



World Health  
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# Can people afford to pay for health care?

New evidence  
on financial protection  
in Sweden

Anna Häger Glenngård  
Sixten Borg



Sweden



# 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.

A key part of the work of the Office is to assess country and regional progress towards UHC by monitoring financial protection – the impact of out-of-pocket payments for health on living standards and poverty. Financial protection is a core dimension of health system performance and an indicator for the Sustainable Development Goals.

The Office supports countries to develop policy, monitor progress and design reforms through a combination of health system problem diagnosis, analysis of country-specific policy options, high-level policy dialogue and the sharing of international experience. It is also the home for WHO training courses on health financing and health systems strengthening for better health outcomes.

Established in 1999, the Office is supported by the Government of the Autonomous Community of Catalonia, Spain. It is part of the Division of Health Systems and Public Health of the WHO Regional Office for Europe.





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## Abstract & keywords

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

HEALTHCARE FINANCING  
HEALTH EXPENDITURES  
HEALTH SERVICES ACCESSIBILITY  
FINANCING, PERSONAL  
POVERTY  
SWEDEN  
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](mailto:euhsf@who.int).





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# Abbreviations

<b>EHIS</b>	European Health Interview Survey
<b>EU</b>	European Union
<b>EU15</b>	European Union Member States from 1 January 1995 to 30 April 2004
<b>EU27</b>	European Union Member States as of 1 January 2007
<b>EU28</b>	European Union Member States as of 1 July 2013
<b>EU-SILC</b>	European Union Statistics on Income and Living Conditions
<b>GDP</b>	gross domestic product
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>SALAR</b>	Swedish Association of Local Authorities and Regions
<b>SEK</b>	Swedish krona
<b>TLV</b>	Dental and Pharmaceutical Benefits Agency
<b>VHI</b>	voluntary health insurance

## Executive summary

This review is the first comprehensive analysis of financial protection in the Swedish health system. It draws on microdata from household budget surveys carried out by Statistics Sweden between 2006 and 2012 (the latest data available at the time of publication) and data on unmet need for health care from the European Health Interview Survey and the European Union (EU) Statistics on Income and Living Conditions.

The review finds that financial protection is relatively strong in Sweden compared to many other EU countries. In 2012, around 1% of households experienced impoverishing health spending and around 2% of households experienced catastrophic health spending.

Factors that contribute to financial protection in Sweden include the availability of a fairly comprehensive range of publicly financed health services for adults and free access to all covered health services for children and adolescents, supported by high levels of public spending on health. As a result, the level of out-of-pocket payments in Sweden is relatively low. In 2016, out-of-pocket payments accounted for 15% of current spending on health, less than the EU15<sup>1</sup> average of 18%, but higher than in France, Germany and the Netherlands.

Although catastrophic health spending in Sweden is low on average, it is highly concentrated among the poorest households. Across all study years, close to 6% of households in the poorest quintile (the poorest fifth of the population) experience catastrophic spending, compared to around 1% in the other quintiles.

The drivers of financial hardship also vary by socioeconomic status. Dental care and medical products drive financial hardship on average, but are more likely to result in financial hardship for richer households than poorer households. This reflects significant income inequality in unmet need for dental care during the study period. In 2012, over 10% of the poorest quintile reported unmet need for dental care due to cost, distance or waiting time, compared to under 2% in the richest quintile.

Outpatient medicines are the largest single driver of financial hardship for the poorest quintile. Data on unmet need due to cost show that socioeconomic inequality is greater for prescribed medicines than for other health services, although absolute levels of unmet need are highest for dental care.

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1. EU15: EU Member States from 1 January 1995 to 30 April 2004.

Socioeconomic inequalities in financial hardship and unmet need are an outcome of widespread user charges (co-payments), which are applied to almost all covered health services for adults. Three mechanisms aim to protect people from co-payments – exemptions, annual caps and municipal social assistance. All of them leave room for improvement.

- Children and adolescents and people aged over 85 years are generally exempt from co-payments for outpatient care and inpatient care, but there are no exemptions based on household income and older people are not exempt from co-payments for outpatient prescriptions and medical devices.
- There is an annual cap on co-payments for outpatient visits and a separate annual cap on co-payments for outpatient prescriptions and medical devices. Both caps are set as fixed amounts. There is no annual cap on co-payments for dental care or inpatient care. In other countries in Europe, there is a single annual cap covering all co-payments and caps are set as a very low share of household income.
- People who receive social benefits can apply to their municipality for retrospective reimbursement of all co-payments or ask their region for an invoice that the municipality will then pay on their behalf. The bureaucratic nature of this form of protection may be an obstacle.

For dental care, the lack of an annual cap on co-payments, the use of percentage co-payments and the presence of balance billing are clearly linked to high levels of unmet need among poorer households and result in catastrophic health spending across all income groups. Exemptions from co-payments for children, adolescents and older people and the introduction in 2008 of an annual subsidy for adults are important protections but have not done enough; substantial socioeconomic inequalities in access to dental care are evident throughout the study period. Recent improvements in protection introduced in 2018 will benefit all households but may not be enough to close the gap in unmet need for dental care between rich and poor households.

While there is an annual cap on co-payments for outpatient prescriptions and medical devices, there are no exemptions from these co-payments based on income, which explains why outpatient medicines are the main driver of financial hardship for the poorest households. Socioeconomic inequality in unmet need for prescribed medicines due to cost suggests that the annual cap may be relatively protective for richer households but is not sufficiently protective for poorer households.

One way of strengthening protection for poor households is to improve coordination between municipalities (who are responsible for social services) and regions (responsible for health care). Given the evidence on inequalities in financial hardship and unmet need presented in this review, it would make sense to take further action to lower access barriers and out-of-pocket payments for people receiving social benefits – for example, by introducing a system in which regions automatically invoice municipalities, so that social beneficiaries do not have to pay co-payments at the point of use and there is no need for them to seek reimbursement themselves.



# 1. Introduction

This review assesses the extent to which people in Sweden experience financial hardship when using health services, including medicines. It covers the period between 2006 and 2012. 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.

The Swedish health system involves three levels of government: overall policies are set at the national level; 21 regions are responsible for financing and delivering health services; and 290 municipalities are responsible for care of older people and disabled people. The health system generally performs well in terms of health service outcomes, quality of care and equitable access (Commonwealth Fund, 2017). Levels of public spending on health are high – above 80% of current health spending – and have been stable for decades, while the out-of-pocket payment share is close to the EU15 average of 18% and has also been stable, at around 15% of current spending on health (WHO, 2019).

In spite of these strengths, issues around person-centredness, the coordination of services between regions and municipalities, and long waiting times for diagnosis and treatment in many areas constitute important problems in the health care system (Anell, 2015; Anell et al., 2012; Commonwealth Fund, 2017). Although there have been efforts to improve coordination between municipalities and regions, especially for older people, as well as national and local initiatives to reduce waiting times and improve access to providers (Wilkens et al., 2016), challenges remain and are a key policy concern. Growing socioeconomic inequalities in health are another challenge (Sveriges Riksdag, 2015). For example, people with lower levels of education are typically treated at a later stage of illness than those with higher levels of education. To address inequalities, the government set up a Commission for Equity in Health in 2015 (Lundberg, 2017).

This review is the first comprehensive analysis of financial protection in the Swedish health system. Previous analysis has focused on specific patient groups and older people as part of multicountry studies (Arsenijevic et al., 2016; Palladino et al., 2016; Scheil-Adlung & Bonan, 2013). The methods used in this study differ from those 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 a glossary of terms.



## 2. Methods

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

## 2.1 Analytical approach

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

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

Impoverishing health spending	
<b>Definition</b>	The share of households <i>impoverished</i> or <i>further impoverished</i> after <i>out-of-pocket payments</i>
<b>Poverty line</b>	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)
<b>Poverty dimensions captured</b>	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
<b>Disaggregation</b>	Results can be disaggregated into household <i>quintiles</i> by consumption and by other factors where relevant, as described above
<b>Data source</b>	Microdata from national <i>household budget surveys</i>
Catastrophic health spending	
<b>Definition</b>	The share of households with out-of-pocket payments that are greater than 40% of household <i>capacity to pay for health care</i>
<b>Numerator</b>	Out-of-pocket payments
<b>Denominator</b>	A household's <i>capacity to pay for health care</i> is defined as total household consumption minus a standard amount to cover basic needs; the standard amount is calculated as the average amount spent on food, housing and utilities by households between the 25th and 35th percentiles of the household consumption distribution, as described above; this standard amount is also used as a <i>poverty line</i> (basic needs line) to measure impoverishing health spending
<b>Disaggregation</b>	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
<b>Data source</b>	Microdata from national household budget surveys

Note: OECD: Organisation for Economic Co-operation and Development. See Annex 4 for definitions of words in italics. Source: Thomson et al. (2018).

## 2.2 Data sources

The study analyses data from the Swedish household budget survey. Anonymized microdata from surveys carried out annually from 2006 to 2009 and in 2012 were obtained from Statistics Sweden. At the time of analysis, data for 2010, 2011 and after 2012 were not available.

Household spending is captured using a sample of the population taken from all households with at least one member aged under 80 years listed on the Swedish population register. Data are collected using diaries, telephone interviews and registers. The response rate was 50% in 2006, 56% in 2007, 53% in 2008, 51% in 2009 and 38% in 2012, corresponding to about 2000 households each year. Although the response rates are low for some years, sample weights are adjusted for non-response bias.

The estimated annual spending in any given household is based on recorded data in a two-week window, a relatively short observation period. If a household reaches the cap on user charges (co-payments) for health services before it takes part in the survey, it would appear to have no spending on health at all, while other households are observed before reaching the cap. Although this would be striking at the individual household level, its effect is minor when averaging across populations of households.

All currency is presented in Swedish krona (SEK) and converted into equivalent values in euros on 1 April 2019, usually rounded to the nearest euro, using OANDA's website (OANDA, 2019). On 1 April 2019, SEK 100 was equal to €9.58 (rounded to €10 in this review).





# 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 Health and Medical Services Act upholds equal access to health services on the basis of need and a vision of equal health for all (Sveriges Riksdag, 2017; Glenngård, 2017). The basic principles that apply to health care in Sweden are human dignity, need, solidarity and cost-effectiveness.

Sweden's three levels of government influence the health system in different ways. At national level, the Ministry of Health and Social Affairs is responsible for overall health and health care policy; national government agencies work together with the Ministry to provide high-level oversight. The 21 regions and 290 municipalities have responsibility for health care covered by the Health and Medical Services Act, giving them considerable freedom in organizing their health services. Reforms are often introduced by regions and municipalities, leading to regional and local variation, although reforms in one area are often replicated in other areas.

The regions are responsible for the financing and provision of health services, while the municipalities are legally bound to meet the care and housing needs of older people and people with disabilities (including some home-based health care interventions and medicines). Municipalities are also responsible for administering social benefits such as income support for poor households. Local and regional authorities are represented by the Swedish Association of Local Authorities and Regions (SALAR). SALAR strives to promote and strengthen local self-government and provide local authorities with expert assistance – for example, it disseminates information on health care quality and waiting times. It is also the employers' main association for negotiating terms of employment and local wage bargaining for staff employed by the regions and municipalities (Anell et al., 2012).

There is a mix of publicly and privately owned health facilities, with the vast majority publicly funded. Regions and municipalities levy proportional income taxes on their populations to help finance the health system. They also receive subsidies and national government grants from national indirect and income taxes as well as user charges (co-payments) from patients. General government grants aim to redistribute resources among regions and municipalities based on local needs. Targeted government grants finance specific initiatives, such as reducing waiting times.

### 3.1.1 Population entitlement

The Health and Medical Services Act ensures that the health system covers all residents. Emergency care is provided to anyone from the EU/European Economic Area countries and to people from nine other countries with which Sweden has bilateral agreements. Asylum-seeking and undocumented children are entitled to the same health services as children who are permanent residents. Adult asylum seekers have the right to receive care that cannot be deferred, such as maternity care. Undocumented adults are entitled to receive non-subsidized immediate care.

### 3.1.2 The benefits package

The publicly financed health system covers a broad spectrum of services: public health and preventive services; primary care; inpatient and outpatient specialized care; emergency care; inpatient and outpatient mental health care; rehabilitation services; disability support services; patient transport support services; and home care and long-term care, including nursing home care and hospice care.

Publicly financed benefits are only explicitly defined for outpatient medicines, outpatient medical devices and dental care. Benefits for these services are determined at national level by the Dental and Pharmaceutical Benefits Agency (TLV), a government agency responsible for defining which pharmaceutical products, medical care devices and dental care procedures are to be subsidized by the state and at what price.

Responsibility for organizing and financing other health services rests with the regions and municipalities and is based on local population needs. Services therefore vary across the country.

Waiting times are an issue. Multiple initiatives to improve equitable and timely access to health services have been implemented at the national and regional levels in recent years.

- The regions introduced waiting time guarantees in 2005.
- In 2010, these guarantees were subsequently included in the Health and Medical Services Act, which stipulates that no patient should have to wait more than seven days for a primary care appointment, 90 days for a specialist appointment and 90 days after being diagnosed for treatment. This has led to progress in reducing waiting times, although waiting times have increased again in recent years.
- In 2015, the Patient Act aimed to reduce geographical variation by introducing new rules allowing people to seek outpatient specialist care throughout the country while paying the same user charges as residents of their home region. However, patients are not reimbursed for travel or other related expenses, and the national waiting time guarantee does not apply to those who choose to seek care in another region.

Access to outpatient specialist care does not usually require a referral from primary care. People have had free choice of primary care providers within their home region since 2007–2010 and free choice of primary care and specialist providers throughout the country since 2015.

### 3.1.3 User charges (co-payments)

Co-payments are applied to almost all health services (Table 2); currently, children and adolescents under 20 years are exempt from most of them.

Co-payments for **primary care and outpatient and inpatient specialist care** are set by regions. People under 20 years are exempt throughout the country. Co-payments for primary care and outpatient specialist visits (but not for inpatient stays) are currently capped at SEK 1150 (€115) per person in a 12-month period. The cap is regulated centrally. During the study period, it was set at SEK 1125 (€112). Balance billing (charging patients more than the co-payment) for publicly financed services is prohibited.

For **outpatient prescribed medicines and outpatient medical devices**, adults in every region must pay the full price until they have spent SEK 1150 (€115) in a 12-month period, after which they are entitled to an increasing level of state subsidy until they reach the cap, which is currently set at SEK 2300 (€230) per person. Children aged under 18 years are exempt. This cap is separate from the cap for primary care and specialist care. It is administered centrally by TLV and regularly revised to reflect price changes. During the study period, the cap was SEK 2200 (€220). People must pay the full cost for non-covered medicines and medical devices, including over-the-counter medicines. Contraceptives have been free for people under 20 years since 2017.

Currently, people under 23 years have free access to all covered **dental care** (extended from 20 years in 2018). Following dental reforms in 1999, 2002 and 2008, there are two types of subsidies for dental care. Since 2008, people 20 years and above receive a fixed annual subsidy of SEK 150 (€15) or SEK 300 (€30) (depending on age) for preventive dental care such as an annual dental check-up. In 2018, the annual subsidy was increased to SEK 300 and SEK 600 (€60) respectively. For other dental services within a 12-month period, a high-cost protection scheme means that people aged 23 years and above pay the full cost of services up to SEK 3000 (€300), but only 50% of the cost for services between SEK 3000 and SEK 15 000 (€1500), and only 15% of costs above SEK 15 000. There is no cap on user charges for dental care. Dentists are free to set their own prices and charge patients more than the reference price set by TLV. Balance billing is not included in the high-cost protection scheme.

Both caps (for outpatient medicines and medical devices, and for primary and specialist care) are applied automatically at the point of use, so that once a person has reached the cap, no further co-payments are applied. The dental care subsidy is also automatically deducted at the point of use.

In addition to children, pregnant women and people aged over 80 years are also often exempt from co-payments or granted subsidies for certain

Table 2. User charges for publicly financed health services, 2019

Notes: NA: not applicable. Euro values are for 1 April 2019 from OANDA (2019). On 1 April 2019, SEK 100 was equal to €9.58 (rounded to €10 in this review).

Source: SALAR (2017).

Service area	Type and level of user charge	Exemptions	Cap on user charges paid
Primary care physician visits	Fixed co-payment determined by each region: between SEK 150 (€15) and SEK 300 (€30) per visit (no charge in Sörmland region)	<20 and >85 years exempt in all regions	SEK 1150 (€115) per person for all health care visits in a 12-month period
Other outpatient visits	Fixed co-payment determined by each region: between SEK 200 (€20) and SEK 400 (€40) per visit	<20 and >85 years exempt in all regions	
Outpatient prescription medicines and medical devices	Patients pay the full price for covered medicines up to SEK 1150 (€115), then decreasing co-payment levels until they reach the cap	<18 years exempt in all regions	SEK 2300 (€230) per person in a 12-month period
Diagnostic tests	None	NA	NA
Dental care	In a 12-month period, people pay the full price up to SEK 3000 (€300); 50% of the cost between SEK 3000 and SEK 15 000 (€1500); and 15% of the cost above SEK 15 000	<23 years exempt in all regions  >80 years exempt in most regions  Fixed annual subsidy of SEK 300 (€30) for people aged 20–29 and above 75 years and SEK150 (€15) for people aged 30–74 years; the annual subsidy was increased to SEK 300 and SEK 600 (€60) in 2018	No
Inpatient care	Fixed co-payment determined by each region: between SEK 50 (€5) and SEK 100 (€10) per day	<20 and >85 years exempt in almost all regions (<18 in three regions)	No
Inpatient prescription medicines	None	NA	NA

services such as maternity care or vaccination programmes. National screening programmes are free of charge.

There is no exemption from co-payments on the basis of income, but in practice people who receive social benefits (such as the social allowance administered by the municipalities) can apply for retrospective reimbursement of all co-payments. It is also possible for patients to ask the region for an invoice, which the municipality will then pay on their behalf. These rather bureaucratic approaches to reducing the financial burden of co-payments for people receiving social benefits reflect the division of responsibilities between municipalities (social benefits) and regions (health care).

### 3.1.4 The role of VHI

Voluntary (private) health insurance plays a supplementary role and accounts for less than 1% of current spending on health (WHO, 2019). It is mainly purchased by employers, which are most likely to be small or

medium-sized companies in the private sector (Sagan & Thomson, 2016). Insurers are for-profit entities. The main reason for having VHI is to ensure quick access to ambulatory care and to avoid waiting lists for elective treatment.

In 2016, 650 000 people had VHI, accounting for roughly 10% of all employed people aged 15–74 years or around 6% of the population (Swedish Insurance Federation, 2019). This figure rose from 103 000 people in 2000. Waiting time guarantees formalized in 2010 reduced waiting times, which may be one reason for slower growth in VHI paid for by employers in recent years (Sagan & Thomson, 2016), although more recently waiting times have increased again. The number of people with VHI might change in the future as VHI is now a taxable benefit for employees.

VHI's contribution to health financing remains small. Sagan & Thomson (2016) suggest that this is due to the low number of patients with VHI, given that insured people tend to be relatively young and healthy. The primary source of income for both public and private providers is the regional public purchaser. Because the take up of VHI is low, there is little evidence that treating VHI patients leads to longer waiting times for patients who do not have VHI (Sagan & Thomson, 2016).

Table 3 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 3. Gaps in coverage

Source: authors.

Coverage dimension	Population entitlement	The benefits package	User charges (co-payments)
Issues in the governance of publicly financed coverage	None for residents	Regional variation in waiting times; patients may seek specialist care in different regions but will have to pay travel costs out-of-pocket and the national waiting time guarantee does not apply  Waiting time guarantees stipulate that no patient should have to wait more than 7 days for a primary care appointment, 90 days for a specialist appointment and 90 days for treatment	Local variation in co-payments  No automatic exemption from co-payments for low-income people
Main gaps in publicly financed coverage	None for residents	Waiting times	Co-payments for all health services except diagnostic tests and inpatient medicines  No cap on co-payments for dental care or inpatient stays  Medicines and medical devices not in the National Medicines Benefits Scheme are not covered
Are these gaps covered by VHI?	No	Yes, but VHI only covers about 6% of the population (paid for by employers) and accounts for less than 1% of current spending on health	No, VHI does not cover user charges

## 3.2 Access, use and unmet need

Important policy initiatives driving structural changes since the 1990s have aimed to shift inpatient care to outpatient and primary care settings and concentrated highly specialized care in academic medical centres (Anell et al., 2012).

In 2014, there were 3.9 physicians and 11.1 nurses per 1000 inhabitants, above the Organisation for Economic Co-operation and Development (OECD) average of 3.2 and 8.7 respectively (SALAR, 2014). There is a shortage of general practitioners, but the magnitude of this problem varies across regions, leading to differences in access and continuity for patients in primary care. The number of health care visits per person has increased since 2006 (SALAR, 2016).

Eurostat data show that in 2014, the self-reported use of prescribed medicines was much higher among the group with the least education (56.9%) than the group with the most education (43.4%), but the self-reported use of non-prescribed medicines was much lower in the least educated group (34.3%) compared to the most educated (48.5%).

EU data allow a comparison of unmet need for health care across countries (see Box 1).

In general, unmet need for health care in Sweden was very close to the EU average in 2008 and 2017, but lower than the EU average in the years in between (Fig. 1). Unmet need for health care in Sweden is driven slightly more by waiting time than cost; unmet need for health care due to waiting time fell in Sweden between 2007 and 2011 (data not shown), which may reflect improved access to primary care following the introduction of free choice of providers in 2007–2010 (Glenngård, 2015). At the same time as the choice reform, financial incentives to encourage providers to reduce waiting times were introduced in several regions. Since then, several regions have abandoned the financial incentives. Waiting times have increased again in recent years, suggesting that the earlier reductions may have been related to the financial incentives rather than other policies.

Unmet need for dental care is driven mainly by cost in Sweden and the EU on average. Levels of unmet need for dental care were higher in Sweden than the EU average between 2006 and 2011, but have been similar since then (Fig. 1). The size of the gap between Sweden and the EU average narrowed after 2008, perhaps reflecting the introduction of the fixed annual subsidy for dental care in 2008.

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

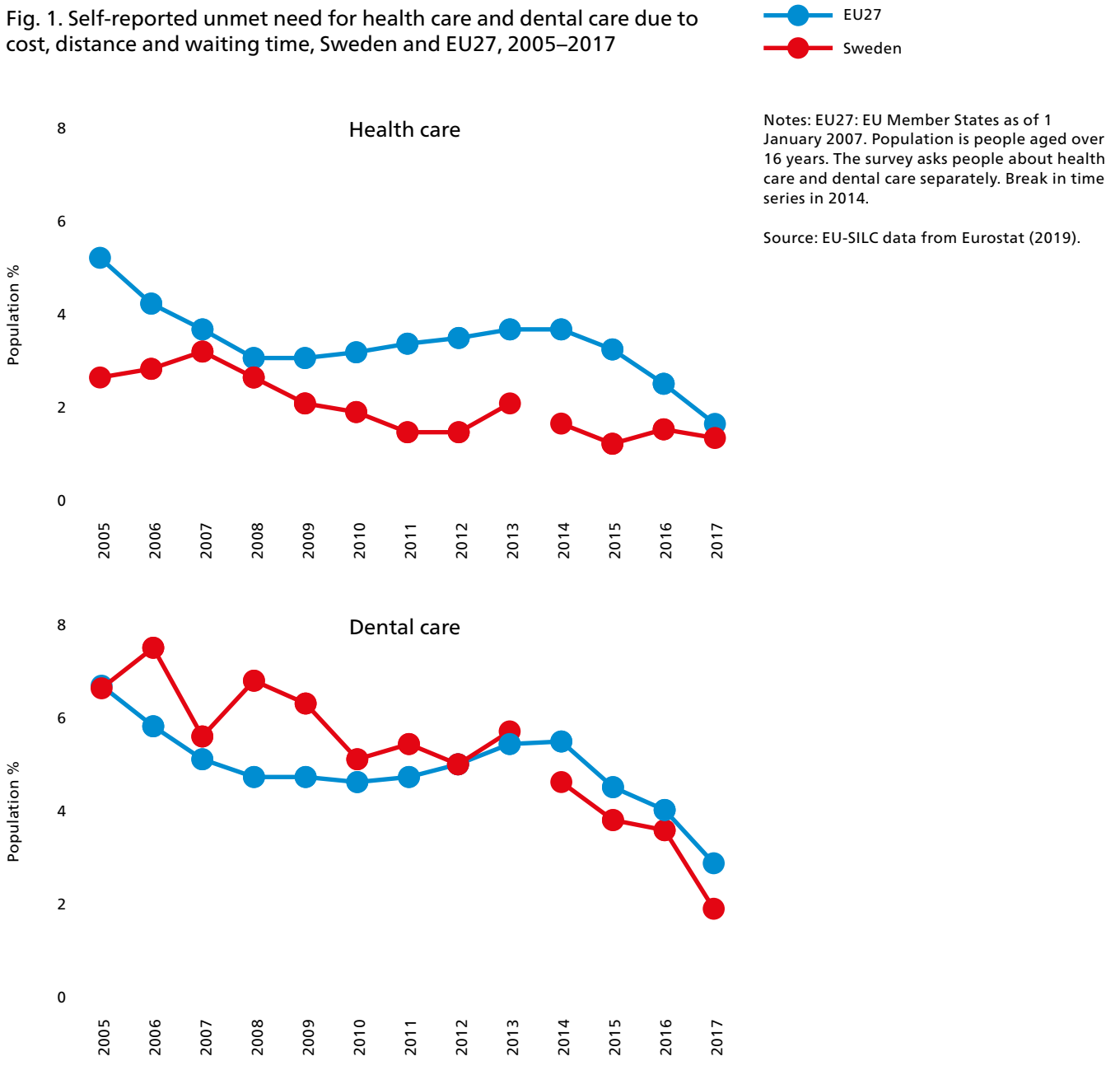
EU Member States also collect data on unmet need through the European Health Interview Survey (EHIS) carried out every five years or so. The second wave of this survey was conducted in 2014. A third wave is scheduled for 2019.

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

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Fig. 1. Self-reported unmet need for health care and dental care due to cost, distance and waiting time, Sweden and EU27, 2005–2017

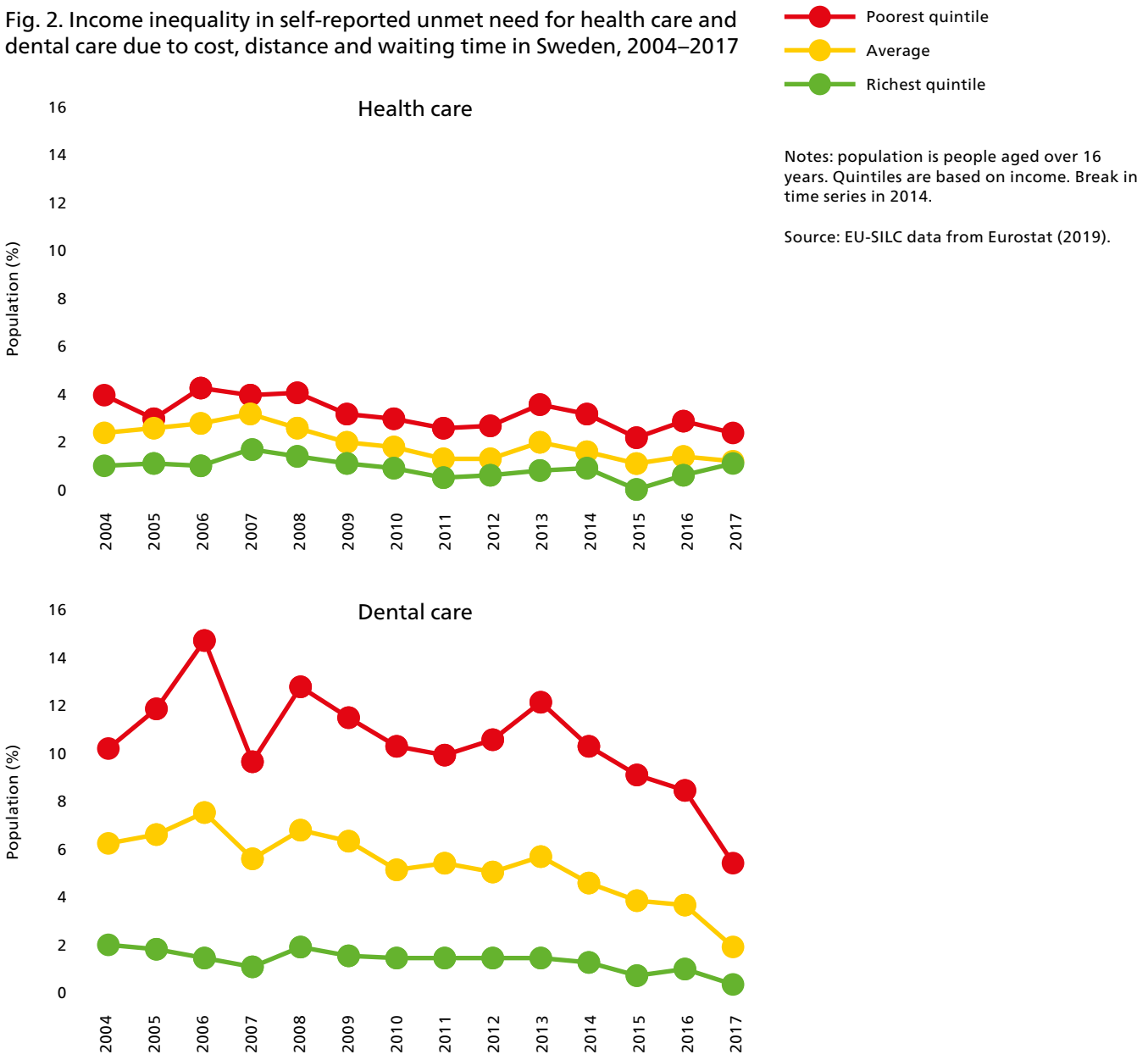


Income inequality in unmet need due to cost, distance and waiting time is greater for dental care than for health care in Sweden (Fig. 2). The gap between the poorest and the richest quintile has narrowed over time, especially for health care, but remains large for dental care.

According to a 2009 survey, about two thirds of the adult population reported visiting a dentist for a regular check-up in the previous two years, whereas about 9% had only visited a dentist for acute treatment (National Board of Health and Welfare, 2011). The same survey found that about 70% of the population perceived their own dental health

to be good, but identified large differences between socioeconomic groups, with people with a country of origin other than Sweden, lower income groups and single parents generally less likely to make regular dentist visits and more likely to have worse dental health than others. Only 35% of respondents with a country of birth outside Europe stated that they had good dental health.

Fig. 2. Income inequality in self-reported unmet need for health care and dental care due to cost, distance and waiting time in Sweden, 2004–2017



EHIS data from 2014 show that while self-reported unmet need due to cost is lower in Sweden than the EU average for health care and dental care, it is very close to the EU average for prescribed medicines (Fig. 3).

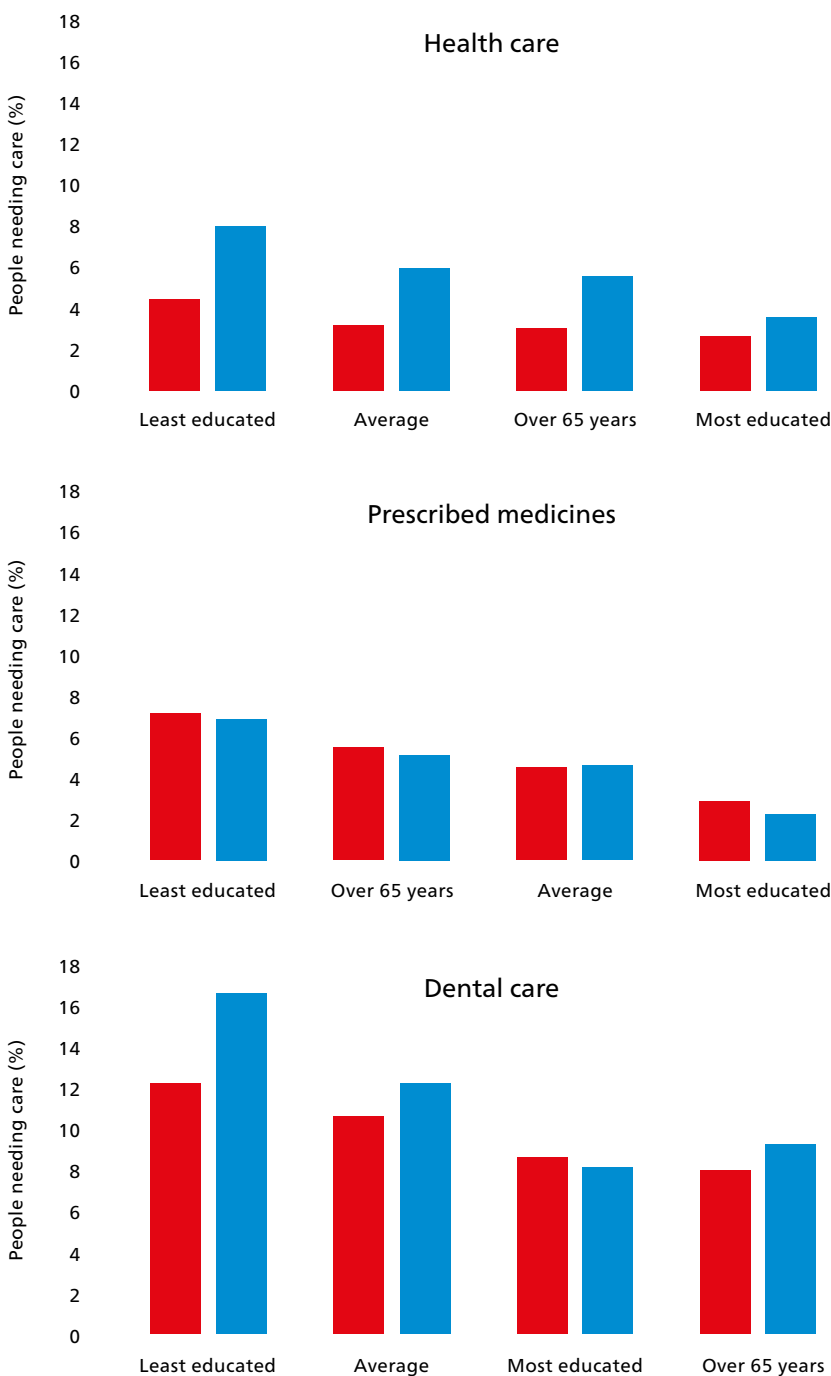
The same data show that within Sweden, socioeconomic inequality and age-related inequality are also larger for prescribed medicines than for health care or dental care.

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

● Sweden  
● EU28

Note: EU28: EU Member States as of 1 July 2013.

Source: EHIS data from Eurostat (2019).



### 3.3 Summary

Children in Sweden benefit from very good coverage. Generally, all people under 20 years, including the children of asylum seekers and undocumented children, are able to use all publicly financed health services without user charges.

For adults, the main gaps in coverage are due to co-payments, which are applied to all health services except diagnostic tests and inpatient medicines, with regional variation for some co-payments.

User charges for outpatient visits and inpatient stays are in the form of fixed co-payments. Although these co-payments are set locally and vary across the country, the co-payments for outpatient visits are subject to a nationally determined cap, so that no adult has to pay more than SEK 1150 (€115) for outpatient visits in a 12-month period. In addition to children and adolescents under 20 years, people aged over 85 years are generally exempt from these co-payments.

Unmet need for health care in Sweden seems to be driven more by waiting time than by cost. Waiting time guarantees introduced in 2010 have reduced the problem but not eliminated it. VHI is purchased to ensure quick access to ambulatory care and to minimize waiting times for elective treatment, but plays a marginal role in the health system, covering a relatively small share of the population (take up is concentrated among certain types of employees) and accounting for less than 1% of current spending on health.

Adults must pay the full cost of dental care. There is no cap, only a system of protection against high costs, with payment falling as the amount spent in a 12-month period increases. However, there are exemptions from user charges for people aged under 23 in all regions and people aged over 80 years in most regions. In addition, since 2008, all adults have benefited from a very small annual subsidy for dental care, which reduces the out-of-pocket cost among people using dental care by around €15–30 per person (depending on age). The level of this subsidy was doubled in 2019. Unmet need for dental care is driven by cost. It has fallen substantially over time and is now close in level to unmet need for health care (see Fig. 1). Socioeconomic inequality in unmet need remains much higher for dental care than for health care, however (see Fig. 2).

Adults must pay the full cost of prescribed medicines up to a cap of SEK 2300 (€230) per person in a 12-month period, which is separate from the cap for outpatient visits. Unlike other health services, there are no exemptions from user charges for older people. Data on unmet need for prescribed medicines show substantial income and age-related inequality – more than for health care or dental care. Over-the-counter medicines are not covered; use of non-prescribed medicines is found to be much lower among people of lower socioeconomic status.

There are no exemptions from co-payments based on income. People receiving social benefits can apply for retrospective reimbursement of

all co-payments or ask the region for an invoice, which the municipality will then pay on their behalf. These rather bureaucratic approaches to reducing the financial burden of co-payments for people receiving social benefits reflect the division of responsibilities between municipalities (social benefits) and regions (health care).



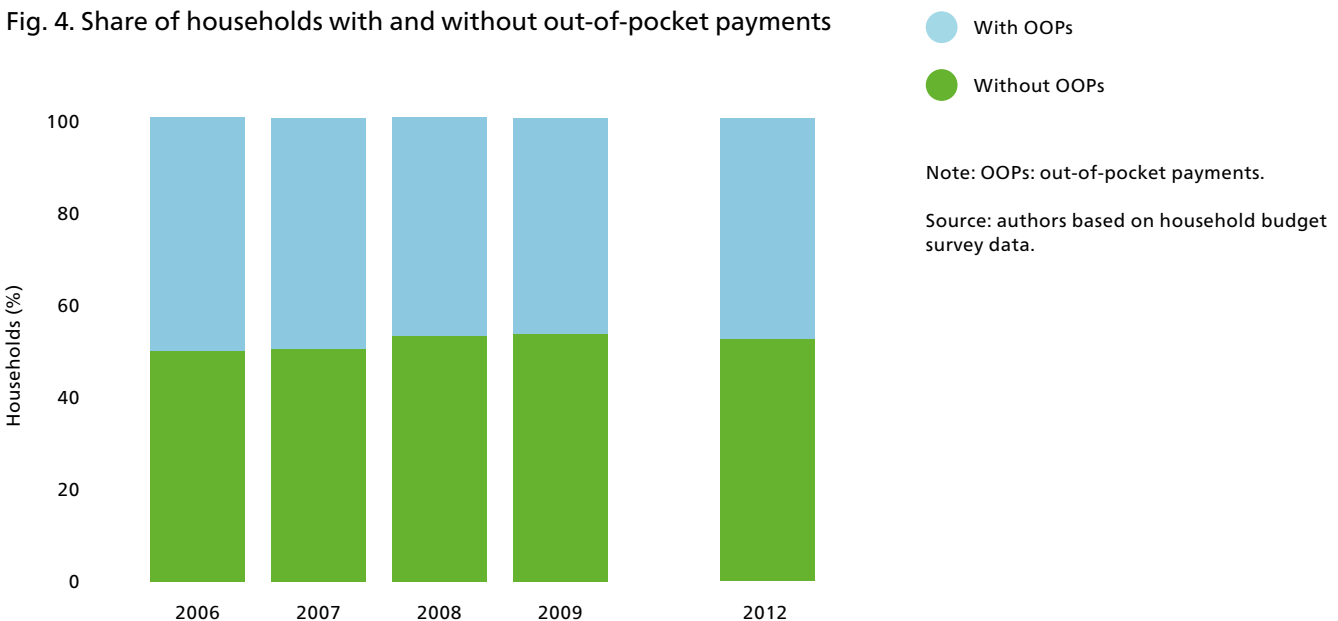
# 4. Household spending on health

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 half of all households pay out-of-pocket for health care (Fig. 4). This share increased from 50% in 2006 to 53% in 2008 and has remained relatively stable since then.

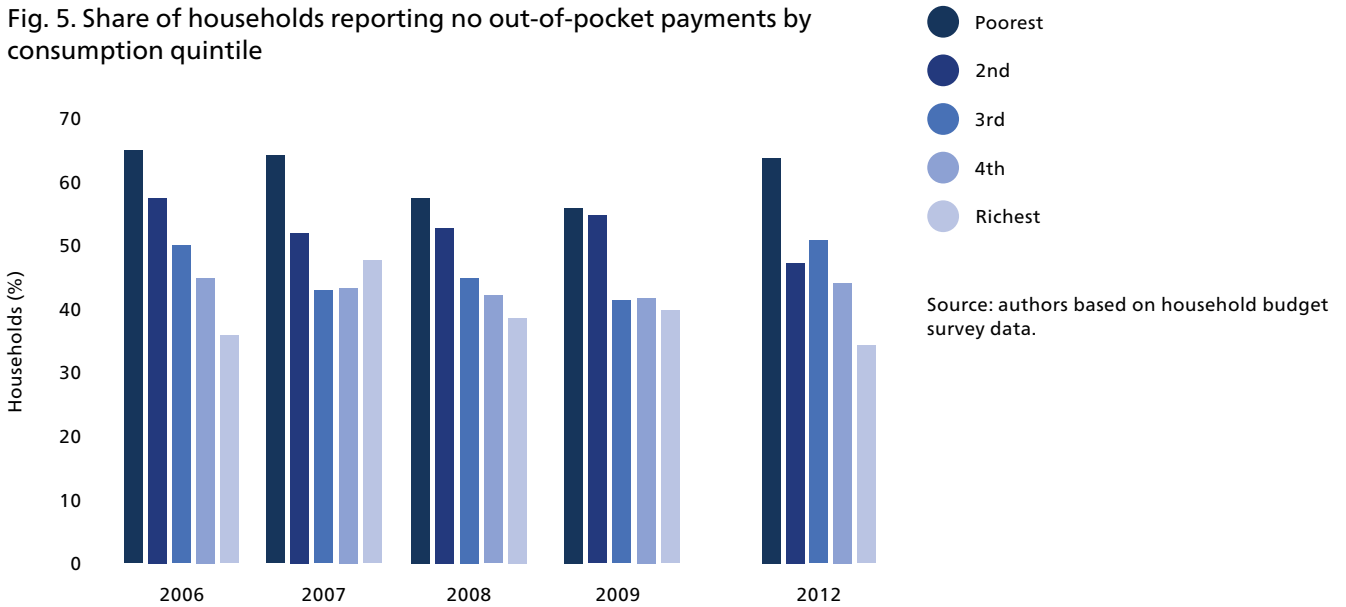
Fig. 4. Share of households with and without out-of-pocket payments



The share of households without out-of-pocket payments is much higher in the poorest quintile than in the richest quintile in all years (Fig. 5). This could reflect the fact that people receiving social benefits can apply for retrospective reimbursement of co-payments. It may also reflect evidence of substantial socioeconomic inequality in unmet need for dental care and prescribed medicines.



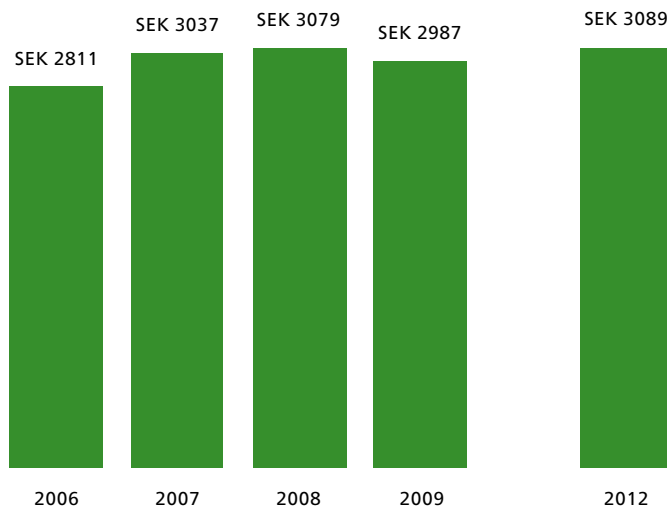
Fig. 5. Share of households reporting no out-of-pocket payments by consumption quintile



Out-of-pocket payments per person have been stable over time, rising slightly in nominal terms from SEK 2811 (€281) in 2006 to SEK 3089 (€308) in 2012, which equates to a small decline in real terms (Fig. 6).

Fig. 6. Average annual out-of-pocket spending on health care per person

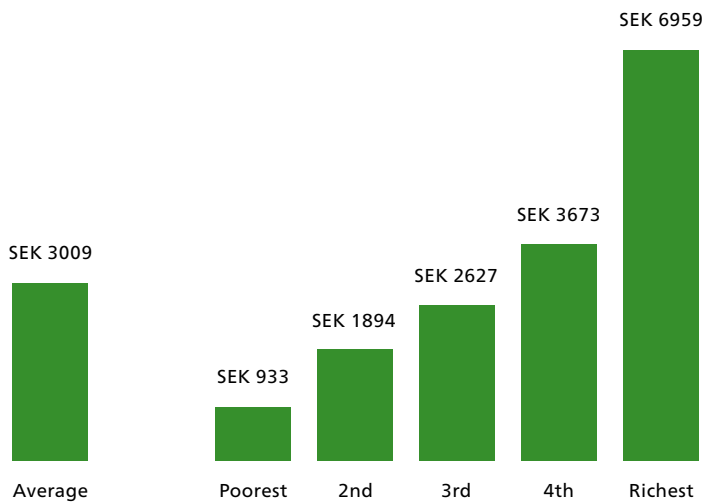
Source: authors based on household budget survey data.



There is large variation in the average amount spent per person across consumption quintiles, however. This ranges from SEK 933 (€93) in the

poorest quintile to SEK 6959 (€695) in the richest quintile – a greater than seven-fold difference (Fig. 7).

Fig. 7. Weighted average annual out-of-pocket spending on health care per person by consumption quintile, all years

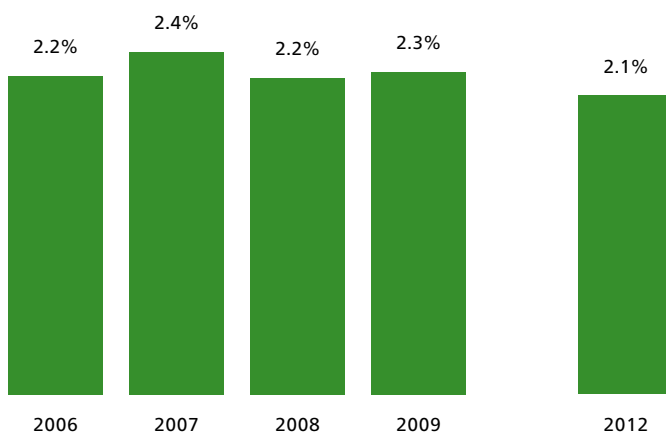


Note: weighted average across all years to adjust for sample size and each year’s SEK value relative to 2015.

Source: authors based on household budget survey data.

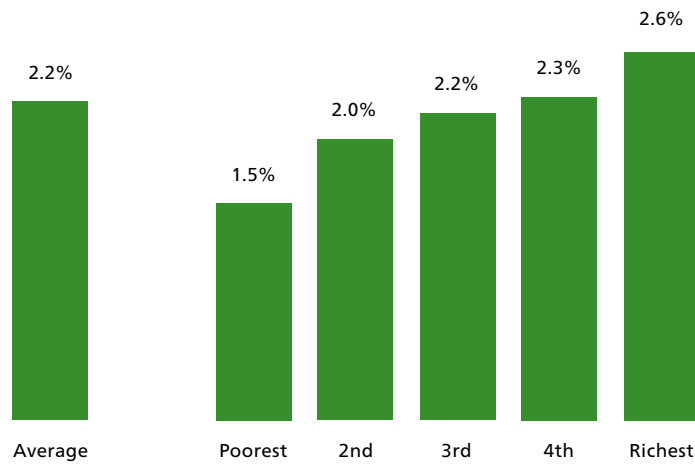
Out-of-pocket payments accounted for just over 2% of total household spending (the household budget) in 2012 (Fig. 8). It has remained relatively stable over time. Out-of-pocket payments show a progressive distribution across households, with those in the poorer quintiles spending a lower share of their budget on health than richer quintiles (Fig. 9).

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



Source: authors based on household budget survey data.

Fig. 9. Weighted out-of-pocket payments for health care as a share of household consumption by consumption quintile, all years

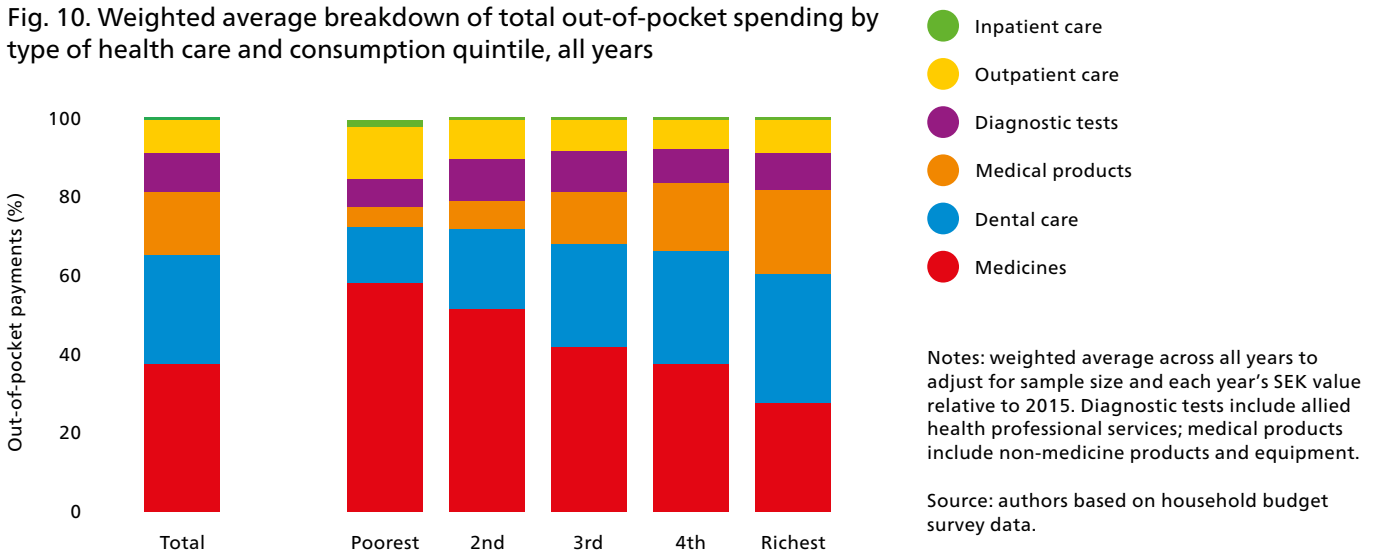


Note: weighted average across all years to adjust for sample size.

Source: authors based on household budget survey data.

Outpatient medicines, dental care and medical products (corrective lenses, hearing aids, wheelchairs, etc.) account for the largest shares of out-of-pocket payments across all years in the analysis (Fig. 10). The outpatient medicines share is higher among the poorer quintiles, while the dental care and medical products shares are higher among the richer quintiles – a pattern seen in many countries (WHO Regional Office for Europe, 2019). The outpatient and inpatient care shares are higher among the poorer quintiles in Sweden. These patterns are likely to reflect co-payments for outpatient visits, inpatient stays, prescribed medicines, medical products and dental care, as well as socioeconomic inequality in unmet need for dental care and prescribed medicines.

Fig. 10. Weighted average breakdown of total out-of-pocket spending by type of health care and consumption quintile, all years

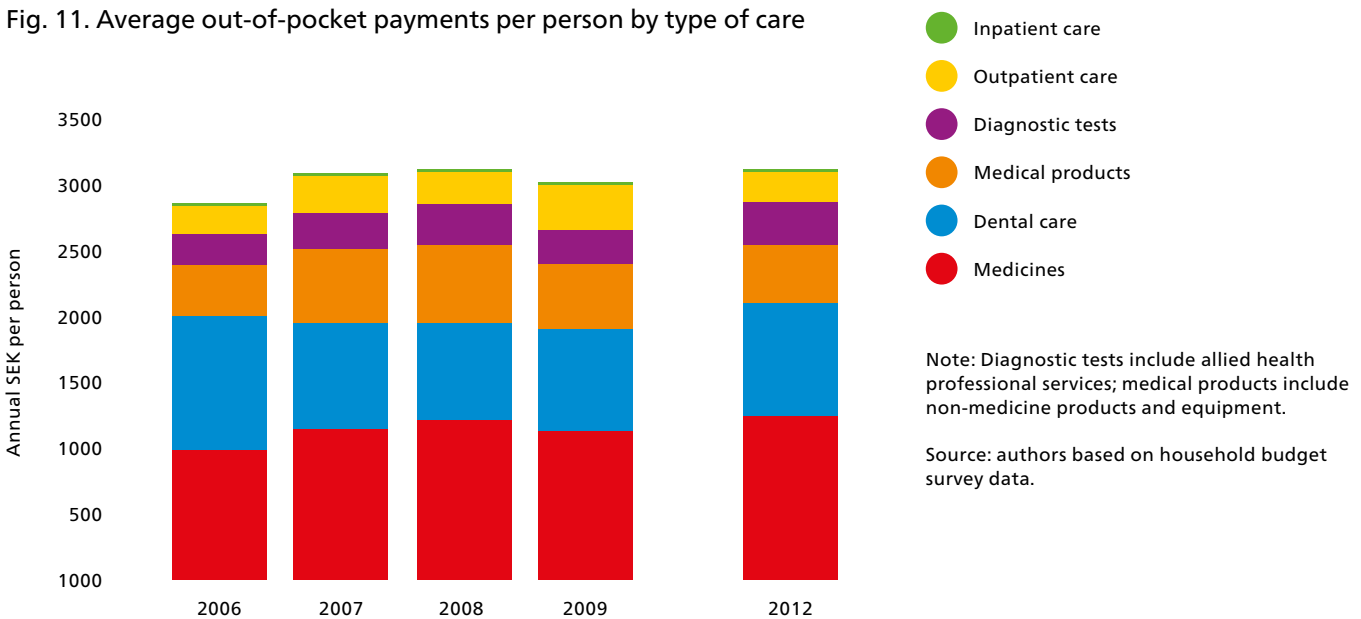


Notes: weighted average across all years to adjust for sample size and each year's SEK value relative to 2015. Diagnostic tests include allied health professional services; medical products include non-medicine products and equipment.

Source: authors based on household budget survey data.

The average amount spent out-of-pocket on outpatient medicines may appear to have increased slightly over time in nominal terms (Fig. 11), but their share of overall household budgets has not really changed over time (data not shown). Over time, the average amount spent out-of-pocket on dental care has decreased both in nominal terms (Fig. 11) and as a share of household budgets (data now shown). The average amount spent out-

Fig. 11. Average out-of-pocket payments per person by type of care



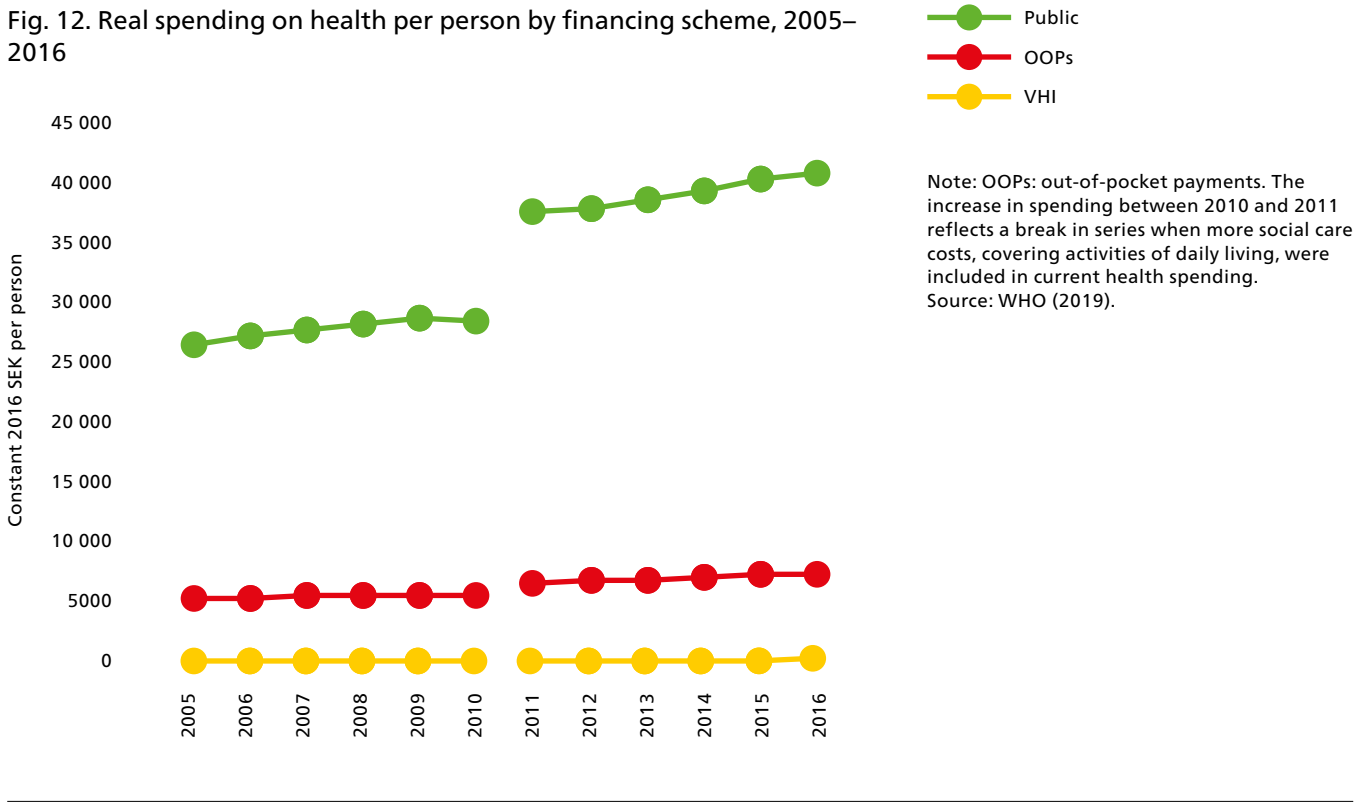
## 4.2 Informal payments

Informal payments do not seem to be an issue in the Swedish health system (European Commission, 2014; 2017). In 2014 and 2017, 1% of Swedish respondents in an EU-wide survey reported making informal payments, compared to the EU27 average of 5% in 2014 and the EU28 average of 4% in 2017.

### 4.3 Trends in public and private spending on health

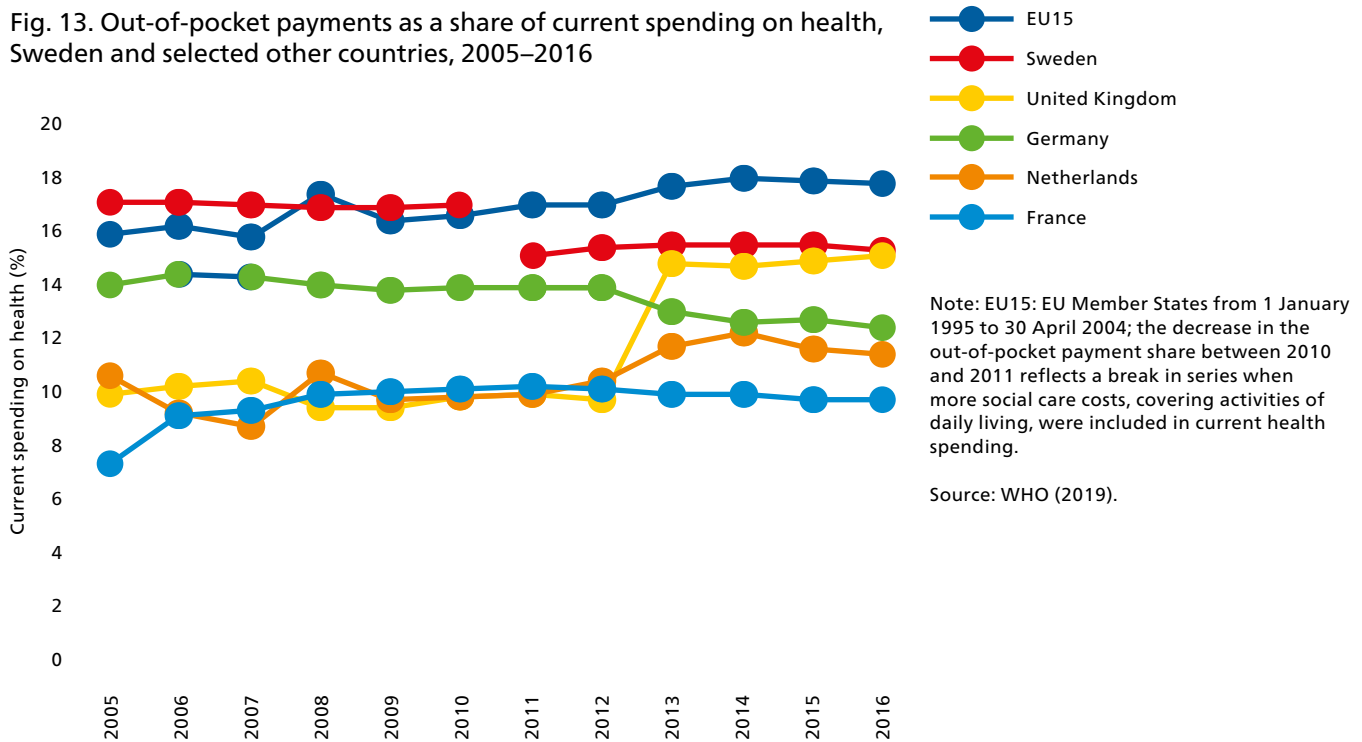
National health accounts data show that out-of-pocket payments per person have risen slightly over time in real terms, along with growth in public spending on health (Fig. 12).

Fig. 12. Real spending on health per person by financing scheme, 2005–2016



The out-of-pocket payment share of current spending on health appeared to decline from 17% in 2005 to 15% in 2016, but this is in fact due to a break in series in 2011 (Fig. 13). This share is lower in Sweden than the EU15 average, and on a par with the United Kingdom, but higher than in comparator countries such as France, Germany and the Netherlands (Fig. 13).

Fig. 13. Out-of-pocket payments as a share of current spending on health, Sweden and selected other countries, 2005–2016



## 4.4 Summary

Household budget survey data indicate that out-of-pocket payments account for around 2% of total household spending and did not increase in real terms during the study period. They account for a smaller share of household spending among poorer than richer households.

Out-of-pocket payments are mainly spent on outpatient medicines and dental care, followed by medical products, but with different patterns of spending across consumption quintiles. Outpatient medicines, outpatient care and inpatient care account for a larger share of out-of-pocket payments among poorer than richer households, perhaps reflecting the presence of annual caps on co-payments for these services. Dental care and medical products account for a larger share of out-of-pocket payments among richer than poorer quintiles. The range of publicly financed medical products is narrow in scope compared to medicines. There is no cap on co-payments for dental care.

National health accounts data show that the out-of-pocket payment share of current spending on health in Sweden is below the EU15 average, and on a par with the United Kingdom, but higher than in comparator countries such as France, Germany and the Netherlands.

# 5. Financial protection

This section uses data from the Swedish household budget survey to assess the extent to which out-of-pocket payments result in financial hardship for households who 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.

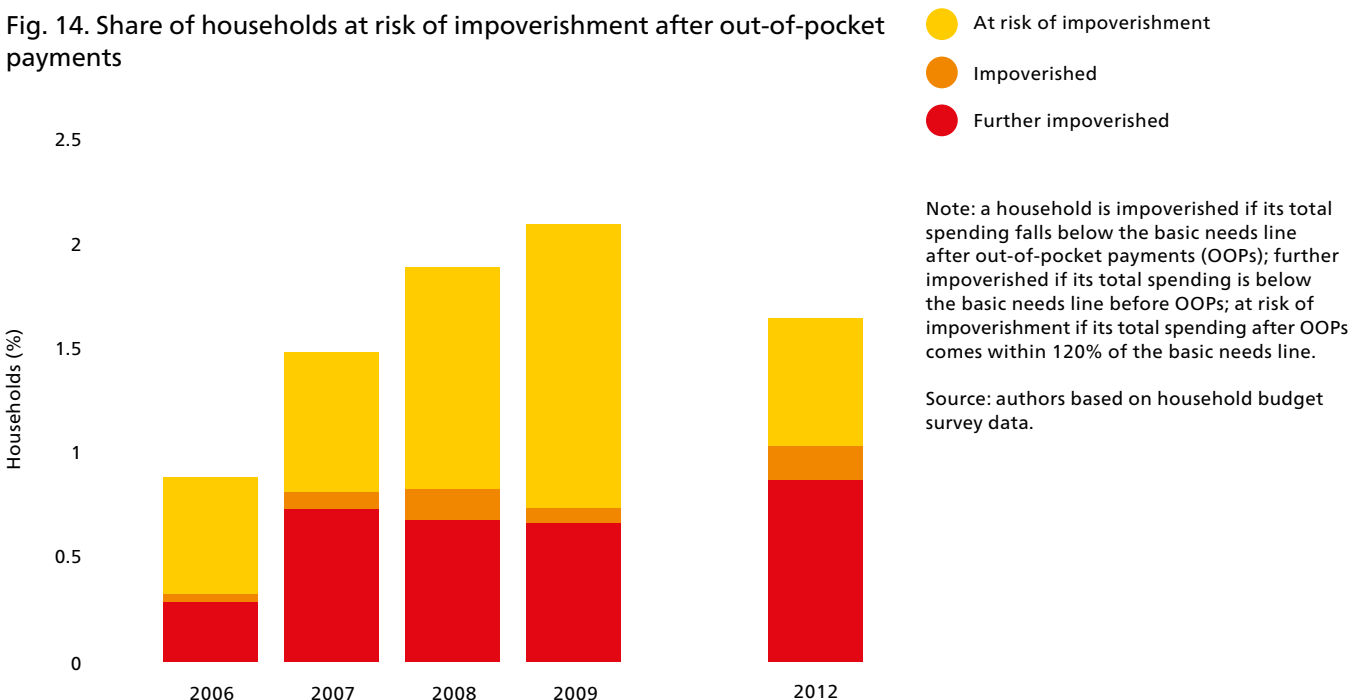
## 5.1 How many households experience financial hardship?

### 5.1.1 Out-of-pocket payments and risk of impoverishment

Fig. 14 shows the share of households at risk of impoverishment after out-of-pocket spending on health. The poverty line reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the Swedish population (households between the 25th and 35th percentiles of the consumption distribution, adjusted for household size and composition). In 2012, the monthly cost of meeting these basic needs – the basic needs line – was SEK 6865 (€686) per month.

Approximately 2.1% of households or fewer were at risk of impoverishing health spending during the study period (Fig. 14). The share of the population impoverished or further impoverished after out-of-pocket payments increased between 2006 and 2007, from a very low base, and increased again in 2012.

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





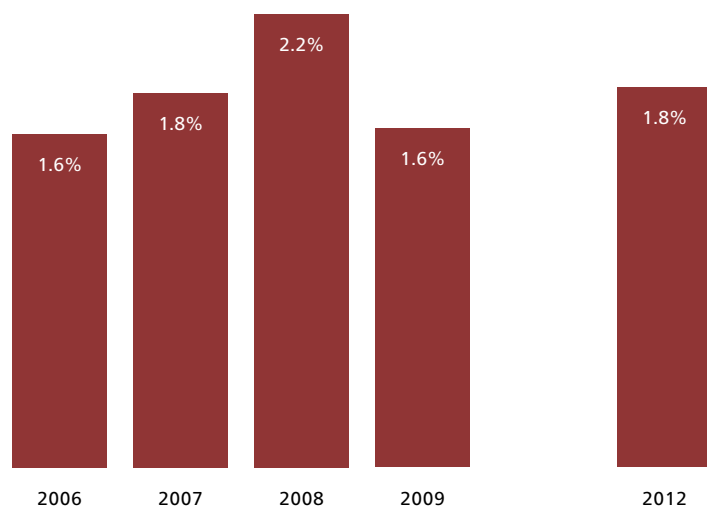
### 5.1.2 Catastrophic out-of-pocket payments

Households with catastrophic levels of out-of-pocket spending are defined as those who spend more than 40% of their capacity to pay for health care. This includes households who are impoverished after out-of-pocket payments (because they no longer have any capacity to pay) and further impoverished (because they had no capacity to pay even before paying out of pocket for health care).

In 2012, it is estimated that 1.8% of households experienced catastrophic levels of spending on health care (Fig. 15). Overall, between 2006 and 2008 the incidence of catastrophic health spending rose from 1.6% to 2.2%, before falling to 1.6% in 2009.

Fig. 15. Share of households with catastrophic out-of-pocket payments

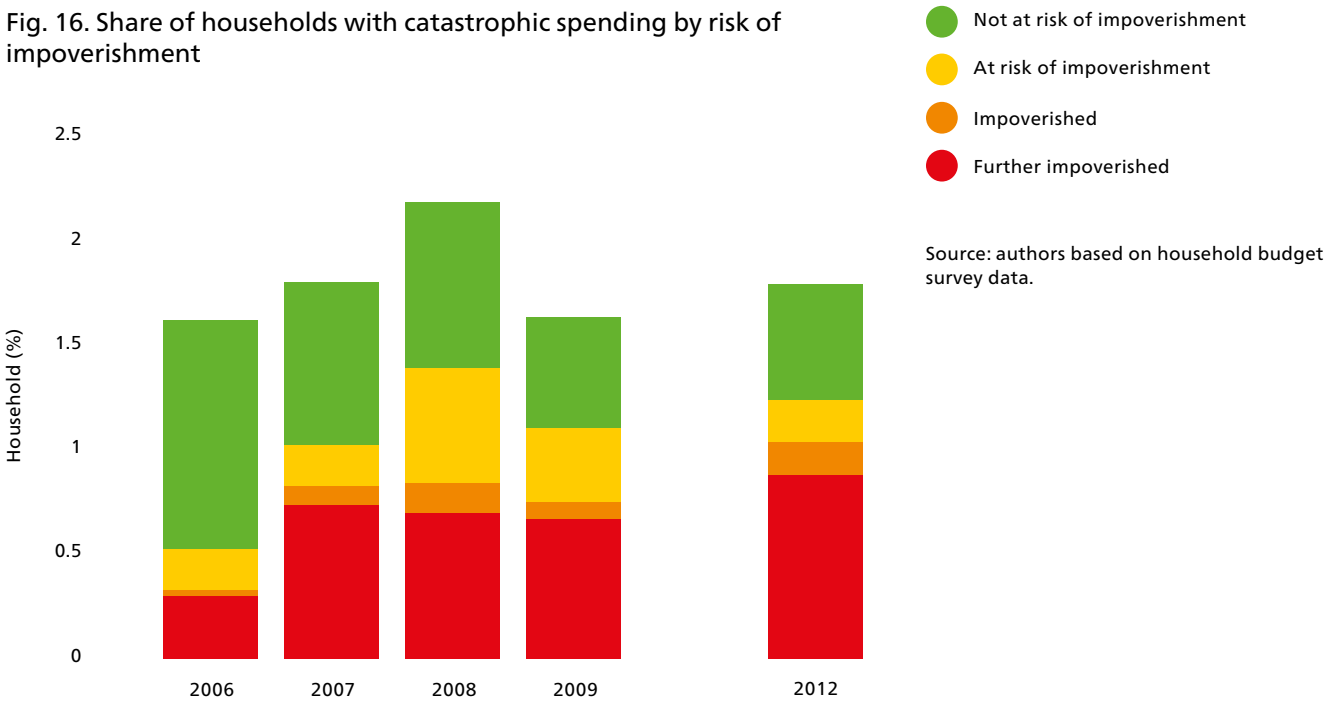
Source: authors based on household budget survey data.



## 5.2 Who experiences financial hardship?

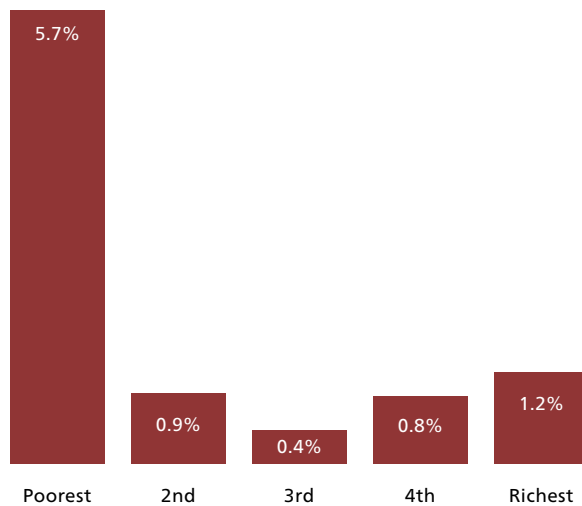
In 2012, catastrophic health spending was concentrated among households who are already poor or at risk of impoverishment after out-of-pocket payments; only a third of households with catastrophic spending were not at risk of impoverishment (Fig. 16). This breakdown has changed over time, however. In 2006, more than two thirds of households with catastrophic spending were not at risk of impoverishment, but their share fell in 2007 and again in 2009. This represents a substantial shift in the distribution of catastrophic health spending over time from richer to poorer households.

Fig. 16. Share of households with catastrophic spending by risk of impoverishment



The incidence of catastrophic health spending is highly concentrated among the poorest consumption quintile. Across all the study years, around 6% of households in the poorest quintile experienced catastrophic spending, compared to around 1% in the other quintiles (Fig. 17).

Fig. 17. Weighted average share of households with catastrophic spending by consumption quintile, all years



Note: weighted average across all years to adjust for sample size.

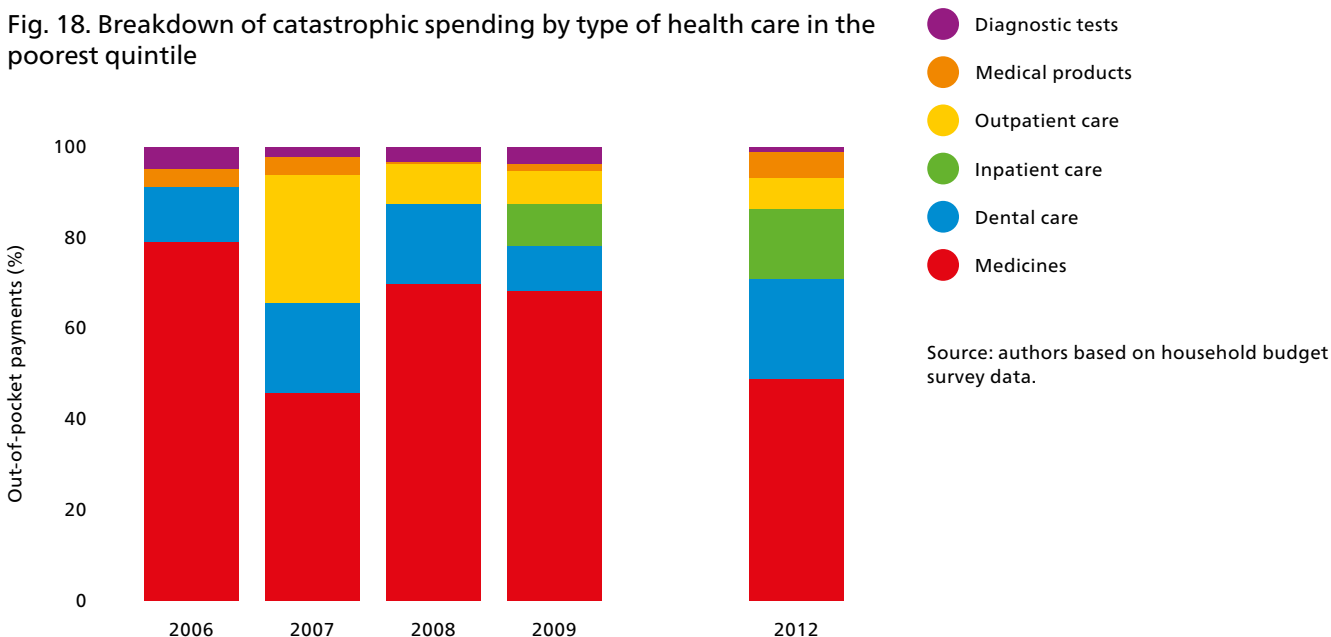
Source: authors based on household budget survey data.

### 5.3 Which health services are responsible for financial hardship?

Among all households with catastrophic health spending, the two main areas of spending, on average, are dental care and medical products. Across the study years, the weighted average of spending in each of these areas was around 35–40% of out-of-pocket payments. Due to small samples, the shares vary considerably in individual years, but dental care, medical products or both consistently account for the dominant shares. On average, at around 8%, the outpatient medicines share of out-of-pocket payments among all households with catastrophic spending makes it the third largest driver of financial hardship overall.

Among households with catastrophic spending in the poorest quintile, however, out-of-pocket payments are mainly spent on outpatient medicines in all the study years (Fig. 18).

Fig. 18. Breakdown of catastrophic spending by type of health care in the poorest quintile

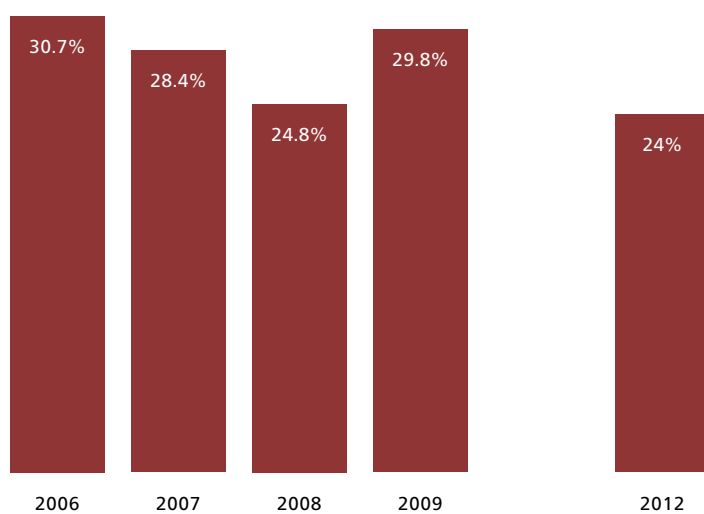


### 5.4 How much financial hardship?

Fig. 19 shows the share of household spending on health care among households with catastrophic health spending. It has fallen from about 31% in 2006 to 24% in 2012. Among households not experiencing catastrophic spending, out-of-pocket payments accounted for about 2% of total household spending.

Fig. 19. Out-of-pocket payments as a share of total household spending among households with catastrophic spending

Source: authors based on household budget survey data.



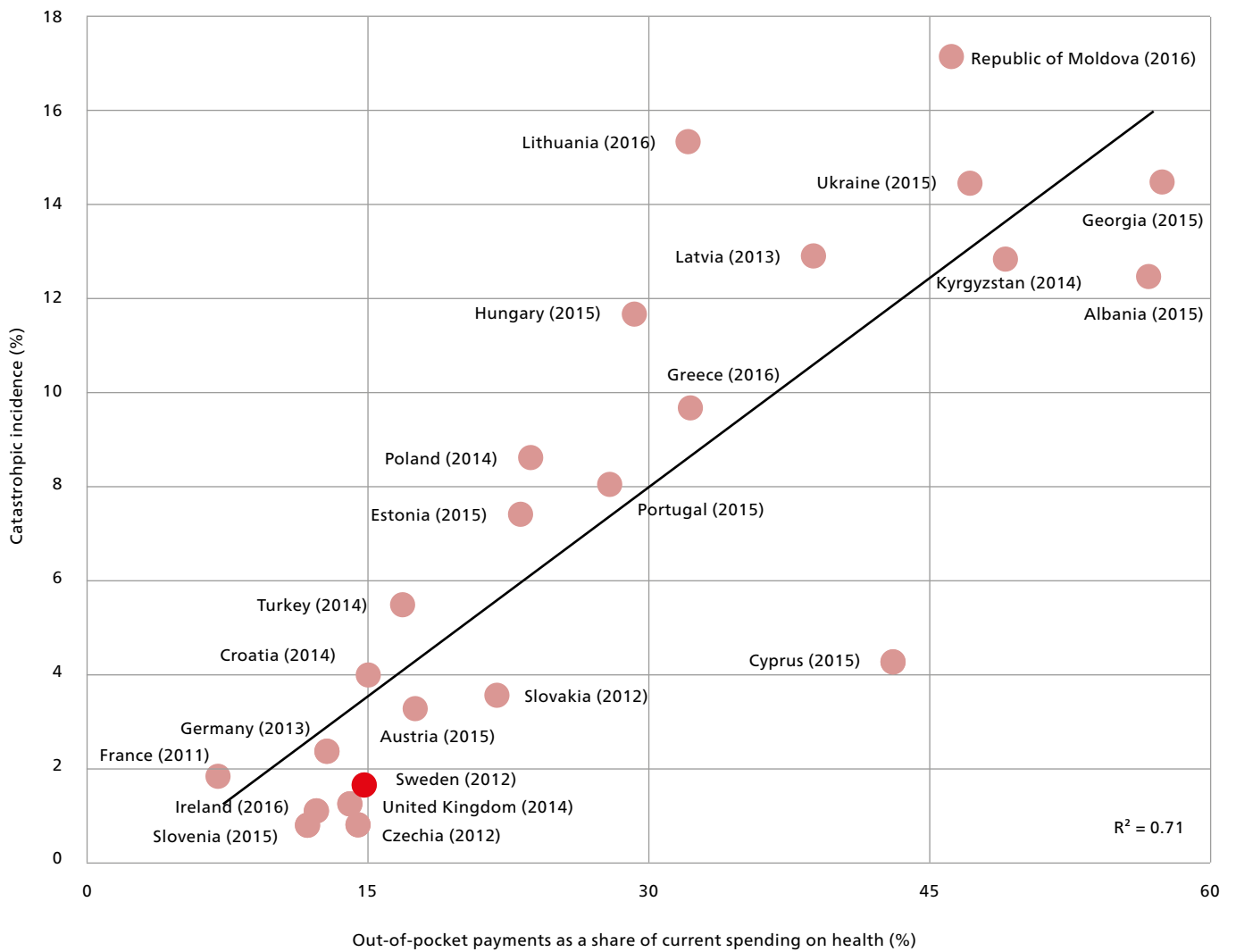
## 5.5 International comparison

The incidence of catastrophic health spending in Sweden is low compared to many other EU countries, on a par with France, Germany and the United Kingdom (Fig. 20).

Fig. 20. 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<sup>2</sup>: coefficient of determination. The out-of-pocket payment data are for the same year as the catastrophic spending data. Sweden is highlighted in red.

Source: WHO Regional Office for Europe (2019).



## 5.6 Summary

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

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

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

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

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

# 6. Factors that strengthen and undermine financial protection

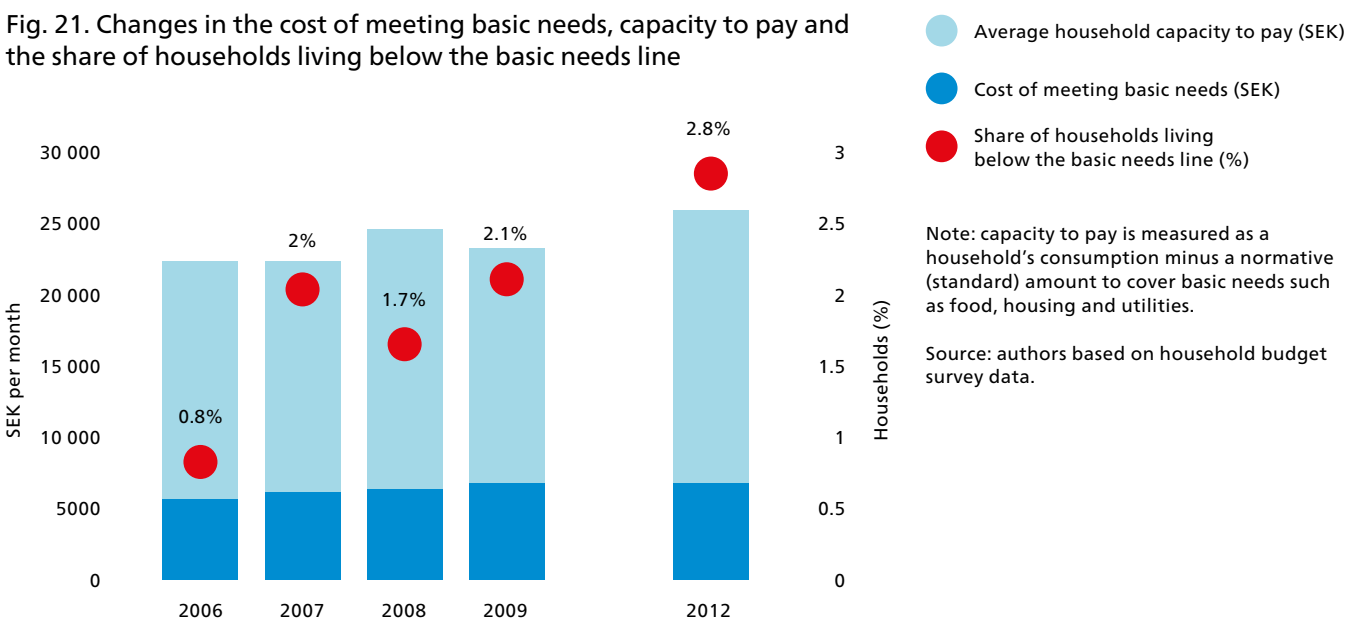
This section considers the factors that may be responsible for financial hardship caused by out-of-pocket payments in Sweden and which may explain the trend over time. Factors outside the health system that affect people's capacity to pay for health care, such as changes in living standards and the cost 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 Eurostat to assess people's capacity to pay for health care. Both sets of data indicate an increase in poverty in Sweden over time, and a reduction in households' capacity to pay for health care. Sweden experienced a small decline in GDP in 2008 (−0.6%) and a sharper drop in 2009 (−5.2%), in response to the financial crisis, and a further small decline in 2012 (−0.3%) (World Bank, 2019). However, sharp increases in poverty since 2008 have been sustained over time, and the risk of poverty and social exclusion in Sweden in 2017 was above 2004 levels.

Household budget survey data show that between 2006 and 2009 the average cost of meeting basic needs (food, housing and utilities) increased steadily, before falling slightly in 2012, while average household capacity to pay also increased overall, but with decreases in 2007 and 2009 (Fig. 21). The share of households living below the basic needs line rose substantially from 0.8% in 2006 to 2.0% in 2007 and again from 2.1% in 2009 to 2.8% in 2012 (Fig. 21).

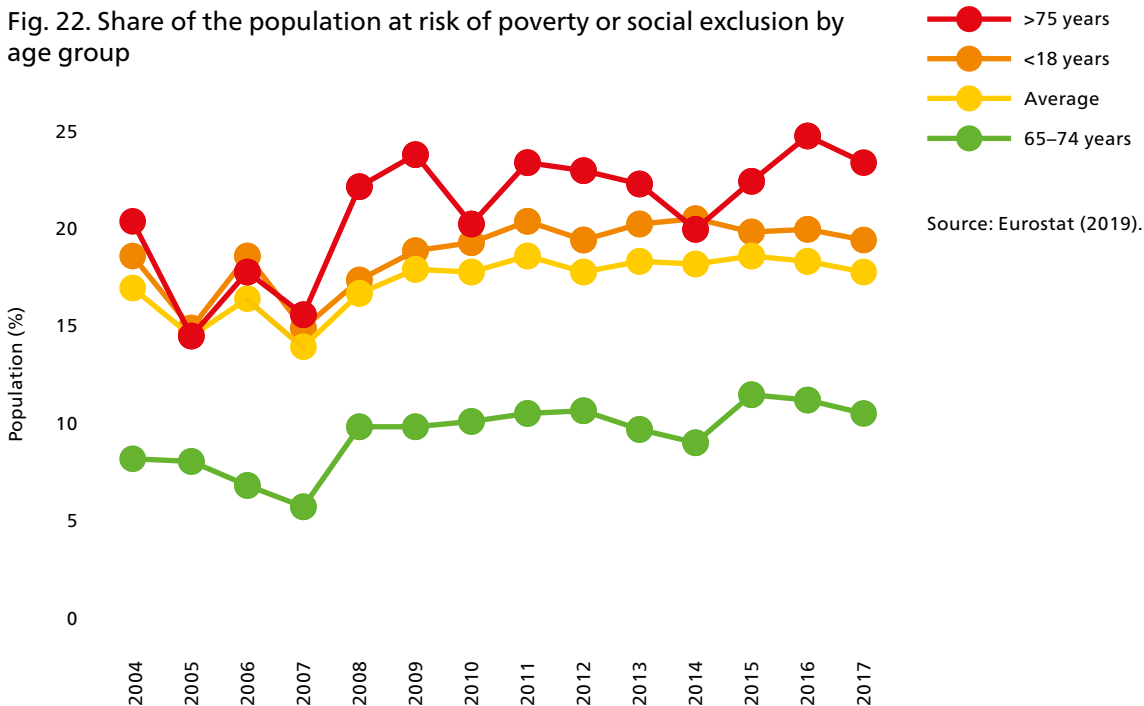
Fig. 21. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line





This trend is confirmed by Eurostat data on the share of the population at risk of poverty or social exclusion in Sweden, which show that this risk rose quite sharply on average between 2007 and 2011, from 14% to over 18%, and dropped slightly in 2012 but otherwise has remained above 18%; in 2017 it remained higher than it had been in 2004 (Fig. 22). The increase was particularly sharp among people aged over 65 years. However, among older people, the rate of poverty and social exclusion is more than double among people aged over 75 years (23% in 2017) than among people aged between 65 and 75 years (10%). The rate among people aged over 75 years in Sweden is also higher than the EU28 average for this age group (20%) (Eurostat, 2019).

Fig. 22. Share of the population at risk of poverty or social exclusion by age group



These trends suggest that the increase in the share of households with impoverishing out-of-pocket payments in 2007 and 2012 (Fig. 14) and the increase in the incidence of catastrophic health spending between 2006 and 2008 (Fig. 15) may be linked to the increase in the share of households living below the basic needs line, which may in turn be linked to rising poverty levels over time.

## 6.2 Health system factors

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

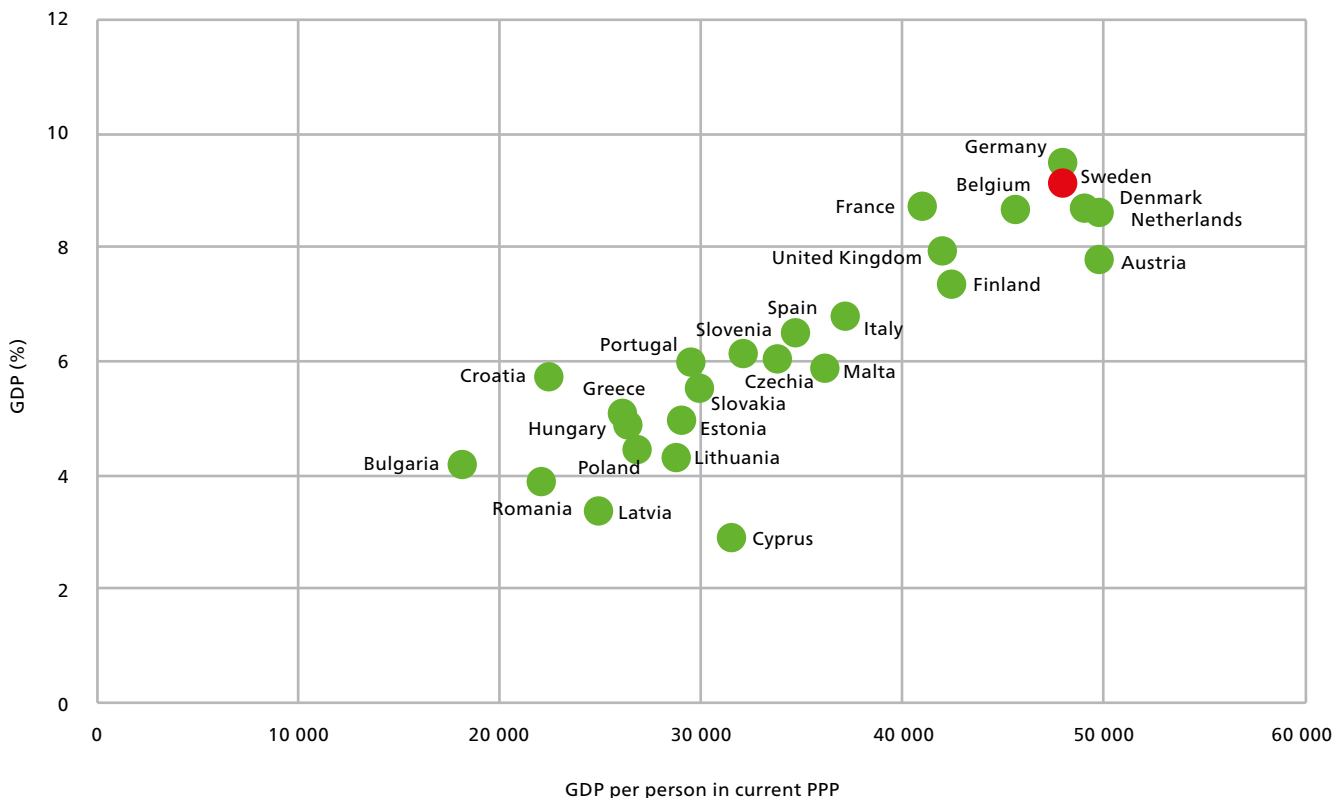
### 6.2.1 Health spending

Levels of public spending on health in Sweden are high, both as a share of current spending on health (84% in 2016) and as a share of GDP (9.1% in 2016), and have remained stable over time (WHO, 2019). In 2016, only France and Germany spent more publicly on health as a share of GDP (Fig. 23). As a result of high levels of public spending on health, the out-of-pocket payment share of current spending on health is moderately low (15% in 2016) (WHO, 2019).

Fig. 23. Public spending on health and GDP per person in the EU, 2016

Notes: PPP: purchasing power parities. Sweden is highlighted in red. The figure excludes Ireland and Luxembourg.

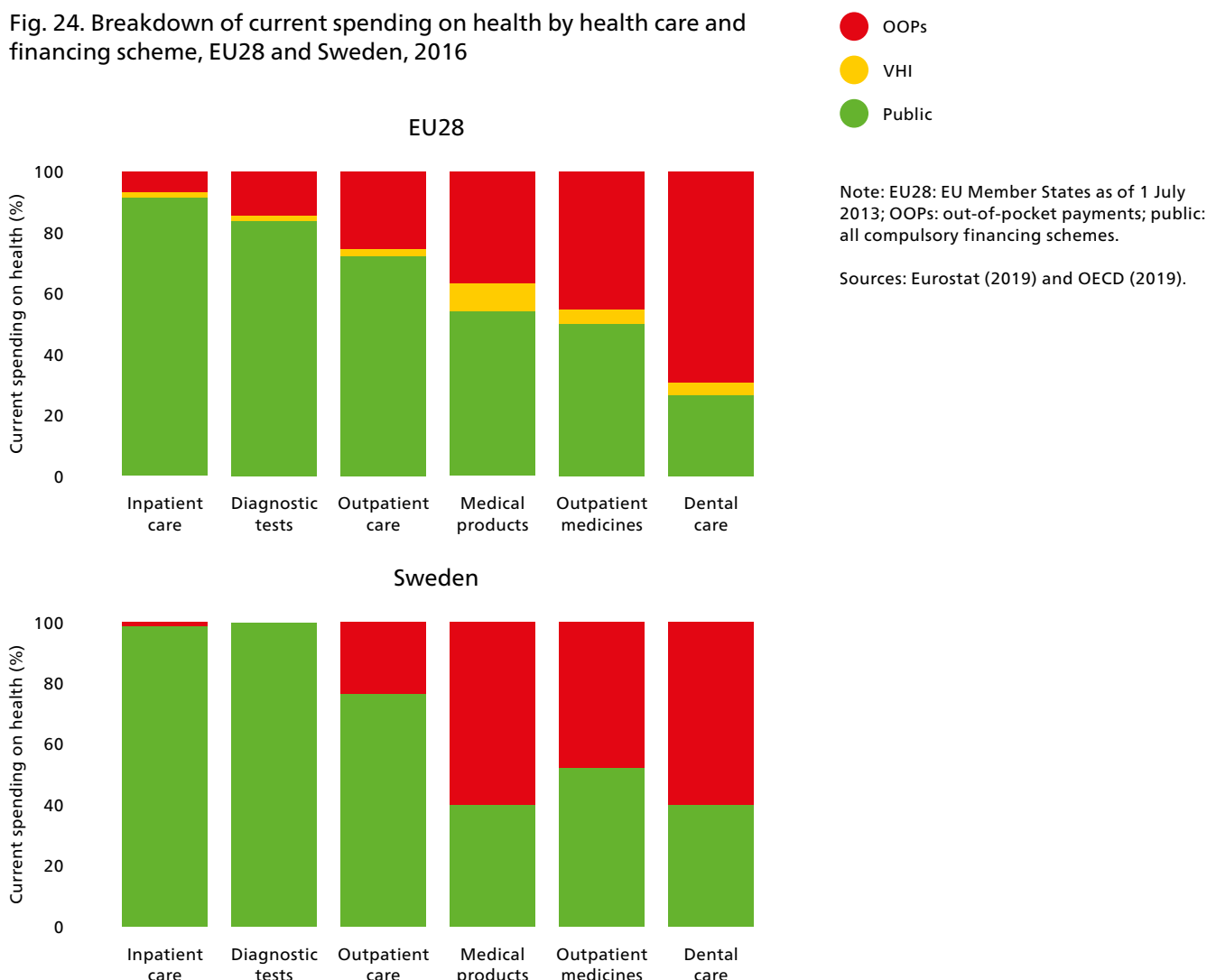
Source: WHO (2019).



Overall levels of public spending on health do not tell the full story, however. The public share of current spending on health varies substantially by type of care, as shown in Fig. 24. Public spending accounts for all spending on diagnostic tests and most spending on inpatient care in Sweden; it also accounts for a high share of spending on outpatient care. However, the public share of spending on outpatient medicines, medical products and dental care is low in Sweden – even lower than the EU28 average for medical products (Fig. 24).

Low levels of public spending on these three items explain why they account for the largest share of out-of-pocket payments as reported in the household budget survey (see Fig. 10). Medical products and dental care account for the largest share of out-of-pocket payments among all households with catastrophic health spending also (see section 5.3), while outpatient medicines account for the largest share among households in the poorest quintile with catastrophic spending (Fig. 18).

Fig. 24. Breakdown of current spending on health by health care and financing scheme, EU28 and Sweden, 2016



## 6.2.2 Health coverage

**Population entitlement** to publicly financed health services is automatic for residents. Children benefit from very good coverage. All people under 18 years, including the children of asylum seekers and undocumented children, are able to use all publicly financed health services without user charges. Most regions extend free access to covered health services to people under 20 years.

The scope of the publicly financed **benefits package** is generally broad for adult residents. Publicly financed benefits for medicines, medical devices and dental care are determined centrally. The range of medical devices covered is relatively limited compared to the range of medicines covered. All other benefits are defined locally, leading to a degree of geographical variation in coverage and waiting times for specialist care.

Gaps in coverage largely arise due to the presence of **user charges (co-payments)** for all health services provided to adults except diagnostic tests and inpatient medicines. There are important differences in the design of co-payments for different types of care.

User charges for outpatient visits and inpatient stays are in the form of fixed co-payments. Although these co-payments are set locally and therefore vary across the country, the co-payments for outpatient visits are subject to a nationally determined annual cap, so that no adult has to pay more than SEK 1150 (€115) for outpatient visits in a 12-month period. In addition to children, people aged over 85 years are exempt from these co-payments in many regions. Unmet need for health care is relatively low in Sweden and driven mainly by waiting time. Waiting time guarantees introduced in 2010 have reduced the problem but not eliminated it. VHI is purchased to ensure quick access to ambulatory care and to minimize waiting times for elective treatment, but plays a marginal role in the health system, covering only a very small share of the population and accounting for less than 1% of current spending on health.

For medicines, medical devices and dental care, patients must pay the full price of the service, in addition to any costs arising from balance billing, which is permitted for publicly financed dental care. An annual cap is in place for medicines and medical devices, set at SEK 2300 (€230). This cap is separate from the cap for primary care and specialist care. Both caps are applied automatically at the point of use, so that once a person has reached the cap, no further co-payments are applied. There is no cap in place for dental care, just a system in which the share of the cost people must pay falls as out-of-pocket spending on dental care rises.

Exemptions from co-payments focus mainly on age (children and adolescents in all regions and people aged over 80 or 85 years in most regions). There are no exemptions from co-payments based on income. People receiving social benefits can apply for retrospective reimbursement of all co-payments or ask the region for an invoice, which the municipality will then pay on their behalf.

### 6.2.3 Dental care

Heavy user charges for dental care for adults explain why dental care accounts for around 30% of all out-of-pocket payments on average (Fig. 10), 35–40% of out-of-pocket payments among all households with catastrophic health spending on average (section 5.3) and at least 10% of out-of-pocket payments among households with catastrophic spending in the poorest quintile (Fig. 18). The share of out-of-pocket payments allocated to dental care is much higher among richer households (32%) than poorer households (14%) on average across the study period (Fig. 10), while unmet need for dental care due to cost is much higher among poorer households (10.6%) than richer households (1.4%) in 2012, at the end of the study period (Fig. 2).

These findings point to significant weaknesses in the design of co-payments for dental care during the study period. The use of percentage co-payments (co-insurance) with high rates – 100% for annual costs under SEK 3000 (€300), 50% for annual costs between SEK 3000 and SEK 15 000 (€1500) and 15% for annual costs above SEK 15 000 – as well as the lack of an annual cap on co-payments for dental care and the presence of balance billing undermine equitable access to dental care and result in financial hardship. Exemptions from co-payments for children and older people and the introduction in 2008 of an annual subsidy of SEK 150 (€15) or SEK 300 (€30) per adult for dental care (increased to SEK 300 and SEK 600 (€60) respectively in 2018) are important protections but have not done enough; substantial socioeconomic inequalities in access to dental care remain. There is also a subsidy for people with conditions or requiring treatment associated with increased risk of poor oral health.

### 6.2.4 Medical products

Medical products account for around 16% of all out-of-pocket payments on average (Fig. 10). Among all households with catastrophic health spending, they account for 35–40% of out-of-pocket payments overall on average, but never more than 6% among households with catastrophic spending in the poorest quintile (section 5.3). As with dental care, the share of out-of-pocket payments allocated to medical products is generally much higher among richer households (22%) than poorer households (5%) during the study period (Fig. 10).

These findings suggest that the annual cap of SEK 2300 (€230) for medicines and medical devices has a protective effect for poorer households. However, there are no data on unmet need for medical products to corroborate this. Because the coverage of medical devices is more limited in scope than the coverage of medicines, people may need or want to purchase non-covered medical devices. Relatively high spending on medical products among richer households may reflect a degree of socioeconomic inequality in access to medical products.

### 6.2.5 Outpatient medicines

Medicines are the largest single item of out-of-pocket spending by households, accounting for around 38% of all out-of-pocket payments on average (Fig. 10). They only account for around 8% of out-of-pocket payments among all households with catastrophic health spending on average (section 5.3), but among households in the poorest quintile with catastrophic spending, they account for over 45% of out-of-pocket payments in every year of the study (Fig. 18). Outpatient medicines are therefore the most important driver of financial hardship among poor households.

Data on unmet need for prescribed medicines show that this is the area of care (for which data are available; there are no data on unmet need for medical devices or non-prescribed medicines) with the largest socioeconomic inequality in unmet need due to cost (Fig. 3).

These findings strongly suggest that the current design of co-payments for medicines, including the annual cap of SEK 2300 (€230) for all adults, may be relatively protective for richer households but is not sufficiently protective for poorer households. The lack of exemptions from co-payments based on income is of particular importance. Although people receiving social benefits can apply for retrospective reimbursement of all co-payments or ask the region for an invoice that the municipality will then pay on their behalf, bureaucratic approaches may not benefit all those who cannot afford to pay co-payments in the first place.

In addition, national health accounts data show that over a quarter of current spending on outpatient medicines in Sweden in 2016 was on non-prescribed medicines. EHS data indicate that socioeconomic inequalities in the use of medicines are even greater for non-prescribed than prescribed medicines (Eurostat, 2019).

Given the evidence on financial hardship presented in this study and evidence on use from Eurostat, it would make sense to take further action to lower access barriers and out-of-pocket payments for both prescribed and non-prescribed medicines for poor households, particularly for people receiving social benefits.

## 6.3 Summary

The health system factors that contribute to the low levels of catastrophic and impoverishing health spending in Sweden in 2012 include:

- high levels of public spending on health, resulting in a moderate out-of-pocket payment share of current spending on health in Europe (15%);
- the fact that all children living in Sweden, including the children of asylum seekers and undocumented children, enjoy free access to all covered health services, including medicines, medical devices and dental care, up to the age of 18, 20 or 23 years (depending on the health service);

- a relatively comprehensive range of publicly financed health services for adults; and
- protection against co-payments through age-related exemptions from co-payments for outpatient visits and dental care for people aged over 80 or 85 years (in addition to all children and adolescents) and annual caps on co-payments for outpatient visits, outpatient medicines and outpatient medical devices; the caps are applied automatically at the point of use, so that once a person has reached the cap, no further co-payments are applied.

The following health system factors undermine financial protection:

- the use of two separate caps rather than a single cap for all co-payments and the lack of any cap on co-payments for dental care;
- limited coverage of outpatient medical devices and no coverage of non-prescribed medicines; and
- the widespread application of co-payments for health services for adults coupled with the lack of exemptions from co-payments for poorer households.

Although social security systems are in place to support vulnerable groups of people, the evidence presented in this study and evidence from Eurostat suggest that user charges for adults lead to financial hardship and establish financial barriers to access for dental care and outpatient medicines. This indicates that the current mechanism in place to protect poor people – retrospective reimbursement of co-payments or asking the region for an invoice to be paid by the municipality on their behalf – is not enough.

The small increase in the incidence of catastrophic health spending over time cannot be explained by changes in health spending or health coverage; both factors were relatively stable during the study period. It seems to be driven by an increase in the incidence of impoverishing health spending, which in turn reflects a sustained rise in the general risk of poverty and social exclusion following the financial crisis, particularly among people aged over 75 years. The risk of poverty and social exclusion remained higher in 2017 than it had been in 2004.





# 7. Implications for policy

**Financial protection is relatively strong in Sweden compared to many other EU countries**, owing to a fairly comprehensive range of publicly financed health services for adults and free access to all covered health services for all children, supported by high levels of public spending on health and resulting in a low level of out-of-pocket payments.

**Catastrophic health spending is low on average, but highly concentrated among the poorest households.** Across all study years, close to 6% of households in the poorest quintile experienced catastrophic spending, compared to around 1% in the other quintiles.

**The drivers of financial hardship also vary by socioeconomic status.** Dental care and medical products drive financial hardship on average, but among the poorest quintile, outpatient medicines are the largest single driver.

**Widespread user charges (co-payments) and inadequate protection against co-payments, particularly for poor households, lead to inequalities in access to health care and financial hardship.**

For **dental care**, the lack of an annual cap on co-payments, the use of percentage co-payments and the presence of balance billing are clearly linked to catastrophic health spending across all income groups and to high levels of unmet need among poorer households. Exemptions from co-payments for children, adolescents and older people and the introduction in 2008 of an annual subsidy of SEK 150 (€15) or SEK 300 (€30) per adult for dental care are important protections but have not done enough; substantial socioeconomic inequalities in access to dental care are evident throughout the study period.

Recent changes in dental care coverage include doubling of the annual subsidy to SEK 300 and SEK 600 (€60) respectively and extending the age limit for exemptions from co-payment from 20 to 23 years in 2018. These improvements will benefit all households but may not be enough to close the gap in unmet need for dental care between rich and poor households.

**Outpatient medicines** and outpatient **medical devices** benefit from an annual cap on co-payments, which is applied to all adults, regardless of income. However, there are no exemptions from co-payments based on income, so co-payments for these services result in catastrophic health spending, particularly for the poorest households. Data on unmet need for prescribed medicines show that this is also the area of care (for which data are available) with the largest socioeconomic inequality in unmet need due to cost. This suggests that the annual cap may be relatively protective for richer households but is not sufficiently protective for poorer households.

One way of improving protection for poorer households is to improve coordination between municipalities (who are responsible for social services) and regions (responsible for health care). Current mechanisms aiming to protect people who receive social benefits – allowing them to apply to their municipality for retrospective reimbursement of all co-payments or to ask the region for an invoice that the municipality will then pay on their behalf – are bureaucratic and may not be adequate.

Given the evidence on financial hardship and unmet need presented in this study, it would make sense to take further action to lower access barriers and out-of-pocket payments for people receiving social benefits – for example, by introducing a system in which regions automatically invoice municipalities, so that social beneficiaries do not have to pay co-payments at the point of use and there is no need for them to seek reimbursement themselves. In addition, TLV could take a more comprehensive approach to medical devices, as it does for medicines, to ensure a wider range of devices is covered.

The Commission for Equity in Health established in 2015 identifies two important types of action – mainly outside the health system – to achieve more equal health in Sweden: first, to enhance equality of opportunity, especially in early life; and second, to strengthen welfare services so that they are better able to reach those in need. Recent changes in dental care benefits are in line with the first type of action. Whether these changes are enough to tackle inequalities in dental care remains to be seen, however. Encouraging regions and municipalities to coordinate social services and health care, thereby reducing the bureaucratic burden on people receiving social benefits, would certainly be in line with the second type of action.

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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
<b>06.1 Medical products, appliances and equipment</b> <a href="#">06.1.1 Pharmaceutical products</a> <a href="#">06.1.2 Other medical products</a> <a href="#">06.1.3 Therapeutic appliances and equipment</a>	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).
<b>06.2 Outpatient services</b> <a href="#">06.2.1 Medical services</a> <a href="#">06.2.2 Dental services</a> <a href="#">06.2.3 Paramedical services</a>	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).
<b>06.3 Hospital services</b>	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
<b>Impoverishing out-of-pocket payments</b>		
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"> <li>• an extreme poverty line of PPP-adjusted US\$ 1.90 per person per day</li> <li>• a poverty line of PPP-adjusted US\$ 3.10 per person per day</li> <li>• a relative poverty line of 60% of median consumption or income per person per day</li> </ul>
<b>Catastrophic out-of-pocket payments</b>		
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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