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Can people afford to pay for health care?

New evidence on financial protection in Croatia

Luka Vončina
Ivica Rubil

Croatia

WHO Barcelona Office for Health Systems Strengthening

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

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Abstract & keywords

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

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About the series

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

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

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

- how much households spend on health out of pocket in relation to their capacity to pay; out-of-pocket payments that exceed a threshold of a household's capacity to pay are considered to be *catastrophic*;

- household ability to meet basic needs after paying out of pocket for health; out-of-pocket payments that push households below a poverty line or basic needs line are considered to be *impoverishing*;

- how many households are affected, which households are most likely to be affected and the types of health care that result in financial hardship; and

- changes in any of the above over time.

Why is monitoring financial protection useful? The reviews identify the factors that strengthen and undermine financial protection; highlight implications for policy; and draw attention to areas that require further analysis. The overall aim of the series is to provide policy-makers and others with robust, context-specific and actionable evidence that they can use to move towards universal health coverage. A limitation common to all analysis of financial protection is that it measures financial hardship among

households who are using health services, and does not capture financial barriers to access that result in unmet need for health care. For this reason, the reviews systematically draw on evidence of unmet need, where available, to complement analysis of financial protection.

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

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

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

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Abbreviations

DDD	defined daily dose (approach)
EHIS	European Health Interview Survey
EU	European Union
EU13	European Union Member States joining after 30 April 2004
EU15	European Union Member States from 1 January 1995 to 30 April 2004
EU28	European Union Member States as of 1 July 2013
EU-SILC	European Union Statistics on Income and Living Conditions
EXPH	Expert Panel on Effective Ways of Investing in Health
GDP	gross domestic product
HRK	Croatian kuna
HZZO	Croatian Health Insurance Fund
PPS	purchasing power standard
VHI	voluntary health insurance

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Executive summary

Out-of-pocket payments are low in Croatia. In 2015, they accounted for 15% of total spending on health, which is much lower than the European Union (EU) average of 22%, due to: public spending on health being high as a share of total spending on health; close to universal population entitlement to a wide range of publicly financed health services; and high take up of complementary voluntary health insurance (VHI) covering co-payments.

Croatia has a mandatory health insurance system with a single national health insurance fund – the Croatian Health Insurance Fund, HZZO – responsible for purchasing all publicly financed health services. There are no documented gaps in population coverage and the publicly financed benefits package is relatively comprehensive; it includes dental care for adults.

The main gap in coverage comes from user charges (co-payments), which are applied to almost all health services, including outpatient medicines. However, this gap is largely addressed through exemptions from co-payments for children under 18 and some other vulnerable groups of people, equal to around 20% of the population, and complementary VHI covering co-payments, which covers a further 64% of the population. Only 14% of the population is neither exempt from co-payments nor covered by complementary VHI.

Most complementary VHI is supplied by HZZO. Take up is high because: cover is accessible to everyone, regardless of age or health status; cover is relatively affordable – the fixed monthly premium of 70 Croatian kuna (HRK) (purchasing power standard (PPS) €14.63) per person does not vary with age or health status; the government provides free cover for people with low incomes – those with less than HRK 1516 (€PPS 317) per household member a month; and people with free cover account for around a third of all those with complementary VHI.

As a result, financial protection is stronger in Croatia than in many other countries in the EU13 (EU Member States joining after 30 April 2004). In 2014, 4% of households (around 50 000 households) experienced catastrophic out-of-pocket payments. Croatia also does well in terms of access to health services, especially for dental care, although socioeconomic and age-related inequality in unmet need for health care (not dental care) is an issue. Inequality is an issue for financial protection too. The incidence of catastrophic out-of-pocket payments is highest among the poorest quintile and among retired households. Close to 90% of all households with catastrophic health spending are in the poorest quintile, and most of this spending is on outpatient medicines.

To improve financial protection, policy attention in the health system should focus on the following areas.

Enhancing access to complementary VHI for poorer households: raising the income threshold for eligibility for free complementary VHI would ensure that all households in the poorest quintile are entitled to benefit. It would also help to address the regressivity of VHI premiums.

Strengthening co-payment design: extending the current list of exemptions from co-payments to include low-income households could lead to a significant improvement in financial protection and unmet need. Additional protection could also be achieved by improving the cap on co-payments; the current cap per episode of care is set at a high level and does not provide protection over time.

Improving the affordability of non-covered medicines: the lack of price regulation for non-covered medicines, including over-the-counter medicines, may be an issue, especially since medicines account for the bulk of out-of-pocket payments and catastrophic spending on health.

1. Introduction

This review assesses the extent to which people in Croatia experience financial hardship when they use health care. Research shows that financial hardship is more likely to occur when public spending on health is low in relation to gross domestic product (GDP) and out-of-pocket payments account for a relatively high share of total spending on health (Xu et al., 2003; Xu et al., 2007; WHO, 2010). Increases in public spending or reductions in out-of-pocket payments are not, in themselves, a guarantee of better financial protection, however. Policy choices are also important.

Croatia spends more publicly on health care than many other central and eastern European countries. In 2015, the public share of total spending on health was above the European Union (EU) average (77% in Croatia compared to 72.5%). As a share of GDP, public spending on health accounted for 5.7% of GDP in Croatia in 2015, above the EU13 (EU Member States joining after 30 April 2004) average of 4.8% but below the EU28 (EU Member States as of 1 July 2013) average of 6.1% (WHO, 2018). EU public spending on health outstrips Croatia in per person terms, however (€2474 per person in purchasing power standard (PPS) vs €1272 in 2015) (WHO, 2018).

Out-of-pocket payments are very low by EU standards. In 2015, the out-of-pocket payment share of total spending on health was 15% in Croatia, compared to an EU28 average of 22% (WHO, 2018). Out-of-pocket payments are in part low due to the high take up of voluntary health insurance (VHI) covering user charges. In 2015, Croatia had the fourth-highest share of total spending on health through VHI (8% compared to an EU average of 4%) (WHO, 2018). The only countries in Europe spending more on health through VHI than Croatia are France, Ireland and Slovenia.

Public spending on health per person grew rapidly between 2000 and 2008 but has fallen steadily since 2009 due to economic recession and repeated cuts to the health budget. Croatia experienced a fall in GDP in nearly every year between 2009 and 2014 (Eurostat, 2018a). Unemployment rose from a low of 8.6% in 2008 to a peak of 17.4% in 2014 before falling to 11.1% in 2017 (Eurostat, 2018a). During this prolonged economic downturn, reductions in public spending on health focused on enhancing efficiency rather than shifting health care costs onto patients. However, they have led to rising deficits for providers who have struggled to meet service costs with lower budgets.

Croatia has a mandatory health insurance system with a single national health insurance fund – the Croatian Health Insurance Fund, HZZO – which is responsible for purchasing all publicly financed health services. HZZO is funded predominantly through payroll taxation, although around 8% of its revenue comes from transfers from the government budget to cover some of the health care costs of non-contributing residents (HZZO, 2016). This heavy reliance on payroll taxes, combined with a shrinking workforce and an ageing population, puts pressure on health system revenues; it calls for an increase in government budget transfers.

The health system's history of poor fiscal discipline is another major challenge. Over the last three decades, HZZO and hospitals have consistently overspent their budgets and accumulated arrears, particularly when faced with budget cuts. As a result, there were 14 bailouts of HZZO or providers between 1994 and 2017. The persistence of debts over time, in spite of substantial efforts to enhance efficiency, suggests multiple contributing factors, including

inadequate funding to support the publicly financed benefits package, provider management issues, a lack of structural reforms, and complex political motives among health system stakeholders such as ministries, local governments, unions, health professionals and patients (Vončina et al., in press (a)).

There is very little in-depth analysis of financial protection in Croatia (Yerramilli et al., in press). A handful of global studies have included Croatia using data from the World Health Survey carried out in the early 2000s (Bernabé et al., 2017; Masood et al., 2015; Saksena et al., 2014a; Saksena et al., 2014b). One of these focused on dental care only (Masood et al., 2015). More recent global work has used household budget survey data for Croatia, but only up to 2010 (WHO & World Bank, 2017). In 2014, the Zagreb Economics Institute published the first comprehensive analysis of out-of-pocket payments in Croatia, using household budget survey data from 2010 (Nestić & Rubil, 2014). It noted how low out-of-pocket payments were in Croatia in 2010 compared to other European countries at a similar level of economic development.

This 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 of household budget survey data, with a focus on out-of-pocket payments in section 4 and financial protection in section 5. Section 6 provides a discussion of the 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 discusses the methods used. Annex 3 presents regional and global financial protection indicators, and Annex 4 has a glossary of terms.

2. Methods

This section summarizes the study's analytical approach and its 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, 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

	Catastrophic out-of-pocket payments
Definition	The share of households with *out-of-pocket* payments that are greater than 40% of household *capacity to pay for health care*
Numerator	Out-of-pocket payments
Denominator	Total household *consumption* minus a standard amount to cover basic needs. The standard amount to cover basic needs 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, adjusted for household size and composition
Disaggregation	Results are disaggregated into household *quintiles* by consumption. Disaggregation by place of residence (urban–rural), age of the head of the household, household composition and other factors is included where relevant
	Impoverishing out-of-pocket payments
Definition	The share of households *impoverished or further impoverished* after out-of-pocket payments
Poverty line	A *basic needs line*, calculated 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
Poverty dimensions captured	The share of households further impoverished, impoverished, *at risk of impoverishment* and *not at risk of impoverishment* after out-of-pocket payments
Disaggregation	Results can be disaggregated into household quintiles by consumption and other factors where relevant

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

Source: Thomson et al. (2018).

2.2 Data sources

The study analyses anonymized microdata from the Croatian household budget survey carried out by the Central Bureau of Statistics in 2010, 2011 and 2014. The household budget survey was not carried out in 2012 and 2013. From 2011, the sample size was reduced due to the implementation of the EU Statistics on Income and Living Conditions (EU-SILC). Sample sizes are as follows: 3461/9631 households/individuals in 2010, 2335/6492 households/individuals in 2011, and 2029/5831 households/individuals in 2014. Given these sample sizes, some of the results reported in the review are based on a small number of observations (households). This issue is highlighted in the text where relevant.

All currency are presented in Croatian kunas (HRK) and converted into equivalent values in current euros in PPS. According to the Croatian National Bank, the HRK–euro exchange rate ranged from HRK 7.28–7.63 to 1 euro between 2010 and 2014.

3. Coverage and access to health care

This section briefly describes the governance and dimensions of publicly financed health coverage (population entitlement, service coverage and user charges) and the role played by VHI. It 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 Croatian Constitution defines the Republic as a social state and proclaims social justice to be one of the highest values of the country's constitutional order (Croatian Parliament, 2001). According to the Health Care Act, Croatia's health system is based on the principles of inclusivity, continuity and accessibility (Croatian Parliament, 2015). All residents have the right to health services throughout their lives and the network of health care providers ought to be organized in a way that makes it "approximately equally accessible" to all. Mandatory health insurance, the foundation on which people acquire their right to health care, is compulsory for all residents and is based on the principles of reciprocity and solidarity (Croatian Parliament, 2013).

3.1.1 Population entitlement

All residents are required to register for mandatory health insurance under the Mandatory Health Insurance Act. They can register as one of 28 defined categories of insured people, including employed, retired, unemployed, farmers and family members. Children up to the age of 18, students, registered unemployed people, retired people with pensions below the average salary, disabled people who cannot work and war veterans are exempt from paying contributions. All others are required to contribute in order to be covered by HZZO.

In theory, HZZO covers the entire population. In fact, the total number of HZZO insured is slightly greater than the population (comparing HZZO's 2015 annual report and population estimates provided for the same year by the Croatian Central Bureau of Statistics in its statistical yearbook). Among the attributed causes of the difference are Croatians who live in other countries but have not notified HZZO, people from Bosnia and Herzegovina and Serbia holding Croatian citizenship who falsely report to HZZO that they live in Croatia, and foreign nationals living in Croatia.

3.1.2 Service coverage

The Mandatory Health Insurance Act offers a comprehensive benefits package, including dental care for adults. Benefits are defined through a positive list for medicines and a negative list for other types of health care. The negative list excludes: cover for experimental treatment; procedures and medicines obtained from private providers not contracted by HZZO; any costs that are above the costs of standard treatment provided to all insured people; cosmetic surgery (not including reconstruction of congenital anomalies, breast reconstructions following mastectomies and aesthetic reconstructions after major injuries); voluntary sterility; bypassing waiting lists for publicly

funded treatment; surgical treatment of obesity if body mass index is under 40, or 35 with comorbidities; complications caused by treatment that was not provided publicly; and employment-related services. The range of covered benefits has grown over the years as new services have been added to HZZO's contracting pricelists and as new medicines have been added to HZZO's reimbursement lists.

People can access primary care and emergency services in hospitals without referral and inpatient and outpatient hospital services if referred by a family physician.

Waiting times for specialists in public facilities may act as a barrier to access because HZZO does not impose limits on waiting times for the services it covers. Waiting times have been a subject of public scrutiny in recent years, even though the EU-SILC data discussed in the following section indicate that Croatia compares favourably to other countries in terms of unmet need due to waiting time. In 2014, the Ministry of Health began to implement an action plan aimed at reducing waiting times in hospitals.

3.1.3 User charges

All covered services and products, except emergency care, are in principle subject to user charges (co-payments), which are set through legislation (Table 2).

Mechanisms to protect people from user charges include the following:

- exemption from co-payments for children under 18, severely disabled people, disabled war veterans and the families of people killed in military service;

- exemption from co-payments for treatment of cancer, infectious disease, chronic psychiatric illness and fertility treatment, and for antenatal care;

- a cap on co-payments set at HRK 2000 (€PPS 412) per episode of care; and

- complementary VHI covering co-payments, which is paid for by the government for the following groups of people, if they apply for it: low-income households, registered disabled people, blood and organ donors and students aged over 18.

In addition to a fixed co-payment per prescription, people must pay the difference between a prescription medicine's actual price and the reimbursement limit set by HZZO in a system of internal reference pricing that is updated annually. Around 40 therapeutic clusters are formed at Anatomical Therapeutic Chemical Classification levels 3, 4 and 5 using the defined daily dose (DDD) approach. Payment is only granted up to the level of the reference price (lowest DDD price of a medicine that had a 5% market share in the previous year). Maximum prices for all covered prescribed medicines are regulated through international reference pricing; the reference countries are Czechia, France, Italy, Slovenia and Spain. The prices of non-covered medicines (prescribed and over-the-counter) are not regulated.

Reforms implemented in 2002, 2005 and 2008 included measures to avoid the bankruptcy of HZZO. Many of these reforms shifted health care costs

onto households – for example, the introduction of co-payments in primary care, an increase in existing user charges for other health services, tightening the eligibility criteria for exemptions from co-payments, and removing some out-of-pocket payments for prescription medicines from complementary VHI cover (Vončina et al., 2010; Vončina et al., 2012).

More recently, three measures have been taken to alleviate the financial burden on households:

- in March 2011, co-payments for visits to primary care doctors and dentists were reduced from HRK 15 to HRK 10 (€PPS 3.01 to 2.01);
- in 2012, the cap on co-payments per episode of care was lowered from HRK 3000 to HRK 2000 (€PPS 619 to 412); and
- from the beginning of 2014, the cost of complementary VHI supplied by HZZO was harmonized for the whole population, resulting in lower premiums for some groups of people.

In 2015, about 14% of the population was required to pay co-payments, being neither exempt nor covered by complementary VHI (Table 3).

Table 2. User charges for publicly financed health services, 2017

<table>
<tr><th>Service area</th><th>Type and level of user charge</th><th>Cap on user charges paid</th><th>Exemptions</th></tr>
<tr><td>Outpatient visits</td><td>Fixed co-payment in primary care: HRK 10 (€PPS 2.09) per primary care consultation (not paid if a prescription is issued); reduced from HRK 15 in 2011

Percentage co-payments in secondary and tertiary care: 20% of the cost of outpatient services provided in secondary or tertiary care, with a minimum payment of HRK 25 (€PPS 5.22)

Percentage co-payments for physiotherapy and rehabilitation: 20% of the cost of treatment, with a minimum payment of HRK 25 (€PPS 5.22)</td><td rowspan="5">HRK 2 000 (€PPS 418) per episode of care (one outpatient visit and one hospitalisation); reduced from HRK 3 000 in 2012</td><td rowspan="6">• children under 18
• severely disabled people
• disabled war veterans
• family members of war veterans killed in service or held as prisoners of war
• treatment of cancer, infectious diseases and chronic psychiatric illness
• antenatal care and fertility treatment</td></tr>
<tr><td>Diagnostic tests</td><td>None in primary care
Percentage co-payments in secondary and tertiary care: 20% of the cost, with a minimum payment of HRK 50 (€PPS 10.45).</td></tr>
<tr><td>Medical products</td><td>Percentage co-payments: 20% of the cost of reimbursed medical products, with a minimum payment of HRK 50 (€PPS 10.45)</td></tr>
<tr><td>Dental care</td><td>Fixed co-payment per dentist visit: HRK 10 (€PPS 2.09); reduced from HRK 15 in 2011

Percentage co-payments for treatment:
20% of the cost of reimbursed dental consumables, with a minimum payment of HRK 50 (€PPS 10.45)

20% of the cost of reimbursed dental prostheses, with a minimum payment of HRK 1 000 (€PPS 209) for people under 65 and HRK 500 (€PPS 104) for people over 65</td></tr>
<tr><td>Inpatient care</td><td>Percentage co-payments: 20% of the cost, with a minimum payment of HRK 100 (€PPS 20.90) per day of hospitalization</td></tr>
<tr><td>Outpatient prescription medicines</td><td>Fixed co-payment: HRK 10 (€PPS 2.09) per prescription item plus any difference between the reference price and the retail price</td><td>No</td></tr>
</table>

Note: current €PPS for 2016 (latest available) were used to convert HRK prices; these may differ in the text of the report depending on the year.
Source: authors.

Table 3. Health insurance coverage, 2015

Source: authors.

Mandatory health insurance covering all residents: 4.2 million people (100%)			
Complementary VHI covering user charges	People exempt from user charges	People subject to user charges and without VHI	Supplementary VHI
2.7 million people (**64%**), of which the government pays for 974 000	About 840 000 (**20%**)	About 570 000 (**14%**)	107 466 (**2.5%**)

3.1.4 The role of VHI

VHI plays two roles: a complementary role covering co-payments and a supplementary role. Until 2002, those with incomes over a certain limit were allowed to opt out of HZZO's mandatory health insurance and buy VHI instead, but this is no longer the case.

Since 2002, supplementary VHI (supplied by private insurers only) covers services from providers not contracted by HZZO; these include preventive examinations, specialist outpatient consultations, diagnostic imaging, laboratory tests and physical therapy, as well as enhanced accommodation in HZZO-contracted hospitals (in a private room, for instance). In 2015, 107 466 people, or 2.5% of the population, were covered by supplementary VHI (Croatian Insurance Office, 2016).

Complementary VHI covering co-payments for HZZO-covered health services is provided by HZZO and private insurers. The only difference between the two types of VHI supplier, in terms of benefits, is that if patients choose medicines priced above the reference price, HZZO does not cover the additional amount they pay, whereas private insurers do cover it.

In 2015, complementary VHI covered a total of 2.7 million people – 64% of the population – the vast majority of whom (97%) were covered by HZZO (Table 3). Of the people covered by HZZO, around two thirds buy and pay for their own cover; the Ministry of Finance pays for cover for the remaining third.

HZZO's complementary VHI premiums are community rated and cost HRK 70 (€PPS 14.63) a month. Before the beginning of 2014, HZZO's monthly complementary VHI premiums varied in price from HRK 80–130 (€PPS 16.45–26.73) for the working population, and from HRK 50–80 (€PPS 10.28–16.45) for retired people, depending on income. Anyone can buy complementary VHI from HZZO at any time, but there is a 30-day waiting period after joining before benefits can be paid.

The Ministry of Finance pays HZZO to provide free cover for 974 000 of the 2.7 million people covered by complementary VHI – about 20% of the population and around a third of those covered by HZZO's complementary VHI (Croatian Insurance Office, 2016). Free VHI is available to registered disabled people who are not already exempt from co-payments (see exemptions in Table 2), organ and regular blood donors, students aged over 18, and people on low incomes,

defined as those living in households with monthly revenues per household member of less than HRK 1516 (€PPS 317). These costs are included in the Ministry of Finance's annual block transfer of funds to HZZO.

Around 34% of the population is not covered by any form of complementary VHI. A large share of this group – equal to around 20% of the population – consists of people who are exempt from user charges (see exemptions in Table 2). This leaves about 14% of the population who are neither covered by complementary VHI nor exempt from co-payments.

In 2015, Croatia had the fourth-largest VHI market in the EU; VHI accounted for 8% of total spending on health, exceeded only by Slovenia (14.5%), France (13.6%) and Ireland (12.3%) (WHO, 2018). In terms of the VHI share of private[1] spending on health, however, Croatia's share is relatively low compared to these other countries: 35% compared to 68% in France, 56% in Slovenia and 49% in Ireland.

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

1. Private spending on health refers to voluntary health care payment schemes and out-of-pocket payments.

Table 4. Gaps in coverage

Source: authors.

Coverage dimension	Population entitlement	Service coverage	User charges
Issues in the governance of publicly financed coverage	For employed people, entitlement is based on payment of contributions (as opposed to residence)	Lack of waiting time guarantees	Co-payments are applied to all health services except emergency care; although relatively low fixed co-payments apply to primary care visits, dental care visits and outpatient prescribed medicines, all other user charges are in the form of percentage co-payments, which may impose a heavy financial burden on users of specialist care and those requiring dental treatment.
Main gaps in publicly financed coverage	In practice, this does not result in gaps	No limits on waiting times	Low-income people are not exempt from co-payments, although they can apply for free complementary VHI; the cap on co-payments is set at a high level and only applies per episode of care, not over time.
Are these gaps covered by VHI?	No	Supplementary VHI covers a very small share of the population (2.5%) and only provides access to private providers not contracted by HZZO, mainly for diagnostic services	Mostly, yes. Around 64% of the population has complementary VHI covering co-payments, which is largely supplied by HZZO. A third of the people covered by HZZO's complementary VHI benefit from premiums paid for by the government (typically disabled people, students and people with low incomes). About 14% of the population is neither exempt from co-payments nor covered by complementary VHI. In total, VHI accounted for 8% of total spending on health and 35% of private spending on health in 2015.

3.2 Access, use and unmet need

Reliable data on unmet need for health care in Croatia are available from 2012 (see Box 1). EU-SILC data show that unmet need due to cost, distance and waiting time is below the EU28 average for health care and markedly lower than the EU28 average for dental care (Fig. 1). The very low level of unmet need for dental care reflects the fact that dental care in Croatia is largely publicly financed, even for adults, unlike in many other EU countries (Table 2).

Box 1. Unmet need for health care

Source: WHO Barcelona Office for Health Systems Strengthening.

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

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 – for example, through 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.

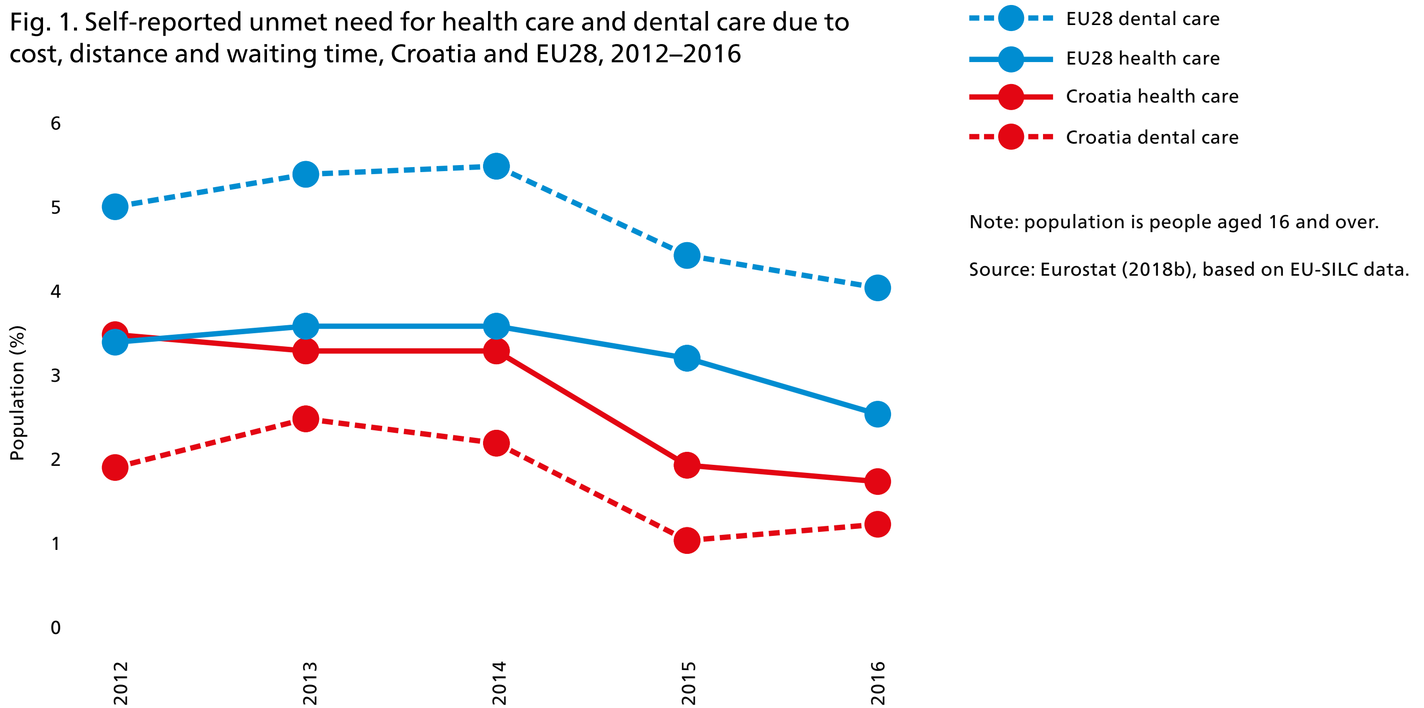
This review draws on data on unmet need to complement the analysis of financial protection (section 3.2). It also draws attention to changes in the share and distribution of households without any out-of-pocket payments (section 4.1). If increases in the share of households without out-of-pocket payments cannot be explained by changes in the health system – for example, increased protection for certain households – they may be due to increased unmet need.

Every year, EU Member States collect data on unmet need for health and dental care through the EU-SILC. Although this important source of data lacks explanatory power and is of limited value for comparative purposes because of differences in reporting by countries, it is useful for identifying trends over time within a country (Arora et al., 2015; Expert Panel on Effective Ways of Investing in Health (EXPH), 2016; EXPH, 2017).

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

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

Fig. 1. Self-reported unmet need for health care and dental care due to cost, distance and waiting time, Croatia and EU28, 2012–2016

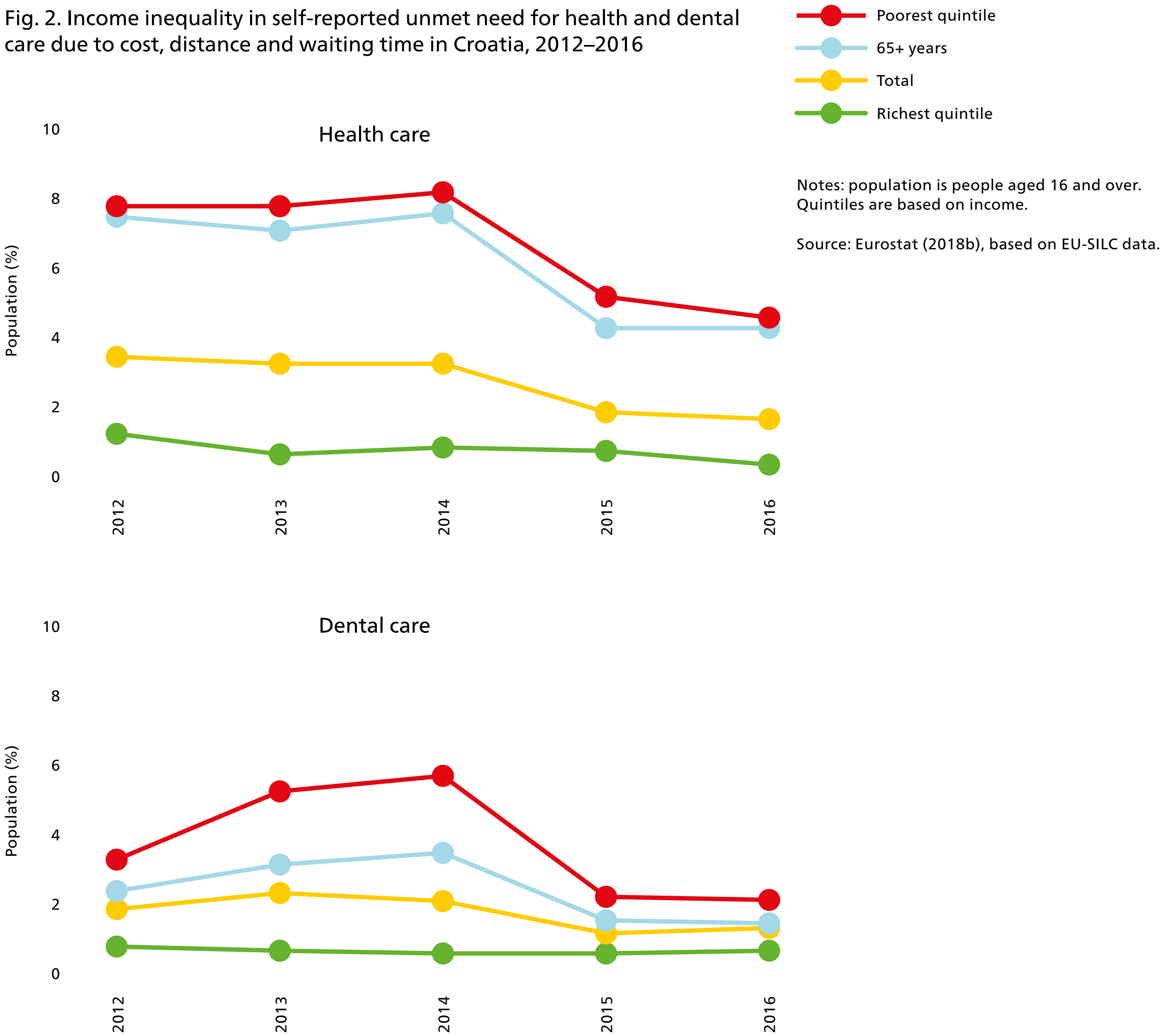


Note: population is people aged 16 and over.

Source: Eurostat (2018b), based on EU-SILC data.

Income inequality in unmet need is substantial in Croatia, however, especially for health care (Fig. 2). Over time, the gap between richer and poorer households has narrowed for health care and dental care, but in 2016, the poorest income quintile still experienced a level of unmet need for health care (4.6%) that is more than 10 times that of the richest quintile (0.4%). Age-related inequalities are also a problem, particularly for health care. Fig. 2 shows how people aged over 65 had a much higher rate of unmet need for health care than the general population.

Fig. 2. Income inequality in self-reported unmet need for health and dental care due to cost, distance and waiting time in Croatia, 2012–2016

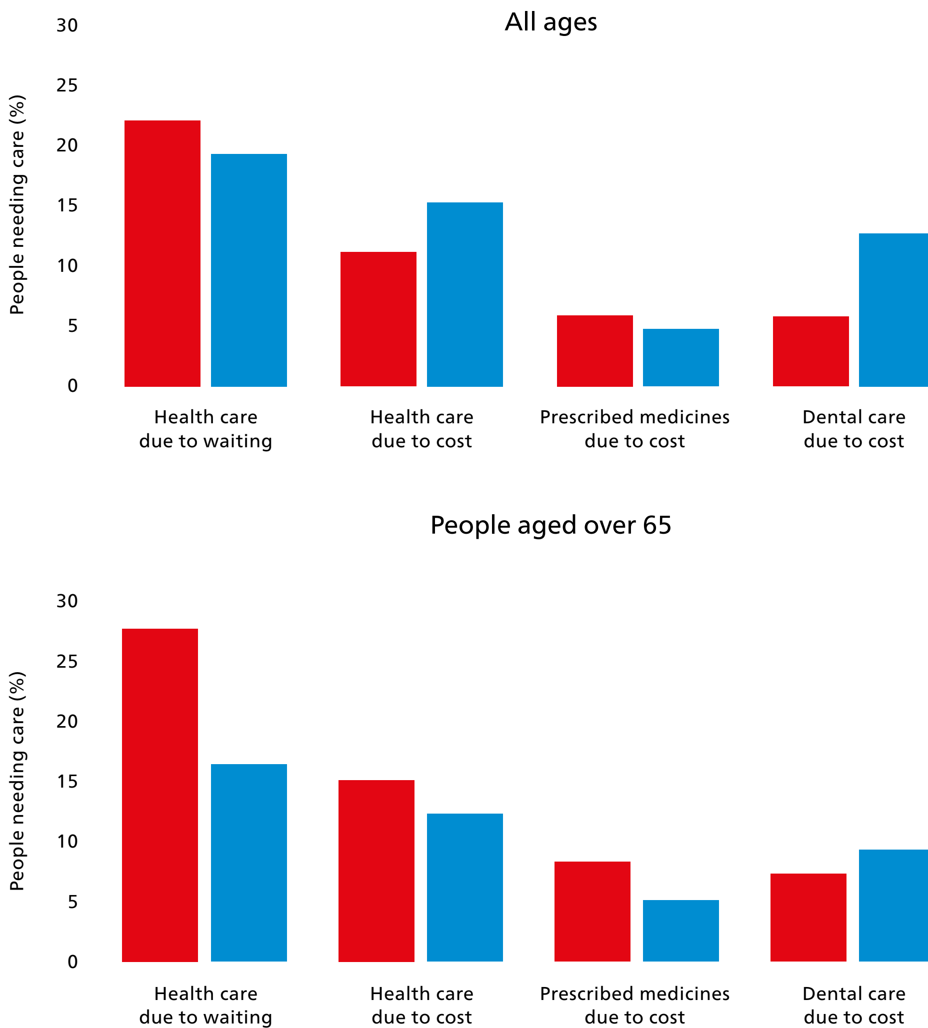


Notes: population is people aged 16 and over. Quintiles are based on income.

Source: Eurostat (2018b), based on EU-SILC data.

In 2014, EHIS also collected data on self-reported unmet need. EHIS results indicate that among people reporting a need for care, unmet need for health care due to cost is lower in Croatia than the EU28 average, but unmet need for health care due to waiting is above the EU28 average (Fig. 3). Among people aged over 65, however, the picture is worse: Croatia has a higher level of unmet need than the EU28 average for all except dental care due to cost. For older people, the difference between Croatia and the EU28 average is substantial for health care due to waiting and prescribed medicines due to cost.

Fig. 3. Self-reported unmet need by type of care, reason and age, Croatia and EU28, 2014



Croatia

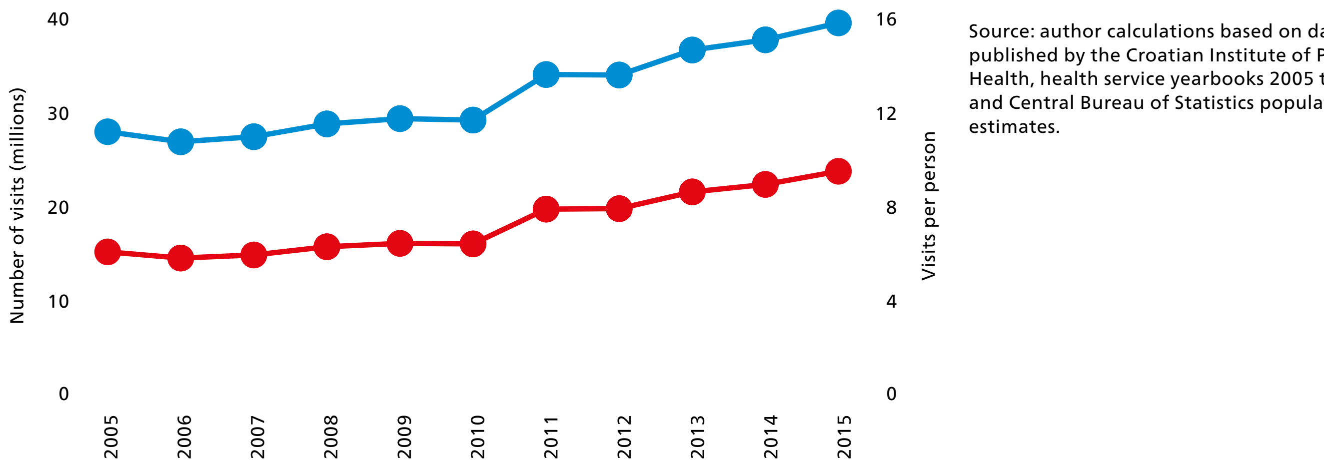
EU28

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

Source: Eurostat (2018c), based on EHIS data.

Some of the improvement in unmet need for health care (Fig. 1 and Fig. 2) may be explained by increases in use. For example, the use of primary care visits rose by 40%, from 6.2 per person in 2005 to 9.4 per person in 2015 (Fig. 4). The increase was particularly rapid after 2010, as reforms led to a gradual reduction in capitation-based payments and an increase in case-based payments and, from 2013, payment based on performance and quality indicators (Vončina et al., in press (b)). The shift to case-based payment has improved the reporting of the number of visits in primary care. At the same time, co-payments for primary care visits were lowered by a third in 2011 (see section 3.1.3), potentially reducing barriers to access and contributing to increased use of services. Hospital admissions have also increased, rising by 5% from 166 per 1000 population in 2005 to 175 in 2015. During the same period, average lengths of stay in hospital fell from 10.3 to 8.6 days (Croatian Institute of Public Health, 2006 and 2016).

Fig. 4. Primary care visits (excluding preventive check-ups) and home visits by family physicians, 2005–2015



Source: author calculations based on data published by the Croatian Institute of Public Health, health service yearbooks 2005 to 2015 and Central Bureau of Statistics population estimates.

3.3 Summary

Croatia covers the whole population through publicly financed health insurance. The publicly financed benefits package is relatively comprehensive and includes dental care for adults.

The main gap in coverage comes from user charges (co-payments), which are applied to almost all health services, including outpatient medicines. Although relatively low fixed co-payments apply to primary care visits, dental care visits and outpatient medicines, the use of percentage co-payments for all other types of care may impose a heavy financial burden on users of specialist care and those requiring dental treatment.

Mechanisms to protect people from co-payments include: exemptions for children under 18, severely disabled people, disabled war veterans and the families of people killed during military service; exemptions for treatment of cancer, infectious diseases, chronic psychiatric illness and fertility, as well as antenatal care; and a cap on co-payments set at HRK 2000 (€PPS 412) per episode of care.

However, the most significant protection mechanism is complementary VHI covering co-payments, which is available to all at relatively low cost and paid for by the government for eligible groups who apply for it. Groups eligible for free complementary VHI, which is supplied by HZZO, include registered disabled people, organ and blood donors, students aged over 18 and low-income people – those living in households with a monthly income of less than HRK 1516 (€PPS 317) per household member.

In total, complementary VHI covers 64% of the population. Around a third of those with complementary VHI benefit from premiums paid by the government.

Although about 34% of the population is not covered by complementary VHI, a large share of this group – equal to about 20% of the population – consists of people who are exempt from user charges and do not need additional protection (for example, children).

About 14% of the population is neither exempt from co-payment nor covered by complementary VHI.

EU-SILC and EHIS data indicate that access to dental care is good; levels of unmet need for dental care are well below the EU28 average and income- and age-related inequalities in unmet need are small. This reflects good publicly financed coverage of dental care, including for adults.

EU-SILC data suggest that unmet need for health care was around the EU28 average during the study period, but has fallen below it since 2015. EHIS data show a much higher level of unmet need than EU-SILC data in Croatia (as in all other EU countries), and suggest it is higher than the EU28 average for health care due to waiting and for prescribed medicines due to cost. Both sources of data reveal substantial socioeconomic and age-related inequalities in unmet need for health care in Croatia.

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.

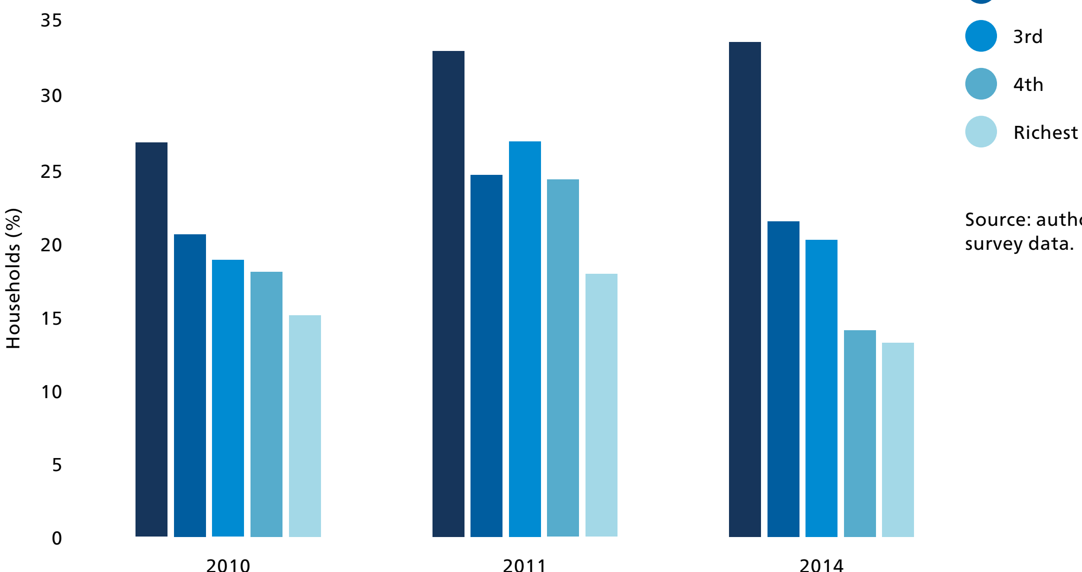
4.1 Out-of-pocket payments

In all three years, about 80% of households reported making out-of-pocket payments. A breakdown of households reporting no out-of-pocket payments by consumption quintile reveals that this share is larger in poorer households; in 2014 it declines progressively from 33% in the poorest quintile to 13% in the richest (Fig. 5).

The household budget survey does not include questions on health status, health service use or unmet need for health care, so it is not possible to say whether these households are not spending on health care due to lack of need, exemptions from co-payments or barriers to access. It is possible that the higher share of households reporting no out-of-pocket payments among the poorest quintile reflects the availability of free complementary VHI covering co-payments for low-income people.

The increase in the share of households reporting no out-of-pocket payments across all income quintiles in 2011 may have occurred because households responded to the economic downturn by using some health services less – or less intensively – than before.

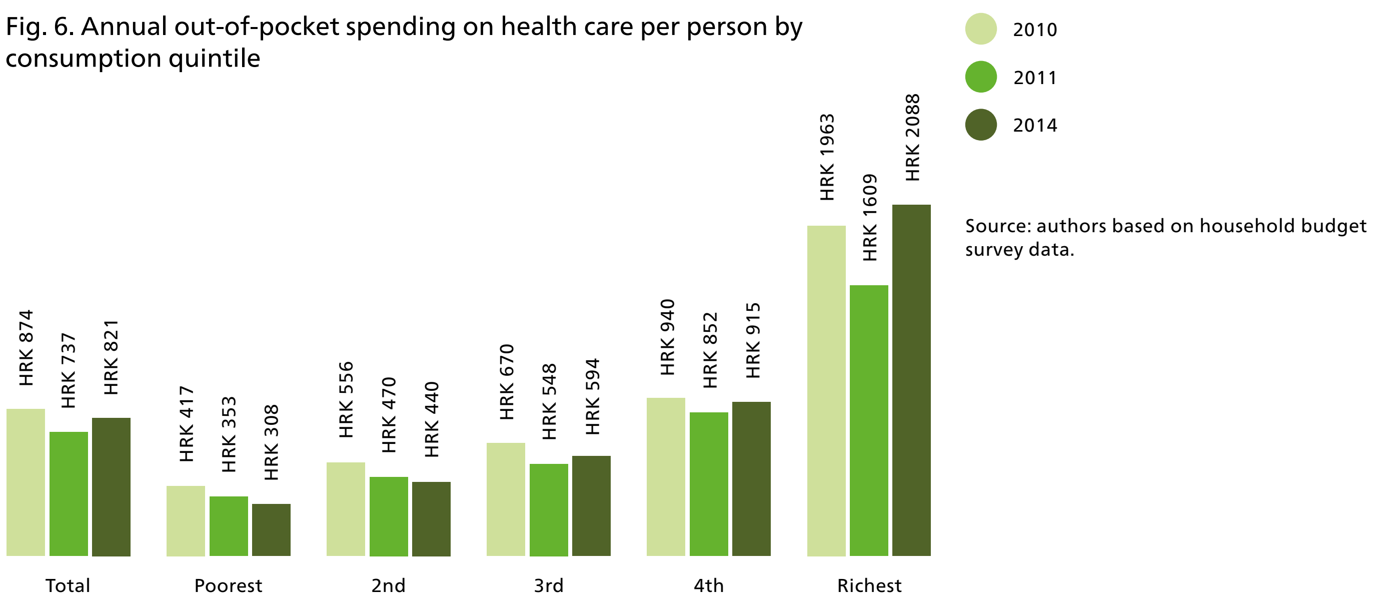
Fig. 5. Share of households reporting no out-of-pocket payments by consumption quintile



Source: authors based on household budget survey data.

Average annual out-of-pocket spending per person in Croatia decreased between 2010 and 2014. As shown in Fig. 6, in nominal terms, out-of-pocket payments fell from HRK 874 (€PPS 173) in 2010 to HRK 737 (€PPS 148) in 2011, and had increased to HRK 821 (€PPS 171) in 2014, but still remained below the level of 2010. In relative terms, out-of-pocket payments fell by 15.7% in 2011, and had risen at an average annual rate of 1.8 % by 2014. The average annual decrease from 2010 to 2014 was 1.6%.

Fig. 6. Annual out-of-pocket spending on health care per person by consumption quintile



Source: authors based on household budget survey data.

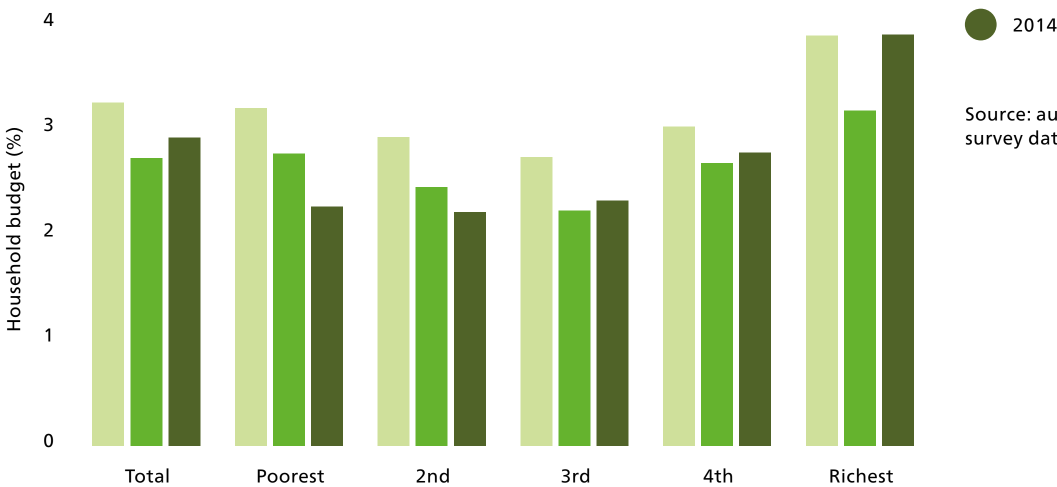
Changes over time varied by consumption quintile. There was a steady decrease among the two poorest quintiles, while among the higher quintiles, there was a fall in 2011 followed by a rise in 2014. This was particularly pronounced in the richest quintile, where out-of-pocket payments were 6.3% higher in 2014 than in 2010. Given the magnitude of the fall in 2011 and increase in 2014 for the richest quintile, changes for the whole population were driven mainly by changes for the richest quintile. Overall, between 2010 and 2014, out-of-pocket payments in the poorest, 2nd, 3rd and 4th quintiles fell by 26%, 21%, 11% and 3%, respectively. Unlike the other quintiles, the two poorest quintiles did not experience increased out-of-pocket payments in 2014, perhaps due to the continuing economic downturn.

Similar changes over time are seen for out-of-pocket payments as a share of household spending (consumption). As shown in Fig. 7, out-of-pocket payments accounted on average for 3.2 % of household budgets in 2010, falling to 2.7% in 2011, and then rising slightly to 2.9% in 2014. Across quintiles, the changes are also in line with those observed for nominal out-of-pocket payments: between 2010 and 2014, the budget share of out-of-pocket payments fell for all but the richest quintile.

At 3%, the average out-of-pocket share of household spending is lower than in many central and eastern European countries, but higher than in Czechia

(2.7%) and Slovenia (2.2%) (Kandilaki, in press; Zver et al., in press). In all three years, the budget share of out-of-pocket payments is highest for the two richer quintiles, but is similar across the three poorest quintiles.

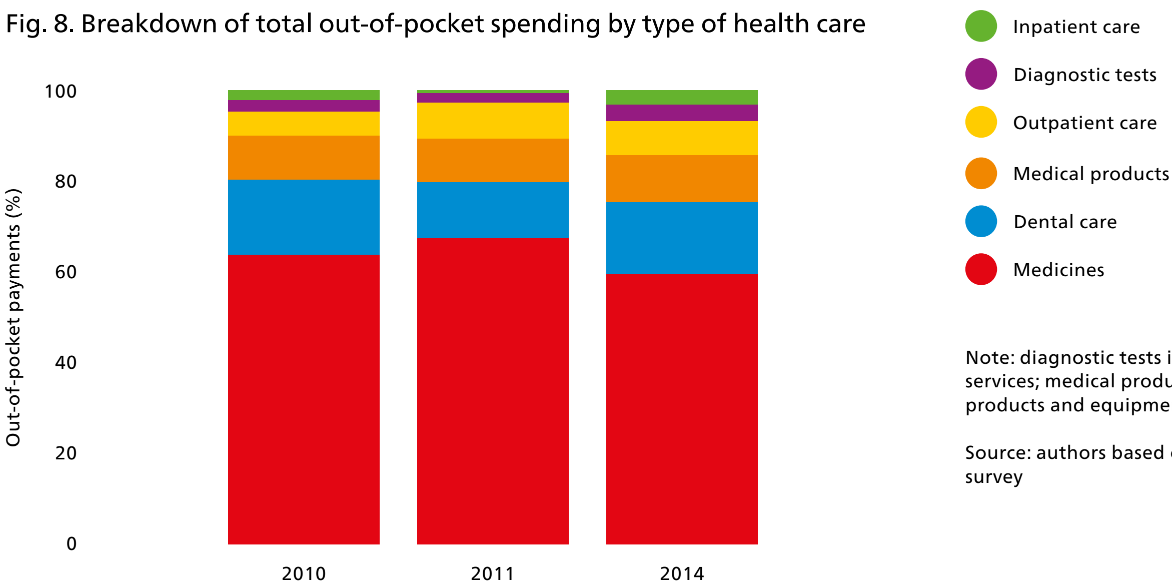
Fig. 7. Out-of-pocket payments for health care as a share of household consumption by consumption quintile



Source: authors based on household budget survey data.

Out-of-pocket payments are mainly spent on outpatient medicines, followed by dental care and medical products, as shown in Fig. 8. Over time, the medicines share increased from 64% in 2010 to 67% in 2011, and then fell to 59% in 2014.

Fig. 8. Breakdown of total out-of-pocket spending by type of health care

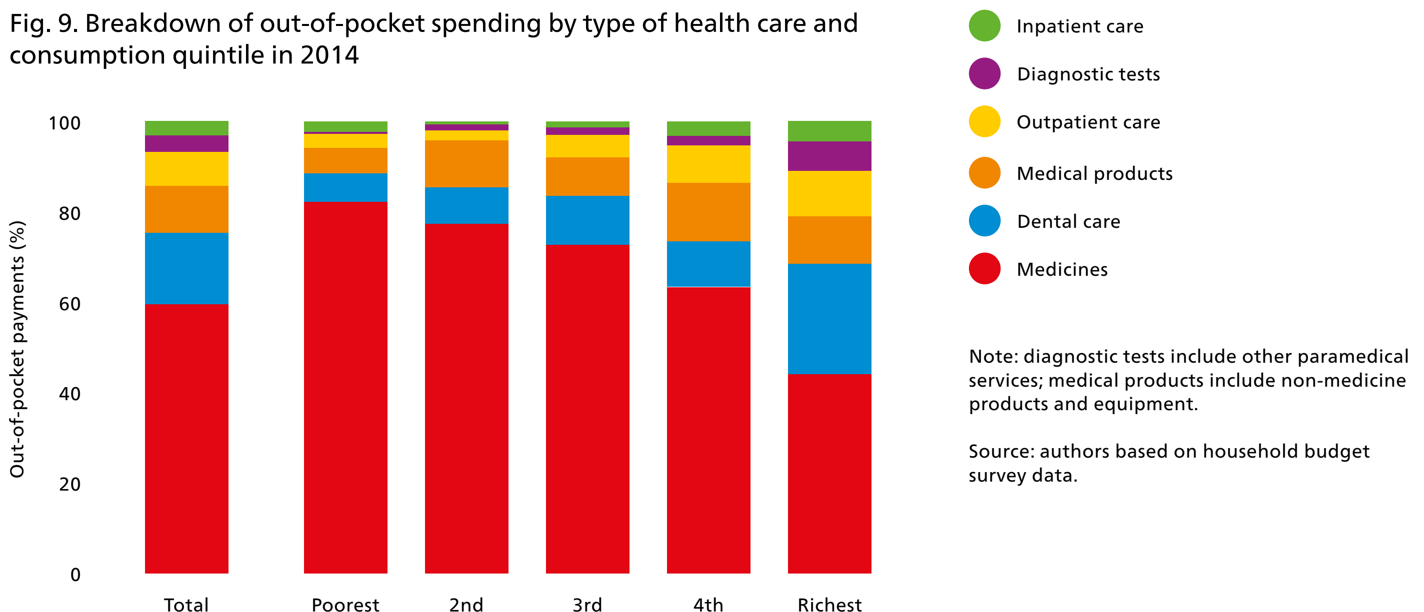


Note: diagnostic tests include other paramedical services; medical products include non-medicine products and equipment.

Source: authors based on household budget survey

The breakdown of out-of-pocket spending by type of health care varies by consumption quintile. As shown in Fig. 9, in 2014 the share of out-of-pocket payments spent on medicines decreases steadily from 82% in the poorest quintile to 44% in the richest. In contrast, dental care accounts for only 6% of out-of-pocket spending in the poorest quintile compared to 24% in the richest. The breakdown of out-of-pocket payments by consumption quintile in 2010 and 2011 is very similar to 2014.

Fig. 9. Breakdown of out-of-pocket spending by type of health care and consumption quintile in 2014

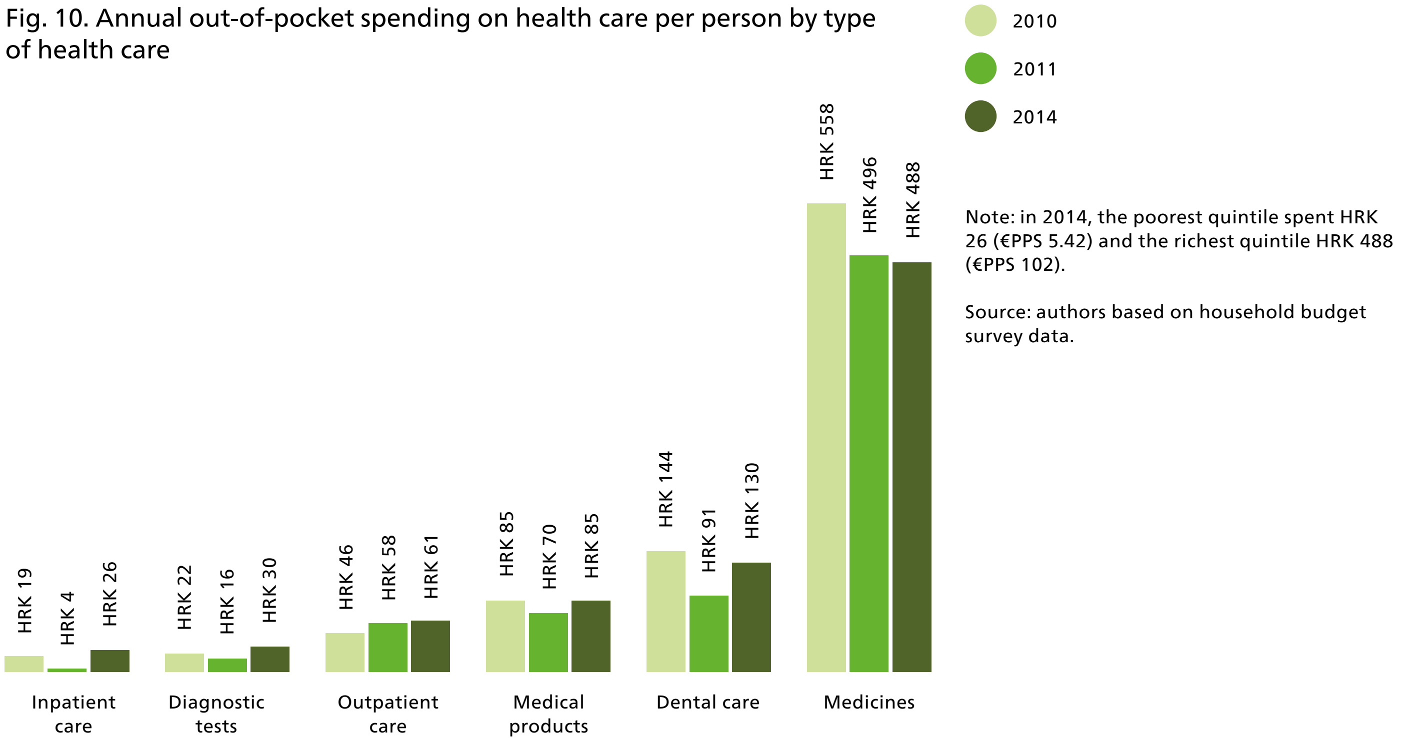


Note: diagnostic tests include other paramedical services; medical products include non-medicine products and equipment.

Source: authors based on household budget survey data.

Between 2010 and 2014, average annual out-of-pocket spending on medicines fell from HRK 558 (€PPS 110) in 2010 and HRK 496 (€PPS 100) in 2011, to HRK 488 (€PPS 102) in 2014 (Fig. 10). Other types of care have seen a mixed pattern, with absolute spending decreasing for dental care, staying the same for medical products, and increasing for outpatient care, diagnostics and inpatient care. In 2011, most types of services saw a temporary reduction in absolute spending, except outpatient care, where there was an increase, and medicines, where the reduction was sustained.

Fig. 10. Annual out-of-pocket spending on health care per person by type of health care

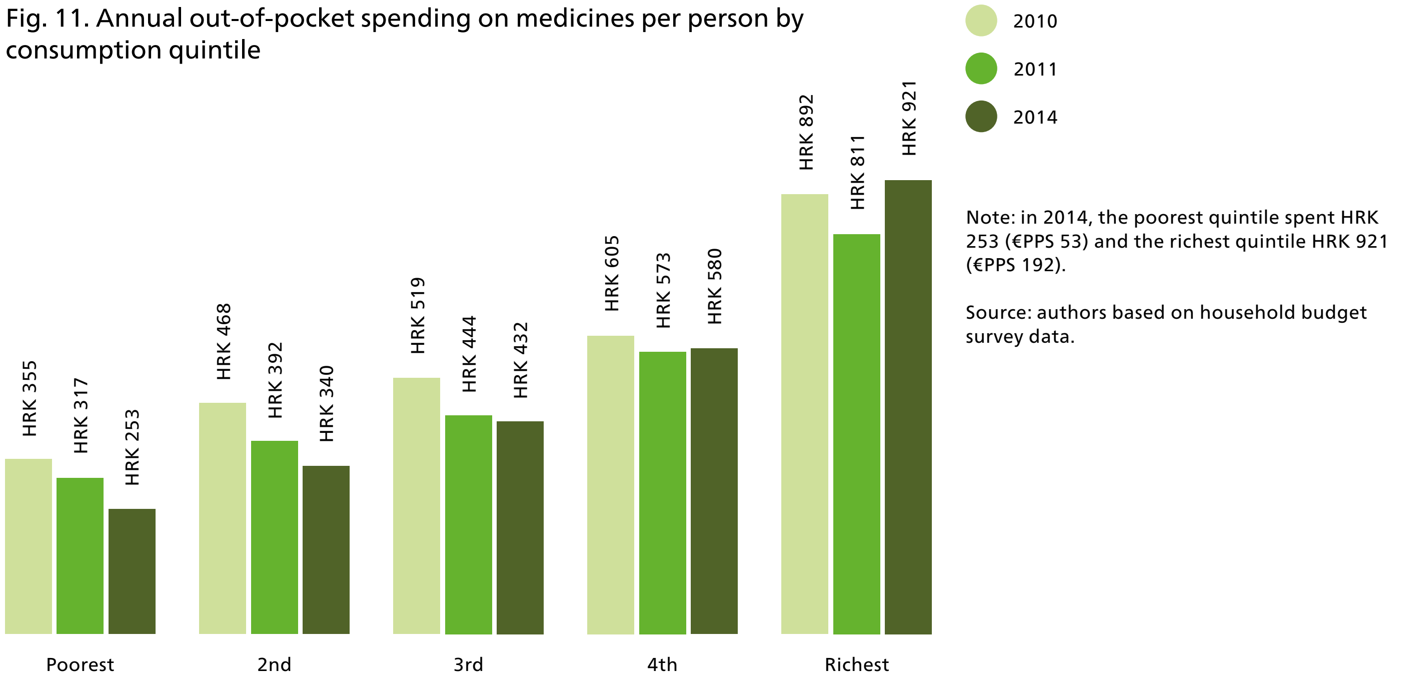


Note: in 2014, the poorest quintile spent HRK 26 (€PPS 5.42) and the richest quintile HRK 488 (€PPS 102).

Source: authors based on household budget survey data.

The sustained decrease in spending on medicines was a key factor behind the reduction in out-of-pocket spending among poorer households between 2010 and 2014; over three quarters of their out-of-pocket spending is on medicines (Fig. 9). Fig. 11 illustrates this in nominal terms: spending on medicines fell substantially for the three poorer quintiles between 2010 and 2014, but less so for the two richest quintiles. By 2014, spending on medicines in the richest quintile was higher than it had been in 2010. The richest quintile spends four times as much on medicines as the poorest.

Fig. 11. Annual out-of-pocket spending on medicines per person by consumption quintile

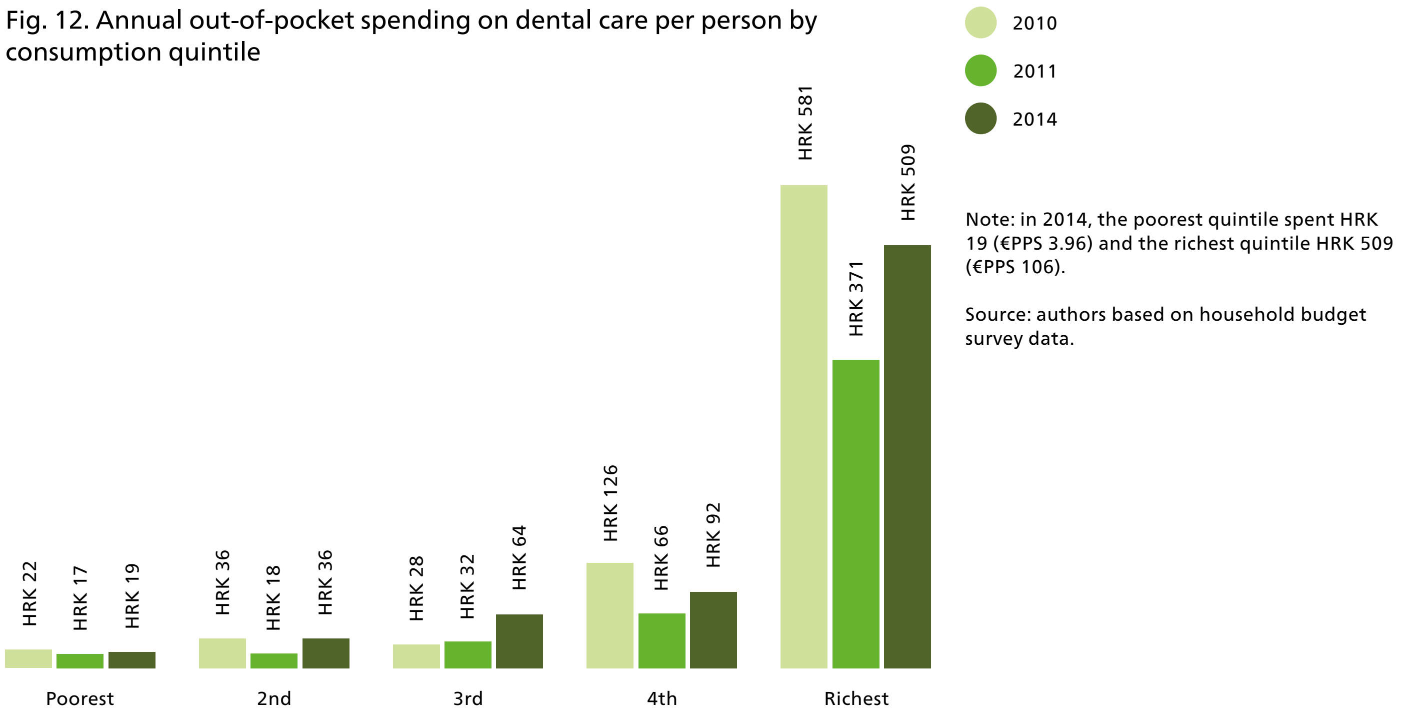


Note: in 2014, the poorest quintile spent HRK 253 (€PPS 53) and the richest quintile HRK 921 (€PPS 192).

Source: authors based on household budget survey data.

Fig. 12 shows average annual out-of-pocket spending on dental care across consumption quintiles. In 2014, households in the richest quintile spent much more on dental care than any other quintile, even spending over five times more on dental care (HRK 509 or €PPS 106) than households in the 4th quintile (HRK 92 or €PPS 19.18). In 2011, spending on dental care fell for all except the 3rd quintile, perhaps due to the crisis, before increasing again by 2014.

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



Note: in 2014, the poorest quintile spent HRK 19 (€PPS 3.96) and the richest quintile HRK 509 (€PPS 106).

Source: authors based on household budget survey data.

The large variation in out-of-pocket spending across the quintiles may reflect the richest quintile spending on privately provided services (that is, services by providers not contracted by HZZO), non-reimbursed medicines, medical products and dental treatment, and treatment abroad – services that poorer quintiles simply cannot afford.

4.2 Informal payments

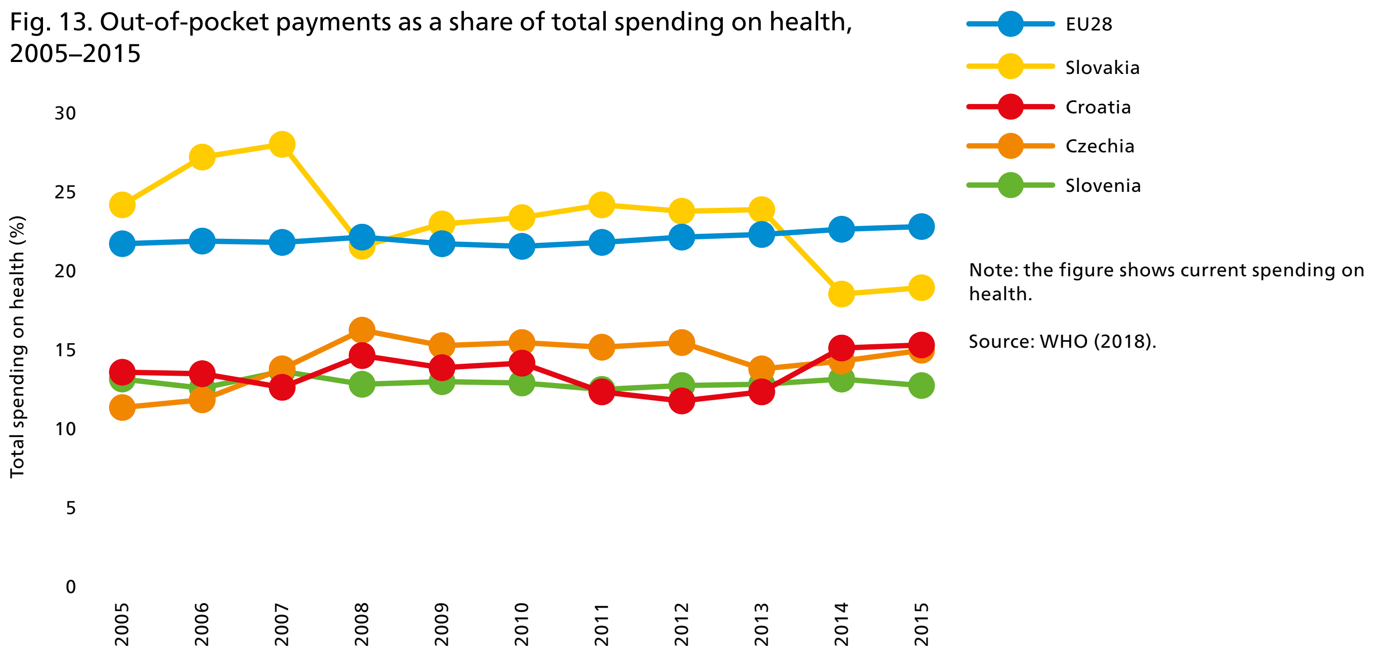
Informal payments are illegal in Croatia and their prevalence is not monitored by state-administered surveys. However, there is evidence to suggest that the scale of the problem is smaller in Croatia than in other central and eastern European countries. For example, according to the Life in Transition Survey conducted in 2010 across 29 European countries, 6% of respondents who used health services in the past 12 months made informal payments in Croatia, compared to 17% in eastern Europe and 21% in southern Europe (Habibov & Cheung, 2017). Another study based on a 2013 Eurobarometer survey revealed that an even smaller share of people in Croatia (2%) reported having to make informal payments for health services in the past 12 months, compared to an average of 9% in central and eastern Europe (Williams et al., 2016). In the 2017 Special Eurobarometer report on corruption, 3% of respondents in Croatia who had visited a public health care provider in the previous 12 months (as compared with an EU28 average of 4% and an EU13 average of 9%) reported having had to make an extra payment or give a valuable gift to a nurse or doctor, or make a donation to the hospital (European Commission, 2017). The main reasons people give for making

informal payments appear to be to obtain better quality treatment and avoid long waiting times (Bodiroga-Vukobrat, 2012).

4.3 What drives changes in out-of-pocket payments?

National health accounts data show that the out-of-pocket payment share of total spending on health in Croatia is very low by EU standards, and is on a par with countries like Czechia and Slovenia (Fig. 13). It fell in 2009, 2011 and 2012 and then rose quite sharply in 2014.

Fig. 13. Out-of-pocket payments as a share of total spending on health, 2005–2015



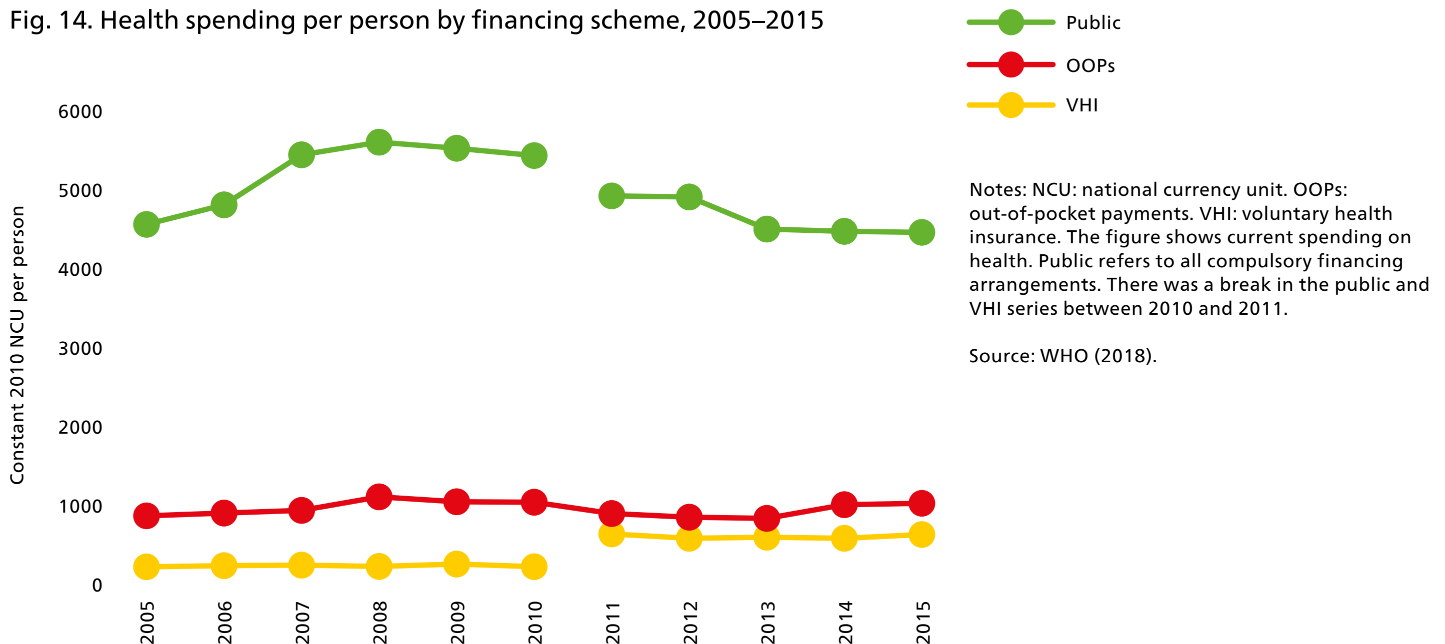
Note: the figure shows current spending on health.

Source: WHO (2018).

There are two distinct periods in terms of trends in out-of-pocket payments per person (Fig. 14), which rose from 2000 to 2008 and fell from 2009 to 2013. The reduction in 2011 and 2012 could be related to reductions in co-payments for primary care and dental care visits and a lowering of the cap on co-payments per episode of care. It is also possible that out-of-pocket payments fell as households responded to the economic downturn.

Fig. 14 shows how public spending on health per person rose steadily from 2002 to 2008 and has fallen steadily since. The sharp drop in public spending on health per person between 2010 and 2011 is due to an accounting change; from 2011, complementary VHI supplied by HZZO was moved from public spending to VHI spending. The increase in VHI spending per person in 2011 is due to the accounting change.

Fig. 14. Health spending per person by financing scheme, 2005–2015



Notes: NCU: national currency unit. OOPs: out-of-pocket payments. VHI: voluntary health insurance. The figure shows current spending on health. Public refers to all compulsory financing arrangements. There was a break in the public and VHI series between 2010 and 2011.

Source: WHO (2018).

Household budget survey data show that 63% of households purchased some form of VHI in 2014, up from 56% in 2011 and 55% in 2010. The increase was concentrated among richer households: take up of VHI rose from 33% to 37% in the poorest quintile, from 62% to 78% in the 4th, and from 68% to 76% in the 5th. These figures do not include households with free complementary VHI, which explains why the share of households with VHI is much lower in the poorest quintile.

Complementary VHI premiums have fallen in recent years due to market competition. For example, Croatia Osiguranje, HZZO's main competitor in the complementary VHI market, charged a minimum monthly premium of HRK 80 per month (€PPS 16.90) in 2006, but by 2017 these premiums had fallen to HRK 70 (€PPS 14.63). They have also fallen for some people due to the harmonization of HZZO premiums that took place in 2014.

However, household budget survey data indicate how regressive VHI premiums are. In 2014, VHI premiums per household (among households with VHI) accounted for 1.7% of total household spending on average, with a regressive distribution of 3.1% in the poorest quintile and 1.1% in the richest.

4.4 Summary

Household budget survey data indicate that on average, out-of-pocket payments accounted for about 3% of total household spending in 2014. This is lower than in many EU13 countries, but higher than in Czechia and Slovenia.

There are substantial differences in out-of-pocket payments across income groups, with the richest quintile spending much more than the rest – a disparity that has increased over time: nominal out-of-pocket payments were five times higher, on average, for the richest quintile than for the poorest in 2010 and 2011, and seven times higher in 2014.

On average, out-of-pocket payments fell between 2010 and 2011 and were slightly higher in 2014 than in 2011, both in nominal terms and as a share of total household spending. While most quintiles experienced a sustained reduction in out-of-pocket payments between 2010 and 2014, for the richest quintile out-of-pocket payments were back to 2010 levels in 2014.

A number of health system factors may have contributed to this pattern, including a reduction in the fixed co-payment for primary care and dental care visits in March 2011, a lowering of the cap on co-payments per episode of care in 2012, increasing use of both primary care and specialist services over time, greater take up of complementary VHI covering co-payments in 2011 and the harmonization of HZZO complementary VHI premiums in 2014.

In all three years analysed, around 60–70% of out-of-pocket payments were spent on outpatient medicines, followed by dental care (around 12–17%). Medical products constituted a further 10%. Outpatient services, diagnostic tests and inpatient care combined constituted the remaining 10–15%.

The share of out-of-pocket payments spent on medicines declines with income, falling from over 80% for the poorest households to less than 50% for the richest. Absolute spending on medicines declined in all except the richest quintile between 2010 and 2014. In contrast, spending on dental care increases with income. Spending on outpatient and inpatient care and on diagnostic tests plays a significant role only among the richer quintiles.

Studies show that informal payments exist but are less prevalent in Croatia than in other central and eastern European countries.

According to national health accounts data, out-of-pocket payments per person fell slightly from 2009 to 2013 and increased in 2014 and 2015. While their share of total spending on health fell from 2009 to 2012, it has risen quite sharply since then.

Household budget survey data indicate that the purchase of (mainly complementary) VHI rose from 55% of households in 2010 and 56% in 2011 to 63% in 2014, with the increase largely owing to greater take up among the two richest quintiles. VHI premiums are regressive, accounting for 3.1% of total household spending in the poorest quintile in 2014, compared to 1.1% in the richest.

5. Financial protection

In this section, data from the Croatian household budget survey are used to assess the extent to which out-of-pocket payments result in financial hardship for households who use health services. The section shows the relationship between out-of-pocket spending on health and risk of impoverishment and presents estimates of the incidence, distribution and drivers of catastrophic out-of-pocket payments.

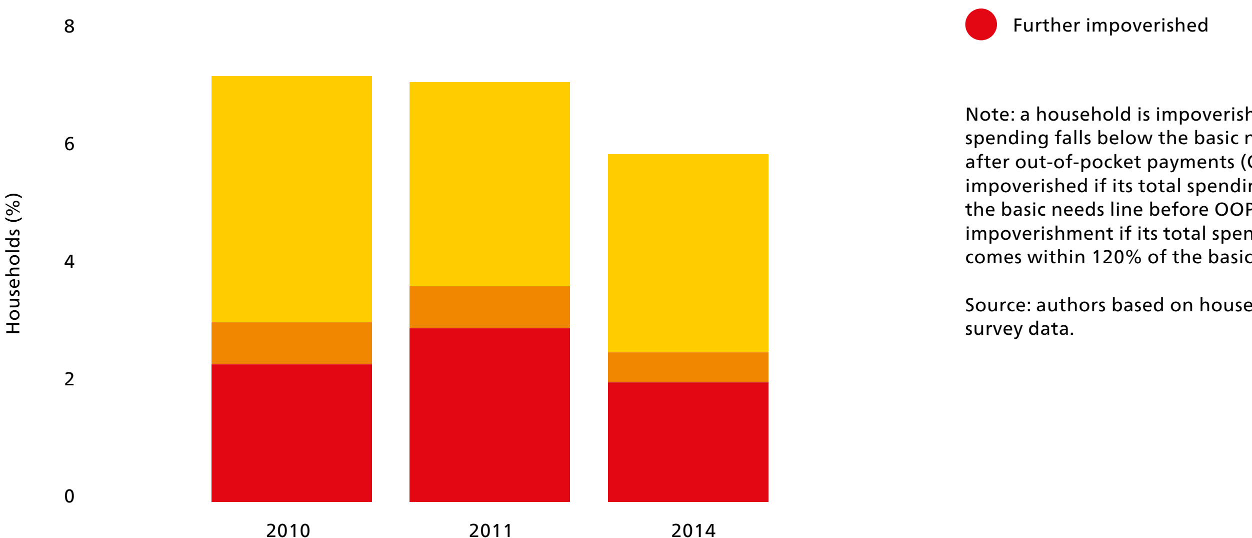
5.1 How many households experience financial hardship?

5.1.1 Out-of-pocket payments and risk of impoverishment

Fig. 15 shows the share of households at risk of impoverishment after out-of-pocket spending on health care. The poverty line reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the Croatian population (households between the 25th and 35th percentiles of the consumption distribution, adjusted for household size and composition). The monthly cost of meeting these basic needs – the basic needs line – was HRK 2516 (€PPS 497) in 2010, HRK 2574 (€PPS 517) in 2011 and HRK 2649 (€PPS 552) in 2014.

In 2014, just under 6% of households were further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments, down from 7% in 2010 and 2011. The share of households further impoverished after out-of-pocket payments rose in 2011 and fell in 2014. The share of households impoverished after out-of-pocket payments fell in 2014.

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



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

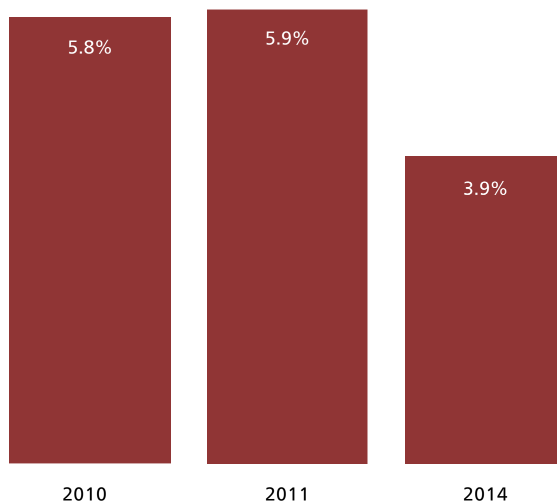
Source: authors based on household budget survey data.

5.1.2 Catastrophic out-of-pocket spending on health care

Households with catastrophic levels of out-of-pocket payments are defined (in this review) as those who spend more than 40% of their capacity to pay 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 have no capacity to pay). In 2014, 4% of households had catastrophic out-of-pocket payments (around 50 000 households), down from just under 6% in 2010 and 2011 (Fig. 16). This was a statistically significant change.

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

Source: authors based on household budget survey data.



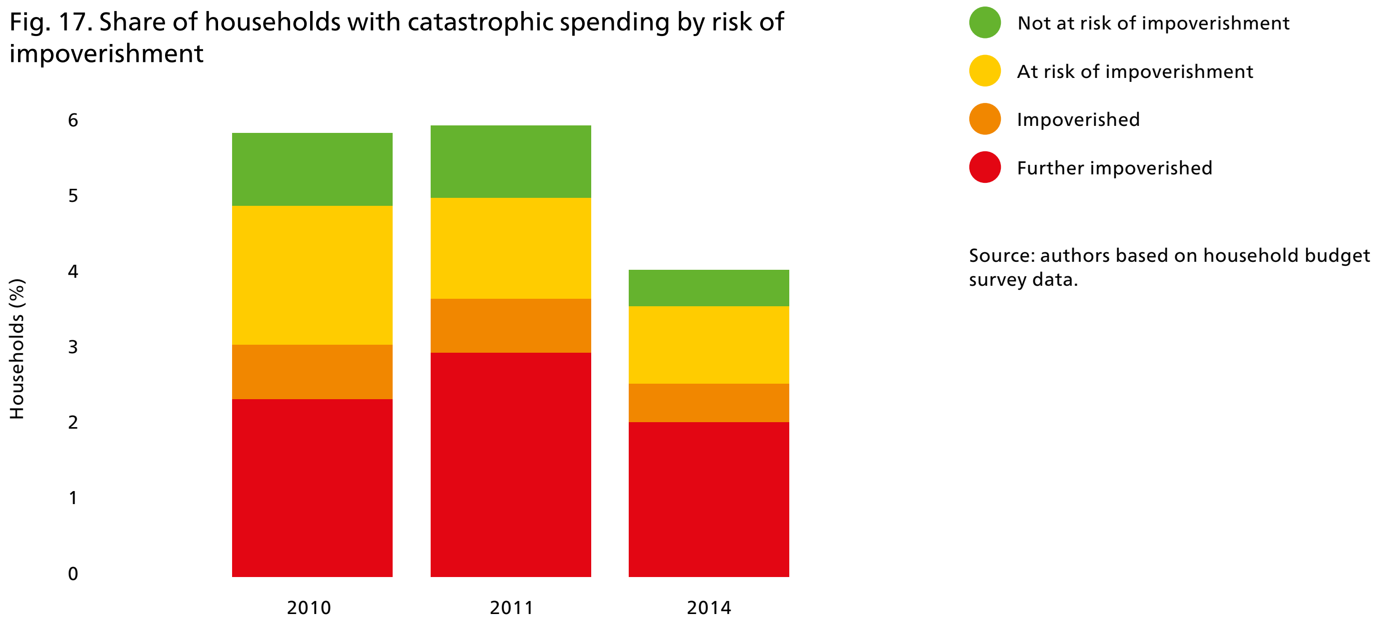
5.2 Who experiences financial hardship?

Catastrophic out-of-pocket payments are heavily concentrated among households who are impoverished or further impoverished after out-of-pocket payments (Fig. 17). In all three years, impoverished and further impoverished households account for more than half of all households with catastrophic out-of-pocket payments. In 2014, there was a substantial reduction in the share of households with catastrophic spending in all four risk categories. Although the fall was largest among households not at risk of impoverishment after out-of-pocket payments, the share of impoverished and further impoverished households among all households with catastrophic spending increased slightly.

Looking at the breakdown of households with catastrophic spending by consumption quintile shows that catastrophic out-of-pocket payments are highly concentrated among the poorest quintile (Fig. 18). The incidence of catastrophic out-of-pocket payments among the poorest quintile rose slightly from 25% in 2010 to 26% in 2011, and fell to 18% in 2014. This steep decrease

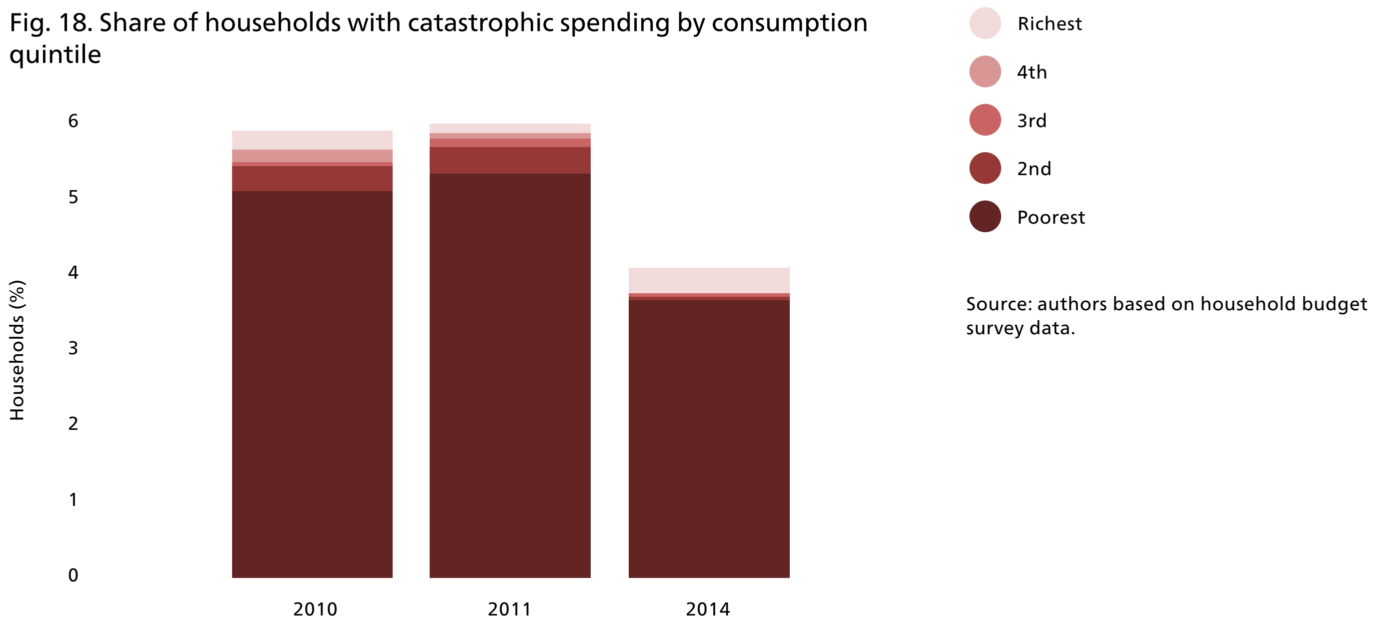
is in line with the fall in the share of all households impoverished or further impoverished after out-of-pocket payments during this time (Fig. 15). Across all three years, however, households in the poorest quintile account for close to 90% of all households with catastrophic spending.

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



Source: authors based on household budget survey data.

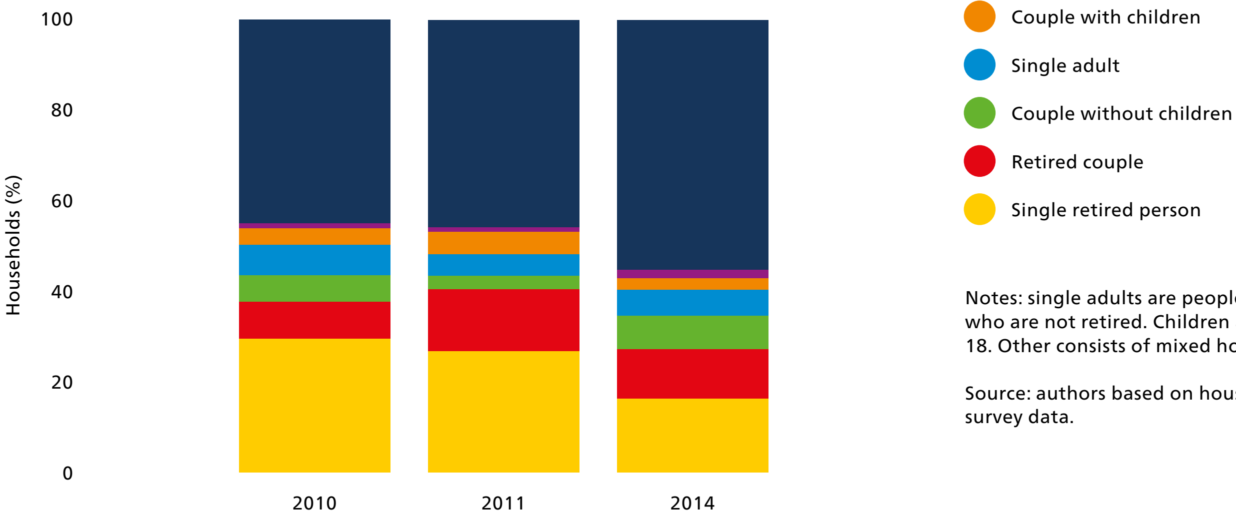
Fig. 18. Share of households with catastrophic spending by consumption quintile



Source: authors based on household budget survey data.

Fig. 19 shows the breakdown of households with catastrophic spending by type of household. The largest share of households are in the category "other", which consists of mixed households such as couples where only one person is retired, working-age households with children aged over 18, single people or couples (with or without children) living with retired parents, etc. The second largest group is retired households, mainly people aged over 60. Retired households fell from close to 40% in 2010 and 2011 to 27% in 2014. The total number of people living in retired households also fell during this period, from 31 650 to 15 805. In general, it is not surprising that older people should make up a large share of households with catastrophic spending, given that they typically have greater need for health care than younger people. It is even less surprising that this should be the case in Croatia, where older people are not exempt from co-payments (as are children under 18) and where they experience a higher risk of poverty or social exclusion than younger people (see section 6). As Fig. 19 shows, the share of households with children is consistently very low (around 5%).

Fig. 19. Breakdown of households with catastrophic spending by household type



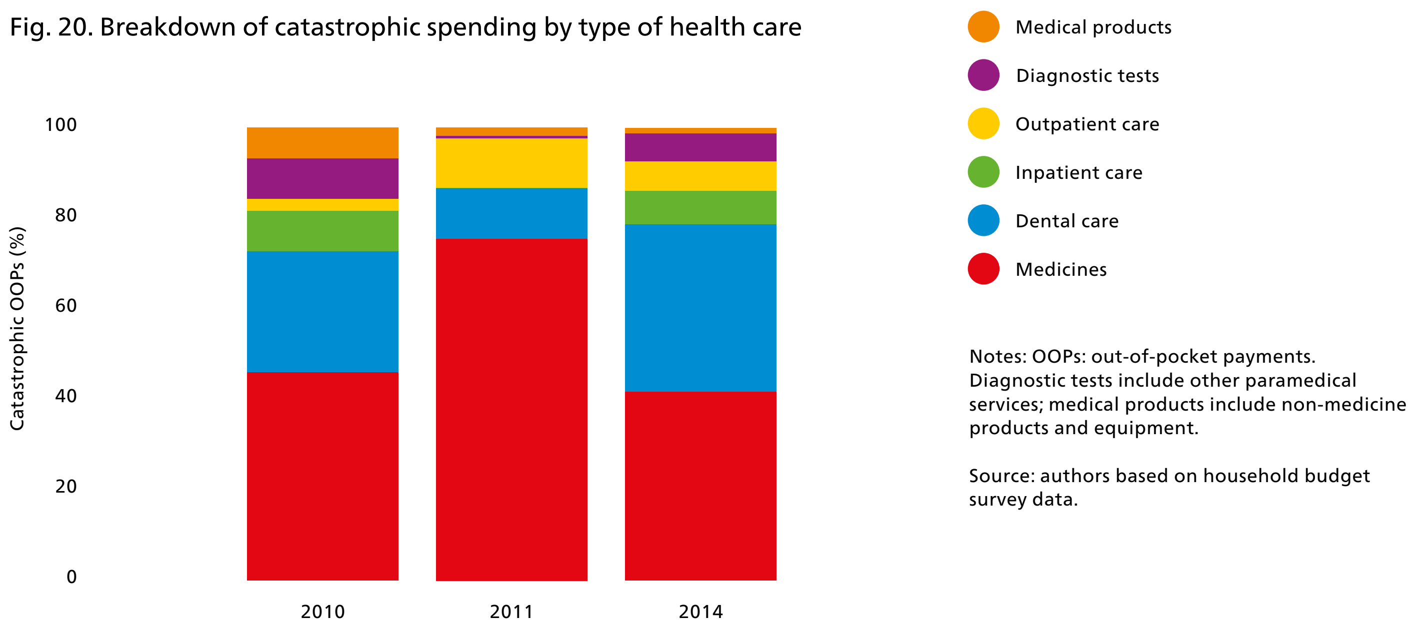
Notes: single adults are people of working age who are not retired. Children are people under 18. Other consists of mixed households.

Source: authors based on household budget survey data.

5.3 Which health services are responsible for financial hardship?

In all three years, the largest share of catastrophic out-of-pocket spending is on medicines (Fig. 20). The medicines share of catastrophic spending is notably smaller than its share of general out-of-pocket spending, except in 2011, while dental care plays a much larger role in catastrophic spending than general out-of-pocket spending, except in 2011. The increase in the share of medicines in 2011 was substantial and accompanied by the near elimination of catastrophic spending on inpatient care and diagnostic tests. By 2014, however, the medicines share was once again back at the level of 2010.

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



Notes: OOPs: out-of-pocket payments. Diagnostic tests include other paramedical services; medical products include non-medicine products and equipment.

Source: authors based on household budget survey data.

In all but the richest quintile, catastrophic spending is mainly on medicines across all three years (Fig. 21). Spending on other types of health care only dominates in the richest quintile: dental care in 2010 and 2014, and outpatient care in 2011. In all but the poorest quintile, the number of households with catastrophic out-of-pocket payments is very small. With the exception of the poorest quintile, differences over time and across quintiles may be due to random variation and should be interpreted with caution.

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

Medical products
Diagnostic tests
Outpatient care
Inpatient care
Dental care
Medicines

Notes: OOPs: out-of-pocket payments. Diagnostic tests include other paramedical services; medical products include non-medicine products and equipment. In 2014, there were no households with catastrophic out-of-pocket spending in the third quintile. The total number of households with catastrophic spending in the 2010, 2011 and 2014 samples was 204, 145 and 86, respectively. Quintiles with fewer than five households: 3rd in 2010; 3rd and 4th in 2011; 2nd, 3rd and 4th in 2014.

Source: authors based on household budget survey data.

5.4 How much financial hardship?

The average amount of out-of-pocket spending among households that are further impoverished after out-of-pocket payments was close to 4% of total household spending in 2014, down from 5.2% in 2011 and 5.5% in 2010 (Fig. 22). These are the very poorest households – those living on less than HRK 2516 (€PPS 497) a month in 2010, HRK 2574 (€PPS 517) in 2011 and HRK 2649 (€PPS 552) in 2014 – most of whom should in theory be eligible for free complementary VHI covering co-payments (the eligibility threshold is HRK 1516 (€PPS 317) a month per household member). The out-of-pocket budget share for further impoverished households in Croatia is high in comparison to other countries with a similar or lower incidence of catastrophic health spending (Cylus et al., in press). Among households with catastrophic spending, on average the richest quintile spent 37% of their total budget on health in 2014, while the poorest quintile spent 7% (Fig. 23). The average amount spent out-of-pocket and its share of household spending rises progressively with income.

Fig. 22. Out-of-pocket payments as a share of total household spending among further impoverished households

Source: authors based on household budget survey data.

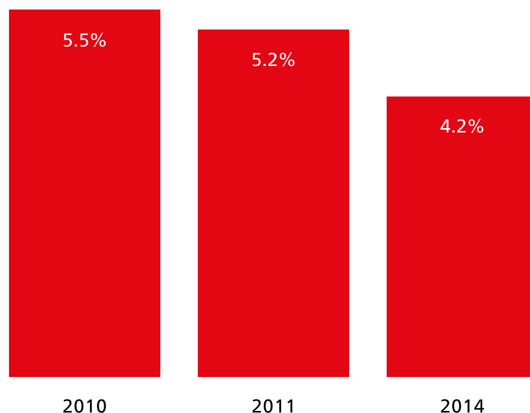
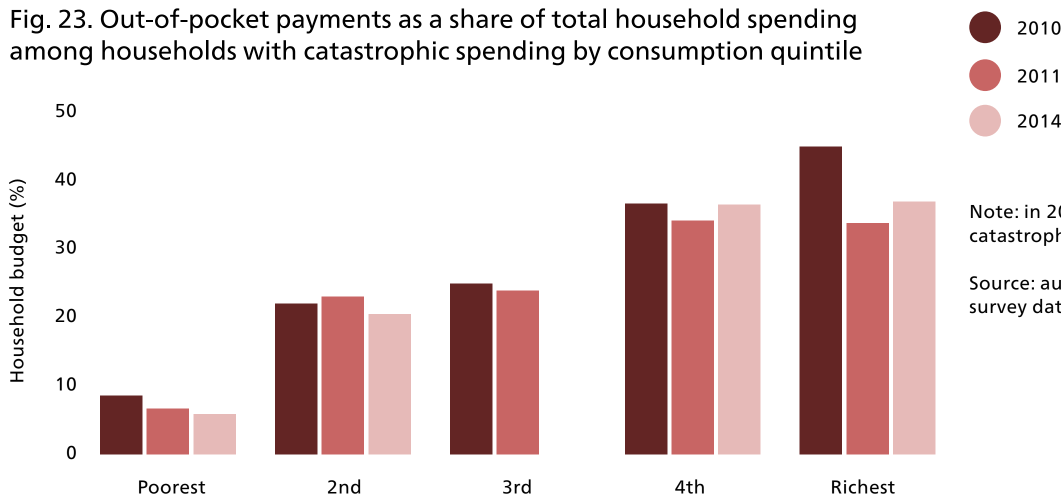


Fig. 23. Out-of-pocket payments as a share of total household spending among households with catastrophic spending by consumption quintile



Note: in 2014, there were no households with catastrophic spending in the 3rd quintile.

Source: authors based on household budget survey data.

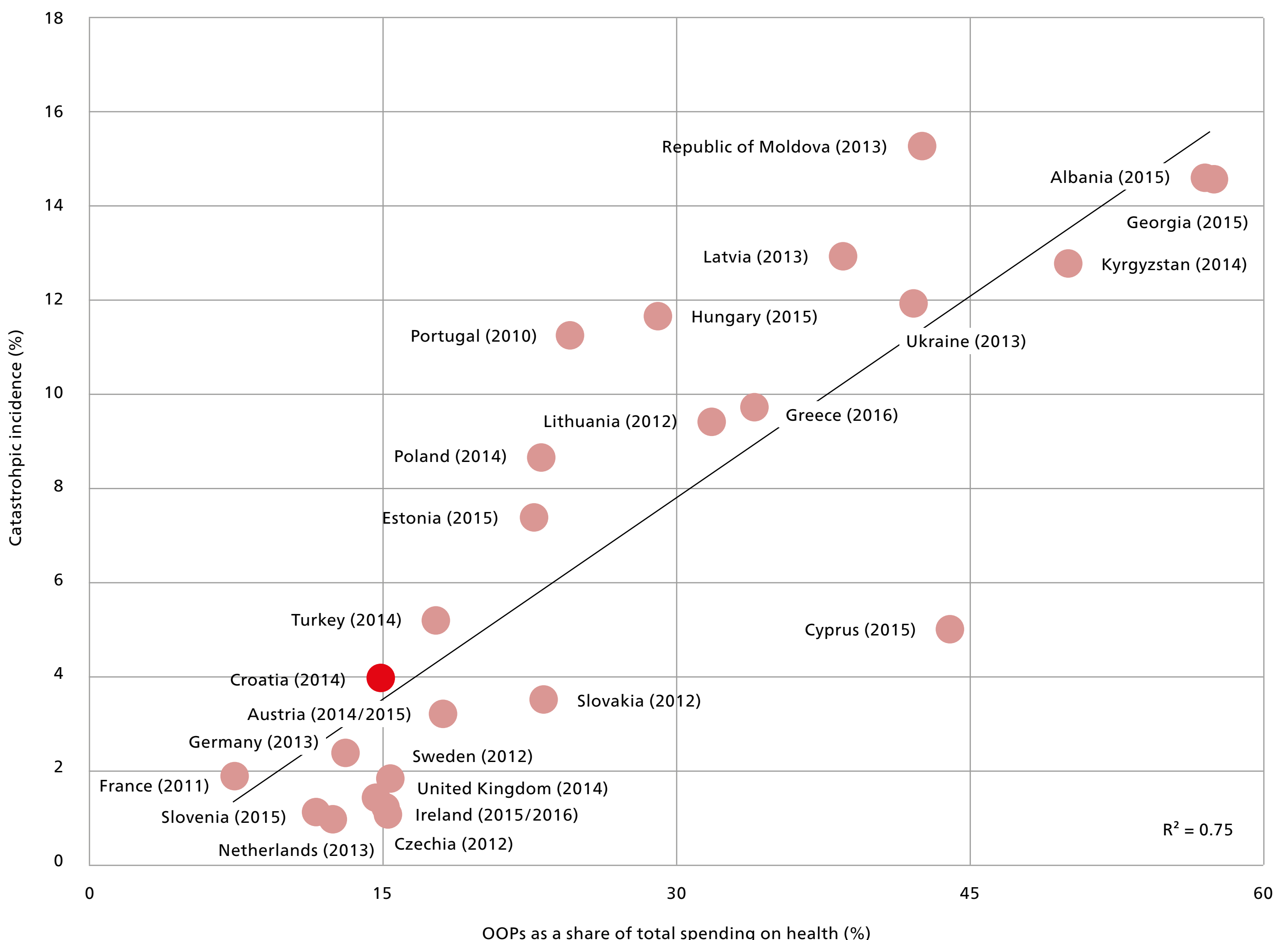
5.5 International comparison

The incidence of catastrophic out-of-pocket payments is low in Croatia in comparison to many other EU13 countries (Fig. 24). However, it is higher than in Czechia, Slovakia and Slovenia, and higher than in countries of the EU15 (EU Member States from 1 January 1995 to 30 April 2004) that have similar out-of-pocket shares of total spending on health as Croatia (for example, Ireland, Sweden and the United Kingdom).

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

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

Source: WHO Barcelona Office for Health Systems Strengthening; WHO (2018).



5.6 Summary

Financial protection is relatively strong in the Croatian health system in comparison to many other EU13 countries. However, it is not as strong as in Czechia, Slovakia or Slovenia, even though out-of-pocket payments account for a similar share of total spending on health in all four countries.

The incidence of catastrophic out-of-pocket payments has fallen over time. In 2014, 4% of households (around 50 000 households) experienced catastrophic out-of-pocket payments, down from 6% in 2010 and 2011.

Financial hardship is heavily concentrated among the poorest quintile. Across the three years, over 80% of households with catastrophic health spending were further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments.

By 2014, the incidence of households with catastrophic health spending in the poorest quintile had fallen to 18%, from 26% in 2011.

Retired people, particularly those living alone, accounted for over a quarter of households with catastrophic spending in 2014 (down from 40% in 2011), probably owing to their higher need for health care, their relative poverty and the fact they are not exempt from co-payments (as are children under 18).

Catastrophic out-of-pocket payments are mainly spent on medicines and dental care, in line with the overall structure of out-of-pocket payments reported in the household budget survey. While spending on medicines is responsible for the largest share of catastrophic spending in all but the richest quintile across the three years, dental care dominates in the richest quintile in two of the three years analysed.

6. Factors that strengthen and undermine financial protection

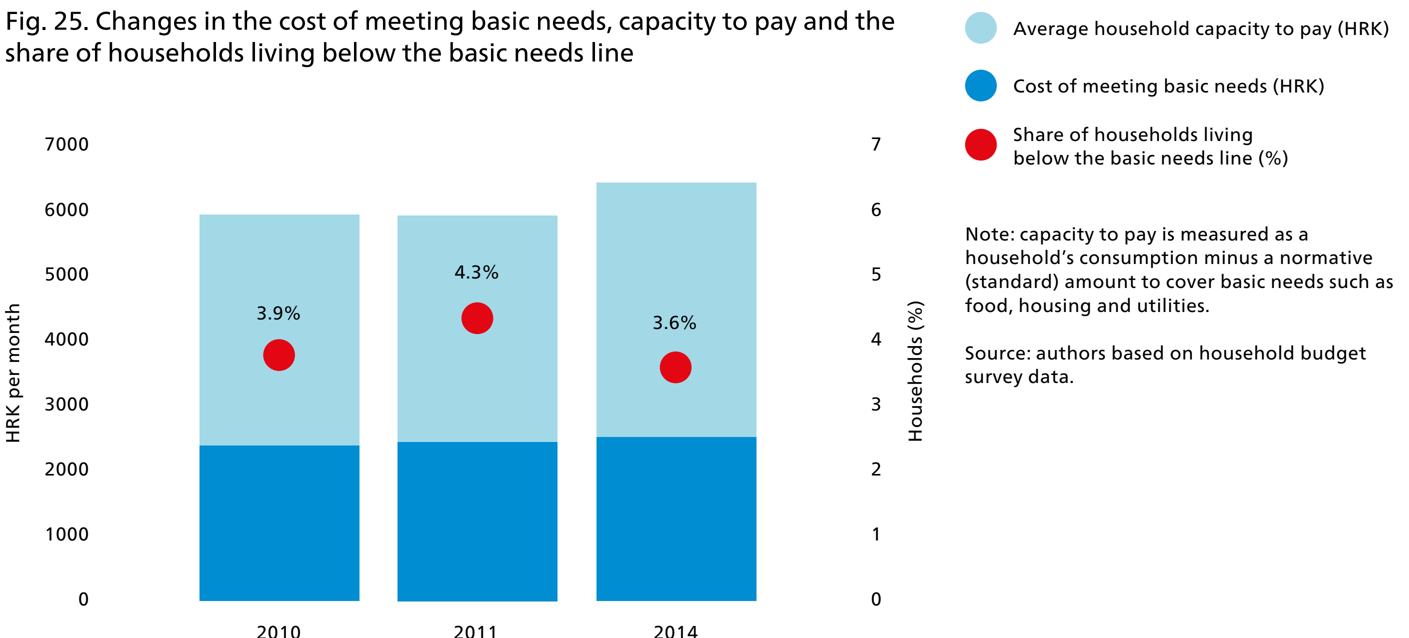
This section considers the factors that may be responsible for financial hardship caused by out-of-pocket payments in Croatia and which may explain the trend over time. Factors outside the health system that affect people's capacity to pay for health care, such as changes in living standards and the cost of living, are discussed first, and then factors within the health system.

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

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

Between 2010 and 2011, the cost of meeting basic needs rose by 2.3%, but average capacity to pay for health care fell slightly. As a result, the share of households living below the basic needs line rose from 3.9% to 4.3% (Fig. 25). Between 2011 and 2014, the cost of meeting basic needs grew by 1% on average annually, but average capacity to pay grew at a faster rate, so that the share of households living below the basic needs line fell to 3.6%. This pattern is in line with changes in the share of further impoverished households over time (Fig. 15) and changes in the share of households with catastrophic out-of-pocket payments (Fig. 16). It suggests that the reduction in the incidence of catastrophic health spending in 2014 is partly driven by an improvement in living standards.

Fig. 25. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line



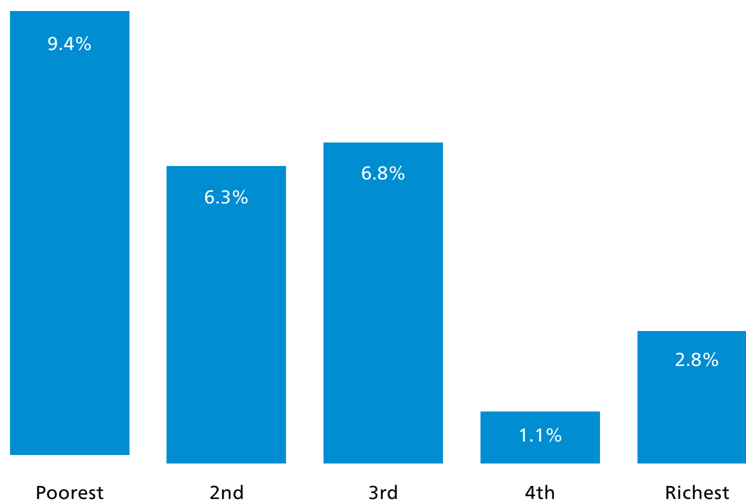
Note: capacity to pay is measured as a household's consumption minus a normative (standard) amount to cover basic needs such as food, housing and utilities.

Source: authors based on household budget survey data.

Between 2010 and 2014, all consumption quintiles experienced growth in capacity to pay for health care, but the rate of growth was much higher for the poorest quintile than for richer quintiles (Fig. 26). This may explain why about half of the reduction in the overall incidence of catastrophic health spending between 2011 and 2014 was due to a reduction in the number of impoverished and further impoverished households in 2014.

Fig. 26. Rate of change in capacity to pay by consumption quintile, 2010–2014

Source: authors based on household budget survey data.

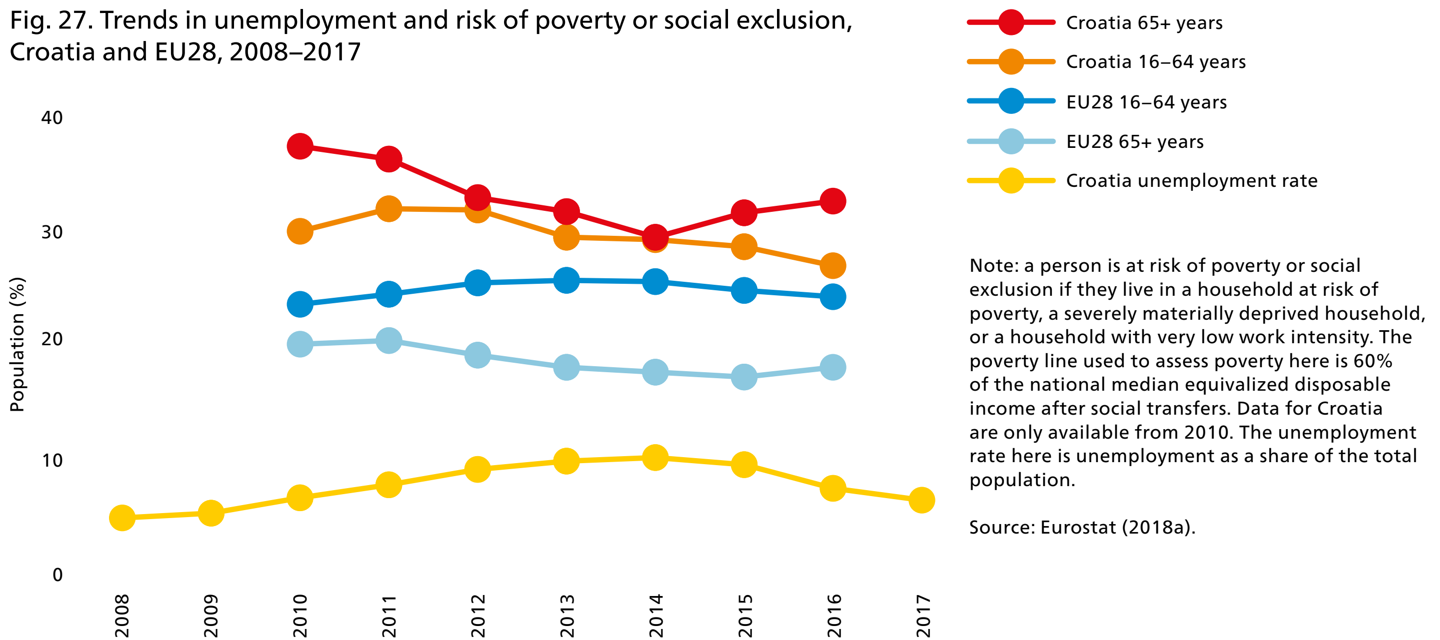


The risk of poverty or social exclusion is generally higher in Croatia than the EU28 average (Fig. 27). Following the onset of the economic downturn, as unemployment rose, the share of the Croatian population of working age at risk of poverty or social exclusion also rose, reaching a peak of 32% in 2012. Since then it has steadily declined to 27% in 2016, not far above the EU28 average of 24%. This mirrors the general rise and fall in average household capacity to pay seen in Fig. 25.

For older people, the risk of poverty or social exclusion is higher than for people of working age in Croatia and much higher than the EU28 average for older people (Fig. 27). However, the gap narrowed during the crisis in Croatia, as the risk of poverty or social exclusion fell steadily for older people between 2010 and 2014; by 2014, it was the same as the Croatian average for people of working age.

Older people were less affected by the crisis than people of working age, but as the unemployment rate began to fall from its 2013 and 2014 peak, their relative advantage disappeared. This may be why the share of retired households among households with catastrophic out-of-pocket payments (Fig. 19) was substantially lower in 2014 than in 2010 and 2011. Once again, it suggests that factors beyond the health system contributed to the reduction in catastrophic incidence in 2014.

Fig. 27. Trends in unemployment and risk of poverty or social exclusion, Croatia and EU28, 2008–2017



Note: a person is at risk of poverty or social exclusion if they live in a household at risk of poverty, a severely materially deprived household, or a household with very low work intensity. The poverty line used to assess poverty here is 60% of the national median equivalized disposable income after social transfers. Data for Croatia are only available from 2010. The unemployment rate here is unemployment as a share of the total population.

Source: Eurostat (2018a).

6.2 Health system factors

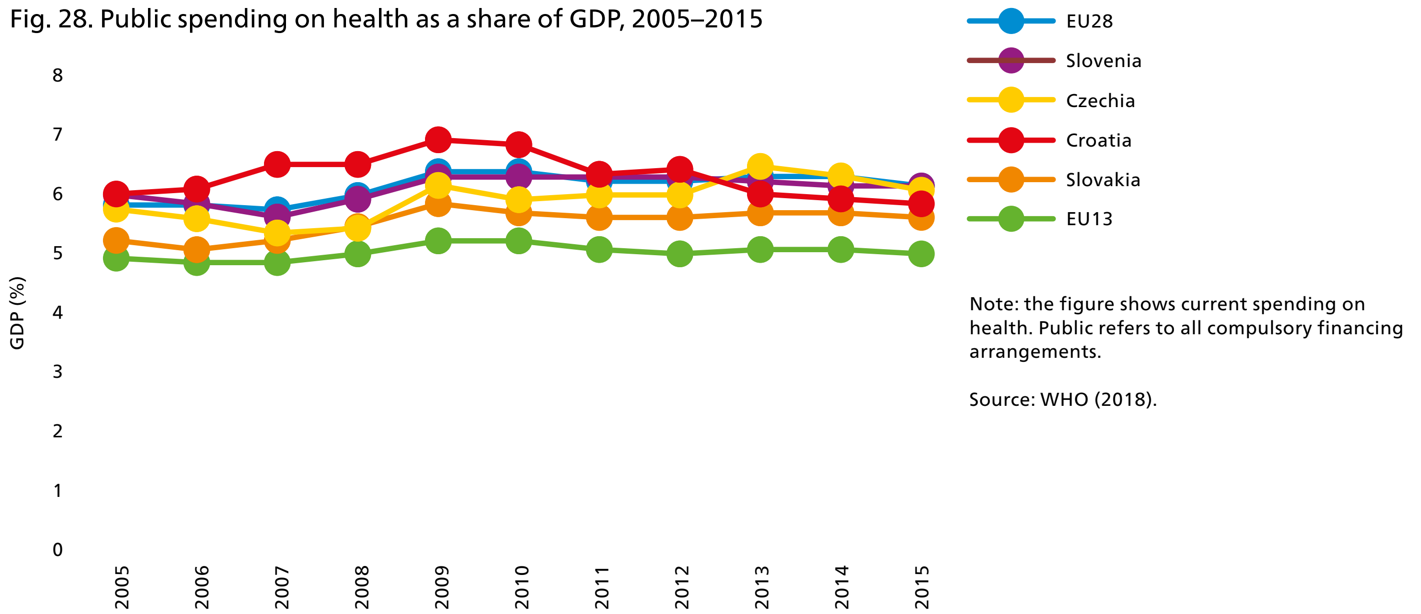
The following paragraphs look at health spending and health coverage.

6.2.1 Spending on health

Public spending on health rose rapidly between 2000 and 2008. During this period, public spending on health as a share of GDP was above the EU28 average (Fig. 28). Since then, however, public spending on health per person has steadily declined (Fig. 14) and its share of GDP has also fallen. The sharp reduction in 2011 is due to an accounting change; from 2011, complementary VHI supplied by HZZO was moved from public spending to VHI spending. In spite of a continuing decline in public spending on health, Fig. 29 shows that it remains fairly high in Croatia relative to GDP per person.

Public investment in the health system, combined with significant levels of spending on complementary VHI covering co-payments – including substantial public subsidies to HZZO to make free complementary VHI available to around 20% of the population – mean that the out-of-pocket share of total spending on health is very low in Croatia (Fig. 13). Although the out-of-pocket share was higher in 2015 than its pre-crisis level, it remains low by EU28 standards.

Fig. 28. Public spending on health as a share of GDP, 2005–2015



Note: the figure shows current spending on health. Public refers to all compulsory financing arrangements.

Source: WHO (2018).

Fig. 29. Public spending on health and GDP per person in the EU, 2015

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

Source: WHO (2018).

6.2.2 Health coverage

The possibility of opting out of mandatory health insurance was abolished in 2002. Since then, no significant changes to **population entitlement** have taken place. There are currently no documented gaps in population coverage.

Service coverage is also relatively comprehensive because HZZO provides good coverage of dental care, including for adults; this is reflected in very low levels of unmet need for dental care in Croatia compared to other EU countries and low levels of socioeconomic or aged-related inequality in unmet need for dental care.

For health care, however, long waiting times for specialists in public facilities may be a barrier to access. While EU-SILC data suggest that unmet need for health care due to cost, distance or waiting time is low in Croatia – 1.7% in 2016 compared to an EU28 average of 2.5% (Fig. 1) – EHIS data suggest unmet need due to waiting is more of a problem in Croatia than the EU28 average (Fig. 3). Both data sources also reveal quite large age-related inequality in unmet need for health care.

A significant share of the out-of-pocket payments reported in the household budget survey are likely to arise from the use of private or non-HZZO contracted providers (either to avoid waiting times or to benefit from enhanced facilities) and from the use of services not covered by HZZO, including aesthetic treatments and non-reimbursed medicines. These services are predominantly used by richer households and reflected in their considerably higher levels of out-of-pocket spending (Fig. 6, Fig. 11, Fig. 12).

User charges apply to almost all health services. Although relatively low fixed co-payments apply to primary care visits, dental care visits and outpatient medicines, the use of percentage co-payments for all other types of care may impose a heavy financial burden on users of specialist care and those requiring dental treatment.

However, there are various mechanisms in place to protect people, including: exemptions for children under 18, severely disabled people, disabled war veterans and family members of veterans killed in action; exemptions for treatment of cancer, infectious diseases, chronic psychiatric illness and fertility, as well as antenatal care; and a cap on co-payments set at HRK 2000 (€PPS 412) per episode of care.

The most significant protection mechanism is complementary VHI covering co-payments. The complementary VHI supplied by HZZO is available to everyone at relatively low cost and paid for by the government for eligible groups who apply for it. Those eligible for free complementary VHI supplied by HZZO include registered disabled people, organ and blood donors, students aged over 18 and people of low income – those living in households with a monthly income of less than HRK 1516 (€PPS 317) per household member. In total, complementary VHI covers 64% of the population. Around a third of those with complementary VHI benefit from premiums paid by the government.

Although about 34% of the population is not covered by complementary VHI, a large share of this group – equal to about 20% of the population – consists of people who are exempt from user charges and do not need additional

protection (for example, children under 18). As a result, only 14% of the population is neither exempt from co-payments nor covered by complementary VHI (Table 3).

Because of exemptions from co-payments and the high take up of complementary VHI covering co-payments, only 4% of households had catastrophic out-of-pocket payments in 2014. This is lower than in many EU13 countries (Fig. 24). Inequality in financial protection is an issue, however, with 18% of households in the poorest quintile having catastrophic out-of-pocket payments in 2014, compared to under 2% in the other quintiles. Across the three years of the study, households in the poorest quintile accounted for close to 90% of all households with catastrophic spending. The incidence of catastrophic spending is also highest among retired households, who are mainly aged over 60.

In all three years, out-of-pocket payments are mainly spent on outpatient medicines and dental care, with the share spent on medicines falling progressively with income and the share spent on dental care rising progressively with income. Catastrophic out-of-pocket payments follow a similar pattern. In 2016, nearly 85% of catastrophic spending by the poorest quintile was on medicines. The rest was on inpatient care, outpatient care and medical products, with almost nothing spent on dental care and diagnostic tests. On average, in 2016, further impoverished households spent 4% of their budget on out-of-pocket payments, rising to 6% for the whole of the poorest quintile.

A number of health system factors may explain these results.

First, **the threshold for eligibility for free complementary VHI may be too low**. Currently, it is set at HRK 1516 (€PPS 317) per person per month. The household budget survey data for 2014 indicate that 18% of households in the poorest quintile would not have been eligible for free complementary VHI based on this threshold. It suggests that some of the 14% of people who must pay co-payments because they are neither exempt nor have complementary VHI are in the poorest quintile.

Raising the threshold by HRK 100 to HRK 1616 (€PPS 338) per person per month would halve the share of households in the poorest quintile who are not eligible. Raising it by HRK 364 to HRK 1880 (€PPS 393) per person per month would cover all of the poorest quintile. Another advantage of raising the threshold is that it would begin to address the regressivity of VHI premiums, which currently account for a higher share of household spending in the poorest quintile (3.1%) than the richest (1.1%).

Second, **some aspects of co-payment design may not be sufficiently protective**.

Exemption from co-payments: the use of a relatively low fixed co-payment for prescribed medicines (rather than percentage co-payments) is one of the most protective features of user charges policy in Croatia (Table 2). In addition, there are exemptions for children, severely disabled people and some other groups. However, given that catastrophic incidence is highest among the poorest quintile and older people, and largely driven by outpatient medicines, extending the current list of exemptions from co-payments to poor people could lead to a significant improvement in financial protection and unmet need, including among older people.

Cap on co-payments: additional protection could also be achieved by improving the cap on co-payments. The current cap per episode of care is set at a high level and does not provide protection over time. Adapting the cap to cover all co-payments for a given period of time, such as a year, would enhance protection, especially for people who rely exclusively on care provided by HZZO-contracted providers.

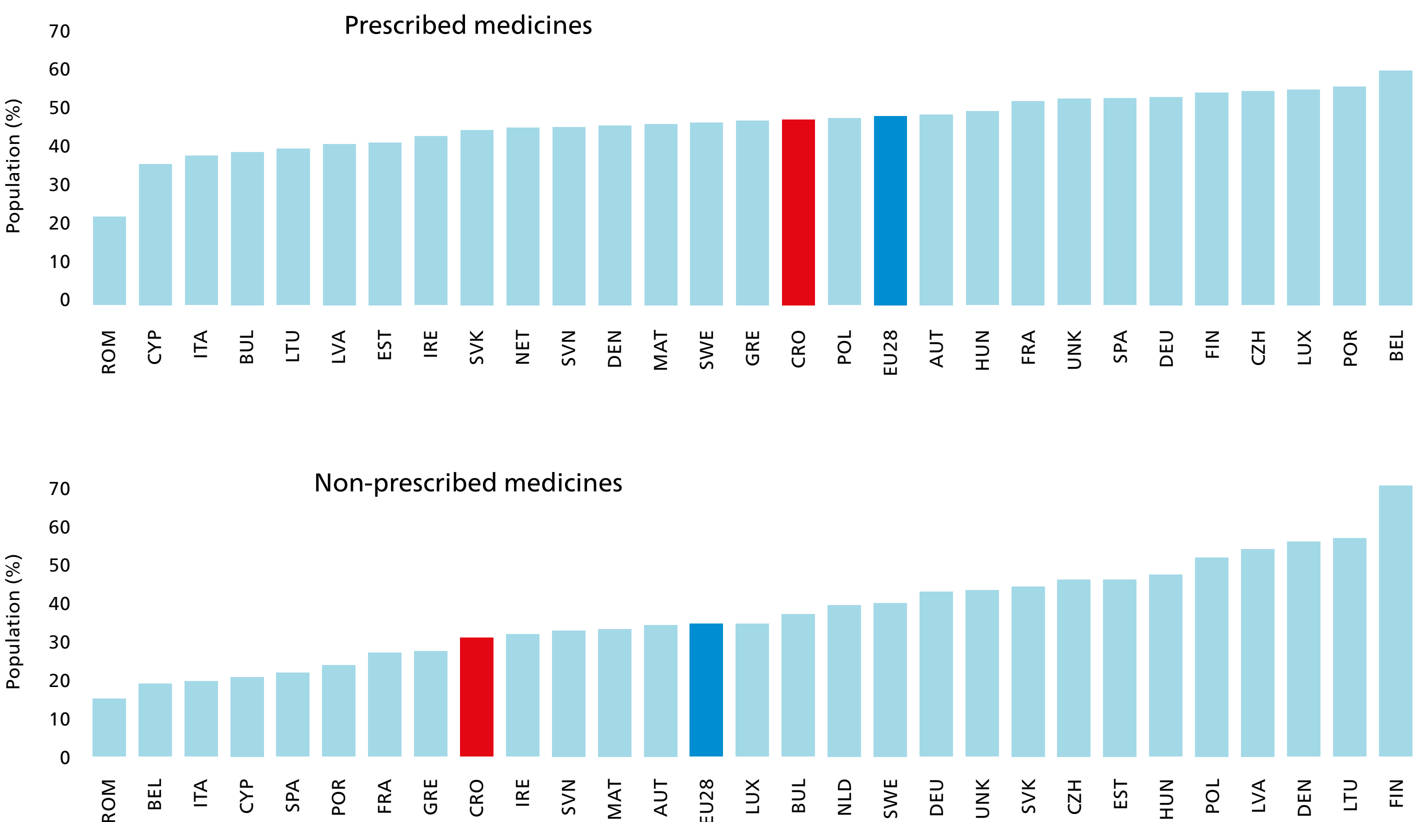
Although fixed co-payments for primary care and dental care visits were reduced in 2011 and the cap on co-payments per episode of care was lowered in 2012, outpatient care and inpatient care accounted for a greater share of catastrophic spending among the poorest quintile in 2014 than in 2010 or 2011 (Fig. 21), perhaps due to increased use over time (section 3.2).

Third, **the lack of price regulation for non-covered medicines**, including over-the-counter medicines, may be an issue, especially since medicines account for the bulk of out-of-pocket payments and catastrophic spending. Although the use of non-prescribed medicines is relatively low in Croatia compared to other EU countries (Fig. 30), it may be a source of financial hardship.

Fig. 30. Use of medicines in the EU, 2014

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

Source: Eurostat (2018c).



6.3 Summary

High levels of public spending as a share of total spending on health and the high take up of complementary VHI covering co-payments mean that out-of-pocket payments are low as a share of total spending on health in Croatia.

The main gap in coverage comes from the application of user charges to most health services, including outpatient medicines, but exemptions from co-payments for children under 18 (and some other groups of people) and complementary VHI covering co-payments play an important role in addressing this gap. The complementary VHI supplied by HZZO is able to do this because:

- it is easily accessible – open to everyone, regardless of age or health status;

- it is relatively affordable – the fixed monthly premium of HRK 70 (€PPS 14.63) per person does not vary with age or health status;

- the government provides free access to complementary VHI for people with low incomes (those with less than HRK 1516 (€PPS 317) per household member a month); and

- in total, complementary VHI covers a large share of the population (64%), including many vulnerable groups of people.

As a result of the high take up of complementary VHI covering user charges, only 4% of households had catastrophic out-of-pocket payments in 2014.

Inequality in financial protection is an issue, however. Across the three years of the study, households in the poorest quintile accounted for close to 90% of all households with catastrophic spending. Broken down by type, the incidence of catastrophic spending is highest among retired households, who are mainly aged over 60. Outpatient medicines are by far the largest driver of catastrophic spending for poorer households.

A number of health system factors may explain these results.

- The threshold for eligibility for free complementary VHI may be too low. In 2014, 18% of households in the poorest quintile would not have been eligible for free complementary VHI based on the current threshold. Raising the threshold by HRK 364 to HRK 1880 (€PPS 393) per person per month would ensure that all of the poorest quintile is entitled to benefit from free complementary VHI.

- Some aspects of co-payment design may not be sufficiently protective. Although several groups of people are exempt from co-payments, there is no exemption on the basis of income or regular use of care. Extending the current list of exemptions to include low-income households could lead to a significant improvement in financial protection and unmet need. Additional protection would also be achieved by adapting the current cap on co-payments per episode of care, which is set at a high level and does not provide protection over time.

- The lack of price regulation for non-covered medicines, including over-the-counter medicines, may be an issue, especially since medicines account for

the bulk of out-of-pocket payments and catastrophic spending. Although the use of non-prescribed medicines is relatively low in Croatia compared to other EU countries, it may be a source of financial hardship.

Between 2011 and 2014, the overall incidence of catastrophic spending on health fell significantly, driven largely by a fall in incidence in the poorest quintile. Changes in the health system do not fully explain this improvement in financial protection for the poorest quintile: although there were some reductions in co-payments for primary care and greater take up of complementary VHI covering co-payments, there were no policy changes affecting outpatient medicines, and the use of outpatient and inpatient services increased.

The reduction in the incidence of catastrophic spending may therefore reflect an improvement in living standards for poorer households and older people. During the economic downturn, the risk of poverty or social exclusion fell among older people relative to people of working age; this coincided with a substantial reduction in the share of retired households among households with catastrophic spending. The advantage gained was short lived, however, and the risk of poverty or social exclusion for older people has risen steadily since 2014.

7. Implications for policy

The incidence of catastrophic and impoverishing out-of-pocket payments is lower in Croatia than in many other EU13 countries, mainly due to public spending accounting for a high share of total spending on health, close to universal population entitlement to a wide range of publicly financed health services and free complementary VHI covering co-payments for poor people.

Croatia also does well in terms of access to health services, especially for dental care, although inequalities in access are an issue. Unmet need for dental care is well below the EU28 average, with few socioeconomic or age-related inequalities. Unmet need for health care is close to the EU28 average, but socioeconomic and age-related inequalities are significant.

Although user charges are widespread in the health system, they do not lead to financial hardship for most people because children under 18 and some other groups of people are exempt from co-payments, and complementary VHI covering co-payments is accessible, affordable and taken up by 64% of the population. Complementary VHI supplied by HZZO is available to anyone for a relatively low fixed premium unrelated to age or health status. Importantly, it is paid by the government for households with very low incomes and some other groups; free cover is available to about 20% of the population and accounts for 30% of those with complementary VHI.

In spite of exemptions from co-payments and the good overall protection provided by complementary VHI, catastrophic out-of-pocket payments are heavily concentrated among the poorest households. Retired people are also vulnerable. Close to 20% of households in the poorest quintile experience catastrophic spending on health, compared to under 2% in the other quintiles. The poorest quintile accounts for 90% of all households with catastrophic out-of-pocket payments, while retired households, mainly aged over 60, account for around 30%.

Catastrophic out-of-pocket payments are largely driven by spending on outpatient medicines, especially among poorer households. Dental care is the second-largest driver of catastrohpic spending, but catastrophic spending on dental care is mainly experienced by the richest quintile; the poor spend almost nothing on dental care.

Financial protection improved between 2011 and 2014, in part due to changes in living standards for poorer people and older people. Investing in social protection for vulnerable groups of people can reduce their risk of experiencing financial hardship due to out-of-pocket payments. For example, as unemployment rose during the economic downturn, the risk of poverty and social exclusion among older people fell relative to people of working age; between 2011 and 2014, retired people also fell substantially as a share of households with catastrophic spending. Since 2014, however, the risk of poverty or social exclusion for older people has risen steadily.

To improve financial protection, policy attention in the health system should focus on enhancing access to complementary VHI for poor households, strengthening co-payment design and improving the affordability of non-covered medicines. Raising the income threshold for eligibility for free complementary VHI would ensure that all households in the poorest quintile are entitled to benefit. It would also help to address the regressivity of VHI premiums. Extending the current list of exemptions from

co-payments to include low-income households could lead to a significant improvement in financial protection and unmet need. Additional protection could also be achieved by improving the cap on co-payments; the current cap per episode of care is set at a high level and does not provide protection over time. The lack of price regulation for non-covered medicines, including over-the-counter medicines, may be an issue, especially since medicines account for the bulk of out-of-pocket payments and catastrophic spending.

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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). 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).

Surveys will usually specify that household spending on health services should be net of any reimbursement to the household from a third party such as the government, a health insurance fund or a private insurance company. Some surveys ask households about spending on voluntary health insurance, but 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? Household budget surveys vary across countries in terms of frequency, timing, content and structure. These differences limit comparability. Even among EU countries, where there have been sustained efforts to harmonize data collection, differences remain.

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

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

Source: United Nations Statistics Division (2018).

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

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Annex 2. Methods used to measure financial protection in Europe

Background

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

Data sources and requirements

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

The following variables are required at household level:

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

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

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

Defining household consumption expenditure variables

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

Total household consumption expenditure not including imputed rent

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

Food expenditure

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

Housing expenditure on rent and utilities

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

Health expenditure (out-of-pocket payments)

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

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

Basic needs expenditure is a socially recognized minimum level of spending considered necessary to ensure sustenance and other basic personal needs. This report calculates household-specific levels of basic needs expenditure to estimate a household's capacity to pay for health care. Households whose total consumption expenditure is less than the basic needs expenditure level generated by the basic needs line are deemed to be poor.

Defining a basic needs line

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

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

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

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

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

Calculating the basic needs line

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

> equivalent household size = 1 + 0.7*(number of adults – 1)
> + 0.5*(number of children under 13 years of age)

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

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

Note again that households that do not report food expenditure are excluded as this may reflect reporting errors. For households that do not report any rent or utilities expenses, only the sample-weighted food basic needs expenditure is used to represent total basic needs expenditure per (equivalent) person. For households that report utilities expenditures but do not report any rent expenses, the two basic needs expenditure sample-weighted averages for food and utilities are added to calculate total basic needs expenditure per (equivalent) person. For households that report rent expenditures but do not report any utilities expenses, 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 mutually exclusive categories based on their level of out-of-pocket payments in relation to the basic needs line.

No out-of-pocket payments are those households that report no health expenditure.

Not at risk of impoverishment after out-of-pocket payments are non-poor households with out-of-pocket payments that do not push them below the multiple of the basic needs line.

At risk of impoverishment after out-of-pocket payments are non-poor households with out-of-pocket payments that push them below a multiple of the basic needs line. This review uses a multiple of 120%, but the author also prepared estimates using 105% and 110%.

Impoverished after out-of-pocket payments are non-poor households that are pushed into poverty after paying out of pocket for health services. For them, the ratio of out-of-pocket payments to capacity to pay is greater than one. 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.

Further impoverished after out-of-pocket payments are households already below the basic needs line with out-of-pocket payments. Any household whose ratio of out-of-pocket payments to capacity to pay is less than zero (that is, negative) is pushed further into poverty by 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. Thresholds are arbitrary. The threshold used most often with capacity to pay measures is 40%. This review uses 40% for reporting purposes, but the author also prepared estimates 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; this includes all households who are impoverished after out-of-pocket payments, because their ratio of out-of-pocket payments to capacity to pay is greater than one; and

- those with out-of-pocket payments whose ratio of out-of-pocket payments to capacity to pay is less than zero (negative) – that is, all households who are further impoverished after out-of-pocket payments.

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 (R1, R2)	Global indicators (G1–G4)
Catastrophic out-of-pocket payments	
Indicator R1: the proportion of households with out-of-pocket payments greater than 40% of household capacity to pay	**Indicator G1**: 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)
Impoverishing out-of-pocket payments	
Indicator R2: 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)	**Indicator G2**: changes in the incidence and severity of poverty due to household expenditure on health using an international poverty line of PPP-adjusted US$ 1.90 per person per day **Indicator G3**: changes in the incidence and severity of poverty due to household expenditure on health using an international poverty line of PPP-adjusted US$ 3.10 per person per day **Indicator G4**: changes in the incidence and severity of poverty due to household expenditure on health using a relative poverty line of 60% of median consumption or income per person per day

Note: PPP: purchasing power parity.

Sources: WHO headquarters and WHO Regional Office for Europe.

Regional indicators

Indicators R1 and R2 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

Indicators G1–G4 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, global indicator G1 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, regional indicator R1 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.

This approach results in the incidence of catastrophic out-of-pocket payments being highly concentrated among poor households in all countries. 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 international poverty lines set at US$ 1.90 or US$ 3.10 a day in purchasing power parity (indicators G2 and G3) (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 R2 – 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 consumption expenditure or income and may not fully capture all of a household's financial resources– for example, 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 spending on health. 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 (because they no longer have any capacity to pay after incurring out-of-pocket payments) and households who are further impoverished (because they have no capacity to pay from the outset).

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).

C**o-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 extra billing (a system in which providers are allowed to charge patients more than the price or tariff determined by the third party payer) 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 adult: 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 or over count as 0.7 equivalent adults and children under 13 years 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 impoverishing out-of-pocket payments: An indicator of financial protection. Out-of-pocket payments made by households living below a national or international poverty line or a basic needs line. A household is further impoverished if its total consumption is below the line before out-of-pocket payments and if it then incurs 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.

Impoverishing out-of-pocket payments: 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.

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: (a) formal co-payments (user charges or user fees) for covered goods and services; (b) formal payments for the private purchase of goods and services; and (c) 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 the population into quintiles based on 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: All people are able to 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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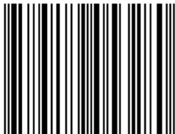
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