



World Health
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Can people afford to pay for health care?

New evidence
on financial protection
in Poland

Marzena Tambor
Milena Pavlova



Poland

WHO Barcelona Office for Health Systems Strengthening

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

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Abstract & keywords

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

HEALTHCARE FINANCING
HEALTH EXPENDITURES
HEALTH SERVICES ACCESSIBILITY
FINANCING, PERSONAL
POLAND
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 Strengthening, part of the Division of Health Systems and Public Health of the WHO Regional Office for Europe. To facilitate comparison across countries, the reviews follow a standard template, draw on similar sources of data (see Annex 1) and use the same methods (see Annex 2). Every review is subject to external peer review. Results are also shared with countries through a consultation process held jointly by the WHO Regional Office for Europe and WHO headquarters. The country consultation includes regional and global financial protection indicators (see Annex 3).

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

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

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

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Abbreviations

COICOP	(classification of) individual consumption by purpose
EHIS	European Health Interview Survey
EU	European Union
EU13	European Union Member States joining after 30 April 2004
EU15	European Union Member States from before May 2004
EU27	European Union Member States from 1 January 2007
EU28	European Union Member States as of 1 July 2013
EU-SILC	European Union Statistics on Income and Living Conditions
GDP	gross domestic product
GP	general practitioner
GUS	Główny Urząd Statystyczny [Central Statistical Office of Poland]
HTA	health technology assessment
NHF	National Health Fund
OECD	Organisation for Economic Co-operation and Development
PLN	Polish zloty
PPS	purchasing power standard
VHI	voluntary health insurance

Executive summary

Health coverage in Poland is provided mainly through the mandatory health insurance system administered by a single purchasing agency, the National Health Fund (NHF). Population entitlement to NHF-financed health services is based on insurance status. Insured people and their dependants are entitled to a relatively comprehensive range of health services and can access primary care, outpatient specialist care and hospital care without user charges, but must pay heavy user charges for outpatient medicines and medical products. While basic dental care is free at the point of use, the scope of dental services covered is relatively limited, especially for adults.

Out-of-pocket payments in Poland are higher than in many European Union (EU) countries. In 2016, they accounted for 23% of current spending on health in Poland, just above the EU average of 22%. National Health Accounts data show that the out-of-pocket payment share declined steadily before the crisis, but this decline stopped as growth in public spending on health per person stalled between 2009 and 2012.

This review is the first comprehensive and up-to-date analysis of financial protection in Poland. It draws on household budget survey data collected annually between 2005 and 2014. The review finds that out-of-pocket payments in Poland, which accounted for 5.2% of total household spending in 2014, are higher than in many central and eastern European countries such as Lithuania, Croatia, Czechia or Slovenia, and have increased over time in nominal terms, particularly among the poorest households.

As a result, financial protection is fairly weak in Poland compared to many EU countries. One in 12 households in 2014 experienced catastrophic health spending, and financial hardship is heavily concentrated among the poorest 20% of the population. The risk of catastrophic spending is highest for the poorest households, people receiving social benefits, people receiving disability or survivor's pensions, large households, retirees and people living in rural areas.

Outpatient medicines account for the largest share of out-of-pocket payments among households with catastrophic health spending, followed by medical products, dental care and outpatient care. This pattern of spending closely reflects gaps in coverage caused mainly by user charges but also by waiting times for specialist care.

The health system factors that contribute to financial protection include access to a relatively comprehensive range of publicly financed health services for those insured by the NHF, such as access without user charges to primary and specialist care visits, diagnostic tests and inpatient care.

The following health system factors undermine financial protection.

- Outpatient-prescribed medicines are subject to a complex system of user charges, including percentage co-payments, with no exemptions explicitly benefiting low-income people or those with chronic conditions, and no caps on user charges.
- There are no waiting time guarantees and waiting times are an issue, particularly for specialist care, leading some households to use privately financed services. While voluntary health insurance (VHI) provides faster access and access to private providers, take-up of VHI favours better-off groups of people.
- Problems in accessing outpatient services may lead people to self-treat using over-the-counter medicines, again shifting costs onto households. The use of non-prescribed medicines is very high, accounting for over three quarters of all out-of-pocket spending on medicines.
- Coverage of dental care is limited, especially for adults, with no protection for low-income households. Richer households are more likely to be able to afford privately financed dental services.
- Coverage of medical products is also limited, especially for adults. Heavy user charges for some products, stringent limits to NHF coverage and weak market regulation combine to shift the costs of medical products onto households.
- National statistics indicate that about 9% of the population is not covered by the NHF. Although this share is likely to be overestimated, some people may experience financial barriers to access and financial hardship due to not being insured.
- Gaps in coverage are compounded by the fact that government budget transfers to the NHF to cover the costs of uninsured people and the contributions of selected population groups only amount to 2–3% of NHF revenue, and there are no government budget transfers to cover contributions for dependants, even though they account for 23% of the people insured by the NHF.
- Public spending on health is lower than expected given the size of Poland's gross domestic product (GDP) and fell as a share of GDP following the financial crisis. The share of the government budget allocated to health is low by EU standards.

There was a small improvement in financial protection between 2005 and 2014, but this was largely driven by a reduction in catastrophic incidence in non-poor households. Catastrophic incidence actually increased substantially for people living on social benefits, who were the only group of people for whom catastrophic incidence was higher in 2014 than in 2005.

Policy attention should focus on improving the affordability of outpatient medicines by strengthening the design of user charges for outpatient-prescribed medicines. High levels of use of, and out-of-pocket spending on, non-prescribed medicines also warrant attention.

Future efforts to improve financial protection should focus more on low-income households, including people receiving social benefits, building on recent steps to improve living conditions for large families and enhance financial protection for people aged over 75 years. Mechanisms to protect households from co-payments are generally weak and do not explicitly benefit low-income households. New programmes exempting people aged over 75 years from co-payments for many medicines and the Family 500+ programme to support families with children have the potential to improve financial protection among older people and families with children. These initiatives are welcome steps forward. Other low-income groups, such as recipients of social benefits and disability pensions, nevertheless are at high risk of catastrophic health spending and would therefore benefit significantly from exemption from co-payments for medicines and medical products.

1. Introduction

This review assesses the extent to which people in Poland experience financial hardship when they use health services, including medicines. It covers the period between 2005 and 2014. Research shows that financial hardship is more likely to occur when public spending on health is low relative to gross domestic product (GDP) and out-of-pocket payments account for a relatively high share of total spending on health (Xu et al., 2003; Xu et al., 2007; WHO, 2010; WHO Regional Office for Europe, 2019). Increases in public spending or reductions in out-of-pocket payments are not in themselves guarantees of better financial protection, however. Policy choices are also important.

In 2016, public spending on health in Poland accounted for 4.6% of GDP, which is among the lowest in the European Union (EU); only around 11% of government spending was allocated to the health sector and household out-of-pocket payments accounted for 23% of total spending on health (WHO, 2019). Although the out-of-pocket payment share fell substantially in the early 2000s, from 31% in 2000 to 24% in 2008, it has not changed much since then, and in 2016 was higher than the average of 22% in the EU28 (European Union Member States as of 1 July 2013) (WHO, 2019). At the end of 2017, legislation was passed to increase public spending on health as a share of GDP to 6% by 2025.

Poland's National Health Fund (NHF) is responsible for purchasing all publicly financed health services. The NHF is financed predominantly through payroll taxes. It receives some funds from the government budget to cover the contributions of non-paying groups of people and provision of services for uninsured people, but these funds amount to only around 3% of the NHF's total revenue, while the share of non-paying family members is equal to nearly a quarter of the insured population (Sagan et al., in press). This heavy reliance on payroll taxes puts pressure on health system revenues and has in recent years led to discussion about the need to increase government budget transfers to the NHF.

Poland appeared to be more resilient to the 2008 financial crisis than other EU Member States, at least in the short term. GDP continued to grow during the crisis, albeit at a much slower rate than previously, and while unemployment rose, it did so more slowly than in other countries (Eurostat, 2018). Public spending on health per person nevertheless did not grow in real terms in the three years after the crisis (WHO, 2019). Health system developments that may have affected financial protection during the study years include changes to coverage policy for dental care and outpatient medicines in 2010 and 2011 respectively.

This review is the first comprehensive and up-to-date analysis of financial protection in Poland. Global studies have produced estimates for Poland drawing on household budget survey data from 1993 and have not provided any context-specific analysis (Xu et al., 2007; WHO & World Bank, 2015). European studies that include Poland focus on specific population groups (Arsenjevic et al., 2016; Baird, 2016) or use different indicators (Tambor et al., 2014). One study compares financial protection in Poland with Denmark and Germany, but does not include analysis of the effect of out-of-pocket payments on poverty (Zawada et al., 2017). The methods used in this study are different from the methods used in previous analyses (Yerramilli et al., 2018).

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 presents a glossary of terms.

2. Methods

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

2.1 Analytical approach

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

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

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

Source: Thomson et al. (2018).

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

2.2 Data sources

The study analyses anonymized microdata from the household budget surveys conducted by the Główny Urząd Statystyczny (GUS) [Central Statistical Office of Poland] annually between 2005 and 2014. Around 37 000 people are surveyed each year. Data are collected continuously throughout the year, with a monthly rotation of households. Each household participating in the survey keeps a diary for a month and records all household spending, consumption and income. The survey data are weighted using population statistics from the National Population and Housing Census (GUS, 2011a).

The household budget survey underwent a number of methodological changes during the 10-year study period: a new classification of “individual consumption by purpose” (COICOP), based on harmonized COICOP, was applied in 2013 and 2014, and data weighting for 2012–2014 was adjusted using the 2011 National Population and Housing Census (GUS, 2011a). The implications of these changes for the interpretation of the study’s results are not substantial, however.

The study also presents aggregated data from a periodic “Health care in households” survey conducted by GUS in 2006, 2010, 2013 and 2016, using a sample of about 4500 households randomly selected from the household budget survey sample (GUS, 2007, 2011b, 2014, 2017a). The health-care survey involves face-to-face interviews on health-care use and spending, with a one-year recall for inpatient care and a three-month recall for outpatient care and medicines.

All currency are presented in Polish złoty (PLN) and converted into equivalent values in current purchasing power standard (PPS) euros where relevant.

3. Coverage and access to health care

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

3.1 Coverage

The right of all citizens to equal access to publicly financed health care is guaranteed by Article 68 of the Constitution of the Republic of Poland (1997).

3.1.1 Population entitlement

According to the Act on Health Care Services Financed from Public Funds (2004), people are eligible to use publicly financed health services if they are insured by the NHF. The largest groups of people subject to compulsory health insurance are employees, old-age and disability pensioners, unemployed people, self-employed people and farmers. The dependent family members of an insured person (spouses, children up to the age of 18 years or 26 years if still in education, and parents and grandparents if they live in the same household) are also covered, subject to registration, and do not have to pay contributions.

The government pays NHF contributions on behalf of the following groups: farmers running small farms, registered unemployed people without unemployment benefits, recipients of income support (people with a monthly income of less than PLN 701 for a single-person household or less than PLN 528 per person for households with two or more people, increased from PLN 634 and PLN 514 respectively in October 2018), registered homeless people, refugees, some clergy, parents on unpaid childcare leave, babysitters, children under school age, and pupils and students who are not insured as family members.

People who are not required to join the NHF (for example, volunteers and some short-term contractors) can obtain voluntary cover; on payment of contributions, they are entitled to the same benefits package as all others covered by the NHF.

The following groups can access publicly financed services irrespective of their insurance status: children under 18 years; women during pregnancy, childbirth and the postpartum period; prisoners; and people with low incomes (the same thresholds as above) who do not receive income support, who are granted cover for 90 days at the discretion of local authorities.

Foreign citizens of Polish origin (holders of Karta Polaka) are entitled to free emergency health care. Specific services – mental health care, treatment for addiction and treatment of specific infectious diseases – are provided free of charge to everyone, irrespective of health insurance status. Where these services are provided to uninsured people, they are covered through government budget transfers to the NHF. The amount of

money transferred by the government to cover both the cost of services provided to uninsured people and the contributions of non-paying groups amounts to around 2–3% of the NHF's total revenue¹ (NHF, 2017a).

Since 2013, an electronic insurance verification system has made it possible to identify people who are not insured by the NHF and claim payment from them for services provided to them. Such claims numbered about 13 000 between 2013 and 2015 but the NHF was able to recoup only a small proportion of claimed payments, as most services were provided to people eligible for publicly financed health services (Najwyższa Izba Kontroli, 2016). As a result, since January 2017, all people eligible to be covered by the NHF, regardless of the insurance status indicated in the electronic system, have had free access to primary care (not including outpatient-prescribed medicines).

According to the NHF register, the NHF covered over 35.5 million people (91% of the population) at the end of 2017, including about 1.6 million who were not insured but were eligible to access publicly financed health services free of charge (mostly children under 18 years who were not covered by their parents' employment or by the state). Co-insured family members accounted for 23% of the insured population (NHF, 2018).

The estimated 9% of the population not covered by the NHF may include people who live or work abroad but are registered as resident in Poland, and people who may be entitled to NHF coverage and can be insured retroactively. This means the share of people not eligible to access publicly financed services may be less than 9%.

3.1.2 The benefits package

Legislation guaranteeing access to publicly financed services, including primary care, outpatient specialist care, hospital care, rehabilitation and emergency care, was introduced in 2004 (see Table 2). The NHF can purchase services from public and private providers. In 2009, the negative list of NHF-funded services was replaced by a positive list, which is updated by the Ministry of Health taking into account recommendations from the national health technology assessment (HTA) agency. The list of guaranteed services in primary care, outpatient specialist care and hospital care is fairly comprehensive.

Specialist care requires a referral from a primary care physician or other specialist; the exceptions are visits to gynaecologists/obstetricians, oncologists, psychiatrists, dentists and specialists in sexually transmitted infections. Referral was introduced for dermatologists and ophthalmologists in 2015.

The NHF applies volume and budget limits to most areas of **specialist care**, which means providers may not be reimbursed for care beyond the volumes specified in contracts. With the introduction of a hospital network in 2017, **hospitals** in the network receive an annual lump-sum payment for complex care covering most hospital services and outpatient specialist services; payment is increased in the following billing period if the volume of services provided was higher than expected. Waiting times

1. For example, government budget transfers for contributions to health insurance and benefits on behalf of uninsured people in 2016 amounted to PLN 1.8 billion (GUS, 2017a), while total NHF revenue in that year was PLN 73.3 billion (NHF, 2017a).

are an issue for **outpatient specialist care** due to limited funding and staff shortages (Kowalska et al., 2015). There are no waiting time guarantees for specialist care. Some patients seek care in the private sector (see section 3.2).

Rationing may also be an issue in **primary care**; volume limits are not applied, but general practitioners (GPs) are paid through capitation and may limit the number of services they provide (such as diagnostic tests) to reduce costs. There are no waiting time guarantees for primary care.

The list of guaranteed **dental services** includes basic treatment only and is subject to limits per person. For example, free root canal treatment is available for a limited number of teeth per person, check-ups, radiography and dental prostheses are limited to a certain number per person per year, and regulations specify the dental materials that can be publicly financed (with more advanced materials usually not covered – tooth-coloured composite materials, for example, are available only for front teeth). Children under 18 years and pregnant women have access to a slightly more generous range of dental care benefits, including root canal treatment for all teeth and orthodontic treatment for children up to the age of 12.

There is a positive list of reimbursed **outpatient medicines** and basic **medical products**. The medicines list is updated every two months based on recommendations from the HTA agency. Both lists specify the NHF reimbursement reference price and user charges (co-payments). The medical products list also sets limits on the number of medical products to be provided per person.

The 2011 Reimbursement Act removed some medicines from the NHF benefits package (while adding others), tightened clinical indications for NHF reimbursement, introduced penalties for physicians violating prescribing rules and reduced the prices of medicines covered by the NHF. These changes led to a sharp reduction in the volume of outpatient medicines being prescribed and in both public spending and out-of-pocket payments for outpatient-prescribed medicines in 2012.

Separate reimbursement rules (defining broad categories of products rather than a specific product and producer) apply to **medical devices**. Reimbursement is based on prescription by a specialist and approval by the NHF. The rules also specify the conditions for reimbursement, including clinical indications, volume and frequency limit, user charges (co-payments) and ceilings. The reimbursement ceiling for some medical devices (such as wheelchairs) is set quite low.

Table 2. Changes to coverage policy, 2004–2017

Source: authors.

Year	Change	Health services targeted	Population group targeted
2004	Introduction of a negative list of NHF services	Publicly provided services	Insured people
2009	Replacement of the negative list with a positive list	Publicly financed services	Insured people
2010	Prohibition of extra billing in NHF-financed treatment	Dental services	Insured people
2011	Changes to the regulation of user charges (co-payments) for outpatient medicines through the Reimbursement Act	Outpatient medicines	Insured people
2013	Introduction of an electronic system for verifying NHF status	All services	Whole population
2015	Reduction in specialties not needing GP referral: dermatology and ophthalmology now require referral	Specialist care	Patients with specific conditions
2016	Removal of user charges (co-payments) for most common outpatient medicines used by older people	Over 70 of the most commonly used molecules	People aged 75 years and over
2017	Primary care (not including outpatient-prescribed medicines) is available without charge	Primary care	People eligible for NHF coverage

3.1.3 User charges (co-payments)

There are no formal user charges for publicly financed primary care, outpatient specialist care and hospital care for people covered by the NHF. Outpatient medicines and medical devices and long-term care nevertheless are subject to user charges for most people.

Prescribed **outpatient medicines** are subject to one of two types of user fee: a fixed co-payment of PLN 3.20 (€PPS 1.35) per package of up to 30 defined daily doses, or a percentage co-payment (co-insurance) of 30% or 50% of the reimbursement price. The type of co-payment applied depends on the expected cost of the therapy for the patient: the fixed co-payment is applied to medicines used for longer periods of time (such as for chronic conditions) and to more expensive medicines (see Table 3). In addition, patients pay the difference between the reference price and the retail price, although pharmacists are obliged to inform patients about the availability of cheaper medicines to avoid the additional out-of-pocket payment.

Some groups of people (war veterans with disabilities and their spouses, military personnel, and blood and organ donors) and some medicines (including specific medicines for cancer, psychiatric disorders and some infectious diseases) are exempt from user charges. Since September 2016 (after the study period), people aged 75 years and over have been exempt from user charges for around 150 of the molecules most commonly used by older people. These latest exemptions are financed by government budget transfers to the NHF.

Medical products are also subject to user charges, with percentage co-payments for some products. Patients also have to pay the difference between the reimbursement reference price and the retail price if they opt for a better quality or more expensive product. There is no regulation of the retail price of medical products, so the actual cost may exceed

the reimbursement price. Selected groups (see Table 3) are exempt from paying the percentage co-payment. Medical products that are supplied to patients in inpatient settings or in outpatient settings as part of treatment or for diagnostic purposes are provided free of charge.

Patients need to pay the full cost of non-reimbursed services and materials for **dental care**. Until 2010, extra billing in dental care was allowed, providing patients with the possibility of opting for more expensive materials within the publicly financed system, but this is no longer the case.

In **hospital care**, extra billing for services or products beyond those covered by the NHF has been deemed illegal, but some hospitals charge extra fees: examples include charging fees for anaesthesia during childbirth or higher-quality lenses for cataract surgery. Hospitals may also charge for the hospital stay of an accompanying family member, although legislation to remove this charge is being prepared.

There are user charges for room and board in **long-term care** and **sanatoria**. Long-term care user charges amount to between 200% (children) and 250% (adults) of the minimum state pension per month, with a cap of 70% of patient income (or income per person per household in the case of children). Treatment in sanatoria (with referral) for adults incurs a daily user charge of PLN 9.40–36.10 plus a daily tourist tax of up to PLN 4.24; children are exempt.

Other than for long-term care, there are no caps on user charges. Some support is available for people receiving income support, who can apply for one-time financial assistance to cover (fully or partially) the cost of purchased medicines or treatment. This support is, however, conditional on the financial capacity of the local authority. As a result, existing gaps in coverage (see Table 4) are not fully addressed through the current protection mechanisms, including VHI (see section 3.1.4).

Table 3. User charges for publicly financed health services

Notes: NA: not applicable. User charges are regulated by the following legal acts: the Act on Health Care Services Financed from Public Funds (2004), the Act on reimbursement of drugs, dietary foods for special medical purposes and medical devices (2011), and the Order of the Minister of Health on the list of medical devices issued on request (2017).

Source: authors.

Service area	Type and level of user charge	Exemptions	Cap on user charges paid
Outpatient visits	None: primary care and specialist care with referral	NA	NA
Outpatient prescription medicines	<p>Depending on the expected duration of treatment and the expected financial burden for patients, medicines are classified into one of three reimbursement groups:</p> <p>Fixed co-payment of PLN 3.20 (€PPS 1.35) per package of up to 30 defined daily doses applies to:</p> <ul style="list-style-type: none"> • medicines that need to be used for more than 30 days and for which the monthly cost to the patient, given a co-insurance rate of 30%, would exceed 5% of the minimum monthly wage (i.e., where the total monthly cost of the medicine is expected to exceed PLN 280 or €PPS 116); • medicines that need to be used for up to 30 days and for which the monthly cost to the patient, given a co-insurance rate of 50%, would exceed 30% of the minimum monthly wage (i.e., where the total monthly cost of the medicine is expected to exceed PLN 1008 or €PPS 419; and • medicines that need to be used for more than 30 days and are classified for fixed co-payments on the basis of previous regulation (prior to the Reimbursement Act of 2011) <p>Percentage co-payment of 50% of the reimbursement price: medicines that need to be used for up to 30 days</p> <p>Percentage co-payment of 30% of the reimbursement price: any other medicines</p> <p>In addition, all users have to pay the difference between the reimbursement reference price and the retail price</p>	<p>No fixed or percentage co-payments: medicines with proven effectiveness for treatment of malignant tumours, mental disorders or specific communicable diseases</p> <p>Free of charge: over 150 molecules from the list of fixed co-payment and 30% co-payment for people aged over 75 (from September 2016)</p> <p>Exemption from most user charges for:</p> <ul style="list-style-type: none"> • war veterans and repressed persons, their dependent spouses or widows/ widowers; blind war victims; • war veterans and military personnel; • blood or organ donors; and • workers in asbestos processing plants 	No
Medical products	<p>None: some products (wheelchairs, prostheses) are fully reimbursed up to a reimbursement ceiling</p> <p>Percentage co-payment of 10%, 30% or 50% of the reimbursement reference price for some products (such as corrective lenses)</p> <p>Users pay the difference between the reimbursement reference price and the retail price</p>	<p>War and military veterans, blind victims of war, repressed individuals and military personnel (for treatment of injuries acquired during performing military tasks) are exempt from percentage co-payments</p> <p>Children up to 18 years are exempt from percentage co-payments for most medical products</p>	No
Diagnostic tests	None	NA	NA
Dental care	None: for basic services in the benefits package However, not all services are covered; there are limits on the number of check-ups, x-rays and prostheses per person per year; root canal treatments or tooth-coloured composites are available for a limited number of teeth only; users must pay the full cost for many treatments and materials	Children up to the age of 18 years or less (depending on treatment) and pregnant women are entitled to additional services free of charge (such as root canal treatment for all teeth)	No
Inpatient care	None	NA	NA
Inpatient medicines	None	NA	NA

3.1.4 The role of VHI

VHI plays a supplementary role, offering people access to private health-care providers. It plays a marginal role in the health system, accounting for around 5% of total spending on health in 2016 and around 18% of private spending on health (WHO, 2019). Over time, the market for VHI has grown. Data from household surveys indicate that the share of the population with supplementary VHI rose from 2.2% in 2006 to 3.9% in 2010, 6% in 2013 and 6.5% in 2016 (GUS, 2007, 2011b, 2014, 2018).

Supplementary VHI in Poland is provided in two ways. The more popular option includes quasi-insurance products, so-called medical subscriptions packages offered by private health-care providers. These have developed around occupational medicine and are most often purchased by employers as an additional benefit for employees and their families. They mainly cover primary care and outpatient specialist services, diagnostic services and, less often, hospital care. The second option is individual or group health insurance policies offered by private insurance companies. These usually cover outpatient care and diagnostic tests within an annual contract, with limits on benefits.

According to data provided by private insurers, it is estimated that in 2015, 3 million people had medical subscription packages (PMR, 2015) and 1.4 million people had health insurance policies (2.4 million at the end of 2018) (Polska Izba Ubezpieczeń, 2018). VHI uptake is concentrated among people with higher incomes and higher education and those living in cities (Sagan & Thomson, 2016). It is regulated as part of the financial services sector; there is no legislation specific to VHI.

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

Table 4. Main gaps in coverage

Source: authors.

	Population entitlement	The benefits package	User charges (co-payments)
Issues in the governance of publicly financed coverage	Entitlement is based on citizenship and insurance status Although dependent family members are covered without having to pay contributions, the government does not pay contributions on their behalf	Limits on the volume of services contracted by the NHF and lack of waiting time guarantees	Use of percentage co-payments for outpatient medicines and medical products, with limited exemptions and no caps The reimbursement and pricing of medical products is poorly regulated
Main gaps in publicly financed coverage	Nine per cent of the population is uninsured; in practice many of these people may be eligible for coverage retroactively or working abroad	Waiting times for specialist care The range of dental care services is very limited for adults	Outpatient medicines and medical products Long-term care institutions and spa treatment
Are these gaps covered by VHI?	No	VHI provides faster access, mainly to outpatient care; however, it covers less than 10% of the population, usually higher-income households	No

3.2 Access, use and unmet need

The use of outpatient and inpatient care in Poland in 2014 was similar to the EU average at 7.2 outpatient contacts per person per year (the EU average was 7.0) and 17.1 hospital admissions per 100 persons (compared to the EU average of 17.3). The admission rate for acute care was slightly higher than the EU average: 16.8 per 100 in Poland compared to 15.9 in the EU (WHO Regional Office for Europe, 2018). Outpatient contacts increased by 15% between 2005 and 2014, while inpatient admission rates increased by around 20%.

Data from a household survey conducted in the last quarter of 2016 show that for health care, most people use publicly financed primary care and hospital services. However, use of privately financed outpatient specialist health services is widespread and has increased over time, rising from 27% in 2005 to 37% in 2016 (Table 5) (GUS, 2018). The main reason people give for using health services not financed by the NHF is long waiting times (62%) (GUS, 2018). Possible explanations for waiting lists include the reimbursement limits set by the NHF (see section 3.1) and a substantial shortage of medical professionals in Poland; in 2014, there were 227 physicians per 100 000 population, which is the lowest rate among EU countries (WHO Regional Office for Europe, 2018).

The survey also reveals that the use of non-NHF financed dental services is high and has risen over time from 31% of households in 2006 to 41% in 2016 (Table 5) (GUS, 2018). The main reason given for using privately financed dental care is better equipment, materials and waiting times, but there was a major increase in respondents in the last two rounds of the survey who reported lack of publicly financed coverage of services as a reason.

The increase in the use of privately financed care over time is in line with a decreasing trend since 2011 in the number of medical and dental care practices contracted by the NHF (GUS, 2017a).

Table 5. Main reasons for using health services not financed by the NHF

Sources: GUS (2007, 2011b, 2014, 2018).

	2006	2010	2013	2016
Use of medical services outside the NHF, as a share of all households	26.9	31.2	35.1	37.2
Main reason (as a share of households using services outside the NHF):				
Waiting times	37.0	49.3	55.6	61.8
Better specialists	33.0	24.3	18.5	18.5
Use of dental services outside the NHF, as a share of all households	30.9	36.7	39.3	41.4
Main reason (as a share of households using services outside the NHF):				
Better equipment and materials	40.7	41.2	28.2	28.0
Waiting times	30.9	28.9	26.5	25.6
Treatment/person not covered by the NHF	No data	1.3	22.9	23.7
Better specialists	18.0	15.8	19.7	13.0

European Union Statistics on Income and Living Conditions (EU-SILC) data indicate that the share of the population with unmet need for health care due to cost, distance and waiting time (see Box 1) is higher in Poland than the EU28 average. Fig. 1 shows self-reported unmet need for health and dental care between 2005 and 2017. In 2016, unmet need for health care was 6.6% in Poland and 2.5% in the EU, while unmet need for dental care (3.7% in Poland) was below the EU average (4.0%). The steep fall in 2017 coincided with a change in the EU-SILC question on unmet need in Poland, so it is not possible to verify whether the sharp drop represents genuine change in unmet need or is an effect of the change in methodology.

Box 1. Unmet need for health care

Source: WHO Regional Office for Europe (2019).

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

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

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

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

Every year, EU Member States collect data on unmet need for health and dental care through 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; Expert Panel on Effective Ways of Investing in Health, 2016, 2017).

Box 1. Unmet need for health care (contd)

Source: WHO Regional Office for Europe (2019).

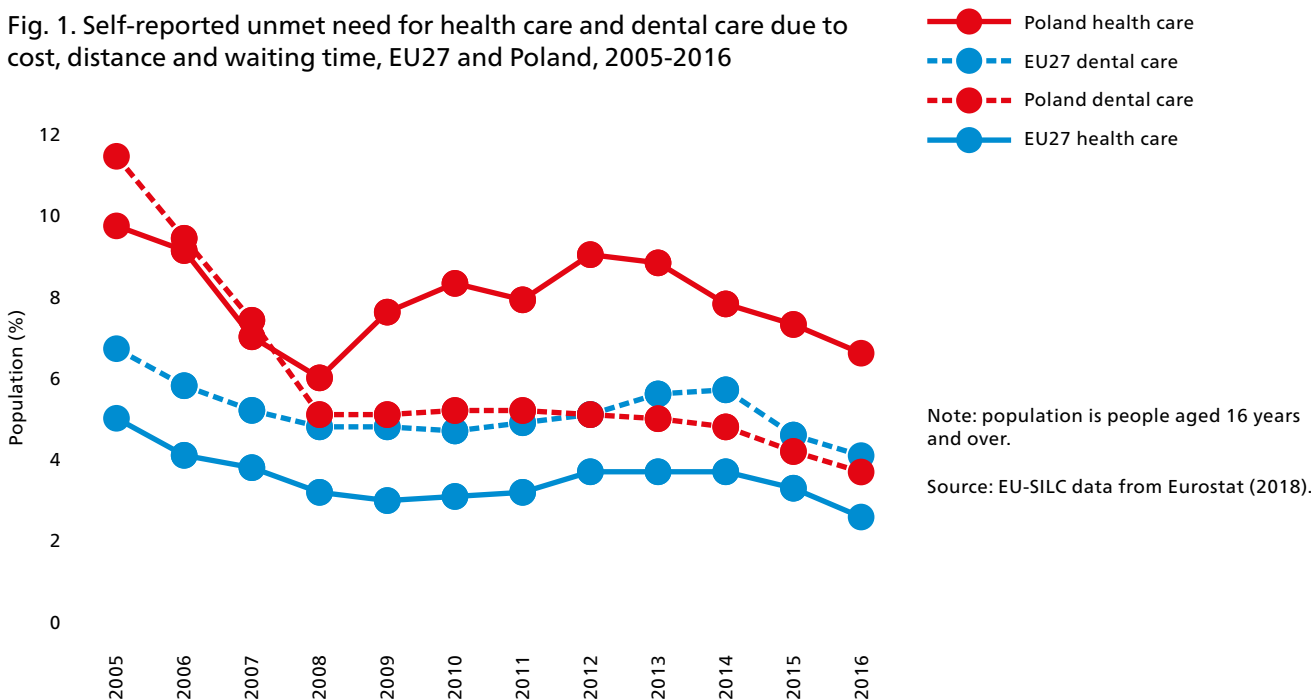
EU Member States also collect data on unmet need through the European Health Interview Survey (EHIS), carried out every five years or so. The second wave of this survey was conducted in 2014. A third wave is scheduled for 2019.

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

For health care, the most common reason people give for unmet need is waiting time, although cost was the most common reason among the poorest quintile for all years except 2017. For dental care, unmet need is primarily driven by cost; there is very little self-reported unmet need for dental care due to waiting time (Eurostat, 2018).

Unmet need for both health and dental care declined rapidly between 2005 and 2008; after that, unmet need for dental care remained stable and then declined further, while unmet need for health care increased markedly, from 6% in 2008 to 9% in 2012, before declining to 6.6% in 2016 (Fig. 1).

Fig. 1. Self-reported unmet need for health care and dental care due to cost, distance and waiting time, EU27 and Poland, 2005-2016

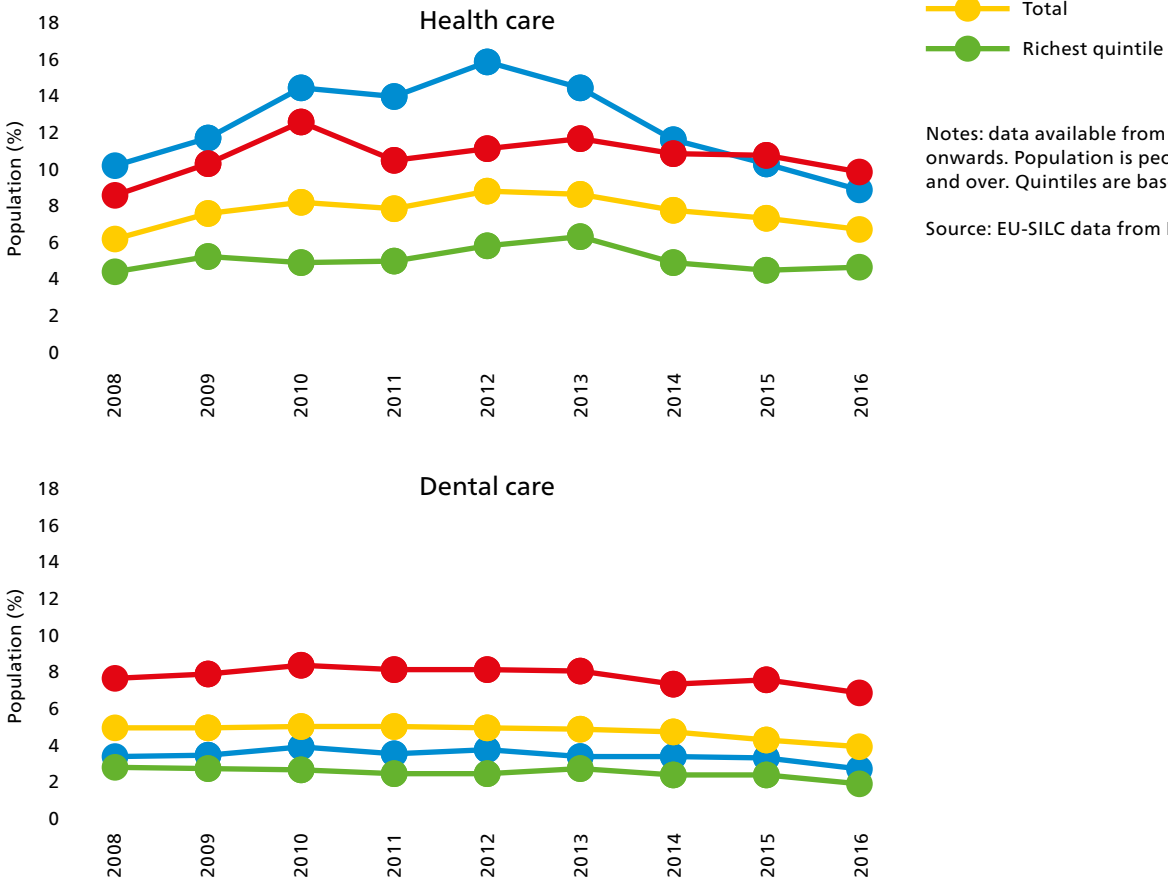


EU-SILC data broken down by income quintile are available from Eurostat only from 2008 onwards. They show stark income inequalities in unmet need for health and dental care, with a gap of around five percentage points between the richest and poorest quintiles in 2016 (Fig. 2). In the poorest quintile, 9.8% of respondents reported unmet health-care need, compared to 4.5% in the richest households; the gap for dental care was slightly smaller at 6.6% and 1.7% respectively.

Although there have been fluctuations over time, the income gap in comparison to 2008 has increased in more recent years for both health and dental care. Older people (65+ years) also experienced a steep rise in unmet need for health care between 2008 and 2012 (from 10.1% to 16.1%); this subsided later but remained above the EU average for this age group in 2016 (8.7%). Unmet need for dental care among older people appears to be low.

Although unmet need for dental care is generally lower than unmet need for health care in Poland, the level of unmet need due to cost among the poorest quintile is very similar for both health care and dental care (Eurostat, 2018).

Fig. 2. Income inequality in unmet need due to cost, distance and waiting time in Poland, 2008-2016



Notes: data available from Eurostat from 2008 onwards. Population is people aged 16 years and over. Quintiles are based on income.

Source: EU-SILC data from Eurostat (2018).

EHIS also collected data on self-reported unmet need in 2014. EHIS results indicate that among people reporting a need for care, unmet need due to cost is on average highest for dental care (13%), followed by prescribed medicines (9%) and health care (8%) (Fig. 3). The national survey of quality of life in Poland, *Diagnoza społeczna* [Social diagnosis], shows figures of a similar scale: in 2015, unmet need due to cost was 14% for dental services, 13% for medicines, 12% for medical services and 6% for diagnostic services (Czapiński & Panek, 2015).

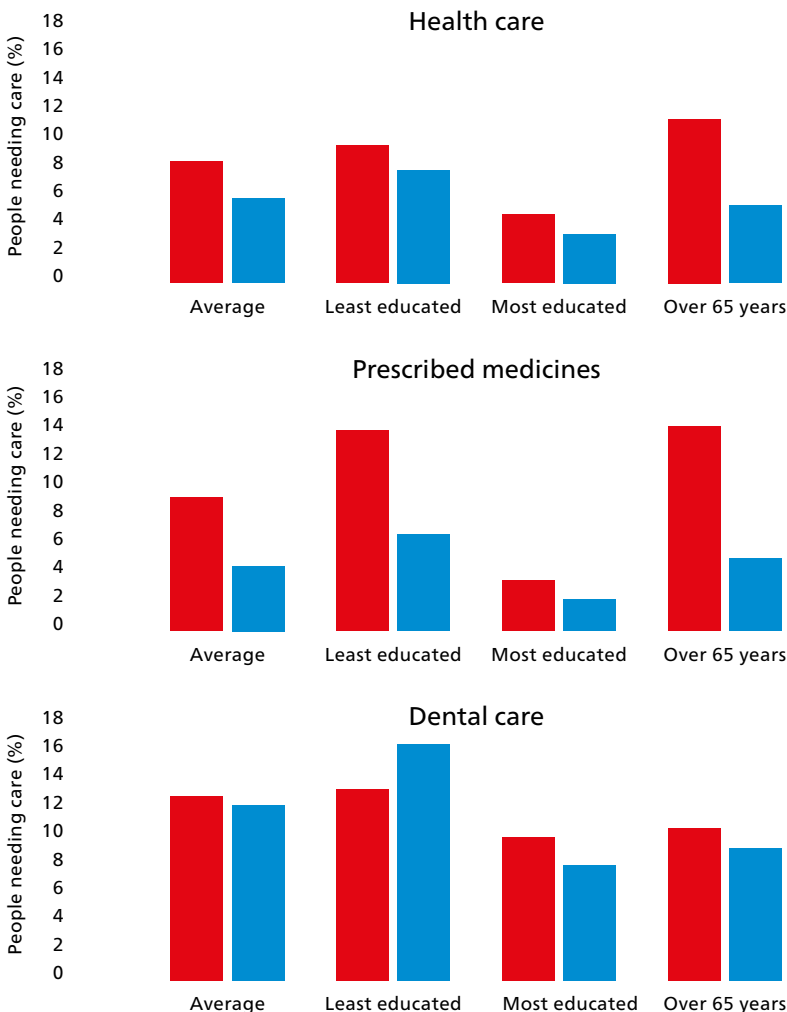
EHIS data suggest that unmet need is higher in Poland than the EU28 average for prescribed medicines and health care, particularly among older people and, for prescribed medicines, people with lower than average educational attainment (Fig. 3). Inequality in unmet need due to cost is very high for prescribed medicines in Poland, with the least educated group reporting four times the level of unmet need (14.2%) of the most educated group (3.5%).

Fig. 3. Self-reported unmet need due to cost by type of care, educational attainment and age, Poland and EU28, 2014

● Poland
● EU28

Note: self-reported unmet need among people reporting a need for care.

Source: EHIS data from Eurostat (2018).



National statistics for 2013 and 2016 (GUS, 2014, 2018) provide further information on unmet need for health care: about 5% of respondents reported unmet need for specialist services, mainly due to waiting time and cost (see Table 6). The prevalence of unmet need for GP services in 2016 was substantially higher than in 2013 (7% compared to 5%), but the main reasons given were more related to personal circumstances. Unmet need for dental care was reported by 5% of respondents in 2016, mainly due to cost.

Table 6. Unmet need for health care, 2013 and 2016

Sources: GUS (2014, 2018).

Type of service and main reason	Share (%) of respondents	
	2013	2016
Specialists	4.9	5.3
Cost	1.1	0.7
Waiting time	2.4	2.4
GPs	4.8	7.0
Delayed visit to see if the problem got better	1.5	2.9
Lack of time	1.0	1.2
Waiting time	0.9	0.9
Dentists	4.4	5.3
Cost	2.1	1.5
Waiting time	0.7	1.1
Diagnostic services	2.0	
Cost	0.4	No data
Waiting time	0.4	data
Absence of referral	0.4	

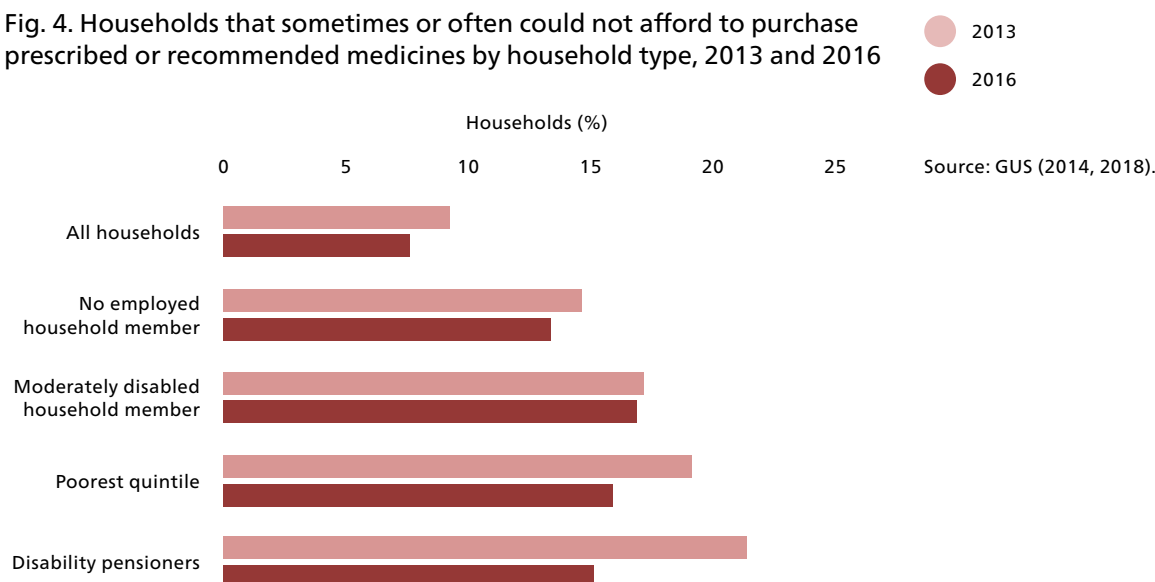
The same national survey indicates that purchasing prescribed or recommended medicines constituted a barrier to access or a financial burden for over 40% of all households in 2016, although this share has fallen from 59% in 2006 to 52% in 2010 and 50% in 2013 (Table 7). Approximately 7.5% of households were sometimes or often not able to purchase prescribed or recommend medicines in 2016, down from 14% in 2006, 11% in 2010 and 9% in 2013. Households with a disabled household member and households in the poorest quintile were most likely not to be able to afford prescribed medicines in 2016, followed by households with disability pensioners and households with no employed members (Fig. 4).

Table 7. Household financial ability to purchase medicines prescribed or recommended by a doctor as a share (%) of all households

Sources: GUS (2007, 2011b, 2014, 2018).

	2006	2010	2013	2016
Often could not afford	4.1	2.8	2.8	1.8
Sometimes could not afford	9.8	8.0	6.3	5.7
Purchasing was a significant financial burden	44.7	41.4	41.2	34.2
No financial barriers	31.4	38.6	41.1	50.2
Households with no need for medicines	10.0	9.2	8.6	8.1

Fig. 4. Households that sometimes or often could not afford to purchase prescribed or recommended medicines by household type, 2013 and 2016



3.3 Summary

Over 90% of the population is covered by the NHF, which provides free access to publicly financed primary care, outpatient specialist care, inpatient care and emergency care. Out of the remaining population, the majority are thought to be eligible for public coverage, although their status is not confirmed on the NHF register.

The main gaps in health coverage are related to:

- extensive user charges for outpatient medicines, including high percentage co-payments for many medicines, with limited protection mechanisms;
- extensive user charges for medical products, with reliance on percentage co-payments and low reimbursement limits, and without regulation of prices and quality, so actual costs may often exceed the reimbursement price;

- lack of waiting time guarantees for NHF-financed services;
- limited coverage of dental care, particularly for adults; and
- entitlement based on insurance status (with the exemption of primary care), meaning there may be people not eligible to be covered by the NHF.

The design of user charges policy for outpatient medicines is particularly complex and mechanisms to protect people from user charges generally are weak. There are no exemptions explicitly benefiting poor households and people with chronic conditions and no cap on user charges paid. Protection for older people recently has been strengthened; since 2016 (after the study period), people aged over 75 years have been entitled to free access to the 150 molecules most commonly used by older people.

Issues with waiting times increasingly are leading people to use privately financed services. The main reasons people give for increased use of private health-care providers are shorter waiting times, better quality and, for dental care, lack of publicly financed coverage.

VHI obtained from private insurance companies or, more commonly, through employment schemes (medical subscriptions) covers less than 10% of the population. It provides faster access to services in the private sector, mainly for ambulatory care. Survey data indicate that VHI take-up has increased over time but generally is limited to more affluent groups; VHI therefore is likely to exacerbate inequalities in access to health care.

Unmet need for health care due to cost, distance or waiting time was substantially higher in Poland than the EU average in 2016, while unmet need for dental care was similar to the EU average. Unmet need for health care mainly is driven by waiting time, and unmet need for dental care by cost. Income inequalities in unmet need for health care and dental care are substantial, although they have narrowed slightly in recent years. Age-related inequalities in unmet need are substantial for health care and prescribed medicines, but not for dental care. Unmet need for prescribed medicines due to cost is higher in Poland than in the EU, particularly for older people; national data suggest that paying for prescribed medicines constituted a significant financial burden for 34% of households in 2016, with a further 7.5% unable to pay for prescribed medicines.

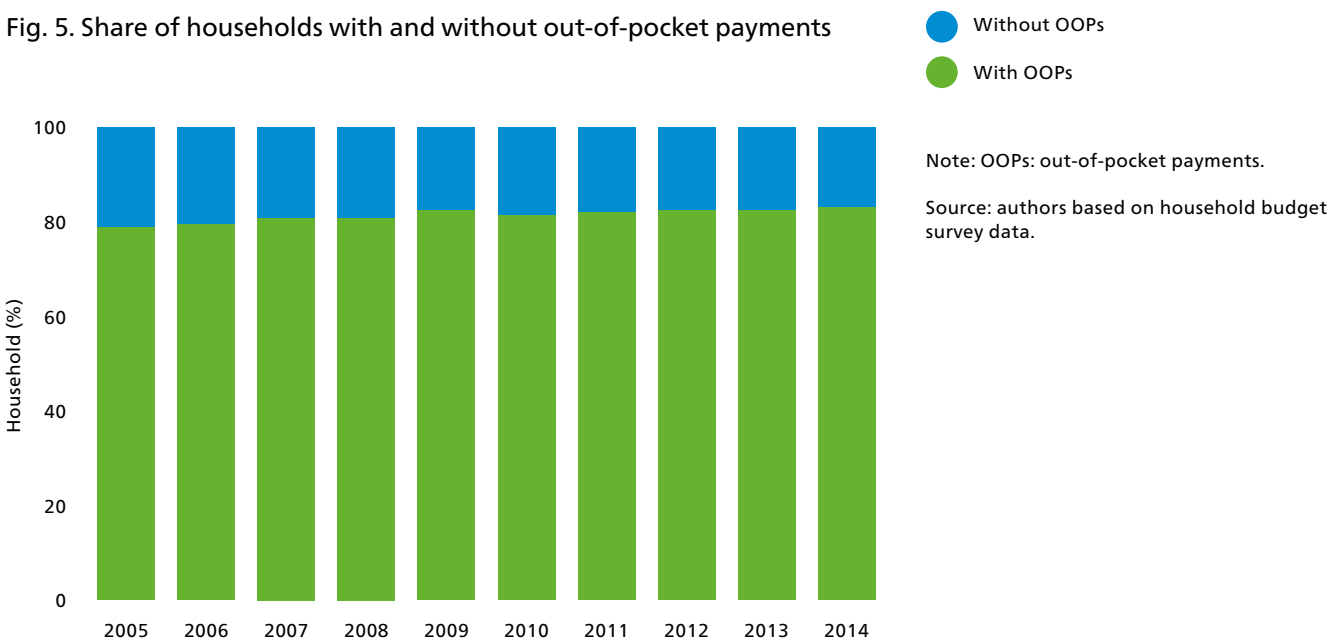
4. Household spending on health

In the first part of this section, data from the household budget survey are used 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 section also briefly presents the role of informal payments and the main drivers of changes in out-of-pocket payments over time.

4.1 Out-of-pocket payments

Around four out of five households pay out of pocket for health care (Fig. 5). This share increased from 79% in 2005 to 83% in 2009 and has remained relatively stable since then.

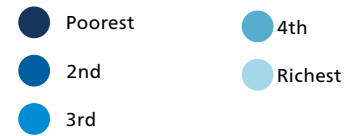
Fig. 5. Share of households with and without out-of-pocket payments



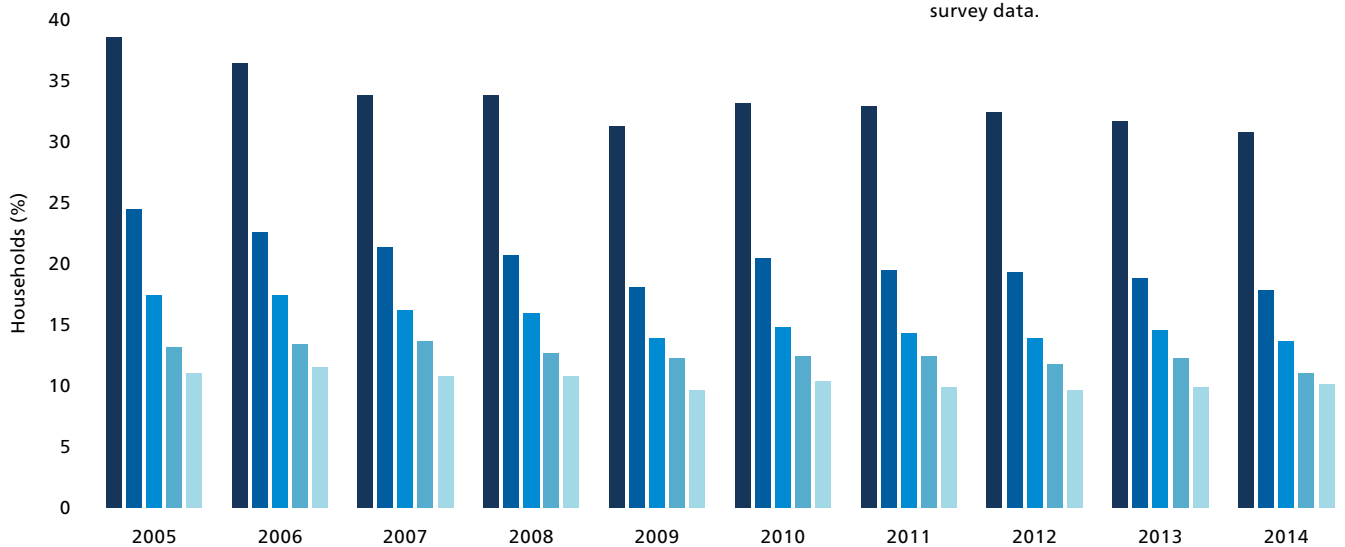
The share of households without out-of-pocket payments was much higher in the poorest quintile (30%) than the richest (10%) in 2014 (Fig. 6), although this difference has narrowed over time, mainly due to a substantial reduction in the share of households with no out-of-pocket payments in the three poorest quintiles.

Households without out-of-pocket payments might not spend on health care due to lack of need, exemption from user charges or barriers to accessing health services. The last is most likely in Poland, as there are no income-based exemptions from user charges and levels of unmet need for health care are high compared to the EU average (Fig. 1).

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



Source: authors based on household budget survey data.



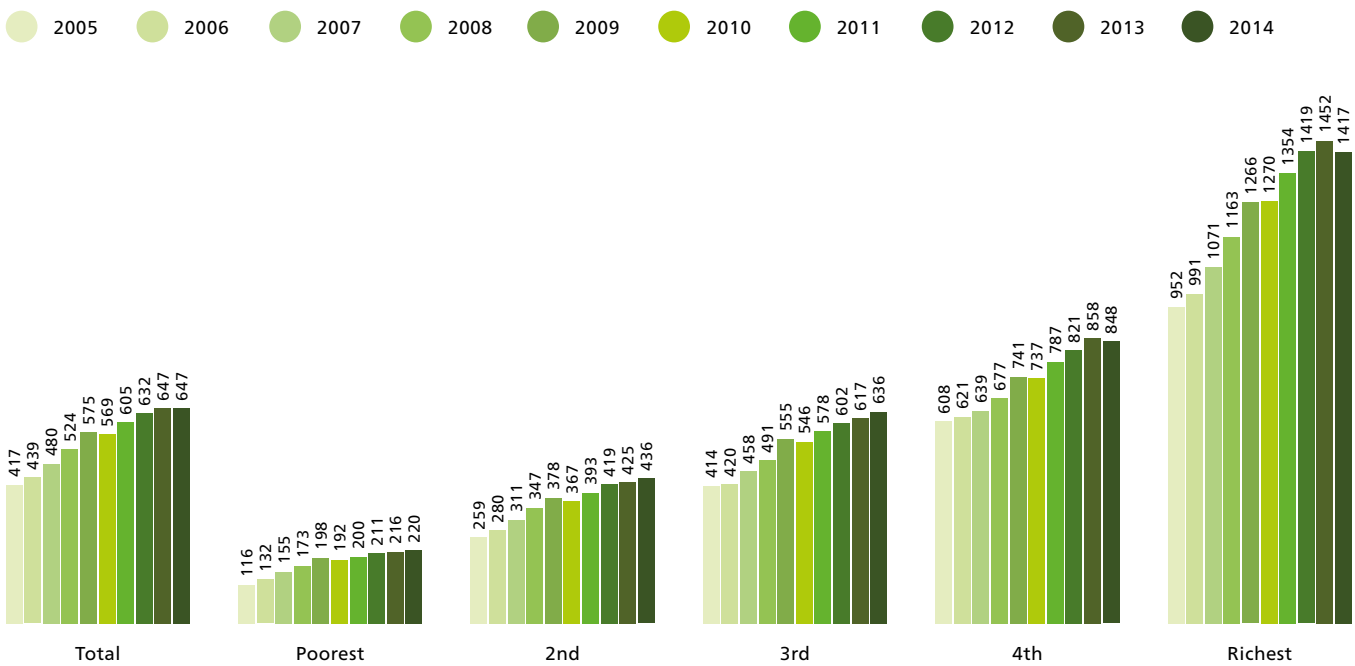
Overall, household spending on health has increased relatively steadily over time (Fig. 7). The annual average amount spent out of pocket per person rose from PLN 417 (€PPS 190) in 2005 to PLN 647 (€PPS 270) in 2014 (from PLN 517 to PLN 652 in real terms). The steepest increase was between 2005 and 2009. There was a small decrease in 2010 in comparison to the previous year.

Across the whole period, the average annual growth rate was higher among poorer households: 8% and 6% in the poorest and second quintile respectively, in contrast to 4–5% in the three richer quintiles. The increase in spending was generally faster for the poorest quintile. As a result, the gap in spending between poorest and richest narrowed from 1 : 8 in 2005 to 1 : 6 in 2014.

Fig. 7. Average annual out-of-pocket spending on health care per person by consumption quintile (in PLN)

Note: in 2014, the poorest quintile spent PLN 220 (€PPS 92) and the richest quintile PLN 1417 (€PPS 591).

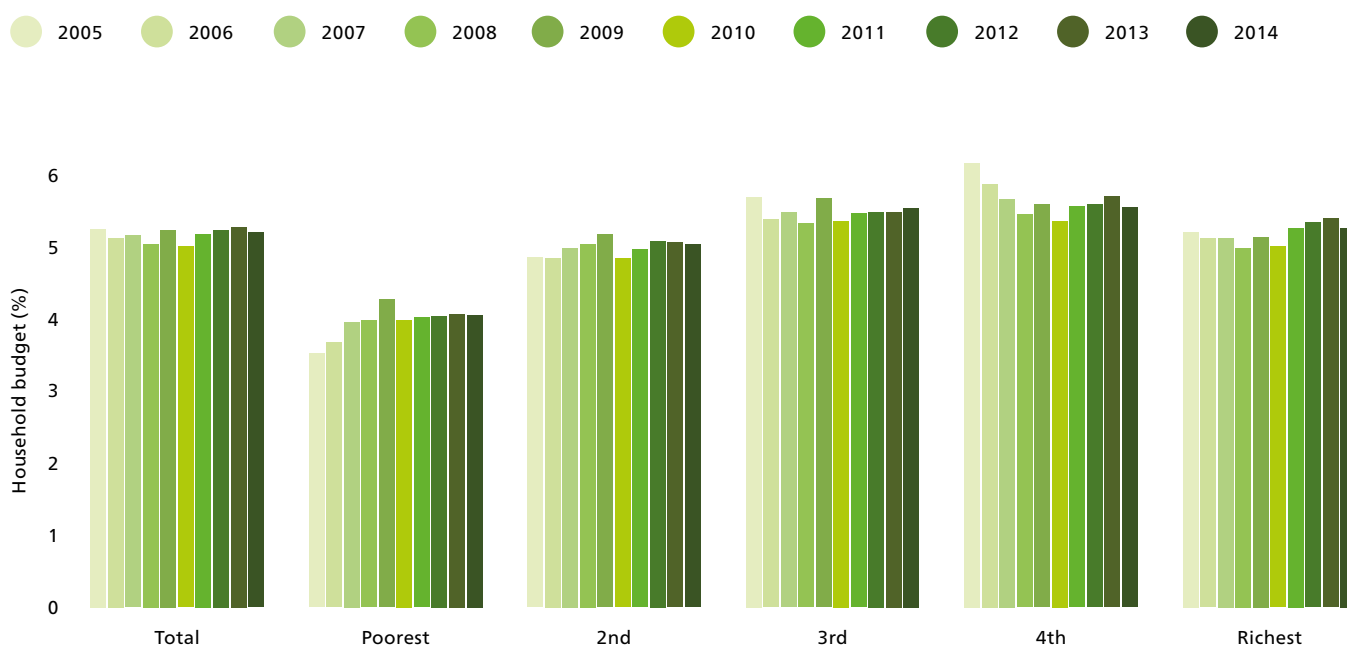
Source: authors based on household budget survey data.



As a share of total household spending (the household budget), out-of-pocket payments have remained fairly stable over time at around 5% (Fig. 8). This is higher than in many central and eastern European countries such as Lithuania (4.4%), Estonia (4.3%), Croatia (3%), Czechia (2.7%) and Slovenia (2.2%). The share was lowest in the poorest households (4% on average), while the third and fourth quintiles spent proportionately more – 5.5% and 5.7% respectively on average across the whole period. From the beginning of the study period until about 2009, poorer households experienced an increase in the share of out-of-pocket payments, while richer households experienced a small decline. The out-of-pocket payment share was more stable in the latter part of the study period.

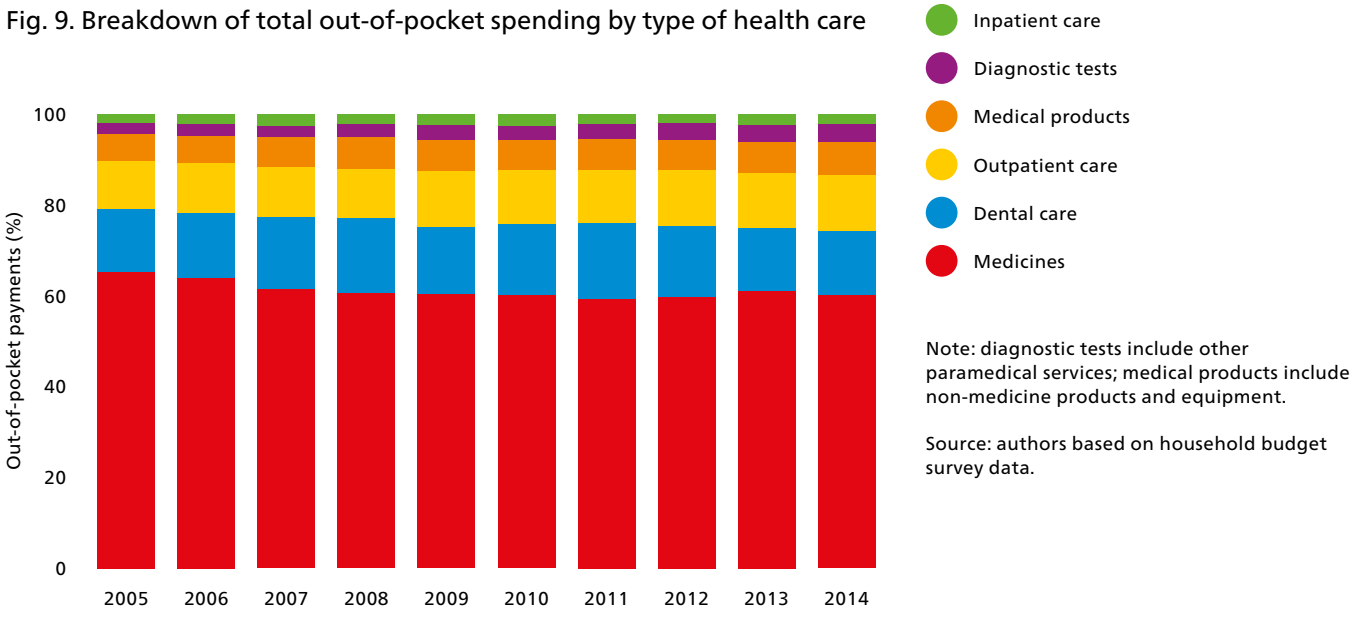
Fig. 8. Out-of-pocket payments for health care as a share of household consumption by consumption quintile

Source: authors based on household budget survey data.



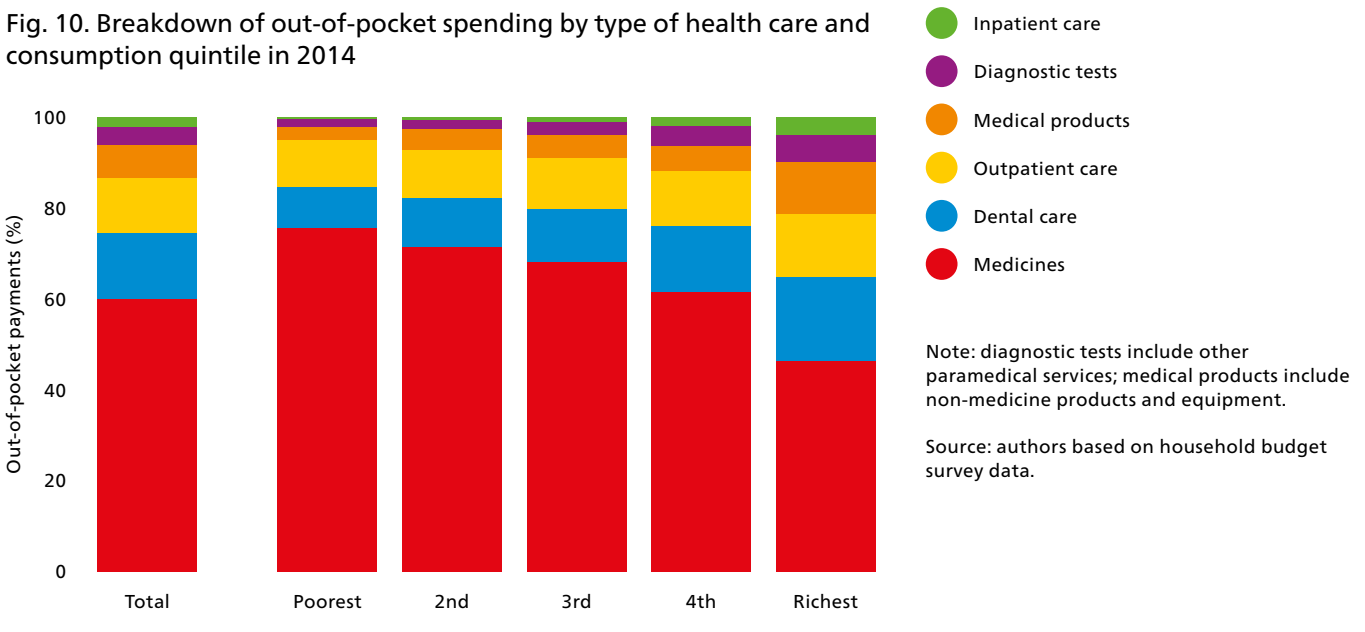
Medicines consistently account for the largest share of out-of-pocket spending on health – over 60% in all years of the study (Fig. 9). There was a notable decrease in the share spent on medicines between 2005 and 2008, with a fall from 65% to around 60% before stabilizing. The second largest share is for dental care, which accounted for 14–17% of all household spending on health. The third largest share – between 11% and 12% – is for outpatient care. The share spent on medical products and inpatient care also remained stable at 6–7% and 2–3% respectively, while the share spent on diagnostic tests rose from 2% to 4%.

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



Medicines dominate out-of-pocket spending in all quintiles. In 2014, their share accounted for 75% in the poorest quintile and 46% in the richest (Fig. 10). The share spent on medicines has decreased over time for each quintile except the poorest (data not shown). As a result, there are substantial differences in the structure of out-of-pocket spending between quintiles, with the share of dental care, medical products and diagnostics being notably lower in the poorest quintile and inpatient care negligible.

Fig. 10. Breakdown of out-of-pocket spending by type of health care and consumption quintile in 2014

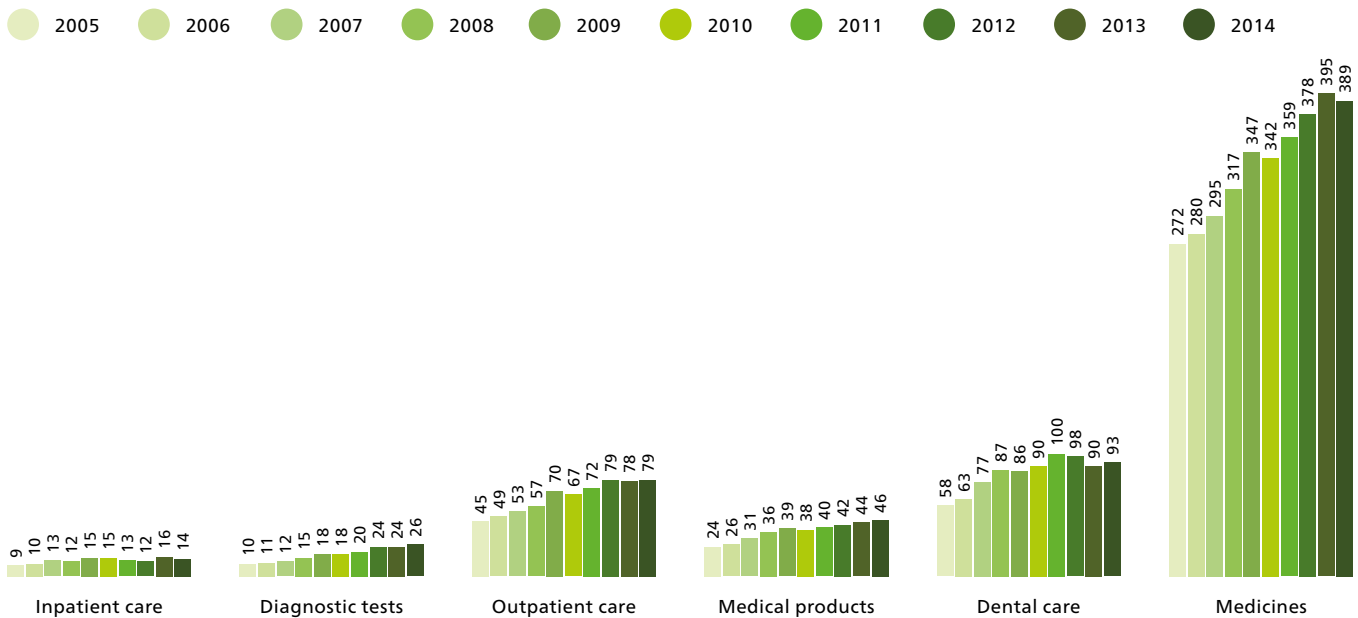


Out-of-pocket spending has increased for all types of health care (Fig. 11). The greatest absolute increase over time was for medicines, from PLN 272 in 2005 to PLN 389 in 2014. The steepest relative increase (by 2.5-fold) was for diagnostic tests, albeit from a very low base of PLN 10 in 2005 to PLN 26 in 2014.

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

Note: in 2014, the highest spending of PLN 389 (€PPS 162) was on medicines and the lowest spending of PLN 14 (€PPS 6) was on inpatient care.

Source: authors based on household budget survey data.



Household spending on medicines between 2005 and 2014 increased in all quintiles (Fig. 12). The absolute increase was less substantial in the poorest quintile, but out-of-pocket spending on medicines almost doubled among the poorest households, in comparison to the two richest quintiles, where it grew by only a quarter. The faster increase in spending among poorer households led to a reduction in the ratio between the poorest and the richest quintiles from 1 : 6 in 2005 to 1 : 4 in 2014.

Household spending on dental care also increased in all quintiles over time but has declined slightly in more recent years (see Fig. 13). The greatest absolute increase, though not steady, was in the richest quintile. Out-of-pocket spending on dental care in the poorest households almost doubled, rising from a low base of PLN 11 to PLN 20. In 2014, the richest quintile spent 13 times more than the poorest quintile on dental care. The large variation in out-of-pocket spending across the quintiles may reflect the richest quintile spending more on privately provided (non NHF-financed) services, something that poorer quintiles simply cannot afford.

Fig. 12. Annual out-of-pocket spending on medicines per person by consumption quintile (in PLN)

Note: in 2014, the poorest quintile spent PLN 166 (€PPS 69) and the richest quintile PLN 656 (€PPS 274).

Source: authors based on household budget survey data.

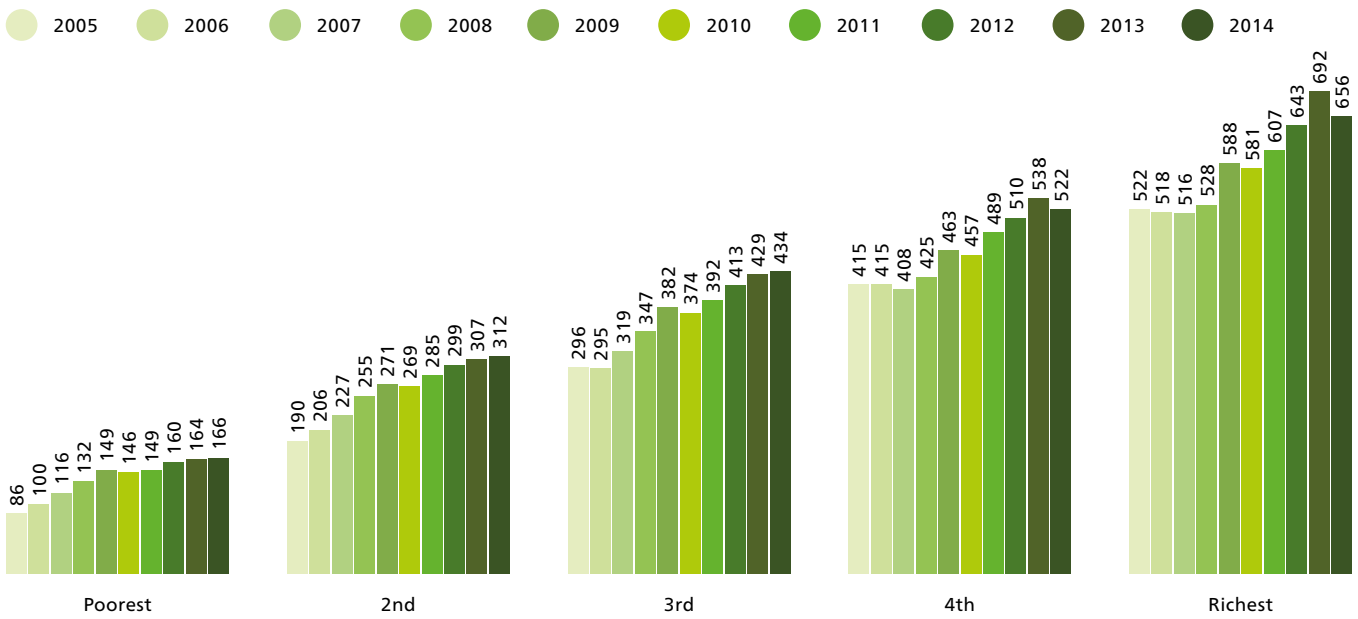
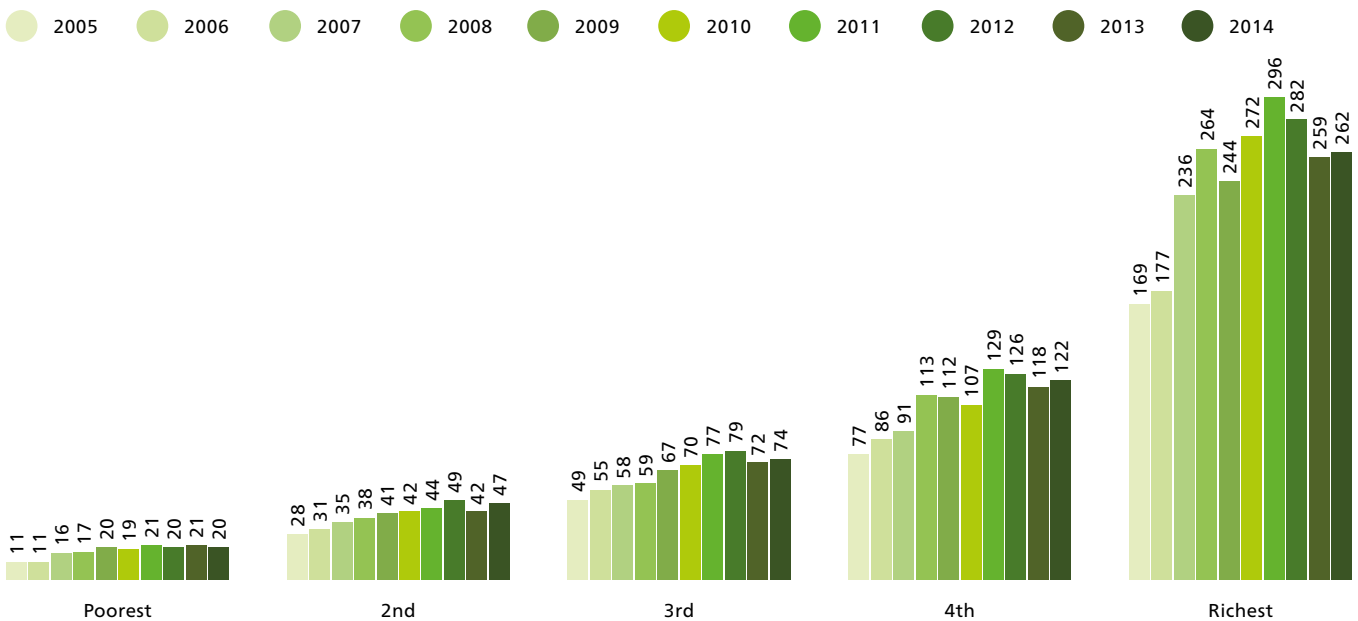


Fig. 13. Annual out-of-pocket spending on dental care per person by consumption quintile (in PLN)

Note: in 2014, the poorest quintile spent PLN 20 (€PPS 8) and the richest quintile PLN 262 (€PPS 109).

Source: authors based on household budget survey data.



4.2 Informal payments

Informal payments reduce transparency in the health system, increase barriers to access and can lead to financial hardship. They are also likely to exacerbate inequality in access and financial hardship because of the difficulty of protecting poor people and regular users of health care from exposure to out-of-pocket payments that are made informally.

The household budget survey does not distinguish between formal and informal (under-the-table) out-of-pocket payments. Other national and international surveys ask households specifically about informal payments. Although these surveys use different methods, they generally indicate that informal payments are an issue in Poland.

The national survey of quality of life in Poland, *Diagnoza społeczna* [Social diagnosis], shows that in 2015, 2.2% households had paid informally for health care in the previous three months, and 2.3% of households had given presents in kind. The average value was PLN 377 and PLN 148 respectively (Czapiński & Panek, 2015).

A European survey carried out in 2010 shows that informal payments exist in Poland, albeit on a smaller scale than in many other central and eastern European countries such as Bulgaria, Hungary, Lithuania, Romania and Ukraine (Stepurko et al., 2013). The survey indicates that 17% of the Polish population paid informally in cash and 35% paid in kind (Stepurko et al., 2013). Among people who had used services in the preceding 12 months, 7% had made informal payments for outpatient services and 16% for hospital services. The average value of payments was PLN 54 per outpatient visit and PLN 112 per hospitalization.

The Life in Transition Survey, also conducted in 2010 across 29 European countries, found that 10% of respondents in Poland who had used health services in the past 12 months had made informal payments, compared to 17% in eastern European countries on average (Habibov & Cheung, 2017).

The 2017 special Eurobarometer report on corruption showed that 7% of respondents in Poland who had visited a public health-care provider in the previous 12 months reported having had to make an extra payment or give a valuable gift to a nurse or doctor, or make a donation to the hospital, compared to an EU28 average of 4% and an average of 9% in the EU13 (EU Member States joining after 30 April 2004) (European Commission, 2017).

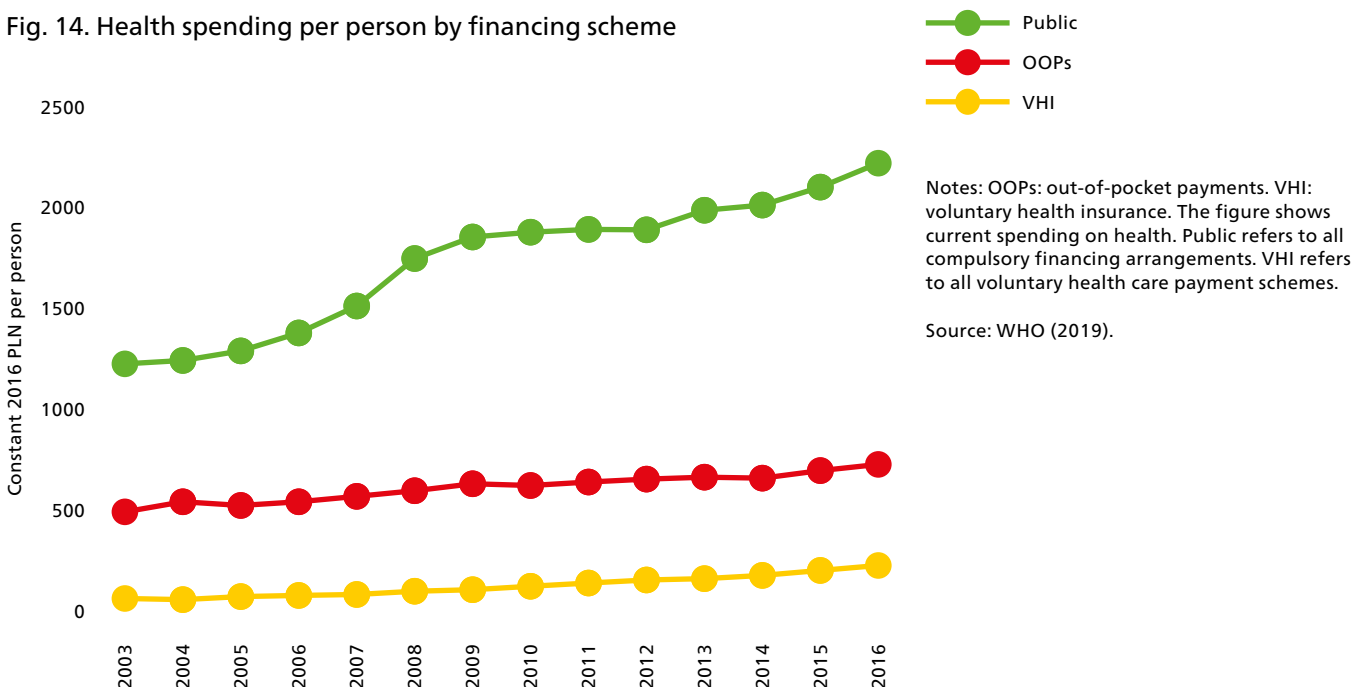
Evidence suggests that the prevalence of informal payments in Poland is lower than in other countries in eastern Europe but remains sizeable. It may serve both as a barrier to accessing services, particularly for the poorest households, and as a source of financial hardship. Private payments to obtain services in the public system (by, for instance, paying for a private visit to a specialist who also works in a public hospital to get quicker admission) are also an issue in Poland.

4.3 Trends in public and private spending on health

National health accounts data show that before the financial crisis in 2008, there was steady and substantial growth in public spending on health per person in real terms (Fig. 14). This growth was partly the result of systematic increases in the health insurance contribution rate, which rose by 0.25 percentage points every year up to 2007. Out-of-pocket spending per person also grew, but at a much slower pace than public spending. Steady growth in public spending led to a reduction in the out-of-pocket payment share of current spending on health up until 2008 (Fig. 15).

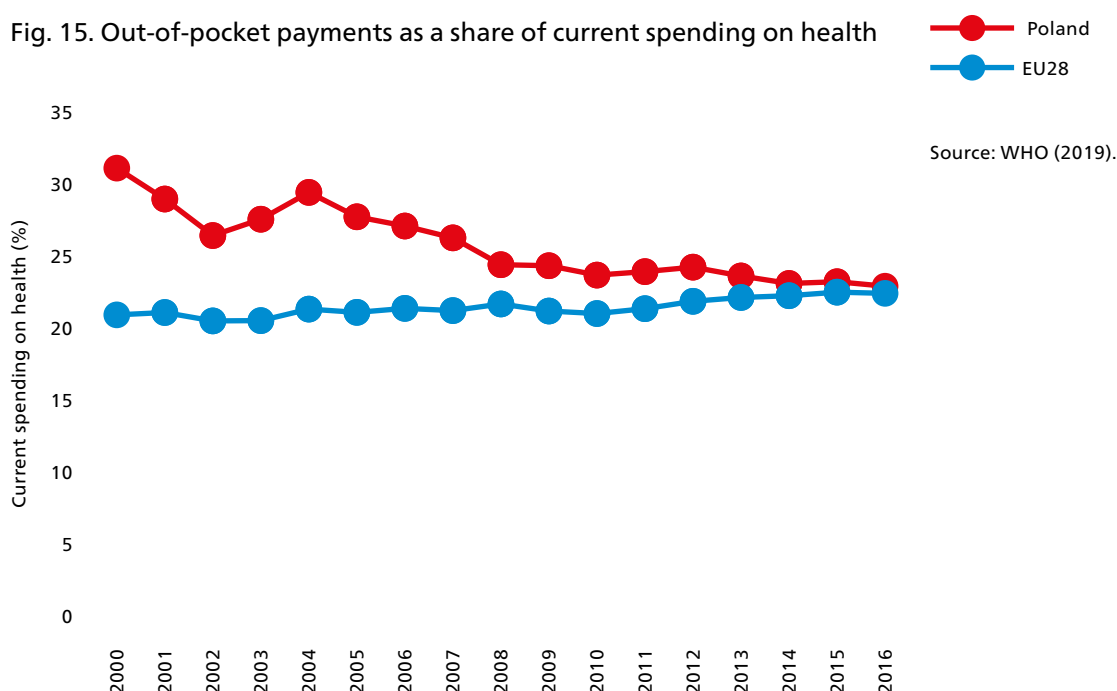
The slowdown in economic growth following the financial crisis was not as pronounced in Poland as in other European countries, but it significantly impeded growth in public spending on health, which was flat between 2009 and 2012. The lack of growth in public spending on health was due to a decrease in contributions to the NHF, reflecting rising unemployment, and to cuts in spending by central and regional governments.

Fig. 14. Health spending per person by financing scheme



The out-of-pocket payment share of current spending on health in Poland in 2016 was 23% – slightly above the EU28 average (Fig. 15). It fell substantially between 2000 and 2002 and then again from 2004 to 2008, but the lack of growth in public spending on health during and after the financial crisis reversed this trend between 2008 and 2012. As public spending on health began to grow again from 2013, the out-of-pocket share fell slightly.

Fig. 15. Out-of-pocket payments as a share of current spending on health



The level of growth in out-of-pocket payments over time is broadly similar in the household budget survey and in national health accounts. However, breaking down the household budget survey data by consumption quintile shows that the share of household budgets spent on health increased for the poorer quintiles, particularly between 2005 and 2009, but decreased for the third and fourth quintiles (Fig. 8). This suggests that growth in out-of-pocket spending among poor people was faster than growth in household budgets.

The substantial reduction in the share of households without out-of-pocket payments among poorer households (Fig. 6) coincides with rapid growth in out-of-pocket spending on medicines among the poorer quintiles (Fig. 12), particularly between 2005 and 2009. There was a marked reduction in the gap in out-of-pocket spending between richer and poorer households over this period, driven by a faster increase in spending among poorer households.

4.4 Summary

Household budget survey data indicate that out-of-pocket payments accounted for 5.2% of total household spending in 2014. This is higher than in many central and eastern European countries, such as Lithuania (4.4%), Estonia (4.3%), Croatia (3%), Czechia (2.7%) and Slovenia (2.2%).

Although on average out-of-pocket payments remained fairly stable over time as a share of total household spending, they increased in nominal terms from PLN 417 per person in 2005 to PLN 647 in 2014.

Between 2005 and 2014, the largest increase in out-of-pocket payments in nominal terms was among the poorest quintile, which experienced average annual growth of 8%, pushing up the share of the household budget spent on health in this quintile from 3.5% to 4.1% and narrowing the gap in spending between the richest and poorest quintiles. Households in the richest quintile nevertheless spent about six times more out of pocket on health in 2014 than those in the poorest.

Medicines account for the largest share of out-of-pocket payments: around 60% on average, but over 75% in 2014 in the poorest quintile. The share spent on medicines has decreased over time for all except the poorest quintile. The second and third largest spending areas are dental care (about 13–17%) and outpatient care (11–12%). In nominal terms, out-of-pocket payments for all types of services increased during the study period.

Surveys suggest that informal payments are an issue in Poland, particularly in inpatient care, but on a smaller scale than in many other central and eastern European countries.

National Health Accounts data show that out-of-pocket spending per person increased in Poland between 2000 and 2015, but public spending increased at a much faster pace, growing strongly between 2000 and 2008. Growth in per person public spending on health prompted a decrease in the out-of-pocket payment share of current spending on health from 28% in 2005 to 25% in 2008.

Although Poland was relatively resilient to the financial crisis, growth in public spending on health per person stopped between 2009 and 2012, mainly due to the decline in revenue from NHF contributions. This coincided with a halt in the steady decline in the out-of-pocket payment share of current spending on health.

5. Financial protection

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

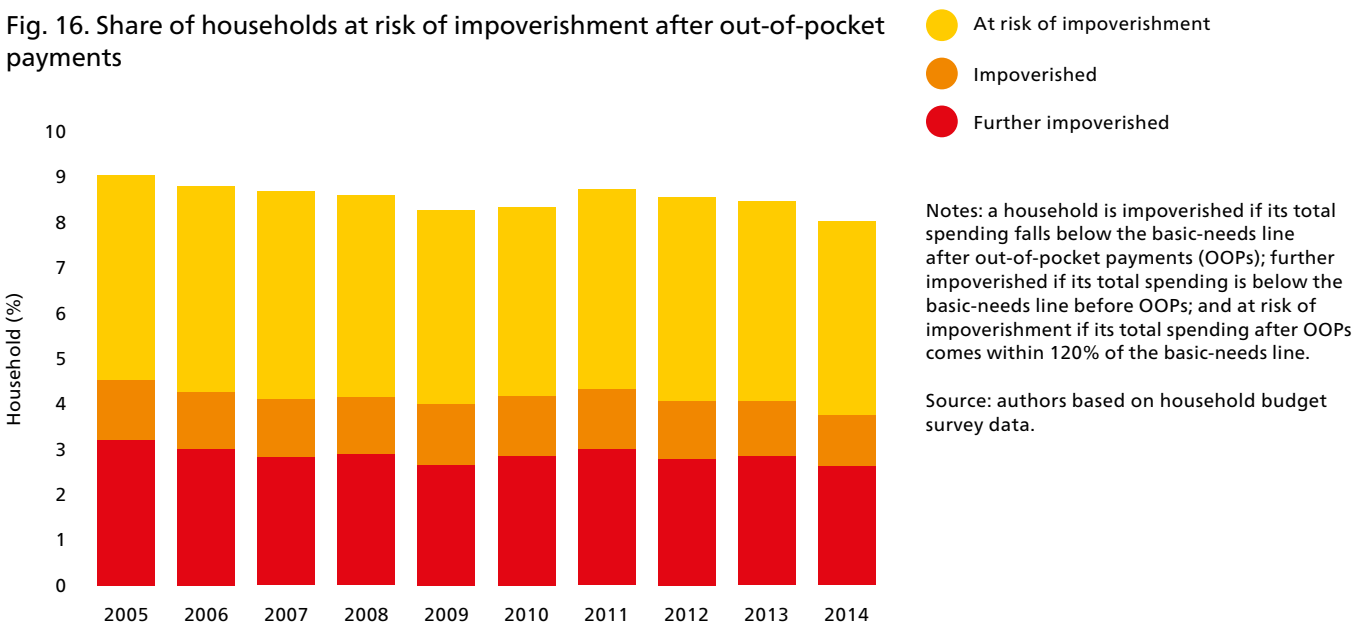
5.1 How many households experience financial hardship?

5.1.1 Out-of-pocket payments and risk of impoverishment

Fig. 16 shows the share of households at risk of impoverishment after out-of-pocket spending on health care. The poverty line reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the Polish population (households between the 25th and 35th percentile of the consumption distribution, adjusted for household size). In 2014, the monthly cost of meeting these basic needs – the basic-needs line – was PLN 1157.

Despite the increase in out-of-pocket spending seen in Section 4, particularly among poorer households, the risk of impoverishment fell between 2005 and 2009 and again between 2011 and 2014 (Fig. 16). The decrease was particularly marked for further impoverished households, whose share fell from 3.2% in 2005 to 2.6% in 2014, but with a small increase in 2010 and 2011, the years following the economic crisis.

Fig. 16. Share of households at risk of impoverishment after out-of-pocket payments



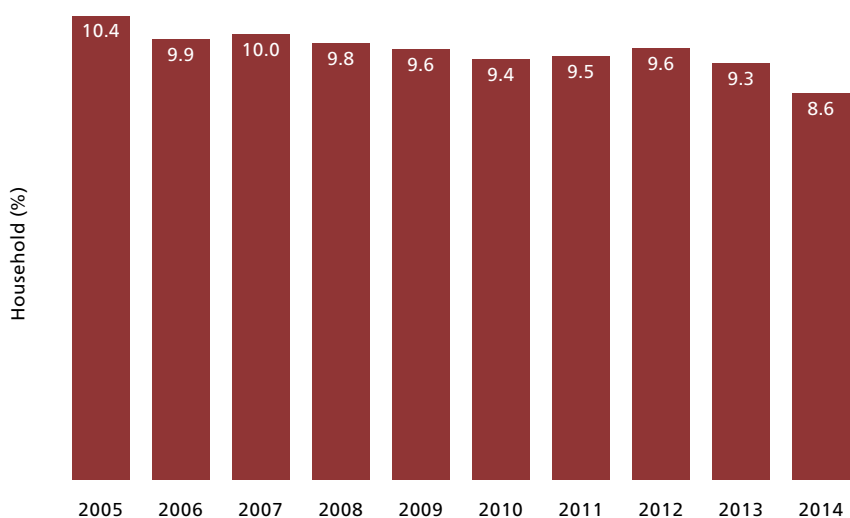
5.1.2 Catastrophic out-of-pocket payments

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

In 2014, it is estimated that 8.6% of households – around 3.7 million people – experienced catastrophic levels of spending on health care (Fig. 17). Overall, the incidence of catastrophic out-of-pocket payments between 2005 and 2014 fell by nearly two percentage points, with the sharpest falls in 2006, 2013 and 2014; there was a small increase in 2011 and 2012.

Fig. 17. Share of households with catastrophic out-of-pocket payments

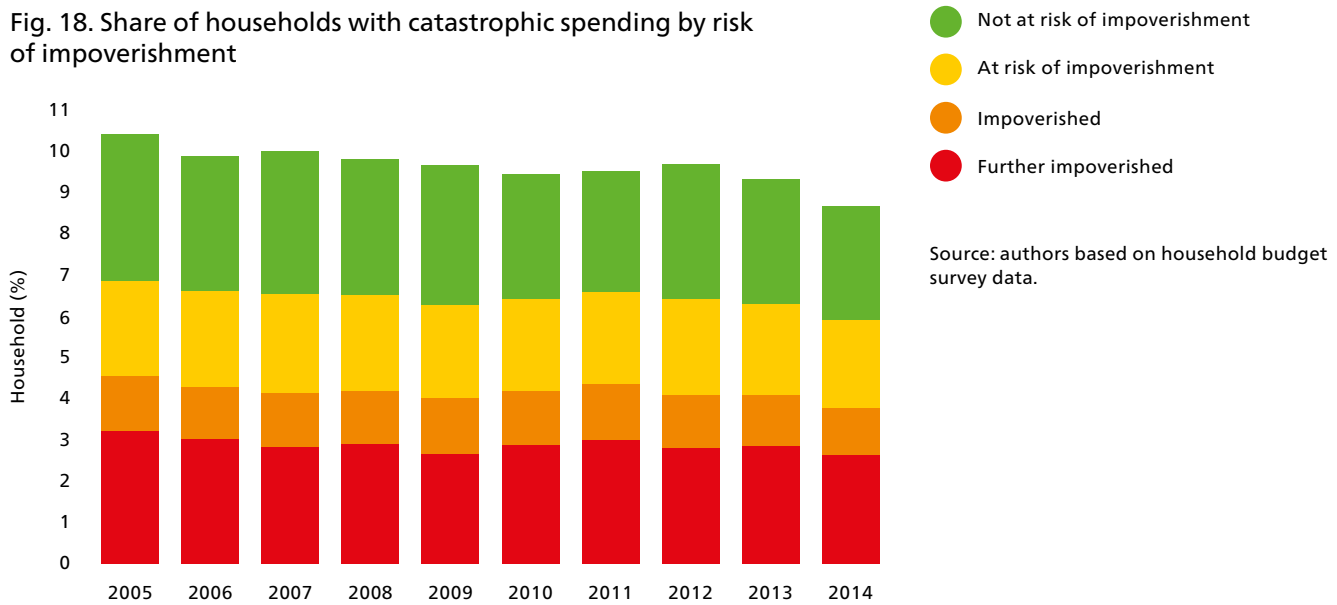
Source: authors based on household budget survey data.



5.2 Who experiences financial hardship?

Catastrophic out-of-pocket payments are concentrated among households that already are poor or at risk of impoverishment after out-of-pocket payments in all years (Fig. 18). About one third of households with catastrophic spending are not at risk of being impoverished. The breakdown of households with catastrophic spending by risk of poverty is similar across all years, although the share of households already poor or at risk of poverty after out-of-pocket payments was lowest (65%) before the crisis in 2009 and highest (69%) in 2011.

Fig. 18. Share of households with catastrophic spending by risk of impoverishment



The incidence of catastrophic health spending varies substantially across quintiles and is highly concentrated among the poorest quintile (Fig. 19). The incidence of catastrophic payments among the poorest quintile remained fairly stable in all years except 2014, when it decreased slightly. Over time, the three middle quintiles experienced a more noticeable decline. In 2014, 29.7% of households in the poorest quintile experienced catastrophic payments, followed by 6.8%, 3.1%, 1.9% and 1.7% in the second, third, fourth and richest quintiles respectively (data now shown).

Fig. 19. Share of households with catastrophic spending by consumption quintile

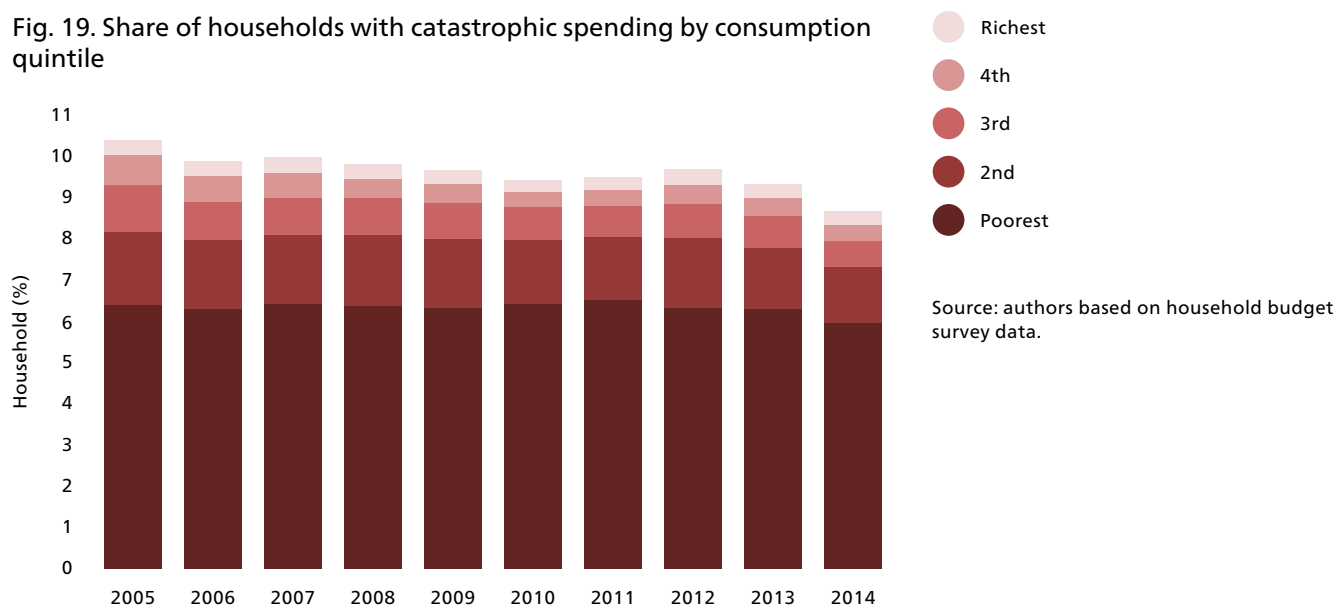
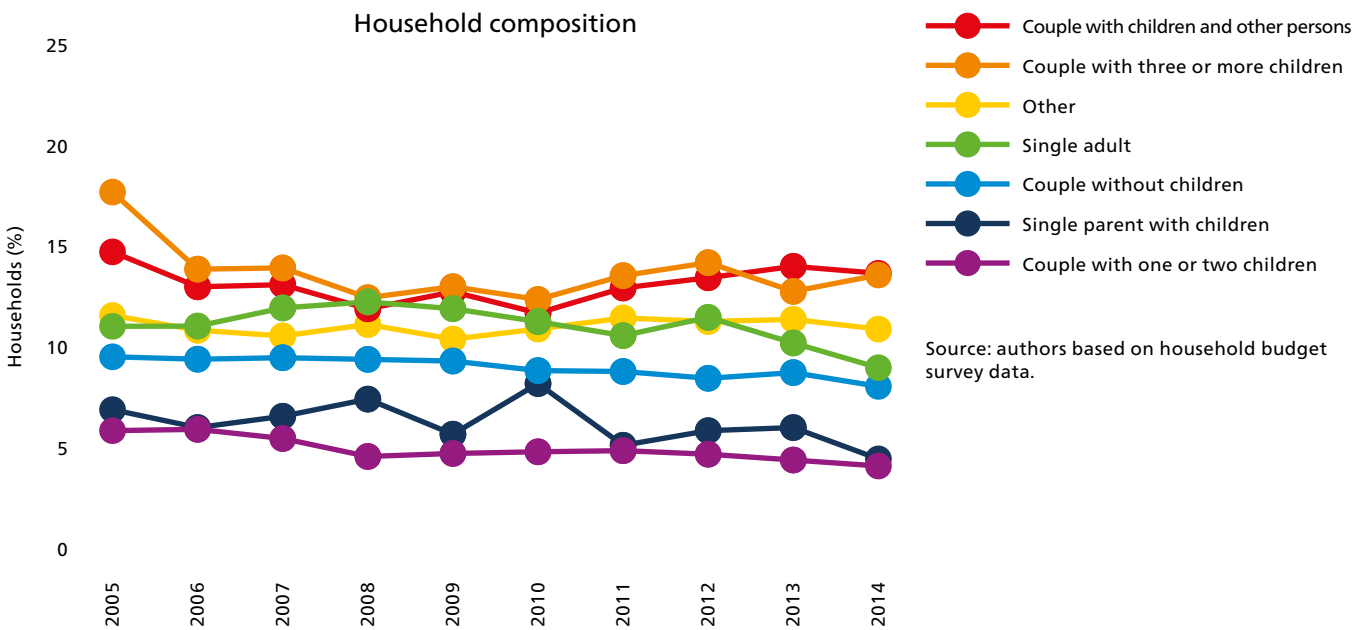
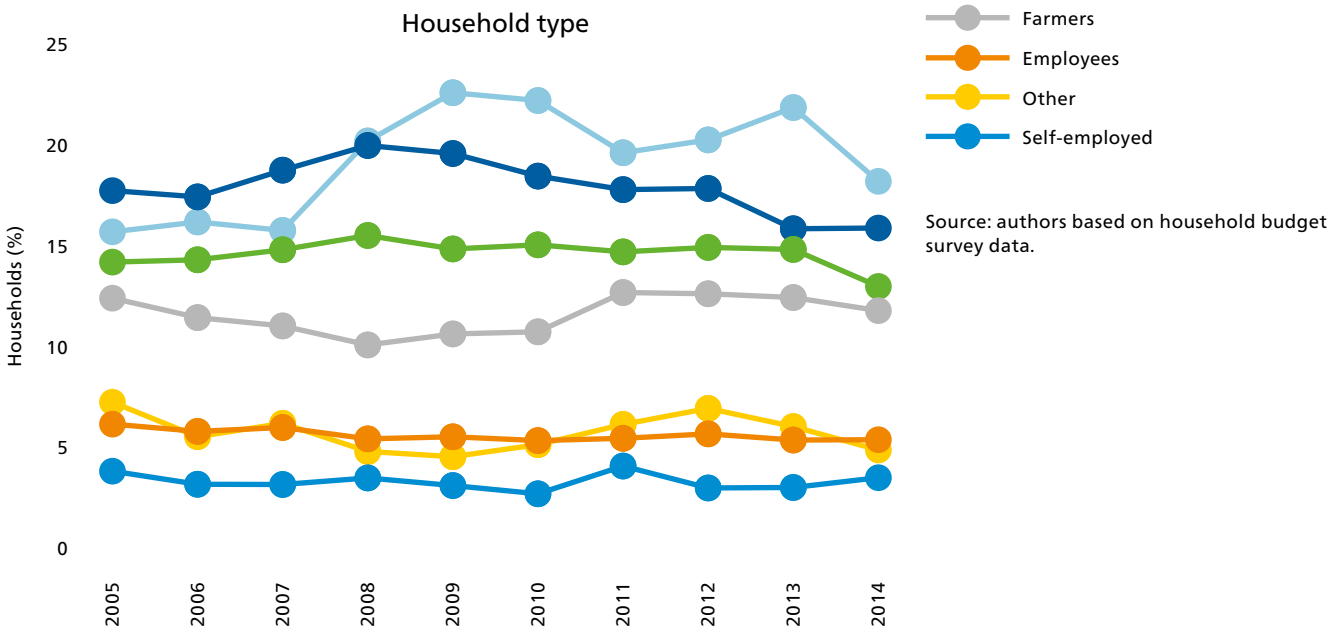


Fig. 20 shows the incidence of catastrophic health spending among various types of households, with the highest incidence among recipients of social benefits (18%) and recipients of disability or survivor's pensions (16%), followed by retired people (13%) and farmers (12%). Recipients of social benefits are the only group in which the incidence of catastrophic spending on health was higher in 2014 than in 2005, with a particularly sharp rise during the economic crisis, from 16% in 2005 to 23% in 2009, before subsiding. Recipients of a disability or survivor's pension also experienced an increase in catastrophic incidence between 2006 and 2008. Retired people are the group with the third-highest incidence of catastrophic spending, probably due to their higher probability of needing and using health services.

In terms of family composition, households with the largest incidence of catastrophic health spending are those in which couples with children and other persons live together (14%) and couples with three or more children (14%). Couples with three or more children and single parent-households nevertheless experienced the steepest decline in incidence of catastrophic payments between 2005 and 2014. People living in rural areas are twice as likely to experience catastrophic payments as those in urban areas (13% versus 7% respectively in 2014; data not shown).

Fig. 20. Share of households with catastrophic spending by household type and composition



5.3 Which health services are responsible for financial hardship?

Medicines are the largest single driver of catastrophic spending on health (Fig. 21). Their share decreased from 67% in 2005 to 57% in 2008, then fluctuated before reaching 55% in 2014. The shares spent on other services have also changed, but with varying patterns. The share of medical products expanded from 8% in 2005 to 12% in 2008 and 14% in 2014. The share of dental care also increased, from 9% in 2005 to 15% in 2008 and, after some reduction, to 16% in 2011. It then fell to 11% in 2014. The outpatient care share remained stable over time. The shares spent on inpatient care and diagnostic services expanded markedly from a combined share of 5% in 2005 to 10% in 2014.

The composition of catastrophic out-of-pocket payments is slightly different from that of out-of-pocket spending on health generally (see Fig. 9); the medicines share is smaller among catastrophic out-of-pocket payments. The impact of the crisis is also more evident in catastrophic spending, where notable shifts occurred between 2008 and 2011.

Fig. 21. Breakdown of catastrophic spending by type of health care

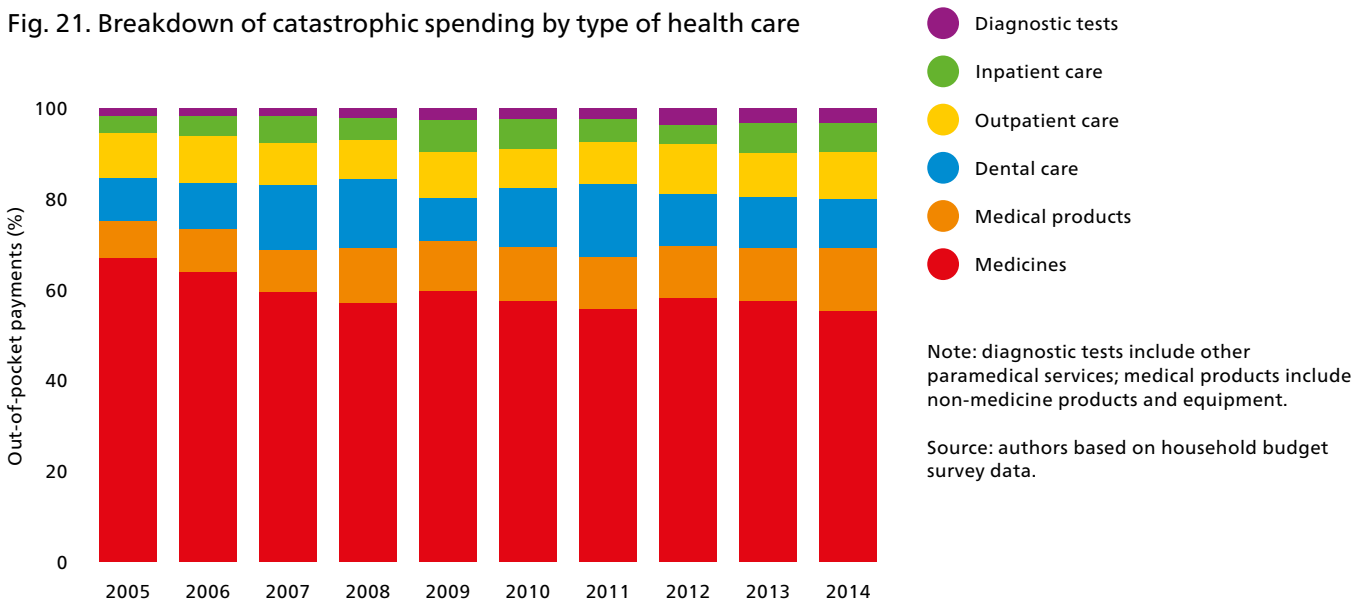
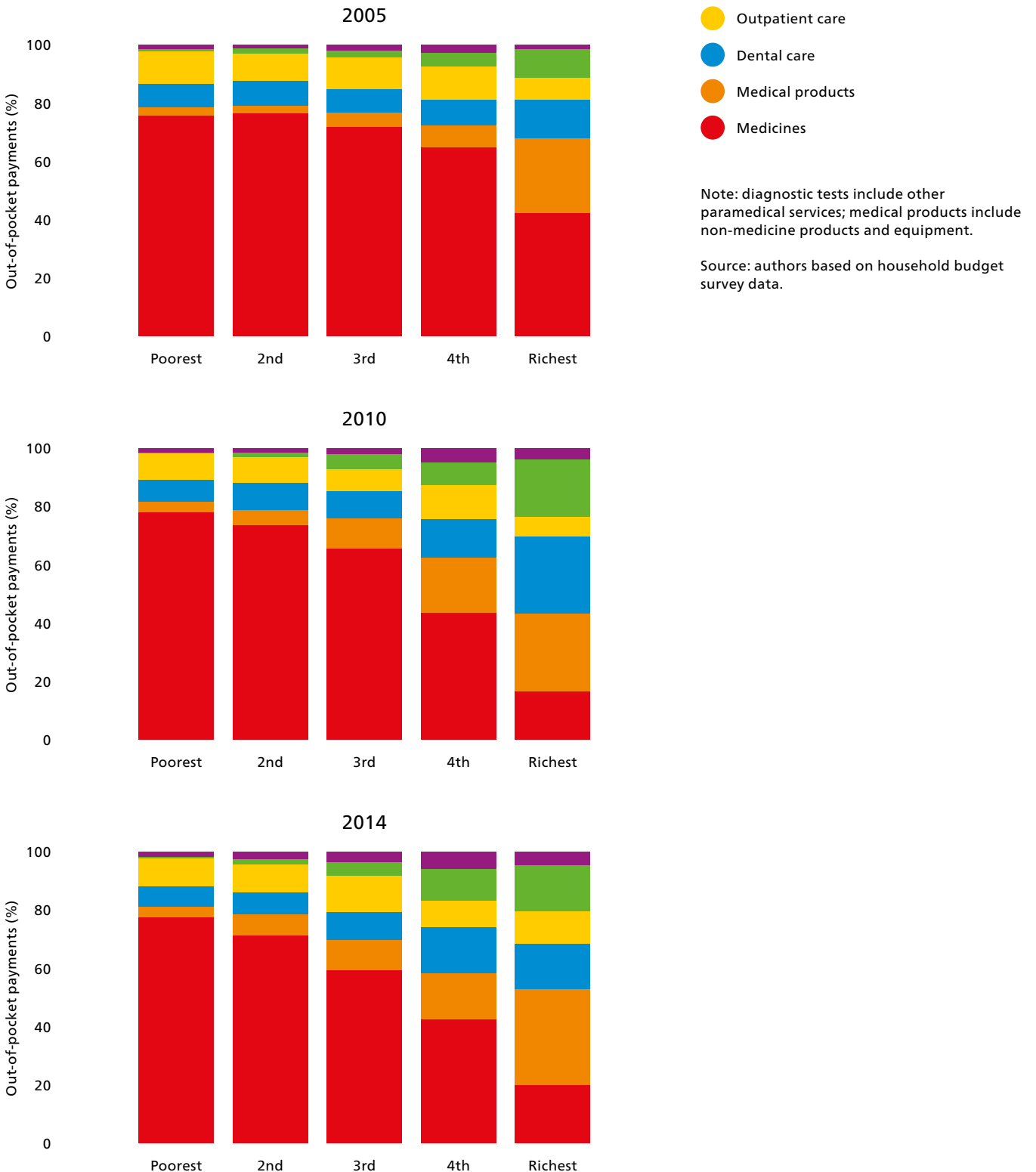


Fig. 22 shows that changes in the structure of catastrophic spending over the years were largely driven by changes among richer households. The medicines share of catastrophic spending among the richest quintile changed from 42% in 2005 to 16% in 2010 and 20% in 2014. As shown in Fig. 12, out-of-pocket spending on medicines in nominal terms increased across all quintiles, so the changes reflected in Fig. 22 suggest that richer households began to spend more on other services, rather than reducing their spending on medicines. For example, the share of medical products in the richest quintile became dominant from 2009, while the share of dental care increased from 13% in 2005 to 26% in 2010 before subsiding to 16% in 2014. The outpatient care share has been fairly stable over years and quintiles, but medicines are still the largest single driver of catastrophic spending for all but the richest households, and their share is higher among poorer households. For the two poorest quintiles, three quarters of catastrophic spending is on medicines; this share has not changed substantially over time.

Fig. 22. Breakdown of catastrophic spending by type of health care and consumption quintile

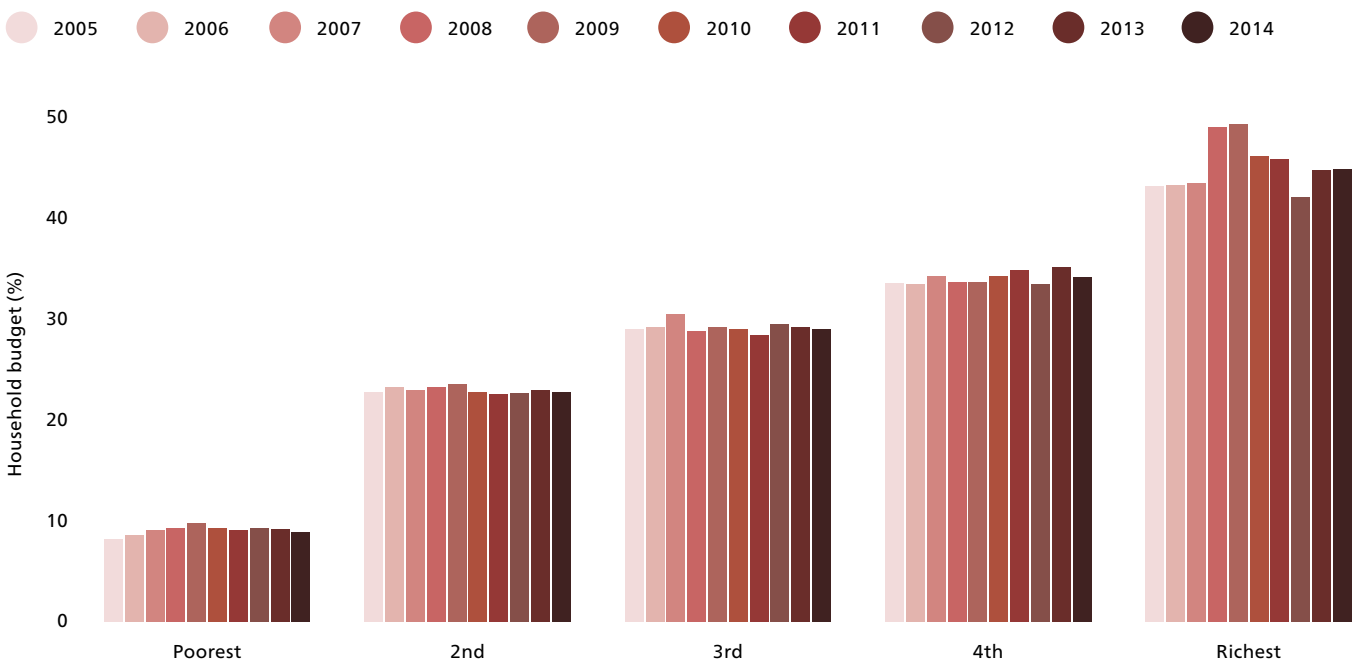


5.4 How much financial hardship?

On average among all households with catastrophic health spending, the richest quintile spent 45% of their budget on health in 2014 while the poorest quintile spent 9% (Fig. 23). This share remained fairly stable in the middle quintiles but increased in the middle period for the richest and poorest.

Fig. 23. Out-of-pocket payments as a share of total household spending among households with catastrophic spending by consumption quintile

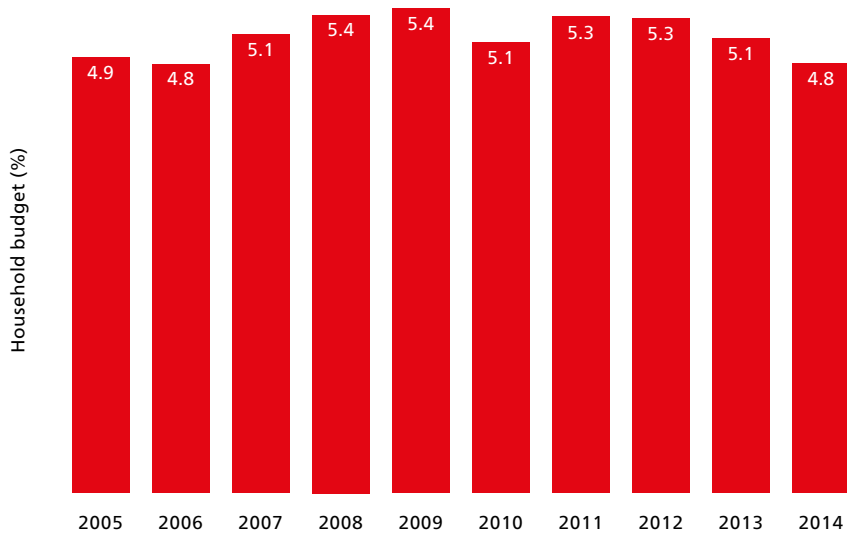
Source: authors based on household budget survey data.



The average out-of-pocket share among the very poorest households already living below the basic-needs line – those further impoverished after out-of-pocket payments – increased from 2007 to 2009 but has been around 5% overall (Fig. 24).

Fig. 24. Average out-of-pocket payments as a share of total household spending among further impoverished households

Source: authors based on household budget survey data.



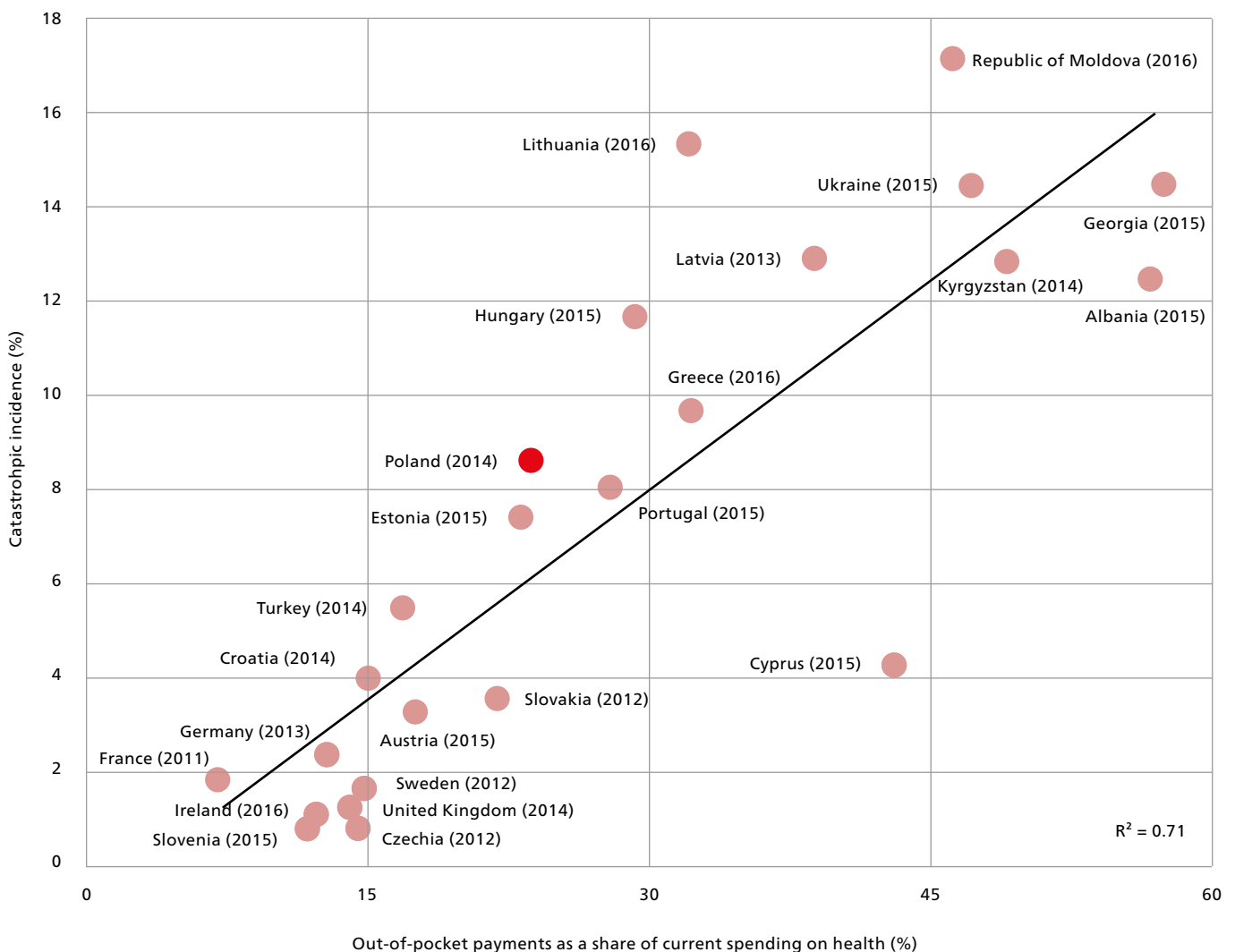
5.5 International comparison

The incidence of catastrophic out-of-pocket payments is high in Poland compared to many other EU countries, including central and eastern European countries such as Croatia, Czechia, Slovakia and Slovenia, but is below the level seen in some central and eastern countries, including Hungary, Latvia and Lithuania (Fig. 25).

Fig. 25. Incidence of catastrophic spending on health and the out-of-pocket share of current spending on health in selected European countries, latest year available

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

Source: WHO Regional Office for Europe (2019).



5.6 Summary

Financial protection is fairly weak in Poland compared to many EU countries, including some countries in central and eastern Europe. In 2014, one in 12 households (8.6%, or 3.7 million people) experienced catastrophic levels of spending on health, and one in 13 (8.0%) were at risk of impoverishment or were impoverished after out-of-pocket payments.

Financial hardship is heavily concentrated among the poorest quintile. Across the study period, two thirds of households with catastrophic spending were further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments.

Although financial protection improved between 2005 and 2014, the improvement was largely driven by a reduction in catastrophic incidence in non-poor households, especially in the third and fourth quintiles. The incidence of catastrophic spending in the poorest quintile fell only marginally over time, from 32% in 2005 to 30% in 2014.

Financial hardship is most common among the poorest quintile (catastrophic incidence of 30%), households with recipients of social benefits (18%), people receiving disability or survivor's pensions (16%), large households (14%) and retirees (13%). People living in rural areas are also more likely to experience catastrophic spending than those living in urban areas (13% versus 7%).

Over time, the incidence of catastrophic health spending increased substantially for people living on social benefits; this is also the only group for whom the incidence of catastrophic spending was higher in 2014 (18%) than in 2005 (16%).

Medicines account for the largest share of out-of-pocket catastrophic spending (55% in 2014), followed by medical products (14%), dental care (11%) and outpatient care (10%). The medicines share decreased during the study period overall but remained consistently high (over 75%) in the poorest quintile. The change in composition came only as households in the richer quintiles began to spend more on other types of services, in addition to 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 Poland 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.

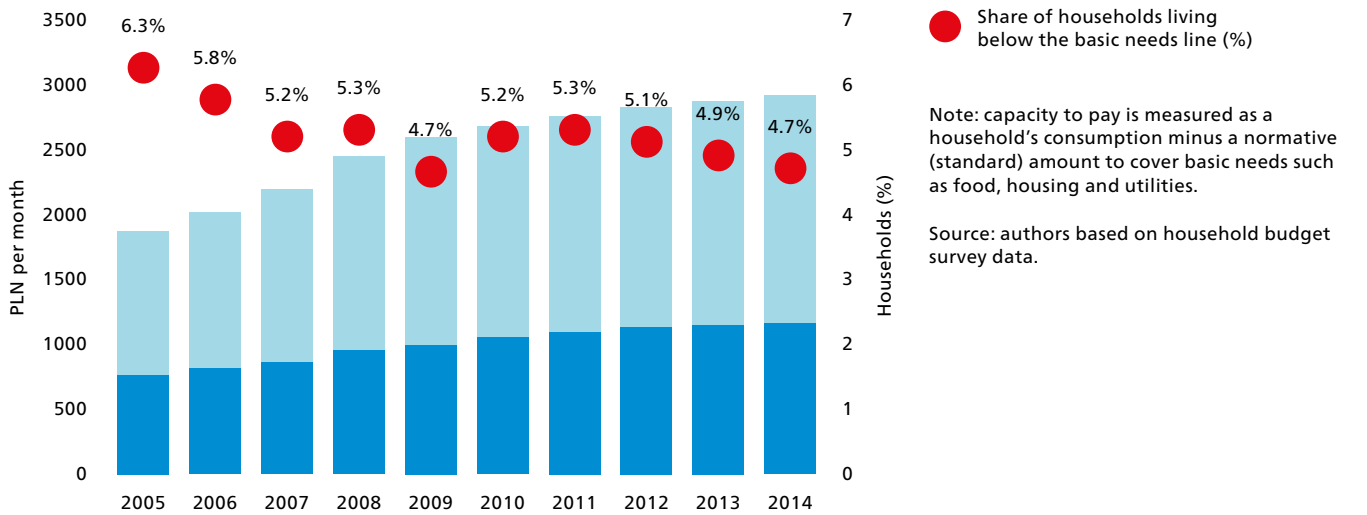
6.1 Factors affecting people's capacity to pay for health care

The following paragraphs draw on data from the household budget survey and other sources to assess people's capacity to pay for health care.

Poland experienced rapid economic growth between 2005 and 2008, accompanied by a large drop in the unemployment rate, from 18% in 2005 to 7% in 2008 (Eurostat, 2018). The financial crisis of 2008 slowed GDP growth and led to an increase in unemployment. However, as Poland is the only EU Member State that did not experience recession during the crisis, people generally managed to avoid the loss of income seen in many other countries.

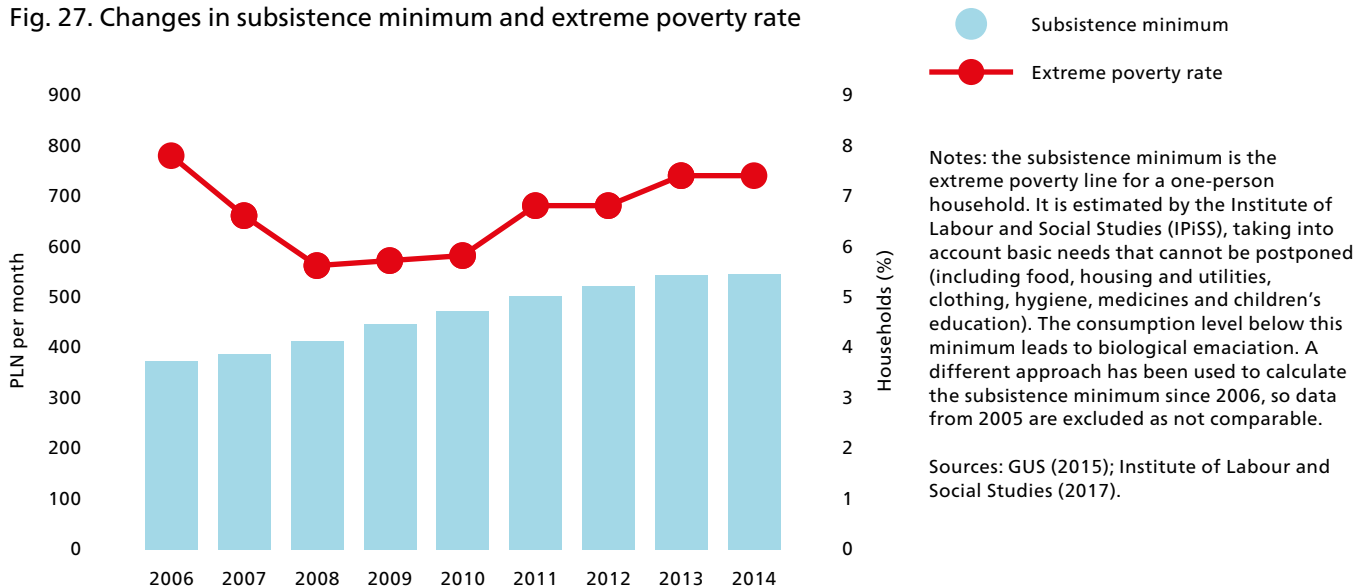
The average cost of meeting basic needs (food, housing and utilities) rose between 2005 and 2009 by 7.5% a year on average, but was outstripped by increasing household capacity to pay, which increased by 11% a year during the same period (Fig. 26). At the same time, the share of households living below the basic-needs line reduced from 6.3% in 2005 to 4.7% in 2009. The cost of meeting basic needs and average capacity to pay continued to increase between 2009 and 2014, but at a much slower pace. The cost of meeting basic needs increased faster in this period – by 3.3% a year compared to 2.0% a year for average capacity to pay. The share of households living below the basic-needs line started to rise again, peaking at 5.3% in 2011 before falling to 4.7% in 2014.

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



National data on extreme poverty show a similar pattern. The share of the population living below the subsistence minimum fell from 7.8% in 2006 to 5.6% in 2008 (Fig. 27), but unlike the consumption data shown in Fig. 26, the extreme poverty rate rose steadily after 2008, alongside the subsistence minimum, with the biggest increase of 1 percentage point seen between 2010 and 2011. As a result, 7.4% of the population was living in extreme poverty in 2014.

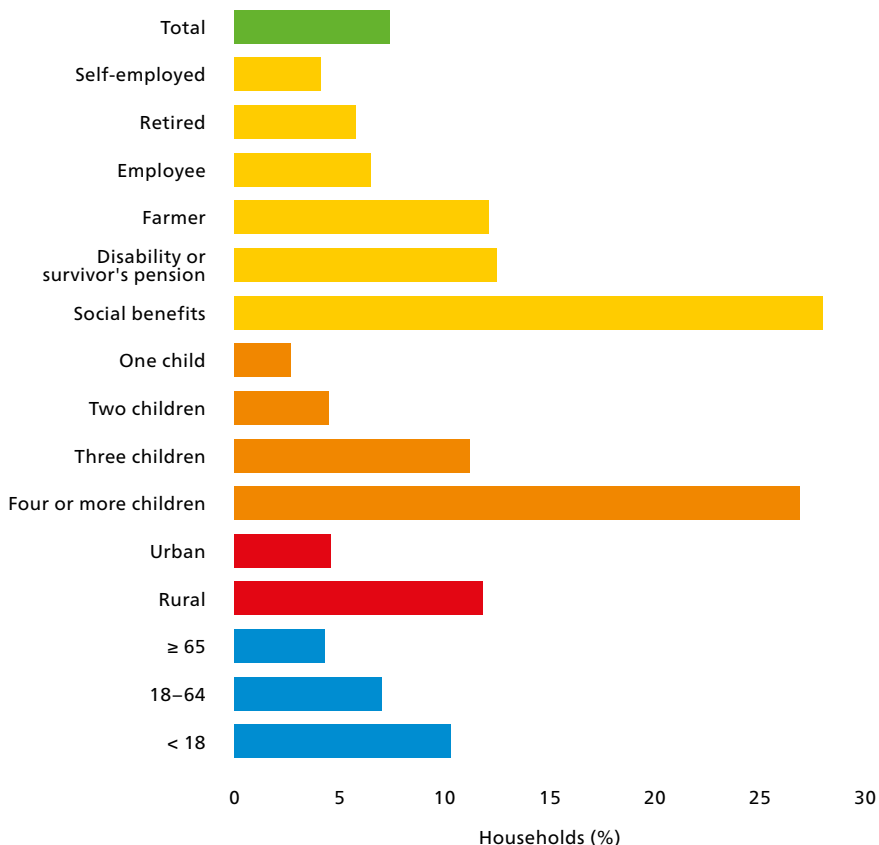
Fig. 27. Changes in subsistence minimum and extreme poverty rate



People most likely to be experiencing extreme poverty in 2014 were those receiving social benefits, recipients of disability or survivor's pensions, and farmers (GUS, 2015). This is generally in line with the composition of households most at risk of experiencing catastrophic health spending: social benefits, disability or survivor's pensions and retirees (Fig. 20). It is notable, however, that although retirees are the group with the third-highest incidence of catastrophic spending, their risk of extreme poverty is very low compared to many other groups (Fig. 28). Indeed, their risk of relative poverty is also very low compared to older people in the Baltic States and other central and eastern EU countries (Fig. 29).

Fig. 28 shows that large families (with three or more children) are also at high risk of extreme poverty. Their economic situation is likely to have improved, however, following the introduction of a new universal child benefit scheme in 2016 (the Family 500+ programme) (GUS, 2017b). Under the programme, all families with two or more children receive PLN 500 a month for every child under 18 beyond the first child, with low-income families (those with a monthly income below PLN 800 per person or PLN 1200 in case of a disabled child) also receiving the benefit for the first child. The high incidence of catastrophic health spending among households with two or more children shown in this study (see section 5.2) may change in future.

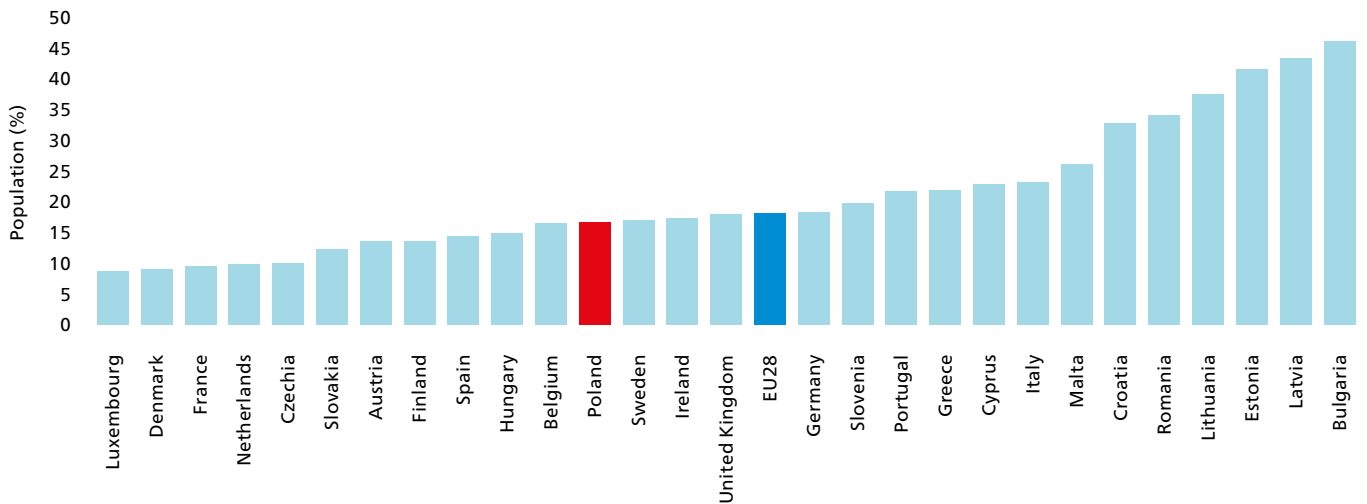
Fig. 28. Incidence of extreme poverty by household type, 2014



Sources: GUS (2015); Institute of Labour and Social Studies (2017).

Fig. 29 Share of people aged 65 and older at risk of poverty or social exclusion, 2016

Source: Eurostat (2018).



Average monthly incomes continued to rise throughout the crisis (Fig. 30). The minimum wage increased more rapidly than the average wage, doubling from PLN 849 to PLN 1680 between 2005 and 2014. Retirement and other pensions for farmers increased at the slowest pace over the same period. Although pensioners are at relatively high risk of catastrophic health spending (Fig. 20), there are large income inequalities among them and the gap between average pensions in the non-agricultural sector and among farmers has grown substantially over time.

Fig. 30. Trend in average nominal wages, pensions and subsistence minimum



The sustained impact of the crisis on the poorest households may explain why the poorest quintile has experienced the least decline in catastrophic incidence over time as well as a substantial increase in unmet need for health care between 2008 and 2010, and 2011 and 2013 (Fig. 2).

6.2 Health system factors

The following paragraphs look at spending on health and coverage, and then focus in more detail on outpatient medicines and medical products, the two largest drivers of out-of-pocket payments among households with catastrophic health spending.

6.2.1 Spending on health

Fig. 31 shows that the share of the government budget allocated to health is very low in Poland compared to other EU countries. As a result, public spending on health as a share of GDP is lower than expected in Poland, given the size of its GDP (Fig. 32). At 4.6% in 2016, it is among the lowest in the EU (WHO, 2019). Public spending on health fell as a share of GDP in the years following the financial crisis, from 4.7% in 2009 to 4.3 in 2012 (WHO, 2019). Low levels of public spending on health may account for the relatively high out-of-pocket payment share of current spending on health and high incidence of catastrophic health spending (Fig. 15 and Fig. 25).

The incidence of catastrophic spending has fallen over time (Fig. 17), perhaps linked to the fact that public spending on health per person increased at a faster rate than out-of-pocket payments per person between 2005 and 2014 (Fig. 14). Household budget survey data show, however, that although the nominal amount households spend out of pocket has grown over time (Fig. 7), out-of-pocket payments have not grown as a share of household budgets (Fig. 8), which suggests that factors beyond the health system have contributed to the overall improvement in financial protection over time.

Fig. 31. Share of government spending allocated to health, EU, 2016

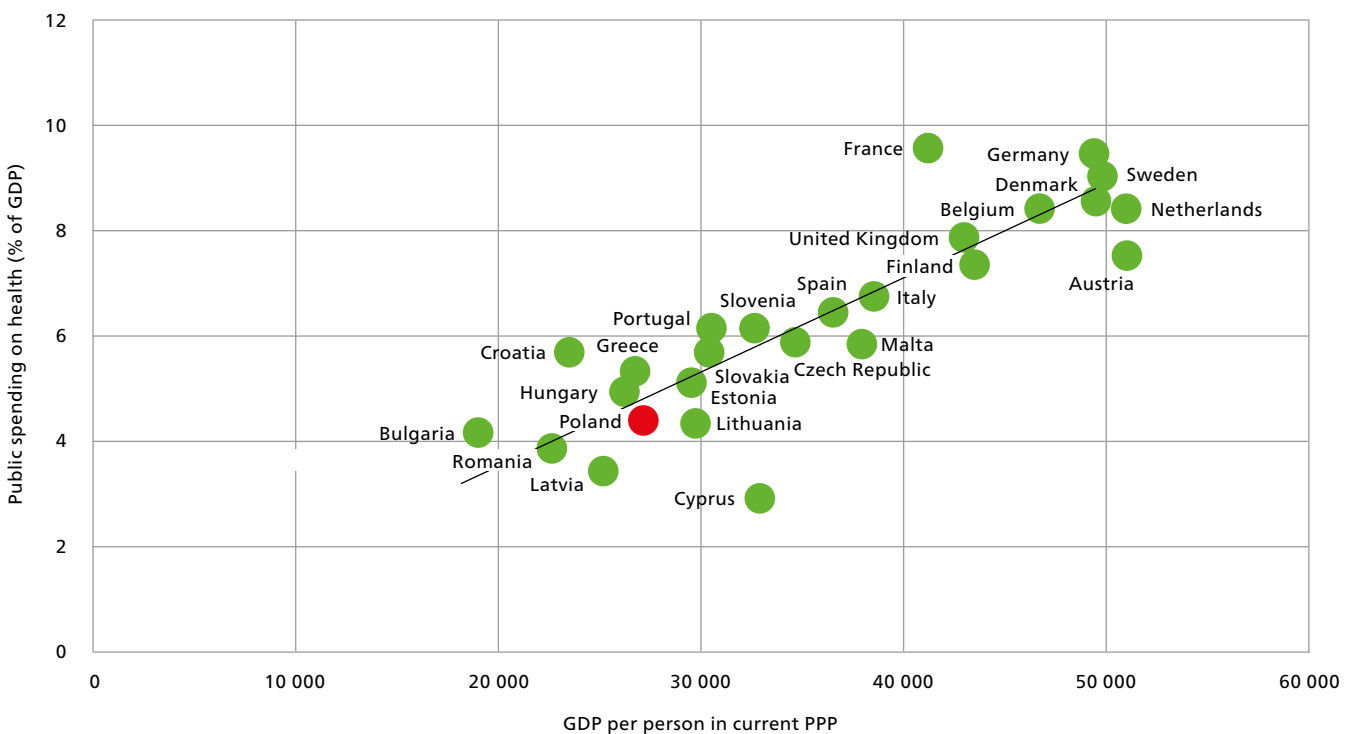
Source: WHO (2019).



Fig. 32. Public spending on health and GDP per person, EU, 2016

Notes: PPP: purchasing power parities. Public refers to all compulsory financing arrangements. The figure excludes Ireland and Luxembourg. Poland is highlighted in red.

Source: WHO (2019).



6.2.2 Coverage

Population coverage is not universal because entitlement to most publicly financed benefits is subject to being insured by the NHF. In 2017, the NHF registry showed that about 9% of the population was not covered by the NHF. Some of this proportion are eligible to be covered retrospectively, while others may not be living in Poland, so not all of them will incur out-of-pocket payments. The linking of entitlement to insurance status may nevertheless lead to unmet need or financial hardship for some households.

About 23% of those insured in the NHF do not have to pay contributions because they are dependent children, spouses or parents. The government does not transfer money to the NHF to cover the health-care costs of dependants, however. Government budget transfers to the NHF only amount to 2–3% of NHF revenue; they mainly are intended to cover the health-care costs of uninsured people and the contributions of selected groups, such as unemployed people. The low level of government budget transfers to the NHF contributes to financial pressure for the NHF.

The **benefits package** is fairly comprehensive for **health care**. Primary care (not including outpatient-prescribed medicines) has been free of charge to anyone irrespective of insurance status since 2017. Waiting times are an issue, however, particularly for specialist care, due to the absence of waiting time guarantees, a shortage of resources (including staff) and limits on service volumes (see Section 3). Long waiting times may prompt patients to seek care in the private sector. Out-of-pocket spending on outpatient care consistently is responsible for as much as 10% of catastrophic health spending, with no major changes over time and little variation by income quintile (Fig. 22). For richer households, however, the gap in coverage caused by long waiting times may partially be covered by VHI (see Section 3).

These barriers to access are reflected in the relatively high rate of unmet need for health care in Poland, which is driven more by waiting time than by cost, and in the high degree of income inequality in unmet need for health care (see Table 5 and Fig. 2). Problems with access to outpatient services may also be among the reasons for Poland's very high use of, and spending on, over-the-counter medicines (see below).

Dental care benefits are more limited. The NHF covers only basic services for adults, and these are subject to limits per person. The benefits available to children and pregnant women are more generous. In 2014, dental care was the second largest area of household spending on health and the third largest driver of catastrophic health spending, although it is consistently sizeable only among the two richest quintiles. Changes in coverage policy in 2010 further restricted dental care coverage, as patients no longer had the option to pay more for better quality materials within the publicly financed system. This change only seems to have affected household spending on dental care in 2010 and 2011 (see Fig. 11 and Fig. 21).

The change in dental care benefits did not appear to increase unmet need for dental care, even in the poorest quintile, perhaps due to improvement in the economic situation. However, while unmet need for dental care is

low compared to unmet need for health care, and low compared to the EU average, income inequalities in unmet need for dental care are high; among the poorest quintile, unmet need due to cost is similar for health care and dental care (Eurostat, 2018). This suggests that the affordability of dental care is an issue for poorer people, resulting in unmet need, which probably explains why it is more of a driver of financial hardship for richer households. The higher level of out-of-pocket spending on dental care among richer households may also reflect their greater use of privately financed dental services.

There are no **user charges** (co-payments) for publicly financed primary care visits, specialist outpatient visits, diagnostic tests and inpatient care (including inpatient medicines). User charges apply only to outpatient medicines and medical products, which are discussed below.

6.2.3 Outpatient medicines and medical products

Co-payments apply to almost all outpatient-prescribed medicines and many medical products. This contrasts with other health services, which largely are provided to patients without formal user charges. Several aspects of the **design of co-payments** for outpatient medicines and medical products are worth highlighting as factors that are highly likely to undermine financial protection.

User charges for many prescribed medicines are in the form of percentage co-payments. This means people must pay a relatively substantial share of the medicine price: 50% for medicines usually used for less than 30 days (around 12% of covered prescribed medicines fall into this category) or 30% for medicines usually used for longer than 30 days (this rate is applied to about a third of covered prescribed medicines) (see Table 3). As a result, people's exposure to out-of-pocket payments depends on the price and quantity of medicines they require. The negative effect of this form of user charge is magnified:

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

Recognizing the limitations of percentage co-payments, fixed co-payments are used for some outpatient-prescribed medicines to lower the financial burden on households requiring very expensive medicines or using expensive medicines for more than 30 days. About half of all covered prescribed medicines are subject to fixed co-payments.

Mechanisms to protect people from user charges are limited. No exemption from co-payments explicitly benefits low-income people. During the study period, exemptions applied mainly to military veterans and personnel, and blood and organ donors. In addition, **there is no overall cap (ceiling) on out-of-pocket payments arising from user charges** for

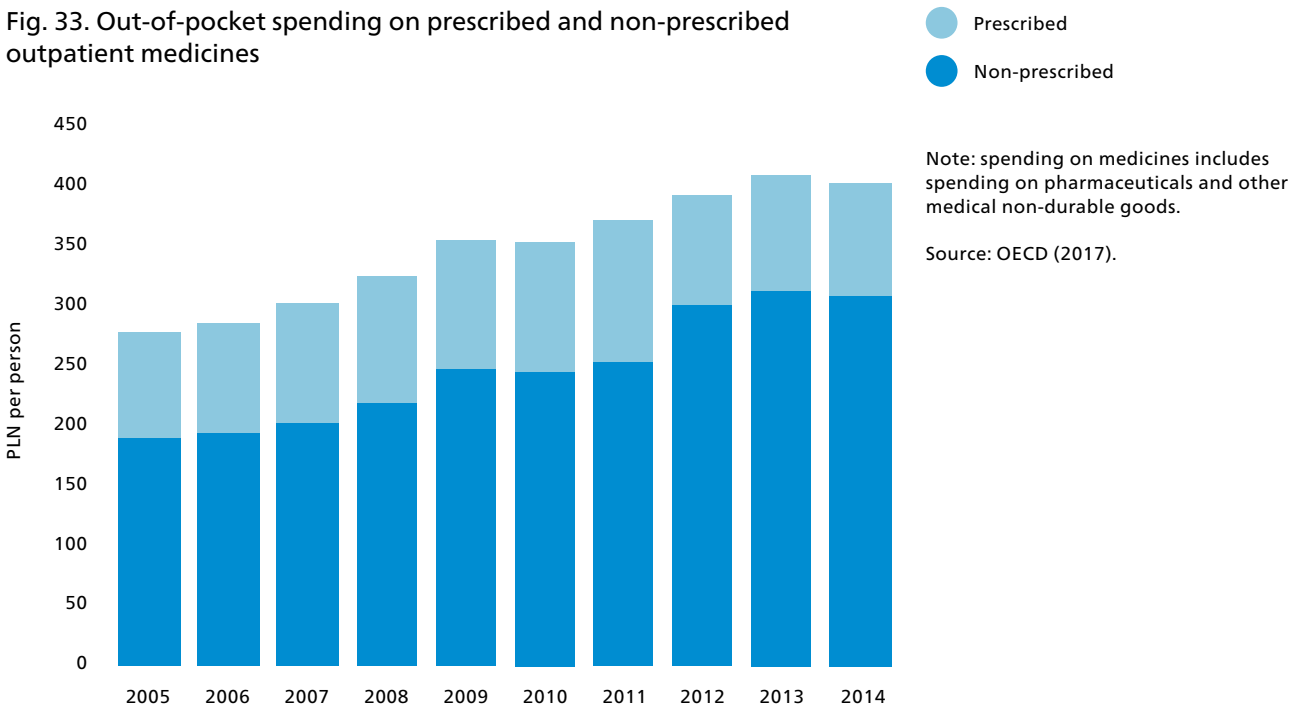
outpatient medicines or medical products. This is especially worrying when user charges are in the form of percentage co-payments and may be high.

The government introduced an important exemption from user charges for many medicines for people aged 75 and older in 2016. This recent development is an important step forward, especially since older people experience a much higher level of self-reported unmet need for medicines due to cost than younger people (Fig. 3). However, it still does not explicitly target low-income people – recipients of social benefits and disability and survivor’s pensions, for example – who are most at risk of catastrophic spending on health, or other vulnerable groups of people, such as those under 75 with chronic conditions.

Partly as a result of high user charges for outpatient medicines, the out-of-pocket share of current spending on medicines is very high by EU standards: around 60% between 2005 and 2011, increasing to around 66% since 2012 (OECD, 2017).

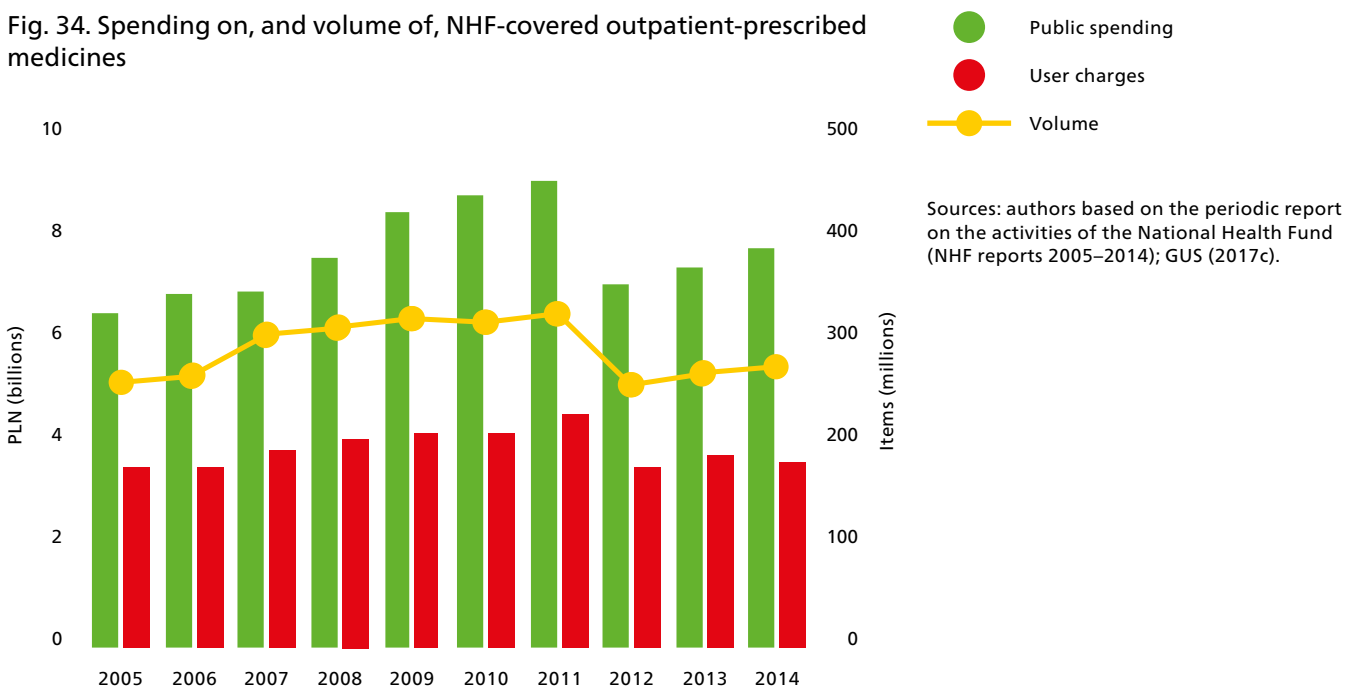
The largest share of out-of-pocket spending on medicines is on over-the-counter medicines. The over-the-counter share of out-of-pocket spending on medicines rose from 68% in 2005 to 77% in 2014, with a particularly sharp rise in 2012 (Fig. 33).

Fig. 33. Out-of-pocket spending on prescribed and non-prescribed outpatient medicines



The marked increase in the out-of-pocket payment share of current spending on medicines in 2012 (OECD, 2017) and in the non-prescribed medicines share of out-of-pocket payments for medicines in the same year (Fig. 33) can be attributed to the introduction of the Reimbursement Act in 2011. NHF data indicate that following the introduction of the Act, there was a 22% reduction in spending on NHF-covered prescribed medicines by the NHF and by patients (Fig. 34). This reduction in spending was achieved in two ways: first, by reducing and fixing the prices of covered prescribed medicines; and secondly, through a 22% reduction in the volume of prescribed medicines by removing some medicines from the reimbursement list, tightening clinical indications for reimbursement and introducing penalties for physicians violating prescribing regulations (Kawalec et al., 2016).

Fig. 34. Spending on, and volume of, NHF-covered outpatient-prescribed medicines



Household budget survey data do not show any reduction in household spending on outpatient medicines in 2012 for any quintile (Fig. 12). Data from EHIS suggest that while the use of prescribed medicines was on average close to the EU as a whole in 2014, the use of non-prescribed medicines was substantially higher (Fig. 35). A national survey (GUS, 2014) indicates that in 2013, nearly 90% of households purchased non-prescribed medicines and 50% of households purchased medicines that were not prescribed, but recommended, by a physician. Medicines and diet supplements were more likely to be used by richer people.

The high use of non-prescribed medicines, the high share of out-of-pocket spending on non-prescribed medicines and the spike in this share in 2012 suggest: first, that some of the reduction in spending on NHF-covered

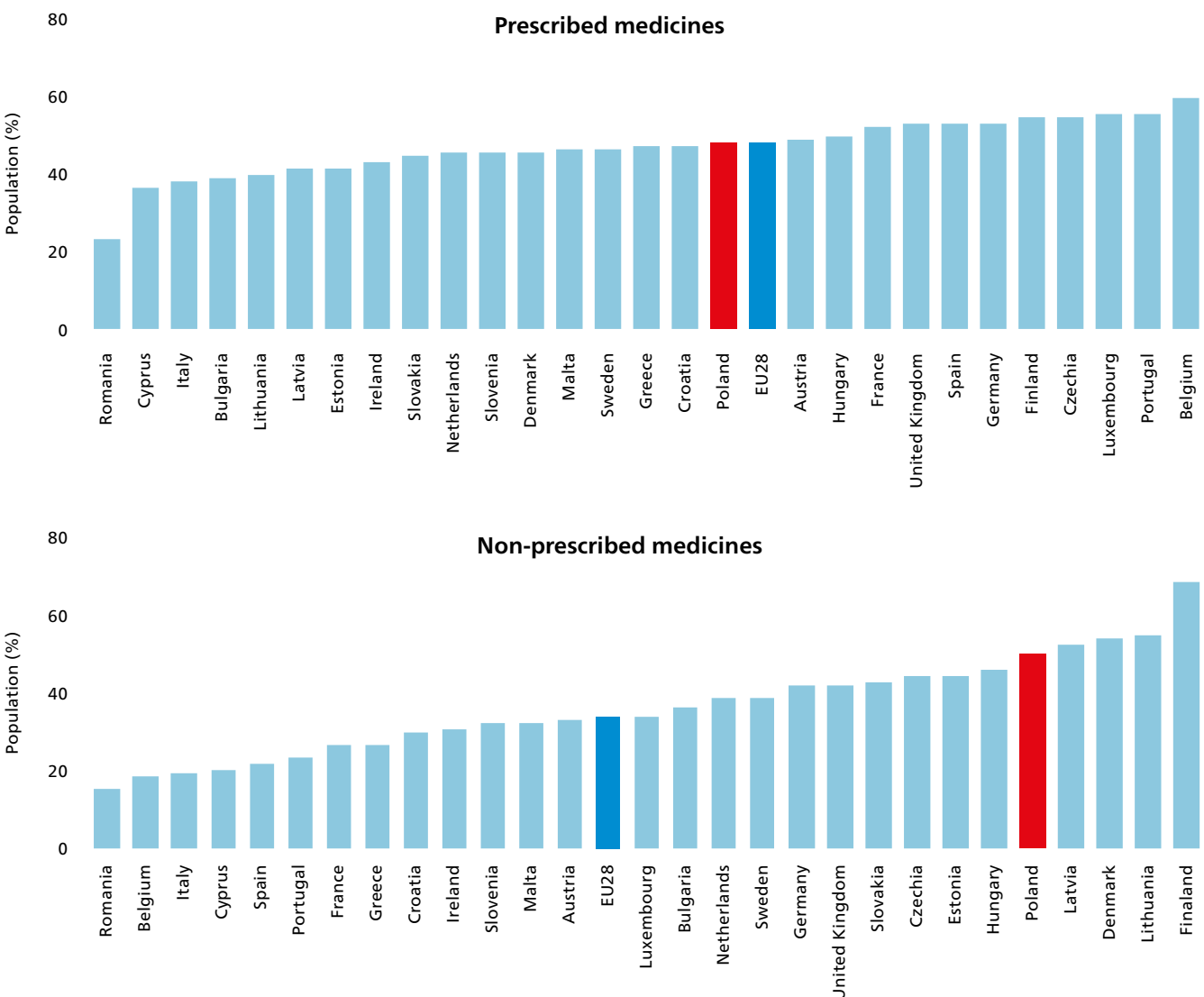
medicines in 2012 led to increased spending on over-the-counter medicines; and secondly, that over-the-counter medicines may generally be an important driver of catastrophic health spending and warrant policy attention.

Use of non-prescribed medicines and dietary supplements is likely to be driven by rapid market growth prompted by weak regulation of market access and sales and widespread advertising campaigns. Barriers to access to physicians, including waiting times for specialist care and primary care, may also contribute to high use of non-prescribed medicines, with people opting for self-treatment.

Fig. 35. Use of medicines, EU, 2014

Note: share of the population who used medicines prescribed by a doctor or medicines, herbal medicines or vitamins not prescribed by a doctor in the past two weeks.

Source: EHIS data from Eurostat (2018).



Medicines are the most important driver of catastrophic health spending overall and among poorer households, while medical products (therapeutic appliances and other medical durables) have been the main driver of catastrophic health spending among the richest households since 2012.

In 2014, out-of-pocket payments accounted for 57% total spending on medical products (OECD, 2017). At the same time, patients paid for about 40% of the cost of NHF-covered medical products (NHF, 2017b). This reflects high user charges in the form of percentage co-payments for many medical products. Exemptions from co-payments for medical products are even fewer than they are for outpatient-prescribed medicines, but in contrast to medicines, children under 18 are largely exempt from user charges for medical products (Table 3).

Other factors that may contribute to financial hardship due to medical products include stringent limits to what the NHF will pay for covered items (for example, low reimbursement ceilings for wheelchairs) and the absence of price regulation, which allows suppliers to set their own prices and may result in overpriced medical products (Badora et al., 2017).

6.3 Summary

The improvement in financial protection between 2005 and 2014 coincided with strong economic growth and a steady increase in public spending on health per person up to 2009, which lowered the out-of-pocket share of current spending on health.

Although Poland was relatively resilient to the financial crisis of 2008, the share of the population living below the basic-needs line and the share of people experiencing extreme poverty increased in the years following the crisis. Income inequalities among pensioners also widened.

These changes in living standards may explain why the improvement in financial protection was negligible for the poorest quintile and largely driven by a reduction in catastrophic health spending among the third and fourth quintiles.

Coverage is relatively comprehensive for those insured by the NHF, but several aspects of coverage policy are likely to undermine financial protection.

- Although primary and specialist care and diagnostic tests are free at the point of use, there is a complex system of heavy user charges for outpatient-prescribed medicines. No exemptions explicitly benefiting low-income people or people with chronic conditions are in place, and there are no caps on user charges.
- There are no waiting time guarantees. Waiting times are an issue, particularly for specialist care, leading some households to use privately financed services. While VHI provides faster access and access to private providers, take-up of VHI favours better-off groups of people.

- Problems in accessing outpatient services may lead people to self-treat using over-the-counter medicines, again shifting costs onto households. The use of non-prescribed medicines is very high, with non-prescribed medicines accounting for over three quarters of all out-of-pocket spending on medicines.
- Coverage of dental care is limited, especially for adults, with no protection for low-income households. Richer households are more likely to be able to afford privately financed dental services.
- Coverage of medical products is also limited, especially for adults. Heavy user charges for some products, stringent limits to NHF coverage and weak market regulation combine to shift the costs of medical products onto households.
- National statistics indicate that about 9% of the population is not covered by the NHF. Although this share is likely to be an overestimate, some people may experience financial barriers to access and financial hardship due to not being insured.

These gaps in coverage are compounded by the fact that government budget transfers to the NHF to cover the costs of uninsured people and the contributions of selected population groups only amount to 2–3% of NHF revenue, and there are no government budget transfers to cover contributions for dependants, even though they account for 23% of the people insured by the NHF.

The improvement in financial protection seen in the middle quintiles over time cannot be explained by changes in coverage during the study period. They are more likely to reflect changes in living standards. Unmet need for health care increased after the crisis and, while out-of-pocket payments continued to increase, they did so at a much slower rate than before the crisis.

Recent initiatives inside and outside the health sector are likely to have improved financial protection for some groups of people in the years after the study period. The Family 500+ programme initiated in 2016 provides additional income support for all families with two or more children and low-income families with children. People aged 75 years and over have been exempt from co-payments for many prescribed medicines since 2016. From 2017, primary care (excluding prescribed medicines) has been free at the point of use for the whole population, regardless of insurance status.

7. Implications for policy

Financial hardship linked to out-of-pocket payments is high in Poland compared to many other EU countries. In 2014, 8.6% of households experienced catastrophic health spending. Among them, two thirds were at risk of impoverishment, were impoverished or were further impoverished after out-of-pocket payments. Catastrophic health spending is heavily concentrated among the poorest households.

Financial protection has improved over time, but this has been driven largely by a reduction in catastrophic incidence in non-poor households, and probably reflects broader economic conditions. Poland was relatively resilient to the financial crisis; wages, pensions and public spending on health continued to rise after 2008. The rate of growth in public spending on health slowed significantly during and after the crisis, however, pushing up the out-of-pocket share of current spending on health. The extreme poverty rate and income inequalities in pensions also increased following the crisis, which may explain why improvements in financial protection over time were mainly experienced by households in the richer quintiles.

Outpatient medicines are the largest single driver of catastrophic health spending across all consumption quintiles except the richest. Medicines consistently account for nearly two thirds of all catastrophic spending, rising to 75% in the poorest quintile. At the same time, there are high levels of self-reported unmet need for prescribed medicines due to cost, especially among households with lower socioeconomic status.

Policy attention should focus on improving the affordability of outpatient medicines. Limitations in the currently complex design of user charges for outpatient-prescribed medicines should be addressed. For example, fixed co-payments could be extended to a much larger share of medicines, reducing or even eliminating the use of percentage co-payments; there are no exemptions explicitly benefiting poor households and people with chronic conditions; and there is no cap on co-payments. High levels of use of, and out-of-pocket spending on, non-prescribed medicines also warrant attention. There is a need to strengthen regulation of the market for over-the-counter medicines, including rules around advertising, and for public awareness campaigns to reduce use.

Waiting times may present an increasing barrier to access to specialist care, driving catastrophic spending on outpatient care for all quintiles and catastrophic spending on inpatient care for the richest quintile. This suggests that NHF-financed specialist services are not always accessible, prompting patients to seek privately financed care or self-treatment through use of over-the-counter medicines. VHI does not help, as it covers mainly higher-income households.

Medical products and dental care are now the second and third largest drivers of catastrophic health spending, but mainly among richer households, in line with evidence of substantial inequalities in unmet need for dental care due to cost. Improving the NHF's coverage of dental care – by, for example, introducing enhanced entitlement for poor households – would reduce both unmet need and financial hardship. For medical products, the effects of coverage and volume limits are exacerbated by weak market regulation leading to high prices.

Proposals to align the coverage of medical products with HTA principles could contribute to improved quality and more efficient use of resources. These measures alone, however, are unlikely to improve access or reduce financial hardship, as the experience of prescribed medicines shows.

It is important to focus attention on the equity implications of financial hardship and of ongoing efforts to improve financial protection. During the study period, the poorest households experienced the steepest increase in out-of-pocket spending on health, particularly in the years before the crisis. As a result, they experienced the smallest decrease in catastrophic spending, and catastrophic incidence actually increased substantially for people receiving social benefits – the group with the highest risk of catastrophic spending after the poorest quintile as a whole. People receiving social benefits are also the only group for whom catastrophic incidence was higher in 2014 (18.2%) than in 2005 (15.7%).

Future efforts to improve financial protection should focus more on low-income households, including people receiving social benefits, building on recent steps to improve living conditions for large families and enhance financial protection for people aged over 75 years. Mechanisms to protect households from co-payments are generally weak and do not explicitly benefit low-income households. New programmes exempting people aged over 75 years from co-payments for many medicines and the Family 500+ programme to support families with children have the potential to improve financial protection among older people and families with children. These initiatives are welcome steps forward, but other low-income groups, such as recipients of social benefits and disability pensions, are at most risk of catastrophic health spending; these groups therefore would benefit significantly from exemption from co-payments for medicines and medical products.

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Annex 1. Household budget surveys in Europe

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

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

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

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

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

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

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

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

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

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

Are household budget surveys comparable across countries?

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

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

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

Source: United Nations Statistics Division (2018).

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

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Annex 2. Methods used to measure financial protection in Europe

Background

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

Data sources and requirements

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

The following variables are required at household level:

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

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

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

Defining household consumption expenditure variables

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

Total household consumption expenditure not including imputed rent

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

Food expenditure

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

Housing expenditure on rent and utilities

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

Health expenditure (out-of-pocket payments)

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

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

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

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

Defining a basic needs line

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

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

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

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

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

Calculating the basic needs line

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

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

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

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

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

Calculating basic needs expenditure levels for each household

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

Capacity to pay for health care

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

Estimating impoverishing out-of-pocket payments

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

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

Estimating catastrophic out-of-pocket payments

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

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

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

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

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

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

Distribution of catastrophic out-of-pocket payments

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

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

Structure of catastrophic out-of-pocket payments

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

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Annex 3. Regional and global financial protection indicators

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

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

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

Note: PPP: purchasing power parity.

Sources: WHO headquarters and WHO Regional Office for Europe.

Regional indicators

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

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

Global indicators

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

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

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

The choice of global or regional indicator has implications for policy

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

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

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

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

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

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

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

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

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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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