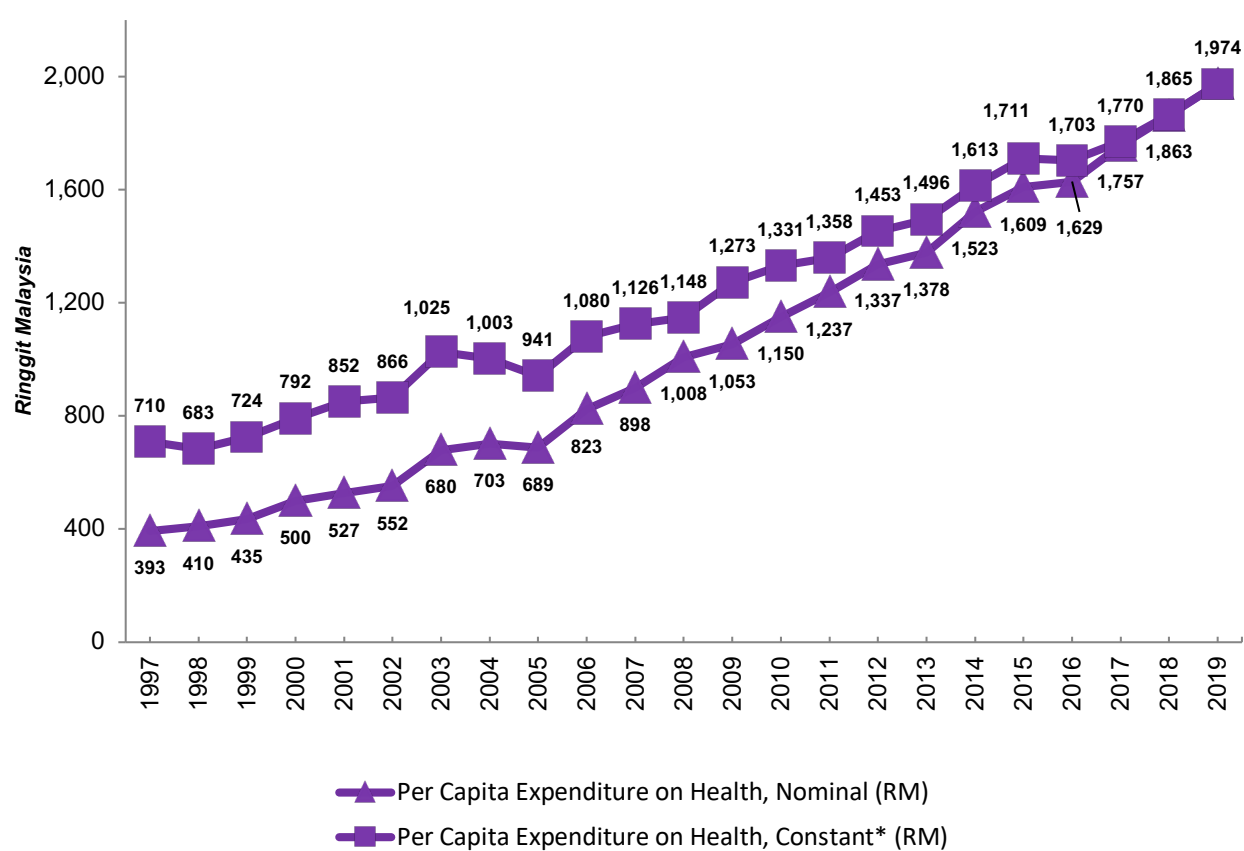
TABLE 4.2: Per Capita Expenditure on Health, 1997-2019 (Nominal & Constant, RM)

Year	TEH, Nominal (RM Million)	TEH, Constant* (RM Million)	Per Capita Expenditure on Health, Nominal (RM)	Per Capita Expenditure on Health, Constant* (RM)	Total Population**
1997	8,556	15,448	393	710	21,769,200
1998	9,162	15,261	410	683	22,333,500
1999	9,960	16,590	435	724	22,909,400
2000	11,753	18,617	500	792	23,494,900
2001	12,711	20,544	527	852	24,123,400
2002	13,649	21,405	552	866	24,727,100
2003	17,212	25,965	680	1,025	25,320,100
2004	18,210	25,986	703	1,003	25,905,100
2005	18,243	24,910	689	941	26,477,100
2006	22,080	28,990	823	1,080	26,831,400
2007	24,426	30,599	898	1,126	27,186,000
2008	27,774	31,604	1,008	1,148	27,540,300
2009	29,380	35,503	1,053	1,273	27,895,100
2010	32,889	38,059	1,150	1,331	28,588,800
2011	35,953	39,468	1,237	1,358	29,062,100
2012	39,448	42,876	1,337	1,453	29,509,900
2013	41,647	45,188	1,378	1,496	30,213,800
2014	46,780	49,535	1,523	1,613	30,708,600
2015	50,194	53,345	1,609	1,711	31,186,100
2016	51,534	53,876	1,629	1,703	31,633,400
2017	56,264	56,679	1,757	1,770	32,022,600
2018	60,339	60,377	1,863	1,865	32,382,300
2019	64,306	64,306	1,974	1,974	32,581,400

Note: *Constant values estimated using MNHA derived GDP deflators

Source: **Department of Statistics Malaysia (Population Quick Info. accessed on 12th May 2020)

FIGURE 4.2: Per Capita Expenditure on Health, 1997-2019 (Nominal & Constant, RM)



Note: *Constant values estimated using MNHA derived GDP deflators



4.3 HEALTH EXPENDITURE BY STATES

Under beneficiary group of MNHA classification. All state allocation is assigned based on the facilities where the financial resources were used to purchase the various types of healthcare services and products. In the event where this is not possible, it will be allocated based on the location of the agencies which represent the facilities. The sequence of states in the figures and tables below is based on the state population size in the year 2019 as the reference year.

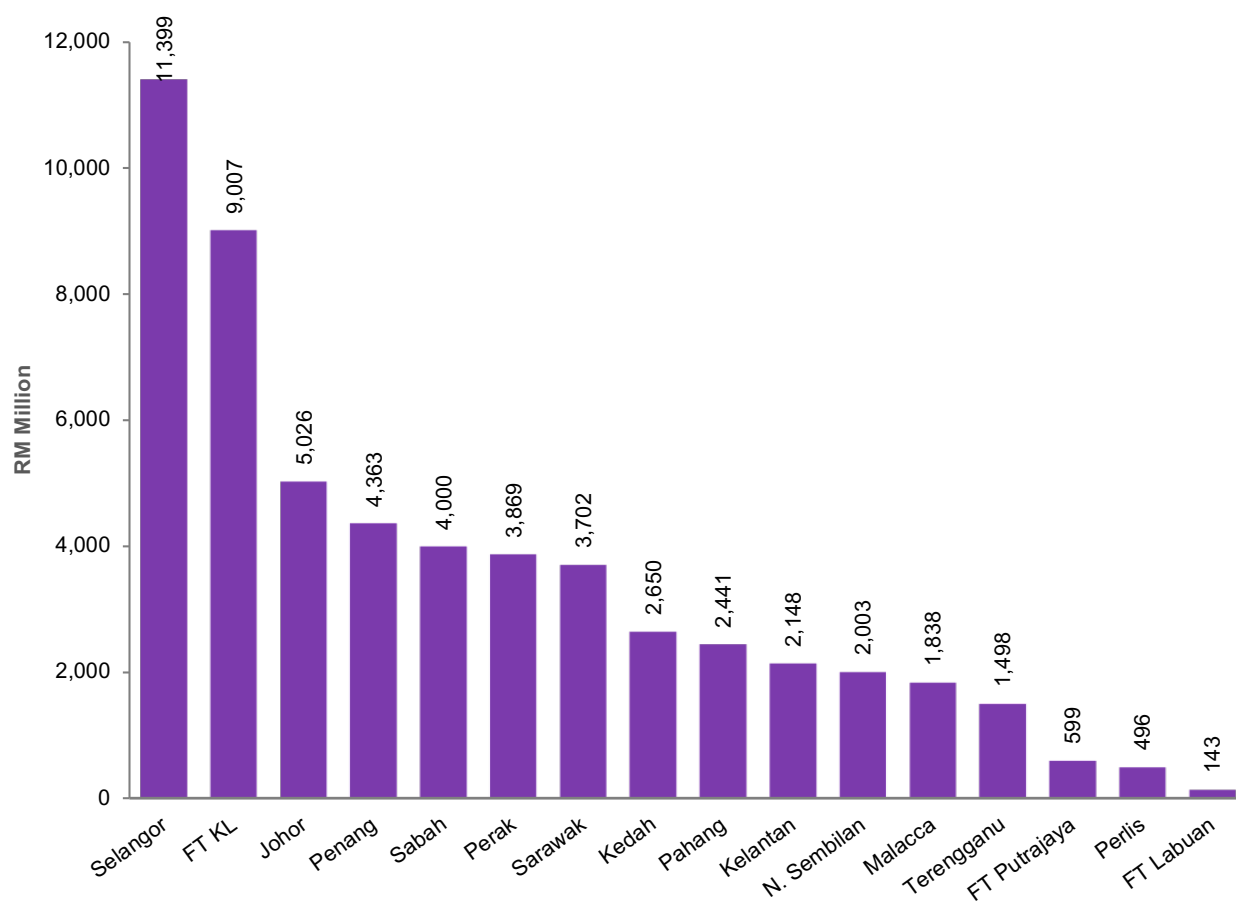
There are thirteen states and three Federal Territories, namely Kuala Lumpur, Labuan and Putrajaya. The state population census is reported by the Department of Statistics Malaysia. In 2019, Selangor had both the largest population of about 6.5 million people and highest expenditure on health of RM11,399 million as shown in Table 4.3 and Figure 4.3.

TABLE 4.3: State Population and Health Expenditure, 2019

State	Population *	Expenditure (RM Million)
Selangor	6,528,400	11,399
FT KL	1,780,700	9,007
Johor	3,764,300	5,026
Penang	1,774,600	4,363
Sabah	3,903,400	4,000
Perak	2,512,100	3,869
Sarawak	2,812,800	3,702
Kedah	2,180,600	2,650
Pahang	1,674,600	2,441
Kelantan	1,885,700	2,148
N. Sembilan	1,130,300	2,003
Malacca	930,700	1,838
Terengganu	1,245,700	1,498
FT Putrajaya	99,300	599
Perlis	254,400	496
FT Labuan	103,800	143
National**	-	9,127
Total	32,581,400	64,306

Source: *Population Quick Info. of Department of Statistics Malaysia website, accessed on 12th May 2020

Note: **Unable to allocate by states

**FIGURE 4.3: Health Expenditure by States, 2019 (RM Million)**



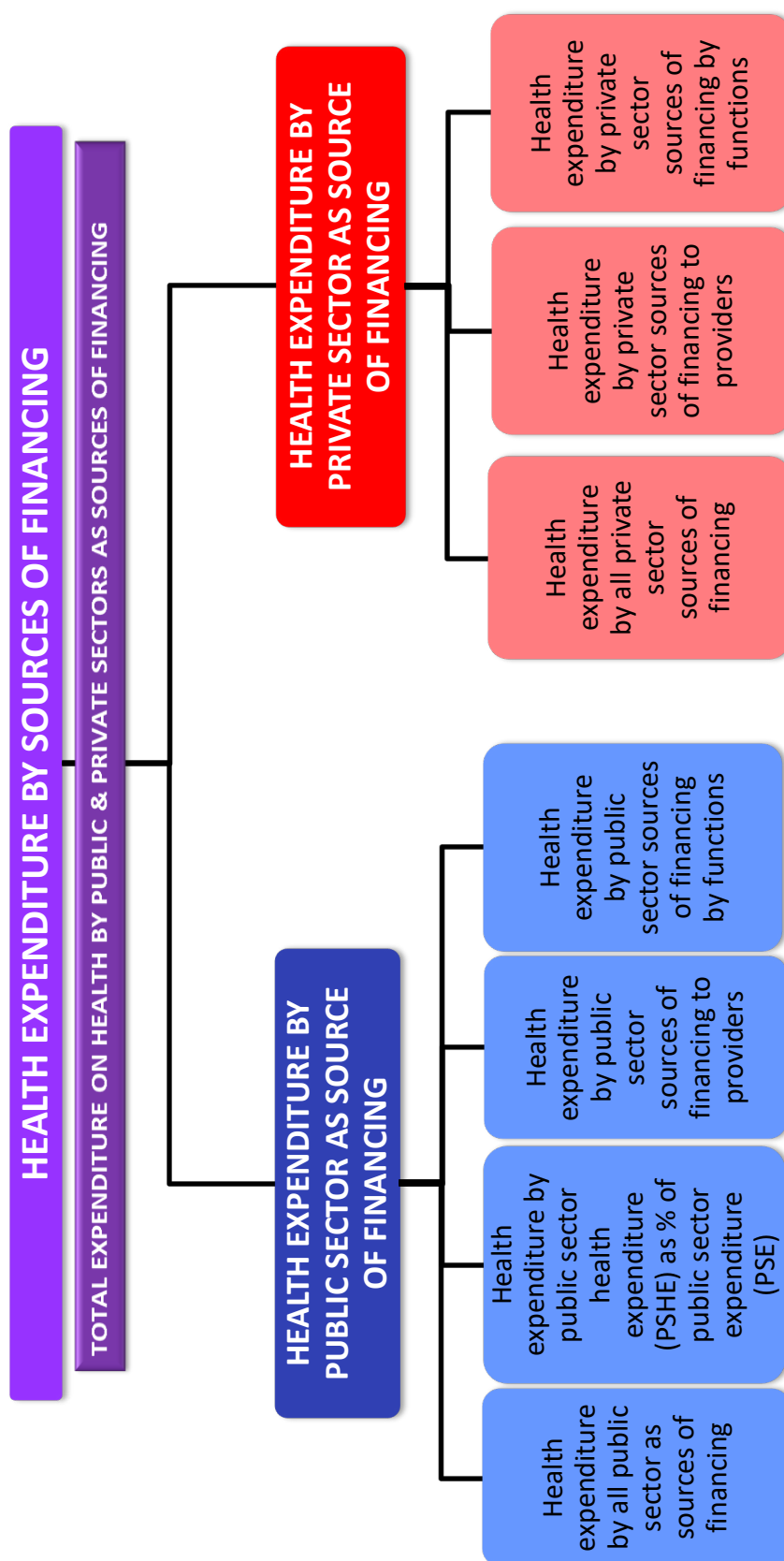
CHAPTER 5

HEALTH EXPENDITURE BY SOURCES OF FINANCING

Sources of financing for health care services and products include multiple public and private sector agencies. The public sector sources of financing are federal government, state government, local authorities, social security funds and all other public entities. As for the private sector, sources of financing include private insurance enterprises, managed care organizations (MCO), private household out-of-pocket (OOP), non-profit

institutions, private corporations and rest of the world. The share of both sectors to the TEH can be identified for each year in the time series. This chapter contains three main sections, namely health expenditure by all sources of financing, and also specific public sector and private sector health expenditures in Section 5.2 and Section 5.3 respectively. An overview of health expenditure by sources of financing is shown in Figure 5.0.

FIGURE 5.0: Organogram of Health Expenditure by Sources of Financing



5.1 Health Expenditure by Public and Private Sector Sources of Financing

Among the various sources of financing, the Ministry of Health (MOH) had the highest expenditure amounting to RM28,860 million or 45% share of TEH (Table 5.1a and Figure 5.1a) in 2019. This is followed by private household out-of-pocket (OOP) spending (RM 22,492 million or 35%), private insurance (RM4,889 million or 8%) and all corporations (other than health insurance) (RM2,117 million contributing or 3%). Other federal agencies including federal statutory bodies spent RM1,862 million or 3% whereas Ministry of Education (MOE) spent RM1,579 million or 2% of the share of TEH.

The time series data trend also shows that there are changes of trend in sources of financing from

2003 onwards. Private insurance expenditure was the third highest source of financing until 2019. Since 2015, all corporation (other than health insurance) overtook other federal agencies (including statutory bodies) as the fourth highest source of financing (Table 5.1b and Table 5.1c).

In 2019, the public and private sectors health expenditure were RM33,371 million (52%) and RM 30,575 million (48%) respectively (Table 5.1d and Figure 5.1b). A similar pattern is noted throughout the time series from 1997 to 2019, where the public sector share of health expenditure remained higher than the private sector share. Both public and private sectors spending generally showed an increasing trend throughout the time-series.

TABLE 5.1a: Total Expenditure on Health by Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS1.1.1.1	Ministry of Health (MOH)	28,860	44.88
MS2.4	Private household out-of-pocket expenditures (OOP)	22,492	34.98
MS2.2	Private insurance enterprises (other than social insurance)	4,889	7.60
MS2.6	All corporations (other than health insurance)	2,117	3.29
MS1.1.1.9	Other federal agencies (including statutory bodies)	1,862	2.90
MS1.1.1.2	Ministry of Education (MOE)	1,579	2.46
MS2.3	Private MCOs and other similar entities	983	1.53
MS1.1.2.2	Other state agencies (including statutory bodies)	453	0.70
MS1.2.2	Social Security Organization (SOC SO)	394	0.61
MS1.1.3	Local authorities (LA)	212	0.33
MS1.1.2.1	(General) State government	139	0.22
MS1.1.1.3	Ministry of Defence (MOD)	150	0.23
MS2.5	Non-profit institutions serving households (NGO)	90	0.14
MS1.2.1	Employees Provident Fund (EPF)	83	0.13
MS9	Rest of the world (ROW)	4	0.01
Total		64,306	100.00

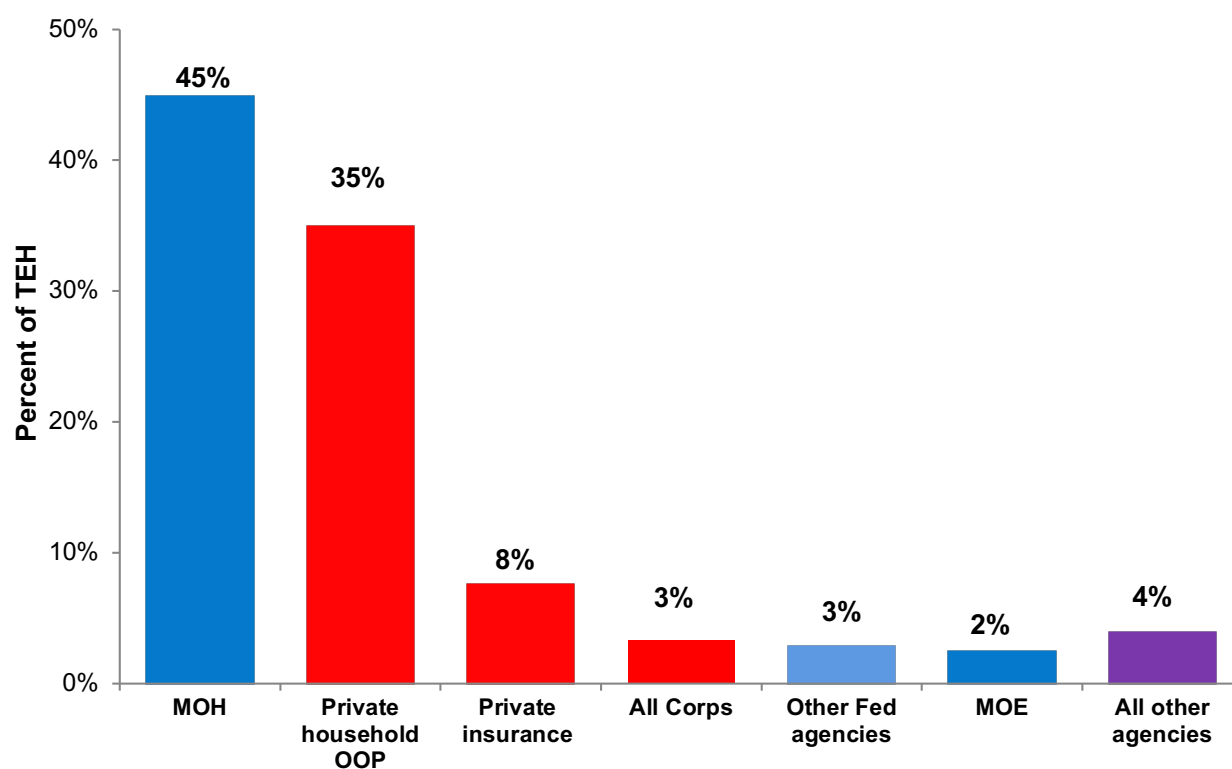
**FIGURE 5.1a: Total Expenditure on Health by Sources of Financing, 2019**



TABLE 5.1b: Total Expenditure on Health by Sources of Financing, 1997-2019 (RM Million)

MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1.1.1	Ministry of Health (MOH)	3,616	3,943	4,358	5,266	6,141	6,545	8,876	8,761	7,893	10,655	11,036	12,813	14,431	15,945	16,496	18,239	19,038	21,782	22,671	22,225	24,716	26,499	28,860
MS1.1.1.2	Ministry of Education (MOE)	328	330	373	416	509	563	602	649	670	720	859	999	1,039	1,243	1,245	1,311	1,261	1,376	1,335	1,308	1,280	1,347	1,579
MS1.1.1.3	Ministry of Defence (MOD)	42	46	48	54	62	68	79	74	81	96	109	136	133	127	140	172	175	186	169	154	132	103	150
MS1.1.1.9	Other federal agencies (including statutory bodies)	241	278	297	337	425	473	563	755	737	819	1,049	1,405	1,541	1,537	1,813	1,678	1,677	1,805	1,894	2,027	2,084	2,134	1,862
MS1.1.2.1	(General) State government	36	41	41	42	41	46	68	90	67	77	88	94	84	90	90	105	78	86	90	97	111	150	139
MS1.1.2.2	Other state agencies (including statutory bodies)	31	32	33	38	39	43	50	56	67	71	75	86	90	111	129	137	189	212	346	365	392	419	453
MS1.1.3	Local authorities (LA)	15	16	17	18	19	22	27	35	45	42	419	113	113	238	108	142	150	188	164	178	138	154	212
MS1.2.1	Employees Provident Fund (EPF)	7	15	20	24	32	36	43	56	61	46	51	49	38	34	39	38	42	46	52	56	58	67	83
MS1.2.2	Social Security Organization (SOCSSO)	50	50	53	60	63	67	74	83	96	105	117	88	102	136	157	176	219	264	261	310	329	410	394
MS2.2	Private insurance enterprises (other than social insurance)	295	365	421	516	599	718	964	1,062	1,084	1,246	1,413	1,709	1,991	2,273	2,614	2,774	2,916	3,203	3,623	3,840	4,085	4,313	4,889
MS2.3	Private MCOs and other similar entities	50	68	73	78	84	92	106	113	123	138	151	167	179	201	243	302	287	437	730	804	871	914	983
MS2.4	Private household out-of-pocket expenditures (OOP)	3,166	3,265	3,497	4,175	3,882	4,127	4,941	5,664	6,382	7,141	7,919	9,084	8,478	9,917	11,466	12,649	13,933	15,373	16,776	17,790	19,462	21,127	22,492
MS2.5	Non-profit institutions serving households (NGO)	64	70	71	87	93	104	118	131	148	160	186	214	234	269	312	363	78	40	69	87	92	92	90
MS2.6	All corporations (other than health insurance)	616	642	658	637	722	744	701	680	787	765	951	816	801	899	1,064	1,352	1,564	1,803	1,996	2,307	2,492	2,564	2,117
MS9	Rest of the world (ROW)				5							1	1	2	1	3	2	3	4	5	4	5	5	4
Total		8,556	9,162	9,960	11,753	12,711	13,649	17,212	18,210	18,243	22,080	24,426	27,774	29,330	32,889	35,953	39,448	41,647	46,780	50,194	51,534	56,264	60,339	64,306



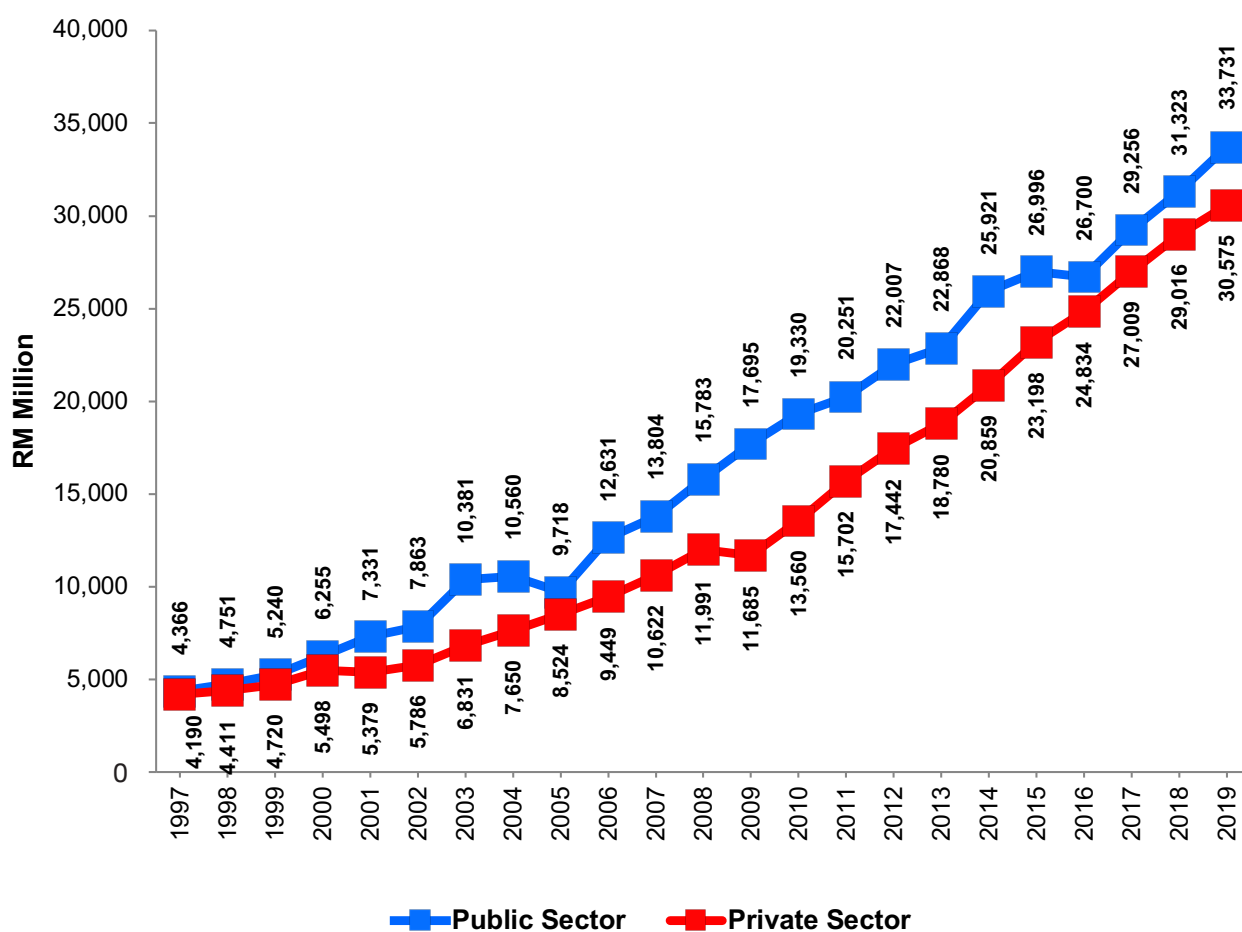
TABLE 5.1c: Total Expenditure on Health by Sources of Financing, 1997-2019 (Percent, %)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MNHA Code	Sources of Financing																							
MS1.1.1.1	Ministry of Health (MOH)	42.26	43.04	43.75	44.81	48.32	47.95	51.57	48.11	43.27	48.26	45.18	46.13	49.12	48.48	45.88	46.24	45.71	46.56	45.17	43.13	43.93	43.92	44.88
MS1.1.1.2	Ministry of Education (MOE)	3.83	3.61	3.74	3.54	4.00	4.13	3.50	3.56	3.68	3.26	3.52	3.60	3.53	3.78	3.46	3.32	3.03	2.94	2.66	2.54	2.27	2.23	2.46
MS1.1.1.3	Ministry of Defence (MOD)	0.50	0.50	0.48	0.46	0.48	0.50	0.46	0.41	0.45	0.44	0.45	0.49	0.45	0.39	0.39	0.44	0.42	0.40	0.34	0.30	0.24	0.17	0.23
MS1.1.1.9	Other federal agencies (including statutory bodies)	2.82	3.04	2.98	2.87	3.34	3.46	3.27	4.15	4.04	3.71	4.30	5.06	5.25	4.67	5.04	4.25	4.03	3.86	3.77	3.93	3.70	3.54	2.90
MS1.1.2.1	(General) State government	0.42	0.45	0.42	0.36	0.33	0.34	0.40	0.50	0.37	0.35	0.36	0.34	0.29	0.27	0.25	0.27	0.19	0.18	0.18	0.19	0.20	0.25	0.22
MS1.1.2.2	Other state agencies (including statutory bodies)	0.36	0.35	0.33	0.33	0.31	0.31	0.29	0.31	0.37	0.32	0.31	0.31	0.31	0.34	0.36	0.35	0.45	0.45	0.69	0.75	0.70	0.89	0.70
MS1.1.3	Local authorities (LA)	0.18	0.17	0.17	0.15	0.15	0.16	0.16	0.19	0.25	0.19	1.71	0.41	0.81	0.33	0.39	0.38	0.45	0.35	0.36	0.27	0.27	0.32	0.33
MS1.2.1	Employees Provident Fund (EPF)	0.08	0.17	0.20	0.20	0.25	0.27	0.25	0.31	0.33	0.21	0.21	0.18	0.13	0.10	0.11	0.10	0.10	0.10	0.10	0.11	0.10	0.11	0.13
MS1.2.2	Social Security Organization (SOCSSO)	0.58	0.54	0.53	0.51	0.49	0.49	0.43	0.46	0.52	0.48	0.48	0.32	0.35	0.41	0.44	0.45	0.53	0.57	0.52	0.60	0.58	0.68	0.61
MS2.2	Private insurance enterprises (other than social insurance)	3.44	3.98	4.23	4.39	4.71	5.26	5.60	5.83	5.94	5.64	5.78	6.15	6.78	6.91	7.27	7.03	7.00	6.85	7.22	7.45	7.26	7.15	7.60
MS2.3	Private MCOs and other similar entities	0.58	0.74	0.73	0.67	0.66	0.68	0.62	0.62	0.67	0.63	0.62	0.60	0.61	0.61	0.68	0.77	0.69	0.93	1.45	1.56	1.55	1.52	1.53
MS2.4	Private household out-of-pocket expenditures (OOP)	37.00	35.64	35.11	35.52	30.54	30.24	28.71	31.10	34.99	32.34	32.42	32.71	28.86	30.15	31.89	32.06	33.45	32.86	33.42	34.52	34.59	35.01	34.98
MS2.5	Non-profit institutions serving households (NGO)	0.75	0.76	0.72	0.74	0.73	0.77	0.69	0.72	0.81	0.73	0.76	0.77	0.80	0.82	0.87	0.92	0.19	0.08	0.14	0.17	0.16	0.15	0.14
MS2.6	All corporations (other than health insurance)	7.20	7.01	6.60	5.42	5.68	5.45	4.07	3.74	4.31	3.46	3.89	2.94	2.73	2.73	2.96	3.43	3.75	3.85	3.98	4.48	4.43	4.25	3.29
MS9	Rest of the world (ROW)	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00


TABLE 5.1d: Total Expenditure on Health by Public & Private Sectors Sources of Financing, 1997-2019

Year	Public Sector			Private Sector			TEH (Nominal RM Million)
	Health Expenditure (Nominal, RM Million)	Health Expenditure (Constant*, RM Million)	Health Expenditure as Percentage of TEH (%)	Health Expenditure (Nominal, RM Million)	Health Expenditure (Constant*, RM Million)	Health Expenditure as Percentage of TEH (%)	
1997	4,366	7,882	51.02	4,190	7,565	48.98	8,556
1998	4,751	7,914	51.86	4,411	7,347	48.14	9,162
1999	5,240	8,728	52.61	4,720	7,862	47.39	9,960
2000	6,255	9,908	53.22	5,498	8,709	46.78	11,753
2001	7,331	11,850	57.68	5,379	8,694	42.32	12,711
2002	7,863	12,331	57.61	5,786	9,074	42.39	13,649
2003	10,381	15,660	60.31	6,831	10,305	39.69	17,212
2004	10,560	15,069	57.99	7,650	10,917	42.01	18,210
2005	9,718	13,270	53.27	8,524	11,640	46.73	18,243
2006	12,631	16,584	57.20	9,449	12,407	42.80	22,080
2007	13,804	17,293	56.51	10,622	13,306	43.49	24,426
2008	15,783	17,960	56.83	11,991	13,644	43.17	27,774
2009	17,695	21,383	60.23	11,685	14,120	39.77	29,380
2010	19,330	22,368	58.77	13,560	15,691	41.23	32,889
2011	20,251	22,231	56.33	15,702	17,237	43.67	35,953
2012	22,007	23,919	55.79	17,442	18,957	44.21	39,448
2013	22,868	24,811	54.91	18,780	20,376	45.09	41,647
2014	25,921	27,447	55.41	20,859	22,088	44.59	46,780
2015	26,996	28,690	53.78	23,198	24,655	46.22	50,194
2016	26,700	27,914	51.81	24,834	25,962	48.19	51,534
2017	29,256	29,471	52.00	27,009	27,208	48.00	56,264
2018	31,323	31,343	51.91	29,016	29,034	48.09	60,339
2019	33,731	33,731	52.45	30,575	30,575	47.55	64,306

Note: *Constant values estimated using MNHA derived GDP deflators

FIGURE 5.1d: Total Expenditure on Health by Sources of Financing (Public vs. Private), 1997-2019





5.2 HEALTH EXPENDITURE BY PUBLIC SECTOR SOURCES OF FINANCING

This section describes public sector health expenditure according to MNHA classification of sources of financing for year 2019, followed by time series data of 1997-2019 in RM Million and percentage.

5.2.1 Health Expenditure by All Public Sector Sources of Financing

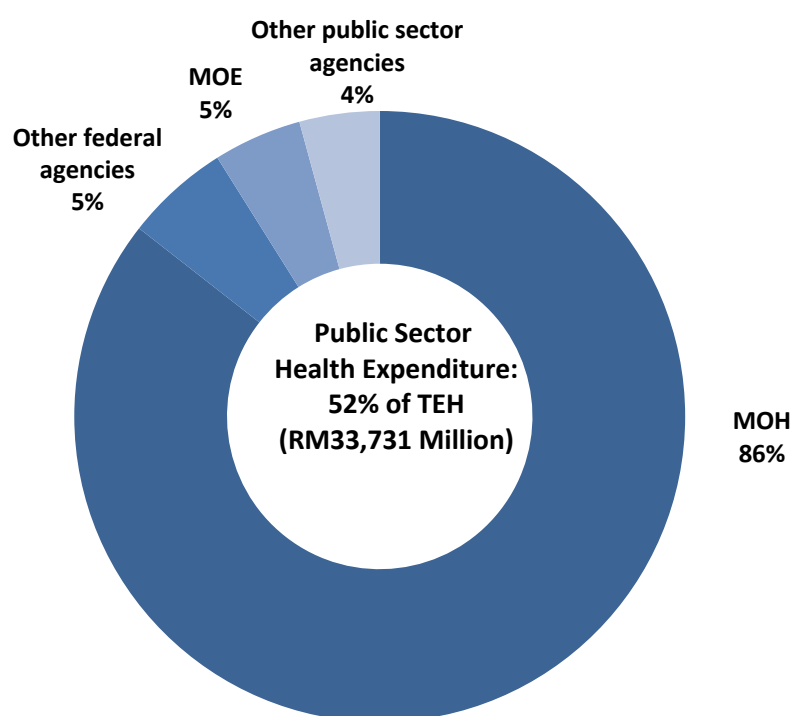
In 2019, analysis of the public sector sources of financing showed that MOH spent RM28,860 million (86%), making it the largest financier in this sector. This is followed by other federal agencies (including statutory bodies) with RM1,862 million (5%), MOE RM1,579 million (5%), other state agencies (including statutory bodies) RM453 million (1%), SOCSO RM394 million (1%), and

other public sector agencies with each agency spending less than RM300 million but in total amounting to RM584 million (2%) (Table 5.2.1a and Figure 5.2.1).

The time series expenditure data shows that MOH as the largest financier in public sector had progressively increased its spending from RM3,616 million in 1997 to RM28,860 million in 2019 (Table 5.2.1b). This MOH expenditure attributed between 81 to 85% share of public sector expenditure (Table 5.2.1c). This is followed by other federal agencies (including statutory bodies), MOE, other state agencies (including state statutory bodies) and SOCSO. These sources of financing in total contributed to an average share of 15% of the total public sector expenditure throughout this time series.

TABLE 5.2.1a: Health Expenditure by Public Sector Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS1.1.1.1	Ministry of Health (MOH)	28,860	85.56
MS1.1.1.9	Other federal agencies (including statutory bodies)	1,862	5.52
MS1.1.1.2	Ministry of Education (MOE)	1,579	4.68
MS1.1.2.2	Other state agencies (including statutory bodies)	453	1.34
MS1.2.2	Social Security Organization (SOCSO)	394	1.17
MS1.1.3	Local authorities (LA)	212	0.63
MS1.1.2.1	(General) State government	139	0.41
MS1.1.1.3	Ministry of Defence (MOD)	150	0.44
MS1.2.1	Employees Provident Fund (EPF)	83	0.24
Total		33,731	100.00

**FIGURE 5.2.1: Health Expenditure by Public Sector Sources of Financing, 2019**

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MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1.1.1	Ministry of Health (MOH)	3,616	3,943	4,358	5,266	6,141	6,545	8,876	8,761	7,893	10,655	11,036	12,813	14,431	15,945	16,496	18,239	19,038	21,782	22,671	22,225	24,716	26,499	28,860
MS1.1.1.2	Ministry of Education (MOE)	328	330	373	416	509	563	602	649	670	720	859	999	1,039	1,243	1,245	1,311	1,261	1,376	1,335	1,308	1,280	1,347	1,579
MS1.1.1.3	Ministry of Defence (MOD)	42	46	48	54	62	68	79	74	81	96	109	136	133	127	140	172	175	186	169	154	132	103	150
MS1.1.1.9	Other federal agencies (including statutory bodies)	241	278	297	337	425	473	563	755	737	819	1,049	1,405	1,541	1,537	1,813	1,678	1,677	1,805	1,894	2,027	2,084	2,134	1,862
MS1.1.2.1	(General) State government	36	41	41	42	41	46	68	90	67	77	88	94	84	90	90	105	78	86	90	97	111	150	139
MS1.1.2.2	Other state agencies (including statutory bodies)	31	32	33	38	39	43	50	56	67	71	75	86	90	111	129	137	189	212	346	385	392	419	453
MS1.1.3	Local authorities (LA)	15	16	17	18	19	22	27	35	45	42	419	113	238	108	142	150	188	164	178	138	154	194	212
MS1.2.1	Employee Provident Funds (EPF)	7	15	20	24	32	36	43	56	61	46	51	49	38	34	39	38	42	46	52	56	58	67	83
MS1.2.2	Social Security Organization (SOCOSO)	50	50	53	60	63	67	74	83	96	105	117	88	102	136	157	176	219	264	261	310	329	410	394
	Total	4,366	4,751	5,240	6,255	7,331	7,863	10,381	10,560	9,718	12,631	13,804	15,783	17,695	19,330	20,251	22,007	22,868	25,021	26,996	26,700	29,256	31,323	33,731

TABLE 5.2.1c: Health Expenditure by Public Sector Sources of Financing, 1997-2019 (Percent, %)

[illegible]



5.2.2 Public Sector Health Expenditure (PSHE) as Percentage of Public Sector Expenditure (PSE)

Public Sector Health Expenditure (PSHE) includes expenditure by all public sector sources of financing

namely federal government, state government, local authorities, social security funds and all other public entities. PSHE as percentage of Public Sector Expenditure (PSE), has increased from RM4,366 million (5%) in 1997 to RM33,731million (8%) in 2019 (Table 5.2.2 and Figure 5.2.2).

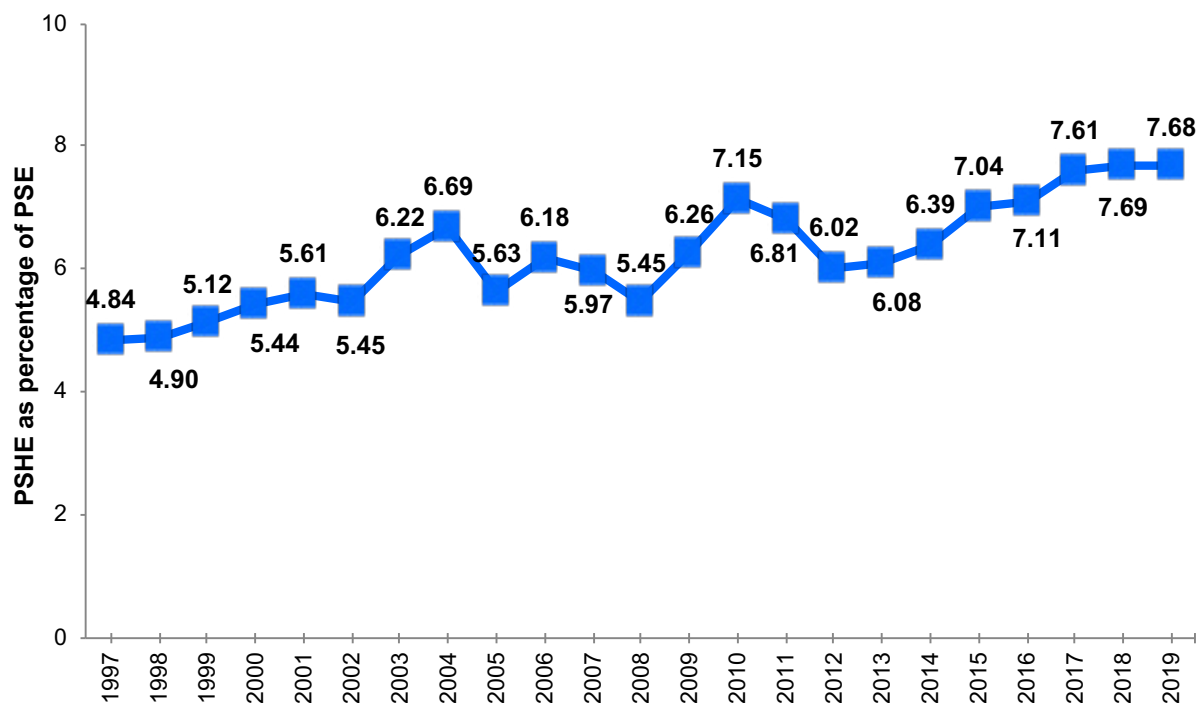
TABLE 5.2.2: Trend for Public Sector Health Expenditure (PSHE), 1997-2019 (RM Million, Percent PSE)

Year	Public Sector Health Expenditure (PSHE) (RM Million)	Public Sector Expenditure (PSE)* (RM Million)	PSHE as % PSE
1997	4,366	90,131	4.84
1998	4,751	97,040	4.90
1999	5,240	102,320	5.12
2000	6,255	114,884	5.44
2001	7,331	130,690	5.61
2002	7,863	144,278	5.45
2003	10,381	166,948	6.22
2004	10,560	157,742	6.69
2005	9,718	172,681	5.63
2006	12,631	204,255	6.18
2007	13,804	231,359	5.97
2008	15,783	289,394	5.45
2009	17,695	282,794	6.26
2010	19,330	270,171	7.15
2011	20,251	297,382	6.81
2012	22,007	365,600	6.02
2013	22,868	376,374	6.08
2014	25,921	405,788	6.39
2015	26,996	383,727	7.04
2016	26,700	375,488	7.11
2017	29,256	384,576	7.61
2018	31,323	407,330	7.69
2019	33,731	439,388	7.68

Source: *Treasury Malaysia website Fiscal Outlook 2020, Section 6: Consolidated Public Sector



FIGURE 5.2.2: Trend for Public Sector Health Expenditure (PSHE) as Percentage of Public Sector Expenditure (PSE), 1997-2019





5.2.3 Health Expenditure by Public Sector Sources of Financing to Providers

Cross-tabulations of public sector sources of financing and providers of health care services and products respond to the question as to where this public source of fund is spent or who provides the services and products.

In 2019, all hospitals (inclusive of general hospitals, psychiatric hospitals and specialty hospitals) consumed RM20,263 million (60%), followed by providers of ambulatory healthcare at RM6,116 million (18%) and general health administration and

insurance at RM4,006 million (12%) (Table 5.2.3a and Figure 5.2.3). MOH was a major contributor of expenditure for provision and administration of public health programmes.

The 1997 to 2019 time series shows a similar pattern in the share of various providers that consumed public sector source of financing. All providers showed a steady increase in expenditure over the time period (Table 5.2.3b and Table 5.2.3c). Over the period of 2000 to 2019, expenditure by all hospitals and providers of ambulatory health care which were among the higher spending groups, exhibited steeper increment in spending compared to other providers.

TABLE 5.2.3a: Public Sector Health Expenditure to Providers of Health Care, 2019

MNHA Code	Providers of Health Care	RM Million	Percent
MP1	All hospitals	20,263	60.07
MP3	Providers of ambulatory health care	6,116	18.13
MP6	General health administration and insurance	4,006	11.88
MP8	Institutions providing health-related services	1,305	3.87
MP5	Provision and administration of public health programmes	1,674	4.96
MP4	Retail sale and other providers of medical goods	205	0.61
MP7	Other industries (rest of the Malaysian economy)	159	0.47
MP2	Nursing and residential care facilities	1	< 0.01
MP9	Rest of world (ROW)	1	< 0.01
Total		33,731	100.00



FIGURE 5.2.3: Public Sector Health Expenditure to Providers of Health Care, 2019

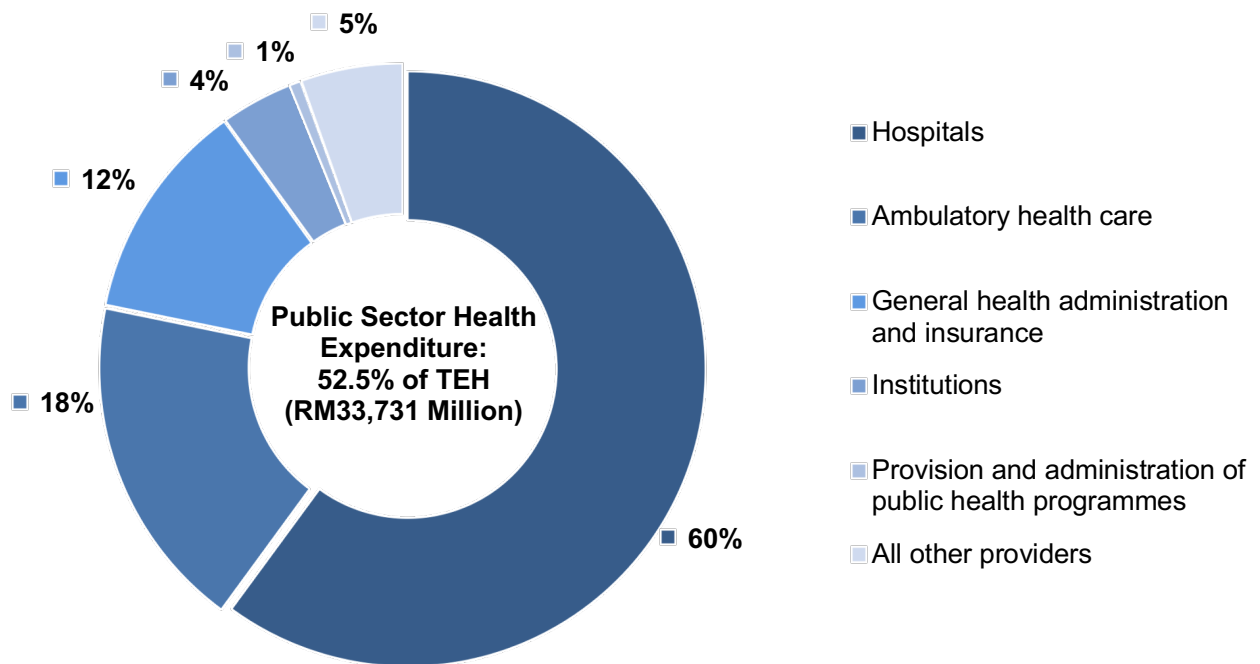




TABLE 5.2.3b: Public Sector Health Expenditure to Providers of Health Care, 1997-2019 (RM Million)

MNHA Code	Providers of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MP1	All hospitals	2,645	2,781	3,024	3,367	3,867	4,050	4,798	5,245	5,483	7,180	7,707	8,992	9,282	10,290	11,357	13,350	13,706	15,762	16,404	16,624	17,684	18,925	20,263
MP2	Nursing and residential care facilities	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1
MP3	Providers of ambulatory health care	427	460	530	628	749	844	1,110	1,236	1,343	1,818	1,926	2,212	2,173	2,494	2,745	3,191	3,554	4,186	4,380	4,542	4,951	5,492	6,116
MP4	Retail sale and other providers of medical goods	27	30	33	32	39	45	52	56	59	70	86	94	128	134	135	168	202	220	332	338	357	204	205
MP5	Provision and administration of public health programmes	383	359	394	433	524	623	585	595	587	757	1,052	922	1,170	988	1,125	1,449	1,163	1,427	1,411	1,597	1,535	1,315	1,674
MP6	General health administration and insurance	664	880	974	1,474	1,714	1,799	3,203	2,697	1,544	1,932	2,018	2,310	3,470	3,978	3,207	2,332	2,753	2,692	2,902	1,966	3,264	3,618	4,006
MP7	Other industries (rest of the Malaysian economy)	41	46	46	48	47	52	79	102	84	95	105	105	104	121	118	137	271	198	138	158	148	149	159
MP8	Institutions providing health-related services	178	194	238	273	389	449	553	626	615	776	908	1,143	1,385	1,322	1,562	1,376	1,216	1,435	1,423	1,471	1,315	1,618	1,305
MP9	Rest of the world (ROW)	1	1	1	1	1	1	1	1	1	1	1	4	3	1	1	1	1	1	4	2	1	1	1
Total		4,366	4,751	5,240	6,255	7,331	7,863	10,381	10,560	9,718	12,631	13,804	15,783	17,695	19,330	20,251	22,007	22,868	25,921	26,996	26,700	29,256	31,323	33,731

TABLE 5.2.3c: Public Sector Health Expenditure to Providers of Health Care, 1997-2019 (Percent, %)

MNHA Code	Providers of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MP1	All Hospitals	60.59	58.52	57.70	53.82	52.75	51.50	46.22	49.67	56.42	56.85	55.83	56.97	52.34	53.24	56.08	60.66	59.94	60.81	60.76	62.26	60.45	60.42	60.07
MP2	Nursing and residential care facilities	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MP3	Providers of ambulatory health care	9.77	9.69	10.12	10.04	10.21	10.73	10.69	11.71	13.82	14.39	13.95	14.01	12.28	12.90	13.55	14.50	15.54	16.15	16.23	17.01	16.92	17.53	18.13
MP4	Retail sale and other providers of medical goods	0.62	0.63	0.63	0.51	0.53	0.57	0.50	0.53	0.61	0.56	0.62	0.59	0.73	0.69	0.67	0.76	0.88	0.85	1.23	1.27	1.22	0.85	0.61
MP5	Provision and administration of public health programmes	8.78	7.55	7.53	6.91	7.15	7.92	5.64	5.63	6.04	6.00	7.62	5.84	6.61	5.11	5.56	6.59	5.09	5.50	5.23	5.98	5.25	4.20	4.96
MP6	General health administration and insurance	15.20	18.52	18.58	23.56	23.38	22.87	30.85	25.54	15.89	15.29	14.62	14.64	19.61	20.58	15.83	10.60	12.04	10.38	10.75	7.36	11.16	11.55	11.88
MP7	Other industries (rest of the Malaysian economy)	0.93	0.97	0.88	0.76	0.64	0.66	0.76	0.97	0.87	0.75	0.76	0.67	0.59	0.63	0.58	0.62	1.19	0.76	0.51	0.59	0.51	0.48	0.47
MP8	Institutions providing health-related services	4.07	4.09	4.54	4.37	5.31	5.71	5.32	5.93	6.33	6.14	6.58	7.24	7.82	6.84	7.71	6.25	5.32	5.53	5.27	5.51	4.50	5.16	3.87
MP9	Rest of the world (ROW)	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.00
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



5.2.4 Health Expenditure by Public Sector Sources of Financing by Functions

In this section, the type of services and products spent by public sector source of financing is cross tabulated with functions of health care.

In 2019, the public sector source of financing was spent mostly for curative care, amounting to RM22,987 million (68%), followed by health programme administration and health insurance at RM3,662 million (11%) and public health services (including prevention and health promotion) at RM3,290 million (10%). The total spending by the public sector for capital formation was RM1,965 million (6%), and RM1,292 million (4%) for education and training of health personnel. The

total expenditure for all other functions of health care services and products was RM534 million or 2% (Table 5.2.4a and Figure 5.2.4).

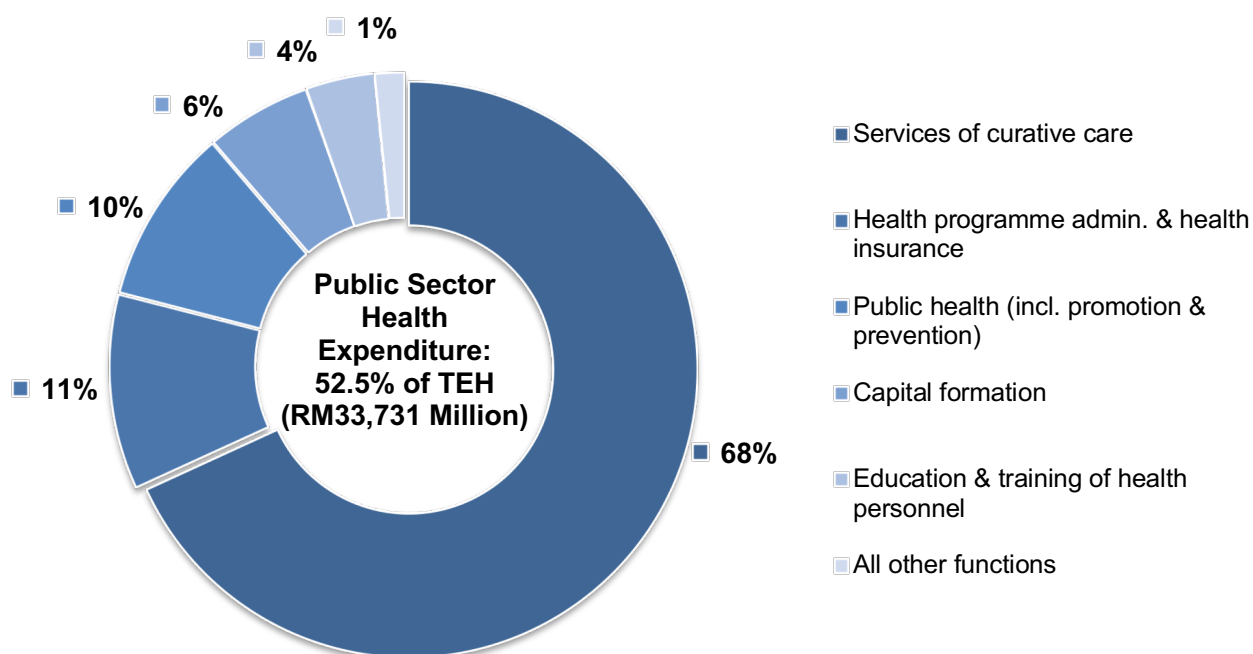
The 1997-2019 time series shows the services of curative care, and health programme administration and health insurance dominating the top two shares of public sector expenditure by function. This was followed by capital formation but then overtaken by public health services (including health promotion and prevention) from year 2013 onwards. Ancillary services to health care showed the highest growth with an increase by more than 200-fold, from RM1 million in 1997 to RM243 million in 2019. The expenditure for education and training of health personnel had also increased by about 10-fold over the same time period (Table 5.2.4b and Table 5.2.4c).

TABLE 5.2.4a: Public Sector Health Expenditure by Functions of Health Care, 2019

MNHA Code	Functions of Health Care	RM Million	Percent
MF1	Services of curative care	22,987	68.15
MF7	Health programme administration and health insurance	3,662	10.86
MF6	Public health services (including health promotion and prevention)	3,290	9.76
MR1	Capital formation of health care provider institutions	1,965	5.83
MR2	Education and training of health personnel	1,292	3.83
MF4	Ancillary services to health care	243	0.72
MF5	Medical goods dispensed to out-patients	153	0.45
MR3	Research and development in health	137	0.41
MF3	Services of long-term nursing care	1	< 0.01
Total		33,731	100.00



FIGURE 5.2.4: Public Sector Health Expenditure by Functions of Health Care, 2019



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INHA Code	Functions of Health Care																						
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MF1	2,900	3,005	3,264	3,691	4,181	4,510	5,334	5,873	6,103	8,195	8,735	10,154	10,519	11,015	12,950	15,021	15,013	17,719	18,663	19,065	20,691	22,329	22,987
MF3	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	1	1	0	0	1	1
MF4	1	1	1	8	39	47	71	98	95	163	139	191	192	206	224	228	310	288	276	260	284	287	243
MF5	18	18	20	23	27	29	34	40	45	51	66	71	93	109	107	138	169	183	289	285	307	154	153
MF6	194	197	226	230	263	275	414	480	495	635	917	801	902	874	996	1,201	1,961	1,838	1,928	2,028	2,163	2,358	3,290
MF7	556	533	559	657	741	913	1,176	1,166	1,141	1,536	1,588	1,789	1,927	1,904	2,165	1,916	2,242	2,936	2,903	2,110	3,067		3,662
MR1	510	794	926	1,370	1,687	1,636	2,807	2,321	1,262	1,357	1,531	1,723	2,745	3,848	2,179	2,038	1,817	1,488	1,454	1,430	1,375	1,653	1,965
MR2	127	150	196	239	318	375	472	521	556	659	775	1,002	1,268	1,329	1,584	1,407	1,288	1,430	1,423	1,473	1,315	1,619	1,292
MR3	61	53	48	38	74	78	74	61	21	34	53	52	49	44	46	56	67	58	59	51	52	57	137
	4,366	4,751	5,240	6,255	7,331	7,863	10,381	10,560	9,718	12,631	13,804	15,783	17,695	19,330	20,251	22,007	22,868	25,921	26,996	26,700	29,256	31,323	33,731
	Total																						

TABLE 5.2.4c: Public Sector Health Expenditure by Functions of Health Care, 1997-2019 (Percent, %)

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5.3 HEALTH EXPENDITURE BY PRIVATE SECTOR SOURCES OF FINANCING

This section describes health expenditure by private sector sources of financing, starting with description of private sector health expenditure according to MNHA classification of sources of financing for year 2019, followed by times series data of 1997-2019 in RM Million and percent.

5.3.1 Health Expenditure by All Private Sector Sources of Financing

In 2019, analysis of health expenditure data showed that the highest source of financing in the private sector was private household OOP expenditure amounting to RM22,492 million (74%) (Table 5.3.1a and Figure 5.3.1). The next highest spending was private insurance enterprises (other than social insurance) which includes personal, family and company insurance policies at RM4,889 million (16%). All corporations (other than health insurance) contributed to RM2,117 million or 7% of

private sector health expenditure. This expenditure by all corporations is exclusive of group or company purchases of employee insurances which are reported under private insurance enterprises expenditure. The remaining agencies under private sector contributed to RM1,078 million or 3% of health expenditure in this sector.

The private sector expenditure data for 1997-2019 time series shows private household OOP expenditure gradually increased from RM3,166 million in 1997 to RM22,492 million in 2019, and remained the largest share of private sector health expenditure (71% to 76%) (Table 5.3.1b and Table 5.3.1c). Expenditure by private insurance enterprises increased from 7% to 17% share of private sector health expenditure. Meanwhile, all corporations' share decreased from 15% to 7% from 1997 to 2019, although in terms of RM value, the expenditure on health by all corporations had increased 3-fold.

TABLE 5.3.1a: Health Expenditure by Private Sector Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS2.4	Private household out-of-pocket expenditure (OOP)	22,492	73.56
MS2.2	Private insurance enterprises (other than social insurance)	4,889	15.99
MS2.6	All corporations (other than health insurance)	2,117	6.92
MS2.3	Private MCOs and other similar entities	983	3.22
MS2.5	Non-profit institutions serving households (NGO)	90	0.30
MS9	Rest of the world (ROW)	4	0.01
Total		30,575	100.00



FIGURE 5.3.1: Health Expenditure by Private Sector Sources of Financing, 2019

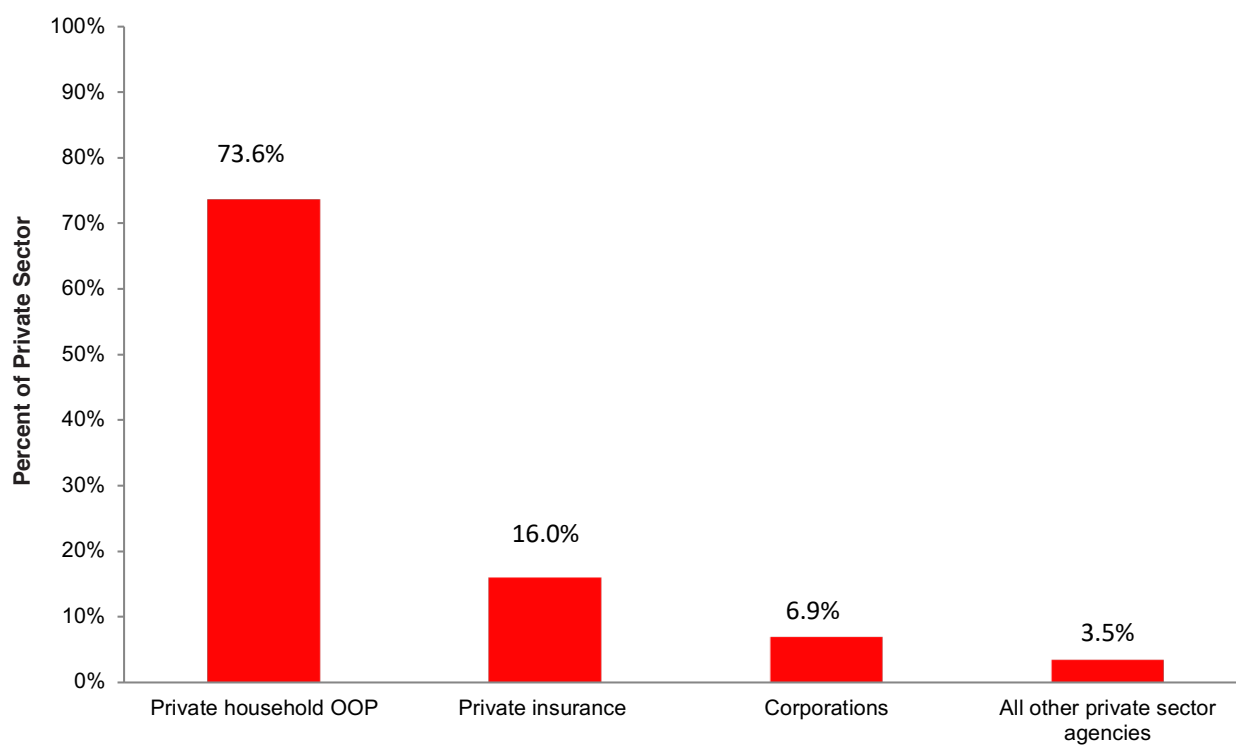




TABLE 5.3.1b: Health Expenditure by Private Sector Sources of Financing, 1997-2019 (RM Million)

MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS2.2	Private insurance enterprises (other than social insurance)	295	365	421	516	599	718	964	1,062	1,084	1,246	1,413	1,709	1,991	2,273	2,614	2,774	2,916	3,203	3,623	3,840	4,085	4,313	4,889
MS2.3	Private MCOs and other similar entities	50	68	73	78	84	92	106	113	123	138	151	167	179	201	243	302	287	437	730	804	871	914	983
MS2.4	Private household out-of-pocket expenditure (OOP)	3,166	3,265	3,497	4,175	3,882	4,127	4,941	5,664	6,382	7,141	7,919	9,084	8,478	9,917	11,466	12,649	13,933	15,373	16,776	17,790	19,462	21,127	22,492
MS2.5	Non-profit institutions serving households (NGO)	64	70	71	87	93	104	118	131	148	160	186	214	234	269	312	363	78	40	69	87	92	92	90
MS2.6	All corporations (other than health insurance)	616	642	658	637	722	744	701	680	787	765	951	816	801	899	1,064	1,352	1,564	1,803	1,996	2,307	2,492	2,564	2,117
MS9	Rest of the world (ROW)	0	0	0	5	0	0	0	0	0	0	1	1	2	1	3	2	3	4	5	4	5	5	4
	Total	4,190	4,411	4,720	5,498	5,379	5,786	6,831	7,650	8,524	9,449	10,822	11,991	11,605	13,560	15,702	17,442	18,780	20,859	23,198	24,834	27,009	29,016	30,575

TABLE 5.3.1c: Health Expenditure by Private Sector Sources of Financing, 1997-2019 (Percent, %)

MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS2.2	Private insurance enterprises (other than social insurance)	7.03	8.28	8.92	9.38	11.13	12.42	14.11	13.89	12.72	13.19	13.30	14.25	17.04	16.76	16.65	15.91	15.53	15.36	15.62	15.46	15.13	14.87	15.99
MS2.3	Private MCOs and other similar entities	1.19	1.55	1.54	1.43	1.57	1.59	1.56	1.48	1.44	1.46	1.42	1.39	1.53	1.48	1.55	1.73	1.53	2.10	3.15	3.24	3.23	3.15	3.22
MS2.4	Private household out-of-pocket expenditure (OOP)	75.55	74.04	74.10	75.94	72.16	71.33	72.33	74.04	74.87	75.57	74.56	75.76	72.56	73.14	73.02	72.52	74.19	73.70	72.32	71.64	72.06	72.81	73.56
MS2.5	Non-profit institutions serving households (NGO)	1.53	1.58	1.51	1.59	1.72	1.80	1.73	1.71	1.74	1.70	1.76	1.78	2.00	1.98	1.99	2.08	0.41	0.19	0.30	0.35	0.34	0.32	0.30
MS2.6	All corporations (other than health insurance)	14.70	14.56	13.93	11.58	13.41	12.85	10.27	8.89	9.23	8.09	8.95	6.80	6.85	6.63	6.78	7.75	8.33	8.64	8.60	9.29	9.23	8.84	6.92
MS9	Rest of the world (ROW)	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

5.3.2 Health Expenditure by Private Sector Sources of Financing to Providers

The cross-tabulations of private sector sources of financing with providers of health care services and products, respond to the question as to where the private source of fund is spent or who provides services and products.

In 2019, all hospitals consumed RM15,280 million (50%) of the private sources of funds, followed by providers of ambulatory health care at RM7,562 million (25%) and providers of retail sales and other providers of medical goods at RM3,940 million (13%). The remaining private sector sources of financing amounting to RM3,793 million (12%) was spent to other providers of health care (Table 5.3.2a and Figure 5.3.2).

The 1997 to 2019 time series data shows that all hospitals and providers of ambulatory health care spent an average of 73% of the private sector source of financing (Table 5.3.2b and Table 5.3.2c). The expenditure by all hospitals increased from RM1,486 million in 1997 to RM15,280 million in 2019 and expenditure by providers of ambulatory health care increased from RM1,696 million in 1997 to RM7,562 million in 2019. The data also shows that health expenditure at institutions providing health-related services which mainly comprises of teaching and training institutions in relation to health, increased three times in percentage from 1997 to 2019, but in terms of RM value this expenditure increased by 23-fold from RM81 million in 1997 to RM1,877 million in 2019.

TABLE 5.3.2a: Private Sector Health Expenditure to Providers of Health Care, 2019

MNHA Code	Providers of Health Care	RM Million	Percent
MP1	All hospitals	15,280	49.98
MP3	Providers of ambulatory health care	7,562	24.73
MP4	Retail sale and other providers of medical goods	3,940	12.89
MP6	General health administration and insurance	1,474	4.82
MP8	Institutions providing health-related services	1,877	6.14
MP7	Other industries (rest of the Malaysian economy)	426	1.39
MP5	Provision and administration of public health programmes	4	0.01
MP9	Rest of the world (ROW)	12	0.04
MP2	Nursing and residential care facilities	< 1	< 0.01
Total		30,575	100.00



FIGURE 5.3.2: Private Sector Health Expenditure to Providers of Health Care, 2019

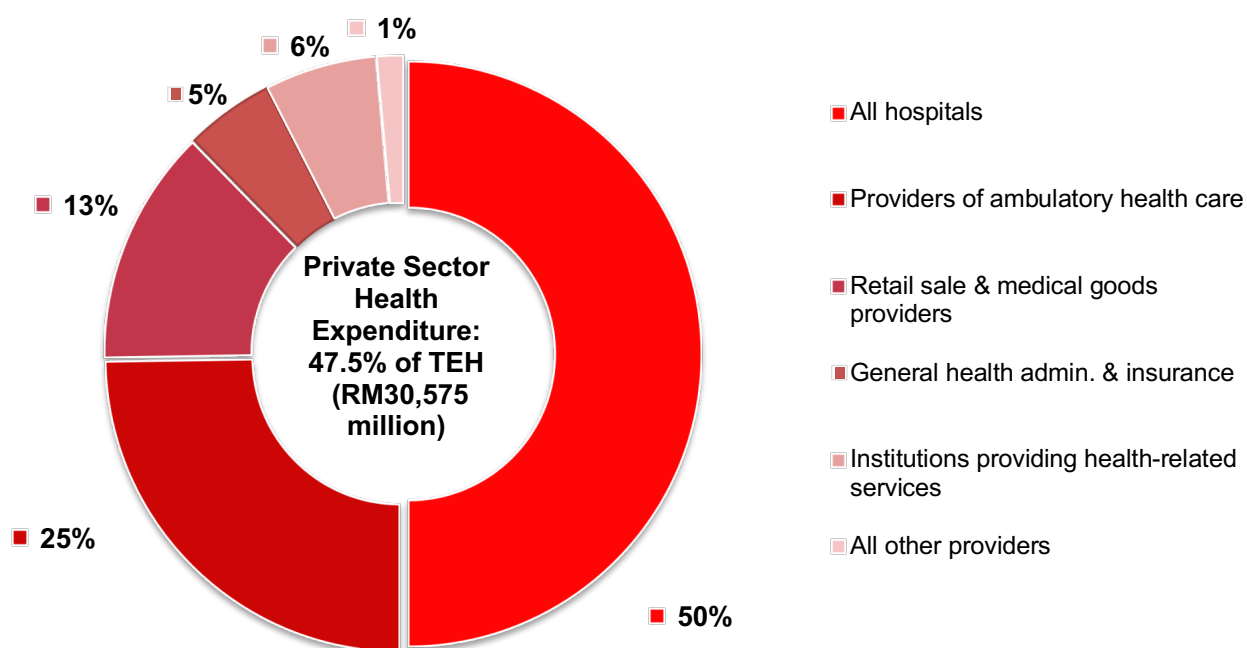


TABLE 5.3.2b: Private Sector Health Expenditure to Providers of Health Care, 1997-2019 (RM Million)

MinHA Code	Providers of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MP1	All hospitals	1,486	1,556	1,715	2,068	2,097	2,328	2,841	3,190	3,560	4,005	4,509	5,722	5,843	6,553	7,278	7,697	8,256	9,030	10,409	11,380	12,729	13,776	15,280
MP2	Nursing and residential care facilities	1	1	2	2	3	5	9	10	11	11	14	4	5	12	14	18	1	1	1	4	1	3	0
MP3	Providers of ambulatory health care	1,696	1,704	1,747	1,972	1,833	1,885	2,069	2,369	2,831	3,151	3,516	3,456	2,603	3,145	3,906	4,582	5,201	6,125	6,252	6,501	7,030	7,291	7,562
MP4	Retail sale and other providers of medical goods	490	544	586	661	625	660	741	888	916	985	1,143	1,255	1,375	1,486	1,774	1,961	2,172	2,701	3,061	3,287	3,506	4,349	3,940
MP5	Provision and administration of public health programmes	5	6	5	5	6	6	6	6	9	7	12	17	7	8	11	17	3	3	23	30	19	19	4
MP6	General health administration and insurance	363	427	452	527	542	580	760	787	799	852	909	1,011	1,088	1,256	1,467	1,629	1,343	1,312	1,619	1,680	1,698	1,590	1,474
MP7	Other industries (rest of the Malaysian economy)	63	64	76	76	82	84	95	102	105	110	148	157	170	203	269	293	338	358	408	443	467	454	426
MP8	Institutions providing health-related services	81	106	133	179	186	229	301	286	281	313	353	361	590	822	880	1,160	1,460	1,320	1,411	1,496	1,538	1,516	1,877
MP9	Rest of the world (ROW)	4	3	5	6	6	9	9	11	12	15	19	8	4	75	101	85	6	10	13	13	21	17	12
	Total	4,190	4,411	4,720	5,498	5,379	5,786	6,831	7,650	8,524	9,449	10,622	11,991	11,665	13,560	15,702	17,442	18,780	20,859	23,198	24,834	27,009	29,016	30,575

TABLE 5.3.2c: Private Sector Health Expenditure to Providers of Health Care, 1997-2019 (Percent, %)

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5.3.3 Health Expenditure by Private Sector Sources of Financing by Functions

Cross-tabulations of private sector sources of financing and functions of health care respond to the question as to what is purchased or the type of services and products consumed with this source of financing.

In 2019, the private sector source of financing spent the most for services of curative care, amounting RM20,566 million (67%), followed by medical goods dispensed to out-patients at RM4,727 million (15%). Education and training of health personnel RM1,919 million (6%), health

programme administration and health insurance expenditure were RM1,474 million (5%), and public health services (including health promotion and prevention) RM1,087 million (4%). The remaining functions of health-care constitute only 3% of health expenditure by private sector sources of financing (Table 5.3.3a and Figure 5.3.3).

The 1997 to 2019 time series shows expenditures for services of curative care and medical goods dispensed to out-patient totalling 77% to 83% (Table 5.3.3b and Table 5.3.3c). Although expenditure for education and training over this time period remained below 8% share of this spending, it increased by 24-fold from RM79 million in 1997 to RM1,919 million in 2019.

TABLE 5.3.3a: Private Sector Health Expenditure by Functions of Health Care, 2019

MNHA Code	Functions of Health Care	RM Million	Percent
MF1	Services of curative care	20,566	67.26
MF5	Medical goods dispensed to out-patients	4,727	15.46
MR2	Education and training of health personnel	1,919	6.28
MF7	Health programme administration and health insurance	1,474	4.82
MF6	Public health services (including health promotion and prevention)	1,087	3.55
MR1	Capital formation of health care provider institutions	677	2.21
MF4	Ancillary services to health care	114	0.37
MR3	Research and development in health	12	0.04
MF3	Services of long-term nursing care	< 1	< 0.01
Total		30,575	100.00



FIGURE 5.3.3: Private Sector Health Expenditure by Functions of Health Care, 2019

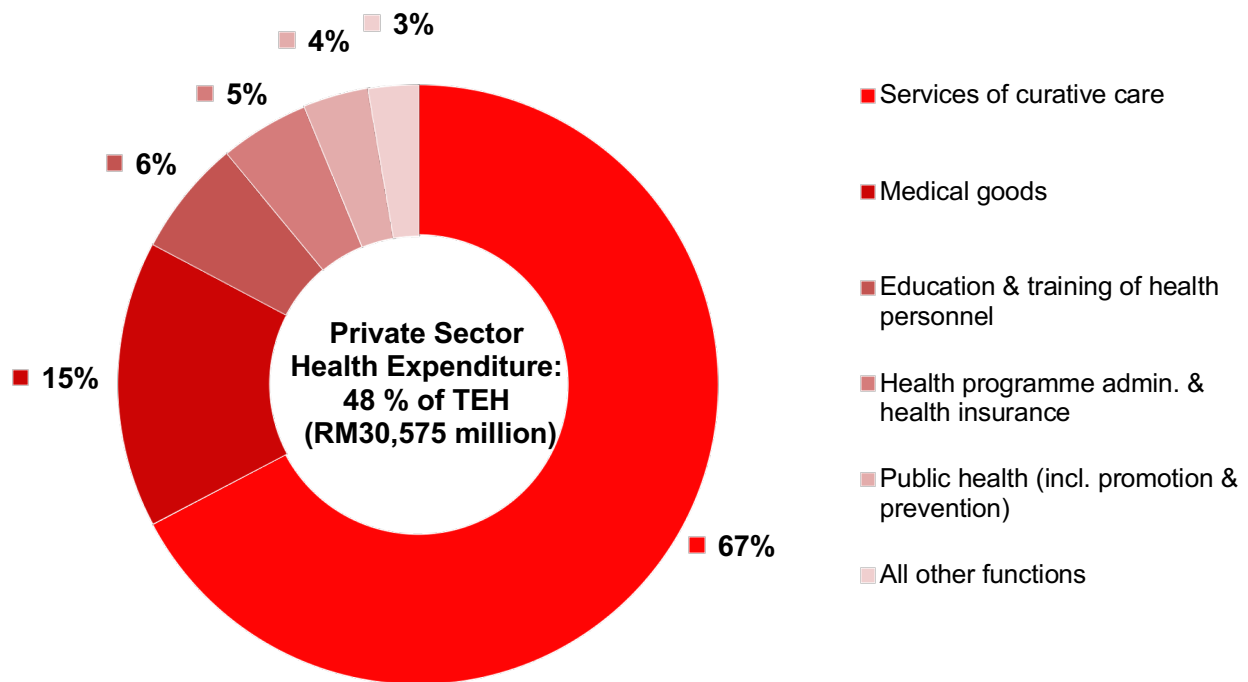




TABLE 5.3.3b: Private Sector Health Expenditure by Functions of Health Care, 1997-2019 (RM Million)

MNHA Code	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MF1	2,544	2,601	2,813	3,384	3,303	3,601	4,367	5,068	5,800	6,536	7,332	8,417	7,739	8,928	10,288	11,151	12,179	13,686	14,985	15,980	17,616	18,743	20,566
MF2	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0
MF3	1	1	2	2	3	5	9	10	11	11	14	4	5	12	14	18	1	1	1	4	1	3	0
MF4	101	110	100	98	78	63	47	29	33	37	42	48	43	58	72	86	97	112	78	40	46	48	114
MF5	773	826	853	939	861	875	929	1,050	1,111	1,201	1,387	1,556	1,666	1,818	2,135	2,339	2,561	3,115	3,612	3,931	4,217	5,101	4,727
MF6	281	292	315	309	348	357	350	347	398	390	488	441	413	474	582	724	843	933	1,065	1,208	1,284	1,309	1,087
MF7	363	427	452	527	542	580	760	787	799	852	909	1,011	1,088	1,256	1,468	1,629	1,343	1,312	1,619	1,680	1,698	1,590	1,474
MR1	44	46	50	56	53	70	64	69	86	102	94	154	130	183	251	317	272	343	387	460	588	604	677
MR2	79	103	130	173	186	229	298	283	279	311	351	359	590	820	879	1,153	1,461	1,328	1,421	1,508	1,560	1,579	1,919
MR3	4	5	5	10	5	5	6	7	7	7	5	2	9	11	12	25	23	28	31	24	18	38	12
MR9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,190	4,411	4,720	5,498	5,379	5,786	6,831	7,650	8,524	9,449	10,622	11,991	11,685	13,560	15,702	17,442	18,780	20,859	23,198	24,834	27,009	29,016	30,575

TABLE 5.3.3c: Private Sector Health Expenditure by Functions of Health Care, 1997-2019 (Percent, %)

MNHA Code	Functions of Health Care																						
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MF1	60.71	58.97	59.61	61.55	61.41	62.24	63.92	66.25	68.04	69.17	69.03	70.19	66.23	65.84	65.52	63.93	64.85	65.61	64.59	64.35	65.22	64.60	67.26
MF2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
MF3	0.03	0.03	0.04	0.04	0.05	0.09	0.14	0.13	0.13	0.12	0.13	0.04	0.04	0.09	0.09	0.10	0.00	0.00	0.00	0.01	0.00	0.01	
MF4	2.41	2.50	2.12	1.79	1.44	1.10	0.69	0.38	0.39	0.39	0.39	0.40	0.37	0.42	0.46	0.49	0.52	0.54	0.34	0.16	0.17	0.17	
MF5	18.45	18.73	18.08	17.08	16.01	15.13	13.60	13.73	13.03	12.71	13.06	12.97	14.26	13.41	13.60	13.41	13.64	14.94	15.57	15.83	15.61	17.58	
MF6	6.72	6.62	6.68	5.61	6.46	6.17	5.12	4.54	4.67	4.13	4.60	3.68	3.54	3.50	3.70	4.15	4.49	4.47	4.59	4.86	4.75	4.51	
MF7	8.66	9.67	9.57	9.59	10.07	10.02	11.12	10.29	9.37	9.02	8.56	8.43	9.31	9.26	9.35	9.34	7.15	6.29	6.98	6.77	6.29	5.48	
MR1	1.05	1.03	1.05	1.01	0.99	1.21	0.94	0.90	1.01	1.08	0.89	1.28	1.12	1.35	1.60	1.82	1.45	1.65	1.67	1.85	2.10	2.08	
MR2	1.88	2.34	2.76	3.14	3.46	3.95	4.37	3.70	3.28	3.29	3.31	2.99	5.05	6.05	5.60	6.61	7.78	6.37	6.12	6.07	5.78	5.44	
MR3	0.10	0.10	0.10	0.18	0.10	0.09	0.09	0.09	0.08	0.08	0.04	0.02	0.08	0.08	0.08	0.14	0.12	0.14	0.13	0.10	0.07	0.13	
MR9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	



CHAPTER 6

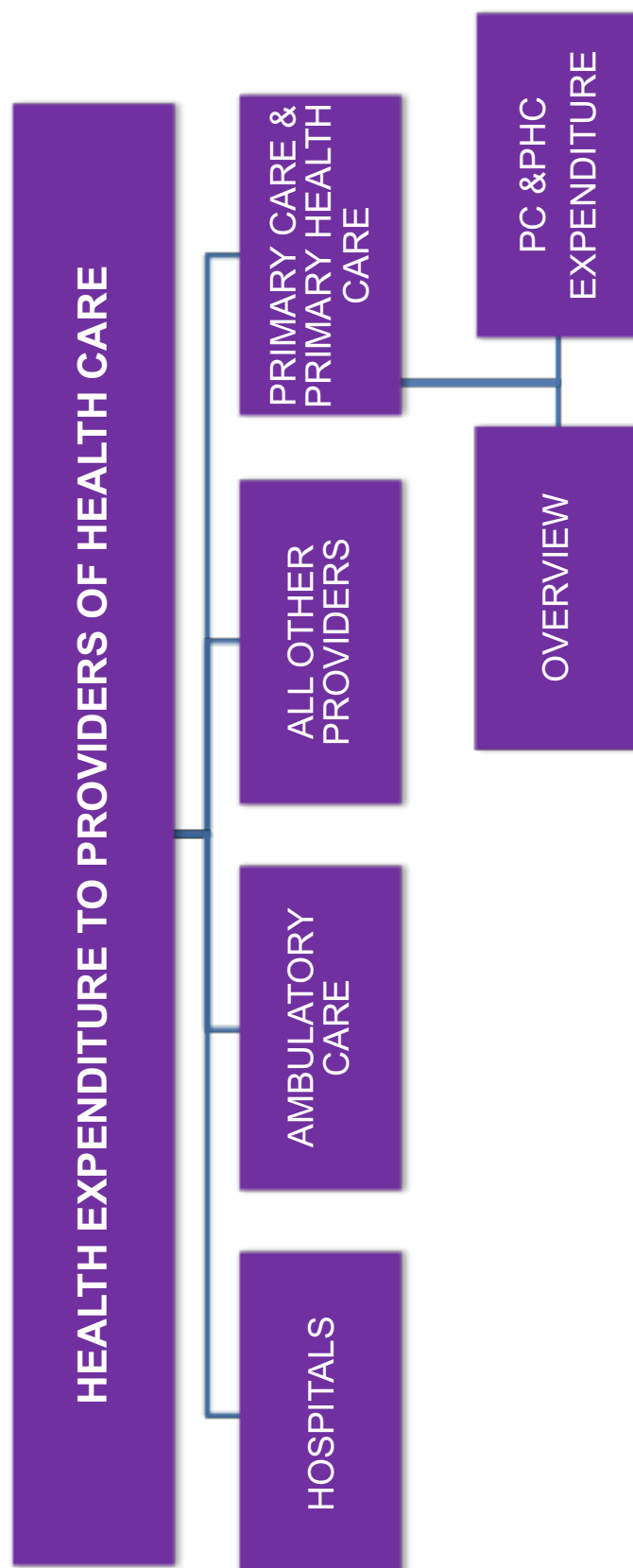
HEALTH EXPENDITURE TO PROVIDERS OF HEALTH CARE

The providers of health care services and products include all hospitals (i.e. health care facilities under MP1 code of MNHA Framework which include general hospitals, psychiatric hospitals and speciality hospitals), nursing and residential care facility providers, providers of ambulatory health care, retail sale and other providers of medical goods, and provision and administration of public health programme providers.

This chapter contains four sections. Section 6.1 describes health expenditure to all providers of health care as classified in MNHA Framework. Health expenditure to providers of all hospitals and providers of ambulatory care services are reported in Sections 6.2 and 6.3 respectively. Section 6.4 explains further regarding Primary Care (PC) and Primary Health Care (PHC) expenditure. The overview of health expenditure to providers of health care is as shown in Figure 6.0.



FIGURE 6.0: Organogram of Health Expenditure to Providers of Health Care





6.1 HEALTH EXPENDITURE TO ALL PROVIDERS OF HEALTH CARE

In 2019, analysis of providers of health care shows that all hospitals consumed RM35,544 million or 55% of TEH (Table 6.1a and Figure 6.1). This is followed by providers of ambulatory health care at RM13,678 million (21%), general health administration and insurance providers at RM5,479 million (9%), and retail sale and other providers of medical goods at RM4,145 million (6%). The remaining providers of health care services and products amounted to RM5,460 million or 8% of the TEH.

The 1997 to 2019 time series data also shows a similar pattern with the same top two providers (all hospitals and providers of ambulatory health

care) contributing to an average of 71% share of TEH throughout the time period. The third highest expenditure from 1997 to 2019 was contributed by expenditure to general health administration and insurance providers followed by expenditure to retail sale and other providers of medical goods as shown in (Table 6.1b and Table 6.1c). The expenditures of the top two providers increased in absolute Ringgit Malaysia (RM) value by 9-fold and 6-fold respectively over the same time period, whereas spending at retail sale and other providers of medical goods showed increase in absolute RM value by 8-fold. Providers of institutions providing health-related services showed a higher increase which is 12-fold.

TABLE 6.1a: Total Expenditure on Health to Providers of Health Care, 2019

MNHA Code	Providers of Health Care	RM Million	Percent
MP1	All hospitals	35,544	55.27
MP3	Providers of ambulatory health care	13,678	21.27
MP6	General health administration and insurance	5,479	8.52
MP4	Retail sale and other providers of medical goods	4,145	6.45
MP8	Institutions providing health-related services	3,182	4.95
MP5	Provision and administration of public health programmes	1,678	2.61
MP7	Other industries (rest of the Malaysian economy)	586	0.91
MP9	Rest of the world (ROW)	12	0.02
MP2	Nursing and residential care facilities	1	< 0.01
Total		64,306	100.00

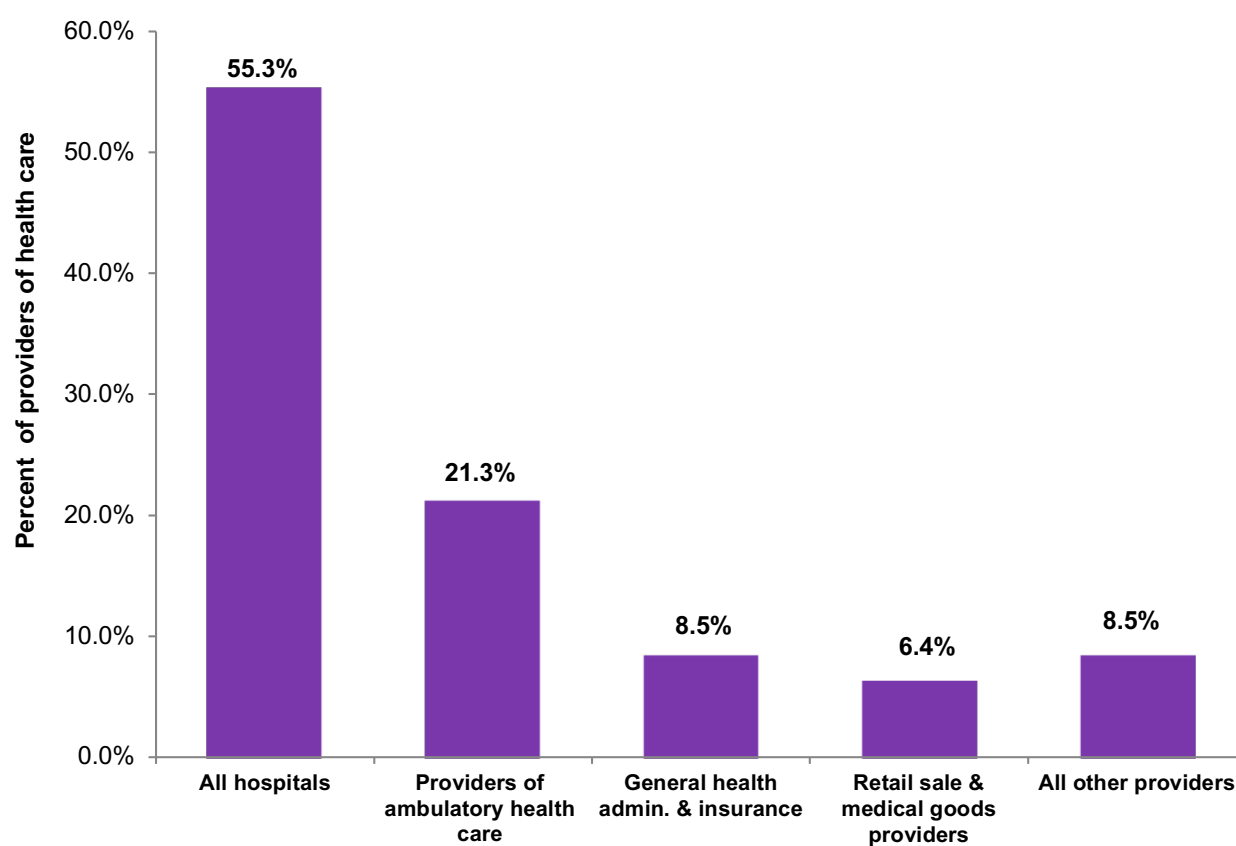
**FIGURE 6.1: Total Expenditure on Health to Providers of Health Care, 2019**



TABLE 6.1b: Total Expenditure on Health to Providers of Health Care, 1997-2019 (RM Million)

MNHA Code	Providers of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MP1	All hospitals	4,132	4,337	4,738	5,435	5,964	6,378	7,639	8,436	9,043	11,186	12,216	14,714	15,106	16,844	18,635	21,047	21,962	24,793	26,813	28,004	30,413	32,701	35,544
MP2	Nursing and residential care facilities	2	2	2	3	3	6	10	11	12	12	15	6	6	13	16	20	2	2	2	5	2	5	1
MP3	Providers of ambulatory health care	2,123	2,164	2,277	2,600	2,582	2,729	3,178	3,605	4,174	4,969	5,442	5,688	4,776	5,639	6,650	7,773	8,756	10,311	10,633	11,044	11,981	12,783	13,678
MP4	Retail sale and other providers of medical goods	517	574	619	694	664	705	793	944	976	1,055	1,229	1,349	1,504	1,621	1,909	2,129	2,374	2,921	3,393	3,625	3,863	4,553	4,145
MP5	Provision and administration of public health programmes	389	364	400	438	530	628	591	600	596	764	1,064	939	1,176	996	1,136	1,467	1,166	1,429	1,435	1,628	1,553	1,335	1,678
MP6	General health administration and insurance	1,027	1,307	1,425	2,001	2,256	2,378	3,962	3,485	2,343	2,784	2,927	3,321	4,558	5,233	4,674	3,961	4,096	4,003	4,521	3,646	4,962	5,208	5,479
MP7	Other industries (rest of the Malaysian economy)	104	110	122	124	129	136	175	204	189	205	253	262	274	324	388	430	609	556	547	601	615	603	586
MP8	Institutions providing health-related services	258	300	370	452	575	678	854	912	886	1,089	1,261	1,504	1,975	2,144	2,442	2,536	2,676	2,754	2,834	2,967	2,854	3,134	3,182
MP9	Rest of the world (ROW)	4	4	6	7	7	10	11	13	14	17	20	12	6	75	102	86	7	11	17	14	22	18	12
	Total	8,556	9,162	9,960	11,753	12,711	13,649	17,212	18,210	18,243	22,080	24,426	27,774	29,380	32,889	35,953	39,448	41,647	46,780	50,194	51,534	56,264	60,339	64,306



TABLE 6.1c: Total Expenditure on Health to Providers of Health Care, 1997-2019 (Percent, %)

MNHA Code	Providers of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MP1	All hospitals	48.29	47.33	47.57	46.24	46.92	46.73	44.38	46.32	49.57	50.66	50.01	52.98	51.41	51.21	51.83	53.35	52.73	53.00	53.42	54.34	54.05	54.19	55.27
MP2	Nursing and residential care facilities	0.02	0.02	0.02	0.03	0.03	0.04	0.06	0.06	0.07	0.06	0.06	0.02	0.02	0.04	0.04	0.05	0.00	0.00	0.00	0.01	0.00	0.01	0.00
MP3	Providers of ambulatory health care	24.81	23.62	22.86	22.12	20.31	20.00	18.47	19.80	22.88	22.51	22.28	20.41	16.25	17.15	18.50	19.70	21.02	22.04	21.18	21.43	21.29	21.19	21.27
MP4	Retail sale and other providers of medical goods	6.05	6.27	6.22	5.90	5.22	5.17	4.61	5.19	5.35	4.78	5.03	4.86	5.12	4.93	5.31	5.40	5.70	6.24	6.76	7.03	6.87	7.55	6.45
MP5	Provision and administration of public health programmes	4.54	3.98	4.01	3.73	4.17	4.60	3.44	3.30	3.26	3.46	4.36	3.38	4.00	3.03	3.16	3.72	2.80	3.06	2.86	3.16	2.76	2.21	2.61
MP6	General health administration and insurance	12.00	14.26	14.31	17.02	17.75	17.42	23.02	19.14	12.84	12.61	11.98	11.96	15.51	15.91	13.00	10.04	9.84	8.56	9.01	7.08	8.82	8.63	8.52
MP7	Other industries (rest of the Malaysian economy)	1.21	1.20	1.22	1.05	1.02	1.00	1.01	1.12	1.04	0.93	1.03	0.94	0.93	0.98	1.08	1.09	1.46	1.19	1.09	1.17	1.09	1.00	0.91
MP8	Institutions providing health-related services	3.02	3.27	3.72	3.85	4.52	4.97	4.96	5.01	4.91	4.93	5.16	5.41	6.72	6.52	6.79	6.43	6.42	5.89	5.65	5.76	5.07	5.19	4.95
MP9	Rest of the world (ROW)	0.05	0.04	0.06	0.06	0.06	0.07	0.06	0.07	0.07	0.08	0.08	0.04	0.02	0.23	0.28	0.22	0.02	0.02	0.03	0.03	0.04	0.03	0.02
	Total	00.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

6.2 HEALTH EXPENDITURE TO PROVIDERS OF HEALTH CARE - HOSPITALS

The cross-tabulations of expenditure at all hospitals and sources of financing responds to the question as to who or which agencies finance for health care services provided at all hospitals in the country.

In 2019, of the RM35,544 million spent at all hospitals, MOH as source of financing incurred the highest spending at RM17,510 million (49%) followed by private household OOP at RM10,537 million (30%), private insurance enterprises (other than social insurance) at RM4,387 million (12%), Ministry of Education (MOE) at RM1,550

million (4%) and other federal agencies (including statutory bodies) at RM655 million (2%) (Table 6.2a and Figure 6.2). The remaining expenditure from various sources at all hospitals amounted to RM905 million (3%).

The 1997 to 2019 time-series expenditure by the top two sources of financing at all hospitals, which are MOH and private household OOP amounted to an average of 81% as shown in (Table 6.2b and Table 6.2c). An average of 19% was spent by the remaining sources of financing.

TABLE 6.2a: Health Expenditure at All Hospitals by Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS1.1.1.1	Ministry of Health (MOH)	17,510	49.26
MS2.4	Private household out-of-pocket expenditures (OOP)	10,537	29.64
MS2.2	Private insurance enterprises (other than social insurance)	4,387	12.34
MS1.1.1.2	Ministry of Education (MOE)	1,550	4.36
MS1.1.1.9	Other federal agencies (including statutory bodies)	655	1.84
MS2.6	All corporations (other than health insurance)	355	1.00
MS1.2.2	Social Security Organization (SOC SO)	162	0.45
MS1.1.2.2	Other state agencies (including statutory bodies)	157	0.44
MS1.1.1.3	Ministry of Defence (MOD)	104	0.29
MS1.2.1	Employees Provident Fund (EPF)	68	0.19
MS1.1.2.1	(General) State government	17	0.05
MS1.1.3	Local authorities (LA)	40	0.11
MS2.5	Non-profit institutions serving households (NGO)	2	< 0.01
Total		35,544	100.00

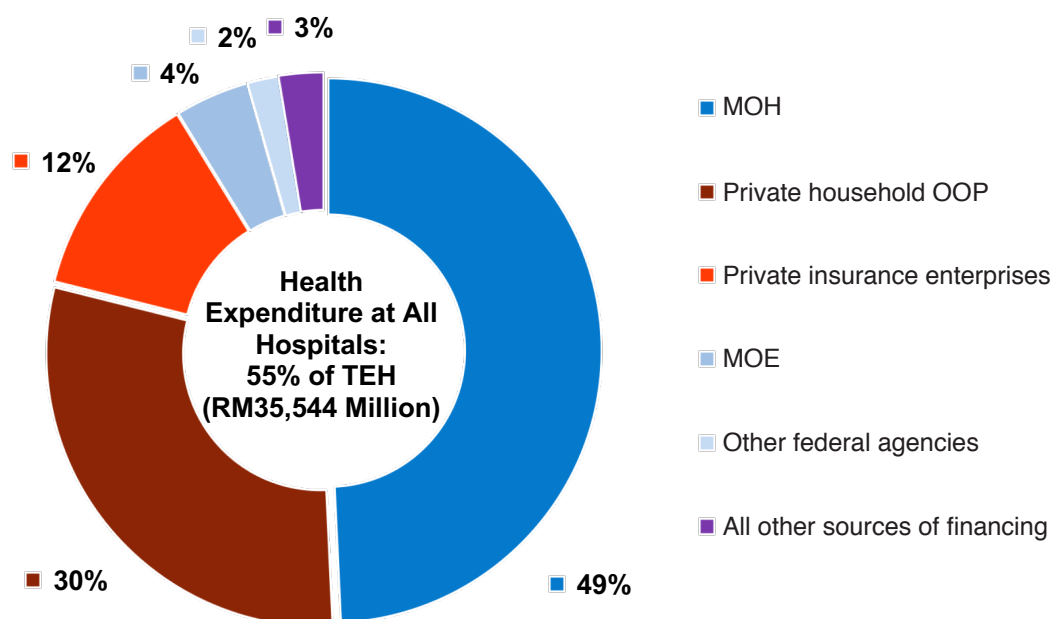
**FIGURE 6.2: Health Expenditure at All Hospitals by Sources of Financing, 2019**



TABLE 6.2b: Health Expenditure at All Hospitals by Sources of Financing, 1997-2019 (RM Million)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MNHA Code	Sources of Financing																							
MS1.1.1.1	Ministry of Health (MOH)	2,166	2,282	2,470	2,741	3,120	3,214	3,875	4,173	4,401	6,028	6,358	7,343	7,677	8,453	9,462	11,331	11,683	13,610	14,205	14,297	15,383	16,475	17,510
MS1.1.1.2	Ministry of Education (MOE)	321	324	365	407	500	553	591	637	656	705	842	978	1,019	1,220	1,221	1,285	1,232	1,346	1,314	1,286	1,254	1,319	1,550
MS1.1.1.3	Ministry of Defence (MOD)	22	24	25	28	32	35	41	39	42	50	57	71	79	76	83	102	105	110	115	104	84	64	104
MS1.1.1.9	Other federal agencies (including statutory bodies)	99	107	113	133	149	175	198	300	275	287	337	499	363	394	420	449	489	506	553	593	610	646	655
MS1.1.2.1	(General) State government	5	5	6	6	7	7	8	8	9	10	13	12	12	13	15	19	18	21	17	19	19	28	17
MS1.1.2.2	Other state agencies (including statutory bodies)	3	3	3	4	4	4	5	4	5	5	7	7	8	10	10	13	10	12	36	138	129	144	157
MS1.1.3	Local authorities (LA)	0	0	0	0	0	1	1	1	2	3	5	6	15	19	20	16	13	22	21	23	31	35	40
MS1.2.1	Employees Provident Fund (EPF)	6	13	16	19	26	30	35	46	50	38	42	40	31	28	32	31	35	38	43	47	48	55	68
MS1.2.2	Social Security Organization (SOCSSO)	23	23	24	28	29	31	43	37	42	54	46	35	57	79	93	104	120	98	100	117	125	158	162
MS2.2	Private insurance enterprises (other than social insurance)	64	92	127	164	247	333	409	492	529	657	800	996	1,228	1,322	1,474	1,583	1,878	2,373	2,761	3,023	3,311	3,682	4,387
MS2.4	Private household out-of-pocket expenditures (OOP)	1,295	1,310	1,415	1,731	1,635	1,766	2,288	2,565	2,865	3,187	3,519	4,575	4,460	5,068	5,618	5,866	6,070	6,342	7,299	7,954	8,983	9,639	10,537
MS2.5	Non-profit institutions serving households (NGO)	1	1	1	1	1	8	6	6	7	8	9	19	39	27	29	31	44	12	13	1	1	2	2
MS2.6	All corporations (other than health insurance)	126	154	173	172	214	221	138	128	160	154	180	132	117	137	158	216	264	303	336	402	434	453	355
Total		4,132	4,337	4,738	5,435	5,964	6,378	7,639	8,436	9,043	11,186	12,216	14,714	15,106	16,844	18,635	21,047	21,962	24,793	26,613	28,004	30,413	32,701	35,544



TABLE 6.2c: Health Expenditure at All Hospitals by Sources of Financing, 1997-2019 (Percent, %)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MNHA Code	Sources of Financing																							
MS1.1.1.1	Ministry of Health (MOH)	52.43	52.62	52.13	50.43	52.31	50.39	50.73	49.47	48.67	53.89	52.05	49.91	50.82	50.18	50.78	53.84	53.20	54.90	52.98	51.05	50.58	50.38	49.26
MS1.1.1.2	Ministry of Education (MOE)	7.78	7.47	7.71	7.49	8.39	8.67	7.74	7.55	7.26	6.30	6.89	6.65	6.75	7.24	6.55	6.10	5.61	5.43	4.90	4.59	4.12	4.03	4.36
MS1.1.1.3	Ministry of Defence (MOD)	0.53	0.55	0.53	0.52	0.54	0.55	0.53	0.46	0.47	0.45	0.46	0.48	0.52	0.45	0.45	0.49	0.48	0.44	0.43	0.37	0.28	0.20	0.29
MS1.1.1.9	Other federal agencies (including statutory bodies)	2.41	2.48	2.39	2.45	2.49	2.74	2.60	3.56	3.04	2.57	2.76	3.39	2.40	2.34	2.25	2.13	2.23	2.04	2.06	2.12	2.01	1.97	1.84
MS1.1.2.1	(General) State government	0.12	0.12	0.12	0.11	0.11	0.12	0.10	0.09	0.10	0.09	0.11	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.06	0.07	0.06	0.09	0.05
MS1.1.2.2	Other state agencies (including statutory bodies)	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.05	0.06	0.05	0.06	0.05	0.06	0.06	0.05	0.06	0.05	0.05	0.13	0.49	0.42	0.44	0.44
MS1.1.3	Local authorities (LA)	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.10	0.11	0.11	0.08	0.06	0.09	0.08	0.08	0.10	0.11	0.11
MS1.2.1	Employees Provident Fund (EPF)	0.14	0.29	0.35	0.36	0.44	0.47	0.46	0.55	0.56	0.34	0.35	0.27	0.21	0.17	0.17	0.15	0.16	0.15	0.16	0.17	0.16	0.17	0.19
MS1.2.2	Social Security Organization (SOC SO)	0.55	0.53	0.51	0.51	0.48	0.48	0.57	0.44	0.46	0.49	0.38	0.24	0.38	0.47	0.50	0.49	0.54	0.40	0.37	0.42	0.41	0.48	0.45
MS2.2	Private insurance enterprises (other than social insurance)	1.55	2.11	2.68	3.02	4.14	5.23	5.36	5.83	5.84	5.87	6.55	6.77	8.13	7.85	7.91	7.52	8.55	9.57	10.30	10.79	10.89	11.26	12.34
MS2.4	Private household out-of-pocket expenditures (OOP)	31.34	30.20	29.86	31.85	27.41	27.69	29.95	30.40	31.68	28.49	28.81	31.09	29.52	30.09	30.15	27.87	27.64	25.58	27.22	28.40	29.54	29.48	29.64
MS2.5	Non-profit institutions serving households (NGO)	0.03	0.01	0.01	0.02	0.02	0.12	0.07	0.07	0.08	0.07	0.08	0.13	0.26	0.16	0.15	0.15	0.20	0.05	0.05	0.00	0.00	0.01	0.00
MS2.6	All corporations (other than health insurance)	3.06	3.55	3.64	3.17	3.59	3.47	1.80	1.51	1.77	1.38	1.48	0.90	0.77	0.82	0.85	1.03	1.20	1.22	1.25	1.44	1.43	1.38	1.00
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

6.3 HEALTH EXPENDITURE TO PROVIDERS OF HEALTH CARE – PROVIDERS OF AMBULATORY HEALTH CARE

Providers of ambulatory health care services is the next largest provider of health care after all hospitals. Ambulatory healthcare comprises a wide range of providers such as providers of medical clinics, dental clinics, family planning centres, substance abuse centres, dialysis centres, medical and diagnostic centres, ambulance providers and many other outpatient providers who provide inpatient services. The MNHA Framework and SHA 1.0 also includes providers of Traditional and Complementary Medicine under this category.

In 2019, providers of ambulatory health care consumed RM13,678 million (21%) of TEH. Of this amount, RM7,562 million (55%) is funded by private sector source of financing which consist of private household out-of-pocket expenditures, all

corporations (other than health insurance), private insurance enterprises (other than social insurance) and non-profit organisations serving households. The remaining RM6,116 million (45%) by public sector source of financing (Table 6.3a and Figure 6.3).

The 1997 to 2019 time-series data shows that the expenditure in absolute *Ringgit Malaysia* (RM) value for ambulatory care services increased by 4-fold in private sector and 14-fold in public sector (Table 6.3b). The private sector spending was higher than public sector spending over the time period, with the rate of increase in private sector spending in absolute RM value from 2010 onwards showed rapid rise compared to public sector expenditure.

TABLE 6.3a: Health Expenditure to Providers of Ambulatory Health Care by Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS2.4	Private Household out-of-pocket expenditures	6,250	45.69
MS1.1	Public sector excluding social security funds	5,972	43.66
MS2.6	All Corporations (other than health insurance)	1,089	7.96
MS2.2	Private insurance enterprises (other than social insurance)	157	1.15
MS1.2	Social security funds	144	1.05
MS2.5	Non-profit organizations serving households	66	0.48
Total		13,678	100.00



FIGURE 6.3: Health Expenditure to Providers Ambulatory Health Care (non-hospital setting) by Sources of Financing, 2019

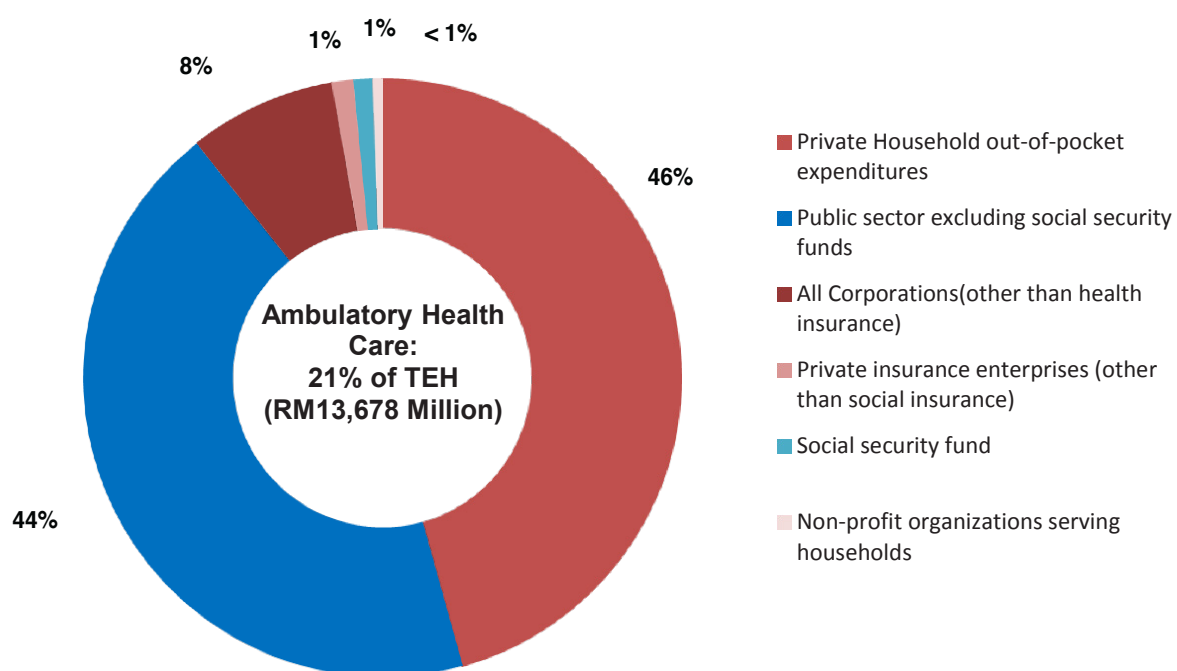




TABLE 6.3b: Health Expenditure to Providers of Ambulatory Health Care by Sources of Financing, 1997-2019 (RM Million)

MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1	Public sector excluding social security funds	418	451	519	616	735	829	1,103	1,216	1,319	1,802	1,895	2,188	2,163	2,483	2,732	3,180	3,544	4,118	4,306	4,449	4,852	5,354	5,972
MS1.2	Social security funds	9	10	11	12	14	15	7	20	24	16	32	23	10	11	13	11	11	68	74	93	99	138	144
	Subtotal Public sector	427	460	530	628	749	844	1,110	1,236	1,343	1,818	1,926	2,212	2,173	2,494	2,745	3,191	3,554	4,186	4,380	4,542	4,951	5,492	6,116
MS2.2	Private insurance enterprises (other than social insurance)	0	0	0	0	0	0	1	1	1	1	1	34	25	34	60	75	85	67	97	129	137	153	157
MS2.4	Private Household out-of-pocket expenditures	1,371	1,385	1,419	1,665	1,488	1,535	1,658	1,970	2,370	2,709	2,984	2,967	2,168	2,671	3,339	3,815	4,276	5,101	5,091	5,125	5,519	5,709	6,250
MS2.5	Non-profit organizations serving households	8	7	7	7	6	10	14	15	15	19	12	22	25	16	19	21	21	18	20	22	45	41	66
MS2.6	All Corporations (other than health insurance)	318	311	321	300	339	340	396	383	445	423	519	434	385	424	488	672	819	939	1,043	1,225	1,329	1,387	1,089
	Subtotal Private sector	1,696	1,704	1,747	1,972	1,833	1,885	2,069	2,369	2,831	3,151	3,516	3,456	2,603	3,145	3,906	4,582	5,201	6,125	6,252	6,501	7,030	7,291	7,562
	Total	2,123	2,164	2,277	2,600	2,582	2,729	3,178	3,605	4,174	4,969	5,442	5,668	4,776	5,639	6,650	7,773	8,756	10,311	10,633	11,044	11,981	12,783	13,678



TABLE 6.3c: Health Expenditure to Providers of Ambulatory Health Care by Sources of Financing, 1997-2019 (Percent, %)																								
MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1	Public sector excluding social security funds	19.68	20.82	22.81	23.68	28.47	30.38	34.70	33.73	31.59	36.26	34.82	38.61	45.29	44.03	41.07	40.91	40.47	39.94	40.50	40.29	40.50	41.88	43.66
MS1.2	Social security funds	0.41	0.45	0.47	0.48	0.53	0.55	0.22	0.56	0.58	0.33	0.58	0.41	0.21	0.20	0.19	0.14	0.12	0.66	0.70	0.84	0.83	1.08	1.05
	Subtotal Public sector	20.10	21.27	23.28	24.15	29.00	30.93	34.91	34.29	32.17	36.59	35.40	39.02	45.49	44.23	41.27	41.05	40.59	40.60	41.20	41.13	41.32	42.97	44.72
MS2.2	Private insurance enterprises (other than social insurance)	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.59	0.52	0.60	0.90	0.96	0.97	0.65	0.92	1.17	1.14	1.20	1.15
MS2.4	Private Household out-of-pocket expenditures	64.57	64.01	62.32	64.03	57.62	56.24	52.17	54.66	56.78	54.51	54.84	52.34	45.41	47.37	50.21	49.08	48.83	49.47	47.88	46.41	46.07	44.66	45.69
MS2.5	Non-profit organizations serving households	0.36	0.33	0.30	0.25	0.25	0.36	0.45	0.41	0.37	0.38	0.21	0.39	0.52	0.28	0.28	0.26	0.24	0.17	0.19	0.20	0.38	0.32	0.48
MS2.6	All Corporations (other than health insurance)	14.97	14.38	14.09	11.55	13.12	12.46	12.44	10.61	10.67	8.51	9.53	7.65	8.06	7.52	7.34	8.64	9.36	9.11	9.81	11.10	11.09	10.85	7.96
	Subtotal Private sector	79.90	78.73	76.72	75.85	71.00	69.07	65.09	65.71	67.83	63.41	64.60	60.98	54.51	55.77	58.73	58.95	59.41	59.40	58.80	58.87	58.68	57.03	55.28
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



6.4 PRIMARY CARE (PC) AND PRIMARY HEALTH CARE (PHC) EXPENDITURE

6.4.1 Overview of Primary Care and Primary Health Care

“Primary health care” (PHC) is an overall approach which encompasses the three aspects: multi-sectoral policy and action to address the broader determinants of health; empowering individuals, families and communities, and meeting people’s essential health needs throughout their lives. In fact, PHC seeks to address the broader determinants of health, such as community-level disease-prevention efforts, and to empower individuals, families and communities to get involved in their own health. As such, PHC goes beyond providing health care services to individuals.

“Primary care” is a subset of PHC and refers to essential, first-contact care provided in a community setting. Primary care (PC) is often regarded as the gate keeper and a key provider process in the health-care system. It is the first point of contact, easily accessible at the time of need, providing continued, comprehensive and coordinated care. Thus, enabling health care to be delivered as close as possible to where people live and work.

To date, there exists no easily measurable operational definition neither for PHC nor PC. The System of Health Accounts (SHA 2011) also does not propose a readymade classification for these services. Based on the WHO consultation with the PHC experts, it was suggested to use available national health accounts healthcare functions to overcome the obstacles of generating expenditure estimates for PHC and PC.

Several discussions and meetings with relevant stakeholders were held to construct a methodology to map available healthcare function codes in MNHA framework to reflect the PC and PHC services in Malaysia. These discussions involved the National Health Financing Section of Planning Division, the Family Health Development Division of Ministry of Health and the MNHA team. Subsequently, the agreed definitions and boundaries were presented and endorsed by the MNHA Technical Advisory Committee and MNHA Steering Committee. The PC definitions were based on the concept of first point of contact of services while PHC includes PC and all the expenditure of health promotion and prevention activities (MF6) (Table 6.4a).

**TABLE 6.4a: PC and PHC based on MNHA codes.**

PROVIDER		FUNCTION			
MNHA Code	Description	MNHA Code	Description		
MP1.1a	Hospitals (MOH)	MF1.3.1	Basic medical and diagnostic services	Primary Health Care (PHC)	Primary Care (PC)
MP1.1b	Hospitals (Public non-MOH)	MF1.3.1	Basic medical and diagnostic services		
MP3.1	Medical practitioner clinics	MF1.3.1	Basic medical and diagnostic services		
		MF1.4	Services of curative home care		
		MF6.1	Maternal and child health, family planning and counselling		
		MF6.2.1	Medical school health services		
MP3.2	Dentist clinics	MF6.2.2	Dental school health services		
MP1 & MP3	Hospitals & Ambulatory Care	MF1.3.2	Dental outpatient curative care		
MP	All Providers	MF6	Prevention and public health services		

6.4.2 Primary Care and Primary Health Care Expenditure

In 2019, the PC expenditure was RM 11,933 million (19%) of the TEH (Figure 6.4a) while

PHC expenditure which encompasses a broader boundry was RM 13,965 million (22%) of the TEH (Figure 6.4b). MOH spent RM 6,435 million or 22% of the MOH expenditure (Figure 6.4c) on PHC.

FIGURE 6.4a: Primary Care Expenditure as Percentage of Total Expenditure on Health, 2019

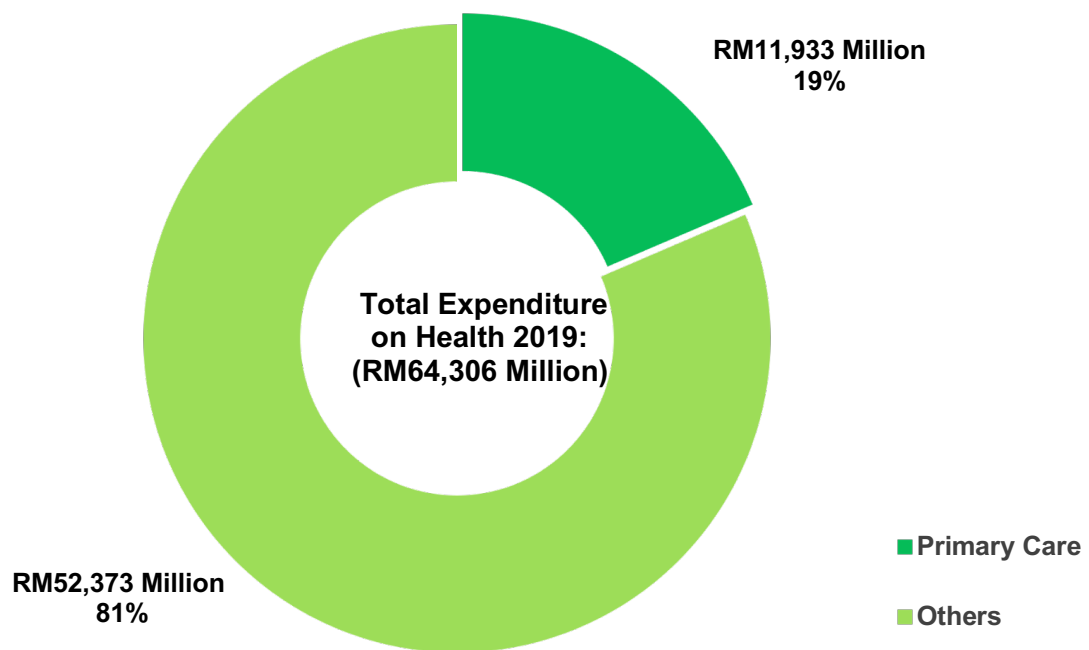
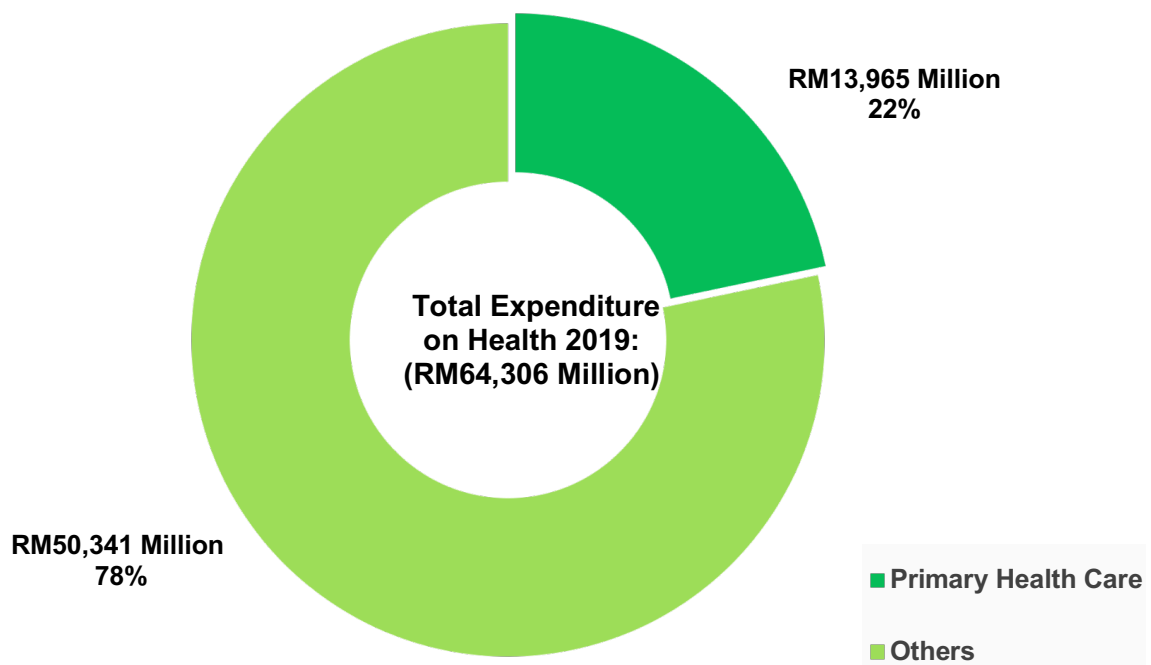
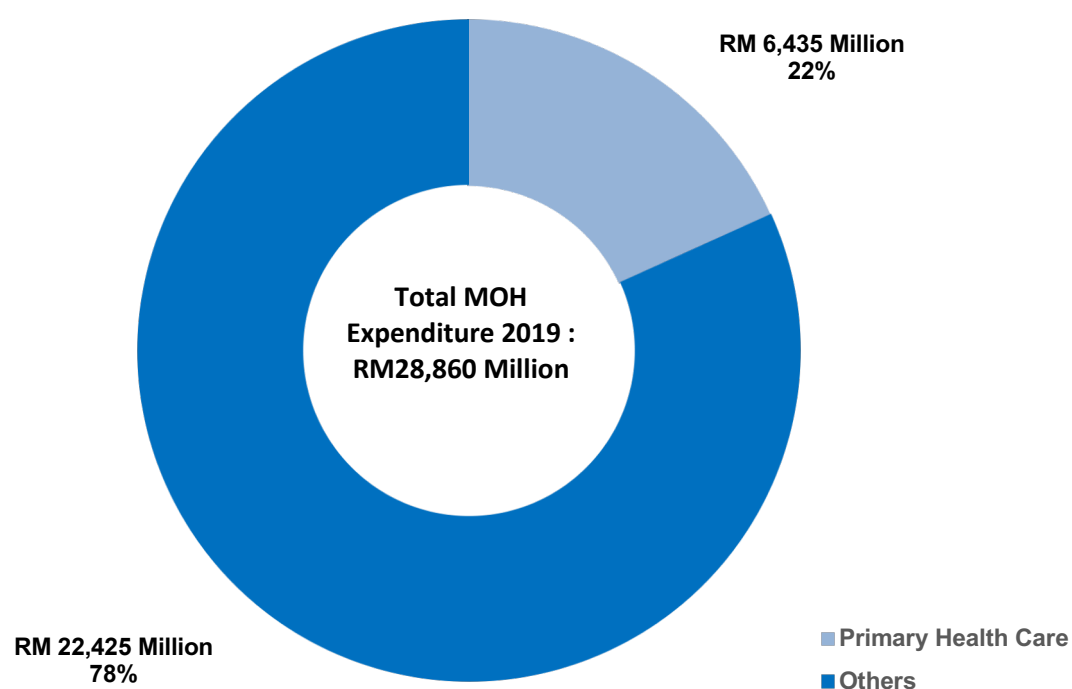


FIGURE 6.4b: Primary Health Care Expenditure as Percentage of Total Expenditure on Health, 2019



**FIGURE 6.4c: Primary Care Expenditure as Percentage of MOH Expenditure, 2019**



CHAPTER 7

HEALTH EXPENDITURE BY FUNCTIONS OF HEALTH CARE

This chapter describes the types of services purchased with the financial resources. Health expenditure by functions of health care is categorised into two, namely the 'core functions of health care' (MF) and 'health-related functions' (MR).

This chapter has four sections. Section 7.1 describes health expenditure according to MNHA classification of all functions of health care for year 2019, followed by time series data of 1997-2019 in RM Million and percentage. Section 7.2 explains about services of curative care expenditure, Section 7.3 is regarding public health services (including health promotion and prevention) expenditure and Section 7.4 describes expenditure for health education and training.

7.1 HEALTH EXPENDITURE BY ALL FUNCTIONS OF HEALTH CARE

In 2019, the expenditure for services of curative care amounted to RM43,553 million (68%) of TEH (Table 7.1a and Figure 7.1). This is followed by health programme administration and health insurance at RM5,136 million (8%), medical goods dispensed to out-patients at RM4,880 million

(8%), and public health services (including health promotion and prevention) at RM4,377 million (7%). A total of RM3,211 million (5%) was spent for education and training of health personnel, RM2,642 million (4%) for capital formation of health care provider institutions and the remaining RM507 million (1%) was spent on all the other functions.

The 1997 to 2019 time series data (Table 7.1b and Table 7.1c) shows that an average of 90% of the total expenditure was spent for the top five functions in Table 7.1a. Between 1997 and 2008, the top four functions were services of curative care, medical goods dispensed to outpatients, health programme administration & health insurance and capital formation. A change in pattern happened in years 2009 till 2013, where education and training of health personnel was included in the top four health expenditure, replacing medical goods dispensed to outpatients. Subsequently, from 2014 onwards, public health services (including health promotion and prevention) and medical goods dispensed to outpatients substituted education & training of health personnel and capital formation. It is important to also note that services of curative care expenditure showed a generally increasing trend throughout the time period.

**TABLE 7.1a: Total Expenditure on Health by Functions of Health Care, 2019**

MNHA Code	Functions of Health Care	RM Million	Percent
MF1	Services of curative care	43,553	67.73
MF7	Health programme administration and health insurance	5,136	7.99
MF5	Medical goods dispensed to out-patients	4,880	7.59
MF6	Public health services, including health promotion and prevention	4,377	6.81
MR2	Education and training of health personnel	3,211	4.99
MR1	Capital formation of health care provider institutions	2,642	4.11
MF4	Ancillary services to health care	357	0.55
MR3	Research and development in health	149	0.23
MF3	Services of long-term nursing care	1	< 0.10
Total		64,306	100.00

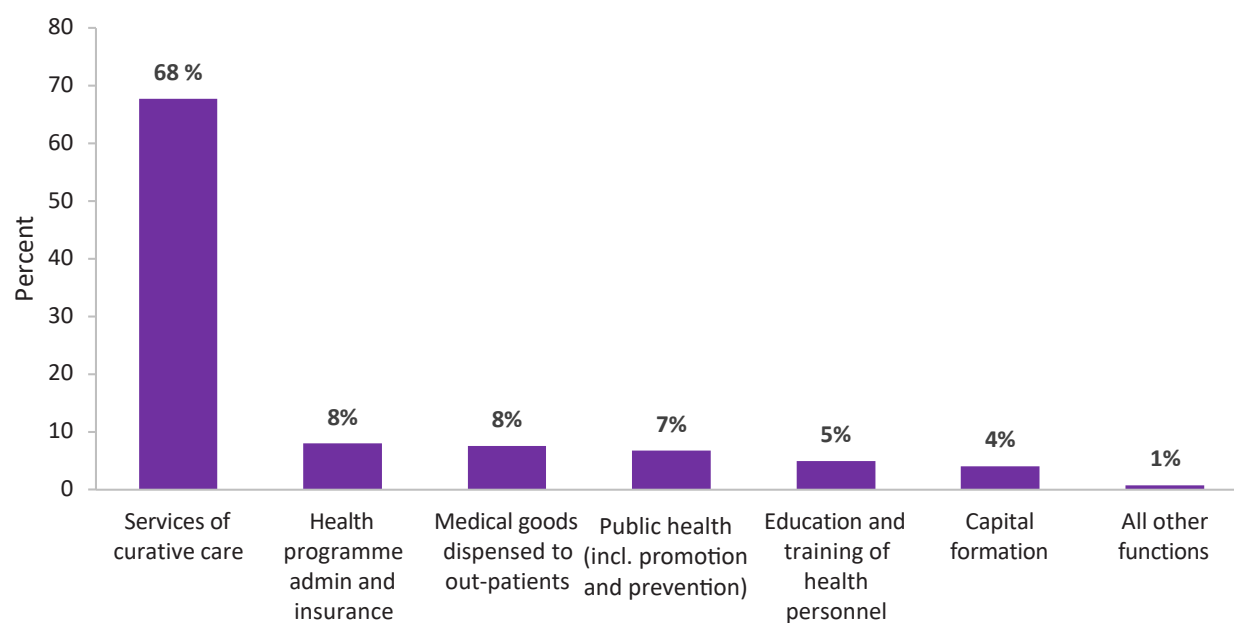
FIGURE 7.1: Total Expenditure on Health by Functions of Health Care, 2019



TABLE 7.1b: Total Expenditure on Health by Functions of Health Care, 1997-2019 (RM Million)

MNHA Code	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MF1	5,443	5,806	6,077	7,075	7,485	8,111	9,700	10,941	11,903	14,731	16,067	18,571	18,258	19,943	23,238	26,172	27,191	31,405	33,648	35,045	38,307	41,072	43,553
MF2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0
MF3	1	2	2	3	3	6	10	10	11	12	14	5	5	12	15	19	1	2	1	4	1	4	1
MF4	102	111	101	106	117	110	118	126	128	201	180	238	235	284	296	314	407	380	354	300	330	335	357
MF5	790	844	873	962	888	904	963	1,090	1,155	1,252	1,453	1,626	1,759	1,926	2,242	2,477	2,730	3,298	3,901	4,216	4,525	5,255	4,880
MF6	476	489	541	539	611	632	764	827	893	1,025	1,406	1,242	1,316	1,348	1,577	1,925	2,804	2,771	2,993	3,235	3,447	3,667	4,377
MF7	919	959	1,011	1,184	1,283	1,492	1,936	1,953	1,940	2,388	2,497	2,800	3,015	3,160	3,632	3,545	3,586	4,248	4,522	3,790	4,766	4,456	5,136
MR1	553	839	975	1,426	1,741	1,706	2,872	2,390	1,348	1,459	1,625	1,877	2,875	4,031	2,430	2,355	2,089	1,831	1,841	1,890	1,943	2,257	2,642
MR2	206	253	326	412	505	604	770	804	836	971	1,126	1,360	1,858	2,149	2,463	2,560	2,749	2,758	2,844	2,980	2,875	3,197	3,211
MR3	65	58	52	48	80	83	80	68	28	42	57	54	58	55	58	81	90	87	90	74	70	95	149
MR9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8,556	9,162	9,960	11,753	12,711	13,649	17,212	18,210	18,243	22,080	24,426	27,774	29,380	32,889	35,953	39,448	41,647	46,780	50,194	51,534	56,264	60,339	64,306



TABLE 7.1c: Total Expenditure on Health by Functions of Health Care, 1997-2019 (Percent, %)

MNHA Code	Functions of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MF1	Services of curative care	63.62	61.19	61.02	60.19	58.88	59.43	56.36	60.08	65.25	66.72	65.78	66.87	62.14	60.64	64.63	66.35	65.29	67.13	67.04	68.00	68.08	68.07	67.73
MF2	Services of rehabilitative care	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MF3	Services of long-term nursing care	0.02	0.02	0.02	0.02	0.02	0.04	0.06	0.06	0.06	0.05	0.06	0.02	0.02	0.04	0.04	0.05	0.00	0.00	0.00	0.01	0.00	0.01	0.00
MF4	Ancillary services to health care	1.19	1.22	1.02	0.90	0.92	0.81	0.68	0.69	0.70	0.91	0.74	0.86	0.80	0.80	0.82	0.80	0.98	0.81	0.71	0.58	0.59	0.56	0.55
MF5	Medical goods dispensed to outpatients	9.24	9.21	8.77	8.18	6.98	6.62	5.59	5.99	6.33	5.67	5.95	5.86	5.99	5.86	6.24	6.28	6.56	7.05	7.77	8.18	8.04	8.71	7.59
MF6	Public health services (including health promotion and prevention)	5.56	5.34	5.43	4.58	4.80	4.63	4.44	4.54	4.90	4.64	5.76	4.47	4.48	4.10	4.39	4.88	6.73	5.92	5.96	6.28	6.13	6.08	6.81
MF7	Health programme administration and health insurance	10.74	10.47	10.15	10.07	10.09	10.93	11.25	10.73	10.63	10.81	10.22	10.08	10.26	9.61	10.10	8.99	8.61	9.08	9.01	7.35	8.47	7.38	7.99
MR1	Capital formation of health care provider institutions	6.47	9.16	9.79	12.13	13.70	12.50	16.68	13.12	7.39	6.61	6.65	6.76	9.79	12.26	6.76	5.97	5.02	3.92	3.67	3.67	3.45	3.74	4.11
MR2	Education and training of health personnel	2.40	2.76	3.28	3.50	3.97	4.42	4.48	4.42	4.58	4.40	4.61	4.90	6.32	6.53	6.85	6.49	6.60	5.90	5.67	5.78	5.11	5.30	4.99
MR3	Research and development in health	0.76	0.63	0.53	0.41	0.63	0.61	0.46	0.37	0.15	0.19	0.24	0.19	0.20	0.17	0.16	0.21	0.22	0.19	0.18	0.14	0.12	0.16	0.23
MR9	All other health-related expenditures	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



7.2 HEALTH EXPENDITURE BY FUNCTIONS OF HEALTH CARE - CURATIVE CARE BY SOURCES OF FINANCING

Services of curative care include medical, paramedical and allied health services which could be either allopathic or TCM services, and is inclusive of dental care services. It could be provided either in hospital or non-hospital setting. The non-hospital setting includes medical or dental clinics.

In 2019, a total of RM43,553 million (68%) of TEH is for services of curative care as shown in Table 7.2a and Figure 7.2. The source of financing for services of curative care is RM22,987 million (53%) from the public sector and the remaining RM20,566 million

(47%) from the private sector. For the services of curative care expenditure in hospitals, the public sector spent 45% and the private sector spent 33%. The remaining expenditure was spent for non-hospital services. Note that there is an increasing trend on curative care spending at private sector hospitals.

The 1997 to 2019 time series data shows a similar pattern in absolute *Ringgit Malaysia* (RM) value and percentage (Table 7.2b and 7.2c). The public sector share is higher than the private sector source of financing over the time period.

TABLE 7.2a: Health Expenditure for Curative Care by Sources of Financing, 2019

Source	Provider	RM Million	Percent
Public Sector	Hospital	19,586	44.97
	Non-Hospital	3,401	7.81
	Sub-Total	22,987	52.78
Private Sector	Hospital	14,552	33.41
	Non-Hospital	6,014	13.81
	Sub-Total	20,566	47.22
Total		43,553	100.00

FIGURE 7.2: Health Expenditure for Curative Care by Sources of Financing, 2019

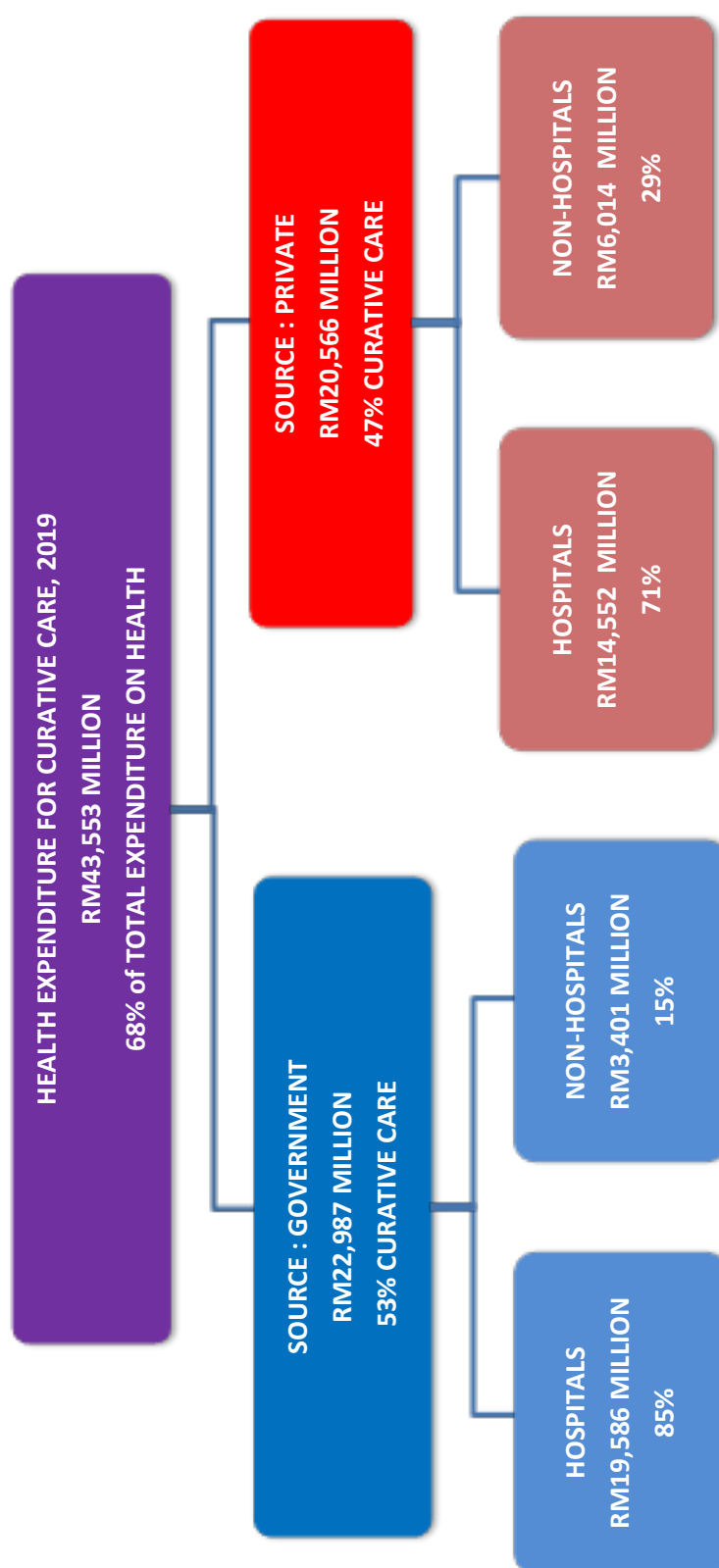




TABLE 7.2b: Health Expenditure for Curative Care by Sources of Financing, 1997-2019 (RM Million)

Source	Provider	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Public Sector	Hospital	2,542	2,637	2,843	3,202	3,611	3,846	4,551	4,987	5,155	6,922	7,402	8,600	8,886	9,211	10,873	12,651	13,011	15,240	15,834	16,044	17,338	18,605	19,586
	Non-Hospital	358	368	420	489	570	664	783	886	948	1,272	1,332	1,554	1,633	1,804	2,077	2,370	2,001	2,479	2,830	3,021	3,353	3,724	3,401
	Sub-Total	2,900	3,005	3,264	3,691	4,181	4,510	5,334	5,873	6,103	8,195	8,735	10,154	10,519	11,015	12,949	15,021	15,013	17,719	18,663	19,065	20,691	22,329	22,987
Private Sector	Hospital	1,440	1,508	1,663	2,009	2,038	2,253	2,773	3,118	3,469	3,888	4,411	5,568	5,704	6,362	7,018	7,363	7,961	8,652	9,984	10,886	12,123	13,073	14,552
	Non-Hospital	1,103	1,093	1,151	1,375	1,266	1,348	1,594	1,950	2,331	2,639	2,920	2,849	2,035	2,566	3,271	3,788	4,218	5,034	5,001	5,094	5,493	5,671	6,014
	Sub-Total	2,544	2,601	2,813	3,384	3,303	3,601	4,367	5,068	5,800	6,526	7,332	8,417	7,739	8,928	10,288	11,151	12,179	13,686	14,985	15,980	17,616	18,743	20,566
Total		5,443	5,606	6,077	7,075	7,485	8,111	9,700	10,941	11,903	14,731	16,066	18,571	18,258	19,943	23,238	26,172	27,191	31,405	33,648	35,045	38,307	41,072	43,553

TABLE 7.2c: Health Expenditure for Curative Care by Sources of Financing, 1997-2019 (Percent, %)

Source	Provider	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Public Sector	Hospital	46.70	47.04	46.79	45.25	48.24	47.41	46.92	45.58	43.31	46.99	46.07	46.31	46.67	46.19	46.79	48.34	47.85	48.53	47.06	45.78	45.26	45.30	44.97
	Non-Hospital	6.57	6.56	6.92	6.92	7.62	8.19	8.07	8.10	7.96	8.64	8.29	8.37	8.94	9.04	8.94	9.06	7.36	7.89	8.41	8.62	8.75	9.07	7.81
	Sub-Total	53.27	53.60	53.71	52.17	55.86	55.60	54.98	53.68	51.27	55.63	54.37	54.68	57.61	55.23	55.73	57.39	55.21	56.42	55.47	54.40	54.01	54.37	52.78
Private Sector	Hospital	26.46	26.90	27.36	28.40	27.23	27.78	28.58	28.50	29.15	26.46	27.46	29.98	31.24	31.90	30.20	28.13	29.28	27.55	29.67	31.06	31.65	31.83	33.41
	Non-Hospital	20.27	19.49	18.94	19.44	16.91	16.62	16.43	17.82	19.58	17.91	18.18	15.34	11.14	12.87	14.07	14.47	15.51	16.03	14.86	14.54	14.34	13.81	13.81
	Sub-Total	46.73	46.40	46.29	47.83	44.14	44.40	45.02	46.32	48.73	44.37	45.63	45.32	42.39	44.77	44.27	42.61	44.79	43.58	44.53	45.60	45.99	45.63	47.22
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



7.3 HEALTH EXPENDITURE BY FUNCTIONS OF HEALTH CARE – PUBLIC HEALTH SERVICES (INCLUDING HEALTH PROMOTION AND PREVENTION) BY SOURCES OF FINANCING

This section refers to expenditure for services designed to enhance the health status of the population in the form of structured public health services, including promotive and preventive programmes. This excludes the expenditure of similar services delivered on individual basis which is captured as part of services of curative care.

In 2019, a total of RM4,377 million (7%) of TEH is spent on public health programmes. From this, RM3,290 million (75%) is by the public sector sources of financing. MOH is the highest financier of public health services with the expenditure of RM3,010 million (69%) of the total expenditure on public health services (Table 7.3a). About 91% of public sector health expenditure on public health

services is by MOH as shown in Figure 7.3. The second highest financier for public health services is all corporations (other than health insurance) that spent RM1,077 million (25%) followed by other federal agencies (including statutory bodies) amounted to RM146 million (3%).

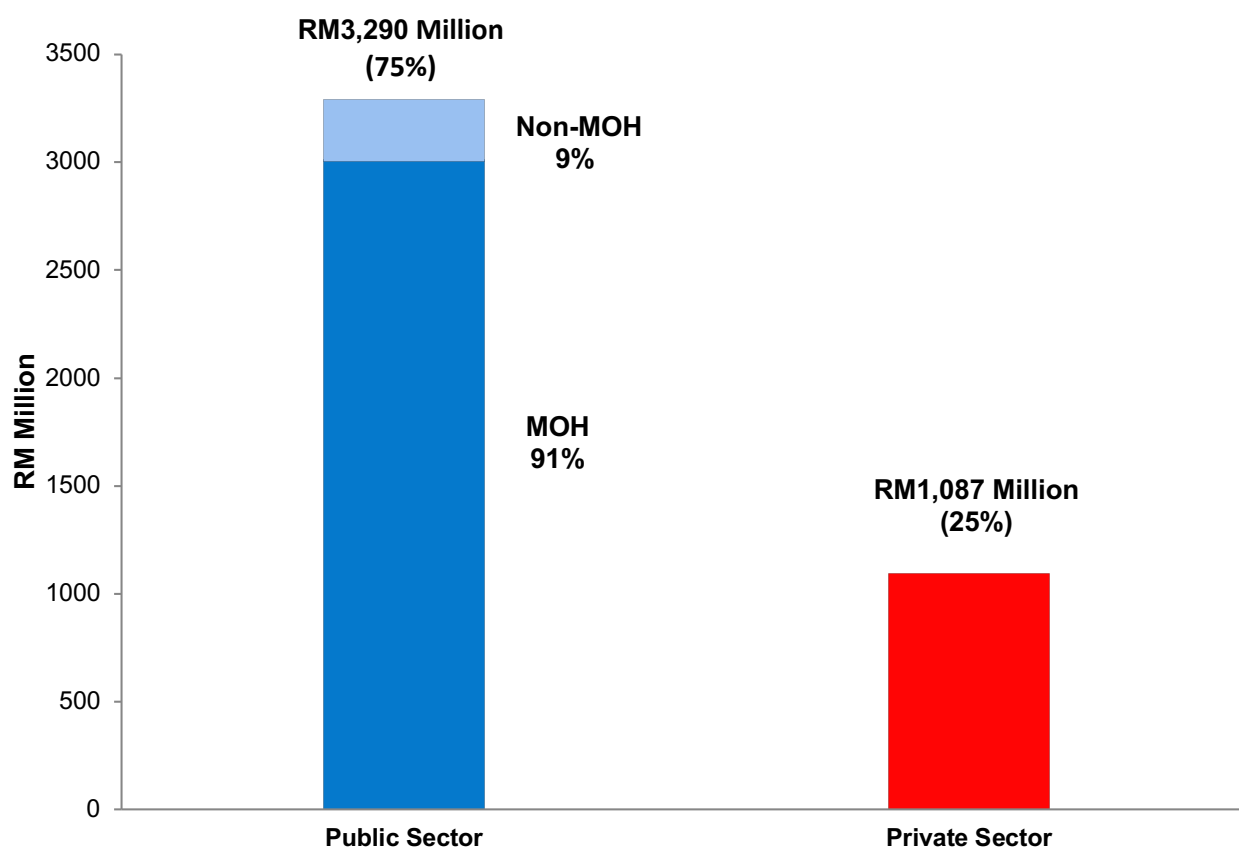
The 1997 to 2019 time series data also showed MOH as the largest source of financing for this function of health care service with a 15-fold increase in absolute *Ringgit Malaysia* (RM) value over the time period. However, other state agencies (including statutory bodies) showed an even higher increase in absolute RM value of 17-fold over the same time period (Table 7.3b and 7.3c).

TABLE 7.3a: Health Expenditure for Public Health Services (Including Health Promotion and Prevention) by Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS1.1.1.1	Ministry of Health (MOH)	3,010	68.76
MS2.6	All corporations (other than health insurance)	1,077	24.61
MS1.1.1.9	Other federal agencies (including statutory bodies)	146	3.34
MS1.1.2.2	Other state agencies (including statutory bodies)	54	1.24
MS1.1.3	Local authorities (LA)	43	0.99
MS1.1.2.1	(General) State government	37	0.84
MS2.4	Private household out-of-pocket expenditures (OOP)	7	0.17
MS2.5	Non-profit institutions serving households (NGO)	2	0.05
Total		4,377	100.00



FIGURE 7.3: Health Expenditure for Public Health Services (Including Health Promotion and Prevention) by Sources of Financing, 2019





MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1.1.1	Ministry of Health (MOH)	146	139	166	167	197	201	307	341	364	496	495	603	628	673	752	898	1,634	1,541	1,653	1,777	1,902	2,118	3,010
MS1.1.1.9	Other federal agencies (including statutory bodies)	13	17	19	22	25	28	32	37	42	48	55	56	67	74	94	118	128	121	140	128	141	129	146
MS1.1.2.1	(General) State government	24	29	29	28	27	30	52	73	49	56	65	69	56	60	54	64	25	31	31	35	27	30	37
MS1.1.2.2	Other state agencies (including statutory bodies)	3	3	3	3	3	3	6	6	10	9	6	6	13	26	30	34	66	78	43	52	50	50	54
MS1.1.3	Local authorities (LA)	6	6	7	7	8	10	13	19	26	21	291	65	138	40	62	83	72	44	52	26	36	30	43
MS1.2.2	Social Security Organization (SOCSSO)	2	2	2	3	3	3	3	4	4	5	5	1	1	2	4	5	35	23	9	11	8		
MS2.4	Private household out-of-pocket expenditures (OOP)	5	5	5	5	5	5	5	6	9	11	10	10	8	9	8	10	10	8	6	6	6	8	7
MS2.5	Non-profit institutions serving households (NGO)	5	6	5	5	6	6	6	6	9	7	11	16	6	7	10	16	1	1	21	28	17	18	2
MS2.6	All corporations (other than health insurance)	271	281	305	298	337	346	338	335	381	373	467	415	399	458	563	698	832	924	1,037	1,173	1,261	1,283	1,077
MS9	Rest of the world (ROW)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Total	476	489	541	539	611	632	764	827	893	1,025	1,406	1,242	1,316	1,348	1,577	1,925	2,804	2,771	2,993	3,235	3,447	3,667	4,377



TABLE 7.3c: Health Expenditure for Public Health Services (including Health Promotion and Prevention) by Sources of Financing, 1997-2019 (Percent, %)

MNHA Code	Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1.1.1	Ministry of Health (MOH)	30.71	28.51	30.68	31.05	32.29	31.80	40.23	41.24	40.81	48.39	35.18	48.56	47.72	49.93	47.71	46.66	58.27	55.59	55.24	54.91	55.18	57.76	68.76
MS1.1.1.9	Other federal agencies (including statutory bodies)	2.64	3.43	3.52	4.03	4.04	4.45	4.20	4.43	4.69	4.67	3.91	4.52	5.08	5.47	5.95	6.11	4.57	4.38	4.68	3.94	4.08	3.53	3.34
MS1.1.2.1	(General) State government	5.14	5.93	5.33	5.27	4.38	4.76	6.80	8.86	5.45	5.45	4.65	5.59	4.22	4.45	3.41	3.30	0.90	1.13	1.03	1.07	0.77	0.83	0.84
MS1.1.2.2	Other state agencies (including statutory bodies)	0.58	0.68	0.51	0.48	0.52	0.51	0.84	0.76	1.11	0.91	0.42	0.49	0.98	1.90	1.89	1.75	2.35	2.81	1.43	1.59	1.44	1.37	1.24
MS1.1.3	Local authorities (LA)	1.26	1.29	1.25	1.37	1.36	1.53	1.67	2.30	2.87	2.03	20.70	5.24	10.50	2.97	3.90	4.29	2.58	1.59	1.75	0.80	1.04	0.82	0.99
MS1.2.2	Social Security Organization (SOCSSO)	0.49	0.47	0.46	0.52	0.48	0.50	0.45	0.47	0.50	0.48	0.39	0.09	0.08	0.12	0.26	0.27	1.26	0.83	0.29	0.35	0.24	-	-
MS2.4	Private household out-of-pocket expenditures (OOP)	1.10	1.07	0.97	0.98	0.86	0.84	0.69	0.77	0.99	1.04	0.71	0.78	0.62	0.64	0.50	0.52	0.35	0.27	0.21	0.18	0.17	0.22	0.17
MS2.5	Non-profit institutions serving households (NGO)	1.14	1.14	0.98	1.02	0.94	0.92	0.83	0.70	0.97	0.69	0.80	1.31	0.46	0.55	0.65	0.81	0.04	0.04	0.72	0.88	0.50	0.49	0.05
MS2.6	All corporations (other than health insurance)	56.94	57.47	56.31	55.29	55.13	54.69	44.29	40.47	42.82	36.33	33.19	33.40	30.34	33.98	35.71	36.28	29.67	33.35	34.65	36.27	36.59	34.99	24.61
MS9	Rest of the world (ROW)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.02	0.00	0.00	0.00	-	-	-	-	-	-	-	-
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



7.4 HEALTH EXPENDITURE BY FUNCTIONS OF HEALTH CARE - HEALTH EDUCATION AND TRAINING BY SOURCES OF FINANCING

This section describes expenditure for all health & health-related education and training of personnel. Although MNHA Framework includes this expenditure under the TEH, the SHA 1.0 framework excludes this because of the shortfalls involved in making assumptions for this expenditure and also the difficulties in capturing this expenditure. Furthermore, personnel who undergo health and health-related education and training may not continue to provide services in the health sector.

In 2019, a total of RM3,211 million or about 5% of TEH was spent on health education and training of health personnel. A total of RM1,292 million (40%) of this amount is funded by public sector source of financing (Table 7.4a). The MOH spent about

12% of public sector health expenditure on health education and training as shown in Figure 7.4.

The 1997 to 2019 time series data shows that both the public sector and private sector sources of financing have a generally increasing trend in expenditure for this function. The public sector expenditure remains almost two times of private sector in absolute *Ringgit Malaysia* (RM) value between year 1997 and 2011. From 2015 till 2017 and also for 2019, private sector source of financing overtook public sector in this expenditure (Table 7.4b and Table 7.4c). In the public sources of financing alone, the non-MOH spent about 3-fold of MOH expenditure for health education and training throughout the years.

TABLE 7.4a: Health Expenditure for Health Education and Training by Sources of Financing, 2019

MNHA Code	Sources of Financing	RM Million	Percent
MS1.1.1.1	Public sector (MOH)	370	11.53
MS1 (others)	Public sector (Non-MOH)	922	28.71
MS2 + MS9	Private sector*	1,919	59.76
Total		3,211	100.00

Note: *Data includes expenditure under 'Rest of the world'



FIGURE 7.4: Health Expenditure for Health Education and Training by Sources of Financing, 2019

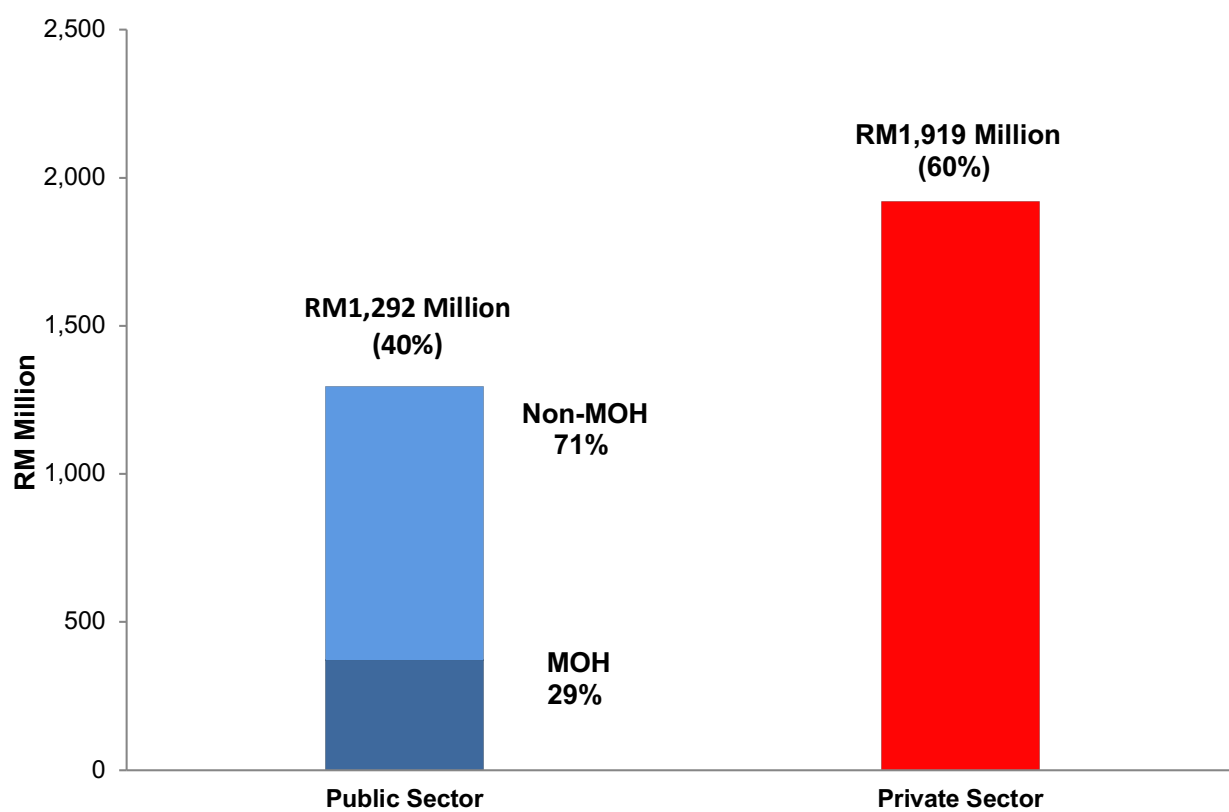




TABLE 7.4b: Health Expenditure for Health Education and Training by Sources of Financing, 1997-2019 (RM Million)

MINHA Code	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1.1.1	35	33	68	96	147	186	231	222	218	270	275	310	325	340	380	377	407	438	446	428	244	380	370
MS1 (others)	92	117	128	143	171	189	241	299	338	389	500	691	943	989	1,204	1,030	881	992	976	1,045	1,071	1,239	922
MS2 + MS9	79	103	130	173	186	229	298	283	279	311	351	359	590	820	879	1,153	1,461	1,328	1,421	1,508	1,560	1,579	1,919
Total	206	253	326	412	505	604	770	804	836	971	1,126	1,360	1,858	2,149	2,463	2,560	2,749	2,758	2,844	2,980	2,875	3,197	3,211

Note: *Data includes expenditure under 'Rest of the world'

TABLE 7.4c: Health Expenditure for Health Education and Training by Sources of Financing, 1997-2019 (Percent, %)

MINHA Code	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
MS1.1.1.1	16.95	13.07	20.78	23.39	29.16	30.78	30.03	27.57	26.11	27.84	24.42	22.81	17.48	15.84	15.44	14.74	14.81	15.89	15.69	14.35	8.49	11.87	11.53
MS1 (others)	44.82	46.12	39.31	34.62	33.93	31.38	31.25	37.20	40.47	40.09	44.37	50.83	50.76	46.02	48.87	40.23	32.04	35.95	34.34	35.05	37.25	38.75	28.71
MS2 + MS9	38.23	40.82	39.91	41.99	36.91	37.85	38.72	35.23	33.42	32.07	31.21	26.36	31.76	38.14	35.69	45.03	53.15	48.16	49.97	50.59	54.25	49.38	59.76
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: *Data includes expenditure under 'Rest of the world'



CHAPTER 8

MOH HEALTH EXPENDITURE

There has been much interest among policy makers to further explore the Ministry of Health (MOH) expenditure. There are differences in reporting MOH expenditures using the MNHA Framework and the government treasury accounting system used by MOH Accounts Division (AG database). This chapter aims to provide some information on MOH expenditure as share of total expenditure on health and national GDP, as well as to enlighten the differences in expenditure reporting of MOH hospitals as the provider of health care services and MOH source of financing at MOH hospitals using the MNHA Framework.

The first section in this chapter describes the proportion of MOH expenditure from TEH, and MOH health expenditure as percentage of national GDP using MNHA Framework. The second section aims to explain some differences in NHA reporting of expenditure at hospitals based on the two dimensions of MNHA Framework; Sources of financing and Functions of health care.

8.1 MOH HEALTH EXPENDITURE – MOH SHARE OF TOTAL EXPENDITURE ON HEALTH AND NATIONAL GDP

MOH health expenditure reported in this section describes what MOH as a ‘source of financing’ spends on health care. Expenditure of MOH as ‘source of financing’ differs from what is reported

in the government treasury accounting system based on AG data as total MOH expenditure, (which is inclusive of operating and development expenditures) for a particular year. The MNHA framework allows tracking of reimbursements by various agencies (e.g. EPF, SOCSO, private health insurance, state government (including statutory bodies), etc.) which are then deducted from total MOH expenditure to reflect the actual MOH expenditure at health care providers level, thus leaving MOH expenditure as ‘source of financing’ to be of slightly lower value under the MNHA Framework. (This is due to the effect of ‘addressing double counting’ as explained in Chapter 3).

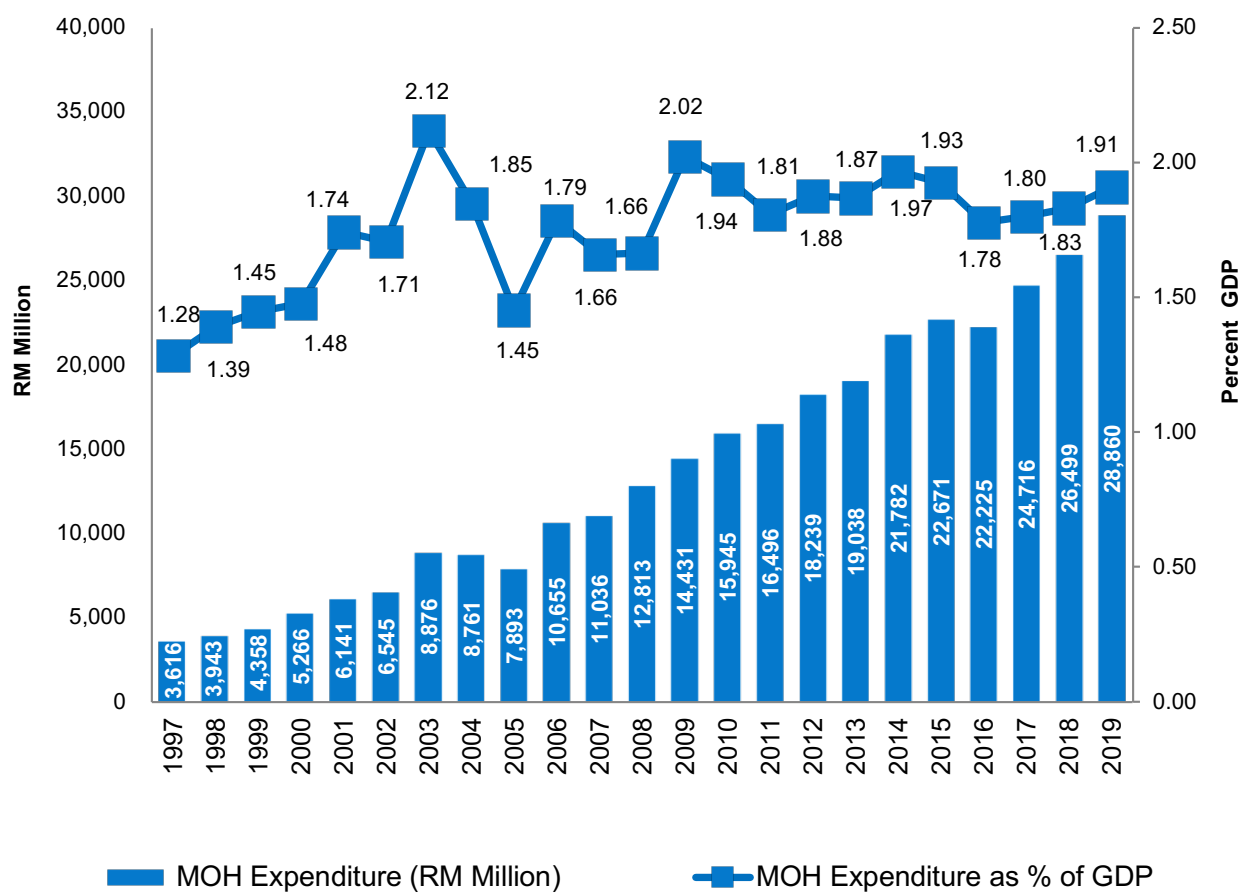
Using the MNHA Framework in 2019, a total amount of RM28,860 million (45%) of TEH has been spent by MOH. In relation to GDP, MOH health expenditure takes up 1.91% of the national GDP in the same year. The 1997-2019 time-series MOH expenditure data in general shows an increasing pattern of expenditure except for 2016. MOH expenditure throughout the same period dominates the TEH, ranging between 42% and 52% of the TEH. In 1997, MOH spent RM3,616 million (42%) of TEH while in year 2019, RM28,860 million (45%) of TEH was spent by MOH. In relation to GDP, MOH expenditure in 1997 is equivalent to 1.28% of national GDP while in 2019, MOH expenditure was 1.91% of the national GDP (Table 8.1 and Figure 8.1).

**TABLE 8.1: MOH Share of Total Expenditure on Health and Percent GDP, 1997-2019**

Year	TEH, Nominal (RM Million)	MOH Expenditure (RM Million)	MOH Expenditure as % TEH	TEH (Nominal) as % GDP	MOH Expenditure as % of GDP
1997	8,556	3,616	42.26	3.04	1.28
1998	9,162	3,943	43.04	3.23	1.39
1999	9,960	4,358	43.75	3.31	1.45
2000	11,753	5,266	44.81	3.30	1.48
2001	12,711	6,141	48.32	3.61	1.74
2002	13,649	6,545	47.95	3.56	1.71
2003	17,212	8,876	51.57	4.11	2.12
2004	18,210	8,761	48.11	3.84	1.85
2005	18,243	7,893	43.27	3.36	1.45
2006	22,080	10,655	48.26	3.70	1.79
2007	24,426	11,036	45.18	3.67	1.66
2008	27,774	12,813	46.13	3.61	1.66
2009	29,380	14,431	49.12	4.12	2.02
2010	32,889	15,945	48.48	4.00	1.94
2011	35,953	16,496	45.88	3.94	1.81
2012	39,448	18,239	46.24	4.06	1.88
2013	41,647	19,038	45.71	4.09	1.87
2014	46,780	21,782	46.56	4.23	1.97
2015	50,194	22,671	45.17	4.26	1.93
2016	51,534	22,225	43.13	4.12	1.78
2017	56,264	24,716	43.93	4.10	1.80
2018	60,339	26,499	43.92	4.17	1.83
2019	64,306	28,860	44.88	4.26	1.91



FIGURE 8.1: MOH Share of Total Expenditure on Health and Percent GDP, 1997-2019





8.2 MOH HEALTH EXPENDITURE - MOH HOSPITAL

All programs, projects and services under the purview of MOH inclusive of healthcare services provided at all MOH hospitals comes from federal government consolidated funds. MOH hospitals as provider of health care services takes up the largest percentage of the total MOH allocated funds. All development budgets spent at MOH hospital is assigned as non-curative care expenditure mainly for hospital facility development and renovation. Using MNHA Framework, the operating budget spent at MOH hospitals was assigned as curative care expenditure for patient care services disaggregated based on functional classification and categorised as in-patient, out-patient and day care and this is described under Section 3.2 of this report.

8.2.1 MOH Health Expenditure - MOH Hospital, Sources of Financing

In 2019, both the public sectors and the private sectors sources of financing at MOH hospitals totaled RM17,997 million. Various financiers were

tracked through MOH hospitals accounting systems and sources of financing codes were assigned for payments made through private household out-of-pocket, private health insurance and other types of sources of financing. As a result, of the RM17,997 million spent, RM 17,510 million (97%) is assigned as MOH source of financing. A small amount of RM487 million (3%) were accounted by other financiers such as private household OOP (RM305 million), other state agencies (including statutory bodies) (RM85 million), private insurance enterprises (other than social insurance) (RM47 million), Social Security Organization or SOCSO (RM36 million) and the remaining non-MOH expenditure at RM16 million (Table 8.2.1a).

The 1997 to 2019 time series expenditure on sources of financing show similar trend with MOH as the highest financier followed by non-MOH (Table 8.2.1b and Figure 8.2.1). The time-series data on MOH as source of financing shows that the expenditure has increased by 8-fold in absolute RM value, with an average of 97% from the total health expenditure at MOH Hospitals (Table 8.2.1c).


TABLE 8.2.1a: Health Expenditure at MOH Hospitals by Sources of Financing, 2019*

	MNHA code	Sources of Financing	RM Million	Percent
Ministry of Health (MOH)	MS1.1.1.1	Ministry of Health (MOH)	17,510	97.29
Non-Ministry of Health (Non-MOH)	MS2.4	Private household out-of-pocket expenditures (OOP)	305	1.70
	MS1.1.2.2	Other state agencies (including statutory bodies)	85	0.47
	MS2.2	Private insurance enterprises (other than social insurance)	47	0.26
	MS1.2.2	Social Security Organization (SOC SO)	36	0.20
	MS2.6	All corporations (other than health insurance)	9	0.05
	MS2.5	Non-profit institutions serving households (NGO)	2	0.01
	MS1.2.1	Employees Provident Fund (EPF)	1	0.01
	MS1.1.1.9	Other federal agencies (including statutory bodies)	3	0.01
	MS1.1.2.1	(General) State government	0	< 0.01
	MS1.1.3	Local authorities (LA)	1	< 0.01
	Non-MOH Sub-total		487	2.71
	Total			17,997

Note: *MOH Hospital Provider codes include MP1.1a, MP1.2a and MP1.3a

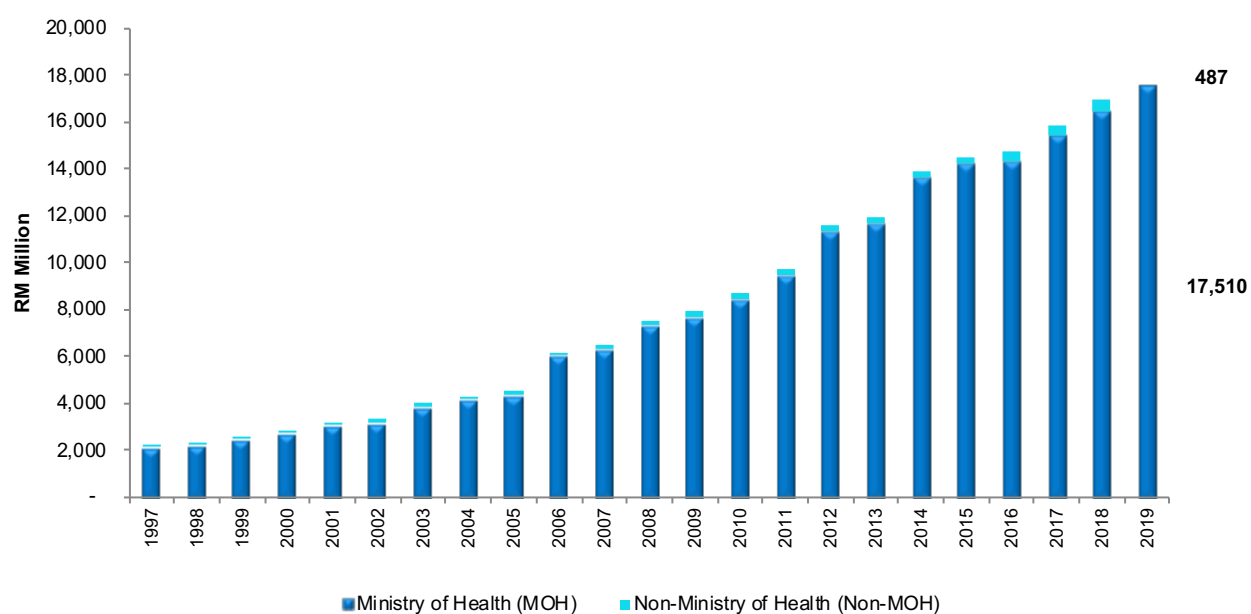

FIGURE 8.2.1: Health Expenditure at MOH Hospitals by Sources of Financing, 1997-2019




TABLE 8.2.1b: Health Expenditure at MOH Hospitals by Sources of Financing, 1997-2019 (RM Million)

Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Ministry of Health (MOH)	2,166	2,282	2,470	2,741	3,120	3,214	3,875	4,173	4,401	6,028	6,358	7,343	7,677	8,453	9,462	11,331	11,683	13,610	14,205	14,297	15,383	16,475	17,510
Non-Ministry of Health (Non-MOH)	82	79	82	89	96	109	118	133	141	156	174	187	225	262	276	236	273	235	314	435	444	440	487
Total	2,248	2,361	2,552	2,829	3,216	3,323	3,993	4,306	4,542	6,184	6,532	7,531	7,903	8,715	9,739	11,567	11,956	13,845	14,519	14,732	15,827	16,915	17,997

TABLE 8.2.1c: Health Expenditure at MOH Hospitals by Sources of Financing, 1997-2019 (Percent, %)

Sources of Financing	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Ministry of Health (MOH)	96.37	96.65	96.79	96.86	97.01	96.72	97.05	96.91	96.69	97.48	97.33	97.51	97.15	96.99	97.16	97.96	97.72	98.30	97.84	97.05	97.19	97.40	97.29
Non-Ministry of Health (Non-MOH)	3.63	3.35	3.21	3.14	2.99	3.28	2.95	3.09	3.11	2.52	2.67	2.49	2.85	3.01	2.84	2.04	2.28	1.70	2.16	2.95	2.81	2.60	2.71
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



8.2.2 MOH Health Expenditure - MOH Hospital, Function of Curative Care

This section provides further information on patient care services at MOH hospitals. Functions of curative care services provided in MOH hospital are further categorised as in-patient curative care, out-patient curative care and day cases of curative care. Under the MNHA Framework, these types of services were inclusive of allopathic as well as some traditional and complementary health care services.

In 2019, RM17,997 million is spent at MOH hospitals. From this amount, RM17,707 million

(98%) is for curative care services (Table 8.2.2a). In the same year, the expenditure for curative care services at MOH hospitals showed that RM11,243 million (64%) was spent for in-patient curative care services. This is followed by RM5,175 million (29%) for out-patient curative care services and RM1,288 million (7%) for day cases of curative care services (Figure 8.2.2).

The 1997 to 2019 time-series data shows that in absolute RM value, the curative care services expenditure has increased by 8-fold (Table 8.2.2b). The curative care services expenditure in time-series shows an average of 97% spending at the MOH hospitals (Table 8.2.2c).

TABLE 8.2.2a: Health Expenditure at MOH Hospitals by Functions of Health Care, 2019

	MNHA Code	Functions of Health Care	RM Million	Percent
Curative Care	MF1.1	In-patient curative care	11,243	62.47
	MF1.3	Out-patient curative care	5,175	28.76
	MF1.2	Day cases of curative care	1,288	7.16
	Sub-total (curative care)		17,707	98.39
Non-Curative Care	MR1	Capital formation of health care provider institutions	290	1.61
Total			17,997	100.00



FIGURE 8.2.2: Health Expenditure at MOH Hospitals by Curative Care Function of Health Care, 2019

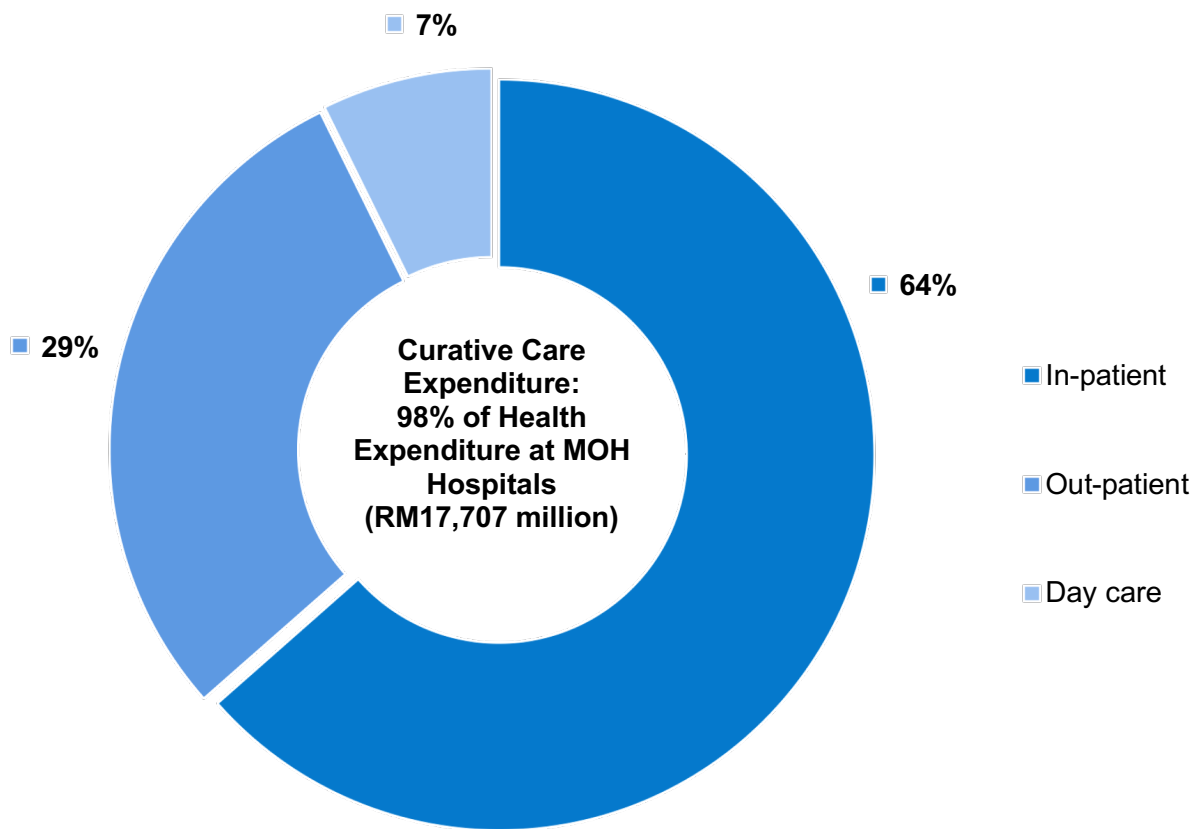




TABLE 8.2.2b: Health Expenditure at MOH Hospitals by Functions of Health Care, 1997-2019 (RM Million)

Functions of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Curative Care	2,215	2,308	2,474	2,766	3,086	3,255	3,872	4,151	4,295	6,008	6,318	7,427	7,781	8,097	9,643	11,302	11,590	13,576	14,228	14,417	15,716	16,842	17,707
Non-Curative Care	32	53	78	63	130	68	121	155	247	176	214	103	122	618	96	265	366	269	291	315	111	73	290
Total	2,248	2,361	2,552	2,829	3,216	3,323	3,993	4,306	4,542	6,184	6,532	7,531	7,903	8,715	9,739	11,567	11,956	13,845	14,519	14,732	15,827	16,915	17,997

TABLE 8.2.2c: Health Expenditure at MOH Hospitals by Functions of Health Care, 1997-2019 (Percent, %)

Functions of Health Care	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Curative Care	98.57	97.74	96.94	97.77	95.95	97.96	96.97	96.40	94.56	97.15	96.73	98.63	98.45	92.91	99.02	97.71	96.94	98.06	97.99	97.86	99.30	99.57	98.39
Non-Curative Care	1.43	2.26	3.06	2.23	4.05	2.04	3.03	3.60	5.44	2.85	3.27	1.37	1.55	7.09	0.98	2.29	3.06	1.94	2.01	2.14	0.70	0.43	1.61
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



CHAPTER 9

OUT-OF-POCKET HEALTH EXPENDITURE

Most often, many countries attain household out-of-pocket (OOP) health expenditures through community surveys. However, the best approach for this health expenditure estimation as used in this report, is through a complex method called the integrative method whereby the gross level of direct health spending from consumption, provision and financing perspectives are collated followed by a deduction of third-party financial reimbursements by various agencies to avoid double counting.

The data shown in this chapter includes OOP spending for TCM as well as OOP spending for health education and training. OOP health expenditure estimation through integrative method is explained in Chapter 3. In brief, OOP health expenditure estimation uses the formula as follows:

$$\text{OOP Health Expenditure} = (\text{Gross OOP Health Expenditure} - \text{Third Party Payer Reimbursement}) + \text{OOP Expenditure for Health Education \& Training}$$

9.1 OUT-OF-POCKET HEALTH EXPENDITURE – OOP SHARE OF TOTAL EXPENDITURE ON HEALTH AND NATIONAL GDP

In 2019, the OOP health expenditure amounts to RM22,492 million, which is equivalent to 35% of the TEH and 74% share of the private sector health expenditure (Table 9.1a). The 1997-2019 time series data shows that the household OOP health expenditure is between 29% and 37% of TEH. Throughout the years, it remains the

largest single source of financing in the private sector amounting to an average of 74% of this sector spending (Figure 9.1a, Figure 9.1b). The OOP health expenditure from 1997 to 2019 has increased from RM3,166 million to RM22,492 million which constitute 1.5% of GDP (Table 9.1b and Figure 9.1c).

**TABLE 9.1a: OOP Share of Total Expenditure on Health and Private Sector Health Expenditure, 1997-2019**

Year	Private Sector Health Expenditure (RM Million)	Total Expenditure on Health (RM Million)	OOP Health Expenditure (RM million)	OOP Share of Total Expenditure on Health (%)	OOP Share of Private Sector Health Expenditure (%)
1997	4,190	8,556	3,166	37.00	75.55
1998	4,411	9,162	3,265	35.64	74.04
1999	4,720	9,960	3,497	35.11	74.10
2000	5,498	11,753	4,175	35.52	75.94
2001	5,379	12,711	3,882	30.54	72.16
2002	5,786	13,649	4,127	30.24	71.33
2003	6,831	17,212	4,941	28.71	72.33
2004	7,650	18,210	5,664	31.10	74.04
2005	8,524	18,243	6,382	34.99	74.87
2006	9,449	22,080	7,141	32.34	75.57
2007	10,622	24,426	7,919	32.42	74.56
2008	11,991	27,774	9,084	32.71	75.76
2009	11,685	29,380	8,478	28.86	72.56
2010	13,560	32,889	9,917	30.15	73.14
2011	15,702	35,953	11,466	31.89	73.02
2012	17,442	39,448	12,649	32.06	72.52
2013	18,780	41,647	13,933	33.45	74.19
2014	20,859	46,780	15,373	32.86	73.70
2015	23,198	50,194	16,776	33.42	72.32
2016	24,834	51,534	17,790	34.52	71.64
2017	27,009	56,264	19,462	34.59	72.06
2018	29,016	60,339	21,127	35.01	72.81
2019	30,575	64,306	22,492	34.98	73.56



FIGURE 9.1a: OOP Share of Total Expenditure on Health, 1997-2019 (Percent, %)

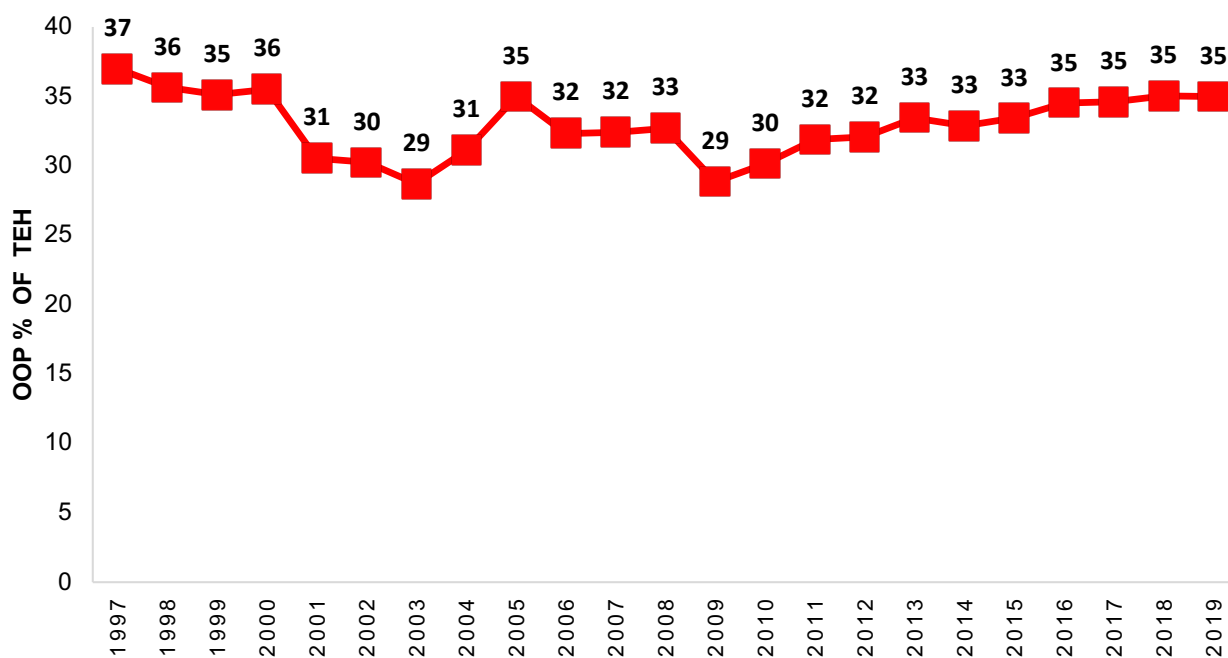


FIGURE 9.1b: OOP Share of Private Sector Health Expenditure, 1997-2019 (Percent, %)

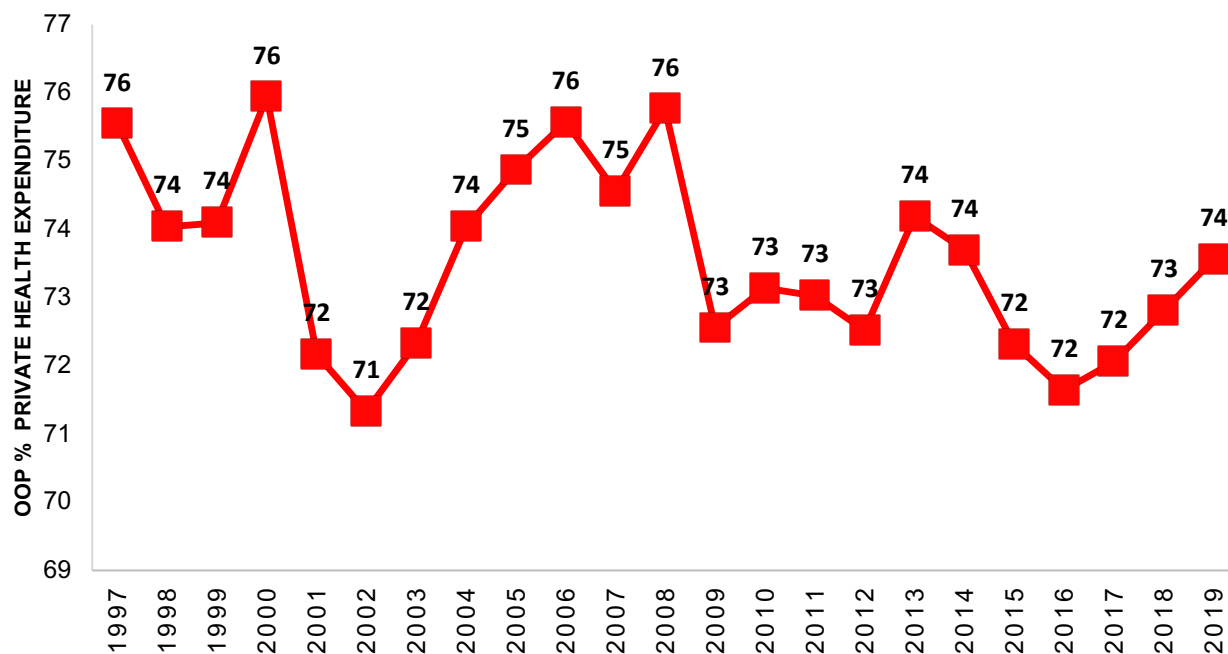


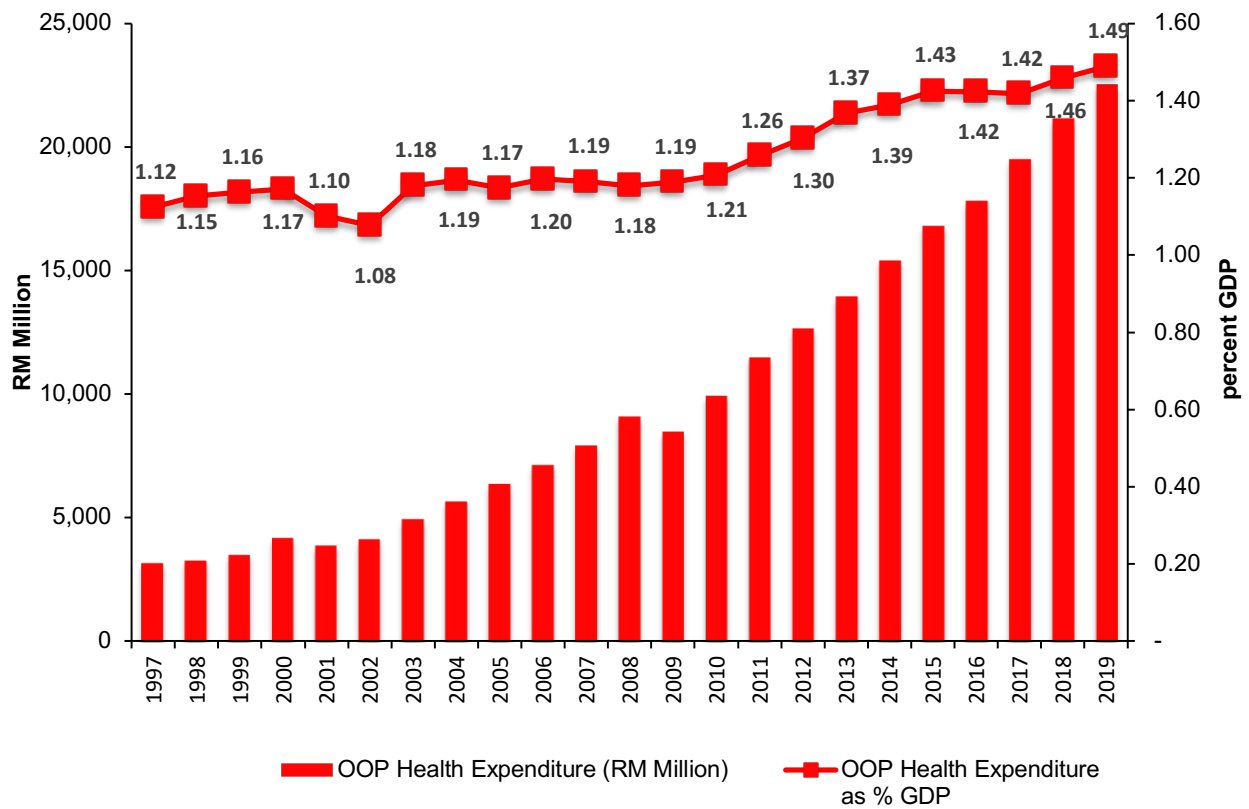


TABLE 9.1b : OOP Health Expenditure and as GDP percentage, 1997-2019 (RM Million)

Year	OOP Health Expenditure (RM Million)	OOP Health Expenditure as % GDP
1997	3,166	1.12
1998	3,265	1.15
1999	3,497	1.16
2000	4,175	1.17
2001	3,882	1.10
2002	4,127	1.08
2003	4,941	1.18
2004	5,664	1.19
2005	6,382	1.17
2006	7,141	1.20
2007	7,919	1.19
2008	9,084	1.18
2009	8,478	1.19
2010	9,917	1.21
2011	11,466	1.26
2012	12,649	1.30
2013	13,933	1.37
2014	15,373	1.39
2015	16,776	1.43
2016	17,790	1.42
2017	19,462	1.42
2018	21,127	1.46
2019	22,492	1.49



FIGURE 9.1c: OOP Health Expenditure and as GDP percentage, 1997-2019 (RM Million, Percent %)





9.2 OUT-OF-POCKET HEALTH EXPENDITURE TO PROVIDERS

This section cross tabulates OOP health expenditure with providers of health care. Health providers are defined as entities that produce and provide health care goods and services, which benefit individuals or population groups. These providers could be either public or private providers of health care. The bulk of public sector health care services for patients in this country have always been heavily subsidized by the government, even if the government outsources any of the services to private providers of health care. However, under the provision of public sector services, there are some components of healthcare services and several products like most prostheses, which are purchased by patients from private providers of health care. When patients seek private sector services they are often at liberty to purchase these services or products separately or as part of the services. The private providers of health care include several categories of standalone private facilities such as private hospitals, private medical clinics, providers of medical appliances, TCM providers, private dental clinic, private pharmacies and private laboratories. OOP is the mode of payment for services either in public sector or private sector. Furthermore, the final amount reported under OOP health expenditure includes expenditure reported by this mode for health education and training.

Throughout the 1997-2019 time series, OOP health expenditure generally shows an increasing pattern, with slight reduction in 2009, and followed

by a progressive increase from then onwards (Table 9.2a and Figure 9.2a). In 2019, of the total RM21,019 million of OOP health expenditure to private providers of health care, private hospitals consumed the largest share at RM10,069 million (48%) followed by private medical clinics at RM4,366 million (21%), private pharmacies at RM3,292 million (16%), private dental clinics at RM937 million (4%), TCM providers at RM754 million (4%), retail sale and other suppliers of medical goods and appliances at RM629 million (3%), private medical and diagnostic laboratories at RM40 million (<1%) and the balance, RM 932 million (4%) comprise of other private providers of health care (Table 9.2b and Figure 9.2b).

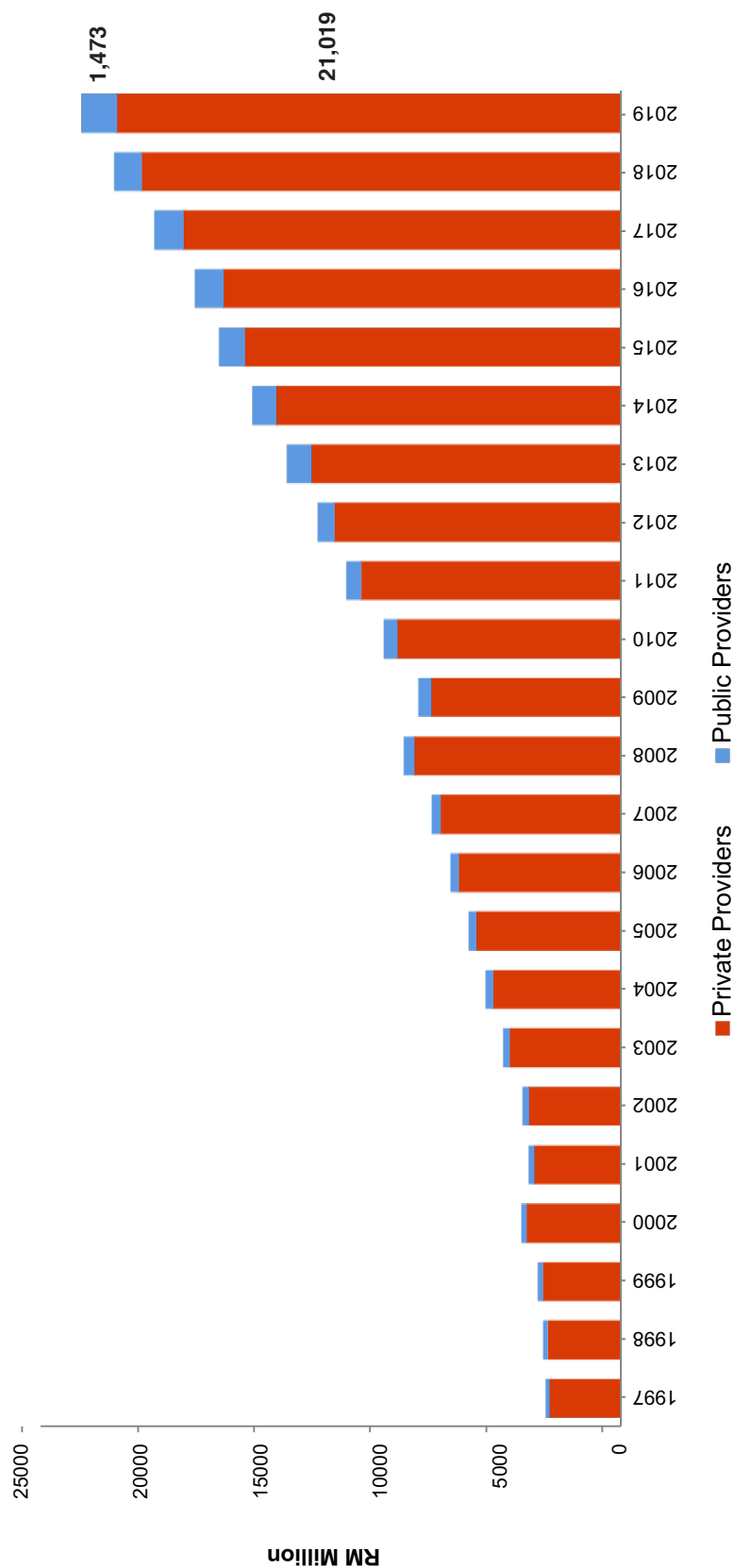
The 1997 to 2019 time series data shows an average of 94% OOP health expenditure occurred at private providers of health care, with increasing expenditure pattern (RM value) at all the various private providers. The highest increase in absolute amount is seen at private hospitals from RM1,159 million in 1997 to RM10,069 million in 2019, a difference of RM8,910 million. However, there is an 10-fold increase in spending at private pharmacies from RM325 million in 1997 to RM3,292 million in 2019. The OOP health expenditure at private medical clinics showed a fluctuating trend with expenditure of RM4,366 million in 2019. The time series data also showed an increasing pattern of OOP health expenditure at public providers with an average of 6% throughout the years (Table 9.2c and Table 9.2d).



TABLE 9.2a: OOP Health Expenditure to Public and Private Providers of Health Care, 1997-2019 (RM Million)

Provider name	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Public Providers	167	195	215	223	247	265	283	328	328	358	386	450	556	586	628	691	1,013	995	1,096	1,225	1,224	1,151	1,473
Private Providers	2,998	3,070	3,283	3,952	3,635	3,862	4,659	5,336	6,055	6,782	7,534	8,635	7,922	9,331	10,838	11,957	12,920	14,378	15,680	16,565	18,239	19,976	21,019
Total	3,166	3,265	3,497	4,175	3,882	4,127	4,941	5,664	6,382	7,141	7,919	9,084	8,478	9,917	11,466	12,649	13,933	15,373	16,776	17,790	19,462	21,127	22,492

FIGURE 9.2a: OOP Health Expenditure to Public and Private Providers of Health Care, 1997-2019 (RM Million)



**TABLE 9.2b: OOP Health Expenditure to Private Providers of Health Care, 2019 (RM Million, Percent %)**

Provider name	RM (Million)	Percent
Private hospitals	10,069	47.90
Private medical clinics	4,366	20.77
Private pharmacies	3,292	15.66
All other private sector providers of health care	932	4.43
Private dental clinics	937	4.46
Traditional and Complementary Medicine (TCM) providers	754	3.59
Retail sale and other suppliers of medical goods & appliances	629	2.99
Private medical and diagnostic laboratories	40	0.19
Total	21,019	100.00

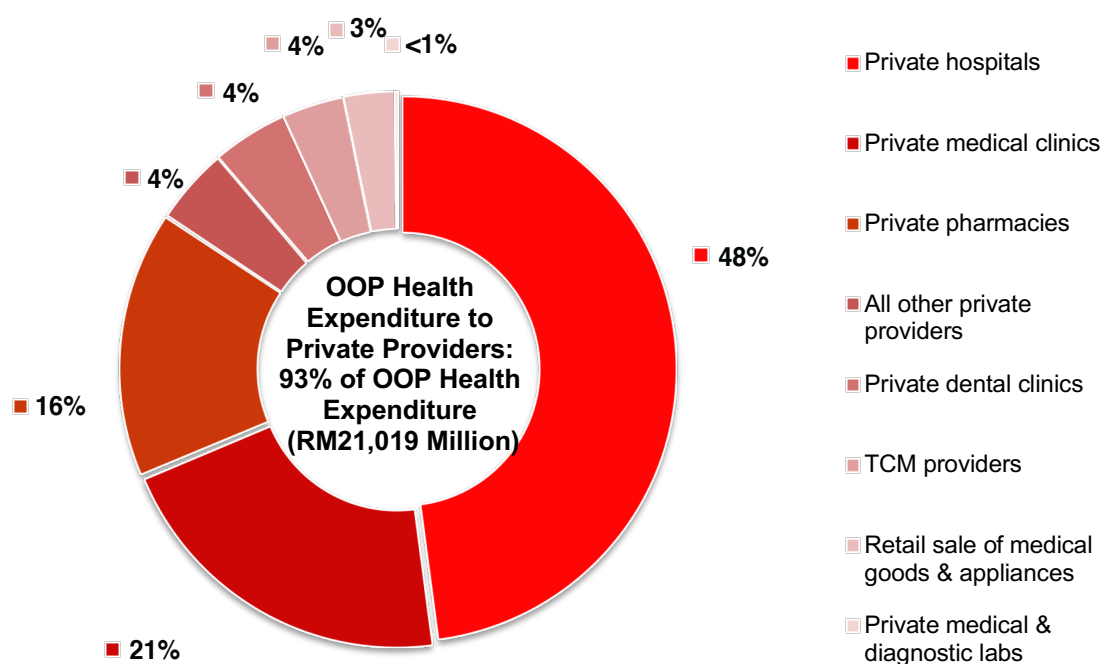
FIGURE 9.2b: OOP Health Expenditure to Private Providers of Health Care, 2019 (RM Million, Percent %)



TABLE 9.2c: OOP Health Expenditure to Providers of Health Care, 1997-2019 (RM Million)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Private hospitals		1,159	1,166	1,257	1,573	1,467	1,592	2,109	2,360	2,663	2,964	3,290	4,319	4,230	4,814	5,359	5,613	5,736	6,034	6,931	7,506	8,542	9,205	10,069
Private medical clinics		815	816	863	1,065	951	1,013	1,149	1,481	1,810	2,096	2,315	2,152	1,375	1,725	2,272	2,654	3,055	3,767	3,656	3,598	3,843	3,924	4,366
Private pharmacies		325	363	408	484	448	479	572	718	712	755	871	943	1,075	1,144	1,407	1,580	1,842	2,360	2,626	2,749	2,922	3,733	3,292
Private dental clinics		135	140	152	183	182	200	227	249	277	288	296	371	364	451	509	560	592	646	697	747	829	884	937
Traditional and Complementary Medicine (TCM) providers		294	292	277	289	247	227	202	176	210	240	277	333	319	361	394	412	424	452	534	624	685	722	754
Retail sale and other suppliers of medical goods & appliances		150	161	158	173	156	154	151	151	181	208	239	287	275	303	321	326	325	334	424	523	575	605	629
Private medical and diagnostic laboratories		25	26	25	26	21	18	14	9	11	12	14	18	17	29	43	59	78	108	72	33	36	39	40
All other private sector providers of health care		96	107	144	180	163	180	236	192	191	220	232	213	267	503	534	754	869	678	740	786	807	863	932
Sub-Total (Private Providers)		2,998	3,070	3,283	3,952	3,635	3,862	4,659	5,336	6,055	6,782	7,534	8,635	7,922	9,331	10,838	11,957	12,920	14,378	15,680	16,565	18,239	19,976	21,019
Public hospitals		136	143	158	158	167	174	179	205	201	223	229	255	229	254	259	253	334	309	368	448	441	434	468
Public medical clinics		10	10	11	11	13	16	19	23	25	28	32	36	38	41	45	50	44	48	60	62	59	60	65
Public institutions providing health-related services		22	42	46	54	66	75	84	100	101	108	124	159	288	291	324	388	634	638	669	716	724	667	940
Sub-Total (Public Providers)		167	195	215	223	247	265	283	328	328	358	386	450	556	586	628	691	1,013	995	1,096	1,225	1,224	1,151	1,473
Total		3,166	3,265	3,497	4,175	3,882	4,127	4,941	5,664	6,382	7,141	7,919	9,084	8,478	9,917	11,466	12,649	13,933	15,373	16,776	17,790	19,462	21,127	22,492



TABLE 9.2a: OOP Health Expenditure to Providers of Health Care, 1997-2019 (Percent, %)		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Provider Name																								
Private hospitals		36.60	35.72	35.94	37.68	37.80	38.56	42.67	41.66	41.73	41.51	41.54	47.55	49.90	48.54	46.74	44.38	41.17	39.25	41.31	42.19	43.89	43.57	44.77
Private medical clinics		25.74	24.98	24.67	25.50	24.50	24.53	23.25	26.14	28.36	28.35	29.23	23.69	16.21	17.40	19.82	20.98	21.93	24.50	21.79	20.22	19.75	18.57	19.41
Private pharmacies		10.26	11.11	11.65	11.11	11.54	11.60	11.57	12.67	11.15	10.57	11.00	10.38	12.68	11.54	12.27	12.49	13.22	15.35	15.66	15.45	15.01	17.67	14.63
Private dental clinics		4.26	4.29	4.34	4.38	4.68	4.85	4.58	4.40	4.33	4.03	3.73	4.08	4.30	4.55	4.44	4.43	4.25	4.20	4.15	4.20	4.26	4.18	4.17
Traditional and Complementary Medicine (TCM) providers		9.28	8.95	7.93	6.93	6.37	5.49	4.08	3.11	3.29	3.36	3.50	3.66	3.76	3.64	3.43	3.25	3.04	2.94	3.18	3.51	3.52	3.42	3.35
Retail sale and other suppliers of medical goods & appliances		4.73	4.92	4.52	4.15	4.02	3.73	3.07	2.67	2.84	2.91	3.02	3.16	3.24	3.06	2.80	2.57	2.34	2.17	2.53	2.94	2.95	2.86	2.80
Private medical and diagnostic laboratories		0.80	0.79	0.70	0.61	0.55	0.45	0.29	0.16	0.17	0.17	0.18	0.20	0.20	0.29	0.38	0.47	0.56	0.70	0.43	0.18	0.19	0.18	0.18
All other private sector providers of health care		3.04	3.27	4.11	4.30	4.19	4.36	4.77	3.38	2.99	3.08	2.93	2.34	3.15	5.07	4.65	5.96	6.23	4.41	4.41	4.42	4.15	4.09	4.14
Sub-Total (Private Providers)		94.71	94.03	93.86	94.65	93.65	93.58	94.28	94.21	94.87	94.98	95.13	95.05	93.44	94.09	94.52	94.53	92.73	93.53	93.47	93.11	93.71	94.55	93.45
Public hospitals		4.30	4.39	4.51	3.77	4.31	4.22	3.63	3.62	3.16	3.12	2.90	2.81	2.71	2.56	2.26	2.00	2.40	2.01	2.19	2.52	2.27	2.05	2.08
Public medical clinics		0.30	0.31	0.30	0.27	0.33	0.38	0.39	0.40	0.39	0.39	0.41	0.39	0.45	0.42	0.40	0.40	0.32	0.31	0.35	0.35	0.30	0.29	0.29
Public institutions providing health-related services		0.69	1.27	1.32	1.30	1.71	1.82	1.70	1.77	1.59	1.51	1.57	1.75	3.40	2.94	2.83	3.07	4.55	4.15	3.99	4.02	3.72	3.11	4.18
Sub-Total (Public Providers)		5.29	5.97	6.14	5.35	6.35	6.42	5.72	5.79	5.13	5.02	4.87	4.95	6.56	5.91	5.48	5.47	7.27	6.47	6.53	6.89	6.29	5.45	6.55
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



9.3 OUT-OF-POCKET HEALTH EXPENDITURE BY FUNCTIONS

The data under this section responds to the question on the type of health care services and products that are purchased with the OOP spending. This includes expenditures for core functions of health care such as for services of curative care, ancillary services, medical goods & appliances and others, as well as health-related functions such as capital asset purchases, education & training, research & development and others.

In 2019 the largest proportion of OOP health expenditure is RM9,357 million (42%) for out-patient care services (Figure 9.3a). This includes out-patient care services provided both in standalone medical clinics as well as in hospital facilities. In the same year in-patient care services is RM5,168 million (23%) of OOP health spending. This includes spending at both public and private hospitals with greater proportion at private hospitals. The OOP health spending for pharmaceuticals including over-the-counter and prescription drugs is RM3,292 million (15%), health education and training is RM1,828 million

(8%), medical appliances and non-durable goods is RM821 million (4%), day-care services at RM691 million (3%), TCM is RM594 million (3%) and the remaining RM740 million (3%) is for other functions.

Although the 1997 to 2019 time series data shows general increase in the level of OOP health spending for various functions, the proportions showed some variations. Over this 23-year time period, the OOP health spending for out-patient services has increased from RM1,368 million in 1997 to RM9,357 million in 2019. There is also rise in in-patient services from RM779 million in 1997 to RM5,168 million in 2019 with the proportion of this function reduced from 25% to 23% over this time period. There is 68 fold increase in OOP health spending for health education and training from RM27 million in 1997 to RM1,828 million in 2019 and 10-fold increase in OOP health expenditure for pharmaceuticals from RM325 million in 1997 to RM3,292 million in 2019 (Table 9.3a and Table 9.3b).



TABLE 9.3a: OOP Health Expenditure by Functions of Health Care, 1997-2019 (RM Million)

Function Name	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Out-patient services*	1,368	1,414	1,517	1,865	1,743	1,887	2,258	2,710	3,181	3,642	4,039	4,303	3,637	4,339	5,145	5,709	6,206	7,067	7,254	7,506	8,112	8,549	9,357
In-patient services	779	748	798	975	888	932	1,234	1,343	1,547	1,685	1,833	2,371	2,250	2,525	2,786	2,831	2,976	3,056	3,585	3,869	4,431	4,653	5,168
Pharmaceuticals	325	363	408	464	448	479	572	718	712	755	871	943	1,075	1,144	1,407	1,580	1,842	2,360	2,626	2,749	2,922	3,733	3,292
Health education & training	27	48	100	145	158	196	273	261	256	284	309	316	504	736	789	1,066	1,424	1,244	1,346	1,451	1,486	1,505	1,828
Medical appliances & non-durable goods	168	180	179	197	180	181	180	183	220	244	273	334	322	360	384	394	398	413	567	677	746	787	821
Day care services	84	88	94	116	114	124	146	214	180	198	241	358	262	289	328	338	374	409	491	521	592	637	691
Traditional and Complementary Medicine (TCM)	264	263	247	253	212	188	160	130	156	180	209	253	244	275	298	310	317	335	407	489	540	569	594
All other functions	150	161	155	180	139	140	118	105	130	152	144	207	184	249	329	421	396	489	499	527	633	692	740
Total	3,166	3,265	3,497	4,175	3,882	4,127	4,941	5,664	6,382	7,141	7,919	9,084	8,478	9,917	11,466	12,849	13,933	15,373	16,776	17,790	19,462	21,127	22,492

Note: * Data include home care

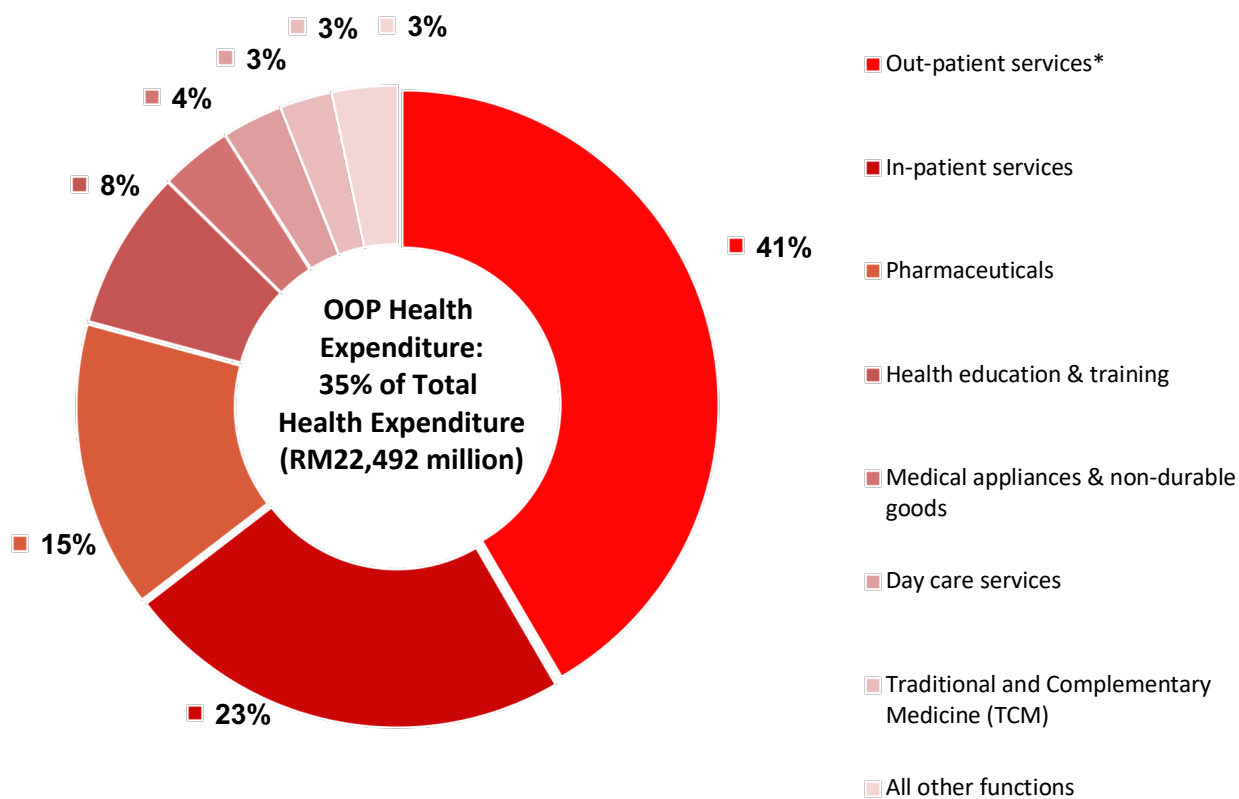
TABLE 9.3b: OOP Health Expenditure by Functions of Health Care, 1997-2019 (Percent, %)

Function Name	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Out-patient services*	43.22	43.31	43.39	44.66	44.90	45.71	45.71	47.84	49.84	51.01	51.00	47.37	42.90	43.75	44.87	45.13	44.54	45.97	43.24	42.19	41.68	40.47	41.60
In-patient services	24.62	22.91	22.83	23.35	22.87	22.59	24.97	23.71	24.24	23.60	23.15	26.10	26.54	25.46	24.29	22.38	21.36	19.88	21.37	21.75	22.77	22.03	22.98
Pharmaceuticals	10.26	11.11	11.65	11.11	11.54	11.60	11.57	12.67	11.15	10.57	11.00	10.38	12.68	11.54	12.27	12.49	13.22	15.35	15.66	15.45	15.01	17.67	14.63
Health education & training	0.86	1.48	2.86	3.48	4.06	4.74	5.53	4.60	4.01	3.98	3.90	3.48	5.95	7.42	6.89	8.43	10.22	8.09	8.02	8.16	7.63	7.12	8.13
Medical appliances & non-durable goods	5.31	5.50	5.11	4.73	4.65	4.38	3.64	3.24	3.44	3.42	3.45	3.68	3.79	3.63	3.35	3.12	2.86	2.69	3.38	3.81	3.83	3.73	3.65
Day care services	2.65	2.71	2.69	2.78	2.93	3.00	2.96	3.79	2.82	2.77	3.05	3.94	3.09	2.91	2.86	2.68	2.89	2.66	2.93	2.93	3.04	3.02	3.07
Traditional and Complementary Medicine (TCM)	8.35	8.06	7.05	6.06	5.46	4.57	3.24	2.29	2.44	2.51	2.64	2.79	2.88	2.77	2.60	2.45	2.27	2.18	2.43	2.75	2.77	2.70	2.64
All other functions	4.75	4.94	4.42	3.83	3.59	3.40	2.39	1.86	2.04	2.13	1.82	2.27	2.17	2.51	2.87	3.33	2.84	3.18	2.98	2.96	3.25	3.28	3.29
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

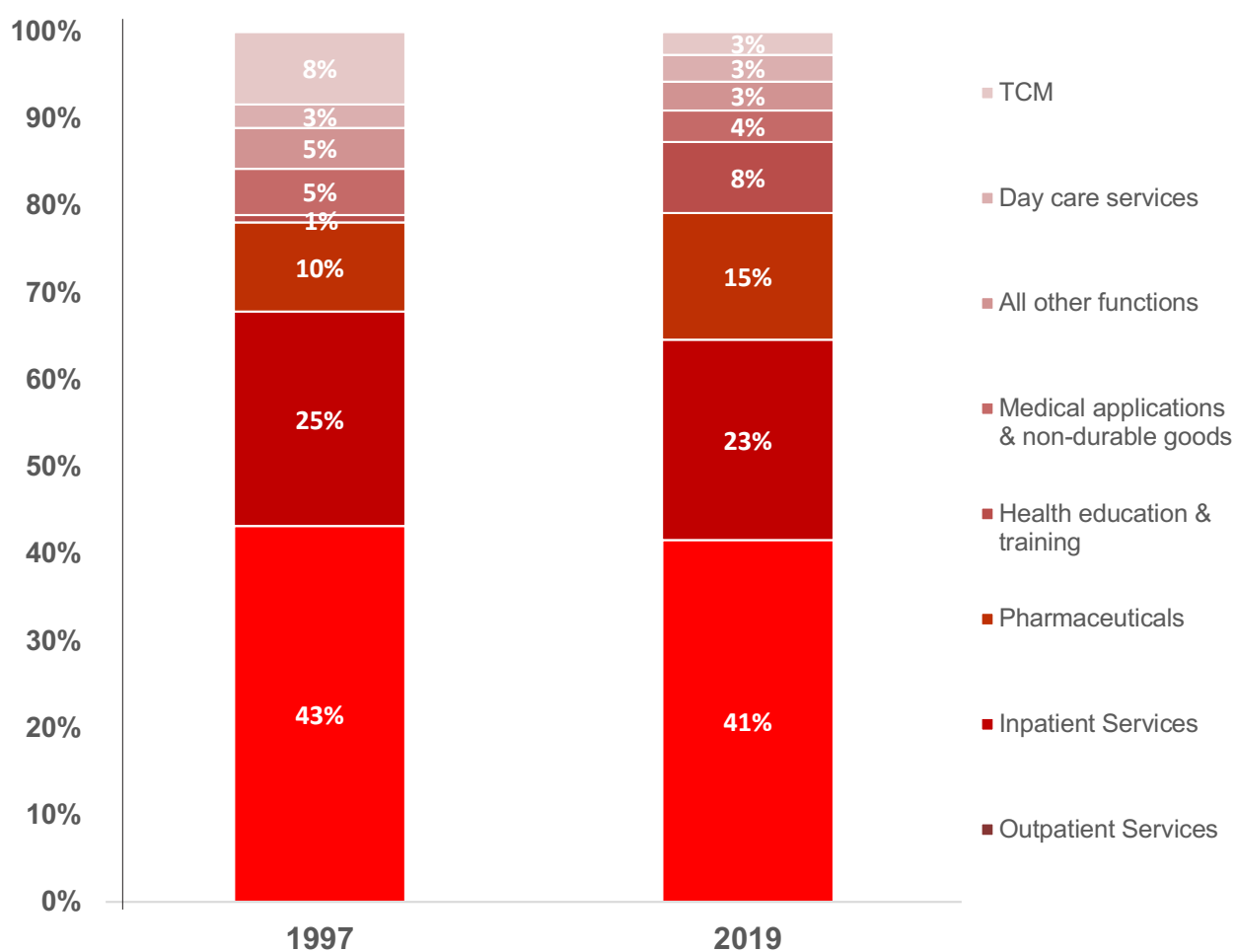
Note: * Data include home care



FIGURE 9.3a: OOP Health Expenditure by Functions of Health Care, 2019 (Percent, %)



Note: * Data include home care


FIGURE 9.3b: OOP Health Expenditure by Functional Proportion, 1997 & 2019 (Percent %)




CHAPTER 10

INTERNATIONAL NHA DATA

Global Health Expenditure Database (GHED) is the largest database that provides global reference for health expenditure data for 194 World Health Organization (WHO) member countries. On an annual basis, every member country submits their national health expenditure data according to WHO request formats. WHO carries out their own country level analysis based on System of Health Accounts (SHA) framework. Available country specific data, submitted country specific NHA data, country specific macro level data from various sources such as United Nations (UN), World Bank (WB) and International Monetary Fund (IMF) form the basis of WHO NHA analysis.

The outputs of WHO analysis are then uploaded onto GHED database as the international health expenditure data of the member countries. These WHO estimations for member countries allow standardization in NHA reporting and ensure better cross-country comparability. This is freely accessible via the related website. However, it is important to recognize that every member country, like Malaysia, may produce their own NHA reporting based on local needs. As such MNHA Framework with slightly different boundaries of definitions is more important in the Malaysian context especially for policy makers, health planners, researchers and other interested parties.

SHA is an internationally accepted methodology for analyzing financial flow in health systems of various countries. It was first published in 2000 by Organization for Economic Cooperation and Development (OECD) and then adapted by WHO to inform health policy and measure health system performance. This first version of the SHA is referred to as SHA 1.0. In keeping with structural changes and further development of the health

care industry during the subsequent decade, related international organizations of OECD, Eurostat, and WHO produced an updated version of SHA which is referred to as SHA 2011.

GHED under WHO website accommodates NHA data reporting based on the latest SHA 2011 framework since December 2017. It was decided that for countries which are yet to migrate to this new format of NHA reporting, WHO would carry out their own analysis based on whatever available data, either in SHA 1.0 or SHA 2011 formats. Malaysia NHA data from 2015 to 2018 for core classification was submitted using SHA 2011 format. Table 10.1 shows available data in GHED database under various headers which have further disaggregated data as listed in Appendix Table A3.1 and A3.2.

A total of 8 developing and developed countries with potential policy relevance to Malaysia are selected from WHO GHED database for country comparison. Comparisons are made based on the year 2018 as the latest available year at the time of this report is produced. The countries include United Kingdom, Republic of Korea, Poland, Vietnam, Singapore, Turkey, Thailand and Indonesia.

As clarified earlier in Section 2.1, CHE instead of TEH has been used by WHO for international comparison. In 2018 based on WHO GHED database, CHE of Malaysia was 3.8% of GDP which is lower than other countries such as Turkey, Singapore, Vietnam, Poland, Republic of Korea and United Kingdom but higher than other regional countries such as Thailand and Indonesia (Figure 10.1).



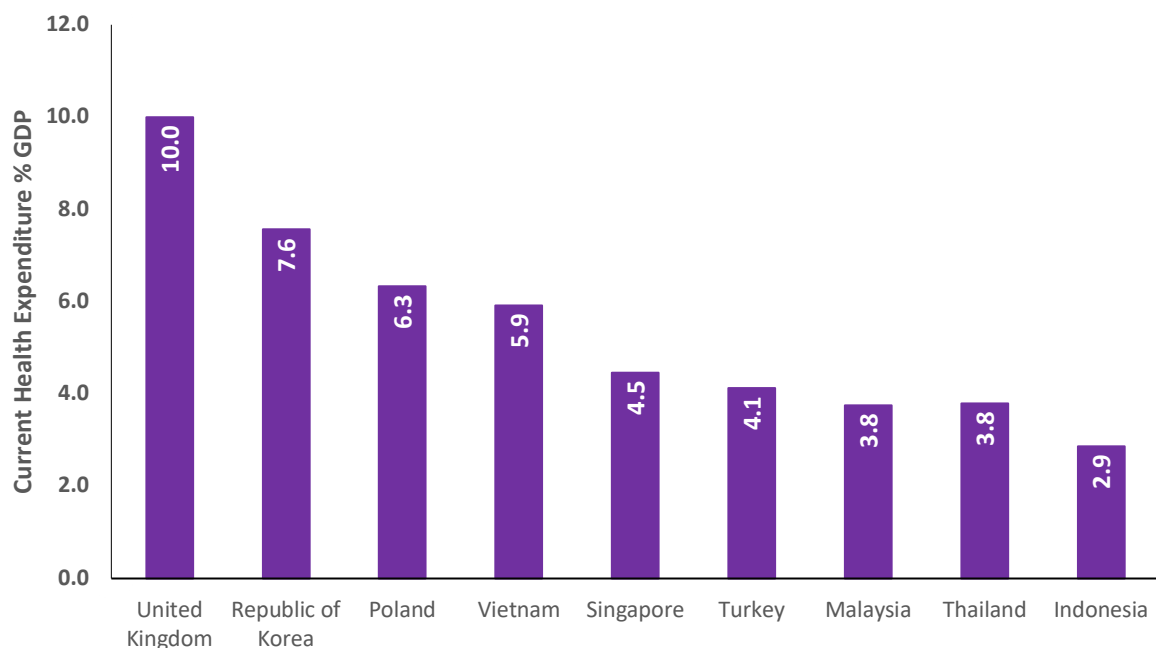
Even though SHA 2011 does not use the terms “public” or “private” sources of financing, GHED database maintains this terminology under the list of indicators under “domestic general government” and “domestic private” health expenditure (Appendix Table A3.1). Most developed countries have a higher domestic government health expenditure compared to domestic private health expenditure (Figure 10.2). International Comparison of Out-of-pocket Health Financing Scheme as Percent of Current Health Expenditure, Malaysia is lower than Vietnam in 2017 (Figure

10.3). Amongst the selected country comparison, all except United Kingdom have some form of Social Health Insurance (SHI). SHA 2011 identifies classification of government and compulsory financing schemes which includes social health insurance (SHI) schemes. The proportion of SHI of all government and compulsory health financing schemes varies from 2 to 85 percent in countries with SHI (Figure 10.4). Although the SOCSO health expenditure is a very small proportion of all Current Health Expenditure in Malaysia, it is considered as a form of SHI.

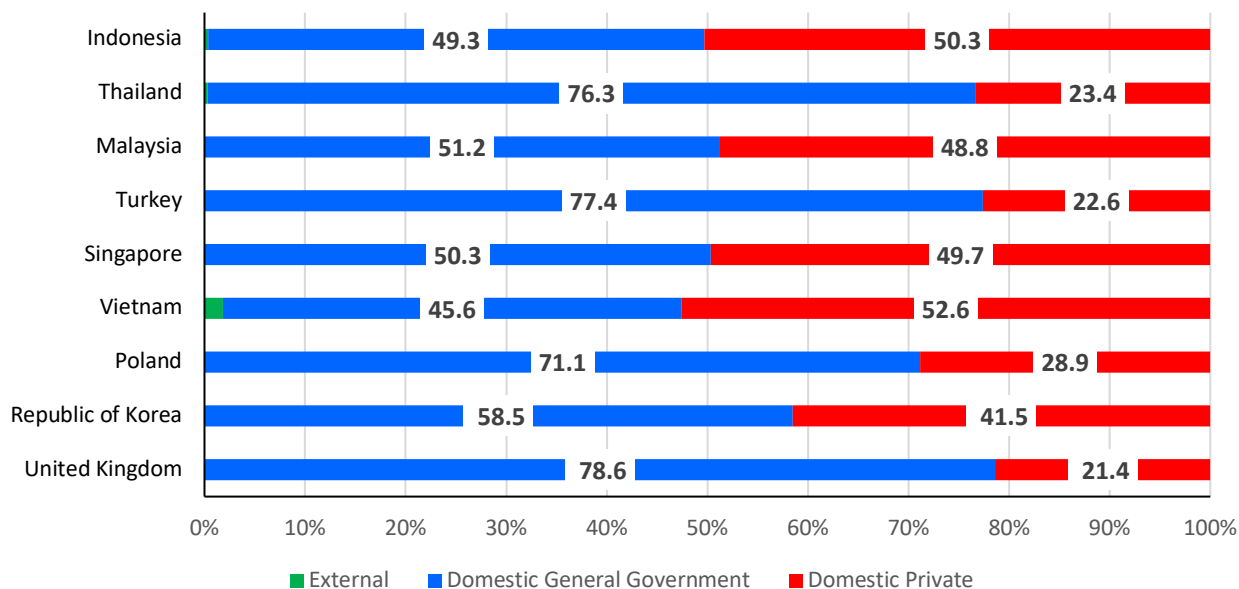
Table 10.1: Available Data in GHED under Various Headers

	Main Header		Sub-Header
1	Indicators	1.1	Aggregates
		1.2	Financing Schemes
		1.3	Financing Sources
		1.4	Primary Health Care
		1.5	Diseases and Conditions
		1.6	Cross classifications
2	Health Expenditure Data	2.1	Revenues
		2.2	Financing Schemes
		2.3	health Care Function
		2.4	Diseases and Conditions
		2.5	Capital Expenditure
3	Macro Data	3.1	Consumption
		3.2	Exchanges Rates
		3.3	Price Index
		3.4	Population
4	Global Health Observatory	4.1	Life expectancy at birth
		4.2	Infant mortality rate
		4.3	Maternal mortality ratio
		4.4	Median availability of selected generic medicines (%) - Public
		4.5	Median availability of selected generic medicines (%) - Private
		4.6	Median consumer price ratio of selected generic medicines - Public
		4.7	Median consumer price ratio of selected generic medicines - Private
		4.8	Under-five mortality rate
		4.9	Births attended by skilled health personnel (%)
		5.0	Population at risk of malaria

Source: Global Health Expenditure Database (GHED) WHO NHA on 18th December 2020

FIGURE 10.1: International Comparison of Current Health Expenditure as Percent GDP, 2018


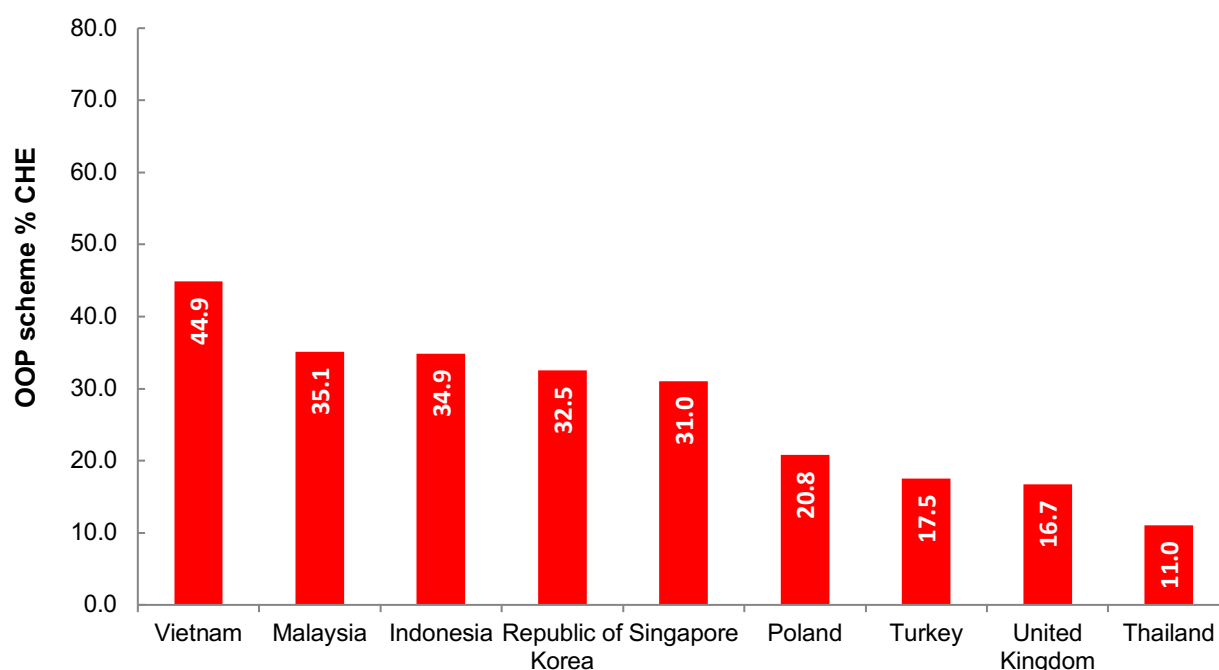
Source: Global Health Expenditure Database (GHED) WHO NHA on 18th December 2020

FIGURE 10.2: International Comparison of Domestic Government and Private Health Expenditure, 2018


Source: Global Health Expenditure Database (GHED) WHO NHA on 18th December 2020

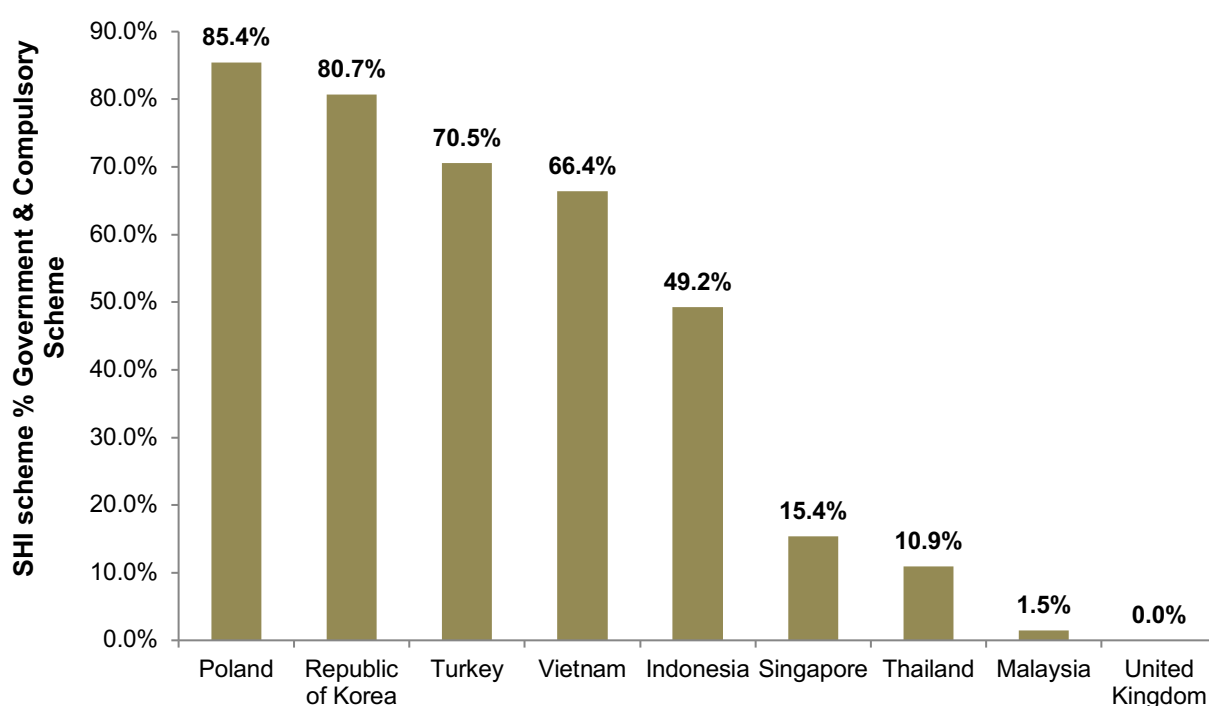


FIGURE 10.3: International Comparison of Out-of-pocket Health Financing Scheme as Percent Current Health Expenditure, 2018



Source: Global Health Expenditure Database (GHED) WHO NHA on 18th December 2020

FIGURE 10.4: International Comparison of Social Health Insurance as Percent Government and Compulsory Health Financing Schemes, 2018



Source: Global Health Expenditure Database (GHED) WHO NHA on 18th December 2020



APPENDIX TABLES

TABLE A1.1 : Source of Data
Data Sources for Public Sector Estimation

PUBLIC SECTOR			
	Main Agencies	Specific Organisation	Source of Data
1	Ministry of Health (MOH)	Accountant-General's Department	MOH - AG DATA (expenditure)
2	Other Ministries	Ministry of Higher Education	MNHA survey - MOHE
		Ministry of Defence	MNHA survey - MOD
3	Other Federal Agencies	National Population and Family Development Board	MNHA survey - LPPKN
		Department of Orang Asli Development	MNHA survey - JAKOA
		Public Service Department-Pension	MNHA survey - JPA
		Civil Defence Department	MNHA survey - JPAM
		Prison Department of Malaysia	MNHA survey - PENJARA
		Social Welfare Department	MNHA survey - JKM
		Occupational Safety And Health Department	MNHA survey - DOSH
		National Institute of Occupational Safety & Health Malaysia	MNHA survey - NIOSH
		National Anti-Drug Agency	MNHA survey - AADK
		Pilgrims Fund Board	MNHA survey - LTH
		National Heart Institute	MNHA survey - IJN
		Federal Statutory Bodies	MNHA survey - BERKANUN (Fed)
		Public Water Supply Department (Federal)	MNHA survey - JBA (OFA)
		National Sports Institute of Malaysia	MNHA survey - ISN
		Employee Provident Fund - HQ	MNHA survey - KWSP (0001)
		Employee Provident Fund - state	MNHA survey - KWSP (0002)
		Social Security Organization - HQ	MNHA survey - PERKESO (0001)
		Social Security Organization - state	MNHA survey - PERKESO (0002)
		Ministry of Science Technology and Innovation	MNHA survey - MOSTI
		Public Higher Education Institutions	MNHA survey - TRAINING (OFA-Pu)
		Private Higher Education Institutions	MNHA survey - TRAINING (OFA-Pr)
4	State Agencies	State Government (General)	MNHA survey - KN
		Public Water Supply Department (State)	MNHA survey - JBA (state)
		State Statutory Body (SSB)	MNHA survey - BERKANUN (state)
		Public Water Supply Department (State Statutory Body)	MNHA survey - JBA (SSB)
		State Islamic Religious Council / Zakat Collection Centre	MNHA survey - MAIN
5	Local Authorities	Local Authority - Health care Services	MNHA survey - PBT (Perkhid)
		Local Authority - Staff	MNHA survey - PBT (Ktgn)

**TABLE A1.2 : Source of Data****Data Sources for Private Sector Estimation**

PRIVATE SECTOR			
	Main Agencies	Specific Organisation	Source of Data
1	Private Insurance	Central Bank of Malaysia	MNHA survey - BNM
		Insurance Agencies	MNHA survey - INSURAN
2	Managed Care Organization	MCO Agencies	MNHA Survey - MCO
3	Out of Pocket (Gross Spending)	MOH user charges	MOH - AG DATA (Revenue)
		IJN user charges	MNHA Survey - IJN
		MOHE user charges	MNHA Survey - KPT
		Private Hospital (MNHA)	MNHA Survey - PRIVATE HOSPITAL
		Private Hospital (DOSM)	DOSM Survey - PRIVATE HOSPITAL
		Private Clinic (Medical), DOSM	DOSM Survey - PRIVATE MEDICAL CLINIC
		Private Clinic (Dental), DOSM	DOSM Survey - PRIVATE DENTAL CLINIC
		Private Haemodialysis Centre (MNHA)	MNHA Survey - PRIVATE HEMO (0001)
		Pharmacy Division, MOH	MNHA Survey - FARMASI (0001)
		IQVIA	MNHA Survey - FARMASI (0002)
		Medical supplies HIES, DOSM	DOSM Survey - HES DATA
		Medical durables / prostheses / equipments HIES, DOSM	DOSM Survey - HES DATA
		Ancillary services HIES, DOSM	DOSM Survey - HES DATA
		Private TCM HIES, DOSM	DOSM Survey - HES DATA
		Public Higher Education Institutions	MNHA survey - TRAINING (OOP-Pu)
		Private Higher Education Institutions	MNHA survey - TRAINING (OOP-Pr)
4	Out-of Pocket (Third Party Deductions)	Insurance Agencies	MNHA Survey - INSURAN
		Central Bank of Malaysia	MNHA survey - BNM
		Private Corporations	MNHA Survey - PRIVATE CORPORATION
		Employees Provident Fund	MNHA Survey - KWSP
		Social Security Organization	MNHA Survey - PERKESO
		Federal Statutory Bodies	MNHA Survey - BERKANUN (Fed)
		State Statutory Body	MNHA Survey - BERKANUN (state)
		FOMEMA/UNITAB MEDIC - OOP data	MNHA Survey - UNITABMEDIC
		GROWARISAN - OOP data	MNHA Survey - GROWARISAN



5	Non-Government Organization	Non-Governmental Organizations	MNHA survey - NGO
6	Corporations	Limited and Private Limited Corporations	MNHA Survey - PRIVATE CORPORATION
		Corps - Labour Force Survey	DOSM Survey - CORPS_DOS (0002)
		Industrial Survey & Manufacturing, DOSM	DOSM Survey - CORPS_DOS (0001-non med)
		Private Hospital staff, DOSM	DOSM Survey - CORPS_DOS (0001-hosp)
		Private Clinic Medical, DOSM	DOSM Survey - CORPS_DOS (0001-clinic)
		Private Clinic Dental, DOSM	DOSM Survey - CORPS_DOS (0001-dental)
		Private Water Supply Department	MNHA survey - JBA (corp)
		FOMEMA/UNITAB MEDIC	MNHA Survey - UNITABMEDIC
		GROWARISAN	MNHA Survey - GROWARISAN
		Public Higher Education Institutions	MNHA survey - TRAINING (Corp-Pu)
		Private Higher Education Institutions	MNHA survey - TRAINING (Corp-Pr)
7	Rest of the world	International Organizations in Malaysia	MNHA survey - Rest
8	Other National Surveys	DOSM-Population survey	General-DOS General_DOS (0001)
		DOSM-GDP & GDP Deflator	General-DOS General_DOS (0002)
		DOSM-Household Consumption	General-DOS General_DOS (0003)

**TABLE A2.1 : Classification of Total Expenditure on Health by Sources of Financing**

MNHA Code	ICHA Code	Sources of Financing	Description
MS1	HF.1	Public Sector	Refers to MS1.1 and MS1.2 classifications
MS1.1	HF.1.1	Public sector excluding social security funds	Refers to Federal Government, state government & local authorities
MS1.2	HF.1.2	Social security funds	SOCSSO & EPF
MS2	HF.2	Private sector	Refers to MS2 classification
MS2.1	HF.2.1	Private social insurance	Currently does not exist in Malaysia
MS2.2	HF.2.2	Private insurance enterprises (other than social insurance)	Private health insurance
MS2.3	HF.2.2	Private MCOs and other similar entities	Registered MCO other than private health insurance
MS2.4	HF.2.3	Private household out-of-pocket expenditures	Individual OOP spending on health
MS2.5	HF.2.4	Non-profit institutions serving households	Health - related NGOs
MS2.6	HF.2.5	All corporations (other than health insurance)	Private employers
MS9	HF.3	Rest of the world	Rest of the world

TABLE A2.2 : Classification of Total Expenditure on Health by Providers of Health Care

MNHA Code	ICHA Code	Providers of Health Care	Description
MP1	HP.1	All hospitals	Public & private hospitals
MP2	HP.2	Nursing and residential care facilities	Nursing care facilities including psychiatric care facilities, residential facilities for mental health, etc
MP3	HP.3	Providers of ambulatory health care	Establishments providing ambulatory health care services directly to non-hospital setting, e.g. medical practitioner clinics, dental clinics, etc
MP4	HP.4	Retail sale and other providers of medical goods	Pharmacies & retail sale/suppliers of vision products, hearing aids, medical appliances
MP5	HP.5	Provision and administration of public health programmes	Providers of public health programmes including health prevention & promotion services (public & private)
MP6	HP.6	General health administration and insurance	Overall administration of health care (public & private) and health insurance administration. (note: For MOH it includes administration of HQ excluding public health programmes), state health dept., admin. cost for hospitals management
MP7	HP.7	Other industries (rest of the Malaysian economy)	Private occupational health care & home care, etc.
MP8	HP.7.9	Institutions providing health-related services	Health training institutions (public & private)
MP9	HP.9	Rest of the world	non - resident providers providing health care for the final use of residents of Malaysia


TABLE A2.3 : Classification of Total Expenditure on Health by Functions of Health Care

MNHA Code	ICHA Code	Functions of Health Care	Description
MF1	HC.1	Services of curative care	Curative care provider at inpatient, outpatient, daycare & homecare services
MF2	HC.2	Services of rehabilitative care	Rehabilitative care provider at inpatient, outpatient, daycare & homecare services
MF3	HC.3	Services of long-term nursing care	Long term nursing care provider at inpatient, outpatient, daycare & homecare services
MF4	HC.4	Ancillary services to health care	Stand-alone laboratory, diagnostic imaging, transport & emergency rescue, etc.
MF5	HC.5	Medical goods dispensed to out-patients	Pharmaceuticals, appliances, western medicines, TCM, etc.
MF6	HC.6	Public health services, including health promotion and prevention	Health promotion, prevention, family planning, school health services, etc.
MF7	HC.7	Health program administration and health insurance	Administration at HQ, State health dept, local authorities, SOCSO, EPF, private insurance, etc.
MR1	HC.R.1	Capital formation of health care provider institutions	Gross capital formation of domestic health care provider institutions exclude retail sale and other providers goods
MR2	HC.R.2	Education and training of health personnel	Government & private provision of education and training of health personnel, including admin, etc.
MR3	HC.R.3	Research and development in health	Research and development in relation to health care
MR9	HC.R.6	All other health-related expenditures	Category to capture all other expenditures that not classified elsewhere in MNHA



TABLE A3.1 : GLOBAL HEALTH EXPENDITURE DATABASE (GHED), WHO INDICATORS AND DATA - MALAYSIAN HEALTH EXPENDITURE 2000 - 2018*

	SHA 2011																		
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Current Health Expenditure (CHE) as % Gross Domestic Product (GDP)	2.5%	2.7%	2.7%	2.9%	2.9%	2.8%	3.1%	3.1%	3.0%	3.3%	3.2%	3.3%	3.5%	3.5%	3.7%	3.8%	3.7%	3.7%	3.8%
Health Capital Expenditure (HK) % Gross Domestic Product (GDP)	0.4%	0.4%	0.4%	0.6%	0.5%	0.2%	0.2%	0.2%	0.2%	0.4%	0.5%	0.2%	0.2%	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%
Current Health Expenditure (CHE) per Capita in US\$	111.3	114.6	121.8	142.7	154.9	163.9	203.2	233.9	268.4	250.3	292.0	352.3	382.7	391.9	427.7	379.9	362.1	380.7	427.2
Current Health Expenditure (CHE) per Capita in PPP	357	382	400	462	486	485	577	609	627	662	666	739	817	867	978	1,035	1,042	1,115	1,194
General Government Health Expenditure (GGHE) as % General Government Expenditure (GGE)	4.6%	4.8%	5.0%	5.4%	5.6%	5.6%	6.5%	6.3%	5.9%	5.9%	6.3%	6.5%	6.5%	6.8%	7.8%	8.2%	8.3%	8.9%	8.5%
General Government Health Expenditure (GGHE) as % Gross Domestic Product (GDP)	1.2%	1.4%	1.4%	1.5%	1.5%	1.4%	1.7%	1.6%	1.6%	1.8%	1.7%	1.8%	1.9%	1.9%	2.0%	2.0%	1.9%	1.9%	1.9%
Domestic Health Expenditure (DOM) as % of Current Health Expenditure (CHE)	99.8%	99.4%	99.5%	99.7%	99.6%	99.6%	99.7%	99.7%	99.8%	99.8%	99.9%	99.9%	99.9%	99.9%	99.8%	99.9%	99.9%	99.9%	99.9%
Domestic General Government Health Expenditure (GGHE-D) as % Current Health Expenditure (CHE)	46.4%	50.3%	50.9%	51.7%	50.7%	48.6%	53.6%	52.7%	52.8%	55.3%	52.7%	52.8%	53.5%	53.7%	54.5%	53.3%	51.2%	51.9%	51.2%
Domestic Private Health Expenditure (PVT-D) as % Current Health Expenditure (CHE)	53.6%	49.5%	48.9%	48.3%	49.2%	51.3%	46.4%	47.3%	47.2%	44.7%	47.3%	47.2%	46.5%	46.2%	45.5%	46.7%	48.7%	48.1%	48.8%
Voluntary Health Insurance (VHI) as % of Current Health Expenditure (CHE)	6.1%	6.6%	7.2%	8.0%	7.9%	7.6%	7.1%	7.3%	7.7%	8.9%	9.3%	9.3%	9.0%	8.8%	8.7%	9.7%	10.1%	9.7%	9.6%
Out-of-pocket (OOPS) as % of Current Health Expenditure (CHE)	41.0%	36.0%	35.0%	34.8%	36.4%	38.4%	35.1%	35.4%	35.9%	32.5%	34.5%	34.5%	33.6%	33.8%	33.3%	33.3%	34.4%	34.3%	35.1%
External Health Expenditure (EXT) as % of Current Health Expenditure (CHE)	0.0%	0.3%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE)	4.6%	4.8%	5.0%	5.4%	5.6%	5.6%	6.5%	6.3%	5.9%	5.9%	6.3%	6.5%	6.5%	6.8%	7.8%	8.2%	8.3%	8.9%	8.5%
Domestic General Government Health Expenditure (GGHE-D) as % Gross Domestic Product (GDP)	1.2%	1.4%	1.4%	1.5%	1.5%	1.4%	1.7%	1.6%	1.6%	1.8%	1.7%	1.8%	1.9%	1.9%	2.0%	2.0%	1.9%	1.9%	1.9%
Domestic General Government Health Expenditure (GGHE-D) per Capita in US\$	52	58	62	74	79	80	109	123	142	138	154	186	205	211	233	203	186	197	219
Domestic General Government Health Expenditure (GGHE-D) per Capita in PPP Int\$	166	192	203	239	246	236	309	321	331	366	351	390	437	466	533	552	534	578	611
Domestic Private Health Expenditure (PVT-D) per Capita in US\$	59.7	56.7	59.5	68.9	76.3	84.1	94.3	110.6	126.6	111.9	138.0	166.1	178.0	181.2	194.5	177.2	176.5	183.2	208.5
Domestic Private Health Expenditure (PVT-D) per Capita in PPP Int\$	191.4	188.9	195.4	222.9	239.0	249.0	287.7	288.1	295.5	295.8	314.6	348.4	380.3	401.0	444.6	482.8	507.8	536.4	582.7
External Health Expenditure (EXT) per Capita in US\$	0.0	0.3	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1
External Health Expenditure (EXT) per Capita in PPP Int\$	0.0	1.0	0.8	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.2	0.5	0.4	0.2	0.3	0.2
Out-of-Pocket Expenditure (OOPS) per Capita in US\$	45.7	41.3	42.7	49.7	56.4	62.9	71.2	82.7	96.3	81.4	100.8	121.6	128.6	132.7	142.5	126.7	124.6	130.4	150.1
Out-of-Pocket Expenditure (OOPS) per Capita in PPP Int\$	146.5	137.5	140.0	160.7	176.7	186.1	202.3	215.5	224.9	215.1	229.8	255.0	274.7	293.6	325.7	345.1	358.5	381.8	419.3
Compulsory Financing Arrangements (CFA) as % of Current Health Expenditure (CHE)	46.6%	50.6%	51.2%	52.0%	51.1%	49.0%	53.8%	53.0%	53.0%	55.4%	52.9%	53.0%	53.6%	53.9%	54.6%	53.4%	51.4%	52.0%	51.3%
Government Financing Arrangements (GFA) as % of Current Health Expenditure (CHE)	45.8%	49.7%	50.3%	51.2%	50.2%	48.1%	53.1%	52.2%	52.5%	54.9%	52.2%	52.3%	53.0%	53.2%	53.9%	52.7%	50.6%	51.2%	50.4%
Compulsory Health Insurance (CHI) as % of Current Health Expenditure (CHE)	0.6%	0.6%	0.6%	0.5%	0.6%	0.6%	0.5%	0.5%	0.4%	0.4%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.7%	0.6%	0.8%
Social Health Insurance (SHI) as % of Current Health Expenditure (CHE)	0.6%	0.6%	0.6%	0.5%	0.6%	0.6%	0.5%	0.5%	0.4%	0.4%	0.5%	0.5%	0.5%	0.6%	0.6%	0.6%	0.7%	0.6%	0.8%
Voluntary Financing Arrangements (VFA) as % of Current Health Expenditure (CHE)	53.4%	49.4%	48.8%	48.0%	48.9%	51.0%	46.2%	47.0%	47.0%	44.5%	47.1%	47.0%	46.4%	46.1%	45.4%	46.6%	48.6%	48.0%	48.7%
Rest of the World (RoW) as % of Current Health Expenditure (CHE)								0.0%	0.0%	0.0%	0.0%	0.0%							

Note: *WHO estimation based on MNHA submission of SHA 2011 compatible MNHA data (MNHA database 2000-2018)



TABLE A3.2 : GLOBAL HEALTH EXPENDITURE DATABASE (GHED), WHO INDICATORS AND DATA - MALAYSIAN HEALTH EXPENDITURE, 2000 - 2018*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SHA 2011																			
Current health expenditure by revenues of health care financing schemes	9,813	10,326	11,205	13,398	14,831	15,949	19,531	21,480	24,385	24,463	26,532	30,884	34,358	36,389	41,803	44,913	46,083	50,922	54,350
Transfers from government domestic revenue (allocated to health purposes)	4,494	5,127	5,637	6,854	7,439	7,664	10,361	11,204	12,794	13,423	13,851	16,161	18,189	19,339	22,507	23,683	23,308	26,079	27,408
Internal transfers and grants	4,494	5,127	5,637	6,854	7,439	7,664	10,361	11,204	12,794	13,423	13,851	16,161	18,189	19,339	22,507	23,683	23,308	26,079	27,408
Transfers distributed by government from foreign origin	0	0	0	0	0	0	4	3	0	2	2	1	5	5	19	1	1	1	2
Social insurance contributions	60	63	67	74	83	96	105	117	88	102	136	157	176	219	264	261	310	329	410
Voluntary prepayment	594	683	811	1,070	1,175	1,207	1,384	1,564	1,876	2,169	2,473	2,857	3,076	3,202	3,640	4,353	4,643	4,957	5,223
Other domestic revenues n.e.c.	4,641	4,393	4,630	5,353	6,068	6,918	7,631	8,540	9,574	8,728	10,035	11,668	12,870	13,578	15,324	16,550	17,766	19,487	21,242
Other revenues from households n.e.c.	4,025	3,719	3,926	4,662	5,396	6,118	6,847	7,598	8,752	7,952	9,161	10,660	11,549	12,318	13,925	14,978	15,861	17,442	19,090
Other revenues from corporations n.e.c.	534	612	628	582	557	660	630	763	618	548	616	709	976	1,191	1,365	1,519	1,830	1,968	2,064
Other revenues from NPISH n.e.c.	82	63	77	109	115	140	155	179	204	228	259	300	345	69	34	53	75	78	88
Direct foreign transfers	0	28	24	4	10	4	1	1	4	1	0	1	3	4	3	14	9	11	5
Unspecified revenues of health care financing schemes (n.e.c.)	24	32	36	43	56	61	46	52	49	38	34	39	38	42	46	52	56	58	62
Current health expenditure by financing schemes	9,813	10,326	11,205	13,398	14,831	15,949	19,531	21,480	24,385	24,463	26,532	30,884	34,358	36,389	41,803	44,913	46,083	50,922	54,350
Government schemes and compulsory contributory health care financing schemes	4,578	5,221	5,741	6,970	7,578	7,820	10,515	11,375	12,931	13,565	14,023	16,358	18,408	19,604	22,836	23,996	23,675	26,467	27,886
Government schemes	4,494	5,127	5,637	6,854	7,439	7,664	10,365	11,206	12,794	13,425	13,853	16,162	18,194	19,344	22,526	23,684	23,309	26,080	27,409
Compulsory contributory health insurance schemes	60	63	67	74	83	96	105	117	88	102	136	157	176	219	264	261	310	329	410
Social health insurance schemes	60	63	67	74	83	96	105	117	88	102	136	157	176	219	264	261	310	329	410
Compulsory Medical Saving Accounts (CMSA)	24	32	36	43	56	61	46	51	49	38	34	39	38	42	46	52	56	58	67
Voluntary health care payment schemes	1,210	1,385	1,539	1,766	1,857	2,011	2,169	2,507	2,702	2,946	3,348	3,867	4,400	4,467	5,042	5,938	6,557	7,013	7,374
Voluntary health insurance schemes	594	683	811	1,070	1,175	1,207	1,384	1,564	1,876	2,169	2,473	2,857	3,076	3,202	3,640	4,353	4,643	4,957	5,223
NPISH financing schemes (including development agencies)	82	90	101	114	125	143	155	180	208	229	259	300	348	73	37	67	84	88	88
Enterprise financing schemes	534	612	628	582	557	660	630	763	618	548	616	709	976	1,191	1,365	1,519	1,830	1,968	2,064
Household out-of-pocket payment	4,025	3,719	3,926	4,662	5,396	6,118	6,847	7,598	8,752	7,952	9,161	10,660	11,549	12,318	13,925	14,978	15,861	17,442	19,090
Rest of the world financing schemes (non-resident)								1	0	0	0	0							
Current health expenditure by Health Care Functions	9,813	10,326	11,205	13,398	14,831	15,949	19,531	21,480	24,385	24,463	26,532	30,884	34,358	36,389	41,803	44,913	46,083	50,922	54,350
Curative care	7,116	7,525	8,166	9,748	10,991	11,970	14,813	16,134	18,684	18,355	20,091	23,453	26,463	27,274	31,555	33,601	35,047	38,942	41,100
Inpatient curative care	3,189	3,457	3,712	4,364	5,020	5,276	6,448	7,103	8,785	8,957	9,707	11,147	12,608	13,046	14,915	16,294	17,055	18,834	20,264
Day curative care	284	308	362	552	618	709	1,100	1,175	1,130	1,253	1,332	1,586	1,653	1,744	2,067	2,194	2,300	2,524	2,760
Outpatient curative care	3,643	3,760	4,092	4,833	5,353	5,985	7,265	7,855	8,770	8,144	9,052	10,721	12,193	12,484	14,573	15,113	15,692	16,984	18,075
Rehabilitative care	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	0	0	0	0
Long-term care (health)	3	3	6	10	10	11	12	14	5	5	12	15	19	1	2	1	4	1	4
Ancillary services (non-specified by function)	106	117	110	118	126	128	201	180	238	235	264	296	314	407	380	354	300	330	335
Medical goods (non-specified by function)	968	894	910	969	1,097	1,162	1,259	1,458	1,636	1,765	1,932	2,248	2,477	2,730	3,298	3,905	4,221	4,528	5,261
Preventive care	432	499	515	610	646	730	851	1,187	1,010	1,077	1,059	1,224	1,535	2,375	2,305	2,512	2,715	2,917	3,183
Immunization Programmes	1	1	1	1	1	2	2	7	3	5	3	3	6	77	36	42	37	45	46
Governance, and health system and financing administration	1,189	1,288	1,498	1,942	1,960	1,948	2,396	2,507	2,812	3,026	3,173	3,646	3,560	3,602	4,264	4,540	3,807	4,804	4,468
Capital health expenditure	1,377	1,692	1,643	2,815	2,330	1,271	1,367	1,543	1,737	2,760	3,867	2,199	2,061	1,834	1,505	1,820	1,868	1,878	2,157

Note: *WHO estimation based on MNHA submission of SHA 2011 compatible MNHA data (MNHA Database 2000-2018)



TABLE A3.3 : GLOBAL HEALTH EXPENDITURE DATABASE (GHED), WHO INDICATORS AND DATA - MALAYSIAN HEALTH EXPENDITURE, 2000 - 2018*		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Name - SHA 2011																				
Gross Domestic Product		388,168	384,006	417,367	456,095	516,302	569,371	625,100	696,910	806,480	746,679	833,104	924,685	985,049	1,033,085	1,122,160	1,176,941	1,249,697	1,371,649	1,446,914
Final consumption expenditure of Households and profit institutions serving households		169,256	176,503	187,212	202,613	226,382	254,237	280,060	317,989	364,349	368,533	400,765	443,448	488,971	535,119	588,085	635,099	684,680	759,746	830,830
General government expenditure		99,496	108,379	113,290	128,022	133,642	139,711	159,865	180,421	217,105	230,643	221,643	250,477	280,792	286,992	291,279	290,800	283,652	295,972	328,493
Exchange Rate (NCU per US\$)		3.80	3.80	3.80	3.80	3.80	3.79	3.67	3.44	3.34	3.52	3.22	3.06	3.09	3.15	3.27	3.91	4.15	4.30	4.04
Purchasing Power Parity (NCU per Int\$)		1.18	1.14	1.16	1.17	1.21	1.28	1.29	1.32	1.43	1.33	1.41	1.46	1.45	1.42	1.43	1.43	1.44	1.47	1.44
PRICE INDEX																				
Gross domestic product - Price index (2010 = 100)		62.9	61.9	63.8	65.9	69.9	73.4	76.3	80.1	88.4	83.1	86.2	90.9	91.8	91.9	94.2	94.1	95.7	99.3	100.0
POPULATION																				
POPULATION (in thousands)		23,194	23,709	24,208	24,699	25,191	25,691	26,202	26,720	27,236	27,735	28,208	28,651	29,068	29,469	29,867	30,271	30,685	31,105	31,528

Note: *WHO estimation based on MNHA submission of SHA 2011 compatible MNHA data (MNHA database 2000-2018)


Table A4.1: List of Available Data under Indicators in NHA GHED Website

1. INDICATORS	
1.1	AGGREGATES
	Current Health Expenditure (CHE) as % Gross Domestic Product (GDP)
	Health Capital Expenditure (HK) % Gross Domestic Product (GDP)
	Current Health Expenditure (CHE) per Capita in US\$
	Current Health Expenditure (CHE) per Capita in PPP
1.2	FINANCING SOURCES
	Domestic Health Expenditure (DOM) as % of Current Health Expenditure (CHE)
	Domestic General Government Health Expenditure (GGHE-D) as % Current Health Expenditure (CHE)
	Domestic Private Health Expenditure (PVT-D) as % Current Health Expenditure (CHE)
	Voluntary Health Insurance (VHI) as % Current Health Expenditure (CHE)
	Out of Pocket (OOPS) as % Current Health Expenditure (CHE)
	Other Private Health Expenditure as % Current Health Expenditure
	External Health Expenditure (EXT) as % of Current Health Expenditure (CHE)
	Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE)
	Domestic General Government Health Expenditure (GGHE-D) as % Gross Domestic Product (GDP)
	Domestic General Government Health Expenditure (GGHE-D) per Capita in US\$
	Domestic General Government Health Expenditure (GGHE-D) per Capita in PPP Int\$
	Domestic Private Health Expenditure (PVT-D) per Capita in US\$
	Domestic Private Health Expenditure (PVT-D) per Capita in PPP Int\$
	External Health Expenditure (EXT) per Capita in US\$
	External Health Expenditure (EXT) per Capita in PPP Int\$
	Out-of-Pocket Expenditure (OOPS) per Capita in US\$
	Out-of-Pocket Expenditure (OOPS) per Capita in PPP Int\$
1.3	FINANCING SCHEMES
	Compulsory Financing Arrangements (CFA) as % of Current Health Expenditure (CHE)
	Government Financing Arrangements (GFA) as % of Current Health Expenditure (CHE)
	Compulsory Health Insurance (CHI) as % of Current Health Expenditure (CHE)
	Social Health Insurance (SHI) as % of Current Health Expenditure (CHE)
	Voluntary Financing Arrangements (VFA) as % of Current Health Expenditure (CHE)
	Voluntary Health Insurance (VHI) as % of Current Health Expenditure (CHE)
	Rest of the World (RoW) as % of Current Health Expenditure (CHE)
1.4	PRIMARY HEALTH CARE (preliminary data)
	Primary health care (PHC) expenditure per Capita in US\$
	Primary health care (PHC) expenditure as % of Current Health Expenditure
	Domestic General Government Expenditure on primary health care (PHC) as % Domestic General Government Health Expenditure (GGHE-D)
	Domestic General Government Expenditure on PHC as % PHC
1.5	CROSS CLASSIFICATIONS
	Government Budget Transfers to Social Health Insurance (SHI-G) as % of Social Health Insurance (SHI)
	Self-Employed Contributions to Social Health Insurance (SHI-SE) as % of Social Health Insurance Expenditure (SHI)
1.6	MACRO
	General Government Expenditure (GGE) as % of Gross Domestic Product (GDP)
	Gross Domestic Product (GDP) per Capita in US\$
	Gross Domestic Product (GDP) per Capita in PPP Int\$

**Table A4.2: List of Available Data Under Health Expenditure Data in NHA GHED Website**

2. HEALTH EXPENDITURE DATA			
2.1	REVENUES	Current health expenditure by revenues of health care financing schemes	
		2.1.1	Transfers from government domestic revenue (allocated to health purposes)
		2.1.2	Transfers distributed by government from foreign origin
		2.1.3	Social insurance contributions
		2.1.4	Compulsory prepayment (Other, and unspecified, than FS.3)
		2.1.5	Voluntary prepayment
		2.1.6	Other domestic revenues n.e.c.
		2.1.7	Direct foreign transfers
		2.1.8	Unspecified revenues of health care financing schemes (n.e.c.)
2.2	FINANCING SCHEMES	Current health expenditure by financing schemes	
		2.2.1	Government schemes and compulsory contributory health care financing schemes
		2.2.2	Voluntary health care payment schemes
		2.2.3	Household out-of-pocket payment
		2.2.4	Rest of the world financing schemes (non-resident)
		2.2.5	Unspecified financing schemes (n.e.c.)
2.3	HEALTH CARE FUNCTIONS (Preliminary Data)	2.3.1	Current health expenditure by health care functions (preliminary data)
		2.3.1.1	Curative Care
		2.3.1.2	Rehabilitative Care
		2.3.1.3	Long Term Care (health)
		2.3.1.4	Ancillary services (specified by function)
		2.3.1.5	Medical good (specified by function)
		2.3.1.6	Preventive care
		2.3.1.7	Governance and Health System, and Financing administration
		2.3.1.8	Other Health Care Services not elsewhere classified (n.e.c)
		2.3.2	Domestic General Government Health Expenditure by health care functions (preliminary data)
		2.3.2.1	Domestic General Government Health Expenditure on Curative Care
		2.3.2.2	Domestic General Government Health Expenditure on Rehabilitative Care
		2.3.2.3	Domestic General Government Health Expenditure on Long-term Care (health)
		2.3.2.4	Domestic General Government Health Expenditure on Ancillary Services (nonspecific by function)
		2.3.2.5	Domestic General Government Health Expenditure on Medical Goods (nonspecific by function)
		2.3.2.6	Domestic General Government Health Expenditure on Preventive Care
		2.3.2.7	Domestic General Government Health Expenditure on Governance, Health System & Financing Administration
		2.3.2.8	Domestic General Government Health Expenditure on Other Health Care Services (n.e.c)
3. DISEASE AND CONDITION			
3.1	Domestic General Government Health Expenditure by Disease and conditions		
3.2	External Sources of Funding by Disease and conditions		
4. AGE			
4.1	Domestic General Government Health Expenditure in the <5 years old population		
4.2	External Sources of Funding in the <5 years old population		
5. CAPITAL EXPENDITURE			



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Deputy Director-General (Research & Technical Support)

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Senior Director of Pharmaceutical Service Division

Director of Planning Division

Director of Medical Development Division

Director of Medical Practice Division

Director of Family Health Development Division

Director of Disease Control Division, Ministry of Health, Malaysia

Director of Food Safety and Quality Division, Ministry of Health, Malaysia

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Secretary-General, Ministry of Defence

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Accountant-General of Malaysia, National Accountant Department

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4 AUTHORS

Dr. Premila Devi a/p Jeganathan
Dr. Noryati binti Yusof @ Atan
Dr. Hazwani binti Halim
Dr. Nur Farhana binti Mohd Rashidi
Dr. Anegala a/p Periana Kovindear
Mrs. Nurlinda binti Ahmad Razimi (Secretariat)

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