Can people afford to pay for health care?

New evidence on financial protection in North Macedonia

Vladimir Dimkovski
Ilaria Mosca

North Macedonia
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Can people afford to pay for health care?

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Vladimir Dimkovski
Ilaria Mosca
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Design and typesetting by Aleix Artigal and Alex Prieto.
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Although access and financial protection have improved in North Macedonia in recent years, catastrophic health spending remains a problem, particularly for poorer households, and is largely driven by out-of-pocket payments for outpatient medicines.

To improve access and financial protection, the health system should: de-link entitlement from payment of contributions for the whole population, so that access to health care no longer depends on health insurance status; simplify the complex design of user charges and strengthen protection against co-payments for outpatient medicines; improve the affordability of outpatient prescribed medicines by enhancing the selection and purchasing of medicines and regularly updating the positive list; address informal payments, starting with better monitoring; and increase public investment in the health system through sustained rises in the priority given to health in allocating government spending.

**Abstract**

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**Keywords**

HEALTHCARE FINANCING
HEALTH EXPENDITURES
HEALTH SERVICES ACCESSIBILITY
FINANCING, PERSONAL
NORTH MACEDONIA
POVERTY
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 Financing, part of the Division of Country Health Policies and Systems 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? The Sustainable Development Goals adopted by the United Nations in 2015 call for monitoring of, and reporting on, financial protection as one of two indicators of universal health coverage. WHO support to Member States for monitoring financial protection in Europe is also underpinned by the European Programme of Work, 2020–2025 (United Action for Better Health in Europe), which includes moving towards universal health coverage as the first of three core priorities for the WHO European Region. Through the European Programme of Work, the WHO Regional Office for Europe will work to support national authorities to reduce financial hardship and unmet need for health services (including medicines) by identifying gaps in health coverage and redesigning coverage policy to address these gaps. The Tallinn Charter: Health Systems for Health and Wealth and resolution EUR/RC65/RS on priorities for health systems strengthening in the WHO European Region include a commitment to work towards a Europe free of impoverishing out-of-pocket payments for health. A number of other regional and global resolutions call on WHO to provide Member States with tools and support for monitoring financial protection, including policy analysis and recommendations.

Comments and suggestions for improving the series are most welcome and can be sent to euhsf@who.int.
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<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ATC</td>
<td>Anatomical Therapeutic Chemical</td>
</tr>
<tr>
<td>CT</td>
<td>computed tomography</td>
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<tr>
<td>EHIS</td>
<td>European Health Interview Survey</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EU-SILC</td>
<td>European Union Statistics on Income and Living Conditions</td>
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<tr>
<td>FZO</td>
<td>Health Insurance Fund</td>
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<tr>
<td>GDP</td>
<td>gross domestic product</td>
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<tr>
<td>GHED</td>
<td>Global Health Expenditure Database</td>
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<tr>
<td>GP</td>
<td>general practitioner</td>
</tr>
<tr>
<td>INNs</td>
<td>International Non-proprietary Names</td>
</tr>
<tr>
<td>ISA</td>
<td>Insurance Supervision Agency</td>
</tr>
<tr>
<td>IVF</td>
<td>in vitro fertilization</td>
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<tr>
<td>MKD</td>
<td>Macedonian denar</td>
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<tr>
<td>MRI</td>
<td>magnetic resonance imaging</td>
</tr>
<tr>
<td>SHA</td>
<td>System of Health Accounts</td>
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<tr>
<td>UHC</td>
<td>universal health coverage</td>
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<td>VHI</td>
<td>voluntary health insurance</td>
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Executive summary

This review is the first comprehensive analysis of financial protection in the health system in North Macedonia. Covering the period from 2006 to the present day and drawing on microdata from household budget surveys carried out annually by the State Statistical Office, it finds that:

- nearly 7% of households were impoverished, further impoverished or at risk of impoverishment after out-of-pocket payments in 2018, down from 10% in 2006;

- 6.5% of households experienced catastrophic out-of-pocket payments in 2018, down from 9.6% of households in 2006;

- catastrophic health spending is heavily concentrated among the poorest households (in the two lowest consumption quintiles) and households with at least one member aged over 60 years; and

- catastrophic spending is largely driven by out-of-pocket payments for outpatient medicines.

The health system in North Macedonia relies relatively heavily on out-of-pocket payments, which account for about 42% of current spending on health. This reflects a level of government spending allocated to health that is lower than would be expected given the size of the economy; the emergence of private inpatient facilities that attract people due to their perceived better quality than public facilities; and, importantly, gaps in all three dimensions of health coverage.

**Population entitlement** to publicly financed coverage is based on payment of contributions to the Health Insurance Fund (FZO). In 2018 around 10% of the population was estimated to be uninsured (based on the population numbers from the last official census held in 2002). Uninsured people pay the full cost of all health services except emergency care. Over time, health insurance coverage has been extended to more people in vulnerable situations.

Although insured people are entitled to a relatively comprehensive benefits package, including dental services, the positive list of outpatient prescription medicines covered by the FZO is limited and has not changed much since 2008. Also, during the study period, access to covered medicines was restricted through pharmacy sales quotas (abolished in 2019). In addition, doctors and patients show a preference for more expensive branded medicines due to their perceived better quality than generics.
Primary care visits to general practitioners (GPs), gynaecologists, paediatricians and dentists are free at the point of use for insured people, but all other covered services and products are subject to user charges in the form of percentage co-payments, which range from 0% to 20% of a reference price (tariff) applied by the FZO. Policies to protect people from financial hardship include exemption from co-payments based on income (for people receiving social benefits) or certain conditions and an annual cap on co-payments for outpatient visits, dental care, diagnostic tests and inpatient care, which is linked to household income and age group. However, protection against co-payments for outpatient prescribed medicines is weak.

Between 2010 and 2019 there was a substantial reduction in unmet need for health care and dental care, which is now on a par with the European Union (EU) average, although income and age-related inequalities in unmet need are still significant.

Improvements in access and financial protection over time may be attributed to: increases in the use of primary care owing to the expansion of the primary care provider network; reductions in waiting times following the introduction of an electronic health data management system; and efforts to enhance access to health insurance coverage for some people in vulnerable situations, including automatic coverage (since 2009) of people with an income below the minimum wage (around 480 000 people or 26% of the population).

To continue to make progress towards universal health coverage (UHC) by reducing unmet need and financial hardship, policy should focus on:

- delinking entitlement from payment of contributions for the whole population, so that access to health care no longer depends on health insurance status;

- simplifying the complex design of user charges and strengthening protection by using low fixed co-payments rather than percentage co-payments, as well as extending both exemptions for low-income people and the annual cap to all co-payments;

- improving the affordability of outpatient prescribed medicines through regular updating of the positive list, assuring the public of the quality of generic alternatives and enhancing the capacity of the Ministry of Health and the FZO to select and purchase medicines;
• addressing informal payments, starting with better monitoring of their role and magnitude; and

• increasing public investment in the health system through sustained rises in the priority given to health during the process of allocating government spending.
1. Introduction
This review assesses the extent to which people in North Macedonia experience financial hardship when they use health services, including medicines. 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). 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.

The review covers the period from 2006 to the present day, drawing on data from household budget surveys carried out annually between 2006 and 2018, data on unmet need for health care up to 2019 and information on coverage policy up to 2021. It is the first comprehensive analysis of financial protection in North Macedonia. An earlier study (Parnardjieva-Zmejkova & Dimkovski, 2018) assessed progress towards UHC, but without the extensive microdata analysis used in this review.

North Macedonia has a system of mandatory health insurance managed by a single purchasing agency, the FZO, and financed through a combination of payroll taxes and transfers from the state budget. In 2018 the FZO covered around 90% of the population (based on population numbers from the last official census held in 2002). Public spending on health is relatively low as a share of GDP: 4% of GDP in 2018, compared to an average of 6% for EU countries (WHO, 2020). Out-of-pocket payments are high in North Macedonia by EU standards. In 2018 the out-of-pocket payment share of current spending on health was 42%, well above the EU average of 22% (WHO, 2020).

GDP has grown since the late 2000s at a rate that is slightly above the average for EU countries but below the average for upper-middle-income countries (World Bank, 2020). Unemployment has fallen from a high of 36% in 2006 to 17% in 2019 but remains high compared to other countries in Europe. In the context of high unemployment and considerable informality, the health system’s heavy reliance on funding from payroll taxes, combined with relatively low contribution rates and low transfers from the state budget, limits resilience to economic shocks and has led to fiscal pressure and hospital deficits. Government payment of FZO contributions on behalf of people with low incomes (2009), people in vulnerable situations (2012) and people receiving the guaranteed minimum income (2019) has aimed to promote equitable access to health care and, by acting as an automatic stabilizer, to secure a more steady flow of public funds to the health system. Other reforms have focused on enhancing efficiency through changes to provider payment mechanisms.
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 the annexes.

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. For more information on how these indicators are calculated and relate to global indicators, see Annexes 2 and 3.

2.2 Data sources


All currency units in the study are presented in Macedonian denar (MKD). In 2019 MKD 1000 had the equivalent purchasing power of around €36 in the average EU country. 2015 is the base year used for amounts shown in real terms.

Data on health spending come from the Global Health Expenditure Database (GHED). Since 2017 North Macedonia has tracked health spending using the System of Health Accounts (SHA) 2011 methodology, leading to a break in time series in the data on health spending. From 2017 onwards, data on health spending in North Macedonia are less comparable to data on health spending in other countries in the western Balkans.

The share of the population covered by the FZO is estimated based on population numbers from the last official census held in 2002.

Microdata from the 2020 household budget survey were not available at the time of the analysis, so the report does not monitor the impact of COVID-19 on financial protection.
Table 1. Key dimensions of catastrophic and impoverishing spending on health

<table>
<thead>
<tr>
<th>Table entry</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Impoverishing health spending</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Definition</strong></td>
<td>The share of households <em>impoveryished or further impoverished</em> after out-of-pocket payments</td>
</tr>
<tr>
<td><strong>Poverty line</strong></td>
<td>A <em>basic needs line</em>, calculated as the average amount spent on food, housing (rent) and <em>utilities</em> (water, electricity and fuel used for cooking and heating) by households between the 25th and 35th percentiles of the household <em>consumption</em> distribution who report any spending on each item, respectively, adjusted for household size and composition using Organisation for Economic Co-operation and Development equivalence scales; these households are selected based on the assumption that they are able to meet, but not necessarily exceed, basic needs for food, housing and utilities; this standard amount is also used to define a household’s <em>capacity to pay for health care</em> (see below)</td>
</tr>
<tr>
<td><strong>Poverty dimensions captured</strong></td>
<td>The share of households further impoverished, impoverished and at risk of impoverishment after out-of-pocket payments 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</td>
</tr>
<tr>
<td><strong>Disaggregation</strong></td>
<td>Results can be disaggregated into household quintiles by consumption and by other factors where relevant</td>
</tr>
<tr>
<td><strong>Data source</strong></td>
<td>Microdata from national household budget surveys</td>
</tr>
<tr>
<td><strong>Catastrophic health spending</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Definition</strong></td>
<td>The share of households with out-of-pocket payments that are greater than 40% of household capacity to pay for health care</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>Out-of-pocket payments</td>
</tr>
<tr>
<td><strong>Denominator</strong></td>
<td>A household’s capacity to pay for health care 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 <em>poverty line</em> (basic needs line) to measure impoverishing health spending</td>
</tr>
<tr>
<td><strong>Disaggregation</strong></td>
<td>Results are disaggregated into household quintiles by consumption per person using Organisation for Economic Co-operation and Development 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</td>
</tr>
<tr>
<td><strong>Data source</strong></td>
<td>Microdata from national household budget surveys</td>
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</table>

Note: see Annex 4 for definitions of words in italics

Source: WHO Regional Office for Europe (2019).
3. Coverage and access to health care
3.1 Coverage

Article 39 of North Macedonia’s Constitution guarantees the right of all residents to equal access to publicly financed health care. Mandatory health insurance aims to guarantee access to health care for citizens, permanent residents, refugees and asylum seekers based on the principles of comprehensiveness, solidarity, equality and effective use of resources. Articles 5 and 6 of the Law on Health Care (2012) guarantee the absence of geographical and financial barriers to access. The Law on Health Insurance (2000) defines 15 categories of insured people, which aims to cover all residents. Not all categories are obliged to be covered.

3.1.1 Population entitlement

Entitlement to publicly financed coverage is based on payment of contributions. Fifteen categories of people are eligible for mandatory coverage (Table 2).

The Government pays contributions on behalf of the following groups:

- disabled people who cannot work; people receiving social assistance (social beneficiaries); children under 26 years of age with disabilities and special needs; informal carers;
- from 2009 – people with an income below the minimum wage (around 480 000 people or 26% of the population);
- from 2012 – refugees; asylum seekers; users of institutional care; victims of domestic violence; victims of human trafficking; war veterans;
- from 2019 – recipients of the guaranteed minimum income (a separate category from people with an income below the minimum wage, covering around 7000 people).

All others are required to pay contributions to the tax authority in order to be covered by the FZO. Contribution rates vary by category and are defined in the Law on Health Insurance and the Law on Mandatory Social Insurance Contributions (2018) (Table 2). Family members are automatically covered if the spouse is not eligible under other categories and if children are aged under 18 years (or 26 years if they are enrolled in higher education or have a disability).
Four categories of people (employees, people with low income, retired people and farmers) account for about 98% of people covered by the FZO.

The share of the population covered by the FZO has fluctuated over time, falling from 96% in 2007 to 85% in 2012 and rising to 89% in 2018, according to administrative data and based on population numbers from the last official census held in 2002 (State Statistical Office, 2019). Some of this fluctuation may reflect improvements in data management by the FZO.

In 2021 the people most likely to be without FZO coverage – the uninsured – are:

- people without regular employment, people with consultancy contracts and self-employed people who have not paid contributions – these people benefit from coverage from the moment they start paying FZO contributions;

- employees whose wages have not been paid for more than two months due to employer liquidity problems; and

- North Macedonian citizens living abroad.
Table 2. Entitlement to FZO benefits, 2021

<table>
<thead>
<tr>
<th>Category</th>
<th>Basis for contribution</th>
<th>Contribution rate (%)</th>
<th>Contributions paid by</th>
</tr>
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<tbody>
<tr>
<td><strong>The following four categories account for 98% of insured people:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees (50% of the insured)</td>
<td>Gross monthly salary</td>
<td>7.5+0.5</td>
<td>Individual</td>
</tr>
<tr>
<td>People with a low income (26% of the insured)</td>
<td>50% of the average salary</td>
<td>5.4</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Retired people (in 2019 the retirement age was 64 years for men and 62 years for women) (20% of the insured)</td>
<td>Pension</td>
<td>13.0</td>
<td>Individual</td>
</tr>
<tr>
<td>Farmers (2% of the insured)</td>
<td>20% of the average salary</td>
<td>7.5</td>
<td>Individual</td>
</tr>
<tr>
<td><strong>The following categories account for the remaining 2% of insured people:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-employed people</td>
<td>Net monthly income or lump sum</td>
<td>7.5+0.5</td>
<td>Individual</td>
</tr>
<tr>
<td>Registered unemployed people receiving unemployment benefit</td>
<td>Unemployment benefit</td>
<td>7.5</td>
<td>Individual</td>
</tr>
<tr>
<td>Retired people with pensions from abroad</td>
<td>Pension</td>
<td>13.0</td>
<td>Individual</td>
</tr>
<tr>
<td>Social categories</td>
<td>50% of the average salary</td>
<td>7.5</td>
<td>Ministry of Labour and Social Affairs</td>
</tr>
<tr>
<td>War veterans</td>
<td>50% of the average salary</td>
<td>7.5</td>
<td>Ministry of Labour and Social Affairs</td>
</tr>
<tr>
<td>People on parental leave</td>
<td>50% of the average salary</td>
<td>5.4</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>Prisoners</td>
<td>50% of the average salary</td>
<td>7.5</td>
<td>Directorate for Execution of Sanctions</td>
</tr>
<tr>
<td>Religious officials</td>
<td>50% of the average salary</td>
<td>7.5</td>
<td>Individual</td>
</tr>
<tr>
<td>Foreign students</td>
<td>Average salary</td>
<td>7.5</td>
<td>Individual</td>
</tr>
<tr>
<td>Family members of people employed abroad</td>
<td>Average salary</td>
<td>7.5</td>
<td>Individual</td>
</tr>
<tr>
<td>People with income (from sources other than employment) above the minimum wage</td>
<td>50% of the average salary</td>
<td>7.5</td>
<td>Individual</td>
</tr>
</tbody>
</table>

Notes: employers do not pay contributions. Employees and self-employed people pay an additional 0.5% to cover injuries at work and professional diseases.

3.1.2 Service coverage

Everyone is entitled to free emergency care, which is financed by FZO for the whole population regardless of insurance status.

All other publicly financed benefits are only available to those covered by the FZO. Publicly financed health care is delivered by public and private facilities that are part of the health network (a network of certified providers defined to ensure equal geographical access to health care) and contracted by the FZO.

The Law on Health Insurance ensures the FZO benefits package is relatively comprehensive, including on the provision of dental care for adults. With the exception of outpatient medicines, the range of covered services has grown over the years.

Benefits are defined through a positive list for outpatient and inpatient medicines and a negative list for all other types of health care. Items on the negative list are as follows: cosmetic surgery; higher standards of service delivery, such as a private room; medicines and devices not on the positive list; costs above the covered reference price for medicines and devices; recreative spa treatments; rehabilitation of degenerative diseases for adults; non-health services in long-term care facilities; primary care services that are not provided by a GP; access to outpatient and inpatient specialist care without a GP referral; abortion without medical indications; treatment of intentional poisoning; employment-related services; service coverage in case of queue jumping; and complications arising from the use of alternative medicine.

Medicines covered by the FZO are set out in a positive list that includes outpatient and inpatient medicines. The current list includes 174 International Non-proprietary Names (INNs) and has had few updates over the years. In some cases inpatient medicines not on the positive list can be requested by providers following approval from the Ministry of Health and the FZO.

Insured people are covered for outpatient and inpatient hospital services if referred by a GP or specialist. Anecdotal evidence suggests that health facilities, particularly hospitals, can run out of supplies (such as bandages, syringes, needles, etc.) because of budget constraints or procurement issues and may ask people to provide these basic items themselves.

Although there are no waiting time guarantees, waiting time transparency and waiting times have improved since the introduction of the electronic health data management system, MojTermin, in 2013. The new system facilitates referrals, the scheduling of appointments, patient documentation (electronic health records) and the tracking of interventions and prescriptions, and requires standardized reporting of waits at facility and individual provider levels. As a result, between 2013 and 2017, waiting times fell from 100 to 41 days for a computed tomography (CT) scan; from 74 to 40 days for a magnetic resonance imaging (MRI) test; from 30 to 20 days for echocardiography; and from 30 to 8 days for echo diagnostics (Indova & Adjigogov, 2018). Anecdotal evidence suggests that waiting times may be an issue in cases where
medical equipment is broken and that misuse of priority referrals to access specialist care may advantage some patients over others.

Informal payments are made, particularly for gynaecological services in primary care (see subsection 4.2).

Quality of care and poor infrastructure are other significant concerns. People perceive the quality of care to be low in public facilities, especially in inpatient facilities, and often choose to pay (formally) out of pocket to use obstetrics and gynaecology services in private facilities.

3.1.3 User charges

Emergency care and mandatory immunization programmes are free for everyone, irrespective of insurance status.

Primary care visits to GPs, gynaecologists, paediatricians and dentists are free at the point of use for insured people. All other covered services and products are subject to user charges (co-payments), which are set through legislation (Table 3).

Most user charges take the form of percentage co-payments, which range from 0% to 20% of a reference price (tariff) applied by the FZO to all services except treatment abroad. Reference prices (tariffs) apply equally to all contracted providers. On average, co-payments are around 10% of the reference price. Fixed co-payments are charged for some services, such as rehabilitation days and basic dental services.

There are various mechanisms in place to protect people from user charges, with exemptions and caps explicitly targeting people with low incomes (Table 3). People receiving social benefits; people under 26 years of age with special needs; people with mental conditions; pregnant women, new mothers and newborns; people receiving in vitro fertilization (IVF) treatment; and people with some specific chronic conditions are exempt from user charges for inpatient care, outpatient care, dental care and diagnostic tests. In addition, pensioners with a below-average pension have been exempt from user charges in inpatient care since 2013. There are caps on co-payment per episode of care (since 2001) and annual caps for most types of care, with the exception of medical products and outpatient medicines.

Over time, several changes to coverage policy are likely to have affected out-of-pocket payments (Table 4). Most changes aimed to reduce out-of-pocket spending.
### Table 3. User charges for publicly financed health services, 2021

<table>
<thead>
<tr>
<th>Service area</th>
<th>Type and level of user charge</th>
<th>Exemptions</th>
<th>Cap on user charges paid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outpatient visits</strong></td>
<td></td>
<td>People aged &lt;26 years with special needs</td>
<td>MKD 6 000 per episode of care (mostly applied to inpatient care and defined as a period of treatment starting from admission and ending with discharge)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People receiving social benefits</td>
<td>An annual cap on all co-payments: 20% of the average monthly salary for households with an income below 60% of the average salary and children aged 1–5 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pregnant women, new mothers, newborns (from 2011)</td>
<td>IVF treatment and treatment of infectious diseases, dialysis, diabetes, growth hormone deficiency and haemophilia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People with mental health conditions</td>
<td>As above, plus retired people with a below-average pension (from 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blood, tissue and organ donors</td>
<td>40% of the average monthly salary for households with an income below the average salary, children aged 5–18 years and people aged &gt; 65 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I.V.F treatment and treatment of infectious diseases, dialysis, diabetes, growth hormone deficiency and haemophilia</td>
<td>70% of the average monthly salary for all others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>People with special needs aged &lt; 18 years</td>
<td>In 2019 the average monthly salary was MKD 26 836.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Orthopaedic and optical devices for children aged &lt;18 years; hearing aids; wheelchair; incontinence products; extremity prostheses</td>
<td>No</td>
</tr>
<tr>
<td><strong>Dental care</strong></td>
<td></td>
<td>People with special needs aged &lt; 26 years</td>
<td>€200 (from 2013) per referral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Therapy for transplant patients (donors and recipients)</td>
<td>MKD 600 per prescribed medicine</td>
</tr>
<tr>
<td><strong>Diagnostic tests</strong></td>
<td></td>
<td>Percentage co-payments of 7%–20% of the reference price</td>
<td></td>
</tr>
<tr>
<td><strong>Inpatient care</strong></td>
<td></td>
<td>Percentage co-payments of 7%–20% of the reference price for most services</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fixed co-payments for defined services (rehabilitation daily rate of MKD 200 and gerontology residential centres MKD 10)</td>
<td></td>
</tr>
<tr>
<td><strong>Medical products</strong></td>
<td></td>
<td>Percentage co-payments of 10%, 15% and 50% of the reference price plus any difference between the reference price and the retail price</td>
<td></td>
</tr>
<tr>
<td><strong>Treatment abroad</strong></td>
<td></td>
<td>Percentage co-payment of 20% of the service price</td>
<td></td>
</tr>
<tr>
<td><strong>Outpatient prescription medicines</strong></td>
<td></td>
<td>Percentage co-payments of 0%–20% plus the difference between the reference price and the retail price</td>
<td></td>
</tr>
</tbody>
</table>

Notes: the percentage co-payment varies based on the reference price (tariff): for services priced up to MKD 100 people have no co-payment; between MKD 100 and MKD 300 people pay MKD 20; between MKD 300 and MKD 500 people pay MKD 40; between MKD 500 and MKD 700 people pay MKD 60; and above MKD 60 000 people pay MKD 6000. Source: authors.
Table 4. Changes to coverage policy, 2008–2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Change</th>
<th>Health services targeted</th>
<th>Population group targeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Internal reference pricing introduced, along with additional payments (difference between reference price and retail price) for outpatient medicines on the positive list</td>
<td>Outpatient medicines</td>
<td>Insured people</td>
</tr>
<tr>
<td>2009</td>
<td>Government covers contributions for specific people</td>
<td>All FZO benefits</td>
<td>People with an income below the minimum wage</td>
</tr>
<tr>
<td></td>
<td>Ministry of Health sets up a programme for rare diseases</td>
<td>Innovative inpatient medicines</td>
<td>People with rare diseases</td>
</tr>
<tr>
<td>2011</td>
<td>Obligation set by law to publish waiting lists</td>
<td>All FZO services</td>
<td>Insured people</td>
</tr>
<tr>
<td></td>
<td>Co-payments exempted for outpatient care</td>
<td>Outpatient services</td>
<td>Pregnant women, new mothers, newborns, people with specific diseases</td>
</tr>
<tr>
<td>2012</td>
<td>Government covers contributions for specific people</td>
<td>All FZO benefits</td>
<td>Documented migrants, orphaned children, victims of domestic violence</td>
</tr>
<tr>
<td>2013</td>
<td>Co-payments exempted for inpatient care</td>
<td>Inpatient care</td>
<td>People with a below-average pension</td>
</tr>
<tr>
<td></td>
<td>Cap on payment introduced for treatment abroad</td>
<td>Inpatient care</td>
<td>Insured people</td>
</tr>
<tr>
<td>2015</td>
<td>IVF services expanded to include a 4th child and all IVF services exempted from co-payment</td>
<td>Outpatient care</td>
<td>Insured people</td>
</tr>
<tr>
<td>2016</td>
<td>Coverage of medicines not on the positive list expanded following prior consent from the Ministry of Health and the FZO</td>
<td>Inpatient medicines</td>
<td>Insured people</td>
</tr>
<tr>
<td></td>
<td>Laser eyesight correction for students added to the benefits package</td>
<td>Outpatient care</td>
<td>Students aged 18–26 years</td>
</tr>
<tr>
<td>2019</td>
<td>Government covers contributions for specific people</td>
<td>All FZO services</td>
<td>People receiving the guaranteed minimum income</td>
</tr>
<tr>
<td></td>
<td>Volume controls (sales quotas) abolished for publicly financed outpatient medicines dispensed by pharmacies</td>
<td>Outpatient medicines</td>
<td>Insured people</td>
</tr>
<tr>
<td>2020</td>
<td>Government secures coverage for undocumented people</td>
<td>All FZO benefits</td>
<td>Undocumented people</td>
</tr>
</tbody>
</table>

Source: authors.
3.1.4 The role of VHI

Until 2012, VHI played a complementary role, providing access to goods and services not covered by mandatory health insurance.

Since 2012, VHI has had two new roles.

1. Supplementary VHI is supplied by private insurers only and is only for people covered by mandatory health insurance. It offers greater choice, including access to private providers not contracted by the FZO, use of private rooms and access to services outside working hours in public facilities.

2. Complementary VHI was established to cover all FZO co-payments. It is open to all those covered by the FZO. It can be sold by any insurance company, but very few insurers offer this type of VHI policy.

In 2018 private insurers sold 4144 contracts (to roughly 0.6% of the population). Almost all of these contracts were for supplementary VHI, mainly covering services provided by private hospitals (ISA, 2019). Fewer than 1% of the contracts were for complementary VHI covering FZO co-payments.

VHI plays a very minor role in the health system, accounting for 0.09% of current spending on health in 2018.

Table 5 highlights key issues in the governance of coverage, summarizes the gaps in publicly financed coverage and indicates the role of VHI in filling these gaps.

Table 5. Gaps in publicly financed and VHI coverage

<table>
<thead>
<tr>
<th>Coverage dimension</th>
<th>Population entitlement</th>
<th>Service coverage</th>
<th>User charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issues in the governance of publicly financed coverage</td>
<td>Entitlement is based on payment of contributions</td>
<td>Almost no medicines have been added to the positive list since 2008</td>
<td>User charges for outpatient prescribed medicines can be high if medicines priced at the reference price are not available</td>
</tr>
<tr>
<td></td>
<td>Employees with a salary payment delay of more than 60 days become “passive insured people” and lack coverage</td>
<td>There is poor service quality and infrastructure in public hospitals</td>
<td>No annual cap on co-payments for outpatient medicines and medical products</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informal payments are common, particularly for gynaecology services in primary care</td>
<td>Some exemptions for low-income people, but not for co-payments for outpatient prescribed medicines or medical products</td>
</tr>
<tr>
<td>Main gaps in publicly financed coverage</td>
<td>Around 10% of those entitled to FZO coverage are uninsured</td>
<td>Outpatient medicines</td>
<td>Outpatient medicines and medical products</td>
</tr>
<tr>
<td>Are these gaps covered by VHI?</td>
<td>No</td>
<td>VHI covers services provided by private hospitals, but uptake is low (&lt;1% of the population)</td>
<td>No; VHI covering co-payments is available but uptake is extremely low (&lt;50 policies sold in 2018)</td>
</tr>
</tbody>
</table>

Source: authors.
3.2 Access, use and unmet need

Data on unmet need for health care (see Box 1) in North Macedonia are available from 2010. European Union Statistics on Income and Living Conditions (EU-SILC) data show that unmet need due to cost, distance and waiting time was close to the EU average for health care and below the EU average for dental care between 2013 and 2018 (Fig. 1). The low level of unmet need for dental care may reflect the fact that dental care is publicly financed for children and adults, unlike in many EU countries. For both health and dental care, cost is the main reason for unmet need.

Fig. 1. Self-reported unmet need for health care and dental care due to cost, distance and waiting time, North Macedonia and EU

Note: population is people aged 16 years and over.

Source: Eurostat (2020), based on EU-SILC data.
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 and other countries, including North Macedonia, collect data on unmet need for health and dental care through the 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; European Commission EXPH, 2016, 2018).

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 was launched in 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.

---

Box 1. Unmet need for health care

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.

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---

Source: WHO Regional Office for Europe (2019).
Income inequality in unmet need is significant (Fig. 2). The gap between the richest and poorest people has narrowed over time, both for health care and dental care, but the difference is still substantial. In 2018 unmet need in health care for the poorest quintile was 11 times higher than for the richest quintile (6% for the poorest and under 1% for the richest) and six times higher in dental care (around 8% and 1%, respectively).

Age-related inequalities are an issue for health care. Fig. 2 shows that while people aged over 65 years have a higher rate of unmet need for health care than the population as a whole, they have slightly below-average levels of unmet need for dental care (Fig. 2). This difference in unmet need among older people probably reflects FZO coverage of dental care for adults and gaps in the coverage of health services, particularly outpatient medicines.

Can people afford to pay for health care?

Note: population is people aged 16 years and over.

Source: Eurostat (2020), based on EU-SILC data.
Over time, the decline in unmet need can be explained by increases in use. Between 2014 and 2018, outpatient specialist visits per person grew at an annual average growth rate of just over 8% (Fig. 3). Between 2006 and 2018, the number of dispensed medicines per person rose by an annual average of 14% (Fig. 3).

Increased health services use can be attributed to policies to expand the primary care network of providers by building facilities, providing financial incentives and support to rural GPs and stimulating regular visits in rural areas, making primary care facilities easily accessible to most people.

Also, the electronic health data management system (MajTermin) introduced in 2013 is now widely used by health professionals and has led to substantial reductions in waiting times (Milevska Kostova et al., 2017). The new system facilitates referrals, the scheduling of appointments, patient documentation (electronic health records) and the tracking of interventions and prescriptions, as well as requiring standardized reporting of waiting times at facility and individual provider levels.

Fig. 3. Annual growth in outpatient specialist visits and dispensed medicines per person

Source: FZO annual reports.
3.3 Summary

Publicly financed mandatory health insurance covered 89% of the population in 2018. Uninsured people are only entitled to publicly financed emergency care and mandatory vaccinations. They are most likely to be people without regular employment and employees with a salary payment delay.

The publicly financed benefits package includes coverage of dental care for adults, but coverage of outpatient medicines is limited. Over time, coverage of inpatient medicines has increased.

User charges (co-payments), mainly in the form of percentage co-payments, apply to all health services except emergency care and primary care visits to GPs, gynaecologists, paediatricians and dentists. Several measures are in place to protect people from co-payments, including exemptions based on income (for people receiving social benefits), a cap per episode and an annual cap on all co-payments linked to household income and age group. However, these protective measures do not apply to outpatient medicines or medical products.

In 2018 VHI accounted for just 0.09% of total spending on health. It mainly plays a supplementary role, allowing people to opt for non-contracted health services in private hospitals.

EU-SILC data suggest that access to dental care is relatively good in North Macedonia, with low levels of unmet need overall, although income-related inequalities in unmet need persist. Over time, unmet need for health care has fallen to the EU average, but age and income inequalities remain significant.
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

On average just under half of all households report making out-of-pocket payments; the share of households with out-of-pocket payments has fallen over time from 62% in 2006 to 46% in 2018 (Fig. 4). Richer households are consistently more likely to make out-of-pocket payments than poorer households. In 2018 only 17% of households in the poorest quintile made out-of-pocket payments, compared to 70% in the richest quintile.

The household budget survey does not include questions on health status, health service use or unmet need for health care, so it is not possible to say whether poorer households are less likely to incur out-of-pocket payments due to lack of need, exemptions from co-payments or barriers to access. Given the decline in self-reported unmet need for health care and dental care over time (see Fig. 2), it is possible that the reduction in households with out-of-pocket payments reflects improved access to services following a range of policy measures to extend FZO coverage to very poor households (2009 and 2012) and steps to lower some user charges for
pregnant women in 2011 (outpatient visits and tests) and low-income pensioners in 2013 (inpatient care) (see Table 4 and Table 5). Nevertheless, the absence of any income-based exemption from co-payments for outpatient medicines (see Table 5) suggests that unmet need may play a part in the very low share of households in the poorest quintile with out-of-pocket payments.

On average, richer households spend much more out of pocket than poorer households, with a particularly large difference in spending between the richest quintile and the other four quintiles (Fig. 5). Over time, annual out-of-pocket payments per person have fallen in real terms (Fig. 5); this has happened across all quintiles, but the fall was largest in the poorest quintile and smallest in the richest.

Similar trends are reflected in out-of-pocket spending as a share of household spending (consumption) (Fig. 6). In 2018 out-of-pocket payments accounted for 3% of household budgets on average, which is lower than in some central and eastern European countries and on a par with Croatia (WHO Regional Office for Europe, 2019). This share has fluctuated over time, reaching a peak of around 4% in 2014 and 2015 and falling back to 3% by 2018 (Fig. 6). During the study period it fell in the poorest quintile in North Macedonia.

Out-of-pocket payments are mainly spent on outpatient medicines, followed by outpatient care (Fig. 7). The outpatient medicines share grew from 67% in 2006 to 80% in 2018, while the outpatient care share fell from 15% to 12% (Fig. 7).
Fig. 6. Out-of-pocket payments for health care as a share of household consumption by consumption quintile

Source: authors, based on household budget survey data.

Fig. 7. Breakdown of total out-of-pocket spending by type of health care

Notes: diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Since 2015 paramedical services have been split between diagnostic tests and outpatient care.

Source: authors, based on household budget survey data.
The outpatient medicines share of out-of-pocket spending fell as household consumption rose (Fig. 8), a pattern that is consistent over time (Fig. 9). In contrast, the shares spent on other types of health care have risen with household consumption. In 2018, for example, the poorest consumption quintile spent less than 4% on other types of health care, while the richest quintile spent around 27% (Fig. 9).

During the study period the outpatient medicines share of out-of-pocket spending grew substantially in all quintiles (Fig. 9).

Fig. 8. Breakdown of total out-of-pocket spending by type of health care and consumption quintile, 2018

The amount spent out of pocket per person on outpatient medicines has fluctuated in real terms, reaching a peak of MKD 2467 in 2015 and falling to MKD 1802 in 2018 (Fig. 10). It was lower in real terms in 2018 than in 2006. Spending on all other types of health care (except diagnostic tests) also fell in real terms between 2006 and 2018 (Fig. 10).

Spending on outpatient medicines and outpatient care is consistently higher in richer quintiles (Fig. 11). The decline in spending on both types of care over time occurs in all quintiles. In both cases the sharpest drop can be seen in the poorest quintile.
Fig. 9. Breakdown of total out-of-pocket spending over time by type of health care and consumption quintile

Poorest

Out-of-pocket payments (%)

2nd

Out-of-pocket payments (%)

3rd

Out-of-pocket payments (%)

Notes: diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Since 2015 paramedical services have been split between diagnostic tests and outpatient care.

Source: authors, based on household budget survey data.

Can people afford to pay for health care?
Fig. 9. contd

![Out-of-pocket payments (%)](image)

- **4th**:
  - 2006: 100%
  - 2007: 99%
  - 2008: 98%
  - 2009: 97%
  - 2010: 96%
  - 2011: 95%
  - 2012: 94%
  - 2013: 93%
  - 2014: 92%
  - 2015: 91%
  - 2016: 90%
  - 2017: 89%
  - 2018: 88%

- **Richest**:
  - 2006: 100%
  - 2007: 99%
  - 2008: 98%
  - 2009: 97%
  - 2010: 96%
  - 2011: 95%
  - 2012: 94%
  - 2013: 93%
  - 2014: 92%
  - 2015: 91%
  - 2016: 90%
  - 2017: 89%
  - 2018: 88%
Fig. 10. Annual out-of-pocket spending on health care per person by type of health care

Notes: diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Since 2015 paramedical services have been split between diagnostic tests and outpatient care. Amounts are shown in real terms with 2015 as the base year.

Source: authors, based on household budget survey data.

Fig. 11. Average annual out-of-pocket spending on medicines and outpatient care per person by consumption quintile

Note: amounts are shown in real terms with 2015 as the base year.

Source: authors, based on household budget survey data.
4.2 Informal payments

Informal payments in North Macedonia are an issue among doctors and other health workers (Cane, 2016) in both public and private facilities (Crvenkovski, 2020). In 2010, 11% of respondents in North Macedonia who used health services in the past 12 months reported making informal payments – a lower share than in Albania (65%) and Montenegro (21%), on a par with Bulgaria, Bosnia and Herzegovina (14%) and Serbia (13%) and higher than in Croatia (6%) and Slovenia (3%) (Habibov & Cheung, 2017).

Anecdotal evidence suggests that gynaecologists in primary care often charge insured people even when they have no right to do so. Since 2013, the Association for Health Education and Research (HERA) has been monitoring reproductive health services provided to people in vulnerable situations and found that these people regularly make informal payments; for example, in 2019 over 60% of women in vulnerable situations reported paying informally for their visit to the gynaecologist (HERA, 2020).

There is little social resistance to informal payments, which are perceived as normal by most people (Crvenkovski, 2020). However, 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 services 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 on health per person grew steadily in real terms between 2000 and 2018 (Fig. 12). Public spending on health spiked in 2008 owing to a bailout of the public hospitals and again in 2013 because of an increase in capital investment and preventive programmes. Out-of-pocket payments per person fluctuated over time, falling between 2003 and 2008 and growing between 2008 and 2010 (Fig. 12). In 2016 they were at the highest level since 2000.
The out-of-pocket payment share of current spending on health has fluctuated in response to changes in public spending on health. It rose between 2008 and 2010, as public spending on health stagnated and then declined after that, as public spending grew (Fig. 13).

Can people afford to pay for health care?
As a share of current spending on health, out-of-pocket payments are lower than the average for upper middle-income countries in the WHO European Region, but higher than the EU average. The rise in the out-of-pocket share of current spending on health between 2016 and 2017 is due to the introduction in 2017 of a different method of preparing health accounts in North Macedonia. In 2018 the out-of-pocket payment share of current spending on health was just below the average for upper middle-income countries.

4.4 Summary

Household budget survey data show that in 2018 46% of households reported making out-of-pocket payments, down from 62% in 2006.

Out-of-pocket payments have decreased steadily over time, particularly among the poorest quintiles. In all years studied, out-of-pocket payments accounted for 3% of household budgets on average, which is lower than in some central and eastern European countries and on a par with Croatia.

In 2018 outpatient medicines comprised the largest share of out-of-pocket spending (80%), followed by outpatient care (12%). There is significant variation across consumption quintiles, with outpatient medicines accounting for almost all out-of-pocket spending among the poorer quintiles, while the richer quintiles spend more on all other types of health care.

Informal payments are particularly present in gynaecological services in primary care, although they are perceived as normal by most people. A 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 services from exposure to out-of-pocket payments.

National health accounts data show the health system’s heavy reliance on out-of-pocket payments. In 2018 the out-of-pocket payment share of current spending on health was 42%, far above the EU average of 22%.
5. Financial protection
This section uses data from the North Macedonian 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. 14 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 North Macedonian population (households between the 25th and 35th percentiles of the consumption distribution, adjusted for household size and composition). In 2018 the average monthly costs of meeting these basic needs -- the basic needs line -- was MKD 15 363.1

In 2018 just under 7% of households were further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments, down from around 10% in 2006. Fig. 15 shows three clear phases in incidence over time: a decline in financial hardship from 2006 to 2011, an increase from 2012 to 2015 and a sharp drop in 2016. The share of further impoverished households has halved over time, driven by a fall in the share of households below the basic needs line (see section 6) and a fall in the share of households in the poorest quintile incurring out-of-pocket payments (see Fig. 4). The share of impoverished households has fluctuated and the share of households at risk of impoverishment has remained stable.

Fig. 14. Share of households at risk of impoverishment after out-of-pocket payments

Note: a household is impoverished if its total spending falls below the basic needs line after out-of-pocket payments; further impoverished if its total spending is below the basic needs line before out-of-pocket payments; and at risk of impoverishment if its total spending after out-of-pocket payments comes within 120% of the basic needs line.

Source: authors, based on household budget survey data.

1. In 2019 MKD 1000 had the equivalent purchasing power of around €36 in the average EU country.
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 paying out of pocket (because they no longer have any capacity to pay) and further impoverished (because they have no capacity to pay).

In 2018, 6.5% of households experienced catastrophic out-of-pocket payments (Fig. 15). As discussed, there are three clear phases in the incidence of financial hardship over time: a decline from 2006 to 2011, a rise from 2012 to 2015 and a sharp drop in 2016.

5.2 Who experiences financial hardship?

Catastrophic health spending is consistently concentrated among households who are impoverished and further impoverished (Fig. 16). Over time, the share of further impoverished households has decreased and the share of impoverished households has increased.
Catastrophic spending is also consistently concentrated among the two poorest quintiles (Fig. 17). In 2018 about half of all households with catastrophic spending were in the poorest quintile and a further quarter were in the second quintile. In the same year around 15% of households in the poorest quintile, and around 9% in the second quintile experienced catastrophic health spending, compared to under 2% in the richest quintile. Over time, however, incidence in the poorest quintile has halved, falling from 30% in 2006 to 15% in 2018. There was some fluctuation in incidence in the other quintiles, but no significant reduction.

Fig. 17. Share of households with catastrophic spending by consumption quintile

Source: authors, based on household budget survey data.
Households with catastrophic spending are roughly evenly distributed between rural and urban areas (data not shown). Between 2006 and 2015, the incidence of catastrophic spending was generally higher than average in rural areas, but this pattern was reversed in 2016 (Fig. 18). During the study period, about 58% of the population lived in urban areas.

Catastrophic spending is heavily concentrated among households with at least one member aged over 60 years. Within this group of households, the incidence of catastrophic spending has fluctuated over time but is generally higher than average (Fig. 18). In 2018 around 10% of households with at least one member aged over 60 years experienced catastrophic spending (Fig. 18). In the same year, close to 60% of households surveyed had at least one member aged over 60 years.

Fig. 18. Share of households with catastrophic spending by location and age

Source: authors, based on household budget survey data.

- All households
- Rural households
- Urban households

- All households
- Households with at least one member aged > 60 years
5.3 Which health services are responsible for financial hardship?

Outpatient medicines are the main driver of catastrophic out-of-pocket spending (Fig. 19). Their share has increased over time, rising from about 60% in 2006 to 78% in 2011 and then fluctuating around this level. Outpatient care is generally the second-largest driver, followed by inpatient care.

In 2018 medicines accounted for 96% of out-of-pocket payments among households with catastrophic spending in the poorest quintile compared to only 31% in the richest quintile (Fig. 20). Inpatient care was the main driver of catastrophic spending in the richest quintile. This pattern has been relatively consistent over time, with outpatient medicines accounting for over 90% of catastrophic out-of-pocket payments in the two poorest quintiles and over 75% in the third and fourth quintiles. Outpatient care is generally the second-largest driver. In the richest quintile catastrophic spending is driven by inpatient care followed by outpatient medicines (Fig. 21).

Fig. 19. Breakdown of catastrophic spending by type of health care

Notes: diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Since 2015 paramedical services have been split between diagnostic tests and outpatient care.

Source: authors, based on household budget survey data.
Fig. 20. Breakdown of catastrophic spending by type of health care by quintile, 2018

Notes: diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Since 2015 paramedical services have been split between diagnostic tests and outpatient care.

Source: authors, based on household budget survey data.
Fig. 21. Breakdown of out-of-pocket payments over time by type of health care and consumption quintile in households with catastrophic spending

Notes: Diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Since 2015 paramedical services have been split between diagnostic tests and outpatient care.

Source: authors, based on household budget survey data.

Can people afford to pay for health care?
5.4 How much financial hardship?

Among all households with catastrophic out-of-pocket payments, the amount spent on health as a share of total household spending rises progressively with income, except for the richest quintile. The richest quintile shows significant variations over time, which cannot be explained by policy changes.

Among further impoverished households, the out-of-pocket payment share of total household spending has fluctuated during the study period from a minimum of about 5% in 2008–2009 to a maximum of 11% in 2018 (Fig. 22). This is substantially higher than the average out-of-pocket payment share of total household spending, which was 3% in 2018, and the average in the poorest quintile, which was 1.7% in 2018 (see Fig. 6).
5.5 International comparison

The incidence of catastrophic out-of-pocket payments in North Macedonia is higher than in many EU countries but lower than in Greece and Latvia, which have similar levels of out-of-pocket payments (as a share of current spending on health). It is also low in relation to the very high out-of-pocket payment share of current spending on health in North Macedonia (Fig. 23).
Fig. 23. 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: the out-of-pocket payment data are for the same year as those for catastrophic spending. North Macedonia is highlighted in red.

Sources: WHO Regional Office for Europe (2019); WHO (2020).
5.6 Summary

In 2018, 4% of households were impoverished or further impoverished after out-of-pocket payments, down from around 7% in 2006. In the same year 6.5% of households experienced catastrophic out-of-pocket payments, down from 9.6% in 2006. The fall in financial hardship has been largely driven by a reduction in incidence in the two poorest consumption quintiles.

Nevertheless, financial hardship continues to be concentrated in the poorest quintiles. In 2018 three-quarters of all households with catastrophic spending were found in the two poorest quintiles. Financial hardship is also heavily concentrated among households with at least one member aged over 60 years.

Outpatient medicines are the main driver of catastrophic spending overall for all except the richest quintile; their share has increased from 63% in 2006 to 78% in 2018. Outpatient medicines account for over 90% of out-of-pocket payments among households with catastrophic spending in the two poorest quintiles and over 75% in the third and fourth quintiles. Outpatient care is generally the second-largest driver of catastrophic spending.

The share of households with catastrophic out-of-pocket payments is higher in North Macedonia than in many EU countries, but lower than in Greece and Latvia, which have similar levels of out-of-pocket payments (as a share of current spending on health). It is also low in relation to the very high out-of-pocket payment share of current spending on health in North Macedonia.
5. Summary

Financial protection is relatively strong in Sweden compared to many other EU countries, on a par with France, Germany and the United Kingdom.

In 2012, about 1% of households experienced impoverishing health spending (up from about 0.3% in 2006).

About 2% of households experienced catastrophic health spending in 2012, a share that has remained relatively stable over time.

Catastrophic health spending is heavily concentrated among households in the poorest quintile. Around 6% of households in the poorest quintile experienced catastrophic spending compared to around 1% in the other quintiles.

Overall, the largest contributors to catastrophic health spending are dental care and medical products. Among the poorest quintile, however, the largest contributor to catastrophic spending is outpatient medicines.

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 North Macedonia and which may explain the trend over time. Factors outside the health system that affect people’s capacity to pay for health care, such as changes in living standards and the cost of living, are discussed first, and then factors within the health system.

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

The following paragraphs draw on data from the household budget survey and other sources to assess people’s capacity to pay for health care. Poverty among people who are more likely to need health care is a particular challenge for financial protection.

Since the early 2000s North Macedonia has experienced sustained economic growth with only mild contractions in 2009 and 2012 following the global financial crises (World Bank, 2020). At the same time, income inequality has improved; between 2009 and 2018, the Gini index fell from 43 to 32 (State Statistical Office, 2020), reflecting faster than average growth in income among the poorest consumption quintile and a decline in unemployment and poverty. Fig. 24 shows that unemployment has fallen steadily during the study period; poverty fell between 2009 and 2015 but has risen slightly since then. Despite these positive trends, unemployment remains high and labour force participation is low, especially for women, people younger than 25 years and people older than 55 years. Poverty rates continue to be consistently higher in rural than urban areas, with important regional and ethnic differences (World Bank, 2019).

Fig. 24. Trends in unemployment and poverty

Notes: population is people aged 15 years and over for unemployment. Poverty is defined as 60% of median income.

Over time, the cost of meeting basic needs (food, housing and utilities) – the basic needs line – has fallen, but average household capacity to pay has also fallen (Fig. 25). The share of households living below the basic needs line has fluctuated: it was stable between 2006 and 2011, rose sharply in 2013 and 2014, and fell steadily between 2015 and 2017 (Fig. 25). This pattern mirrors the share of further impoverished households, suggesting that the overall decrease in the incidence of catastrophic health spending might have been driven by the change in capacity to pay among poorer households.

Fig. 25. 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 coverage policy, the health services that drive financial hardship and trends in spending on health.

6.2.1 Coverage policy

There is a degree of uncertainty about population coverage due to the lack of recent census data (as the last census was in 2002). Recent estimates suggest that around 10% of the population is uninsured, which is high compared to most countries in Europe. Uninsured people pay the full cost of all health services except emergency care.
The share of uninsured people reflects the linking of entitlement to FZO benefits with payment of contributions and the fact that employees whose wages are delayed for more than two months (due to employer cash flow problems) lose their FZO entitlement. For this latter group, coverage is only reinstated when they pay their arrears. In addition to people with contributions arrears, uninsured people are most likely to be people without regular employment. Some may be North Macedonian citizens living abroad.

Over several years the Government has taken steps to extend coverage by paying contributions on behalf of people with an income below the minimum wage (since 2009), refugees, asylum seekers, users of institutional care, victims of domestic violence, victims of human trafficking and war veterans (since 2012), people receiving the guaranteed minimum income (since 2019) and undocumented people (since 2020). The 2009 reform was particularly significant, as people with an income below the minimum wage represent around 26% of the population; it coincides with a fall in the incidence of catastrophic health spending in the poorest quintile from 28% in 2009 to 22% in 2010 (see Fig. 17).

When it comes to service coverage, the FZO benefits package is relatively comprehensive. It covers a wide range of services, including dental care for children and adults, resulting in overall levels of unmet need for health care and dental care that are similar to the EU average. Waiting times have fallen significantly since the introduction in 2013 of the MojTermin e-scheduling system, which requires standardized reporting on waits at the facility and individual provider levels. People’s perception of low quality of care for certain services may encourage the use of non-contracted and private providers, however, and informal payments in gynaecological care are an issue that needs monitoring. The main gap in the benefits package is for outpatient medicines (see the subsection that follows).

User charges (co-payments) apply to all covered health services except emergency and primary care visits. The overall design of co-payment policy is complex and the widespread use of percentage co-payments (in which people pay a share of the price) means that people’s exposure to out-of-pocket payments depends on the price and quantity of services they require. Unless the price is clearly known in advance, people may face uncertainty about how much they have to pay out of pocket. The negative effect of percentage co-payments is magnified (WHO Regional Office for Europe, 2019):

- for people with chronic conditions;
- for people who have a condition that requires higher-cost treatment;
- when prices are relatively high or subject to fluctuation; and
- when physicians and pharmacists are not required, or are not incentivized, to prescribe and dispense cheaper alternatives.
To address the negative effects of co-payments, several important protection mechanisms are in place, including:

• exemptions from co-payments based on income (for people receiving social benefits) – people need to apply for the exemption;

• a cap on co-payments per episode (MKD 6000) – this is applied automatically at the point of payment; and

• an annual cap on co-payments linked to household income and age group – people need to apply to the FZO when they reach the limit and are then automatically exempt from further co-payments.

These protective measures do not apply to co-payments for outpatient medicines or medical products, however, which leaves a significant gap in coverage.

6.2.2 Health services

Out-of-pocket payments for outpatient medicines are by far the largest source of financial hardship for all consumption quintiles, reflecting two gaps in coverage – the limited positive list of outpatient prescription medicines covered by the FZO and percentage co-payments for outpatient prescriptions, without exemptions for poor people or people with chronic conditions – as well as some aspects of FZO purchasing.

The number of outpatient medicines on the positive list has not changed over time, with only a few medicines added since 2008. To address this, the Ministry of Health set up a separate budget in 2009 to cover medicines for people with rare diseases. This budget was significantly extended in 2015. Also, since 2016, hospitals have been able to procure new and innovative medicines with prior approval from the Ministry of Health and the FZO. The limitations of these processes are that they are ad hoc, lack transparency and do not address uncertainty for people in need of medicines.

In addition to the lack of exemptions from or caps on relatively high co-payments for outpatient medicines (described above), a system of internal reference pricing was introduced in 2008, which requires people to pay the difference between a medicine’s retail and internal reference prices. In 2011 external reference pricing was introduced, which led to a reduction in outpatient medicines prices (Hristova & Habi, 2015). In around 70% of Anatomical Therapeutic Chemical (ATC) groups there is at least one medicine which is listed at the reference price and which does not require payment in addition to the co-payment. In practice, however, people often purchase more expensive medicines, either because they perceive quality to be lower in cheaper medicines or because both physicians and pharmacists may have incentives to promote more expensive medicines, even though physicians must adhere to generic prescribing practices.

Until 2019 the FZO used sales quotas for pharmacies as a prerequisite for being contracted. The monthly quota defined the maximum value of medicines that each of the 750 contracted pharmacies could dispense.
When the sales quota was reached, the pharmacy could only dispense medicines that were fully paid out of pocket. Anecdotal evidence indicates that pharmacies reached sales quotas by the middle of each month, particularly those located near health facilities, prompting people to shop around other pharmacies to find covered medicines. The abolition of the sales quotas in 2019 (after the study period) is likely to have improved access to covered medicines.

**Outpatient care** is the second-largest driver of catastrophic out-of-pocket spending. Co-payments of about 10% apply to all outpatient visits except for GPs, gynaecologists and paediatricians. People also pay out of pocket for outpatient care services offered by private providers and non-FZO contracted providers. Although gynaecological visits in primary care are fully covered in theory, in practice people report paying informally.

**Inpatient care** is an important driver of financial hardship for the richest quintile only. This finding suggests that richer people shift away from the publicly financed hospital services and opt for the private sector. Perceived low quality of care in public facilities and the aggressive marketing strategy by private hospitals are the main factors that explain the high use of private inpatient care. Private hospitals offer a wide range of health services, and women prefer to deliver in private facilities.

There is almost no data on informal payments in inpatient care. Anecdotal evidence and criminal cases in the past – also publicized by the media – suggest that informal payments are a problem in inpatient care, particularly in surgical services.

### 6.2.3 Health spending

Public spending on health as a share of GDP in North Macedonia is low compared to EU countries (Fig. 26). Although it is higher than average for upper middle-income countries, the gap has narrowed over time as public spending on health in North Macedonia has lagged behind GDP growth – it fell substantially from 5% in 2003 to 4% in 2007 and since then has failed to recover its 2003 peak (Fig. 26). Other upper middle-income countries like Bosnia and Herzegovina, Croatia and Serbia have consistently spent more on health publicly (as a share of GDP) than North Macedonia (WHO, 2020; data not shown).

Measured in other ways, levels of public spending on health are lower in North Macedonia than in EU countries. For example, the share of government spending allocated to health has decreased over time, falling from almost 15% in 2000 to about 13% in the last few years (WHO, 2020; data not shown). This may explain the fall in public spending on health as a share of GDP shown in Fig 26.
6.3 Summary

The declining share of households with catastrophic out-of-pocket payments in North Macedonia has been largely driven by a reduction in incidence in the two poorest quintiles. This could reflect governmental measures over time to extend coverage to different population groups, particularly for people with low incomes and other groups of people in vulnerable situations; a faster than average growth in income among the poorest quintile; and a decline in unemployment and poverty. Financial hardship continues to be concentrated in the poorest quintiles, however.

Coverage is relatively comprehensive and results in low levels of unmet need for health care and dental care.

Despite the reduction in financial hardship, gaps in coverage persist. These include:

- the linking of entitlement to FZO benefits to payment of contributions, resulting in about 10% of the population being uninsured (based on population numbers from the last official census held in 2002);
- the fact that employees whose wages are not paid on time (and delayed for more than 60 days) automatically lose their FZO entitlement;
- the complex design of co-payment policy and the predominant use of percentage co-payments, which expose people to price and changes in price;
- the presence of informal payments in outpatient care (notably in gynaecological care), which may lead to financial hardship; and
• various factors relating to outpatient medicines – the limited coverage of outpatient medicines; the lack of updating (since the late 2000s) of the INNs covered by the positive list; the fact that protection mechanisms for co-payments do not apply to outpatient medicines; the tendency to prescribe, dispense and use brand name medicines; and (up until 2019) the stringent sales quotas for pharmacies, which limited the volume of medicines to be covered in a month.

Public spending on health has lagged behind GDP growth and fallen over time, reflecting a decline in public spending on health as a share of government spending. The gap in the level of public spending on health in North Macedonia and EU countries has widened significantly since the mid-2010s. This entrenches the health system’s heavy reliance on out-of-pocket payments, which accounted for 42% of current spending on health in 2018.
7. Implications for policy
Financial protection in North Macedonia is weaker than in many EU countries, but stronger than in Greece, Hungary, Latvia and Lithuania.

Catastrophic health spending affects the poorest households the most. In 2018 the poorest consumption quintile accounted for half of all households with catastrophic spending; together, the two poorest quintiles accounted for more than three quarters of all households with catastrophic spending. Catastrophic spending is also heavily concentrated among households consisting of older people.

Medicines are by far the largest driver of catastrophic spending, followed by outpatient care and inpatient care. Medicines account for almost all catastrophic spending among people in the two poorest quintiles, and their contribution to financial hardship has increased over time.

Catastrophic health spending reflects gaps in all three dimensions of coverage.

- In 2018 around 10% of the population was estimated to be uninsured (based on population numbers from the last official census held in 2002). This reflects a complex system in which entitlement to FZO benefits is linked to payment of contributions and entitlement is withheld from people whose wages have not been paid for more than 60 days. Linking entitlement to payment of contributions is particularly challenging in North Macedonia, where unemployment and labour market informality are high. Since the late 2000s the Government has taken steps to reduce this gap by paying contributions on behalf of people with low incomes and other population groups in vulnerable situations, but more needs to be done.

- Although the benefits package is fairly comprehensive and includes coverage of dental care for children and adults, coverage of outpatient medicines is limited.

- Percentage co-payments are applied to all health services except emergency care and primary care visits. The Government has introduced important protective measures, including exemptions from co-payments based on income (for people receiving social benefits) and an annual cap on co-payments linked to household income and age group. Protection mechanisms do not apply to co-payments for outpatient medicines or medical products, however, which leaves a significant gap in coverage.

Financial protection has improved over time. Between 2006 and 2018 the incidence of catastrophic out-of-pocket payments fell, including among the poorest quintiles, and the incidence of impoverishing health spending almost halved. This improvement may reflect the introduction in 2009 of government contributions on behalf of people with low incomes.

Access to health and dental care is generally good, reflecting substantial improvement in recent years, although inequalities in access are still an issue. Unmet need for health and dental care have fallen over time to around the level of the EU average, but socioeconomic and age-related inequalities remain significant.
Policy attention should focus on reducing the gap in population coverage by de-linking entitlement from payment of contributions and by simplifying the complex design of user charges.

To improve the affordability of outpatient prescribed medicines, attention should be paid to strengthening the design of co-payment policy and the capacity of the Ministry of Health and the FZO to engage in strategic purchasing of medicines. Where medicine prices are not effectively negotiated, households will bear the financial burden of high or increased prices. The abolition of the pharmacy sales quotas in 2019 is likely to have improved access to outpatient medicines. However, other factors that continue to drive high out-of-pocket spending on outpatient medicines should be addressed, including the limited and unchanged positive list of medicines and the lack of measures to protect people from co-payments for outpatient medicines and medical products. In addition, the Ministry of Health and the FZO can improve the affordability of outpatient prescribed medicines by using formularies, standardized clinical guidelines and protocols for chronic conditions, more effective tendering and procurement of medicines and electronic prescribing to monitor individual prescribing patterns.

The persistent presence of informal payments – especially in gynaecological 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. Better monitoring via data collection (surveys) and analysis is needed to assess the magnitude of informal payments in North Macedonia and identify strategies to reduce them.

Stronger financial protection will require additional public investment in the health system. At about 4% of GDP, public spending on health is low compared to the EU average (6%), reflecting a decline in the priority given to health in allocating government spending. The Government should increase the share of public spending allocated to health and use the increase in public funds to reduce unmet need and financial hardship for poorer households – for example, by exempting low-income households from all co-payments and extending the annual cap on co-payments to include all co-payments.
References


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

<table>
<thead>
<tr>
<th>COICOP codes</th>
<th>Includes</th>
<th>Excludes</th>
</tr>
</thead>
<tbody>
<tr>
<td>06.1 Medical products, appliances and equipment</td>
<td>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.</td>
<td>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).</td>
</tr>
<tr>
<td>06.1.1 Pharmaceutical products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.1.2 Other medical products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.1.3 Therapeutic appliances and equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.2 Outpatient services</td>
<td>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.</td>
<td>Medical, dental and paramedical services provided to inpatients by hospitals and the like are included in hospital services (06.3).</td>
</tr>
<tr>
<td>06.2.1 Medical services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.2.2 Dental services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.2.3 Paramedical services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.3 Hospital services</td>
<td>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.</td>
<td>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).</td>
</tr>
<tr>
<td>06.3.1 General hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.3.2 Specialised hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.3.3 Medical centres</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.3.4 Maternity centres</td>
<td></td>
<td></td>
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<tr>
<td>06.3.5 Nursing homes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06.3.6 Convalescent homes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### References

3. All websites last accessed on 27 July 2021.


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:
equivalent household size = 1 + 0.7*(number of adults – 1) + 0.5*(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, only the sample-weighted food basic needs expenditure is used to represent 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


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>
<thead>
<tr>
<th>Regional indicators</th>
<th>+</th>
<th>Global indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impoverishing out-of-pocket payments</strong></td>
<td></td>
<td>Changes in the incidence and severity of poverty due to household expenditure on health using:</td>
</tr>
<tr>
<td>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)</td>
<td></td>
<td>• an extreme poverty line of PPP-adjusted US$ 1.90 per person per day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• a poverty line of PPP-adjusted US$ 3.10 per person per day</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• a relative poverty line of 60% of median consumption or income per person per day</td>
</tr>
</tbody>
</table>

| Catastrophic out-of-pocket payments                                         |                                                                  | 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) |
| The proportion of households with out-of-pocket payments greater than 40% of household capacity to pay for health care |                                                                  |                                                                                  |

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 Financing (part of the Division of Country Health Policies and Systems 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**


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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Website: www.euro.who.int

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