Global monitoring report on financial protection in health 2021

World Health Organization

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FOREWORD

The world we are in today is fundamentally different than when we last published the Global Monitoring Report for Financing Protection in 2019. Almost two years into the COVID-19 pandemic, none of us is the same. This report is fundamentally about people. It does the hard work of collating, analysing and synthesizing data across the world to track the status of financial protection as part of the overall measurement of universal health coverage (UHC). These data show us that progress is possible, but that financial hardship remains a major challenge on the road to UHC. As of 2017 at least 1.4 billion people incurred financial hardship due to out-of-pocket health spending; of whom half a billion were already living in, or were pushed into, extreme poverty. As the report lays out, given the combined health and economic shock of COVID-19, this number will likely only grow.

We humbly publish this report recognizing that most of the data it presents predates the pandemic. However, we are also acutely aware of the need to look back to understand the systemic weaknesses that led us to where we are today, to be able to look forward to building stronger, more resilient, and inclusive systems that protect all people. Given the macro-fiscal outlook, we know this will require clear and proactive policies that prioritize public spending on health with adequate financial protection mechanisms and social support, particularly for the poor. Importantly, the 2021 Global Monitoring Report pushes into new territory by revealing the persistent financial hardship and financial barriers that especially the poorest and most vulnerable households face when trying to access health care. Equity is at the heart of UHC, and it is clear we must redouble our efforts to support and protect these households over the entire life cycle, as their numbers are only growing as the pandemic continues to take its toll. To this end, this report stresses that any expenditure on health care by the poor is further impoverishing and that improved financial protection does not only have intrinsic value, but is also key to overall poverty eradication.

As we continue to jointly monitor financial protection, going hand-in-hand with efforts to measure service coverage, we do so with a firm commitment to build, adapt and improve not just our own metrics but also to refine the policies that enable improvement. COVID-19 is a stark reminder that policy adaptation happens in real time. For this reason, the complimentary analysis on the pathways through which the COVID-19 pandemic is likely to impact financial protection in 2020 and beyond presented in this report is an important addition to the 2021 Global Monitoring Report on Financial Protection. This pathway analysis provides clear indications of the targeted, deliberate and equity-focused policies that will be needed to buttress households as we continue to respond to the pandemic and its fallout. These efforts are an investment in the future health, well-being, and, importantly, economic viability of households and countries alike.

As calls for global solidarity ring out, this report translates these calls into the consequences for households. We must not lose sight that ensuring access to quality health services without facing financial hardship is both a health and economic objective. To make good on the commitment to UHC, including financial protection, public policy must commit to public spending and supportive policy action with a clear focus on those countries and households most in need.

Zsuzsanna Jakab
Deputy Director-General
World Health Organization

Juan Pablo Uribe
Global Director
Health, Nutrition and Population
The World Bank

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The overall scientific coordination was done by Gabriela Flores (WHO). The report was prepared under the general direction of (from WHO) Tessa Tan-Torres Edejer and Joe Kutzin; and (from the World Bank) Juan Pablo Uribe, Feng Zhao, and Toomas Palu.

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May 3, 1959 – May 10, 2020

In memoriam

Dr Robert Adam Stephen Wagstaff

Dr Adam Wagstaff, a key contributor to the development of the indicators of financial hardship in this report, champion for their inclusion in the Sustainable Development Goals, and lead of the World Bank team for the previous Global Monitoring Reports, passed away at the age of 61 on May 10, 2020.

After establishing an impressive academic career at an early age, with seminal contributions to the measurement of equity in health, Adam joined the World Bank in 1999, and led and managed the Bank's research on health, education, and social protection from 2009 until his passing. Passionate about putting research into practice, he was deeply involved in transitioning the World Bank's mission from a focus on economic growth to a strongly pro-poor agenda that emphasizes human development and shared prosperity. Adam also strongly influenced the development of the health-related Millennium Development Goals, where he successfully advocated for the inclusion of equity. Later, his work on equity and the measurement of financial protection in health was crucial in operationalizing the concept of Universal Health Coverage, whose inclusion as a Sustainable Development Goal he championed, and whose tracking he was instrumental for as the World Bank team's lead for the 2015, 2017, and 2019 Global Monitoring Reports on Universal Health Coverage and Financial Protection in Health.

Adam maximized the impact of his work by making it accessible to both technical and non-technical audiences that spanned colleagues, government officials, academics, and students alike. Even more important to him was to empower others to conduct their own research into health equity and financial protection. To this end, he developed publicly available databases and easy-to-operate software tools, taught their application across the globe, and initiated many scientific collaborations between researchers in low- and middle- and high-income countries.

Despite this strong commitment to practice, Adam remained a prolific writer of scientific papers, books, reports, and blogs throughout his career, putting him among the top 20 most cited health economists in the world.

Adam epitomized intellectual curiosity, rigor and excellence, a strong commitment to data and evidence-based decision-making, a passion for effective communication and knowledge sharing, and an impatience to get things done that was firmly rooted in the goal of improving the lives of those most in need.

EXECUTIVE SUMMARY

Financial protection is an intrinsic part of universal health coverage (UHC) and, together with service coverage, is one of the health systems' goals. Financial protection is achieved when: there are no financial barrier to access; and direct payments required to obtain health services (out-of-pocket health spending) are not a source of financial hardship.

A full account of financial hardship requires monitoring of impoverishing health expenditures, including any amount spent on health out-of-pocket by the poor, in addition to large out-of-pocket health spending. Out-of-pocket (OOP) health spending is an inefficient and inequitable way of financing health and should be reduced as much as possible in favour of pre-payment mechanisms. When it contributes to health financing, it should not be borne disproportionately by the poor and not at all by the poorest. Since 2015, the World Health Organization (WHO) and the World Bank have been reporting progress on reducing financial hardship at the global level using two main indicators: i) the incidence of catastrophic health spending, defined as the population with large OOP spending in relation to household consumption or income (Sustainable Development Goal (SDG) indicator 3.8.2 with 'large' defined using two thresholds 10% and 25%); and ii) recognizing that even lower thresholds of OOP health spending in consumption or income can lead to financial hardship, the proportion of the population impoverished by OOP health spending *(1)*. This report goes one step further, to include a focus on the poor spending any amount on health OOP. Those payments matter: they represent a major challenge to "End poverty in all its forms everywhere" (SDG 1) arising from OOP health spending by the poorest. Tracking all OOP health spending is critical to monitoring financial hardship across the whole population, in line with the pledge to leave no one behind that is at the heart of the SDGs.

Pre-pandemic, trends in catastrophic health spending were already going in the wrong direction. The incidence of catastrophic spending (as tracked by SDG indicator 3.8.2) increased continuously between 2000 and 2017. Most recently, between 2015 and 2017, the proportion of the population with OOPs exceeding 10% of their household budget rose from 12.7% of the population (940 million) to 13.2% (996 million) and was driven by: (i) an increase in the amount people spent per person OOP for health; and (ii) a higher rate of growth of OOP spending relative to growth in private consumption. These trends emphasize the need to focus urgent policy attention of how health systems are financed.

The number of people incurring impoverishing health spending remained unacceptably high. The proportion of the total population pushed and further pushed below the PPP$1.90 per day line of extreme poverty decreased substantially and continuously at global levels from 19% in 2000 to 6.7% in 2017. At the relative poverty line (living with less than 60% of median per capita consumption or income) however, rate of impoverishing health spending only started to decrease in 2015, and at a much lower pace, from 15.8 % to 15% in 2017. Despite higher levels of public spending, reductions in impoverishing health spending did not occur in high-income countries and overall, globally in 2017, half a billion people were pushed or further pushed into extreme poverty, and 2.2 times as many went into or further into relative poverty (see Table 1). Across all country income groups, the poor spending any amount OOP on health represented between 83% and 89% of the people incurring impoverishing health spending. These dauting statistics draw attention to the need to ensure coverage policies aim to reduce financial hardship among the poor, even in relatively well-resourced health systems.

The world was off-track to reduce financial hardship with at least 1.4 billion people facing catastrophic and/or impoverishing health spending. The overlap between those incurring catastrophic health spending and impoverishing health spending was relatively small (11% at most estimated on a sample of 141 countries). Hence, in 2017 the total number of people incurring financial hardship ranged between 1.4 billion people and 1.9 billion people depending on the poverty line used to identify impoverishing health spending (i.e. the global extreme poverty line or the relative poverty line). Most of the population facing catastrophic health payments was concentrated in lower and upper middle-income countries, and in the Asia region. The population pushed into extreme poverty (at PPP$1.90 per day) was concentrated in low and lower middle-income countries, as well as in Africa (due to a high incidence) and in Asia (due to the large population size). Based on a relative poverty line definition, impoverishing health expenditure were more concentrated in upper-middle income countries and Asia. The proportion of the population incurring financial hardship tended to be lower in countries with greater reliance on public spending. But, country level analysis shows that population coverage, policies to limit co-payment backed by effective health financing measures, targeting and the comprehensiveness of the benefit package are all essential to transform increase in public spending to reductions in financial hardship. Reducing gaps in the coverage of outpatient medicines is critical to reduce financial hardship in many regions. Recent evidence from Latin America and the Caribbean confirms the importance of medicines as a driver of OOP health spending and complements existing evidence from Europe, South-East Asia and a sample of countries in Africa.

Aging was an amplifying risk factor for financial hardship. Older people (those aged 60 and older) represent an increasing share of the population across most countries. Using a life-cycle approach – over 92 countries accounting for half of the world population in 2017 – this report underlines the role of aging as an amplifying risk factor for financial hardship: those living in older households faced the highest rates of catastrophic health spending, and that those living in multigenerational households had higher rates of further impoverishment due to OOP health spending. To improve the life of older people, their families and communities in line with objective of the 2021–2030 decade of healthy aging, making progress toward UHC will require extension and improved targeting of benefit packages to reduce financial hardship and to meet the health needs of people living in older or multigenerational households, especially the poorest and most vulnerable segments of elderly populations.

Immediate actions are needed to improve the production speed and frequency of data on household out-of-pocket health spending and on total consumption expenditure. These adjustments are needed to reduce the current average lag of four years in generating indicators of financial hardship due to OOP health spending and collect sufficient evidence regarding the level of financial hardship experienced during the COVID-19 pandemic. At the time of producing this report, very few estimates are available for 2020. Existing data do not show a significantly different pattern compared to previous years. When more data becomes available, a clear understanding of the circumstances under which the data were collected (e.g. method of capture, recall period of the health expenditure items, survey period) in addition to in-depth analysis of indicators of access to care, unmet needs and barriers to access will be needed to understand the patterns during the peak of the pandemic.

Table 1. SDG-related indicators of financial hardship (in millions of people), 2000–2017

	2000	2005	2010	2015	2017
Catastrophic health spending (SDG indicators 3.8.2)					
Population spending more than 10% of their household on health out-of-pocket (SDG 3.8.2, 10% threshold)	579	708	785	940	996
Population spending more than 25% of their household on health out-of-pocket (SDG 3.8.2, 25% threshold)	131	167	189	270	290
Population with impoverishing health spending at the PPP$1.90 per day line of extreme poverty	1159	1009	826	664	505
Impoverished by out-of-pocket health spending	124	130	122	115	70
Further impoverished by out-of-pocket health spending (the poor spending any amount on health out-of-pocket)	1035	879	704	549	435
Population with impoverishing health spending at *relative* poverty line	630	808	1007	1153	1125
Impoverished by out-of-pocket health spending	91	122	154	182	172
Further impoverished by out-of-pocket health spending (the poor spending any amount on health out-of-pocket)	539	686	853	971	953

Note: The relative poverty line is defined as of 60% of median per capita consumption or income in each country.

Source: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update.

COVID-19 and Financial Protection

COVID-19 is likely to significantly worsen financial protection globally. Lack of data currently precludes a detailed and comprehensive assessment of the impact of COVID-19 on financial protection. Nevertheless, the combined economic and health impacts of COVID-19 point towards the strong likelihood of a significant worsening of financial protection globally – higher rates of foregone care due to financial barriers as poverty grows, and for those seeking care, a higher incidence of catastrophic spending and worsening impoverishment due to OOP health spending – resulting from the pandemic, in particular among low- and middle-income countries and lower-income households.

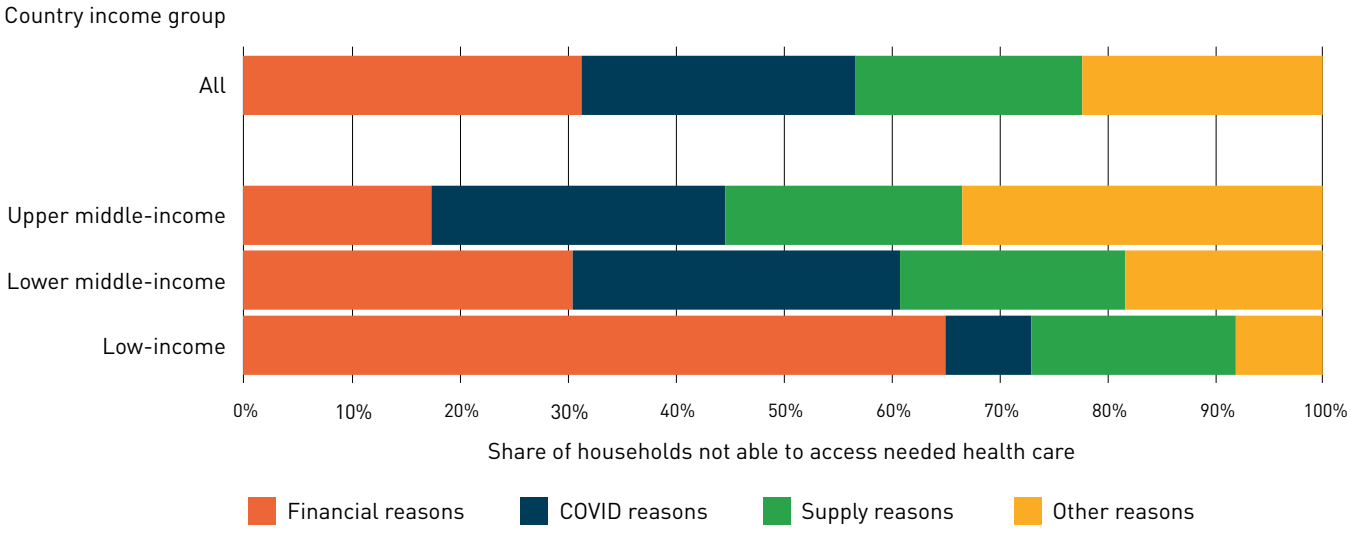
Over and above the health effects, COVID-19 has also resulted in a deep global economic contraction. In 2020, the world experienced one of the largest declines in GDP in more than a century, unprecedented in scale, with most countries seeing negative economic growth – and almost all seeing a slowdown in economic growth *(2)*. Declining incomes and mobility restrictions contributed to a rapid decline in private consumption, declining investment and increased unemployment in most countries *(2–4)*. Millions of people have been forced into poverty, with the poor and most vulnerable populations bearing the economic brunt of the pandemic *(5)*. The confluence of these economic factors means that, on average, households have fewer resources to pay for health care, and it has done so in the most detrimental way possible: by hitting the poor and most vulnerable households the hardest.

In the face of these health and economic pressures, governments worked to buttress households and the overall economy in 2020 through large increases in overall government expenditure. However, these expenditures are matched with large declines in government revenues, with tax revenues declining on average by 1.5 percentage points of GDP in 2020 *(2)*. Higher government spending combined with lower government revenues implied higher levels of deficit financing and a jump in levels of public debt across most countries, which will have long-term effects on debt servicing payments, placing additional pressure on constrained fiscal envelopes. The confluence of these factors means that public spending on health will face constraints in the years to come. These constraints raise even more concerns about financial protection, particularly for the increased number of poor households, given the protective role of public spending.

The unique nature of the COVID-19-induced economic crisis means that the impact on health-seeking behaviour is mixed. First, care-seeking demand has increased for COVID-19-related test and treatment services. While many countries put into place policies to reduce financial barriers to seeking COVID-19 services, survey results show that people in some contexts continued to pay OOP for these services (~35% of households in April 2021 survey) *(6)*. In some cases, these COVID-19-related payments placed financial hardship on households. Based on the Global COVID-19 Trends and Impact Survey across respondents from 110 countries, between 8% and 18% of the population receiving COVID-19 tests reported reducing their spending on household necessities (such as food, housing and utilities) to cope with related costs *(6)*.

The pandemic reduced the demand and supply, shifting patterns of access and utilization of all essential health services *(7)***.** While many factors contributed to these utilization decreases, at least some were related to financial barriers. The World Bank High Frequency survey shows that 19% of households across all low- and middle-income countries in the sample reported not being able to access the health care services they needed and financial barriers as the most-commonly reported reason for foregoing care (cited by 31% of households reporting access barriers in the full sample of countries) *(4)*. In low-income countries, these rates were much higher, with 58% of the households reporting not being about to access services citing lack of money as key reason (i.e. 5.9% of all households in the survey in low-income countries). This evidence appears to confirm that there is a direct link between the household-level economic impact of COVID-19 and financial barriers to seeking care. These financial barriers will be compounded by increased self-medication that will also contribute to increased OOP expenditures *(8)*. This pattern of self-medication not only raises financial protection concerns, but also has potential negative externalities for health, in particular antimicrobial resistance *(9)*.

Figure: Main reasons reported by households for not accessing health care when needed, multi-country evidence



Note: UMICs n=1 to 13 LMICs n=2 to 17; LICs n=3 to 12. Data collected between April 2020 and August 2020.

Source: Authors calculations using data from the World Bank High Frequency Survey (2021) *(4)*. Data collected between April 2020 to August 2020.

This worsening of financial protection will likely be sustained in the medium term unless proactive policy efforts are made. These policies can include, pro-poor focused increases in public spending to crowd-out OOP spending for health, enhanced social protection support, removal of co-payments and other fees at the time and place of seeking care, cash transfer payments for stimulating utilization among poor and vulnerable households, and expansion in coverage for and strengthening of primary health care – not just to recover but also to accelerate progress towards UHC. It will be critical to adapt data collection tools and relevant metrics to closely monitor the financial protection trends, so that barriers to seeking care for households can be identified and understood, and to support development and targeting of related policy interventions.

Financial protection monitoring for 2021: what has changed since 2019?

The *Global monitoring report on financial protection in health 2019* found mixed trends in financial hardship, with an increasing share of the world's population incurring catastrophic health spending and fewer pushed into poverty. Accordingly, it called for a doubling of efforts to provide financial protection *(1)*. Chapter 1 of the current report confirms previous trends and provides an alarming 2017 pre-coronavirus disease (COVID-19) baseline. Chapter 2 unpacks and discusses the potential pathways through which financial hardship will likely be worsened in many settings due to COVID-19.

Key features of this report include:

- Clarification of the distinction between financial hardship and financial protection.
- Global and regional estimates of financial hardship, based on a greater number of data points from more countries than the 2019 Global Monitoring Report *(1)*:
  - This 2021 report relies on 903 data points on catastrophic health spending from 161 countries or territories (compared to 739 datapoints in the 2019 report), and on 816 data points on impoverishing health spending from 149 countries or territories (compared to 719 datapoints in the 2019 report).
  - This 2021 report also includes sufficient new data to advance the 2015 reference year for the global and regional estimates to 2017. There are indeed 111 countries with at least one survey-based estimate on catastrophic health spending available between 2014 and 2020 and 99 with at least one survey-based estimate on impoverishing health spending over the same period.
- A focus on out-of-pocket (OOP) health spending by the poor, recognizing that for poor households, OOP payments can cause financial hardship even when they spend less than 10% of their budget on health. The current report therefore provides estimates of the numbers of people and proportions of the population who are already poor and are pushed further into poverty by OOP health payments for 149 countries or territories.
- All indicators of financial hardship were included in a country consultation conducted by the World Health Organization (WHO) and the World Bank between March 2021 and July 2021. 27 countries or territories produced the estimates for the Sustainable Development Goal (SDG) indicator 3.8.2 that are used in this report (with or without collaborating with WHO and/or the World Bank). 14 of them also produced the indicators of impoverishing health spending. No consultation was conducted for less than 5% of the countries or territories, which did not receive their estimates because they did not nominate a focal point. The 33 WHO Member States without any financial hardship estimates available were informed about the methods and data needed to produce them in the future.
- Estimates on the joint distribution of catastrophic health spending and impoverishing health spending were produced for 141 countries or territories. For this analysis, catastrophic health spending was defined using the SDG indicator 3.8.2 at the 10% threshold and impoverishing health spending was defined using the extreme poverty line ($1.90 a day in purchasing power parity (PPP)) and the relative poverty (defined as 60% of median per capita consumption or income in each country).
- A focus on the age profile of people incurring financial hardship was also included. Estimates of catastrophic and impoverishing health spending across households with different age composition were produced for the first time: for 92 countries or territories, representing 53% of the world population in 2017.
- A call to adapt data collection tools and relevant metrics to enable close monitoring of financial hardship and identification of financial barriers to care-seeking as a prerequisite for the development of targeted, timely and effective policy interventions.
- The report uses data from a range of sources, including from novel data collection methods adapted to the COVID-19 pandemic context.

FINANCIAL HARDSHIP BEFORE THE COVID-19 PANDEMIC

Key messages

- Financial hardship is a key consequence of inadequate of financial protection mechanisms.
- A focus on impoverishing health spending, which includes out-of-pocket health payments pushing households below the poverty line and any amount spent out-of-pocket on health by the poor, is critical to monitoring financial hardship across the whole population.
- Before the COVID-19 pandemic, the world was off-track to reduce financial hardship due to health expenditures because trends in catastrophic health spending were continuously increasing and the numbers of people incurring financial hardship remained unacceptably high.
- In 2017, the total number of people incurring financial hardship ranged from 1.4 billion to 1.9 billion people depending on the poverty line used to identify impoverishing health spending (i.e. the poverty line of extreme poverty versus relative poverty).
- Most of the 996 million people facing catastrophic health payments were concentrated in low-income and upper middle-income countries, and in the Asia Pacific region.
- The 505 million people pushed or further pushed into extreme poverty by out-of-pocket health spending were concentrated in low-income and lower middle-income countries, as well as in Africa (due to a high incidence) and in Asia (due to the large population size). Based on a relative poverty line definition, the 1.12 billion people with impoverishing health expenditures were also more concentrated in Asia and in upper middle-income countries.
- The poor spending any amount on health out-of-pocket represented between 83% and 89% of the people incurring impoverishing health spending. To substantially reduce financial hardship, in addition to limiting relatively large out-of-pocket health spending, the poor and 'near-poor' need to be effectively exempted from making out-of-pocket payments when seeking care.
- People living in older households face the highest incidence of catastrophic health spending across all country income groups and those living in multigenerational households face the highest rates of impoverishing health spending. These findings highlight the need for targeted coverage extensions for households with vulnerable demographic profiles.
- The proportion of the population incurring financial hardship tends to be lower in countries with greater reliance on public spending.
- In many regions, reducing gaps in the coverage of outpatient medicines is critical to reduce out-of-pocket health spending and resulting financial hardship.
- Immediate actions are needed to improve the production speed and frequency of data on household out-of-pocket health spending and on total consumption expenditure, to avoid insufficient evidence regarding the level of financial hardship experienced during the COVID-19 pandemic.

Financial protection lies at the core of universal health coverage (UHC) and represents one of the final coverage goals of the health system. Financial protection is achieved when: (i) there are no financial barriers to access; and (ii) direct payments required to obtain health services (OOP health spending, Box 1) are not a source of financial hardship. The starting point to clarify the distinction between these two criteria is to consider all the population in need of health care services and/or health products, rather than a specific subgroup with a particular health need or in need of a particular intervention (Fig. 1). Some of the people seeking care face barriers to access related to financial constraints, acceptability issues, unavailability of services, or accessibility, to name a few of the most frequent dimensions *(10–15).* All such barriers contribute to delaying and preventing people from using services (hereafter simply referred to as foregone care). Even when contact is established, Fig. 1 shows that access to care can be a source of financial hardship if OOP health spending is large in relation to a household's welfare. If they are not, then access to care does not result in financial hardship.

Box 1: Out-of-pocket health spending definition

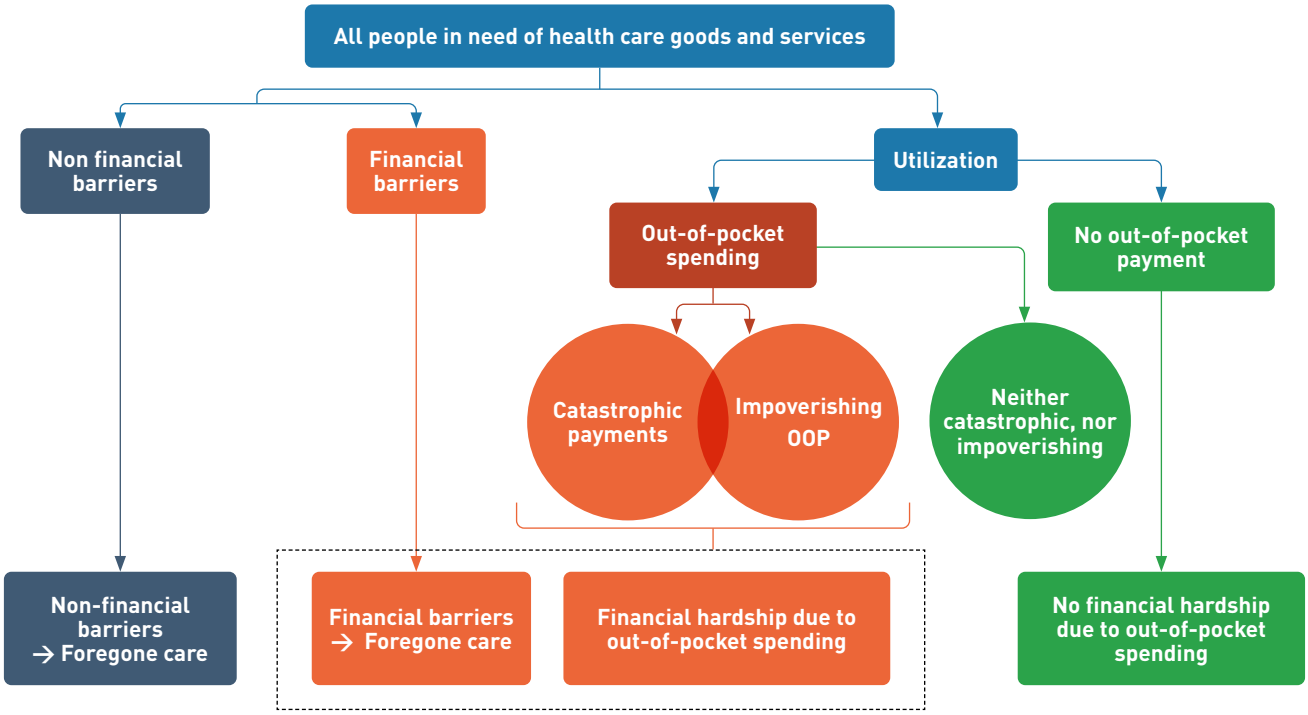
Out-of-pocket health spending is defined as any spending incurred by a household when any member uses a health good or service to receive any type of care (i.e. preventive, curative, rehabilitative or long-term care), provided by any type of provider, for any type of disease, illness or health condition, in any type of setting (e.g. outpatient, inpatient, at home). It includes formal and informal expenses directly related to the cost of seeking care as mapped in division 06 of the UN classification of individual consumption according to purposes (COICOP-2018) (i.e. on medicines and medical products (06.1), outpatient care services, including dental care (06.2), inpatient care services, including inpatient dental care (06.3), diagnostic imaging services and medical laboratory services (06.4.1) and patient emergency transportation services and emergency rescue (06.4.2)) *(16)*. It excludes pre-payment (e.g. taxes, contributions, or premiums) and reimbursement of the household by a third party such as the government, a health insurance fund or a private insurance company. It also excludes indirect expenses (e.g. non-emergency transportation cost) and the opportunity cost of seeking care (e.g. lost income) *(17)*. COICOP was revised in 2018 to provide more information on important components of household care consumption (Annex A1).

Catastrophic health spending represents a sufficient, but not a necessary condition for financial hardship to occur (Box 2). The definition of catastrophic health spending used in relation to SDG indicator 3.8.2 is focused on relatively large OOP health spending, in effect those exceeding 10% and 25% of the household's total consumption or income (budget). Recognizing that for poor and near-poor people it is the absolute level of OOP health spending that is crucial – even if it represents less than 10% of a household budget – indicators of impoverishing health spending are also used to track financial hardship. Impoverishing OOP health spending occurs when a household is forced by an adverse health event to divert spending from non-medical budget items such as food, shelter or clothing to such an extent that its spending on such items is reduced to below or further below the level indicated by a poverty line. The poverty lines used in this report are chosen to assess to what extent OOP health spending deters efforts to "End poverty in all its form everywhere" (SDG 1). The link with SDG target 1.1 (elimination of extreme poverty) is made by using the extreme poverty line ($1.90 a day in 2011 PPP terms).[a] To link with SDG target 1.2 (reduction of poverty everywhere), a relative poverty line defined as 60% of median per capita consumption or income is used in this report. The degree of overlap between catastrophic and impoverishing health spending depends on their definition and is empirical. Fig. 1 suggests the intersection is small as the current definitions used at global levels are not interrelated, but other definitions with a greater degree of overlap exist (see also Annex A2 and Annex Table A10). When OOP health spending are neither catastrophic (they represent less than 10% of a household budget in the SDG framework) nor impoverishing, then access to care does not result in financial hardship. In all other cases, it does (Fig. 1).

a The international poverty line of US$1.90 is expressed in 2011 PPP terms. In the rest of the chapter dollars always refer to international dollars in 2011 PPP terms and are denoted PPP$. This poverty line corresponds to the median national poverty line of low-income countries *(1)*. Indicators of impoverishing health spending based on a higher poverty line of PPP$3.20 a day, which corresponds to the typical standard used to assess national poverty levels by lower-middle-income countries *(29)*, are included in the annexes but are not discussed in the report.

Finally, Fig. 1 clearly shows that tracking financial hardship is not sufficient to assess the degree of financial protection. When households must either forego care because of financial barriers, or when access to health services results in financial hardship, then the population in need of health care lacks financial protection. This report is focused on monitoring financial hardship and provides some evidence related to financial barriers to access (Box 8, in section 1.5). The monitoring of universal health coverage in the SDG monitoring framework requires tracking catastrophic health spending and service coverage jointly, and evidence on both covering the pre-pandemic period is briefly discussed in section 1.5 but further details are available in *Tracking universal health coverage: 2021 monitoring report (18)* published at the same time than this report. Chapter 2 of the current report discusses the implications of the COVID-19 pandemic for financial protection.

Figure 1. Financial hardship due to out-of-pocket health spending



Notes: Catastrophic and impoverishing out-of-pocket health spending are metrics used to identify in which cases out-of-pocket health payments are a source of financial hardship (see Box 2). Catastrophic out-of-pocket metrics include SDG 3.8.2, capacity to pay approaches, etc. (see annex A2). Impoverishing out-of-pocket metrics include indicators to identify both people impoverished and further impoverished by out-of-pocket health spending, using various poverty lines (e.g. the global extreme poverty line, a relative poverty line).

Box 2: Different measures to understand financial hardship due to out-of-pocket health spending

Out-of-pocket health spending is a source of financial hardship. Financial hardship is assessed by comparing either a household's OOP health spending to its ability to pay (metrics based on this approach are used to identify catastrophic health spending) or its consumption levels (gross and net of OOP health spending) relative to a poverty line (metrics based on this approach are used to identify impoverishing health spending)

For some people the relative level of OOP health spending is a source of financial hardship (incidence of catastrophic health spending, see also Annex A2)

Within the SDG monitoring framework, the incidence of catastrophic health spending is measured as the proportion of the population with OOP health spending exceeding 10% or 25% of the household's total consumption or income (budget) *(19)*. Richer households might be spending more than 10% (or 25%) of their budget on health care, which might lead to cutting spending on other needs but not necessarily to below-subsistence levels. Less wealthy households might be spending less than 10% of their budget on health and still struggle to reach a decent living standard. The latter are not captured by SDG 3.8.2. Other indicators of catastrophic health spending used at regional levels (*Annex Table A10*) are more sensitive to financial hardship among poorer households and do count households who spend less than 10% (Annex A2).

For others the absolute level of OOP health spending matters (population impoverished or pushed into poverty)

For some people it is the absolute level of OOP health spending that matters. These are people with consumption levels *above* a poverty line only because of OOP health spending, while consumption on necessities (e.g. food, housing and utilities) might lie below minimum living standards. The proportion of the population impoverished by OOP health spending (pushed into poverty) is an estimate of their number as a share of the total population. It is measured as the change in the poverty headcount ratio resulting from the exclusion of OOP health spending from the indicator of household welfare *(1,20,21)*. To ensure cross-country comparability – and because consumption is generally the preferred welfare measure *(22)* – this report uses consumption (gross of OOP health spending) as the measure of household welfare; income is used only where WHO and the World Bank do not have access to consumption data for global monitoring.

For the poor any amount spent on health OOP is a source of financial hardship (population further impoverished or pushed further into poverty)

Some people have consumption levels *below* a poverty line even when OOP health spending is included in their total consumption (i.e. they are already living below the poverty line). Out-of-pocket health spending deepens their poverty levels, but they are not counted in the incidence of impoverishment. In previous global reports, the increase in the poverty gap due to OOP health spending was used to take into account the effect of OOP health spending on both people impoverished and further impoverished into poverty *(1,23-4)*. This report goes one step further and counts the poor spending any amount on health OOP as a proportion of the total population, as the poor are forced to make the difficult choice of reducing their consumption of non-medical necessities, even if for a short period of time, or engage in potentially harmful coping mechanisms such as distress sales of productive assets and indebtedness to try to limit the short-term adverse effect on their living standard *(25,26)*. By adding this indicator, it is possible to monitor financial hardship across the whole population: those incurring relatively large OOP health payments regardless of their poverty status; those for which the absolute level of OOP spending is sufficient to impoverish them; and the poor who are further impoverished by any amount spent on health OOP. The total number of people incurring impoverishing health spending includes both those impoverished and those further impoverished. These two groups are always mutually exclusive.

1.1. How many people experienced financial hardship?

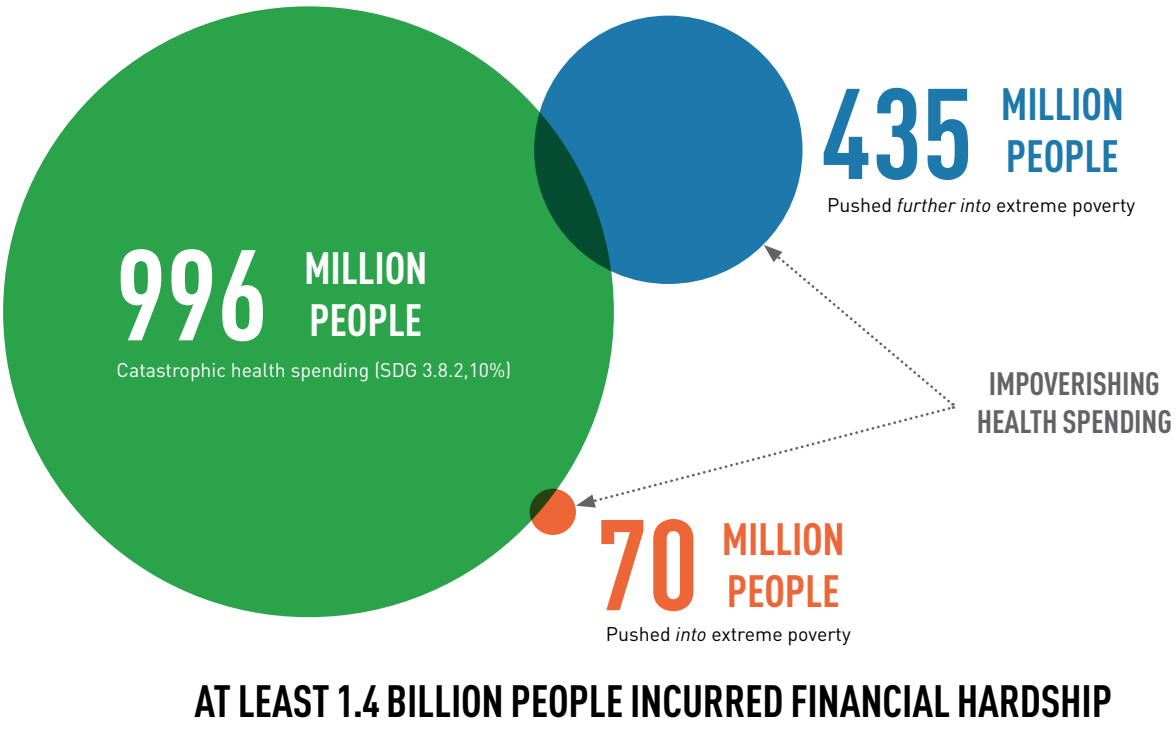
1.1.1. 2017 baseline

In 2017, a staggering number of people experienced financial hardship when paying out-of-pocket for health.

In 2017, the latest year for which it is possible to produce global estimates (Annex A3), almost 1 billion people spent in excess of 10% of their household budget on health OOP (Fig. 2) of which, 290 million spent at least a quarter of their household budget on health OOP (Annex Table A4b).

Out-of-pocket health spending can also be a source of financial hardship even when people are devoting less than 10% of their household budget to health (Fig 1, Box 2). This is particularly true for the near-poor and the poor who incur impoverishing health spending. Based on the extreme poverty line, an estimated 70 million people were impoverished by OOP health spending exceeding the shortfall between the poverty line and their total consumption. Using a relative poverty line definition, the estimated total population impoverished was 2.4 times greater (Annex Table A4b). Out-of-pocket health spending most often represents spending on regrettable necessities *(22)* incurred to compensate a loss in welfare triggered by an illness, injury or adverse health event that is not just increasing welfare but probably diminishing it as well if it displaces spending on other basic needs. As such, any amount spent on health OOP can be considered a source of financial hardship for the poor. The number of poor people who are further impoverished by OOP health spending is considerable: based on the extreme poverty line, 435 million people in 2017 (Fig. 2) and about twice as many when using the relative poverty line (953 million, 12.7%; Annex Table A4b)

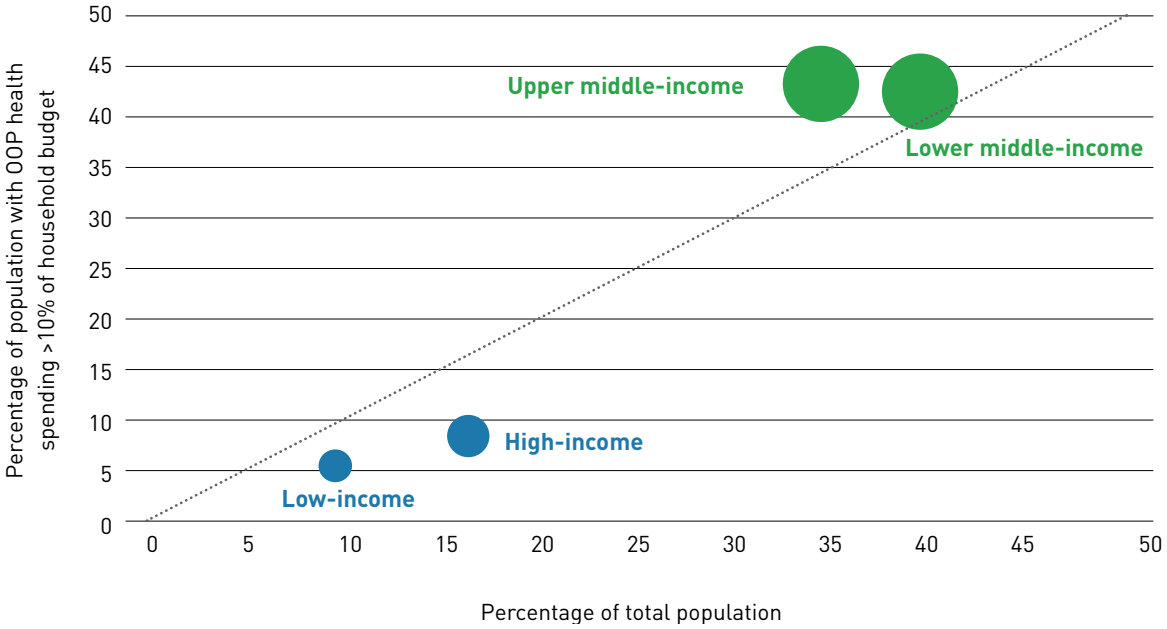
Figure 2. Global financial hardship due to out-of-pocket health spending, 2017



Sources: Data from Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

The population incurring financial hardship was concentrated in middle-income countries because of their higher rates of both catastrophic and impoverishing OOP health spending. The concentration of catastrophic health spending in middle-income countries (MICs) was due to the larger size of their population, and because of their higher incidence rates compared to other income groups (Fig. 3). Upper-middle income countries represented 43.4% of all the population impoverished or further impoverished into relative poverty for 34.3% of the total population in 2017 (Fig. 4a). Lower-middle income countries represented 51.6% of all the population impoverished or further impoverished into extreme poverty by OOP health spending, for 39.4% of the total population in 2017 (Fig. 4b). The second highest concentration of all the people impoverished or further impoverished was found in low-income countries (33.4% for 9.5% of the total population in 2017).

Figure 3. Distribution of catastrophic health spending as tracked by SDG indicators 3.8.2 at the 10% threshold across country income groups, 2017

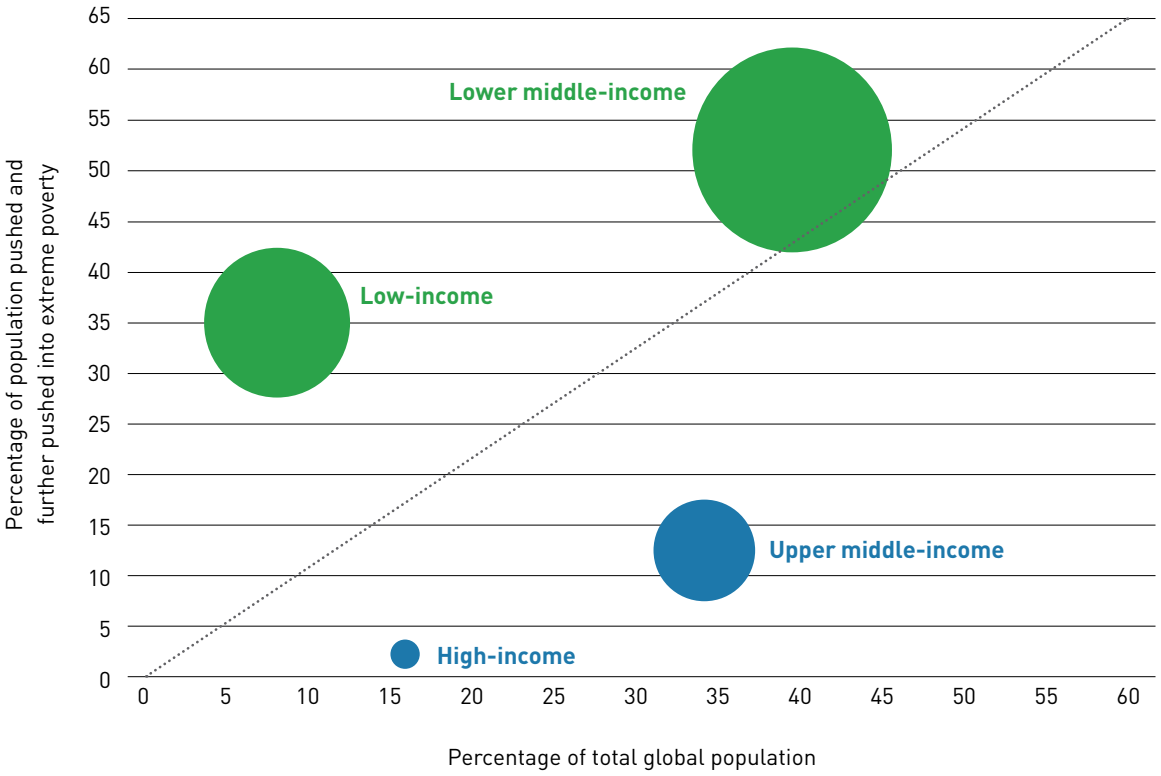


Note: Circle sizes are proportional to the number of people spending more than 10% of their household budget on health OOP (SDG 3.8.2, 10% threshold).

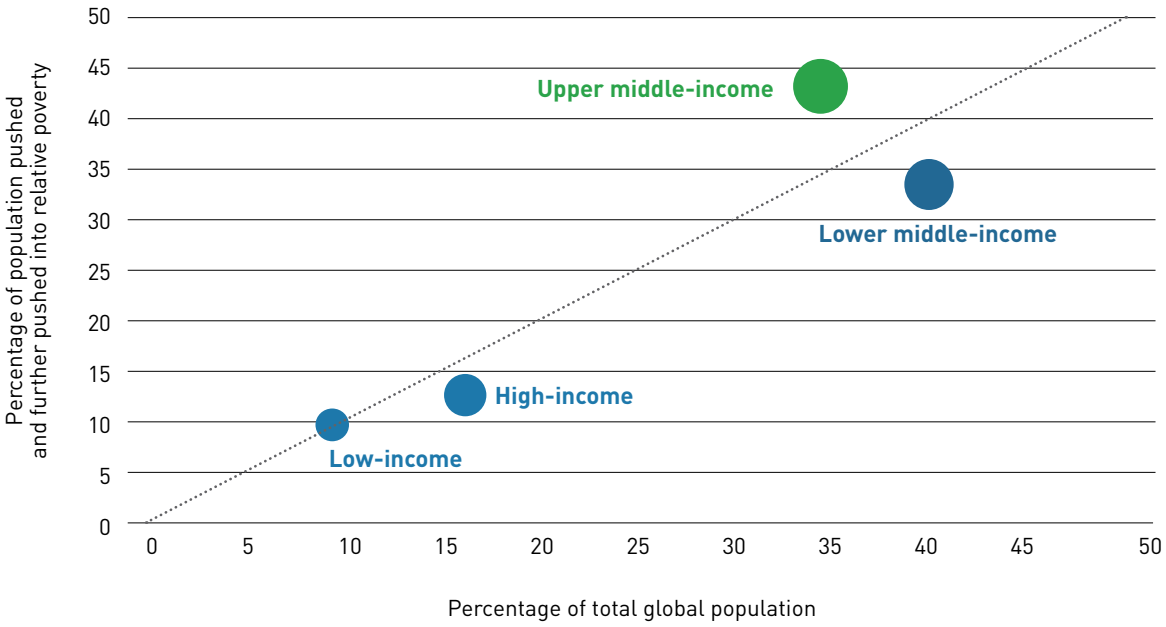
Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Figure 4. Distribution of the incidence of impoverishing OOP health spending across country income groups, 2017

a) using the extreme poverty line



b) using the relative poverty line

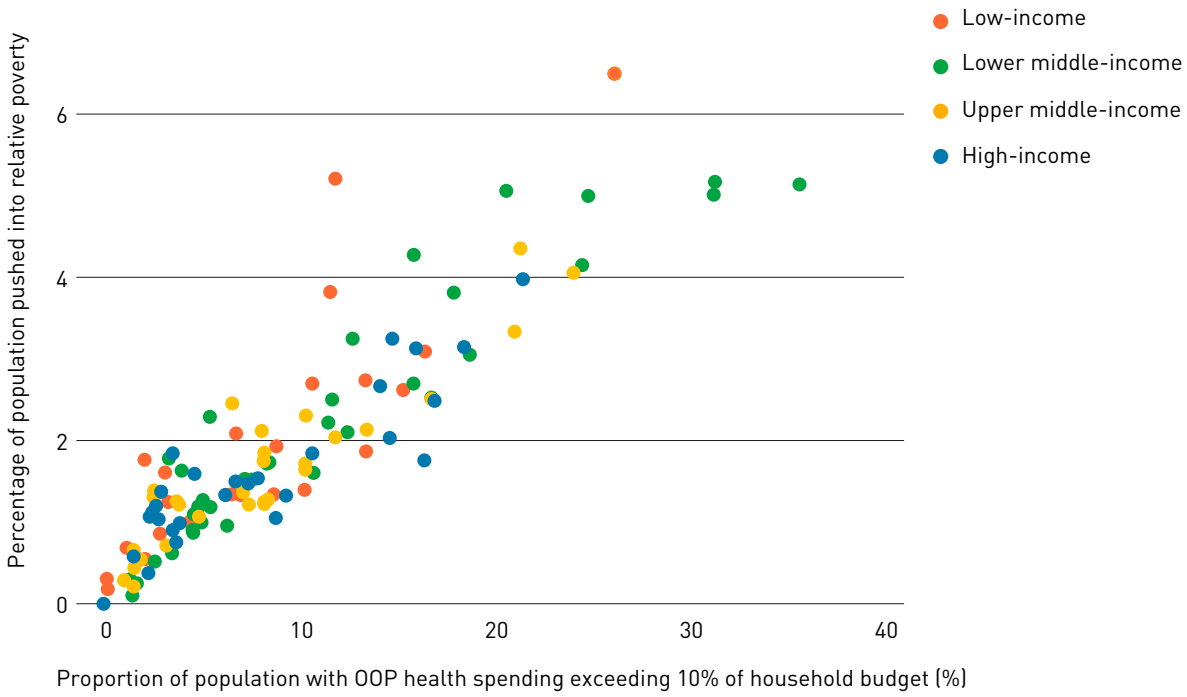


Note: Circle sizes are proportional to the number of people incurring impoverishing health spending.

Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Before the pandemic, countries with high incidence of catastrophic health spending faced the double challenge of having a high proportion of the population pushed into relative poverty as well, irrespective of their income group categories (Fig. 5); the correlation between both type of indicators is very strong (the Pearson correlation coefficient is 0.9 with the SDG indicator 3.8.2 at the 10% threshold and 0.88 with SDG 3.8.2 at the 25% threshold).

Figure 5. Correlation between the proportion of the population pushed into relative poverty and the incidence of catastrophic health spending as tracked by SDG 3.8.2 at the 10% threshold

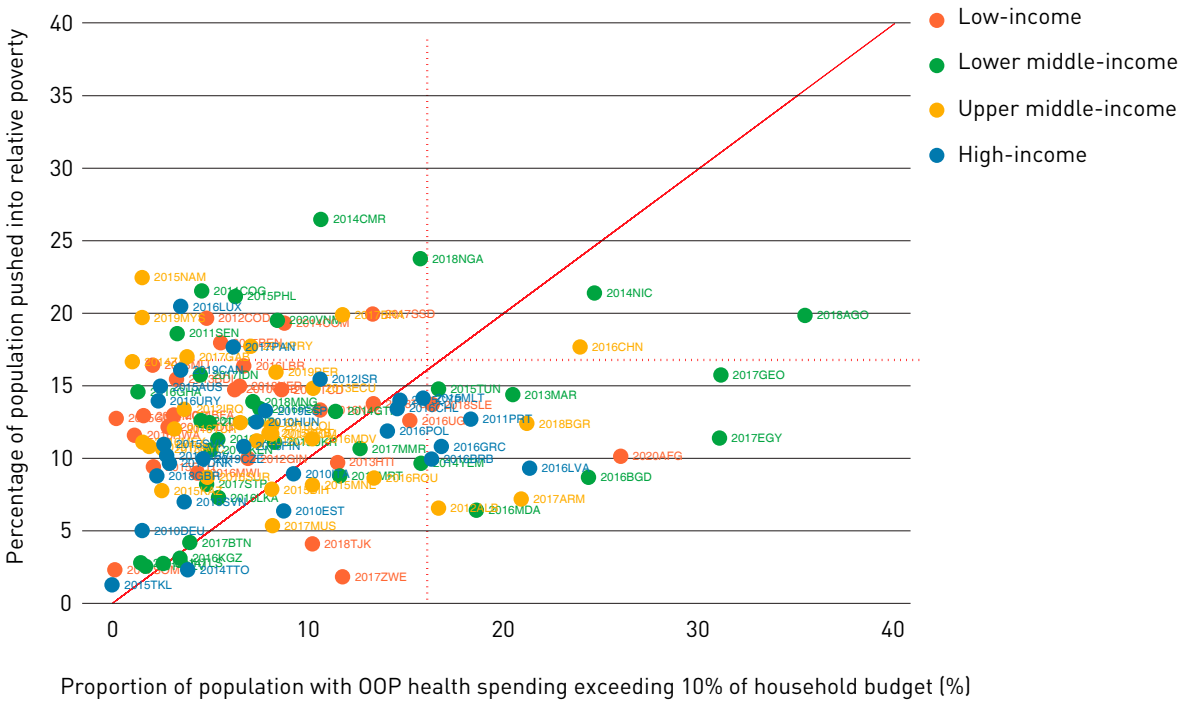


Notes: Includes only countries with a recent estimate in the 2010–2020 period. These 123 countries represented 66% of the world population in 2017.

Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 *(27,28).*

To substantially reduce financial hardship, poor people need to be exempted from paying OOP for the treatment they need in all countries at all income levels. For the majority of countries (69%), the proportion of people further impoverished into relative poverty is greater than the proportion of people spending more than 10% of their household budget on health (all countries above the diagonal in Fig. 6). 43% of these countries are in Africa and 20% in Asia. 80% of all low-income countries (LICs) have higher rates of further impoverishment health spending than catastrophic health spending. Two of the five countries with rates of catastrophic health spending and impoverishing health spending above corresponding global medians are in fragile and conflict-affected situations (South Sudan estimates for 2017 and Nigeria estimates for 2018, Fig. 6). In Europe, an equal number of countries face higher rates of impoverishing health spending than rates of catastrophic health spending as tracked by SDG indicator 3.8.2 and vice-versa.

Figure 6. Correlation between the proportion of the population further impoverished into relative poverty and the incidence of catastrophic health spending as tracked by SDG 3.8.2 at the 10% threshold



Notes: Includes only countries with a recent estimate available in the 2010–2020 period. These 119 countries accounted for 64% of the world's population in 2017.

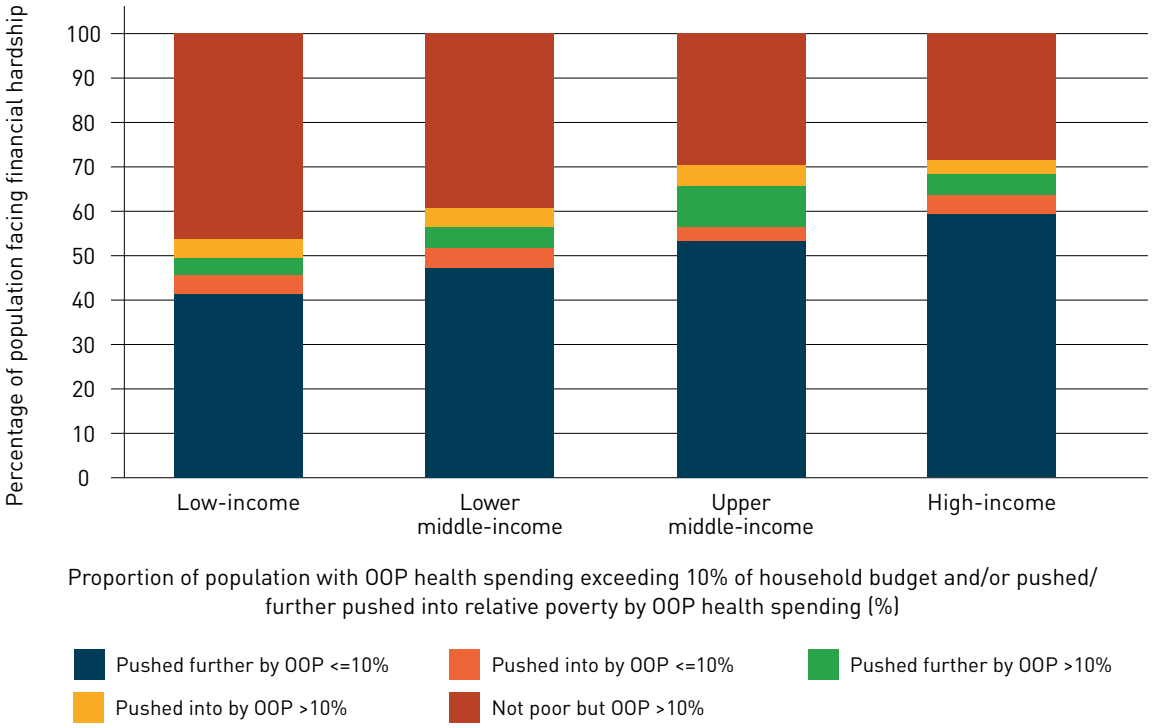
Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

The overlap between those spending more than 10% of their household budget on health OOP and impoverishing health spending is relatively small. As shown in Fig. 1, some people suffer both catastrophic and impoverishing health spending. Based on the relative poverty line, across country income groups, the proportion of all the people incurring financial hardship and facing both catastrophic and impoverishing OOP health spending represents on average 8% in LICs and high-income ones (HICs); 9% in lower middle-income countries (LMICs) and 14% in upper middle-income ones (UMICs) (red and purple bars in Fig. 7a). Based on the poverty line of extreme poverty, those incurring impoverishing health spending because they are spending more than 10% of their household budget on health represent on average 13% in Africa and LICs and 9% in lower middle-income countries (red and purple bars in 7b). The small overlap between catastrophic health spending and impoverishing health spending, as currently defined for global monitoring, suggests that financial hardship measures focusing on the impoverishing role of OOP health spending are an important complement to the current SDG 3.8.2 indicator focused on relatively large OOP health spending.

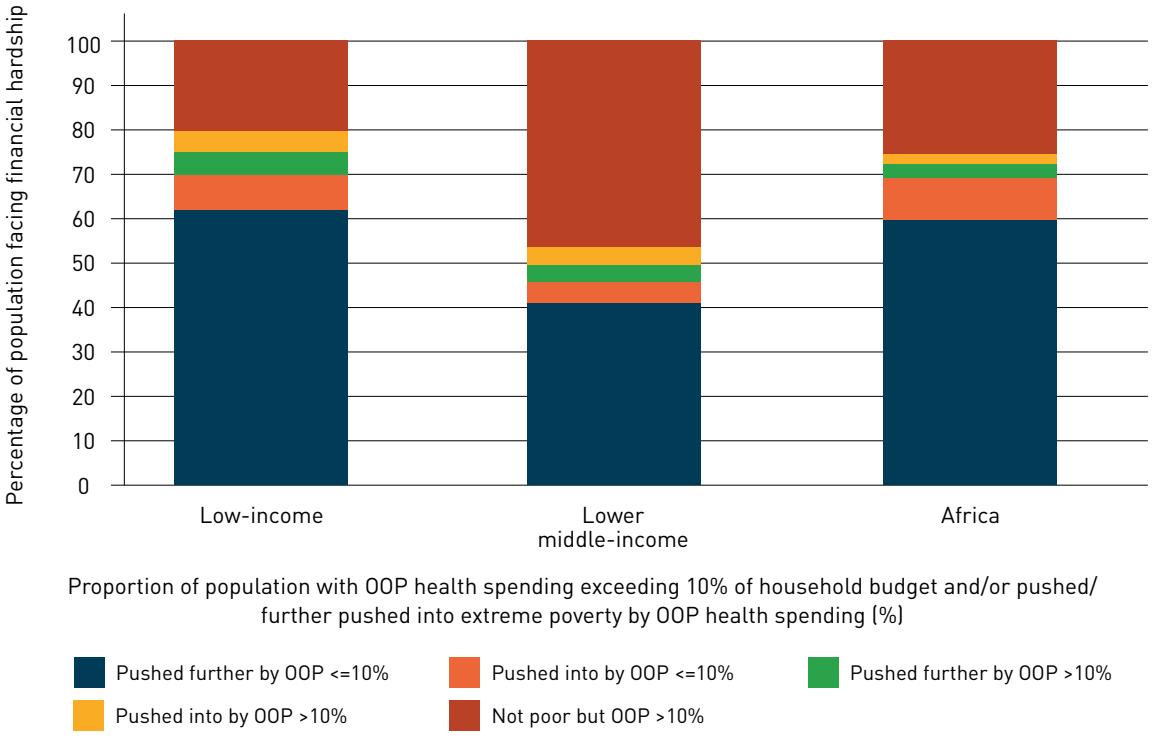
Most poor people spending on health out-of-pocket and the majority of those impoverished spend less than 10% of their household budget on health. Based on the relative poverty line those incurring only impoverishing out-of-pocket health spending represent on average 53% of the whole population incurring financial hardship: a bit less in LICs and a bit more in HICs (46% and 63% respectively, blue and orange bars in Figure 7a). Based on the extreme poverty line, on average 55% of the whole population incurring financial hardship only suffer impoverishing health spending; in LICs and in the UN region of Africa their share is higher (66% and 62% respectively, blue and orange bars in Figure 7b). The majority of the people incurring impoverishing health spending are the poor spending less than 10% of their household budget on health out-of-pocket (blue bars in Figure 7 a and b).

Figure 7. Composition of the population incurring financial hardship

a) SDG 3.8.2, 10% threshold and relative poverty



b) SDG 3.8.2, 10% threshold and PPP$ 1.90 poverty



Notes: Catastrophic health spending is defined as OOP health spending exceeding 10% of their household budget. In panel a impoverishing health spending is idenfied using the relative poverty line of 60% of median per capita consumption, while in panel b the extreme poverty line of PPP$1.90 a day is used.

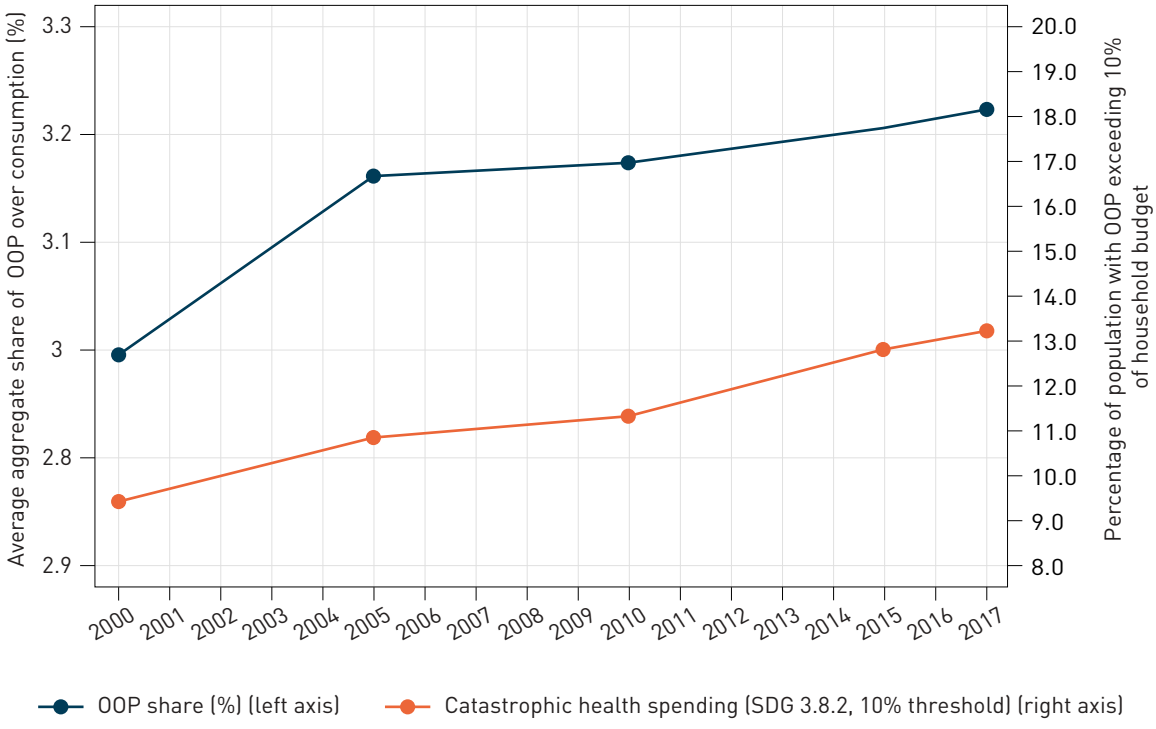
Source: Authors' calculations using the 709 surveys for 141 countries or territories from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*. See also Annex A3.

Overall, the overlap between catastrophic and impoverishing health spending is on average 9% based on the relative poverty line and 11% based on the extreme poverty line of PPP$1.90 a day (based on a sample of 141 countries or territories). A simple application of these estimates to the global number of people suffering financial hardship (and avoid double counting) suggests that between 1.4 and 1.9 billion people incurred financial hardship in 2017 depending on the poverty line used to identify impoverishing health spending (i.e. the poverty line of extreme poverty or the relative poverty respectively).

1.1.2. Pre-COVID-19 trends

The global incidence of catastrophic health spending, as tracked by SDG indicator 3.8.2, was on the rise before the pandemic. Overall, between 2000 and 2017 the number of people with catastrophic health spending increased from 579 million in 2000 to 996 million in 2017. The sustained growth in the incidence of catastrophic health spending is consistent with the fact that OOP health spending was growing faster (+3.2%/year) than consumption (+2.7%/year), resulting in an increase of the aggregate health share between 2000 and 2017 (Fig. 8). The budget share allocated to OOP health spending among those exceeding the 10% cut-off also increased, as reflected by the increase in the global population spending more than a quarter of their household budget on health OOP, which more than doubled between 2000 and 2017 (from 131 million to 290 million people in 2017) (see Annex Table A4b).

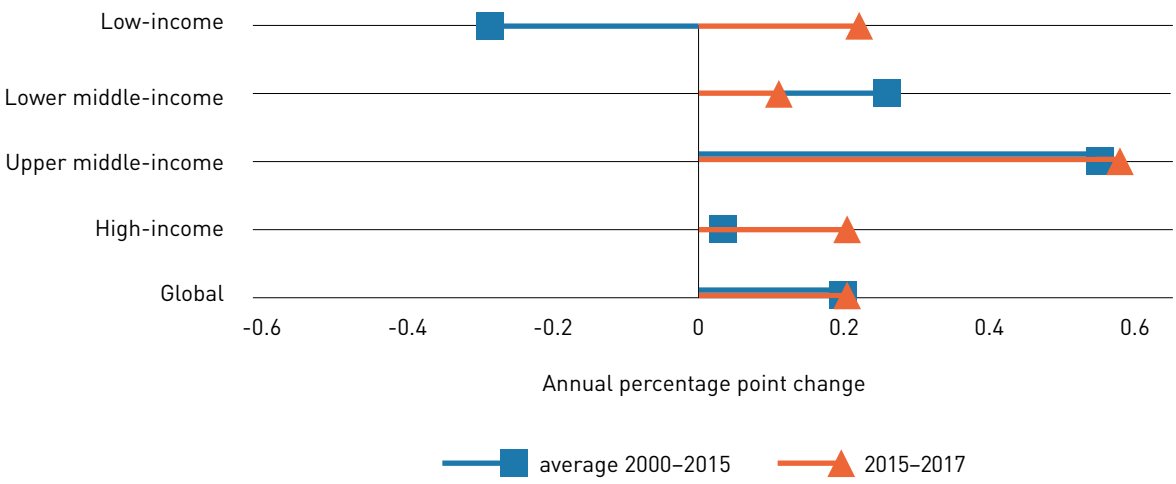
Figure 8. Trends in the incidence of catastrophic health spending as tracked by SDG indicator 3.8.2



Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

At the global level, the percentage of the population spending more than 10% of their household budget on health increased at the same rate between 2015 and 2017 as it did over the previous fifteen years (on average by 0.2 percentage points per year, Fig. 9). In HICs the increase accelerated; and in LICs the increase was a first (Fig. 9). Across United Nations (UN) regions between 2015 and 2017, the incidence of catastrophic health spending at the 10% threshold decreased in both Africa and Europe (by 0.9 and 0.6 percentage points respectively); it increased by 1 percentage point in both Latin America and the Caribbean and in North America; it increased more rapidly than between 2015 and 2017 only in Asia (at 0.6 percentage points per year versus an average of 0.3% over the previous fifteen years).

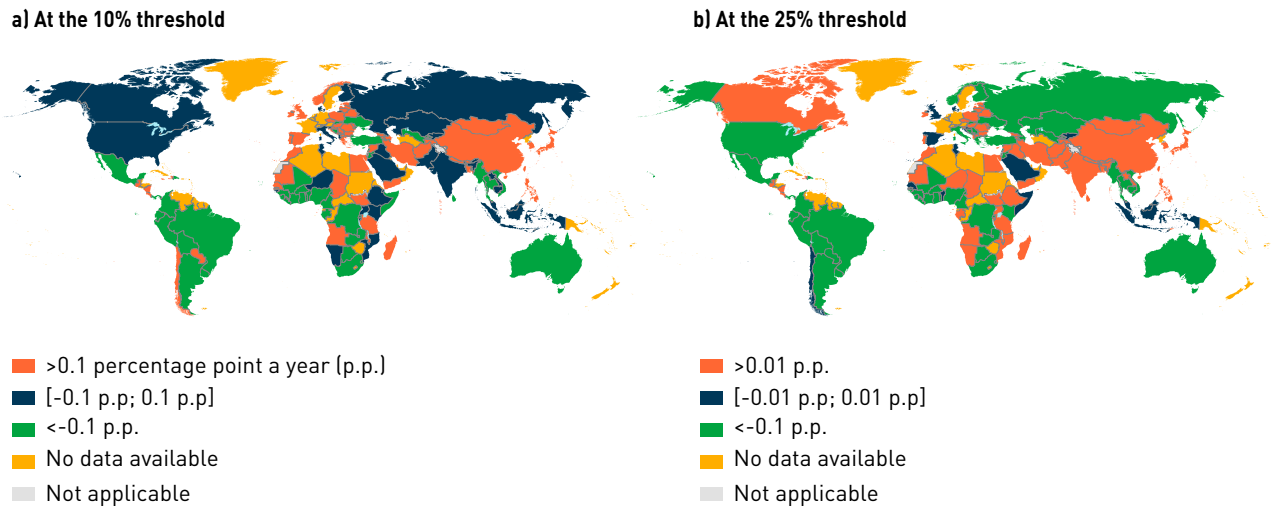
Figure 9. Percentage point change in the incidence of catastrophic health spending as tracked by SDG indicator 3.8.2 at the 10% threshold, by country income groups



Source: Authors calculations using the data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Within all regions, some countries did manage to reduce the incidence of catastrophic health spending. Fig. 10a shows that among the 137 countries or territories with at least two estimates available for SDG indicator 3.8.2, the proportion of the population spending more than 10% of their household budget on health OOP decreased on average by more than 0.1 percentage point per year in 44 countries; in 33 there was either little to no change; and in 60 countries it increased by more than 0.1 percentage point per year. In the majority of countries where catastrophic health spending increased at the 10% threshold, it also increased at the 25% threshold (89% of 60 countries) and vice-versa (82% of the 44 countries, Fig. 10a and Fig. 10b). These variations beg the question of where such differences in trajectories and OOP spending levels originate. The association with public spending on health is explored later in section 1.4 of the report.

Figure 10. Average percentage point change in the incidence of catastrophic health spending, as tracked by SDG indicators 3.8.2

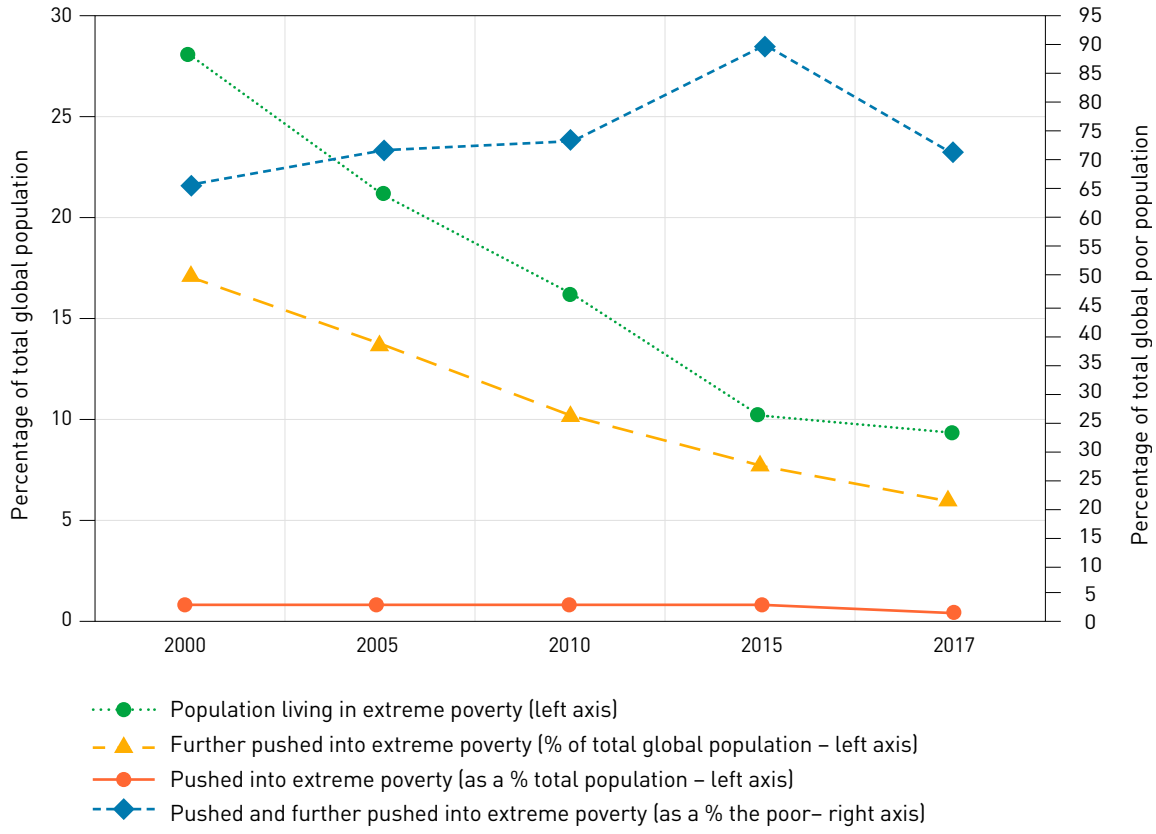


Note: This map has been produced by the World Health Organization (WHO). The boundaries, colours or other designations or denominations used in this map and the publication do not imply, on the part of WHO or the World Bank, any opinion or judgement on the legal status of any country, territory, city or area or of its authorities, or any endorsement or acceptance of such boundaries or frontiers.

Sources: Authors calculations using the data from the 2021 Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

For the first time since the beginning of the century, between 2015 and 2017, the reduction in both the percentage of the total population impoverished and further impoverished into extreme poverty by OOP health spending was faster than the reduction in overall global rates of extreme poverty, but their concentration among the extremely poor remained very high (Fig. 11). Figure 11 shows first that, the percentage of the global population pushed into extreme poverty by OOP health spending has been consistently far lower than the percentage of the global population pushed further into extreme poverty, which reconfirms the need to track financial hardship among the poor spending any amount on health OOP at the global level. Second, until 2015, the proportion of the global population pushed into extreme poverty by OOP health spending decreased slowly, on average at -0.03 percentage points per year. The global population further pushed into extreme poverty was 8.5 times greater in 2000, hence it decreased faster, on average at. -0.6 percentage points per year. But the reduction in global rates of extreme poverty was much higher (-1.2 percentage point per year), therefore the concentration of those pushed and further pushed into poverty by OOP health spending was increasing among those living in extreme poverty and reached almost 90% in 2015 at the global level. Between 2015 and 2017, their concentration decreased for the first time to 72% because the rate of reduction in both the population pushed and further pushed into extreme poverty by OOP health spending accelerated while the pace of reduction of global extreme poverty decelerated *(29)*. At least part of the reduction in their concentration can, therefore, be interpreted as an actual reduction in the financial hardship experienced by the poor and the near-poor. As discussed in Chapter 2, however, with the expected increase in extreme poverty rates due the pandemic, such improvement might prove to be unsustainable.

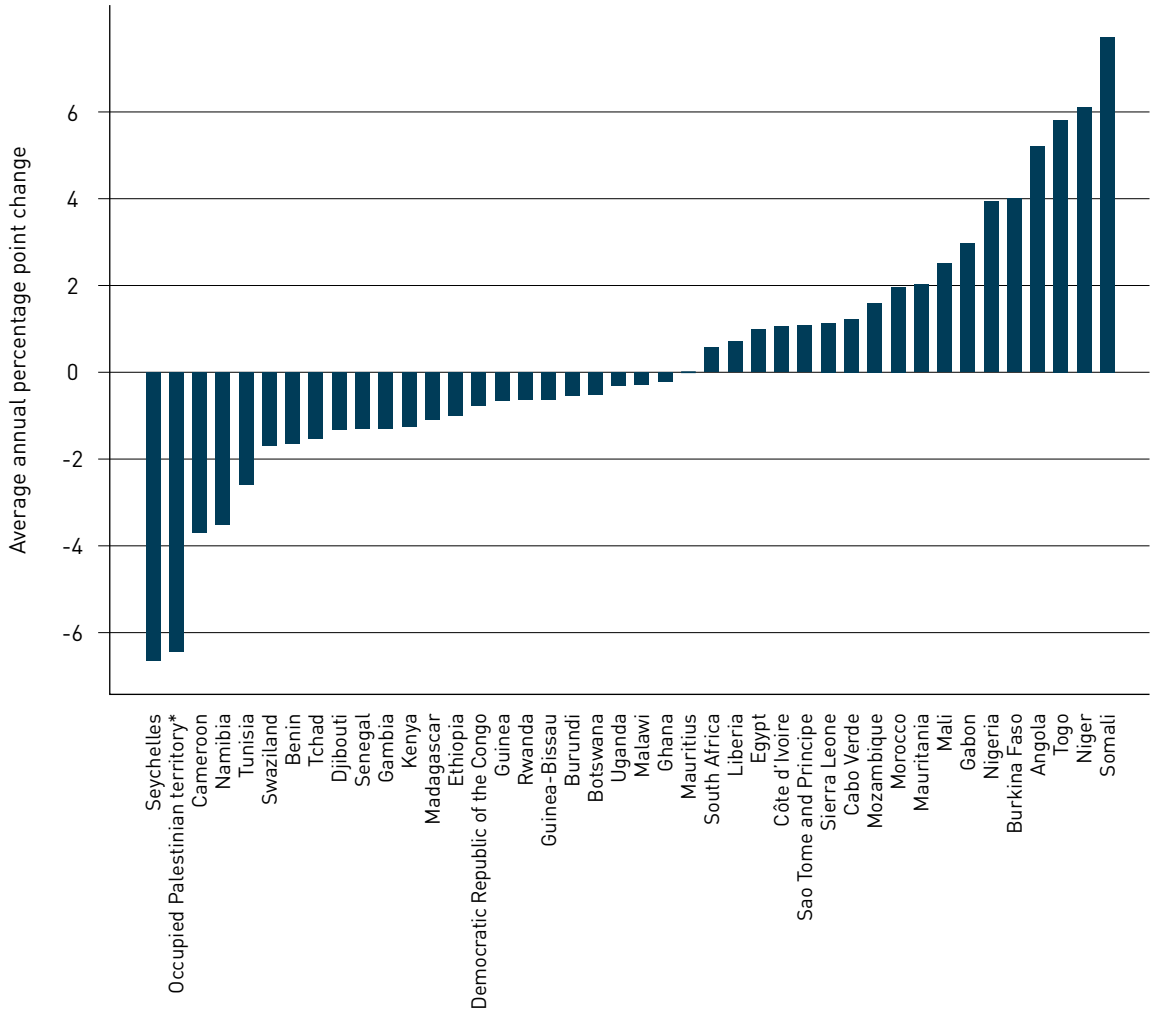
Figure 11. Trends in the global rates of extreme poverty and global rates of the population pushed and further pushed into extreme poverty (living with less than PPP$1.90 per day) because of OOP health spending



Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Across regions, the reduction in the population further pushed into extreme poverty because of OOP health spending accelerated markedly between 2015 and 2017 in LICs, lower middle-income countries, and Africa, and exceeded -1.3 percentage points per year. The drop in the incidence of further impoverishment in Africa (from 26% to 23%) contrasts with the slower rate of deceleration estimated in the incidence of extreme poverty over the same period *(29)*, pointing to a reduction in the concentration of those further impoverished by OOP health spending among the poor. Indeed, for 24 of the 43 countries with survey-based estimates available for more than one year, on average the concentration in impoverishing health spending among those living in extreme poverty decrease by -1.2 percentage points per year (Fig. 12).

Figure 12. Percentage point change in the concentration of those further impoverished by OOP health spending among those living in extreme poverty (below PPP$1.90) across countries in the UN African region

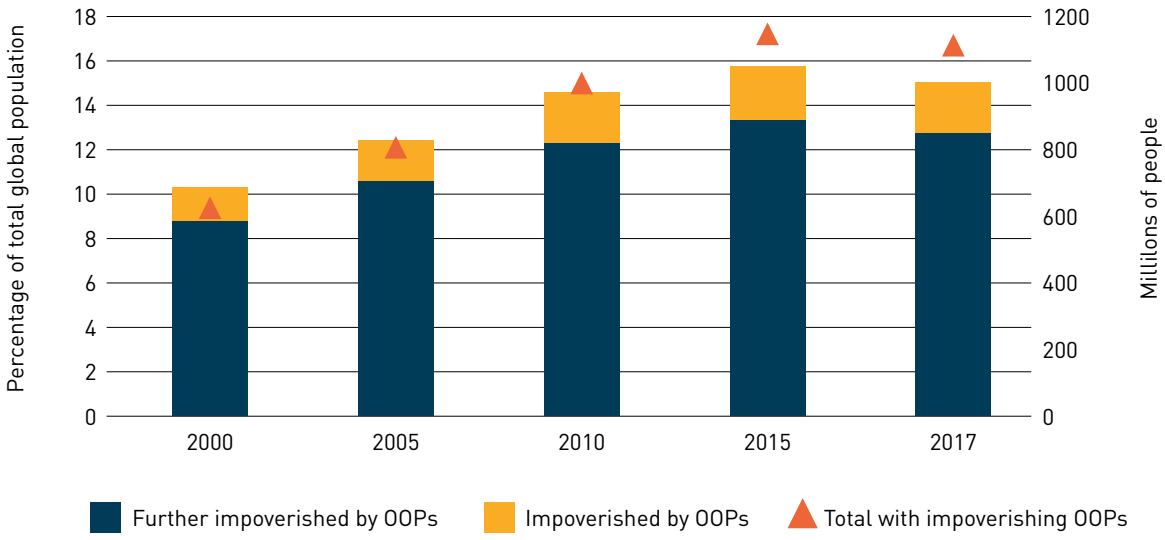


Notes: *Occupied Palestinian territory, including east Jerusalem. Number of countries is 43. Average percentage point changes are computed as mean annualize absolute change over time. Median most recent year is 2015.

Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

The proportion of the global population impoverished and further impoverished into relative poverty also decreased for the first time between 2015 and 2017, but remained extremely high (1.125 billion people). Between 2000 and 2015, trends in the global population tipped into relative poverty because of OOP health spending diverged from trends in extreme impoverishment poverty *(1)*. This report confirms those differences (i.e. Fig. 13 compared with Fig. 11) but provides evidence of an initial reduction in the proportion of the population pushed into relative poverty before the pandemic of about 0.1 percentage points per year from 2.5% in 2015 to 2.3% in 2017. The proportion of the global population further pushed into relative poverty also decreased and at the higher rate of 0.3 percentage points per year from 13.3% (971 million) to 12.7% (953 million). Figure 13 also shows that the percentage of the global population pushed into relative poverty by OOP health spending is consistently much lower than the percentage of the global population pushed further into relative poverty, which confirms the need to track financial hardship among the poor and spending any amount on health OOP at the global level regardless of the choice of poverty line.

Figure 13. Global trends in the population pushed or further pushed into relative poverty (below 60% of median per capita consumption) because of OOP health spending

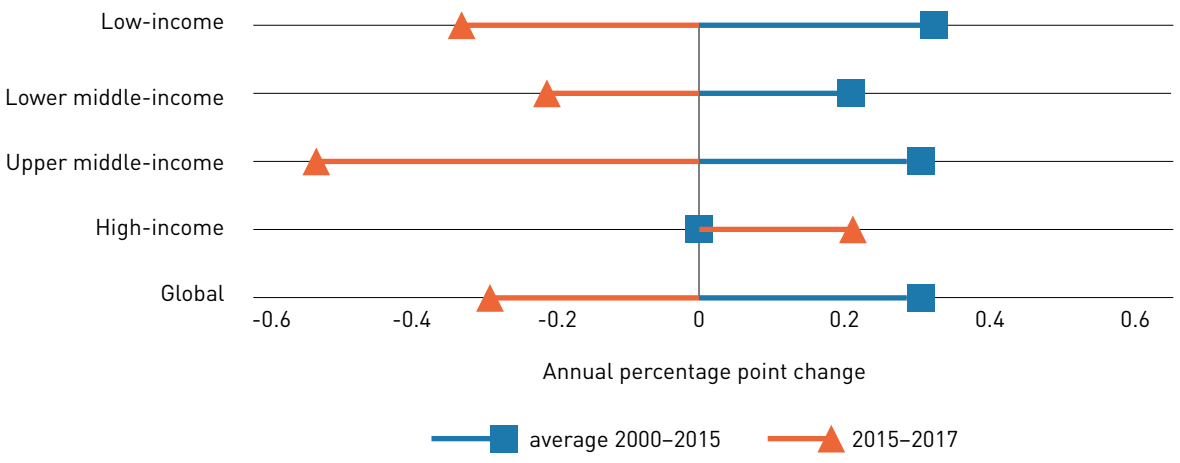


Notes: population in percent (right axis); millions of people (left axis).

Sources: Data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

The 2015–2017 global reduction in the proportion of the population further pushed into relative poverty by OOP health spending was driven by the Asia region where it decreased from 13.4% to 12.3% (-0.6 percentage points per year). In all other regions it increased at a similar pace than between 2000–2015 or more rapidly (European region). Across all country income groups other than HICs, the proportion of the population pushed further into relative poverty decreased between 2015 and 2017 (Fig. 14). The increase in HICs is driven by an increase across Europe. Using an alternative definition of catastrophic health spending, based on a capacity to pay approach to take into account that poorer households have much less available to spend on health OOP than richer households in the WHO European region, the incidence of catastrophic health spending is found to be highly concentrated in the lowest consumption quintile (Box 3) (Annex Table A10).

Figure 14. Percentage point change in the proportion of the population further pushed into relative poverty (below 60% of median per capita consumption) because of OOP health spending , by country income group

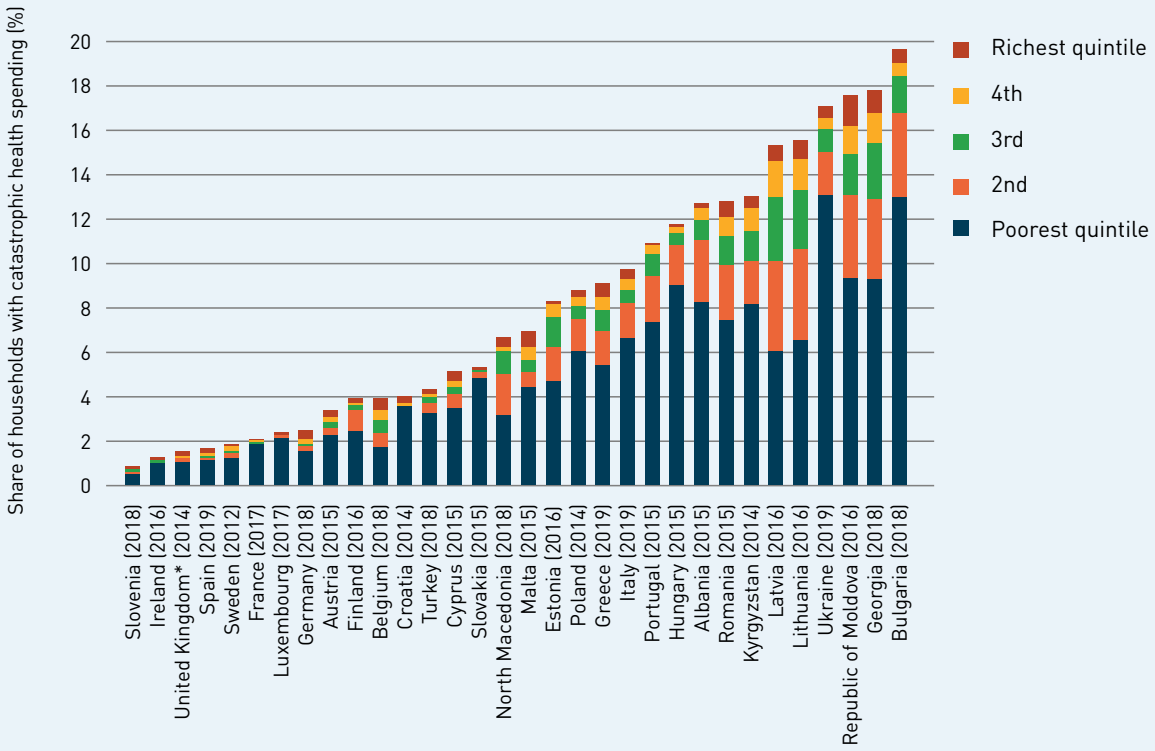


Sources: Authors calculations using the data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

Box 3: Using a capacity to pay approach to monitor financial hardship shows that the poorest households are most likely to experience catastrophic health spending in Europe

Incorporating an adjustment for capacity to pay in the measure of catastrophic health spending, as was done for the *World health report 2000 (30)* (Annex A2) and, more recently, in analyses conducted in the WHO European Region recognizes that households need to spend a sufficient amount on basic needs (e.g. food, housing and utilities) *before* they can pay for health care; and second, that OOP payments can cause financial hardship even when households are spending *less* than 10% of their budget on health. The application of this approach to measure catastrophic spending indicates consistently that financial hardship is concentrated among poorer households, providing a clear signal for policy with one single metric *(31)*.

Share of households with catastrophic health spending by consumption quintile, WHO European Region, latest available year



Notes: *United Kingdom of Great Britain and Northern Ireland. The figure shows the share of households with OOP payments greater than 40% of capacity to pay for health care. Capacity to pay for health care is defined as total household consumption minus a standard amount to cover basic needs (i.e. food, housing and utilities). Results are disaggregated into household quintiles by consumption per person using OECD equivalence scales.

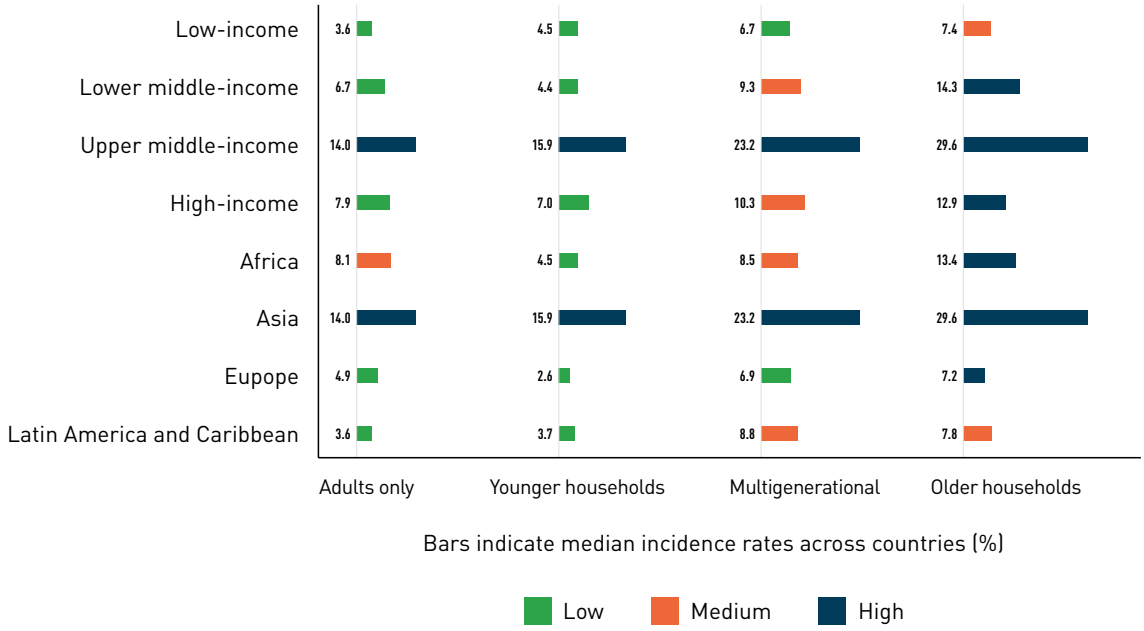
Sources: WHO Regional Office for Europe (2019) *(31)* and updated analysis from the WHO Barcelona Office for Health Systems Financing.

1.2. Who experiences financial hardship? A focus on age

The COVID-19 pandemic has affected households with all types of age composition through the health and economic shocks they have been exposed to. Evidence from before the pandemic shows that older people face greater cost and higher out-of-pocket health spending but, every age group comes with specific health needs *(33)*, and in a household economic resources are pooled to cover the cost of the care of all its members. This is a fundamental assumption behind measures of catastrophic and impoverishing health spending for which the unit of analysis is the household. Therefore, a life-cycle approach *(33)* is used to compare the incidence of catastrophic and impoverishing health spending prior to the pandemic across people living in households with different age structures using data from 92 countries accounting for half of the world population in 2017 (Annex A3).

Specifically, *Adults only* households (people aged 20 to 59 years old); *younger households*, which include at least one person below 20 and one adult below 60 years old; *multigenerational households;* which include adults (20 to 59 years old) living with both older and younger people; *older households,* which include at least one older person (aged 60 years old or more) and no one below 20 years old, including also households composed of only older people.

Figure 15. Median proportion of the population spending more than 10% of household budget on health OOP among people living in households with different age structure, by country income groups and UN regions



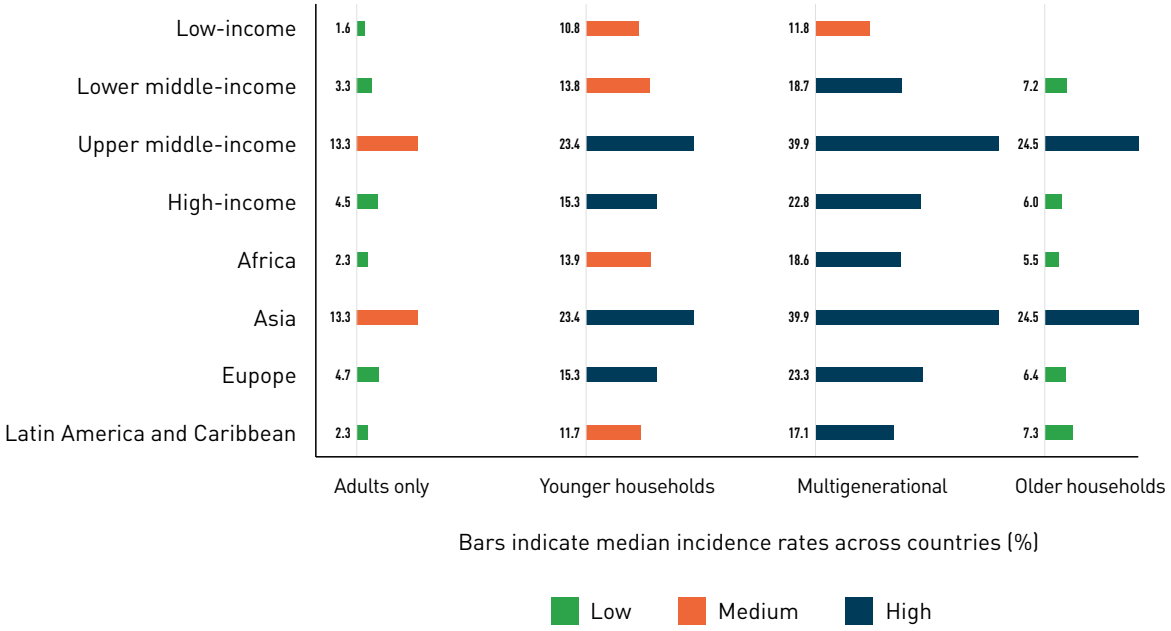
Notes: The figures shows the median incidence of catastrophic health spending within each country income group or UN region with available data. Medians are based on a sample of 92 countries across all UN regions except North America and Oceania. These countries account for 53% of the global population in 2017 and higher rates of population coverage across all country income groups except lower middle-income countries (43% due to the exclusion of India) and HICs (21%) (Annex A3). The median most recent estimate available is 2014 and no estimate comes from survey prior to 2009.

Sources: Authors calculations using the data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

People living in older households face the highest incidence of catastrophic health spending as tracked by SDG indicator 3.8.2 at the 10% threshold across all income groups and UN regions (Fig. 15). Across country income groups, the median proportion of the population spending more than 10% of a household budget OOP on health is the highest among households with older members in UMICs (29.6%). In HICs and LMICs, the median incidence of catastrophic health spending for older household is half those of UMICs. Within country income groups, the life-cycle approach shows that the median proportion of the population with OOP spending on health exceeding 10% of their household budget living in older households is 3 higher than the median rate among those living in younger in LMICs versus only one and a half as much in LICs. Across UN regions, the proportion of the population spending more than 10% of a household budget OOP on health is the highest among households with older members in Asia and the lowest in Europe. Within UN regions, in Europe and Africa the median incidence of catastrophic health spending is 3 times higher among people living in older households than among those living in younger ones; in Asia, Latin America and the Carribean regions the relative difference in median is estimated to be 2. Latin America and the Caribbean is the only region where the median incidence of catastrophic health spending in older households is lower than to the median rate of people living in multigenerational ones. The median incidence rates

of both catastrophic and further impoverished due to OOP health spending tends to be the lowest among younger households and households with only adults. Using a different approach to compare incidence rates of catastrophic health spending among those living in households with different age structures but controlling for other possible confounders (e.g. socioeconomic status), a recent study confirms the large differences in financial hardship between younger and older households across countries, with people living in households with higher old-age dependency ratios facing the highest incidence of catastrophic health spending *(34).* Most importantly, the study finds that differences in incidence of catastrophic health spending between those living in older households and those living in younger ones is the strongest within the poorest quintile of a given country (Box 4).

Figure 16. Median proportion of the population further impoverished into relative poverty among people living in households with different age structure, by country income group and UN region (most recent year available)



Notes: The relative poverty line is defined as 60% of median consumption. The figures shows the median population weighted proportion of the population pushed further into relative poverty within each country income group or UN region with available data. Medians are based on a sample of 92 countries across all UN regions except North America and Oceania. These countries account for 53% of the global population in 2017 and higher rates of population coverage across all country income groups except LMICs (43% due to the exclusion of India) and HICs (21%) (Annex A3). The median most recent estimate available is 2014 and no estimate comes from survey prior to 2009.

Sources: Authors calculations using the data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

People living in multigenerational households face the highest rates of impoverishing health spending. In multigenerational households, the concentration of members in critical age groups *(33)* (children and/or adolescents, woman of reproductive age, older people) is likely to increase healthcare needs compared to households with other age composition and at the same time, multigenerational households tend to be poorer than younger and older households. Across all income groups and UN regions, median rates of impoverishing health spending are the highest for people living in multigenerational household (Fig. 16). The relative difference compared to the median incidence rates among older households is the highest in HICs and the lowest in LMICs and LICs. Compared to people living in younger households, older household have lower levels of impoverishments, except for UMICs for which the median prevalence of impoverishment is 1.1 percentage point higher in older households.

The higher rates of catastrophic health spending among older people are sometimes coupled with lower rates of foregone care (Box 5). Keeping in mind the definition of financial protection, this situation is unsatisfactory as people receiving the care they need only when they can pay for it is a source of inequalities in access to health care.

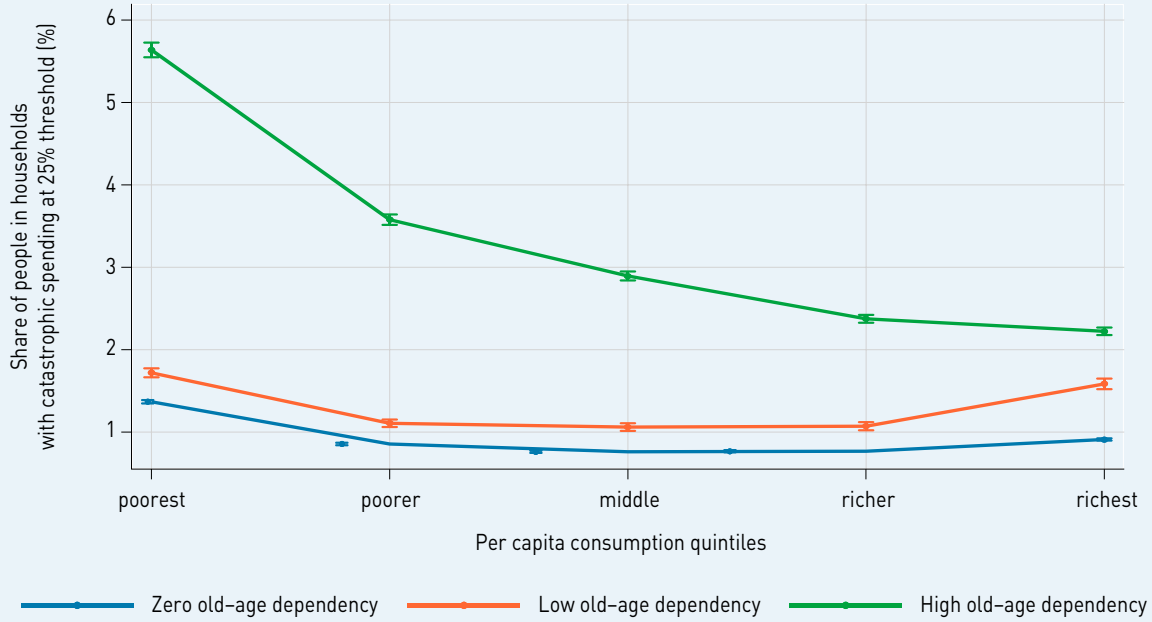
These findings show that in order to improve the life of older people, their families and communities in line with objective of the 2021–2030 Decade of healthy aging *(35,36)*, further progress toward UHC will require extension and improved targeting of benefit packages to reduce financial hardship and to meet the health needs of people living in older or multigenerational households (Box 8), especially the poorest and most vulnerable segments of elderly populations.

Box 4: Worsening of catastrophic health spending with age is most pronounced among the poorest parts of the population

A recent study by Eozenou et al (34) explores the relationship between the incidence of catastrophic and impoverishing health spending and household old-age dependency levels. The study was based on household survey data from 133 countries (representing 89% of the world population). An old-age dependency ratio (OADR) was utilized, as defined by the number of household members older than 60 divided by the number of 18–60 years old household members (i.e. working age group). Subsequently, households are classified into three OADR categories: 1. zero old-age dependency (i.e. no older household members (OADR = 0)); 2. low old-age dependency (two or more working age members per older member (0 < OADR ⩽ 0.5)); and 3. high old-age dependency (less than two working age members per older member (OADR > 0.5)).

The study confirms the current observation that the incidence of catastrophic health spending is substantively higher for people living in high old-age dependency households across all world regions and income groups using SDG 3.8.2 indicators (i.e. 10% and 25% thresholds). Moreover, using a regression model to control for country contexts and overall trends in catastrophic health spending over time, it shows that the worsening of financial hardship with age is most pronounced among the poorest: In the first consumption quintile, people living in high old-age dependency households have an almost 11 percentage points higher chance of experiencing catastrophic spending at the 10% level than zero dependency households. By contrast, in the richest quintile, the difference amounts to only 7.2 points. For catastrophic spending at the 25% level, the discrepancy is even starker: In the poorest quintile, the rate is 4.3 percentage points higher for high old age households than for zero old age dependency households, whereas in the richest quintile the difference is just 1.3 points.

Incidence of catastrophic spending at the 25% threshold by wealth quintile



Note: Data are predicted values from a linear model that uses 9.6 million household observations from 517 surveys in 133 countries to estimate the relationship of catastrophic health spending with old age dependency and wealth, while controlling for country and survey year effects. The results were obtained without weighing household observations, but they are qualitatively robust to the application of survey-specific sample weights, weights which reflect each country's share of the world population, and weights which assign equal weight to each country.

Source: Eozenou et al. *(34)*.

Box 5: Catastrophic health spending and unmet need among households with older persons in Japan

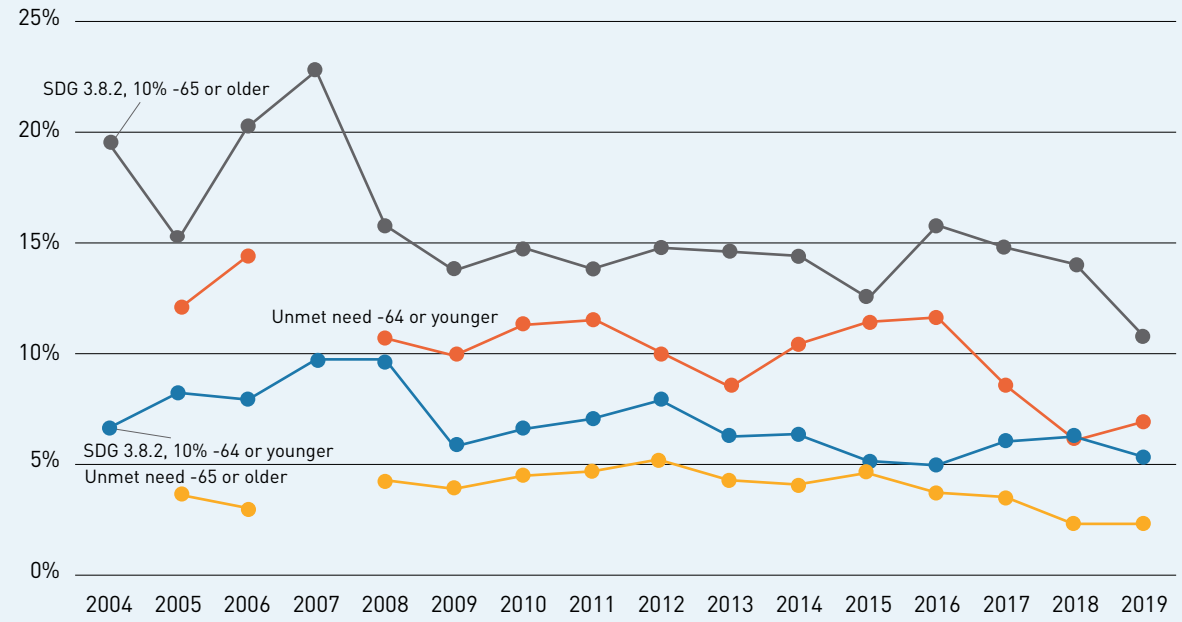
Japan has achieved a high standard of population health, with an average healthy life expectancy of 74 years in 2019. It has the oldest population in the world, with nearly 36% of people 60 years and over projected by 2025. Policies such as universal health and long-term care insurance offer financial protection to all people across the life course. However, the strength of these policies is being tested as more older people require care over longer periods of time.

An ongoing study of the WHO Centre for Health Development *(37)* used the Japan Household Panel Survey (JHPS) to examine national trends in the incidence of catastrophic health spending between 2004 and 2019 using the SDG indicators 3.8.2 with its two thresholds. Some 8–12% of all households spent at least 10% of their household budget OOP on health and for 1–2% of all households the OOP health expenditure budget share exceeded 25%.

When these estimates are disaggregated based on whether the household includes an older person, 65 years old or above, high OOP health spending was more common among households with at least one older person compared to households with no older person (10.8% vs 5.8% using 10% threshold, and 3.1% vs 1.0% using 25% threshold, in 2019).

The analysis also shows that self-reported unmet need, defined as not having received any health care despite having illness symptoms in the 12 months before the survey, were more prevalent among younger people (20–64 years old), than among people aged 65 and above (7.2% vs 2.6%, in 2019). A downward trend in the prevalence of unmet need is found among both younger and older persons in recent years. Among older persons, this is accompanied by a downward trend in catastrophic health spending (10% threshold) while among younger persons it remains stable. These findings suggest that people's health care needs are largely being met without significant increases to their financial burden. Moreover, households with an older person are more likely to have their health care needs met than those without an older person but with higher OOP health spending. This finding reflects the fact that households with older persons have greater health needs and consume more health care services, resulting in greater exposure to OOP health spending, but over time, financial barriers to access have declined.

Trends in catastrophic health spending (10% threshold) by age composition of household (with or without a person 65 years old or older) and unmet need for health care by age of respondent, Japan, 2004–2019



Notes: For catastrophic health spending, households were categorized by the age of the oldest co-residing family members, including respondents themselves. Unmet needs excludes those who did not experience foregone care because they were healthy. In 2004 and 2007, the question on unmet health need was not asked. Age group categorization is based on age of survey respondents. For both catastrophic health spending and unmet needs, cross-sectional and longitudinal weights are both applied.

Source: The microdata of the Japan Household Panel Survey (JHPS/KHPS) 2004–2019 used in this analysis are available upon request from the Panel Data Research Centre at Keio University in Japan (https://www.pdrc.keio.ac.jp/en/paneldata/datasets/jhpskhps/, accessed 29 November 201).

1.3. What types of health spending drive financial hardship?

Reducing gaps in the coverage of outpatient medicines is critical to reduce OOP health spending and financial hardship in many regions. Evidence on the main types of services or products driving financial hardship is missing at the global level but available at the regional level. Recent evidence for Latin America and the Caribbean confirms that medicines and outpatient care are important components of household OOP health spending, complementing findings from other regions. In Latin America and the Caribbean, they jointly represent at least 73% of all household OOP health spending in the countries for which data are available[b] *(38)* and spending on medicines is found to absorb a larger share of household total consumption in the poorest quintiles in the majority *(39)*. The 2019 Global monitoring report on financial protection in health *(1)* showed that spending on medicines was the main driver of OOP health spending in six of the eight countries in the WHO South-East Asia region with data available, accounting for more than 75% of total OOP health spending and exceeding 80% for the poorest households in five of those countries. It also reported that medicines were the main drivers of catastrophic health spending in the WHO European region (defined as OOP health spending exceeding 40% of household capacity to pay), followed by spending on inpatient care and dental care *(31).* Medicines and outpatient care were identified as the main determinants of household OOP health spending in 25 countries in Africa with a similar structure of OOP health spending for people with and without catastrophic health spending.

1.4. Linking financial hardship to public spending on health.

The proportion of the population incurring catastrophic health spending and pushed into both extreme and relative poverty tends to be lower in countries with greater reliance on public spending. Previous global analysis had shown that public spending on health is associated with a lower proportion of people spending more than 10% and 25% of their household budget on health as well as with a lower proportion of people pushed into poverty, using various poverty lines *(20,40–42)*. Table 2 confirms this relationship using the latest available estimates produced for this report and a multivariate panel regression model that controls for gross domestic product (GDP) per capita, and total current health spending as a share of GDP as a proxy for the level of resources used for health relative to other areas. Models to estimate the poverty impacts of OOP spending also control for country poverty rates. These associations do not reflect causation, but the pattern of results points to the important role of public spending to reduce financial hardship. The analysis shows that the share of public spending in total current health spending is significantly and negatively associated with the incidence of catastrophic health spending at both thresholds (10% and 25%) as well as with the proportions of the population pushed into both absolute and relative poverty. The public spending share also has a negative, but not statistically significant, correlation with the proportion of the population further pushed into poverty in a given country. The latter correlates most strongly (positively) with the country poverty rate, followed by current health spending as a share of GDP. Current health spending as a share of GDP is also positively associated with the incidence of catastrophic health spending and the proportion of people pushed into relative or extreme poverty. Finally, GDP per capita is positively associated with the proportion of the population spending more than 10% of their household budget on health and the percentage of people pushed into relative poverty.

b These countries were: Bolivia (2015), Barbados (2016), Chile (2016), Colombia (2016), Ecuador (2011), México (2016) and Peru (2017).

Table 2. Marginal effects of macroeconomic characteristics on catastrophic and impoverishing health spending

	Incidence of catastrophic health spending as tracked by SDG 3.8.2 indicators		Proportion of the population pushed into poverty		Proportion of the population further pushed into poverty	
	10% threshold	25% threshold	At the PPP$190 per day poverty line	At the relative poverty line	At the PPP$190 per day poverty line	At the relative poverty line
GDP per capita (constant 2017 US$, in thousands)	**0.250*** (0.00)**	0.019 (0.36)	0.014 (0.80)	**0.040** (0.00)**	0.011 (0.98)	0.074 (0.17)
Current health spending per capita as a % of GDP per capita	**0.602*** (0.00)**	**0.071* (0.06)**	0.002 (0.92)	**0.103*** (0.00)**	**0.369** (0.02)**	**0.359*** (0.00)**
Public spending on health per capita as a % of current health spending per capita	**-0.094*** (0.00)**	**-0.017** (0.00)**	**-0.017*** (0.00)**	**-0.016*** (0.00)**	-0.023 (0.40)	-0.017 (0.24)
Poverty headcount rate at the PPP$1.90 per day poverty line			**0.038*** (0.00)**		**0.619*** (0.00)**	
Poverty headcount rate at the relative poverty line				0.007 (0.48)		**0.538*** (0.00)**
No. observations	734	734	506	637	488	633
No. countries	144	144	111	130	110	129

Note: Numbers in parentheses are p-values: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.001.

Source: Authors calculations based on the 2021 Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Country level analysis shows that population coverage in conjunction with carefully designed co-payment policies, targeting and the comprehensiveness of the benefit package are essential to translate increases in public spending into improvements in financial protection. Evidence on the importance of the design of co-payment policies and targeting to reduce financial hardship was already available for the WHO European region *(1, 43)* where countries with low fixed co-payments and annual caps to all co-payments, as well as exemptions for poor people, were found to have the lowest rates of catastrophic health spending (defined as the proportion of household with OOP health spending exceeding 40% of household capacity to pay). A recent case study from a MIC in Europe shows that expanding population coverage and increasing public spending on health without focusing on these other dimensions of coverage can improve access to health services but also increases households' exposure to OOP payments, resulting in higher incidence of catastrophic health spending (Box 6). A recent review of the evidence emerging from 20 LICs/LMICs identified key features of insurance arrangements needed to make them pro-poor (i.e. to ensure that they cover a large proportion of the poor and that poor people get to increase their utilization of health services while reducing impoverishing health spending). The main characteristics identified included: universal eligibility; automatic enrolment; good information about entitlements; the comprehensiveness of the benefit package (which should include outpatient services and medicines as well as inpatient services, and be at least as large for the poor as for the non-poor); timely reimbursement for providers at similar rates for the poor and non-poor *(44)*.

Box 6: The impact of health financing reforms on access and financial protection in a middle-income country

Georgia's experience with health financing reforms shows how expanding population coverage without careful consideration of the scope of the benefits package, co-payment design and strategic purchasing can improve access to health services at the cost of increasing financial hardship.

In 2013, Georgia introduced the Universal Health Care Programme (UHCP), dramatically expanding the share of the population entitled to publicly financed health care from under 50% to over 95%. The reform was accompanied by a stark increase in public spending on health per person, which tripled between 2011 and 2018 and drove down the OOP payment share of current health spending from 73% in 2012 to 48% in 2018 *(45)*.

The reforms substantially improved access to health care but the effect on financial protection was mixed: while the share of the population reporting foregone care due to cost fell from 17% in 2010, before the reforms, to 10% in 2014 – a remarkable achievement – the incidence of catastrophic health spending rose from 13% in 2012 to 17% in 2018, reflecting the following factors *(46)*:

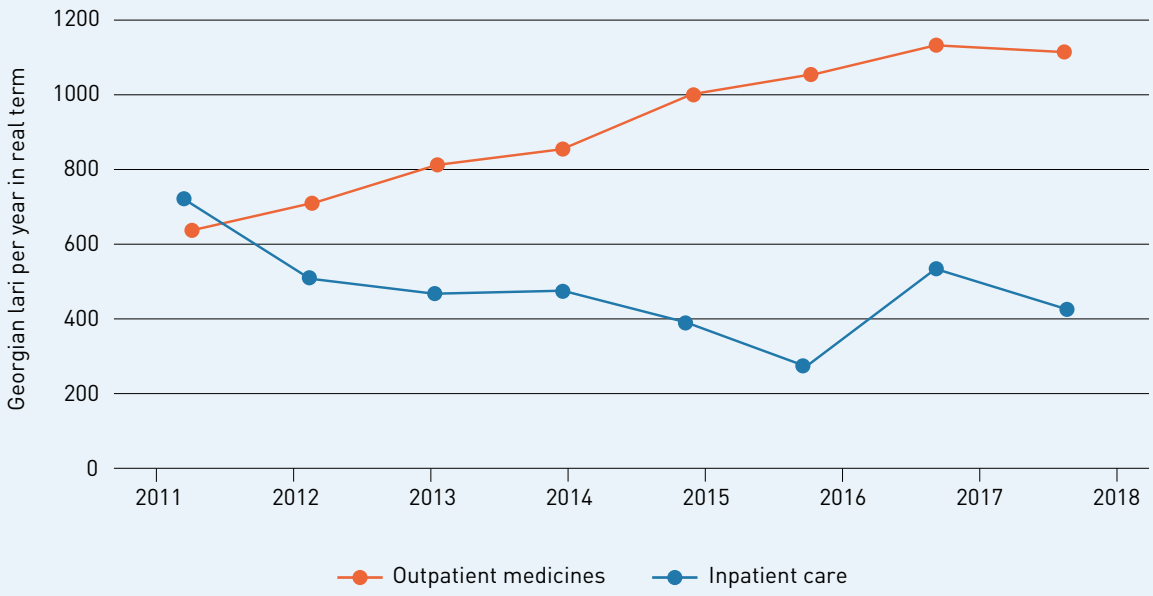
- The reforms prioritised inpatient care and did not initially focus on improving access to outpatient medicines, even though medicines have consistently been the largest single driver of catastrophic health spending, especially in poorer households. As a result, while the average amount spent OOP for inpatient care fell sharply in households with catastrophic health spending, the average amount spent on medicines continued to rise.

- Gaps in the coverage of outpatient medicines persist. The UHCP benefits package includes only a limited selection of outpatient medicines, which are subject to complex user charges (co-payments), without protection mechanisms such as co-payment exemptions for poor households or a cap on co-payments.

- Provider incentives also shift costs to households. For instance, pharmacies can increase revenue by prescribing brand-name medicines without strong regulation of service prices or mechanisms to control service volume, activity-based payment in hospitals, encourages over-treatment and the use of more expensive services.

Strengthening financial protection will require continued increases in public spending on health (which, at 2.8% in 2018, is still low as a share of GDP compared to an average of 3.3% in the region's UMICs (WHO European region), as well as a shift in policy focus to improve the quality of primary care, enhance protection from co-payments for poor households and people with chronic conditions, and boost regulation of health service volumes and prices.

Average out-of-pocket spending in households with catastrophic health spending, 2011–2018



Note: Catastrophic health spending is defined in the World Health Organization European region as OOP health spending exceeding 40% of household capacity to pay for health care.

Source: Goginashvili et al. (2021) *(46)*.

1.5. Linking financial hardship to foregone care and service coverage

The previous sections of this chapter have shown the world to be off-track in reducing financial hardship due to increasing incidences of catastrophic health spending coupled with a very high number of people incurring impoverishing health spending. By these indicators alone, financial protection was worsening prior to the COVID-19 pandemic. However, financial protection is only achieved when there is: no financial hardship due to OOP health spending; and no financial barriers to access. Thus, indicators of financial hardship must be linked to the actual use of services, foregone care/unmet needs analysis and service coverage indictors to identify whether low incidences of catastrophic or impoverishing OOP payments reflect poor access to services rather than high levels of financial protection. In the WHO European region data on unmet needs help to understand the composition of OOP health spending for people incurring catastrophic health spending and shed lights on income inequalities in access (see Box 7). A recent systematic literature review and meta-analysis indicates that the prevalence of self-reported foregone health care affects about one tenth of the studied population (58 million people from 56 countries, see Box 8). The most frequently reported reason for foregone health care is affordability, irrespective of age, followed by availability, accessibility (12.2%) and acceptability (8.9%) of services. *Tracking universal health coverage: 2021 Monitoring report (18)* indicates steady improvements in service coverage (SDG indicator 3.8.1) between 2000 and 2017. Nevertheless, the evidence emerging from studies of foregone care reveals the continued importance of financial barriers to access experienced by those who are unable to secure the economic resources to meet OOP health payments.

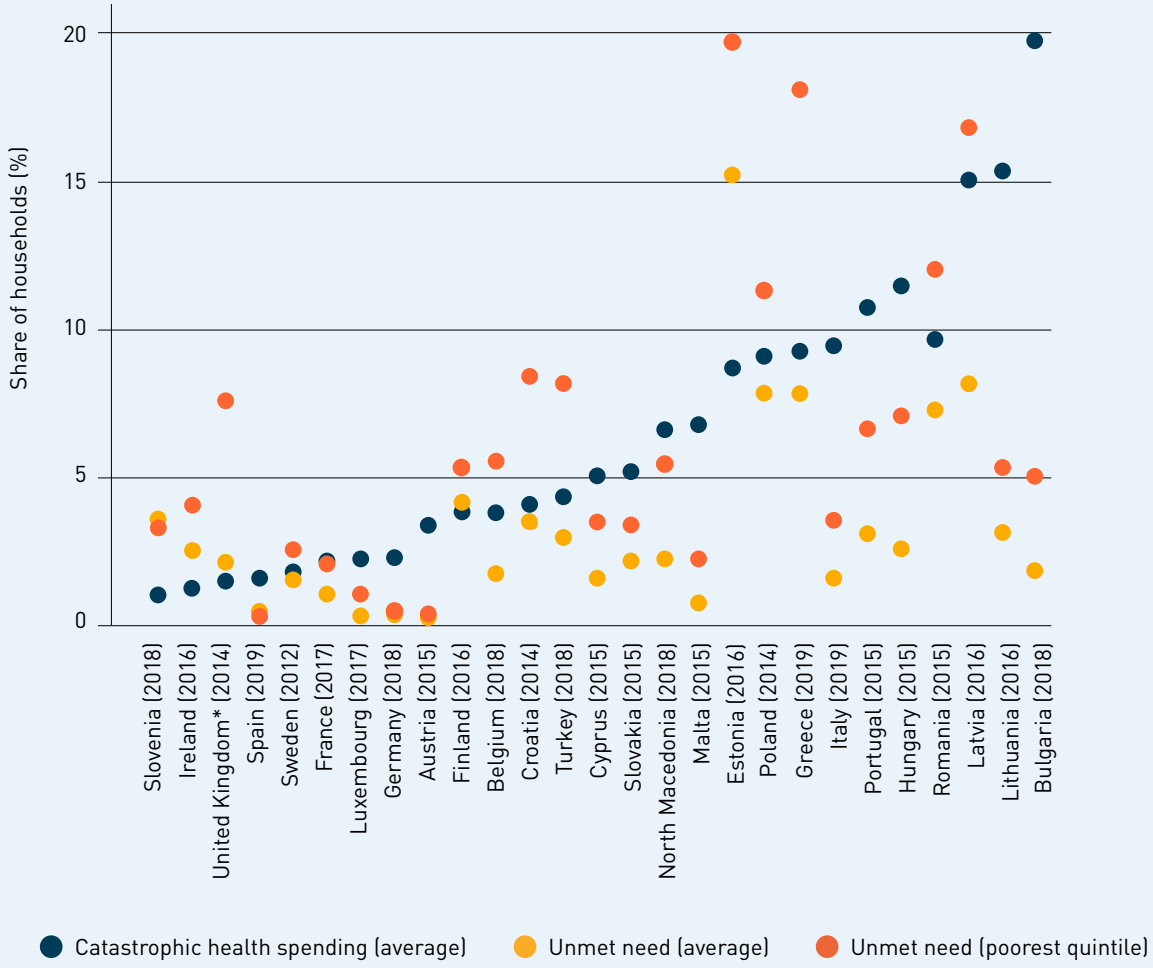
Box 7: In Europe, in countries where the share of households with catastrophic health spending is very low, unmet need also tends to be low and without significant income inequality

Recognizing that cross-country comparisons of data on unmet need for health care due to cost, distance or waiting time require some caution *(47)*, evidence from the WHO Europe an region shows that in countries where the incidence of catastrophic spending is very low, unmet need tends to be low and income inequality in unmet need is small. For these countries, it can reasonably be assumed that low levels of financial hardship are not the result of people being unable to access health services.

When the incidence of catastrophic spending is higher, however, there is no clear relationship with unmet need on average, but the impact of income inequality in unmet need tends to be substantial. In countries where catastrophic spending and unmet need are both high, it is possible that if more people were able to access services, rates of catastrophic OOP payments would increase further.

More detailed analysis reveals that unmet need is typically higher for dental care than for other types of health care (data not shown). Gaps in the coverage of dental care, which are widespread in Europe, tend to result in unmet need for poorer people and financial hardship for richer people *(43)*. Similarly, gaps in the coverage of outpatient medicines result in both unmet need and financial hardship for poorer people *(43)*.

Share of households with catastrophic health spending and unmet needs, WHO European region, latest available year



Note: *United kingdom of Great Britain and Northern Ireland. Data on catastrophic spending and unmet need are for the same year. The denominators are: households for catastrophic spending; and population aged over 16 years for unmet need. Quintiles are based on consumption for catastrophic spending and income for unmet need.

Source: Eurostat (2021) for data on unmet need *(48)* and WHO Regional Office for Europe (2019) for data on catastrophic spending *(43)*.

Box 8: The poorest households are more likely to experience foregone care and financial barriers are the most frequently reported reason for foregoing care

At all phases of the life cycle, different access barriers – geographic, financial and social, among others – can prevent people from seeking adequate health care. For example, if people forgo certain health services or health care altogether for financial reasons, low rates of OOP health spending can reflect the forgoing of care rather than adequate financial protection.

A recent study *(49)* estimated the prevalence and drivers of foregone care through a systematic literature review and meta-analysis. Four major electronic databases were searched to identify studies that measured foregone care defined as episodes of illness when care was not sought or delayed. Based on population-based surveys, 114 studies were included in the review, which covered around 58 million people from 56 countries. The analysis found that 9.0% of the studied populations self-reported forgoing or delaying health care. The leading reason was affordability (20.6%, which is equivalent to about 1.8% of all individuals), followed by availability (17.0%), accessibility (12.2%) and acceptability (8.9%) of services.[c] Substantial differences were found in the prevalence of foregone care due to cost-related barriers by education level (primary or less (14.3%) vs higher (7.8%)); self-reported health status (poor (24.6%) vs very good/excellent (15.5%)); insurance status (uninsured (21.9%) vs insured (15.9%)); and economic status (poorest quintile (30.2%) vs richest quintile (8.4%)).

A subgroup analysis of the older population estimated the prevalence of foregone health care and unmet needs for long-term care (LTC). For this analysis, 79 studies with data on foregone care among people aged 65 years and older and 14 studies on unmet need for LTC were analysed. Among older people 65 years and above, 10.4% reported forgoing health care compared to 4.9% among adults 31 to 64 years, and 11.5% among those 30 years and younger. The leading reason for foregone health care among the elderly was affordability (31.7%), followed by problems with acceptability (10.4%), accessibility (6.2%) and availability (4.9%) of services. Similar to the results for the general population, significant variation in pooled prevalence of foregone health care due to cost was found by: gender (male (10.9%) vs female (14.4%)); education level (primary or less (13.3%) vs higher (7.5%)); self-reported health status (poor (23.2%) vs good (4.4%)); insurance status (uninsured (27.7%) vs insured (9.0%)); and economic status (poorest quintile (28.2%) vs richest quintile (7.1%)). On average, 25.1% of older people reported unmet needs for LTC, which varied by the level of physical function (activities of daily living (ADL) (23.8%) vs instrumental ADL (11.0%)), and residential area (rural (51.1%) vs urban (48.0%)).

In sum, self-reported foregone health care affects about one tenth of the population, with the prevalence among older people (aged 65 and above) being nearly double that of younger adults (31 to 64 years of age). The most frequently reported reason for foregone health care is affordability, irrespective of age. This study suggests that unmet need should be considered to accurately measure service coverage and financial protection, particularly among older people.

1.6. Challenges to routine monitoring of financial protection in health are exacerbated by the COVID-19 pandemic

The current average lag time of four years for generating indicators of catastrophic and impoverishing health spending is not predicted to decrease, and may even increase or lead to a gap in knowledge regarding the level of financial hardship experienced by the population during the COVID-19 pandemic if immediate actions are not taken to start collecting data on household OOP health spending. Tracking financial protection in health requires access to household data on both OOP health spending and total consumption or income *(19)*. Such data is typically collected through face-to-face surveys on household budget, income and expenditures, living standards or socioeconomic surveys. But those surveys are infrequent, the data curation takes time and creates delays in the estimation of financial protection indicators. Hence, in this report, global estimates are

c In the Tahanashai framework *(10),* the availability dimension is concerned with the human resources, infrastructure, products etc. being located where needed for the target population; accessibility is concerned with those resources being within reasonable reach of the people who should benefit from them; acceptability is focused on the willingness to use the services. In the systematic review, examples of reasons for forgoing care include under availability: appointment problems; and lack of health facilities; under accessibility: distance to the facility; and transportation problems; and under acceptability: bad perception about facilities/human resources; mistrust/fear of health care provider(s); and lack of/conflicting time.

only available up to 2017. As a consequence of the pandemic, most countries postponed plans to conduct surveys in 2020 and by May 2021 uncertainty regarding the timing to resume face-to-face data collection activities remained very high *(50)*. Many countries have opted for alternative data collection approaches but to date there has been no systematic effort to collect data on household OOP health spending (see Chapter 2 and *(51)*). Only one survey has attempted to collect qualitative information on OOP spending and its impact on household's ability to spend on necessities in a comparable way across many countries (Fig. 27). In this light, the current average four-year lag time in generating knowledge appears set to increase in the foreseeable future, and may lead to a gap in knowledge regarding the level of financial hardship experienced by populations during the pandemic. Immediate actions are needed to start tracking current household OOP health spending (and a measure of household total consumption). WHO is developing a household survey questionnaire to collect data on OOP health spending through various platforms and also to collect qualitative information on financial hardship due to OOP health spending *(52)*.

Surveys conducted in 2020 only partially cover the pandemic period, and trends compared to previous years might not yet capture the effect of the COVID-19 on financial protection. Some countries did conduct household surveys in 2020. Figs. 17 and 18 show 2020 estimates available for catastrophic health spending for five countries and for impoverishing health spending for three. Most of these countries have been collecting data on household consumption including OOP health spending for more than 10 years. The estimates available for 2020 for these countries only partially cover the pandemic period as questions on both household consumption and OOP health spending are retrospective. In some cases, the country adopted a mixed mode data collection approach to carry the survey over the full year (Box 9), the effect of which is still being investigated *(53)*. Giving due consideration to these caveats, the results available for these countries suggest that 2020 estimates might not disrupt previous trends. Instead, they might accelerate or decelerate the rate of change. An acceleration is noted in three of the five countries with estimates available for SDG 3.8.2 indicators (i.e. LMIC-Asia and both UMICs-Europe), and in two of the three countries with estimates available for impoverishing health spending.

Further analysis would be needed to understand 2020 estimates. An example of the type of analysis that would have to be undertaken is provided for Peru, the UMIC included in Figs. 17 and 18. The estimated annual increase of 1.2 and 0.1 percentage point per year for the incidence of catastrophic and impoverishing health spending respectively between 2019 and 2020 is of the same magnitude as the previous increases estimated between 2017 and 2018. However, such average annual increases mask important variations within the year. Box 9 shows that the increase was much higher with the growing number of pandemic months, and by the last quarter of 2020 13% of the population was spending more than 10% of their household budget on OOP health costs (i.e. 3.8 percentage points higher than the 9.2% rate estimated for the whole year 2020). In countries where a reduction is observed, such as the LMICs in Asia in Figs. 17 and 18, it will be important to monitor trends in utilization rates, service coverage and foregone care to confirm that the reduction is not driven by people foregoing care.

The pandemic has exacerbated pre-existing challenges to routinely monitoring financial hardship due to OOP health spending, but as national statistical offices are changing the way they work and collect data, adapting to more rapid data collection tools it is also an opportunity to improve timeliness of the information collated.

Figure 17. Trends in the incidence of catastrophic health spending as tracked by SDG indicator 3.8.2, 10% threshold, countries with estimates available for 2020

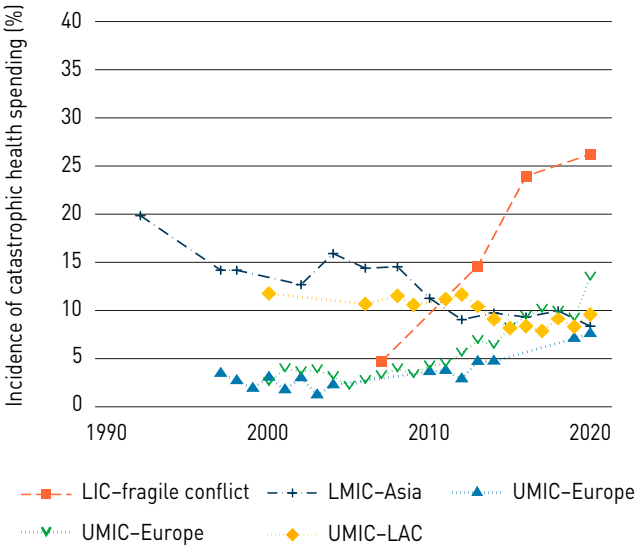
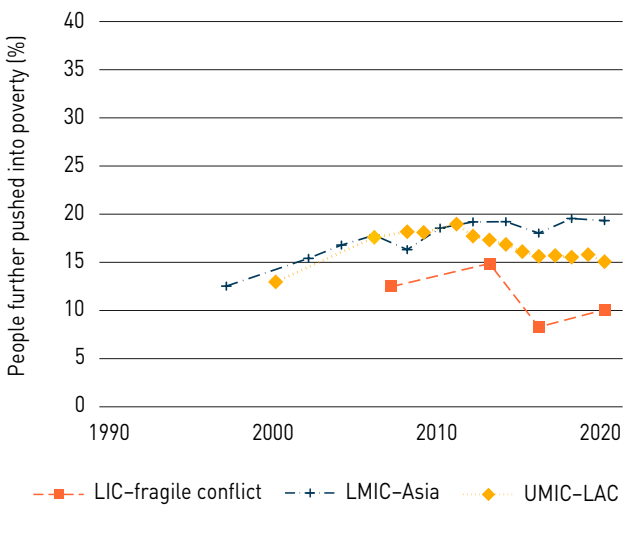


Figure 18. Trends in the incidence of people further pushed into poverty, countries with estimates available for 2020



Source: data from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28).*

2

COVID-19 AND FINANCIAL PROTECTION

Key messages

- Despite a scarcity of household expenditure survey data collected during the pandemic, available evidence shows the combined economic and health impacts of COVID-19 point towards the strong likelihood of a significant worsening of financial protection globally, due to higher rates of foregone care for financial reasons, and for those seeking care, a higher incidence of catastrophic spending and worsening impoverishment due to out-of-pocket health spending.
- Declining income, increased poverty rates and worsening vulnerability resulting from unemployment, decreased savings and lack of social protections will reduce households' capacity to pay for services out-of-pocket, particularly for low- and middle-income countries and lower-income households.
- Preliminary evidence shows that, in some cases, COVID-19 testing and treatment has been costly for households, with reported reductions in spending on necessities to cope with costs.
- Households, particularly in low-income countries, are reporting financial barriers to seeking care for all health services, not only those related to COVID-19.
- The prolonged disruption and decreased utilization of health services will likely have medium- to long-term health and financial consequences for households.
- Despite initial efforts by governments to increase expenditures to cope with the pandemic, the resulting decreased public revenues and increased debt burdens will place downward pressure on public financing, including for health, unless actions are taken to extend the timeframe for fiscal adjustment, and more generally allow for more prolonged counter-cyclical spending.
- Proactive policy efforts can mitigate the consequences of COVID-19, and also accelerate progress towards UHC by focusing on pro-poor focused increases in public spending to crowd-out out-of-pocket spending for health; enhanced social protection support; removal of co-payments and other fees at the time and place of seeking care; and cash transfer payments to facilitate access, particularly for the poor.
- COVID-19 has underscored the importance of complementing traditional household consumption and income surveys with more nimble and frequent forms of financial protection monitoring using other modalities (e.g. mobile phone and social media surveys), especially during times of crises.

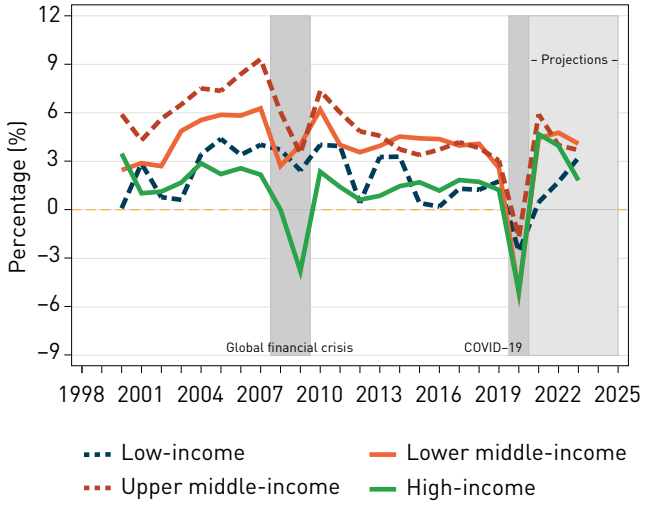
COVID-19 is likely to significantly worsen financial protection globally. Between 2015 and 2017, the incidence of catastrophic spending continued to worsen primarily due to OOP spending on health among the non-poor, which resulted in: 1. an increase in the amount people spent OOP for health; and 2. a higher rate of growth of OOP spending on health relative to growth in private consumption. Although there have been declines in overall financial hardship among the poor over the same period, the number of poor paying OOP for health remained unacceptably large. COVID-19 has resulted in declines in income, increases in poverty rates, and worsening rates of economic vulnerability globally *(54)*. A lack of data currently precludes a detailed and comprehensive assessment of the impact of COVID-19 on financial protection *(2,127,126)*. Nevertheless, all of these pandemic-related factors point towards the strong likelihood of a significant worsening of financial protection globally – higher incidence of catastrophic health spending, worsening impoverishment, and higher rates of foregone care due to financial and other barriers –in particular among lower-income households. This worsening of financial protection will likely be sustained in the medium term unless proactive policy efforts are made (e.g. pro-poor focused increases in public spending to crowd-out OOP spending for health, enhanced social protection support, removal of co-payments and other fees at the time and place of seeking care, cash transfer payments for stimulating use among poor and vulnerable households, and expansion in coverage for and strengthening of primary health care) – not only to support recovery but also to accelerate progress towards UHC.

COVID-19 continues to take its toll globally. As of November 2021, around 250 million individuals are confirmed to have contracted COVID-19 and an estimated 5 million have died globally *(55)*. Due to weaknesses in testing and death registration, actual numbers are likely to be much higher, especially in LICs and MICs *(56)*. Among UN regions, Europe reported the greatest number of cases and deaths per million population. Countries in Oceania, on the other hand, have exhibited the lowest numbers of cases and deaths so far. Most reported cases to date have occurred in the United States, followed by India, Brazil, the United Kingdom of Great Britain and Northern Ireland and the Russian Federation; most reported deaths to date have occurred in the United States followed by Brazil, India, Mexico, and the Russian Federation *(57)*. Globally, hospitalizations and deaths have been highest among those over 60 years of age and among those with underlying comorbidities *(58)*. Case fatality rates have varied across countries due to age-related differences in incidence, differences in testing rates and access to quality health care, as well as data quality and reporting challenges. In addition to the immediate impact of COVID-19 on morbidity and mortality, there are concerns regarding its longer term health impact among those who have recovered, or those who continue to suffer from post-COVID-19 conditions *(59)*. As COVID-19 vaccines are rolled out – to date, almost 50% of the world's population has received at least one dose – stark inequities in vaccine coverage are emerging: whereas single-dose vaccine coverage exceeds 70% among HICs, it remains less than 5% among LICs *(60)*.

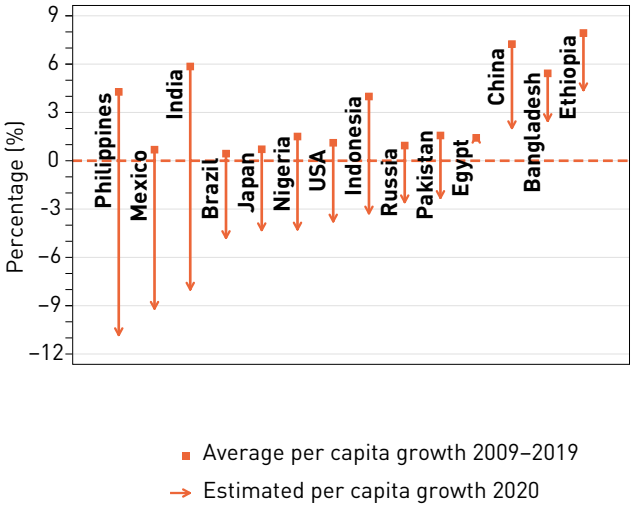
Over and above its impact on morbidity and mortality, COVID-19 resulted in a deep global economic contraction in 2020. COVID-19 control and social distancing policies triggered steep declines in economic activity globally. The world experienced one of the largest declines in GDP in more than a century, unprecedented in magnitude and scale, with most countries seeing negative economic growth – and almost all seeing a slowdown in economic growth – in 2020 *(2)*. Unlike the previous (2008–2009) global financial crisis, which resulted in an economic contraction mainly among HICs, the COVID-19 crisis has impacted countries across all income groups (Fig. 19). Countries that implemented more stringent control and social distancing policies and yet failed to effectively contain the virus appear to have taken the biggest economic hit, as did those whose economies were more dependent on the services sector (including tourism) and on industrial commodity exports. India, Mexico and the Philippines, for example, saw per capita GDP contract by more than 8% in 2020; the economies of Bangladesh, China and Ethiopia, on the other hand, did not contract but nevertheless experienced a significant slowdown in growth relative to prior trends (Fig. 19). Even countries that have remained relatively virus-free (e.g. some Pacific nations) have not been immune to the economic contagion from COVID-19 due to strong global linkages *(61)*.

Figure 19. Per capita GDP, 2000 to 2023

a) Per capita GDP growth (%), 2000–2023, by economic group



b) Per capita GDP change (%), 2009–2020, selected countries

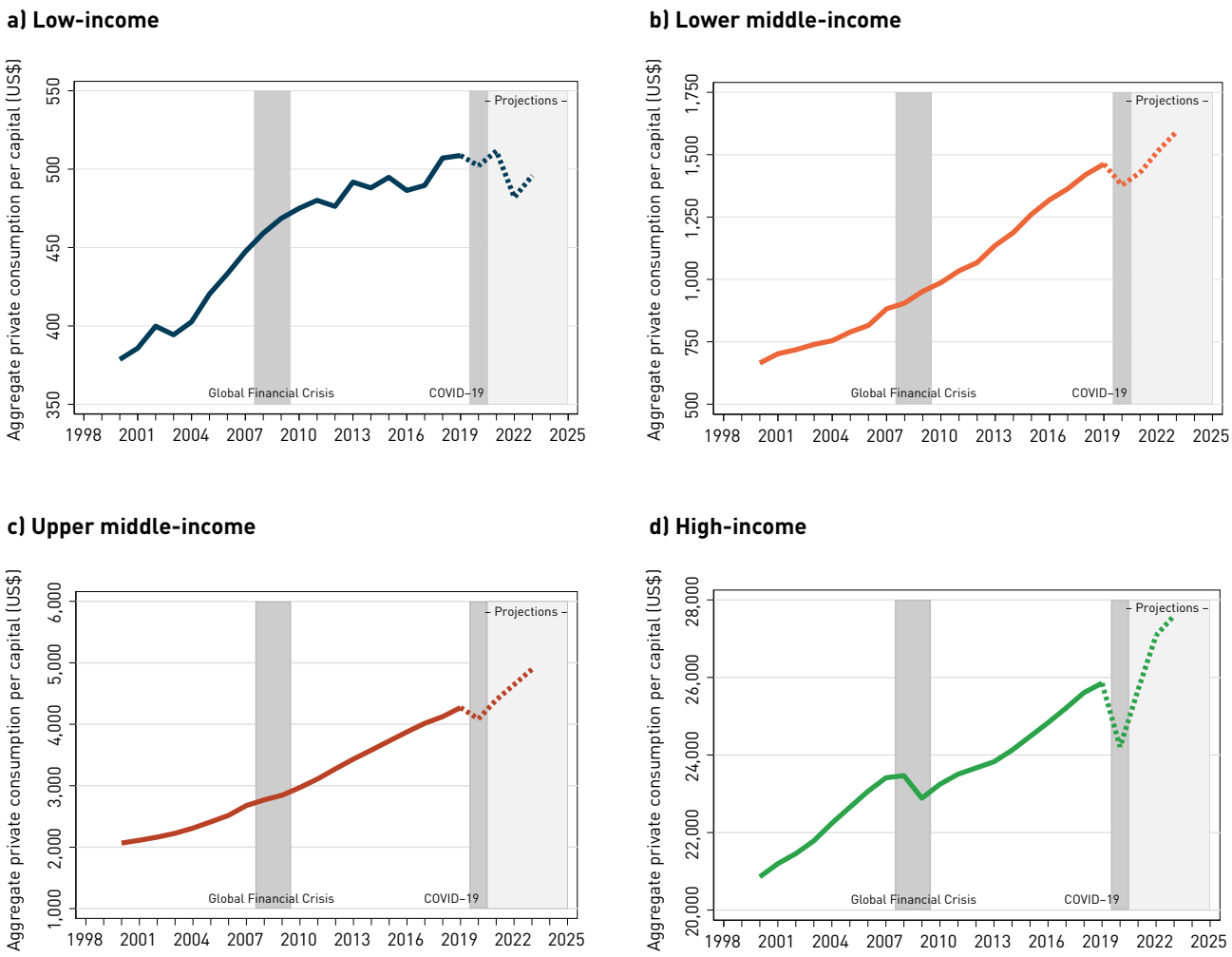


Notes: Projections for per capita GDP as reported directly in the IMF World Economic Outlook. For more information about the computation methods underlying both figures, see Annex A6.

Source: Authors' calculations using data from World Bank (2021) *(62)* and International Monetary Fund (IMF) (2021) *(2)*.

One unique aspect of the economic shock resulting from COVID-19 has been its impact on both the demand for and supply of good and services. Unlike previous economic contractions, which tended to impact either from the demand side or the supply side, the current COVID-induced economic shock has impacted both *(63)*. From the demand side, private consumption and trade declined at first, followed by investment. Restrictions limiting mobility, in particular, contributed to a rapid decline in private consumption *(64)*. As can be seen in Fig. 20, aggregate per capita private consumption levels declined across all income groups in 2020. However, the other significant component of GDP – aggregate government spending – increased in almost all countries in 2020. From the supply side, the services sector – which is more dependent on face-to-face contacts – was impacted the most, followed by manufacturing. The agriculture sector, on the other hand, has survived the COVID-19 pandemic largely unscathed to date *(65)*.

Figure 20. Per capita aggregate private consumption, 1998–2023



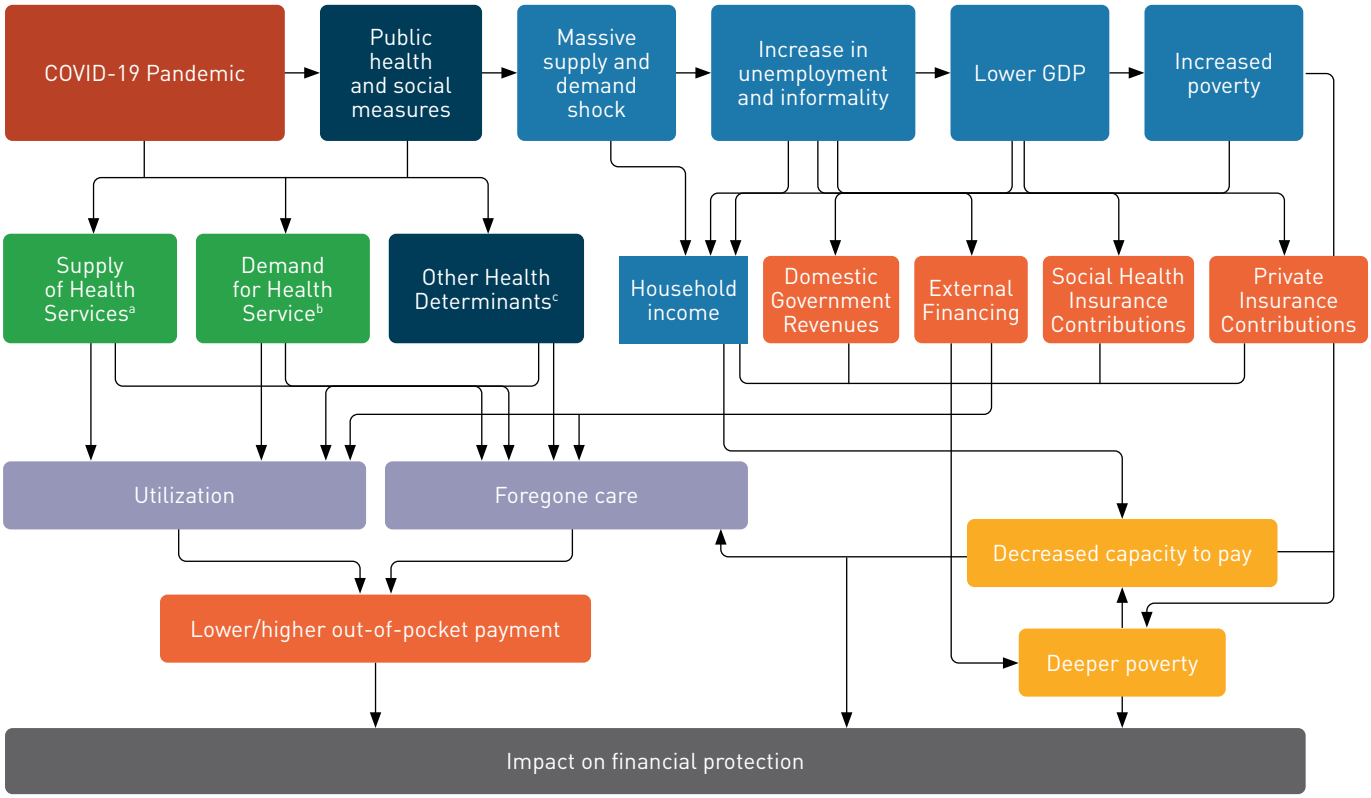
Notes: Values are in constant 2017 US$. Projection methods are described in Annex A6.

Source: Authors' calculations using data from World Bank (2021) *(62)* and International Monetary Fund (IMF) (2021) *(2)*.

Current projections are for an economic rebound to occur beginning in 2021; however from a much lower baseline. The global economy is projected to grow by 5.9% in 2021, 4.9% in 2022, and 4.7% in 2023, although these projections remain subject to tremendous uncertainty, with evidence of growing divergence between HICs, where relatively high COVID-19 vaccination rates and policy support have stimulated economic activity, versus the rest of the world where gaps in expected recovery remain large and vaccination rates are lagging *(2)*. As long as large proportions of the global population remain unvaccinated, threats of renewed resurgence and emergence of new variants of the virus remain large, posing not just risks for health but also for sustaining economic recoveries. Many countries will not recover to pre-pandemic levels of per capita GDP until 2022, for some the economic recovery may take even longer. And, if current projections hold, unlike the average across other income groups, sluggish recovery in LICs indicates that they will be unlikely to return to pre-COVID aggregate per capita private consumption levels even by 2023 or later. And many countries (e.g. such as Indonesia, Malaysia, and Thailand in the UN subregion of Southeastern Asia) saw a reversal of fortune, having initially contained the virus and recovered economically but then subsequently succumbing to delta variant outbreaks in early 2021 *(66)*. Nevertheless, some evidence is emerging that rapid deployment of the vaccine is helping boost economic growth and that the marginal economic benefits are higher when vaccination rates are higher *(66,67)*. If the divergent pace of vaccine deployment and recovery is not reversed, it is likely that economic inequalities across countries will persist, and even further increase.

The double shock of COVID-19 on both health and the economy could impact financial protection through a variety of pathways *(127)*. Detailed data on the impact of COVID-19 on financial protection is not yet available and many data collection exercises have been put on hold due to the pandemic. As a result, the impact of COVID-19 on financial protection, at least in the short term, may never be fully measured and assessed, in relation to the medium- to long-term fallout. This makes the identification, assessment and analysis of pathways by which financial protection could be impacted even more critical to informing the design and implementation of mitigative policies. The pathways by which financial protection could be impacted by COVID-19 are summarized in Fig. 21. Some of the immediate effects were short-lived and have been reversed in some contexts; other effects will become evident more in the medium term. For example, weak economic recoveries and macro-fiscal stressors may result in downward pressures on public financing for health that, in turn, could result in higher OOP spending and – when combined with lower household incomes – result in worsening financial hardship when seeking care. As Box 9 demonstrates, the financial impact of COVID-19 has implications both for catastrophic expenditures as well as foregone care, and the evolving nature of these metrics. There are uncertain longer-term health consequences, and potential persistence due to economic hardship, of immediate foregone care in the face of the pandemic. Not all of the pathways necessarily point to worsening financial protection: short-term reductions in risk factors such as road traffic accidents, air pollution and incidence of other infectious diseases that occurred during large-scale COVID-19 control and social distancing approaches resulted in reduced demand for health care and possibly resulted in a lowering in the risks of facing financial hardship. Fig.21, shows the complexity of pathways that would need to be address through policies to buttress financial protection, particularly among poor and vulnerable households, will need to be multi-faceted and has implications for health and non-health sector actors alike.

Figure 21. Potential pathways for the impact of COVID-19 on financial protection



a: Containment efforts, expanded COVID-related care; crowding-out-of non-COVID supply; higher price of medicines
b: COVID-related increase in utilization; fear-and lockdown-related decline in utilization; increased rate of self-medication
c: Reduction in air pollution and road traffic accidents, improved hygiene, face masks; mental health, self-medication

The remainder of this chapter unpacks and discusses in further detail why **financial protection will likely worsen significantly due to the COVID-19 pandemic**. Relevant evidence is collated on how household capacities to pay and OOP spending on health could be directly impacted, along with an assessment of the fiscal situation of countries and their ability to counteract OOP spending pressures and support households through economic turmoil. The aggregate impact will only be assessed in years to come through concrete data derived from household budget surveys, implementation of which have been impacted due to the pandemic. Rather than conjecture and project what might happen to financial protection metrics such as incidence of catastrophic spending and impoverishment, this chapter summarizes the emerging evidence based on a range of published sources, as well as data sets based on new data collection methods adapted to the pandemic context (Annex A8), such as mobile phone and social media surveys. These rapid survey mechanisms, accompanied by context-specific policy monitoring, are needed to inform the current and future response options and priorities.

Box 9: Financial protection in Peru during the COVID-19 pandemic

Peru is one of the countries hit hardest by COVID-19 – and one of the few that continued collecting nationally representative household survey data throughout the pandemic. When the Peruvian government imposed a strict national COVID-19 control and social distancing policy in March 2020, its national household survey Encuesta Nacional de Hogares (ENAHO) switched from face-to-face to phone interviews and a reduced questionnaire to ensure continuous monitoring of essential service access and poverty among the population. Restrictions were eased in June 2020 and the survey mode was changed back to face-to-face in October after cases had significantly dropped.

Questions on health care access were unaffected by the change to phone survey mode but to elicit information on OOP health expenditures, the phone survey asked respondents for aggregate spending over three groups of items with one, three, and twelve months recall instead of collecting data on fifteen items separately. Studies have established that both the survey mode and the number of expenditure items can affect OOP expenditure reporting (68,69). With this caveat, the Peruvian data provide a rare window into the impacts of the pandemic on health care utilization and financial protection.

Figure A shows quarterly data on health care use by Peruvians with illness symptoms in the past month for 2019 and 2020 from the ENAHO survey alongside the quarterly number of COVID-19 cases. With the unfolding of the pandemic and the related public health measures in the second quarter of 2020 formal provider visits plummeted 60% and remained a third below their pre-pandemic levels at the end of the year. Especially during the strict social distancing approaches seen in the second quarter, many of those avoiding provider visits did not turn to self-medication but used no care at all. Additional data indicate that the drop in utilization was driven more by the mobility restrictions and fear of contracting the virus in health care settings than by the severe macroeconomic shock that saw household per capita consumption shrink by over 40% between the first and second quarter of 2020, as throughout the year, the share of Peruvians reporting to forgo formal health care for financial reasons remained below 6%.

Between 2019 and 2020, the percentage of the population with catastrophic health spending increased from 8.5% to 9.7% at the 10% threshold and from 1.2% to 1.4% at the 25% threshold (Figure B). However, these relatively moderate increases mask high volatility in catastrophic spending during 2020, with financial hardship increasing rapidly as the pandemic took hold and the survey's OOP expenditure questions recall periods captured a growing number of pandemic months. After an initial decline in the share of households with catastrophic spending in the second quarter – when per capita OOP spending dropped even more than household expenditures – financial hardship began to rise sharply in the third quarter. In the fourth quarter of 2020, 13% of households experienced catastrophic health spending at the 10% level, a 49% increase over the fourth quarter of the previous year. For catastrophic spending at the 25% level – which affected 1.8% of Peruvian households at the end of 2020 – the quarter-over-quarter increase was even more dramatic, at 84%.

During the pandemic, about 80% of Peruvians had health coverage primarily through the ESSALUD scheme for formal sector employees and their families and the Seguro Integral de Salud that provides free or highly subsidized care for the poor and near-poor. The above findings, however, indicate even with such high coverage levels and a substantive share of the population abstaining from health care use, COVID-19 caused increases in catastrophic spending so stark that rates reverted to levels last seen a decade ago when only 40% of the population had health coverage *(70)*.

Figure A. Care use and foregone care among those with illness symptoms in the last four weeks in Peru by quarter, 2019–2020

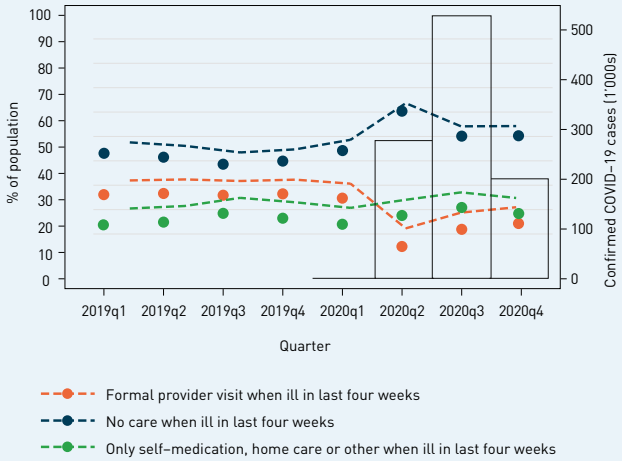
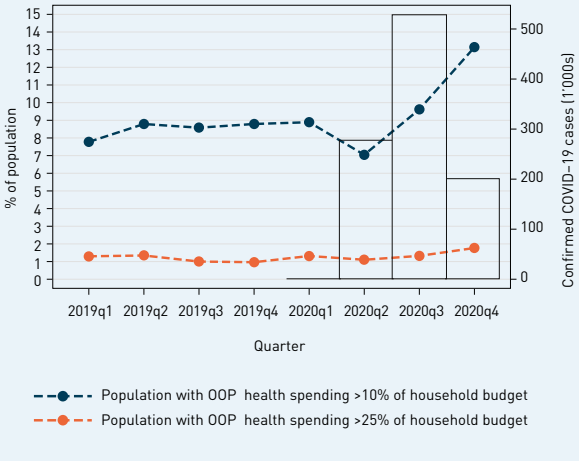


Figure B. Share of the population with catastrophic out-of-pocket health spending in Peru by quarter, 2019–2020



Note: In Fig. A all statistics correspond to sample weighted proportions. In fig. B the population with catastrophic health spending is computed as described in https://unstats.un.org/sdgs/metadata/files/Metadata-03-08-02.pdf.

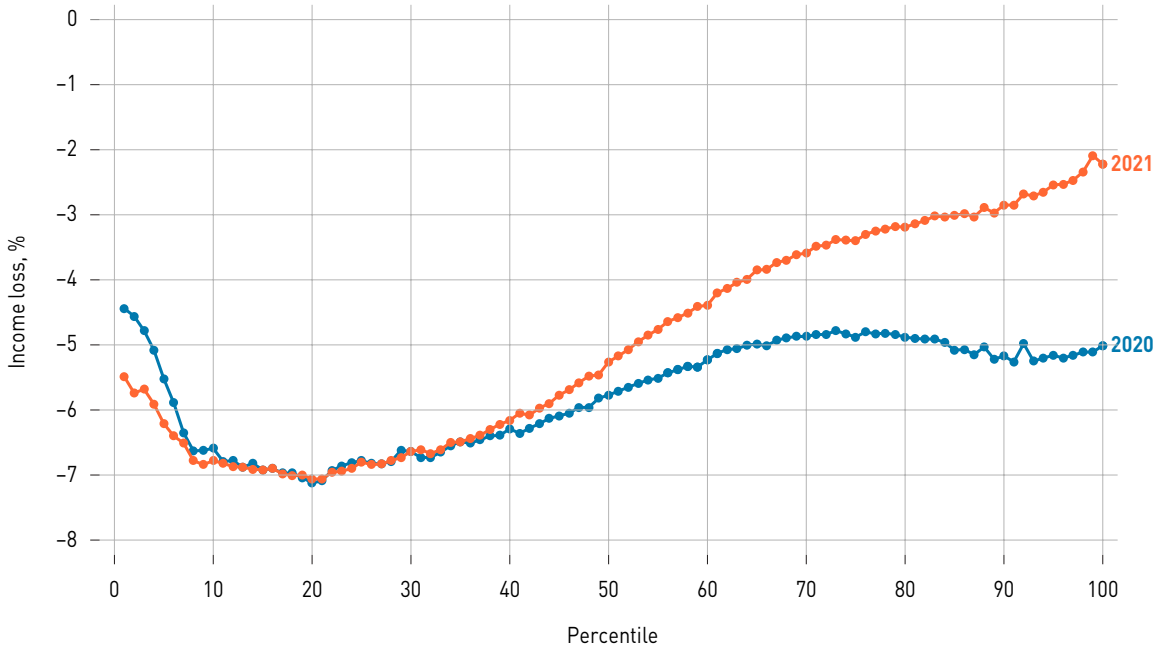
Source: Encuesta Nacional de Hogares (ENAHO). Peru Instituto Nacional de Estadistica e Informatica (http://iinei.inei.gob.pe/microdatos/, accessed 29 November 2021).

2.1. Impact on households

The impact of COVID-19 on aggregate income and aggregate private consumption is reverberating at the household level. Household incomes and employment have been adversely impacted. The International Labour Organization (ILO) has estimated that the equivalent of 255 million full-time jobs were lost in 2020, and employment continues to remain below pre-pandemic levels in many countries *(3)*. Employment effects have been most pronounced in LICs/MICs with the UN sub-regions of Latin America and Caribbean and Southern Asia being the most impacted. Some of hardest-hit sectors include hotels, food services, entertainment, retail and construction and – even within these sectors – those with lower-paid and lower-skilled jobs have been disproportionately negatively affected. Data from the World Bank's High Frequency Survey, focusing on LICs and MICs, confirm these trends. More than half of all households surveyed across a multitude of countries reported income losses resulting from the negative economic impact of the pandemic. About 36% of those who worked in surveyed countries prior to COVID-19 had to stop working from April to July 2020 and 62% of households reported reduction in total income *(71)*. Exacerbating the income loss has been the drop in remittances received. Based on respondent accounts, approximately two-thirds of households from LICs report that their total income decreased, with the number being as high as 92% in Gambia *(72)*.

Poorer and more vulnerable populations are bearing the economic brunt of the pandemic, with evidence of growing inequalities across households. Global estimates indicate that, in 2020, income losses averaged around 5% among the richest global quintile and 6% among the poorest quintile; 2021 projections, on the other hand, indicate that most income losses were recovered among the richest quintile but that the poorest quintile continued to suffer income losses (Fig. 22) *(5)*. Evidence from the World Bank's latest rounds of high frequency surveys also reveals that the initial disparities in income and job losses persisted despite reductions in the stringency of restrictions. Those who suffered larger income and job losses (e.g. women, younger workers, urban informal workers, and those with low levels of formal education) have not recovered to same extent as others in the labour market *(73)*.

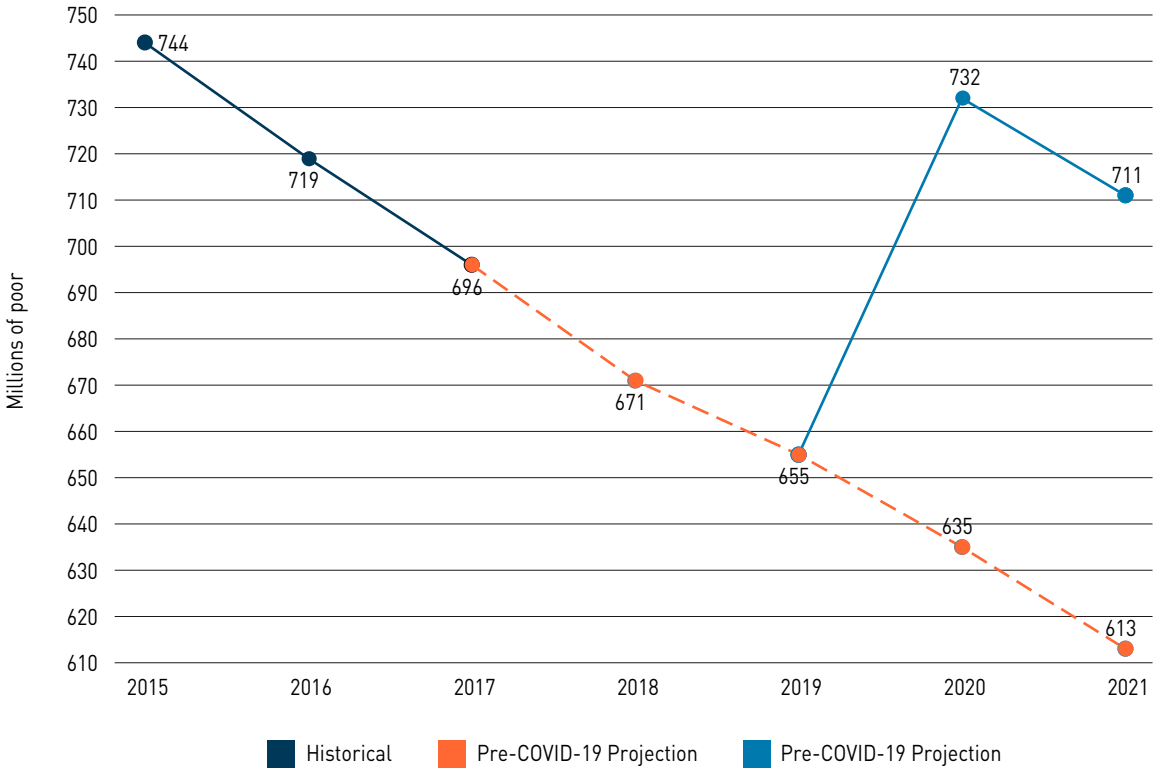
Figure 22. Global income losses due to COVID-19 pandemic, 2020 and 2021



Source: Figure from Yonzan, Lakner, and Mahler (2021) *(5)*.

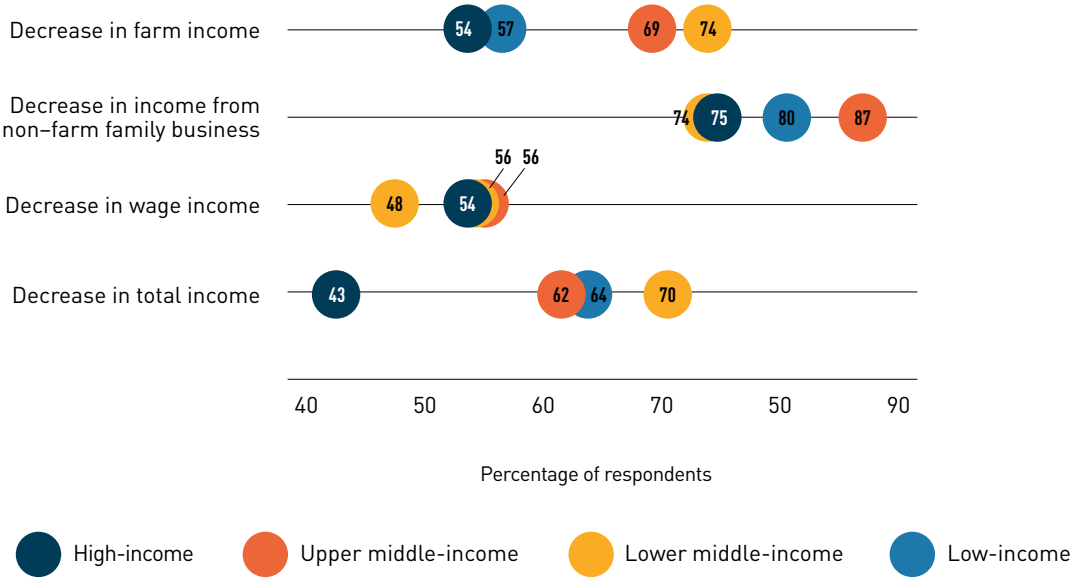
Global poverty rates have increased for the first time in decades. The last time when global poverty rates rose was due to the 1997–1998 Asian financial crisis. Estimations by the World Bank show that the global poverty rate will rise significantly in 2020–2021 with an estimated 97 million additional people being pushed into extreme poverty in 2020 as a result of COVID-19 (Fig. 23) *(74)*. These projections are expected to delay progress towards eliminating extreme poverty globally by 2030. Most of the projected new poor in 2020–2021 are from LICs and MICs, with those in the UN subregion of South Asia contributing the most to the newly impoverished. Despite an expected improvement in impoverishment rates globally, the number of additional new poor will remain around the same magnitude in 2021 as in 2020. These estimates are subject to tremendous uncertainty and highly dependent on the recovery process in countries such as Bangladesh, Democratic Republic of Congo, India and Nigeria, where large shares of those in extreme poverty live *(75)*.

Figure 23. Global extreme poverty, 2015–2021



Source: Figure from Mahler et al. (2021) *(74)*.

Figure 24. Proportion of households experiencing decrease in income, multi-country evidence

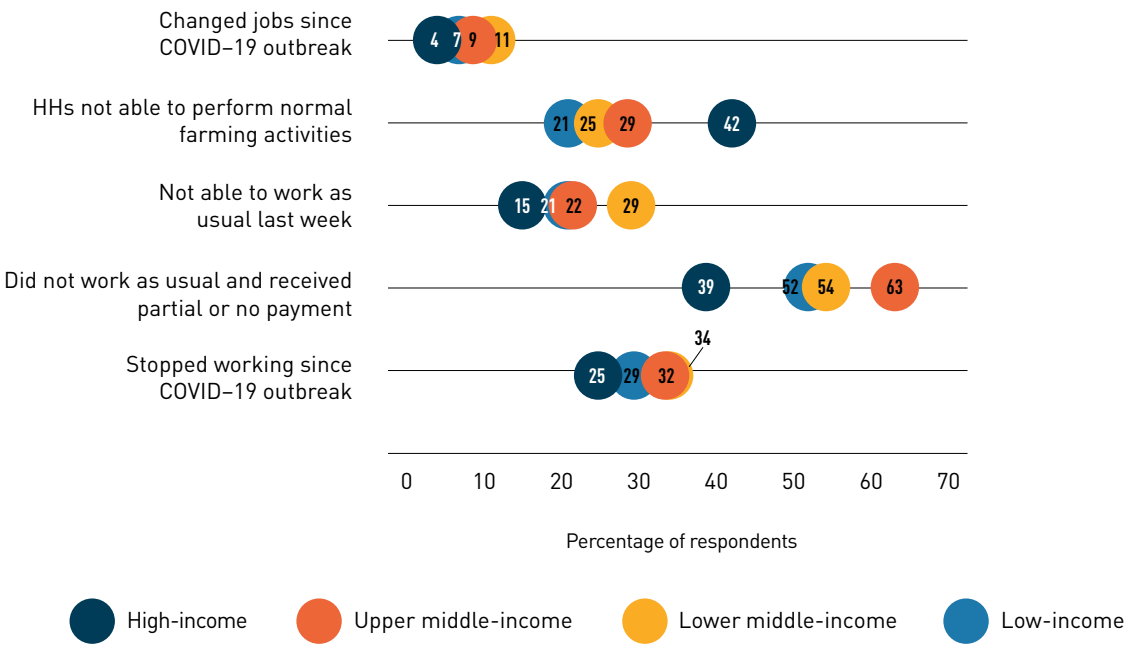


Note: HICs n=1 to 3; UMICs n=10 to 15; LMICs n=10 to 14; LICs n=4 to 12. Data collected between April–July 2020. More information about the computation methods is provided in Annex A6.

Source: Authors calculations using data from World Bank High Frequency Survey (2021) *(4)*.

Household vulnerabilities have increased in low- and middle-income countries. Even before the pandemic began, many households and firms were already in a precarious position with more than half of households in developing countries unable to sustain basic consumption levels for more than three months when faced with a loss in income, and most businesses unable to cover operational expenses beyond 55 days without incoming revenues *(76–78)*. During the pandemic, the impact at the household level has been substantial (Fig. 24 and Fig. 25). And in some countries and regions, there is evidence that the pandemic has led to a rise in informality. In India, for example, there is evidence to suggest that a large number of formal sector workers moved to the informal sector or became self-employed following the initial phases of COVID-19 control and social distancing of 2020 *(73)*.

Figure 25. Proportion of households self-reporting on the labour market impacts of the COVID pandemic, multi-country evidence

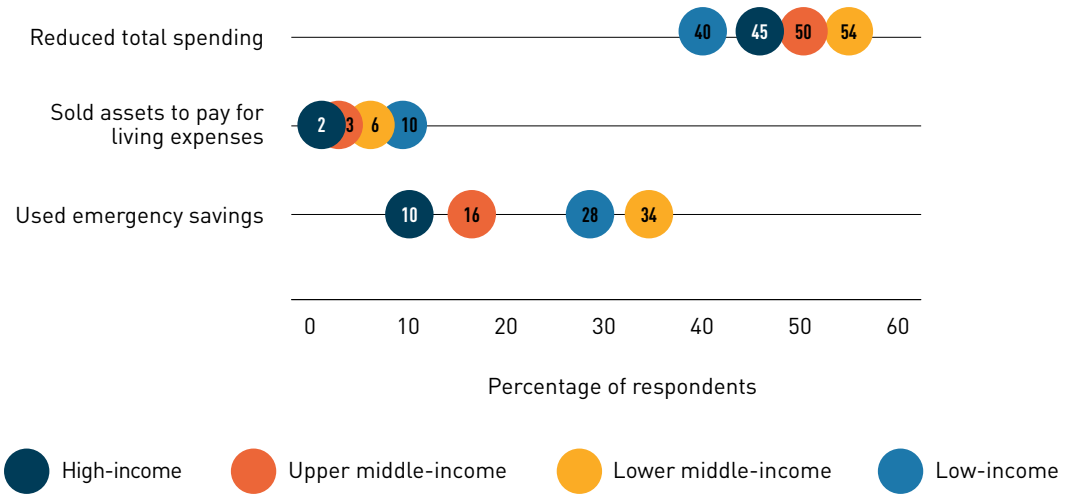


Note: HICs n=1 to 4; UMICs n=7 to 16; LMICs n=13 to 21; LICs n=8 to 15. Data collected between April–July 2020. More information about the computation methods is provided in Annex A6.

Source: Authors calculations using data from World Bank High Frequency Survey (2021) *(4)*.

Households have also reported coping mechanisms in response to the pandemic that will only add to their vulnerabilities. Households have resorted to using emergency savings to cover basic living expenses, with more than 50% of households reporting doing so in some countries (Fig. 26). Although households reported receiving government assistance, many have also reported selling assets to pay for living expenses or reducing spending to cope with the economic impact of the crisis. In dealing with income losses, poorer households are far more likely to report harmful coping mechanisms such as distress sales of productive assets and taking on debt *(66)*.

Figure 26. Proportion of households adopting various income loss coping mechanisms, multi-country evidence



Note: HICs n=2 to 3; UMICs n=13 to 14; LMICs n=17 to 18; LICs n=9 to 11. Data collected between April–July 2020. More information about the computation methods is provided in Annex A6.

Source: Authors calculations using data from World Bank High Frequency Survey (2021) *(4)*.

The confluence of all these factors means that on average households' capacity to pay OOP for health expenditures will be lower, and even lower among those populations who could least afford to pay prior to the pandemic. Households are experiencing these consequences on a day-to-day basis, with indications that households' financial anxiety is related to both COVID-19 incidence rates and the stringency of national COVID-19 control policies and related restrictions *(79)*. COVID-19 has dwindled the pool of potential resources available to pay for health services, but it has done so in the most detrimental way possible by hitting the poor and most vulnerable the hardest. While, on average, the reported proportion of households worried about finances has decreased over the course of the pandemic, it remains relatively high between 45% and 50%, and is even higher in LICs (Fig. 27). In the absence of extreme counter-cyclical social protection policies, the combined shock to household incomes and employment, savings and poverty rates raises alarm bells for both the financial protection and service coverage dimensions of UHC. In particular, the decline in poor households paying OOP for services is at risk due to the increased rate of poverty. This deterioration in economic conditions combined with the adverse health impact of COVID-19 will have direct consequences for financial protection in 2020/21 and beyond.

Figure 27. Prevalence of individuals being worried about household finances over the next month, across 110 countries

Notes: Figures show average weekly rates aggregated in two stages by WHO: first at country level using population weighted average and post-stratification correction; second as a simple average at both global and income group levels. Data were collected daily in 110 countries from 3-May-2020 to 30-Apr-2021. More information about the computation methods is provided in Annex A6. Source: The Global COVID-19 Trends and Impact Survey *(6)*.

2.2. Impact on health-seeking behaviour

2.2.1. COVID-19 related services

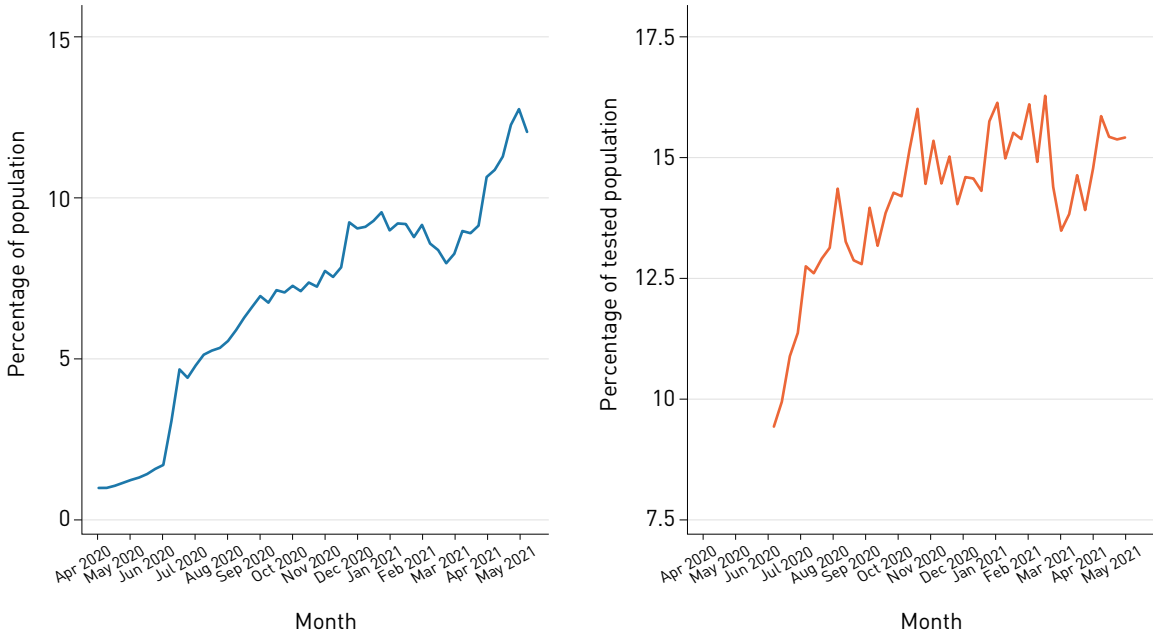
Beyond the impact on capacity to pay, the combined health and economic impacts of COVID-19 directly influence health-seeking behaviour, and related OOP expenditure. Fluctuations in health-seeking behaviour relate to both utilization patterns, as well as associated costs borne by households. From a financial protection standpoint, the complexity of these shifts means that the direct and indirect externalities of these combined crises will have both short- and long-term consequences. Importantly, OOP spending on health is experienced only if services are actually utilized and is an inefficient and inequitable form of health financing. In this light, understanding the interaction between service coverage and financial protection is essential to get a full picture of UHC in a given context.

COVID-19 itself has resulted in greater needs for health care services. About 20% of COVID-19 reported cases tend to be severe, requiring hospitalization, including roughly 5% that end up requiring intensive care *(80,81)*. In countries where testing and treatment for COVID-19 are not free at the point of use, OOP spending on health is likely to have increased. For example, the Global COVID-19 Trends and Impact Survey (Fig. 28) *(6)* shows that the percentage of people being tested for COVID-19 infection gradually increased from less than 1% of the population towards the beginning of the pandemic in April 2020 to more than 10% during early 2021. Among people having a test, the proportion reporting having to reduce spending on necessities as a result of paying OOP for COVID-19 tests increased from about 20% at end of June 2020 to about 30% in October 2020, and finally to 40% by April 2021.

Figure 28. Testing for COVID-19 and the self-reported reduced spending on necessities due to OOPS for COVID-19 test, across 110 countries

a) Proportion of individual tested for COVID-19 in the last 14 days

b) Prevalence of self-reported reduced spending on necessities due to OOPS for COVID-19 test



Notes: Data on testing and on self-reported reduced spending on necessities were collected daily from, respectively, 23-Apr-2020 and 27-Jun-2020 to 30-Apr-2021 in 110 countries. Figures show average weekly rates aggregated in two stages by WHO: first at country level using population weighted average and post-stratification correction; second as a simple average at global level. More information about the computation methods is provided in Annex A6.

Source: The Global COVID-19 Trends and Impact Survey *(6)*.

In some cases, the costs associated with paying OOP for COVID-19 tests were reported to place financial hardship on households. As shown in Fig. 28, between 10% and 17% of the population receiving tests between June 2020 and April 2021 reported reducing their spending on household necessities (such as food, housing, and utilities) to cope with the cost of the test. In LICs, those reporting reductions in spending on household necessities was on average 15% points higher than in HICs. The prevalence of self-reported reductions in spending on household necessities to compensate for OOP payments for COVID-19 testing varied between 11% and 25% between December 2020 and April 2021, while in HICs the prevalence ranged from 3% to 6%. The overall testing prevalence is relatively small in relation to the global population (to date, ~0.1% of total population) and so the contribution of these OOP costs to overall indicators for catastrophic and impoverishing health expenditures will likely be small. However, given distributional concerns and the need to ensure access to testing services for all income and geographic groups, disaggregated analysis is needed to develop effective policy interventions.

At least some of the costs for treatment for severe COVID-19 related illness will be likely borne by households. Estimated costs for severe hospital-based COVID-19 care range between US$ 33 in Pakistan and US$ 106 in South Africa, or for critical cases US$ 221 in Pakistan and US$ 1082 in South Africa per day in hospital *(82)*. To give a sense of magnitude, in 2018 domestic general government health expenditure per capita was US$ 15 and US$ 284 in Pakistan and South Africa respectively, while OOP spending on health per capita were US$ 24 and US$ 41 respectively *(83)*. While these are population averages, there are clear cost pressures from both the government and household budget perspectives and these have important implications for potential catastrophic expenditures.

There will also be large variations in how these costs are borne within countries based on coverage. Many countries have stepped in to try to reduce or eliminate financial barriers to seeking care for COVID-19-related tests and treatment (Box 10). These policies have been adopted both to reduce financial hardship, but also out of recognition that financial barriers to seeking care can lead to greater transmissibility of COVID-19.

COVID-19 has placed additional financial burdens on households to pay for preventive medical equipment. Expenditures on masks and disinfectant products has been a near universal issue; and in large part are household-level expenditures. For example, as of August 23, 2021, mask-wearing was required in 75% of all countries, regardless of income group or COVID-19 burden *(84).* These additional costs would have an undue and disproportionate impact on lower-income households.

Box 10: Policies introduced to provide financial protection related to COVID-19 costs

Several countries implemented policies to address financial protection concerns specifically related to COVID-19 testing and treatment costs. Although the impact of these policies has not been systematically evaluated, they can serve as examples for countries to consider for sustaining and expanding options in making progress towards the financial protection dimension of UHC. Several countries introduced policies that made COVID-19 -related testing and treatment free of charge to the individual *(85)*.

- In Indonesia, where coverage for COVID-19 was provided regardless of whether families had coverage under the country's single-payer social health insurance scheme, *Jaminan Kesehatan Nasional* (JKN), which currently covers roughly 80% of the population. In addition, subnational governments could earmark health taxes – specifically taxes on cigarettes – to co-finance JKN *(86)*.

- In the Americas region, COVID-19 testing and treatment are generally included in the benefits provided in public systems, where in principle there are no co-payments, and in systems where co-payments exist, these were waived for these services. For example Uruguay established free COVID-19 testing by incorporating polymerase chain reaction (PCR-RT) tests into the existing benefit package for 90 days; Argentina centralized free payment and universal testing, supported by existing public laboratories; and Colombia established free tests.

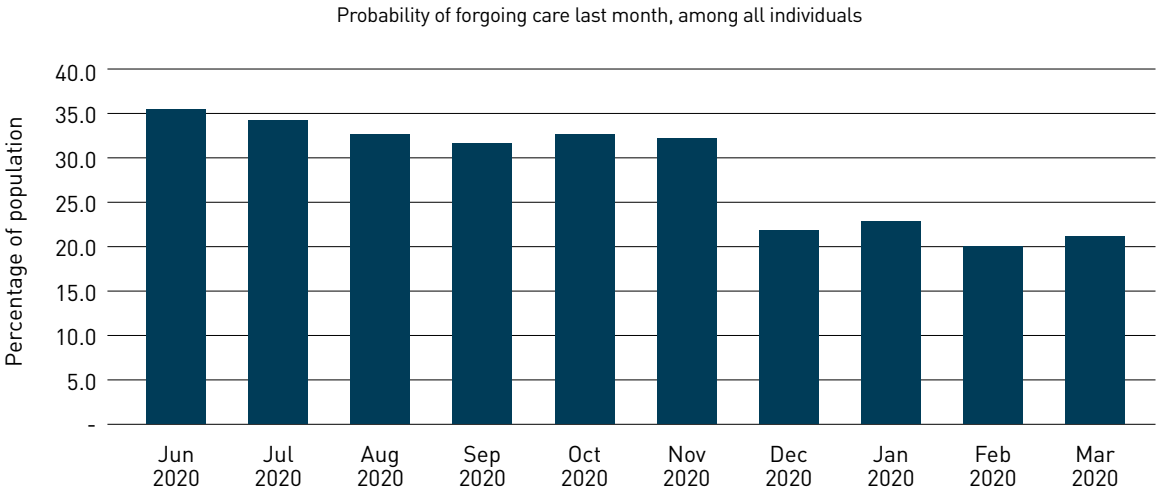
- In the WHO South East Asia Region, policies related to free testing and treatment have evolved over the course of the pandemic. For instance, in Sri Lanka tests were initially only free in public facilities for those with observable symptoms or a direct contact, but by March 2021 these limitations were lifted *(85,88)*. While in Bangladesh, a user fee was introduced for COVID-19 tests as a way to discourage their overuse. They were initially set at US$ 2.40 for facility-based tests and US$ 5.80 for home-based tests, but were dropped to US$ 1.20 by August 2020 *(87–89)*.

The success of these 'free service' policies will need to be assessed to see their actual linkage with household financial protection. For example, in Bangladesh, treatment for COVID-19 at government health facilities was (nominally) free of cost for the duration of the pandemic, yet reports suggest not all costs (e.g. medicines) were covered (90). In Nepal, COVID-19 services were free at the public health facilities yet OOP fees were reportedly charged for certain medicines and lab tests *(91)*.

2.2.2. Overall health services

In addition to the direct health effects of COVID-19, the pandemic has increased the risks of foregone non-COVID-19-related health care (Fig. 29 and Fig. 30). Many individuals chose not to use to use health services due to fear of being exposed to COVID-19 in health care facilities, movement and other limitations imposed as part of national pandemic control policies, or financial constraints resulting from adverse economic impacts. These utilization shifts are further evidenced in data related to reproductive, maternal and child health from health management information systems across 18 LICs/MICs between January 2018 and June 2021, which show a sharp decrease in use beginning in March 2020 *(92)*. The pandemic also negatively affected the supply of health services by overwhelming health facilities with large numbers of COVID-19 patients, diverting the use of resource from essential health services to COVID-19 management and care, and disrupted supply chains for essential commodities and equipment.

Figure 29. Prevalence of foregone care, across 110 countries, June 2020 to March 2021

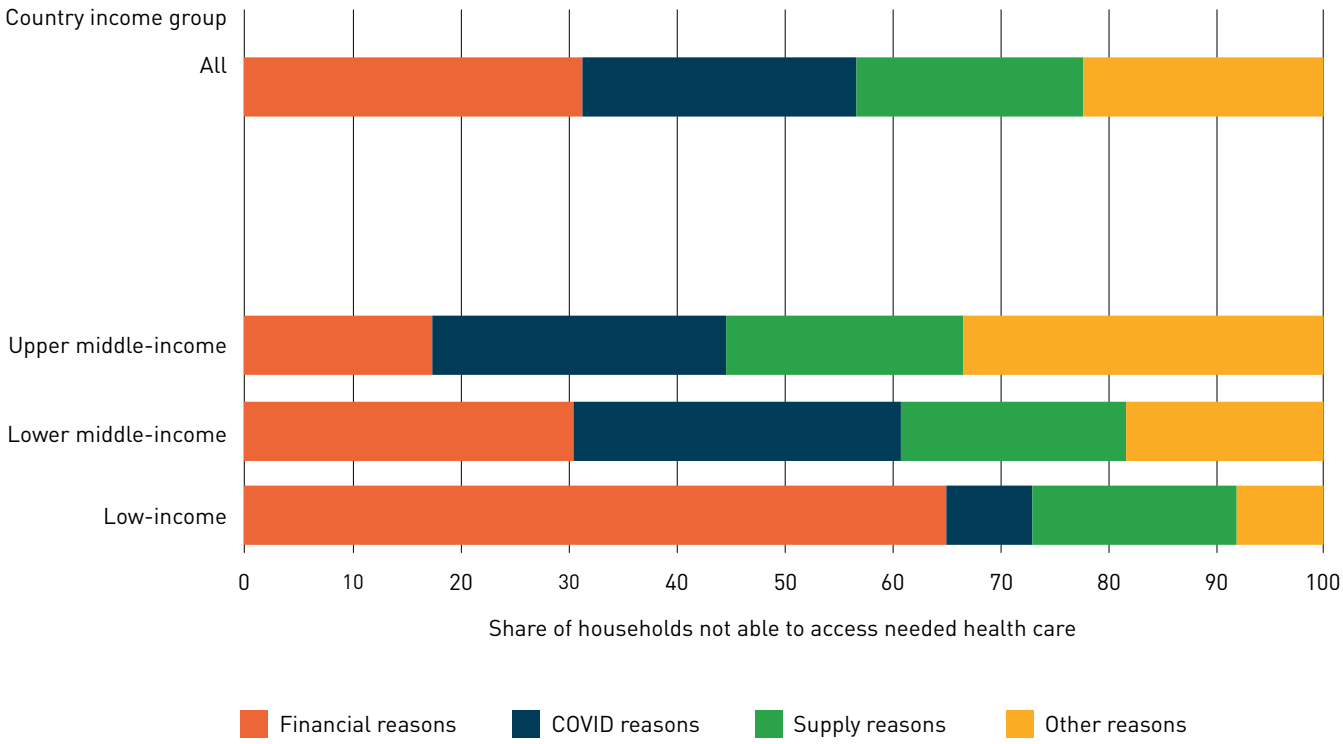


Notes: Data were collected once a month from 30-June-2020 to 1-Apr-2021 in 110 countries. Figures show average monthly rates aggregated in two stages by WHO: first at country level using population weighted average and post-stratification correction; second as a simple average at both global and income group levels. More information about the computation methods is provided in Annex A6.

Source: The Global COVID-19 Trends and Impact Survey *(6)*.

Households are reporting financial barriers to seeking care as a result of the pandemic. An analysis of data from rapid phone surveys conducted between April and August 2020, showed that a substantial proportion of surveyed households – 19% across the sample of 39 LICs and MICs in the sample – reported not being able to access health care services they needed *(4)*. 31% of all household foregoing care report financial barriers (Fig. 30), which is equivalent to about 6% of all the households in the sample. While the overall proportion of foregone care did not vary by country income group, the reasons for not seeking care did. Substantially more households in poorer countries reported foregoing care due to financial reasons (66% of households foregoing care) compared to those in UMICs (17% of households foregoing care). More households in wealthier countries reported foregoing care for reasons related to COVID-19: 27% of households foregoing care in UMICs compared to only 8% of households foregoing care in LICs. There are also concerns that the impact of foregone care is disproportionally impacting poorer households. While pre-COVID-19 data is not directly comparable (see Box 7 and Box 8), financial barriers to seeking care were already a concern, especially for the poorest.

Figure 30. Main reasons reported by households for not accessing health care when needed, multi-country evidence

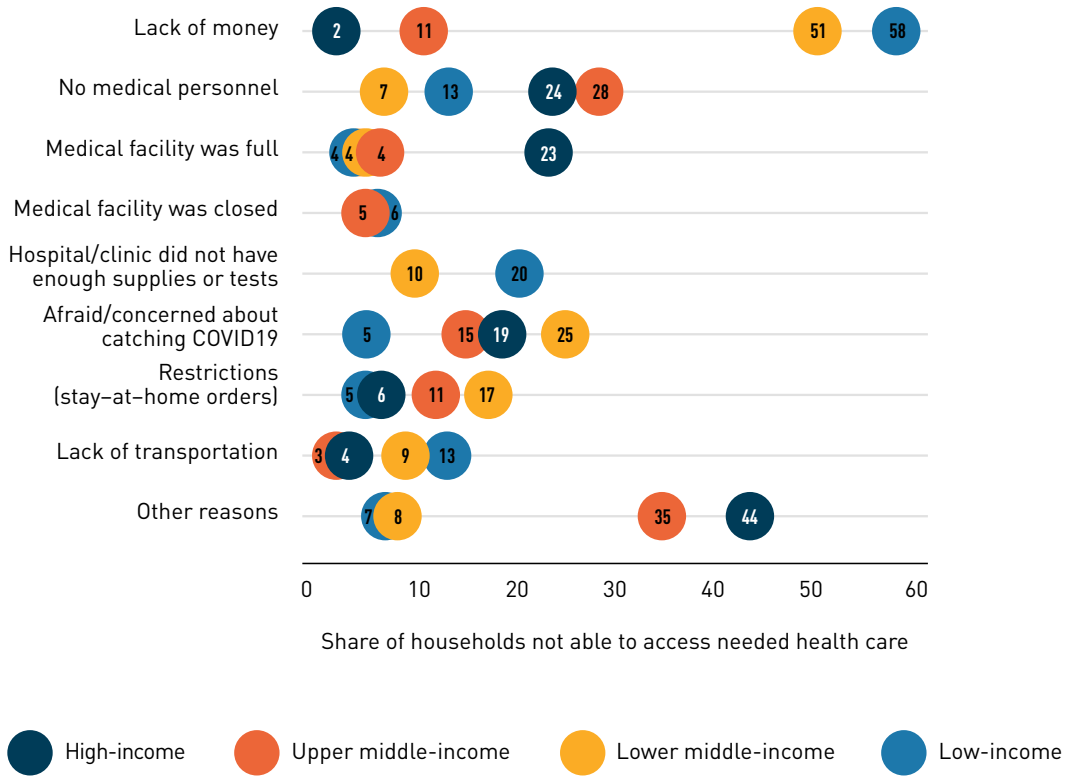


Note: UMICs n=1 to 13 LMICs n=2 to 17; LICs n=3 to 12. Data collected between April 2020 to August 2020.

Source: Authors calculations using data from World Bank High Frequency Survey (2021) *(4)*. Methods are as described in Annex A6.

Both supply and demand side constraints have led to the disruptions in access to care. Lack of money remains a major hurdle to accessing care (Fig. 31). For example, 58% of the households reporting foregone care, cited lack of money as the reason in LICs, with 25% also reporting that hospital/clinic did not have enough supplies or tests. These findings point to a worsening of pre-pandemic trends, with both demand side and supply side constraints deteriorating for households in LICs. Although at a lower level, lack of money was also a significant reason for not being able to seek care in UMICs and HICs, with 11% and 2% of respondents reporting this as the reason for not seeking care, respectively. This evidence seems to confirm that there is a link between the household-level economic impact of COVID-19 and financial barriers to seeking care.

Figure 31. Specific reasons reported by households for not accessing health care when needed, multi-country evidence



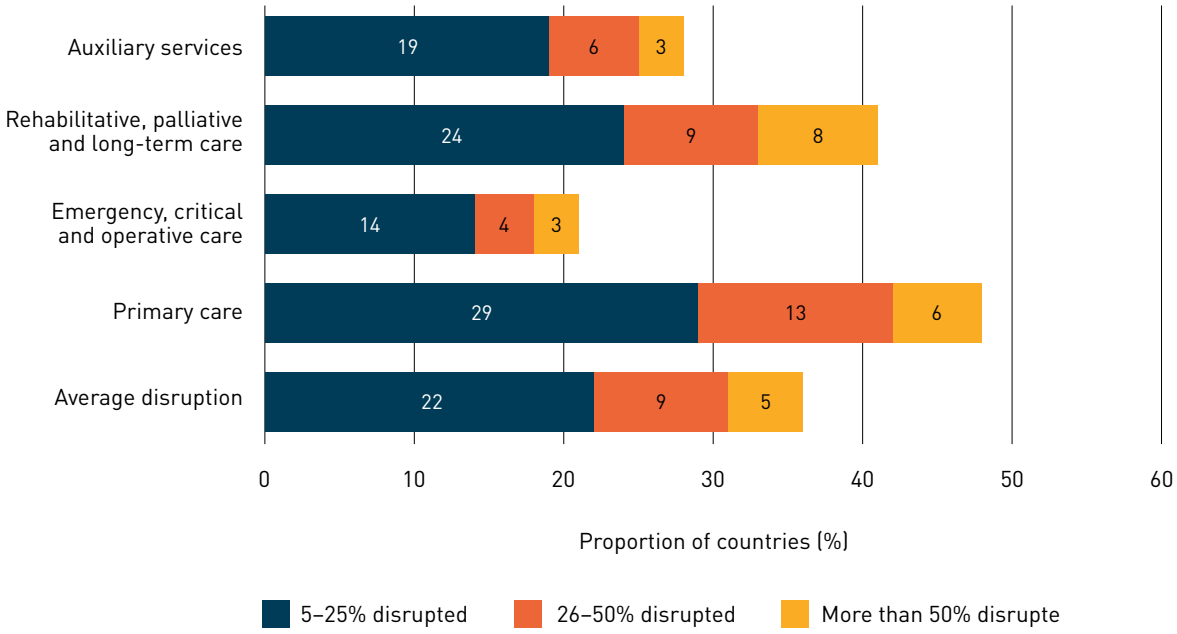
Note: Some options are not available in HICs. Number of countries: HICs n=1 to 3; UMICs n=1 to 13; LMICs n=1 to 17; LICs n=3 to 12. Data collected between April 2020 and December 2020.

Source: Authors calculations using data from World Bank High Frequency Survey (2021) *(4)*. Methods are as described in Annex A6.

There are clear service disruptions as a result of COVID-19 that have shifted utilization patterns and care accessibility. A survey conducted by WHO on service delivery disruptions found widespread service disruptions for essential care in May 2020, with lack of supplies and stockouts of health products cited by 30% of key informants as reason for services disruption. Unavailability and stockouts of medicines persisted in the second round of the survey conducted from January–March 2021, with 22% of key informants reporting this as the primary reason for service disruption *(7,93)*. The Institute for Health Metrics and Evaluation (IHME) PREMIS survey highlights that facility closures were a key constraint to seeking care, with 50% of respondents reporting pharmacy closures *(94)*.

There has been a prolonged disruption to all types of health services, although to varying degrees. The largest persistent disruptions are in primary care and rehabilitative, palliative and long-term care, with 48% and 41% of countries reporting some form of disruption respectively (Fig.32). This global trend is demonstrated by a December 2020 survey of service use in Kenya, with service disruption reported across almost all essential health services as compared to the 2019. Specifically, declines were reported in care for sick children (49%), outpatient clients with undifferentiated symptoms (46%), antenatal care (40%) and postnatal care (38%) *(95)*. Interestingly, there are reported increases in utilization for mental health care service (23%), a trend that is likely to emerge given the nature of the pandemic response *(96,97)*. Added to this is the direct impact of COVID-19 on the health workforce, which contributes to additional supply constraints *(98)*.

Figure 32. Average percentage of disruptions across integrated service delivery channels, January–March 2021, evidence from 112 countries



Note: n = 112 countries.

Source: Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic. WHO (2021) *(7)*.

While a portion of this decreased utilization and service availability may represent excess pre-COVID-19 demand or short-term lower risk factors (e.g. from road traffic accidents, incidence of other infectious diseases or air pollution), there are real concerns about the long-term consequences of this foregone care. The longer-term adverse impact from foregoing necessary care, as well as the backlog of elective surgeries and treatment for chronic diseases will become evident over time, both from health and cost perspective *(99)*. This is a second tidal wave that combined with fiscal pressures and higher poverty rates could lead to greater financial burden of health expenditures in the absence of targeted policy responses.

2.2.3. Medicine

While formal care-seeking decreased during COVID-19, there is evidence of an increase in self-medication. COVID-19 has led to increase in self-medication due to fear of contracting COVID-19, misinformation and perceived inaccessibility of health services. Self-medication, and related OOP payments, was already rampant before the pandemic *(100,101)* (Box 11), with systematic reviews and studies showing a worldwide prevalence estimated at 33% to 82% *(102–105)*. COVID-19 has exacerbated this trend, with increased prevalence of self-medication in the general population growing to 88% in Bangladesh (Dhaka), 25% in India, 32% in Kenya, 41% in Nigeria, 67% in Pakistan, 50% to 68% in Peru, 46% in Poland and 34% in Togo *(106–113)*. The most common drugs used to self-medicate against COVID-19 included azithromycin, ivermectin, chloroquine and hydroxychloroquine *(113)*. Self-medication of analgesics, antibiotics and antipyretics to treat common symptoms like fever, cough and flu was also common and likely increased. The pandemic has also led to the uptake of self-medication among those who had never engaged in this practice before *(112)*. Expenditures on self-medication are typically paid for OOP even in countries with high rates of coverage of health services *(8)* (and section 1.3).

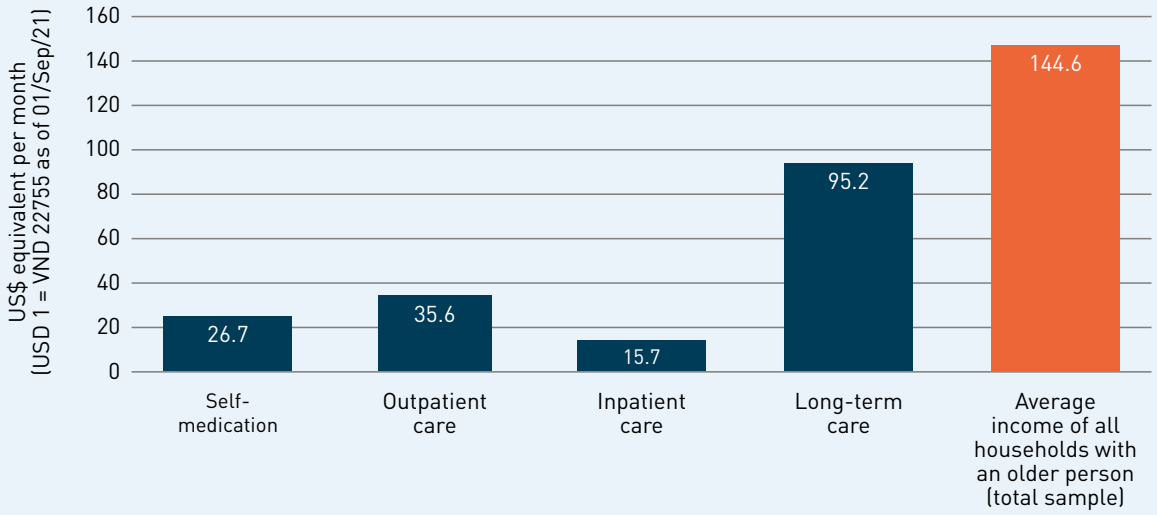
All of these factors have contributed to an increase in overall medical costs as a result of COVID-19. High demand, panic buying and hoarding of medicines and medical goods resulted in higher prices *(114)*. Supply side constraints due to travel restrictions and interruptions in supply chains during the beginning of the pandemic also led to sharp increases in prices of drugs vaccines and other commodities *(115)*. Exchange rate depreciations in countries that are dependent on imports of medicines and equipment also occurred, resulting in higher prices. Even countries that manufacture their own medicines (e.g. Indonesia) experienced shortages when its biggest sources of raw materials (i.e. China and India) imposed export restrictions on raw materials and formulations *(116)*.

Box 11: Composition of out-of-pocket health spending among households with older persons in Viet Nam

Viet Nam is an LMIC that is facing rapid population aging. The proportion of the population aged 60 years and over was 12.3% in 2020, which is expected to more than double by 2050 *(117)*.The 2018 baseline survey of the Longitudinal Study of Ageing and Health in Viet Nam showed that 13% of older people, 60 years old and above, did not seek health care despite feeling ill during the past year, mainly (35.7%) due to the inability to pay for services *(118)*. A better understanding is needed about the breakdown of OOP health care expenses, the financial burden of OOP payments and financial coping strategies used by households with older people.

Between November 2019 and August 2020, the Health Strategy and Policy Institute (HSPI) of Viet Nam collected data on health expenditures and related factors from 1536 people aged 60 years and older, sampled from households in three provinces representing the north, central and south regions of the country. The results showed that, while 95% of older people were covered with health insurance, they did not seek care in over a third of episodes of ill health. These cases resulted in spending on average US$ 26.7 per month OOP for self-medication. When care was sought, 60.4% of those using outpatient care resulted in spending on average US$ 35.6 per month OOP, and 79.6% of those using inpatient care resulted in OOP payments of an average of US$ 188.7 per year (excluding cases of cancer and surgery, which were outliers due to excessively high costs of treatment). This represents more than the average monthly income of US$ 144.6. For outpatient care, most OOP spending was for medicines whereas, for inpatient care, it was for insurance co-payments, medicines and indirect costs such as travel and meals. Only 3.5% of older people reported using long-term health or social care services at home or in a facility in the 12 months before the survey. Most of those cases resulted in high OOP spending, on average US$ 1,142.6 per year, for home-based services for health care, personal care/assistance and rehabilitation. These results suggest that these OOP payments could have increased catastrophic health expenditure for households with older people as the pandemic continued and its impacts became prolonged.

Out-of-pocket spending for an older person's care, by type of care (in US$ equivalent per month per older person who was ill and/or utilized care)

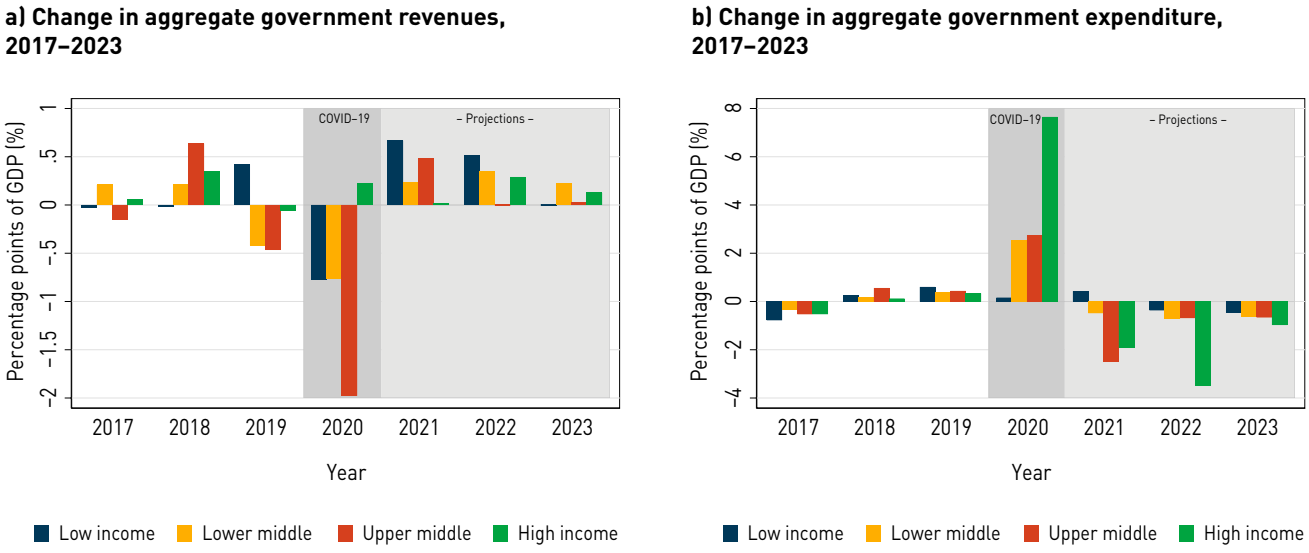


Source: Health Strategy and Policy Institute (HSPI), Viet Nam

2.3. Impact on public financing

Overall government revenues declined as a result of the economic fallout from COVID-19 in 2020. Declining economic activity resulted in steep reductions in government revenues and, for commodity exporting countries, sharp decreases in commodity prices. Tax revenues declined on average of 1.5% points of GDP with some the largest declines in aggregate government revenues occurring in UMICs (Fig. 33). Government revenues declined by more than 1% point of GDP in Brazil, China, Egypt, India, Indonesia and Nigeria. On the flip side, government expanded spending – for financing the COVID-19 response as well as for provision of social protection and other forms of support – with some of the largest percentage point increases happening in HICs (Fig. 33). For example, the fiscal response in Japan and the United States resulted in a more than 9% increase in government expenditures in 2020. Higher government spending combined with lower government revenues implied higher levels of deficit financing and a jump in levels of public debt across most countries. Global public debt levels in 2021 are above 75% of GDP, up from a pre-pandemic average of 55% (Table 3). Deficit levels have begun to decline, signalling reductions in pandemic-triggered fiscal support and rising government revenues *(75)*. Even though projections indicate that government revenues are expected to rebound and higher levels of government expenditures are unlikely to be sustained beyond 2021, the impact of higher levels of public debt will mean greater debt servicing pressures on government expenditures for some years to come, despite initially having a muted impact due to low interest rates. Debt servicing as share of government spending is projected to increase globally from 2017–2019 to 2020–2023, driven primarily by LMICs (Table 3).

Figure 33. Change in average government revenues/expenditure, 2017–2023, by country income group



Source: Authors calculations using data from IMF (2021) *(2)*. For more information about the methods see Annex A6.

Table 3. Deficit, public debt and debt servicing, 2017–2023

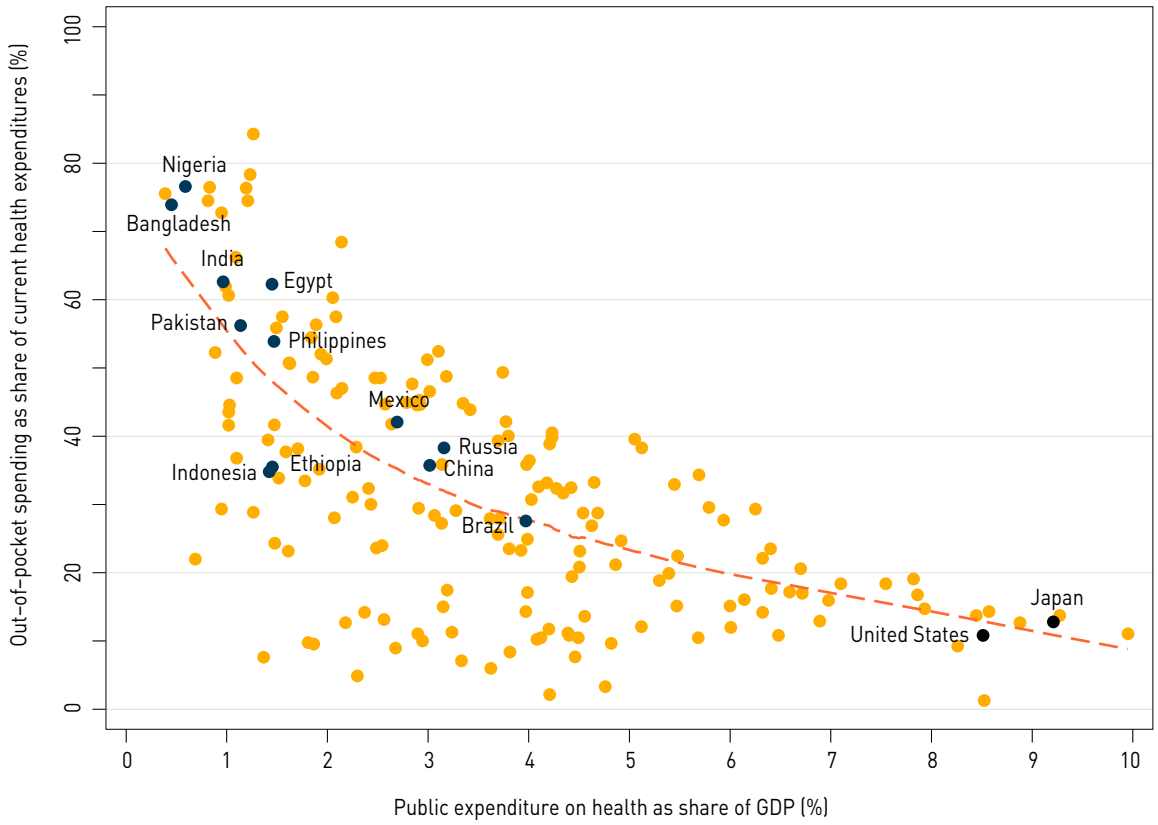
Indicator	Year	LICs	LMICs	UMICs	HICs	Global
Deficit share of GDP (%)	2017–2019	-2.9	-5.5	-4.0	-2.4	-2.9
	2020	-4.1	-9.3	-9.2	-10.0	-9.0
	2021	-3.9	-8.6	-6.3	-8.0	-7.3
	2022*	-3.3	-7.5	-5.6	-4.3	-6.0
	2023*	-2.8	-6.6	-4.9	-3.2	-5.2
Gross public debt as share of GDP (%)	2017–2019	55.3	60.7	51.1	96.2	55.3
	2020	65.7	74.0	63.5	113.7	75.8
	2021	65.7	74.5	60.8	113.9	75.2
	2022*	62.2	73.8	62.6	111.7	75.1
	2023*	58.0	73.0	64.1	111.3	74.9
Debt servicing as share of government expenditure (%)	2017–2019	4.8	15.2	5.4	3.7	8.8
	2020	5.3	15.9	5.2	2.9	8.9
	2021	6.2	16.1	5.7	2.6	9.3
	2022*	6.8	16.7	6.6	2.4	10.0
	2023*	6.9	17.4	6.9	2.5	10.4

Note: 2017 to 2020 are based on historical data. *2021 to 2023 are based on projected values. Methods are described in Annex A6.

Source: Authors calculations using data from IMF (2021) *(2)*.

Macro-fiscal stressors could place downward pressure on public spending on health in coming years. Over time and across countries, higher levels of public spending on health are generally correlated with lower levels of OOP financing (Fig. 34). For a variety of reasons, we might expect this negative relationship not to hold in 2020 as it was a unique year due to the COVID-19 pandemic. However, in subsequent years, downward pressures on public spending on health (e.g. due to remnants of macro-fiscal stressors resulting from COVID-19) may lead to compensatory increases in OOP spending on health. For example, an estimated 59 mostly LICs/MICs – including Brazil, Indonesia, and Pakistan – are currently projected to have debt-servicing adjusted 'discretionary' per capita overall government spending levels that will remain lower in 2023 than they were in 2019 (Fig. 35). Unless health's share of discretionary government spending increases, this would imply downward pressures on public spending on health, risks of higher OOP spending and worsening financial protection, which has already been shown to be correlated with a greater risk of catastrophic expenditure and further impoverishment.

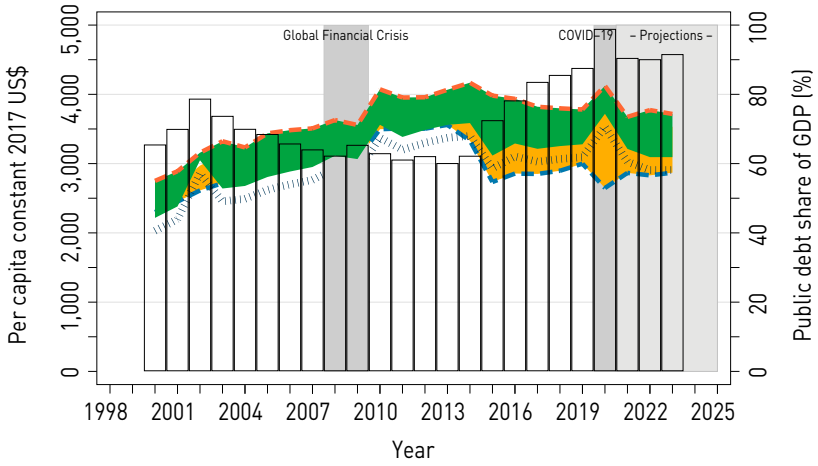
Figure 34. Out-of-pocket vs public spending on health, 2018



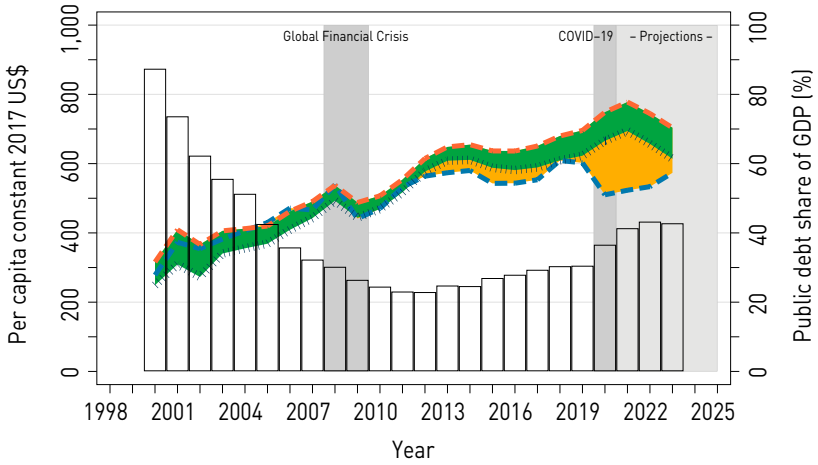
Source: Authors calculations using data from WHO Global Health Expenditure Database (2020) *(119)*. Methods are described in Annex A6.

Figure 35. Debt-servicing adjusted 'discretionary' government spending will be lower in 2023 than 2019 in some countries. a. Brazil, b. Indonesia and c. Pakistan, trends between 2018 and 2025

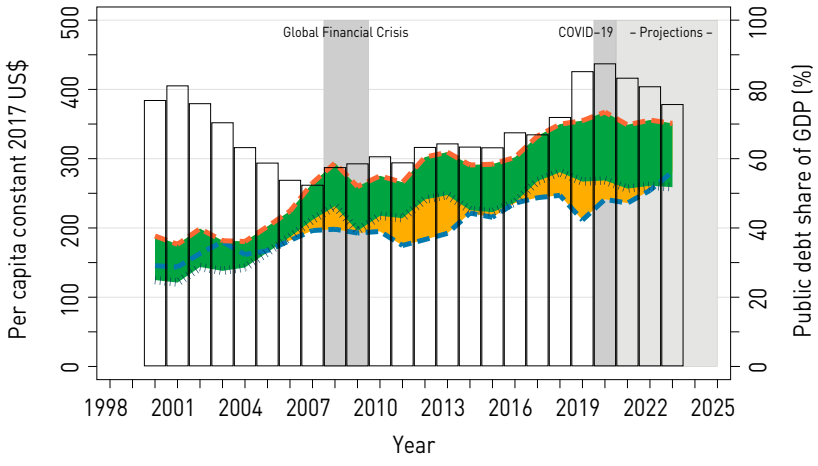
a) Brazil

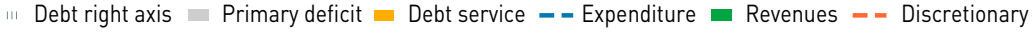


b) Indonesia



b) Pakistan





Source: Authors calculations using data from IMF (2021) *(2)*. Methods are described in Annex A6.

Together, these findings imply that barriers to accessing care experienced during the pandemic will likely persist in all countries, albeit for different reasons. In HICs, the key reasons behind foregone care – fear of contracting COVID-19 and stringent control and social distancing policies – will likely substantially diminish with the rollout of COVID-19 vaccines and will do so sooner than in poorer countries. While richer countries have been able to vaccinate large proportions of their populations, the introduction of vaccines has been substantially slower in poorer countries and will likely continue to be so through 2021. However, the backlog of services, health workforce shortage and burn out, as well as increased poverty will continue to have a knock-on effect on overall access in the medium term *(99)*. While financial barriers – the main reason for foregoing care in poorer countries, will likely persist longer than those related to social distancing policies and the fear of COVID-19. Not only are economic losses from the pandemic projected to be more pronounced in developing countries, but the recovery is expected to be uneven, with projected growth rates lower in poorer countries. The global recession due to the pandemic has put an unprecedented strain on government budgets, creating risks of diminishing government health expenditure and reducing households' capacity to cover OOP health care expenses. The latter is of particular concern for lower income countries and lower-income households alike, where health care is financed to a much larger extent through OOP expenditure. While an inefficient and inequitable way to finance health care, these decreases in OOP payments will have implications for provider-level income as well. A slower pace of recovery in lower income countries may mean that those risks may persist there longer and that the disparity between richer and poorer countries in financial barriers to accessing care may increase further, at least in the short term. As discussed in Box 12, public policies to protect and reprioritize public spending on health can be a critical lever in enabling financial protection.

Box 12: Weaknesses in health financing policy undermine resilience to economic shocks in Europe

The COVID-19 pandemic triggered an economic shock just ten years after the shock of the 2008 global financial crisis. Austerity measures – cuts to health budgets and coverage restrictions – introduced in response to the 2008 crisis undermined resilience and progress towards UHC in several countries *(41,120,121)*.

Responses to the pandemic show some evidence of lessons learnt from the earlier crisis. Countries rapidly mobilized additional resources for the health system in 2020 and there was a clear focus on removing financial barriers to access – for example by closing gaps in population coverage and exempting COVID-19 treatment from co-payments *(121)*.

In the years ahead, experience has shown that countries will have to find ways to reduce cyclicality in coverage policy and revenue-raising and to increase the priority given to health in allocating public spending. Although many health systems in Europe are likely to face budgetary pressure, the experience of the 2008 crisis shows that austerity is not an option because it undermines resilience and progress towards UHC.

The pandemic gives countries a chance to reconsider public spending priorities and take more account of strong societal preferences for better health and social protection systems when allocating the government budget. Cross-country surveys show that people in Europe place a high value on affordable access to health care for themselves and for others, regarding it as a priority for public spending *(122–125)*.

Source: Thomson S, García-Ramírez J, Akkazieva B, Habicht T, Cylus J, Evetovits T. How resilient is health financing policy in Europe to economic shocks? Evidence from the 2008 global financial crisis and the first year of the COVID-19 pandemic. Health Policy. 2021; 125(12): 1507–15(https://doi.org/10.1016/j.healthpol.2021.11.002, accessed 29 November 2021).

3

CONCLUSION

Even before COVID-19 struck, the world was off-track to reduce financial hardship because trends in catastrophic health spending were going in the wrong direction and the number of people incurring financial hardship remained unacceptably high. In 2017, the latest year for which global estimates are available, the shortcomings in financial protection was still staggering across the world. Almost 1 billion people incurred catastrophic health spending (SDG indicator 3.8.2). Most of these people are not living in either extreme poverty (with less than PPP$1.90 per person per day) or relative poverty (defined as 60% of the median per capita consumption in their own country) but by diverting such large shares of their resources to pay OOP for health they are at risk of compromising other essential needs, depleting their assets, getting indebted to ensure themselves, a child or other family members can get the health services they need. Globally, the number of people incurring impoverishing health spending remained extremely high (half a billion at the extreme poverty line; 2.2 times as much at the relative poverty line). The poor spending any amount on health OOP represented between 83% and 89% of all such people, which underlies the need to exempt them (effectively) from OOP health payments. The overlap between those incurring catastrophic health spending and impoverishing health spending was relatively small (11% at most estimated on a sample of 141 countries). Hence, in 2017, the total number of people incurring financial hardship ranged between 1.4 billion people and 1.9 billion people depending on the poverty line used to identify impoverishing health spending (the poverty line of extreme poverty versus the relative poverty). A systematic review and meta-analysis of 114 studies that covered around 58 million people from 56 countries reveal that financial barriers to access were already a key driver of foregone care before the pandemic, irrespective of age and especially for the poor.

People living in older households faced the highest rates of catastrophic health spending as tracked by SDG 3.8.2 indicator (at the 10% threshold) across all income groups and UN regions with available data, and within countries the incidence is the highest among the poorest and most vulnerable segments of the older population. Evidence from 92 countries from all regions (except North America and Oceania) shows that people living in older households incur higher rates of catastrophic health spending; specifically, the median proportion of the population living in older households with OOPs exceeding 10% of their household budget is 4.6 higher than the median rate among those living in younger ones in LMICs ; it is 2 times higher in LICs and 5.9 higher in Europe.

The European age gradient stands out, in all other UN regions with available data the relative difference in median incidence rates ranges between 2.3 and 2.4. People living in multigenerational households have higher rates of impoverishing health spending. Recent evidence shows the highest levels of catastrophic health spending are incurred by the poorest and most vulnerable segments of the elderly population.

Timely monitoring of financial hardship was problematic even before the pandemic. This first chapter of this report provides global evidence for 2017, the latest year with enough country coverage to be able to provide estimates at the aggregate level. The current average lag time of four years for generating indicators of catastrophic and impoverishing health spending is not predicted to decrease, and may even increase if immediate actions are not taken to improve production speed and frequency of data on household OOP health spending and on total consumption expenditure (and ideally on foregone care). Without such action, there is likely to be a gap in knowledge regarding the level of financial hardship experienced during the pandemic, which can limit effective, evidence-based policy responses now and into the future.

The overall impact of OOP health spending on people's living standards and ability to spend on other basic needs prior to the COVID-19 pandemic is certainly under-estimated given the focus on direct payments for health. The first chapter of this report is focused on direct payments at the time of seeking care as these types of payments pose serious challenges from a health financing system perspective, and also from an equity and efficiency viewpoint. From the health system perspective direct contributions are being collected in a very inefficient way, facilities and providers cannot count on those funds as they are received only when people decide and find the means to seek care. They are also collected from people who are sick, who at that moment are likely unable to work properly and as such may not be earning sufficient money: asking people to devote a large share of their budget to health when they are sick contributes to increased inequalities in health care access. Indirect costs (e.g. transportation) and the opportunity cost of seeking care (e.g. income loss) are not factored in the analysis presented in Chapter 1, but these other costs can only add to the negative economic consequences people have to cope with when seeking care. For many, those indirect costs – in addition to the direct cost – are a major barrier to access care, and it is important to track indicators of service coverage, unmet needs and barriers to access to better interpret the indicators of financial hardship. For example, in the WHO European region, indicators of unmet needs shed light on the composition of OOP health spending among people incurring catastrophic health spending: OOP health spending on dental care is low because unmet needs for dental care are large, in particular among the poorest. In Japan, older people have higher rates of catastrophic health spending but lower rates of unmet needs.

Surveys conducted in 2020 only partially covered the pandemic period, and the trend compared to previous years might not yet capture the effect of the COVID-19 on financial protection. Very few estimates are available for 2020 at the time of producing this report but despite the lack of detailed analysis, available results do not show a different pattern compared to previous years. As more data become available, a clear understanding of the circumstance under which the data was collected (i.e. method of capture, recall period of the health expenditure items, survey period) in addition to in-depth analysis of indicators of access to care, unmet needs and barriers to access will be needed to recognize the patterns occurring during the peak of the pandemic.

All indications show that financial protection will likely be adversely impacted by shifting health and economic dynamics resulting from COVID-19. The aggregate impact of the pandemic on financial protection will be assessed in years to come through concrete data derived from various surveys. Rather than conjecturing and projecting what might happen to financial protection metrics such as incidence of catastrophic spending and impoverishment, Chapter 2 summarized what is emerging based on a variety of indicators (e.g. declining income and consumption, rising poverty and informality) *(126, 127)*. The analysis would seem to strongly point towards a worsening of financial protection as a result of COVID-19; this is likely to manifest itself in part in foregone care, as well as a deterioration in the metrics of financial hardship – catastrophic and impoverishing health spending – with both OOP spending on health, capacity to pay metrics, and financial barriers to care impacted.. The complexity of health and economic forces impacting utilization, OOP spending on health, and households' ability to pay will depend on a combination of each country's epidemiology, demographics, socioeconomic characteristics and policy responses.

Compounded with these dynamics are signals that the inequities across countries and across households within countries will only continue to widen. From a financial protection standpoint, never before have social safety protections and effective health coverage arrangements been so important, in particular to protect the poorest and most vulnerable of society. The increase in poor households means that the proportion of people who could least afford to pay for OOP spending on health will only grow, at the same time as cost pressures increase. The influence of financial barriers to seeking care and the potential for impoverishment due to OOP spending on health will only grow as a result of COVID-19.

The rapidly evolving impact of COVID-19 has demonstrated the importance of regular monitoring and analysing service coverage, financial hardship, foregone care and barriers to access. Historically, financial hardship has been monitored via relatively infrequent household consumption and income surveys. COVID-19 has underscored the importance of complementing these with nimbler and more frequent forms of monitoring using other modalities such as mobile phone and social media surveys, especially during times of crises. The large time gap between generation of evidence to inform policy is itself a barrier to improving financial hardship. Furthermore, financial protection is determined in part by service coverage. Improvements in financial hardship metrics when service coverage declines are not real improvements in financial protection as they reflect foregone care of necessary services. Hence, it is important to contextualize and monitor service coverage, foregone care and barriers to access at the same time as financial protection to avoid misinterpretations, with additional context-specific policy monitoring efforts. Furthermore, like many other monitoring metrics, financial protection can be impacted by factors that are outside the health system so contextualization and understanding determinants remains critical.

Metric monitoring needs to go hand-in-hand with the policy interventions introduced to enable household financial protection in response to COVID-19. Many countries introduced a variety of policies to ensure that financial barriers were not a binding constraint to receiving COVID-19 tests and treatment. However, the actual impact both in relation to enabling access and protection from financial hardship is yet to be determined. This analysis is critical both to understanding financial protection in the context of COVID-19, but also to inform future policies in the face of crisis or extreme health threats.

The deep interconnections between health, the economy and overall well-being have been laid bare by COVID-19. We all continue to grapple with the impact of the pandemic on day-to-day life. Despite these constraints public policies will need to focus on spending priorities that protect the health and well-being all people, particularly the poor and most vulnerable in societies. Targeted policy interventions include: pro-poor focused increases in public spending to crowd-out OOP spending for health, enhanced social protection support, removal of co-payments and other fees at the time and place of seeking care, and cash transfer payments for stimulating health care use among poor and vulnerable households. It is clear that the double economic and health shock will also need a double recovery: in the medium- to long-term, sustained improvements in both financial protection as well as service coverage are important not only for improving health and well-being, but also for sustaining a longer-term economic recovery that enables accelerated reductions in poverty.

REFERENCES

1. Global monitoring report on financial protection in health 2019. Geneva: World Health Organization and International Bank for Reconstruction/The World Bank; 2020.

2. World economic outlook: Recovery during a pandemic. Washington, DC: International Monetary Fund; 2021.

3. ILO Monitor: COVID-19 and the world of work. 7th Edition. Geneva: International Labour Organization; 2021 (https://www.ilo.org/global/topics/coronavirus/impacts-and-responses/WCMS_767028/lang--en/index.htm, accessed 29 November 2021).

4. High Frequency Phone Survey. Washington, DC: World Bank; 2021.

5. Yonzan C, Lakner C and Gerszon Mahler D. Is COVID-19 increasing global inequality? Washington DC: World Bank; 2021.

6. Global COVID-19 Trends and Impact Survey, in partnership with Facebook. Baltimore: University of Maryland; 2021.

7. Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic: January–March 2021. Geneva: World Health Organization; 2021.

8. Baird K. The incidence of high medical expenses by health status in seven developed countries. Health Policy. 2016;120(1):26–34.

9. Alsan M, Schoemaker L, Eggleston K, Kammili N, Kolli P and Bhattacharya J. Out-of-pocket health expenditures and antimicrobial resistance in low-income and middle-income countries: an economic analysis. Lancet Infectious Diseases. 2015;15(10):1203–10.

10. Tanahashi T. Health service coverage and its evaluation. Bulletin of the World Health Organization. 1978; 56(2);295–303.

11. Levesque J, Pineault R, Hamel M et al. Emerging organisational models of primary healthcare and unmet needs for care: insights from a population-based survey in Quebec province. BMC Family Practice. 2012;66: 13.

12. Handbook for conducting an adolescent health services barriers assessment (AHSBA) with a focus on disadvantaged adolescents. Geneva: World Health Organization; 2012.

13. Assessment of barriers to accessing health services for disadvantaged adolescents in Tanzania. Brazzaville: World Health Organization Regional Office for Africa; 2019.

14. Barriers and facilitating factors in access to health services in the Republic of Moldova. Copenhagen: World Health Organization Regional Office for Europe: 2012.

15. Houghton N, Bascolo E and del Riego A. Monitoring access barriers to health services in the Americas: a mapping of household surveys. Rev Panam Salud Publica. 2020;e96:44.

16. Classification of Individual Consumption According to Purpose (COICOP) 2018. New York: United Nations Statistics Division; 2017.

17. A system of health accounts; 2011 Edition. Paris: Organisation for Economic Co-operation and Development/World Health Organization/Eurostat; 2011.

18. Tracking Universal Health Coverage, 2021 Monitoring report. Geneva: World Health Organization; 2021.

19. SDG indicators metadata repository. New York: United Nations Statistics Division; 2019 (https://unstats.un.org/sdgs/metadata/?Text=&Goal=&Target=3.8, accessed 29 November 2021).

20. Wagstaff A, Flores G, Smitz M-F, Hsu J, Chepynoga K and Eozenou P. Progress on impoverishing health spending: results for 122 countries: A retrospective observational study. Lancet Global Health. 1984;6(2):E180–E192.

21. Foster JE, Greer J and Thorbecke E. A class of decomposable poverty measures. Econometrica. 1984;3(52):761–66.

22. Deaton A and Zaidi S. Guidelines for constructing consumption aggregates for welfare analysis. LSMS Working Paper. 2022;135.

23. Tracking universal health coverage: 2017 global monitoring report. Geneva: World Health Organization and International Bank for Reconstruction and Development/The World Bank; 2017.

24. Tracking universal health coverage: first global monitoring report. Geneva: World Health Organization and World Bank; 2015.

25. Wagstaff A. Measuring catastrophic medical expenditures: Reflections on three issues. Health Economics. 2019;28:765–781.

26. Flores G, Krishnakumar J, O'Donnell O and van Doorslaer E. Coping with health-care costs: implications for the measurement of catastrophic expenditures and poverty. Health Economics. 2008;17(12):1393–412.

27. Global Health Observatory: Financial protection indicators [Online database]. Geneva: World Health Organization; 2021 (https://apps.who.int/gho/data/node.main.UHCFINANCIALPROTECTION and https://www.who.int/data/gho/data/themes/topics/financial-protection, accessed 29 November 2021).

28. Universal health coverage data [Online database]. Washington DC: World Bank; 2021 (https://datatopics.worldbank.org/universal-health-coverage/, accessed 29 November 2021).

29. Poverty and shared prosperity 2020: Reversals of fortune. Washington DC: World Bank; 2020.

30. World health report 2000. Health systems: improving performance. Geneva: World Health Organization; 2000.

31. Can people afford to pay for health care? New evidence on financial protection in Europe. Copenhagen: World Health Organization Regional Office for Europe; 2019.

32. Ageing, older persons and the 2030 Agenda for Sustainable Development. New York: United Nations Development Programme, HealpAge International and AARP; 2017 (https://www.undp.org/publications/ageing-older-persons-and-2030-agenda-sustainable-development, accessed 29 November 2021).

33. Diaz T, Strong K, Cao B, Guthold R, Moran A, Moller A-B et al. A call for standardised age-disaggregated health data. Lancet Healthy Longevity. 2021;2(7):e436–e443.

34. Eozenou P, Neelsen S and Smizt M. Financial protection in health among the elderly – A global stocktake. Health Systems & Reform. 2021;7(2):e1911067.

35. Decade of healthy ageing [website]. Geneva: Decade Secretariat, World Health Organization (https://www.decadeofhealthyageing.org/, accessed 29 November 2021).

36. Decade of healthy ageing: baseline report. Geneva: World Health Organization; 2021 ((https://www.who.int/publications/i/item/9789240017900, accessed 29 November 2021).

37. Household survey analysis of financial hardship due to excessive health spending and unmet care needs of older people in Japan with implications for the Kansai region. Kobe: World Health Organization (WHO) Centre for Health Development; 2021 (https://extranet.who.int/kobe_centre/en/project-details/fin_protection_kansai_tmghig, accessed 29 November 2021).

38. Cid C, Flores G, Del Riego A and Fitzgerald J. Objetivos de Desarrollo Sostenible: impacto de la falta de protección financiera en salud en países de América Latina y el Caribe. Rev Panam Salud Publica. 2021;45:e95.

39. The Cost of Staying Healthy. Semiannual Report of the Latin America and Caribbean Region. Washington DC: World Bank; 2020.

40. Wagstaff A, Flores G, Hsu J, Smitz M-F, Chepynoga K and Eozenou P. Progress on catastrophic health spending: results for 133 countries. A retrospective observational study. Lancet Global Health. 2018;6(2):e169-e179.

41. Wagstaff A and Neelsen S. A comprehensive assessment of universal health coverage in 111 countries: a retrospective observational study. Lancet Global Health. 2020;8(1):e39-e49.

42. Xu K, Evans D, Carrin G, Aguilar-Rivera A, Musgrove P and Evans T. Protecting households from catastrophic health spending. Health Affairs. 2007;4(972–983):26.

43. Can people afford to pay for health care? New evidence on financial protection in Europe. Copenhagen: World Health Organization Regional Office for Europe; 2019.

44. Watson J, Yazbeck AS and Hartel L. Making health insurance pro-poor: Lessons from 20 developing countries. Health Systems and Reform. 2021;7(2):e1917092.

45. Global Health Expenditure Database [Online database]. Geneva: World Health Organization; 2021 (https://apps.who.int/nha/database, accessed 29 November 2021).

46. Goginashvili K, Nadareishvili M and Habicht T. Can people afford to pay for health care? New evidence on financial protection in Georgia. Copenhagen: World Health Organization Regional Office for Europe; 2021.

47. Report of the Expert Panel on Effective Ways of Investing in Health on access to health services in the European Union. Luxembourg; European Union; 2016.

48. European Statistical Recovery Database (Online database]. Brussels: Eurostat, European Union (https://ec.europa.eu/eurostat/web/main/data/database, accessed 29 November 2021).

49. Systematic review and meta-analysis: financial barriers to accessing health services and unmet healthcare needs. Kobe: World Health Organization (WHO) Centre for Health Development; 2021 (https://extranet.who.int/kobe_centre/en/project-details/foregone_care, accessed 29 November 2021).

50. Monitoring the state of statistical operations under the COVID-19 pandemic. New York: United Nations Statistics Division and the World Bank (https://unstats.un.org/unsd/covid19-response/covid19-nso-survey-report-2.pdf, accessed 29 November 2021).

51. Task Force on COVID-19 and Household Surveys. New York: United Nations Statistics Division; 2021 (https://unstats.un.org/iswghs/task-forces/covid-19-and-household-surveys/methodology-on-COVID-19-impact-surveys/, accessed 29 November 2021).

52. World Health Survey Plus [website]. Geneva: World Health Organization (https://www.who.int/data/data-collection-tools/world-health-survey-plus, accessed 29 November 2021).

53. COVID-19: assessment of the mode effect on official statistics. New York: United Nations Economic Commission for Latin America and the Caribbean; 2020 (https://rtc-cea.cepal.org/en/event/covid-19-assessment-mode-effect-official-statistics, accessed 29 November 2021).

54. Adrian T and Natalucci F. COVID-19 worsens pre-existing financial vulnerabilities. Washington DC: International Monetary Fund; 2020 (https://blogs.imf.org/2020/05/22/covid-19-worsens-pre-existing-financial-vulnerabilities/, accessed 29 November 2021).

55. WHO COVID-19 Dashboard [Website]. Geneva: World Health Organization; 2021 (https://covid19.who.int/, accessed 29 November 2021).

56. Richard R. Evidence on the accuracy of the number of reported Covid-19 infections and deaths in lower middle-income countries. Brighton: Institute of Development Studies; 2020.

57. Understanding the coronavirus (COVID-19) pandemic through data [Online database]. Washington DC: World bank; 2021 (https://datatopics.worldbank.org/universal-health-coverage/coronavirus/, accessed 29 November 2021).

58. COVID-19 risks and vaccine information for older adults [Website]. Atlanta: Centers for Disease Control and Prevention; 2021 (https://www.cdc.gov/aging/covid19/covid19-older-adults.html, accessed 29 November 2021).

59. Del Rio C, Collins L and Malani P. Long-term health consequences of COVID-19. JAMA. 2020;324(17):1723–4.

60. Coronavirus (COVID-19) vaccinations. Oxford: Our World In Data; 2021 (https://ourworldindata.org/covid-vaccinations, accessed 29 November 2021).

61. Tandon A, Ivatts A, Cowley P, Roubal T, Dodd R, Pepperall J, Mikkelsen-Lopez I, Irava WJ and Palu T. Economic contraction from COVID-19 in the Pacific: Implications for health financing. Health Systems and Reform. 2020;6(1):e1847991.

62. World Development Indicators [Online database]. Washington DC: World Bank Group; 2021 (https://databank.worldbank.org/source/world-development-indicators, accessed 29 November 2021).

63. Tandon A, Roubal T, McDonald L, Cowley P, Palu T, De Oliveira Cruz V et al. Economic impact of COVID-19 : Implications for health financing in Asia and Pacific. Washington DC: World Bank Working Paper; 2020.

64. Guglielminetti E and Rondinelli C. Consumption and saving patterns in Italy during Covid-19. Rome: Bank of Italy Occasional Paper No. 620; 2021.

65. Kesar S, Abraham R, Lahoti R, Nath P and Basole A. Pandemic, informality, and vulnerability: impact of COVID-19 on livelihoods in India. Rev Can Etudes Dev. 2021;42(1Ð2):145–64.

66. East Asia and Pacific economic update, October 2021. Washington DC: World Bank; 2021.

67. Deb P, Furceri D, Jimenez D, Kothari S, Ostry JD and Tawk N. The effects of COVID-19 vaccines on economic activity. Washington DC: International Monetary Fund IMF Working Papers, 2020.

68. Heijink R, Xu K, Saksena P and Evans D. Validity and comparability of out-of-pocket health expenditure from household surveys: a review of the literature and current survey instruments. Geneva: World Health Organization; 2011.

69. Agorinya I, Ross A, Flores G, TanTorres Edejer T, Dalaba M, Mensah N et al. Effect of specificity of health expenditure questions in the measurement of out-of-pocket health expenditure: evidence from field experimental study in Ghana. BMJ Open; 2021;11(5).

70. Neelsen S and O'Donnell O. Progressive universalism? The impact of targeted coverage on health care access and expenditures in Peru. Health economics; 2017;26(12):e179–e203.

71. Sánchez-Páramo C and Narayan A. Impact of COVID-19 on households: What do phone surveys tell us? Washington DC: World Bank; 2020.

72. Yoshida N, Narayan A and Wu H. How COVID-19 affects households in poorest countries – insights from phone surveys. Washington DC: World Bank; 2020.

73. Shifting gears: Digitization and services-led development. Washington DC: World Bank; 2021.

74. Gerszon Mahler D, Yonzan N, Lakner C, Castaneda Aguilar A and Wu H. Updated estimates of the impact of COVID-19 on global poverty: Turning the corner on the pandemic in 2021? Washington DC: World Bank; 2021.

75. Fiscal Monitor: Strengthening the credibility of public finances. Washington DC: International Monetary Fund; 2021.

76. Financial crises, poverty, and income distribution. Washington DC: International Monetary Fund; 2021.

77. Ravallion R and Chen S. The impact of the global financial crisis on the world's poorest. London: Vox-EU, Centre for Economic Policy Research; 2009 (https://voxeu.org/article/impact-global-financial-crisis-world-s-poorest, accessed 29 November 2021).

78. Furceri D and Zdzienicka A. How costly are debt crises? Journal of International Money and Finance. 2021;31(4):726–42.

79. Kreuter K, Kim E, LaRocca S, Morris K, Kern C and Garcia A. Data on economic anxiety offer new opportunities for insights on the global effects of the COVID-19 pandemic. College Park; Social Data Science Center; 2020 (https://socialdatascience.umd.edu/data-on-economic-anxiety-offer-new-opportunities-for-insights-on-the-global-effects-of-the-covid-19-pandemic/, accessed 29 November 2021).

80. COVID-19 what we know Geneva: World Health Organization; 2021 (https://www.who.int/images/default-source/departments/epi-win/tile-1-covid-19-update-31-may-2021-.png?sfvrsn=4f9c0571_4, accessed 29 November 2021).

81. Murthy S, Gomersall C and Fowler RA. Care for critically ill patients with COVID-19. JAMA. 2020;323(15):1499–500.

82. Torres Rueda S, Sweeney S, Bozzani F and Vassal A. The health sector cost of different policy responses to COVID-19 in low- and middle- income countries. BMJ Global Health (in press). https://doi.org/10.1101/2020.08.23.20180299 [pre-print], accessed 29 November 2021).

83. Global health expenditure database [Online database]. Geneva: World Health Organization (https://apps.who.int/nha/database/Select/Indicators/en, accessed 29 November 2021).

84. COVID-19 Government Response Tracker. Available: Oxford: Oxford University; 2021 (https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker, accessed 29 November 2021).

85. Mathauer I, Dkimi F and Townsend M. Adjustments in health purchasing as part of the COVID-19 health response: results of a short survey and lessons for the future. Geneva: UHC2030; 2020 (https://www.uhc2030.org/blog-news-events/uhc2030-blog/adjustments-in-health-purchasing-as-part-of-the-covid-19-health-response-results-of-a-short-survey-and-lessons-for-the-future-555419/, accessed 29 November 2021).

86. Prabandari A, Itriyati F and Nyonman Sutarsa I. Poor and rich Indonesians do not get equal access to COVID-19 tests: this is why it's a problem. The Conversation, 22 April 2020 (https://theconversation.com/poor-and-rich-indonesians-do-not-get-equal-access-to-covid-19-tests-this-is-why-its-a-problem-136248, accessed 29 November 2021).

87. Cousins S. Bangladesh's COVID-19 testing criticised. Lancet. 2020;396(10251):591.

88. Govt reduces Covid-19 testing fees. Dhakatribune.com, 20 August 2020. (https://www.dhakatribune.com/health/coronavirus/2020/08/20/govt-reduces-covid-19-testing-fees, accessed 29 November 2021).

89. Have testing charges affected the number of Covid-19 tests in Bangladesh? Business Standard, 17 August 2020 (https://www.tbsnews.net/thoughts/have-testing-charges-affected-number-covid-19-tests-bangladesh-120454, accessed 29 November 2021).

90. Sujan M. Govt spends Tk 1.28 lakh for each Covid-19 patient; at pvt hospital patient pays double. Daily Star, 1 May 2020 (https://www.thedailystar.net/coronavirus-deadly-new-threat/news/govt-spends-tk-128-lakh-each-covid-19-patient-pvt-hospital-patient-pays-double-2086885, accessed 29 November 2021).

91. Responding to COVID-19: Health sector preparedness, response and lessons learnt," Kathmandu: Government of Nepal, Ministry of Health and Population: 2021 (http://library.nhrc.gov.np:8080/nhrc/handle/123456789/810?show=full, accessed 29 November 2021).

92. Shapira G and Ahmed T. Disruptions in essential health services during the first five months of COVID-19: Analysis of facility-reported service volumes in eight sub-Saharan African countries. SSRN Electron J, 18 October 2020 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3757414, accessed 29 November 2021).

93. Pulse survey on continuity of essential health services during the COVID-19 pandemic: interim report. Geneva: World Health Organization, 2020.

94. Premise general population COVID-19 health services disruption survey 2020. Seatlle: Institute for Health Metrics and Evaluation; 2020 (http://ghdx.healthdata.org/record/ihme-data/premise-general-population-covid-19-health-services-disruption-survey-2020, accessed 29 November 2021).

95. Readiness for COVID-19 response and continuity of essential health services in health facilities and communities Nairobi. Nairobi: Kenya Ministry of Health; 2021.

96. Holland KM, Jones C, Vivola-Kantor AM et al. Trends in US emergency department visits for mental health, overdose, and violence outcomes before and during the COVID-19 pandemic. JAMA Psychiatry. 2021;78(4):372–379.

97. Amsalem D, Dixon L and Neria Y. The coronavirus disease 2019 (COVID-19) outbreak and mental health: current risks and recommended actions. JAMA Psychiatry. 2021;78(1):9–10.

98. Nagesh S and Chakraborty S. Saving the frontline health workforce amidst the COVID-19 crisis: Challenges and recommendations. Journal of Global Health. 2020;10(1):10345.

99. Spending on health in Europe: entering a new era. Copenhagen: World Health Organization Regional Office for Europe; 2021 (https://apps.who.int/iris/bitstream/handle/10665/340910/9789289055079-eng.pdf, accessed 29 November 2021).

100. Malik M, Tahir M, Jabbar R, Ahmed A and Hussain R. Self-medication during Covid-19 pandemic: challenges and opportunities. Drugs Ther Perspect. 2020;36(12):1–3.

101. Wegbom A, Edet C, Raimi O, Fagbamigbe A and Kiri V. Self-medication practices and associated factors in the prevention and/or treatment of COVID-19 virus: A population-based survey in Nigeria. Front Public Health. 2021;9:606801.

102. Kassie AD, Bifftu BB and Mekonnen HS. Self-medication practice and associated factors among adult household members in Meket district, Northeast Ethiopia, 2017. BMC Pharmacol Toxicol. 2018;19(15).

103. Lam C, Munro C and Lauder I. Self-medication among Hong Kong Chinese. Soc Sci Med. 1994;39(12): 1641–7.

104. Sanghani S and Patel V. Self medication: prevalence and pattern in urban community. J Pharmacovigilance Drug Safety. 2008;5:95–8.

105. Phalke V and Durgawale P. Self-medication practices in rural Maharashtra. Indian J Commun Med. 2006;31(1):34–5.

106. Osaigbovo II, Ogboghodo EO, Obaseki DE, Akoria O, Ehinze ES, Obarisiagbon OE et al. Pattern of drug sales at community pharmacies in Edo state as evidence of self-medication during the COVID-19 pandemic: Implications for policy implementation. The Nigerian Health Journal. 2021;4:150–8.

107. Onchonga D, Omwoyo J and Nyamamba D. Assessing the prevalence of self-medication among healthcare workers before and during the 2019 SARS-CoV-2 (COVID-19) pandemic in Kenya. Saudi Pharm J. 2020;10(1149–54:28.

108. Sadio A, Gbeasor-Komlanvi F, Konu R, Bakoubayi A, Tchankoni M, Bitty-Anderson A and et al. Assessment of self-medication practices in the context of the COVID-19 outbreak in Togo. BMC Public Health. 2021;21(1):58.

109. Nasir M, Salauddin Chowdhury ASM, Zahan T. Self-medication during COVID-19 outbreak: a cross sectional online survey in Dhaka city. Int J Basic Clin Pharmacol. 2020;9(9):1325.

110. Chopra D, Bhandari B, Sidhu J, Jakhar K, Jamil F and Gupta R. Prevalence of self-reported anxiety and self-medication among upper and middle socioeconomic strata amidst COVID-19 pandemic. J Educ Health Promot. 2021;10(1):73.

111. Quispe-Cañari J, Fidel-Rosales E, Manrique D, Mascaró-Zan J, Huamán-Castillón K, Chamorro-Espinoza Sand et al. Self-medication in the COVID-19 pandemic: Survival of the fittest. Saudi Pharm J. 2021;29(1):1–11.

112. Makowska M, Boguszewki R, Nowakowski M and Podkowińska M. Self-medication-related behaviors and Poland's COVID-19 lockdown. Int J Environ Res Public Health. 2020;17(22):8344.

113. Ahmad S, Salma Babar M, Yasir Essar M, Sinha M and Nadkar A. Infodemic, self-medication and stockpiling: a worrying combination. Eastern Mediterranean Health Journal. 2020;27:34080670.

114. Loxton M, Truskett R, Scarf B, Sindone L, Baldry G and Zhao Y. Consumer behaviour during crises: Preliminary research on how coronavirus has manifested consumer panic buying, herd mentality, changing discretionary spending and the role of the media in influencing behaviour. Journal of Risk and Financial Management. 2020;13(8):166.

115. Ebrahimy E, Igan D, Peria M. The Impact of COVID-19 on Inflation: Potential Drivers and Dynamics. Washington DC: International Monetary Fund; 2020.

116. Mahendradhata Y, Andyani NLPE, Hasri ET, Arifi MD, Siahaan RGM, Solikha DA and Ali PB. The capacity of the Indonesian Healthcare System to respond to COVID-19. Frontiers in Public Health, 7 July 2021 (https://www.frontiersin.org/articles/10.3389/fpubh.2021.649819/full, accessed 29 November 2021).

117. World Population Prospects 2019. New York: United Nations, Department of Economic and Social Affairs, Population Division; 2019 (https://population.un.org/wpp/, accessed 29 November 2021).

118. Tran MT, Dang LT, Vu NC. Healthcare and healthcare utilization. In: Vu NC, Tran MT, Dang LT, Chei CL, Saito Y, editors. Ageing and health in Viet Nam. Jakarta (Indonesia): ERIA; 2020 (https://www.eria.org/publications/ageing-and-health-in-viet-nam/, accessed 29 November 2021).

119. Global Health Expenditure Database [Online database]. Geneva: World Health Organization; 2021 (https://apps.who.int/nha/database, accessed 29 November 2021).

120. Thomson S, Figueras J, Tamás Evetovits T, Jowett M, Mladovsky P, Cylus J, Karanikolos M and Kluge H. Economic crisis, health systems and health in Europe: impact and implications for policy. Copenhagen: World Health Organization Regional Office for Europe – European Observatory on Health Systems and Policies; 2015.

121. Spending on health in Europe: entering a new era. Copenhagen: World Health Organization Regional Office for Europe; 2021.

122. Life in Transition III. A decade of measuring transition. London: European Bank for Reconstruction and Development; 2016 (https://www.ebrd.com/publications/life-in-transition-iii, accessed 29 November 2021).

123. Risks that Matter. Main Findings from the 2018 OECD Risks that Matter Survey. Paris: Organisation for Economic Co-operation and Development; 2019 (https://www.oecd.org/social/risks-that-matter.htm, accessed 29 November 2021).

124. Risks that Matter. Main Findings from the 2020 OECD Risks that Matter Survey. Paris: Organisation for Economic Co-operation and Development (https://www.oecd.org/social/risks-that-matter.htm, accessed 29 November 2021).

125. Shaping our future together. Listening to people's priorities and expectations of international cooperation. New York: United Nations; 2021 (https://www.un.org/en/un75/finalreport, accessed 29 November 2021).

126. Kurowski C, Evans DB, Tandon A, Eozenou P, Schmidt M, Irwin A, Salcedo Cain J, Pambudi ES and Postolovska I. From double shock to double recovery: Implications and options for health financing in the time of COVID-19. Washington DC: World Bank Working Paper; 2021.

127. Sparkes SP, Eozenou P, Evans D, Kurowski C, Kutzin J and Tandon A. Will the quest for UHC be derailed? Health Systems and Reform. 2021; e1929796.

128. Measuring non-food expenditures. London: International Household survey Network; 2015 (http://www.ihsn.org/projects/non-food-assessment, accessed 29 November 2021).

129. Classification of Individual Consumption According to Purpose (COICOP) 2018. New York: United Nations Statistics Division; 2018 (https://unstats.un.org/unsd/classifications/unsdclassifications/COICOP_2018_-_pre-edited_white_cover_version_-_2018Đ12Đ26.pdf, accessed 29 November 2021).

130. Cylus J, Thomson S and Evetovits T. Catastrophic health spending in Europe: equity and policy implications of different calculation methods. Bull World Health Organization. 2018;(96): 589–664.

131. Wagstaff A and van Doorslaer E. Catastrophe and impoverishment in paying for health care: with applications to Vietnam 1993–1998. Health Economics. 2003;12:921–934.

132. Xu K, Evans D, Kawabata K, Zeramdini R, Klavus J and Murray C. Household catastrophic health expenditure: a multicountry analysis. Lancet. 2003;362:111–7.

133. Wagstaff A and Eozenou P. CATA meets IMPOV: a unified approach to measuring financial protection in health. Policy Research Working Paper No. 6861. Washington DC: World Bank; 2014.

134. World Population Prospects 2019, Volume II: Demographic Profiles. New York: United Nations Population Division; 2019 (https://population.un.org/wpp/Graphs/DemographicProfiles/Pyramid/1503, accessed 29 November 2021).

135. Global monitoring report on financial protection in health 2019. Geneva: World Health Organization and International Bank for Reconstruction and Development/World Bank; 2020.

ANNEXES

ANNEX A1. GLOBAL STANDARDS TO CLASSIFY OUT-OF-POCKET HEALTH SPENDING BY TYPE OF HEALTH SERVICES AND PRODUCTS IN A COMPARABLE WAY

Before 2019, global standards to classify and compare out-of-pocket (OOP) health spending according to types of health services and products were insufficiently elaborated, hindering proper collection of data on important components of household health care consumption. Financial hardship monitoring relies on household budget surveys, household income and expenditure surveys, household living standard surveys or socioeconomic surveys that are conducted by national statistical offices on a representative sample of the non-institutionalized population. There is considerable variation across household surveys in the comprehensiveness of health expenditure questions, their specificity, recall periods and the modes of data collection. In the past, heterogeneity of survey questionnaires was partly the result of a lack of comprehensive international standards for the classification of OOP health spending. In a review of 100 survey questionnaires mostly from low- and middle-income countries conducted prior to 2014 *(128)*, the World Health Organization (WHO) found that in 80% of the surveys, questions were asked about spending on pharmaceutical products and hospital services, spending on paramedical and medical services were covered by 69 and 66%

of surveys respectively, while information on expenditures for dental services and other medical products than medicines were included in less than 60%. None of the surveys included information on health expenditures for preventive services explicitly and only 28% of the surveys had a category "other" that could have been used to include those types of spending. In 2019, the UN Statistical Division provided a revised classification of household health spending (COICOP 2018 *(129)*). This new standard is a combination of the classification of health care functions (e.g. preventive versus curative, rehabilitative and long-term care services) used to compile national health accounts and the mode of provision of health care *(17)*. The latter includes outpatient care, home care, long-term care and inpatient care services, rather than simply hospital services (as hospitals provide both outpatient and inpatient care services). An important feature of the revised classification is that it clearly identifies products and services that are critical for specific segments of the population (e.g. assistive products for the older population and people living with disabilities) or have become important during the pandemic (e.g. prevention and protective devices include masks; preventive services include immunization services and the cost of the vaccine; other preventive services such as medical check-ups and screening). This classification was expected to be adopted by statistical offices in the surveys planned to be conducted starting from 2019 but the pandemic interrupted data collection in many countries *(51)*. Hence, when surveys resume, it might not be possible to establish pre-covid 19 baselines for some types of health expenditures that have emerged as important sources of OOP health spending since 2020 (see section 2.2.1).

ANNEX A2. DIFFERENT WAYS TO MONITOR CATASTROPHIC HEALTH SPENDING

There are alternative ways to monitor catastrophic health spending. Some studies define OOP health spending as catastrophic when they exceed a given percentage (for example, 10% or 25%) of consumption or income. This so-called 'budget share' approach is adopted in SDG 3.8.2 *(19)*. Empirically, catastrophic spending is usually less concentrated among the poor (or more concentrated among the rich) when the budget share approach is used. Some households may appear to be richer than they are because they have borrowed money to finance spending on health (or other items), but it can be safely assumed that households in the poorest quintile are genuinely poor.

Other studies relate health spending to consumption or income following a deduction for necessities rather than to total consumption or income. The argument is that everyone needs to spend at least some minimum amount on basic needs such as food and housing, and these absorb a larger share of a poor household's consumption or income than of a rich household. As a result, a poor household may not be able to spend much, if anything, on health care. By contrast, a rich household may spend 10% or 25% of its budget on health care and still have enough resources left over to meet its basic needs.

There are different approaches to deducting expenditures for basic needs *(25,130)*. Some studies deduct all of a household's actual spending on food *(131),* while others deduct a standard amount from a household's total resources to represent basic spending on food, to address the role of preferences in food spending *(132)*. These two approaches differ only for households whose actual food expenditure exceeds the standard amount. For all other households, actual food spending is deducted instead of the higher, standard amount. Both approaches therefore treat households whose actual food spending is below the standard amount in the same way. Nevertheless, with the standard food approach, catastrophic spending may be less concentrated among rich households than with the actual food spending approach.

Still other studies deduct the prevailing poverty line, essentially an allowance for all basic needs *(133)*. Depending on the poverty line used, this third approach is likely to result in greater concentration of catastrophic spending among poor households than among rich ones, compared with the budget share approach. It also links catastrophic health spending and impoverishment: those with a negative capacity to pay start off below the poverty line, even before paying for health care, and are pushed even further into poverty by any health spending. By contrast, those with out-of-pocket health spending exceeding the gap between the poverty line and their household total consumption are pushed into poverty by their health spending.

Building on the second and third approaches, in the WHO European Region an amount representing spending on three basic needs (food, housing (rent) and utilities) is deducted consistently for all households *(130)*. As a result, catastrophic expenditure is more likely to be concentrated among poor households with this approach than with the budget share approach. It also links catastrophic health spending and impoverishment.

At global levels, catastrophic health spending and impoverishing health spending definitions are not interrelated – both indicators complement each other and jointly allow to monitor the impact of OOP health spending across the whole population.

ANNEX A3. DATA AVAILABILITY (CHAPTER 1)

The available dataset used to produce this report and to calculate the global and regional estimates of financial hardship has substantially expanded since the 2019 report. The 2021 report relies on 903 primary estimates for 161 countries or territories on catastrophic payments (compared to 739 datapoints in 2019), and on 816 primary estimates for 149 countries or territories on impoverishment (compared to 719 datapoints in 2019). Primary estimates are based on household surveys collected by national statistical offices on household OOP health expenditures and household total consumption expenditure or income.

Altogether, the countries for which there are validated primary estimates represent more than 90% of the world population, and half of the data points have been collected after 2008. Comparing population coverage across UN regions, our dataset always covers countries accounting for more than 85% of the regional population aggregates, except for Oceania where population coverage is around 60%.

Table A1a. Data coverage for catastrophic health spending (SDG 3.8.2 indicators)

	# Observations	# Countries	Median year	Median most recent year	Pop. coverage (%)
Global	**903**	**161**	**2008**	**2015**	**95.6**
Africa	168	50	2009	2015	87.2
Asia	290	41	2009	2016	98.2
Europe	315	39	2007	2015	96.4
Latin America and the Caribbean	89	26	2009	2016	91.9
N America	35	2	2006	2019	100
Oceania	6	3	2009	2008	61.0

Note: Data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Based an analysis of the microdata from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

The number of datapoints available to construct the 2015 aggregate numbers have also expanded since the previous report with more recent survey data becoming available. There are now 136 (123) countries with at least one primary estimate available for catastrophic payments (impoverishing spending) between 2010 and 2020, which together represent about 93% (88%) of the world population. These additional estimates produced since 2019 are used in this report to update the 2015 aggregate numbers.

Moreover, aggregate estimates of the population facing financial hardship due to out-of-pocket health spending are constructed for a more recent reference year in 2017, using all available primary estimates in the window spanning between 2014 and 2020. A total of 111 countries with at least one data point in this narrower window are available and represent about 87% of the world population for catastrophic payments. There are also 99 countries with at least one point for impoverishing spending, representing 65% of the world population in 2017.

Table A1b. Data coverage for impoverishing health spending (SDG related indicator of financial hardship)

	# Observations	# Countries	Median year	Median most recent year	Pop. coverage (%)
Global	**816**	**149**	**2008**	**2015**	**91.3**
Africa	159	48	2009	2015	85.7
Asia	246	36	2008	2016	91.9
Europe	289	38	2007	2015	96.2
Latin America and the Caribbean	83	23	2009	2016	89.8
N America	34	2	2006	2019	99.6
Oceania	5	2	2009	2008	58.9

Note: Data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Based an analysis of the microdata from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A2a. Breakdown of primary estimates for catastrophic payment around 2015 and 2017

	2015 [+/- 5 years]		2017 [+/- 3 years]	
	# Countries	% Population	# Countries	% Population
Reference year point	47	30	31	35
At least two points in window	32	49	13	33
One point in window	57	14	67	18
One point outside the window	25	3	50	9
At least one point in window	***136***	***93***	***111***	***87***

Note: Data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Based an analysis of the microdata from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A2b. Breakdown of datapoints for impoverishing spending around 2015 and 2017

	2015 [+/- 5 years]		2017 [+/- 3 years]	
	# Countries	% Population	# Countries	% Population
Reference year point	41	28	25	14
At least two points in window	27	28	9	8
One point in window	55	32	65	44
One point outside the window	26	4	50	26
At least one point in window	***123***	***88***	***99***	***65***

Note: Data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels. *Source*: Based an analysis of the microdata from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Joint distribution of catastrophic and impoverishing health spending

We use a sample of 709 surveys covering 141 countries[d] to look at the joint distribution of catastrophic payments (at 10% threshold) and impoverishing health expenditure (both for the population pushed into poverty and for the population further pushed into poverty) at a $1.90 poverty line, and at a relative poverty line definition.

Age composition of the household across country income groups

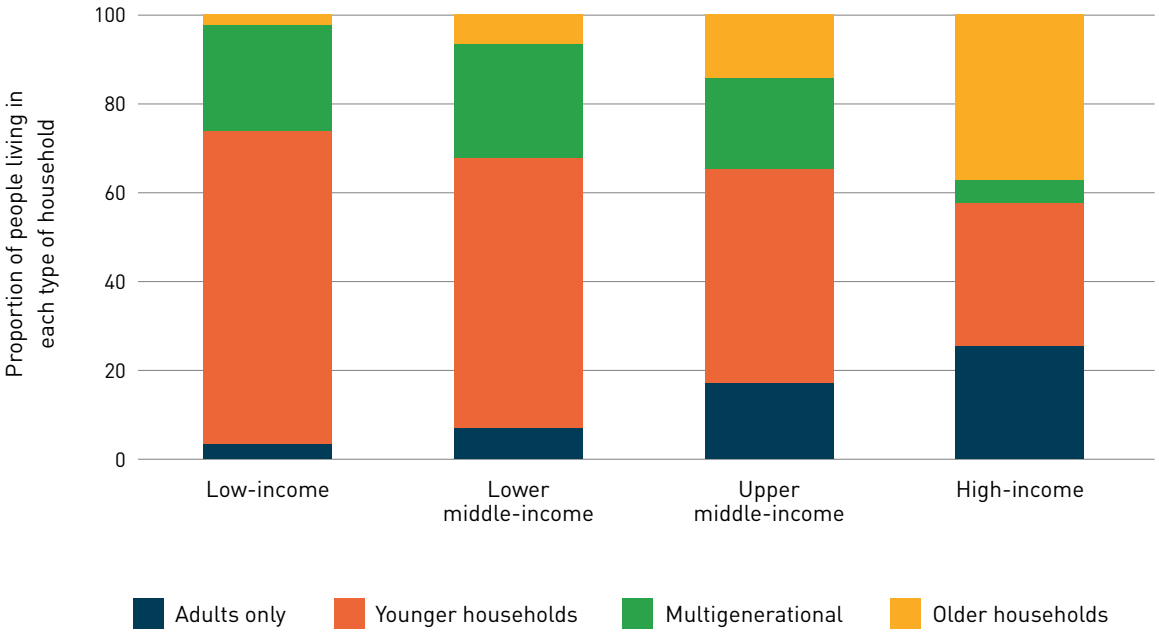
To compare financial hardship due to OOP health spending across households with different age composition, four types were constructed. The first one includes households composed of people aged between 20 and 59 years old. This age category includes only young adults and adults as per WHO latest recommended age classification *(33)* but is referred to simply as "adults" hereafter. The last three have already been defined and correspond to: multigenerational households (include adults living with people below 20 years old (children and/or adolescents) as well as people aged 60 years old or more -older adults); adults living with children (0 to 9 years old) and/or adolescents (10 to 19 years old), i.e. households with members aged 59 years old at most are referred to as households with younger people; adults living with at least one older person (60 years and older) are referred to as "older households". This group also includes household composed of only older people.

The data available for this analysis comes from 92 countries with a most recent estimate available for the 2009–2020 period with a median most recent year of 2014.[e] The age composition of the household varies greatly across country income groups (Fig. A1). The bulk of the population in low-income countries (72%) lives in households with kids and or adolescents (younger households), followed by people living in multigenerational households (22%). Very few people live in household composed of only adults (3%) or only adults with at least one older person (2%). In lower-middle income countries, on average younger households and multigenerational ones account jointly for 90% of all the population, which decreases to 66% in the sample of upper-middle income countries. By contrast, in high-income countries, those living in multigenerational households represent only 5% of the total population and the population is more evenly distributed across the other age compositions.

d Comprising 51 low income, 67 lower middle-income, 46 upper middle-income and 35 high-income countries.

e 20 of these countries are low-income and 22 are upper middle-income countries covering 79% and 78% of the 2015 population in each respective income group; 32 are lower middle-income countries representing 43% of the 2015 population at that country income level; 18 are high-income but they account only for 21% of the 2015 high-income group population. However, the average older population (aged 60+) in those 18 high-income countries (16.2%) is in line with the population share of those aged 65+ estimated for all high-income countries in 2015 (16.7%) *(134)*. Therefore, for the comparison across income groups, high-income countries are kept.

Figure A1. Percentage of the population living in households with different age structure

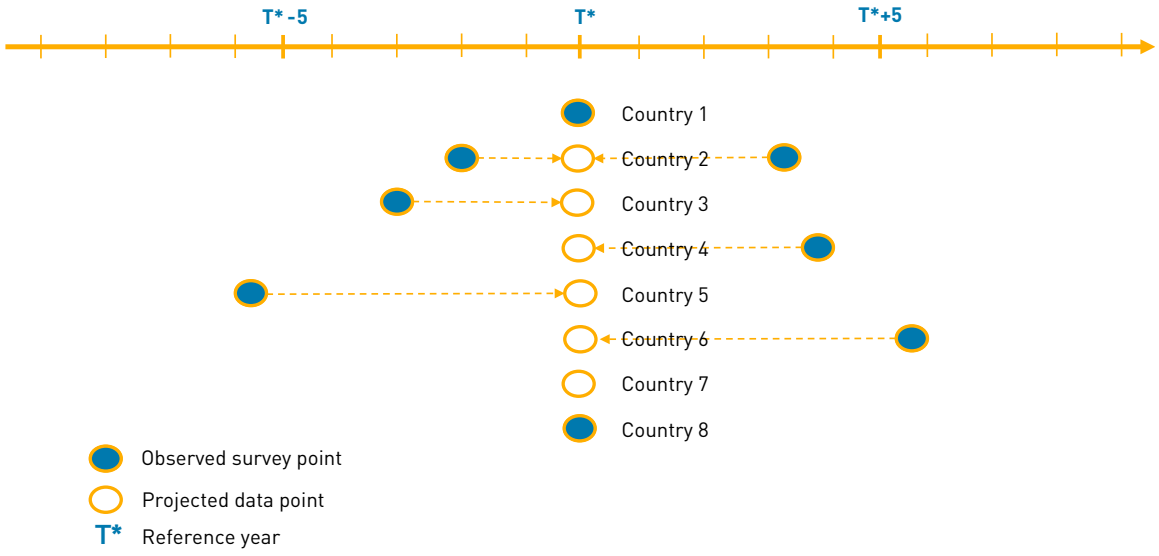


Source: Based an analysis of the microdata from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

ANNEX A4. GLOBAL AND REGIONAL AGGREGATION METHODS (CHAPTER 1)

Household surveys with information on total consumption or income and OOP health expenditure are not available for every country and every year, meaning primary estimates need to be aligned into a common reference year for all countries and territories in the world to be able to construct regional and global aggregates (Fig. A2). Global and regional aggregates on financial hardship around different reference years have been produced from to 2000 up to 2010 in the 2017 global monitoring report on UHC *(23)*, and up to 2015 in the 2019 thematic global report on financial protection *(135)* using methods described in more detail (40,136). For each of these reference years, all the validated survey data points available in a window of +/- 5 years around the reference year are used (e.g. the 2015 global estimates produced in the 2019 Report are constructed using datapoints collected between 2010 and 2020).

Figure A2. Aligning survey points at country level around a common reference year



Several cases arise for the construction of the global estimates, depending on data availability.

Case 1: The datapoint is available for the reference year T* (e.g. Country 1 and 8 in Fig. A2). In that case, we directly use the value of the financial protection indicator informed by the survey.

Case 2: Two points are available around the reference year T*, and in the +/- 5 years window (e.g. Country 2 in Fig. A2). In this case, we simply take a linear interpolation between the two years with available data and we use the projected value of our financial protection indicator projected to the reference year T*.

Case 3: Only one datapoint is available, either before or after the reference year T* (e.g. Country 3 and 4 in Fig. A2), or the valid data point is outside of the reference window (e.g. Country 5 and 6 in Fig. A2). Here, we first estimate a fixed effects regression model for our financial protection indicator and using the aggregate share of OOP over final household consumption (OOP/C) as a dependent variable. The model's parameters are then applied to the value of OOP/C in the reference year T* to project (forward or backward) the observed value of the indicator into the reference year.

Case 4: No data point available (e.g. Country 7 in Fig. A2). Here we use the median of the regional value for our financial protection indicator.

Table A3 provides a country-level breakdown of all data points across the different indicators and categories described, as well as the population coverage of these countries in their respective reference years. For the reference year 2015, for example, primary estimates from 114 countries with at least one data point in the 2010–2020 window were used for catastrophic payments in the 2019 global report on financial protection *(1)*, and these countries represented 87% of the global population (see column B). In the current report, there are more validated primary estimates for 2015 with information stemming from 128 countries representing 91.5% of the world population (see column C). Moreover, it is possible to produce aggregates for a more recent reference year 2017 instead of 2015 by using information from 105 countries with at least one datapoint in the 2014–2020 window, representing 87% of the world population for catastrophic payments, and from 87 countries representing 64.1% of the world population for impoverishing payments (see column D).

Table A3. Categories of data points used to construct global estimates of catastrophic and impoverishing health spending

	[A] [2005–2015]				[B] [2010–2020] (as of 2019 GMR)				[C] [2010–2020] (2021 update)				[D] [2014–2020]			
	Ref. year 2010				Ref. year 2015				Ref. year 2015				Ref. year 2017			
	Countries (No.)		Population Coverage (%)		Countries (No.)		Population Coverage (%)		Countries (No.)		Population Coverage (%)		Countries (No.)		Population Coverage (%)	
	C	*I*	*C*	*I*	*C*	*I*	*C*	*I*	*C*	*I*	*C*	*I*	*C*	*I*	*C*	*I*
(1) Reference year point **(Case 1)**	58	39	34.2	34.2	23	22	16.4	16.4	47	41	29.7	27.8	31	25	35.4	13.6
(2) At least two points within band **(Case 2)**	34	32	47.6	44.2	15	11	7.6	7.6	28	20	46.6	26.9	8	6	25.7	6.8
(3) One point in the reference window **(Case 3)**	76	40	11.8	10.2	76	59	63.0	60.4	53	48	15.2	33.1	66	56	25.1	43.7
Total (1) + (2) + (3)	**168**	**111**	**93.6**	**88.6**	**114**	**92**	**87.0**	**84.4**	**128**	**109**	**91.5**	**87.8**	**105**	**87**	**86.2**	**64.1**
(4) No datapoint in the reference window **(Case 3)**	17	6	1.8	0.7	42	25	8.0	6.5	16	8	2.7	1.5	40	27	9	24.4
(5) No data point **(Case 4)**	63	81	4.6	10.5	62	81	5.0	8.9	71	98	5.71	10.7	70	101	4.8	11.5

Notes: C = catastrophic health spending; I = Impoverishing health spending. Data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Based an analysis of the microdata from the Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

ANNEX A5. FINANCIAL HARDSHIP: GLOBAL AND REGIONAL ESTIMATES (CHAPTER 1)

Table A4a. Population suffering financial hardship (SDG and SDG related indicators) by country income group (%)

Country income groups	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	9.4	10.8	11.3	12.7	13.2	2.1	2.6	2.7	3.7	3.8
Low-income	11.2	12.6	7.9	7.1	7.6	2.7	3.1	1.9	1.5	1.5
Lower middle-income	9.7	12.7	12.3	13.9	14.2	2.4	3.2	2.8	4.0	4.5
Upper middle-income	7.5	5.4	13.6	15.5	16.7	1.1	0.9	3.6	4.9	5.0
High-income	14.9	15.1	14.2	15.4	15.8	2.6	2.4	2.2	2.4	2.5
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	2.0	2.0	1.8	1.6	0.9	17	13.5	10.2	7.5	5.8
Low-income	3.6	3.3	1.7	1.4	1.0	28.5	24.1	25.9	27.8	22.6
Lower middle-income	1.5	1.9	2.8	2.8	1.2	13.7	10.9	14.2	10.4	7.6
Upper middle-income	0.6	0.2	1.5	1.0	1.0	5	2.4	5.3	2.5	1.7
High-income	0.1	0.1	0.1	0.0	0.0	1.2	1.2	0.3	0.2	0.3
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.8	2.1	2.1	2.2	1.6	33.7	29.8	25.7	21	16.8
Low-income	2.3	2.9	1.8	1.3	1.1	54.1	48.4	44	46.4	40.6
Lower middle-income	2.2	2.3	3.1	3.5	1.9	29	28	40.3	34.1	26.7
Upper middle-income	1.0	0.5	2.1	2.0	2.0	12.1	7.4	15.7	9.0	6.1
High-income	0.1	0.2	0.1	0.1	0.1	3.4	3.4	1.3	0.9	1.3
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.5	1.9	2.2	2.5	2.3	8.8	10.6	12.4	13.3	12.7
Low-income	1.9	2.1	1.7	1.6	1.5	8.1	9.4	11.5	13.4	12.8
Lower middle-income	1.2	2.1	2.4	2.9	2.3	8.0	10.8	10.0	11.1	10.6
Upper middle-income	1.3	1.1	2.6	2.8	2.9	12.5	13.9	16.1	17.3	16.3
High-income	1.3	1.3	1.4	1.3	1.4	9.8	10.6	10	9.8	10.2

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A4b. Population suffering financial hardship (SDG and SDG related indicators) by country income group (millions)

	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
Country income groups	**2000**	**2005**	**2010**	**2015**	**2017**	**2000**	**2005**	**2010**	**2015**	**2017**
Global	579	708	785	940	996	131	167	189	270	290
Low-income	275	298	62	45	55	66	73	15	10	11
Lower middle-income	197	313	313	408	423	48	79	72	119	135
Upper middle-income	46	31	339	408	434	7	5	90	129	130
High-income	60	67	72	79	85	11	11	11	12	13
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	124	130	122	115	70	1035	879	704	549	435
Low-income	89	80	14	9	7	705	575	206	174	161
Lower middle-income	30	47	70	81	37	280	271	358	304	224
Upper middle-income	4	1	36	25	25	33	15	130	66	43
High-income	1	1	1	1	1	11	12	3	2	3
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	111	133	146	164	118	2053	1936	1775	1535	1260
Low-income	58	70	14	8	8	1341	1154	351	291	290
Lower middle-income	46	58	77	102	57	593	692	1012	993	789
Upper middle-income	6	3	52	52	52	79	44	386	232	157
High-income	1	2	1	1	2	30	33	14	11	16
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	91	122	154	182	172	539	686	853	971	953
Low-income	46	50	14	10	11	201	225	92	84	91
Lower middle-income	25	51	60	85	69	165	268	250	322	314
Upper middle-income	8	7	64	72	75	82	83	396	448	419
High-income	11	13	16	15	17	86	105	111	114	125

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A5a. Population suffering financial hardship (SDG and SDG related indicators) by UN regions (%)

UN regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	9.4	10.8	11.3	12.7	13.2	2.1	2.6	2.7	3.7	3.8
Sub-Saharan Africa/ Northern Africa	8.0	9.8	9.3	10.9	10.0	2.5	2.5	2.0	2.5	2.2
Asia	10.8	12.5	13.5	15.5	16.6	2.5	3.2	3.5	5.0	5.4
Europe	7.3	6.3	6.4	7.3	6.7	1.0	0.9	0.9	1.0	0.9
Latin America and Caribbean	7.2	9.6	9.5	8.6	8.7	1.2	1.6	1.5	1.6	1.6
Northern America	5.7	5.5	4.7	4.3	4.4	1.0	0.9	0.8	0.7	0.7
Oceania	6.0	5.2	3.0	3.0	1.5	1.1	0.9	0.6	0.5	0.2
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	2.0	2.0	1.8	1.6	0.9	17.0	13.5	10.2	7.5	5.8
Sub-Saharan Africa/ Northern Africa	2.8	2.0	1.8	1.6	1.4	31.2	28.4	26.2	26.0	23.4
Asia	2.6	2.8	2.4	2.2	1.1	20.3	15.0	10.0	5.4	3.1
Europe	0.1	0.0	0.0	0.0	0.0	1.5	0.6	0.0	0.0	0.3
Latin America and Caribbean	0.8	0.6	0.5	0.3	0.2	4.1	4.5	2.7	0.9	0.7
Northern America	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oceania	0.3	0.2	0.1	0.0	0.0	0.4	0.3	0.2	0.1	0.1
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.8	2.1	2.1	2.2	1.6	33.7	29.8	25.7	21.0	16.8
Sub-Saharan Africa/ Northern Africa	2.6	2.0	2.0	1.8	1.7	45.0	44.5	43.8	43.7	41.2
Asia	2.2	2.7	2.9	3.2	2.1	42.9	36.6	30.6	22.7	16.1
Europe	0.3	0.1	0.1	0.1	0.1	5.9	2.5	0.2	0.3	1.0
Latin America and Caribbean	1.3	1.2	1.0	0.7	0.6	12.0	13.0	8.0	4.0	3.4
Northern America	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Oceania	0.3	0.2	0.1	0.0	0.0	0.6	0.5	0.4	0.2	0.2
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.5	1.9	2.2	2.5	2.3	8.8	10.6	12.4	13.3	12.7
Sub-Saharan Africa/ Northern Africa	1.6	1.9	1.9	2.2	2.1	12.9	15.0	14.9	14.9	15.2
Asia	1.5	2.1	2.7	3.0	2.7	6.9	8.8	11.9	13.4	12.3
Europe	1.2	1.2	1.4	1.6	1.7	10.2	11.0	10.8	10.9	11.3
Latin America and Caribbean	1.4	1.6	1.6	1.6	1.6	13.4	15.4	14.9	14.8	15.1
Northern America	1.4	1.1	0.9	0.8	0.7	10.0	9.9	9.8	8.3	8.5
Oceania	2.5	2.3	1.2	1.3	1.3	13.3	13.2	8.5	12.0	11.8

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A5b. Population suffering financial hardship (SDG and SDG related indicators) by UN regions (millions)

UN regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	579	708	785	940	996	131	167	189	270	290
Sub-Saharan Africa/Northern Africa	65	90	97	129	124	20	23	20	29	28
Asia	403	499	568	687	751	94	126	149	221	243
Europe	53	46	47	54	50	7	7	7	7	7
Latin America and Caribbean	38	53	56	53	55	6	9	9	10	10
Northern America	18	18	16	15	16	3	3	3	3	2
Oceania	2	2	1	1	1	0	0	0	0	0
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	124	130	122	115	70	1035	879	704	549	435
Sub-Saharan Africa/Northern Africa	22	18	19	19	18	254	261	273	308	291
Asia	97	108	100	95	51	748	588	415	236	137
Europe	1	0	0	0	0	11	5	0	0	2
Latin America and Caribbean	4	3	3	2	1	21	25	16	5	5
Northern America	0	0	0	0	0	0	0	0	0	0
Oceania	0	0	0	0	0	0	0	0	0	0
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	111	133	146	164	118	2053	1936	1775	1535	1260
Sub-Saharan Africa/Northern Africa	21	19	21	21	21	366	409	456	516	513
Asia	81	107	119	138	94	1582	1437	1270	991	718
Europe	2	1	0	1	0	43	18	1	2	7
Latin America and the Caribbean	7	7	6	4	4	63	72	47	25	21
Northern America	0	0	0	0	0	0	0	0	0	0
Oceania	0	0	0	0	0	0	0	0	0	0
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	91	122	154	182	172	539	686	853	971	953
Sub-Saharan Africa/Northern Africa	13	17	20	26	26	105	138	156	176	190
Asia	56	82	111	131	120	254	345	493	587	548
Europe	9	9	10	12	13	74	80	80	81	84
Latin America and the Caribbean	7	9	10	10	10	70	86	88	92	96
Northern America	4	4	3	3	3	31	32	34	30	31
Oceania	1	1	0	1	1	4	4	3	5	5

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A6a. Population suffering financial hardship (SDG and SDG related indicators) by WHO regions (%)

WHO regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	9.4	10.8	11.3	12.7	13.2	2.1	2.6	2.7	3.7	3.8
African Region	7.7	8.9	7.6	8.9	8.4	2.7	2.6	1.8	2.1	2.0
Region of the Americas	6.6	8.1	7.8	7.0	7.1	1.1	1.4	1.3	1.3	1.3
Eastern Mediterranean Region	7.3	8.6	9.7	11.8	12.5	1.3	1.4	1.7	2.3	2.5
European Region	7.3	6.3	6.5	7.0	6.9	1.1	1.0	1.0	1.0	1.0
South-East Asia Region	12.6	12.6	13.1	15.0	15.2	2.8	2.9	3.3	4.9	5.4
Western Pacific Region	10.3	14.3	16.0	18.7	20.2	2.6	4.0	4.6	6.3	6.4
Non-Member States	5.4	7.2	7.5	6.4	11.9	1.4	1.1	1.2	1.2	2.2
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	2.0	2.0	1.8	1.6	0.9	17.0	13.5	10.2	7.5	5.8
African Region	2.8	2.2	1.9	1.7	1.4	36.1	33.2	30.6	30.6	27.2
Region of the Americas	0.5	0.4	0.3	0.2	0.1	2.6	2.8	1.7	0.6	0.5
Eastern Mediterranean Region	2.1	1.3	0.8	0.6	0.7	11.7	7.7	4.7	3.0	2.5
European Region	0.2	0.1	0.0	0.0	0.0	2.3	1.1	0.4	0.2	0.4
South-East Asia Region	3.9	3.5	3.5	3.6	1.2	26.5	20.2	15.3	8.8	4.7
Western Pacific Region	1.7	2.5	1.9	1.2	1.3	16.8	12.1	6.5	2.8	1.9
Non-Member States	1.0	0.4	0.2	0.3	0.3	11.4	2.3	1.3	4.1	3.6
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.8	2.1	2.1	2.2	1.6	33.7	29.8	25.7	21.0	16.8
African Region	1.9	1.8	1.6	1.3	1.1	48.8	48.5	48.3	48.9	45.2
Region of the Americas	0.8	0.7	0.6	0.4	0.4	7.5	8.2	5.1	2.6	2.2
Eastern Mediterranean Region	3.2	2.5	2.4	2.4	2.6	34.8	31.3	25.0	19.5	17.3
European Region	0.4	0.2	0.2	0.2	0.1	7.2	3.6	1.3	1.1	1.5
South-East Asia Region	2.4	3.0	3.4	4.2	1.7	55.7	47.2	43.6	35.6	25.2
Western Pacific Region	2.2	2.7	2.7	2.6	2.7	33.6	28.8	20.2	11.2	7.6
Non-Member States	1.2	0.9	0.7	0.7	0.6	19.4	9.5	6.3	12.2	10.7
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.5	1.9	2.2	2.5	2.3	8.8	10.6	12.4	13.3	12.7
African Region	1.5	1.7	1.7	1.8	1.7	13.4	15.4	15.5	15.3	15.7
Region of the Americas	1.4	1.4	1.4	1.3	1.3	12.1	13.3	13.0	12.4	12.7
Eastern Mediterranean Region	1.7	1.9	1.9	2.4	2.5	10.8	11.8	11.3	11.8	11.9
European Region	1.2	1.2	1.4	1.5	1.6	10.0	10.7	10.7	10.6	10.9

WHO regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
South-East Asia Region	1.9	1.9	2.5	3.1	2.2	6.0	6.8	7.3	9.2	7.9
Western Pacific Region	1.2	2.5	3.2	3.3	3.5	7.0	10.4	16.9	18.7	17.4
Non-Member States	1.2	1.3	1.5	1.6	1.7	10.6	11.0	11.1	11.7	12.1

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A6b. Population suffering financial hardship (SDG and SDG related indicators) by WHO regions (millions)

WHO regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	579	708	785	940	996	131	167	189	270	290
African Region	51	67	65	87	87	18	20	15	21	21
Region of the Americas	55	71	72	68	70	9	12	12	13	13
Eastern Mediterranean Region	35	46	57	78	86	6	7	10	15	17
European Region	63	56	58	64	63	10	9	9	9	9
South-East Asia Region	198	214	238	288	299	43	49	59	93	107
Western Pacific Region	175	252	292	352	385	45	71	83	118	123
Non-Member States	2	3	3	3	5	1	0	0	0	1
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	124	130	122	115	70	1035	879	704	549	435
African Region	18	16	16	17	15	238	249	263	300	281
Region of the Americas	4	3	3	2	1	21	25	16	5	5
Eastern Mediterranean Region	10	7	5	4	5	56	41	28	20	17
European Region	2	1	0	0	0	20	10	4	2	3
South-East Asia Region	62	60	63	70	24	417	344	277	169	93
Western Pacific Region	29	43	34	22	25	281	210	117	52	36
Non-Member States	0	0	0	0	0	2	0	0	1	1
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	111	133	146	164	118	2053	1936	1775	1535	1260
African Region	12	13	13	13	12	322	364	415	479	466
Region of the Americas	7	7	6	4	4	62	72	47	25	21
Eastern Mediterranean Region	15	13	14	16	18	165	166	148	128	119
European Region	4	2	1	2	1	62	32	12	10	14
South-East Asia Region	37	50	62	81	34	877	802	791	685	494
Western Pacific Region	36	48	49	49	51	561	499	361	206	143
Non-Member States	0	0	0	0	0	3	2	1	2	2
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	91	122	154	182	172	539	686	853	971	953
African Region	10	13	14	18	18	88	116	133	150	163
Region of the Americas	11	13	13	13	13	101	117	121	121	126
Eastern Mediterranean Region	8	10	12	16	17	51	62	67	78	82
European Region	11	11	12	14	15	87	94	95	97	100

WHO regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
South-East Asia Region	30	32	45	60	43	94	115	133	177	155
Western Pacific Region	21	43	58	61	65	117	180	303	345	324
Non-Member States	0	0	0	0	0	2	2	2	2	2

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A7a. Population suffering financial hardship (SDG and SDG related indicators) by the World Bank region (%)

World Bank regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	9.4	10.8	11.3	12.7	13.2	2.1	2.6	2.7	3.7	3.8
East Asia and Pacific	9.1	12.4	13.9	16.1	17.6	2.3	3.4	3.9	5.3	5.5
Europe and Central Asia	7.3	6.3	6.4	6.9	6.8	1.1	1.0	1.0	1.0	1.0
Latin America and Caribbean	7.2	9.6	9.5	8.6	8.7	1.2	1.6	1.5	1.6	1.6
Middle East and North Africa	8.0	10.8	11.5	14.7	15.4	1.8	1.9	2.1	2.9	3.0
North America	5.7	5.5	4.7	4.3	4.4	1.0	0.9	0.8	0.7	0.7
South Asia	14.0	13.6	14.0	16.3	16.5	3.0	3.1	3.5	5.3	5.9
Sub-Saharan Africa	7.7	9.3	8.2	8.8	8.3	2.6	2.7	1.9	2.1	2.0
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	2.0	2.0	1.8	1.6	0.9	17.0	13.5	10.2	7.5	5.8
East Asia and Pacific	1.6	2.2	1.6	1.1	1.2	18.3	12.7	6.0	2.8	2.1
Europe and Central Asia	0.2	0.1	0.0	0.0	0.0	2.3	1.1	0.4	0.2	0.4
Latin America and Caribbean	0.8	0.6	0.5	0.3	0.2	4.1	4.5	2.7	0.9	0.7
Middle East and North Africa	1.5	1.0	0.6	0.6	0.7	9.9	6.1	4.3	3.6	2.8
North America	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Asia	4.5	3.9	3.9	4.0	1.3	25.6	20.3	16.8	9.5	4.8
Sub-Saharan Africa	2.8	2.2	2.0	1.7	1.4	35.5	32.5	30.1	30.1	26.9
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.8	2.1	2.1	2.2	1.6	33.7	29.8	25.7	21.0	16.8
East Asia and Pacific	2	2.4	2.5	2.4	2.4	37.8	31.3	21.2	12.6	9.4
Europe and Central Asia	0.4	0.2	0.2	0.2	0.1	7.2	3.6	1.3	1.1	1.5
Latin America and Caribbean	1.3	1.2	1.0	0.7	0.6	12.0	13.0	8.0	4.0	3.4
Middle East and North Africa	3.3	2.3	2.1	2.2	2.4	23.2	21.5	16.8	14.7	13.6
North America	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
South Asia	2.7	3.4	3.8	4.7	2.0	55.1	48.3	47.1	38.4	26.8
Sub-Saharan Africa	1.9	1.8	1.7	1.4	1.2	48.7	48.0	48.0	48.5	44.9
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	1.5	1.9	2.2	2.5	2.3	8.8	10.6	12.4	13.3	12.7
East Asia and Pacific	1.2	2.2	2.8	2.9	3.1	7.3	10.1	15.4	17.8	16.7
Europe and Central Asia	1.2	1.2	1.4	1.5	1.6	10.0	10.6	10.6	10.6	10.9
Latin America and Caribbean	1.4	1.6	1.6	1.6	1.6	13.4	15.4	14.9	14.8	15.1
Middle East and North Africa	1.6	1.9	2.0	2.5	2.6	10.8	12.3	11.4	11.9	12.5
North America	1.4	1.1	0.9	0.8	0.7	10.0	9.9	9.8	8.3	8.5
South Asia	2.2	2.1	2.8	3.4	2.4	5.9	6.7	7.4	8.5	6.9
Sub-Saharan Africa	1.5	1.8	1.8	1.9	1.8	13.4	15.4	15.6	15.4	15.7

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A7b. Population suffering financial hardship (SDG and SDG related indicators) by the World Bank region (millions)

	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
World Bank regions	**2000**	**2005**	**2010**	**2015**	**2017**	**2000**	**2005**	**2010**	**2015**	**2017**
Global	579	708	785	940	996	131	167	189	270	290
East Asia and Pacific	189	267	311	373	413	48	73	87	122	128
Europe and Central Asia	63	55	57	63	62	10	8	9	9	9
Latin America and Caribbean	38	53	56	53	55	6	9	9	10	10
Middle East and North Africa	25	37	44	62	68	6	6	8	12	13
North America	18	18	16	15	16	3	3	3	3	2
South Asia	195	207	230	285	295	41	47	57	92	105
Sub-Saharan Africa	52	70	71	88	87	18	21	16	21	21
	Pushed below a poverty line					**Further pushed below a poverty line**				
PPP$1.90 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	124	130	122	115	70	1035	879	704	549	435
East Asia and Pacific	32	46	36	24	27	371	268	131	62	48
Europe and Central Asia	2	1	0	0	0	20	10	4	2	3
Latin America and Caribbean	4	3	3	2	1	21	25	16	5	5
Middle East and North Africa	5	3	2	2	3	31	21	17	15	12
North America	0	0	0	0	0	0	0	0	0	0
South Asia	62	60	63	70	24	356	308	276	165	85
Sub-Saharan Africa	19	17	17	17	15	236	246	261	298	281
PPP$3.20 a day	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	111	133	146	164	118	2053	1936	1775	1535	1260
East Asia and Pacific	41	51	54	53	55	765	660	463	285	215
Europe and Central Asia	4	2	1	2	1	62	32	12	10	14
Latin America and Caribbean	7	7	6	4	4	63	72	47	25	21
Middle East and North Africa	11	8	8	9	11	73	75	65	63	60
North America	0	0	0	0	0	0	0	0	0	0
South Asia	37	52	63	82	35	766	733	771	671	480
Sub-Saharan Africa	13	14	15	14	12	324	365	417	481	470
60% of median per capita consumption	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Global	91	122	154	182	172	539	686	853	971	953
East Asia and Pacific	24	46	61	66	71	147	213	337	401	383
Europe and Central Asia	11	11	12	14	15	86	93	94	96	99
Latin America and Caribbean	7	9	10	10	10	70	86	88	92	96

World Bank regions	SDG 3.8.2, 10% threshold					SDG 3.8.2, 25% threshold				
	2000	2005	2010	2015	2017	2000	2005	2010	2015	2017
Middle East and North Africa	5	7	8	11	12	34	43	44	51	55
North America	4	4	3	3	3	31	32	34	30	31
South Asia	30	32	46	59	43	82	102	121	148	124
Sub-Saharan Africa	10	14	15	19	19	89	117	136	153	165

Notes: All aggregates were produced jointly by WHO and the World Bank using the methods described in Annex A3, *(20)* and *(40)*. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional or national level to monitor catastrophic spending on health. These estimates are based on a data availability for global monitoring, which may not necessarily align with the availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A8. Sustainable Development Goal universal health care indicator 3.8.2: catastrophic health spending by country, most recent year available

WHO country name	Latest year	SDG UHC indicator 3.8.2, latest year: incidence of catastrophic expenditure (%)	
		At 10% of household total consumption or income	At 25% of household total consumption or income
Afghanistan**	2016	23.8	5.6
Albania	2012	16.7	4.9
Angola	2018	35.5	12.5
Argentina*	2017	9.6	2.5
Armenia	2017	21.0	7.1
Australia***	2015	2.5	0.4
Austria	1999	4.3	0.7
Azerbaijan	2005	8.1	1.1
Bahrain*	2015	4.9	1.4
Bangladesh	2016	24.4	8.4
Barbados	2016	16.4	3.8
Belarus*	2020	13.5	0.6
Belgium	2009	11.4	1.4
Belize*	2018	6.2	3.1
Benin**	2015	5.5	1.0
Bhutan	2017	4.0	1.8
Bolivia (Plurinational State of)	2019	4.6	0.8
Bosnia and Herzegovina	2015	8.2	1.4
Botswana	2009	1.0	0.2
Brazil	2017	11.8	1.9
Bulgaria	2018	21.3	3.1
Burkina Faso	2014	3.1	0.4
Burundi	2013	3.3	0.4
Cabo Verde	2007	2.0	0.0
Cambodia**	2019	17.9	4.9
Cameroon	2014	10.7	1.8
Canada*[1]	2019	3.5	0.8
Cayman Islands**	2015	0.0	0.0
Central African Republic	2008	6.7	1.2
Chad	2011	8.7	1.6
Chile	2016	14.6	2.1
China	2016	24.0	9.2
Colombia	2016	8.2	2.2
Comoros	2014	8.8	1.6
Congo	2011	4.6	0.7

WHO country name	Latest year	SDG UHC indicator 3.8.2, latest year: incidence of catastrophic expenditure (%)	
		At 10% of household total consumption or income	At 25% of household total consumption or income
Costa Rica	2018	7.4	1.1
Côte d'Ivoire	2014	12.4	3.4
Croatia	2010	2.8	0.3
Cyprus	2015	14.7	1.6
Czechia	2010	2.2	0.1
Democratic Republic of the Congo	2012	4.8	0.6
Denmark	2010	2.9	0.5
Djibouti	2017	1.5	0.3
Dominican Republic**	2018	8.2	0.9
Ecuador**	2013	10.3	2.4
Egypt	2017	31.1	6.1
El Salvador	2014	1.7	0.3
Estonia	2010	8.8	1.2
Eswatini	2016	5.0	1.3
Ethiopia	2015	2.1	0.3
Fiji*	2008	0.8	0.1
Finland	2016	6.7	0.7
Gabon	2017	3.8	0.7
Gambia	2015	0.2	0.0
Georgia	2017	31.2	9.7
Germany	2010	1.5	0.1
Ghana	2016	1.3	0.1
Greece	2016	16.9	1.6
Guatemala	2014	11.5	3.8
Guinea	2012	7.0	1.3
Guinea-Bissau	2010	6.3	1.0
Haiti	2013	11.5	4.0
Honduras	2004	1.1	0.1
Hungary	2010	7.4	0.3
Iceland	1995	7.0	0.9
India	2017	17.3	6.5
Indonesia	2017	4.5	0.9
Iran (Islamic Republic of)**	2019	15.3	3.5
Iraq	2012	3.7	0.9
Ireland	2009	5.6	0.5
Israel	2012	10.6	1.8
Italy	2010	9.3	1.1

WHO country name	Latest year	SDG UHC indicator 3.8.2, latest year: incidence of catastrophic expenditure (%)	
		At 10% of household total consumption or income	At 25% of household total consumption or income
Jamaica	2004	10.2	2.9
Japan*	2019	10.5	1.9
Jordan	2008	1.7	0.3
Kazakhstan	2015	2.5	0.1
Kenya	2015	5.1	1.3
Kiribati	2006	0.0	0.0
Kyrgyzstan	2016	3.5	0.7
Lao People's Democratic Republic	2007	3.0	0.3
Latvia	2016	21.4	5.7
Lebanon	2012	26.6	6.3
Lesotho	2010	4.5	1.4
Liberia	2016	6.7	1.1
Lithuania	2008	12.9	2.7
Luxembourg	2016	3.5	0.3
Madagascar	2012	2.9	0.6
Malawi	2016	4.4	1.0
Malaysia*	2019	1.5	0.1
Maldives	2016	10.3	4.1
Mali	2018	2.1	0.1
Malta	2015	15.9	2.7
Mauritania	2014	11.7	2.9
Mauritius	2017	8.2	1.9
Mexico	2016	1.6	0.2
Mongolia	2018	7.2	1.3
Montenegro	2015	10.3	0.8
Morocco	2013	20.5	6.4
Mozambique	2014	1.6	0.4
Myanmar	2017	12.7	3.5
Namibia	2015	1.5	0.3
Nepal	2016	10.7	2.1
Nicaragua	2014	24.7	9.1
Niger	2018	6.5	0.9
Nigeria	2018	15.8	4.1
Norway	1998	5.1	0.5
Occupied Palestinian Territory, including east Jerusalem	2016	7.6	1.0
Oman	1999	0.6	0.1

WHO country name	Latest year	SDG UHC indicator 3.8.2, latest year: incidence of catastrophic expenditure (%)	
		At 10% of household total consumption or income	At 25% of household total consumption or income
Pakistan	2015	5.4	1.0
Panama**	2017	6.2	0.7
Paraguay	2014	7.1	1.9
Peru	2019	8.4	1.1
Philippines	2015	6.3	1.4
Poland	2016	14.1	1.3
Portugal	2011	18.4	3.3
Republic of Korea*	2018	12.0	2.9
Republic of Moldova	2016	18.7	3.6
Romania	2016	13.4	2.2
Russian Federation*	2020	7.7	0.9
Rwanda	2016	1.2	0.1
Saint Lucia	2016	6.6	1.9
Sao Tome and Principe	2017	4.8	1.2
Saudi Arabia*	2018	1.3	0.6
Senegal	2011	3.3	0.2
Serbia	2015	8.0	0.5
Seychelles	2013	2.6	1.3
Sierra Leone	2018	16.4	3.0
Singapore*	2013	9.0	1.5
Slovakia	2015	2.7	0.0
Slovenia	2018	3.7	0.3
Somalia	2017	0.1	0.0
South Africa	2014	1.0	0.1
South Sudan	2017	13.4	4.0
Spain	2019	7.9	1.1
Sri Lanka	2016	5.4	0.9
Sudan	2009	18.4	3.3
Suriname	2016	4.9	1.4
Sweden	1996	5.5	0.7
Syrian Arab Republic	2007	6.9	1.4
Tajikistan	2018	10.3	2.2
Thailand*	2019	1.9	0.3
North Macedonia	2006	7.8	0.8
Timor-Leste	2014	2.6	0.5
Togo**	2018	13.4	2.4
Trinidad and Tobago	2014	3.9	1.9

WHO country name	Latest year	SDG UHC indicator 3.8.2, latest year: incidence of catastrophic expenditure (%)	
		At 10% of household total consumption or income	At 25% of household total consumption or income
Tunisia	2015	16.7	2.4
Turkey	2016	3.2	0.4
Uganda	2016	15.3	3.8
Ukraine	2019	8.3	1.2
United Arab Emirates*	2019	0.4	-
United Kingdom of Great Britain and Northern Ireland	2018	2.3	0.4
United Republic of Tanzania	2018	4.3	0.8
United States of America	2019	4.3	0.8
Uruguay	2016	2.3	0.2
Uzbekistan	2003	6.7	1.8
Viet Nam*	2020	8.5	1.7
Yemen	2014	15.8	4.2
Zambia	2010	0.3	0.0
Zimbabwe	2017	11.8	7.0

Notes: *Produced by the Member State. ** Produced in collaboration with the Member State. *** Produced in collaboration with a country expert. Catastrophic health spending is defined as out-of-pocket expenditures exceeding 10% and 25% of household total consumption or income. [1] Proxy indicator as it excludes selected health care expenditure only, based on after-tax income adjusted by dividing by the square root of the household size. This definition with these two thresholds corresponds to SDG indicator 3.8.2, defined as "The proportion of population with large household expenditures on health as a share of total household expenditure or income". WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional and/or national level to monitor catastrophic spending on health. These estimates are based on data availability for global monitoring, which may not necessarily align with availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A9. Sustainable Development Goal–related indicators of impoverishment due to out-of-pocket health spending by country, most recent year available

WHO country name	Latest year	Impoverishing health spending			
		At the PPP$1.90 a day poverty line		At the relative poverty line of 60% of median consumption or income	
		(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health	(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health
Afghanistan**	2016	4.4	16.4	3.3	8.3
Albania	2012	0	0	3	7
Angola	2018	5	34	5	20
Argentina[1]	2004	0	1	2	10
Armenia	2017	0	0	3	7
Australia***	2015	0	0	1	15
Austria	1999	0	0	1	8
Azerbaijan	2005	0	0	1	1
Bangladesh	2016	4	8	4	9
Barbados	2016	0	0	2	10
Belarus[1]	2016	0	0	1.7	11.2
Belgium	2009	0	0	2	11
Benin**	2015	2	39	-	18
Bhutan	2017	1	0	2	4
Bolivia (Plurinational State of)	2019	0	1	1	13
Bosnia and Herzegovina	2015	0	0	2	8
Botswana	2009	0	4	0	8
Brazil	2017	0	1	2	20
Bulgaria	2018	0	-	4	12
Burkina Faso	2014	2	54	2	13
Burundi	2013	1	61	1	15
Cabo Verde	2007	0	2	1	12
Cameroon	2014	2	0	2	26
Canada*[2]	2019	0	0	1	16
Central African Republic	2008	1	34	1	13
Chad	2011	2	22	1	15
Chile	2016	0	0	2	13
China	2016	2	2	4	18
Colombia	2016	0	1	1	12
Comoros	2014	1	15	2	19
Congo	2011	1	25	1	22
Costa Rica	2018	0	0	1	11

WHO country name	Latest year	Impoverishing health spending			
		At the PPP$1.90 a day poverty line		At the relative poverty line of 60% of median consumption or income	
		(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health	(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health
Côte d'Ivoire	2014	2	-	2	-
Croatia	2010	0	0	1	10
Cyprus	2015	0	-	3	14
Czechia	2010	0	0	1	9
Democratic Republic of the Congo	2012	1	62	1	20
Denmark	2010	0	0	1	10
Djibouti	2017	0	2	0	3
Dominican Republic**	2018	0	0	2	12
Ecuador**	2013	1	1	2	15
Egypt	2017	2	3	5	11
El Salvador	2014	0	0	0	3
Estonia	2010	0	0	1	6
Eswatini	2016	1	10	1	12
Ethiopia	2015	1	12	1	9
Fiji**	2008	0	-	-	-
Finland	2016	0	-	1	11
Gabon	2017	0	2	1	17
Gambia	2015	0	7	0	13
Georgia	2017	2	3	5	16
Germany	2010	0	0	1	5
Ghana	2016	0	6	0	15
Greece	2016	0	-	2	11
Guatemala	2014	1	2	2	13
Guinea	2012	3	21	1	10
Guinea-Bissau	2010	1	50	1	15
Haiti	2013	3	9	4	10
Hungary	2010	0	0	1	13
Iceland	1995	0	0	1	10
India	2011	5	16	3	7
Indonesia	2017	0	4	1	16
Iran (Islamic Republic of)**	2019	0	0	-	-
Iraq	2012	0	2	1	13
Ireland	2009	0	0	1	10
Israel	2012	0	0	2	15

WHO country name	Latest year	Impoverishing health spending			
		At the PPP$1.90 a day poverty line		At the relative poverty line of 60% of median consumption or income	
		(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health	(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health
Italy	2010	0	0	1	9
Jamaica	2004	1	1	2	18
Jordan	2008	0	0	1	14
Kazakhstan	2015	0	0	1	8
Kenya	2015	2	17	1	11
Kiribati	2006	0	0	0	0
Kyrgyzstan	2016	0	0	1	3
Lao People's Democratic Republic	2007	1	6	0	4
Latvia	2016	0	-	4	9
Lebanon	1999	0	0	7	21
Liberia	2016	2	37	2	16
Lithuania	2008	0	0	2	8
Luxembourg	2016	0	-	2	20
Madagascar	2012	0	51	1	12
Malawi	2016	1	42	1	9
Malaysia*	2019	0	0	1	20
Maldives	2016	0	0	2	11
Mali	2018	2	37	2	16
Malta	2015	0	-	3	14
Mauritania	2014	1	2	3	9
Mauritius	2017	0	0	1	5
Mexico	2016	0	0	0	11
Mongolia	2018	0	0	2	14
Montenegro	2015	0	0	2	8
Morocco	2013	2	1	5	14
Mozambique	2014	1	39	1	13
Myanmar	2017	1	1	3	11
Namibia	2015	0	10	0	22
Nepal	2016	2	9	3	13
Nicaragua	2014	3	4	5	21
Niger	2018	2	38	1	15
Nigeria	2018	2	45	3	24
Norway	1998	0	0	2	10

WHO country name	Latest year	Impoverishing health spending			
		At the PPP$1.90 a day poverty line		At the relative poverty line of 60% of median consumption or income	
		(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health	(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health
Occupied Palestinian Territory, including east Jerusalem	2016	0	0	2	13
Oman	1999	0	0	0	8
Pakistan	2015	0.7	3.1	2.3	11.3
Panama**	2017	0	0	1	18
Paraguay	2014	1	2	1	18
Peru	2019	0	0	1	16
Philippines	2015	1	8	1	21
Poland	2016	0	0	3	12
Portugal	2011	0	0	3	13
Republic of Moldova	2016	0	0	3	6
Romania	2016	0	0	2	9
Russian Federation	2014	0	0	2	16
Rwanda	2016	0	35	1	12
Saint Lucia	2016	0	1	2	12
Sao Tome and Principe	2017	1	14	1	8
Senegal	2011	1	33	2	19
Serbia	2015	0	0	2	12
Seychelles	2013	1	1	1	11
Sierra Leone	2018	4	43	3	14
Slovakia	2015	0	-	1	11
Slovenia	2018	0	-	1	7
Somalia	2017	1	25	0	2
South Africa	2014	0	7	0	17
South Sudan	2017	1	64	3	20
Spain	2019	0	-	2	13
Sri Lanka	2016	0	0	1	7
Sudan	2009	3	11	3	17
Suriname	2016	0	0	1	9
Sweden	1996	0	0	1	8
Syrian Arab Republic	2007	0	0	2	12
Tajikistan	2018	0	0	1	4
Thailand*	2019	0	0	1	11
North Macedonia	2006	0	1	2	8

WHO country name	Latest year	Impoverishing health spending			
		At the PPP$1.90 a day poverty line		At the relative poverty line of 60% of median consumption or income	
		(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health	(pushed into poverty) Increase in poverty headcount	(further pushed into poverty) Poor spending on health
Timor-Leste	2014	1	8	1	3
Togo**	2018	-	-	2	14
Trinidad and Tobago	2014	1	1	1	2
Tunisia	2015	0	0	3	15
Turkey	2016	0	0	1	12
Uganda	2016	3	25	3	13
Ukraine	2019	0	0	2	11
United Kingdom of Great Britain and Northern Ireland	2018	0	0	0	9
United Republic of Tanzania	2018	1	26	1	10
United States of America	2016	0	0	1	8
Uruguay	2016	0	0	1	14
Uzbekistan	2003	1	15	1	3
Viet Nam*	2020	0	1	2	20
Yemen	2014	4	9	4	10
Zimbabwe	2017	5	3	5	2

Note: *Produced by the Member State. ** Produced in collaboration with the Member State. *** Produced in collaboration with a country expert.[1] Most recent estimate for impoverishing health spending differs from most recent estimate for catastrophic health spending (SDG 3.8.2 indicators).[2] Proxy indicator as it excludes selected health care expenditure only, based on after-tax income adjusted by dividing it by the square root of the household size. Impoverishing spending on health occurs when a household is forced by an adverse health event to divert spending from non-medical budget items such as food, shelter and clothing to such an extent that its spending on these items is reduced below or further below the level indicated by the poverty line. Indicators of impoverishing spending on health are not part of the official SDG indicator of universal health coverage per se, but link universal health coverage directly to the first SDG goal, namely, to end poverty in all its forms everywhere. WHO and World Bank estimated values are based on standard definitions and methods to ensure cross-country comparability, which may not correspond to the methods used at regional and/or national level to monitor catastrophic spending on health. These estimates are based on data availability for global monitoring, which may not necessarily align with availability of data at national or regional levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2021 update *(27,28)*.

Table A10. World Health Organization European Region indicators of catastrophic and impoverishing health spending

Country	Latest year	Proportion of households with out-of-pocket payments greater than 40% of capacity to pay(%)[a]	Proportion of households at risk of impoverishment after out-of-pocket payments (%)[b]				
			Further impoverished	Impoverished	At risk of impoverishment	Not at risk of impoverishment	No out-of-pocket payments
Albania	2015	12.5	6.7	1.5	6.7	51.4	33.7
Austria	2014/2015	3.2	0.8	0.2	1.0	77.9	20.9
Belgium[c]	2018	3.8	0.6	0.2	0.8	65.5	32.8
Bulgaria[c]	2018	19.2	4.3	3.6	8.1	78.2	5.7
Croatia	2014	4.0	2.0	0.5	3.3	73.8	20.4
Cyprus	2015	5.0	1.3	0.5	1.9	88.4	8.0
Czechia	2012	1.1	0.4	0.1	1.4	97.6	0.6
Estonia[d]	2016	8.1	1.5	1.3	2.1	54.7	40.4
Finland[c]	2016	3.8	0.6	0.6	2.2	83.3	13.4
France[e]	2017	2.1	1.3	0.2	1.5	81.3	15.7
Georgia[e]	2018	17.4	3.9	2.9	3.7	64.7	24.7
Germany[e]	2018	2.4	0.8	0.2	0.5	88.3	10.3
Greece[e]	2019	8.9	1.6	0.9	3.2	79.7	14.6
Hungary	2015	11.6	3.8	2.1	5.7	76.0	12.3
Ireland	2015/2016	1.2	0.8	0.1	0.9	64.5	33.8
Italy[e]	2019	9.4	2.8	1.4	2.1	71.7	22.0
Kyrgyzstan	2014	12.8	2.2	1.5	6.7	71.2	18.5
Latvia[e]	2016	12.9	2.2	2.0	4.1	62.8	28.9
Lithuania	2016	15.2	2.2	3.4	4.2	52.3	37.8
Luxembourg[c]	2017	2.4	1.1	0.3	0.5	89.8	8.3
Malta[c]	2015	6.9	1.0	1.1	2.1	80.1	15.6
North Macedonia[c]	2018	6.5	2.2	1.7	2.8	39.4	53.9
Republic of Moldova	2016	17.1	3.2	3.5	8.9	56.5	27.9
Poland	2014	8.6	2.6	1.1	4.3	75.3	16.7
Portugal[d]	2015	10.6	2.2	1.6	2.8	84.3	9.0
Romania[c]	2015	12.5	3.7	1.9	5.2	51.5	37.7
Slovakia[e]	2015	5.1	2.6	0.6	3.1	88.8	4.7
Slovenia[e]	2018	0.8	0.1	0.1	0.3	80.6	18.9
Spain[e]	2019	1.6	0.7	0.1	0.7	71.5	27.1
Sweden	2012	1.8	0.9	0.2	0.6	50.5	47.8
Turkey[e]	2018	4.3	2.3	0.4	2.0	52.8	42.6
Ukraine[e]	2019	16.7	8.4	2.4	8.5	76.4	4.4
United Kingdom of Great Britain and Northern Ireland	2014	1.4	0.8	0.0	0.7	51.4	47.1

Notes: [a] Catastrophic health spending defined as out-of-pocket payments exceeding 40% of capacity to pay using the food, housing and utilities approach (Annex A2); [b] Proportion of households at risk of impoverishment after out-of-pocket payments using a relative poverty line reflecting basic needs on food, housing, and utilities *(130,31)*; [c] New estimate; [d] Estimate amended; [e] Estimate updated.

ANNEX A6. DATA AND METHODS (CHAPTER 2)

This annex presents the data sources and methods used to produce the graphs and/or support the discussion on COVID-19 and financial protection.

a) Rapid review methods

A rapid review was undertaken to support the discussion in this chapter. This was done by searching a set of keywords/phrases on Google Scholar. Keywords/phrases used were: health care/healthcare utilization, health care/healthcare utilization during COVID-19, self-medication, health-seeking behaviour, health-seeking behaviour during COVID-19, self-medication during COVID-19, traditional medicines, home remedies, and out-of-pocket spending during COVID-19. For self-medication, not all the articles meeting inclusion criteria were included, only one per country was included to discuss the statistics and uptake during COVID-19. Articles published in peer-reviewed journals, working papers and news articles since January 2020 were included in the review. Since Google Scholar gives many articles not directly related to the COVID-19 pandemic, after filtering as per the inclusion criteria, abstracts were reviewed to further subset the articles. From the abstract, to ensure that the estimates are specific to the COVID-19 pandemic, only those that had utilized post-pandemic data were included.

In addition, experts from both WHO and the World Bank were asked to provide references on these topics, sometimes by regions. The full list of experts is included in the acknowledgment section.

b) Common statistical choices in Chapter 2

- Monetary values in dollars are provided in constant US$ values of 2017.
- All the statistics are population weighted.
- The 2019 (pre-COVID-19) income group classification is used for all countries. By contrast to Chapter 1 the income group classification is year specific, see Table A10 for the most recent year with estimates available on financial hardship.
- The International Monetary Fund World Economic Outlook from October 2021 (https://www.imf.org/en/Publications/WEO) is used to discuss the macroeconomic impact of the pandemic. See the statistical annexes for more information about projections. As clearly stated throughout the chapter, there are many uncertainties around projections, which are subject to change, but they are based on the best available evidence at the time of producing this report.

c) Data sources overview (last accessed between 15–18 October 2021 unless otherwise specified).

- World Bank
  - PovcalNet (June 2021 update)
  - Macro Poverty Outlook (September 2021 update)
  - High Frequency Survey (last accessed November 10, 2021) (https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard)
- International Monetary Fund
  - World Economic Outlook (October 2021 update)

- World Health Organization
  - Global Health Expenditure Database (December 2020 update)
  - National Pulse Survey on Continuity of Essential Health Services During the COVID-19 Pandemic
- Institute for Health Metrics and Evaluation
  - Premise General Population COVID-19 Health Services Disruption Survey
- The University of Maryland Social Data Science Center, in partnership with Facebook
  - The Global COVID-19 Trends and Impact Survey
- Oxford COVID-19 Government Response Tracker
- Our World in Data (OWID)
  - Statistics and Research on COVID-19

d) Data source details and methods by figure where relevant.

World Bank

PovcalNet

http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx

PovcalNet is a computational tool that allows users to estimate poverty rates for regions, sets of countries or individual countries, over time and at any poverty line. PovcalNet is managed jointly by the Data and Research Groups in the World Bank's Development Economics Division.

Macro Poverty Outlook

https://www.worldbank.org/en/publication/macro-poverty-outlook

The Macro Poverty Outlook (MPO) analyses macroeconomic and poverty developments in 147 developing countries. The report is released twice annually for the Spring and Annual Meetings of the World Bank Group and the International Monetary Fund. The MPO consists of individual country notes that provide an overview of recent developments, forecasts of major macroeconomic variables and poverty during 2021–2023, and a discussion of critical challenges for economic growth, macroeconomic stability, and poverty reduction moving forward. Figure 20 is based on data from this source as well as data from the International Monetary Fund, see further below for more explanations.

High Frequency Survey

https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard

The World Bank and partners have collected and published country-level results from COVID-19 surveys to inform policies that limit the human and economic impact of the pandemic. In view of the social distancing measures that have severely limited the use of face-to-face interviews, the LSMS, with funding from the U.S. Agency for International Development and in collaboration with the World Bank Poverty and Equity Global Practice (GP), is providing financial and technical assistance to high-frequency phone surveys to track responses to and socio-economic impacts of COVID-19. The survey contains questions related to food security, changes in employment, income loss, access to safety nets and health care, and household coping strategies.

All indicators used from this survey (i.e. for Figs. 24, 25, 26, 30 and 31) are downloaded at the country level from the portal. For more information on these indicators, a technical note can be reviewed.[f] The figures show simple population-weighted averages by country income group unless otherwise specified. In Fig. 30, the data is focused on 39 low- and middle-income countries (covering 73 638 households) to estimate the prevalence of foregone care and the relative importance of various reported reasons for foregoing care, disaggregated by country income group. One respondent per household was asked whether any member of their household needed health services in the 30 days preceding the interview, whether they could access the services they needed and if not, for what reason. But the surveys collected information at the household level on the impact of the COVID-19 pandemic on a broader range of socioeconomic indicators. Hence, it is also used to produce figures related to income, labour and coping mechanisms. High-income countries are included in these latter determinations. The total number of high-income countries is specific to each figure as indicated in respective notes.

- Most figures are all based on the first batch of surveys (i.e. April–July 2020) and data covering all industries are used to ensure comparability across countries and maximum coverage.
- Indicators presented in the charts are those categorized under the topic of income (Fig. 24), labour (Fig. 25), coping mechanisms (Fig. 26), major health causes (Fig. 30) and health (Fig. 31).
- Fig. 24 focuses on income decreases due to COVID-19. Data includes information on four major categories of income changes: decrease in farm income, decrease in income from non-farm family business, decrease in wage income, and decrease in total income. Share of households is shown by these categories and the income classification of their country.
- Fig. 25 focuses on labour market-related impact of COVID-19. Data includes information on five major categories of labour market impacts: changed job since COVID-19 outbreak, households not able to perform normal farming activities, not able to work as usual last week, did not work as usual and received partial or no payment, and stopped working since COVID-19 outbreak. Share of households is shown by these categories of labour market changes and the income classification of their country.
- Fig. 26 focuses on the coping mechanisms used by households due to the pandemic. Data includes information on 3 major categories of coping mechanisms; reduced total spending, sold assets to pay for living expenses, and used emergency savings. Share of households is shown by these categories of coping mechanisms and the income classification of their country.
- For Fig. 30 includes 1 to 13 UMICs, 2 to 17 LMICs, and 3 to 12 LICs, depending on the category of response. Number of respondents in each income group (i.e. LIC, LMIC and UMIC) who responded not being able to seek care due to financial reasons, COVID reasons, supply reasons, or other reasons were added, and then the share of each cause was calculated as share of total responses to the four categories. COVID reasons is defined as households not being able to receive medical attention due to afraid/concerned about catching COVID-19. Financial reason is defined as households not being able to receive care due to lack of money. Supply reasons are defined as households not being able to receive medical attention due to hospital/clinic not having enough supplies or tests. For "other reasons", this is just defined as other reasons for households not being to receive medical attention.
- Fig. 31 focuses on reasons for not being able to seek care. Data includes information on nine major categories of reasons for not receiving care: lack of money, no medical personnel, medica facility was full, medical facility was closed, hospital/clinic did not have enough supplies or tests, afraid/concerned about catching COVID-19, restrictions (stay-at-home orders), lack of transportation, and other reasons. Share of households is shown by these categories of not being able to receive care and the income classification of their country.

f Available from: https://datacatalogfiles.worldbank.org/ddh-published/0037769/DR0045661/covid19dashboardtechnicalnote.pdf (accessed 29 November 2021).

International Monetary Fund, *World Economic Outlook*

https://www.imf.org/en/Publications/WEO

This is a survey by the IMF staff that is usually published twice a year. It presents IMF staff economists' analyses of global economic developments during the near and medium term. Chapters give an overview as well as more detailed analysis of the world economy and consider issues affecting industrial countries, developing countries, and economies in transition to market. It also addresses topics of pressing current interest. Data from 21 October 2021 are used to produce Figs. 19, 20, 33, 35 and Table 3.

- *Fig. 19:* Per capita GDP growth is calculated as the percentage change in per capita GDP in constant local currency units (LCU). Data on per capita GDP is from IMF World Economic Outlook. Simple average is used in calculated the average annual growth for the span of years (2000 to 2023 and 2009 to 2020). Projections for per capita GDP are as reported directly in the IMF World Economic Outlook, see the statistical appendix annex for more information about the methods and assumptions https://www.imf.org/en/Publications/WEO. On the left chart, growth rates are averaged by World Bank income groups according to the 2019 classification.
- Fig. 20: Aggregate private consumption per capita is calculated by multiplying aggregate private consumption share of GDP and per capita GDP in constant 2017 US$. Data on aggregate private consumption share of GDP (including projections) was downloaded from World Bank Macro-Poverty Outlook while per capita GDP is calculated using data from IMF World Economic Outlook (see https://www.worldbank.org/en/publication/macro-poverty-outlook). Per capita values are averaged using population weights across the four World Bank income groupings according to the 2019 classification. 2000–2020 data are based on actuals averages and 2021–2023 are projection-based averages. Projections as reported directly in the IMF World Economic Outlook (see the statistical appendix annex for more information about the methods and assumptions https://www.imf.org/en/Publications/WEO).
- Fig. 33: Data on general government revenue and general government expenditure as shares of GDP were downloaded from IMF World Economic Outlook. Countries are grouped in the four World Bank income groupings according to the 2019 classification. Population-weighted averages were taken by World Bank income grouping. 2017–2020 data are based on actuals and 2021–2023 are projection-based averages. Projections are as reported directly in the IMF World Economic Outlook (see the statistical appendix annex for more information about the methods and assumptions https://www.imf.org/en/Publications/WEO).
- Table 3: Data on deficit share of GDP and gross public debt as share of GDP were downloaded from IMF World Economic Outlook. Debt servicing as share of government expenditure is calculated using data also from IMF World Economic Outlook; it is the difference between general government fiscal deficit and general government primary deficit, both expressed as a share of general government expenditure. Countries are grouped using population weights into the four World Bank income groupings according to the 2019 classification. 2017 to 2020 values are based on actuals. 2021 to 2023 are based on projections as reported directly in the IMF World Economic Outlook (see the statistical appendix annex for more information about the methods and assumptions https://www.imf.org/en/Publications/WEO).
- Fig. 35: Data on gross public debt as share of GDP was downloaded from IMF World Economic Outlook. Per capita values of general government revenue, general government expenditure, and primary deficit are calculated using indicators also from IMF World Economic Outlook: per capita values of these three variables were calculated by multiplying per capita GDP in constant 2018 US$ by the corresponding GDP shares (general government revenue as share of GDP, general government expenditure as share of GDP, and primary deficit share of GDP). Per capita debt servicing is the difference between per capita general government fiscal deficit (general government revenue minus general government expenditure) and per capita general government primary deficit. Per capita discretionary spending is per capita general government expenditure less per capita debt servicing. Projections are as reported directly in the IMF World Economic Outlook (see the statistical appendix annex for more information about the methods and assumptions https://www.imf.org/en/Publications/WEO).

World Health Organization, *Global Health Expenditure Database*

https://apps.who.int/nha/database

The Global Health Expenditure Database (GHED) provides internationally comparable data on health spending for close to 190 countries from 2000 to 2018. The database is open access and supports the goal of universal health coverage (UHC) by helping monitor the availability of resources for health and the extent to which they are used efficiently and equitably. This, in turn, helps ensure health services are available and affordable when people need them. In particular, the data published here contribute to a better understanding of:

- How much do different countries spend on health?
- How much do different actors such as government, insurance companies, households and donors contribute?
- What are the financing arrangements to pay for health?
- How much money is spent on primary health care (PHC)?
- How much money is spent on different diseases and programmes such as immunization?
- How much money is spent on the less than 5-year old population?

WHO works collaboratively with Member States and updates the database annually using available data such as health accounts studies and government expenditure records. Where necessary, modifications and estimates are made to ensure the comprehensiveness and consistency of the data across countries and years. GHED is the source of the health expenditure data republished by the World Bank and the WHO Global Health Observatory.

Related figures

- *Fig. 34:* Public spending on health as a share of GDP and out-of-pocket expenditures as a share of current health expenditures are downloaded directly from the GHED database, methods are described therein. Population weighted averages are plotted.

National pulse survey on continuity of essential health services during the COVID-19 pandemic https://www.who.int/teams/integrated-health-services/monitoring-health-services/national-pulse-survey-on-continuity-of-essential-health-services-during-the-covid-19-pandemic

The pulse survey on continuity of essential health services during the COVID-19 pandemic is aimed at gaining initial insights from country key informants into the impact of the COVID-19 pandemic on essential health services across the life course. The survey results in this interim report can improve our understanding of the extent of disruptions across all services, the reasons for disruptions, and the mitigation strategies countries are using to maintain service delivery.

- Fig. 32: Average percentage of disruptions across integrated service delivery channels (January–March 2021) is generated for 112 countries. Disruptions are divided by the type of service, and then for each type of service, percentage of countries facing either 5–25%, 24–50%, or more than 50% disruptions are estimated. Disruption level is estimated simply by taking the number of countries falling in the particular range of disruption (e.g. 5–25%) and then dividing by the total number of countries.

Institute for Health Metrics and Evaluation, *Premise General Population COVID-19 Health Services Disruption Survey*

http://ghdx.healthdata.org/record/ihme-data/premise-general-population-covid-19-health-services-disruption-survey-2020

The COVID-19 Health Services Disruption Survey 2020 is a series of surveys developed to assess the level of disruption to a range of health services resulting from the COVID-19 pandemic and subsequent government mandates and changes in behaviour to mitigate the spread of the disease.

This survey was conducted in 76 countries using the smartphone-based *Premise* data collection platform. Respondents were individual members of the general population. Data were collected from 52 492 respondents in round 1 (2020), and 18 642 respondents in round 2 (2021). The survey focused on the level of disruption to the provision of general health services, including visits to medical providers and access to medication.

The survey was developed specifically to assess the change in levels of service delivery prior to, and immediately following, the onset of the COVID-19 global pandemic. WHO and the World Bank would like to thank Annie Haakenstad and Rafael Lozano from IHME for giving us access to round 2 of the Premise survey before its official publication.

The University of Maryland Social Data Science Center, in partnership with Facebook

https://jpsm.umd.edu/research/global-covid-19-trends-and-impact-survey%2C-partnership-facebook

The Global COVID-19 Trends and Impact Survey was launched in April 2020, by the University of Maryland and Carnegie Mellon University in partnership with Facebook Data for Good *(79)*. A representative sample of Facebook users 18+ in more than 200 countries was selected and invited on a daily basis to report on topics including, for example, symptoms, social distancing behaviour, vaccine acceptance, mental health issues, and financial constraints related to COVID-19. All data used in the analysis included in this report come from the international version of the University of Maryland (UMD) Global COVID-19 Trends and Impact Survey, thus, excludes data from the US. Data, and is analysed here covering a total of 110 countries, for which weights have been computed.

Facebook provides weights to reduce nonresponse and coverage bias. The weights adjust for sample bias and attempt to minimize errors of representation, including coverage, random sampling and non-response errors. These weights are generated in two stages: First, an adjustment for non-response error using inverse propensity score weighting is applied to make the sample more representative of the sampling frame of Facebook app users; Second, an adjustment for coverage error using post-stratification with weights from the first stage as inputs. The final weights can be understood as the number of adults in the general population who are represented by a respondent in the sample that day. In addition to the weights provided by Facebook, to produce Figs. 26 to 28, a post-stratification correction was applied, adding age/sex post-stratification weights based on UN WPP 2020 population estimates.

The survey question used for the proportion of individuals tested for COVID-19 in the last fourteen days was "B7 – Have you been tested for coronavirus (COVID-19) in the last 14 days?". Data were collected daily from 23–30 April 2020 in 110 countries. Figures show average weekly rates aggregated in two stages: first at country level using population weighted average, second as a simple average at global level by WHO.

Survey questions used for the prevalence of self-reported reduced spending on necessities when paying out-of-pocket for COVID-19 test were "B9 – Did you have to pay anything out-of-pocket for this test?", which was asked to respondents having reported to be tested in the last fourteen days (B7), and "B10 – Have you or your household had to reduce spending on things you need (such as food, housing, or medication) because of the cost you paid to get the coronavirus (COVID-19) test?" which was asked to respondents having reported to pay out-of-pocket for the test (B9). The ratio is calculated as the number of respondents having reported financial hardship due to the test (yes to question B10) over the number of respondents having reported being tested in the last fourteen days (yes to question B7). Data were collected daily from 27 June 2020 and 30 April 2021 in 110 countries. Figure 27 shows average weekly rates aggregated by WHO in two stages: first at country level using population weighted average, second as a simple average at global level.

Survey question used for the prevalence of financial anxiety was "D5 – How worried are you about your household's finances in the next month?" Possible answers were "Very worried", "Somewhat worried", "Not too worried" and "Not worried at all". This data was collected daily from 3 May 2020 to 30 April 2021 in 110 countries. We defined financial anxiety as being 'very worried' or 'somewhat worried' about one's household finances in the next month. Thus, this indicator corresponds to the

percentage of individuals being worried about their household finances over the next month as a percentage of all individuals. Figure 26 shows average weekly rates aggregated by WHO in two stages: first at country level using population weighted average, second as a simple average at global level or at income group level.

Survey questions used for the prevalence of foregone care were "B13 – In the last 30 days, has there been any time when you needed any of the following health services or products but could not get it?" Health services or products proposed were: "1) Emergency transportation services or emergency rescue"; "2) Medical care with overnight stay in any type of facility"; "3) Medical or dental care or treatment without an overnight stay"; "4) Preventative health services (including immunization/ vaccination, family planning, prenatal/postnatal care, routine check-up services)"; "5) Medication"; "6) Mask, medical gloves, or other protective equipment"; and "7) Eyeglasses, hearing aid, crutches, band-aids/plasters, thermometer, or any other health product". For each service or product, the possible answers were "Yes" and "No". This question was asked once a month from 30 June 2020 to 1 April 2021 (either the last day or the first day of the month; except once when it was asked on the 10th of December 2020). Individuals are considered as having foregone care in the last month when they answered yes for at least one health service or product (as in the list of seven items). The indicator of prevalence of foregone care corresponds to the number of individuals having been unable to receive a service and/or health product over the past 30 days as a proportion of all individuals. Since this question was asked once a month, the following rule was applied: when it was asked on the 30th or 31st of the month, the indicator was computed for this same month (e.g. answers collected on the 30th of June constitute the observations for June); when it was asked the 1st of the month, the indicator was computed for the previous month (e.g. answers collected on the 1st of February 2021 constitute the observations for January 2021); one exception was made for November 2020: the question was not asked on the 30th of November, nor on the 1st of December; we used the responses collected on the 10th of December 2020 to feed the indicator for November 2020. The indicator of prevalence of foregone care was computed, for each month, and each country, using the weights and post-stratification correction. Fig. 28 shows monthly rates averaged at global level.

Oxford COVID-19 Government Response Tracker

https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker

The data is collected from publicly available information by a cross-disciplinary Oxford University team of academics and students from every part of the world, led by the Blavatnik School of Government. They collate publicly available information on a number of indicators of government response.

The baseline measure of variation in governments' responses is the COVID-19 Government Response Stringency Index. This composite measure is a simple additive score of the seven indicators (S1-S7) measured on an ordinal scale, rescaled to vary from 0 to 100. This measure is for comparative purposes only and should not be interpreted as a rating of the appropriateness or effectiveness of a country's response.

This includes data on government policies regarding facial coverings. Facial coverings indicator is divided into following policies:

0 – No policy.
1 – Recommended.
2 – Required in some specified shared/public spaces outside the home with other people present, or some situations when social distancing not possible.
3 – Required in all shared/public spaces outside the home with other people present or all situations when social distancing not possible.
4 – Required outside the home at all times regardless of location or presence of other people.

Policy data is further divided into targeted or general, based on the geographical extent of the policy.

Binary flag for geographic scope:

0 – targeted
1 – general
Blank – no data

Our World in Data, *Statistics and Research on COVID-19*

https://ourworldindata.org/coronavirus

OWID, a project of the Global Change Data Lab which is based at the University of Oxford, publishes statistics on the coronavirus pandemic for every country in the world. These include data on total and new confirmed cases, total and new number of deaths reported, how many vaccines were administered, how much testing for coronavirus was conducted, and what policy measures did countries take in response to the pandemic. The information on vaccine coverage across country income groups are reported in the OWID COVID-19 Vaccinations page (https://ourworldindata.org/covid-vaccinations).

ANNEX A7. LIST OF COUNTRIES AND TERRITORIES BY REGIONS

Country name	WHO region	WB region	UN region	SDG UHC indicator 3.8.2, most recent estimate (year)	Year-specific WB income group classification
Afghanistan	Emr	SA	Asia	2020	LI
Albania	Eur	ECA	Europe	2012	UMI
Angola	Afr	SSA	Africa	2018	LMI
Argentina	Amr	LAC	LAC	2017	HI
Armenia	Eur	ECA	Asia	2017	UMI
Australia	Wpr	EAP	Oceania	2015	HI
Austria	Eur	ECA	Europe	1999	HI
Azerbaijan	Eur	ECA	Asia	2005	LMI
Bahrain	Emr	MENA	Asia	2015	HI
Bangladesh	Sear	SA	Asia	2016	LMI
Barbados	Amr	LAC	LAC	2016	HI
Belarus	Eur	ECA	Europe	2020	UMI
Belgium	Eur	ECA	Europe	2009	HI
Belize	Amr	LAC	LAC	2018	UMI
Benin	Afr	SSA	Africa	2015	LI
Bhutan	Sear	SA	Asia	2017	LMI
Bolivia (Plurinational State of)	Amr	LAC	LAC	2019	LMI
Bosnia and Herzegovina	Eur	ECA	Europe	2015	UMI
Botswana	Afr	SSA	Africa	2009	UMI
Brazil	Amr	LAC	LAC	2017	UMI
Bulgaria	Eur	ECA	Europe	2018	UMI
Burkina Faso	Afr	SSA	Africa	2014	LI
Burundi	Afr	SSA	Africa	2013	LI
Cabo Verde	Afr	SSA	Africa	2007	LMI
Cambodia	Wpr	EAP	Asia	2019	LMI
Cameroon	Afr	SSA	Africa	2014	LMI
Canada	Amr	NA	NA	2019	HI
Cayman Islands	Non MS	LAC	LAC	2015	HI
Central African Republic	Afr	SSA	Africa	2008	LI
Chad	Afr	SSA	Africa	2011	LI
Chile	Amr	LAC	LAC	2016	HI

Country name	WHO region	WB region	UN region	SDG UHC indicator 3.8.2, most recent estimate (year)	Year-specific WB income group classification
China	Wpr	EAP	Asia	2016	UMI
Colombia	Amr	LAC	LAC	2016	UMI
Comoros	Afr	SSA	Africa	2014	LI
Congo	Afr	SSA	Africa	2011	LMI
Costa Rica	Amr	LAC	LAC	2018	UMI
Côte d'Ivoire	Afr	SSA	Africa	2014	LMI
Croatia	Eur	ECA	Europe	2010	HI
Cyprus	Eur	ECA	Asia	2015	HI
Czech Republic	Eur	ECA	Europe	2010	HI
Democratic Republic of the Congo	Afr	SSA	Africa	2012	LI
Denmark	Eur	ECA	Europe	2010	HI
Djibouti	Emr	MENA	Africa	2017	LMI
Dominican Republic	Amr	LAC	LAC	2018	UMI
Ecuador	Amr	LAC	LAC	2013	UMI
Egypt	Emr	MENA	Africa	2017	LMI
El Salvador	Amr	LAC	LAC	2014	LMI
Estonia	Eur	ECA	Europe	2010	HI
Eswatini	Afr	SSA	Africa	2016	LMI
Ethiopia	Afr	SSA	Africa	2015	LI
Fiji	Wpr	EAP	Oceania	2008	UMI
Finland	Eur	ECA	Europe	2016	HI
Gabon	Afr	SSA	Africa	2017	UMI
Gambia	Afr	SSA	Africa	2015	LI
Georgia	Eur	ECA	Asia	2017	LMI
Germany	Eur	ECA	Europe	2010	HI
Ghana	Afr	SSA	Africa	2016	LMI
Greece	Eur	ECA	Europe	2016	HI
Guatemala	Amr	LAC	LAC	2014	LMI
Guinea	Afr	SSA	Africa	2012	LI
Guinea-Bissau	Afr	SSA	Africa	2010	LI
Haiti	Amr	LAC	LAC	2013	LI
Honduras	Amr	LAC	LAC	2004	LMI
Hungary	Eur	ECA	Europe	2010	HI
Iceland	Eur	ECA	Europe	1995	HI
India	Sear	SA	Asia	2017	LMI
Indonesia	Sear	EAP	Asia	2017	LMI
Iran (Islamic Republic of)	Emr	MENA	Asia	2019	UMI

Country name	WHO region	WB region	UN region	SDG UHC indicator 3.8.2, most recent estimate (year)	Year-specific WB income group classification
Iraq	Emr	MENA	Asia	2012	UMI
Ireland	Eur	ECA	Europe	2009	HI
Israel	Eur	MENA	Asia	2012	HI
Italy	Eur	ECA	Europe	2010	HI
Jamaica	Amr	LAC	LAC	2004	LMI
Japan	Wpr	EAP	Asia	2019	HI
Jordan	Emr	MENA	Asia	2008	LMI
Kazakhstan	Eur	ECA	Asia	2015	UMI
Kenya	Afr	SSA	Africa	2015	LMI
Kiribati	Wpr	EAP	Oceania	2006	LMI
Kyrgyzstan	Eur	ECA	Asia	2016	LMI
Lao People's Democratic Republic	Wpr	EAP	Asia	2007	LI
Latvia	Eur	ECA	Europe	2016	HI
Lebanon	Emr	MENA	Asia	2012	UMI
Lesotho	Afr	SSA	Africa	2010	LMI
Liberia	Afr	SSA	Africa	2016	LI
Lithuania	Eur	ECA	Europe	2008	UMI
Luxembourg	Eur	ECA	Europe	2016	HI
Madagascar	Afr	SSA	Africa	2012	LI
Malawi	Afr	SSA	Africa	2016	LI
Malaysia	Wpr	EAP	Asia	2019	UMI
Maldives	Sear	SA	Asia	2016	UMI
Mali	Afr	SSA	Africa	2018	LI
Malta	Eur	MENA	Europe	2015	HI
Mauritania	Afr	SSA	Africa	2014	LMI
Mauritius	Afr	SSA	Africa	2017	UMI
Mexico	Amr	LAC	LAC	2016	UMI
Mongolia	Wpr	EAP	Asia	2018	LMI
Montenegro	Eur	ECA	Europe	2015	UMI
Morocco	Emr	MENA	Africa	2013	LMI
Mozambique	Afr	SSA	Africa	2014	LI
Myanmar	Sear	EAP	Asia	2017	LMI
Namibia	Afr	SSA	Africa	2015	UMI
Nepal	Sear	SA	Asia	2016	LI
Nicaragua	Amr	LAC	LAC	2014	LMI
Niger	Afr	SSA	Africa	2018	LI
Nigeria	Afr	SSA	Africa	2018	LMI

Country name	WHO region	WB region	UN region	SDG UHC indicator 3.8.2, most recent estimate (year)	Year-specific WB income group classification
Norway	Eur	ECA	Europe	1998	HI
Occupied Palestinian territory, including East Jerusalem	Non MS	MENA	Africa	2016	LMI
Oman	Emr	MENA	Asia	1999	UMI
Pakistan	Emr	SA	Asia	2018	LMI
Panama	Amr	LAC	LAC	2017	HI
Paraguay	Amr	LAC	LAC	2014	UMI
Peru	Amr	LAC	LAC	2019	UMI
Philippines	Wpr	EAP	Asia	2015	LMI
Poland	Eur	ECA	Europe	2016	HI
Portugal	Eur	ECA	Europe	2011	HI
Republic of Korea	Wpr	EAP	Asia	2018	HI
Republic of Moldova	Eur	ECA	Europe	2016	LMI
Romania	Eur	ECA	Europe	2016	UMI
Russian Federation	Eur	ECA	Europe	2020	UMI
Rwanda	Afr	SSA	Africa	2016	LI
Saint Lucia	Amr	LAC	LAC	2016	UMI
Sao Tome and Principe	Afr	SSA	Africa	2017	LMI
Saudi Arabia	Emr	MENA	Asia	2018	HI
Senegal	Afr	SSA	Africa	2011	LMI
Serbia	Eur	ECA	Europe	2015	UMI
Seychelles	Afr	SSA	Africa	2013	UMI
Sierra Leone	Afr	SSA	Africa	2018	LI
Slovakia	Eur	ECA	Europe	2015	HI
Slovenia	Eur	ECA	Europe	2018	HI
Somalia	Emr	SSA	Africa	2017	LI
South Africa	Afr	SSA	Africa	2014	UMI
South Sudan	Afr	SSA	Africa	2017	LI
Spain	Eur	ECA	Europe	2019	HI
Sri Lanka	Sear	SA	Asia	2016	LMI
Sudan	Emr	SSA	Africa	2009	LMI
Suriname	Amr	LAC	LAC	2016	UMI
Sweden	Eur	ECA	Europe	1996	HI
Syrian Arab Republic	Emr	MENA	Asia	2007	LMI
Tajikistan	Eur	ECA	Asia	2018	LI
Thailand	Sear	EAP	Asia	2019	UMI
North Macedonia	Eur	ECA	Europe	2006	LMI

Country name	WHO region	WB region	UN region	SDG UHC indicator 3.8.2, most recent estimate (year)	Year-specific WB income group classification
Timor-Leste	Sear	EAP	Asia	2014	LMI
Togo	Afr	SSA	Africa	2018	LI
Trinidad and Tobago	Amr	LAC	LAC	2014	HI
Tunisia	Emr	MENA	Africa	2015	LMI
Turkey	Eur	ECA	Asia	2016	UMI
Uganda	Afr	SSA	Africa	2016	LI
Ukraine	Eur	ECA	Europe	2019	LMI
United Arab Emirates	Emr	MENA	Asia	2019	HI
United Kingdom of Great Britain and Northern Ireland	Eur	ECA	Europe	2018	HI
United Republic of Tanzania	Afr	SSA	Africa	2018	-
United States of America	Amr	NA	NA	2019	HI
Uruguay	Amr	LAC	LAC	2016	HI
Uzbekistan	Eur	ECA	Asia	2003	LI
Viet Nam	Wpr	EAP	Asia	2020	LMI
Yemen	Emr	MENA	Asia	2014	LMI
Zambia	Afr	SSA	Africa	2010	LMI
Zimbabwe	Afr	SSA	Africa	2017	LI

Notes: Afr = African Region; Amr = Region of the Americas; Emr = Eastern Mediterranean Region; Eur = European Region; Sear = South-East Asia Region; Wpr = Western Pacific Region; Non MS = non-WHO Member State; LAC = Latin America and the Caribbean; MENA = Middle East & North Africa; SSA = Sub-Saharan Africa; NA = North America; ECA = Europe & Central Asia; EAP = East Asia & Pacific; SA = South Asia; LI = Low-income; LMI = Lower middle-income; UMI = Upper middle-income; HI = High-income.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