

Global report

# New Perspectives on Global Health Spending for Universal Health Coverage



World Health  
Organization

This WHO report  
summarizes the latest  
internationally comparable  
data on health spending  
between 2000 and 2015

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## ACKNOWLEDGEMENTS

This report was the product of the collective effort of a large number of people around the world, led by the Health Expenditure Tracking team in WHO Headquarters in Geneva. The authors of the report are Ke Xu, Agnes Soucat, Joe Kutzin, Callum Brindley, Elina Dale, Nathalie Van de Maele, Tomas Roubal, Chandika Indikadahena, Hapsa Toure, and Veneta Cherilova.

We are grateful for the contributions of numerous individuals and agencies for their support in making this paper possible, and in particular, for their contributions to improving the quality and completeness of the data used for the analysis. We wish in particular to thank Maria Petro Brunal of the Global Fund to Fight HIV, TB and Malaria and the P4H Coordination Desk team for their contributions to the final production of the report. Many people contributed to the collection, improvement, and appropriate classification of the data that form the basis of this report. From within WHO, these include H  l  ne Barroy, Inke Mathauer, Fahdi Dkhimi, Matthew Jowett, Justine Hsu, Grace Kabaniha, Seydou Coulibaly, Benjamin Nganda, Hyppolite Kalambay Ntembwa, Annie Chu, Maria Pena, Llu  s Vinyals, Hui Wang, Priyanka Saksena, Awad Mataria, Ilker Dastan, Tam  s Evetovits, Sara Thomson, Melitta Jakob, Baktygul Akkazieva, Camilo Cid and Claudia Pescetto, and many of our country office staff. We also appreciate the support provided by colleagues from the European Observatory on Health Systems and Policies in helping us to identify data on revenue sources for many countries in that region. Thanks also go to the consultants that were contracted by WHO over

the past year for their help in preparing the data publication: In  s Ayadi, Jean-Edouard Doamba, Evgeniy Dolgikh, Julien Dupuy, Natalja Eigo, Mahmoud Farag, Charu Garg, Patricia Hernandez, Wayne Irava, Eddy Mongani Mpotongwe, Simon Nassa, Rachel Racelis, Magdalena Rathe, Nirmala Ravishankar, Shakthi Selvaraj, Katerina Sharapka, Neil Thalagala, Cor van Mosseveld, Fe Vida N Dy-Liaccio, and Yuhui Zhang. We also wish to recognize the contributions to data quality improvement made by numerous World Bank staff. Our ongoing collaboration with the OECD Health Accounts Team has played a key role in ensuring the routine production of health expenditure data from most high-income countries. Most important of all, we express our appreciation to the health expenditure experts in each WHO Member State who made the data available for this report.

We would like to thank the Bill and Melinda Gates Foundation, the Global Fund, Gavi Alliance, United States Agency for International Development, the Department for International Development of the United Kingdom, the European Commission, the Government of Japan, the Government of the French Republic, the Grand Duchy of Luxembourg, and P4H for their funding support to WHO's health financing work, which has played a critical role in enabling us to make health expenditure tracking data, and the analysis of these data, a valuable global public good.

Thanks as well to Bruce Ross-Larson for editing the report and FFW Ltd for layout.

# Introduction

In September 2015 the world agreed that health coverage should be universal. The UN General Assembly adopted Universal Health Coverage as part of the overall commitment to the Sustainable goals. SDG Goal 3.8 sets the following target for 2030: “Achieve universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality, and affordable essential medicines and vaccines for all. “

Achieving Universal Health Coverage is an ambitious goal and will require the commitment of countries to mobilize sustained amounts of resources. In particular, progress will depend on the capacity of societies to collectively mobilize resources for health and to redistribute them for better health, greater equity and increased social cohesion. <sup>1</sup>

There are reasons for optimism. Over the past decade many countries have made progress on delivering health services and providing financial protection to their people. Even so, there is still a long way to go to achieve UHC.

And further progress is possible. Since the publication of the 2010 World Health Report, <sup>3</sup> WHO has emphasized that all countries can do something to move towards UHC. Most countries are capable of mobilizing the needed resources to achieve some level of universality, particularly of most essential services including primary health care. <sup>4</sup> And many already do. But further progress will require doing more—and doing better. Economic growth will help a lot, and current prospects are encouraging. But economic growth will not be enough. Many countries will need to invest more in policy reforms to expand their public purse and invest in providing quality services.

For health financing the starting point for analysing what is possible is to have a solid understanding of the level and mix of funding, the channels for health expenditures, and their trends over time. WHO has a long history of documenting and analysing health expenditures. Indeed, 2017 marks the 50<sup>th</sup> anniversary of its first publication on the subject, produced by the late Professor Brian Abel-Smith. <sup>5</sup>

This WHO report summarizes the latest internationally comparable data on health spending in all WHO Member States between 2000 and 2015. But it does more than publish the most recent data. For the first time the report also uses the new international classification for health expenditures in the revised System of Health Accounts (SHA-2).<sup>6</sup> These classifications enable presenting detailed information on the role of governments, households and donors in funding health services—and the financing arrangements through which these funds are channelled and spent.

The data come from the 2017 version of WHO's Global Health Expenditure Database (GHED), which includes new estimates of health expenditures in 2015 as well as revised data series for each country and each year from 2000 to 2015. The new classifications improve the comparability and policy-relevance of the estimates. In addition, WHO has engaged in a major (and ongoing) effort to improve data quality, working with each country and, where relevant, partner agencies.

The aim of this report is to summarize key global health expenditure patterns and trends, to illustrate the potential of the new database to inform thinking about financing reforms to progress towards UHC, and to raise issues for further research. Following this introduction, the first section explains the unique nature of this global database and notes the strengths of the new classification as well as the remaining limitations of the data. Section 2 then gives a sense of the size of health in the global economy and how health expenditures are distributed around

the world. Given the recognition of its importance for progress towards UHC,<sup>7</sup> an assessment of levels and trends in public financing for health is contained in Section 3. This is followed by an analysis of external resource inflows (mostly in the form of development assistance for health), exploring what the data suggest with regard to critical issues such as fungibility between external and domestic revenues. Section 5 updates and reviews the latest information on out-of-pocket spending (OOPS), a key concern with regard to financial protection and hence of progress towards UHC.<sup>2</sup> Many countries have tried to reduce OOPS through financing arrangements referred to as social health insurance (SHI), and the following section summarizes what the data tell us about the relative magnitude of expenditures that flow through SHI as well as the mix of revenue sources on which it relies. In the final section of the report, we recap the main findings on the levels and trends in global health expenditures, and propose priorities for data quality improvement going forward.

More and better data are a public good. They are critical to understand progress and its drivers. For two decades now, WHO has invested in supporting countries to track their health expenditures and in developing a global database. This report renews and enhances the effort to provide to both citizens and policymakers an overall picture of comparable data.



# 1. What's new in this report

## The potential for new and more policy-relevant interpretations and insights

The SHA-2 health financing classifications enable deeper, more policy relevant understanding and analytic potential than was possible under SHA-1,<sup>8</sup> aligning them with the functional health financing policy framework in wide use.<sup>9</sup> As such, it is more flexible and adaptable to the mix of revenue raising and pooling arrangements that currently exist as well as that which may emerge in the future. More specifically, key changes to the classifications enable new aspects of health expenditures to be visible for the first time in the Global Health Expenditure Database (GHED).

## Reporting on the sources of health expenditures

Understanding both the levels and changes over time in the share of health spending coming from different revenue sources is critical for understanding health financing. Until this year, the GHED reported spending by “financing agent,” the intermediary that executed the payment, such as a Ministry of Health, Statutory Health Insurance Fund, or NGO. While useful, this organization of the data hid the actual sources of these expenditures. For example, it was not possible to see whether SHI expenditures were funded by general budget revenues or external donor revenues. These considerations are critical for those concerned with sustainable and equitable financing of health systems for UHC.<sup>10</sup> By depicting the revenue

sources (referred to as the “FS” classifications) of health spending for the years 2000–2015, the new GHED provides a valuable disaggregation, offering new policy insights and opportunities for health financing research. We highlight some of these in the report, particularly in relation to the role of external aid and the funding sources for SHI. At the more aggregate level, the FS classifications allow determining the shares of health expenditure that come from domestic public, domestic private and external sources.

## Revising how health financing arrangements are classified

The financing agent categories used until this year for expenditure reporting were guided mainly by institutional features (such as ownership), historical models of health financing and sometimes even their names. The new GHED replaces this with the SHA-2 “health financing schemes” (HF) classification.<sup>a</sup> The HF was explicitly designed to foster more policy relevant and internationally comparable health expenditure data by using important and objectively verifiable attributes of health financing arrangements to separate them into mutually exclusive categories. The three main distinguishing criteria are whether participation (coverage) by the arrangement is automatic, mandatory or voluntary; whether entitlement to benefits/services is based on contribution or some other factor (citizenship, residence, poverty status) and whether there is inter-personal pooling of the funds.<sup>b</sup>

<sup>a</sup> “Schemes” is an unfortunate choice of terms used in SHA-2, and the interpretation of this word is different than what it typically suggests to health financing policy analysts. In SHA-2, it refers to a category of health financing arrangements with similar characteristics rather than to a specific institution or pool of funds.

<sup>b</sup> For details on the criteria used to assign expenditures to different HF categories, see Table 7.2 (“Main criteria of health care financing schemes”) and figure 7.2 (“Criteria tree for health care financing schemes”), as well as the surrounding text, from Chapter 7 of the SHA-2 manual.<sup>6</sup>

At the more aggregate level, the HF classification allows determining the shares of health expenditure that flow through prepaid and pooled mechanisms with compulsory or automatic coverage, distinct from voluntary prepaid arrangements and out-of-pocket spending (OOPS). The new classifications enable a more explicit assessment of how countries rely on compulsory/automatic coverage in their financing arrangements. They may also help shift the focus from the public or private ownership of a health financing agency to the compulsory or voluntary nature of the arrangements.

### Distinguishing current from capital health spending

The GHED previously reported on total health spending, not the relative current and capital shares. Thus, if spending fluctuated from one year to the next, users would not know whether that fluctuation was due to a new large capital investment program or a sudden change in more “routine” health spending. Understanding levels and trends in capital spending is important because investment into infrastructure such as hospitals or clinics—as well as diagnostic and therapeutic equipment—underpin safe, accessible and quality health services and require substantial funding. For example, damaged public health infrastructures was identified as one of the weaknesses of the health systems of Guinea, Liberia and Sierra Leone during the Ebola virus epidemics.<sup>11</sup> With the SHA-2 classifications, capital spending is reported separately, leaving only current spending for reporting in the FS and HF classifications to improve comparability.

### Realizing the potential

The potential of the new classification system—to yield more policy-relevant and useful comparative data to support policy and research on sustainable health financing for UHC—is far reaching. But fully realizing that potential is a major challenge. The new GHED required producing the FS, HF and capital data series for each WHO Member State and for each year from 2000 to 2015. While mapping some previously reported data to the SHA-2 categories is straightforward, this is not possible for some important data elements, and some items are new.

The main challenge has been to separate capital from within the historical series of previously reported total health expenditures. Secondary challenges relate to obtaining data for the new FS series and to ensuring consistency in the interpretation of financing arrangements within the HF series. As a result, there remains considerable scope to improve the quality and consistency of the data in the 2017 GHED. We return to this issue at the end, where we suggest priorities for improvement in the years to come involving a collaborative effort of WHO staff, countries and health financing experts from partner agencies and the wider community of academia and civil society.





The potential of the new classification system — to yield more policy-relevant and useful comparative data to support policy and research on sustainable health financing for UHC — is far reaching.

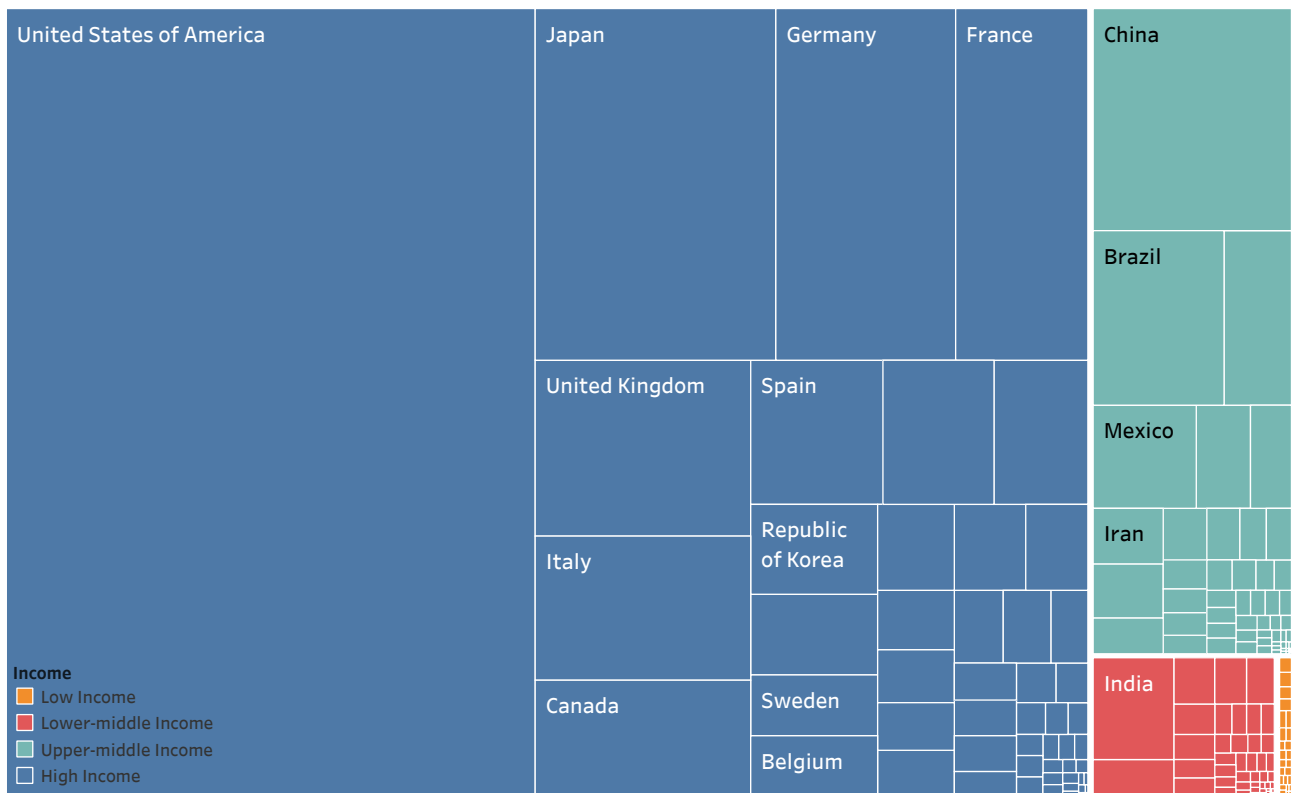
## 2. How much the world spends on health

In 2015, the world spent USD 7.3 trillion on health, close to 10% of global GDP. Health’s GDP share is greatest in high-income countries at nearly 12% on average. In low-income countries, health expenditures account on average for 7% of GDP, and in middle-income countries 6%.

The health sector is an important source of real economic growth globally and particularly in low-income and lower middle-income countries. Investing in health not only leads to healthier lives, it also generates employment, fosters social and politi-

cal stability, drives technological innovation and contributes to higher productivity and economic output.<sup>12</sup> Indeed, the health sector has consistently grown faster than the overall economy over the past 15 years. Between 2000 and 2015 the global health economy has grown in real terms at an average annual rate of 4.0%, compared with 2.8% for the global economy. The health economy in low-income and lower middle-income countries has grown even faster, at more than 6.0% on average. In 2015 only the United States and China had a larger GDP than the global health economy.

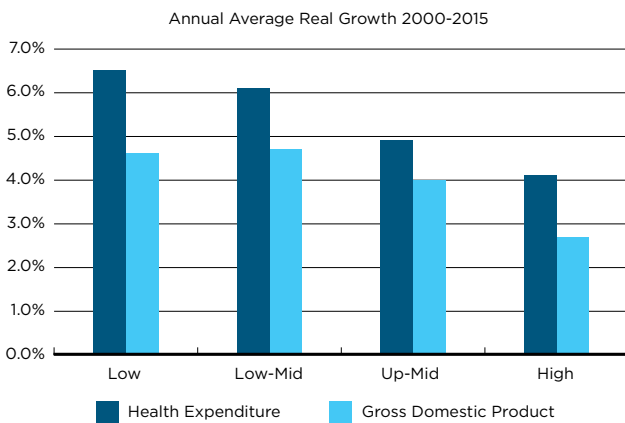
Figure 2.1: Country shares of global health expenditure in 2015, by income group



Domestic finances are the dominant source of funding for health in all but a small handful of low-income countries. Development assistance for health amounted in 2015 to just over USD 19 billion, or less than 0.3% of global health expenditure. But it remains important for low-income countries. In

2015 the average share of external resources to health spending in the 31 low-income countries was around 30%, while in the 50 lower-middle and 57 upper-middle countries it was respectively only 3% and less than 1%.

Figure 2.2: Health expenditure is growing faster than GDP in most countries



The way health care is financed varies considerably across countries. Middle-income and high-income countries tend to have a higher share of health spending that is funded from compulsory prepaid sources, such as government budgets (from various types of taxes) and social health insurance contributions. Public funding has increased slightly over the past 15 years from an average of 48% to 51% of current health spending in middle-income countries and from 66% to 70% in high-income countries. In low-income countries domestic government sources have declined from 30% to 22% as aid increased from 20% to 30%.

Figure 2.3: The world's largest economies

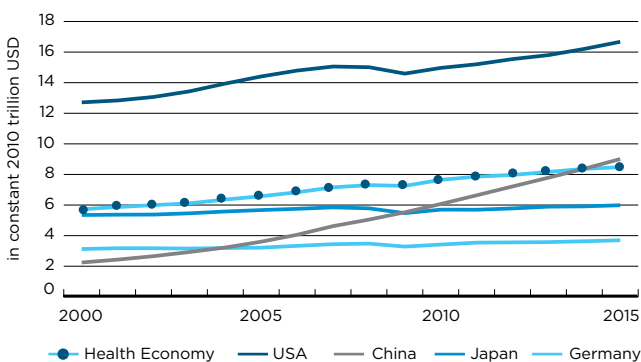


Figure 2.4: Aid is relatively small share of health expenditure in low and middle income countries.

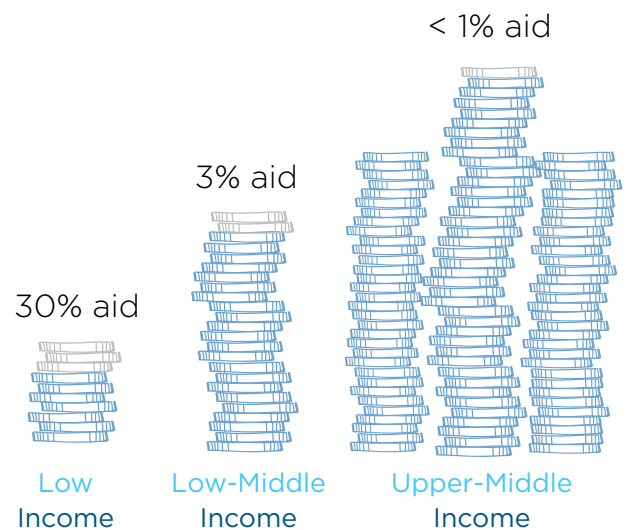
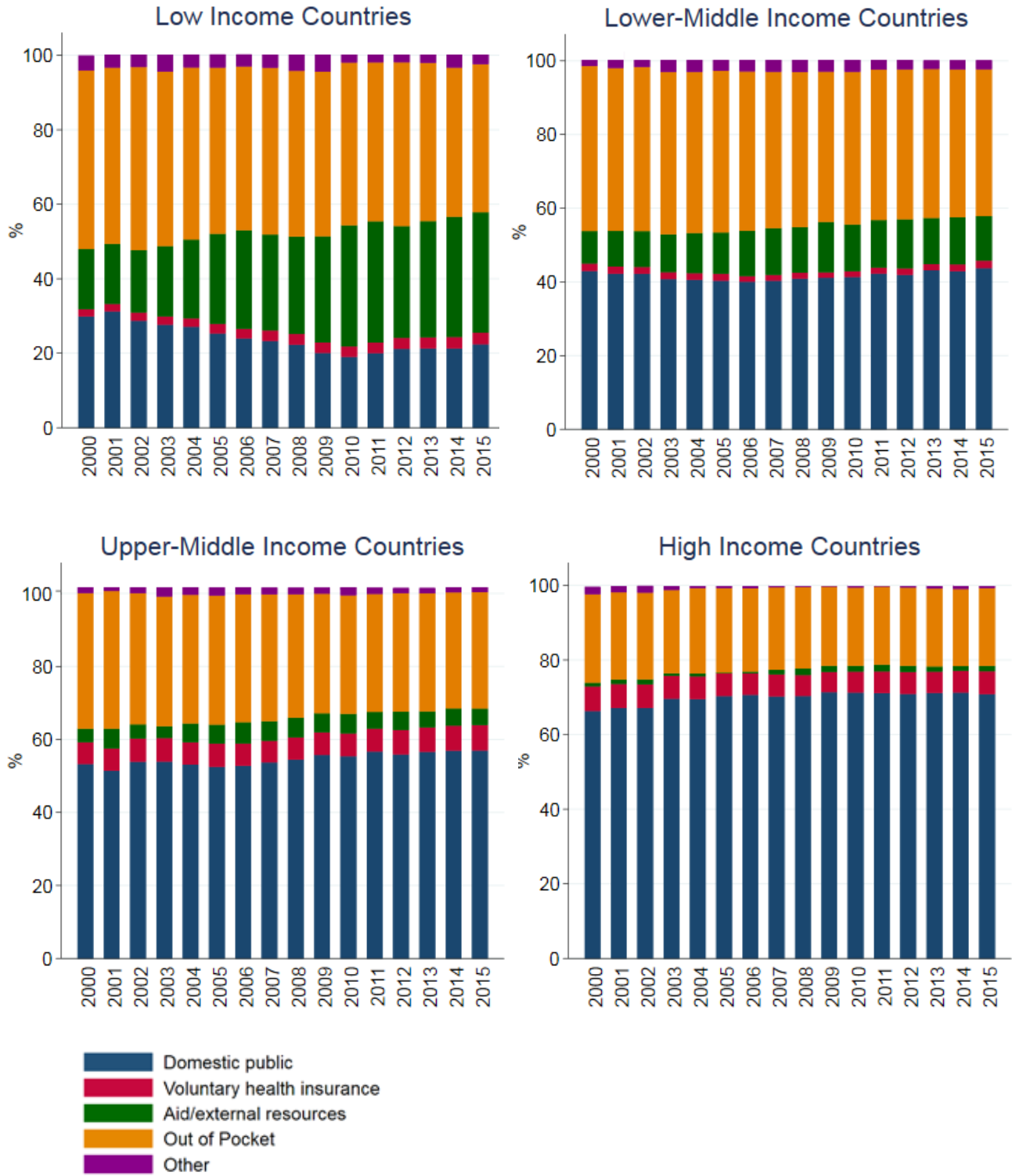


Figure 2.5: Trends in health expenditure sources, by country income group

Health expenditure by income group, 2000-2015



Out-of-pocket spending (OOPS), associated with a higher risk of financial hardship and impoverishment, has declined only modestly. Between 2000 and 2015 OOPS fell from an average of 46% of CHE to 38% in low-income countries and from 45% to 40% in lower middle-income countries. It fell from 37% of CHE to 31% in upper middle-income countries and from 23% to 21% in high-income countries. Today, there are 1 billion fewer people living in countries where out-of-pocket spending is 50% or more.

Higher economic growth in low- and middle-income countries has not closed the gap in health spending, and global inequity in health spending has remained largely unchanged. Indeed, the global spending across countries is more unequal than GDP and

higher than any country's income Gini coefficient. Today, high-income countries, with only 16% of the world's people, account for 80% of global health spending. Conversely, 76% of the world's people live in middle-income countries, but they account for less than 20% of global health spending. Low-income countries, with more than half a billion people, accounted for less than 1% of the world's health spending in 2015. In 2015, the global average health spending per capita was USD 1,011, with a median of only 366. This global average conceals a very large difference between the highest and lowest spending countries, ranging from over USD 9,000 to less than USD 20 per capita. In 2015 close to 50 countries with a total population of 2.7 billion spent less than USD 100 per capita.

Figure 2.6: Billions of people living in countries where out-of-pocket spending is at least 50% of current health spending

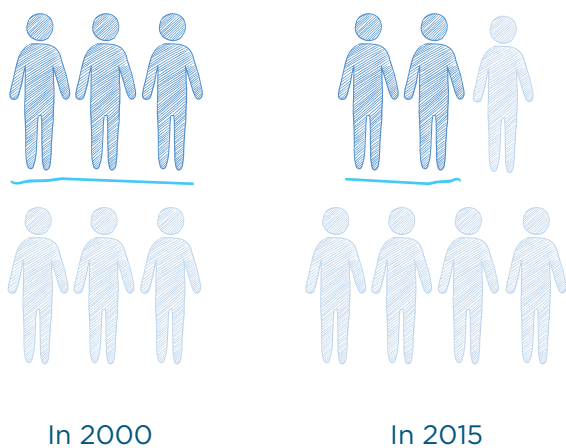
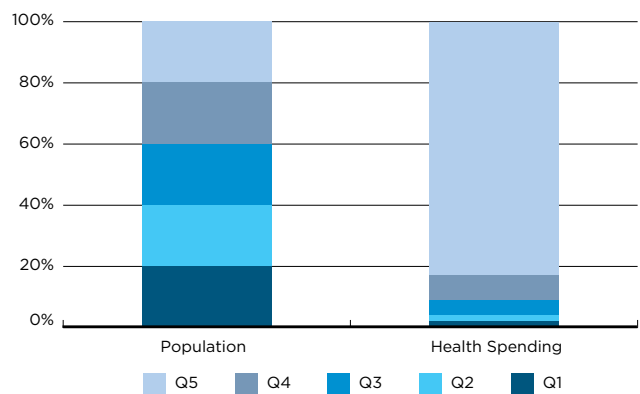


Figure 2.7: Most global health spending is in high-income countries, 2015



# 3. Public spending on health

Government fiscal capacity, as indicated by the share of overall government spending in GDP, increased steadily over 2000–2015, <sup>c</sup> with particular growth among lower-middle and low-income countries (figures 3.1 and 3.2). <sup>13</sup> Higher per capita income has been associated with a higher demand for public services (Wagner’s law <sup>d</sup>). The rise in public spending after 2008 is attributed to countercyclical fiscal policies and outlays to support the financial sector following the global financial crisis. <sup>13</sup> This was followed by a decline in high- and middle-income countries. For the period overall, however, the trend in government fiscal capacity for countries is positive at all income levels.

On average, health spending is a higher priority, but this trend is not uniform, particularly when examining the share of domestic spending for health. Perhaps surprisingly, the average share of health spending in general government spending for lower middle-income countries tends to be less than for low-income countries (figure 3.3). It appears that

the observed relatively high allocation to health in public spending among low-income countries is due to external support. In the early 2000s the share of domestic health spending in government expenditures was similar among low- and lower middle-income countries (figure 3.4). But the trends started to diverge as prioritization of health from domestic sources started to decline among low-income countries.

The level of per capita public spending on health has increased in real terms (figure 3.5), including in low-income countries (figure 3.6). It appears that for many countries, particularly for those in the low-income group, this growth has been driven largely by fiscal capacity in these countries and not budget prioritization. This is also in line with other recent studies.<sup>14,15</sup> Among the low-income countries, it appears that while there has been overall fiscal expansion since 2000 (figure 3.2), the domestic health share of this public spending declined between 2005 and 2012 (figure 3.4).

Figure 3.1: Public spending and GDP per capita

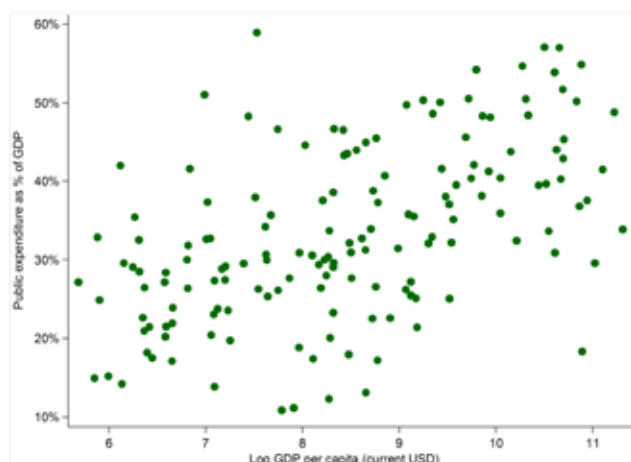
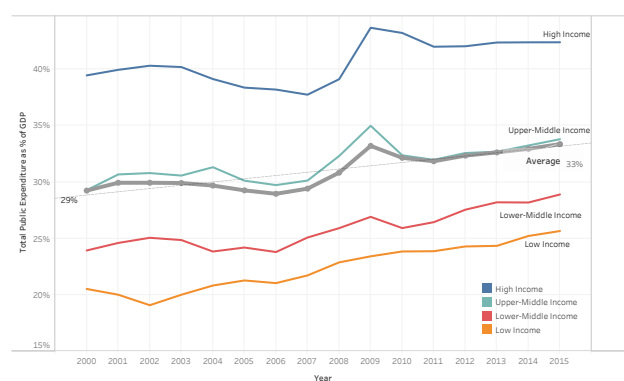


Figure 3.2: Public spending as a share of GDP by country income groups, 2000–2015



<sup>c</sup> Methodological note: Countries with less than 600,000 population are excluded from this analysis. Most of them have a very high share of total government expenditure relative to GDP – well above 80% – and can be considered their own category. The official population threshold used by the World Bank (<http://www.worldbank.org/en/country/smallstates/overview>) and The Commonwealth of Small States (<http://thecommonwealth.org/small-states>) is 1.5 million people. But that excludes many more countries, and we deem that threshold to be too high for the purposes of this analysis. The distribution looks much more normal once we exclude these extreme outliers.

<sup>d</sup> The German economist, Adolf Wagner theorized that the demand for public goods and services increases as countries become richer (“Wagner’s Law”)



Figure 3.3:  
Prioritization of health  
in public spending (all  
sources) by country  
income groups,  
2000–2015

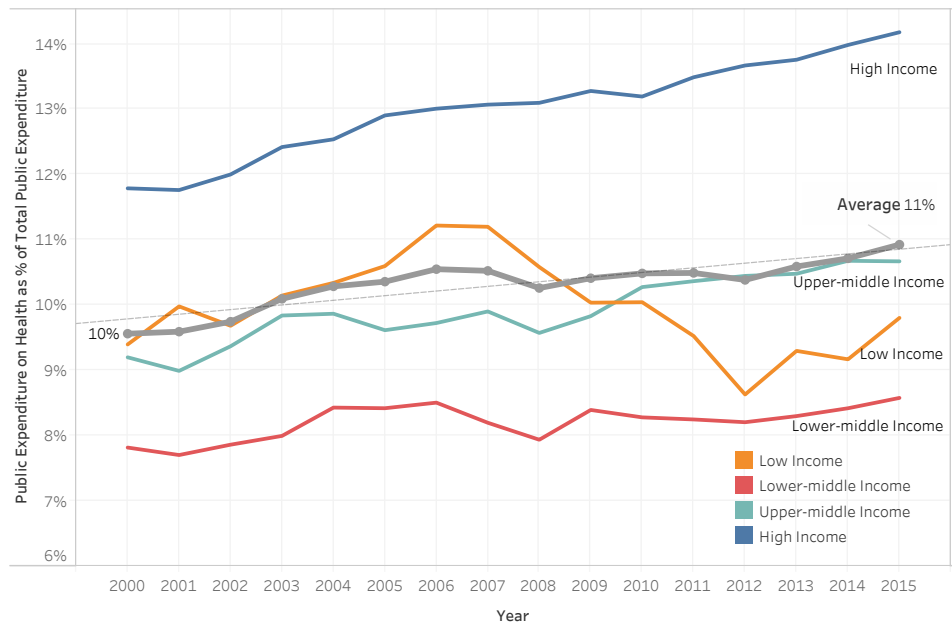


Figure 3.4:  
Prioritization of health  
in public spending  
(domestic sources)  
by country income  
groups, 2000–2015

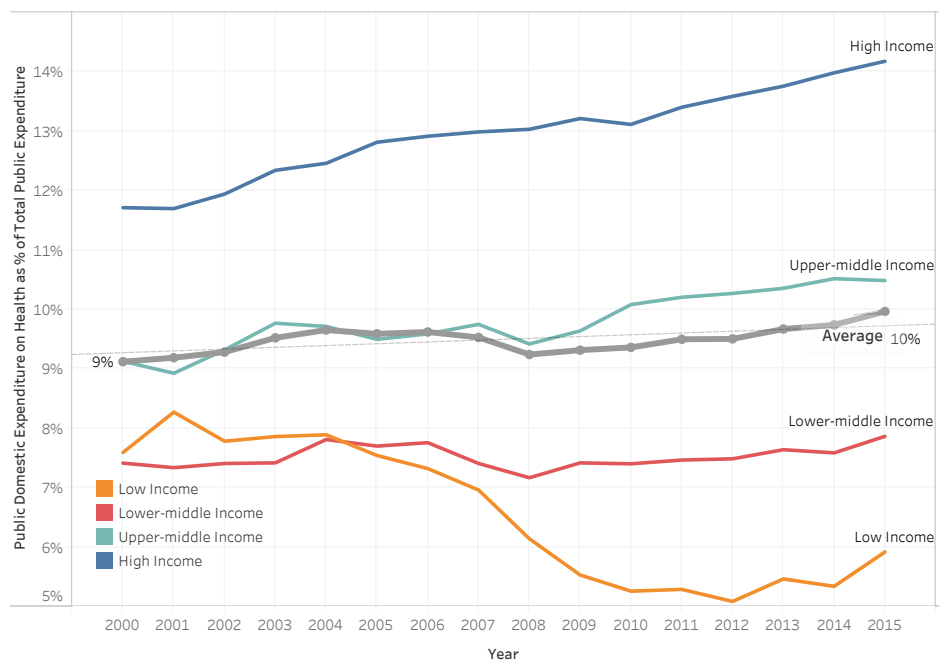




Figure 3.5:  
Prioritization and  
per capita public  
spending on health  
(from all sources),  
2000-2015

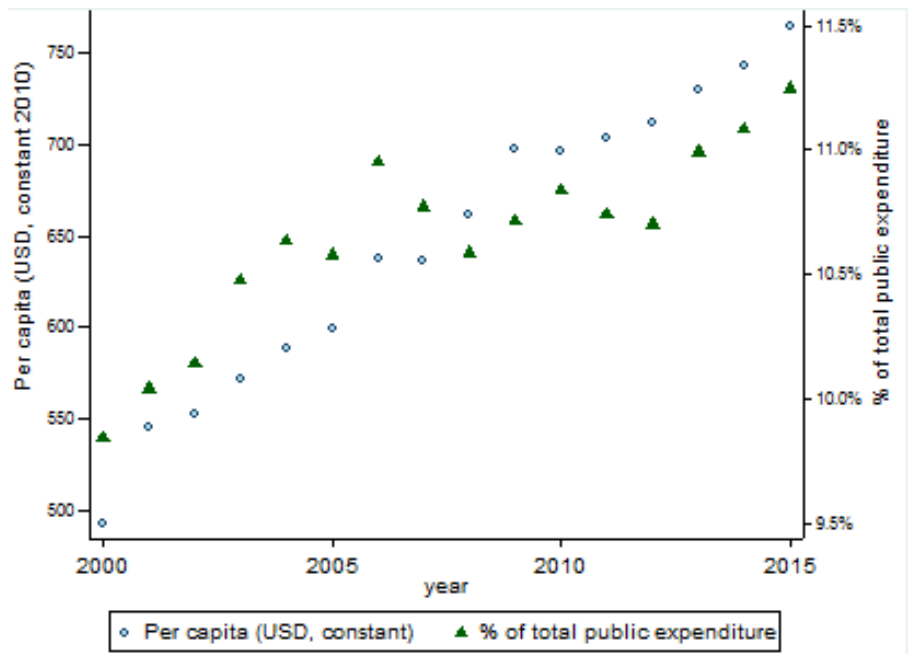
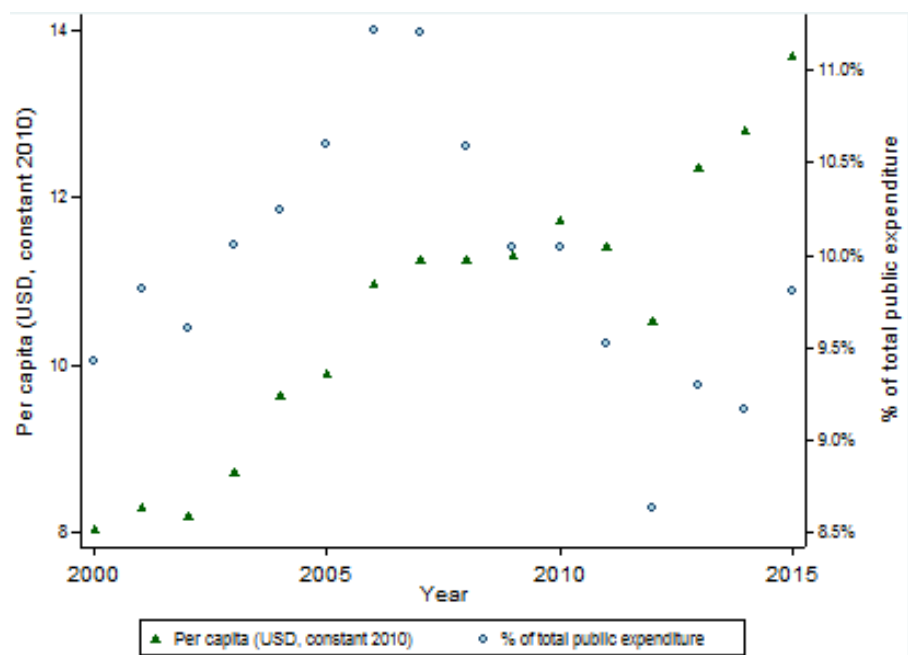


Figure 3.6:  
Prioritization and  
per capita public  
spending on health  
(from all sources)  
among low-income  
countries, 2000-2015



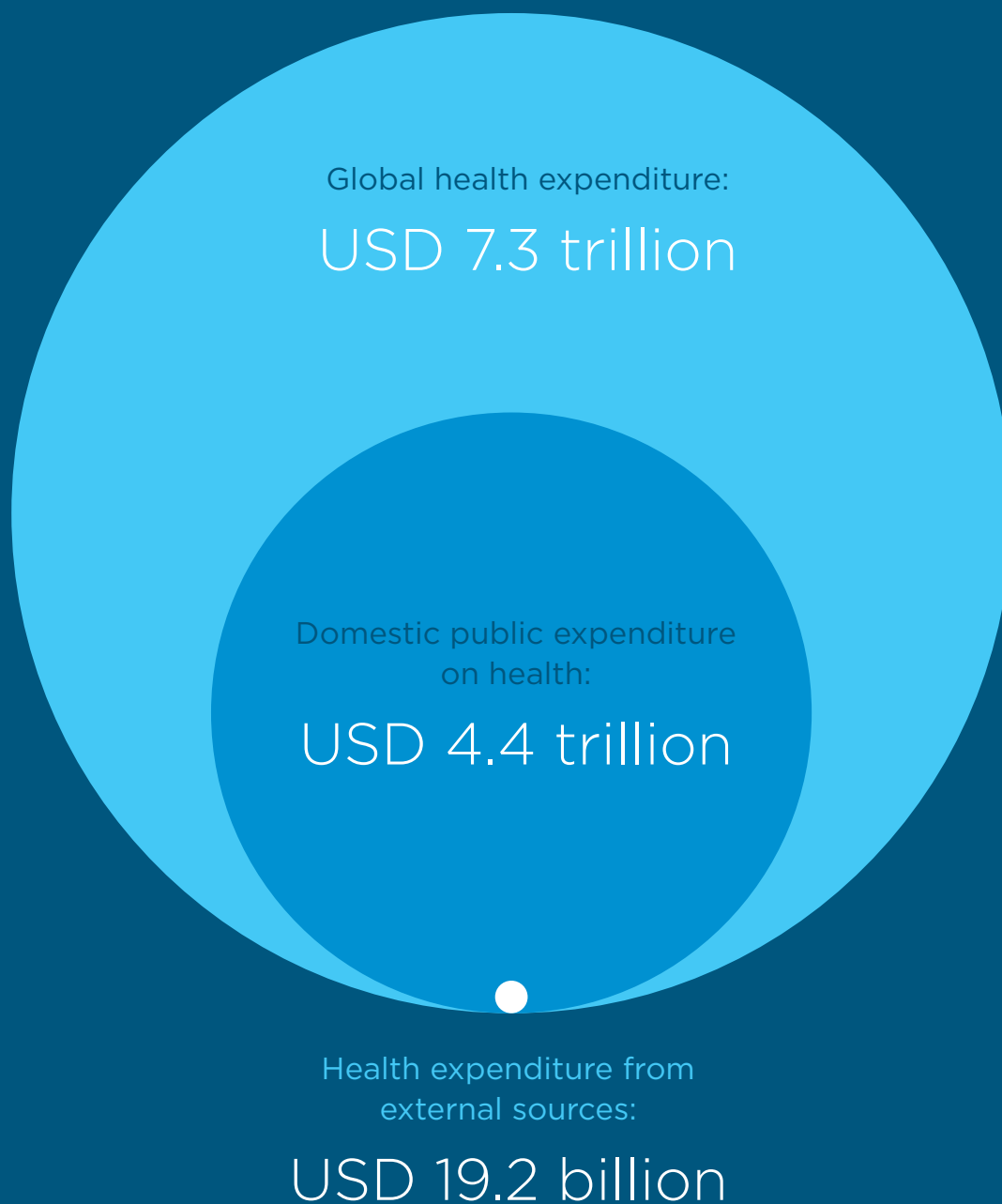


Figure 4.1:  
Expenditure from external sources constitute a small  
part of health expenditures in the world, 2015

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Note: The above figure of USD 19.2 billion in development assistance for health in 2015 is based on current health expenditure, and draws on country produced health accounts as well as OECD DAC data. A complementary analysis of development assistance that is currently under production relies on a broader definition including health-related expenditures such as water and sanitation, as well health-specific global public goods.<sup>16</sup>

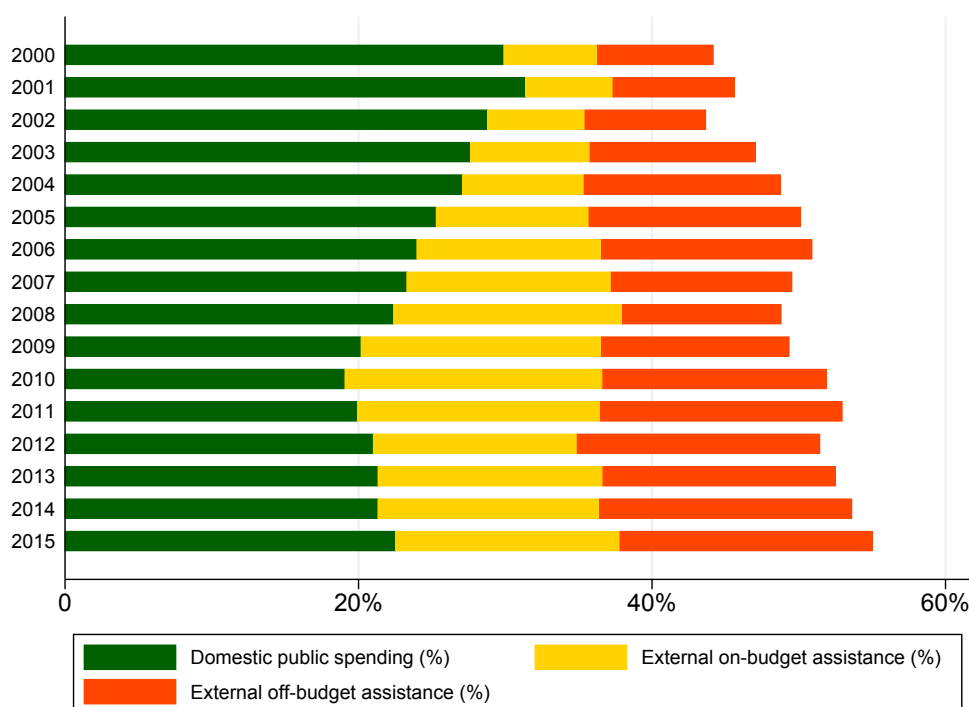
# 4. The role of external funding

External assistance for health constitutes a very small part of global health expenditures (figure 4.1). This emphasizes again the importance of the rising agenda on domestic revenue mobilization. If countries are to make progress towards UHC they have to rely on domestic revenues. But in many low-income countries, the contribution of external assistance to health expenditures is large: in 2015 it is estimated at about 33%, on average.<sup>e</sup> Moreover, this share increased between 2000 and 2015 (figure 4.2). It appears that there is a growing trend in providing on-budget support—external funds channelled through government mechanisms. This

trend is positive, suggesting increased alignment of donor funding with country priorities and systems.

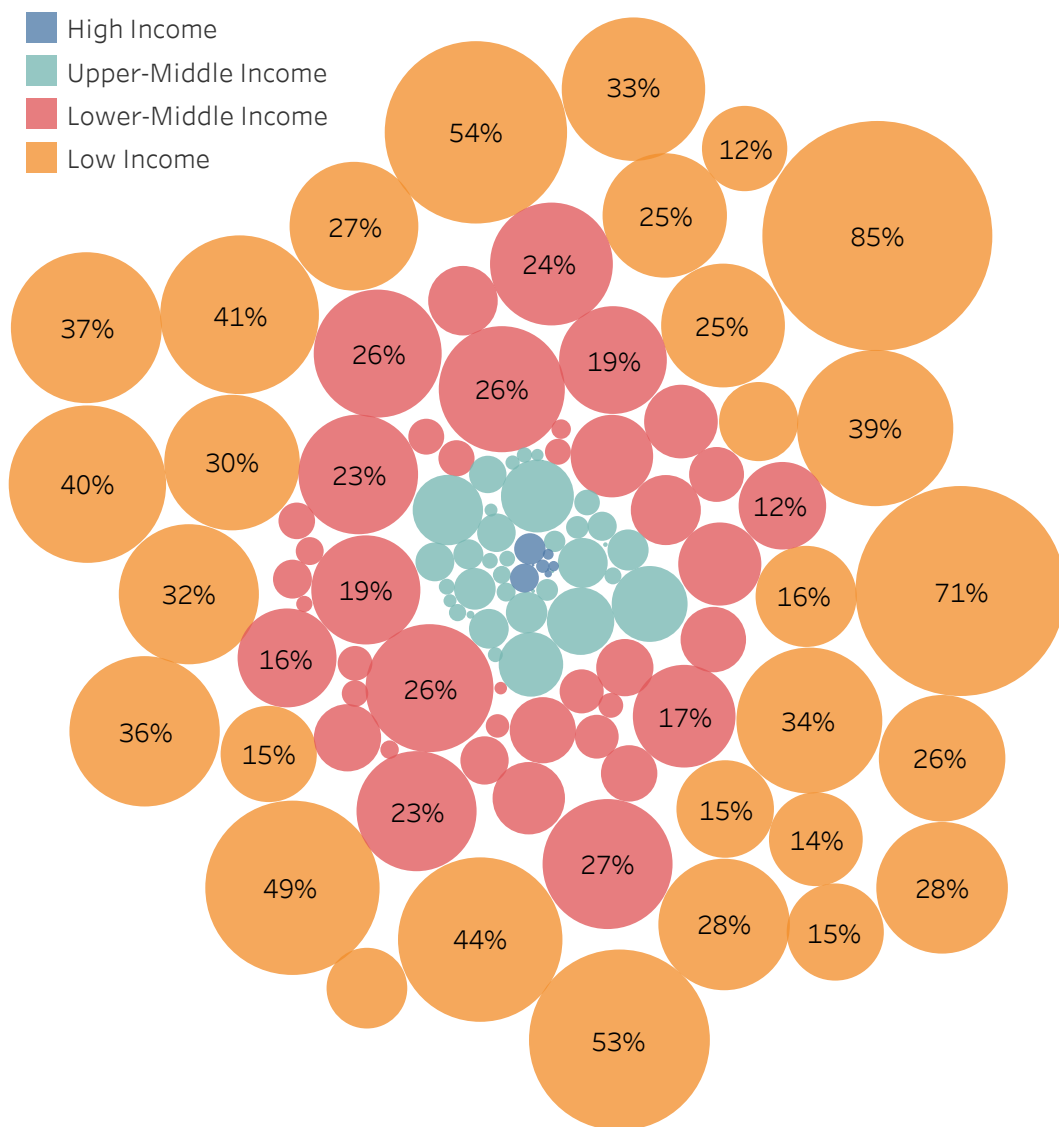
Many countries still rely heavily on external assistance (figure 4.3). According to 2015 data, in 4 of 31 low-income countries, external sources constituted more than half of current health expenditures, and in 15, more than 30%. Middle-income countries with high reliance on external resources are almost all exclusively small states. Despite their per capita GDP, they face specific challenges associated with the size of their economies, among other factors.<sup>17</sup>

Figure 4.2: Share of external and domestic sources of health spending in low-income countries, 2000–2015



<sup>e</sup> The 33% figure is unweighted, meaning that it reflects an average of the percent of externally-sourced health spending across all low-income countries. This is distinct from the very small percentage of such expenditures reflected in figure 4.1, which shows the global total amounts of health spending.

Figure 4.3: Share of external assistance in current health spending across countries, 2015



Development assistance is highly volatile. The share of external assistance in health spending varies from year to year within countries (figure 4.4). This has strong negative consequences for the country’s ability to plan and thus use resources efficiently. Some estimates show that volatility reduces the value of aid to recipients by 15–20%.<sup>18</sup>

There is evidence of fungibility of external funds, particularly in low-income countries. There has been a decrease in domestic public spending among the low-income countries with an accompanying increase in development assistance for health (figure 4.5). There is evidence of non-additionality of development assistance for health, where development assistance is spent in the health sector, but the recipient government re-allocates its own resources to fund other priorities.<sup>18,19</sup>

Figure 4.5: Growing share of spending from external sources in current health spending among low-income countries, 2000–2015

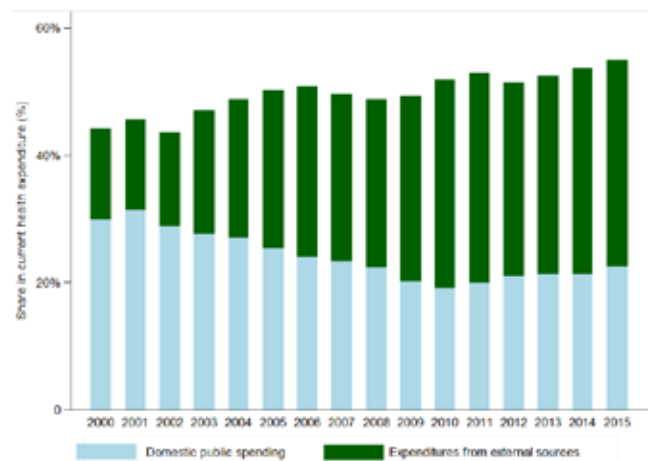
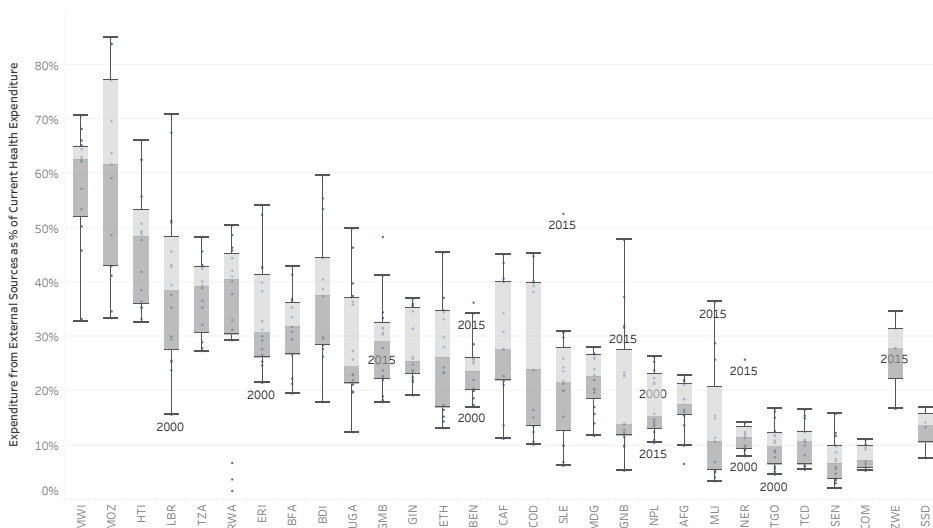


Figure 4.4: Variation in external assistance in low-income countries, 2000–2015



Note: The vertical lines/boxes represent the variation observed over the period within each of 29 low income countries.

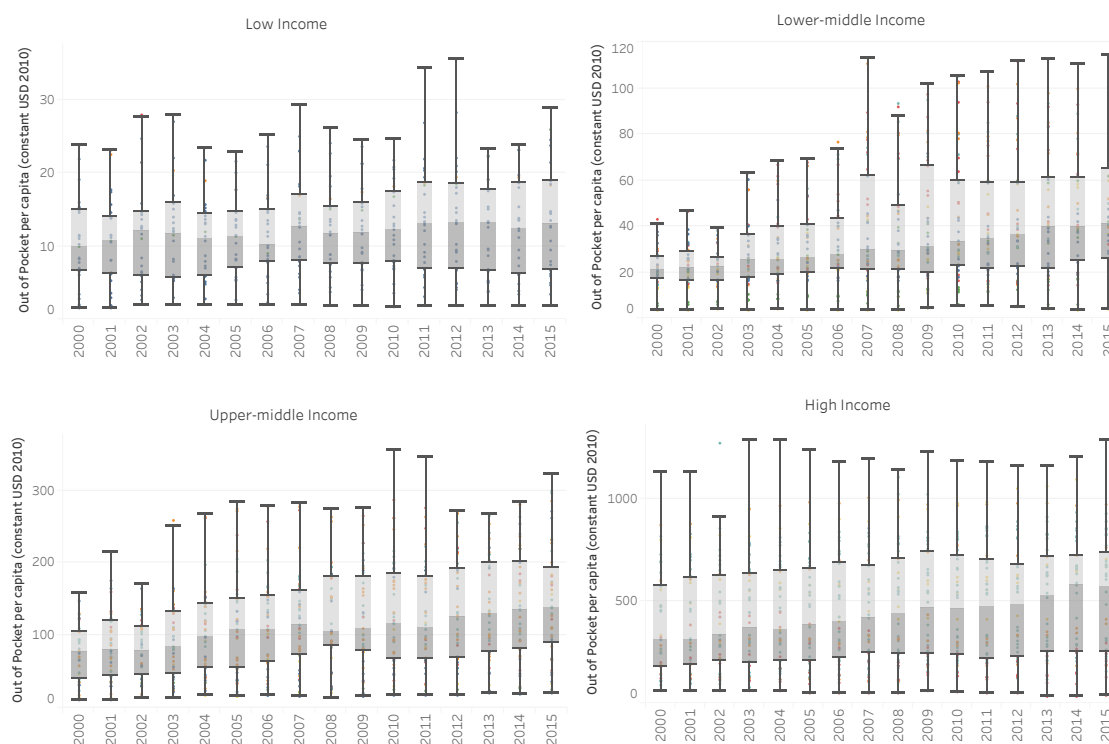


# 5. Global spending on health through out-of-pocket payment

Out-of-pocket payment, a key UHC indicator under the overall SDG monitoring framework, is negatively associated with financial protection. High out-of-pocket expenditures result in household financial hardship and cause millions to forgo needed health care.<sup>2,20</sup> Many countries have been closely monitoring out-of-pocket payments as a share of current health spending. WHO, working with countries and partners, reviewed the entire series of household out-of-pocket health spending from 2000 to 2015. This section highlights some central observations from the data.

Out-of-pocket health spending is increasing. People spend more on health through out-of-pocket payment in constant absolute terms for all income groups (figure 5.1), with high-income countries increasing fastest and low-income countries slowest. The increase in OOPS reflects a combination of increasing household capacity and willingness to pay for health services as well as the increased cost of medical goods or services. But in relative terms, OOPS as a share of GDP are fairly stable over time, accounting for about 2% of GDP in recent years in low-, lower middle- and upper middle-income groups (figure 5.2).

Figure 5.1: Out-of-pocket payments per capita by country income groups



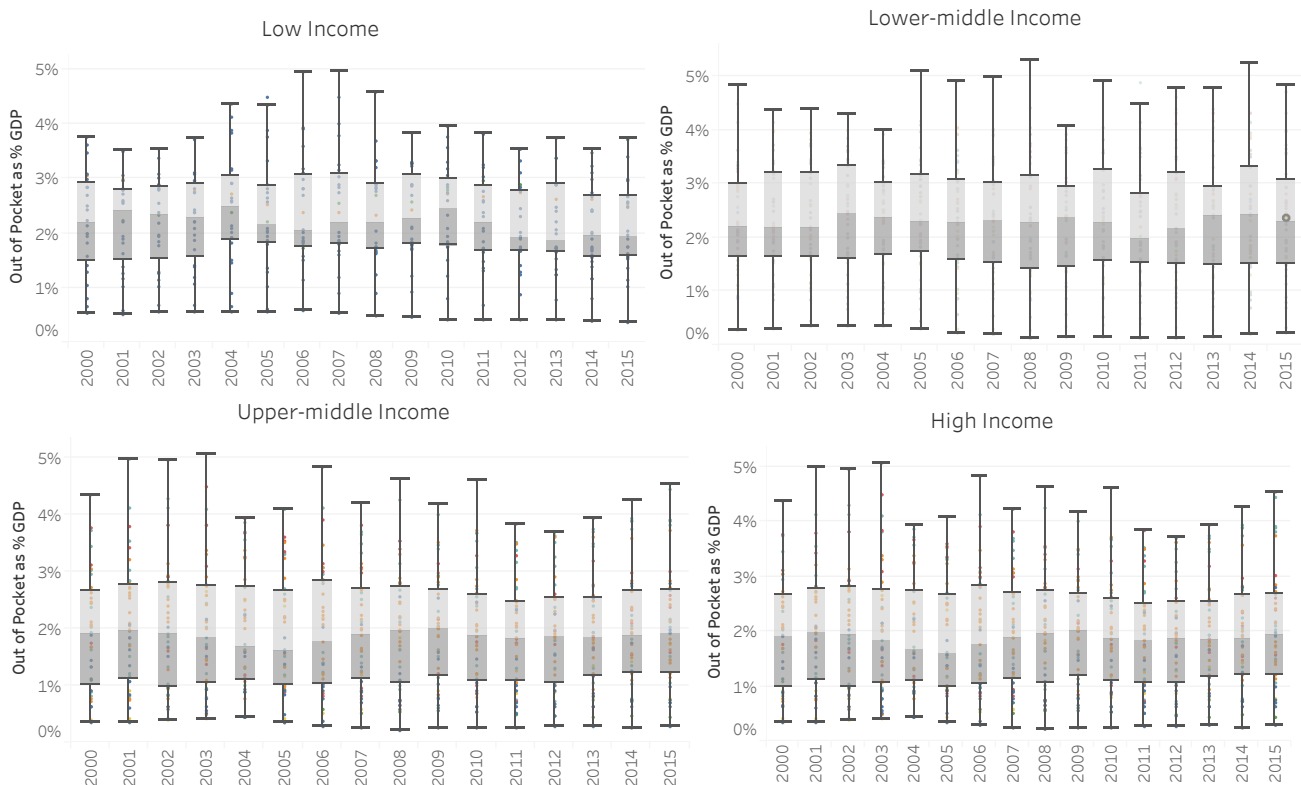
Note: The horizontal line in the middle of the box represents the median. The box extends from the lower 25th percentile to the upper 25th percentile.

Health financing systems are transforming to reduce reliance on out-of-pocket payments. Out-of-pocket payments remain a significant share of current health spending. Despite the increase of out-of-pocket payments in absolute terms, the share of OOPS in current health expenditures has been gradually decreasing over the past 15 years in all income groups. On average, low- and lower middle-income countries' OOPS has been around 40% of health

spending in recent years. For upper middle-income countries, OOPS as a share of total current health spending shrank from around 40% in 2000 to about 30% in 2015. High-income countries continue to fluctuate at around 15–20% (figure 5.3).

Rising incomes provide the potential for governments to substitute out-of-pocket payments with public spending. The transformation of health

Figure 5.2: Out-of-pocket payments as a share of GDP over time by country income groups



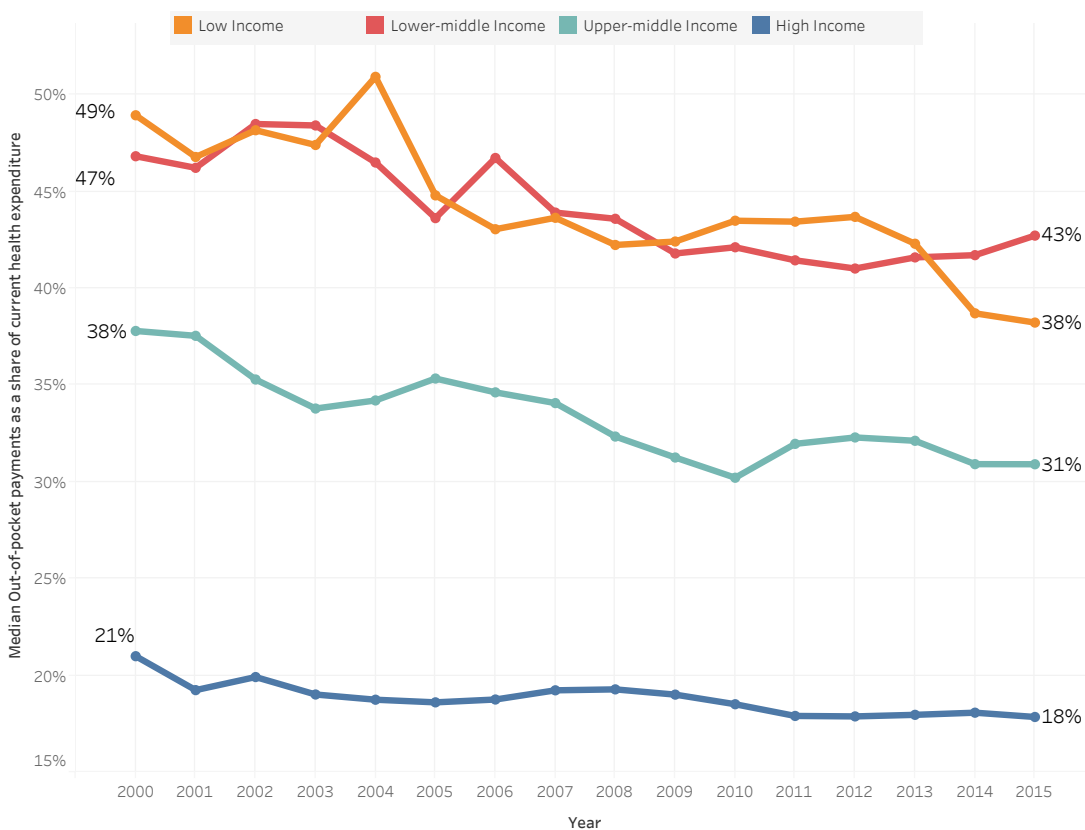


financing systems parallels economic growth. More countries have been moving to higher income groups in the past 15 years (figure 5.4). With economic growth, governments have greater fiscal potential for revamping social sectors, including health. However, there are still huge variations among countries in similar income ranges. Economic growth does not automatically produce better social health protection or anything approaching

universal health coverage. As reflected in Section 3 of this report, government policy commitments and priorities matter.

What a government spends on health is conditioned by two main factors: (1) what it mobilizes in tax and other public revenues (fiscal capacity), and (2) the priority it gives to health in the allocation of public funds. Government fiscal capacity is closely linked

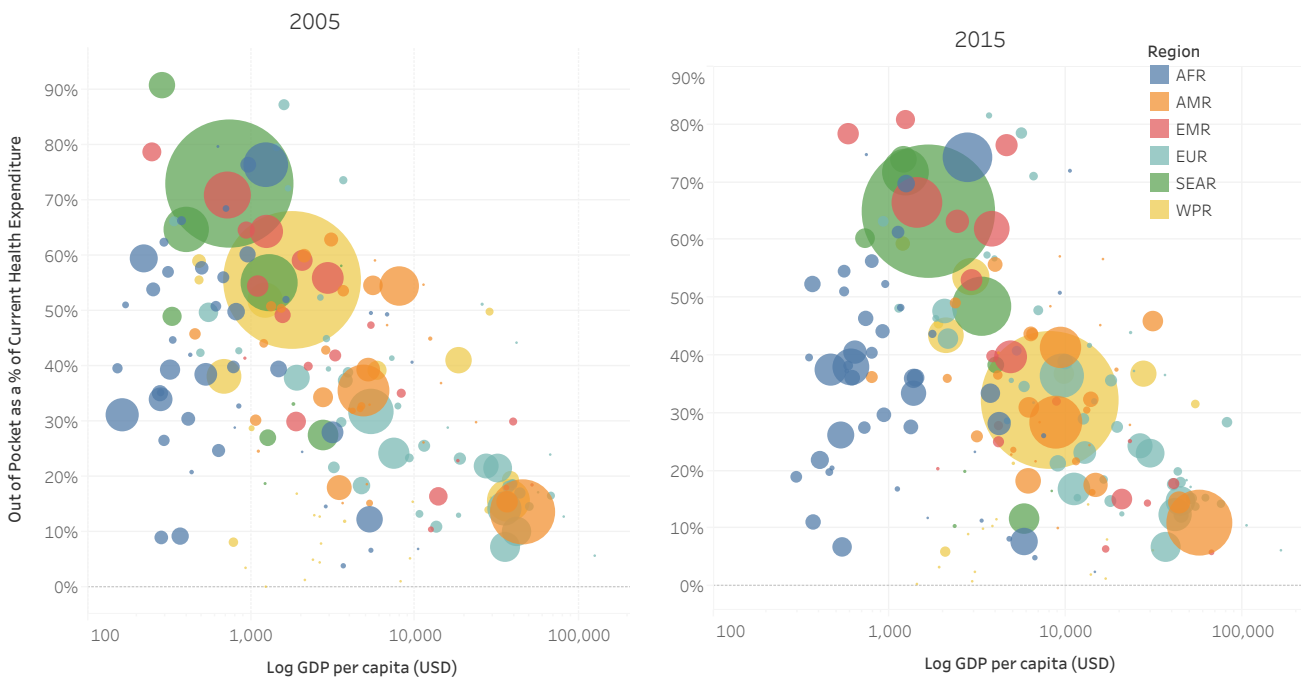
Figure 5.3: Out-of-pocket payments as a share of current health expenditure (median) over time by country income groups



to economic development (figures 3.1 and 3.2), although there is variation, and this does not happen automatically.<sup>14</sup> Priority for health in government resource allocation is not inherently linked to country income level, although figure 3.3 shows that there is a broad pattern of governments in richer countries also allocating a greater share of their available funds to health. Taken together, more fiscal capac-

ity and a higher priority to health results in greater public spending on health,<sup>f</sup> and earlier analyses<sup>7,21</sup> have shown that this results in less dependence on out-of-pocket spending. And because out-of-pocket health spending is a critical determinant of household financial burden attributable to paying for health services, more public spending on health is associated with greater financial protection.

Figure 5.4: Out-of-pocket as a percentage of current health spending and GDP per capita

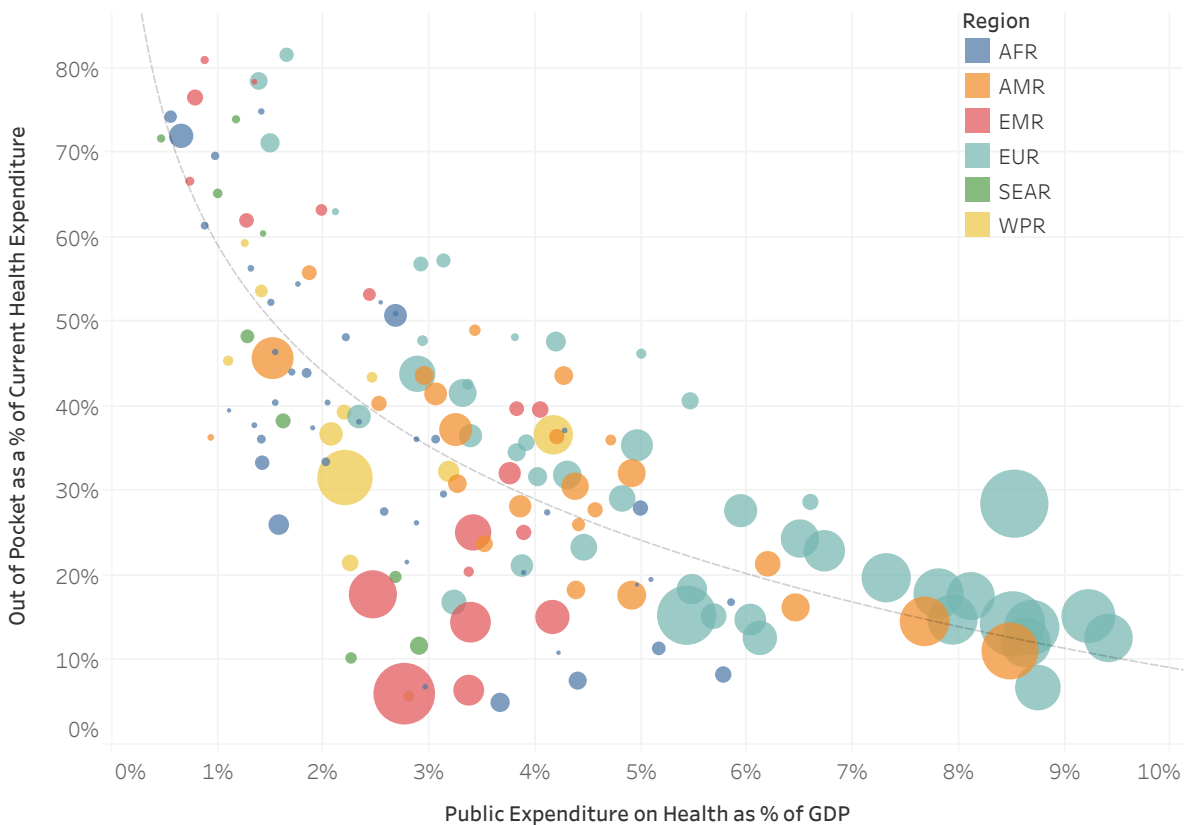


Note: Each bubble represents one country, and the size of each bubble represents the relative size of the country's population.

<sup>f</sup> Of course, it is not merely the percentage of GDP that matters, but also the absolute amount of public spending, because many of the inputs used in the health sector, such as medicines and devices, reflect international rather than domestic price structures.

Figure 5.5 demonstrates that the OOPS share in current health expenditure decreases when the share of government health spending on GDP increases, though with considerable cross-country variation. The message that can be taken from this is clear: for health financing to improve financial protection, (1) fiscal capacity matters, (2) priorities matter, and thanks to the observed variation (3) policies matter.

Figure 5.5: Relation between public expenditure on health and dependence of country health systems on out-of-pocket spending



Note: Each bubble represents one country, and the size of each bubble represents the relative per capita GDP of the country.



## 6. Revealing the sources of social health insurance spending

Traditional models of health financing, such as so-called “tax-funded systems” (also referred to as the Beveridge model, referring to the type of arrangements put in place by the UK government in 1948) or “social health insurance systems” (the Bismarck model, referring to the first public policy on health coverage, put in place in Germany in the 1880s) are based on a logic that the source of funds determines the type of health financing system that a country has. The functional approach to health financing<sup>9</sup> posed a challenge to this way of thinking, arguing (a) that all health financing systems, regardless of the label attached, perform the functions of revenue raising, pooling of funds, and purchasing of health services; and (b) the source of funds does not inherently determine choices and options with regard to the other health financing functions.

Concerns about the traditional approach towards SHI relying strictly on contributions from the insured derive from two main considerations. First, for low- and middle-income countries characterized by a high degree of labour force informality, the contribution base is quite small, and the approach of starting explicit coverage with the formal workforce has been identified as an inequality driver.<sup>22,23,24</sup> For higher income countries, demographic change means that the share of the working age population in the economy is shrinking, reducing the relative size of a wage-linked contribution base, and raising concerns about unemployment and competitiveness if action is not taken to diversify revenue sources. In both contexts, therefore, promoting equitable progress towards UHC requires diversifying sources away from contributions and towards general budget revenues.

A few documented examples<sup>25,26,27</sup> have illustrated the importance of this issue and potential to pool tax funding with SHI contributions, but the importance of this issue to the agenda of health financing for UHC led WHO to embark on a series of studies documenting the extent to which countries had already moved away from the traditional model of funding SHI.<sup>28,29,30,31</sup> These studies suggest that many countries that have SHI arrangements are using general revenues as a revenue source. However, there was no place to obtain systematic data on the relative magnitude of different funding sources for SHI because the SHA-1 classifications only showed expenditures made by social health insurance agencies but did not include anything on their sources.

By enabling separate reporting on expenditures made through different financing arrangements (HF) and the sources (FS) of these expenditures, the new GHED using SHA-2 classifications allows new insights into this issue, and is one of the most important changes that SHA-2 brings to the understanding of health financing policies. Because this is new, however, reporting of data on SHI revenue sources was not consistent across all countries, and hence the findings reported here should be seen as preliminary. WHO will produce a more in-depth analysis of this issue in 2018.

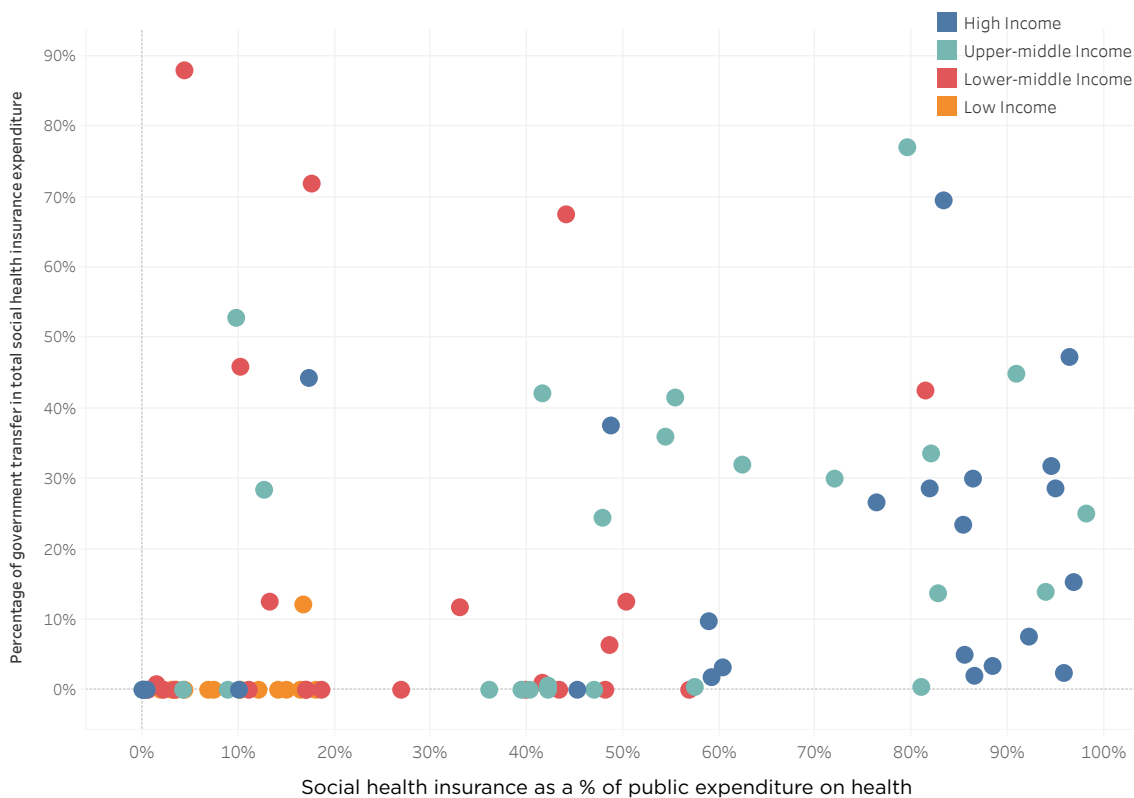
SHI is widespread, with more than 110 countries reporting expenditures through these arrangements in 2015, more than half the countries in the world.<sup>9</sup> The importance of SHI in financing health systems varies, but it tends to play a larger role in high-income countries that use this mechanism (countries further to the right on the x-axis of figure 6.1). There are some middle-income countries in which SHI is an important financing arrangement, but it is not significant in low-income countries.

<sup>9</sup> For purposes of the analysis, we are interpreting SHI to include arrangements that involve the compulsory purchase of private health insurance. While very few countries have such a mechanism, the similarities from a policy perspective outweigh the differences, as do concerns with the funding mix for such arrangements in terms of the balance between mandatory contributions by the insured and transfers from general government revenues.

In high-income countries in which spending through SHI comprises more than 80% of public spending on health, most revenues come from SHI contributions, with budget transfers playing a complementary role. A likely explanation is that most of the population of these countries is part of the formal sector of the economy, and the countries also have a long history of contributory SHI. In such settings, the need for budget transfers to ensure universal affiliation is less than in other contexts. This is also consistent with the relatively large number of low- and lower middle-income countries that do not use budget transfers and, due to the small size of their formal workforce, SHI constitutes a small share of government health spending.

That said, there are a large number of middle- and upper-income countries in which budget transfers are the source of between 20-50% of SHI spending. Figure 6.2 shows the range and median share of SHI spending coming from budget transfers in countries in which SHI comprises at least 50% of public spending on health. While not conclusive, the data suggest that general budget transfers are essential if SHI is to play a significant role in the health financing systems of middle-income countries (and by extension, low-income countries). Again, this is consistent with the expectation that higher labour force informality will yield a lower base for SHI

Figure 6.1: Relation between importance of SHI to public spending on health and the share of SHI expenditures funded from government budget revenues, 2015

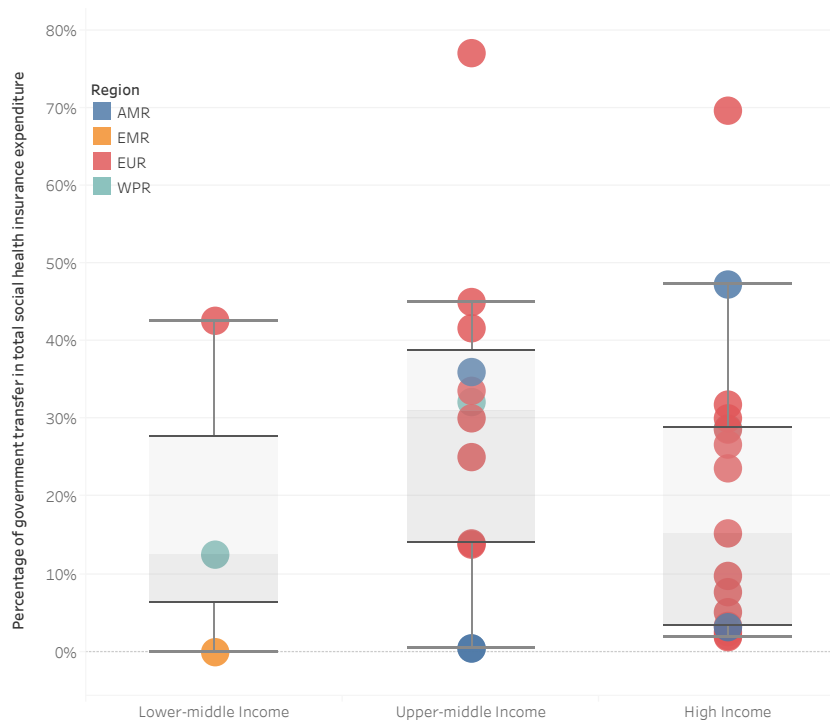


contributions, and thus general revenue transfers are essential for SHI to grow. Put another way, if low- and middle-income countries rely strictly on the “traditional approach,” funding SHI solely from employer-employee contributions, it cannot be expected to play an important role in their health financing systems and more generally as a driver of health system change.

The global patterns are only suggestive, and deeper understanding of the implications of the data require country-specific analysis. For example, while the data may show that general revenue transfers constitute

30% of SHI expenditures, we cannot tell from the GHED whether these budget transfers subsidize the contributions of the formally employed population (as with the Mexican and Thai social security health insurance schemes), or fund the coverage of the poor or other non-contributing groups (as in Moldova’s National Health Insurance scheme). What our analysis does indicate, however, is that many countries report funding compulsory social health insurance, at least in part, from general government tax revenues. This is consistent with the emerging set of studies on this issue, and gives support to the idea that the old Bismarck model is a thing of the past.

Figure 6.2: Share of government budget transfers as a percentage of total social health insurance expenditure for countries in which SHI accounted for at least 50% of government health spending, 2015



Note: The box plot graph displays the distribution of data based on the five number summary: minimum, first quartile, median, third quartile, and maximum. In the central rectangle spans the first quartile to the third quartile (25th–75th percentile). A segment inside the rectangle shows the median and “whiskers” above and below the box show the locations of the minimum and maximum.



At a global level, WHO will continue to compile and publish the health expenditure data. We commit to work closely with experts and global, regional and local partners to refine the guidelines for implementation, and to explore and research for better ways of data collection.



## 7. Conclusions and future directions

In 2015 the world spent USD 7.3 trillion on health, representing close to 10% of global GDP. Health expenditure is growing faster than the overall economy. The average health expenditure per capita is USD 1,011, but half of the world's countries spend less USD 366 per person.

On average, health financing systems have transformed around the world to greater reliance on compulsory prepaid and pooled funding, although beneath this broad depiction of change lies substantial variation in country experience. But the general picture suggests that government expenditure on health is increasing in absolute terms and as a share of total government expenditure, which indicates that health has received higher government priority over time. Many countries channel budget revenues to health service purchasing agencies such as social health insurance funds. In the meantime, out-of-pocket health expenditure increased in absolute terms, but decreased as a share of total current health expenditure.

External funding for health represents less than 0.3% of global spending. However, for low-income countries, external funding counts for 30% of current health expenditure on average, and it has been increasing over time in absolute terms. At the same time, government fiscal capacity is also increasing. Yet the increase in fiscal capacity has not translated into an increase in government health spending; instead, the increased donor spending appears to have had a crowding-out effect, leading governments to reallocate their domestic spending to other sectors.

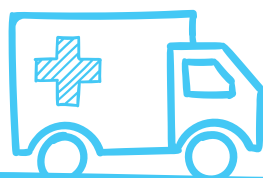
The patterns and trends derived from the data highlight key issues for the attention of countries and international agencies. As a monitoring tool, the database supports the tracking of these patterns over time, and can provide a trigger or entry point for deeper investigation. This requires going beyond the global database into country-specific analysis, such as:

- How much of the health expenditure increase is caused by the cost increase for producing the same types and amount of services, how much is caused by the increased and changed need and demand of services?
- What is the impact of health expenditure growth on households, governments, labour markets and the structure of national economies?
- Is the channelling of government budget revenues to social health insurance agencies for the purpose of extending coverage to previously underserved populations or does it simply concentrate more resources and services for those who already have good access?
- How to make the aid more effective: target specific disease programs, overall health systems or global public goods?
- How much is needed to strengthen health system foundations and institutions?
- Which countries are most in need?
- How does external aid crowd out domestic funding that governments need to invest in health, and are some ways of channelling aid less subject to fungibility?

These are, no doubt, just a few of possible questions that arise from our analysis of the health expenditure data.

### Priorities for improving data

As a global public good, health expenditure tracking aims to provide accurate, timely and comparable data to support better decision making at national, regional and global levels, and to improve transparency and accountability of local, national and global governance. Past experiences have clearly indicated that: a well-developed national information system is the foundation for accurate health data, including the health expenditure data; making use of data for policymaking is the key for routine health expenditure data collection and for improve quality of data. Experience suggests that the following strategies to improve data quality and use are worth considering:



- Link health expenditure data collection with the routine data reporting system in the country.
- Create a virtuous cycle, linking health expenditure data collection with policy development and analytical work at country level.
- Link health expenditure data collection with other data collection efforts
- Sequence the implementation of the SHA-2 framework at the country level, focusing initially on “the basics,” the classification of expenditures into the appropriate HF and FS categories. Without the basic data on expenditures through different financing arrangements, and the sources of these expenditures, the other classifications cannot be produced reliably on a regular basis

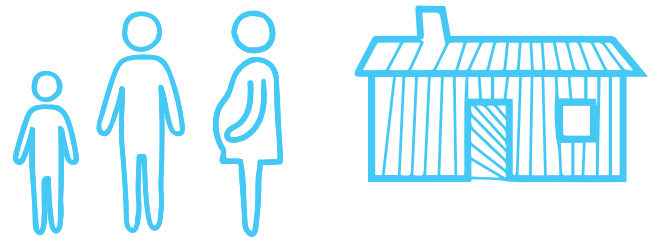
In addition to these process changes, the work in putting together the new GHED has helped to identify specific areas for attention that should be priorities going forward, because of their policy relevance, the weaknesses observed in the available data, and the potential to do something about it through a concerted effort. These are summarized here.

**Separating capital from total expenditure.** Historically, the GHED health expenditure data did not separate capital from recurrent spending, and without new data for all countries and years, there was no obvious basis on which to make a defensible estimate of what, for example, capital spending was

in a given country in a given year. While estimation is more feasible to fill gaps in current spending data, the scope for error in estimating capital is much greater. As a result, the 2017 release of the GHED has many “missings” for capital expenditure.

Going forward, it is clear that this will require use of specific, tailored questions on capital expenditures with each country for which data are not currently reported. Obtaining the data on public and external sources of capital spending will require close engagement with national finance and health authorities, national and international experts with deeper knowledge of the financial data reporting systems of particular countries (as for the Public Investment Programs where these exist), and closer cooperation with other international agencies. There is probably also scope for the research community to at least explore the potential to develop an estimation methodology for missing data-years that might be plausible.

**Capturing external revenue sources of health expenditure.** The shift to SHA-2 did not, in itself, alter the difficulty of obtaining routine data on all externally sourced expenditure in a country for a given year. Efforts were made to collect information on expenditures from external sources through the data collection process, but in many cases the information was incomplete and required also using international data sources. Further efforts



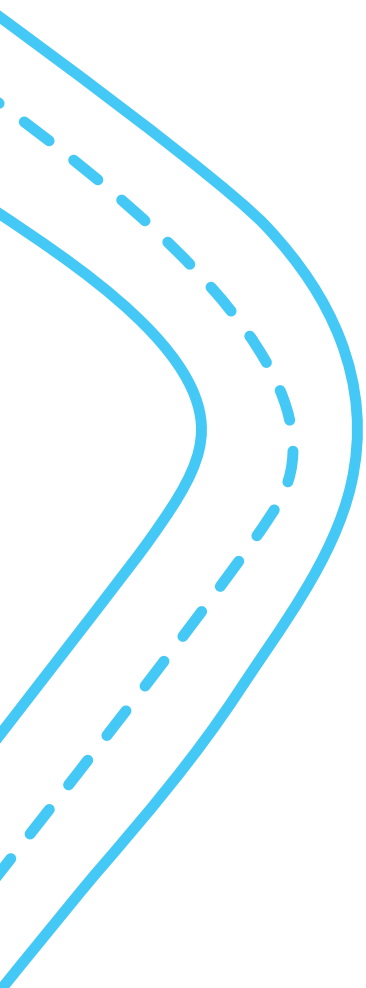
are needed to improve both the completeness of the information on external inflows, to disentangle actual expenditures from commitments, and to depict the channels through which the external aid flows to both capital and current health spending, and within the latter through government, NGO and private financing arrangements. While it will never be perfect, targeting resources for a data collection effort in countries that receive large amounts of development assistance, with the combined efforts of those countries and the donors that provide the funding, can greatly improve the situation. Further work to extract more relevant and reliable data from the OECD-DAC may also prove fruitful.

**Disentangling domestic sources of social health insurance.**<sup>h</sup> A number of studies have shown that many countries channel budget revenues to health insurance agencies, such as social health insurance funds. The historical GHED data based on the SHA-1 classifications do not, on their own, provide a basis for estimating the sources of this expenditure, and thus the information had to be obtained directly from country health expenditure experts or estimated using other information. A key resource for this information proved to be the Annual Reports of SHI agencies, as these typically report on their revenue sources. In addition, explicit transfers of general

revenues to social health insurance agencies would normally appear in the government budget. In many cases, and using a variety of such sources as well as expert knowledge on the particular arrangements of particular countries, we were able to obtain or otherwise estimate the shares of the sources of current social health insurance expenditure. However, there remains scope to improve the accuracy and completeness of this information. In particular, by asking targeted questions to the correct agencies and obtaining the relevant publicly available data sources, there is no reason why it will not be possible to obtain complete and accurate information on this in the future. The key challenge is knowing where to look for the data. This can be resolved through close engagement of those implementing the data collection process with the health financing community active in the country.

**Characterizing health financing arrangements correctly.** Correct HF classification within the SHA-2 framework requires knowledge of both a country's health financing arrangements and of SHA-2. This knowledge is not quantitative or held in a national statistical office. Instead, this knowledge typically rests with people who are involved with health financing policy in the country and can answer questions that relate to, for example, the nature of

<sup>h</sup> Less frequent but still important in some countries are transfers from government budgets to voluntary health insurance. Where this information is obtained, it is reported in the new GHED.



entitlement or whether an arrangement is compulsory or voluntary. In some cases, this knowledge did not rest with those individuals who were historically responsible for reporting health expenditure data to WHO.

Going forward, it will be essential to augment the skills and background for health expenditure reporting by drawing on more health financing policy expertise, both at national and international levels. A useful direction to improve data collection will be to “translate” the classifications into groupings

that will be recognized in a particular country, using terminology and agency names that exist in that country. The health financing teams in WHO’s six regional offices (and sub-regional offices, as in the case of the African Region) are well positioned to take on this role, though they would need to be appropriately resourced for this purpose. In addition, collaboration with the health financing experts of partner agencies with staff active in particular countries, or working closely with networks (such as P4H), academics, and NGOs, will be very valuable for this effort going forward.

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Given the importance of internationally comparable health expenditure data and its role as a global public good, there is a common interest in ensuring that it is of high quality and consistently interpreted. In turn, a well-coordinated collective effort—including data generation, reporting, and vetting—is needed to enable improvement in the years to come, and to provide a sound technical foundation for the analysis and development of health financing policies to move towards UHC.

At a global level, WHO will continue to compile and publish the health expenditure data. We commit to work closely with experts and global, regional and local partners to refine the guidelines for implementation, and to explore and research for better ways of data collection. We will also play the convening role to coordinate with partners in building country capacity and technical support for data collection, analysis and use of health expenditure data to improve health policy, support monitoring of implementation, and drive the health financing and system reform research agenda.

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The named authors Ke Xu, Agnes Soucat, Joe Kutzin, Callum Brindley, Elina Dale, Nathalie Van de Maele, Tomas Roubal, Chandika Indikadahena, Hapsa Toure, and Veneta Cherilova alone are responsible for the views expressed in this publication.

