KINGDOM OF CAMBODIA
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CAMBODIA NATIONAL HEALTH ACCOUNTS (2012–2016)

HEALTH EXPENDITURE REPORT

World Health Organization
Western Pacific Region

Evidence to inform policy towards universal health coverage in Cambodia

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FOREWORD

A nation's wealth is reflected in the health and well-being of its people. The implementation of the Third Health Strategic Plan 2016–2020 (HSP3) led to the achievement of several of the health-related Millennium Development Goals (MDGs). In the new era of the Sustainable Development Goals (SDGs), Cambodia, together with countries globally, is committed to achieving universal health coverage to ensure "health for all" and that no one is left behind.

Cambodia's leadership is committed to ensuring financial protection and decreasing barriers to accessing health. A strong focus is placed on expanding coverage, but equally as important is the development of supply-side readiness. Measures to increase quality, safety and services are at the forefront of the agenda to provide effective service.

Accurate health financing indicators are a litmus test of how Cambodia is delivering on financial protection, drivers of cost and diseases linked to financial hardship. The data can be used systematically to analyse the financial dimension of health care and inform policy. The National Health Accounts (NHA) is a global standard for health accounting and is used in 100 countries. The production of Cambodia's National Health Account is a rigorous process. Methodology and data collection is discussed with various stakeholders and efforts are made annually to improve the estimates.

This is a milestone for Cambodia as this is the third National Health Account report to be produced. It provides trend data over a five-year period from 2012 to 2016. The continued collaborative effort across several Ministries that have devoted time and effort to improve health data accuracy is appreciated. Institutionalization of health accounts is needed to consistently build robust data on health expenditures.

I am grateful for the leadership, technical inputs, support and collaboration of all individuals and institutions involved in the production of this report. We hope the data will be useful and serve various purposes.

We encourage the continuous collective effort in producing accurate, timely health accounts to inform policy-making.

Phnom Penh, 04 September 2018

Prof. ENG HUOT
SECRETARY OF STATE

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The principal writers of the report were Mr Mo Mai, Ms Rochelle Eng and Mr Ros Chhun Eang.

Guidance and endorsement was provided by members of the NHA Inter-Ministerial Steering Committee.

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Inter-Ministerial Steering Committee for National Health Accounts Study and Development

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Mr Mo Mai	Consultant of World Health Organization	**Member**
Ms Rochelle Eng	Consultant of World Health Organization	**Member**
Dr Him Phannary	Consultant of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	**Member**
Ms Heng Savry	Clinton Health Access Initiative	**Member**

ABBREVIATIONS

CHE	current health expenditure
CSES	Cambodia Socioeconomic Survey
GDP	gross domestic product
GGE	general government expenditure
GGHE	general government health expenditure
HAPT	Health Accounts Production Tool
H-EQIP	Health Equity and Quality Improvement Project
NGO	nongovernmental organization
NHA	National Health Accounts
NSSF	National Social Security Fund
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket (expenditure on health)
SHA	System of Health Accounts
TWG	Technical working group
US$	United States dollar
WHO	World Health Organization

Executive summary

Cambodia's third National Health Accounts (NHA) report presents detailed health expenditure trend data from 2012 to 2016. The NHA process produces robust health expenditure data that are used to monitor health system performance and inform policy-making on resource allocation and prioritization. A number of key findings arise from this latest report from Cambodia. Firstly, over the five years covered by this report, government spending on health increased 34% from US$ 199.3 million in 2012 to US$ 268.6 million in 2016, which is 22% of current health expenditure (CHE). Total CHE in Cambodia in 2016 was US$ 1207 million. Secondly, however, out-of-pocket (OOP) spending remains high at about 60% of CHE. This situation is recognized in the National Social Protection Policy Framework, which highlights the need to increase financial protection coverage, especially for vulnerable groups. Expansion of financial protection mechanisms and increasing government spending on health may help to curb this trend of 60% of CHE from OOP spending in future years. Thirdly, private providers accounted for the majority of health expenditure over the relevant period, yet there is limited regulation or reporting from the private sector to government. Fourthly, only 10% of CHE was on prevention, and most of this spending was by donors. Fifthly, expenditure on infectious diseases accounted for 50% of CHE, mainly respiratory and diarrhoeal diseases, while noncommunicable diseases accounted for 21%, almost half of which was allocated to diseases of the digestive system.

Key findings

General health expenditure

CHE in Cambodia was 6% of gross domestic product (GDP) in 2016, which is comparable to CHE in Viet Nam (5.7%), and higher than that of the Lao People's Democratic Republic (2.8%) and of Thailand (3.8%). However, by financial source, total government expenditure on health for the same period was only 1.4% of GDP in Cambodia, which is low relative to its neighbouring countries.

Government spending on health increased from US$ 199.4 million (2012) to US$ 268.6 million (2016), representing a 35% increase over the period. Government spending accounted for 22% of CHE in 2016. The global average for government expenditure as a percentage of CHE for lower-middle-income countries based on data from 2000 to 2015 is around 40%. Cambodia is below the global average for lower-middle-income countries; however, it is important to note that the country was only recently classified as a lower-middle-income country. Per capita government spending on health increased from US$ 14 to US$ 18 in the relevant period. By way of comparison, for government expenditure on health, Thailand spends US$ 217, while the Philippines, the Lao People's Democratic Republic and Viet Nam spend US$ 68, US$ 53 and US$ 117 per capita, respectively.

The largest source of health spending across the five years was OOP spending. While OOP expenditure as a share of CHE decreased slightly across the five years (less than 1%), it remains high at approximately 60%. In absolute terms, OOP spending is increasing, from US$ 629.8 million in 2012 to US$ 728.5 million in 2016. Cambodia's OOP expenditure per capita is US$ 48 (2016) compared to US$ 26 in Thailand, US$ 24 in the Lao People's Democratic Republic, US$ 51 in Viet Nam and US$ 68 in the Philippines. Globally, the average OOP spending as a share of CHE for lower-middle-income countries is 40%; per capita the median is US$ 40 (2015). Notably, OOP spending tripled at national hospitals in Cambodia over the period 2012 to 2016.

OOP expenditure increased among vulnerable population groups. People aged over 60 years are more likely to face higher OOP spending and are more vulnerable to economic catastrophes.

Donor spending on health continues to be around US$ 200 million and accounts for 17% of CHE. According to global health expenditure trends, lower-middle-income countries on average receive only around 10% of their health budget from donors. Now that Cambodia is classified as a low-

er-middle-income country, it will face a gradual reduction of donor funding, such as that from global health initiatives. Strengthening domestic financing and measures to prepare for transitional financing will be increasingly important.

Providers

The majority of health spending occurs at private providers. Health spending at private providers increased from US$ 615.0 million to US$ 639.6 million over the period 2012–2016. Among spending at private providers, expenditures at private clinics grew from US$ 268.1 million to US$ 380.1 million, representing a 42% increase.

Current health expenditure at all public health centres, district hospitals and provincial hospitals accounted for only around 5–6% of current health spending. Expenditure at the national hospitals has more than doubled in absolute terms from 8% to 16% of CHE, or from US$ 81.9 million in 2012 to US$ 191.1 million in 2016, while the largest share of CHE was at private clinics and followed by providers of health system administration financing.

Factors of provision

Of the input categories (which include human resources, pharmaceuticals, materials and services, and fixed capital), spending on human resources increased from US$ 387.4 million (37.7%) in 2012 to US$ 457.5 million (37.9%), which represented the highest share of CHE. This was followed by expenditure on pharmaceuticals and on materials and services (around 32% and 22%, respectively, each year), while spending on fixed capital was only 5%.

The majority of government expenditure on health was allocated to compensation of human resources (approximately 40%), materials and services use (approximately 26%), and pharmaceuticals (approximately 17%). Started in 2016, delivery grants are paid directly to health facilities, which may change these spending patterns.

Health-care functions

Less than 10% of CHE was on prevention, the majority of which was by donors. This estimate on prevention does not include government health expenditure, as the government budget does not disaggregate preventive and curative services. Curative care is the predominant category of health-care function expenditure and made up around 70% of the current government health expenditure from 2012 to 2016. With respect to curative care, there is more spending on outpatient care than on inpatient care – reflecting people's preferences for self-seeking treatment and purchasing of medicines. Controlling and promoting rational use of medicines and affordable access are important to underpinning service delivery efficiency in Cambodia, both in the public and private sector.

Disease distribution

Analysis of distribution of expenditure by categories of disease reveals that infectious diseases account for more than 50% of health spending in the country; this is largely directed to diarrhoeal and respiratory disease. A quarter of the government health budget is spent on noncommunicable diseases, of which more than 40% goes to treatment and care of diseases of the digestive system. OOP spending is also highest for the same top diseases: respiratory, diarrhoeal, maternal and child health, and diseases of the digestive system.

1 Background

Cambodia has experienced strong economic growth indicated by an increase of GDP per capita from US$ 540 to US$ 1270 between 2006 and 2016 and this is expected to continue in the medium term. The country has consistently spent more than US$ 1 billion on health each year since 2012. Health spending accounts for 6.4% of total current general government spending, reflecting the prioritization of health within the government budget (2016). Current health expenditure (CHE) as a percentage of GDP – an estimate of what a country spends on health in comparison to its economic output – is 6.0%, of which 1.3% comes from government spending. Overall, the Cambodian Government's spending on health per capita is still lower than that of other countries in the Western Pacific Region – the Cambodian Government spends US$ 18 per capita on health, while the Philippines and Viet Nam spend US$ 49 and US$ 39, respectively. The share of current health spending by financing sources in 2016 was as follows: 60.4% from OOP spending (US$ 728.5 million), 16.6% from donors (US$ 200.1 million) and 22.3% (US$ 268.6 million) from government. Donor funds shrank from US$ 210.3 million in 2015 to US$ 200.1 million in 2016, and funding is expected to continue to decrease as the country graduates from global health initiative funding.

With uncertainty about the future of health financing from donors, understanding the country's fiscal space for health – room to expand the health budget – and reviewing allocations of national health spending can reveal where and how the funds are channelled and used, and where efficiency can be improved. This review process can help countries with the prioritization process for distributing funds. With the adoption of the *Third Health Strategic Plan, 2016–2020* and the Cambodia Sustainable Development Goals, tracking health resources in a timely and reliable manner becomes increasingly important, especially for informing policies and services at both the central and subnational levels.

Rationale

The National Health Accounts (NHA) aim to report timely, accurate and detailed health expenditure information from both the public and private sectors. The Cambodia NHA report describes the health-care system from an expenditure perspective. Cambodia is undergoing multiple reforms that are making health expenditure data increasingly relevant. Tracking of health expenditure can measure the progress of health reforms, inform evidence-based health policy, monitor the efficiency of resource allocation and encourage accountability. The NHA report is used as an input for data analysis, and results are disseminated widely to encourage dialogue around the findings, which is critical for policy application.

Objectives

- Collect, analyse and present comprehensive data on health expenditure in Cambodia in 2012–2016.
- Generate accurate and timely data on expenditure by source, provider, factor of provision, health-care function, disease, age and sex.
- Build capacity in Cambodia to routinely produce data on health expenditure.
- Support monitoring and evaluation of policy goals.
- Track household OOP spending.
- Inform resource allocation by comparing health expenditure with the burden of disease.

Cambodia has previously published two NHA reports covering the years 2012 to 2014. This year, the publication will provide a five-year trend analysis of health expenditure from 2012 to 2016, and data for an additional two years will be published (2015–2016). The same methodology and process is used each year for developing the data with annual refinements of the process based on improvement of data sources. The Inter-Ministerial National Health Technical Working Group (NHA TWG) was established in 2017, and an international NHA expert assessed the methods. Refinement of the NHA production process in Cambodia is in accordance with international practice. Most notably, Cambodia is one of the first countries in the world to calculate estimates of health expenditure by disease.

Generating NHA data is a collective responsibility that requires coordination and inputs from multiple stakeholders, including provincial-level support. Cambodia has developed a system to institutionalize the NHA process by building more local ownership and engaging various ministries, provincial-level representatives and agencies to develop the NHA.

3

Process

3.1
System of Health Accounts 2011 framework

Cambodia's NHA capture detailed information on health spending based on *A System of Health Accounts 2011* (SHA 2011) using the triaxial framework – disaggregating data by financing (source of revenue, financing scheme and financing agents), provision (provider and factor of provision) and consumption (health-care functions, disease, age and gender) (Figs. 1 and 2 and Table 1) *(1)*. SHA 2011, the international standardized methodology used for the health expenditure accounting framework, was applied to ensure that data are comparable across different years and across countries. An analysis of health accounts enables a greater understanding of health expenditure patterns – where health funding comes from, and how the money is spent on health.

The SHA 2011 provides a standardized classification of expenditure. The current analysis followed this classification with some minor modifications to ensure compatibility with the Cambodian health system following a review by technical experts during the NHA introductory workshop in September, October and November 2017 with the NHA secretariat and interministerial members.

Fig. 1: System of Health Accounts (SHA) 2011 framework – triaxial framework

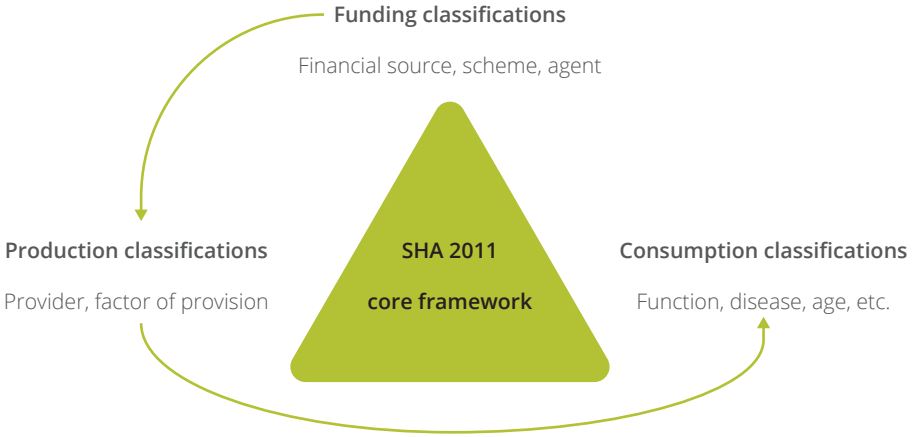
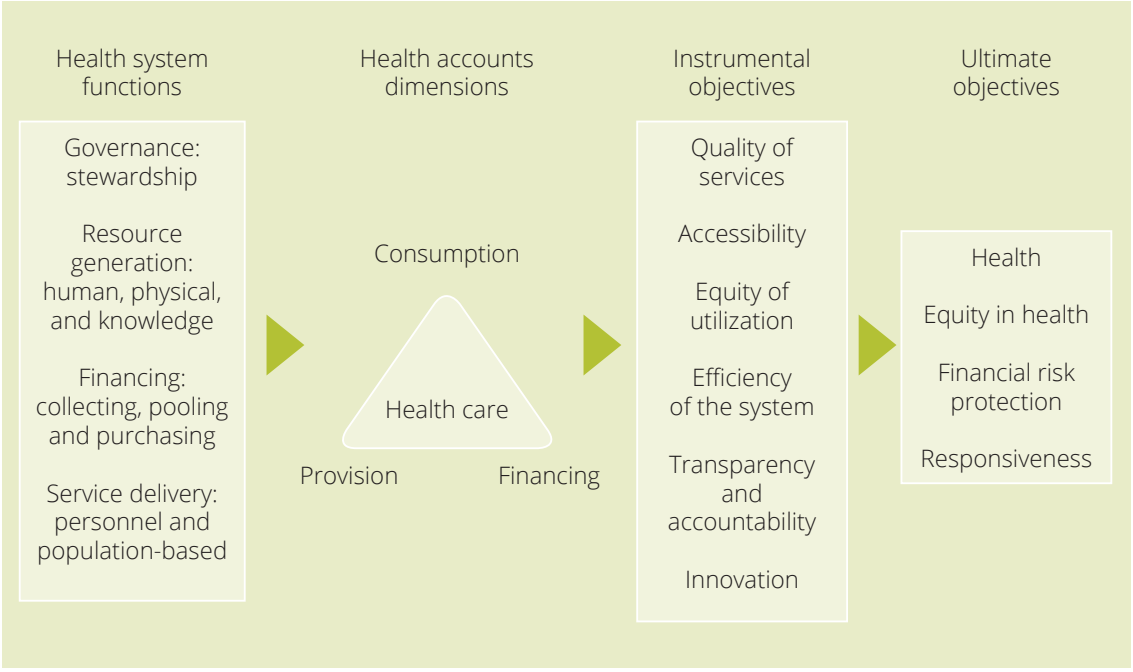


Fig. 2: Linkage between the frameworks of health systems and health accounts



Source: Reproduced from OECD, Eurostat & World Health Organization (2017) *(1)*.

Table 1: System of Health Accounts (SHA) 2011 framework – composition of current health expenditure across seven classifications

(1) Source	(2) Provider	(3) Function	(4) Factor of provision	(5) Disease	(6) Age	(7) Sex
Government	Public	Curative care - inpatient and outpatient	Compensation of employees	Injuries	Under five	Male
Donor	Private	Preventive care	Pharmaceuticals	Noncommuni-cable diseases	Five and above	Female
Out-of-pocket		Rehabilitative and long-term care	Materials and services	Infectious and parasitic diseases		
Social health insurance		Ancillary services	Fixed capital	Health system administration and governance		
Private health insurance		Medical goods (non-specified by function)		Reproductive, maternal, new-born and child health		
		Governance and health system and financing administration		Nutritional deficiencies		
		Other health services		Other diseases / conditions		

3.2 Development process

The Inter-Ministerial NHA Technical Working Group (NHA TWG) was established in 2017 with 18 participants representing eight ministries and seven departments within the Ministry of Health. The NHA TWG was tasked with supporting the development of the NHA during the three key phases of the process. A total of three TWGs were hosted for each of the key phases to enable each working group member to comment and make decisions on the methodology. All disease split rules used were approved by the Inter-Ministerial Steering Committee and used to generate the results for the NHA 2015–2016. Additionally, Dr Hapsa Touré, Health Economist from the World Health Organization (WHO) headquarters, a specialist in disease distribution, conducted a full evaluation of the NHA Cambodia process. The assessment showed that Cambodia is aligned with global standards and uses similar split rules to those applied in other countries.

Under the leadership of the Department of Planning and Health Information, the NHA secretariat comprises 10 members, who, with technical support from WHO, compiled the NHA results. The NHA data, methodology and results were approved by the NHA TWG.

3.3 Data sources

Data collection is a critical part of the NHA production as the data sources and level of disaggregation determine the degree and precision of health spending that is captured throughout the health system. Diverse sources are used to capture both financial health expenditure data and utilization data to measure the intensity of usage of services. Several methods are used for data collection, including primary data collection through data extraction and various surveys. Depending on data availability and level of detail, a number of secondary sources such as published materials were used when there were missing data to provide the details of funding flow from sources of funds to functions and providers. Gaps in data for the different sources were discussed with the TWG, as well as assessed by NHA international experts to provide inputs in accordance with international NHA global practices for bridging data gaps that do not disaggregate data to the lowest level of spending under the triaxial framework.

Government data sources

Ministry of Health

The Royal Government of Cambodia provides health expenditure data through the Department of Budget and Finance. In 2015–2016, aggregated CHE data by the four main budget chapters were provided. In 2012–2014, the disaggregated data by budget line item were provided, which offer detailed information on CHE. Disaggregated data produce more accurate health expenditure estimates. However, there is no information on expenditure on capital investment.

Health-care utilization data were extracted from the Health Management Information System (HMIS) database. The HMIS data consist of monthly reports from all facilities and include information on health problems and diagnosis by outpatient (OPD) and inpatient (IPD), type of health facility, age group and gender.

Provincial health departments

Provincial-level data were collected for the first time this year for 2015-2016 through surveys. The provincial health departments submitted budget line item expenditures, and 11 of 25 provinces are captured. The data provide greater granularity in terms of subnational-level distribution for budget allocation, including details on expenditure by provider by line item.

Disease-based data

The national programme template was sent to all national programmes to collect information on expenditure by line item. The National Center for Tuberculosis and Leprosy Control (CENAT) provided expenditure data, while other national programmes did not respond. CENAT's disaggregated expenditure by line item was therefore used as a benchmark, and the share of each input was applied to other programmes based on allocation from the national budget.

National Social Security Fund

The National Social Security Fund, a semi-autonomous agency mandated to offer social security, provided information on health expenditure on health insurance for the private sector and the work injury scheme for source, function and provider.

Private sector

Household out-of-pocket (OOP) health expenditure

Annual OOP spending is calculated using the annual Cambodia Socioeconomic Survey (CSES) and the National Accounts data. The proportion of household health expenditure relative to total household spending is derived from the CSES. This ratio is then used to calculate the total OOP spending for the entire Cambodian population by applying the ratio to household final consumption expenditures from the National Accounts. The CSES provides information on the source, function and provider.

Nongovernmental organizations (NGOs) and donors

An annual survey is sent out to NGOs and donors to collect detailed information on health spending. Data captured include information on functions and providers. There is a good response rate from donors. To collect data from the NGO sector, a workshop was held on how to fill in surveys which was attended by a consortium of NGOs working in the health sector. It can be a challenge for NGOs to submit completed questionnaires as some of the questions are technical and may be difficult to follow. The main aim is to capture NGOs with large expenditures.

Private health insurance

Data on private health insurance capture an annual aggregated amount spent on health (2012–2016) from the Ministry of Economy and Finance. Further information is needed to enable disaggregation by provider, inputs for private providers and function. Data collection through a survey of larger private health insurance companies can be explored in the future.

Private health facilities

There is currently no comprehensive data set for private health facilities tracking utilization and expenditure.

4 Methodology

The NHA 2012–2016 were developed using the SHA 2011 framework, an internationally recognized and standardized methodology developed by the Organisation for Economic Co-operation and Development (OECD), WHO and Eurostat, to facilitate comparisons across countries and over time. Expenditure classifications are based on the SHA 2011. Data sources included government health expenditure and utilization reports, donor and NGO questionnaires, and the CSES. Data were recorded, classified and analysed using the Health Accounts Production Tool (HAPT). For further information on methodology and the mapping process, see Annex 1.

4.1
Disease distribution keys

Why do we need to develop disease expenditure distribution keys? This is necessary to feature those expenditures on health that are associated with service delivery where the recoding system or tracking of health expenditure by disease borne by patients does not exist. While such a system is not available, a reasonable estimate can be obtained by assigning resource consumption as a proxy for expenditure to a disease or condition. As in other countries, the allocation of expenditure by diseases in Cambodia was complex. For donors and NGOs, data on expenditure by disease were imported from the donor and NGO survey questionnaires. To distribute expenditure by disease for government and OOP (for which there was no information on disease distribution in the expenditure data), the following approach was taken:

First, data on annual utilization were collected by inpatient and outpatient case from the national health information system on health service utilization disaggregated by:

- diagnosis (type of disease or condition);
- level of care (public providers: national hospital, provincial hospital, referral hospital and health centre);
- type of health-care service (function: inpatient and outpatient curative care);
- age (under 5 years and above 5 years); and
- sex (male and female).

Second, reimbursement rates (disease case-based payment to health provider) from the National Social Security Fund (NSSF), which were in turn based on a hospital costing study *(2)*, were used to inform estimates of the cost of treatment by level of care.

Third, a bottom-up approach was applied. Disease cost was estimated by multiplying price (p) by quantity (q) ($p \times q$) where price captures resource intensity level of services (NSSF reimbursement rate) and quantity is measured as the number of IPD and OPD cases by each health facility.

$$\text{Final Split} = \frac{(\text{OPD cases x unit cost}) + (\text{IPD cases x unit cost})}{\text{Expenditure amount}}$$

Fourth, the share of total cost attributable to each disease was then calculated and used to map the expenditure data for government expenditure and OOP by disease, level of care, type of service and beneficiary.

For OOP expenditure, one modification of this approach was made for expenditure in the private sector. Since immunization and the prevention and treatment of tuberculosis (TB) and HIV/AIDS are financed by national programmes in the public sector, these expenditures were omitted from the distribution of health expenditure by disease in the private sector. Since data were not available to directly allocate all expenditure by disease, caution is needed when interpreting the related findings.

4.2
Allocation by expenditure on pharmaceuticals

Expenditure on pharmaceuticals was allocated for two categories. In the input category (factor of production classification), expenditure on pharmaceuticals by the government was taken directly from the line-item government expenditure report. Expenditure on pharmaceuticals by donors and NGOs was taken directly from the NHA questionnaires and OOP expenditure on pharmaceuticals at public providers. The share of government expenditure on pharmaceuticals was applied to estimate pharmaceutical spending from OOP expenditure at public providers. Owing to the lack of data from private providers, the government expenditure share for pharmaceuticals was also applied to OOP at private providers. In the provider category, government expenditure on pharmaceuticals was also taken directly from the line item government expenditure report. OOP expenditure in pharmacies was derived from the CSES. Since pharmaceuticals are also distributed as part of the service package in health facilities, this amount is lower than expenditure on pharmaceuticals in the input category.

4.3
OOP expenditure on health

A separate study was carried out to estimate OOP expenditure on health.[1] Here, we provide a summary of the data source and methods; further details are presented in a separate report. An internationally recognized and standardized methodology developed by WHO was adopted *(3)*. The data source for the OOP analysis was the CSES 2012–2016. The CSES includes a module on health-care seeking and expenditure, including questions on how much individuals had spent on medical care in the previous 30 days by type of service (inpatient versus outpatient) and provider (public versus private, disaggregated by subcategories). It was assumed that the spending reported in the survey was all OOP, with no reimbursement from a health insurance provider or other sources.

The assumption of total OOP spending was made using household health expenditure as a share of total household expenditure calculated from CSES data (Table 2). This was then multiplied by total household consumption expenditure, private final consumption, from Cambodia's National Accounts (National Institute of Statistics), to arrive at an estimate of total annual OOP in 2012–2016. Finally, OOP by provider was estimated using the survey analysis. The share of OOP spent at each provider was then applied to total OOP spending.

[1] In addition to OOP spending on health (disaggregated by provider, health-care function, disease and age) required to produce the NHA, the study also analysed OOP spending on transport to access health care, catastrophic expenditure, impoverishment due to OOP expenditure and several other indicators, including by quintile and other subgroups.

Table 2: Calculation of total out-of-pocket expenditure estimates

	2012	2013	2014	2015	2016
1) OOP as share of total household expenditure	6.0%	5.1%	4.5%	4.6%	4.5%
2) Household final consumption expenditure in billion riel	45 817.0	49 926.0	54 403.0	59 281.0	64 597.0
Total OOP in billion riel	**2 749.0**	**2 546.2**	**2 448.1**	**2 726.9**	**2 906.9**

Sources: Financial Protection in Cambodia (2009-2016) and Cambodia Socioeconomic Survey (CSEC).
OOP: out-of-pocket expenditure

4.4 Removal of double-counting

The potential for double-counting is considerable when collecting data from donors and NGOs. For example, a bilateral or multilateral donor might transfer funds to an NGO, which in turn uses those funds to implement a project. Both parties will legitimately report the amount as expenditure. To arrive at an accurate estimate of CHE, a rigorous process was followed to remove double-counting. Generally, the double-counted amount was removed from the donor questionnaire since the NGO questionnaire provides more detailed information on health expenditure. Some double-counting of transfer of funds from an NGO to another NGO as a subcontractor of a project may be expected. Following a review of the NGO questionnaires, it was determined that this double-counting was negligible.

4.5 Limitations

There are some limitations of the NHA 2012–2016 analysis. The response rate of NGOs was low, but particular efforts were made to collect information from NGOs that are known to operate large programmes. The NHA team considered that a small portion of NGO health expenditure may not have been captured, while donors have had good collaboration during the NHA production process.

In this round, NHA 2015–2016, it was not possible to collect substantial information on private health insurance and social health insurance. However, the amounts concerned are expected to increase in the next few years. This is not likely to have affected the estimate of CHE to any great extent, given that the insurance market for health is currently very small and only a few large garment factories operate health clinics for employees.

Only the total amount spent by the government on pharmaceuticals was available. The lack of disaggregated data on pharmaceuticals meant that it was not possible to analyse spending on different kinds of drugs or spending on drugs by level of care. Expenditure on pharmaceuticals was therefore distributed by disease according to utilization data.

The SHA 2011 methodology separates capital and recurrent costs in the calculation of CHE. In the case of Cambodia, the capital expenditure and gross fixed capital formation for building infrastructure are not currently captured. This will, however, be reviewed in future NHA to enable data on capital expenditure for health to be collected. Under the factors of provision (inputs), the consumption of fixed capital for maintenance and repairs, health-care equipment, furniture and vehicles is captured under the recurrent budget.

Because detailed expenditure data were either not collected from private providers or not previously available, distribution of expenditure by input had to rely on the distribution factors developed based on government data. It is possible that the cost structures are different in the private sector.

5 Results

The funding flows for health in Cambodia are channelled from the treasury to the Ministry of Health. In accordance with the public financial management reforms, the health sector uses programme-based budgeting. The transition from input-based to output-based financing is ongoing. Some donor funds are channelled directly through the government budget. An example of this is the Health Enhancement Quality Improvement Project (H-EQIP), a multi-donor trust fund pooled with government financing to fund health sector reform. There are also donor initiatives that do not flow through the central government budget, such as bilateral funds or direct financing to facilitate provision of services. Funds from the central level are channelled to national programmes, hospitals and regional training institutions. The provincial treasury disburses funds to the provincial health departments, to operational districts and health facilities. Additional supply-side financing is provided through lump sum grants that are additional injections of cash to facilities at a set fee based on the service package provided. Performance-based grants are being introduced, but this process is still in its infancy. The disaggregation of service delivery grants expenditures, which is still in its nascent phases, will be included in future NHA. The main funding streams to public facilities are a combination of government budget, lump sum grants, user fees and social health protection schemes.

Demand-side financing schemes include social health insurance, which currently covers the private sector and is based on contributions. A scheme for civil servants, through contributions, is planned for 2018. The Health Equity Fund, a subsidy scheme for the poor to access all needed health care in public facilities, operates nationwide.

5.1
Key health financing indicators

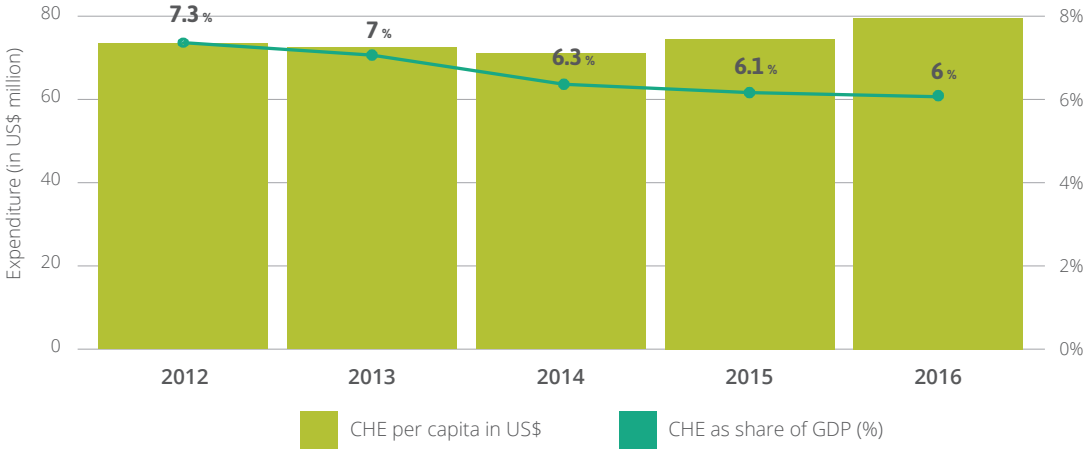
Key health financing indicators are used as global benchmarks to track financial sources for health expenditures. The information gathered answers the question of how much money is spent on health in Cambodia and compares it by source, per capita and relative to economic growth. These data can be used to make comparisons with other countries. Table 3 shows that CHE increased from US$ 1028.9 million in 2012 to US$ 1207.0 million in 2016. Over the five-year period, CHE dropped from 7.3% to 6.0% as a share of GDP (Fig. 3). In 2016, government expenditure on health was 6.4% of total general government expenditure or 22.3% of CHE, while the rest was from private sources of funds (60.4% from OOP, 16.6% from external donors and 0.2% from health insurance schemes) (Table 3).

Table 3: Key health financing indicators

Health financing indicator	2012	2013	2014	2015	2016
CHE in US$ million	1028.9	1060.1	1049.9	1115.8	1207.0
GGHE as share of CHE	19.4%	20.4%	19.9%	22.0%	22.3%
External sources as share of CHE	19.4%	17.1%	16.8%	18.8%	16.6%
OOP as share of CHE	61.2%	62.6%	63.3%	58.5%	60.4%
CHE per capita in US$	73.4	72.5	71.0	74.5	79.6
OOP per capita in US$	44.9	45.4	44.9	43.6	48.1
GGHE per capita in US$	14.2	14.8	14.1	16.4	17.7
CHE as share of GDP	7.3%	7.0%	6.3%	6.1%	6.0%
GGHE as share of GDP	1.4%	1.4%	1.2%	1.3%	1.3%
GGHE as share of GGE	6.4%	6.4%	5.9%	6.3%	6.4%

CHE: current health expenditure; GDP: gross domestic product; GGE: general government expenditure; GGHE: general government health expenditure; OOP: out-of-pocket expenditure.

Fig. 3: Current health expenditure per capita (in US$ million), and as share of gross domestic product (%)



CHE: current health expenditure; GDP: gross domestic product

5.2
Health expenditure by source of fund

In 2016, CHE was US$ 1207.0 million. Government and donor funding accounted for 22.3% and 16.6% of CHE, respectively, while household OOP spending made up 60.4%. Less than 1% was from private and social health insurance funds.

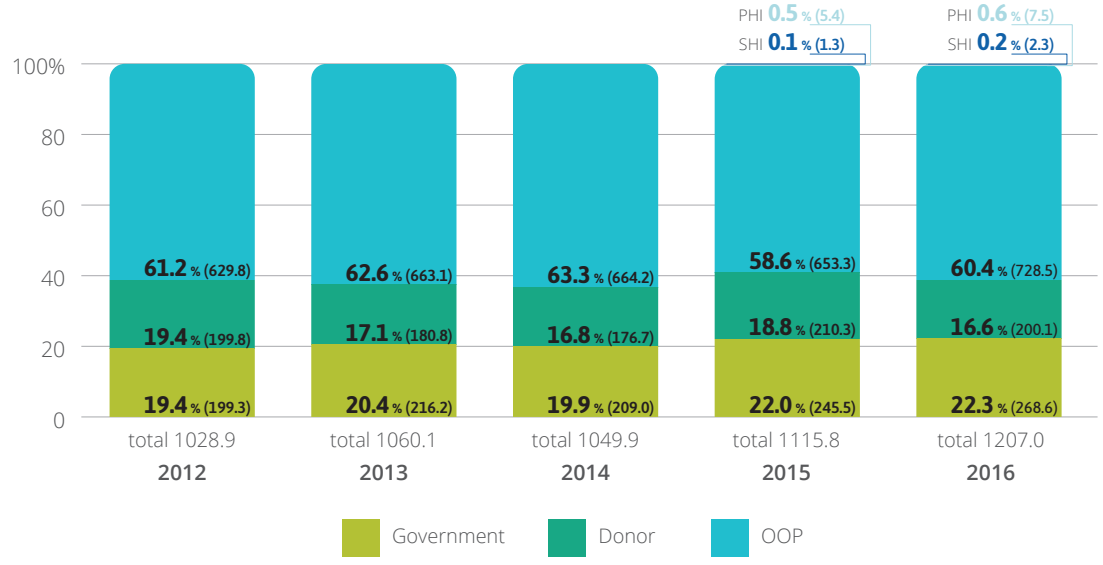
As illustrated in Table 4 and Figs. 4 and 5, OOP was the main source of financing accounting for around 60% of CHE. OOP expenditure increased in absolute terms from US$ 629.8 million to US$ 728.5 million between 2012 and 2016. In the same period, government spending on health rose from US$ 199.3 million to US$ 268.6 million, a 34% increase. The expenditure from external sources, donors and NGOs stayed relatively consistent during this period at around US$ 200 million. The expenditure on health from private health insurance and social health insurance accounted for only a small proportion of CHE, less than 0.6% and 0.2%, respectively.

Table 4: Sources of financing of current health expenditure (in US$ million)

Source of fund	2012		2013		2014		2015		2016	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Government	199.3	19.4%	216.2	20.4%	209.0	19.9%	245.5	22.0%	268.6	22.3%
Donor	199.8	19.4%	180.8	17.1%	176.7	16.8%	210.3	18.8%	200.1	16.6%
OOP	629.8	61.2%	663.1	62.5%	664.2	63.3%	653.3	58.6%	728.5	60.4%
PHI	-	-	-	-	-	-	5.4	0.5%	7.5	0.6%
SHI	-	-	-	-	-	-	1.3	0.1%	2.3	0.2%
Total	**1028.9**	**100%**	**1060.1**	**100%**	**1049.9**	**100%**	**1115.8**	**100%**	**1207.0**	**100%**

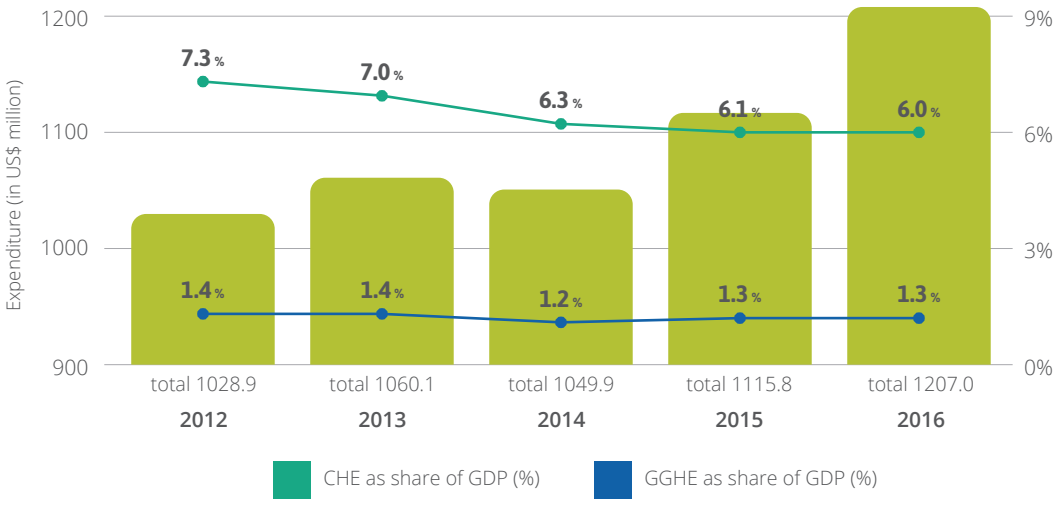
OOP: out-of-pocket expenditure; PHI: private health insurance; SHI: social health insurance.

Fig. 4: Share of current health expenditure by source of funds (in US$ million)



OOP: out-of-pocket expenditure; PHI: private health insurance; SHI: social health insurance.

Fig. 5: Current health expenditure (in US$ million) and current health expenditure and general government health expenditure as share of gross domestic product



CHE: current health expenditure; GDP = gross domestic product; GGHE: general government health expenditure.

5.3
Health financing schemes

SHA 2011 defines health-care financing schemes as the types of financing arrangements through which people obtain health services. This includes direct payments by households and third-party financing arrangements, which are determined through the mode of participation in the scheme, entitlement to health services and the raising of revenues and pooling arrangements.

In Cambodia, there are currently three statutory social health protection schemes: Health Equity Fund for the poor, social health insurance for civil servants and social health insurance for the private sector (under the NSSF). The Royal Government of Cambodia announced at the end of 2017 that non-formal workers will be covered under a social health protection scheme. By 2020, the goal is to cover 50% of the population through a social health protection scheme.

The Health Equity Fund is a social health protection scheme that covers the poor in Cambodia (around 3 million people or 23% of the population). The scheme accounts for 1.5% of CHE, around US$ 15 million annually. It is financed by the Royal Government of Cambodia (60%) and from H-EQIP pool donor funds (40%). Over the coming years, the domestic contribution will increase until the scheme is completely financed by the Government.

Fig. 6 shows the contributions of the four key health financing schemes in Cambodia

1) government health financing schemes – Health Equity Fund (subsidies) and social health insurance through contributions, which currently covers the private sector and is soon to expand to civil servants;

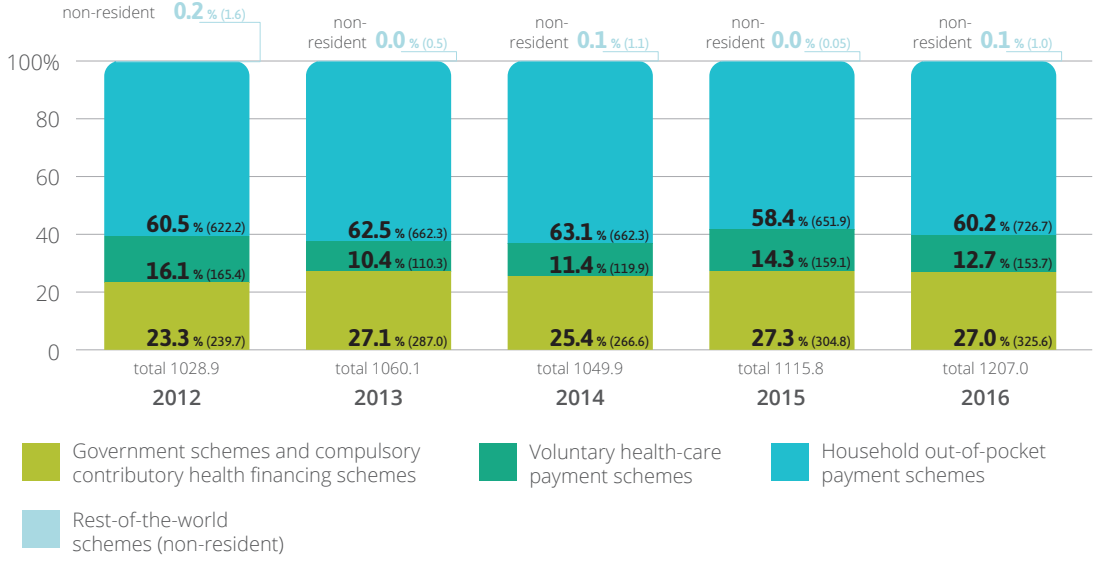
2) voluntary health-care payment schemes including private health insurance, community-based health insurance schemes, vouchers and other schemes not managed by the government but in-country;

3) households' OOP payments; and

4) rest-of-the-world health financing schemes (non-resident).

Government schemes were responsible for 23.3% of expenditure in 2012, and this had increased to 27.0% in 2016, while the largest share was from private households' OOP payments, which accounted for around 60% between 2012 and 2016. Tracking the sources of revenue for government schemes through disaggregation of funds coming from government revenue, contributions and donors will be a useful indicator for sustainability. When splitting government expenditure by central (central budget) and local schemes (provincial budget), the central government health financing scheme had approximately 60% of the share throughout the five-year period. In 2016, 61% of the government budget was spent at the central level (central government scheme) and 39% at the provincial level (local government scheme). In that year, the expenditure of the central government scheme was US$ 195.6 million out of a total of US$ 325.6 million for the government scheme. Voluntary health-care payments decreased slightly from 16.1% in 2012 to 12.7% in 2016 and the rest-of-the-world health financing (non-resident) was responsible for less than 1%.

Fig. 6: Share of current health expenditure by financing scheme
(in US$ million)



5.4
Health expenditure by provider

Cambodia has a mixed service delivery system with both public and private providers. Under the SHA 2011, public health providers include health system administration and financing (government budget to central and subnational administration, and national programmes) and health facilities (national programmes, provincial hospitals, district referral hospitals and health centres), while private health providers consist of private hospitals, private clinics, pharmacies/drugstores, NGO hospitals and other private/non-medical providers.

The five-year trend shows that private providers accounted for a larger share of total CHE across all sources than public providers except in 2015 (Table 5). For public providers, health system administration and financing makes up the highest proportion of CHE. Spending on these services increased from US$ 169.0 million in 2012, to US$ 180.4 million in 2016. Spending at national hospitals was the second highest spending category, and it increased from US$ 81.9 million to US$ 191.1 million in that same period. The increasing trend of spending at national hospitals needs to be evaluated to understand the causes of the surge in expenditure and the potential linkage with overcrowding at national hospitals. The expenditures at provincial and district hospitals range from US$ 52.2 million to US$ 78.7 million and fluctuate from year to year. Health centre expenditures rose from US$ 62.0 million to US$ 74.6 million between 2012 and 2016.

Cambodians' expenditure on health is highest at private clinics. Private clinics account for the largest share of CHE.

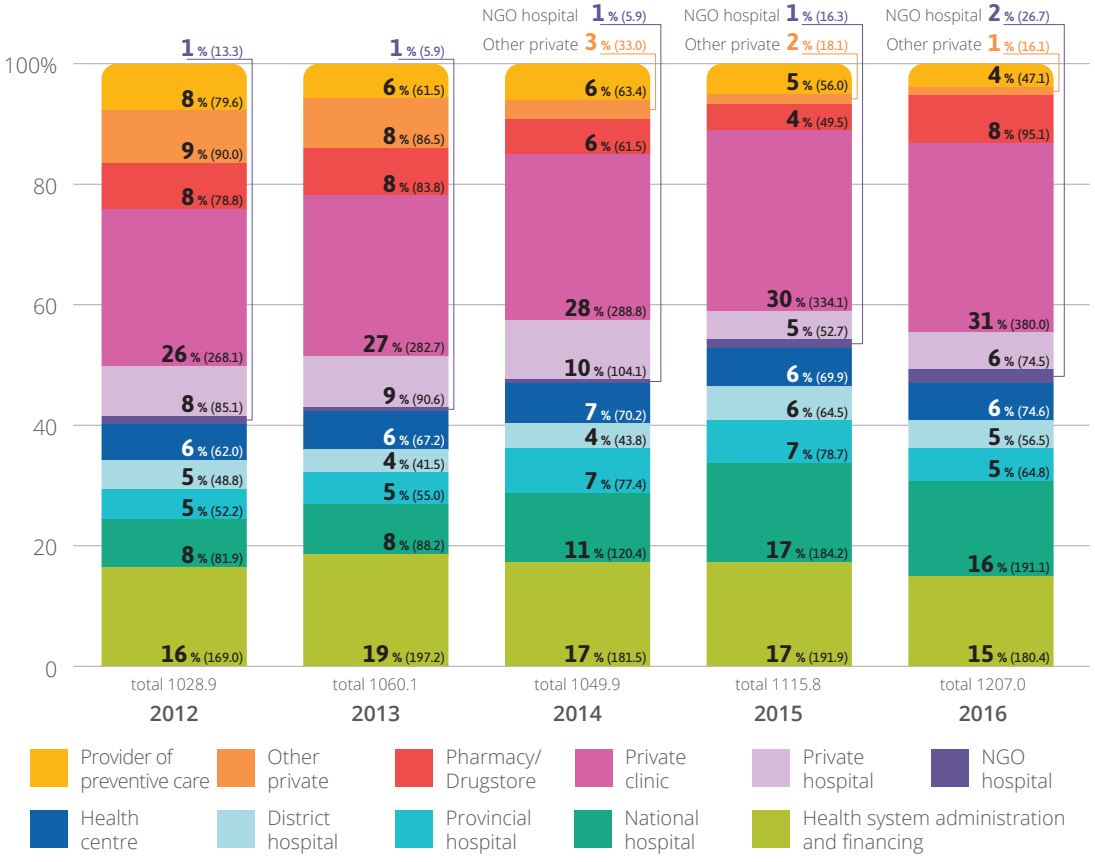
Between 2012 and 2016, expenditures at private clinics increased by more than US$ 100 million to reach US$ 380 million, while expenditure on other private/non-medical providers fell significantly from US$ 90.0 million in 2012 to US$ 16.1 million in 2016. An analysis of OOP spending from 2009 to 2016, which uses data from CSES highlights that Cambodians generally choose private sector health services.

Table 5: Total health expenditure by provider (in US$ million)

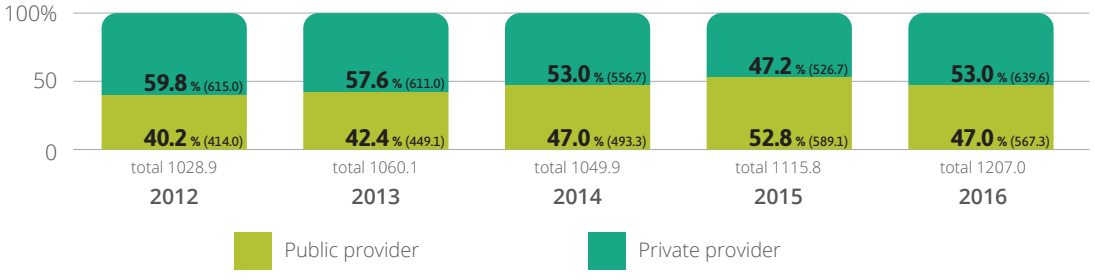
Public provider	2012	2013	2014	2015	2016
Provider of health system administration and financing	169.0	197.2	181.5	191.9	180.4
National hospital	81.9	88.2	120.4	184.2	191.1
Provincial hospital	52.2	55.0	77.4	78.7	64.8
District hospital	48.8	41.5	43.8	64.5	56.5
Health centre	62.0	67.2	70.2	69.9	74.6
Total	**414.0**	**449.1**	**493.3**	**589.1**	**567.3**
Private provider					
NGO hospital	13.3	5.9	5.9	16.3	26.7
Private hospital	85.1	90.6	104.1	52.7	74.5
Private clinic	268.1	282.7	288.8	334.1	380.0
Pharmacy/drugstore	78.8	83.8	61.5	49.5	95.1
Other private/non-medical	90.0	86.5	33.0	18.1	16.1
Provider of preventive care/ NGOs	79.6	61.5	63.4	56.0	47.1
Total	**615.0**	**611.0**	**556.7**	**526.7**	**639.6**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

Fig. 7: Share of current health expenditure by provider (in US$ million)



Current health expenditure by public and private provider (in US$ million)



5.4.1 Government health expenditure by provider

Disaggregating government funds spent by public providers shows that government expenditure goes predominantly to health system administration and financing, and most of it is at the central level rather than at health facilities. It accounted for over US$ 100 million per year from 2012 to 2016 (Table 6). This figure also included the administration and governance of preventive care since no breakdown of expenditure

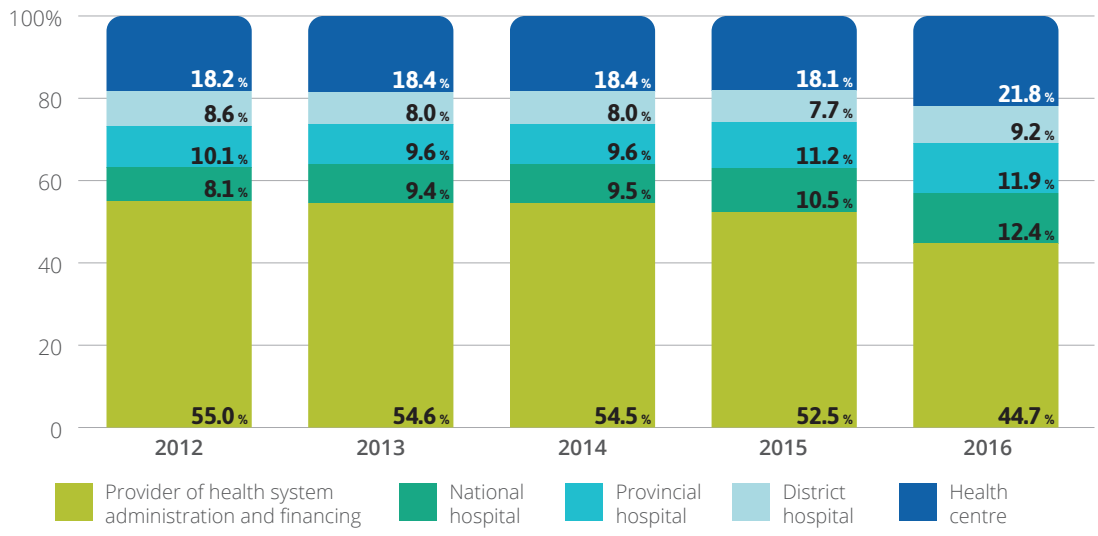
was available. The Government expanded more services at national hospitals, which doubled the spending over the past five years. Expenditure at health centres from the government budget was higher than for other types of health facilities. It increased from US$ 36.3 million in 2012 to US$ 58.6 million in 2016; this is due to the growing number of health centres in the past five years.

Table 6: Government health expenditure by provider (in US$ million)

Provider	2012	2013	2014	2015	2016
Providers of health system administration and financing	109.7	118.0	114.0	128.9	120.1
National hospitals	16.1	20.4	19.8	25.9	33.2
Provincial hospitals	20.2	20.7	20.0	27.4	32.0
District hospitals	17.1	17.3	16.8	18.9	24.7
Health centres	36.3	39.7	38.4	44.5	58.6
Total	**199.3**	**216.2**	**209.0**	**245.5**	**268.6**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

Fig. 8: Share of government health expenditure by provider



5.4.2
Health expenditure by provider from OOP payments

Most of the health expenditure from OOP payments was for private clinics, which are generally the first choice for Cambodians seeking health care. OOP payments to private clinics have risen significantly in the past five years, by more than US$ 100 million (Table 7). This may reflect the growth of private sector investment and dearth of legislation and regulation governing this sector. OOP spending on "other" private providers, mainly defined as non-medical professionals without formal medical training, fell dramatically from US$ 86.3 million in 2012 to only US$ 15.6 million in 2016.

OOP payments at public hospitals in 2016 accounted for the second largest share of expenditure, while OOP payments to district hospitals and health centres have fallen.

Table 7: Health expenditure by provider from out-of-pocket payments
(in US$ million)

Provider	2012	2013	2014	2015	2016
National hospital	34.9	34.9	65.9	116.7	110.0
Provincial hospital	30.4	32.3	53.2	50.9	29.7
District hospital	22.8	24.1	27.0	9.0	9.6
Health centre	25.8	27.5	31.8	25.1	17.1
Private hospital	85.1	90.6	104.1	52.5	74.5
Private clinic	265.7	282.7	288.8	332.2	376.9
Pharmacy/drugstore	78.8	83.7	61.5	49.5	95.1
Other private	86.3	87.3	31.9	17.5	15.6
Total OOP payments	**629.8**	**663.1**	**664.2**	**653.3**	**728.5**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

5.5
Health expenditure by factor of provision

The NHA collect information on expenditure by inputs in the provision of health services. There are four main input categories:

1) Compensation of employees: wages and salaries of employees, social contributions and all other costs related to employees.

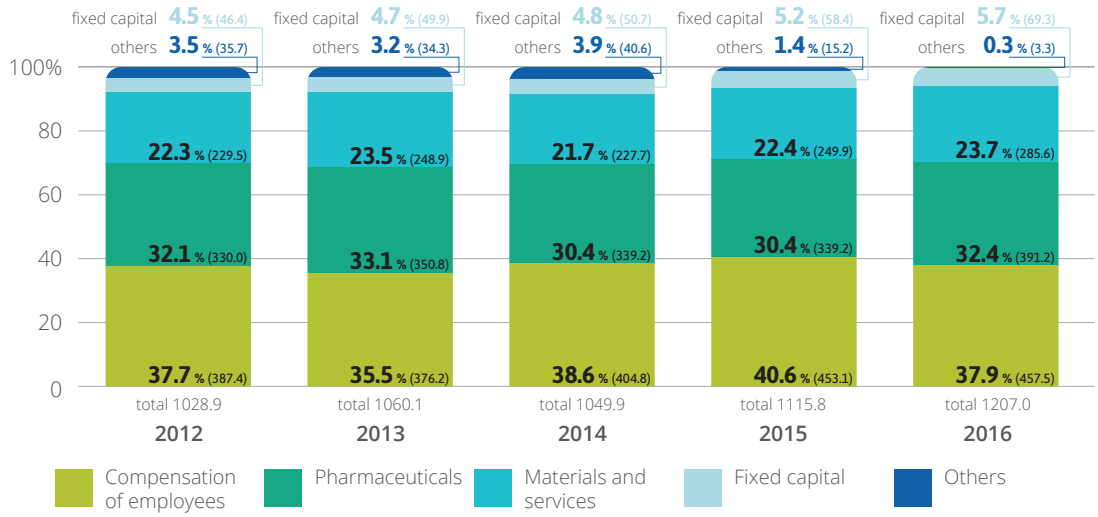
2) Pharmaceuticals: all medicines and pharmaceutical products, such as vaccines and serum, and other consumable goods, such as cotton, wound dressings, protective clothing, uniforms and other tools.

3) Materials and services: goods and services used for health-care production, but of a non-specialized health nature, such as those required in the operational activities of the provider, as in management offices, kitchens, transport or other types of more general usage, such as electricity and water.

4) Consumption of fixed capital: refers to maintenance of buildings, and purchase and maintenance of medical equipment and other capital goods, such as vehicles.

The findings summarized in Fig. 9 indicate that the largest share of expenditure from all sources of health financing is on human resources. There was a steady increase from US$ 387.4 million in 2012 to US$ 457.5 million in 2016, representing 37.9% of CHE on factors of provision. The second largest portion of health expenditure was on pharmaceuticals, which showed a similar pattern to the increased expenditure on human resources. It increased slightly from US$ 330.0 million in 2012 to US$ 391.2 million in 2016, or a 32.4% share of CHE on inputs. The expenditure on the fixed capital category was US$ 46.4 million in 2012 and increased to US$ 69.3 million in 2016, or around 6% of input.

Fig. 9: Share of current health expenditure by factor of provision
(in US$ million)



5.5.1
Government health expenditure by factor of provision

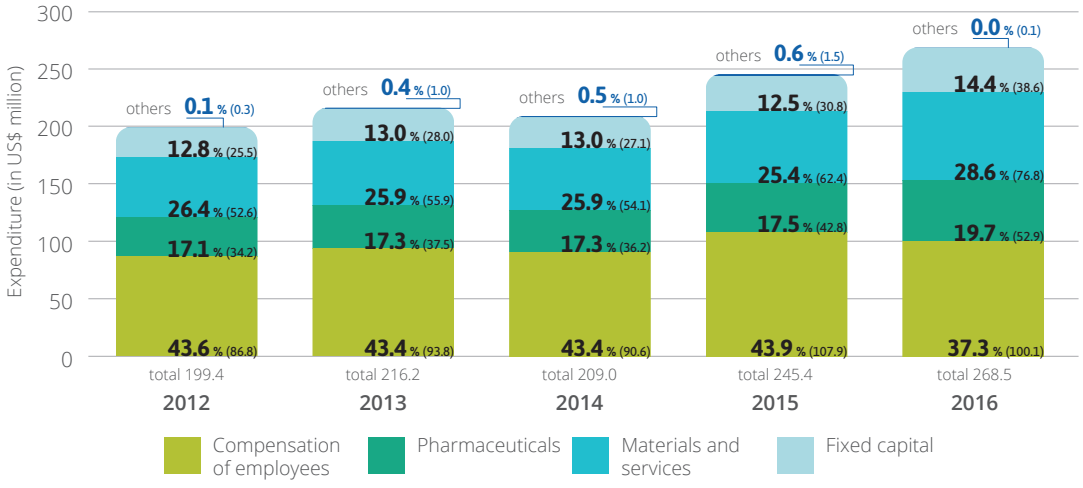
Taking government expenditure on input for health services into consideration, the Government paid US$ 86.8 million in 2012 on human resources to deliver health services, and for the health system and governance. This amount increased to US$ 100.1 million in 2016 (Table 8). Human resources account for the largest share of the government budget for health (37.3%) (Fig. 10). Spending on pharmaceuticals increased from 17.1% (US$ 34.2 million) of government health budget to 19.7% (US$ 52.9 million), an increase of US$ 18.7 million.

Table 8: Government health expenditure by factor of provision (in US$ million)

Factor of provision	2012	2013	2014	2015	2016
Compensation of employees	86.8	93.8	90.6	107.9	100.1
Pharmaceuticals	34.2	37.5	36.2	42.8	52.9
Materials and services	52.6	55.9	54.1	62.4	76.8
Consumption of fixed capital	25.5	28.0	27.1	30.8	38.6
Others	0.3	1.0	1.0	1.5	0.1
Total	**199.3**	**216.2**	**209.0**	**245.5**	**268.6**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

Fig. 10: Government health expenditure by factor of provision (in US$ million)



5.5.2 Government health expenditure by input at central and provincial levels

Disaggregating government source of funds spent at the provincial versus central level on various inputs provides insights into resource allocation. During the five-year period from 2012 to 2016, provincial expenditure on health increased significantly from US$ 94.0 million to US$ 142.5 million (Table 9). More of the expenditure on health from government funds at the central level went to compensation of employees and materials and services used, while at the subnational level, priority for spending was on compensation of employees and pharmaceuticals to provide basic public health-care services (Fig. 11).

Table 9: Government health expenditure on factors of provision by central and provincial levels (in US$ million)

Central Ministry of Health	2012	2013	2014	2015	2016
Compensation of employees	43.3	46.0	44.5	55.8	36.5
Pharmaceuticals	3.3	3.6	3.5	4.3	7.7
Materials and services	38.2	40.2	38.9	46.7	52.0
Consumption of fixed capital	20.3	22.2	21.5	24.5	29.7
Others	0.2	0.9	0.9	1.5	0.1
Total	**105.3**	**113.0**	**109.3**	**132.8**	**126.0**
Provincial	2012	2013	2014	2015	2016
Compensation of employees	43.5	47.7	46.1	52.1	63.7
Pharmaceuticals	30.9	33.9	32.8	37.1	45.2
Materials and services	14.4	15.8	15.2	17.2	24.8
Consumption of fixed capital	5.3	5.8	5.6	6.3	8.9
Others	0.0	0.0	0.0	0.0	0.0
Total	**94.0**	**103.2**	**99.7**	**112.7**	**142.5**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

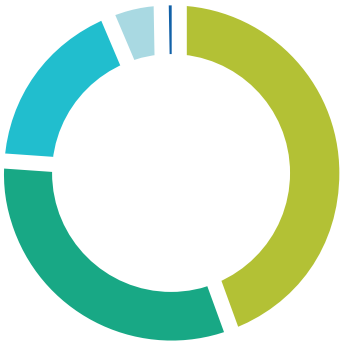
Fig. 11: Share of government health expenditure at central and provincial levels, by factor of provision, 2016

Share of central-level expenditure by input
(in US$ million)

Compensation of employees	**36.5**	(28.9%)
Pharmaceuticals	**7.7**	(6.1%)
Materials and services used	**52.0**	(41.3%)
Consumption of fixed capital	**29.7**	(23.6%)
Others	**0.1**	(0.0%)
Total	**126.1**	

Share of provincial-level expenditure by input
(in US$ million)

Compensation of employees	**63.7**	(44.7%)
Pharmaceuticals	**45.2**	(31.7%)
Materials and services used	**24.8**	(17.4%)
Consumption of fixed capital	**8.9**	(6.2%)
Others	**0.0**	(0.0%)
Total	**142.5**	



5.5.3 Government health expenditure by factor of provision and level of care

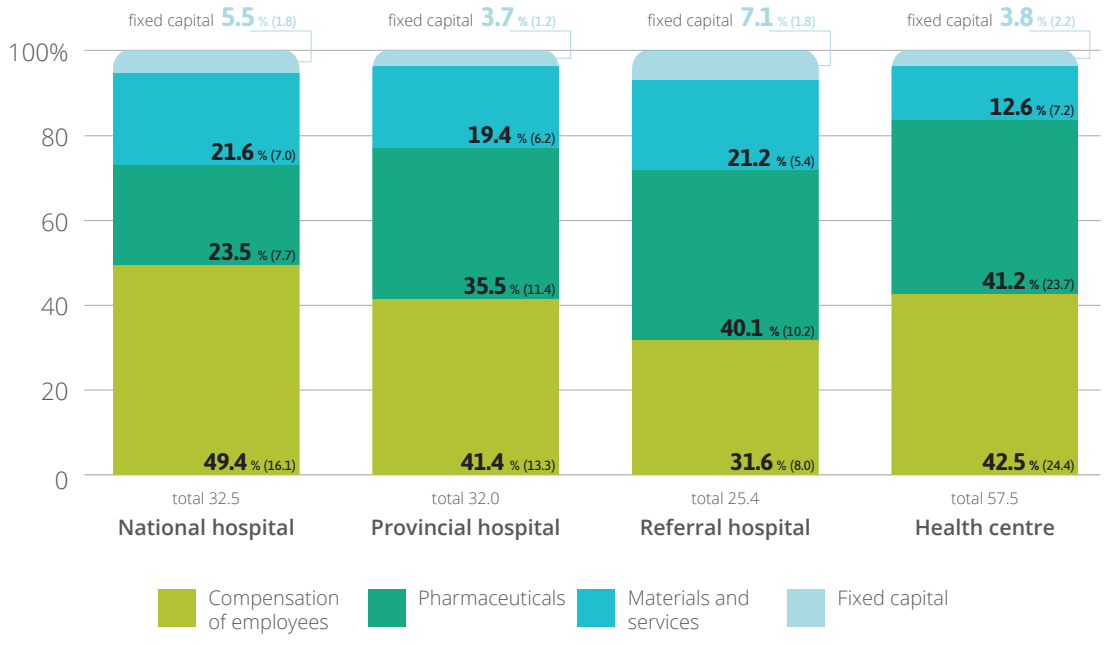
In 2016, the Ministry of Health spent a total of US$ 147.4 million on public health facilities. Disaggregating the government spending by input and level of care, health centres accounted for the largest share of expenditure – US$ 57.5 million – almost double the amount spent on national, provincial and district hospitals. Government spending on pharmaceuticals was US$ 7.7 million at national hospitals, US$ 11.4 million at provincial hospitals and US$ 10.2 million at referral hospitals, whereas at health centres and health posts, expenditure on pharmaceuticals was US$ 23.7 million. Human resource–related costs were US$ 24.4 million, which accounted for 42.5% of total current government spending on inputs for health centres. Consumption of fixed capital was the smallest category across facilities at all levels with spending ranging from US$ 1.2 million at provincial hospitals to US$ 2.2 million at health centres (Table 10 and Fig. 12).

Table 10: Government health expenditure by factor of provision and facility, 2016 (in US$ million)

Factor of provision	Facility			
	National hospital	Provincial hospital	Referral hospital	Health centre
Compensation of employees	16.1	13.3	8.0	24.4
Pharmaceuticals	7.7	11.4	10.2	23.7
Materials and services	7.0	6.2	5.4	7.2
Consumption of fixed capital	1.8	1.2	1.8	2.2
Total	**32.5**	**32.0**	**25.4**	**57.5**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

Fig. 12: Share of government health expenditure by factor of provision and facility, 2016 (in US$ million)



5.6
Health expenditure by health-care function

The health-care service function measures the amount spent on different types of service activities and medical goods. It provides insights into how resources are allocated for services. In 2016, the largest share of total current expenditure in terms of health-care service function was spent on curative care – US$ 838.2 million (69.4%). This was followed by spending on governance and health system financial administration (US$ 162.5 million (13.5%)), medical goods (US$ 103.0 million (8.5%)) and preventive care (US$ 89.1 million (7.4%)). Ancillary services, long-term care and rehabilitative care accounted for a small share of the health service functions (Table 11 and Fig. 13).

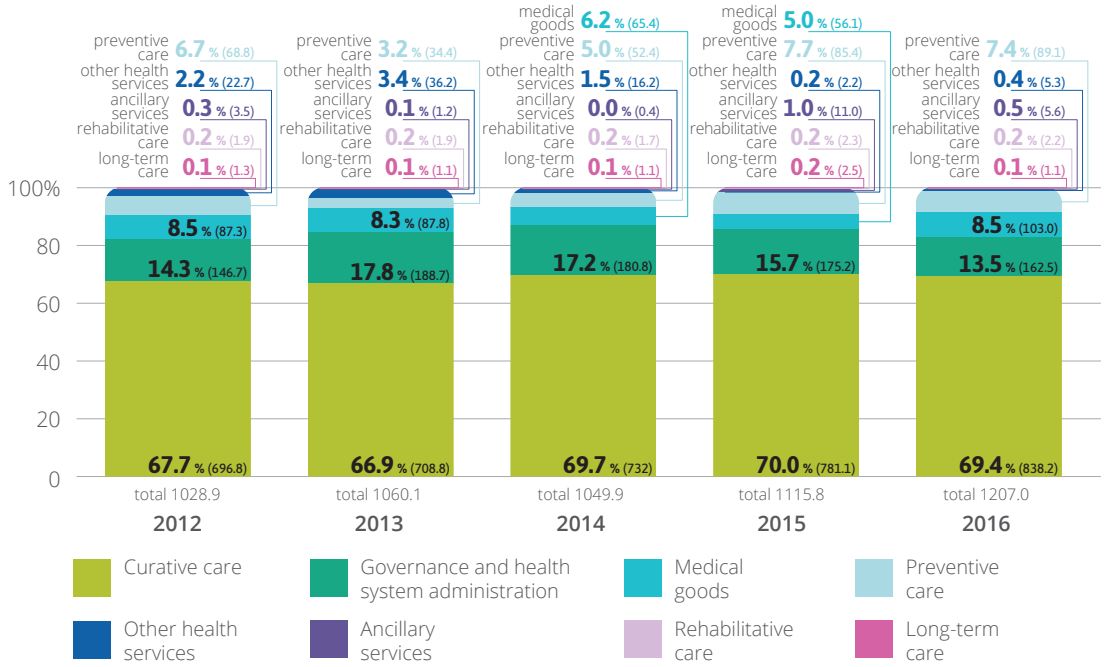
Between 2012 and 2016, spending on curative care increased by more than US$ 100 million from US$ 696.8 million to US$ 838.2 million, and consistently accounted for 67.7–69.4% of the health-care expenditure on health-care functions. The amount spent on long-term care and rehabilitation services remained low throughout the five-year period; although it varied slightly from year to year, it stayed at around US$ 1 million to US$ 2 million. Preventive care spending in 2016 reached US$ 89.1 million. Note that certain preventive services funded by the government cannot be captured because of a lack of data, which may lead to underestimation. In the future, with better data on preventive services and tracking of noncommunicable disease services, there may be changes to the data on preventive care.

Table 11: Current health expenditure by health-care function (in US$ million)

Health-care function	2012	2013	2014	2015	2016
Long-term care (health)	1.3	1.1	1.1	2.5	1.1
Rehabilitative care	1.9	1.9	1.7	2.3	2.2
Ancillary services	3.5	1.2	0.4	11.0	5.6
Other health-care services	22.7	36.2	16.2	2.2	5.3
Preventive care	68.8	34.4	52.4	85.4	89.1
Medical goods (non-specified by function)	87.3	87.8	65.4	56.1	103.0
Governance and health system and financing administration	146.7	188.7	180.8	175.2	162.5
Curative care	696.8	708.8	732.0	781.1	838.2
Total	**1028.9**	**1060.1**	**1049.9**	**1115.8**	**1207.0**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

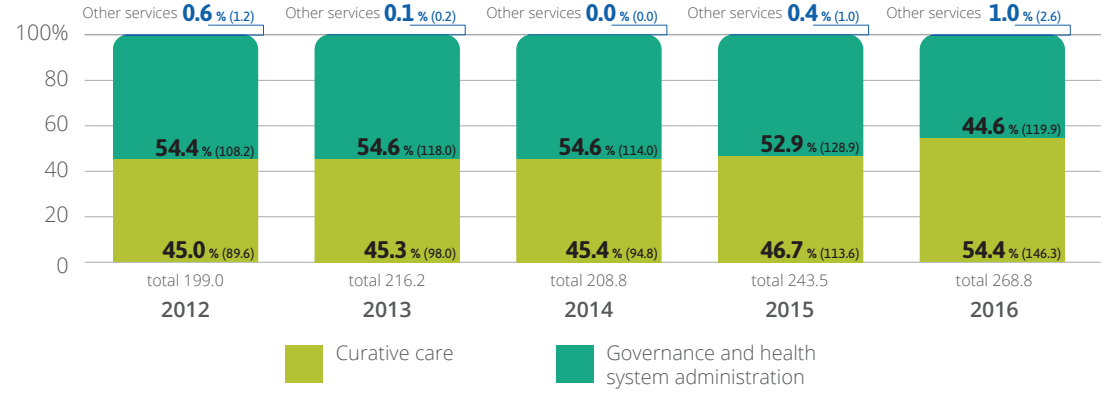
Fig. 13: Share of health expenditure by function (in US$ million)



5.6.1
Government health expenditure by health-care function

The Ministry of Health expenditure focused on two main health activities: curative care, and governance and health system administration. There were no disaggregated data available on the governance and health system administration function under which health promotion and preventive care were included. The Ministry spent more on governance and health system administration than on curative care over the past five years except in 2016 (Fig. 14).

Fig. 14: Share of government health expenditure by health-care function (in US$ million)



5.6.2 Health expenditure by health-care function from external sources of funding

The available information from the donors on funding of health activities showed that most donor funding was allocated to preventive activities and curative care, and this was followed by health system strengthening and quality improvement. The donor funding for preventive care, and governance and health system and financing administration increased from US$ 67.2 million and US$ 37.5 million, respectively, in 2012 to US$ 88.0 million and US$ 42.6 million in 2016 (Table 12). However, expenditure on curative care activities decreased by US$ 10 million within the same period of time. Spending on long-term care, ancillary services and rehabilitative care changed little between 2012 and 2016.

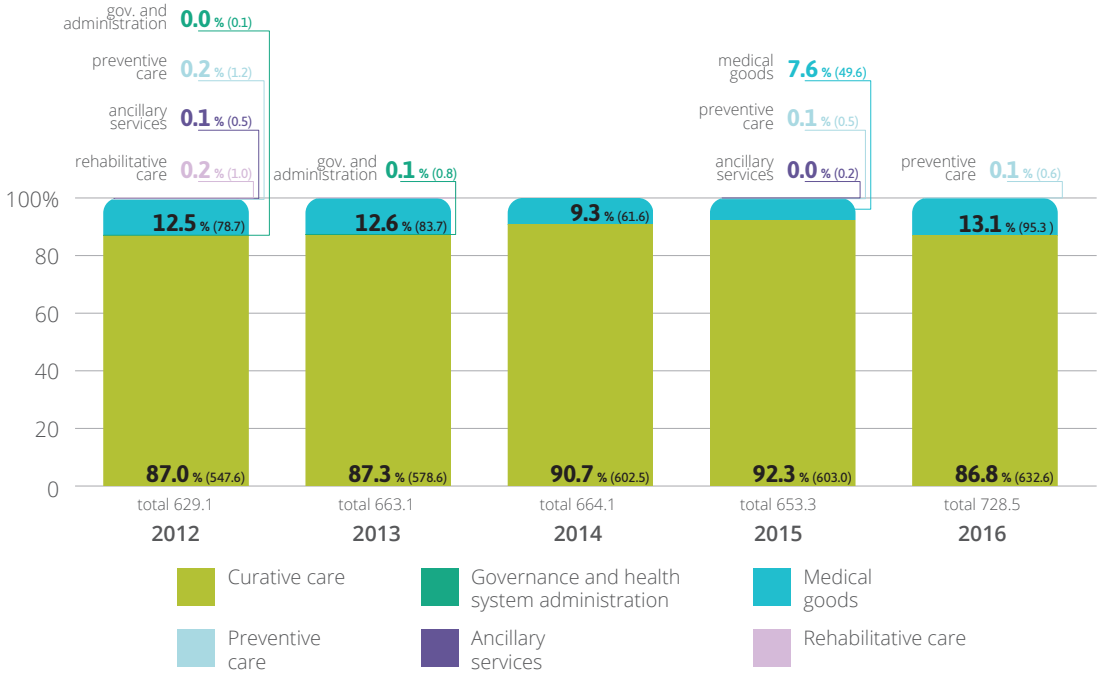
Table 12: Current health expenditure by health-care function from external sources of funding (in US$ million)

Health-care function	2012	2013	2014	2015	2016
Long-term care (health)	1.2	1.1	1.1	2.5	1.1
Rehabilitative care	0.9	1.9	1.7	2.3	2.2
Ancillary services	0.5	1.3	0.4	9.5	4.7
Other health-care services	21.4	36.2	3.6	1.7	5.0
Preventive care	67.2	34.4	52.4	84.6	88.0
Medical goods (non-specified by function)	8.6	3.8	16.1	5.7	7.0
Governance and health system and financing administration	37.5	69.9	66.8	46.4	42.6
Curative care	59.4	32.2	34.7	57.8	49.6
Total	**196.7**	**180.8**	**176.8**	**210.5**	**200.2**

5.6.3 Health expenditure by health-care function from OOP spending

Unsurprisingly, OOP health expenditure (at 87% in 2016) on curative care was significantly higher than on long-term care, ancillary services and rehabilitative care. Medical goods (not specified by function) accounted for US$ 78.7 million in 2012 and had increased to US$ 95.3 million in 2016 (Fig. 15).

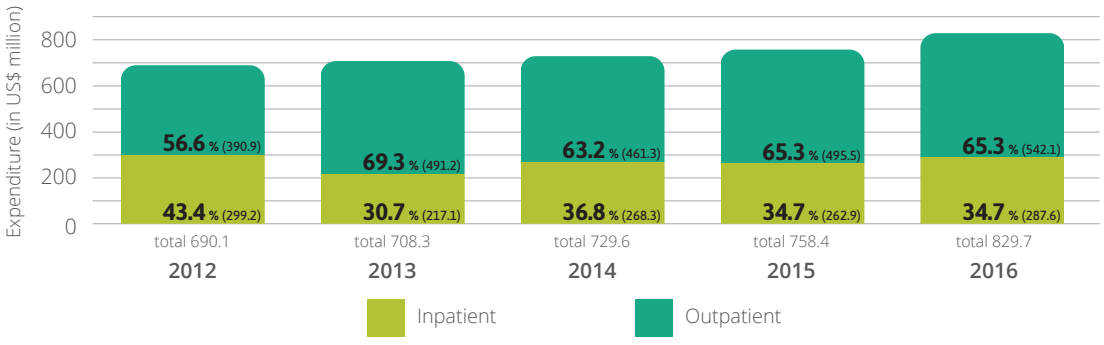
Fig. 15: Share of current health expenditure by health-care function from out-of-pocket payments (in US$ million)



5.6.4 Health expenditure on curative care

Curative care is further disaggregated to show the expenditure on inpatient and outpatient care. Expenditure on outpatient curative care during the five years from 2012 to 2016 was predominant and less was spent on inpatient care. Outpatient care expenditure increased in 2013 to US$ 491.2 million, decreased slightly in 2014 to US$ 461.3 million and showed an upward trend in 2015 and 2016. Inpatient care ranged from US$ 217.1 million to US$ 287.6 million during the same period (Fig. 16).

Fig. 16: Current health expenditure on curative care (in US$ million)



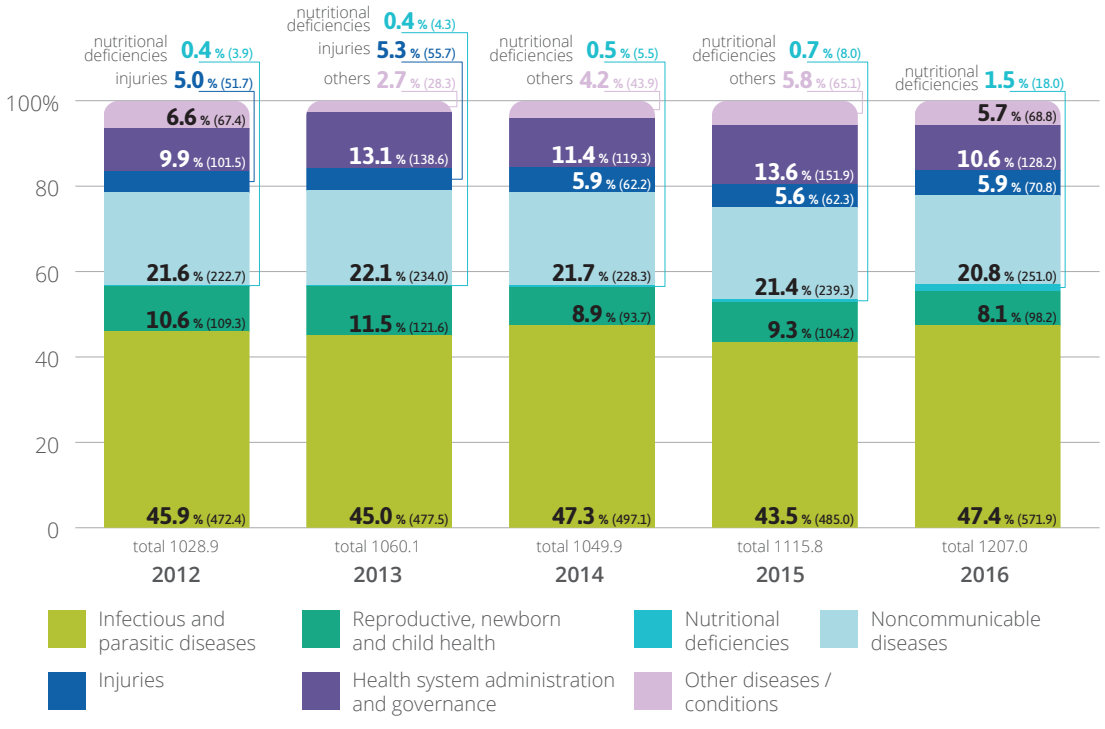
5.7
Health expenditure by disease

Between 2012 and 2016, half of disease expenditure in Cambodia continued to be on infectious and parasitic diseases (Fig. 17). Total spending on infectious diseases is continuously increasing; in 2012, it was US$ 472.4 million, and it had risen to US$ 571.9 million by 2016 – an increase of 21.1%. A total increase in spending on infectious diseases of US$ 100 million reflects the constant burden of communicable diseases. The spending on infectious disease showed the largest growth over the past five years. In terms of spending, the two most important infectious diseases were respiratory infections (45% of expenditure) and diarrhoeal diseases (30% of expenditure) in 2016 (Fig. 18). Spending on nutritional deficiencies also increased from US$ 3.9 million to US$ 18.0 million from 2012 to 2016, a 3.5-fold increase. This reflects the challenge of stunting and malnutrition that Cambodians are still facing.

During the five years from 2012 to 2016, noncommunicable diseases continued to account for a quarter of the health spending, and this has marginally increased from US$ 222.7 million in 2012 to US$ 251.0 million in 2015.

CHE from all sources of funding on health system governance and administration – mainly health system strengthening and quality improvement – has fluctuated.

Fig. 17: Current health expenditure by disease (in US$ million)

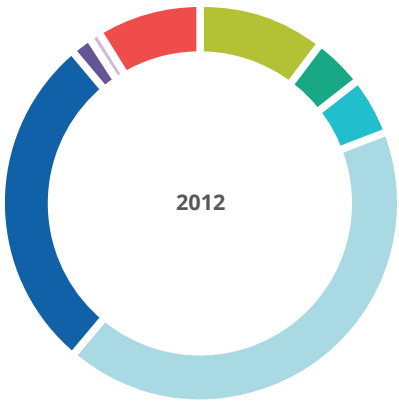


5.7.1
Current health expenditure by communicable disease

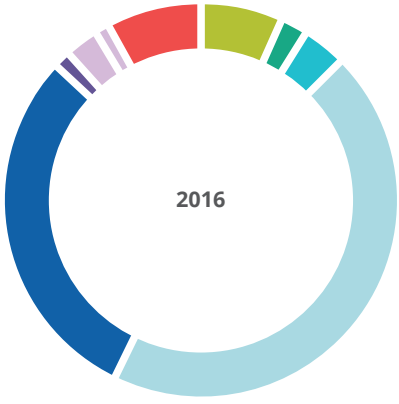
The disaggregated expenditure by communicable disease shows that the highest expenditure was on respiratory infection, followed by diarrhoeal diseases (Fig. 18). In 2012, expenditure on respiratory infections was US$ 198.0 million (41.9% of CHE on communicable diseases). This had increased to US$ 254.7 million (44.5%) in 2016, while spending on diarrhoeal diseases showed a similar trend. Vertical programme expenditures (mainly funded by external sources) were significantly reduced.

Fig. 18: Current health expenditure on communicable diseases, 2012 and 2016 (in US$ million)

HIV/AIDS	**49.6**	(10.5%)
Tuberculosis (TB)	**19.1**	(4.0%)
Malaria	**22.3**	(4.7%)
Respiratory infections	**198.0**	(41.9%)
Diarrhoeal diseases	**131.3**	(27.8%)
Neglected tropical diseases	**9.1**	(1.9%)
Vaccine-preventable diseases	**1.6**	(0.3%)
Hepatitis	**0.5**	(0.1%)
Other infectious and parasitic diseases	**41.0**	(8.7%)
Total	472.5	



HIV/AIDS	**39.7**	(6.9%)
Tuberculosis (TB)	**12.5**	(2.2%)
Malaria	**20.3**	(3.6%)
Respiratory infections	**254.7**	(44.5%)
Diarrhoeal diseases	**171.5**	(30.0%)
Neglected tropical diseases	**7.7**	(1.3%)
Vaccine-preventable diseases	**17.3**	(3.0%)
Hepatitis	**2.5**	(0.4%)
Other infectious and parasitic diseases	**45.6**	(8.0%)
Total	571.8	



5.7.2
Current health expenditure on noncommunicable diseases

Looking at expenditure on noncommunicable diseases in detail reveals that diseases of the digestive system accounted for the largest portion (Table 13 and Fig. 19). Sense organ disorders including ophthalmic diseases accounted for US$ 27.9 million in 2016, whereas expenditure on cardiovascular diseases was US$ 20.6 million in 2016.

CHE on neoplasms/cancer and diabetes was still relatively small, although they are becoming a major concern. In 2016, they accounted for expenditures of only US$ 2.9 million and US$ 2.7 million, respectively.

Table 13: Current health expenditure by noncommunicable disease
(in US$ million)

Noncommunicable disease	2012	2013	2014	2015	2016
Neoplasms/cancer	2.8	2.6	3.2	3.2	2.9
Diabetes	1.9	1.5	1.8	2.3	2.7
Other endocrine/metabolic disorders	5.7	5.9	7.3	6.7	7.8
Cardiovascular diseases	17.7	18.3	17.9	20.5	20.6
Mental disorders/ neurological conditions	11.8	12.2	15.3	15.2	10.5
Diseases of the digestive system	100.0	106.4	95.7	99.2	107.2
Diseases of the genito-urinary system	12.3	13.1	13.1	13.3	15.5
Sense organ disorders	22.2	25.9	27.4	28.5	27.9
Oral diseases	6.6	4.8	4.9	4.6	6.2
Other noncommunicable diseases	41.8	43.2	41.7	45.8	49.8
Total	**222.7**	**234.0**	**228.3**	**239.3**	**251.0**

Due to rounding, numbers presented in the table may not add up precisely to the totals indicated.

5.7.3
Expenditures on national programmes funded by donors

In Cambodia, national programmes such as those for HIV/AIDS, TB and reproductive, maternal, newborn and child health are traditionally financed directly by donors. Fig. 20 shows the trend of expenditures by disease programmes funded by donors and NGOs. Spending on HIV/AIDS was the highest among the vertical programmes, while spending on TB was relatively low. Expenditure on HIV/AIDS and reproductive, maternal, newborn and child health significantly decreased, while resources allocated to malaria programmes remained stable from 2012 to 2016. As Cambodia continues its economic growth, the amount of financing it qualifies for under global health initiatives will decrease, posing challenges for the sustainability of programmes and services. Collaboration between donors and the Government to plan for the future can support the transition of functions to local technical capacity and appropriate phasing of the expansion of domestic financing.

Fig. 19: Current health expenditure by noncommunicable disease (in US$ million)

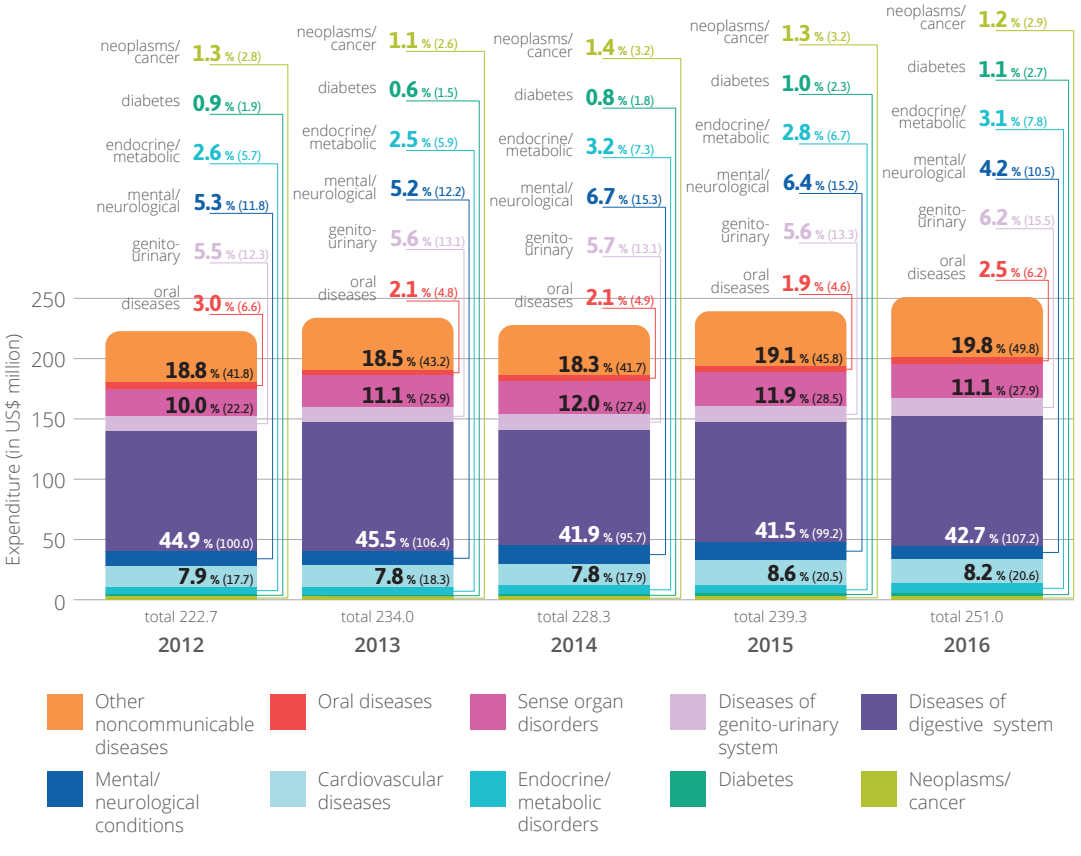
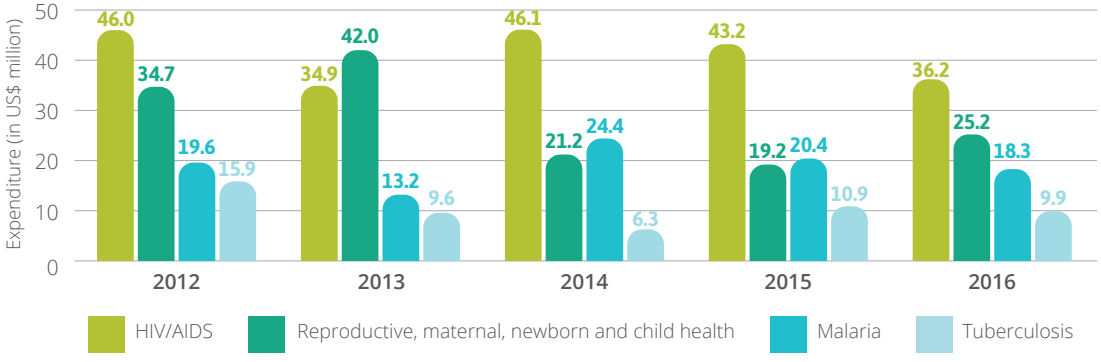


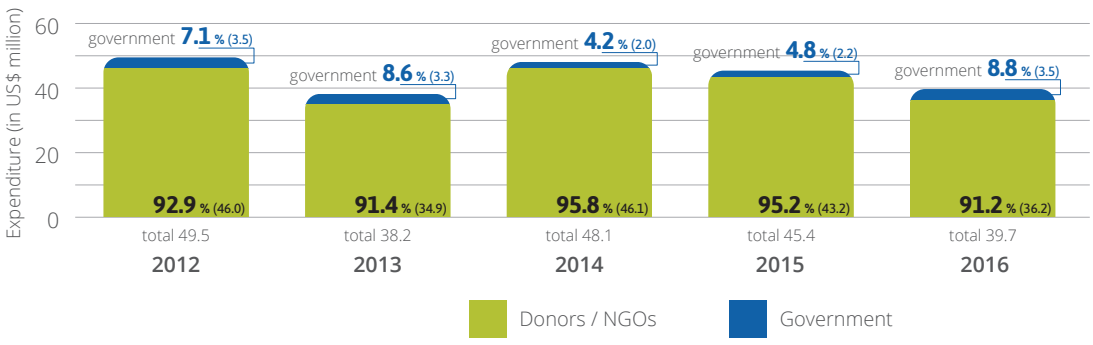
Fig. 20: Expenditures on national programmes supported by donor funding (in US$ million)



5.7.4 Sources of funding for national programmes

For the national programme on HIV/AIDS, the two main sources of funding were donors and NGOs. In 2012, spending on HIV/AIDS by donors and NGOs was US$ 46 million, which is 92.9% of the funding for this programme. The expenditure was reduced to US$ 36.2 million in 2016. Government spending on HIV/AIDS was US$ 3.5 million (8.8%) in 2016 (Fig. 21). HIV/AIDS services are offered free of charge and have relied mainly on financing from donors and NGOs. No information was available on HIV/AIDS services offered by the private sector.

Fig. 21: Expenditure on HIV/AIDS by source of funds (in US$ million)



NGO: nongovernmental organization

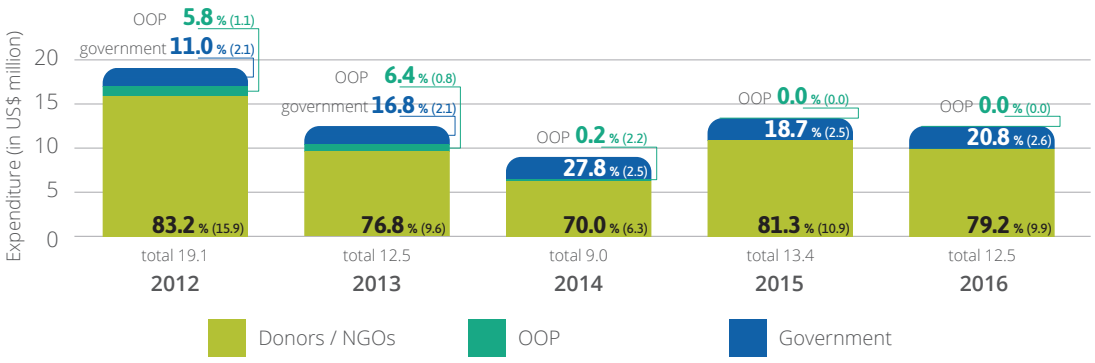
There are three keys sources of funding for national programmes on TB, malaria and reproductive, maternal, newborn and child health. These consist of a combination of mainly donors funds and government funds supplemented by OOP payments (Figs. 22–24). Half of the expenditure on reproductive, maternal, newborn and child health is from OOP payments.

TB services are free for users; however, OOP payments are made prior to a confirmed TB diagnosis. In 2012, US$ 1.1 million worth of OOP payments were recorded. Since 2015, there have been no reports of OOP expenditure on TB. Funding from donors for TB services decreased by US$ 6.6 million between 2012 and 2016 – from US$ 15.9 million to US$ 9.9 million. In response, the government expenditure on TB has increased (Fig. 22).

Expenditure on malaria (Fig. 23) showed similar financing patterns to those seen for TB; however, government financing was on average US$ 1 million per year, while donors and NGOs accounted for around US$ 20 million and OOP payments for US$ 1 million.

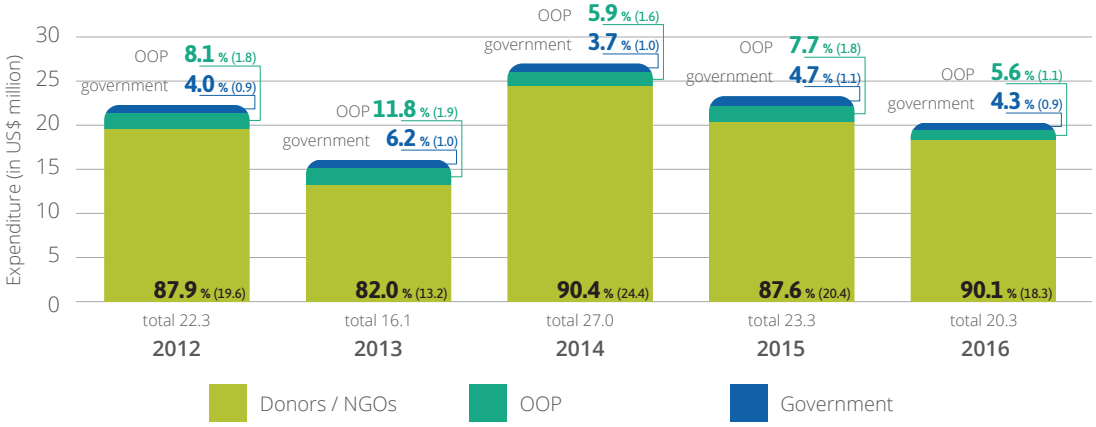
CHE on reproductive, maternal, newborn and child health was around US$ 100 million per year, of which 48% came from OOP payments and 26% from donor funding. However, government spending increased from US$ 15.0 million in 2012 to US$ 25.8 million in 2016. This reflects an increase in government resource allocation for reproductive, maternal, newborn and child health (Fig. 24).

Fig. 22: Expenditure on tuberculosis by source of funds (in US$ million)



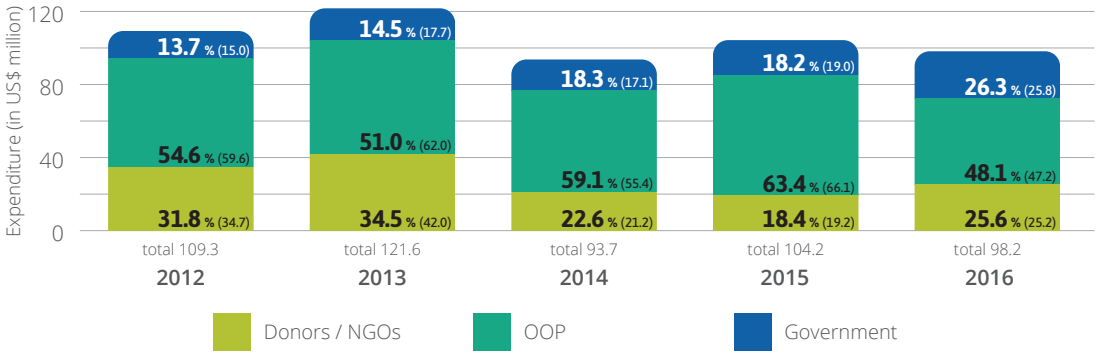
OOP: out-of-pocket expenditure; NGO: nongovernmental organization

Fig. 23: Expenditure on malaria by source of funds (in US$ million)



OOP: out-of-pocket expenditure; NGO: nongovernmental organization

Fig. 24: Expenditure on reproductive , maternal, newborn and child health by sources of funds (in US$ million)



OOP: out-of-pocket expenditure; NGO: nongovernmental organization

5.8 Health expenditure by beneficiary

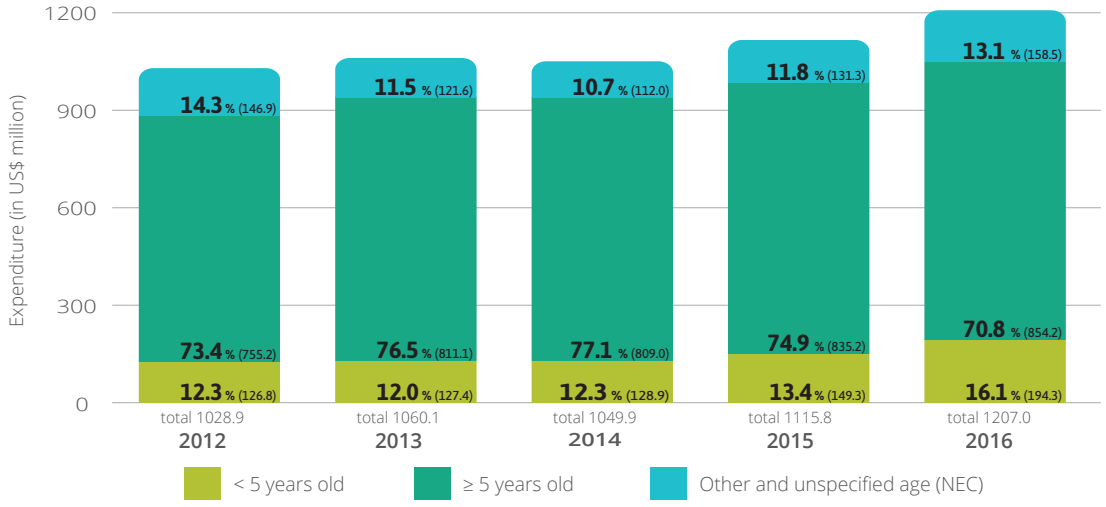
Beneficiaries are the recipients of the health-care goods and services. There are two dimensions that can be used to examine health expenditure by beneficiary – split by age and by sex.

Spending for both age groups (under 5 years of age and over 5 years of age) is on the rise: spending on beneficiaries aged 5 years and older increased from US$ 755.2 million in 2012 to US$ 854.2 million in 2016, an increase of around US$ 100 million. For children aged less than 5 years, annual spending between 2012 and 2014 was around US$ 128 million and rapidly increased to reach US$ 194.3 million in 2016, a 50% rise from 2012 (Fig. 25).

When spending is split by sex, females spend more on health services than males– 65% in 2015 and 57% in 2016.

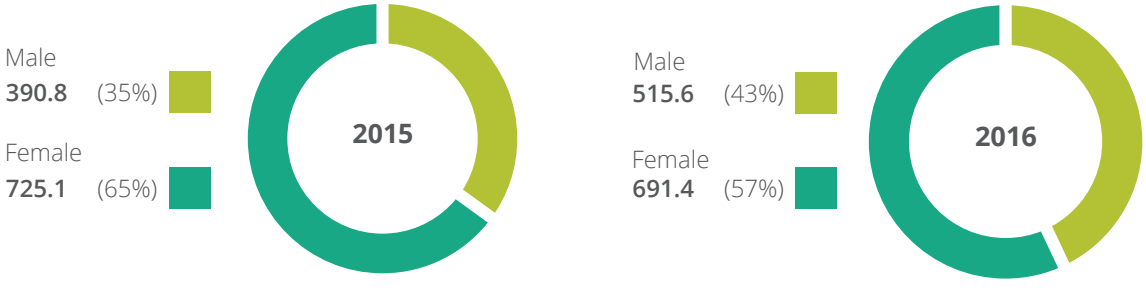
The amount spent on females' health decreased from US$ 725.1 million to US$ 691.4 million from 2015 to 2016, and spending on males, health rose from US$ 390.8 million to US$ 515.6 million (Fig. 26).

Fig. 25: Current health expenditure by age group (in US$ million)



NEC: not elsewhere classified

Fig. 26: Health expenditure by sex, 2015 and 2016 (in US$ million)



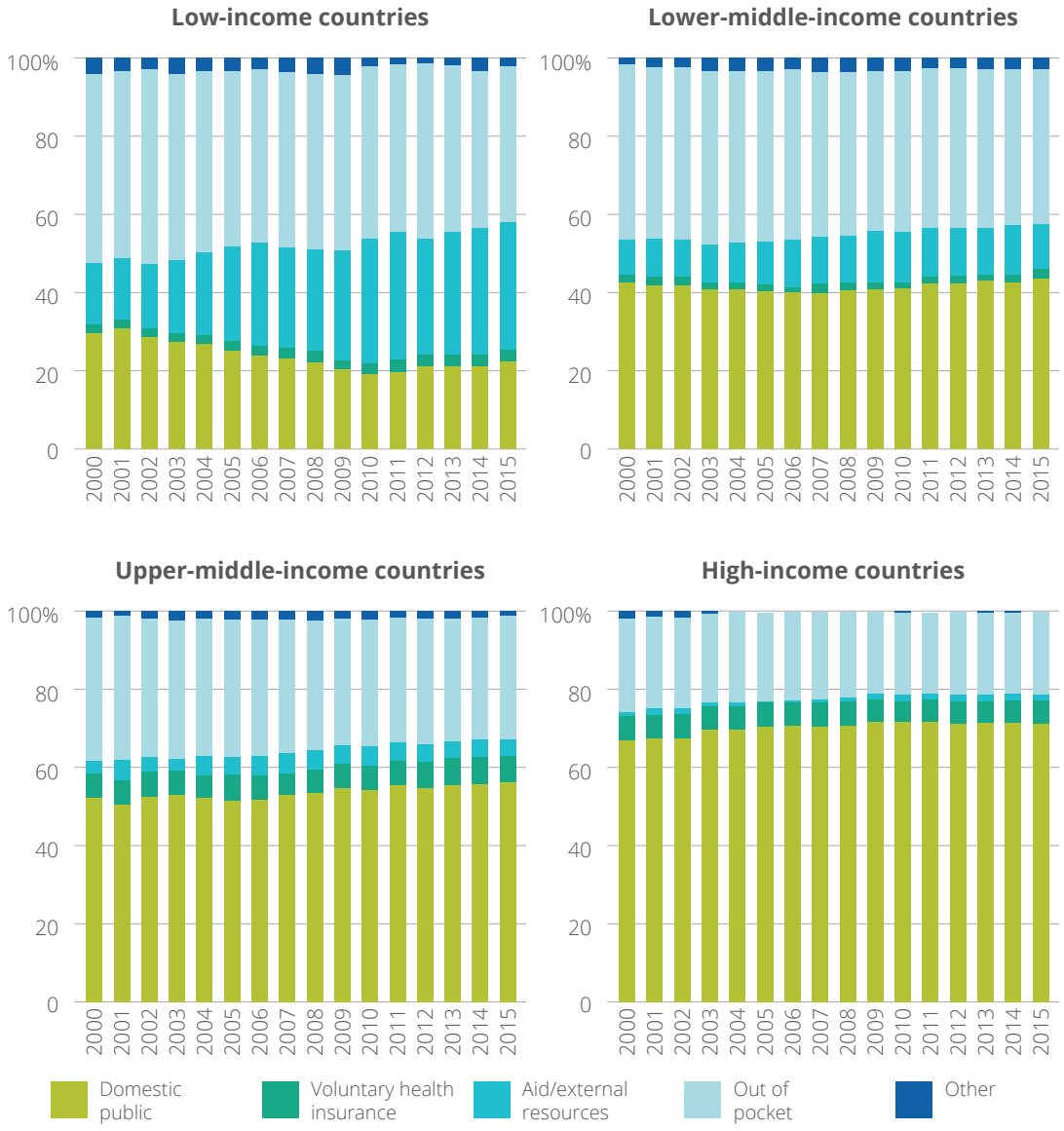
6

Country comparisons

(MACRO-LEVEL INDICATORS)

Cambodia's economic growth is expected to continue in the medium term. Globally, it has one of the highest rates of GDP growth – 7.0% in 2016. In 2015, Cambodia became a lower-middle-income country and had a GDP per capita of US$ 1270 (2016). The recent global health expenditure report *New Perspective on Global Health Spending for Universal Health Coverage* released in December 2017 presents a comparison across multiple health financing indicators for different income status groups (Fig. 27) *(4)*. The following section benchmarks Cambodia's health expenditure data against the average of countries with the same income group status, as well as to overall global trends for countries in the middle- and high-income groups. This captures both the progress of Cambodia and the lessons learnt from other countries, which can inform domestic health financing policy.

Fig. 27: Trends in health expenditure source by country income group, 2000–2015



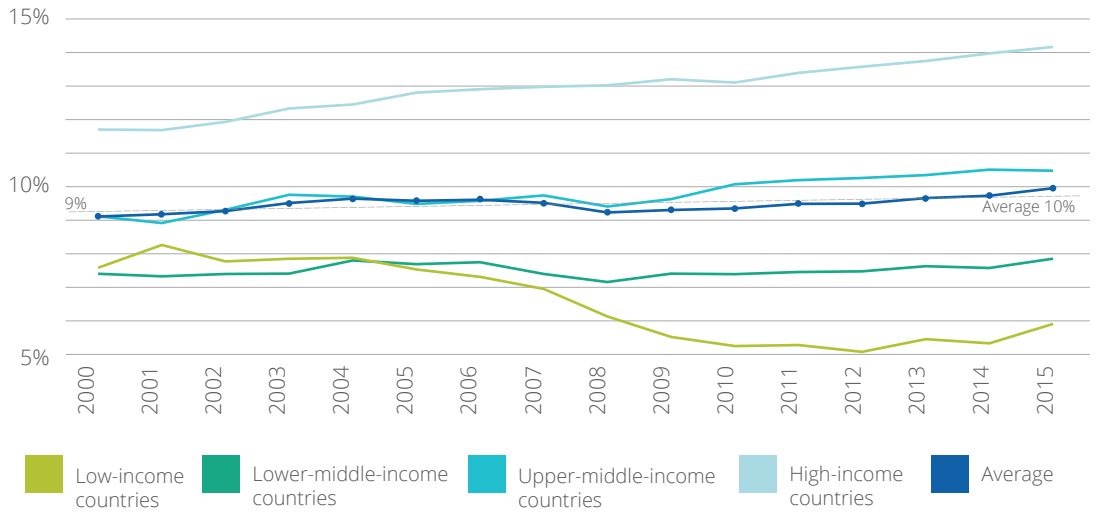
Source: Xu et al., 2018 *(4)*.

In terms of sources of funds for CHE, among lower-middle-income countries, domestic financing accounts for more than 40%. In Cambodia, this figure was 22.3% in 2016. Over time, the trend is for external resources to shrink in lower-middle-income countries compared to low-income countries. Comparing low-income countries to lower-middle-income countries, the share of external resources is halved from 20% to 10%, respectively. Since Cambodia still relies on donor financing for health spending, the economic transition as reflected through the data shows that this trend requires the Government to plan for a smooth exit when donor finances cease. In lower-middle-income countries, OOP expenditure is 40% of CHE. In Cambodia, the proportion of

OOP spending remained at around 60% in 2016: from 2012 to 2016, the share of OOP spending had not changed.

Prioritization of health is measured using public domestic expenditure on health as a percentage of total public expenditure. The global average was 10% in 2015, whereas for lower-middle-income countries it was less than 8% (Fig. 28). In Cambodia, public domestic expenditure as a share of total public expenditure was 6.4% (2016), which is less than some other lower-middle-income countries. This trend may be about to change for Cambodia as the Government has made several commitments to increase public spending, including inclusion of civil servants under the social health insurance scheme and expanding coverage for non-formal workers. In addition, co-financing by the Global Fund to Fight AIDS, Tuberculosis and Malaria for the new funding cycle may lead to increases in government spending as new commitments were made to fund antiretrovirals from the government budget.

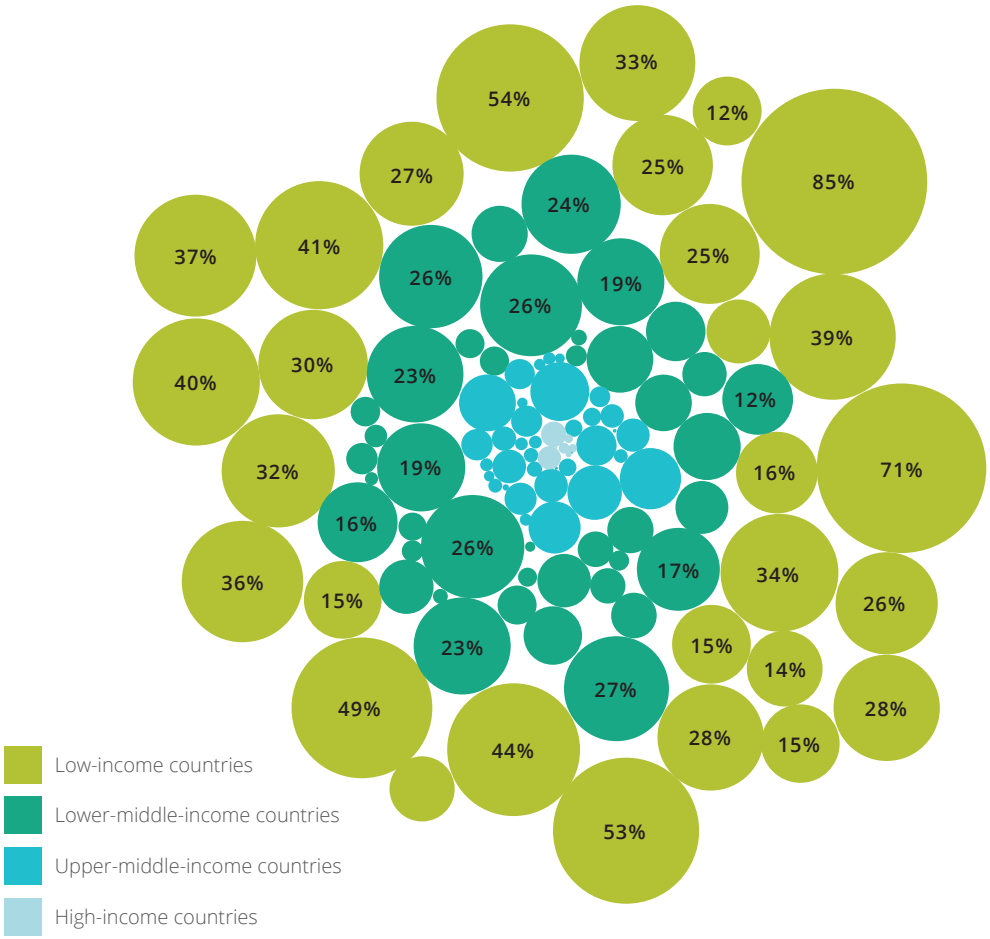
Fig. 28: Public domestic expenditure on health as share of total public expenditure



Source: Xu et al., 2018 *(4)*.

Cambodia's economy is expected to grow. As shown in Fig. 29, external financing as a share of CHE will decrease as the country experiences further economic growth. In the lower-middle-income group, only nine countries receive more than 20% of their CHE from external financing. Cambodia falls into this category. External financing for health is likely to be reduced as the economy continues to grow and Cambodia may no longer qualify for funding from global health financing initiatives.

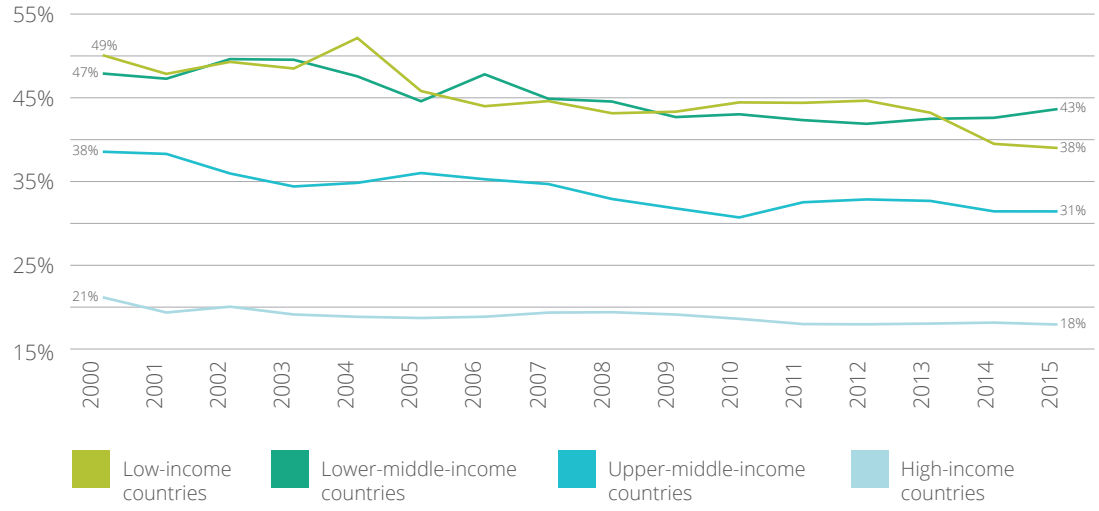
Fig. 29: External financing as share of current health expenditure



Source: Xu et al., 2018 *(4)*.

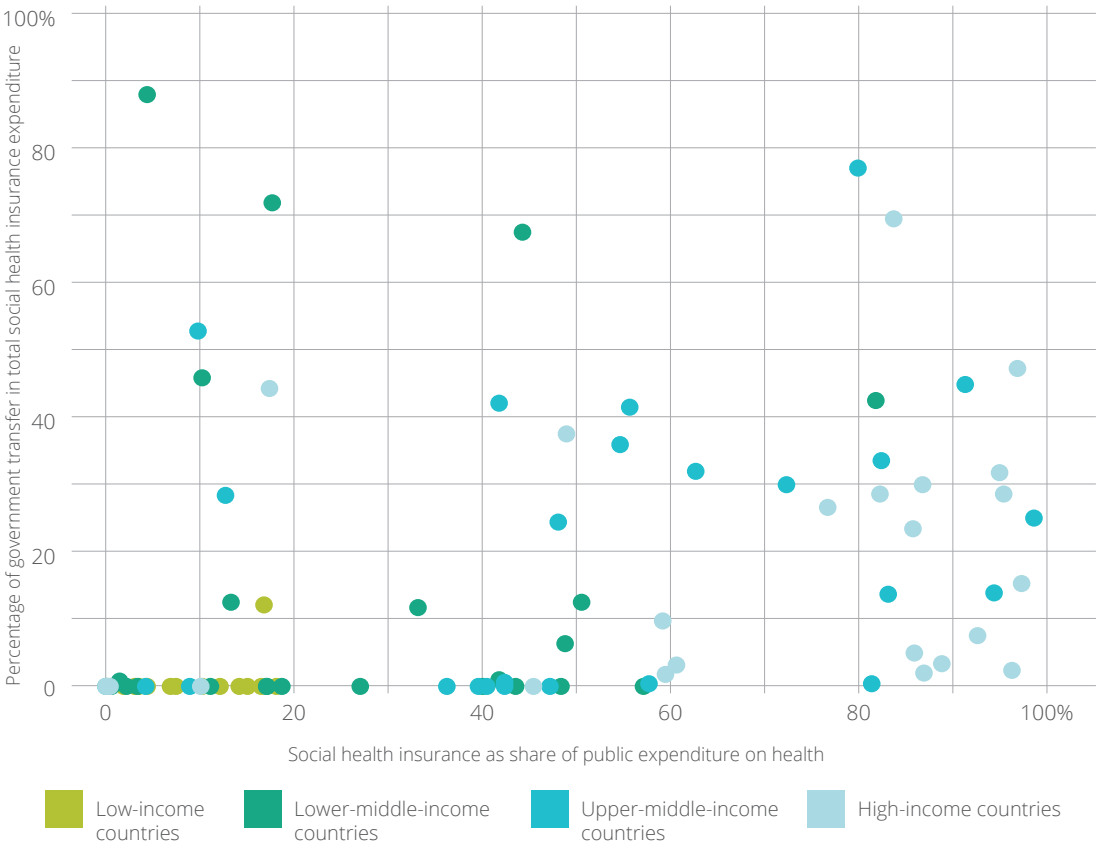
In 2015, the median OOP payment as a share of CHE was 43% for lower-middle-income countries (Fig. 30). In comparison, Cambodia's OOP spending is around 60% of CHE. With new financial protection mechanisms and increased government spending on health, this trend may be curbed and OOP spending reduced.

Fig. 30: Median out-of-pocket payments as share of current health expenditure



Source: Xu et al., 2018 *(4)*.

Fig. 31: Relationship between importance of social health insurance (SHI) to public spending on health and share of SHI expenditure funded from government budget revenues, 2015



Source: Xu et al., 2018 *(4)*.

For upper-middle and high-income countries, there is a pattern of social health insurance schemes being funded through domestic financing (Fig. 31). Some middle-income countries subsidize social health insurance through public spending. The WHO global health expenditure report emphasized that countries with high levels of informal population groups may find it challenging to achieve coverage using the traditional social health insurance mechanism of contribution. One way to bridge this gap is through subsidies from the Government, whether channelled through an existing social health insurance mechanism or from another scheme, which Cambodia can consider in the future.

Regional comparison

In comparison to its neighbouring countries, Cambodia's CHE as a percentage of GDP is 6% (2015), which is similar to that in Viet Nam at 5.7% and higher than in the Philippines, Thailand and the Lao People's Democratic Republic at 4.4%, 3.8% and 2.8%, respectively (Table 14). OOP spending per capita is US$ 41.3 for Cambodia, while spending in the Lao People's Democratic Republic and Thailand is almost half this amount. In Viet Nam and the Philippines, however, it is higher. OOP per capita is highest in the Philippines at US$ 68 and accounts for 54% of CHE. Cambodia has a lower per capita OOP of US$ 48.1; however, it constitutes a greater share of CHE – about 60%. By comparison, Thailand's OOP per capita is US$ 25.5 and accounts for only 11.8% of CHE. In comparison to its neighbours, Cambodia's general government domestic funds spend the least per capita (US$ 14.5), while all other neighbouring country governments contribute between US$ 18.7 (Lao People's Democratic Republic) and US$ 167.3 (Thailand).

Government spending on health

Compared to the Philippines, Thailand and Viet Nam, Cambodia's Government spends less on health as a share of general government expenditure. With regard to social health insurance, in the Lao People's Democratic Republic, the Philippines, Thailand and Viet Nam, broadly speaking, social health insurance has two funding streams – subsidization from government funds and funds from the collection of contributions. Social health insurance funding from the government ranges from 13% to 88%. Cambodia will have some contributions starting in 2018 from the civil servants' scheme, and discussions are under way on the further expansion of coverage for various other population groups. the Philippines, Thailand and Viet Nam are further ahead economically than Cambodia.

Across these selected countries, higher GDP translates to less external resources per capita. Cambodia's rapid economic development may see a trend towards decreasing external funds. Other countries in the region such as the Philippines, Thailand and Viet Nam, which have followed similar paths to socioeconomic development, have had decreases in external funds. It is important to note that country context is important when interpreting the data, even in comparisons across countries.

Table 14: Country indicator comparison

Indicators	Thailand	Cambodia	Lao People's Democratic Republic	Viet Nam	Philippines
Population (in thousands)	68 657.6	15 517.6	6 664.0	93 571.6	103 320.2
GDP per capita (in US$)	5911	1270	2339	2171	2951
CHE as a percentage of GDP (%)	3.8	6.0	2.8	5.7	4.4
CHE per capita (in US$)	217.1	79.6	53.0	116.7	126.9
GGHE-D per capita (in US$)	167.3	17.7	18.7	48.8	39.8
GGHE-D as a percentage of CHE (%)	77.1	22.3	35.2	41.8	31.4
GGHE-D as a percentage of GGE (%)	16.6	6.4	3.76	7.9	7.4
GGHE-D as a percentage of GDP (%)	2.9	1.3	1.0	2.4	1.4
External health expenditure per capita (in US$)	0.7	13.2	9.0	2.5	0.69
OOP expenditure as a percentage of CHE (%)	11.8	60.4	45.4	43.5	53.5
OOP expenditure per capita (in US$)	25.5	48.1	24.0	50.8	68.0
SHI-G as a percentage of social health insurance (%)	34.3	**	88.1	12.6	67.6

CHE: current health expenditure; GDP: gross domestic product; GGE: general government expenditure; GGHE-D: general government health expenditure domestic; OOP: out-of-pocket payment; SHI-G – government spending on social health insurance

Source: Global Health Expenditure Database (most recent data).

**The Health Equity Fund is not accounted for in SHI because it is a subsidy and not a contributory scheme. In the future, there will be contributions from the Government for the SHI civil servants' scheme.

7 Policy implications

Cambodia has strong political commitment to moving the social health protection agenda forward and setting in place new policies to increase coverage. Challenges remain, including reducing OOP spending, providing equitable access to health services, and investing more in preventive services. Strengthening domestic financing institutions and instituting the right policies to strengthen the health system to provide greater efficiency and equitable access to services is needed despite scarce resources. Increasing government spending can ensure supply-side development and prevent unnecessary OOP spending. The following policy recommendations are based on the findings of the NHA 2012–2016.

Greater efficiency in spending

- Findings show that there is substantial spending on curative care; this may reflect gaps in spending on preventive care. Further analysis may be needed to explore the implications of this finding, as early detection and monitoring may avoid higher expenditures resulting from delayed care-seeking. A transition towards higher prioritization for preventive care, including introduction of policies to increase targeted prevention measures where health spending is high, and institutionalizing incentives for people to seek preventive services is desirable. Exploring primary care spending on outreach and prevention by clinical area may better inform resource needs.

- Private providers attract the largest share of health expenditure, specifically at private clinics. Most Cambodians would choose private providers as their first choice. Utilization and financing data on the private sector are limited. Policies for reporting to support monitoring of prices and quality of service provision would help to assess the burden experienced by Cambodians and provide information on the regulations needed.

- OOP spending has been found to be high for infectious and parasitic diseases, including respiratory infections. There is also a high level of spending on diseases of the digestive system within noncommunicable diseases. This could prompt an assessment of current spending and disease patterns, enabling resource allocation to be aligned with health needs.

- Findings show high OOP spending on pharmaceuticals. Public and private providers should develop and implement strategies that reduce OOP spending for essential medicines, including introduction of policies aimed at containing costs, encouraging generic prescription and control of inappropriate promotion and prescription of medicines.

- Spending at hospitals (both public and private) remains significant, and spending at public hospitals is increasing. Referral mechanisms with proper gate-keeping measures should be developed to avoid bypassing of primary care without compromising access. All schemes – social health insurance and health equity funds – should comply and have financial incentives aligned to the referral process. This can prevent overcrowding and unnecessary spending at higher levels of care if the service required can be managed at a lower level.

Increase domestic funding on health

- General government health expenditure as a share of CHE should be increased by increasing subsidies to health care. Cambodia has low government expenditure on health relative to other countries in the region; increasing government spending may reduce the financial burden on households. Increased government subsidies should be used for social health protection schemes to expand coverage, in particular to vulnerable and at-risk population groups that face catastrophe or impoverishment from health payments.

- Decreased donor financing for national programmes requires proper preparation and transition measures. Future financing gaps need to be assessed to understand how much domestic financing is necessary to sustain the service coverage or programmes and the fiscal space available to support the transition towards domestic financing of different programmes. Options for revenue collection need to be considered for both public health programmes and health financing schemes.

Monitor and evaluate progress

- The analyses of the household survey data on OOP health spending should feed into health expenditure work.

- Monitoring of health expenditures should be conducted on a routine basis, providing timely and relevant data for policy-making and progress on universal health coverage.

Further analysis

- The NHA analysis reveals high expenditures for diarrhoeal diseases and respiratory infections, as well as significant levels of spending at national hospitals. Deeper analysis can be conducted to understand how these resource patterns link with provision of care.

- An analysis of wastage and overcrowding at national hospitals should be undertaken with a view to curbing the pattern of increasing OOP spending at national hospitals. Patterns in the allocation of funds can be analysed and the results applied to readjust patient flows and service provision to avoid hospital overcrowding.

- Spending on outpatient curative care is significantly higher than on inpatient care. Reviewing utilization data and choices of why outpatient curative care services are sought at particular facilities such as private clinics can help to understand patient expectations.

- In order to address the high OOP spending, it is necessary to analyse how Cambodia can increase fiscal space for health domestically through both increasing efficiency and effectiveness of spending, as well as more funding.

- A deeper analysis of the types of curative services accessed at national hospitals and the numbers of cases that can be managed at primary health care level is needed.

Political commitment and strong government stewardship that promotes pro-poor policies and equity can offer greater social protection and alleviate the burden of financial payments. Generating robust evidence such as the NHA informs the development of coherent policies by way of analysis of the connection between resource allocations and health needs. Participation and ownership by government institutions and development partners are critical to ensure that the NHA are based on the best possible data and that the NHA process and findings are considered useful by all stakeholders concerned with policy, planning and resource allocation in the health sector in Cambodia.

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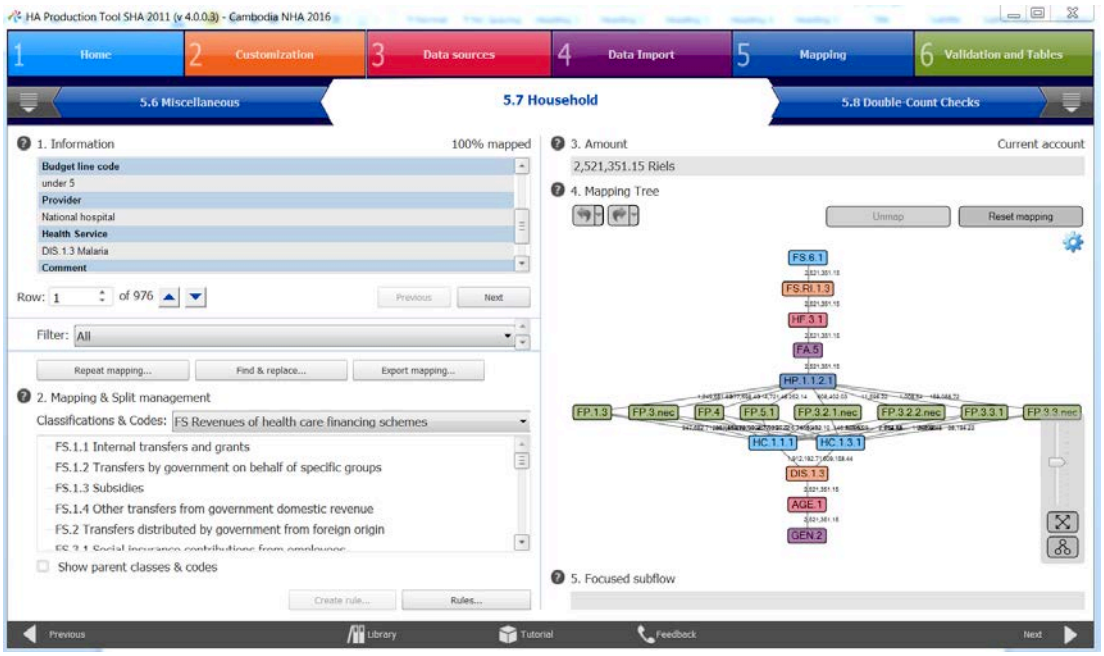
ANNEXES

Annex 1.
Allocation of expenditure

Following data import, each expenditure line was allocated ("mapped") to subcategories of each of the National Health Accounts (NHA) categories included in the NHA 2012–2016 (source, provider, function, factor of provision, disease and age)[1] in the Heath Accounts Production Tool (HAPT) "mapping tree" (Fig. A1.1). For example, one expenditure line could look as follows from the top of the mapping tree: OOP > pharmacy > curative care > pharmaceuticals > respiratory infection > child under 5 years of age, and sex.

Fig. A1.1: Health Accounts Production Tool mapping tree



For several sources and categories, direct allocation of expenditure by category was possible. Due to lack of disaggregated data for certain sources and categories, indirect allocation had to be applied. As an example, allocation of inputs was straightforward for expenditure by government, donors and nongovernmental organizations (NGOs), as this information was directly available. However, this information was not available for out-of-pocket (OOP) expenses incurred in the private sector. In the absence of data on expenditure in the private sector, the government distribution factors (share in % accounted for by each type of input) were applied as a proxy to allocate expenditure in the private sector by inputs.

[1] The NHA methodology also allows for analysis for expenditure by financing channel and agent, but these two categories were not included in the NHA 2012–2016 as they were not considered a priority. They may be considered in future NHA when social health insurance is growing.

Definition and classification of health expenditure

The production of the NHA is based on a conceptual framework called *A System of Health Accounts (SHA 2011)*, which was developed by WHO, the Organisation for Economic Co-operation and Development (OECD) and Eurostat. SHA 2011 is an internationally recognized, standardized framework for analysing health expenditure. According to the SHA 2011 framework, which uses a functional classification of health-care activities, the NHA should include expenditure on "all activities with the primary purpose of improving, maintaining and preventing the deterioration of the health status of persons and mitigating the consequences of ill health through the application of qualified health knowledge (medical, paramedical and nursing knowledge, including technology, and traditional, complementary and alternative medicine)". For example, expenditure on activities with the primary purpose of improving water and sanitation, although beneficial for health, should not be included. However, if the primary purpose of the water and sanitation activity is health-related, for example improving the water supply to health centres, such expenditure should be included. Following the same logic, social care for HIV orphans should not be included, while health care for HIV orphans should be included.

Data cleaning, validation and preparation for data import

Data analysis was carried out using a software package designed specifically for NHA software, called the Health Accounts Production Tool (HAPT), version 3.3. The HAPT contains six modules: (i) entry of basic parameters (time period, currency, etc.); (ii) confirming/adapting standardized expenditure subcategories; (iii) generation of questionnaires; (iv) data import; (v) data analysis; and (vi) generation of standardized indicators, graphs and tables.

Submitted donor and NGO questionnaires were reviewed to ensure that required sections had been filled out completely and correctly. Questionnaires were then imported into the HAPT. If data import was unsuccessful because of incomplete or inconsistent data, the NHA team checked the questionnaire again and if necessary contacted the donor or NGO for any additional clarifications, in some cases visiting the offices of the respondents to assist in the completion of questionnaires. This process was time-consuming but valuable for two main reasons. First, it ensured that questionnaires were correctly filled out and included as much detail about each expenditure line as possible. Second, it is an investment in the future production of NHA in Cambodia given that respondents now have a better understanding of the questionnaires.

Data on central and government provincial expenditure were provided in an Excel file with budget and expenditure data for 2012–2016 by two levels of expenditure (central and provinces) and by line item according to the government accounting codes organized by the following main categories: running costs (supplies, utilities, maintenance, transportation and communication), staff (salaries and allowances) and pharmaceuticals. The government expenditure data file was reformatted and then imported into the HAPT. Data on OOP and expenditure through private health insurance were entered directly into the HAPT in the household expenditure and insurance modules.

Annex 2.

Cross-tables of expenditure in 2016

A. Health-care financing schemes by financing source, 2016

Health-care financing schemes, by financing source, HF x FS in 2016		Currency: US dollar ($)											
Revenues of health-care financing schemes		FS.1.1	FS.1.2	FS.3.4	FS.5.1	FS.5.3	FS.6.1	FS.6.3	FS.7.1.1	FS.7.1.2	FS.7.1.3	FS.7.3	**Total All FS**
		Internal transfers and grants	Transfers by government on behalf of specific groups	Other social insurance contributions	Voluntary prepayment from individuals/households	Other voluntary prepaid revenues	Other revenues from households n.e.c.	Other revenues from NPISH n.e.c.	Direct bilateral financial transfers	Direct multilateral financial transfers	Other direct foreign financial transfers	Other direct foreign transfers (n.e.c.)	
HF.1.1.1	Central government schemes	135,107,942							15,054,043	28,844,535	16,643,462		**195,649,981**
HF.1.1.2	State/regional/local government schemes	126,534,840							156,026	897,995			**127,588,861**
HF.1.2.1	Social health insurance schemes			2,332,199									**2,332,199**
HF.2.1.2.1	Community-based				34,003						43,209		**77,212**
HF.2.1.nec	Unspecified voluntary health insurance schemes					7,300,000							**7,300,000**

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Health-care financing schemes, by financing source, HF x FS in 2016		Currency: US dollar ($)											
Revenues of health-care financing schemes		FS.1.1	FS.1.2	FS.3.4	FS.5.1	FS.5.3	FS.6.1	FS.6.3	FS.7.1.1	FS.7.1.2	FS.7.1.3	FS.7.3	**Total All FS**
		Internal transfers and grants	Transfers by government on behalf of specific groups	Other social insurance contributions	Voluntary prepayment from individuals/households	Other voluntary prepaid revenues	Other revenues from households n.e.c.	Other revenues from NPISH n.e.c.	Direct bilateral financial transfers	Direct multilateral financial transfers	Other direct foreign financial transfers	Other direct foreign transfers (n.e.c.)	
HF.2.2.1	NPISH financing schemes (excluding HF.2.2.2)	6,516,031	206,999		149,037		771,771	1,000,000	42,352,293	4,218,777	67,099,977	1,459,482	**123,774,368**
HF.2.2.2	Resident foreign agencies schemes	28,166	177,804						9,144,105	12,474,679	221,553		**22,046,307**
HF.2.2.nec	Unspecified NPISH financing schemes (n.e.c.)								508,288				**508,288**
HF.3.1	Out-of-pocket excluding cost-sharing						726,716,233						**726,716,233**
HF.4.2.2.2	Foreign development agencies schemes										967,993		**967,993**
Total HF		**268,186,979**	**384,803**	**2,332,199**	**183,040**	**7,300,000**	**727,488,004**	**1,000,000**	**67,214,755**	**46,435,986**	**84,976,195**	**1,459,482**	**1,206,961,443**

FS: financing source: HF: health-care financing scheme; NEC: not elsewhere classified; NPISH: non-profit institutions serving households.

B. Health-care functions by provider, 2016 (in US$)

Health-care functions, by provider, HC x HP in 2016					Currency: US dollar								
Health-care functions		Private hospital	NGO hospital	Private clinic	National hospital	Provincial hospital	District hospital	Other private/non medical	Health centre	Pharmacy/Drug store	Providers of preventive care	Providers of health care system administration and financing	**Health-care providers**
HC.1.1.1	General inpatient curative	56,521,992	1,091,234	14,624,890	107,426,350	52,205,516	29,372,246	573,533	2,869,535				**264,685,296**
HC.1.1.2	Specialized inpatient curative care		1,150,089		17,699,367	529,528					641,284		**20,020,268**
HC.1.1.nec	Unspecified inpatient		2,439,962				424,411						**2,864,373**
HC.1.2.2	Specialized day curative		193,463										**193,463**
HC.1.2.nec	Unspecified day curative		106,989				66,776						**173,765**
HC.1.3.1	General outpatient	18,005,951	902,316	365,242,373	47,250,036	9,357,656	5,624,098	15,538,507	71,711,891				**533,632,828**
HC.1.3.2	Dental outpatient curative		21,868										**21,868**
HC.1.3.3	Specialized outpatient		4,053,321		1,261,199	462,417					1,573,442		**7,350,378**
HC.1.3.nec	Unspecified outpatient		507,553				218,643				390,949		**1,117,145**
HC.1.4	Home-based curative care		656,801										**656,801**
HC.1.nec	Unspecified curative care		1,569,259	20,184	76,225	1,054,021	3,275,709				126,031	1,380,218	**7,501,647**
HC.2.nec	Unspecified rehabilitative		1,403,505								812,614		**2,216,119**
HC.3.1	Inpatient long-term care		263,250										**263,250**
HC.3.nec	Unspecified long-term care		796,157										**796,157**
HC.4.1	Laboratory services		73,594		2,125,000							150,000	**2,348,594**
HC.4.2	Imaging services		27,509		2,123,973								**2,151,482**
HC.4.3	Patient transportation		23,197			293,143		5,223			2,474	515,901	**839,938**
HC.4.nec	Unspecified ancillary		221,990										**221,990**
HC.5.1.1	Prescribed medicines				6,375,000					95,134,155			**101,509,155**
HC.5.1.3	Other medical non-durable		857,147										**857,147**
HC.5.2.1	Glasses and Other vision		14,671										**14,671**
HC.5.2.9	All Other medical		17,631			50,601							**68,232**
HC.5.nec	Unspecified medical		310,672								266,971		**577,643**

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Health-care functions, by provider, HC x HP in 2016					Currency: US dollar								
Health-care functions		Private hospital	NGO hospital	Private clinic	National hospital	Provincial hospital	District hospital	Other private/non medical	Health centre	Pharmacy/Drug store	Providers of preventive care	Providers of health care system administration and financing	**Health-care providers**
HC.6.1.2	Nutrition IEC programmes		47,122								6,872,270		**6,919,393**
HC.6.1.nec	Other and unspecified IEC		3,245,113			93,468					6,000,840		**9,339,421**
HC.6.2	Immunisation programmes		728		2,881,500		16,643,462					547,905	**20,073,595**
HC.6.3	Early disease detection				2,769,573	7,857					653,931		**3,431,361**
HC.6.4	Healthy condition										108,258		**108,258**
HC.6.5.1	Planning & Management		1,486,663		410,212	408,254					103,824	1,825,447	**4,234,400**
HC.6.5.2	Monitoring & Evaluation		993		468,814						1,242,523	142,593	**1,854,923**
HC.6.5.3	Procurement & supply		129,856								11,755		**141,611**
HC.6.5.4	Interventions					75,636					38,693		**114,329**
HC.6.5.nec	Unspecified										662,264	2,009,110	**2,671,374**
HC.6.6	Preparing for disaster and											208,330	**210,604**
HC.6.nec	Unspecified preventive		2,035,929	99,614	200,000		375,600				26,321,957	10,961,302	**39,994,402**
HC.7.1.1	Planning & Management											24,990,296	**24,990,296**
HC.7.1.2	Monitoring & Evaluation											887,337	**887,337**
HC.7.1.nec	Other governance and						143,010					133,321,806	**133,464,816**
HC.7.2	Administration of health		17,685				93,555				395,376	685,318	**1,191,933**
HC.7.nec	Unspecified governance,											1,943,672	**1,943,672**
HC.9	Other health care services		3,053,930			241,169	257,269				913,499	841,642	**5,307,509**
Total Health Care Functions		**74,527,943**	**26,720,194**	**379,987,062**	**191,067,250**	**64,779,267**	**56,494,779**	**16,117,263**	**74,581,426**	**95,134,155**	**47,141,229**	**180,410,875**	**1,206,961,443**

HC: health-care function; IEC, information, education and communication; NEC: not elsewhere classified; NGO: nongovernmental organization.

C. Financing schemes by health-care provider, 2016

Financing schemes, by Providers, HF x HP in 2016		Currency: US dollar																
Financing schemes		HP.1.1	HP.1.3	HP.3.1.2	HP.3.4.1	HP.3.4.5	HP.3.4.6	HP.3.4.9	HP.3.5	HP.3.nec	HP.4	HP.5.1	HP.6	HP.7	HP.8	HP.9	HP.nec	All HP
		General hospitals	Specialised hospitals (Other than mental health hospitals)	Offices of mental medical specialists	Family planning centres	Non-specialised ambulatory health care centres	Primary health care center	All Other ambulatory centres	Providers of home health care services	Unspecified providers of ambulatory health care	Providers of ancillary services	Pharmacies	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	Rest of the world	Unspecified health care providers (n.e.c.)	
HF.1.1.1	Central government schemes	50,216,157	5,217,691			1,071,337							3,068,333	136,076,463				195,649,981
HF.1.1.2	State/regional/local government schemes	53,271,979					57,464,198							16,852,684				127,588,861
HF.1.2.1	Social health insurance schemes	2,288,890				43,309												2,332,199
HF.2.1.2.1	Community-based insurance	77,212																77,212
HF.2.1.nec	Unspecified voluntary health insurance schemes	7,125,213				174,787												7,300,000

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Financing schemes, by Providers, HF x HP in 2016		Currency: US dollar																
Financing schemes		HP.1.1	HP.1.3	HP.3.1.2	HP.3.4.1	HP.3.4.5	HP.3.4.6	HP.3.4.9	HP.3.5	HP.3.nec	HP.4	HP.5.1	HP.6	HP.7	HP.8	HP.9	HP.nec	All HP
		General hospitals	Specialised hospitals (Other than mental health hospitals)	Offices of mental medical specialists	Family planning centres	Non-specialised ambulatory health care centres	Primary health care center	All Other ambulatory centres	Providers of home health care services	Unspecified providers of ambulatory health care	Providers of ancillary services	Pharmacies	Providers of preventive care	Providers of health care system administration and financing	Rest of economy	Rest of the world	Unspecified health care providers (n.e.c.)	
HF.2.2.1	NPISH financing schemes (excluding HF.2.2.2)	69,475,074		191,886	230,966			47,122	3,484,369	785,145	7,099		30,995,557	12,939,165	1,087,159	4,134,028	396,797	123,774,368
HF.2.2.2	Resident foreign agencies schemes				552,677								6,770,799	14,542,563		180,268		22,046,307
HF.2.2.nec	Unspecified NPISH financing schemes (n.e.c.)												508,288					508,288
HF.3.1	Out-of-pocket excluding cost-sharing	599,637,021				14,827,830	17,117,228					95,134,155						726,716,233
HF.4.2.2.2	Foreign development agencies schemes								967,993									967,993
Total Financing schemes		**782,091,546**	**5,217,691**	**191,886**	**783,642**	**16,117,263**	**74,581,426**	**47,122**	**4,452,362**	**785,145**	**7,099**	**95,134,155**	**41,342,976**	**180,410,875**	**1,087,159**	**4,314,296**	**396,797**	**1,206,961,443**

HF: health-care financing scheme; HP: health-care provider; NEC: not elsewhere classified; NPISH: non-profit institutions serving households.

D. Financing schemes schemes by health-care function, 2016

Financing schemes, by health-care function, HF x HC in 2016										Currency: US dollar
	Financing schemes	HC.1 Curative care	HC.2 Rehabilitative care	HC.3 Long-term care (health)	HC.4 Ancillary services (non-specified by function)	HC.5 Medical goods (non-specified by function)	HC.6 Preventive care	HC.7 Governance, and health system and financing administration	HC.9 Other health care services not elsewhere classified (n.e.c.)	**All Health care functions**
HF.1.1.1	Central government schemes	38,041,966			948,142		32,532,518	123,610,501	516,853	**195,649,981**
HF.1.1.2	State/regional/local government schemes	110,736,177						16,852,684		**127,588,861**
HF.1.2.1	Social health insurance schemes	2,332,199								**2,332,199**
HF.2.1.2.1	Community-based insurance	42,722						17,398	17,092	**77,212**
HF.2.1.nec	Unspecified voluntary health insurance schemes (n.e.c.)	7,300,000								**7,300,000**

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Financing schemes, by health-care function, HF x HC in 2016									Currency: US dollar
	Financing schemes	HC.1 Curative care	HC.2 Rehabilitative care	HC.3 Long-term care (health)	HC.4 Ancillary services (non-specified by function)	HC.5 Medical goods (non-specified by function)	HC.6 Preventive care	HC.7 Governance, and health system and financing administration	HC.9 Other health care services not elsewhere classified (n.e.c.)	**All Health care functions**
HF.2.2.1	NPISH financing schemes (excluding HF.2.2.2)	48,010,852	2,216,119	263,250	4,613,861	7,892,693	43,167,669	13,402,318	4,207,605	**123,774,368**
HF.2.2.2	Resident foreign agencies schemes						12,885,196	8,595,152	565,958	**22,046,307**
HF.2.2.nec	Unspecified NPISH financing schemes						508,288			**508,288**
HF.3.1	OOP excluding cost-sharing	631,582,078				95,134,155				**726,716,233**
HF.4.2.2.2	Foreign development agencies schemes	171,836		796,157						**967,993**
Total		**838,217,832**	**2,216,119**	**1,059,407**	**5,562,003**	**103,026,848**	**89,093,671**	**162,478,054**	**5,307,509**	**1,206,961,443**

HF: health-care financing scheme; HC: health-care function; NEC: not elsewhere classified; NPISH: non-profit institutions serving households; OOP: out-of-pocket expenditure

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