World Health Organization

African Region

Towards universal health coverage in the WHO African Region

Tracking financial protection

World Health Organization

African Region

Towards universal health coverage in the WHO African Region

Tracking financial protection

ISBN: 9789290314172

Suggested citation. Towards universal health coverage in the WHO African Region: tracking financial protection. Brazzaville: WHO African Region, 2024. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/about/licensing.

Designed in Kampala, Uganda

Contents

Figures

Tables

Boxes

A message from the Regional Director

The sustainable development agenda commits countries, among other things, to ensure healthy lives and promote well-being for all ages (Sustainable Development Goal 3). Implicit in this agenda is ensuring that the whole population has affordable access to good-quality promotive, preventive, curative and rehabilitative health services.

Concerns about financial barriers to accessing health services have led to the design and implementation of reforms in several countries. While some countries have abolished user fees at the point of care, others have introduced health insurance schemes, and some others have progressively increased reliance on governments to fund health services. Despite these efforts, most countries in the WHO African Region continue to rely heavily on out-of-pocket payments to fund health services, a practice which impedes progress in attaining universal health coverage and contributes to persistent gaps in service delivery and poor health indicators. Out-of-pocket payments at the point of obtaining care are a major barrier to access for many people, especially the poorest and most vulnerable persons. This report helps better understand the implications of such contributions for people's living standards and their ability to access the health care they need.

I hope this report will strengthen the resolve by countries to build sustainable health financing systems that ensure financial risk protection for their populations and to invest in data generation, analysis and use to inform decision-making.

Regional Director for Africa
World Health Organization

Foreword

The role of evidence in the journey towards universal health coverage is paramount. Financial risk protection monitoring, the major focus of this report, informs where the WHO African Region stands in reducing the financial hardship people face due to health expenses. This report details the status of financial risk protection and related trends, the drivers of out-of-pocket (OOP) payments and the impact of the COVID-19 pandemic on financial risk protection. As such, it provides evidence countries can draw on to develop health financing systems and reforms that mitigate financial barriers to accessing health services. Through analysis of country data, cross-country learning and drawing on the published literature, this report proposes recommendations that countries may adapt to their contexts.

As we move towards 2030, tracking financial risk protection is important for applying remedial measures where they are most needed. To this end, data availability remains the major challenge because of the irregularity of the population-based surveys that generate the required data. Also, the varied data collection methods, the different levels of comprehensiveness and specificity and the lack of standards within and across countries limit the extent to which the components of OOP health spending can be disaggregated and compared over time and across countries. Furthermore, the weak collaboration between ministries of health and national statistics offices presents a missed opportunity to track financial risk protection.

Given how critical the tracking of financial protection is to designing and monitoring health financing policy goals, countries within the WHO African Region must invest in efforts to generate the required data through comprehensive standard surveys.

Dr Joseph Waogodo Cabore
Director Programme Management
World Health Organization Regional Office for Africa

Acknowledgements

I am very proud to have led the development of this report, fruit of a collaborative effort by two levels of the World Health Organization (WHO), namely, headquarters and the Regional Office for Africa.

I am grateful to the technical staff who reviewed and provided inputs for the development of this report. They are listed here in alphabetical order as follows: Catherine Korachais, Christabel Abewe, Eva das Dores Pascoal, Georgina Bonet Arroyo, Ina Kalisa, María Teresa Peña, Momodou Ceesay, Rouselle F. Lavado and Vishnu Prasad Sapkota.

I also thank all ministry of health and national statistics office focal points for reviewing and providing feedback on the data in this report as part of the country consultation process on Sustainable Development Goals indicator 3.8.2. I would also like to acknowledge the collaboration with the World Bank to produce the 2023 update of the global database on financial protection, which is the basis of this report, given that it expands and updates the brief on Trends in financial hardship due to out-of-pocket health spending in the WHO African Region.

Finally, I would like to recognize Gabriela Flores, Juliet Nabyonga and Ogochukwu Chukwujekwu, who provided technical coordination of the development of the report, working with Asiyeh Abbasi, Vladimir Sergeevich Gordeev, Shepherd Shamu, Diane Karenzi Muhongerwa, Brendan Kwesiga, Sophie Faye and Kingsley Addai Frimpong.

Dr Kasonde Mwinga
Director, Universal Health Coverage, Life Course Cluster
World Health Organization Regional Office for Africa

Key findings

1. **In countries of the WHO African Region, out-of-pocket (OOP) payments are a significant source of funding for health.** In 2019, OOP payments, also known as OOP health spending, accounted for over 25% of current health spending in 31 countries. In 11 countries, OOP health spending exceeded 50% of current health spending, while in three others, the share exceeded 70%. Low- and lower-middle-income countries rely much more on this type of spending within the Region.

2. **The proportion of the population impoverished and further impoverished by OOP health spending at the extreme poverty line decreased fast but not as fast as in the rest of the world.** The number of people impoverished or further impoverished at the extreme poverty line due to OOP health spending was almost halved between 2000 and 2019 from 302 million (or 45.3% of the total population) to 152 million (or 13.8%). The highest rates of impoverishing OOP health spending were found among low- and lower-middle-income countries, which tend to have higher rates of extreme poverty. Globally, the impoverished and further impoverished population reduced much faster, from 1.3 billion people in 2000 (22.2% of the global population) to 344 million people in 2019 (4.4% of the global population). Whereas, the concentration of the world's population impoverished or further impoverished by OOP health spending living in the WHO African Region increased from 22.1% in 2000 to 44.2% in 2019. This daunting statistic emphasizes the importance of implementing policies that ensure financial risk protection, especially for extremely poor people (living on less than US$ 2.15 a day per person in 2017 purchasing power parities). Hence, poor people must be exempt from OOP health spending.

3. **Catastrophic OOP health spending rates in the WHO African Region have increased, but at a slow rate, and more efforts are needed to reverse the trend.** The total number of people spending more than 10% of their household budget out-of-pocket on health increased on average by 2.5 million yearly, from 52 million in 2000 to 95 million in 2019. Some of these people spent more than 25% of their budget on OOP health spending, and their number increased from 9 million to 29 million. In comparison, globally, the population with catastrophic health spending OOP increased much faster, from 588 million people in 2000 (9.6%) to 1 billion in 2019 (13.5%). Therefore, the concentration of the global population incurring catastrophic OOP health spending in the WHO African Region was, on average, 9.1% throughout the whole period. The incidence of catastrophic OOP health spending was the highest in low- and lower-middle-income countries, a pattern similar to that found in the reliance on OOP payments as a share of current health spending.

4. **Several factors are associated with financial hardship due to out-of-pocket health spending.**

    - **Household composition:** people living in multigenerational households or households headed by older persons (60 and over) are more likely to incur both catastrophic and impoverishing health spending out-of-pocket. Those living in older households are more likely to incur catastrophic OOP health spending. Adults living with children and/or adolescents (younger households) have higher rates of impoverishing OOP health spending.

    - **Location:** populations living in rural areas face higher rates of impoverishing OOP health spending. However, this may not necessarily be caused by catastrophic OOP health spending and may be explained by the higher frequency of poorer households in rural areas.

    - **Government spending:** countries where government health expenditure was relatively high as a share of gross domestic product (GDP), tended to have lower levels of both catastrophic OOP health payments and impoverishment.

- **National wealth:** poorer countries tend to have higher rates of impoverishing OOP health spending, and countries with higher OOP health spending as a share of private final consumption tend to have higher rates of catastrophic OOP health spending.
- **Cost of medicines:** medicines are a driver of both OOP health spending and associated financial hardship.

The identified key drivers of financial hardship among countries within the WHO African Region highlight areas that countries should pay attention to when developing policies and strategies for reform to address financial hardship.

Financial hardship (catastrophic and/or impoverishing OOP health spending) is detrimental to financial protection in health, which is also undermined by financial barriers to accessing needed health services and goods.

Noting how critical the tracking of financial protection is to designing and monitoring health financing policy goals, countries within the WHO African Region continue to face challenges with the **generation, analysis and use of financial risk protection monitoring data**.

These challenges include:

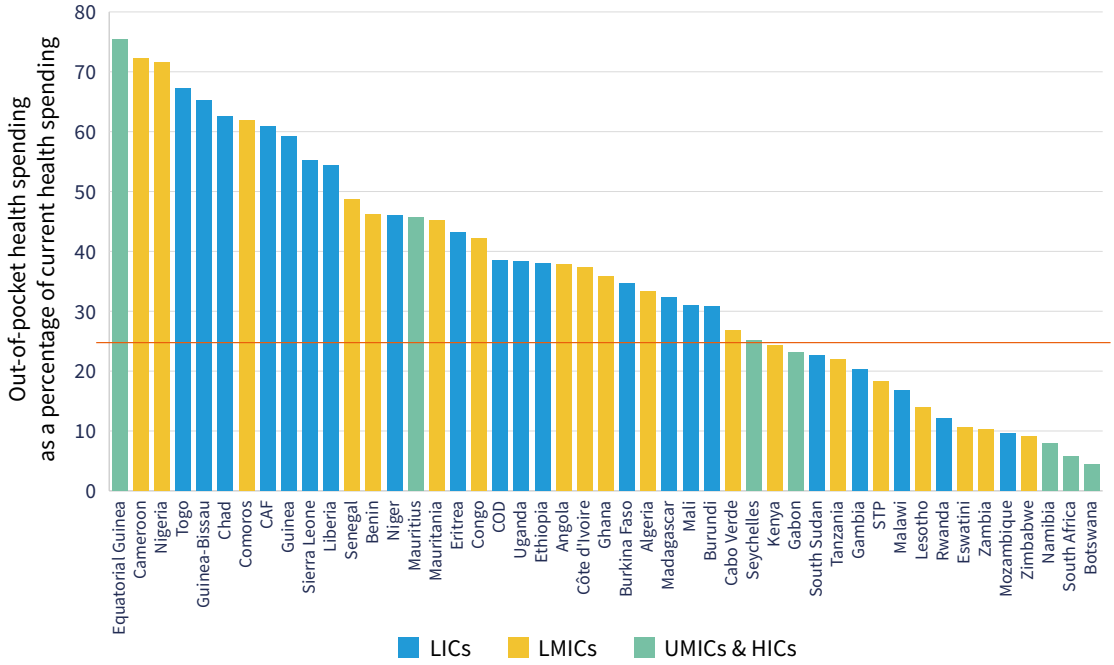
1. **Lack of timely data:** household surveys, a data source for analysing financial risk protection, are, on average, conducted every 6 years in countries of the WHO African Region. Only two countries conducted a relevant survey in 2019 and one in 2021; most countries have gone without a survey for more than six years. Furthermore, surveys vary in data collection methods, recall periods, comprehensiveness, and specificity. The lack of standards in data collection tools within and across countries limits the extent to which the components of OOP health spending can be disaggregated and compared over time and across countries.
2. **Institutionalization of financial protection tracking** is yet to be realized due to weak collaboration between the ministries of health and national statistics offices that generate the data and have the capacity for analysis.
3. **Financial protection indicators have not been mainstreamed into health sector reviews** and performance monitoring assessments within WHO African Region Member States. This has limited the utilization and, hence, the demand for financial protection information to inform health financing policy design and monitoring.

Countries, supported by partners, must invest in efforts to generate the required data through comprehensive standard surveys. Tracking within the health system monitoring and performance assessment processes must be comprehensive and ongoing.

1. Out-of-pocket health spending hinders progress towards financial protection in health

Out-of-pocket health payments (Box 1), referred to as OOP health spending in this report, contribute to funding the health systems of all countries in the Region at all income levels. In 2019, the latest year for which the data on financial hardship discussed in this report is available, OOP health spending ranged from 4.5% to 75% of countries' current health spending *(1)*. In 31 countries, the share of OOP health spending exceeded 25% of their current health spending. Among them, 11 countries funded more than 50% of their total health spending through OOP health spending and in three, such funding exceeded 70% (including one upper-middle-income country). In only five countries, mostly upper- and high-income ones, did OOP health spending represent less than 10% of the total spending (Fig. 1).

Fig. 1. Out-of-pocket health spending as a share of current health spending by country, 2019



CAF: Central African Republic; Congo: Republic of the Congo; COD: Democratic Republic of the Congo; Tanzania: United Republic of Tanzania; STP: Sao Tome and Principe; LICs: low-income countries; LMICs: low-middle income countries; UMICs & HICs: high and upper-middle income countries.

Notes: data available for 47 countries. See also Annex 1 and annex Table A1.1

Source: WHO Global Health Expenditure Database, 2023 *(2)*

While the health financing perspective at the macroeconomic level is important, given that it emphasizes to what extent the health system relies on people's direct contributions (OOP health spending), separate tracking is needed to understand what the implications of such contributions are on people's living standards and their ability to access the health care they need. This tracking is the focus of this report.

Why are we concerned with the implications? First, OOP health spending is a source of financial hardship–it may force people to reduce their consumption of other necessities such as food, housing, and utilities (which may, in turn, affect their health for the worse). Second, the requirement to pay out-of-pocket to obtain a health service or good represents a major barrier to access for many people, especially the poorest and most vulnerable population. Both issues must be reduced to improve financial protection in health.

Box 1. Definition of out-of-pocket health spending

Out-of-pocket health spending includes formal and informal expenses directly related to the cost of seeking care. It excludes prepayment (for example, 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 (such as non-emergency transportation costs) and the opportunity cost of seeking care (for example, lost income). But it includes any spending incurred by a household when any member uses a health good or service to receive any type of care (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 (for instance, outpatient, inpatient or at home).

What is financial protection in health?

Financial protection in health is an intrinsic part of universal health coverage (UHC) and, together with service coverage, is one of the health systems' goals *(3,4)*. Financial protection is achieved when: (i) direct payments required to obtain health services (that is, OOP health spending) are not a source of financial hardship and (ii) there are no financial barriers to access.

How is financial protection in health monitored?

Three types of indicators are used to track financial protection in health, based on financial hardship indicators that focus on (i) catastrophic and/or (ii) impoverishing OOP health spending; and (iii) indicators of financial barriers to access.

Within the Sustainable Development Goals (SDG) monitoring framework, the proportion of the population that incurs catastrophic OOP health spending is captured by two indicators 3.8.2, which are both defined as the fraction of the population with relatively large OOP health spending as a share of total household expenditure or income but where the value of "large" differs. That value of "large" corresponds to 10% for the first one and 25% for the second one. These people incurring catastrophic OOP health spending might be forced to cut spending on other needs but not necessarily to fall below or further below subsistence levels. These definitions of catastrophic OOP spending may leave out large pockets of the population. Indicators of impoverishing OOP health spending aim to capture people for whom OOP health spending may be small in absolute terms but, because they are less wealthy, struggle to preserve a decent living standard when they are forced to make such payments. They track people impoverished and further impoverished by OOP health spending. For the former, OOP health spending exceeds the shortfall between the poverty line and their total consumption. The latter identifies poor people spending any amount on OOP health. For both, the incidence is calculated as a proportion of the total population. Jointly, these indicators are used to assess to what extent OOP health spending deters efforts to "End poverty in all its form everywhere" (SDG 1). The extreme poverty line – a purchasing power parity (PPP) of US$ 2.15 a day (that is, the local currency equivalent to US$ 2.15, considering purchasing power differences and price inflation)[1] – is used to link the financial protection objective of UHC to the SDG target 1.1 "end extreme poverty" and thus is most relevant for measuring impoverishing OOP in low- and lower-middle income settings where extreme poverty is more prevalent. In Annex Table A1.2, results based on the relative poverty line defined as 60% of median per capita consumption or income are available. Such a line is country-specific and more relevant for measurement in upper-middle and high-income contexts.

1 For more information on PPP, please see: Dean J, Mahler GD, Lakner C, Atamanov A, Baah T, Kofi S. Assessing the impact of the 2017 PPPs on the international poverty line and global poverty. Policy Research Working Paper 9941. Washington: World Bank Group; 2022.

In this report, the proportion of the population incurring financial hardship is defined as the proportion of the population facing catastrophic OOP health spending (SDG indicator 3.8.2 at the 10% threshold), impoverishing OOP health spending (that is, impoverished or further impoverished by OOP health spending at the PPP US$ 2.15 a day poverty line), or all of these issues, without double counting.

The data needed to track financial hardship are not available annually in the WHO African Region and are not as recent as the data available on OOP health spending at the health system level. The estimates included in this report on catastrophic and impoverishing OOP health spending are based on recent household surveys that give information at the household level on both total household consumption and OOP health spending (see Section 2). While in most countries, these surveys were conducted between 2014 and 2018, at least 6 years ago, they are sufficient to identify priorities.

The incidence of catastrophic and impoverishing OOP health spending in the WHO African Region and across its countries is discussed extensively in Section 3 for the pre-COVID-19 period with a focus on "how many" and Section 4 focuses on "who". Section 5, due to the limited evidence available, briefly discusses the type of health products or services driving financial hardship. Finally, Section 6 explores factors associated with financial hardship due to OOP health spending and how it is likely to have evolved during the pandemic.

The need for OOP health spending might lead to forgoing care because it is a direct barrier to access for some people. Hence, the definition of financial protection refers to financial hardship and financial barriers to access. Indirect financial barriers refer to the cost of seeking care (such as transport costs) and the opportunity cost of seeking care (such as lost work and costs of childcare). These barriers (in conjunction with other barriers) affect people's ability to access diagnosis and treatment and to complete treatment successfully *(5)*. The overall number of people facing financial barriers to access in the WHO African Region is uncounted. More efforts are needed to track this critical consequence of inadequate financial protection mechanisms (see Section 2). Still, evidence is available for some countries, especially for the COVID-19 period and is based on self-reported information collected in household surveys (see Section 6).

The WHO Regional Office for Africa is committed to supporting Member States to strengthen financial protection as per the recently endorsed Seventy-second session of the Regional Committee recommendation *(6)*. To this end, Member States are supported to track progress by building the capacity of ministries of health and statistics offices. The Regional Office also facilitates evidence-informed decision-making by reporting progress–as in this report. It also provides technical support to redesign policies to improve financial protection (see Section 7).

2. Timely tracking of financial protection in health in Africa is challenging

What is the primary data source to track financial hardship?

Household living standard measurement surveys, household income and expenditure surveys, and household income and budget surveys are the best surveys for measuring and tracking financial hardship, considering that they include information on both OOP health spending and household total consumption expenditure (or income). These are typically collected every 3–5 years (Table 1), except for Eritrea, which has never done any survey.

A major concern is the large gaps between surveys. These surveys must be carried out reasonably frequently to enable evidence-informed policy recommendations, although the cost of conducting population-based surveys must be considered.

What is the primary data source to track financial barriers to access?

Household surveys that gather information about the use of health services, including reasons for not using them, are needed to reveal the barriers to access. Ideally, such questions would be included in the same survey that tracks financial hardship. But, it is important to track this problem even when the information is found in other household surveys. The lack of survey standardization limits the information available on this problem at the regional level before the pandemic *(8)*.

During the pandemic, the upscaling of frequent data collection tools led to the development of common questionnaires, including questions on barriers to access. This evidence is used in this report *(9)*.

How are countries consulted on these data?

WHO and the World Bank have been monitoring financial protection for over 20 years and jointly for 10 years. National statistics offices of all countries but one in the WHO African Region already collect the necessary information through household surveys. Timeliness can be improved, but some tracking is already ongoing. At present, only a few Member States monitor these indicators without collaborating with WHO or the World Bank. These two institutions also produce SDG and SDG-related indicators of financial protection on their own. Hence, every 2 years since 2017 (when the SDG indicators 3.8.2 were officially endorsed at the United Nations assembly), WHO consults with each Member State to gather comments, discuss the country's preliminary estimates (where available) and request a review of the underlying methods and data sources to monitor financial protection in health.

How recent are estimates of financial hardship due to out-of-pocket health spending?

The data needed to track catastrophic and impoverishing OOP health spending from 1985 to 2021 were accessed and fully analysed for 44 out of the 47 WHO African Region countries. On average, 3.7 estimates were available for each country during that period (Table 1). Most of these estimates were produced by WHO and the World Bank and are now included in the 2023 update of the global databases on financial protection in health *(3,10)*. These estimates are based on a total of 156 household surveys (from 44 countries); 21 of them were conducted in 2017 and/or 2018, and five of them between 2019 and 2021. Eight countries conducted surveys that could not be analysed in time for this report, and most of them were conducted in 2018 or more recently (Table 1).

What is driving the poor availability of recent estimates on financial hardship?

Countries are not conducting household income and expenditure surveys as frequently as required for timely monitoring of financial protection in health. Household income and expenditure surveys are resource-intensive and

are some of the most difficult surveys to carry out. Hence, resource-limited countries can struggle to conduct them frequently.

Even when the surveys are available, the institutionalization of financial protection tracking is challenging for several reasons.

The data sources are not part of the typical surveys used in the health sector review processes. As such, they require close collaboration with the national statistics office and other relevant national stakeholders to report on financial hardship and institutionalize such reporting. In many countries, strengthening the collaboration between national statistics offices and ministries of health could really help to improve the timeliness of the information. Examples of inefficiencies in tracking due to the limited collaboration between ministries of health and national statistics offices are included in the facts outlined below.

- Nine surveys from eight countries were not processed in time to be included in this report (Table 1, last column).
- In one country (Rwanda), a relevant survey is conducted every three years with the latest one available at the time of producing this report being 2019 but the most recent estimate included in this report is for 2016 only (Table 1).
- Two countries (Algeria and Equatorial Guinea) have conducted relevant surveys, but they have never been used to report on financial protection.

The COVID-19 pandemic exacerbated challenges to routine monitoring of financial protection in health. Globally, the ability to meet international reporting requirements for official statistics and the ability to produce essential short-term statistics were reduced by the pandemic. In April–May 2021, at the global level, more than half of the national statistics offices reported serious disruptions to their activities, and sub-Saharan Africa was the most affected region *(11)*. Around 33% of the national statistics offices participating in the survey in sub-Saharan Africa – and 74% in northern Africa and western Asia – reported a full or partial suspension of field data collection activities involving face-to-face interviews.

Only 48% of countries in sub-Saharan Africa and 43% in northern Africa and western Asia reported that the COVID-19 pandemic did not negatively affect their ability to meet international reporting requirements *(12)*.

Which type of household surveys are used to track financial hardship?

The information on household total consumption and OOP health spending, which is needed to identify catastrophic and impoverishing OOP health spending, is collected through various types of surveys in the WHO African Region. Of the 154 surveys analysed for this report, only about 27% correspond to a household budget survey or a household income and expenditure survey, which are primarily conducted to provide input to the calculation of consumer price indices or the compilation of national accounts. These surveys tend to be aligned with the Classification of Individual Consumption According to Purpose (COICOP), which was revised in 2020 to better capture all components of household consumption, including health *(13)*. Surveys following COICOP typically enable the disaggregation of OOP health spending. The rest of the surveys are nationally defined socioeconomic or living-standards surveys conducted to measure and monitor welfare or poverty or provide data for informing poverty-reduction policies. This very diverse set of surveys is not necessarily aligned with COICOP division 06 on health, and as such, the decomposition of OOP spending into similar categories over time and across countries is more challenging.

Which type of socio-demographic disaggregation is available for financial hardship indicators?

Disaggregation is critical to identifying who is left behind. SDG target 17.18 calls for countries to increase data availability disaggregated by gender, age, race, ethnicity, income, geographical location, migratory status, disability status and other characteristics relevant to national contexts *(14)*. Some socioeconomic and demographic groups are easier to identify than others in the household surveys used to track financial hardship, for several reasons as outlined below.

- The level of detail on household members varies. Age and sex are always collected in the household surveys used to track financial hardship, so it is always possible to disaggregate the information according to these dimensions. This report includes age disaggregation for 27 of the 44 countries with available estimates of financial hardship (Table 1). Three age groups were defined as follows: children and adolescents (under 20 years), adults (20–59 years), and older persons (60+ years). Based on this, families are categorized by the age of the head of the household (younger than and older than 60 years) as well as the age structure of the household: adult(s) only, younger (that is, adult(s) with child(ren) and adolescent(s)), older (that is, adult(s) with an older person(s) only), only older persons, and multigenerational households (at least one person from each three age groups). This distinction is based on a life-cycle approach *(15)*, a cornerstone of the policy framework focused on improving health and health equity worldwide. The focus on the family rather than individuals is driven by data constraints (the information on total household consumption is tracked at the household level) as well as the theoretical assumption that, given a budget constraint, household economic resources are pooled together to cover the costs of the care of all its members. In this report, we combined two household categories (that is, adult(s) with an older person(s) only and only older persons) into one, which we refer to as "older and only older" households.
- This report includes geographical disaggregation for 35 of the 44 countries. Geographical disaggregation (locality or rural/urban) is possible, but the distinction between the urban and the rural population is not yet amenable to a single definition that would apply to all countries or, for the most part, even to the countries within a Region *(16)*. This report follows national definitions.

The availability of other information, such as employment status, participation in specific targeted programmes and insurance status, depends on the type of survey used in the country to track financial hardship. Hence, those groupings are not yet considered in this report.

What limits the disaggregation of financial hardship indicators?

Household survey questionnaires used to collect data on OOP health spending are not standardized over time, within a country or across countries. Information on the components of households' OOP health spending is needed to understand which types of health services and products are a source of financial hardship. This is challenging because the information on OOP health spending is sometimes available from different modules, based on different data collection methods, using different recall periods, different levels of comprehensiveness (not all categories of health services and products covered), and different levels of specificity (level of detail in each category) *(17–20)*. All these differences matter when decomposing the components of OOP health spending, but they also influence the financial protection estimates *(21–23)*. Most importantly, the lack of standardization within and across countries delays the data curation part of the analysis for all data users, including national statistics offices, who have not integrated the tracking into their routine monitoring framework.

What are the challenges in linking financial hardship indicators to indicators of financial barriers to access?

The ability to link financial hardship with access to health care, the type of providers consulted, and the reason for seeking care also depends on the survey conducted because it requires information about health care utilization. But the main challenge on this front is comparability over time–surveys are not routinely conducted, and the questionnaire changes. Hence, this report does not include information on financial barriers to access and financial hardship in the same country.

Table 1. Data availability

Country	SDG 3.8.2 and related indicators availability per year	Most recent year	Level of disaggregation for the most recent year	Years surveyed and not yet used to track financial hardship
Algeria	None	NA	NA	2011
Angola	2008; 2018	2018	urban/rural/age[a]	N/A
Benin[b]	2003; 2011; 2015; 2018	2018	urban/rural/age[a]	N/A
Botswana	1993; 2009; 2015	2015	urban/rural/age[a]	N/A
Burkina Faso	1998; 2003; 2009; 2014; 2018	2018	urban/rural	N/A
Burundi	1999; 2003[c]; 2009[c]; 2006; 2013; 2020	2020	urban/rural	N/A
Cabo Verde	2001; 2007	2007	urban/rural/age[a]	2018
Cameroon[b]	1996; 2001; 2007; 2014	2014	none	N/A
Central African Republic	2008	2008	urban/rural/age[a]	N/A
Chad	2003; 2011; 2018	2018	urban/rural	N/A
Comoros	2014	2014	age[a]	N/A
Congo	2011	2011	urban/rural/age[a]	N/A
Côte d'Ivoire[b]	1985; 1986; 1987; 1988; 1992; 1998; 2002; 2008; 2014; 2018	2018	urban/rural/age[a]	N/A
Democratic Republic of the Congo	2004; 2012	2012	urban/rural/age[a]	N/A
Ethiopia[b]	1999; 2004; 2011; 2015; 2018	2018	urban/rural/age[a]	N/A
Equatorial Guinea	None	NA	NA	2020; 2006
Eritrea	None	NA	NA	N/A
Eswatini	2000; 2009[c]; 2016	2016	urban/rural/age[a]	
Gabon	2005; 2017	2017	urban/rural/age[a]	N/A
Gambia	2003[c]; 2010; 2015	2015	urban/rural	N/A
Ghana	1991; 1998; 2005; 2012; 2016	2016	urban/rural/age[a]	N/A
Guinea	2002; 2007[c]; 2012; 2018	2018	urban/rural	N/A
Guinea-Bissau	2002; 2010; 2018	2018	urban/rural	N/A
Kenya	2005; 2015	2015	urban/rural	N/A
Lesotho	2010	2010	urban/rural/age[a]	2017
Liberia	2007; 2014; 2016	2016	age[a]	2018
Madagascar	2005; 2010; 2012	2012	age[a]	N/A
Malawi	2004; 2010; 2013; 2016[c]; 2019	2019	urban/rural	N/A
Mali	1994; 2006; 2009; 2011; 2014; 2015; 2016; 2017; 2018; 2019; 2021	2021	urban/rural	N/A
Mauritania	2004; 2014	2014	urban/rural/age[a]	N/A
Mauritius[b]	1996; 2006; 2012; 2017	2017	urban/rural/age[a]	N/A
Mozambique	2002; 2008; 2014; 2019	2019	urban/rural	N/A
Namibia	2009; 2015	2015	urban/rural/age[a]	N/A
Niger	2005; 2007[c]; 2011; 2018	2018	urban/rural/age[a]	N/A
Nigeria	2003; 2009; 2010; 2012; 2015; 2018	2018	age[a]	N/A
Rwanda	2000; 2005; 2010[c]; 2013; 2016	2016	urban/rural/age[a]	2019
Sao Tome and Principe	2010; 2017	2017	none	N/A
Senegal	2001; 2005; 2011; 2018	2018	none	N/A
Seychelles	2006; 2013	2013	none	N/A
Sierra Leone	2003; 2011; 2018	2018	urban/rural/age[a]	N/A

Table 1. continued...

Country	SDG 3.8.2 and related indicators availability per year	Most recent year	Level of disaggregation for the most recent year	Years surveyed and not yet used to track financial hardship
South Africa	1990; 2000; 2005; 2008; 2010; 2014	2014	urban/rural/age[a]	N/A
South Sudan	2009; 2016; 2017[u]	2016	none	N/A
Togo[b]	2006; 2011; 2015; 2018	2018	urban/rural	N/A
Uganda	1996; 1999; 2002; 2005; 2009; 2012; 2016; 2019[b]	2016	urban/rural/age[a]	N/A
United Republic of Tanzania	2000; 2007; 2011; 2018	2018	urban/rural/age[a]	2019
Zambia	1996; 2004; 2006; 2010; 2015	2015	urban/rural	N/A
Zimbabwe	2017	2017	urban/rural/age[a]	2021

NA: not available; N/A: not applicable.

Notes:
[a] Age-disaggregated data available for either catastrophic or impoverishing OOP health spending.
[b] Produced in collaboration with the Member State or by the Member State.
[c] For this year, the survey-based estimates were not retained for the global reporting as they did not pass the quality tests described in the metadata *(14)*.
[u] Urban data only.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

3. Where were we before the pandemic, and how did we get there?

Impoverishing out-of-pocket health spending at the regional level (2000–2019)

For the poor and near-poor, even small OOP health spending can represent a major source of financial hardship. In the WHO African Region, the population both impoverished and further impoverished due to OOP health spending (at US$ 2.15 poverty line (2017 PPP)) decreased sharply in both absolute and relative terms from 302 million in 2000 (or 45.3% of the total population) to 152 million people in 2019 (or 13.8%), see Table 2. The people involved might have been spending very little on health in absolute and (in some cases) relative terms, but – given their budget constraints – this spending forced them to divert funds from nonmedical necessities, pushing them below or further below minimum living standards. If this spending affected the quality and quantity of food they could obtain, any health problem would be exacerbated, causing a worsening cycle of bad health and leading to more OOP health spending.

The reduction in the incidence of impoverishing OOP health spending that was observed between 2000 and 2019 was faster than the decline in the incidence of extreme poverty during the same period, from 54.8% to 34.0% *(24)*. This points to a reduction in the concentration of those further impoverished by OOP health spending among the poorest. However, as discussed later in Section 6, such improvement might not be sustained considering the expected increase in extreme poverty rates due to the pandemic.

All these findings emphasize the importance of implementing policies that ensure financial risk protection, especially for the poorest (living on less than US$ 2.15 a day (2017 PPP) per person). Therefore, poor people must be exempt from OOP health spending.

Table 2. Financial hardship indicators (millions of people or %), Regional averages 2000–2019

Impoverishing OOP health spending	Financial hardship indicators											
	Millions of people						%					
At the PPP US$ 2.15 a day poverty line	2000	2005	2010	2015	2017	2019	2000	2005	2010	2015	2017	2019
Further impoverished	285.0	234.3	233.7	200.1	160.0	142.5	42.7	30.8	26.9	20.1	15.2	12.9
Impoverished	17.2	17.7	15.8	14.8	11.7	9.8	2.6	2.3	1.8	1.5	1.1	0.9
Total	302.2	252	249.5	214.9	171.7	152.2	45.3	33.1	28.7	21.6	16.3	13.8
Catastrophic OOP health spending	Millions of people						%					
	2000	2005	2010	2015	2017	2019	2000	2005	2010	2015	2017	2019
SDG 3.8.2, 10% threshold	52.3	71.3	72.7	82.6	85.4	95.1	7.8	9.4	8.4	8.3	8.1	8.6
SDG 3.8.2, 25% threshold	9.2	20	16.7	18.2	20.2	28.7	1.4	2.6	1.9	1.8	1.9	2.6

PPP: purchasing power parity

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Catastrophic out-of-pocket health spending at the regional level (2000 to 2019)

Catastrophic OOP health spending rates, as defined by the 2030 Agenda for Sustainable Development, increased between 2000 and 2019 but at a slow rate, and more efforts are needed to reverse the trend. Indeed, the proportion of the population spending more than 10% of their household budget on OOP on health increased from 7.8% in 2000 to reach 8.6% in 2019. In terms of number of people, the annual increase is on average 2.4 million people every year, from 52 million in 2000 to 95 million in 2019 (Table 2). The percentage of people spending more than 25% of their budget on

OOP health spending increased from 1.4% in 2000 (or 9 million people) to 2.6% in 2019 (or 29 million people), despite a relative stagnation at around 1.8–1.9% between 2010 and 2017 (17 to 20 million, Table 2).

Changes in the WHO African region tend to be slower than elsewhere

While in the rest of the world, the incidence of impoverishing OOP health spending also decreased continuously between 2000 and 2019, progress was much faster than in the WHO African Region. As a result, the concentration of the world's population impoverished or further impoverished by OOP health spending living in the WHO African Region increased from 22.1% in 2000 to 44.2% in 2019 (Table 3).

Catastrophic OOP health spending rates increased faster globally than in the WHO African Region between 2000 and 2019, slightly so at the 10% threshold but substantially at the 25% threshold. As a result, the concentration of the world's population living in the Region increased marginally from 8.8% in 2000 to 9.1% of the world's population spending more than 10% of their household budget on OOP health spending in 2019 (Table 3). Meanwhile, the concentration of the world's population spending more than a quarter of their budget on OOP health spending increased from 7.7% in 2000 to 9.9% in 2019 (Table 3).

Table 3. Share of financial hardship in the WHO African Region, 2000–2019

Financial Hardship	As a % of the global population incurring impoverishing and/or catastrophic OOP health spending					
Impoverishing OOP health spending at the PPP US$ 2.15 a day poverty line	2000	2005	2010	2015	2017	2019
Further impoverished	22.8	22.5	28.4	38.8	41.8	49.1
Impoverished	14.8	12.8	12.0	14.6	13.8	18.2
Total	22.1	21.3	26.1	34.8	36.6	44.2
Catastrophic OOP health spending	2000	2005	2010	2015	2017	2019
SDG 3.8.2, 10% threshold	8.8	9.7	9.2	8.9	8.6	9.1
SDG 3.8.2, 25% threshold	7.7	11.8	8.9	7.3	7.2	9.9

PPP: purchasing power parity

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

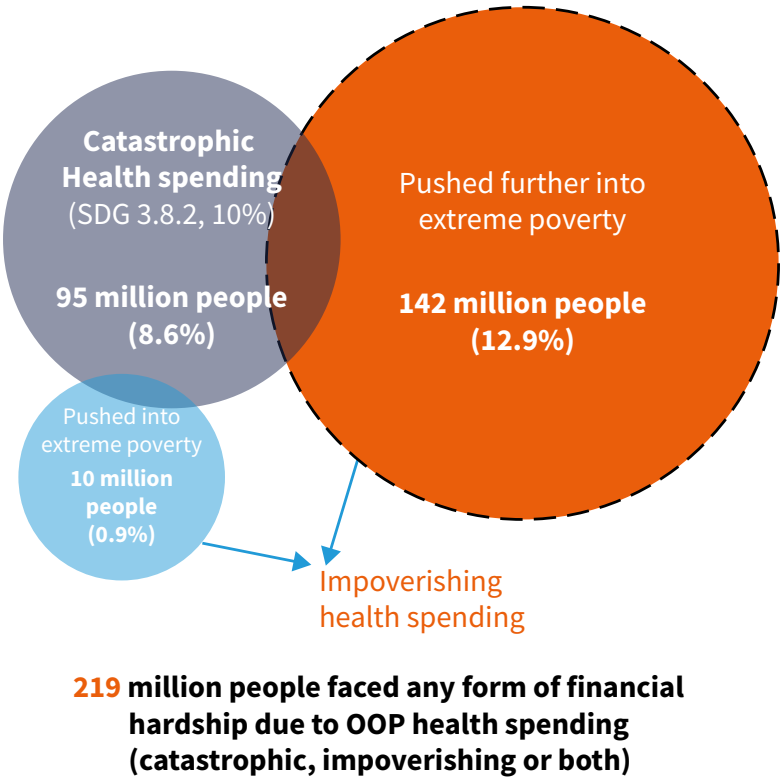
Poor people must be exempted from out-of-pocket health spending

Within the Region, to substantially reduce financial hardship, poor people must be exempted from paying out-of-pocket for the treatment they need. Indeed, only 11.5% of those incurring catastrophic OOP health spending, as tracked by SDG indicator 3.8.2 at the 10% threshold, also incurred impoverishing OOP health spending. In contrast, those impoverished or further impoverished into extreme poverty by non-catastrophic OOP health spending accounted, on average, for 72% of those incurring financial hardship.[2] This underscores the importance of tracking indicators of impoverishing OOP health spending in addition to catastrophic OOP health spending, as they point to the financial hardship experienced by the nearly extremely poor and the extremely poor, including those spending relatively little on health out-of-pocket but given their lower living standards, any amount drags them further into poverty. This is particularly important for the Region, where many countries have very high rates of extreme poverty, which are likely to have increased even more during the pandemic. Indeed, the incidence of impoverishing OOP health spending is highly correlated with the proportion of the population living in extreme poverty.[3]

Overall, in 2019, 219 million people in the Region incurred financial hardship, that is, catastrophic OOP health spending, impoverishing OOP health spending or both without double counting (Fig. 2).

2 WHO computations based on background data prepared by WHO and the World Bank for the 2023 update of global databases.
3 The Spearman correlation across the 40 countries with the most recent estimate available within the 2007–2018 period is 0.85.

Fig. 2. Catastrophic and impoverishing OOP health spending in the WHO African Region, 2019



Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Catastrophic and impoverishing out-of-pocket health spending was more common in low- and lower-income-countries

Across the Region, low- and lower-middle-income countries had the highest rates of both impoverishing and catastrophic OOP health spending before the pandemic.

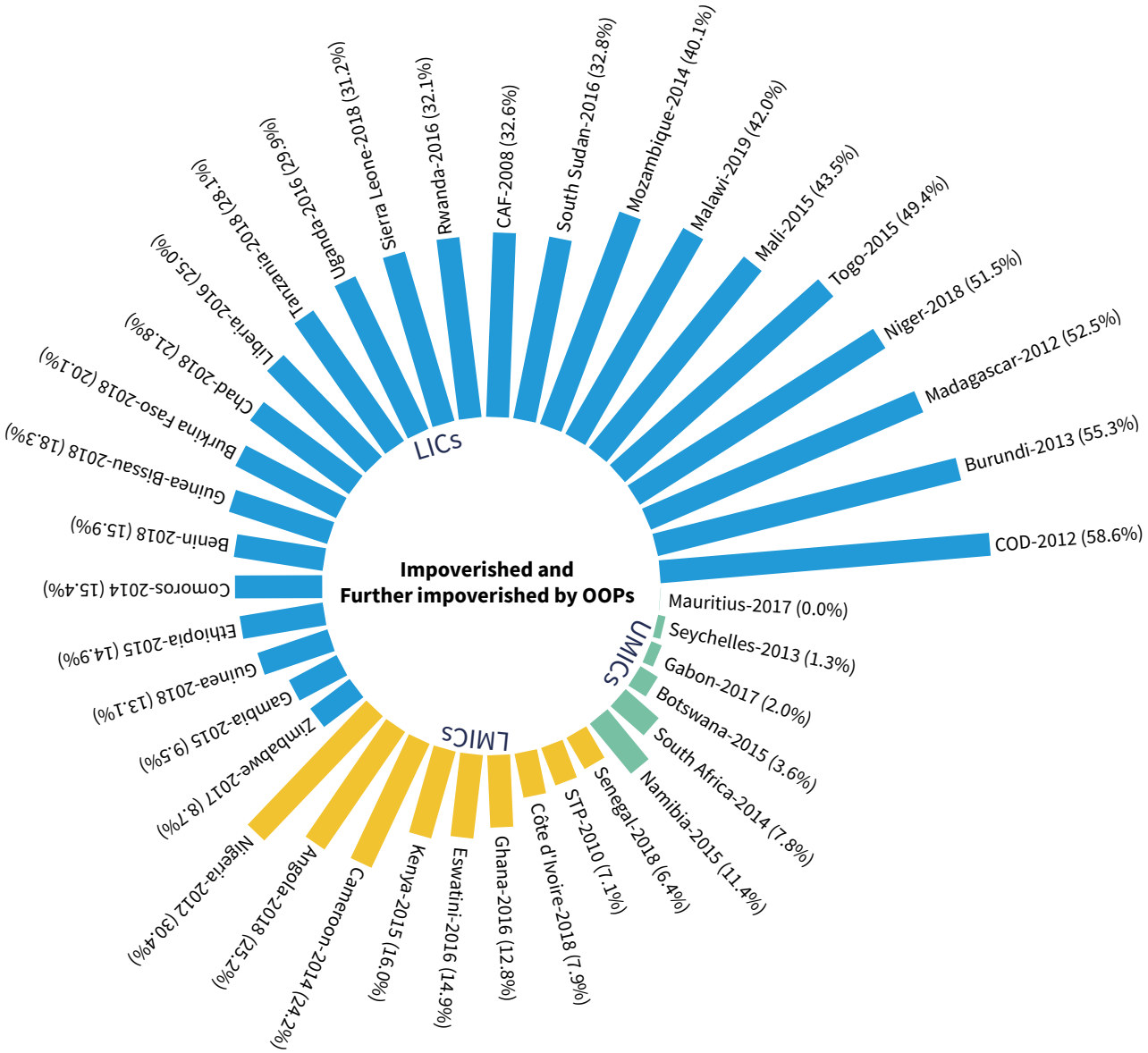
Based on the most recent available evidence, the incidence of impoverishing OOP health spending (including the impoverished and those further impoverished at the extreme poverty line) exceeded 15% of the population in 22 of the 24 low-income countries in the Region (Fig. 3 a). It also exceeded 15% of the population in four of the 10 lower-middle-income countries for which data were available but did not exceed 12% in the upper-middle-income ones (Fig. 3a).[4]

The poorest countries in the Region experienced a double burden. Three of the five countries with the highest proportion of the population incurring impoverishing OOP health spending (exceeding 45%; Fig. 3a) either had the highest rates of extreme poverty across the whole Region (exceeding 65% of their total population – Burundi–2013, Democratic Republic of the Congo–2012 and Madagascar–2012) or were among the countries with the largest fraction of people living in extreme poverty (Nigeria–2018 and Togo–2015) *(7)*.

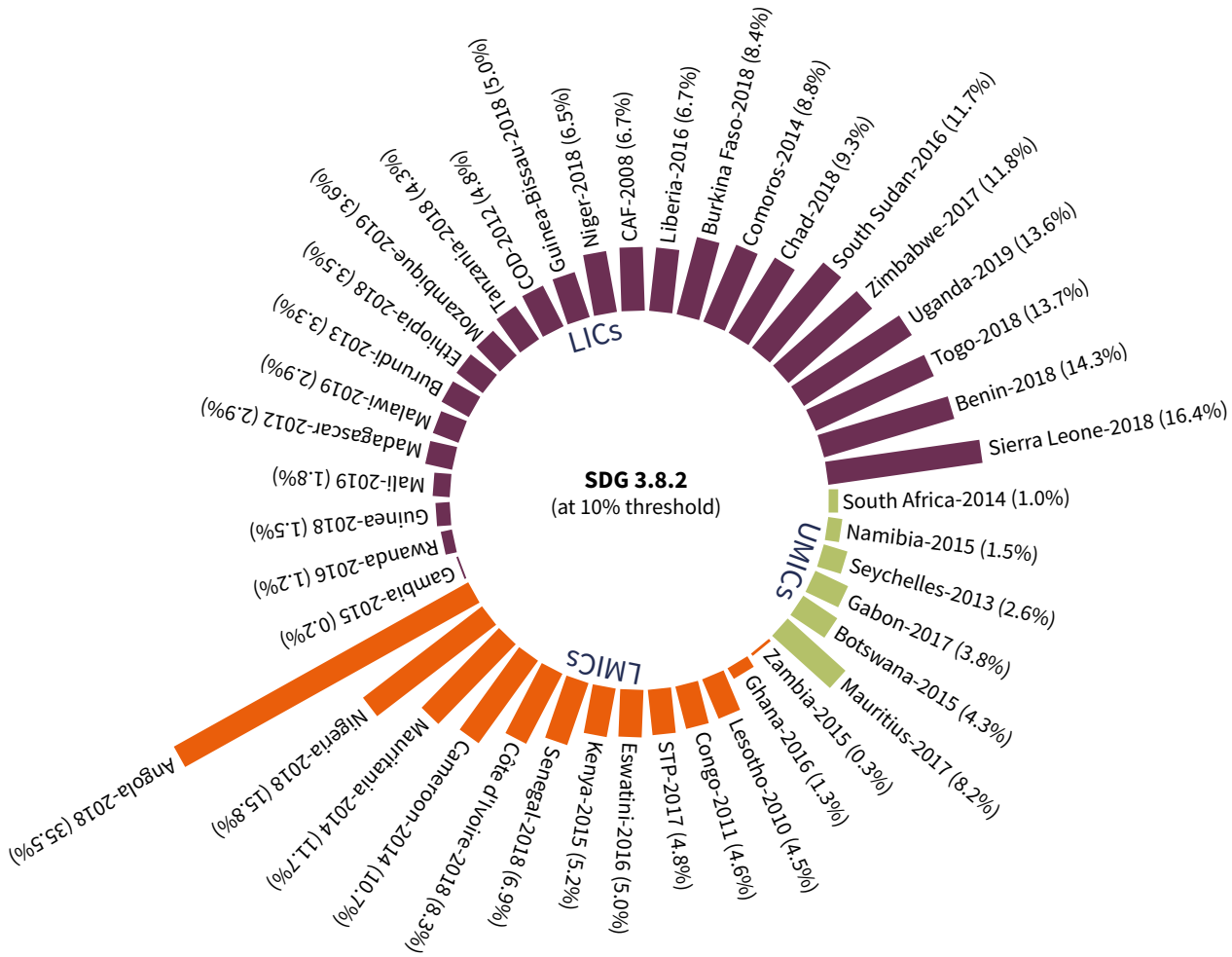
4 The extreme poverty line defined as US$ 2.15 per day per person in purchasing power parities is often too low to capture the effect of OOP health spending on poverty in upper and high-income countries. For those countries, in particular, it is useful to use a relative poverty line specific to each country. Doing so, impoverishing OOP health spending exceeded 15% in three of the six upper-middle income countries (Gabon–2017, Namibia–2015 and South Africa–2014). Results are not shown in the figure but available from *(7)*.

Fig. 3. Catastrophic and impoverishing OOP health spending across countries, most recent year

3a. Incidence of impoverishing OOP health spending at the PPP US$ 2.15 a day poverty, most recent year (2007–2019)



3b. Incidence of catastrophic OOP health spending as tracked by SDG indicator 3.8.2 at the 10% threshold, most recent year (2007–2019)



CAF: Central African Republic; Congo: Republic of the Congo; COD: Democratic Republic of the Congo; Tanzania: United Republic of Tanzania; STP: Sao Tome and Principe; LICs: low-income countries; LMICs: low-middle income countries; UMICs: upper-middle income countries; OOP: out-of-pocket health spending

Notes: For Burundi and Mali, estimates for 2020 or 2021 are available (See Table A1.3).

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*

In general, incidences of catastrophic OOP health spending as tracked by SDG indicator 3.8.2 at the 10% threshold were highest in the Region's low- and lower-middle-income countries. Based on available data, rates exceeded 5% of the population in 13 of the 24 low-income countries versus seven of the 14 low-middle-income countries and only one of the six upper-middle-income countries (Fig. 3b). However, within each income group, there were some outliers as outlined below.

- There is only one upper-middle income country with a proportion of the population spending more than 10% of their household budget on OOP health spending above 5% (Mauritius-2017). Only three low- or lower-middle-income countries had incidences of catastrophic OOP health spending exceeding 15% (Angola–2018, Nigeria–2018 and Sierra Leone–2018). All these three countries experienced conflicts and/or high institutional and social fragility. Angola faced a financial crisis due to the fall in oil prices, with a subsequent reduction in health sector funding allocation (Box 2).
- In two countries (Gambia–2015 and Zambia–2015), less than 0.3% of the population spent more than 10% of their household budget on OOP health spending. One of them (Zambia) abolished user fees in 2006, but even before then, the incidence of catastrophic OOP health spending was among the lowest in the Region (Box 3).

Box 2. Angola–evidence from household expenditure surveys to support health reforms

In Angola, the incidence of catastrophic OOP health spending almost tripled between 2008 and 2018. By 2018, 23.0% of the population was spending between 10% and 25% of their household budget on OOP health spending, and 12.5% were spending more than 25% (Fig. 4). Angola faced a financial crisis in 2014 due to a reduction in oil prices and a subsequent cut in the health budget. Subsequently, the quality of public health services deteriorated, resulting in reliance on the private sector to provide health services. Government health expenditure per capita fell from US$ 71 in 2008 to US$ 46 in 2014 and US$ 31 in 2018 (at constant 2019 prices). As a percentage of current health expenditure, OOP health spending increased from 22% in 2008 to 27% in 2014 and 37% in 2018 *(7)*. In 2018, the main component of people's OOP health spending was medicines, accounting for 80% of their total OOP health spending on average. This showed little variation within the area of residence (rural compared to urban), consumption quintile, or whether the person was experiencing catastrophic OOP health spending (Fig. 5). In the absence of hospitals and public pharmacies, most medicines came from private pharmacies or the informal market, in which medicines are under free pricing policies[a] *(25)*. The health sector is geared towards treatment–prevention programmes are low priority.

Fig. 4. Trends in catastrophic OOP health spending in Angola as tracked by SDG indicator 3.8.2 (2008–2018)

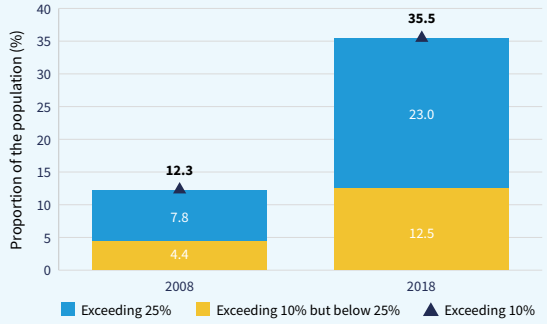
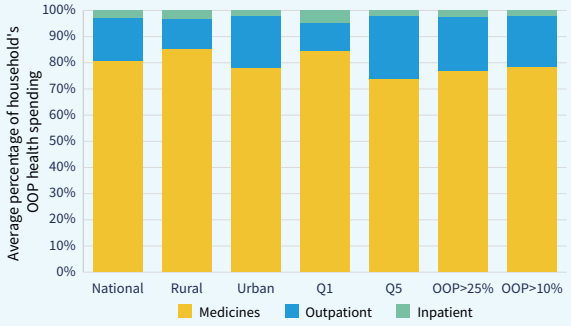


Fig. 5. Average composition of OOP health spending among those incurring any OOP in 2018



Notes: OOP: out-of-pocket; Q1: lowest per capita consumption quintile; Q5: highest per capita consumption quintile.
Source: Background data prepared by WHO for the 2023 update of the WHO and World Bank global financial protection database *(7)*.

a Medicines prices are under a free pricing regimen that covers goods and services that are neither fixed nor monitored prices. The free pricing system is translated into the free establishment of prices of products or services by the entities that produce or provide them; Art. 12, Decree 206/11, Bases Gerais para a organizacao do Sistema Nacional de Precos.

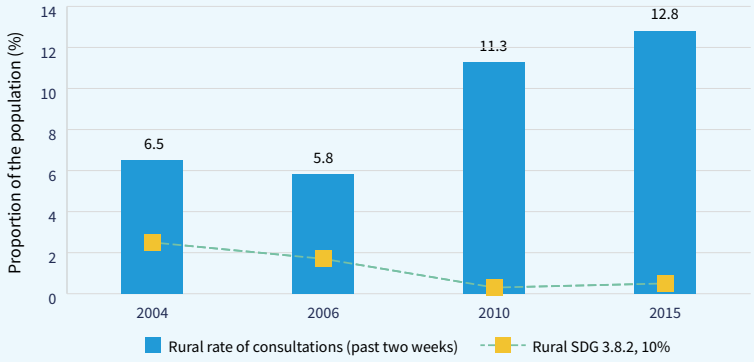
Box 3. Zambia's effort to provide financial protection in health through flat user fees and exemptions

User fees have played a limited role in Zambia. Between 1964 and 1991, health care services in public facilities were provided for free. In 1991, fees were introduced as a mechanism to raise additional income. They consisted of a flat fee covering both consultation and drugs and were carefully designed to consider the ability to pay of each population's district. Several groups were exempted from paying these fees–children under five and adults over 65, pregnant women and individuals with some specific conditions and locally identified as living in poverty *(26)*. In 2004, the proportion of the population incurring catastrophic OOP health spending because they were spending more than 10% of their household budget on OOP health spending was much lower than the 2005 estimated regional rate of SDG indicator 3.8.2 (8.9%). The rate was 3.3% in urban areas and 2.5% in rural areas. Rural areas had higher consultation rates (6.5% versus 4.9% in urban areas) (Fig. 6a). Between 2004 and 2006, both consultation rates and catastrophic OOP health spending decreased throughout Zambia (Fig. 6b).

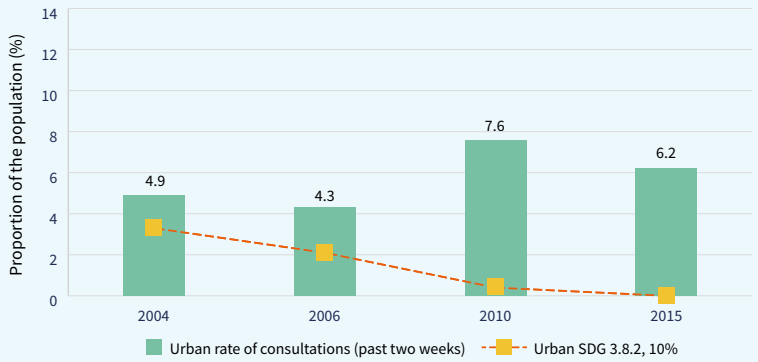
On 13 January 2006, the President of Zambia announced a policy to abolish user fees at primary health care facilities in districts designated as "rural" according to local government definitions (which did not necessarily match the rural definition used for other purposes). Fifty-four out of the 72 districts abolished user fees, and although the government tried to mitigate the related loss of revenue at the facility level, primary care facilities did experience a loss, and not everyone was effectively exempted *(26,27,28)*. Despite implementation challenges, overall, between 2006 and 2010, consultation rates increased, especially in rural areas – where they almost doubled – but also in urban ones, where they increased by 76% (Fig. 6b). During the same period, incidences of catastrophic OOP health spending continued to decrease in rural areas as quickly as before the introduction of the reform and at a slightly lower rate in urban areas (−0.6 and −0.4 percentage points per year in rural and urban areas, respectively). After 2010, consultation rates continued to increase in rural areas, but the incidence of catastrophic OOP health spending increased slightly to 0.5%. In urban areas, there was a decline in both utilization rates and incidences of catastrophic OOP health spending. While these results show a correlation, not causation, several papers have suggested that Zambia's efforts to limit user fees and exempt the most vulnerable populations have indeed reduced financial hardship *(29)*; however, those still incurring OOP health spending are still likely to resort to borrowing and other financing arrangements to cope with the cost of care *(30)*.

Fig. 6. Trends in consultation rates over the past 2 weeks and annual incidences of OOP catastrophic health spending as tracked by SDG indicator 3.8.2

6a. Rural



6b. Urban



Notes: Consultation rates in each area as computed as the percentage of persons reporting illness or injury in the 2 weeks before the survey, multiplied by the percentage of those ill or injured reporting a consultation.

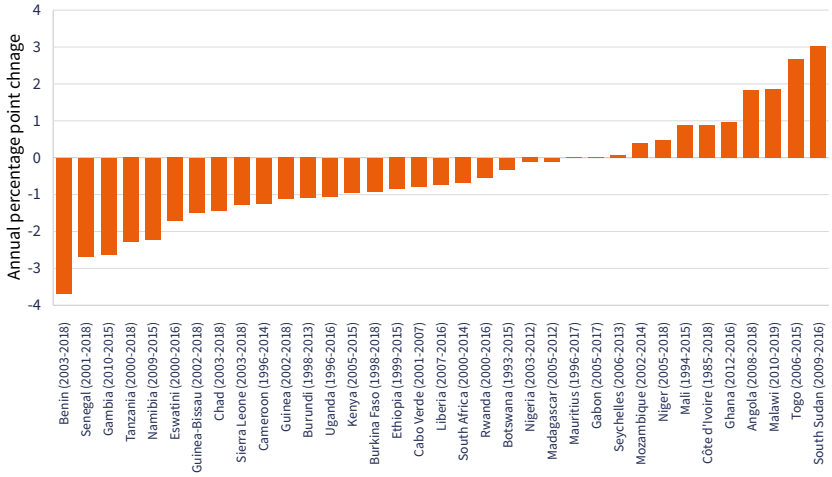
Sources: Consultations rates published by Zambia Central Statistical Office (31) and incidences of catastrophic OOP health spending available from the Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Before the pandemic, very few countries managed to stop the rise in impoverishing out-of-pocket health spending, catastrophic out-of-pocket health spending or both

Since 2000, all countries in the African Region have made progress on service coverage, as tracked by SDG indicator 3.8.1, from an average of 23 in 2000 to 44 in 2021 (the maximum score being 100) *(3)*. Although starting points and rates of progress varied across countries, the trend was positive everywhere.

The concentration of further impoverishment among those living in extreme poverty increased or remained relatively unchanged before the pandemic in 31 of the 35 countries with at least two estimates available (Fig. 7). Thirteen countries managed to reduce OOP health spending among those living in extreme poverty on average by more than one percentage point per year, although for one of them, the reduction exceeded three percentage points per year (Benin 2003-2018; Fig. 6).

Fig. 7. Percentage point change in the concentration of those further impoverished by OOP health spending among those living in extreme poverty (below PPP US$ 2.15) across 35 countries in the WHO African Region



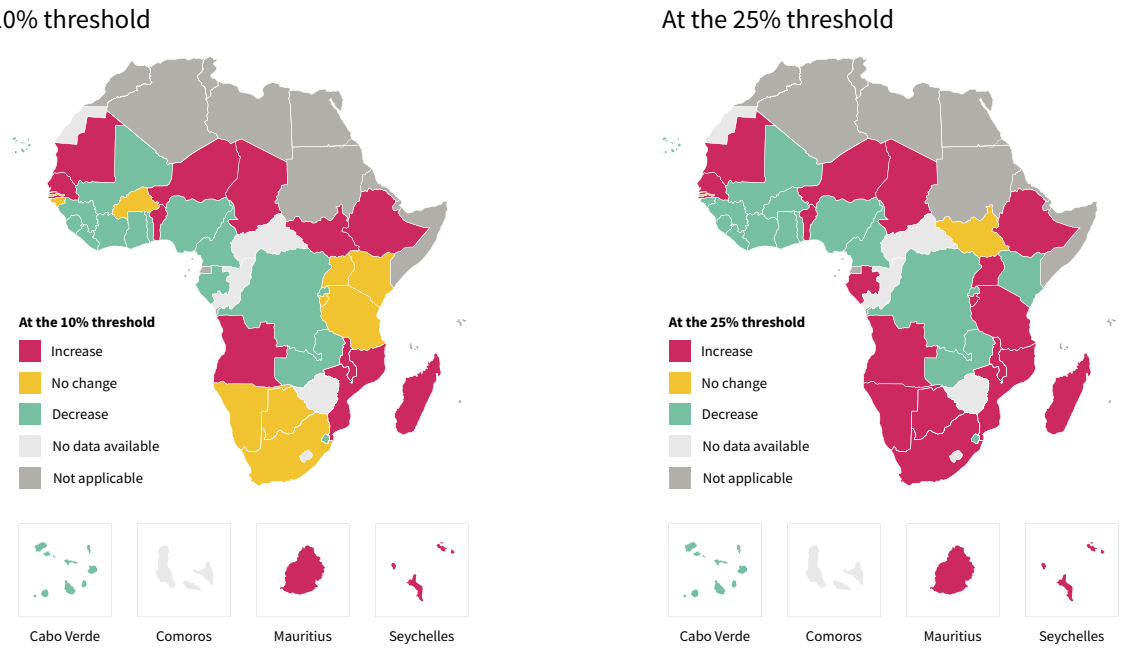
Tanzania: United Republic of Tanzania

Notes: Median most recent year is 2016. Data are for 35 countries. The average annual percentage point change (AAPPC) values used to assess changes in the population further impoverished by out-of-pocket health spending among those living in extreme poverty are: greater than +1 (increases); less than −1 (decrease); −1 to +1 (no change). Some countries do not have enough estimates available over time to allow estimation of the AAPPC.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Incidences of catastrophic OOP health spending decreased or experienced little change in 25 of the 39 countries for which estimates for SDG indicator 3.8.2 were available for at least 2 years (Fig. 8). In 13 of these countries, on average, the incidence of catastrophic OOP health spending increased at both the 10% and 25% thresholds; in one country (South Sudan, 2009–2016), it increased only at the 10% threshold (Fig. 8).

Fig. 8. Average percentage point change in the incidence of catastrophic OOP health spending as tracked by SDG indicators 3.8.2



The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Notes: The total number of Member States in the WHO African Region is 47. Data on average percentage point changes are for 39 countries. There is no trend data on catastrophic OOP health spending in the Central African Republic, Comoros, Congo, Lesotho, and Zimbabwe. The category (increased, decreased, or unchanged) is determined using historical survey-based estimates available to WHO and the World Bank as of December 2023. These categories are based on the average annual percentage point change (AAPPC) over time. Time periods vary across countries and are indicated in brackets in Table 3. For SDG indicator 3.8.2 at the 10% threshold, the categories "Decrease", "No change" and "Increase" respectively correspond to an AAPPC value exceeding -0.1, between – 0.1 and +0.1 and greater than +0.1 percentage points per year. For SDG 3.8.2 indicator at 25%, the cut-off values are <−0.01 for decreases, −0.01 to +0.01 for NO change and >+0.01 for increases. For more information, refer to the WHO and World Bank 2023 Global Monitoring Report on Financial Protection *(3)*.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Overall, taking into account the incidences of both catastrophic OOP health spending and impoverishing OOP health spending, before the pandemic, financial hardship decreased in four countries, did not change or very little in four and increased in another three of the 35 countries with concurrent data for both indicators (Table 4). In Cameroon (1996–2014) and Eswatini (2000–2016), two of the four countries making progress on both indicators of financial hardship (Table A1.4), the reduction occurred across almost all quintiles, at least during some of the periods with data available. For example, in Cameroon, the fastest reduction in both impoverishing OOP health spending and catastrophic OOP health spending occurred between 1996 and 2007 and benefited all quintiles, but catastrophic OOP health spending slightly increased afterwards.[5] In Eswatini, on the other hand, between 2000 and 2016, the reduction in the total population incurring catastrophic and/or impoverishing OOP health spending without double counting occurred across all quintiles except the top one.[6]

5 Background data prepared by WHO for the 2023 update of the WHO and World Bank global financial protection database (7).
6 Background data prepared by WHO for the 2023 update of the WHO and World Bank global financial protection database (7).

In six countries, impoverishing OOP health spending decreased, but catastrophic OOP health spending either did not change or changed very little overall (Table 4 and Annex Table A1.4). In these countries, the reduction in the number of impoverished and further impoverished people at the extreme poverty line was partly driven by a sharp reduction in extreme poverty. For example, in Gambia (2003–2015), the poverty gap at the extreme poverty line was cut by half over the same period *(24)*. Uganda (1996–2019) is another of these countries where impoverishing OOP has decreased significantly, unlike catastrophic OOP health spending. Uganda abolished user fees in the public sector in 2001 but failed to match the reform with an adequate increase in the allocation of public funding to the health sector *(32)*. Due to the deterioration in the quality of health services, after an initial increase in the utilization of public facilities, the population turned to the unregulated private sector to access services, and catastrophic OOP health spending increased *(33,34)*. Uganda's example shows the importance of sufficient funds to support reforms aimed at improving financial protection (Box 4).

Table 4. Categories of average change in the incidence of catastrophic, impoverishing OOP health spending or both over time

Average change in the incidence of catastrophic OOP health spending	Average change in the incidence of impoverishing OOP health spending: Decreasing	No change	Increasing	# countries:
Decreasing	4	8	1	13
No change	6	4	0	10
Increasing	3	6	3	12
# countries:	13	18	4	35

Notes: The assessment includes 35 countries with trend data to assess changes in both financial hardship indicators. Country names and periods are listed in Annex Table A1.4. Increases, reductions or no change are computed using historical survey-based estimates available to WHO and the World Bank as of September 2023. These categories are based on the rules described in the notes to Fig. 4 and Fig. 5. Some countries do not have enough estimates available over time to estimate the AAPPC, see Annex Table A1.4. This can happen for both indicators (catastrophic OOP health spending, further impoverishment) or for only one of them. For other countries, the availability of estimates for the indicators differs, in which case they are classified as having "Not trend data" (Annex Table A1.4).

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

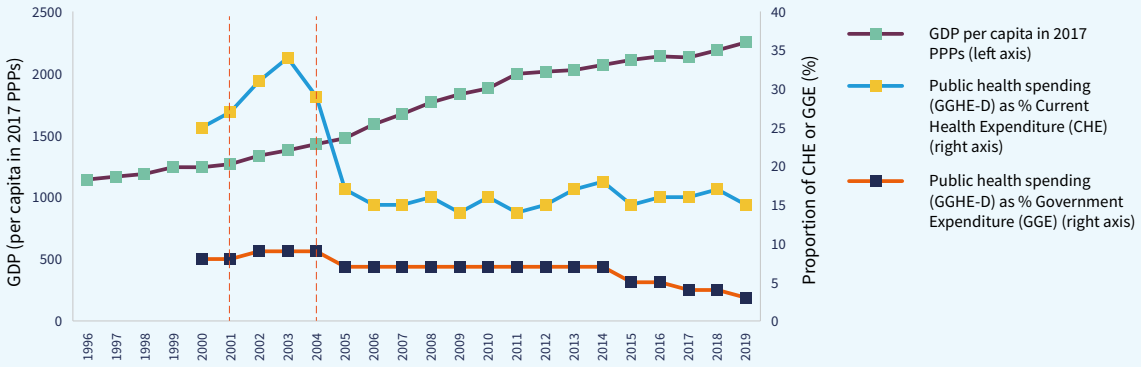
Box. 4. Adequate financing of health reforms is essential for reducing financial hardship: a case study from Uganda

GDP per capita has continuously increased in Uganda since 1996 (Fig. 9). In February 2001, the President abolished user fees, and the policy of free health services for the whole population commenced immediately. Public health spending as a percentage of government spending increased by one percentage point between 2001 and 2002 to 9% and remained at that level until 2004 (Fig. 9). Indeed, until that year, the reform was supported by increased public funding for the health sector *(2)*.[b] Follow-on studies consistently documented a significant increase in the utilization of health services in both referral and primary-level health facilities *(35)*. But the increase in public health spending was insufficient to both support the increased demand for health care in the public sector and

b Between 2000 and 2004, general government expenditure on health as a proportion of total general government expenditure increased by 1 percentage point to reach 9% but it decreased continuously afterwards, down to 3% in 2019 *(2)*.

reduce financial hardship. In effect, public spending as a percentage of total spending in the country increased markedly only between 2001 and 2003, when it reached 34%. It decreased to 15% in 2006 and evolved between 14% and 17% until 2019. As a percentage of total government spending, public health spending was two percentage points lower in 2005 than in 2004 (Fig. 9).

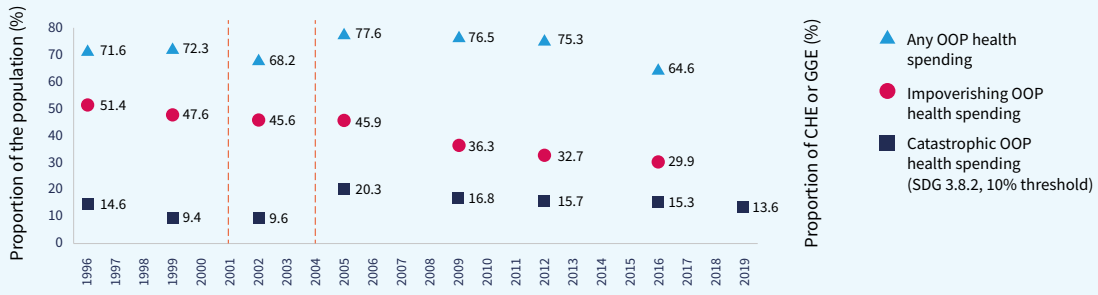
Fig. 9. Trends in GDP (1996–2019) and the proportion of public health spending in total health spending and government spending (2000–2019), Uganda 1996–2019



Source: WHO Global Health Expenditure Database, 2023 *(2)*

The quality of health services deteriorated after 2001 in Uganda, and medicines went out of stock, leading to gaps in service delivery for the increased number of people attending health facilities *(34)*. The population, including the poor, resorted to using unregulated private-sector health services and purchasing medicines from private pharmacies *(34)*. Despite the 4.1 percentage points reduction in the percentage of the population reporting any OOP health spending in 2002 compared to 1999, by 2005, the rate was 5.3 percentage points higher than before the user fees abolition (Fig. 9). The evidence related to financial hardship shows that the national incidence of catastrophic OOP health spending, as tracked by SDG indicator 3.8.2 at the 10% threshold, more than doubled between 2002 and 2005 – as public spending decreased sharply – and still exceeded 1999 levels by 2016 (Fig. 9). The population incurring impoverishing OOP health spending also increased between 2002 and 2005, but only marginally. However, that change contrasted with the continuous reduction observed before the introduction of the reform (Fig. 10). After 2004, the population with catastrophic or impoverishing OOP health spending continuously decreased (Fig. 10.). But this change in trend was more likely due to people getting richer over time and having the possibility to pay more out-of-pocket, than adequate public health investments (Fig. 10 versus Fig. 9).

Fig. 10. Trends in the proportion of the population with any OOP health spending, catastrophic and impoverishing OOP health spending, Uganda 1996–2019



OOP: out-of-pocket

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

4. Who incurred financial hardship and inequalities within countries before the pandemic?

Significant inequalities in financial hardship by the age structure of the household

In most countries for which data are available, people living in multigenerational households and/or a combined category of older and only older adults households faced the highest rates of impoverishing OOP health spending and catastrophic OOP health spending (Fig. 11a and b). The number of older people is growing fast in the African Region, and it is projected to triple from 54 million in 2020 to 163 million by 2050, with important health, social and environmental implications *(36)*.

Substantial inequalities were observed in impoverishing OOP health spending by the age structure of the household (Fig. 11a). In countries with available data, incidences of impoverishing OOP health spending for people living in younger households (families with children/adolescents) and multigenerational households on average were at least 3.9 and 4.2 times higher, respectively, than estimated incidences among people living in adults only households (Fig. 11a). In six of the 13 countries with available data, the proportion of the population with impoverishing OOP health spending was at least two times higher among people living in a combined category of older and only older adults households than among those living in adults only households.

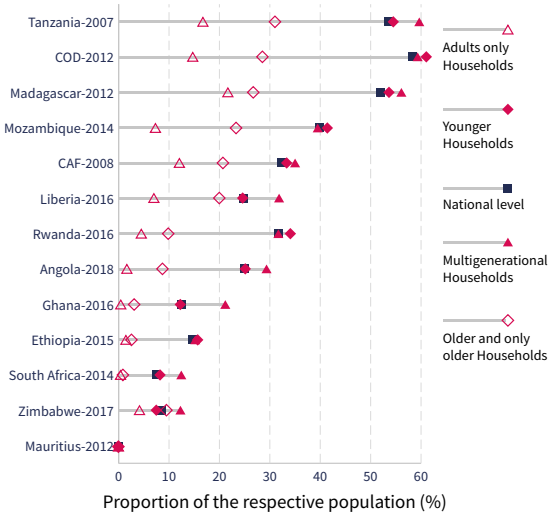
The national incidences of catastrophic OOP health spending were pulled up by the high rates among those living in a combined category of older and only older adults households, as well as multigenerational households (Fig. 11b). National incidences of catastrophic OOP health spending tended to be pulled down by the rates among adults only households or younger households (Fig. 11b). Inequalities in catastrophic OOP health spending by the age structure of the household are less prominent than those observed for impoverishing OOP health spending. Overall, the proportion of the population spending more than 10% of their household budget on OOP spending remained at least 1.7 times higher among people living in a combined category of older and only older adults households than among those living in adults only households, in 13 of the 23 countries with available data.

People living in households headed by an older person had the highest rates of financial hardship

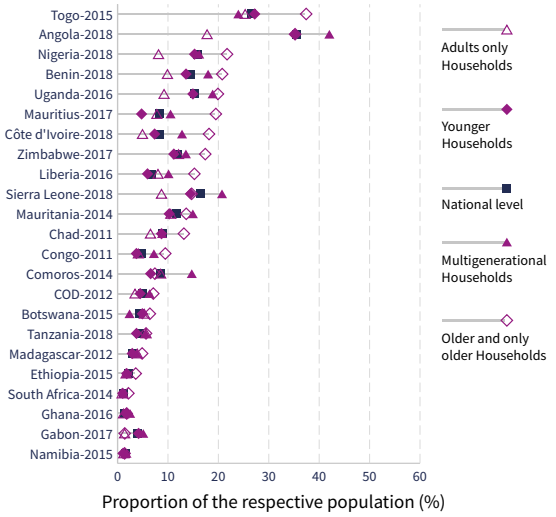
The incidence of impoverishing health spending varied with the age of the head of the household (Fig. 12a)–within a 15% difference in 16 of the 33 countries with available data but beyond a 20% difference in 17 other countries. In 19 countries, people living in households headed by older persons had the highest rates; in the rest of the countries, the opposite occurred: households headed by younger persons had the highest rates (Fig. 12a). The national incidences of catastrophic OOP health spending were pulled up by the higher rates among households headed by older persons (Fig. 12b). Incidences of catastrophic OOP health spending among people living in households headed by older versus younger persons exceeded a 20% difference in 25 of the 39 countries with available data. Only in four countries were the incidences of catastrophic OOP health spending higher among households with younger heads (that is, Botswana–2015, Guinea–2012, Lesotho–2010 and Namibia–2015). In the remaining 10 countries, incidences differed by less than 20% (Fig. 12b). Overall, financial hardship indicators varied less with the age of the head of the household (Fig. 12) than with the age structure of the household (Fig. 11), especially for impoverishing OOP health spending (Fig. 12a versus Fig. 11a).

Fig. 11. Incidence of catastrophic and impoverishing OOP health spending by the age structure of the household, most recent year (2007–2018)

11a. Incidence of impoverishing OOP health spending (impoverished and further impoverished at the PPP US$ 2.15 a day poverty line)



11b. Incidence of catastrophic OOP health spending (SDG 3.8.2, 10% threshold)



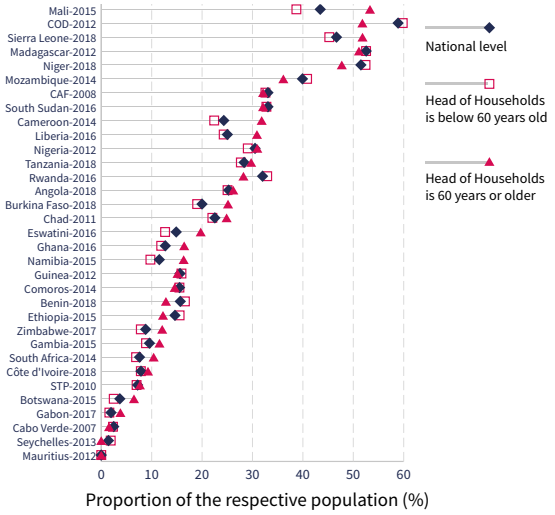
CAF: Central African Republic; COD: Democratic Republic of the Congo; Congo: Republic of the Congo.

Notes: Estimates of impoverishing OOP health spending by the age structure of the household are available for 13 countries, with a median year equal to 2014; while estimates of catastrophic OOP health spending are available for 23 countries, with a median year equal to 2016.

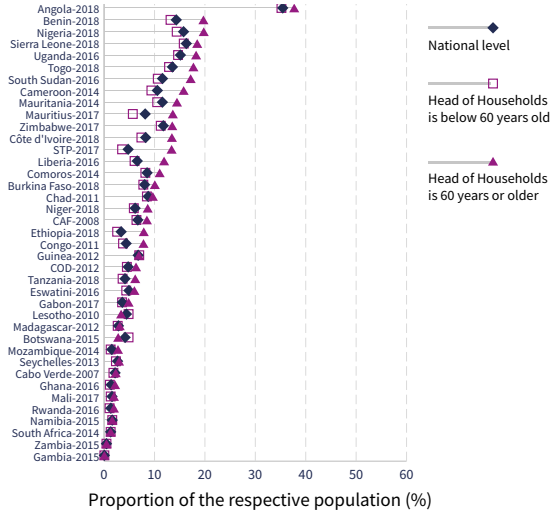
Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Fig. 12. Incidence of catastrophic and impoverishing OOP health spending by the age of head of household, most recent year (2007–2018)

12a. Incidence of impoverishing OOP health spending (impoverished and further impoverished at the PPP US$ 2.15 a day poverty line)



12b. Incidence of catastrophic OOP health spending (SDG 3.8.2, 10% threshold)



CAF: Central African Republic; COD: Democratic Republic of the Congo; STP: Sao Tome and Principe.

Notes: Estimates of impoverishing OOP health spending by head's age are available for 33 countries, the median data collection year is 2015. Estimates of catastrophic OOP health spending by head's age are available for 39 countries, the median data collection year is 2016.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

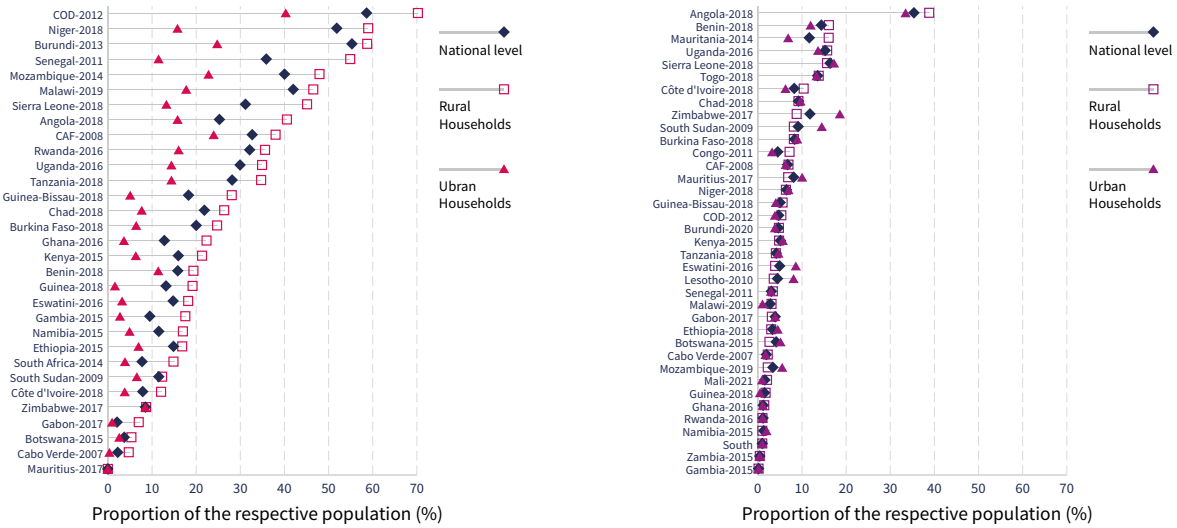
The incidence of catastrophic and impoverishing OOP health spending was higher among households residing in rural areas

Those living in rural areas faced the highest rates of impoverishing health spending but not always the highest rates of catastrophic health spending (Fig. 13). The national incidences of impoverishing OOP health spending were consistently pulled up by the higher rural rates (Fig. 13a) except in one country (Mauritius–2017). Moreover, the incidences of impoverishing OOP health spending among households residing in rural areas (as compared to urban areas) exceeded a 20% difference in 29 out of 31 countries with available data. By contrast, rural and urban incidence rates of catastrophic OOP health spending did not differ notably within the 37 countries with available data (Fig. 13b). Differences in regional incidence rates of catastrophic OOP health spending among households residing in rural areas (as compared to urban areas) exceeded a 20% difference in 13 countries. Differences in regional incidence rates of catastrophic OOP health spending among households residing in urban areas (as compared to rural areas) exceeded a 20% difference in 12 countries. Nonetheless, the available evidence shows better access to services and better health outcomes in urban areas compared to rural areas *(37)*. Overall, regional inequalities in the incidence of catastrophic OOP health spending were less marked than inequalities in impoverishing OOP health spending.

Fig. 13. Incidence of catastrophic and impoverishing OOP health spending by areas of residence, most recent year (2007–2018)

13a. Incidence of impoverishing OOP health spending (impoverished and further impoverished at the PPP US$ 2.15 a day poverty line)

13b. Incidence of catastrophic OOP health spending (SDG 3.8.2, 10% threshold)



CAF: Central African Republic; COD: Democratic Republic of the Congo; Congo: Republic of the Congo

Notes: Estimates of impoverishing OOP health spending by head's age are available for 31 countries with a median year of 2016. Estimates of catastrophic OOP health spending by head's age are available for 37 countries, with 2017 being the median year.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

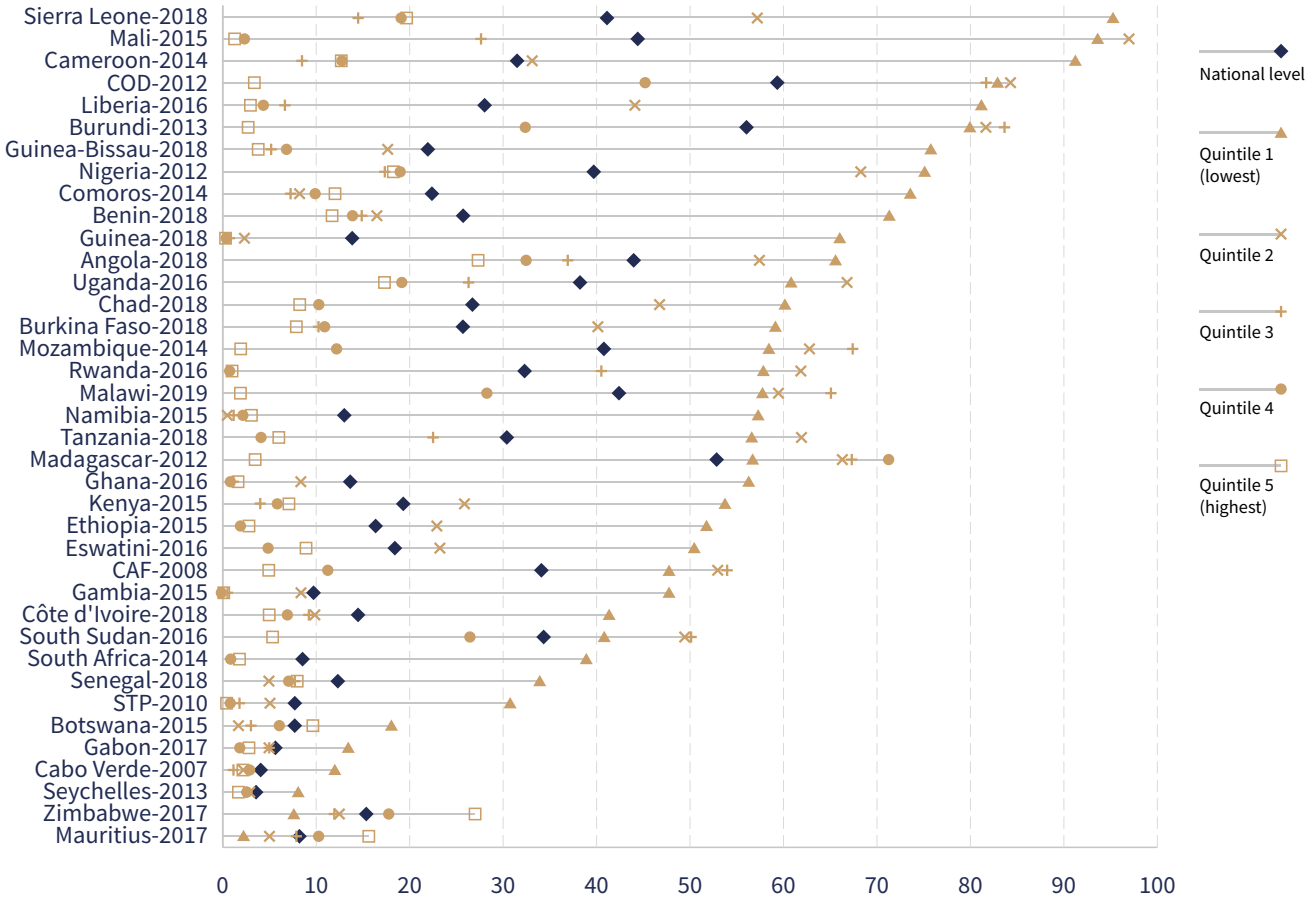
Catastrophic and Impoverishing health spending were highest among people in the lowest consumption quintiles

People in the lowest consumption quintile predominantly faced the highest incidence of financial hardship (which includes both the incidence of catastrophic OOP health spending and impoverishing OOP health spending without double-counting) in 25 of the 38 countries for which survey-based estimates were available (Fig. 14). This was driven predominantly by impoverishing health spending at the extreme poverty line. Across all countries, inequalities across consumption quintiles were high. Indeed, the median incidence of financial hardship was 12.7 times higher in the

lowest (first) consumption quintile than in the highest (fifth) quintile. It was 2.3 times higher than in the second quintile, 6.9 times higher than in the third, and 8.1 times higher than in the fourth quintile.

In 10 countries, people in the second and third consumption quintiles faced the highest incidence of financial hardship. In only one country, people in the fourth consumption quintile faced the highest rate (Madagascar–2012), and in only two other countries, those in the highest consumption quintile faced the highest rate (Mauritius–2017 and Zimbabwe–2017).

Fig. 14. Incidence of financial hardship by per capita consumption quintile, most recent year (2007–2019)



CAF: Central African Republic; COD: Democratic Republic of the Congo; STP: Sao Tome and Principe.

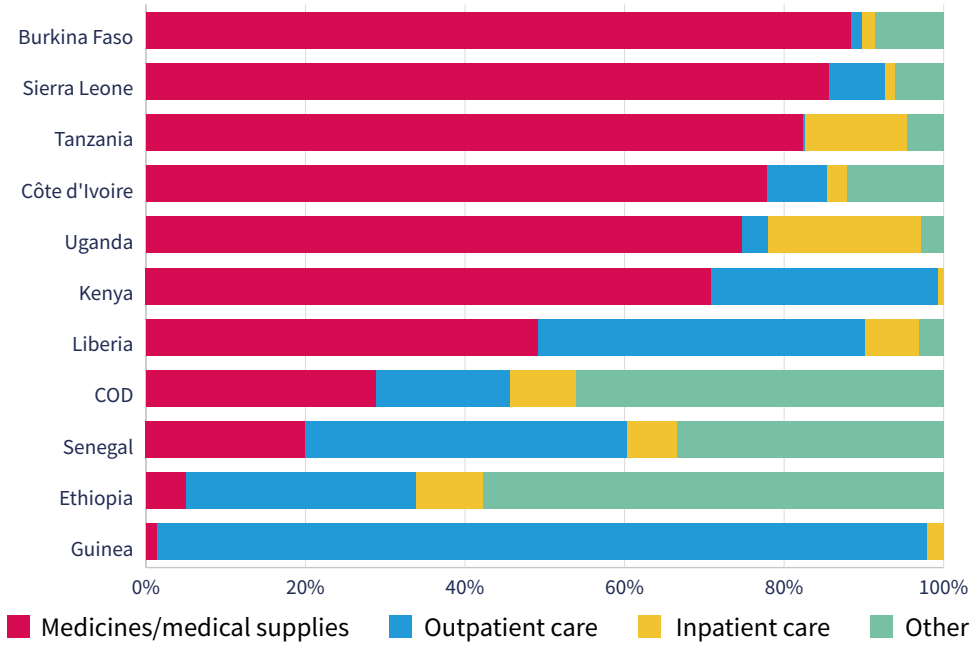
Notes: Incidence of financial hardship is defined as the proportion of the population incurring catastrophic OOP health spending (SDG indicator 3.8.2 at the 10% threshold), impoverishing OOP health spending at the extreme poverty line of PPP US$ 2.15 or both without double counting. Estimates are available for 38 countries with a median year equal to 2016.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

5. What types of health products and services were driving financial hardship before the pandemic?

Medicines and outpatient care were the main drivers of household's OOP health spending (Fig. 15). Challenges impeding sustainable availability of medicines in African countries include weak local manufacturing capacity (causing reliance on imported medicines), weak price regulations (causing high cost of medicines, especially in the private sector), poor supply chain systems and weak governance of the pharmaceutical sector *(38)*.

Fig. 15. Average composition of households' out-of-pocket health spending, available estimates (2011–2015)



COD: Democratic Republic of the Congo; Tanzania: United Republic of Tanzania.

Note: Estimates of average consumption of household's out-of-pocket health spending are available for 11 countries with a median year equal to 2013.

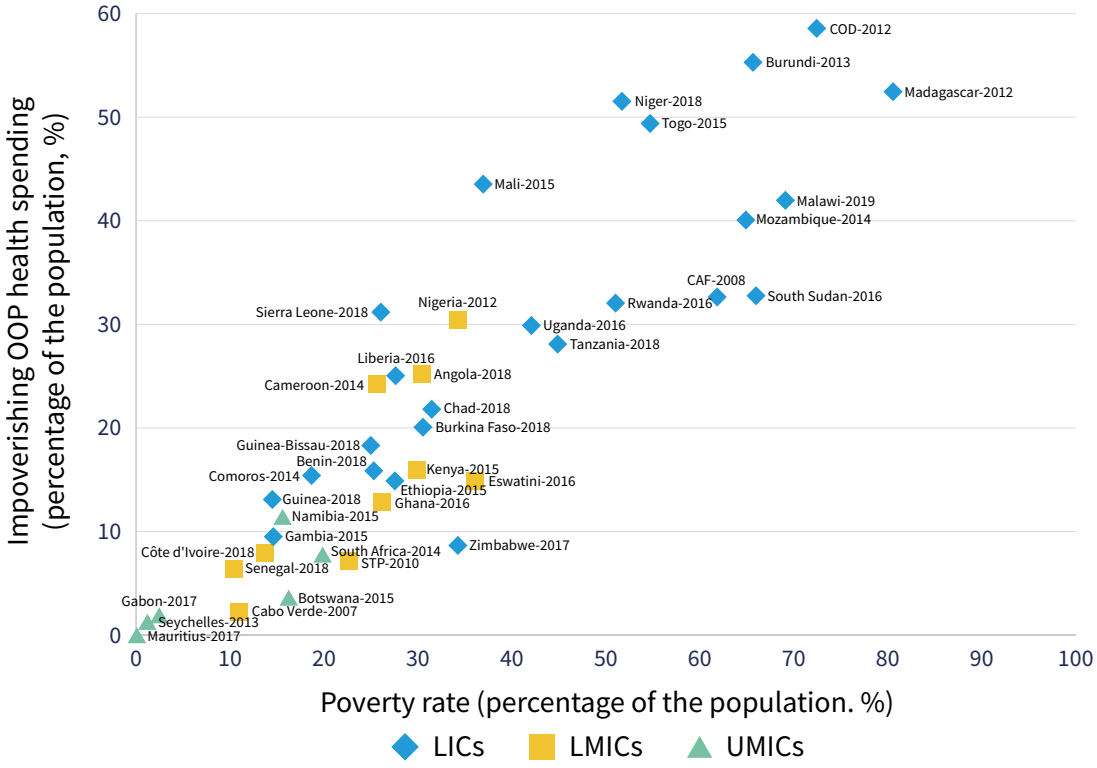
Source: World Health Organization, World Bank *(39)*.

6. Which factors were associated with catastrophic and/or impoverishing OOP health spending, and how are they likely to have evolved during the pandemic?

The incidence of extreme poverty

Before the pandemic, the incidence of impoverishing OOP health spending was higher where extreme poverty was common (Fig. 16). The correlation was strong (0.87; Spearman value) but insufficient to explain all the variability across countries, especially among those with about 40% of their total population living in extreme poverty.

Fig. 16. Incidence of impoverishing OOP health spending and poverty headcount rates, both at the 2017 PPP US$ 2.15 a day poverty line (2007-2019)



CAF: Central African Republic; COD: Democratic Republic of the Congo; STP: Sao Tome and Principe; Tanzania: United Republic of Tanzania; LICs: low-income countries; LMICs: low-middle income countries; UMICs: upper-middle income countries; OOP: out-of-pocket.

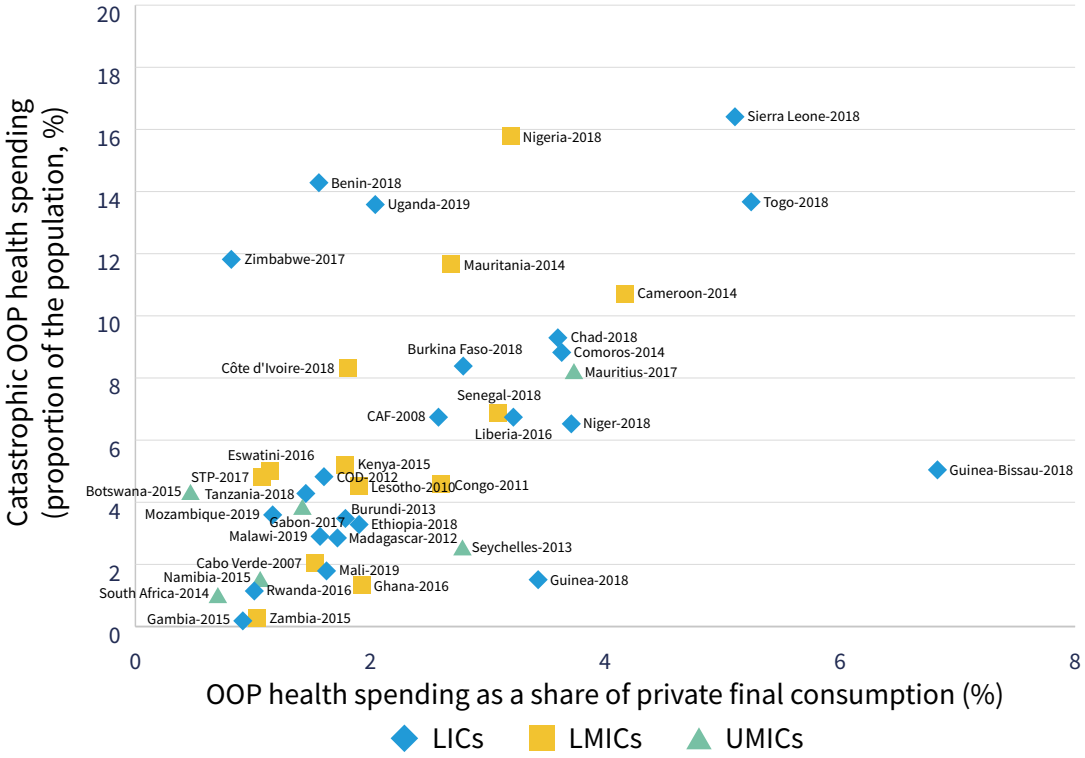
Notes: Data for 40 countries. All indicators matched to the same year, which is country specific. The median most recent year for estimates of impoverishing OOP health spending is 2016.

Source: Incidence of impoverishing OOP health spending from the global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*; poverty headcount rate from the World Bank Poverty and Inequality Platform *(40)*.

The incidence of catastrophic OOP health spending – as tracked by SDG indicator 3.8.2 at the 10% threshold – was high where OOP health spending as a share of private final consumption[7] was high. The correlation was strong (Spearman correlation 0.48, excluding Angola, which was an outlier). OOP health spending as a share of private final consumption can be used as a proxy for catastrophic OOP health spending when data on SDG 3.8.2 at the 10% threshold are lacking (Fig. 17).

7 Private final consumption is measured here through the national accounts and corresponds to the monetary value (in market prices) of the consumption of households and non-profit institutions serving households, including auto-consumption.

Fig. 17. Incidence of catastrophic OOP health spending as tracked by SDG 3.8.2, 10% threshold and OOP health spending as a share of private final consumption (2007–2019)



CAF: Central African Republic; COD: Democratic Republic of the Congo; STP: Sao Tome and Principe; Tanzania: United Republic of Tanzania; LICs: low-income countries; LMICs: low-middle income countries; UMICs: upper-middle income countries; OOP: out-of-pocket.

Notes: Estimates of catastrophic health spending are available for 42 countries with a median year of 2017. One country-year estimate (for Angola–2018) is not shown in the figure as it is at least two times higher than in all other countries in the Region (Annex Table A1.3). Private final consumption is measured here through the national accounts and corresponds to the monetary value (in market prices) of the consumption of households and non-profit institutions serving households, including auto-consumption. All indicators matched to the same year, which is country specific.

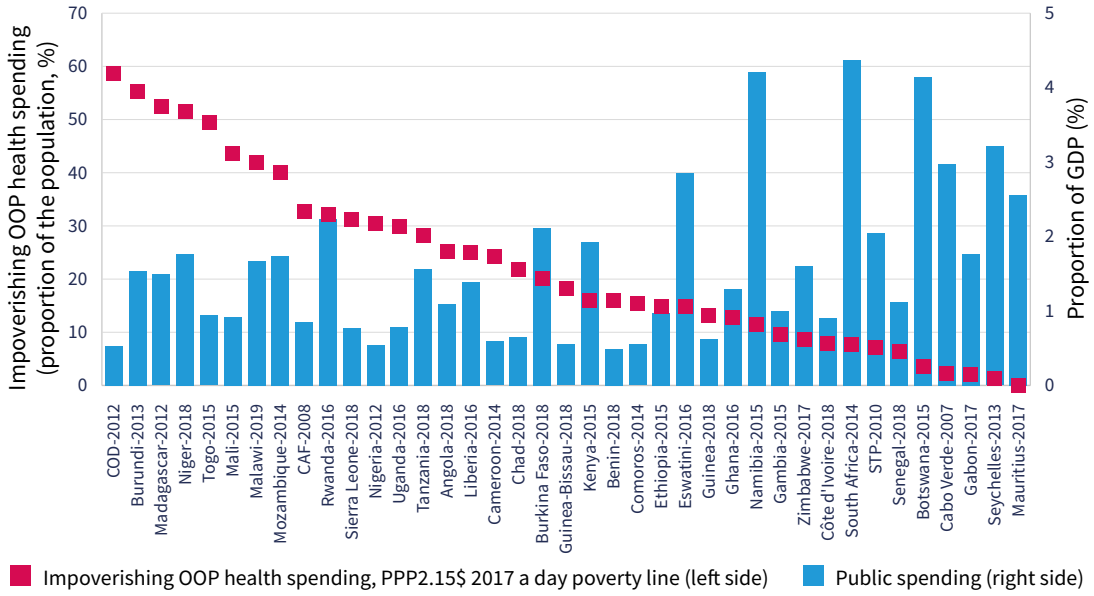
Source: Incidence of catastrophic OOP health spending from the global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*; poverty headcount rate from the World Bank Poverty and Inequality Platform (40) OOP health spending as a percentage of private final consumption from the WHO Global Health Expenditure Database 2023 update *(2)*.

The level of public spending for health

Most countries devoted limited resources to the health sector before the pandemic. In 2019, only nine countries dedicated at least 15% of their annual budget to health as pledged in 2001 in the Abuja Declaration *(41)*. In 2019, public spending for health absorbed at most 1.3% of total GDP in 23 of the 47 countries (for which data were available).[8] This shows little change since 2010. And yet, countries with higher government spending as a share of GDP tended to have lower rates of both impoverishing and catastrophic OOP health spending (Fig. 18 and Fig. 19, respectively). However, it is important to note that the level of spending is a necessary but not sufficient condition. Previous assessment has shown that the levels of spending (including reaching the set targets) were not a determinant of whether a country showed better health outcomes than others *(42)*. A similar finding has been confirmed in African countries, emphasizing the need for efficiency if additional public funds are to contribute to meeting UHC goals *(42)*.

8 Authors' assessment based on data from the WHO Global Health Expenditure Database 2023 update (2).

Fig. 18. Incidence of impoverishing OOP health spending and public spending on health as a percentage of GDP, the latest year available (2007–2020)

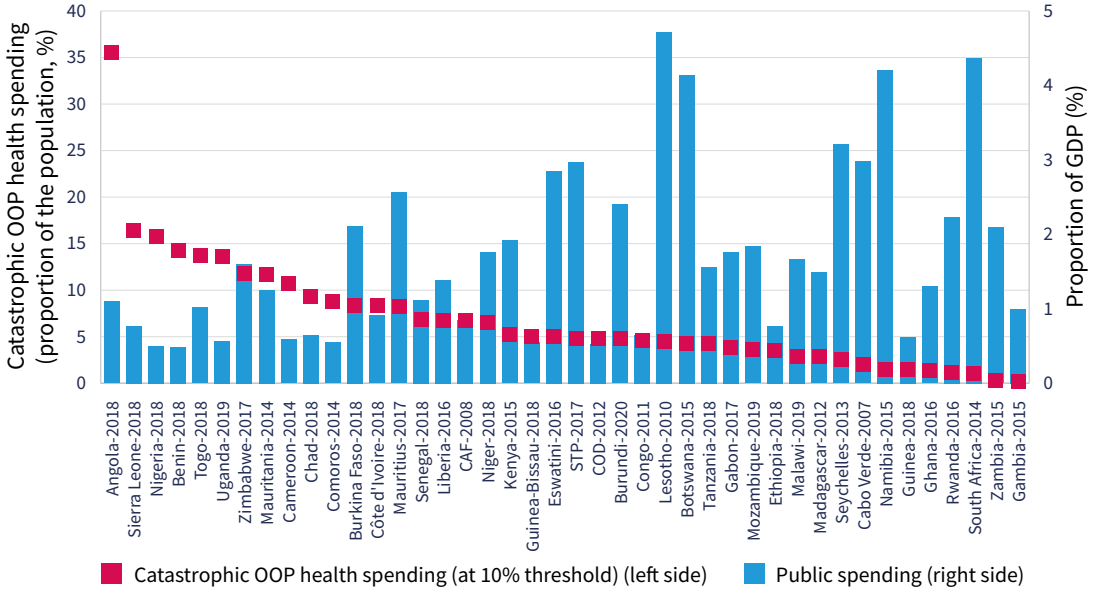


CAF: Central African Republic; COD: Democratic Republic of the Congo; STP: Sao Tome and Principe; Tanzania: United Republic of Tanzania.

Note: Estimates of impoverishing OOP health spending are available for 39 countries with a median year of 2016. Public spending corresponds to domestic general government health expenditure.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Fig. 19. Incidence of catastrophic OOP health spending as tracked by SDG 3.8.2, 10% threshold and public s pending as a percentage of GDP (2007–2020)



CAF: Central African Republic; COD: Democratic Republic of the Congo; STP: Sao Tome and Principe; Tanzania: United Republic of Tanzania

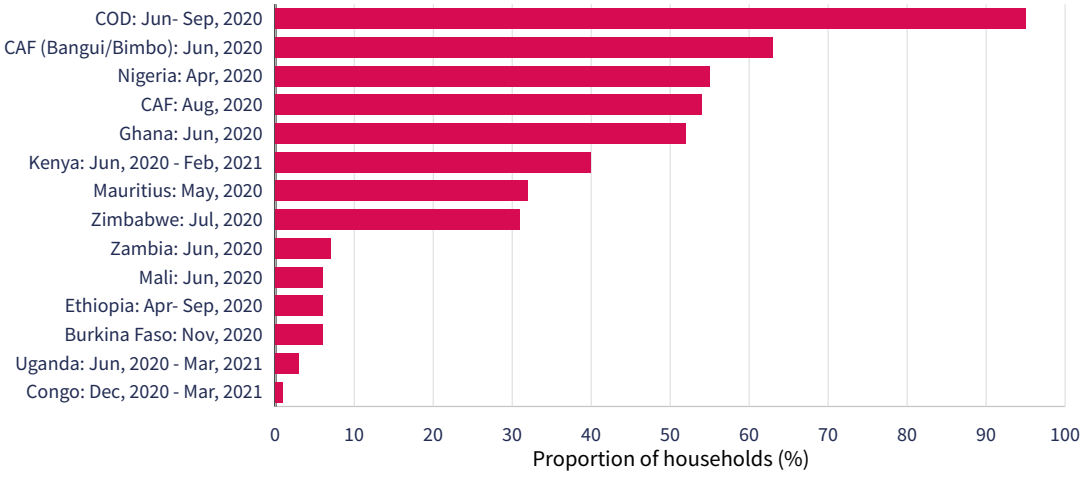
Notes: Estimates of catastrophic OOP health spending are available for 42 countries with a median year of 2017.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

The affordability of care

Despite a scarcity of household expenditure survey data collected during the pandemic, the evidence shows that more than 5% of the households in 10 of the 18 countries with available data had to reduce their total consumption in 2020 and early 2021 (Fig. 20). More than 5% of the households surveyed in February 2021 indicated "cost/affordability" was the most common reason for missed care; Cameroon, Côte d'Ivoire and Uganda had the highest rates (Fig. 21) *(43)*. Overall, the combined socioeconomic and health impacts of COVID-19 point towards the strong likelihood of a significant worsening of financial protection in the Region – due to higher rates of care foregone for financial reasons (Fig. 21) – and for those seeking care, higher rates of financial hardship due to OOP health spending. The latter is driven by a lower capacity to pay, forcing many to cut back on necessities (Fig. 20).

Fig. 20. Reducing household consumption during COVID-19, available estimates (2020 and 2021)

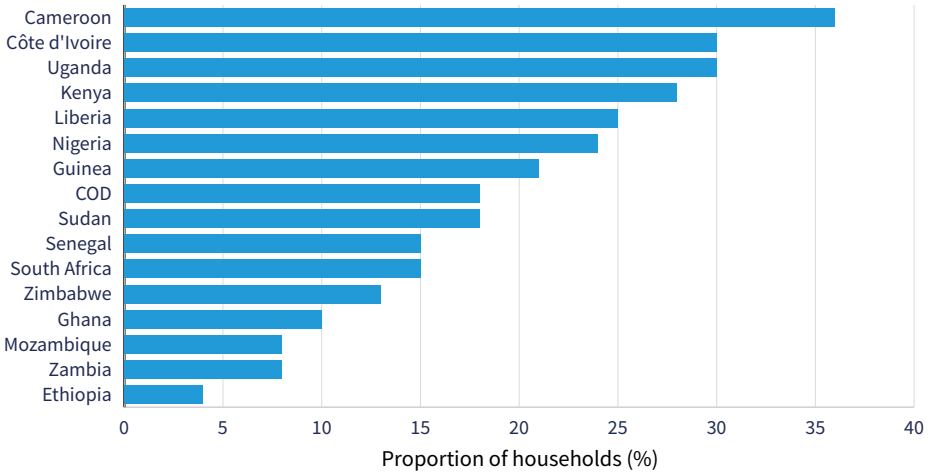


CAF: Central African Republic; COD: Democratic Republic of the Congo.

Notes: Data available for 14 countries, the median year is 2020. Around 63% of countries have more than one point estimate over several waves. The latest available estimate over multiple waves is used.

Source: World Bank COVID-19 Household Monitoring Dashboard *(44)*.

Fig. 21. Reported reasons for missing care–costs and affordability, available estimates (February 2021)



COD: Democratic Republic of the Congo.

Note: data available for 16 countries.

Source: February 2021 survey from the Partnership for Evidence-Based Response to COVID-19 (PERC) *(43)*.

7. What can countries do to improve financial protection?

Reliance on out-of-pocket payments remains high. The contribution of OOP payments (also known as OOP health spending) within the WHO African Region is much higher than the global average. In more than half of the countries within the WHO African Region (31 out of 47), more than 25% of current health expenditure comes from household OOP payments. Of specific concern is that OOP payments were predominant in low-income and lower-middle-income countries. Reducing the high reliance on OOP payments for health care is important as these countries explore efforts to improve overall household welfare and reduce the prevalence of poverty. While health financing interventions (discussed in more detail below) are important, previous studies have shown that reducing OOP payments requires fundamental changes to the health system. Interventions must improve stewardship, regulation and service delivery, and must include the creation of resources such as human resources and infrastructure.

Increasing public spending is important for reducing the financial burden. This report shows that countries with a higher share of GDP spent as government health expenditure tend to have a lower prevalence of catastrophic and impoverishing OOP health spending. However, we know that as countries continue to struggle to recover from the economic shocks of the COVID-19 pandemic, the capacity to sustainably invest in health will be threatened. Some countries are likely to reduce health spending to below pre-pandemic levels. This has grave implications for the ability of countries to reverse the pattern of OOP health spending and its associated effects on access to care and financial risk protection. Countries should protect spending on health and prioritize an increase in health spending amid anticipated economic challenges. While increased public expenditure is important, the way it is allocated and utilized is critical to having the desired effect. Specifically, public resources must be used in an efficient and transparent manner. Equitable use of public resources would also help those most at risk of financial burden due to OOP payments.

The WHO African Region is far from attaining financial risk protection. Based on the latest available estimates, in 2019, over 95 million people within the African Region faced catastrophic OOP health spending as their OOP budget share allocation to health exceeded 10% of their total household consumption expenditure. Even worse, about 152 million people incurred impoverishing OOP health spending (which includes the impoverished and further impoverished at the poverty line). Cumulatively, 219 million people suffered financial hardship in Africa in 2019. Given the lower rates of per capita health spending in Africa compared to the rest of the world, the high financial hardship is of concern. Across countries, the distribution of catastrophic OOP health spending mirrors that of OOP payments as a share of private final consumption, and impoverishing OOP health spending is highly correlated with extreme poverty. This leads to a double burden for the poorest countries in the Region.

Progress in reducing the financial burden due to OOP payments remains minimal. The incidence of catastrophic OOP health spending (10% threshold) increased from 7.8% to 8.6% between 2000 and 2019, although impoverishment did fall from 45.3% to 13.8%. Within this period, among the countries for which data were available, only four countries were able to reduce both catastrophic and impoverishing OOP health spending. This is despite a sustained period of health system reform across countries and increased investment–including by external aid, which peaked during this period. It is important that countries routinely monitor both the effects of policy initiatives and strategies on financial protection and the overall health financing indicators so that corrective measures can be taken. Furthermore, noting the effect of broader socioeconomic factors – especially the effect of household poverty on financial protection – and addressing the financial burden due to OOP health payments is likely to benefit from stronger social protection.

Health financing policies that reduce OOP payments (such as subsidies and exemptions for the poor and/or specific vulnerable groups, user fee removal and mandatory prepayment schemes) are important in reducing the levels of catastrophic and impoverishing OOP health spending. However, it is also important to note that broader health system factors related to institutional and social fragility, which are linked to poverty, must be addressed as well.

The key drivers of OOP payments must be given sufficient consideration in the design of benefits packages and service delivery models, and packages and models must be well funded. Medicines are the main driver of OOP payments and, hence, financial risk. While this is not unique to the African Region, the countries within the Region are at risk because of reliance on the importation of medicines and a lack of systems for price regulation *(45)*–even though many people rely on purchasing medicines from private providers. Within the public sector, there is need to make procurement more efficient so that enough medicines are available to those who need them. Ensuring sufficient coverage of medicines within the defined health benefits packages is also a challenge.

Household characteristics predispose some households to be more at risk of incurring financial hardships. Within the WHO African Region, the households that were at more risk of financial hardship were the poor, older and multigenerational households, and those located in rural areas. These population groups are at risk of being left behind. They may not get equitable access to health services if their entitlements to services are not guaranteed. It is important to note that among the poor, even small payments out-of-pocket impose a significant burden. Exemption for the poor and ensuring that benefit packages address the health needs of the poor are important. Furthermore, service delivery models are often not well designed to provide services for the aged and health benefit packages often do not adequately allow for the health needs of older people.

African countries face challenges in data generation and use to monitor financial protection. Strengthening collaboration with national statistics agencies, conducting regular surveys and building analytical capacity are all paramount. Monitoring financial risk protection must be mainstreamed in health sector performance assessment processes.

References

1. Global expenditure on health: public spending on the rise? Geneva: World Health Organization; 2021 (https://www.who.int/teams/health-systems-governance-and-financing/global-spending-on-health-2021, accessed 8 March 2023)

2. Global Health Expenditure Database [online database]. Geneva: World Health Organization; 2023 (https://apps.who.int/nha/database, accessed 15 February 2023).

3. Tracking universal health coverage: 2023 global monitoring report. Geneva: World Health Organization and International Bank for Reconstruction and Development/The World Bank; 2023. Licence: CC BY-NC-SA 3.0 IGO.

4. Tracking universal health coverage in the WHO African Region, 2022. Brazzaville: World Health Organization–Regional Office for Africa; 2022 (https://apps.who.int/iris/handle/10665/361229, accessed 8 March 2023).

5. Levesque JF, Pineault R, Hamel M, Roberge D, Kapetanakis C, Simard B 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;13(1):66. doi:10.1186/1471-2296-13-66

6. Financial risk protection towards universal health coverage in the WHO African Region. Brazzaville: World Health Organization – Regional Office for Africa; 2022 (https://apps.who.int/iris/handle/10665/361853, accessed 8 March 2023).

7. Global Health Observatory data repository: financial protection indicators. Geneva: World Health Organization; 2023 (https://apps.who.int/gho/data/node.main.UHCFINANCIALPROTECTION, accessed 20 June 2023).

8. Unmet needs for health care: Comparing approaches and results from international surveys. Paris: Organisation for Economic Co-operation and Development; 2020 (https://www.oecd.org/health/health-systems/Unmet-Needs-for-Health-Care-Brief-2020.pdf, accessed 8 March 2023).

9. COVID-19 Household Monitoring Dashboard. Washington (DC): World Bank; 2021 (https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard, accessed 21 February 2023).

10. SDG 3.8.2 Catastrophic health spending (and related indicators). Geneva: World Health Organization; 2022 https://www.who.int/data/gho/data/themes/topics/financial-protection, accessed 21 February 2023).

11. United Nations Department of Economic and Social Affairs, World Bank. Monitoring the state of statistical operations under the COVID-19 pandemic: highlights from a global COVID-19 survey of national statistical offices. New York: World Bank; 2020 (https://covid-19-response.unstatshub.org/survey/covid-19-nso-survey-report-2.pdf, accessed 8 March 2023).

12. United Nations Department of Economic and Social Affairs, World Bank. Monitoring the state of statistical operations under the COVID-19 pandemic. Geneva: United Nations; 2020 (https://unstats.un.org/unsd/covid19-response/covid19-nso-survey-report.pdf, accessed 8 March 2023).

13. United Nations Department of Economic and Social Affairs. Classification of individual consumption according to purpose (COICOP) 2018. Statistical Papers Series M, No. 99. Geneva: United Nations; 2018;(99):1–265 (https://unstats.un.org/unsd/classifications/business-trade/desc/COICOP_english/COICOP_2018_-_pre-edited_white_cover_version_-_2018-12-26.pdf, accessed 8 March 2023).

14. United Nations Statistics Division. SGD indicator metadata. Geneva: United Nations; 2018 (https://unstats.un.org/sdgs/metadata/files/metadata-17-18-02.pdf, accessed 4 November 2022).

15. Diaz T, Strong KL, Cao B, Guthold R, Moran AC, Moller AB et al. A call for standardised age-disaggregated health data. The Lancet Healthy Longevity. 2021;2(7):e436–43. doi: 10.1016 S2666-7568(21)00115-X.

16. Demographic and social statistics: population density and urbanization. Geneva: United Nations; 2022 (https://unstats.un.org/unsd/demographic/sconcerns/densurb/densurbmethods.htm, accessed 26 August 2022).

17. Lavado RF, Brooks BP, Hanlon M. Estimating health expenditure shares from household surveys. Bulletin of the World Health Organization 2013;91(7):519–524C. doi:10.2471/BLT.12.115535.

18. Agorinya IA, Ross A, Flores G, Tan-Torres Edejer T, Dalaba MA, Mensah NK 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):e042562. doi: 10.1136/bmjopen-2020-042562.

19. Le LM, Flores G, Tan-Torres Edejer T, Tran TK, Nguyen CTK, Tran DT et al. Investigating the effect of recall period on estimates of inpatient out-of-pocket expenditure from household surveys in Vietnam. PLoS One. 2020;15(11):e0242734. doi:10.1371/journal.pone.0242734.

20. Heijink R, Xu K, Saksana P, Evans D. Validity and comparability of out-of-pocket health expenditure from household surveys: a review of the literature and current survey instruments. WHO Discussion Paper No. 1, 2011;1–30 (https://apps.who.int/iris/handle/10665/85711, accessed 8 March 2023).

21. Lu C, Liu K, Li L, Yang Y. Sensitivity of measuring the progress in financial risk protection to survey design and its socioeconomic and demographic determinants: a case study in Rwanda. Social Science and Medicine. 2017;178:11–8. doi:10.1016/j.socscimed.2017.02.001.

22. Xu K, Ravndal F, Evans DB, Carrin G. Assessing the reliability of household expenditure data: results of the World Health Survey. Health Policy. 2009;91(3):297–305. doi:10.1016/j.healthpol.2009.01.002.

23. Lu C, Chin B, Li G, Murray CJL. Limitations of methods for measuring out-of-pocket and catastrophic private health expenditures. Bulletin of the World Health Organ. 2009;87(3):238–44, 244A-244D. doi:10.2471/blt.08.054379.

24. PovcalNet. Washington (DC): The World Bank Group; 2022 (https://web.archive.org/web/20221213033253/http://iresearch.worldbank.org/PovcalNet, accessed 17 August 2022).

25. Chimbuco BN, Ferreira MA, Sacomboio ENM, Ekundi-Valentim E. Community pharmacy services in Malanje City, Angola: a survey of practices, facilities, equipment, and staff. Pharmacy. 2022;10(2):35. doi:10.3390/pharmacy10020035.

26. Lépine A, Lagarde M, le Nestour A. How effective and fair is user fee removal? Evidence from Zambia using a pooled synthetic control. Health Economics. 2018;27(3):493–508. doi:10.1002/hec.3589.

27. Chama-Chiliba CM, Koch SF. An assessment of the effect of user fee policy reform on facility-based deliveries in rural Zambia. BMC Research Notes. 2016;9(1):504. doi:10.1186/s13104-016-2316-8.

28. Masiye F, Kaonga O, Kirigia JM. Does user fee removal policy provide financial protection from catastrophic health care payments? Evidence from Zambia. PLoS One. 2016;11(1):e0146508. doi:10.1371/journal.pone.0146508.

29. Rudasingwa M, de Allegri M, Mphuka C, Chansa C, Yeboah E, Bonnet E et al. Universal health coverage and the poor: to what extent are health financing policies making a difference? Evidence from a benefit incidence analysis in Zambia. BMC Public Health. 2022;22(1):1546. doi:10.1186/s12889-022-13923-1.

30. Kaonga O, Banda C, Masiye F. Hardship financing of out-of-pocket payments in the context of free healthcare in Zambia. PLoS One. 2019;14(4):e0214750. doi:10.1371/journal.pone.0214750.

31. 2015 Living Conditions Monitoring Survey (LCMS) Report. Lusaka: Zambia Central Statistical Office; 2016 (https://www.zamstats.gov.zm/wp-content/uploads/2023/12/2015-Living-Conditions-Monitoring-Survey.pdf, accessed 8 March 2023).

32. Nabyonga Orem J, Mugisha F, Kirunga C, MacQ J, Criel B. Abolition of user fees: the Uganda paradox. Health Policy Plan. 2011;26(suppl. 2):ii41–51. doi:10.1093/heapol/czr065.

33. Kwesiga B, Zikusooka CM, Ataguba JE. Assessing catastrophic and impoverishing effects of health care payments in Uganda. BMC Health Services Research. 2015;15(1):1–6. doi:10.1186/s12913-015-0682-x.

34. Xu K, Evans DB, Kadama P, Nabyonga J, Ogwal PO, Nabukhonzo P et al. Understanding the impact of eliminating user fees: utilization and catastrophic health expenditures in Uganda. Social Science And Medicine. 2006;62(4):866–76. doi:10.1016/j.socscimed.2005.07.004.

35. Deininger K, Mpuga P. Economic and welfare impact of the abolition of health user fees: evidence from Uganda. Journal of African Economies. 2005;14(1):55–91. doi:10.1093/jae/ejh034.

36. WHO AFRO and HelpAge International partnering to combat ageism in the African Region. Brazzaville: World Health Organization – Regional Office for Africa: 2021 (https://www.afro.who.int/fr/node/15161, accessed 1 November 2022).

37. Yaya S, Uthman OA, Okonofua F, Bishwajit G. Decomposing the rural-urban gap in the factors of under-five mortality in sub-Saharan Africa? Evidence from 35 countries. BMC Public Health. 2019:19(1);1¬–10. doi:10.1186/s12889-019-6940-9.

38. Adebisi YA, Nwogu IB, Alaran AJ, Badmos AO, Bamgboye AO, Rufai BO et al. Revisiting the issue of access to medicines in Africa: challenges and recommendations. Public Health Challenges. 2022;1(2):1–13. doi:10.1002/puh2.9.

39. Global monitoring report on financial protection in health 2019. Geneva: World Health Organization, World Bank; 2020 (https://www.who.int/publications/i/item/9789240003958, accessed 9 March 2023).

40. Poverty and Inequality Platform. Washington (DC): World Bank; 2022 (https://pip.worldbank.org/home, accessed 4 November 2022).

41. Abuja declaration on HIV/AIDS, tuberculosis other related infectious diseases. Geneva: United Nations; 2001 (https://au.int/sites/default/files/pages/32894-file-2001-abuja-declaration.pdf, accessed 9 March 2023).

42. Jowett M, Brunal MP, Flores G, Cylus J. Spending targets for health: no magic number (WHO/HIS/HGF/HFWorkingPaper/16.1; Health Financing Working Paper No. 1). Geneva: World Health Organization; 2016 (http://www.who.int/health_financing, accessed 4 November 2022).

43. Partnership for evidence-based response to COVID-19. New York: Resolve to Save Lives; 2021 (https://preventepidemics.org/covid19/perc, accessed 25 September 2022).

44. COVID-19 Household Monitoring Dashboard. Washington (DC): World Bank; 2022 (https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard, accessed 31 August 2022).

45. WHO guideline on country pharmaceutical pricing policies. Geneva: World Health Organization; 2020 (https://iris.who.int/handle/10665/335692, accessed 4 November 2022).

Annexes

Annex 1. Data sources and data availability

Unless otherwise specified, data were drawn from the following sources:

- **Published data about financial hardship.** Data from the Global database on financial protection assembled by WHO and the World Bank, 2023 update; https://www.who.int/data/gho/data/themes/topics/financial-protection.
- **Unpublished data about financial hardship.** Background data (prepared by WHO) for the 2023 update of the WHO and World Bank global financial protection database.
- **Macro indicator on health spending.** Data from the Global Health Expenditure Database 2023 update; https://apps.who.int/nha/database/QuickReports/Index/en.
- **COVID-19 data on reduced consumption of goods and financial barriers to access care.** World Bank High Frequency phone survey; https://www.worldbank.org/en/data/interactive/2020/11/11/covid-19-high-frequency-monitoring-dashboard.
- **COVID-19 data on paying out-of-pocket for COVID-19 testing and financial hardship due to COVID-19 testing**; https://covidmap.umd.edu.

Annex 2. Health system reliance on public spending, out-of-pocket health spending and out-of-pocket health spending as a share of private final consumption (2000–2019)

	WHO African Region						Global					
	2000	2005	2010	2015	2017	2019	2000	2005	2010	2015	2017	2019
OOPS/CHE	45.6	45.4	43.3	39.9	40.8	40.1	48.8	49.1	43.9	41.5	39.4	38.9
OOPS/PFC	2.6	3.1	2.8	2.4	2.4	2.2	3.7	4.1	3.7	3.5	3.3	3.2
GGHED/CHE	29.4	30.1	25.8	28.6	28.1	29.0	36.6	38.1	42.6	44.9	45.9	45.8

OOPS/CHE: out-of-pocket spending as a percentage of current health expenditure; OOPS/PFC: out-of-pocket health spending as a percentage of private final consumption; GGHED/CHE: domestic general government health expenditure as a percentage of current health expenditure.

Note: all averages are population-weighted.

Source: WHO Global Health Expenditure Database, 2023 update *(2)*.

Annex 3. Impoverishing OOP health spending at the relative poverty line of 60% of median per capita consumption (2000–2019)

	Poverty line = 60% of median per capita consumption											
	Impoverished (%)						Further impoverished (%)					
	2000	2005	2010	2015	2017	2019	2000	2005	2010	2015	2017	2019
African Region	1.5	1.7	1.7	1.8	1.8	1.9	13.3	13.8	14.7	14.9	15.2	14.3
Global	1.4	1.8	1.9	2.0	2.0	2.2	10.4	10.1	12.4	13.6	13.8	14.5
	Impoverished (millions of people)						Further impoverished (millions of people)					
	2000	2005	2010	2015	2017	2019	2000	2005	2010	2015	2017	2019
African Region	10.3	13.2	14.8	17.5	18.8	20.6	88.9	105.0	127.8	148.5	159.6	157.8
Global	87.6	117.9	129.7	148.9	152.7	173.7	636.9	661.4	864.1	1009.8	1043.2	1121.2

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update (7).

Annex 4. Incidence of catastrophic and impoverishing OOP health spending (%) by country, most recent year

SDG UHC indicator 3.8.2, latest year: incidence of catastrophic OOP health spending (%)			Impoverishing OOP health spending, at the PPP US$ 2.15 a day poverty line		
WHO country name and latest year	At 10% of household total consumption or income	At 25% of household total consumption or income	WHO country name and latest year	(Impoverished) increase in poverty headcount	(Further impoverished) poor spending on health
Angola-2018	35.5	12.5	Angola-2018	5.2	20.0
Benin-2018	14.3	2.9	Benin-2018	3.3	12.6
Botswana-2015	4.3	1.0	Botswana-2015	0.2	3.4
Burkina Faso-2018	8.4	1.8	Burkina Faso-2018	2.2	17.9
Burundi-2020	4.8	0.9	Burundi-2013	1.4	53.9
Cabo Verde-2007	2.0	0.0	Cabo Verde-2007	0.2	2.0
Cameroon-2014	10.7	1.8	Cameroon-2014	2.1	22.1
Central African Republic-2008	6.7	1.2	Central African Republic-2008	1.3	31.4
Chad-2018	9.3	1.4	Chad-2018	2.7	19.1
Comoros-2014	8.8	1.6	Comoros-2014	1.0	14.4
Congo-2011	4.6	0.7	Congo	ND	ND
Côte d'Ivoire-2018	8.3	0.6	Côte d'Ivoire-2018	1.8	6.2
Democratic Republic of the Congo-2012	4.8	0.6	Democratic Republic of the Congo-2012	1.2	57.4
Eswatini-2016	5.0	1.3	Swaziland-2016	1.0	13.9
Ethiopia-2018	3.5	0.6	Ethiopia-2015	0.9	14.0
Gabon-2017	3.8	0.7	Gabon-2017	0.2	1.8
Gambia-2015	0.2	0.0	Gambia-2015	0.2	9.3
Ghana-2016	1.3	0.1	Ghana-2016	0.3	12.5
Guinea-2018	1.5	0.0	Guinea-2018	1.6	11.5
Guinea-Bissau-2018	5.0	0.4	Guinea-Bissau-2018	1.9	16.4
Kenya-2015	5.2	1.4	Kenya-2015	1.3	14.7
Lesotho-2010	4.5	1.4	Lesotho	ND	ND
Liberia-2016	6.7	1.1	Liberia-2016	2.4	22.6
Madagascar-2012	2.9	0.6	Madagascar-2012	0.4	52.0
Malawi-2019	2.9	0.4	Malawi-2019	0.9	41.1
Mali-2021	1.7	0.1	Mali-2015	2.3	41.2
Mauritania-2014	11.7	2.9	Mauritania	ND	ND
Mauritius-2017	8.2	1.9	Mauritius-2017	0.0	0.0
Mozambique-2019	3.6	1.0	Mozambique-2014	0.5	39.6
Namibia-2015	1.5	0.3	Namibia-2015	0.1	11.3
Niger-2018	6.5	0.9	Niger-2018	2.6	49.0
Nigeria-2018	15.8	4.1	Nigeria-2012	4.0	26.4
Rwanda-2016	1.2	0.1	Rwanda-2016	0.5	31.6
Sao Tome and Principe-2017	4.8	1.2	Sao Tome and Principe-2010	0.3	6.8
Senegal-2018	6.9	1.3	Senegal-2018	1.3	5.1
Seychelles-2013	2.6	1.3	Seychelles-2013	0.4	0.9
Sierra Leone-2018	16.4	3.0	Sierra Leone-2018	4.2	27.0
South Africa-2014	1.0	0.1	South Africa-2014	0.3	7.5
South Sudan-2016	11.7	2.7	South Sudan-2016	1.9	30.9
Togo-2018	13.7	3.0	Togo-2015	4.9	44.5
Uganda-2019	13.6	3.6	Uganda-2016	3.1	26.8
United Republic of Tanzania-2018	4.3	0.8	United Republic of Tanzania-2018	1.1	27.1
Zambia-2015	0.3	0.0	Zambia-2004	0.5	22.1
Zimbabwe-2017	11.8	7.0	Zimbabwe-2017	5.5	3.2

ND: no data.

Notes: 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 levels to monitor catastrophic OOP health spending. These estimates are based on data availability for global and regional monitoring, which may not necessarily align with the availability of data at national levels.

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

Annex 5. Categories of the average change in the incidence of catastrophic and impoverishing OOP health spending for 47 countries

Average change in the incidence of catastrophic OOP health spending for 47 countries	Average change in the incidence of impoverishing OOP health spending (SDG 3.8.2 indicator at 10% threshold)		
	Decreasing	**No change**	**Increasing**
Decreasing	**4** Cameroon (1996–2014), Guinea (2002–2018), Sierra Leone (2003–2018), Eswatini (2000–2016)	**8** Côte d'Ivoire (1985–2018), Cabo Verde (2001–2007), Gabon (2005–2017), Ghana (1991–2016), Liberia (2007–2016), Mali (1994–2021), Nigeria (2003–2018), Rwanda (2000–2016)	**1** Togo (2006–2018)
No change	**6** Burundi (1998–2020), Gambia (2010–2015), Guinea-Bissau (2002–2018), Namibia (2009–2015), United Republic of Tanzania (2000–2018), Uganda (1996–2019)	**4** Burkina Faso (1998–2018), Botswana (1993–2015), Kenya (2005–2015), South Africa (1990–2014)	**0**
Increasing	**3** Benin (2003–2018), Senegal (2001–2018), Chad (2003–2018)	**6** Ethiopia (1999–2018), Madagascar (2005–2012), Mozambique (2002–2019), Mauritius (1996–2017), Niger (2005–2018), Seychelles (200–2013)	**3** Angola (2008–2018), Malawi (2004–2019), South Sudan (2009–2016)

Note: The total number of countries is 47. Data on average changes in both dimensions of financial hardship (catastrophic and impoverishing OOP health spending) is available for 35 countries. Period of change is country specific and indicated in brackets. On average the change is assessed over 14 years. Changes in both indicators is based on the average annual percentage point change (AAPPC) over time. For catastrophic OOP health spending (SDG indicator 3.8.2 at the 10% threshold), the classification is based on the AAPPC values greater than +0.1 (increases); less than −0.1 (reductions); −0.1 to +0.1 (no change). For the classification related to impoverishing OOP health spending, AAPPC values are: greater than +1 (increases); less than −1 (reductions); −1 to +1 (no change). Three countries do not have any estimate for any financial hardship indicator at all (Eritrea, Algeria and Equatorial Guinea). Six countries do not have trend data for any financial hardship indicator (Central African Republic–2008, Congo–2011, Comoros–2014, Lesotho–2010, Mauritania–2004 and Zimbabwe–2017). Three countries only have trend data for one of the financial hardship indicators: Democratic Republic of the Congo (2004–2012), Sao Tome and Principe (2010–2017) and Zambia (1996–2015).

Source: Global database on financial protection assembled by WHO and the World Bank, 2023 update *(7)*.

World Health Organization

African Region

The WHO Regional Office for Africa

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Africa is one of the six regional offices throughout the world, each with its own programme geared to the particular health conditions of the Member States it serves.

Member States

Algeria
Angola
Benin
Botswana
Burkina Faso
Burundi
Cabo Verde
Cameroon
Central African Republic
Chad
Comoros
Congo
Côte d'Ivoire
Democratic Republic of the Congo
Equatorial Guinea
Eritrea
Eswatini
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Niger
Nigeria
Rwanda
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
South Africa
South Sudan
Togo
Uganda
United Republic of Tanzania
Zambia
Zimbabwe

World Health Organization
Regional Office for Africa
Universal Health Coverage, Life Course Cluster
Health Financing and Investment Unit
Cité du Djoué
PO Box 6, Brazzaville
Congo
Telephone: +(47 241) 39402
Fax: +(47 241) 39503
Email: afrgocom@who.int
Website: https://www.afro.who.int/