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Can people afford to pay for health care?

New evidence
on financial protection
in the Republic
of Moldova

Iuliana Garam
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Republic of Moldova

WHO Barcelona Office for Health Systems Strengthening

The WHO Barcelona Office is a centre of excellence in health financing for universal health coverage. It works with Member States across WHO's European Region to promote evidence-informed policy making.

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Abstract & keywords

This review is part of a series of country-based studies generating new evidence on financial protection in European health systems. Financial protection is central to universal health coverage and a core dimension of health system performance.

HEALTHCARE FINANCING
HEALTH EXPENDITURES
HEALTH SERVICES ACCESSIBILITY
FINANCING, PERSONAL
POVERTY
REPUBLIC OF MOLDOVA
UNIVERSAL COVERAGE

About the series

This series of country-based reviews monitors financial protection in European health systems by assessing the impact of out-of-pocket payments on household living standards. Financial protection is central to universal health coverage and a core dimension of health system performance.

What is the policy issue? People experience financial hardship when out-of-pocket payments – formal and informal payments made at the point of using any health care good or service – are large in relation to a household's ability to pay. Out-of-pocket payments may not be a problem if they are small or paid by people who can afford them, but even small out-of-pocket payments can cause financial hardship for poor people and those who have to pay for long-term treatment such as medicines for chronic illness. Where health systems fail to provide adequate financial protection, people may not have enough money to pay for health care or to meet other basic needs. As a result, lack of financial protection may reduce access to health care, undermine health status, deepen poverty and exacerbate health and socioeconomic inequalities. Because all health systems involve a degree of out-of-pocket payment, financial hardship can be a problem in any country.

How do country reviews assess financial protection? Each review is based on analysis of data from household budget surveys. Using household consumption as a proxy for living standards, it is possible to assess:

- how much households spend on health out of pocket in relation to their capacity to pay; out-of-pocket payments that exceed a threshold of a household's capacity to pay are considered to be *catastrophic*;
- household ability to meet basic needs after paying out of pocket for health; out-of-pocket payments that push households below a poverty line or basic needs line are considered to be *impoverishing*;
- how many households are affected, which households are most likely to be affected and the types of health care that result in financial hardship; and
- changes in any of the above over time.

Why is monitoring financial protection useful? The reviews identify the factors that strengthen and undermine financial protection; highlight implications for policy; and draw attention to areas that require further analysis. The overall aim of the series is to provide policy-makers and

others with robust, context-specific and actionable evidence that they can use to move towards universal health coverage. A limitation common to all analysis of financial protection is that it measures financial hardship among households who are using health services, and does not capture financial barriers to access that result in unmet need for health care. For this reason, the reviews systematically draw on evidence of unmet need, where available, to complement analysis of financial protection.

How are the reviews produced? Each review is produced by one or more country experts in collaboration with the WHO Barcelona Office for Health Systems Strengthening, part of the Division of Health Systems and Public Health of the WHO Regional Office for Europe. To facilitate comparison across countries, the reviews follow a standard template, draw on similar sources of data (see Annex 1) and use the same methods (see Annex 2). Every review is subject to external peer review. Results are also shared with countries through a consultation process held jointly by the WHO Regional Office for Europe and WHO headquarters. The country consultation includes regional and global financial protection indicators (see Annex 3).

What is the basis for WHO's work on financial protection in Europe?

WHO support to Member States for monitoring financial protection in Europe is underpinned by the Tallinn Charter: Health Systems for Health and Wealth, Health 2020 and resolution EUR/RC65/R5 on priorities for health systems strengthening in the WHO European Region 2015–2020, all of which include a commitment to work towards a Europe free of impoverishing out-of-pocket payments for health. Resolution EUR/RC65/R5 calls on WHO to provide Member States with tools and support for monitoring financial protection and for policy analysis, development, implementation and evaluation. At the global level, support by WHO for the monitoring of financial protection is underpinned by World Health Assembly resolution WHA64.9 on sustainable health financing structures and universal coverage, which was adopted by Member States in May 2011. The Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 also call for monitoring of, and reporting on, financial protection as one of two indicators for universal health coverage. Resolution EUR/RC67/R3 – a roadmap to implement the 2030 Agenda for Sustainable Development, building on Health 2020 – calls on WHO to support Member States in moving towards universal health coverage.

Comments and suggestions for improving the series are most welcome and can be sent to euhsf@who.int.

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Abbreviations

CNAM	Compania Națională de Asigurări în Medicină [National Health Insurance Company of the Republic of Moldova]
EHIS	European Health Interview Survey
EU	European Union
EU-SILC	European Union Statistics on Income and Living Conditions
GDP	gross domestic product
INN	international nonproprietary name
MDL	Moldovan lei
OECD	Organisation for Economic Co-operation and Development
NBS	National Bureau of Statistics (of the Republic of Moldova)
VHI	voluntary health insurance

Executive summary

Successive governments in the Republic of Moldova have demonstrated strong commitment to universal health coverage through reforms aimed at improving the accessibility, affordability and quality of publicly financed health services.

Government commitment to public investment in health and the establishment of a national purchasing agency (CNAM) responsible for pooling individual and state contributions have provided a solid foundation for a gradual expansion in the share of people and range of services – including essential medicines – covered by CNAM.

These factors have led to greater use of health services and fewer people reporting unmet need due to cost – a major improvement in access to health care. At the same time, however, persistent gaps in coverage and other factors have undermined financial protection for those using health services.

Drawing on microdata from household budget surveys carried out annually by the National Bureau of Statistics from 2008 to 2016 (the latest data available at the time of publication), this review of financial protection in the Moldovan health system finds that:

- 17% of households experienced catastrophic health spending in 2016, up from 14% in 2008;
- nearly 7% of households were impoverished or further impoverished after paying out of pocket for health care;
- across all years, catastrophic spending is heavily concentrated among the poorest households, households living in rural areas and pensioners;
- catastrophic health spending is overwhelmingly driven by spending on outpatient medicines, especially among poorer households; and
- dental care is only a significant source of financial hardship for the richest households, reflecting unmet need for dental care among poorer people, as demonstrated by a marked decline in the use of dental care during the study period.

The incidence of catastrophic health spending is higher in the Republic of Moldova than in other countries in the WHO European Region due to persistent gaps in coverage, including:

- basing entitlement to CNAM benefits on payment of contributions, which means 12% of eligible people still lack coverage, exacerbating inequality in access and encouraging inefficiency in the use of health services;
- limited coverage of outpatient medicines; although the number of medicines CNAM covers has steadily increased, not all essential medicines are covered;
- heavy user charges (co-payments) for covered outpatient prescriptions and weaknesses in the design of co-payment policy such as the absence of an overall cap on co-payments; heavy reliance on percentage co-payments, which exposes people to high or fluctuating prices; and the lack of co-payment exemptions specifically targeting poor people or regular users of health care; and
- limited dental care coverage, which exposes poorer households to unmet need and richer households to financial hardship.

Financial protection has deteriorated over time. As access to health services has improved, increasing people's use of health care, it has also increased their exposure to out-of-pocket payments, particularly for medicines.

To reduce out-of-pocket payments and improve access and financial protection in the Republic of Moldova, policy should focus on:

- extending the range of essential outpatient medicines covered by CNAM *and at the same time* introducing exemptions from co-payments for poor households and regular users of health care, including older people;
- moving away from heavy reliance on percentage co-payments for outpatient medicines, which expose people to inefficiencies arising from inappropriate prescribing and dispensing and high or fluctuating prices;
- addressing inefficiencies in the procurement, pricing, prescribing and dispensing of outpatient medicines;
- changing the basis for entitlement to CNAM benefits to residence, rather than continuing with entitlement based on payment of contributions, which offers no advantages and imposes additional costs on the health system; and

- ensuring that growth in public spending on health not only matches economic growth but also results in steady year-on-year increases.

Efforts to strengthen coverage policy, reduce out-of-pocket payments and improve access and financial protection will require additional public investment. This is particularly important now because public spending in general and public spending on health have not kept pace with economic growth in the last 10 years.

1. Introduction

This review assesses the extent to which people in the Republic of Moldova experience financial hardship when they use health services, including medicines. It covers the period between 2008 and 2016. Research shows that financial hardship is more likely to occur when public spending on health is low relative to gross domestic product (GDP), and out-of-pocket payments account for a relatively high share of total spending on health (Xu et al., 2003; Xu et al., 2007; WHO, 2010; WHO Regional Office for Europe, 2019). Increases in public spending or reductions in out-of-pocket payments are not in themselves guarantees of better financial protection, however. Policy choices are also important.

In 2004, the Republic of Moldova introduced a system of publicly financed mandatory health insurance with a defined benefits package managed by a single purchasing agency, the National Health Insurance Company (CNAM). CNAM pools mandatory health insurance contributions (payroll taxes) with transfers from the state budget and uses these funds to contract and pay a mix of public and private health service providers. Since then, a number of health system reforms have aimed to enhance efficiency, reduce social inequalities and increase financial protection for vulnerable groups of people. Although there has been progress in some areas, important gaps in health coverage remain. In 2018, for example, CNAM covered only 88% of those legally obliged to obtain mandatory health insurance (CNAM, 2019b).

From 2004 to 2017, the government committed to allocate at least 12% of its budget to health every year. As a result, public spending on health accounted for 4.5% of GDP in 2016, which is above the average for lower-middle-income countries in the WHO European Region (2.8%), although it remains below the average for the European Union (EU) (6.2%) (WHO, 2019). In spite of increases in public spending over time, and a ratio of public spending on health to GDP that is relatively high by lower-middle-income country status, the out-of-pocket payment share of current spending on health is high, at 46% in 2016 (WHO, 2019). This is less than the average for lower-middle-income countries (55.3%) but above the average for upper-middle-income countries (39.6%) and EU countries (22.4%).

Since 2000, the Moldovan economy has grown relatively steadily, with a sharp decline in GDP per person in 2009, following the global financial crisis, and a small decline in 2015. Public spending on health did not appear to be affected by the crisis. Over time, there has been a significant reduction in income inequality and a small narrowing of the urban–rural income gap.

Previous studies of financial protection have drawn on data from the household budget survey for 2007 (WHO & World Bank, 2015), up to 2011 (Shishkin & Jowett, 2012), up to 2013 (WHO & World Bank, 2017) and up to 2016 (WHO & World Bank, 2019). The analysis presented in this review draws on data from the household budget survey for 2008–2016. It uses different metrics from those used in the earlier studies (Yerramilli et al., 2018; WHO Regional Office for Europe, 2019).

The review is structured as follows. Section 2 sets out the analytical approach and sources of data used to measure financial protection. Section 3 provides a brief overview of health coverage and access to health care. Sections 4 and 5 present the results of the statistical analysis, with a focus on out-of-pocket payments in Section 4 and financial protection in Section 5. Section 6 provides a discussion of results of the financial protection analysis and identifies factors that strengthen and undermine financial protection: those that affect people's capacity to pay for health care and health system factors. Section 7 highlights implications for policy. Annex 1 provides information on household budget surveys; Annex 2 the methods used; Annex 3 regional and global financial protection indicators; and Annex 4 a glossary of terms.

2. Methods

This section summarizes the study's analytical approach and main data sources. More detailed information can be found in Annexes 1–3.

2.1 Analytical approach

The analysis of financial protection in this study is based on an approach developed by the WHO Regional Office for Europe (Cylus et al., 2018; WHO Regional Office for Europe, 2019), building on established methods of measuring financial protection (Wagstaff & van Doorslaer, 2003; Xu et al., 2003). Financial protection is measured using two main indicators: catastrophic out-of-pocket payments and impoverishing out-of-pocket payments. Table 1 summarizes the key dimensions of each indicator.

Table 1. Key dimensions of catastrophic and impoverishing spending on health

Impoverishing health spending	
Definition	The share of households <i>impoverished</i> or <i>further impoverished</i> after <i>out-of-pocket payments</i>
Poverty line	A <i>basic needs line</i> , calculated as the average amount spent on food, housing (rent) and <i>utilities</i> (water, electricity and fuel used for cooking and heating) by households between the 25th and 35th percentiles of the household <i>consumption</i> distribution who report any spending on each item, respectively, adjusted for household size and composition using Organisation for Economic Co-operation and Development (OECD) equivalence scales; these households are selected based on the assumption that they are able to meet, but not necessarily exceed, <i>basic needs</i> for food, housing and utilities; this standard amount is also used to define a household's <i>capacity to pay for health care</i> (see below)
Poverty dimensions captured	The share of households further impoverished, impoverished and at <i>risk of impoverishment</i> after <i>out-of-pocket payments</i> and the share of households not at risk of impoverishment after out-of-pocket payments; a household is impoverished if its total consumption falls below the basic needs line after out-of-pocket payments; further impoverished if its total consumption is below the basic needs line before out-of-pocket payments; and at risk of impoverishment if its total consumption after out-of-pocket payments comes within 120% of the basic needs line
Disaggregation	Results can be disaggregated into household <i>quintiles</i> by consumption and by other factors where relevant, as described above
Data source	Microdata from national <i>household budget surveys</i>
Catastrophic health spending	
Definition	The share of households with out-of-pocket payments that are greater than 40% of household <i>capacity to pay for health care</i>
Numerator	Out-of-pocket payments
Denominator	A household's <i>capacity to pay for health care</i> is defined as total household consumption minus a standard amount to cover basic needs; the standard amount is calculated as the average amount spent on food, housing and utilities by households between the 25th and 35th percentiles of the household consumption distribution, as described above; this standard amount is also used as a <i>poverty line</i> (basic needs line) to measure impoverishing health spending
Disaggregation	Results are disaggregated into household quintiles by consumption per person using OECD equivalence scales; disaggregation by place of residence (urban–rural), age of the head of the household, household composition and other factors is included where relevant
Data source	Microdata from national household budget surveys

Note: see Annex 4 for definitions of words in italics.

Source: Thomson et al. (2018).

2.2 Data sources

The study analyses anonymized microdata from household budget surveys conducted annually by the National Bureau of Statistics (NBS) from 2008 to 2016. The data sample consisted of 6131 households in 2008, 5532 in 2009, 5455 in 2010, 5677 in 2011, 5483 in 2012, 5082 in 2013, 4885 in 2014, 5075 in 2015 and 4966 in 2016.

All currency units in the study are presented in Moldovan lei (MDL). In 2016, 1000 MDL had the equivalent purchasing power of around €100 in the average EU country.

3. Coverage and access to health care

This section briefly describes the governance and dimensions of publicly financed health coverage (population entitlement, service coverage and user charges) in the Republic of Moldova and reviews the role played by voluntary health insurance (VHI). It summarizes some key trends in rates of health service use, levels of unmet need for health care, and inequalities in service use and unmet need.

3.1 Coverage

Entitlement to publicly financed benefits under mandatory health insurance is specified by the 1998 Law on mandatory health insurance (No. 1585-XIII). Mandatory health insurance aims to guarantee equal access to health care to residents, all of whom are obliged to be covered by CNAM. Moldovan citizens who live abroad for more than 183 days a year can enrol voluntarily. Military staff are covered directly by the government rather than by CNAM.

3.1.1 Population entitlement

Entitlement to publicly financed coverage is based on payment of contributions (either directly or via state contributions on behalf of specific groups). CNAM covers three categories of people. In 2016:

- **employees** accounted for 55% of CNAM revenue and one third of people covered by CNAM (employer and employee both contribute 4.5% of an employee's salary);
- **self-employed people** accounted for 1.5% of CNAM revenue and fewer than 2% of people covered by CNAM; and
- **people covered by state contributions** accounted for about two thirds of people covered by CNAM, while state contributions on their behalf accounted for 44% of CNAM revenue (CNAM, 2019b).

The government pays contributions on behalf of the following categories of non-economically active people registered as residents:

- children under 18 years of age;
- pupils and students enrolled in the education system, including those studying abroad;
- pregnant women and new mothers;
- people with severe, profound or moderate disabilities;
- retired people (in 2019, the retirement age is 63 years for men and 58 years for women);
- registered unemployed people;
- carers of a severely disabled person who needs permanent care or supervision from another person (since 2006);
- mothers with seven or more children (since 2007);
- disadvantaged families receiving social assistance in accordance with Law 133-XVI of 13 June 2008 on social aid (since 2009);
- refugees (since 2013);
- mothers with four or more children (since 2010);

- organ donors (since 2017); and
- parents with four or more children (since 2019).

The share of the population covered by CNAM has grown slowly over time. In 2018, CNAM covered 88% of those it was required to cover. In 2016, the people most likely to be without CNAM coverage – the uninsured – were rural people, people aged 24–54 years, self-employed people, people employed in agriculture and the poorest households. Only around 15% of self-employed people are covered by CNAM.

3.1.2 The benefits package

The publicly financed benefits package is defined in the Unified Programme of Mandatory Health Insurance developed by the Ministry of Health, Labour and Social Protection and approved by the government.

Service coverage varies depending on insurance status.

The whole population, regardless of insurance status, is entitled to publicly financed:

- emergency services and primary care visits;
- (between 2012 and 2014) screening programmes for cardiovascular conditions, breast cancer (women aged 50–69 years) and cervical cancer (women aged 25–59 years);
- medicines for selected diseases, including toxoplasmosis, mental health conditions, diabetes mellitus (insulin analogues), diabetes insipidus, phenylketonuria, pituitary disorders, juvenile arthritis and epidermolysis bullosa; these medicines are centrally procured for outpatient and inpatient care in collaboration with the United Nations Development Programme under a programme managed by the Ministry of Health, Labour and Social Protection;
- psychotropic and anticonvulsant medicines and oral medicines for diabetes; and
- (since 2008) inpatient care for people with tuberculosis, HIV/AIDS, syphilis and other communicable diseases; psychosis and other acute mental and behavioural disorders; alcohol- and narcotics-related emergencies; cancer; and blood disorders.

All other publicly financed health services are only available to people covered by CNAM.

The **outpatient prescribed medicines** covered by CNAM are set out in a positive list defined by CNAM and the Ministry of Health, Labour and Social Protection. The list of covered medicines has expanded over time, from 54 international nonproprietary names (INNs) in 2007 to 148 in 2018. Most of these medicines are subject to percentage co-payments.

Access to **outpatient and inpatient specialist care** requires a referral from a general practitioner. There are no waiting time guarantees for inpatient care. Although inpatient care is free at the point of use, including **inpatient medicines**, people report paying informally for services and medicines in hospital and the share of people reporting informal payments has grown over time (Vian et al., 2015; Rahman, 2017). Informal payments are also present in outpatient care, but to a lesser extent. See section 4.2 for further discussion of informal payments.

Dental care visits and treatment are not covered for adults, with the exception of emergency dental care and preventive visits (checking for caries and recommendations for dental health) and a limited range of services for children under 18 years and pregnant women (prevention, tooth extraction, crack sealing, obturation of coronary defects caused by dental caries and its complications). Since 2016, children under the age of 12 years have benefited from a wider range of publicly financed dental services, but this still does not include most dental restoration (fillings, crowns, bridges, implants and dentures) or orthodontics.

Table 2 summarizes the changes to coverage policy in the Republic of Moldova from 2004 to 2018.

Table 2. Changes to coverage policy, 2004–2018

Source: authors.

Year	Type and level of user charge	Health service targeted	Population group targeted
2004	Introduction of mandatory health insurance under CNAM	All CNAM benefits	All residents except military staff
	State contributions paid on behalf of registered unemployed people	All CNAM benefits	Registered unemployed people
	Benefits introduced for uninsured people and financed by CNAM (until 2009)	Emergency care Primary care visits	Uninsured people
2006	Selected medicines added to CNAM positive list: <ul style="list-style-type: none"> • children <5 years (18 INNs) • pregnant women (2 INNs) • people with acute and chronic diseases (e.g. cardiovascular, respiratory, neurological, digestive system, urinary system) partially covered medicines (15 INNs) 	Prescribed medicines	People covered by CNAM
	State contributions now paid on behalf of people caring for a severely disabled or invalid person <18 years	All CNAM benefits	People who might previously have been uninsured
2007	New CNAM benefits: <ul style="list-style-type: none"> • youth services in primary care for young people (14–35 years) • preventive dental care for pregnant women and children <18 years 	Outpatient care Dental care	People covered by CNAM
	Selected medicines added to CNAM positive list: <ul style="list-style-type: none"> • acute and chronic diseases (12 INNs) • children <5 years (7 INNs) 	Outpatient prescribed medicines	People covered by CNAM
2008	New benefits for uninsured people with the following diseases: tuberculosis, HIV/AIDS, syphilis and other communicable diseases; psychosis and other acute mental and behavioural disorders; alcohol- and narcotics-related emergencies; and cancer and haematological diseases	Inpatient care	Uninsured people
2009	State contributions now paid on behalf of low-income families receiving social assistance	All CNAM benefits	People who might previously have been uninsured
2010	New benefits for uninsured people: free access to emergency and primary care visits and specialist tuberculosis and HIV/AIDS outpatient services	Emergency care Outpatient care	Uninsured people
	Selected medicines added to CNAM positive list: <ul style="list-style-type: none"> • psychotropic and anticonvulsant (21 INNs) • neurological diseases (1 INN) • antidiabetic medicines compensated 90% (3 INNs) • partially covered medicines (10 INNs) • pregnant women (1 INN) • children <18 years (1 INN) 	Prescribed medicines	People covered by CNAM
	State contributions now paid on behalf of mothers with 4 or more children	All CNAM benefits	People who might previously have been uninsured
2013	State contributions now paid on behalf of: <ul style="list-style-type: none"> • people caring for disabled people at home • refugees 	All CNAM benefits	People who might previously have been uninsured
2016	Selected medicines added to CNAM positive list: <ul style="list-style-type: none"> • medicines used in day-care treatments, procedure rooms and home-based procedures • duration of prescription increased from 2 to 3 months 	Prescribed medicines	People covered by CNAM
	Extension of CNAM benefits for selected groups of people: <ul style="list-style-type: none"> • people with malignant tumours of the head, neck and locomotor system: breast implants and individual prostheses and supplies • prenatal ultrasound screening for high-risk pregnant women • dental care visits (excluding fillings, caps, crowns, bridges, implants and orthodontics) for children <12 years 	Inpatient care Outpatient care Dental care	People covered by CNAM
2017	State contributions now paid on behalf of organ donors	All CNAM benefits	People who might previously have been uninsured
2018	Introduction of a new percentage co-payment rate of 70%	Outpatient prescribed medicines	Medicines for Alzheimer's and depression

3.1.3 User charges (co-payments)

Current policy on co-payments for the health services covered by CNAM is shown in Table 3. These co-payments apply to people covered by CNAM. The uninsured generally pay the full cost of services out of pocket although exceptions are in place.

There are no user charges for **outpatient visits**, including outpatient specialist visits with a referral. People pay the full price for most visits to a specialist without referral; referral is not required for 77 diagnoses (for example, newly confirmed cases and cases that do not require monitoring by a family doctor in between specialist visits).

Outpatient prescribed medicines are subject to percentage co-payments of 0%, 30%, 50% or (since 2018) 70%. In 2019, about half of covered medicines are subject to percentage co-payments of 30% and 50% (Order 96/20 A of 24 January 2019). Table 3 lists the prescribed medicines without user charges.

Diagnostic tests are free of charge if included in the CNAM benefits package and with referral. The number of diagnostic services at outpatient level is limited, however, owing to a budget cap for this kind of referral.

Medical products have no user charges.

Inpatient care is free of charge. For insured people, there are no official user charges for **inpatient medicines**. Informal payments for inpatient medicines that are covered but not actually available to patients may be high, however.

Adults pay the full price for **dental care** with the exception of emergency services and preventive visits. Children up to 12 years benefit from free access to publicly financed dental care, but must pay the full price for any dental restoration and orthodontics. Children under 18 years and pregnant women benefit from a limited range of services (see above) at no cost. Prevention, counselling and emergency dental care are exempt in certain cases defined by law for people covered by CNAM. Emergency dental care is provided in the following cases: dental extractions for medical purposes; acute pulpitis; acute apical periodontitis; exacerbating apical periodontitis; acute stomatitis; gingivitis and acute ulceronecrotizing stomatitis; abscess; periostitis; pericoronitis; postoperative bleeding; acute lymphadenitis; acute osteomyelitis; acute or chronic sialadenitis; acute odontogenic sinusitis; traumas and jaw fractures.

Public and private providers contracted by CNAM can charge users for health services covered by CNAM if users do not obtain the required referral. They can also charge users for services excluded from the CNAM benefits package (extra billing). Any charges for extra billing in public facilities must be approved by the government. Private providers can set their own charges for extra billing.

Table 3. User charges for publicly financed health services, 2020

Note: NA: not applicable
Source: authors.

Service area	Type and level of user charge	Exemptions	Cap on user charges paid
Outpatient visits	None: primary care and specialist care with referral Users pay the full price for specialist care without referral except for 77 diagnoses where direct access is allowed	No	No
Outpatient prescription medicines	Percentage co-payments of 0%, 30%, 50% and 70%: <ul style="list-style-type: none"> percentage co-payment of 0%: see exemptions percentage co-payment of 30% and 50%: medicines for selected cardiovascular diseases, thyroid disorders, asthma, hepatitis cirrhosis anaemia, bronchial asthma and ophthalmic, respiratory, endocrine, digestive and urinary disorders percentage co-payment of 70%: medicines for Alzheimer's and depression (since 2018) 	Medicines for diabetes mellitus (except for some consumables); prevention and treatment of anaemia and prevention of malformations in pregnant women; selected medications among children <18 years (antibiotics, medication for asthma and anaemia, vitamins, anthelmintics, enzymes and medicines used in daytime episodic treatment); and epilepsy, Parkinson's disease, psychological diseases, selected autoimmune diseases and rare diseases	No
Diagnostic tests	None with referral Users pay the full price for diagnostic tests not in the benefit package; with no referral	No	No
Medical products	None	NA	NA
Dental care	Users pay the full price both for treatment and materials	<ul style="list-style-type: none"> Prevention, counselling and emergency treatment as defined in law for insured people Oral hygiene and fillings for children <18 years and pregnant women (since 2007) Dental care visits for children <12 years (since 2016) 	No
Inpatient care	None; although there are no formal charges, patients report having to pay informally for services	NA	NA
Inpatient medicines	None; although there are no formal charges, patients report having to pay informally for medicines	NA	NA

3.1.4 The role of VHI

VHI plays a very minor role in the health system, accounting for 0.2% of current spending on health in 2016 (WHO, 2019). People prefer to pay providers out of pocket when they need health care rather than paying premiums for VHI on a regular basis. VHI is purchased mainly for employees of large companies.

VHI plays a mixed complementary and supplementary role, offering those covered access to services excluded from the benefits package or access to private health care providers.

Table 4 highlights key issues in the governance of coverage, summarizes the main gaps in publicly financed coverage and indicates the role of VHI in filling these gaps.

Table 4. Gaps in publicly financed and VHI coverage

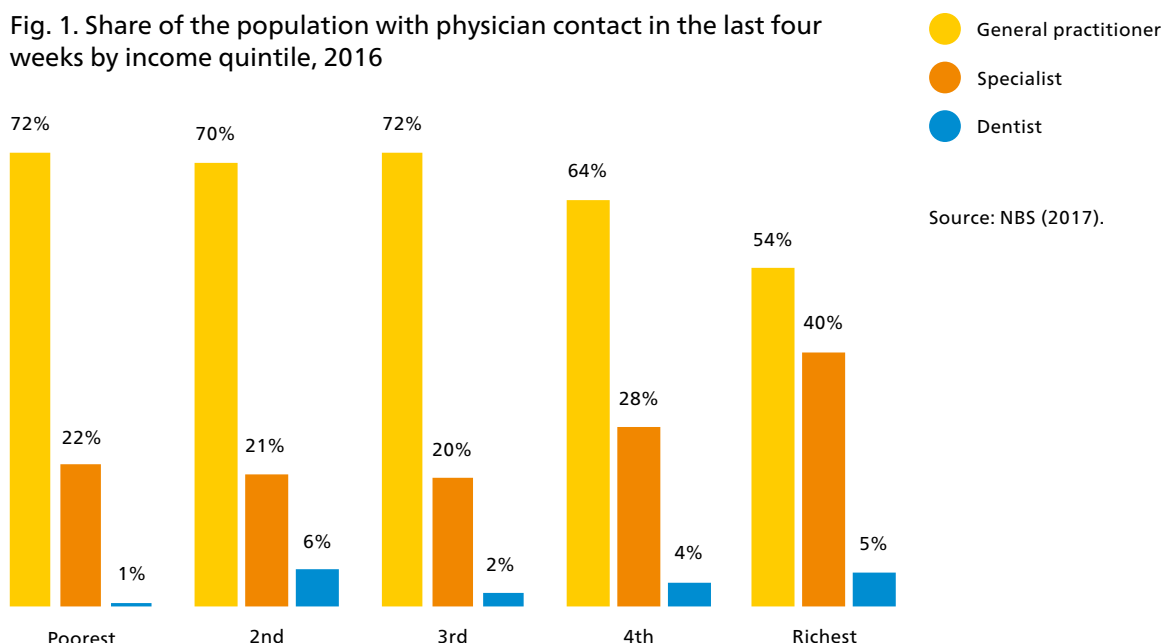
Source: authors.

Coverage dimension	Population entitlement	The benefits package	User charges (co-payments)
Issues in the governance of publicly financed coverage	Entitlement is based on payment of contributions for economically active people	Very limited coverage of non-emergency dental care Positive list of covered outpatient prescribed medicines and diagnostic services is very limited Informal payments, particularly in inpatient settings	Heavy user charges for outpatient prescribed medicines, especially for adults; about half of covered medicines are subject to percentage co-payments of 30% and 50% Weak protection from user charges
Main gaps in publicly financed coverage	Around 12% of those entitled to CNAM coverage are uninsured	Outpatient prescribed medicines, diagnostic tests and dental care.	Outpatient prescription medicines for adults Dental care for adults
Are these gaps covered by VHI?	No; VHI only accounts for 0.2% of current spending on health; provides access to services excluded from the benefits package or access to private health care providers; does not cover co-payments for services covered by CNAM and is mainly purchased for employees of large companies		

3.2 Access, use and unmet need

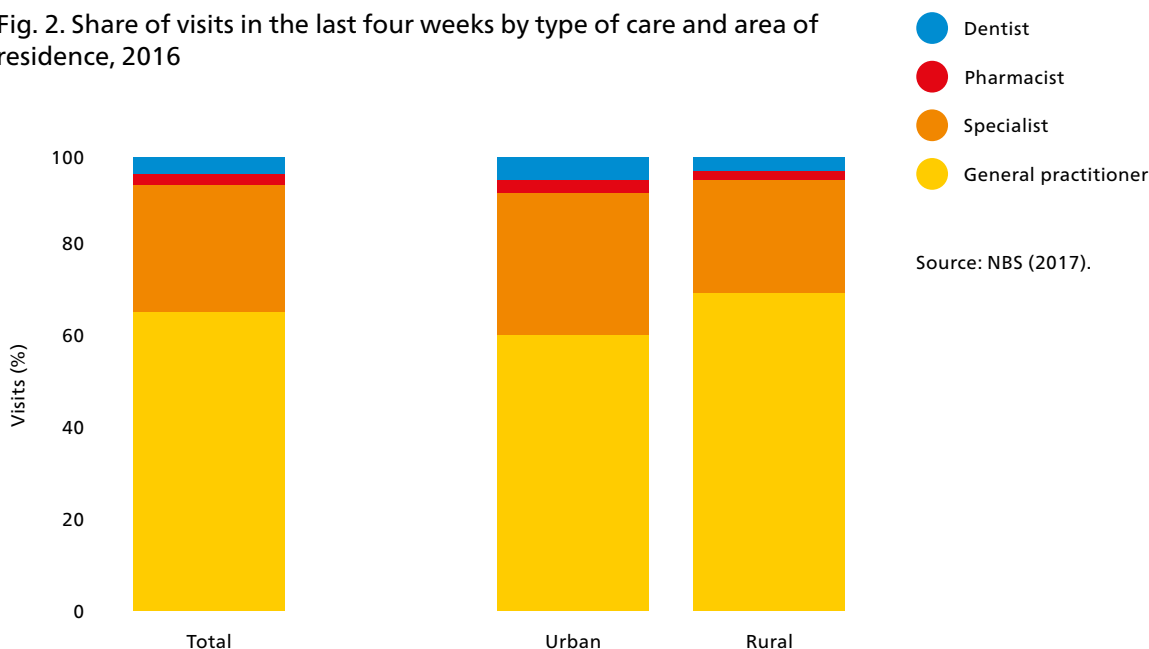
There is marked income inequality in the use of different health services, as Fig. 1 shows. In 2016, the use of general practitioners falls with income, while the use of specialists rises with income. People in the richest quintile are twice as likely to use specialists as people in the three poorest quintiles and five times as likely to use dentists.

Fig. 1. Share of the population with physician contact in the last four weeks by income quintile, 2016



One reason for inequality in the use of specialists may be substantial variation in the supply of physicians across the country. In 2016, the number of physicians per 10 000 population was 37 on average, but only 6 in rural areas, compared to 78 in urban areas (National Agency of Public Health, 2019). People living in rural areas are less likely to use specialists, pharmacists and dentists than people living in urban areas (Fig 2). Barriers to access in rural areas may also be linked to distance to facilities, poor road quality and lack of public transport; these types of barrier are found to have a greater impact on some groups of people, including pensioners, unemployed people and people with disabilities.

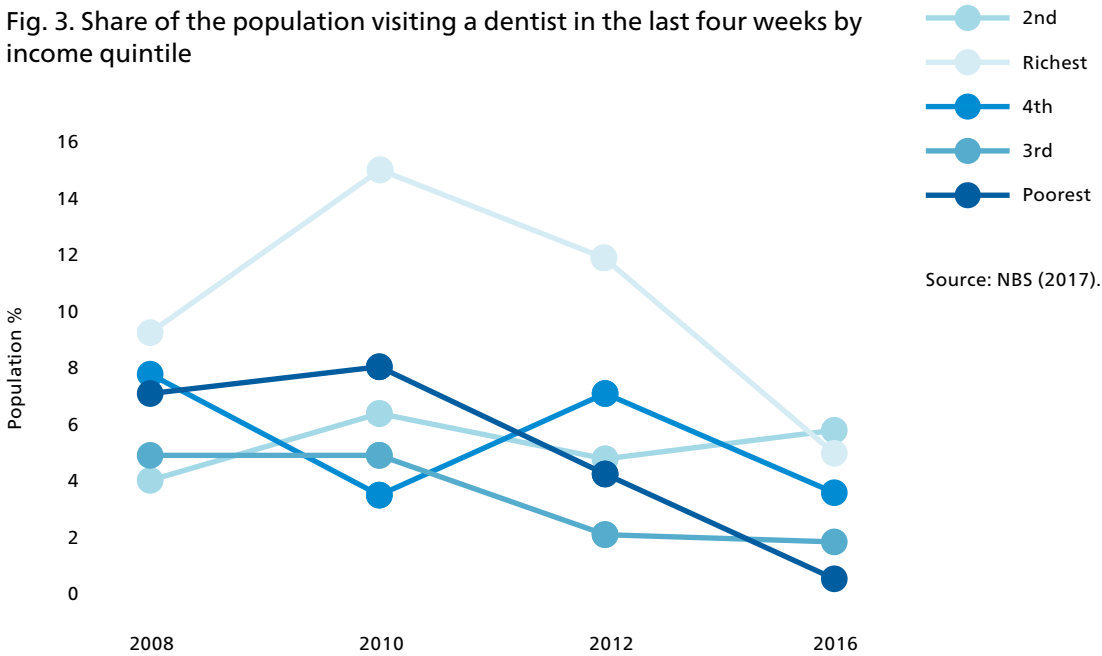
Fig. 2. Share of visits in the last four weeks by type of care and area of residence, 2016



Around 12% and 25% of people surveyed reported using non-prescribed and prescribed medicines respectively in 2016 (NBS, 2017). The use of over-the-counter medicines is higher among younger people (25–44 years), uninsured people, people in urban areas and richer people (NBS, 2017). Rates of use of medicines appear to be very low in the Republic of Moldova compared to rates reported in EU countries. In 2014, 35% and 49% of people surveyed in the EU reported using non-prescribed and prescribed medicines respectively (Eurostat, 2019).

During the study period, use of general practitioners (family doctors) rose, but use of inpatient care and dental care fell. The share of the population visiting general practitioners grew from 51% in 2008 to 65% in 2016. In the same period, use of inpatient health services fell from 34% to 27% and use of dental services fell from 7% to 3.7% (NBS, 2017). The decline in use of dental care was notable for most income quintiles, but was particularly sharp for the poorest, as shown in Fig. 3. Data on trends in the use of medicines are not available.

Fig. 3. Share of the population visiting a dentist in the last four weeks by income quintile



In spite of the large degree of income inequality in the use of specialists shown in Fig. 1, the share of the population foregoing care due to access barriers – unmet need for health care (Box 1) – has fallen substantially over time.

Box 1. Unmet need for health care

Source: WHO Barcelona Office for Health Systems Strengthening.

Financial protection indicators capture financial hardship among people who incur out-of-pocket payments through the use of health services. They do not, however, indicate whether out-of-pocket payments create a barrier to access, resulting in unmet need for health care. Unmet need is an indicator of access, defined as instances in which people need health care but do not receive it because of access barriers.

Information on health care use or unmet need is not routinely collected in the household budget surveys used to analyse financial protection. These surveys indicate which households have not made out-of-pocket payments, but not why. Households with no out-of-pocket payments may have no need for health care, be exempt from user charges or face barriers to accessing the health services they need.

Financial protection analysis that does not account for unmet need could be misinterpreted. A country may have a relatively low incidence of catastrophic out-of-pocket payments because many people do not use health care, owing to limited availability of services or other barriers to access. Conversely, reforms that increase the use of services can increase people's out-of-pocket payments – through, for example, user charges – if protective policies are not in place. In such instances, reforms might improve access to health care but at the same time increase financial hardship.

This review uses data on unmet need to complement the analysis of financial protection. It also draws attention to changes in the share and distribution of households without out-of-pocket payments. If increases in the share of households without out-of-pocket payments cannot be explained by changes in the health system – for example, enhanced protection for certain households – they may be driven by increases in unmet need.

Every year, EU Member States collect data on unmet need for health and dental care through the European Union Statistics on Income and Living Conditions (EU-SILC). These data can be disaggregated by age, gender, educational level and income. Although this important source of data lacks explanatory power and is of limited value for comparative purposes because of differences in reporting by countries, it is useful for identifying trends over time within a country (Arora et al., 2015; EXPH, 2016, 2017).

EU Member States also collect data on unmet need through the European Health Interview Survey (EHIS) carried out every five years or so. The second wave of this survey was conducted in 2014. A third wave is scheduled for 2019.

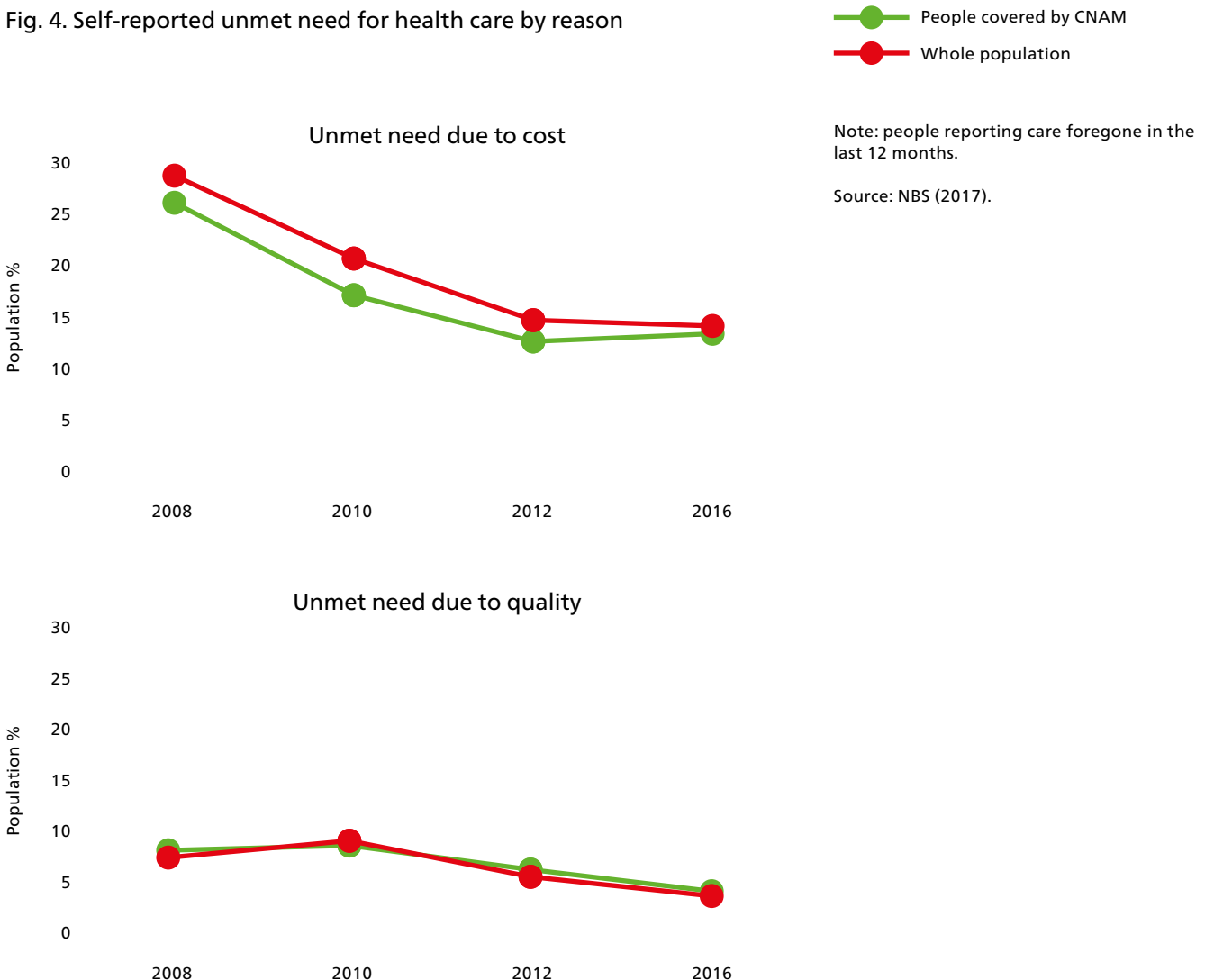
Whereas EU-SILC provides information on unmet need as a share of the population aged over 16 years, EHIS provides information on unmet need among those reporting a need for care. EHIS also asks people about unmet need for prescribed medicines.

Fig. 4 (top panel) shows how the share of people reporting unmet need due to cost has fallen from over 25% in 2008 to just under 15% in 2016. Unmet need is slightly higher among the whole population than among people covered by CNAM, but the gap between these two groups has narrowed over time.

This major reduction in unmet need over time is encouraging, but the fact that a relatively high share of people covered by CNAM (13%) still reports unmet need due to cost is striking.

Fig. 4 (bottom panel) also shows how the share of people foregoing care due to the (poor) quality of the services provided has fallen from around 8% in 2010 to around 4% in 2016, another major reduction. Here, however, there is very little difference between the whole population and people covered by CNAM.

Fig. 4. Self-reported unmet need for health care by reason



3.3 Summary

Publicly financed access to emergency services and primary care visits is available free of charge to the whole population, regardless of insurance status. A number of medicines for the treatment of a range of communicable and noncommunicable diseases are also available on this basis, as well as inpatient care for people with selected communicable diseases, acute mental health and addiction-related issues, cancer and blood disorders. All other publicly financed health services are only available to people covered by CNAM, who benefit from free access to outpatient and inpatient care with referral.

The range of medicines covered by CNAM is relatively limited and most people have to pay co-payments for the majority of these medicines.

CNAM covers a very narrow range of dental care – mainly preventive and emergency services, with some additional but still limited services for children and pregnant women. Most restorative services and orthodontics are not covered.

The main gaps in coverage are related to:

- the fact that entitlement to CNAM benefits is based on payment of contributions; as a result, 12% of people eligible for CNAM benefits are uninsured;
- a limited positive list of outpatient prescribed medicines covered by CNAM;
- almost no coverage of dental care for adults;
- heavy use of percentage co-payments for outpatient prescribed medicines covered by CNAM, with no exemptions for poor people and no cap on co-payments; and
- informal payments, particularly for inpatient care (including medicines), but also in outpatient settings.

VHI does not play a role in covering these gaps. It only accounts for 0.2% of current spending on health; provides access to services excluded from the benefits package or access to private health care providers; and is mainly purchased for employees of large companies.

There is substantial inequality in the use of specialists, in part due to a shortage of physicians in rural areas, but also due to barriers caused by distance to facilities, poor road quality and lack of public transport. There are also inequalities in the use of dentists and medicines.

While the share of people reporting unmet need due to cost and quality has fallen substantially over time, narrowing the gap between unmet need among the uninsured and people covered by CNAM, it is striking that 13% of people covered by CNAM continue to report unmet need due to cost.

In contrast to the use of general practitioners, the use of dental services has fallen over time, with the sharpest fall occurring among the poorest income quintile.

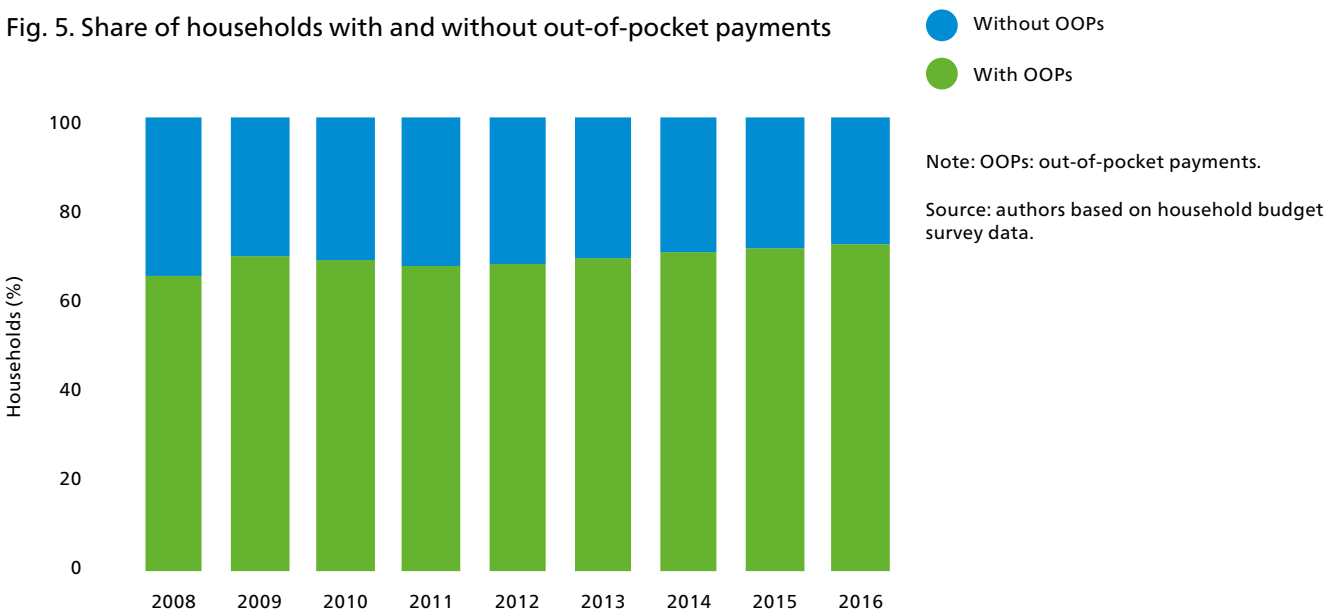
4. Household spending on health

The first part of this section uses data from the household budget survey to present trends in household spending on health – that is, out-of-pocket payments, the formal and informal payments made by people at the time of using any good or service delivered in the health system. The second part describes the role of informal payments and the main drivers of changes in out-of-pocket payments over time.

4.1 Out-of-pocket payments

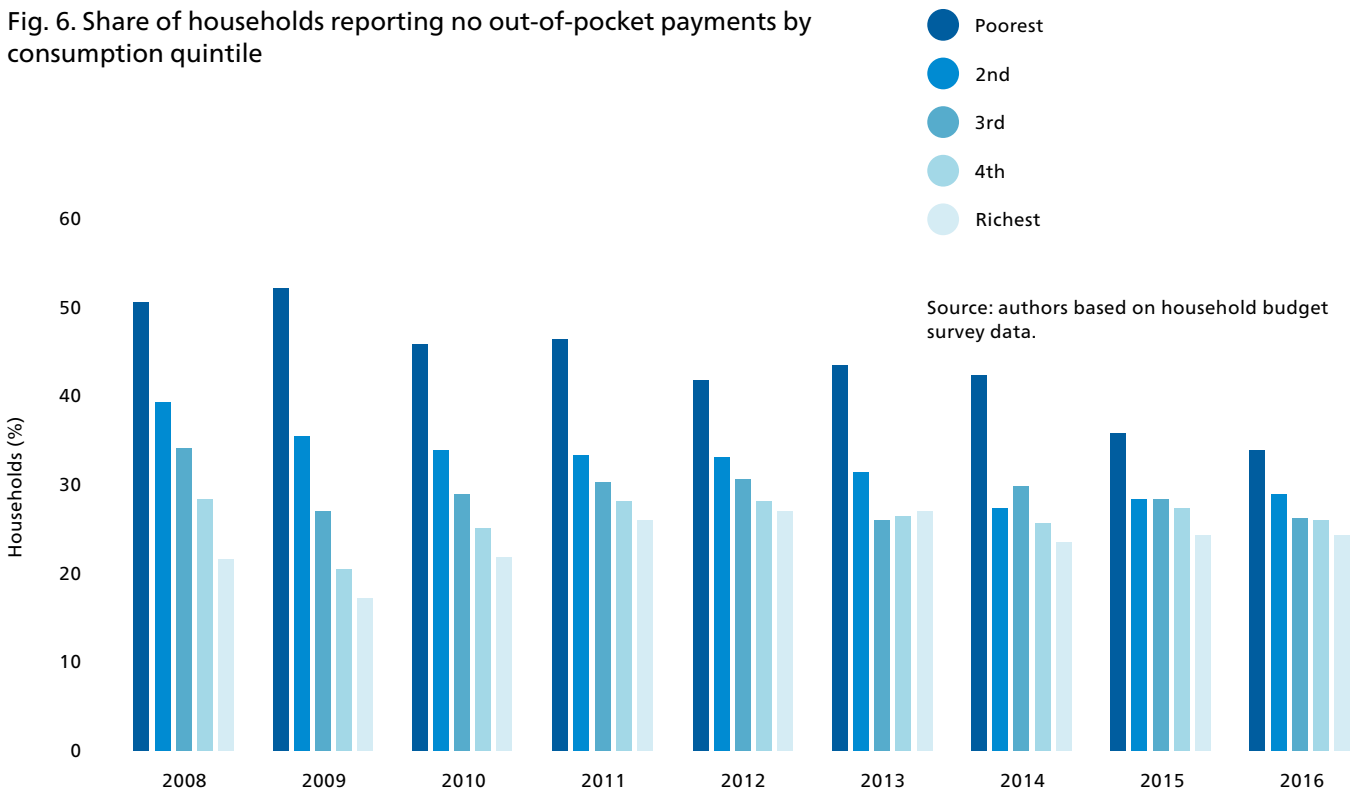
Nearly three quarters of households report out-of-pocket payments. The share of households reporting out-of-pocket payments has increased over time from 65% in 2008 to 72% in 2016 (Fig. 5).

Fig. 5. Share of households with and without out-of-pocket payments



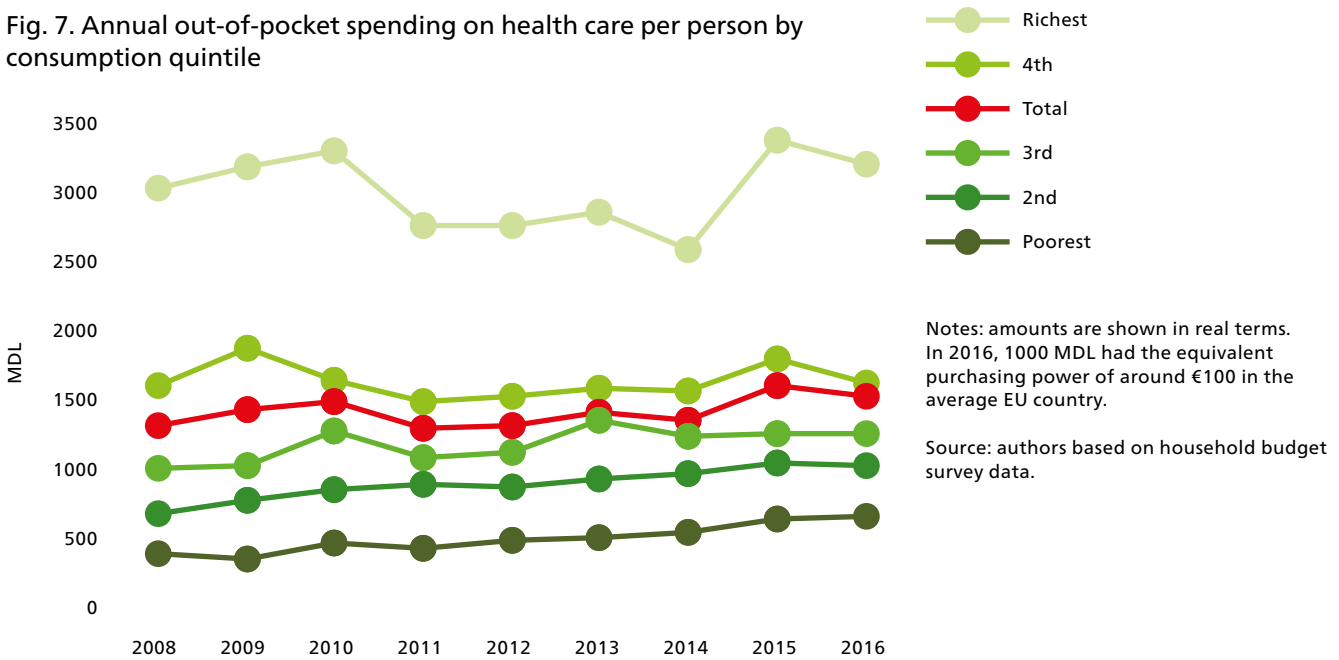
Across all years, households without out-of-pocket payments are more likely to be poor than rich. In 2016, 34% of households in the poorest quintile had no out-of-pocket payments, compared to 24% in the richest quintile – a difference that is likely to reflect higher levels of unmet need for health care among poor households (Fig. 6). The share of households in the poorest quintile reporting no out-of-pocket payments has decreased substantially over time, however, from around 50% in 2008. This decline may reflect policy changes to extend access to publicly financed health services, increasing health care use and exposure to out-of-pocket payments.

Fig. 6. Share of households reporting no out-of-pocket payments by consumption quintile



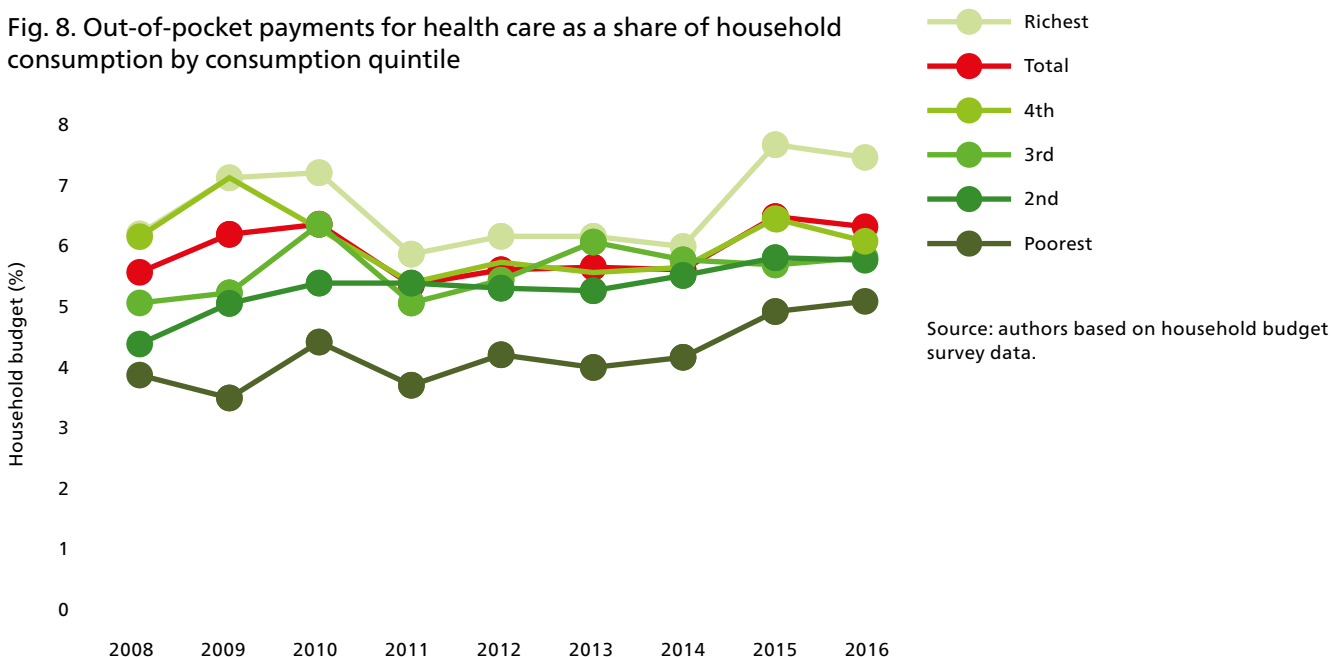
Out-of-pocket payments have grown steadily, rising on average (in real terms) from MDL 1313 per person in 2008 to MDL 1529 in 2016 (Fig. 7). All quintiles experienced higher out-of-pocket payments in 2016 than in 2008, but the increase was largest for the poorest and second quintiles and smallest for the third and fourth quintiles. Spending rises with household consumption. In 2008, the richest households were spending around eight times as much as the poorest quintile. By 2016, the differential was smaller, with the richest spending around five times as much as the poorest. This suggests a growing financial burden on poorer households in recent years.

Fig. 7. Annual out-of-pocket spending on health care per person by consumption quintile



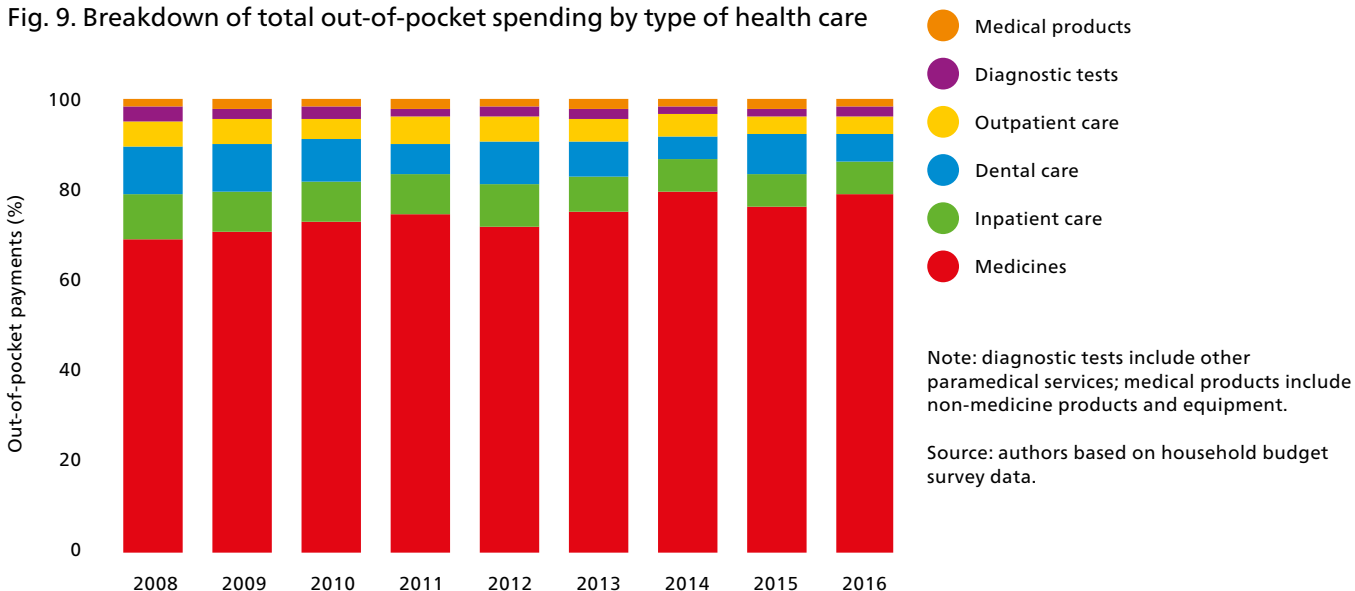
Higher spending among the rich and growth in the financial burden on the poorest households are confirmed by Fig. 8, which shows out-of-pocket payments as a share of total household spending. The out-of-pocket share of total household spending rises with consumption. In 2016, the poorest households were on average spending 5% of their budget on health care, compared to over 7% in the richest. The out-of-pocket share rose on average from 5.6% in 2008 to 6.4% in 2016, with the largest increase in the poorest quintile. It is high compared to many other countries in Europe (WHO Regional Office for Europe, 2019).

Fig. 8. Out-of-pocket payments for health care as a share of household consumption by consumption quintile



Outpatient medicines consistently account for the largest share of out-of-pocket spending, followed by inpatient care, dental care and outpatient care (Fig. 9). The outpatient medicines share grew substantially between 2008 and 2016, rising from 69% to 79%. The dental care and outpatient care shares fell markedly. The inpatient care share also fell. Across all years, the share spent on diagnostic tests and medical products is very small.

Fig. 9. Breakdown of total out-of-pocket spending by type of health care



Throughout the study period, outpatient medicines are the single largest out-of-pocket spending item for all quintiles (Fig. 10). For the most part, the outpatient medicines share falls with household consumption across all years. In 2016, it accounted for over 90% in the poorest quintile, compared to around 70% in the richest (Fig. 10). In contrast, the dental care, outpatient care and diagnostic tests shares rise with household consumption; the poorest quintile spends very little on these items – less than 10% – while the richest quintile spends much more, around 25%. Over time, spending on these three areas of care has become more heavily concentrated among the richest households.

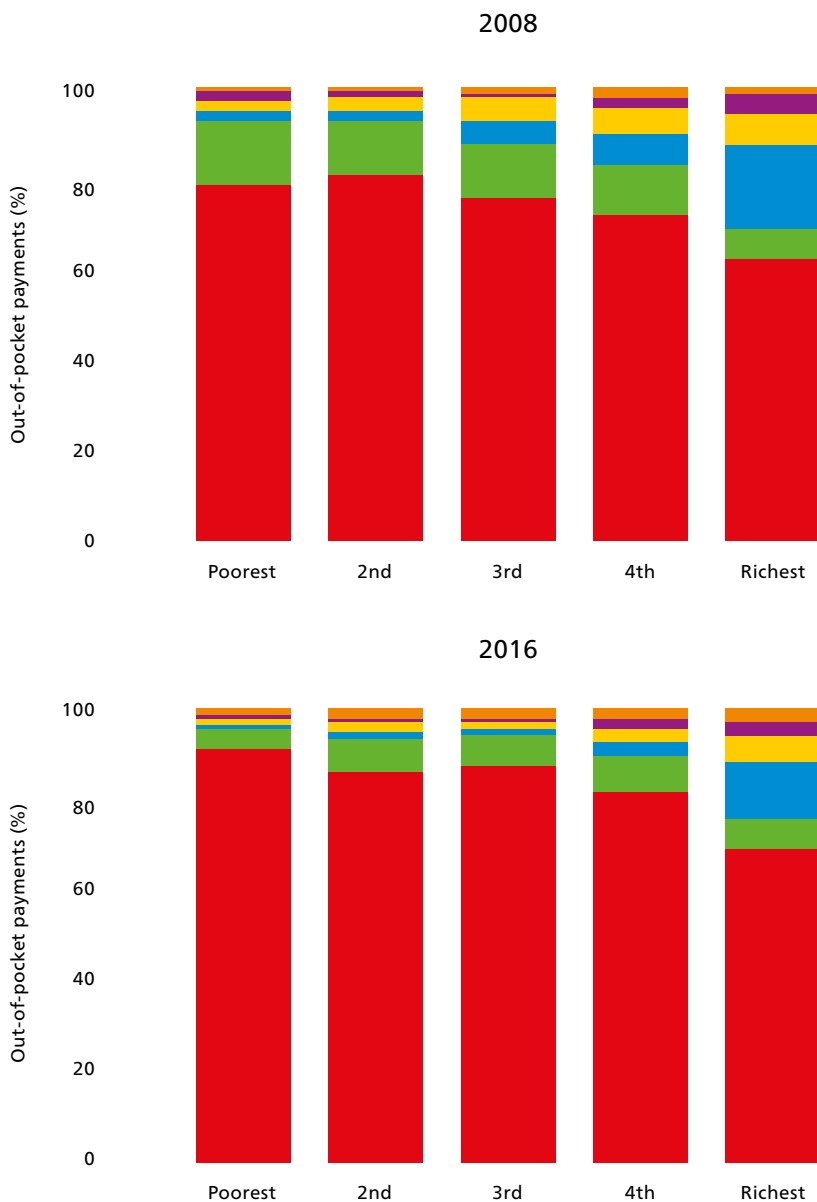
The inpatient care share has remained stable for the richest quintile, but has fallen over time for all of the other quintiles. The poorest quintile experienced the largest fall in the inpatient care share, with notable reductions in 2009, 2013 and 2016, perhaps reflecting policies to extend the payment of state contributions to vulnerable groups of people in 2009 and 2013, and to extend access to publicly financed inpatient care for some people with cancer in 2016 (see Table 2).

Fig. 10. Breakdown of total out-of-pocket spending by type of health care and consumption quintile, selected years

- Medical products
- Diagnostic tests
- Outpatient care
- Dental care
- Inpatient care
- Medicines

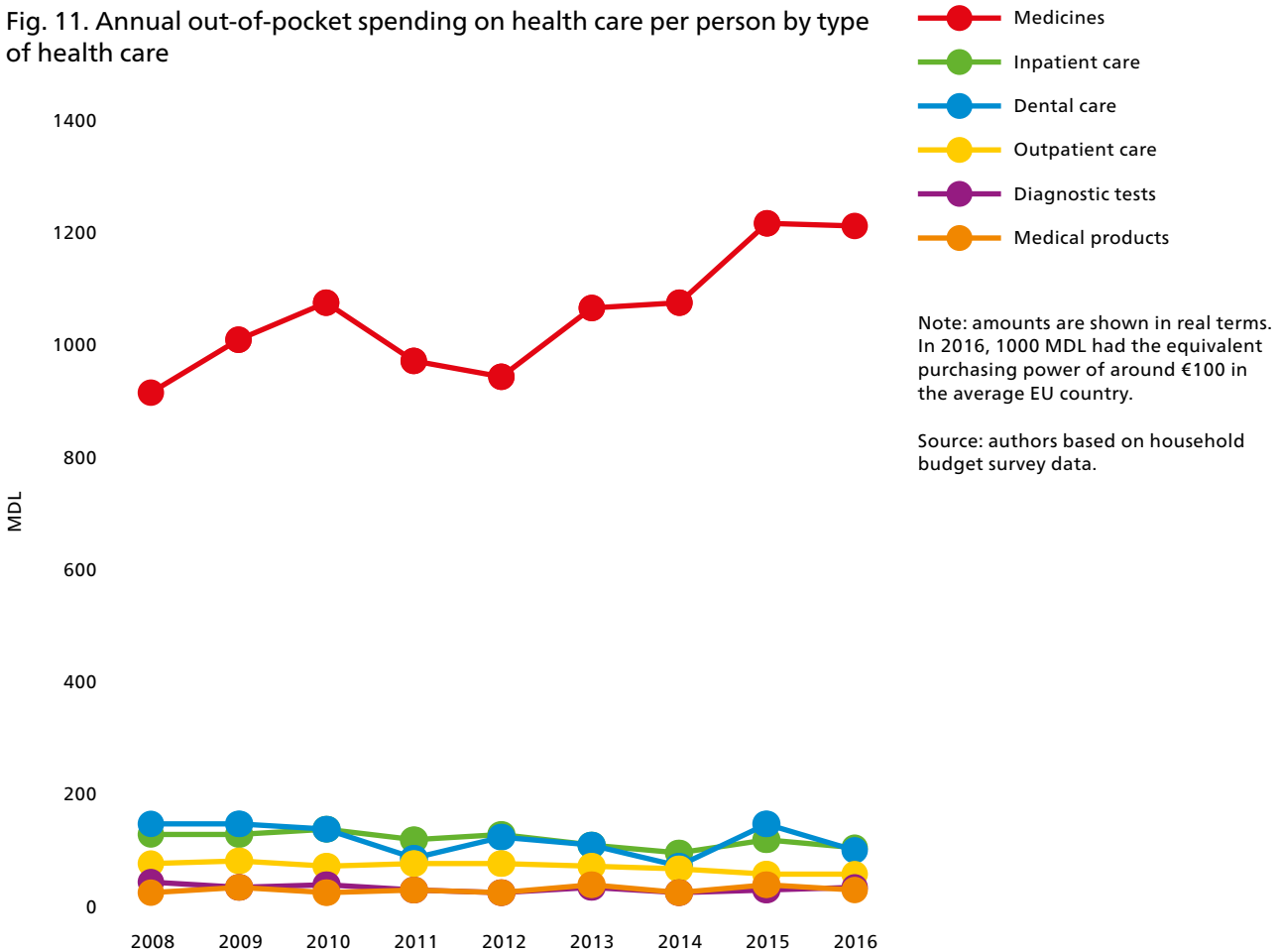
Note: diagnostic tests include other paramedical services; medical products include non-medicine products and equipment.

Source: authors based on household budget survey data.



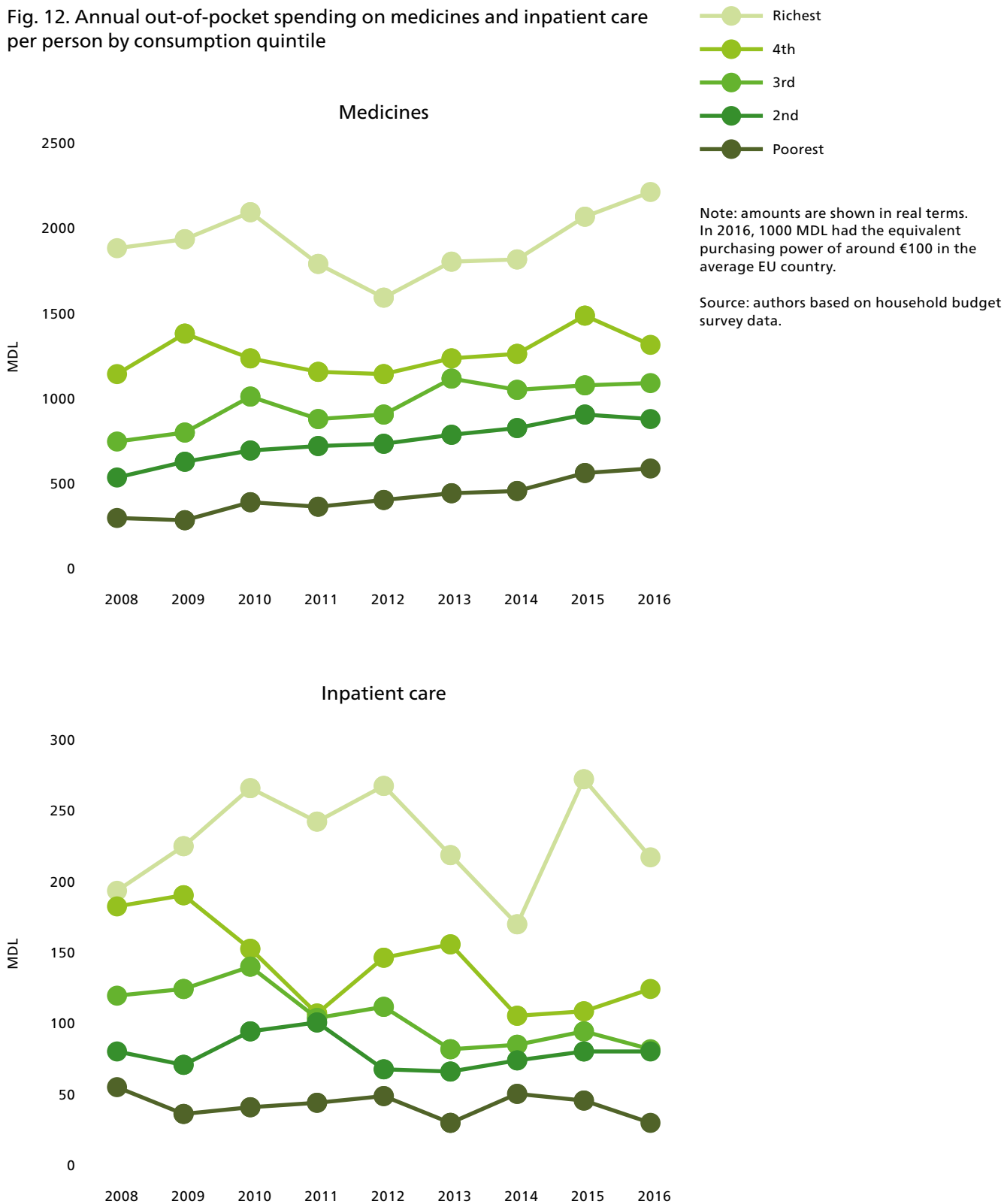
Between 2008 and 2016, the amount spent per person on outpatient medicines grew in real terms from MDL 910 to MDL 1211 – an increase of around 33% – while spending on all other items except medical products fell in real terms (Fig. 11).

Fig. 11. Annual out-of-pocket spending on health care per person by type of health care



The increase in spending on outpatient medicines per person was experienced in all quintiles, but it was largest among the poorest quintiles. Spending per person on inpatient care fell over time for all except the second and richest quintiles (Fig. 12).

Fig. 12. Annual out-of-pocket spending on medicines and inpatient care per person by consumption quintile



4.2 Informal payments

A 2015 study carried out by Transparency International Moldova found that almost three quarters of people (72%) had frequently made informal payments to access health care (Rahman, 2017). Another study notes that informal payments are locally categorized as payments perceived as necessary to receive services, payments offered voluntarily for services outside the benefits package and gifts given freely to express gratitude (Vian et al., 2015). The study found that health care providers generally believe informal payments to be gifts that do not cause harm to people or the health system; while many patients also consider informal payments to be gifts, around one third of informal payments appear to be forced (Vian et al., 2015).

Informal payments are more widespread in inpatient care than in outpatient settings and mainly paid to physicians in inpatient care, with people paying more for more complex types of care such as surgery (Vian et al., 2015). Analysis has found that informal payments for inpatient care are a barrier to access, pushing people to look for alternatives like self-treatment or natural remedies. Among people who have paid for inpatient care, the share reporting paying informally has increased substantially over time from 60% in 2009 to 82% in 2012 (Vian et al., 2015).

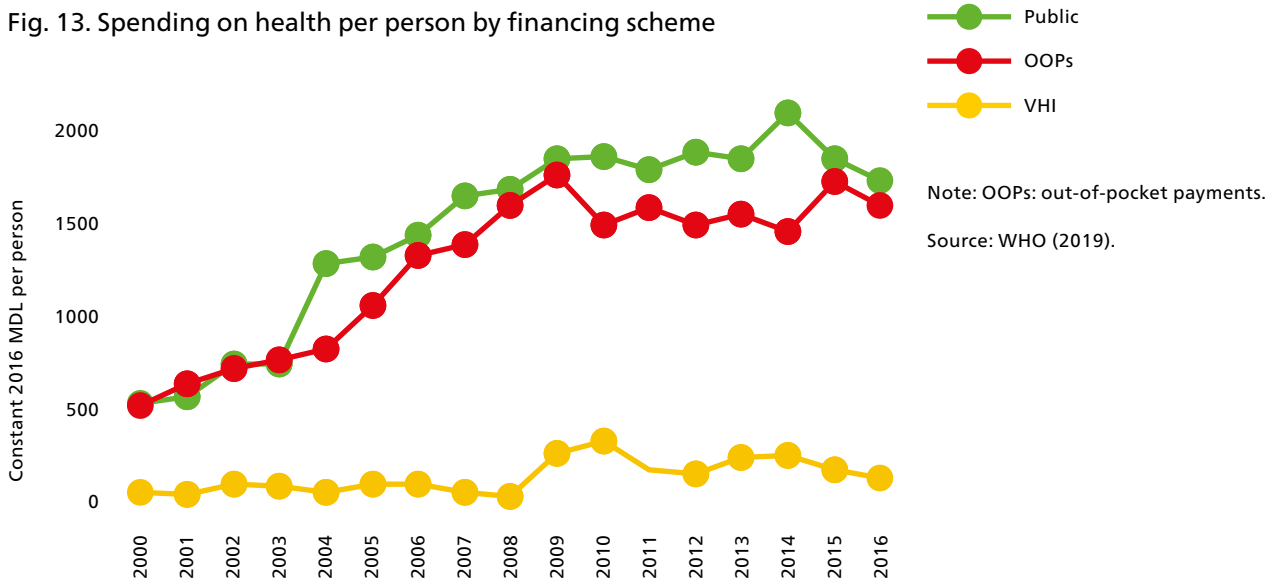
In outpatient settings, informal payments serve to shorten waiting times and improve the quality of interaction with health workers. Among people who have paid out of pocket for outpatient care, the share reporting paying informally has increased slightly over time from 32% in 2009 to 36% in 2012. Commentators note that it may be cheaper for self-employed people to pay informally for outpatient care in public facilities than to pay contributions to CNAM.

Informal payments reduce transparency, increase barriers to access and increase financial hardship. They are likely to be regressive and affect the poorest households most (Jakab et al., 2016). A major challenge in health systems with pervasive informal payments is that it is difficult to introduce policies to protect poor people and regular users of health care from exposure to out-of-pocket payments.

4.3 Trends in public and private spending on health

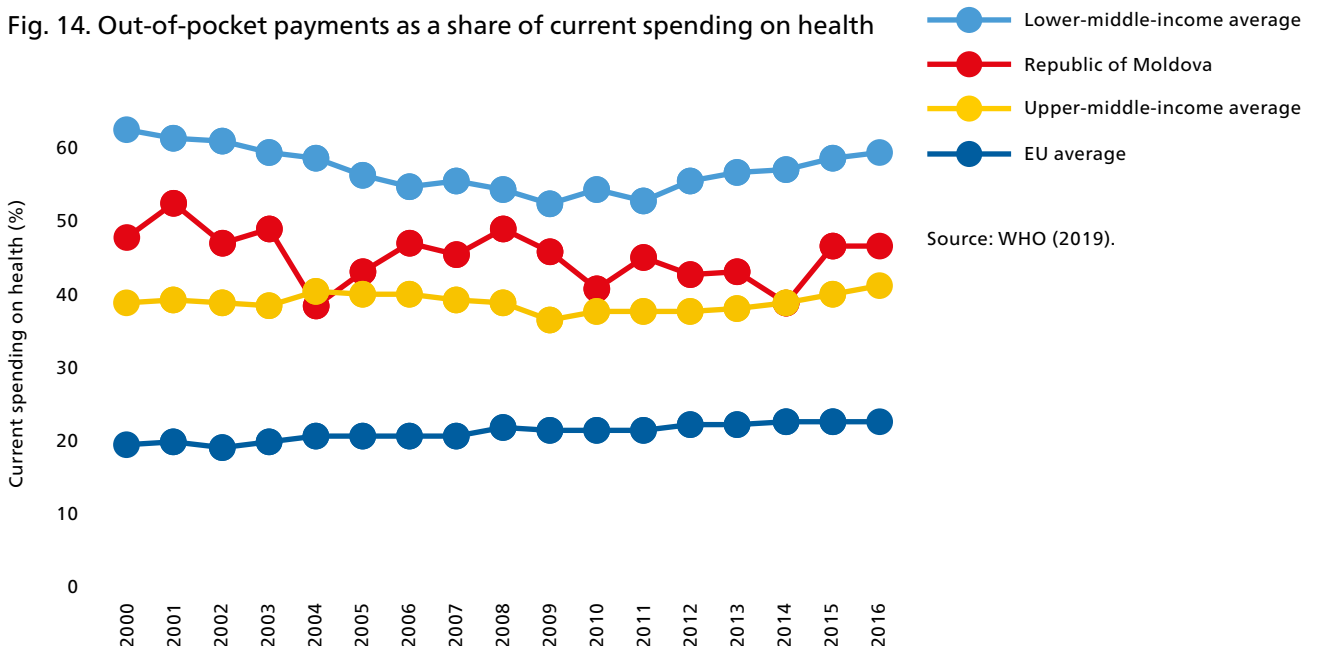
National health accounts data show that public spending and out-of-pocket payments per person grew steadily in real terms between 2000 and 2009 (Fig. 13). Public spending spiked in 2004, with the introduction of the new system of mandatory health insurance, but the rate of growth in out-of-pocket payments was much faster after 2004, so that by 2009 out-of-pocket payments and public spending were once again roughly equal. Between 2009 and 2013, out-of-pocket payments fell while public spending on health remained stable. Public spending on health has fallen since 2014, so that in 2016 it was very close to the level it had been in 2008 (Fig. 13).

Fig. 13. Spending on health per person by financing scheme



The out-of-pocket payment share of current spending on health mirrors the pattern described above, falling sharply in 2004, growing again until 2008, fluctuating as public spending on health stagnated, and rising again after public spending declined (Fig. 14). The out-of-pocket payment share is lower than the average for lower-middle-income countries in the WHO European Region (Fig. 14).

Fig. 14. Out-of-pocket payments as a share of current spending on health



4.4 Summary

Household budget survey data show that:

- the share of households reporting out-of-pocket payments has increased from 65% in 2008 to 72% in 2016;
- across all years, households without out-of-pocket payments are more likely to be poor than rich, but the share of households in the poorest quintile reporting no out-of-pocket payments has decreased substantially over time; and
- out-of-pocket payments grew steadily during the study period, both in absolute terms and as a share of household budgets, with the largest growth among the poorest quintile.

These patterns are consistent with the large reduction in self-reported unmet need between 2008 and 2016 (Fig. 4) and may reflect policy changes to extend access to publicly financed health services, which increased people's use of health care and at the same time exposed them to out-of-pocket payments.

Outpatient medicines consistently account for the largest share of out-of-pocket spending for all quintiles, followed by inpatient, dental and outpatient care. The share spent on outpatient medicines is much higher among poorer households, while the share spent on dental care is negligible in all except the richest quintile. Spending on outpatient medicines grew substantially during the study period, both in absolute terms and as a share of out-of-pocket payments. The growth was largest among the poorest quintile.

Studies suggest that informal payments are a problem, particularly for inpatient care. The share of people reporting paying informally for inpatient care grew from 60% in 2009 to 82% in 2012 (Vian et al., 2015). Informal payments reduce transparency, increase barriers to access and increase financial hardship. They are also likely to be regressive, placing the greatest financial burden on the poorest households.

National health accounts data show that out-of-pocket payments per person grew steadily between 2000 and 2009, even as public spending on health was growing, and grew particularly fast after the introduction of mandatory health insurance in 2004. They fell between 2009 and 2014 and rose again in 2015. Public spending on health per person has fallen since 2014, so that in 2016 it was very close to the level it had been in 2008.

5. Financial protection

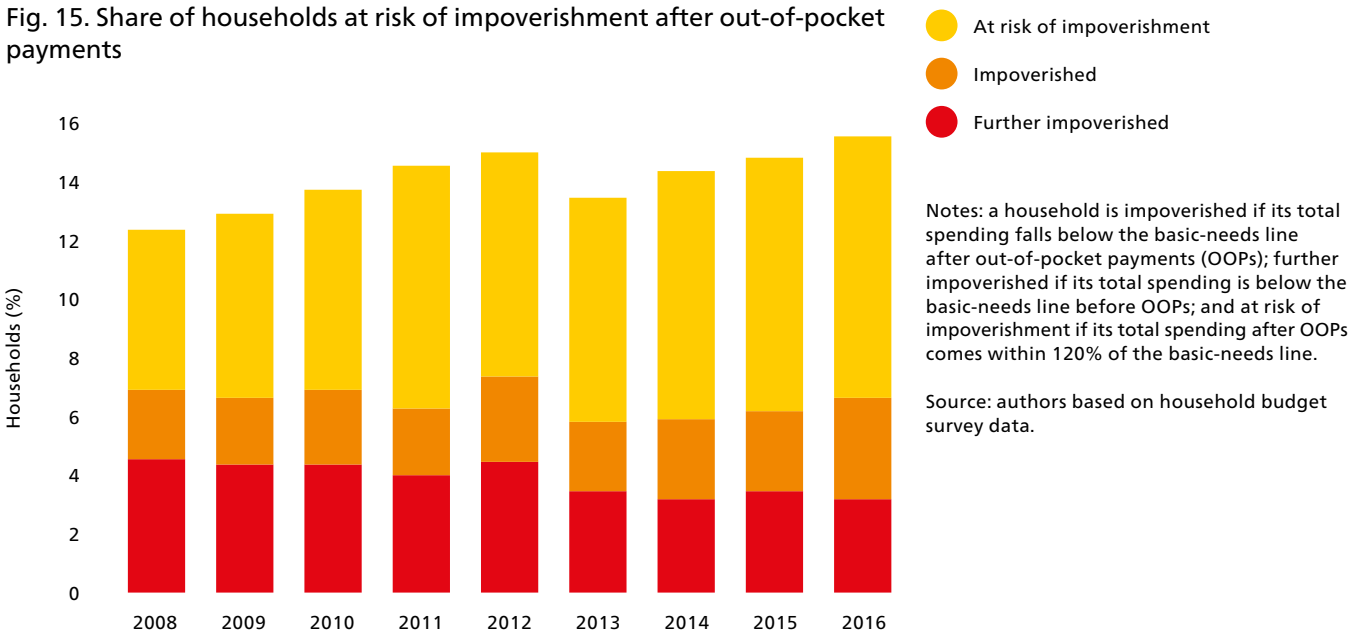
This section uses data from the Republic of Moldova household budget survey to assess the extent to which out-of-pocket payments result in financial hardship for households that use health services. The section shows the relationship between out-of-pocket spending on health and risk of impoverishment, and presents estimates of the incidence, distribution and drivers of catastrophic out-of-pocket payments.

5.1 How many households experience financial hardship?

5.1.1 Out-of-pocket payments and risk of impoverishment

Fig. 15 shows the share of households at risk of impoverishment after out-of-pocket spending on health. The poverty line reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the population (households between the 25th and 35th percentiles of the consumption distribution, adjusted for household size and composition). The monthly cost of meeting these basic needs – the basic needs line – was MDL 2539 in 2016 (in 2016, MDL 1000 was equal to around €100 in the average EU country).

Fig. 15. Share of households at risk of impoverishment after out-of-pocket payments



The share of households further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments grew from 2008 to 2012, fell in 2013, and then rose again until it was slightly higher in 2016 than in any previous year of the study (Fig. 15). The decrease in 2013 was mainly driven by a reduction in the share of further impoverished households. This share was lower in 2016 than in 2008. In contrast, the share of impoverished households and households at risk of impoverishment increased over the course of the study period.

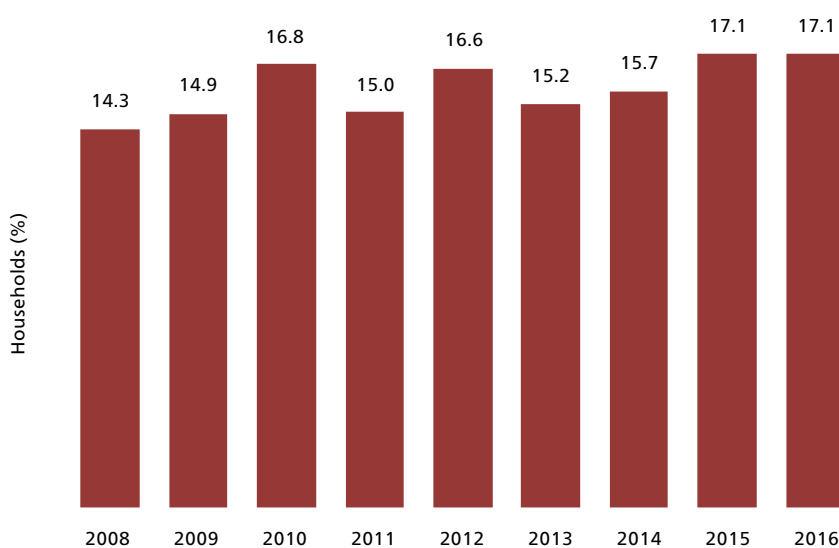
5.1.2 Catastrophic out-of-pocket payments

Households with catastrophic levels of out-of-pocket payments are defined (in this review) as those who spend more than 40% of their capacity to pay. This includes households who are impoverished after out-of-pocket payments (because they no longer have any capacity to pay) and further impoverished (because they have no capacity to pay).

In 2016, it is estimated that 17% of households experienced catastrophic levels of spending on health care (Fig. 16). Overall, the incidence of catastrophic health spending rose between 2008 and 2010, fluctuated between 2011 and 2013, and then grew again. It is higher in 2015 and 2016 than in all previous years of the study. The overall level masks important differences in distribution, both at a given point in time and over time.

Fig. 16. Share of households with catastrophic out-of-pocket payments

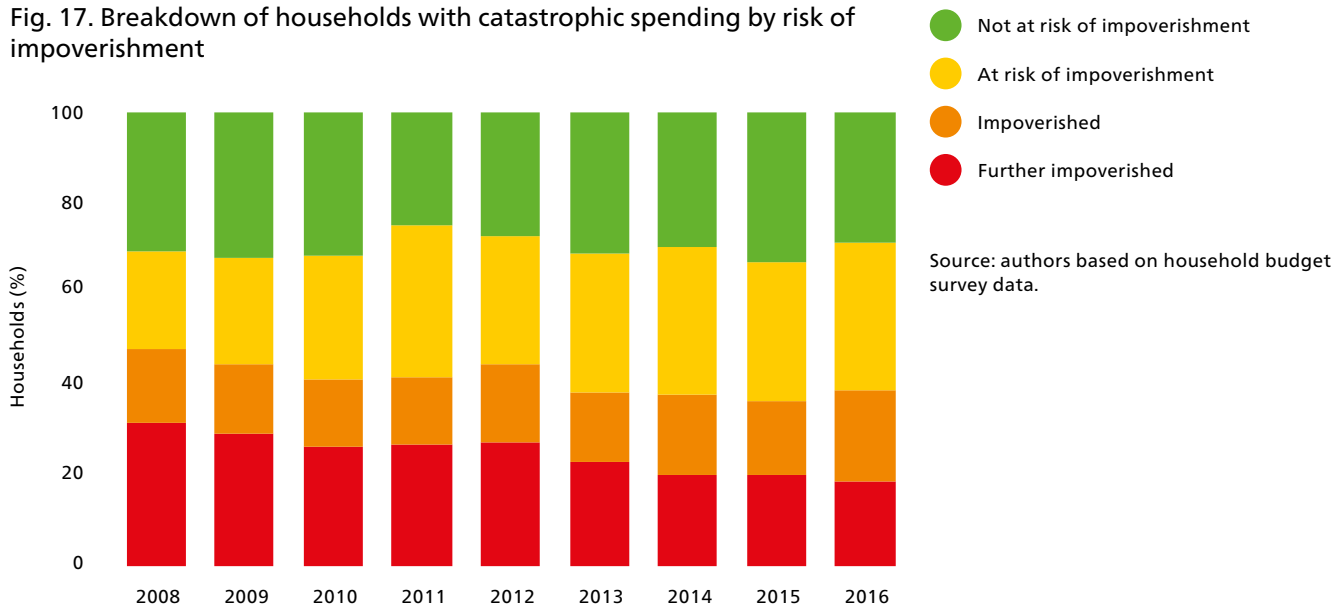
Source: authors based on household budget survey data.



5.2 Who experiences financial hardship?

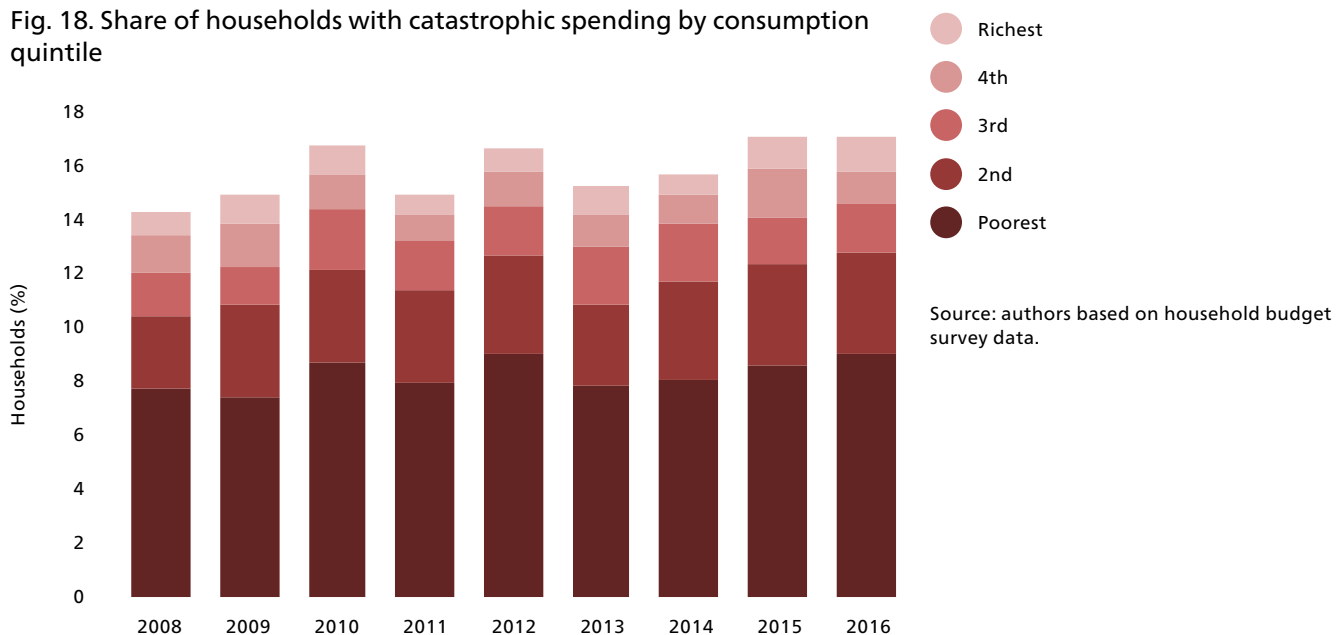
Catastrophic health spending is concentrated among households who are at risk of impoverishment, impoverished and further impoverished (Fig. 17). The share of households further impoverished by catastrophic payments has decreased over time, while the share of households at risk of impoverishment has increased.

Fig. 17. Breakdown of households with catastrophic spending by risk of impoverishment



Catastrophic health spending is also concentrated among the poorest quintile, which has consistently accounted for over half of all households with catastrophic spending. A fifth of households with catastrophic spending are in the second quintile. Within quintiles, the incidence of catastrophic spending ranges from 45% in the poorest quintile and 18% in the second to 7% in the richest (Fig. 18). The incidence in the poorest quintile has increased from 38% in 2008 to 45% in 2016.

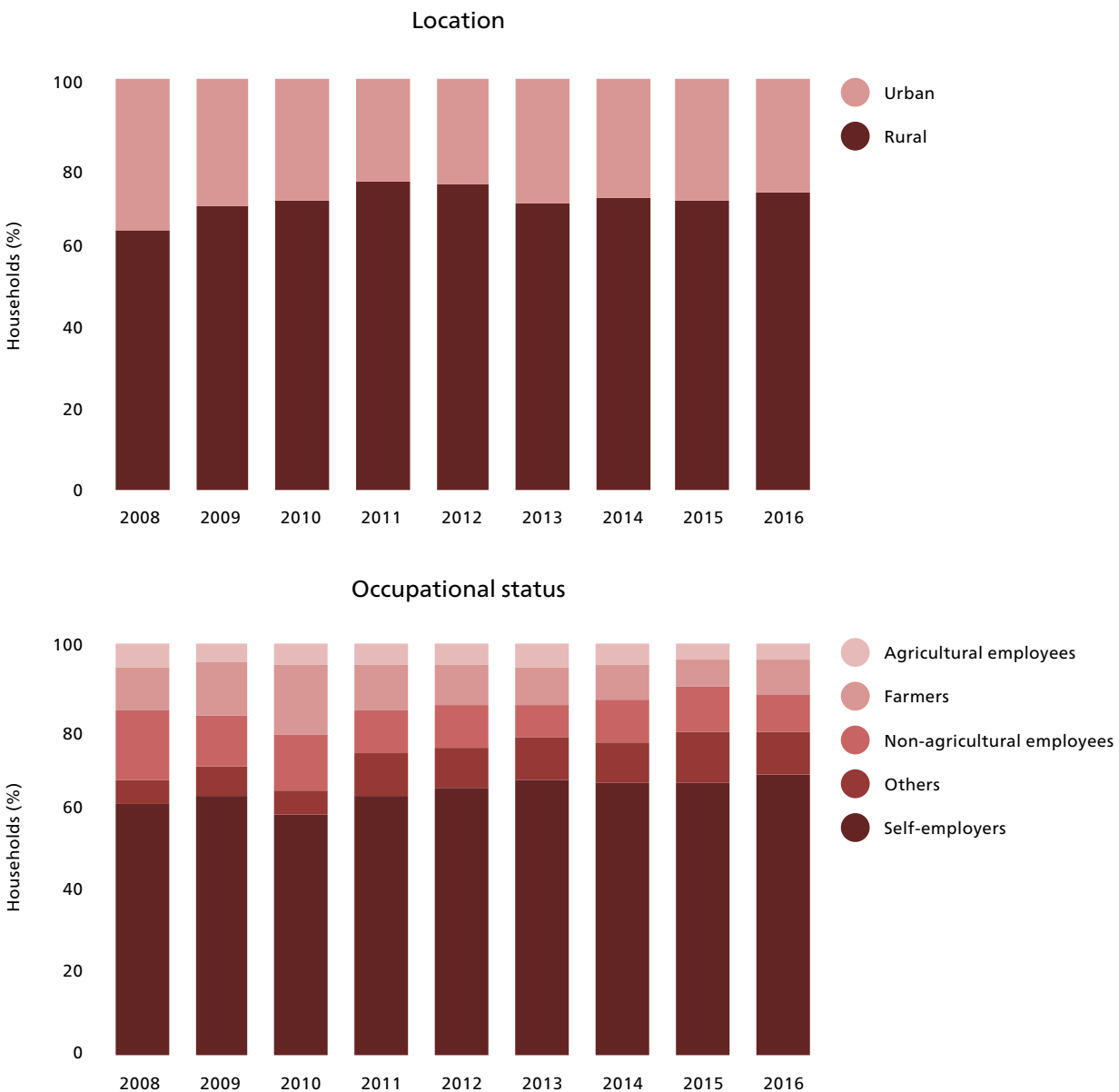
Fig. 18. Share of households with catastrophic spending by consumption quintile



Households with catastrophic health spending mostly live in rural areas and in the northern part of the country. They are more likely to have incomplete secondary education, be pensioners and live in households of single occupancy or couples without children (Fig. 19). The share of rural households and pensioners among all households with catastrophic spending has increased over time.

Fig. 19. Breakdown of households with catastrophic spending by location and socioeconomic status

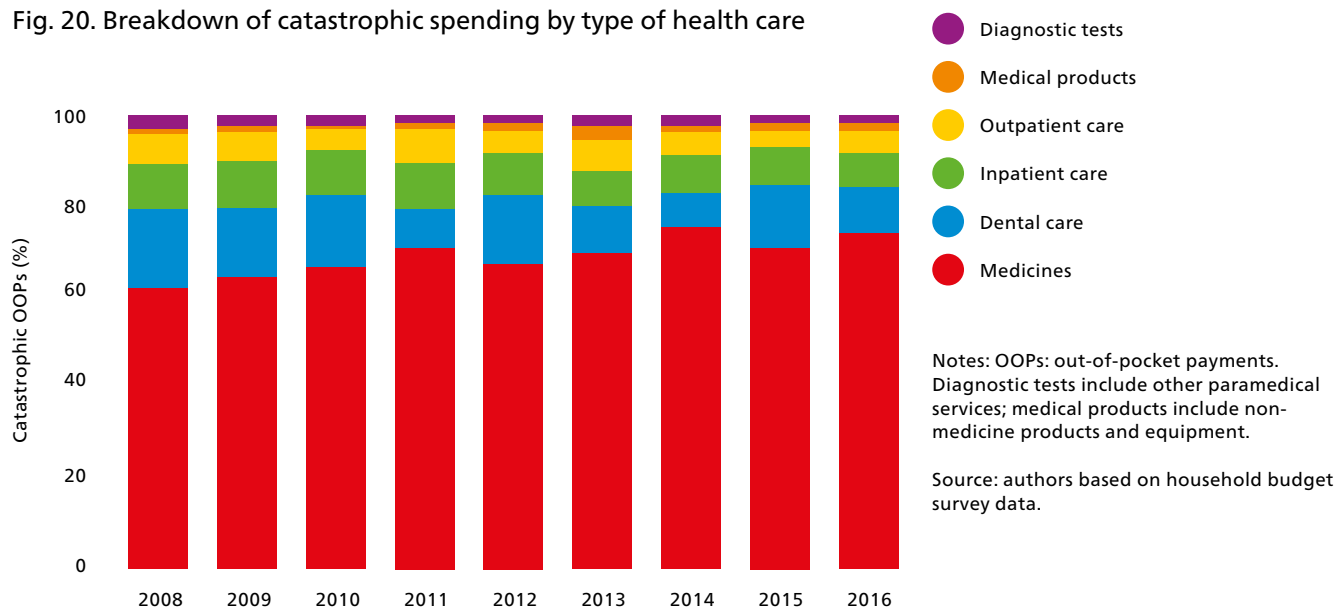
Source: authors based on household budget survey data.



5.3 Which health services are responsible for financial hardship?

Outpatient medicines are the largest single driver of catastrophic health spending; their share has risen substantially over time from 62% in 2008 to 74% in 2016 (Fig. 20). Dental care and inpatient care are the next most important drivers overall. The dental care share has fallen from 17% in 2008 to 10% in 2016. The inpatient care share has also declined slightly from 10% in 2008 to 8% in 2016.

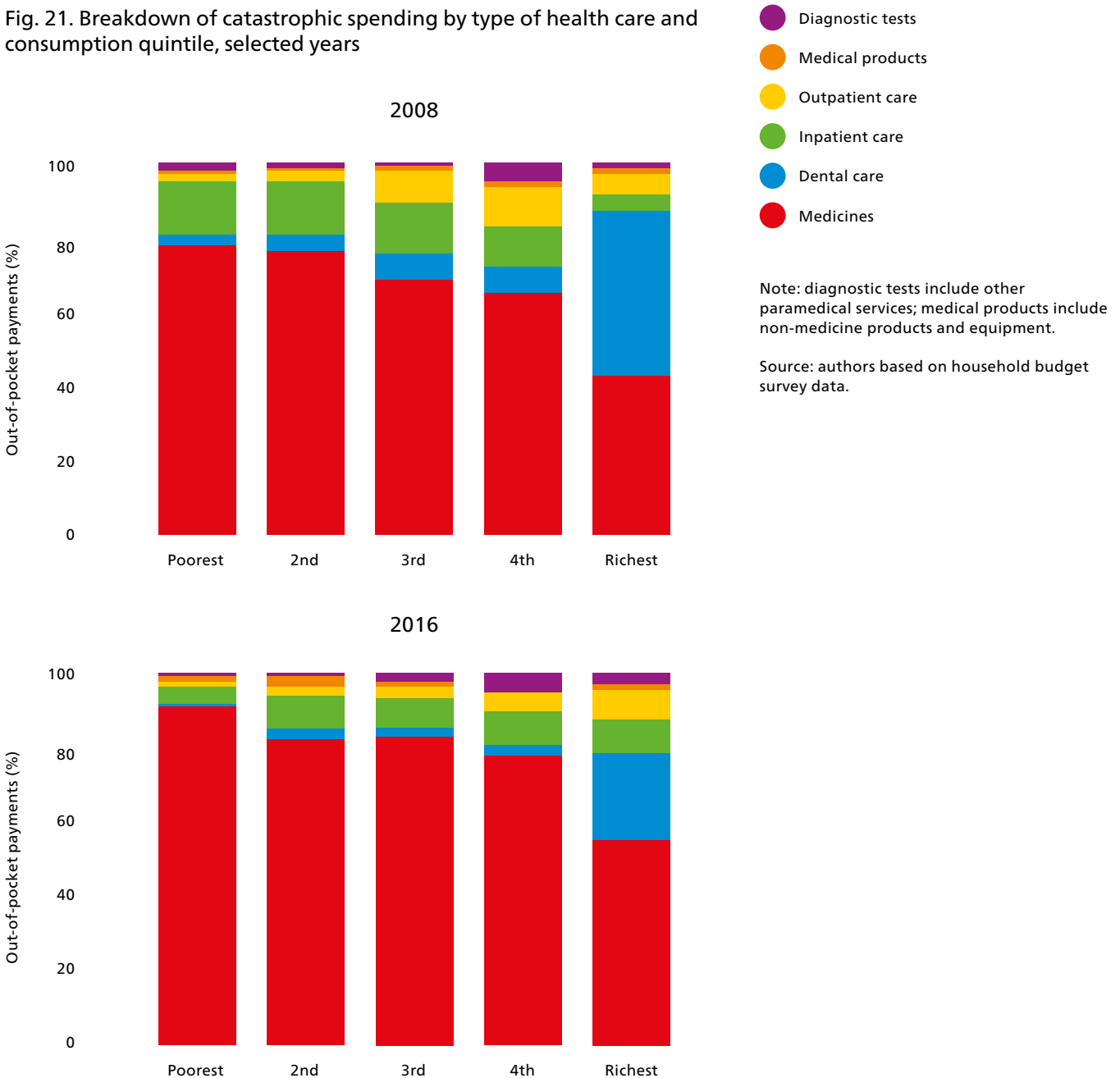
Fig. 20. Breakdown of catastrophic spending by type of health care



Outpatient medicines generally account for the largest share of out-of-pocket payments, but their share is much higher for poorer quintiles (Fig. 21). In 2016, they accounted for over 90% in the poorest quintile compared to 56% in the richest quintile. Since 2008, the outpatient medicines share has grown substantially in all quintiles.

For the other types of health care, the pattern differs by quintile. Inpatient care is the second-largest driver of catastrophic spending for all except the richest quintile. Its share has fluctuated but fallen overall for all except the richest quintile. Dental care is an important source of catastrophic spending for the richest quintile only, but its share has fallen over time.

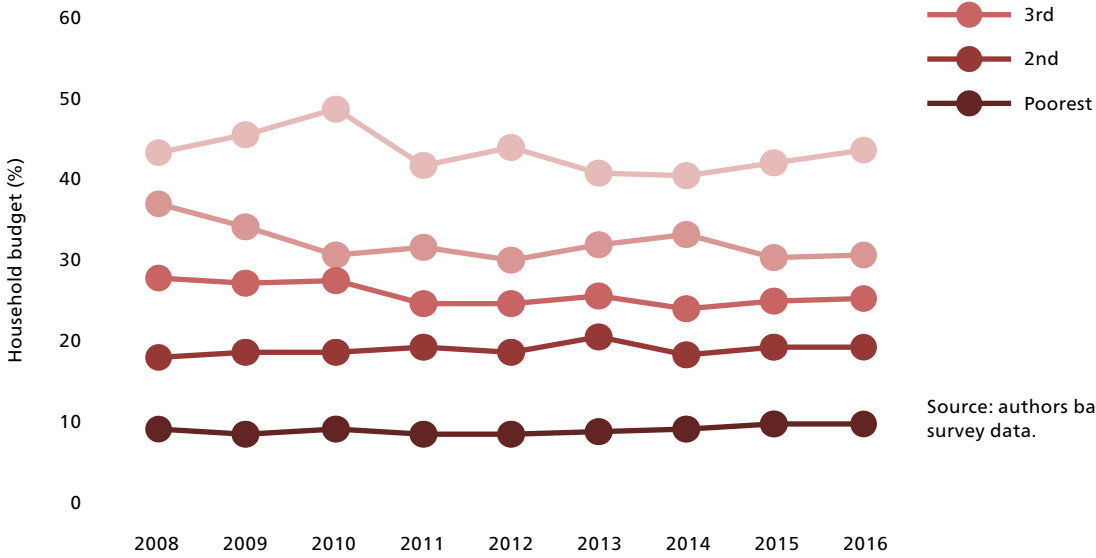
Fig. 21. Breakdown of catastrophic spending by type of health care and consumption quintile, selected years



5.4 How much financial hardship?

Fig. 22 shows how out-of-pocket payments as a share of total household spending rise progressively with household consumption among households with catastrophic spending. Over time, the share has remained relatively stable for the two poorest quintiles and declined for the third and fourth quintiles.

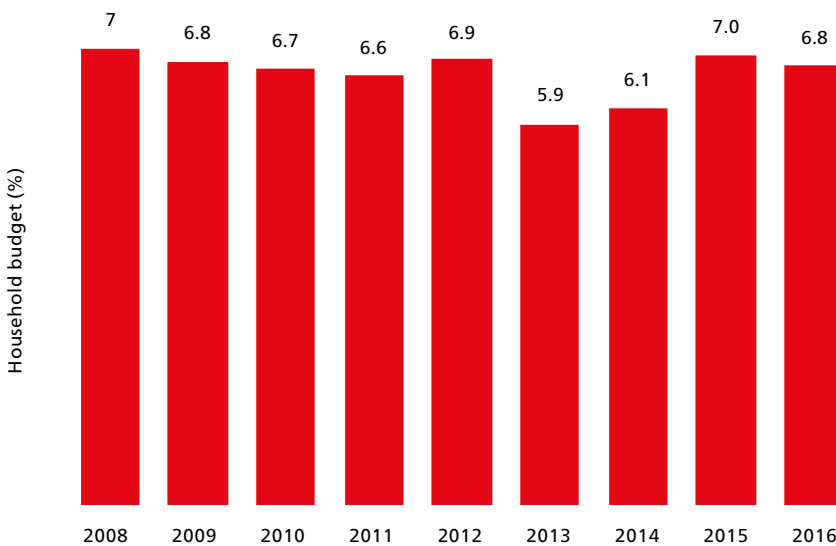
Fig. 22. Out-of-pocket payments as a share of total household spending among households with catastrophic spending by consumption quintile



Source: authors based on household budget survey data.

Among further impoverished households, the out-of-pocket payment share of total household spending has fluctuated during the study period, ranging from 6% to 7% (Fig. 23).

Fig. 23. Out-of-pocket payments as a share of total household spending among further impoverished households



Source: authors based on household budget survey data.

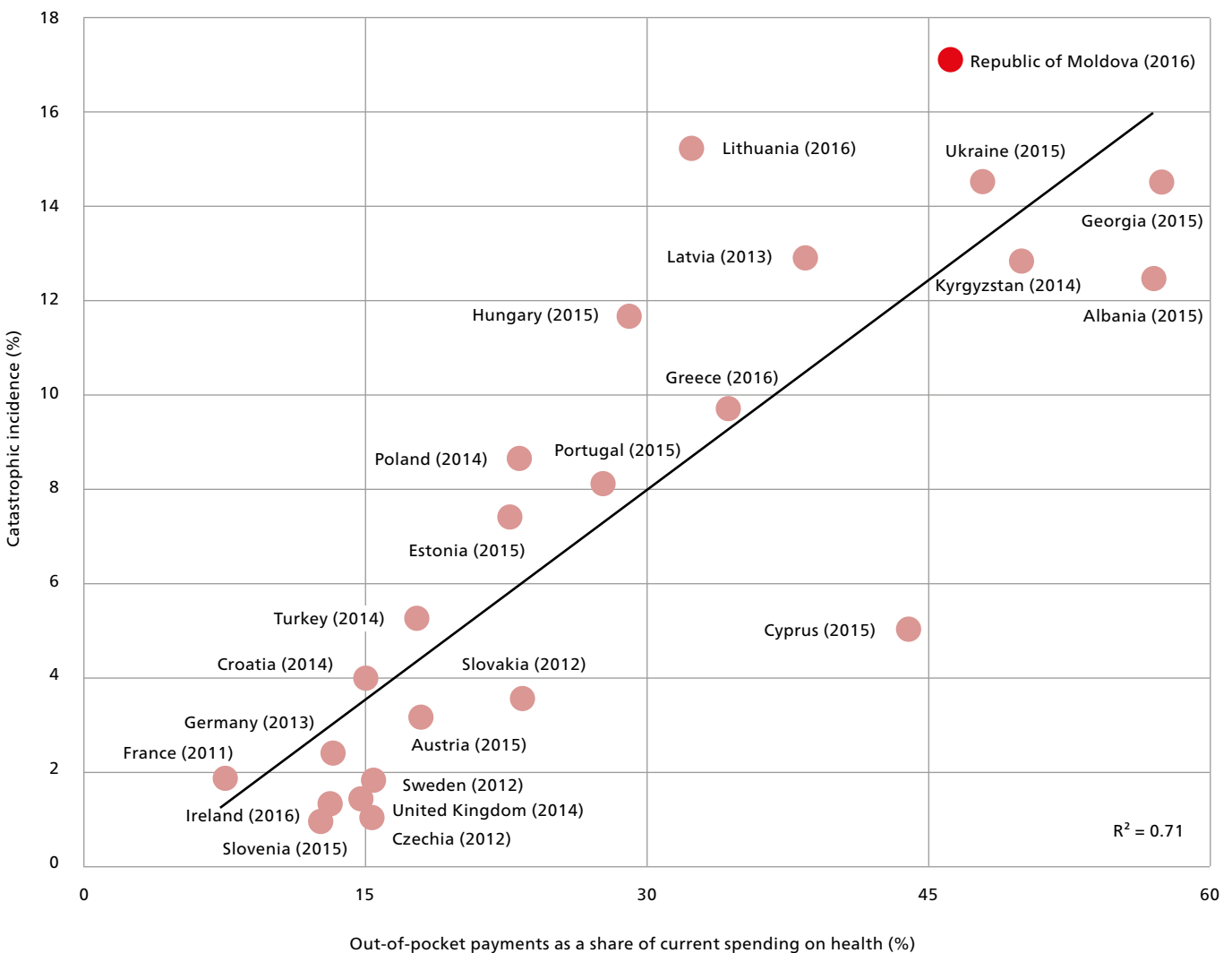
5.5 International comparison

The incidence of catastrophic health spending in the Republic of Moldova is among the highest in the WHO European Region. It is higher than in countries such as Kyrgyzstan and Ukraine, in which out-of-pocket payments account for a similarly high share of current spending on health (Fig. 24).

Fig. 24. Incidence of catastrophic spending on health and the out-of-pocket share of total spending on health in selected European countries, latest year available

Notes: R^2 : coefficient of determination. The out-of-pocket payment data are for the same year as the catastrophic spending. The Republic of Moldova is highlighted in red.

Source: WHO Regional Office for Europe (2019).



5.6 Summary

Financial protection is weak in the Republic of Moldova compared to many countries in Europe, including countries in which out-of-pocket payments account for a similarly high share of current spending on health.

In 2016, 17% of households experienced catastrophic levels of spending on health and nearly 7% experienced impoverishing health spending.

Around half of all households with catastrophic health spending are in the poorest quintile, while a fifth are in the second quintile.

Outpatient medicines are the largest driver of catastrophic spending in all quintiles; their share rises with household consumption and increased overall during the study period from 62% in 2008 to 74% in 2016. Inpatient care is the second-largest driver for all except the richest quintile. Dental care is only a significant source of financial hardship for the richest quintile.

The incidence of catastrophic spending has increased over time. It is higher in 2015 and 2016 than in all previous years of the study. The share of further impoverished households has fallen slightly over time, while the share of impoverished households and households at risk of impoverishment has increased.

6. Factors that strengthen and undermine financial protection

This section considers the factors that may be responsible for financial hardship caused by out-of-pocket payments in the Republic of Moldova and which may explain the trend over time. It begins by looking at factors outside the health system affecting people's capacity to pay – for example, changes in incomes and the cost of living – and then looks at factors in the health system.

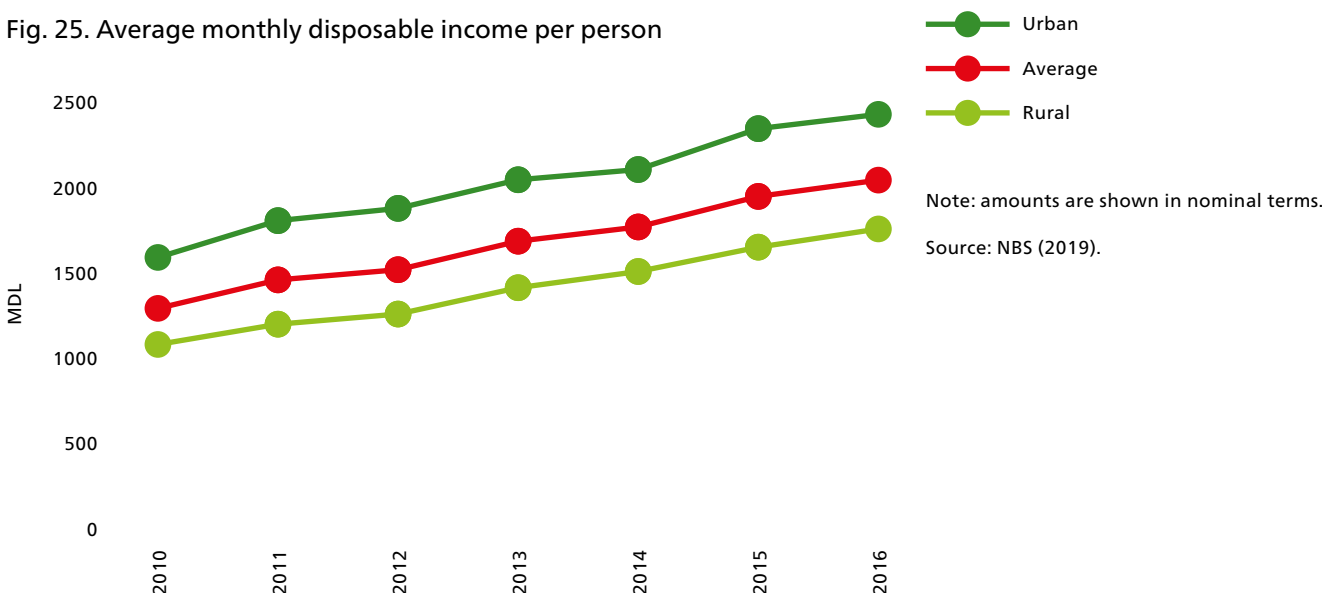
6.1 Factors affecting people's capacity to pay for health care

This section draws on data from the household budget survey and other sources to review changes in people's capacity to pay for health care, focusing on those who face the highest risk of falling into poverty.

The Republic of Moldova has experienced relatively strong economic growth since 2000, with a sharp contraction of the annual growth (–9%) in gross national income in 2009 owing to the global financial crisis. Income has grown faster than average among the poorest 40% of the population, leading to a reduction in income inequality; the Gini index fell from 36 in 2000 to 26 in 2017 (World Bank, 2019).

Poverty is higher than average in rural areas and among people employed in agriculture, older people (65 years of age or above), households with three or more children and people dependent on remittances (World Bank, 2016). The poverty differential between urban and rural areas is particularly stark, with around 5% of the urban population living below the national poverty line compared to 19% of the rural population (NBS, 2019). Over time, the gap between urban and rural incomes has fallen slightly (Fig. 25).

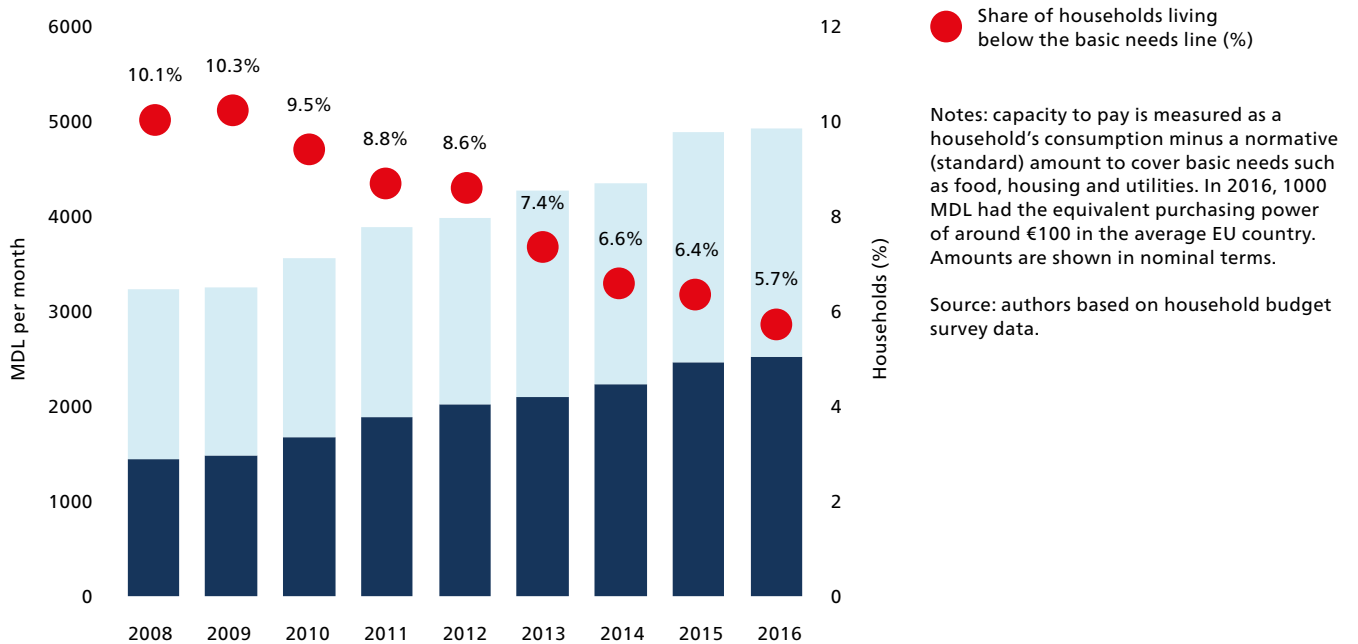
Fig. 25. Average monthly disposable income per person



The official unemployment rate is quite low. Between 2008 and 2018, annual unemployment averaged 5%. It grew from 4% in 2008 to 7% in 2010 following the global financial crisis, and fell afterwards to 3% in 2018 (2.5% and 3.5% among women and men, respectively). Unemployment among young people has fluctuated over time, rising from 16% in 2008, reaching a peak of 26% in 2010 and falling to 7% in 2018 (NBS, 2019).

Over time, the cost of meeting basic needs (food, housing and utilities) – the basic needs line – has risen substantially on average, growing at a faster pace than household capacity to pay for health care (Fig. 26). The share of households living below the basic needs line has fallen since 2008, from around 10% in 2008 to around 6% in 2016, perhaps reflecting the reduction in income inequality over time (Fig. 26). The overall decline in the share of households living below the basic needs line is not reflected in the share of households who are further impoverished after out-of-pockets payments; this share fell from 4.5% in 2012 to 3.5% in 2013, but has otherwise been relatively stable (Fig. 15). This suggests that the rise in catastrophic incidence over time has not been driven by changes in capacity to pay among poorer households.

Fig. 26. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line



6.2 Health system factors

The following paragraphs look at trends in health spending and health coverage, then focus in more detail on the two areas that account for the greatest share of catastrophic spending on health: medicines and inpatient care.

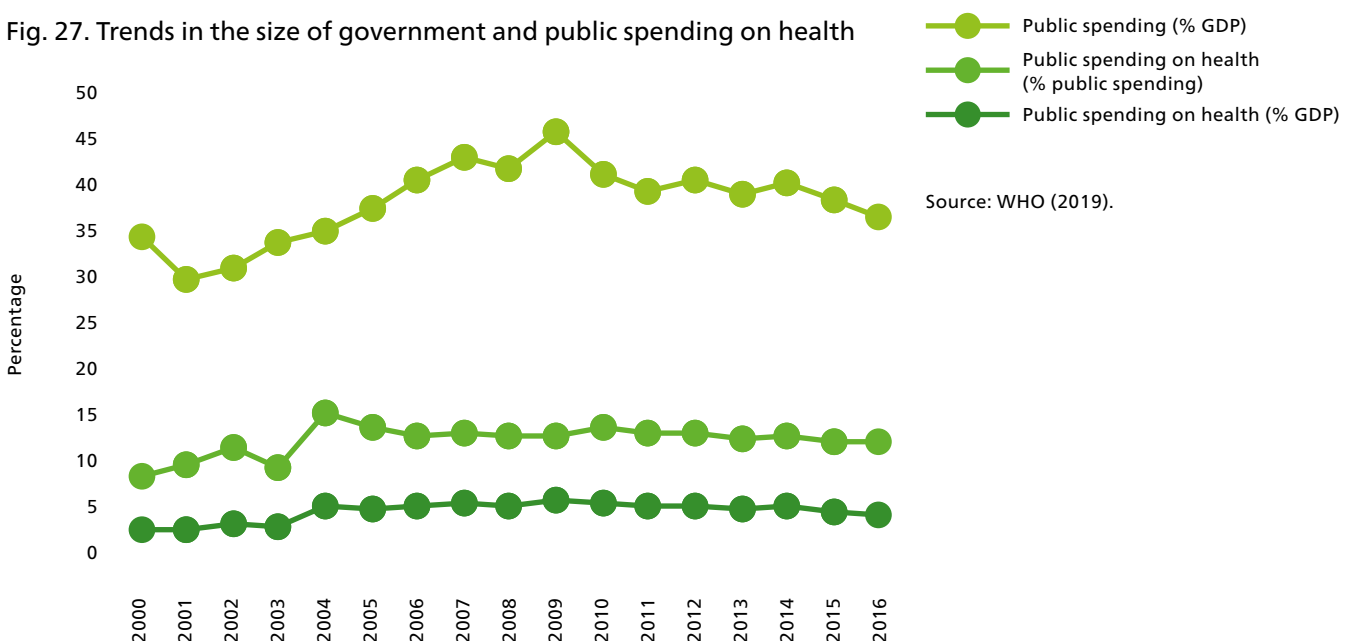
6.2.1 Health spending

In 2004, at the same time as it introduced a new system of mandatory health insurance, the government made two important policy decisions.

The first was to opt for a single purchasing agency responsible for pooling transfers from the state budget (general taxes) and contributions (payroll taxes) in a single, national pool, in line with international good practice (Kutzin et al., 2010). National pooling combined with output-based payment of providers reduced differences in public spending per person across districts (rayons) (Shishkin & Jowett, 2012).

The second important decision was the government’s commitment to allocate at least 12% of its budget to the health system every year. As Fig. 27 shows, the health share of government spending rose sharply in 2004 and remained just above 12% from 2005 to 2016. The commitment to spend 12% of the government budget on health was an effective means of increasing public spending on health at a time when government spending was growing at a faster pace than GDP, as it did up to 2007. During this time, public spending on health as a share of public spending was higher in the Republic of Moldova than the EU average (WHO, 2019).

Fig. 27. Trends in the size of government and public spending on health



Since 2009, however, the size of the government budget – public spending overall – has not kept pace with GDP; as a result, the commitment to allocate 12% of the government budget to health has not been so effective. Fig. 27 shows that government spending has declined as a share of GDP and the share of the government budget allocated to health has been reduced as well, leading to a fall in public spending on health as a share of GDP from 5.3% in 2004 to a low of 4.4% in 2016. Fig. 13 confirms that public spending on health per person fell in 2015 and 2016.

In December 2017, the system for determining public spending on health was changed by law. It is now equal to the sum allocated in the previous year multiplied by the consumer price index in the previous year. It remains to be seen if this change will result in a steady increase in public spending on health to match population health needs.

The recent reduction in public spending on health is a major concern because it already appears to have led to an increase in the out-of-pocket payment share of current spending on health (Fig. 14).

Fig. 28. Relationship between public spending on health as a share of GDP and out-of-pocket payments, WHO European Region, 2016

Note: R²: coefficient of determination. The Republic of Moldova is highlighted in red. Source: WHO (2019).

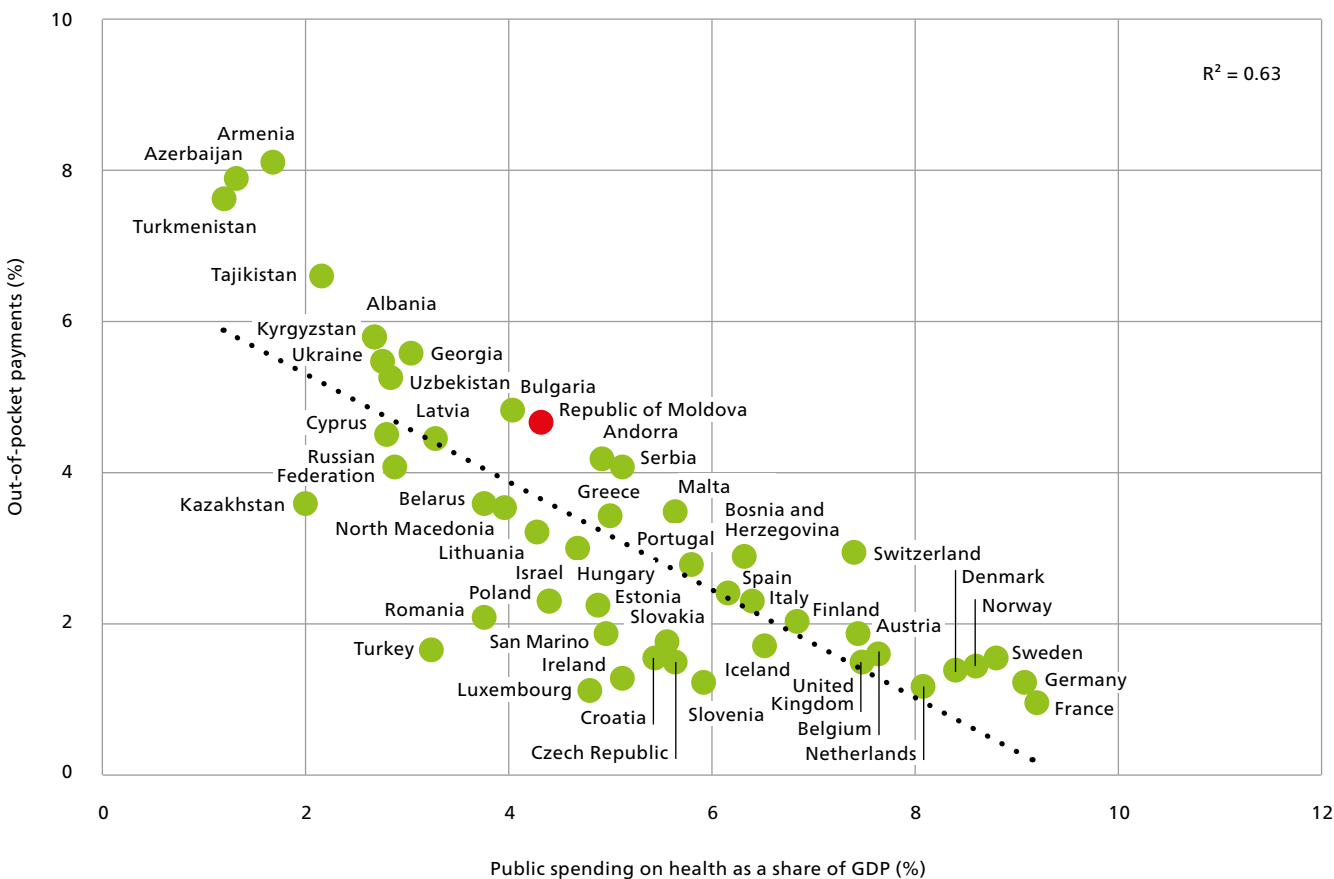


Fig. 28 shows that out-of-pocket payments can be reduced by increasing public spending on health; there is a strong relationship between the out-of-pocket payment share of current spending on health and public spending on health as a share of GDP. In 2016, however, the out-of-pocket payment share is higher than expected given that the Republic of Moldova invests more publicly in its health system than other countries at similar or higher income levels.

This suggests that recent reductions in public spending on health may have a disproportionately negative effect on financial protection and require urgent policy attention. It also suggests that health coverage and other health system factors are likely to play a significant role in explaining why financial hardship is higher than expected in the Republic of Moldova (see Fig. 24).

6.2.2 Health coverage

Population entitlement to the publicly financed benefits offered by CNAM is based on payment of contributions. This requirement automatically creates a pool of uninsured people. The size of this pool of uninsured people is likely to be particularly large in the context of an informal labour market and where people who are unemployed but not necessarily registered as unemployed or entitled to unemployment benefits.

Over the years, the share of the eligible population covered by CNAM has grown steadily in response to changes in coverage policy that have expanded the groups of people for whom the state pays contributions, including highly vulnerable groups of people (see Table 2 and Fig. 29). In response, the share of registered unemployed people not covered by CNAM has fallen from 8% in 2008 to 2% in 2016 (NBS, 2017). Nevertheless, in 2018, 12% of the eligible population were still not covered by CNAM and those lacking CNAM coverage are most likely to be of lower socioeconomic status: rural people, people aged 24–54 years, self-employed people, people employed in agriculture and the poorest people.

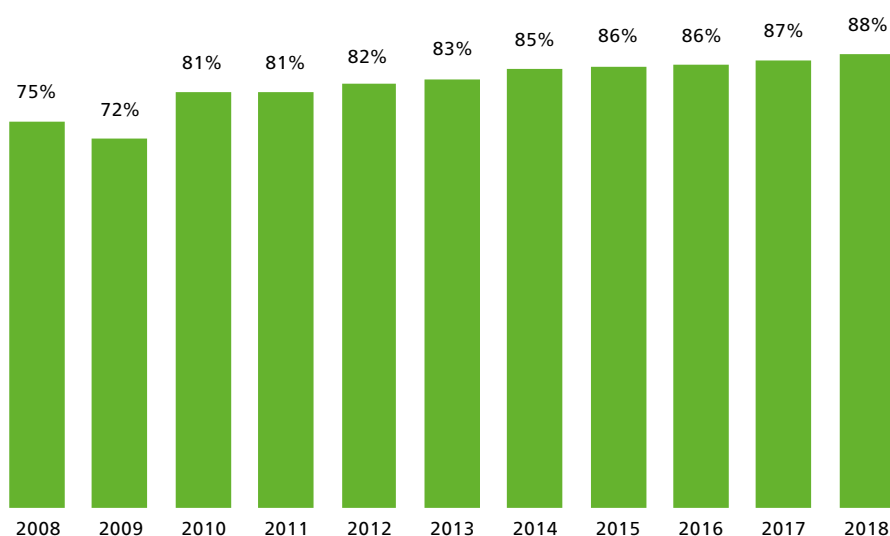
Uninsured and insured people are entitled to different benefits. This difference in entitlements exacerbates inequality in access to health services and encourages inefficiency in the use of health services.

The main gaps in the **benefits package** include outpatient medicines and dental care (Table 4). Over time, the share of catastrophic spending on medicines has grown in all quintiles (Fig. 21). During the study period, the list of medicines included in the benefits package was extended and population groups exempt from co-payments were enlarged. However, the level of user charges for medicines is still problematic and the main cause of financial hardship, especially among the poorest.

Coverage of dental care is very limited for adults and limited for children, leading to financial hardship for richer households (Fig. 21) and unmet need for poorer households (Fig. 3).

Fig. 29. Share of the eligible population covered by CNAM

Source: CNAM (2019b).



Informal payments for inpatient care have grown time. Although inpatient care is not a major driver of financial hardship in the Republic of Moldova, informal payments deserve policy attention because they are likely to impose the greatest barrier to access and the heaviest financial burden on poor households (Jakab et al., 2016).

The CNAM budget is adjusted every year for inflation but expansions of the benefits package are not accompanied by additional public investment. This means that people still have to pay out of pocket for services subject to co-payments or because services are covered but not available to patients due to budget constraints, resulting in informal payments.

User charges (co-payment) policy has some protective features. There are no user charges for outpatient visits (with referral) or inpatient care (with referral) and a system of exemptions aims to protect people with high expected health care costs. However, exemptions focus on diseases and do not target poor households or older people (who have a high risk of poverty). The absence of an overall cap on co-payments and heavy reliance on percentage co-payments for outpatient medicines also cause financial hardship.

6.2.3 Medicines

Out-of-pocket payments for outpatient medicines are by far the largest source of financial hardship for households. They increased over time, both in nominal terms and as a share of out-of-pocket payments among households with catastrophic health spending, particularly among the poorest households. The role of outpatient medicines in financial hardship reflects several factors, including the limited positive list of outpatient prescription medicines covered by CNAM (which means that the

benefits package does not include many essential outpatient medicines), weaknesses in the design of co-payment policy and problems with the governance of medicines policy.

The number of medicines on the positive list has increased over time from 54 INNs in 2007, 91 INNs in 2011, 134 INNs in 2016 and 148 in 2018 (CNAM, 2019a), but the list still lacks some essential outpatient medicines (Bezverhni et al., 2016). A revision of the Essential Medicines List is envisaged to take place in 2019.

Expanding the list of covered medicines should, in theory, improve financial protection. In the Republic of Moldova's case, however, heavy co-payments for covered medicines mean that an increase in the positive list not only increases access to publicly financed outpatient prescriptions – a positive outcome – but also increases people's exposure to out-of-pocket payments through co-payments, resulting in financial hardship.

The use of percentage co-payments means people must pay a relatively high share of the medicine price (30%, 50% and, from 2018, 70%). It also means that people's exposure to out-of-pocket spending depends on the price and quantity of medicines they need. In addition, unless the price is known in advance, people may face uncertainty about how much they have to pay out of pocket. This form of co-payment therefore has magnified negative effects:

- for people who are regular users of medicines;
- for those who have a condition that requires higher-cost medicines;
- when medicine prices are relatively high or fluctuate; and
- when physicians and pharmacists are not required or do not have incentives to prescribe and dispense cheaper alternatives.

CNAM analysis indicates that while the share of CNAM funds allocated to medicines and the number of people using medicines have grown (CNAM, 2019b), heavy reliance on percentage co-payments exposes people to out-of-pocket payments linked to distribution costs and retail mark-ups (Bezverhni et al., 2016).

Since 2013, physicians have been required to prescribe outpatient medicines by INN and pharmacists must inform people about cheaper alternatives. Anecdotal evidence suggests that people prefer more expensive medicines than generics, however, because of perceived better quality.

Protection against co-payments for outpatient prescriptions is weak. There is no cap on co-payments and exemptions are based on age and disease but are not sufficiently protective because they do not extend to poor households or older people. Older people in the Republic of Moldova are at high risk of poverty.

6.2.4 Inpatient care

Although inpatient care and inpatient medicines are fully covered in theory, in practice people pay for medicines and services out of pocket (section 3.1.2). The share of people reporting informal payments for inpatient care has grown substantially over time (section 4.2). As a result, inpatient care is the second largest driver of catastrophic spending for all except the richest quintile, although its share of out-of-pocket payments is very small compared to outpatient medicines.

Informal payments have many adverse effects on health system performance; they exacerbate access barriers and inequalities in the use of health services, reduce transparency and undermine the health system's ability to protect poorer people (WHO Regional Office for Europe, 2019). The informal and unpredictable nature of these payments makes it difficult to protect people through exemptions. Informal payments are regressive as they account for a higher share of the income of poorer people and impact most on regular users of health care and other vulnerable groups (Jakab et al., 2016). International experience suggests it is easier to reduce informal payments for supplies such as medicines than those that are made to health workers (WHO Regional Office for Europe, 2019).

6.3 Summary

The establishment of a single, national pool for transfers from the state budget (general taxes) and contributions (payroll tax); the government's commitment to public spending on health; the expansion of population groups eligible for state contributions; and a steady increase in the number of essential medicines covered by CNAM are factors that have led to greater use of health services – a positive outcome – and fewer people reporting unmet need due to cost.

Despite these positive developments, financial protection is weak due to remaining gaps in coverage, notably:

- the linking of entitlement to CNAM benefits to payment of contributions, which means CNAM still only covers 88% of those eligible for coverage; the resulting differences in entitlement between insured and uninsured people exacerbate inequality in access – especially since uninsured people are mainly of low socioeconomic status – and encourage inefficiency in the use of health services;
- limited coverage of outpatient medicines; although the number of INNs CNAM covers has steadily increased, not all essential medicines are covered;
- heavy user charges for covered outpatient prescriptions and weaknesses in the design of co-payment policy such as the absence of an overall cap on co-payments; heavy reliance on percentage co-payments, which exposes people to high or fluctuating prices; and the lack of co-payment exemptions specifically targeting poor people or regular users of health care; and

- limited dental care coverage, which exposes poorer households to unmet need and richer people to financial hardship.

Financial protection has also deteriorated over time; as access to health services has improved, increasing people's ability to use health care, it has also increased their exposure to out-of-pocket payments. It may have deteriorated further since 2016 (the end of the study period) because public spending on health has not kept pace with economic growth and actually fell on a per person basis in 2015 and 2016.

7. Implications for policy

Financial protection in the Republic of Moldova is weak and has deteriorated over time. In 2016, 17% of households experienced catastrophic out-of-pocket payments, a higher share than in any other year of the study and up from 14% in 2008. Deteriorating financial protection has coincided with two other factors: first, a substantial improvement in unmet need for health care due to cost during the study period; and second, a decline in public spending on health as a share of GDP since 2009. Government efforts to extend coverage appear to have increased access to health care – a positive outcome – but have not been accompanied by adequate public investment or sufficient attention to the design of co-payment policy. As a result, improved access has also increased people’s exposure to out-of-pocket payments when using health services, especially medicines.

Catastrophic spending on health is heavily concentrated among the poorest households. During the study period, nearly half of all households in the poorest quintile experienced financial hardship, compared to only 7% in the richest quintile. Catastrophic spending is also heavily concentrated among people living in rural areas and pensioners.

Outpatient medicines are the largest single driver of catastrophic spending across all quintiles. They account for almost all out-of-pocket payments among poorer households with catastrophic spending and their contribution to financial hardship has increased over time. For poorer quintiles, inpatient care is the second-largest driver of catastrophic spending, perhaps linked to informal payments for hospital care, which have grown substantially over time. For richer households, dental care is the second-largest driver of catastrophic spending. The relatively low spending on dental care in the poorest quintiles is likely to reflect unmet need.

Policy should focus on improving the affordability of outpatient medicines. Coverage policy could be strengthened by: extending the number of essential outpatient medicines covered by CNAM *and at the same time* introducing exemptions from co-payments for poor households and regular users of health care, including older people; introducing an income-based cap on all co-payments; moving away from the use of percentage co-payments, which expose people to inefficiencies arising from inappropriate prescribing and dispensing and high or fluctuating prices; and addressing inefficiencies in the procurement, pricing, prescribing and dispensing of outpatient medicines, including through an increase in the use of cheaper alternatives (generics).

Limited coverage of dental care is likely to result in high levels of unmet need for dental care, particularly among poorer households, as demonstrated by a marked decline in the use of dental care during the study period.

The increase in informal payments for inpatient care is a further cause for concern. Informal payments impose the heaviest financial burden on the poorest households and may lead people to forego care.

Other aspects of coverage policy also raise concerns about unmet need and financial hardship for vulnerable groups of people. The government has successfully increased the share of the population covered by CNAM, but 12% of those eligible to be covered by CNAM still lack coverage. This is higher than in almost any other country in Europe. International experience suggests it would be wise to consider changing the basis for entitlement to residence, rather than continuing with entitlement linked to payment of contributions, which does not offer any advantages and imposes additional costs on the health system (WHO Regional Office for Europe, 2019).

Public spending in general and public spending on health have not kept pace with economic growth. Efforts to strengthen coverage policy, reduce out-of-pocket payments and improve access and financial protection will require additional public investment, particularly given the decline in investment in recent years. A commitment to allocate a minimum of 12% of the government budget to health is not effective when the government budget is declining. Growth in health spending should aim not only to match economic growth but also for steady year-on-year increases. It remains to be seen if the recent shift to link annual increases in health spending to the consumer price index will achieve these aims. In the future, further expansion of the benefits package should be accompanied by additional public investment to protect people from having to pay out of pocket for goods and services that are covered but subject to co-payments or not available to patients due to budget constraints.

Additional investment should be used in a progressive way to extend entitlement to CNAM benefits and at the same time reduce co-payments – especially for outpatient medicines – first for the people most likely to experience financial hardship: poor people, regular users of health care and pensioners.

References²

2. All websites accessed on 2 December 2019).

Arora V, Karanikolos M, Clair A, Reeves A, Stuckler D, McKee M (2015). Data resource profile: the European Union Statistics on Income and Living Conditions (EU-SILC). *Int J Epidemiol*. 44:451–461. doi:10.1093/ije/dyv069.

Bezverhni Z, Safta V, Chitan E, Ferrario A, Habicht J (2016). Improving access to essential medicines in the Republic of Moldova. *Eurohealth* 22(2):45–7.

CNAM (2019a). Evolutia cheltuielilor din FAOAM pentru medicamente compensate in 2016–2018 [Evolution of expenses for compensated drugs 2016–2018]. Chisinau: Compania Națională de Asigurări în Medicină (http://cnam.md/httpdocs/editorDir/file/Statistica_med_compensate_2016_2018.pdf, in Romanian).

CNAM (2019b). Raport anual privind executarea fondurilor asigurării obligatorii de asistență medicală în anul 2018 [Annual report on the execution of the compulsory health insurance funds in 2018]. Chisinau: Compania Națională de Asigurări în Medicină (http://cnam.md/httpdocs/editorDir/file/RapoarteActivitate_anuale/2019/Raport_anual_2018.pdf, in Romanian).

Cylus J, Thomson S, Evetovits T (2018). Catastrophic health spending in Europe: equity and policy implications of different calculation methods. *Bull World Health Organ*. 96:599–609 (<http://dx.doi.org/10.2471/BLT.18.209031>).

Eurostat (2019). Data [online database]. Brussels: European Commission (<https://ec.europa.eu/eurostat/data/database>).

EXPH (Expert Panel on Effective Ways of Investing in Health) (2016). Opinion on access to health services in the European Union. Brussels: European Commission (https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/015_access_healthservices_en.pdf).

EXPH (Expert Panel on Effective Ways of Investing in Health) (2017). Opinion on Benchmarking Access to Healthcare in the EU, 2017. Brussels: European Commission (https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/docsdir/opinion_benchmarking_healthcareaccess_en.pdf).

Jakab M, Akkazieva B, Kutzin J (2016). Can reductions in informal payments be sustained? Evidence from Kyrgyzstan, 2001–2013. Copenhagen: WHO Regional Office for Europe (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications/2016/can-reductions-in-informal-payments-be-sustained-evidence-from-kyrgyzstan,-20012013-2016>).

Kutzin J, Cashin C, Jakab M, editors (2010). Implementing health financing reform: Lessons from countries in transition. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications/2010/implementing-health-financing-reform-lessons-from-countries-in-transition-2010>).

- National Agency of Public Health (2019). Chisinau: National Agency of Public Health of the Republic of Moldova (www.ansp.md, in Romanian).
- NBS (2017). Access of the population to health care services. Results of the household survey. Chisinau: National Bureau of Statistics of the Republic of Moldova.
- NBS (2019). Statistical databank "Statbank". Chisinau: National Bureau of Statistics of the Republic of Moldova (<http://statistica.gov.md/index.php?l=en>).
- Rahman K (2017). Moldova: Overview of corruption and anti-corruption with a focus on the healthcare and procurement sectors. Chisinau: Transparency International Moldova (<https://knowledgehub.transparency.org/helpdesk/moldova-overview-of-corruption-and-anti-corruption-with-a-focus-on-the-healthcare-and-procurement-sectors>).
- Shishkin S, Jowett M (2012). A review of health financing reforms in the Republic of Moldova. Health financing policy paper 2012/1. Copenhagen: WHO Regional Office for Europe (<http://www.euro.who.int/en/countries/republic-of-moldova/publications/more-publications/health-policy-paper-series-no.-4-a-review-of-health-financing-reforms-in-the-republic-of-moldova-2012>; Health Financing Policy Paper 2012/1).
- Thomson S, Evetovits E, Cylus J (2018). Financial protection in high-income countries: a comparison of the Czech Republic, Estonia and Latvia. Copenhagen: WHO Regional Office for Europe (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications/2018/financial-protection-in-high-income-countries.-a-comparison-of-the-czech-republic,-estonia-and-latvia-2018>).
- Vian T, Feeley F, Domete S, Negruta A, Matei A, Habicht J (2015). Barriers to universal health coverage in Republic of Moldova: a policy analysis of formal and informal out-of-pocket payments. BMC Health Serv Res. 15(1):319. doi:10.1186/s12913-015-0984-z.
- Wagstaff A, van Doorslaer E (2003). Catastrophe and impoverishment in paying in health care: with applications to Vietnam 1993–98. Health Econ. 2(11):921–34.
- WHO (2010). The world health report. Health systems financing: the path to universal health coverage. Geneva: World Health Organization (<http://www.who.int/whr/2010/en/>).
- WHO (2019). Global Health Expenditure Database [online database]. Geneva: World Health Organization (<http://apps.who.int/nha/database/Select/Indicators/en>).
- WHO, World Bank (2015). Tracking universal health coverage: first global monitoring report. Geneva: World Health Organization (http://apps.who.int/iris/bitstream/10665/174536/1/9789241564977_eng.pdf?ua=1).
- WHO, World Bank (2017). Tracking universal health coverage: 2017 global monitoring report. Geneva: World Health Organization (http://www.who.int/healthinfo/universal_health_coverage/report/2017/en).

WHO, World Bank (2019). Global monitoring report on financial protection in health 2019. Geneva: World Health Organization (https://www.who.int/healthinfo/universal_health_coverage/report/fp_gmr_2019.pdf?ua=1).

WHO Regional Office for Europe (2019). Can people afford to pay for health care? New evidence on financial protection in Europe. Copenhagen: WHO Regional Office for Europe (<http://www.euro.who.int/en/publications/abstracts/can-people-afford-to-pay-for-health-care-new-evidence-on-financial-protection-in-europe-2019>).

World Bank (2016). Poverty reduction and shared prosperity in Moldova: progress and prospects. Washington (DC): World Bank (<http://documents.worldbank.org/curated/en/168451467995808859/pdf/105722-WP-P151472-PUBLIC-Moldova-Poverty-Assessment-2016.pdf>).

World Bank (2019). World Bank Open Data [online database]. Washington (DC): World Bank (<https://data.worldbank.org/>).

Xu K, Evans D, Carrin G, Aguilar-Rivera A, Musgrove P, Evans T (2007). Protecting households from catastrophic health spending. *Health Aff.* 26(4):972–83.

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

Yerramilli P, Fernández Ó, Thomson S (2018). Financial protection in Europe: a systematic review of the literature and mapping of data availability. *Health Policy* 122(5):493–508 ([http://www.healthpolicyjrn.com/article/S0168-8510\(18\)30049-6/fulltext](http://www.healthpolicyjrn.com/article/S0168-8510(18)30049-6/fulltext)).

Annex 1. Household budget surveys in Europe

What is a household budget survey? Household budget surveys are national sample surveys that aim to measure household consumption of goods and services over a given period of time. In addition to information about consumption expenditure, they include information about household characteristics.

Why are they carried out? Household budget surveys provide valuable information on how societies and people use goods and services to meet their needs and preferences. In many countries, the main purpose of a household budget survey is to calculate weights for the Consumer Price Index, which measures the rate of price inflation as experienced and perceived by households (Eurostat, 2015). Household budget surveys are also used by governments, research entities and private firms wanting to understand household living conditions and consumption patterns.

Who is responsible for them? Responsibility for household budget surveys usually lies with national statistical offices.

Are they carried out in all countries? Almost every country in Europe conducts a household budget survey (Yerramilli et al., 2018).

How often are they performed? EU countries conduct a household budget survey at least once every five years, on a voluntary basis, following an informal agreement reached in 1989 (Eurostat, 2015). Many countries in Europe conduct them at more frequent intervals (Yerramilli et al., 2018).

What health-related information do they contain? Information on household consumption expenditure is gathered in a structured way, usually using the United Nations Classification of Individual Consumption According to Purpose (COICOP). A new European version of COICOP known as ECOICOP, intended to encourage further harmonization across countries, was introduced in 2016 (Eurostat, 2016).

Information on health-related consumption comes under COICOP code 6, which is further divided into three groups, as shown in Table A1.1. In this study, health-related information from household budget surveys is divided into six groups (with corresponding COICOP codes): medicines (06.1.1), medical products (06.1.2 and 06.1.3), outpatient care (06.2.1), dental care (06.2.2), diagnostic tests (06.2.3) and inpatient care (06.3).

In a very small minority of countries in Europe (Belgium, France, Luxembourg and Switzerland), people entitled to publicly financed health care may pay for treatment themselves, then claim or receive reimbursement from their publicly financed health insurance fund (OECD, 2019). In a wider range of countries, people may also be reimbursed by entities offering voluntary health insurance – for example, private insurance companies or occupational health schemes.

To avoid households reporting payments that are subsequently reimbursed, many household budget surveys in Europe specify that household spending on health should be net of any reimbursement from a third party such as the government, a health insurance fund or a private insurance company (Heijink et al., 2011).

Some surveys ask households about spending on voluntary health insurance. This is reported under a different COICOP code (12.5.3 Insurance connected with health, which covers "Service charges for private sickness and accident insurance") (United Nations Statistics Division, 2018).

Are household budget surveys comparable across countries?

Classification tools such as COICOP (and ECOICOP in Europe) support standardization, but they do not address variation in the instruments used to capture data (e.g. diaries, questionnaires, interviews, registers), response rates and unobservable differences such as whether the survey sample is truly nationally representative. Cross-national variation in survey instruments can affect levels of spending and the distribution of spending across households. It is important to note, however, that its effect on spending on health in relation to total consumption – which is what financial protection indicators measure – may not be so great.

An important methodological difference in quantitative terms is **owner-occupier imputed rent**. Not all countries impute rent and, among those that do, the methods used to impute rent vary substantially (Eurostat, 2015). In this series, imputed rent is excluded when measuring total household consumption.

Table A1.1. Health-related consumption expenditure in household budget surveys

Source: United Nations Statistics Division (2018).

COICOP codes	Includes	Excludes
06.1 Medical products, appliances and equipment 06.1.1 Pharmaceutical products 06.1.2 Other medical products 06.1.3 Therapeutic appliances and equipment	This covers medicaments, prostheses, medical appliances and equipment and other health-related products purchased by individuals or households, either with or without a prescription, usually from dispensing chemists, pharmacists or medical equipment suppliers. They are intended for consumption or use outside a health facility or institution.	Products supplied directly to outpatients by medical, dental and paramedical practitioners or to inpatients by hospitals and the like are included in outpatient services (06.2) or hospital services (06.3).
06.2 Outpatient services 06.2.1 Medical services 06.2.2 Dental services 06.2.3 Paramedical services	This covers medical, dental and paramedical services delivered to outpatients by medical, dental and paramedical practitioners and auxiliaries. The services may be delivered at home or in individual or group consulting facilities, dispensaries and the outpatient clinics of hospitals and the like. Outpatient services include the medicaments, prostheses, medical appliances and equipment and other health-related products supplied directly to outpatients by medical, dental and paramedical practitioners and auxiliaries.	Medical, dental and paramedical services provided to inpatients by hospitals and the like are included in hospital services (06.3).
06.3 Hospital services	Hospitalization is defined as occurring when a patient is accommodated in a hospital for the duration of the treatment. Hospital day care and home-based hospital treatment are included, as are hospices for terminally ill persons. This group covers the services of general and specialist hospitals; the services of medical centres, maternity centres, nursing homes and convalescent homes that chiefly provide inpatient health care; the services of institutions serving older people in which medical monitoring is an essential component; and the services of rehabilitation centres providing inpatient health care and rehabilitative therapy where the objective is to treat the patient rather than to provide long-term support. Hospitals are defined as institutions that offer inpatient care under the direct supervision of qualified medical doctors. Medical centres, maternity centres, nursing homes and convalescent homes also provide inpatient care, but their services are supervised and frequently delivered by staff of lower qualification than medical doctors.	This group does not cover the services of facilities (such as surgeries, clinics and dispensaries) devoted exclusively to outpatient care (06.2). Nor does it include the services of retirement homes for older people, institutions for disabled people and rehabilitation centres providing primarily long-term support (12.4).

References

- Eurostat (2015). Household Budget Survey 2010 Wave EU Quality report. Brussels: Eurostat (http://ec.europa.eu/eurostat/documents/54431/1966394/LC142-15EN_HBS_2010_Quality_Report_ver2+July+2015.pdf/fc3c8aca-c456-49ed-85e4-757d4342015f).
- Eurostat (2016). Regulation (EU) 2016/792 of the European Parliament and of the Council of 11 May 2016 on harmonised indices of consumer prices and the house price index, and repealing Council Regulation (EC) No 2494/95. O. J. E. U. L135/11:1–28 (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0792&from=EN>).
- Heijink R, Xu K, Saksena P, Evans D (2011). Validity and comparability of out-of-pocket health expenditure from household surveys: a review of the literature and current survey instruments. Geneva: World Health Organization (HSS/HSF/DP.E.11.1; https://www.who.int/health_financing/documents/dp_e_11_01-oop_errors.pdf?ua=1).

OECD (2019). Health systems characteristics survey 2016 [online database]. Paris: Organisation for Economic Co-operation and Development (<https://qdd.oecd.org/subject.aspx?Subject=hsc>).

United Nations Statistics Division (2018). COICOP code 06 detailed structure and explanatory notes. In: United Nations Statistics Division [website]. New York (NY): United Nations Statistics Division (<https://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=5&Lg=1&Co=06>).

Yerramilli P, Fernández O, Thomson S (2018). Financial protection in Europe: a systematic review of the literature and mapping of data availability. *Health Policy* 122(5):493–508 ([http://www.healthpolicyjrn.com/article/S0168-8510\(18\)30049-6/fulltext](http://www.healthpolicyjrn.com/article/S0168-8510(18)30049-6/fulltext)).

Annex 2. Methods used to measure financial protection in Europe

Background

The indicators used for monitoring financial protection in Europe are adapted from the approach set out in Xu et al. (2003, 2007). They also draw on elements of the approach set out in Wagstaff & Eozenou (2014). For further information on the rationale for developing a refined indicator for Europe, see Thomson et al. (2016) and WHO Regional Office for Europe (2019).

Data sources and requirements

Preparing country-level estimates for indicators of financial protection requires nationally representative household survey data that includes information on household composition or the number of household members.

The following variables are required at household level:

- total household consumption expenditure;
- food expenditure (excluding tobacco and alcohol if possible);
- housing expenditure, disaggregated by rent and utilities (such as water, gas, electricity and heating); and
- health expenditure (out-of-pocket payments), disaggregated by type of health care good and service.

Information on household consumption expenditure is gathered in a structured way, usually using the United Nations Classification of Individual Consumption According to Purpose (COICOP) (United National Statistics Division, 2018).

If the survey includes a household sampling weight variable, calculations should consider the weight in all instances. Information on household or individual-level characteristics such as age, sex, education and location are useful for additional equity analysis.

Defining household consumption expenditure variables

Survey data come in various time units, often depending on whether the reporting period is 7 days, 2 weeks, 1 month, 3 months, 6 months or 1 year. It is important to convert all variables related to household consumption expenditure to a common time unit. To facilitate comparison with other national-level indicators, it may be most useful to annualize all survey data. If annualizing survey data, it is important not to report the average level of out-of-pocket payments only among households with out-of-pocket payments, as this will produce inaccurate figures.

Total household consumption expenditure not including imputed rent

Household consumption expenditure comprises both monetary and in-kind payment for all goods and services (including out-of-pocket payments) and the money value of the consumption of home-made products. Many household budget surveys do not calculate imputed rent. To maintain cross-country comparability with surveys that do not calculate imputed rent, imputed rent (COICOP code 04.2) should be subtracted from total consumption if the survey includes it.

Food expenditure

Household food expenditure is the amount spent on all foodstuffs by the household plus the value of the family's own food production consumed within the household. It should exclude expenditure on alcoholic beverages and tobacco. Food expenditure corresponds to COICOP code 01.

Housing expenditure on rent and utilities

Expenditure on rent and utilities is the amount spent by households on rent (only among households who report paying rent) and on utilities (only among households who report paying utilities) including electricity, heating and water. These data should be disaggregated to correspond to COICOP codes 04.1 (for rent) and 04.4 and 04.5 (for utilities). Care should be taken to exclude spending on secondary dwellings. Imputed rent (COICOP code 04.2) is not available in all household budget surveys and should not be used in this analysis.

Health expenditure (out-of-pocket payments)

Out-of-pocket payments refer to formal and informal payments made by people at the time of using any health service provided by any type of provider (COICOP code 06). Health services are any good or service delivered in the health system. These typically include consultation fees, payment for medications and other medical supplies, payment for diagnostic and laboratory tests and payments occurring during hospitalization. The latter may include a number of distinct payments such as to the hospital, to health workers (doctors, nurses, anaesthesiologists etc.) and for tests. Both cash and in-kind payments should be included if the latter are quantified in monetary value. Both formal and informal payments should also be included. Although out-of-pocket payments include spending on alternative or traditional medicine, they do not include spending on health-related transportation and special nutrition. It is also important to note that out-of-pocket payments are net of any reimbursement to households from the government, health insurance funds or private insurance companies.

Estimating spending on basic needs and capacity to pay for health care

Basic needs expenditure is a socially recognized minimum level of spending considered necessary to ensure sustenance and other basic personal needs. This report calculates household-specific levels of basic needs expenditure to estimate a household's capacity to pay for health care.

Households whose total consumption expenditure is less than the basic needs expenditure level generated by the basic needs line are deemed to be poor.

Defining a basic needs line

Basic needs can be defined in different ways. This report considers food, utilities and rent to be basic needs and distinguishes between:

- households that do not report any utilities or rent expenses; their basic needs include food;
- households that do not report rent expenses (households that own their home outright or make mortgage payments, which are not included in consumption expenditure data), but do report utilities expenses; their basic needs include food and utilities;
- households that pay rent, but do not report utilities expenditure (for example, if the reporting period is so short that it does not overlap with billing for utilities and there is no alternative reporting of irregular purchases); their basic needs include food and rent;
- households that report paying both utilities and rent, so that their basic needs include food, utilities and rent.

Adjusting households' capacity to pay for rent (among renters) is important. Household budget surveys consider mortgages to be investments, not consumption expenditure. For this reason most do not collect household spending on mortgages. Without subtracting some measure of rent expenditure from those who rent, renters will appear to be systematically wealthier (and have greater capacity to pay) than identical households with mortgages.

To estimate standard (normative) levels of basic needs expenditure, all households are ranked based on their per (equivalent) person total consumption expenditure. Households between the 25th and 35th percentiles of the total sample are referred to as the representative sample for estimating basic needs expenditure. It is assumed that they are able to meet, but not necessarily exceed, basic needs for food, utilities and rent.

In some countries it is common to finance out-of-pocket payments from savings or borrowing, which might artificially inflate a household's consumption and affect household ranking. Where this is an issue, it may be preferable to rank households by per equivalent person non-out-of-pocket payment consumption expenditure.

Calculating the basic needs line

To begin to calculate basic needs, a household equivalence scale should be used to reflect the economy scale of household consumption. The Organisation for Economic Co-operation and Development equivalence scale (the Oxford scale) is used to generate the equivalent household size for each household:

$$\text{equivalent household size} = 1 + 0.7 * (\text{number of adults} - 1) + 0.5 * (\text{number of children under 13 years of age})$$

Each household's total consumption expenditure (less imputed rent), food expenditure, utilities expenditure and rent expenditure is divided by the equivalent household size to obtain respective equivalized expenditure levels.

Households whose equivalized total consumption expenditure is between the 25th and 35th percentile across the whole weighted sample are the representative households used to calculate normative basic needs levels. Using survey weights, the weighted average of spending on food, utilities and rent among representative households that report positive values for food, utilities and rent expenditure, respectively, gives the basic needs expenditure per (equivalent) person for food, utilities and rent.

Note again that households that do not report food expenditure are excluded as this may reflect reporting errors. For households that do not report any rent or utilities expenses, only the sample-weighted food basic needs expenditure is used to represent total basic needs expenditure per (equivalent) person. For households that report utilities expenditures but do not report any rent expenses, the two basic needs expenditure sample-weighted averages for food and utilities are added to calculate total basic needs expenditure per (equivalent) person. For households that report rent expenditures but do not report any utilities expenses, the two basic needs expenditure sample-weighted averages for food and rent are added to calculate total basic needs expenditure per (equivalent) person. For households that report both rent and utilities, the three basic needs expenditure sample-weighted averages for food, utilities and rent are added to calculate total basic needs expenditure per (equivalent) person.

Calculating basic needs expenditure levels for each household

Calculate the basic needs expenditure specific to each household by multiplying the total basic needs expenditure per (equivalent) person level calculated above by each household's equivalence scale. Note that a household is regarded as being poor when its total consumption expenditure is less than its basic needs expenditure.

Capacity to pay for health care

This is defined as non-basic needs resources used for consumption expenditure. Some households may report total consumption expenditure that is lower than basic needs expenditure, which defines them as being poor. Note that if a household is poor, capacity to pay will be negative after subtracting the basic needs level.

Estimating impoverishing out-of-pocket payments

Measures of impoverishing health spending aim to quantify the impact of out-of-pocket payments on poverty. For this indicator, households are divided into five categories based on their level of out-of-pocket spending on health in relation to the poverty line (the basic needs line):

- no out-of-pocket payments: households that report no out-of-pocket payments;
- not at risk of impoverishment after out-of-pocket payments: non-poor households (those whose equivalent person total consumption exceeds the poverty line) with out-of-pocket payments that do not push them below 120% of the poverty line (i.e. households whose per equivalent person consumption net of out-of-pocket payments is at or above 120% of the poverty line);
- at risk of impoverishment after out-of-pocket payments: non-poor households with out-of-pocket payments that push them below 120% of the poverty line; this review uses a multiple of 120%, but estimates were also prepared using 105% and 110%;
- impoverished after out-of-pocket payments: households who were non-poor before out-of-pocket payments, but are pushed below the poverty line after out-of-pocket payments; in the exceptional case that capacity to pay is zero and out-of-pocket payments are greater than zero, a household would be considered to be impoverished by out-of-pocket payments; and
- further impoverished after out-of-pocket payments: poor households (those whose equivalent person total consumption is below the poverty line) who incur out-of-pocket payments.

Estimating catastrophic out-of-pocket payments

Catastrophic out-of-pocket payments are measured as out-of-pocket payments that equal or exceed some threshold of a household's capacity to pay for health care. Thresholds are arbitrary. The threshold used most often with capacity to pay measures is 40%. This review uses 40% for reporting purposes, but estimates were also prepared using thresholds of 20%, 25% and 30%.

Households with catastrophic out-of-pocket payments are defined as:

- those with out-of-pocket payments greater than 40% of their capacity to pay; i.e. all households who are impoverished after out-of-pocket payments, because their out-of-pocket payments are greater than their capacity to pay for health care; and
- those with out-of-pocket payments whose ratio of out-of-pocket payments to capacity to pay is less than zero (negative); i.e. all households who are further impoverished after out-of-pocket payments, because they do not have any capacity to pay for health care.

Households with non-catastrophic out-of-pocket payments are defined as those with out-of-pocket payments that are less than the pre-defined catastrophic spending threshold.

For policy purposes it is useful to identify which groups of people are more or less affected by catastrophic out-of-pocket payments (equity) and

which health services are more or less responsible for catastrophic out-of-pocket payments.

Distribution of catastrophic out-of-pocket payments

The first equity dimension is expenditure quintile. Expenditure quintiles are determined based on equivalized per person household expenditure. Household weights should be used when grouping the population by quintile. Countries may find it relevant to analyse other equity dimensions such as differences between urban and rural populations, regions, men and women, age groups and types of household.

In some countries it is common to finance out-of-pocket payments from savings or borrowing, which might artificially inflate a household's consumption and affect household ranking. Where this is an issue, it may be preferable to calculate quintiles based on non-health equivalized per person household expenditure.

Structure of catastrophic out-of-pocket payments

For households in each financial protection category, the percentage of out-of-pocket payments on different types of health goods and services should be reported, if the sample size allows, using the following categories, with their corresponding COICOP categorization: medicines (06.1.1), medical products (06.1.2 and 06.1.3), outpatient care (06.2.1), dental care (06.2.2), diagnostic tests (06.2.3) and inpatient care (06.3). Where possible, a distinction should be made between prescription and over-the-counter medicines.

References

Thomson S, Evetovits T, Cylus J, Jakab M (2016). Monitoring financial protection to assess progress towards universal health coverage in Europe. *Public Health Panorama*. 2(3):357–66 (<http://www.euro.who.int/en/publications/public-health-panorama/journal-issues/volume-2,-issue-3,-september-2016/original-research2>).

United Nations Statistics Division (2018). COICOP code 06 detailed structure and explanatory notes. In: United Nations Statistics Division [website]. New York (NY): United Nations Statistics Division (<https://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=5&Lg=1&Co=06>).

Wagstaff A, Eozenou P (2014). *CATA meets IMPOV: a unified approach to measuring financial protection in health*. Washington (DC): The World Bank (Policy Research Working Paper No. 6861).

WHO Regional Office for Europe (2019). *Can people afford to pay for health care? New evidence on financial protection in Europe*. Copenhagen: WHO Regional Office for Europe (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications/2019/can-people-afford-to-pay-for-health-care-new-evidence-on-financial-protection-in-europe-2019>).

Xu K, Evans D, Carrin G, Aguilar-Rivera A, Musgrove P, Evans T (2007). Protecting households from catastrophic health spending. *Health Aff.* 26(4):972–83.

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

Annex 3. Regional and global financial protection indicators

WHO uses regional and global indicators to monitor financial protection in the European Region, as shown in Table A3.1.

Table A3.1. Regional and global financial protection indicators in the European Region

Regional indicators	+	Global indicators
Impoverishing out-of-pocket payments		
Risk of poverty due to out-of-pocket payments: the proportion of households further impoverished, impoverished, at risk of impoverishment or not at risk of impoverishment after out-of-pocket payments using a country-specific line based on household spending to meet basic needs (food, housing and utilities)		Changes in the incidence and severity of poverty due to household expenditure on health using: <ul style="list-style-type: none"> • an extreme poverty line of PPP-adjusted US\$ 1.90 per person per day • a poverty line of PPP-adjusted US\$ 3.10 per person per day • a relative poverty line of 60% of median consumption or income per person per day
Catastrophic out-of-pocket payments		
The proportion of households with out-of-pocket payments greater than 40% of household capacity to pay for health care		The proportion of the population with large household expenditure on health as a share of total household consumption or income (greater than 10% or 25% of total household consumption or income)

Note: PPP: purchasing power parity.

Sources: WHO headquarters and WHO Regional Office for Europe.

Regional indicators

The regional indicators reflect a commitment to the needs of European Member States. They were developed by the WHO Barcelona Office for Health Systems Strengthening (part of the Division of Health Systems and Public Health in the WHO Regional Office for Europe), at the request of the WHO Regional Director for Europe, to meet demand from Member States for performance measures more suited to high- and middle-income countries and with a stronger focus on pro-poor policies, in line with Regional Committee resolutions (see Annex 2).

At the regional level, WHO's support for monitoring financial protection is underpinned by the Tallinn Charter: Health Systems for Health and Wealth, Health 2020 and resolution EUR/RC65/R5 on priorities for health systems strengthening in the WHO European Region 2015–2020, all of which include the commitment to work towards a Europe free of impoverishing payments for health.

Global indicators

The global indicators reflect a commitment to global monitoring. They enable the performance of Member States in the European Region to be

easily compared to the performance of Member States in the rest of the world.

At the global level, support by WHO for the monitoring of financial protection is underpinned by World Health Assembly resolution WHA64.9 on sustainable health financing structures and universal coverage, which was adopted by Member States in May 2011. More recently, with the adoption of the 2030 Agenda for Sustainable Development and its concomitant Sustainable Development Goals (SDGs) in 2015, the United Nations has recognized WHO as the custodian agency for SDG3 (Good health and well-being: ensure healthy lives and promote well-being for all at all ages) and specifically for target 3.8 on achieving universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all. Target 3.8 has two indicators: 3.8.1 on coverage of essential health services and 3.8.2 on financial protection when using health services.

The choice of global or regional indicator has implications for policy

Global and regional indicators provide insights into the incidence and magnitude of financial hardship associated with out-of-pocket payments for health, but they do so in different ways. As a result, they may have different implications for policy and suggest different policy responses.

For example, the global indicator defines out-of-pocket payments as catastrophic when they exceed a fixed percentage of a household's consumption or income (its budget). Applying the same fixed percentage threshold to all households, regardless of wealth, implies that very poor households and very rich households spending the same share of their budget on health will experience the same degree of financial hardship.

Global studies find that this approach results in the incidence of catastrophic out-of-pocket payments being more concentrated among richer households (or less concentrated among poorer households) (WHO & World Bank 2015; 2017). With this type of distribution, the implication for policy is that richer households are more likely to experience financial hardship than poorer households. The appropriate policy response to such a finding is not clear.

In contrast, to identify households with catastrophic out-of-pocket payments, the regional indicator deducts a standard amount representing spending on three basic needs – food, housing (rent) and utilities – from each household's consumption expenditure. It then applies the same fixed percentage threshold to the remaining amount (which is referred to as the household's capacity to pay for health care). As a result, although the same threshold is applied to all households, the amount to which it is applied is now significantly less than total household consumption for poorer households but closer to total household consumption for richer households. This implies that very poor households spending small amounts on out-of-pocket payments, which constitute a relatively small share of their total budget, may experience financial hardship, while wealthier households are assumed to not experience hardship until they

have spent a comparatively greater share of their budget on out-of-pocket payments.

The approach used in the European Region results in the incidence of catastrophic out-of-pocket payments being highly concentrated among poor households in all countries (Cylus et al., 2018). For countries seeking to improve financial protection, the appropriate response to this type of distribution is clear: design policies that protect poorer households more than richer households.

Recent global studies most commonly report impoverishing out-of-pocket payments using absolute poverty lines set at US\$ 1.90 or US\$ 3.10 a day in purchasing power parity (WHO & World Bank 2015; 2017). These poverty lines are found to be too low to be useful in Europe, even among middle-income countries. For example, the most recent global monitoring report suggests that in 2010 only 0.1% of the population in the WHO European Region was impoverished after out-of-pocket payments using the US\$ 1.90 a day poverty line (0.2% at the US\$ 3.10 a day poverty line) (WHO & World Bank, 2017).

European studies make greater use of national poverty lines or poverty lines constructed to reflect national patterns of consumption (Yerramilli et al., 2018). While national poverty lines vary across countries, making international comparison difficult, poverty lines constructed to reflect national patterns of consumption – such as that which is used as the poverty line for the regional indicator – facilitate international comparison (Saksena et al., 2014).

References

Cylus J, Thomson S, Evetovits T (2018). Catastrophic health spending in Europe: equity and policy implications of different calculation methods. *Bull World Health Organ.* 96:599–609 (<http://dx.doi.org/10.2471/BLT.18.209031>).

Saksena P, Smith T, Tediosi F (2014). Inputs for universal health coverage: a methodological contribution to finding proxy indicators for financial hardship due to health expenditure. *BMC Health Serv Res.* 14:577.

WHO, World Bank. Tracking universal health coverage: first global monitoring report. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/174536/1/9789241564977_eng.pdf?ua=1).

WHO, World Bank. Tracking universal health coverage: 2017 global monitoring report. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/universal_health_coverage/report/2017/en/).

Yerramilli P, Fernández O, Thomson S (2018). Financial protection in Europe: a systematic review of the literature and mapping of data availability. *Health Policy* 122(5):493–508 ([http://www.healthpolicyjrn.com/article/S0168-8510\(18\)30049-6/fulltext](http://www.healthpolicyjrn.com/article/S0168-8510(18)30049-6/fulltext)).

Annex 4. Glossary of terms

Ability to pay for health care: Ability to pay refers to all the financial resources at a household's disposal. When monitoring financial protection, an ability to pay approach assumes that all of a household's resources are available to pay for health care, in contrast to a capacity to pay approach (see below), which assumes that some of a household's resources must go towards meeting basic needs. In practice, measures of ability to pay are often derived from household survey data on reported levels of consumption expenditure or income over a given time period. The available data rarely capture all of the financial resources available to a household – for example, resources in the form of savings and investments.

Basic needs: The minimum resources needed for sustenance, often understood as the consumption of goods such as food, clothing and shelter.

Basic needs line: A measure of the level of personal or household income or consumption required to meet basic needs such as food, housing and utilities. Basic needs lines, like poverty lines, can be defined in different ways. They are used to measure impoverishing out-of-pocket payments. In this study the basic needs line is defined as the average amount spent on food, housing and utilities by households between the 25th and 35th percentiles of the household consumption distribution, adjusted for household size and composition. Basic needs line and poverty line are used interchangeably. See poverty line.

Budget: See household budget.

Cap on benefits: A mechanism to protect third party payers such as the government, a health insurance fund or a private insurance company. A cap on benefits is a maximum amount a third party payer is required to cover per item or service or in a given period of time. It is usually defined as an absolute amount. After the amount is reached, the user must pay all remaining costs. Sometimes referred to as a benefit maximum or ceiling.

Cap on user charges (co-payments): A mechanism to protect people from out-of-pocket payments. A cap on user charges is a maximum amount a person or household is required to pay out of pocket through user charges per item or service or in a given period of time. It can be defined as an absolute amount or as a share of a person's income. Sometimes referred to as an out of pocket maximum or ceiling.

Capacity to pay for health care: In this study capacity to pay is measured as a household's consumption minus a normative (standard) amount to cover basic needs such as food, housing and utilities. This amount is deducted consistently for all households. It is referred to as a poverty line or basic needs line.

Catastrophic out-of-pocket payments: Also referred to as catastrophic health spending. An indicator of financial protection. Catastrophic out-of-pocket payments can be measured in different ways. This study defines them as out-of-pocket payments that exceed 40% of a household's

capacity to pay for health care. The incidence of catastrophic health spending includes households who are impoverished and households who are further impoverished.

Consumption: Also referred to as consumption expenditure. Total household consumption is the monetary value of all items consumed by a household during a given period. It includes the imputed value of items that are not purchased but are procured for consumption in other ways (for example, home-grown produce).

Co-payments (user charges or user fees): Money people are required to pay at the point of using health services covered by a third party such as the government, a health insurance fund or a private insurance company. *Fixed co-payments* are a flat amount per good or service; *percentage co-payments* (also referred to as co-insurance) require the user to pay a share of the good or service price; *deductibles* require users to pay up to a fixed amount first, before the third party will cover any costs. Other types of user charges include *balance billing* (a system in which providers are allowed to charge patients more than the price or tariff determined by the third party payer), *extra billing* (billing for services that are not included in the benefits package) and *reference pricing* (a system in which people are required to pay any difference between the price or tariff determined by the third party payer – the reference price – and the retail price).

Equivalent person: To ensure comparisons of household spending account for differences in household size and composition, equivalence scales are used to calculate spending levels per equivalent adult in a household. This review uses the Oxford scale (also known as the Organisation for Economic Co-operation and Development equivalence scale), in which the first adult in a household counts as one equivalent adult, subsequent household members aged 13 years or over count as 0.7 equivalent adults and children under 13 count as 0.5 equivalent adults.

Exemption from user charges (co-payments): A mechanism to protect people from out-of-pocket payments. Exemptions can apply to groups of people, conditions, diseases, goods or services.

Financial hardship: People experience financial hardship when out-of-pocket payments are large in relation to their ability to pay for health care.

Financial protection: The absence of financial hardship when using health services. Where health systems fail to provide adequate financial protection, households may not have enough money to pay for health care or to meet other basic needs. Lack of financial protection can lead to a range of negative health and economic consequences, potentially reducing access to health care, undermining health status, deepening poverty and exacerbating health and socioeconomic inequalities.

Further impoverished households: Poor households (those whose equivalent person total consumption is below the poverty line or basic needs line) who incur out-of-pocket payments.

Health services: Any good or service delivered in the health system, including medicines, medical products, diagnostic tests, dental care, outpatient care and inpatient care. Used interchangeably with health care.

Household budget: Also referred to as total household consumption. The sum of the monetary value of all items consumed by the household during a given period and the imputed value of items that are not purchased but are procured for consumption in other ways.

Household budget survey: Usually national sample surveys, often carried out by national statistical offices, to measure household consumption over a given period of time. Sometimes referred to as household consumption expenditure or household expenditure surveys. European Union countries are required to carry out a household budget survey at least once every five years.

Impoverished households: Households who were non-poor before out-of-pocket payments, but are pushed below the poverty line or basic needs line after out-of-pocket payments.

Impoverishing out-of-pocket payments: Also referred to as impoverishing health spending. An indicator of financial protection. Out-of-pocket payments that push people into poverty or deepen their poverty. A household is measured as being impoverished if its total consumption was above the national or international poverty line or basic needs line before out-of-pocket payments and falls below the line after out-of-pocket payments.

Informal payment: a direct contribution made in addition to any contribution determined by the terms of entitlement, in cash or in kind, by patients or others acting on their behalf, to health care providers for services to which patients are entitled.

Out-of-pocket payments: Also referred to as household expenditure (spending) on health. Any payment made by people at the time of using any health good or service provided by any type of provider. Out-of-pocket payments include: formal co-payments (user charges or user fees) for covered goods and services; formal payments for the private purchase of goods and services; and informal payments for covered or privately purchased goods and services. They exclude pre-payment (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.

Poverty line: A level of personal or household income or consumption below which a person or household is classified as poor. Poverty lines are defined in different ways. This study uses basic needs line and poverty line interchangeably. See basic needs line.

Quintile: One of five equal groups (fifths) of a population. This study commonly divides households into quintiles based on per equivalent person household consumption. The first quintile is the fifth of households with the lowest consumption, referred to in the study as the poorest quintile; the fifth quintile has the highest consumption, referred to in the study as the richest quintile.

Risk of impoverishment after out-of-pocket payments: After paying out of pocket for health care, a household may be further impoverished, impoverished, at risk of impoverishment or not at risk of impoverishment. A household is at risk of impoverishment (or not at risk of impoverishment) if its total spending after out-of-pocket payments comes close to (or does not come close to) the poverty line or basic needs line.

Universal health coverage: Everyone can use the quality health services they need without experiencing financial hardship.

Unmet need for health care: An indicator of access to health care. Instances in which people need health care but do not receive it due to access barriers.

User charges: Also referred to as user fees. See co-payments.

Utilities: Water, electricity and fuels used for cooking and heating.

The WHO Regional Office for Europe

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 Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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