New Perspectives on Global Health Spending for Universal Health Coverage

**Global report** 



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# Key Messages

This report is based on WHO's Global Health Expenditure Database for 2000-2015. The report takes advantage of the new health expenditure classification framework and reveals new insights into global health expenditure patterns and trends.

- 1. The "health economy" grew faster than the global economy, but expenditures are unequally distributed
- In 2015, the world's health systems spent 7.3 trillion, representing close to 10% of global GDP. Between 2000 and 2015, the annual growth rate in health expenditure is 4% while the economic growth rate is 2.8%
- Health spending worldwide remains very unequal: more than 80% of the world's population live in low and middle income countries but only account for about 20% of global health expenditure.
- The global average health expenditure per capita is 1,011 USD, but half of the world's countries spent less 366 USD per capita. In 2015, nearly 50 countries with population of 2.7 billion spent less than 100 USD per capita on health.

# 2. Domestic public financing is the predominant source of health spending

From 2000 to 2015 government domestic funding as a share of current health expenditure

- increased from 66% to 70% in high-income countries;
- increased from 48% to 51% of in middle-income countries; but
- fell from 30% to 22% in low income countries, while
- most countries with social health insurance arrangements funded these from a mix of traditional employer-employee contributions and transfers from general government revenues.

- 3. Development assistance in health is small compared to the overall health expenditure, but remains important for 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.
- However, the average share of external resources in health spending in the 31 low-income countries was over 30% in 2015.
- External resources as a percentage of health expenditure increased over the past 15 years while the component for government spending decreased in the low income countries.
- 4. Health financing is transforming to improve access to services and financial protection
- There remains a strong association between greater levels of public funding and less reliance of systems on out-of-pocket payments; and
- in 2015 as compared to 2000, there were 1 billion fewer people living in countries where out-of-pocket spending is greater than 50% of health expenditure.
- 5. Global health expenditure data is recognized as a valuable public good
- It informs policy dialogue and policy development.
- It contributes to improved transparency and accountability for health spending at global, regional, national and sub-national levels.

# 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. Poverty has been declining steadily, and the coverage of essential services has increased since 2000. The average coverage for a subset of nine tracer indicators increased by 1.3% a year, which is roughly a 20% increase from 2000 to 2015.<sup>2</sup>

Even so, there is still a long way to go to achieve UHC. At least half the world's people do not have full coverage of essential services. More than 1 billion have uncontrolled hypertension, more than 200 million women have inadequate coverage for family planning, and over 20 million infants do not receive a third dose of DTP vaccine. In addition, some 800 million people spend more than 10% of their annual budget on health care, and 100 million people are pushed into extreme poverty each year because of out-of-pocket health expenses. <sup>2</sup>

And further progress is possible. Since the publication of the 2010 World Health Report, WHO has emphasized that all countries can do something to move towards UHC. <sup>3</sup> 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 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 annual update 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 as a global public good 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 progress towards UHC. Many countries have tried to reduce OOPS through financing arrangements referred to as social health insurance (SHI), and the following Section 6 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 our effort to provide to both citizens and policymakers an overall picture of comparable data on health spending worldwide.



# 1. What's new in this report

#### The potential for new and more policyrelevant interpretations and insights

The SHA-2 health financing classifications enable deeper, more policy relevant understanding and analytic potential then was possible under SHA-1, aligning them with the functional health financing policy framework in wide use. <sup>6,8,9</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, Social Health Insurance Fund, or non-government organization (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 classification 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, compulsory 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>&</sup>lt;sup>a</sup> "Schemes" is an unfortunate choice of terms used in SHA2, and the interpretation of this word is different than what it typically suggests to health financing policy analysts. In SHA2, it refers to a category of health financing arrangements with similar characteristics rather than to a specific institution or pool of funds.

<sup>&</sup>lt;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-ofpocket 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 scope to improve the quality and consistency of the data in the 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 policyrelevant 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. <sup>c</sup> 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 political 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

United States of America	Japan	Germany	France	China
				Brazil
	United Kingdom	Spain		Mexico
		Republic of Korea		
Income Low Income Lower-middle Income Upper-middle Income High Income	-	Sweden		

<sup>c</sup> Unless otherwise stated, unweighted averages are used in this report (i.e. the sum of country values divided by the number of countries).

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

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



Figure 2.3: The world's largest economies



2015 the average share of external resources for health spending in the 31 low-income countries was around 33%, while in the 50 lower-middle and 57 upper-middle countries it was only 3% and less than 1%, respectively.

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









Lower-Middle Income Countries



Domestic public Voluntary health insurance Aid/external resources Out of Pocket Other High Income Countries



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Out-of-pocket spending (OOPS) as a share of current health expenditure (CHE) 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. In 2015 as compared to 2000, there were 1 billion fewer people living in countries where out-of-pocket spending is 50% or more.

Despite relatively higher economic growth in low and middle-income countries, global inequity in health spending has remained largely unchanged. 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

In 2015

In 2000



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>d</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>e</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>15</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.

In general, the priority for health in government spending increased over the period, but this trend is not uniform. 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). One likely explanation has been the magnitude of external support for health flowing through governments in low-income countries. In the early 2000s the share of health in government expenditures from domestic sources 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 as a share of GDP and GDP per capita, 2015



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



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







#### Figure 3.4:

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





# Global health expenditure:

Domestic public expenditure on health:

## USD 4.4 trillion

Domestic private expenditure on health:

### USD 2.9 trillion

Health expenditure from external sources:

## USD 19.2 billion

#### Figure 4.1:

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

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>f</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> For this reason, countries with a population less than 600,000 have not been included in the cross-country analysis.



Figure 4.2: Share of external and domestic public sources of health spending in lowincome countries, 2000-2015

<sup>&</sup>lt;sup>f</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.





Note: Each bubble represents one country, and the size of each bubble represents the total amount of aid to the country in absolute terms.

The share of external assistance in health spending varies considerably from year to year within countries (figure 4.4). This high volatility has strong negative consequences for a 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>

Despite external health expenditure and domestic government spending on health both increasing in absolute terms in most low-income countries, there is evidence of fungibility, i.e. development assistance is spent in the health sector, but the recipient government re-allocates its own resources to fund other priorities. Between 2005 and 2015, the median value of external assistance in low-income countries approximately doubled from 5 to 10 constant USD per capita. Over the same period, the median government prioritization of health measure by domestic public spending on health as a percentage of total government expenditure fell from 7.2% to 5.5% (figure 4.5). Figure 4.5: Growing share of spending from external sources in current health spending among low-income countries and decreasing government prioritization of health, 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 28 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-ofpocket expenditures result in household financial hardship and cause millions to forgo needed health care. <sup>19</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-ofpocket 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





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 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 capacity and a higher priority to health results in greater public spending on health.<sup>9</sup> Earlier analyses have shown that this results in less dependence on out-of-pocket spending.<sup>20</sup> 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

#### 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>9</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.

financial protection. Figure 5.5 demonstrates that the share of OOPS in current health expenditure decreases when the share of government health spending to GDP increases, although there is considerable cross-country variation. The size of government health spending relative to GDP depends on both the overall ability of government to mobilize public resources (its taxation capacity) and the share of public spending devoted to health. Thus, 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 from the observed variation (3) policy (i.e. how to use the public funding) matters as well.

Figure 5.5: Relation between public expenditure on health and dependence of country health systems on out-of-pocket spending, 2015



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>h</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 lowand 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>21,22,23</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 diversity 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 have illustrated the importance of this issue and the potential to pool

tax funding with SHI contributions, <sup>24,25,26</sup> 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>27,28,29,30</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 information 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.h 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>&</sup>lt;sup>h</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 lowand 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 requires 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.

Achieving Universal Health Coverage is an ambitious goal that requires countries to mobilize sustained financial resources. Countries can help ensure health services are in turn available and affordable when people need them through monitoring the extent to which resources are used and allocated efficiently and equitably. With this end goal in focus, WHO commits to continue working closely with global, regional and local partners to provide the global public good of internationally comparable health expenditure data.

# 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 been transforming 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, in low-income countries, external funding counts for about 33% 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 channeling 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.

#### **Future priorities**

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:



- Actively engage in strengthening national health expenditure information systems, including routine reporting and survey data collection.
- Make full use of routine data reporting systems and sample surveys in the country so that most of the expenditure categories (such as public spending and facility-based information) can be collected annually, and survey-based estimations (such as for private spending and disease/program expenditures) can be updated on a regular basis.
- Create a virtuous cycle, linking health expenditure data collection with policy development and analytical work at country level.

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

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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>1</sup> A number of studies have shown that many countries channel budget revenues to health insurance agencies, such as social health insurance funds. A primary source for this information is 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. Where there are no such routine reports, this information can be estimated based on a variety of sources as well as expert knowledge on the particular arrangements of particular countries.. Furthermore, there remains scope to improve the accuracy and completeness of this information through cross-checking, andparticularly by asking targeted questions to the correct agencies and obtaining the relevant publicly available data sources. This requires 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 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 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

<sup>1</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.



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

