



World Health
Organization

REGIONAL OFFICE FOR Europe

Can people afford to pay for health care?

New evidence
on financial protection
in Ukraine

Alona Goroshko
Natalia Shapoval
Taavi Lai



Ukraine

WHO Barcelona Office for Health Systems Strengthening

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

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

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

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



Can people afford to pay for health care?

New evidence
on financial protection
in Ukraine

Written by:
Alona Goroshko
Natalia Shapoval
Taavi Lai

Edited by:
Erica Richardson
Sarah Thomson

Series editors:
Sarah Thomson
Jonathan Cylus
Tamás Evetovits

Abstract & keywords

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

HEALTHCARE FINANCING
HEALTH EXPENDITURES
HEALTH SERVICES ACCESSIBILITY
FINANCING, PERSONAL
POVERTY
UKRAINE
UNIVERSAL COVERAGE

ISBN 9789289053655

Address requests about publications of the WHO Regional Office for Europe to:

Publications

WHO Regional Office for Europe
UN City, Marmorvej 51
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (<http://www.euro.who.int/pubrequest>).

© **World Health Organization 2018**

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters. All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

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.

Contents

Figures, tables & boxes	vi
Abbreviations	viii
Acknowledgements	ix
Executive summary	x
<hr/>	
1. Introduction	1
<hr/>	
2. Methods	3
2.1 Analytical approach	4
2.2 Data sources	5
<hr/>	
3. Coverage and access to health care	7
3.1 Coverage	8
3.2 Access, use and unmet need	12
3.3 Summary	15
<hr/>	
4. Household spending on health	17
4.1 Out-of-pocket payments	18
4.2 Informal payments	26
4.3 What drives changes in out-of-pocket payments?	27
4.4 Summary	29
<hr/>	
5. Financial protection	31
5.1 How many households experience financial hardship?	32
5.2 Who experiences financial hardship?	33
5.3 Which health services are responsible for financial hardship?	35
5.4 How much financial hardship?	37
5.5 International comparison	38
5.6 Summary	39
<hr/>	
6. Factors that strengthen and undermine financial protection	41
6.1 Factors affecting people's capacity to pay for health care	42
6.2 Health system factors	44
6.3 Summary	48
<hr/>	
7. Implications for policy	49
<hr/>	
References	52
Annex 1. Household budget surveys in Europe	55
Annex 2. Methods used to measure financial protection in Europe	58
Annex 3. Regional and global financial protection indicators	64
Annex 4. Glossary of terms	67

Figures

Fig. 1. Self-reported unmet need for health services by type of care and income quintile

14

Fig. 2. Self-reported unmet need for inpatient care due to cost by income, 2016

15

Fig. 3. Share of households with and without out-of-pocket payments

18

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

19

Fig. 5. Annual out-of-pocket spending on health care per person by consumption quintile

20

Fig. 6. Out-of-pocket payments for health care as a share of household consumption by consumption quintile

21

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

22

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

23

Fig. 9. Annual out-of-pocket spending on health care per person by type of health care

24

Fig. 10. Annual out-of-pocket spending on medicines and inpatient care per person by consumption quintile, in real terms

25

Fig. 11. Health spending per person by financing agent, in real terms

27

Fig. 12. Out-of-pocket payments as a share of total spending on health

28

Fig. 13. Share of households at risk of impoverishment after out-of-pocket payments

32

Fig. 14. Share of households with catastrophic out-of-pocket payments

33

Fig. 15. Breakdown of households with catastrophic spending by risk of impoverishment

34

Fig. 16. Share of households with catastrophic spending by consumption quintile

34

Fig. 17. Breakdown of catastrophic spending by type of health care

35

Fig. 18. Breakdown of catastrophic spending by type of health care and consumption quintile

36

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

37

Fig. 20. Out-of-pocket payments as a share of total household spending among further impoverished households

37

Fig. 21. Incidence of catastrophic spending on health and out-of-pocket share of total spending on health in selected European countries, latest year available

38

Fig. 22. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line, in real terms

42

Fig. 23. Trends in poverty

43

Fig. 24. Public spending on health and GDP per person, WHO European Region, 2015

44

Fig. 25. Public spending on health as a share of total Government spending

45

Fig. 26. Acute care hospital discharges per 100 people

47

Tables

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

4

Table 2. User charges for publicly financed health services, 2018

10

Table 3. Gaps in publicly financed and VHI coverage

11

Boxes

Box 1. Unmet need for health care

13

Abbreviations

EHIS	European Health Interview Survey
EU	European Union
EU28	European Union Member States as of 1 July 2013
EU-SILC	European Union Statistics on Income and Living Conditions
GDP	gross domestic product
KIIS	Kyiv International Institute of Sociology
NaUKMA	School of Public Health, National University of Kyiv-Mohyla Academy
UAH	Ukrainian hryvnia
VHI	voluntary health insurance

Acknowledgements

This series of financial protection reviews is produced by the WHO Barcelona Office for Health Systems Strengthening, which is part of the Division of Health Systems and Public Health, directed by Hans Kluge, in the WHO Regional Office for Europe. The series editors are Sarah Thomson, Jonathan Cylus and Tamás Evetovits.

The review of financial protection in Ukraine was written by Alona Goroshko (WHO Country Office, Ukraine), Natalia Shapoval (Consultant, Kyiv School of Economics) and Taavi Lai (WHO Country Office, Ukraine). It was edited by Erica Richardson (WHO Barcelona Office).

The WHO Barcelona Office is grateful to Nataliia Riabtseva (Ministry of Health of Ukraine), Tetiana Stepurko (National University of Kyiv-Mohyla Academy) and Guillaume Dedet and Melitta Jakab (WHO Regional Office for Europe) for their feedback on an earlier draft of the review.

Thanks are also extended to Ihor Verner, Natalia Vlasenko, Inna Osypova and Larysa Rokytko (State Statistics Service of Ukraine) for their contribution to the study.

Data on financial protection were shared with the Ministry of Health of Ukraine as part of a WHO consultation on universal health coverage indicators held in 2018.

WHO gratefully acknowledges funding from the United Kingdom Department for International Development, under the Making Country Health Systems Stronger programme, and from the Government of the Autonomous Community of Catalonia, Spain.

The production of this review was coordinated by Ruth Oberhauser (WHO Barcelona Office). Additional support came from José Cerezo Cerezo (figures), Alex Mathieson (copyediting), Aleix Artigal and Alex Prieto (design and typesetting) and Juan García Domínguez (checking proofs).

Please cite the review as: Goroshko A, Shapoval N, Lai T (2018). Can people afford to pay for health care? New evidence on financial protection in Ukraine. Copenhagen: WHO Regional Office for Europe.

Executive summary

Ukraine is currently implementing profound reforms to the health system with the aim of moving towards universal health coverage and enhancing efficiency and equity in public spending on health.

This review provides evidence on the extent to which households in Ukraine experienced financial hardship when using health services in the pre-reform period of 2010-2015. It provides a baseline for monitoring the impact of the reforms and future trends.

The health system has come to rely increasingly heavily on out-of-pocket payments, partly in response to a fall in public spending on health, which was in turn linked to recent conflict and political instability and to dramatic economic decline in 2014 and 2015.

Household budget survey data show that the share of households reporting out-of-pocket payments grew from 86% in 2010 and 90% in 2013 to 93% in 2015. The level of out-of-pocket payments per person fell slightly in real terms between 2010 and 2015 overall, but increased for the poorest quintile.

Financial hardship has also increased over time. Between 2010 and 2015, the incidence of impoverishing out-of-pocket payments rose from 7.6% of households to 9.0%, while the incidence of catastrophic out-of-pocket payments rose from 11.5% to 14.5%.

Catastrophic spending on health is heavily concentrated in the poorest quintile. The overall increase in the incidence of catastrophic spending between 2010 and 2015 was largely driven by a significant increase in incidence for the poorest quintile.

Medicines and inpatient care are the largest drivers of catastrophic spending overall. For the poorest households, catastrophic spending is mainly caused by medicines; for the richest households, it is mainly caused by inpatient care.

Financial hardship reflects major de facto gaps in health coverage, meaning people must pay out of pocket for a high share of outpatient and inpatient services and almost all medicines, even though all citizens are entitled to publicly financed health services that are supposed to be free at the point of use. These gaps are not covered by voluntary health insurance.

Gaps in coverage can be attributed to very low levels of public spending on health, inefficiency and inequity in allocating and spending public resources, and widespread informal payments, particularly for inpatient care.

Unmet need for health care is a growing problem. Survey data indicate that the share of people reporting unmet need doubled between 2010 and 2015. Income inequality in unmet need is significant. If unmet need had not grown so rapidly during the study period, the incidence of catastrophic spending on health might have been even higher in 2015.

Improving financial protection will only be possible through increasing public investment in health and tackling inefficiencies in the health system, accompanied by reform of coverage policy.

Medicines illustrate the need for comprehensive action combining increased investment, better coverage design, efforts to enhance efficiency and greater transparency and accountability. Public spending on medicines is extremely low; current coverage design exposes people to the cost of many medicines, which is particularly challenging for households when living standards are falling and prices are rising; there is almost no regulation of medicine prices; and policies to ensure appropriate prescribing and dispensing are limited.

The recently introduced Affordable Medicines Programme is a welcome step towards improving access to medicines and financial protection for people with chronic conditions. This approach should be extended, with increased public investment, to include more international non-proprietary names based on agreed criteria and to enable the introduction of exemptions for vulnerable groups of people. Inappropriate prescribing and dispensing also increase out-of-pocket payments and require policy attention, accompanied by strategies to change the culture of medicine use.

1. Introduction

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

Over time, public spending on health as a share of GDP has been consistently low in Ukraine, with some fluctuation; in 2014 it fell from a peak of 3.8% to 2.9% and remained at this low level in 2015, well below the average for countries in the WHO European Region (5%) and European Union (EU) (6%) and slightly below the average for lower middle-income countries (3.1%) (WHO, 2018). Out-of-pocket payments have grown as a share of total spending on health, reaching 48% in 2015, which is among the highest in the European Region, although it remains below the average for lower middle-income countries (55%). National data suggest that the out-of-pocket share was even higher in 2016. The decline in public spending on health and subsequent increase in out-of-pocket payments are linked to recent conflict and political instability and to dramatic economic decline in 2014 and 2015.

Despite these major challenges, Ukraine is implementing profound reforms to the health system, as set out in the Law on State Financial Guarantees of Health Care Services to the Population approved by parliament in 2017 with effect from 2018. The reforms aim to move Ukraine towards universal health coverage and enhance efficiency and equity in public spending through the creation of a single, national pool, better and more transparent resource allocation and strategic purchasing, including a purchaser-provider split, more explicitly defined health benefits and new methods of paying health-care providers.

This review provides evidence on the extent to which households in Ukraine faced financial hardship when using health services during the pre-reform period of 2010 to 2015. It provides a baseline for monitoring the impact of the reforms and future trends. Several global studies of financial protection have included Ukraine (Xu et al., 2003, 2007; Bredenkamp et al., 2012; Saksena et al., 2014a, 2014b; WHO & World Bank, 2015; Bernabé et al., 2017) and a handful have focused exclusively on Ukraine (Murphy et al., 2013; Masood et al., 2015), but all draw on data ranging from the mid-1990s to the mid-2000s (Yerramilli et al., 2018). This analysis is the first to use nationally representative data up to 2015.

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

2. Methods

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

2.1 Analytical approach

The analysis of financial protection in this study is based on an approach developed by the WHO Regional Office for Europe, 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 <i>out-of-pocket payments</i> that are greater than 40% of household <i>capacity to pay for health care</i>
Numerator	Out-of-pocket payments
Denominator	Total household <i>consumption</i> 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 <i>utilities</i> 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 <i>quintiles</i> 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 <i>impoverished</i> or <i>further impoverished</i> after out-of-pocket payments
Poverty line	A <i>basic needs line</i> , 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, <i>at risk of impoverishment</i> and <i>not at risk of impoverishment</i> 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 household budget surveys conducted by the State Statistics Service of Ukraine in 2010, 2013 and 2015. The data sample consisted of 10 428 households in 2010 (with a response rate of 81%), 10 528 in 2013 (response rate 83%) and 9097 in 2015 (response rate 77%) (State Statistics Service of Ukraine, 2018).

Some aspects of the household budget survey data and the context in which they were collected should be noted. First, the Ukraine survey counts household spending on health spas, dentures and medicines covered by the Government under social protection programmes as household spending on health, even though they are paid for by the Government. As these services only account for a small share of public spending on health, however (3.1% in 2010 and 2.4% in 2015), their inclusion under household spending on health does not have a significant effect on the study's results.

Second, the category "medicines" includes medicines used in both outpatient and inpatient settings, which is not the norm in other European countries, where the "medicines" category usually includes outpatient medicines only. As a result, it is not possible to distinguish between household spending on medicines used for treatment in different settings in Ukraine. The implication is that household spending on inpatient care may be underestimated because it does not count household spending on medicines used in inpatient settings.

Last, inflation rose rapidly during the study period due to the dramatic economic decline Ukraine experienced in 2014 and 2015. All currency units in the study are presented in nominal Ukrainian hryvnia (UAH), with notes on inflation-adjusted spending where relevant. In 2016, 1000 UAH had the equivalent purchasing power of €108 in the average EU country.

3. Coverage and access to health care

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

3.1 Coverage

Health coverage is governed by Article 49 of the Constitution of Ukraine, subsequently elaborated in a special decision of the Constitutional Court in May 2002. This entitles all citizens to health services in Government- and community-owned facilities without user charges (co-payments) and without limits on the volume of care provided.

Ukraine has found it difficult to introduce mechanisms that would allow it to: define publicly financed health benefits to reflect the reality of very low levels of public spending on health; and enable benefits to target those most in need of publicly financed access. Previous efforts have been rejected in the courts. As a result, access to many health services is rationed implicitly on the basis of whether people are able to pay for them out of pocket.

The Government of Ukraine initiated health system reforms, including major reforms to health financing policy, in 2016. Legislation to enable health benefits to be defined based on explicit criteria such as health need, financial protection, equity and efficiency came into force in 2017. Subsidiary regulation to specify the process will be approved in 2018, so the institutional framework for a more transparent and equitable process for defining health benefits is now being determined. The reforms are likely to result in changes to the scope of health services covered, with effect from 2020. This study focuses on the pre-reform period.

3.1.1 Population entitlement

Article 49 of the Constitution grants everyone access to health services in public facilities without co-payment. Entitlement to receive services in a specific facility is linked to residence; formally, a person can receive services only in facilities in the local area (rayon or municipality) in which they are officially registered. If people are willing to pay informally, however, it is possible to be treated in other facilities.

3.1.2 Service coverage

The publicly financed benefits package is not defined. There are some explicit exclusions – for example, cosmetic surgery, infertility treatment and dental prostheses – but in practice, access to many health services is determined implicitly, either on the basis of availability in public facilities or on whether people can afford to pay for them out of pocket.

Outpatient services are provided by primary care centres, polyclinics and dentists. There is a formal system of referral to specialist care, with legislation allowing direct access to dentists, gynaecologists, paediatricians and other specialists

when a person has a chronic condition. Despite this formal requirement, people willing to seek care directly from specialists are able to do so, including by paying physicians informally. Dental care is subject to official co-payments where the local council permits public facilities to charge patients; this varies by municipality and region. Some high-technology services such as newer cancer treatments are available only in the private sector. Waiting times for specialist or inpatient care are not a feature of the system, partly because there are no real capacity constraints, but also because demand is limited by people's ability to pay for health services out of pocket. Waiting time standards and guarantees are neither covered in legislation nor monitored by the Government.

Although medicines are not explicitly excluded from the publicly financed benefits package, in practice there is almost no coverage of outpatient medicines and very limited coverage of inpatient medicines. Public spending on outpatient medicines in 2015 accounted for only 0.1% of all spending on medicines; 99% of all spending on medicines was through out-of-pocket payments.

Patients provided with prescriptions in outpatient settings are expected to obtain medicines from pharmacies and pay the full cost out of pocket. In 2017, 96% of people who were prescribed outpatient medicines paid for them out of pocket (Stepurko & Semigina, 2018). Gaps in coverage for medicines are accompanied by inefficient prescribing practices; people are prescribed numerous medicines, brand names instead of available generics and non-indicated medicines.

At national level, the Government procures vaccines and medicines for the treatment of HIV, tuberculosis, cancer, transplants, diabetes, hepatitis B, hepatitis C and rare diseases, and (from 2010 to 2015) for acute neonatal and obstetric conditions. Budgets at regional level cover the procurement and provision of some inpatient medicines, but persistent underfunding and inefficiencies mean that only a small share of the inpatient budget is spent on medicines. In practice, patients frequently are expected to provide their own medicines and other supplies in hospital.

The dispensing of medicines is in theory regulated by licensing conditions for pharmacies and an explicit list of medicines to be dispensed over the counter, but de facto, most medicines can be purchased without a prescription. There is no comprehensive strategy to regulate the prices of pharmaceutical products or to ensure rational use of medicines through, for example, priority-setting processes, prescribing guidelines or policies to promote the prescribing, dispensing and use of generics.

Two recent policy changes have affected the affordability of medicines. In 2014, the Government introduced value-added tax for all medicines (at a rate of 7%) to increase its revenue in the context of the economic crisis. The Government launched the Affordable Medicines Programme in 2017 to provide coverage of medicines (currently 23 international non-proprietary names) for specific noncommunicable diseases (cardiovascular disease, type 2 diabetes and bronchial asthma) for free or with co-payments. Currently, however, the size of this programme represents less than 2% of the national pharmaceutical market.

3.1.3 User charges

Constitutionally, patients cannot be charged at the point of use or after receiving care in any publicly financed facility, except for services listed by the Cabinet of Ministers in specific regulations. Facilities can apply user charges

for these services at levels approved by local authorities. As shown in Table 2, however, the design of user-charges policy is weak because it does not include protection for those who need it most: poor people, regular users of health care (that is, people with chronic conditions) and people with acute conditions.

So-called charitable donations are used to circumvent constitutional guarantees for other services, such as outpatient consultations and hospitalization. These could be seen as quasi-formal payments, in that a receipt is provided. They nevertheless meet the definition of informal payment because they are made in addition to any payment determined by the terms of entitlement, as set out in the Constitution, to health-care providers for services and related inputs to which patients are entitled (Gaál & McKee, 2004). These payments are expected or explicitly requested rather than being voluntary (Lekhan et al., 2015).

As in many other post-Soviet countries (Gaál et al., 2010; Richardson et al., 2014), informal payments are widespread in other ways. People are expected to: pay for medicines out of pocket; bring medicines, dressings and other disposables with them on admission to hospital; and pay staff throughout the health system. Anecdotally, patients may also be encouraged to purchase so-called insurance to cover their care on admission.

A major challenge in health systems with pervasive informal payments is that it is difficult to introduce policies to protect poor people and regular users of health care from exposure to out-of-pocket payments. The role of informal payments in creating access barriers and financial hardship is discussed in more detail in section 4.2.

Table 2. User charges for publicly financed health services, 2018

Source: authors.

Service area	Type and level of user charge	Exemptions	Cap on user charges paid
Outpatient visits	None in public facilities	No	No
Dental care	Public facilities are allowed to charge patients if their owner (the local council) permits it	No	No
Outpatient prescription medicines	No formal user charges but in practice people pay the full cost of most medicines Since 2017, for the international non-proprietary name part of the Affordable Medicines Programme, people pay the difference between the defined reference price and the retail price of the generic medicine if the cheapest option is not chosen or dispensed	Medicines for HIV, tuberculosis, cancer, transplants, diabetes, hepatitis B, hepatitis C and rare diseases; since 2017, for international non-proprietary names included in the Affordable Medicines Programme (for cardiovascular disease, type 2 diabetes and bronchial asthma), at least one generic version should be available free of charge	No
Diagnostic tests	No formal user charges for people with a referral, but some tests are available only in private facilities, meaning people pay the full cost	No	No
Medical products	People pay the full cost of dental prostheses	No	No
Inpatient care	None in public facilities; however, patients pay if they choose wards with superior accommodation	No	No
Inpatient prescription medicines	No formal user charges but in practice many people pay the full cost	No	No

3.1.4 The role of VHI

VHI does not play a significant role in the health system, accounting for 1.1% of total spending on health and around 2% of private spending on health in 2015 (WHO, 2018). Most of the people enrolled in VHI schemes are corporate clients. Insurers usually exclude older people and people with chronic conditions defined as high risk because of pre-existing conditions (Lekhan, 2016).

VHI has different coverage types; the most basic plan covers the cost of medicines and medical products for services provided in public facilities. Most plans cover medicines that should be covered by the public system.

Community health insurance schemes [likarniana kasa] operate as quasi-VHI options at regional, rayon and municipality levels. These schemes function as charitable funds or civil unions and collect contributions that are determined by members. Participants are eligible to receive medicines free of charge when in need, but community health insurance schemes' part in total spending on health is small (0.1% of total current spending on health) (WHO, 2018).

Table 3 highlights key issues in the governance of coverage, summarizes the main gaps in publicly financed coverage and indicates the role of VHI in filling these gaps.

Table 3. Gaps in publicly financed and VHI coverage

Source: authors.

Coverage dimension	Population entitlement	Service coverage	User charges
Issues in the governance of publicly financed coverage	No; entitlement depends on citizenship and permanent residence and is therefore close to universal	Comprehensive publicly financed benefits package is not matched by sufficient public funding; hospital overcapacity absorbs a large share of funding	Informal payments are widespread
Main gaps in publicly financed coverage	No major gaps; entitlement depends on legal residence – people can receive services free of charge only in the rayon or municipality where they are officially registered	Very few explicit exclusions but in practice there is almost no coverage of outpatient and inpatient medicines or dental care	Very few formal user charges but in practice almost all spending on medicines comes from out-of-pocket payments
Are these gaps covered by VHI?	VHI schemes offer access to services in facilities regardless of official place of registration	Some limited community VHI schemes cover prescribed medicines, and some VHI packages cover care in private facilities and medicines in public facilities; however, VHI accounts for only 1% of total spending on health and 2% of private spending on health; it is mainly taken up by richer households	No

3.2 Access, use and unmet need

Official national data indicate very high levels of use of outpatient and inpatient care in Ukraine, and a very high number of prescriptions. According to official statistics, use of outpatient services in Ukraine is one of the highest in the European Region: in 2013, there were 10.3 visits per person per year in Ukraine, compared to a regional average of 7.6 (WHO Regional Office for Europe, 2017).

Survey data suggest that the rates of use of services are actually much lower than those reported in official statistics. One possible reason for this mismatch is the need for providers to comply with requirements on the minimum number of visits per doctor per day.

In 2015, 80% of people who reported using outpatient health services consulted specialists in polyclinics, 26% consulted family doctors and only 3% consulted private providers (State Statistics Service, 2018). Although health care in public facilities is supposed to be free at the point of use, 44% of people using outpatient services in 2016 and 58% in 2017 reported having paid for them out of pocket (Kyiv International Institute of Sociology (KIIS) & School of Public Health, National University of Kyiv-Mohyla Academy (NaUKMA), 2016; 2017).

The hospital discharge rate in Ukraine was 21.5 per 100 people in 2013, compared to a European Region average of 16.6 and an EU average of 15.8 (WHO Regional Office for Europe, 2017). The overuse of system resources in the hospital sector reduces the efficiency of public spending on health.

Survey data from 2016 indicate that 89% of people using outpatient services received a prescription for medicines and, on average, four different medicines were prescribed per patient (KIIS & NaUKMA, 2016). Inpatients were prescribed 6.2 medicines on average and 83% of patients did not receive any medicines from the facility, meaning they had to pay for them out of pocket (KIIS & NaUKMA, 2016).

High levels of use, combined with widespread informal payments, are likely to result in financial hardship for many people. At the same time, there is evidence of high levels of unmet need for care (Box 1).

The incidence of self-reported unmet need for health care doubled over the study period. According to the survey on self-reported health status and access, 29% of households in which at least one member needed care reported unmet need for health services in 2015, a huge increase from 15% in 2010 (Fig. 1). The most common reason for unmet need in both 2010 and 2015 was cost, which was cited by 79% of those who could not visit a doctor when needed. Income inequality in unmet need is also high, especially for inpatient care (Fig. 1).

Box 1. Unmet need for health care

Source: WHO Barcelona Office for Health Systems Strengthening.

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

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

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

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

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

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

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

Data from the Health Index Ukraine survey for 2016 indicate that nearly a third of people in need of hospitalization did not use it due to cost (Fig. 2). Once again, there is a high degree of income inequality in unmet need for hospitalization (Fig. 2), as well as age-related inequality: 40% of those reporting unmet need were aged over 60 years, compared to 35% aged 45–69 years.

Fig. 1. Self-reported unmet need for health services by type of care and income quintile

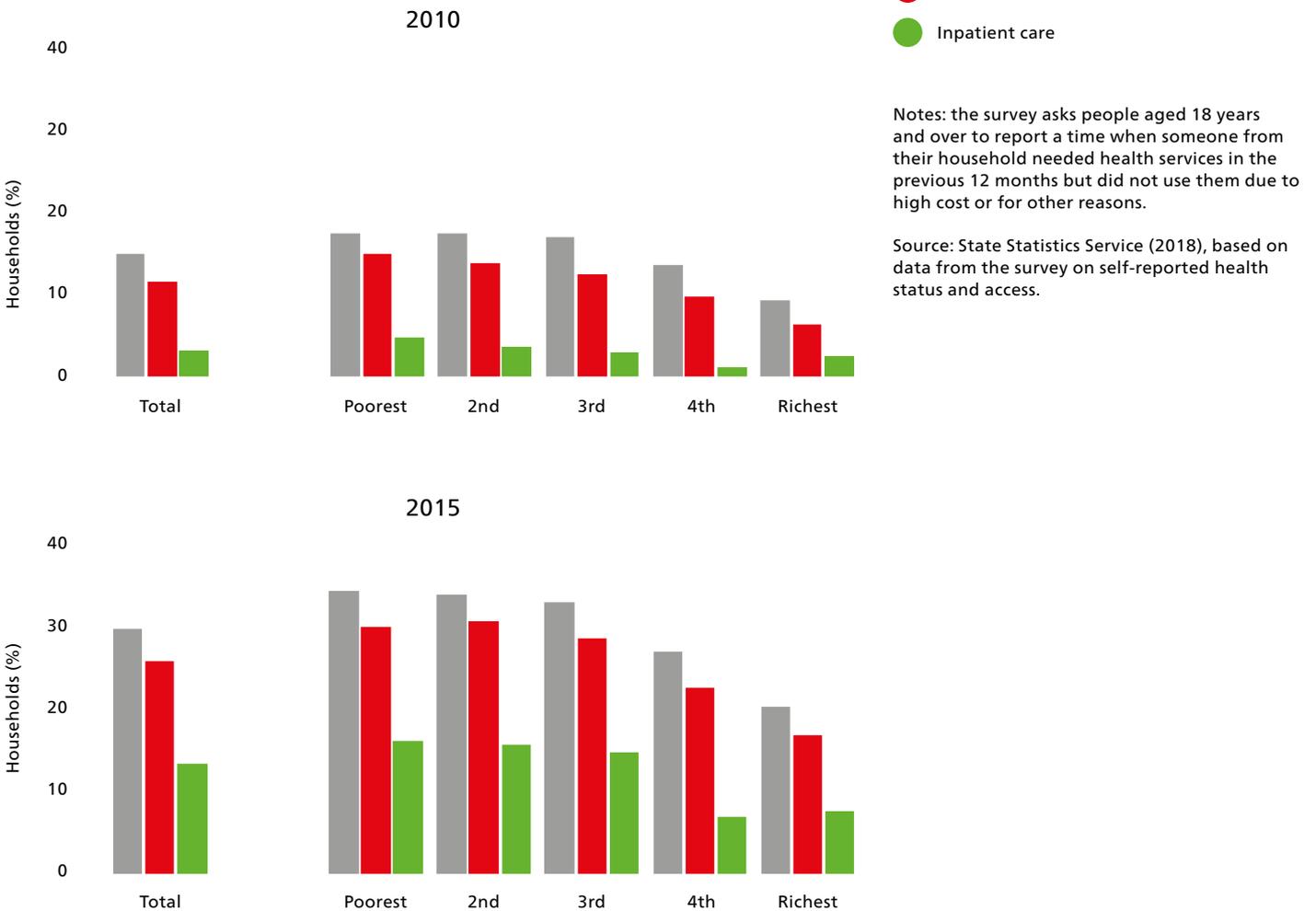
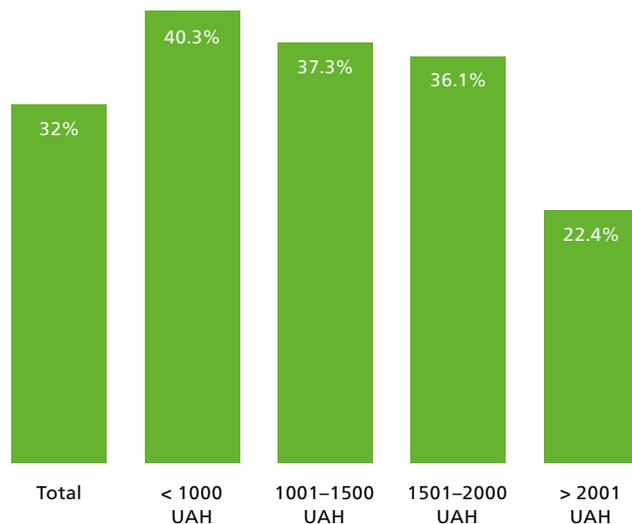


Fig. 2. Self-reported unmet need for inpatient care due to cost by income, 2016



Notes: unmet need among those reporting a need for inpatient care. Income refers to average monthly income. In 2016, 1000 UAH had the equivalent purchasing power of €108 in the average EU country.

Source: KIIS & NaUKMA (2016), based on data from the survey Health Index Ukraine.

3.3 Summary

In theory, all citizens of Ukraine are entitled to receive a comprehensive range of health services, including medicines, from public facilities without having to pay user charges (co-payments) or experience limits on volume. Very few services are explicitly excluded from publicly financed coverage (cosmetic surgery and infertility treatment) and user charges are applied to a handful of services only.

In practice, however, publicly financed coverage is extremely limited; people must pay out of pocket for most outpatient and inpatient services and almost all medicines due to a combination of factors, including: very low levels of public spending on health; inefficiency and inequity in allocating and spending public resources; and widespread informal payments.

Prior to 2017, reforms had not succeeded in introducing mechanisms that would allow: publicly financed health benefits to reflect the reality of very low levels of public spending on health; and enable benefits to target those most in need of publicly financed access to health care. Previous efforts were rejected by the courts. As a result, access to many health services is rationed implicitly on the basis of whether or not people are able to pay for them out of pocket.

The main gaps in coverage are related to:

- the de facto lack of cover for prescribed medicines in outpatient and inpatient settings;
- pervasive informal payments; and
- the lack of cover for dental care.

VHI plays almost no role in covering these gaps. It covers a very small share of the population and accounted for only 1% of total spending on health and 2% of private spending on health in 2015.

Official statistics indicate high levels of use of outpatient care, inpatient care and prescribed medicines in Ukraine in comparison to other countries in Europe. Due to widespread informal payments, this is likely to result in financial hardship for many people, especially those who are poor and regular users of health care, such as people with chronic conditions.

At the same time, survey data point to high and increasing levels of unmet need for health care due to financial barriers to access. There is also evidence of substantial income inequality in unmet need; poorer households are much more likely to report unmet need than richer households, particularly for inpatient care.

Very few mechanisms are in place to protect poor people and regular users of health care from exposure to out-of-pocket payments and rising health-care prices.

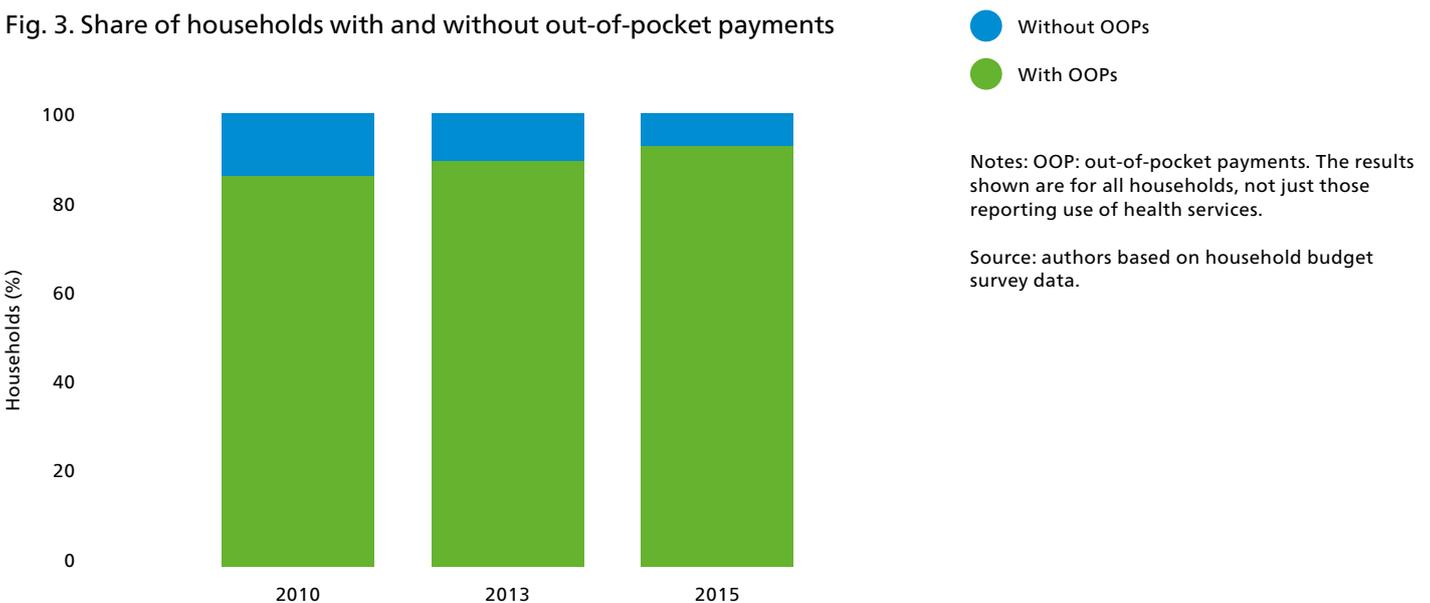
4. Household spending on health

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

4.1 Out-of-pocket payments

In 2015, 93% of households paid out of pocket for health services (Fig. 3). The frequency of households with out-of-pocket payments has increased over time, rising from 86% in 2010 and 90% in 2013 to 93% in 2015 (Fig. 3).

Fig. 3. Share of households with and without out-of-pocket payments



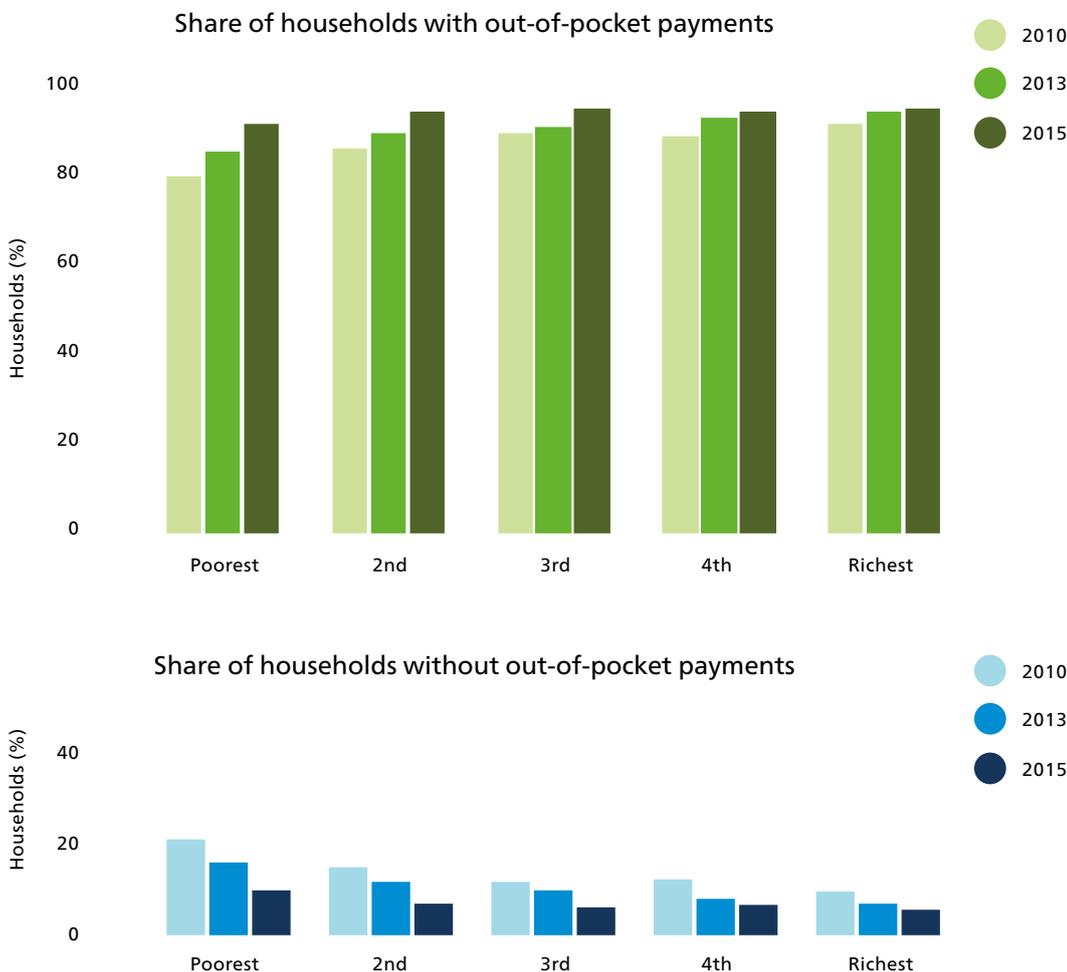
The share of households with and without out-of-pocket payments varies across consumption quintiles (Fig. 4). The likelihood of incurring out-of-pocket payments rises progressively with consumption in all three years of the study. In some countries, the fact that poorer people are less likely to pay out of pocket reflects pro-poor protection policies – for example, exemptions from co-payment for poor households. As this is not the case in Ukraine, it is safe to assume that the higher share of poor households without out-of-pocket payments reflects a higher degree of unmet need for health care among poor households, as shown in section 3.2.

Over time, the frequency of out-of-pocket payments has increased most among the poorest consumption quintile (Fig. 4). By 2015, the difference across quintiles in the share of households with and without out-of-pocket payments was much smaller than it had been in 2010. At the same time,

unmet need for health care rose from 15% of households needing care in 2010 to 29% in 2015. This suggests that poor people are having to pay more for health care out of pocket and, as a result, are experiencing growing financial barriers to access.

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

Source: authors based on household budget survey data.

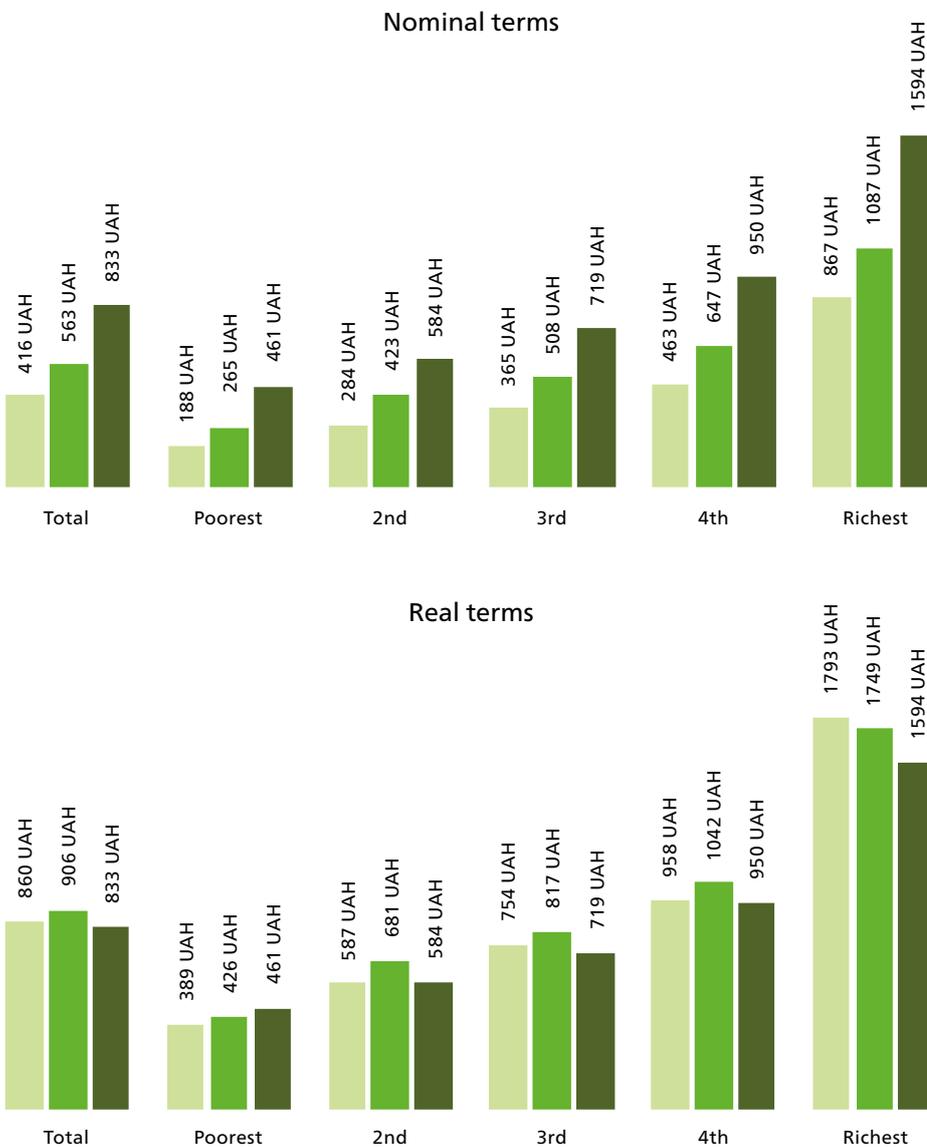


In nominal terms, average out-of-pocket spending on health per person doubled between 2010 and 2015 (Fig. 5, top panel), rising from 416 UAH per person in 2010 to 833 UAH in 2015. The nominal increase over time was significantly higher for the poorest quintile than for other quintiles. In real terms, however, average out-of-pocket spending per person fell slightly over time (Fig. 5, bottom panel); between 2010 and 2015, the average annual decrease in constant UAH was 0.6% overall. The decline in real terms overall masks differences between quintiles: adjusted for inflation, out-of-pocket spending per person increased steadily for the poorest quintile (by 3.5%

per year) but declined for the other quintiles, with the smallest decline for the second quintile (-0.1% per year) and the largest decline for the richest quintile (-2.3% per year).

In 2010, the richest quintile spent nearly five times as much out of pocket as the poorest, but by 2015, the difference had fallen to 3.5 times (Fig. 5), largely driven by the increase in spending among the poorest quintile.

Fig. 5. Annual out-of-pocket spending on health care per person by consumption quintile

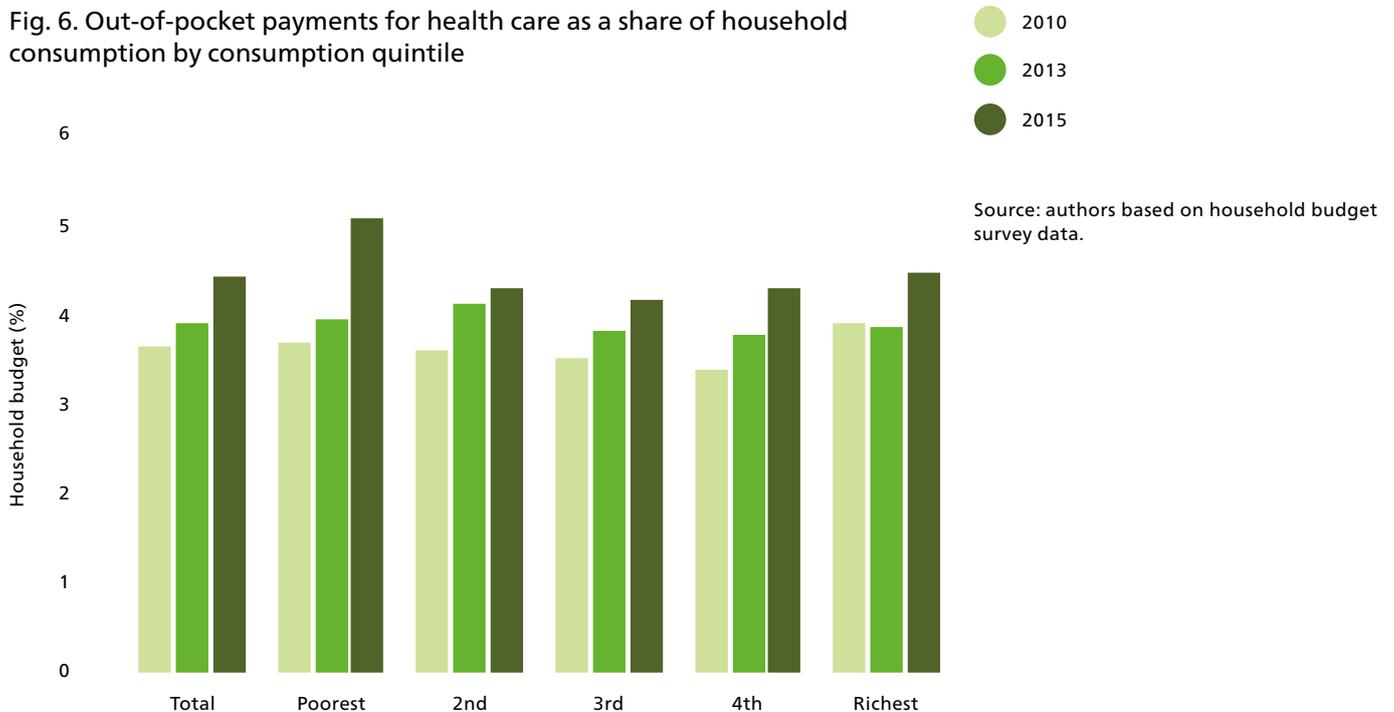


Note: these are average figures. Figures in real terms are adjusted for inflation (constant 2015 prices).

Source: authors based on household budget survey data.

Out-of-pocket spending on health has grown as a share of total household spending, rising from 3.6% in 2010 and 3.9% in 2013 to 4.4% in 2015 – an overall increase of about 21% (Fig. 6). This overall increase was driven largely by a significant increase among the poorest quintile; the out-of-pocket payment share of total household spending increased by nearly 40% for the poorest quintile between 2010 and 2015, compared to 15% for the richest. As a result, out-of-pocket payments showed a highly regressive distribution in 2015, with the poorest households paying proportionately more (5.1%) than the richest (4.5%). In earlier years, the distribution across quintiles had been roughly proportionate.

Fig. 6. Out-of-pocket payments for health care as a share of household consumption by consumption quintile

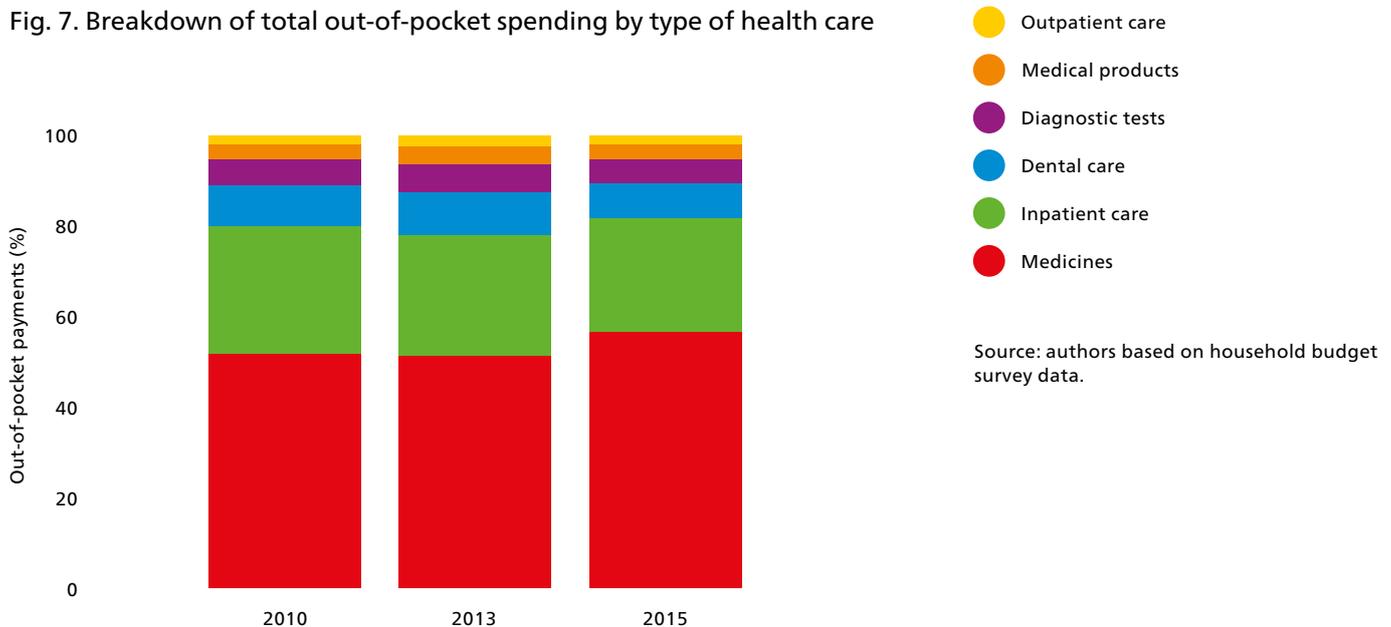


Spending on medicines accounted for over half of total household spending on health, rising from 51.7% in 2010 to 56.5% in 2015 (Fig. 7).

The second-largest spending category is inpatient care; its share of health spending fell from 28.3% in 2010 to 25.0% in 2015. Note that in the Ukraine household budget survey, the category “medicines” includes both outpatient and inpatient care, which is not the norm in other countries in Europe. As a result, household spending on inpatient care may be underestimated in Ukraine because it does not count spending on medicines used in inpatient settings.

The dental-care share of spending on health is lower than in many other European countries and fell over time from 9.0% in 2010 to 7.7% in 2015. This low spending share is likely to reflect unmet need for dental care.

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



Medicines are the largest driver of out-of-pocket spending for households in all quintiles, but they accounted for a much higher share of spending for poorer households than for richer households throughout the study period (Fig. 8). In contrast, richer households spent proportionately more on inpatient care, dental care and diagnostic tests than poorer households.

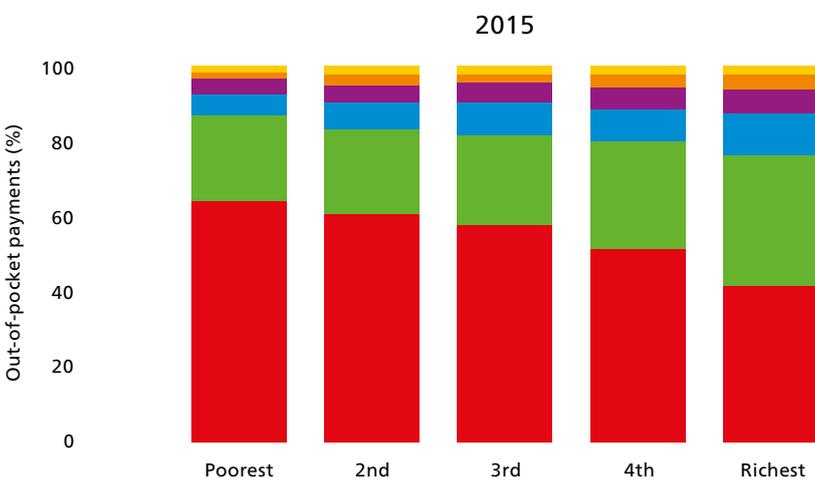
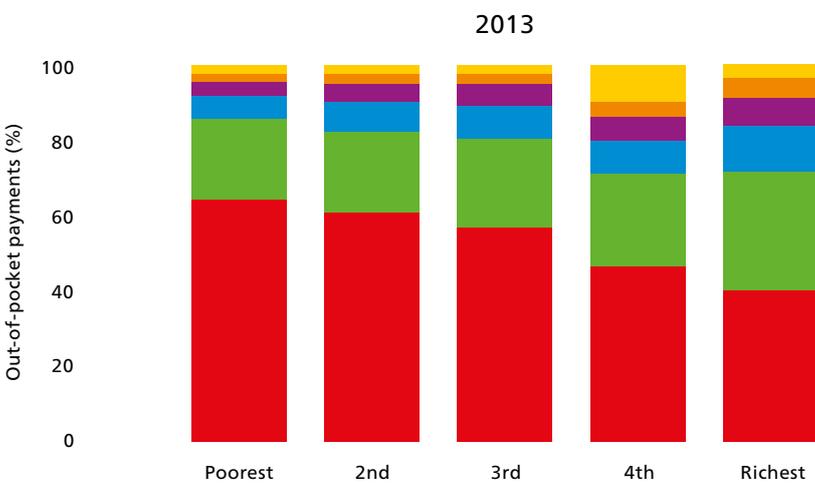
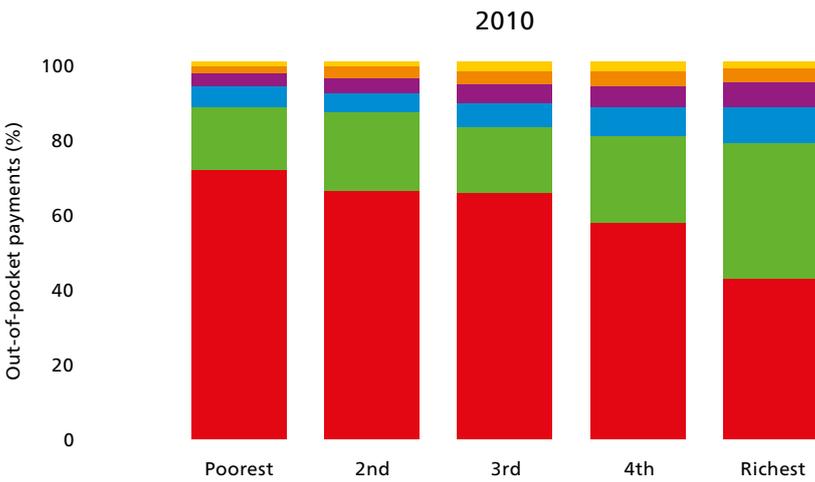
Between 2010 and 2015, spending on health in the poorest quintile changed: the share spent on medicines increased while the share spent on inpatient, dental and diagnostic services fell. This suggests that when resources are scarce, poor people may resort to self-treatment by, for example, prioritizing spending on medicines obtained over the counter.

Out-of-pocket spending across all types of health care increased in nominal terms between 2010 and 2015 (Fig. 9) but fell in real terms for all except medical products and medicines, which grew in real terms by 0.4% and 1.2% per year, respectively.

Once again, the overall figure masks important differences across quintiles. For medicines, the rate of increase in out-of-pocket spending in both nominal and real terms was much greater for the poorest quintile than for the other quintiles (Fig. 10). Real spending on medicines grew by 5.7% per year for the poorest quintile, grew at a much slower rate for the middle quintiles (1.5% for the second, 1.4% for the third and 1.9% for the fourth), and decreased by 2.1% per year for the richest quintile. This pattern was reversed for inpatient care, which fell in real terms overall and for all quintiles, with the smallest decline among the richest.

In addition to possible substitution effects among the poorest households, there are other reasons why spending on medicines increased over time.

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



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

Source: authors based on household budget survey data.

First, the Government introduced value-added tax of 7% on medicines and medicinal products in 2014 in response to the worsening economic situation. Second, medicines have experienced a high rate of inflation, reaching 45% in 2014 and 35% in 2015 (State Statistics Service, 2018), which can be explained by the absence of regulation of medicine prices and currency depreciation. All of this is compounded by widespread irrational and inefficient prescribing practices – for example, prescribing too many medicines, brand names when generics are available and non-indicated medicines.

Fig. 9. Annual out-of-pocket spending on health care per person by type of health care

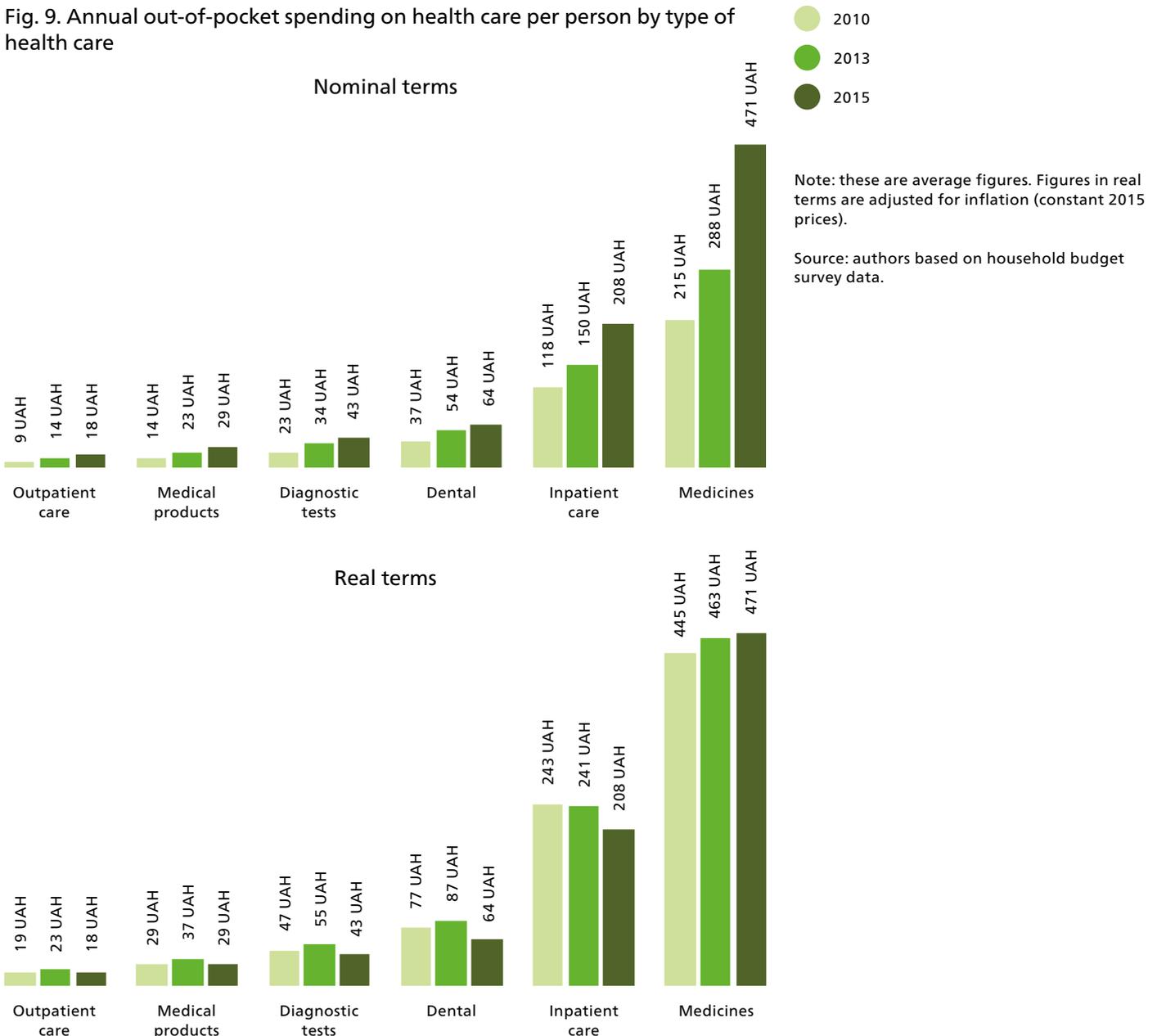
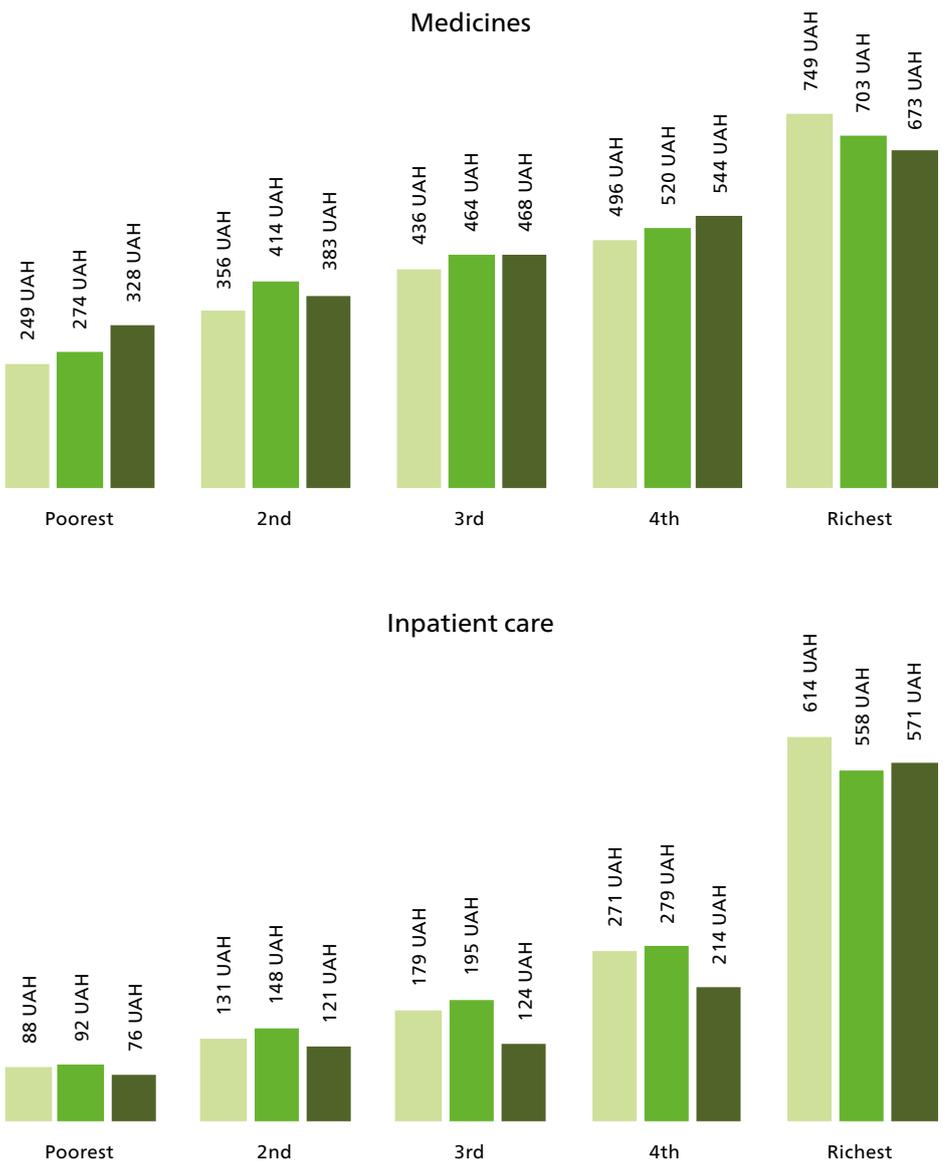


Fig. 10. Annual out-of-pocket spending on medicines and inpatient care per person by consumption quintile, in real terms



- 2010
- 2013
- 2015

Note: these are average figures adjusted for inflation (constant 2015 prices).

Source: authors based on household budget survey data.

4.2 Informal payments

As noted in section 3.1.3, informal payments are widespread in the health system (Kyiv School of Economics et al., 2017), occurring in the form of: out-of-pocket payments for outpatient and inpatient prescribed medicines that should in theory be available to patients free of charge; out-of-pocket payments to health workers; and so-called charitable donations – a fixed payment to a facility as per facility “tariffs”, which patients are recommended or requested to pay to receive health care. Money received via charitable donations is not counted in the treasury system and is poorly documented; in addition, making these donations to providers does not ensure that all treatment costs are covered and informal payments to doctors are not required.

A survey conducted in 2016 showed a relatively even distribution of different types of informal payments (KIIS & NaUKMA, 2016). Among patients who were hospitalized during the previous 12 months, 37% had made a charitable donation (of which 56% were on-request), 27% had paid at the cash desk according to official hospital prices and 25% had paid informally to medical personnel (of which 30% were on-request). The average amount of payments differed greatly. Among those who made such payments, the average charitable donation was 181 UAH, the official cash-desk payment was 1951 UAH and direct informal payments to providers was 1860 UAH (KIIS & NaUKMA, 2016). According to the 2017 survey, 61.4% of all hospitalized patients needed to borrow money to cover the costs of their hospitalization. The average amount of funds borrowed was 6730 UAH (Stepurko & Semigina, 2018).

The population view of informal payments is negative: 74.9% of the population stated that they have a negative attitude towards cash payments to medical staff. Most (87.7%) believed that informal payments are similar, or somewhat similar, to corruption (Stepurko et al., 2015).

Possible explanations for the high level of informal payments in Ukraine include economic factors (low salaries of health-care workers, insufficient public financing, inefficiencies), poor governance (low transparency and accountability), and the sociocultural context (the existence of informal payments in the Soviet period, and the popular belief in receiving higher quality care after paying informally and using it as a means of enabling choice in the system).

Informal payments reduce transparency, increase barriers to access and increase financial hardship. Patients do not know if payments are mandatory or voluntary, or what is covered by them, and it is difficult to protect poor people and regular users of health care from exposure to out-of-pocket payments.

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

National health accounts data show that public spending on health per person increased substantially in nominal terms between 2010 and 2015 but fell in real terms by 6.1% per year (Fig. 11). Out-of-pocket payments increased in real terms by 2.4% per year. The significant decrease in real terms in public spending on health in 2014 was due to the economic crisis. The Government increased its allocation to health in 2015, but Government and household spending per person reached parity, resulting in a situation in which out-of-pocket payments accounted for about half of total spending on health (Fig. 11).

According to national health accounts data reported in international databases, the out-of-pocket payment share of total spending on health rose steeply from 38% in 2010 to 48% in 2014 (Fig. 12). At 48% in 2015, it was much higher than the European Region average of 31% and the EU average of 22%, but below the lower middle-income countries' average of 55% (Fig. 12).

Fig. 11. Health spending per person by financing agent, in real terms

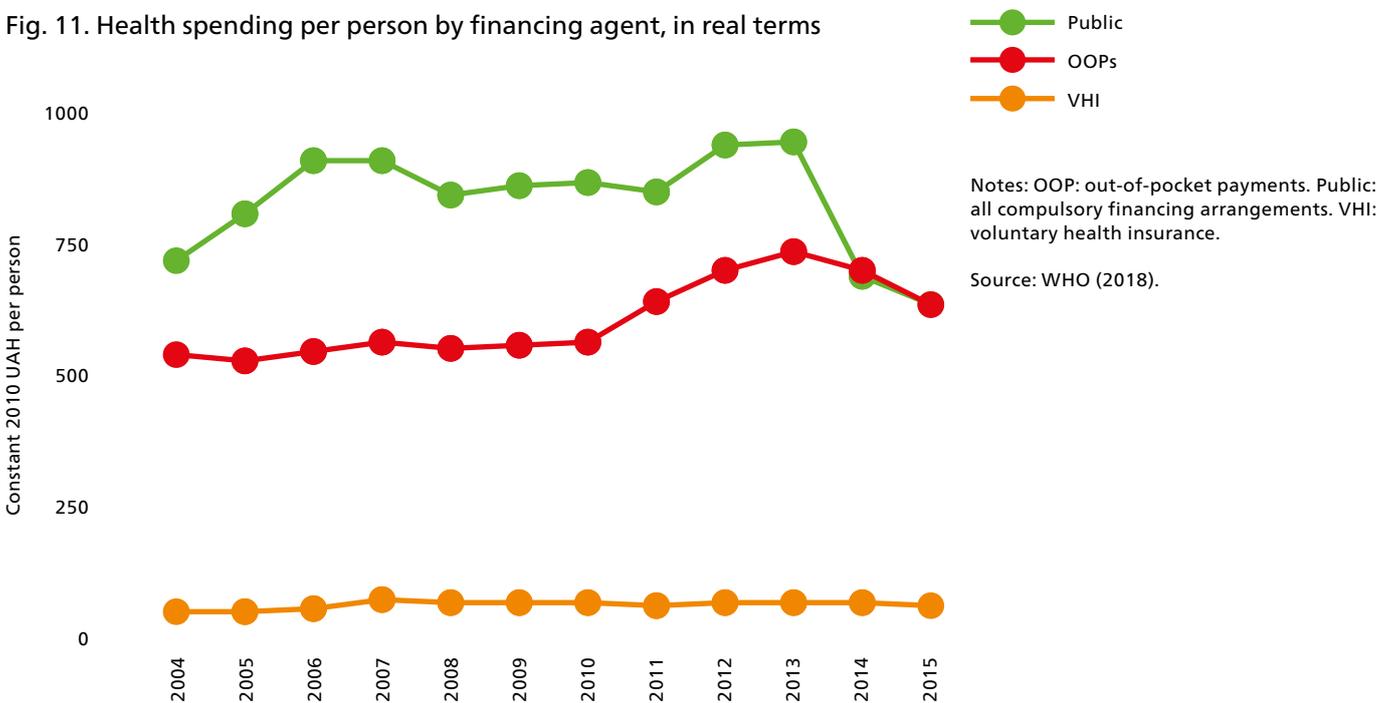
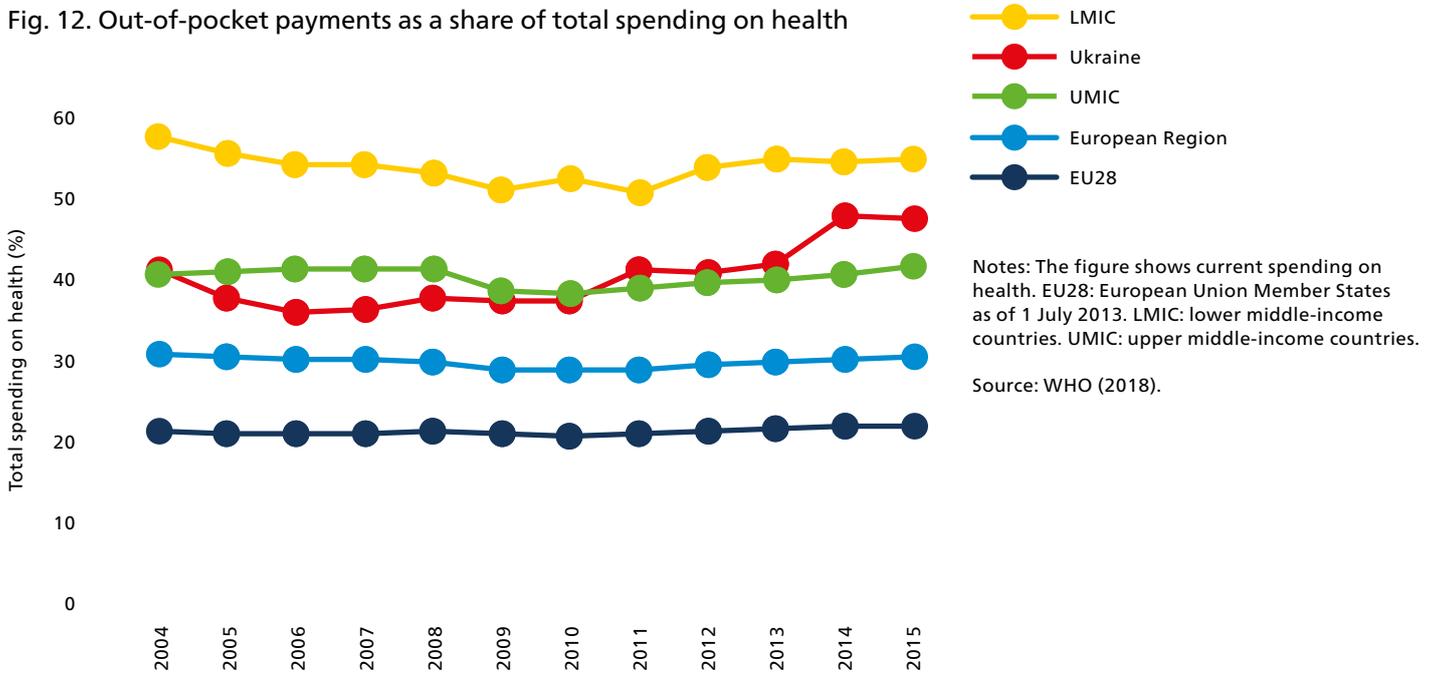


Fig. 12. Out-of-pocket payments as a share of total spending on health



4.4 Summary

Household budget survey data show that almost all households incur out-of-pocket payments. The share of households reporting out-of-pocket payments has grown over time, rising from 86% in 2010 and 90% in 2013 to 93% in 2015. Poorer households are less likely to pay out of pocket than richer households, which probably reflects substantial income inequality in unmet need for health care.

The level of out-of-pocket payments per person fell slightly in real terms between 2010 and 2015 overall, but increased in real terms for the poorest quintile. Out-of-pocket payments increased as a share of household budgets for all quintiles, but especially for the poorest. As a result, out-of-pocket payments showed a regressive distribution in 2015, with the poorest households paying proportionately more (5.1%) than the richest (4.5%).

Throughout the study period, out-of-pocket spending was driven mainly by medicines and inpatient care. Patterns across quintiles differ, however: the medicines share of spending is higher among poorer households, and the shares spent on inpatient care, dental care and diagnostic tests are higher among richer households. Over time, the medicines share of out-of-pocket payments rose, particularly among the poorest quintile, and the inpatient-care share fell. This may reflect changes in policy, such as the application of value-added tax of 7% to medicines and medicinal products in 2014, and the absence of regulation of medicine prices. Exchange-rate fluctuations and inflation linked to the economic crisis have also played a role.

National health accounts data indicate that out-of-pocket payments per person grew in real terms between 2010 and 2015 while public spending on health declined, pushing up the out-of-pocket share of total spending on health from 38% in 2010 to 48% in 2015.

5. Financial protection

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

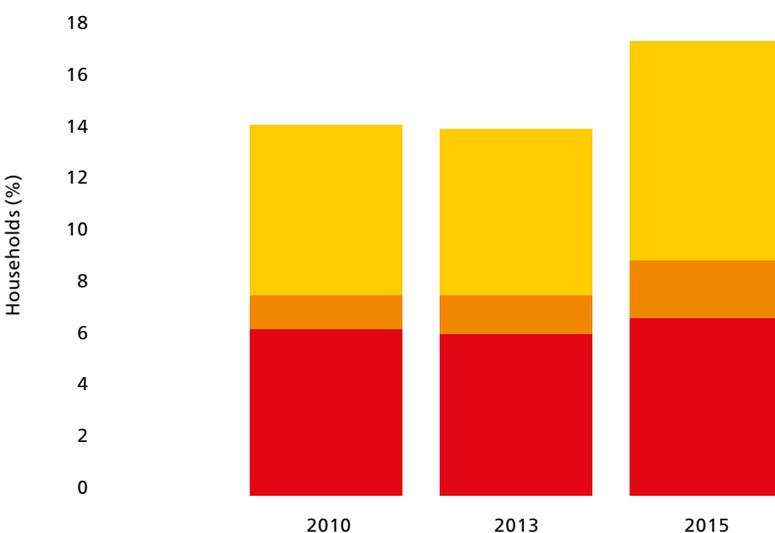
5.1 How many households experience financial hardship?

5.1.1 Out-of-pocket payments and risk of impoverishment

Fig. 13 shows the share of households at risk of impoverishment after out-of-pocket spending on health. The poverty line reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the Ukrainian 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 2056 UAH in 2015.

In 2010 and 2013, 7.6% of households (around 1.3 million) were impoverished or further impoverished after paying for health services; by 2015, this share had increased to 9.0% (1.35 million) (Fig. 13).

Fig. 13. Share of households at risk of impoverishment after out-of-pocket payments



- At risk of impoverishment
- Impoverished
- Further impoverished

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.

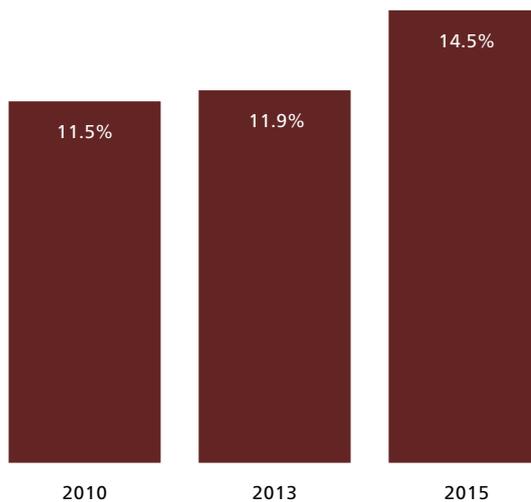
Source: authors based on household budget survey data.

5.1.2 Catastrophic out-of-pocket payments

Households with catastrophic levels of out-of-pocket payments are defined as those who spend more than 40% of their capacity to pay for health care. This includes households that are impoverished after out-of-pocket payments (because they no longer have any capacity to pay) and further impoverished (because they have no capacity to pay even before paying out of pocket for health care). In 2010, 11.5% of households experienced catastrophic spending on health, rising to 11.9% in 2013 and 14.5% in 2015 (2.2 million households) (Fig. 14).

Fig. 14. Share of households with catastrophic out-of-pocket payments

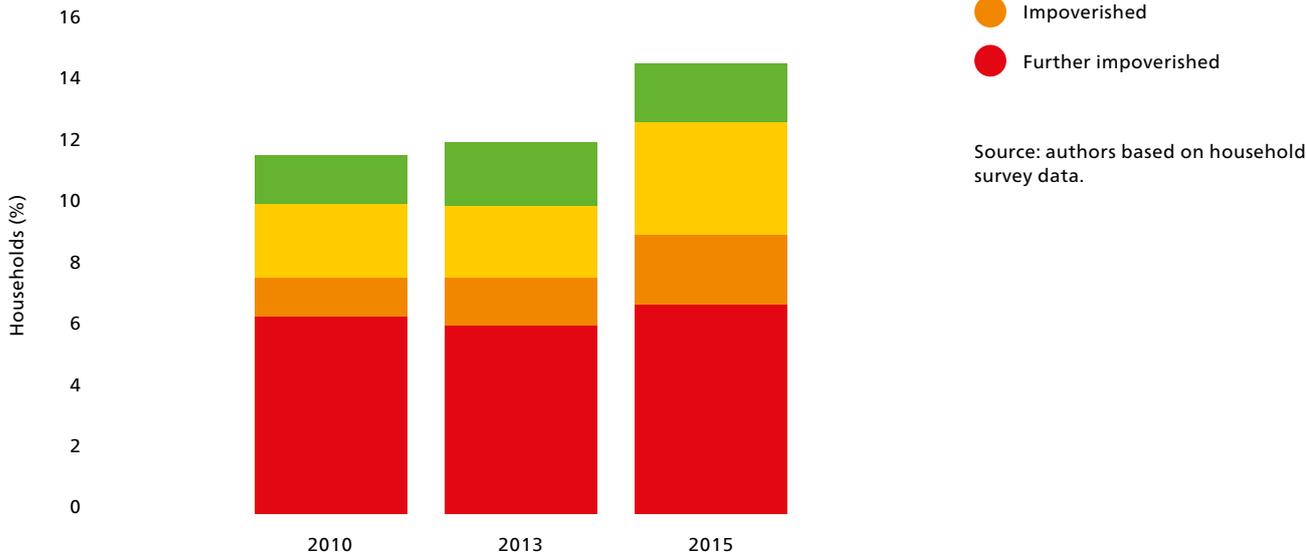
Source: authors based on household budget survey data.



5.2 Who experiences financial hardship?

Catastrophic spending on health is heavily concentrated among households that are further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments (Fig. 15). About half of all households with catastrophic spending are further impoverished or impoverished.

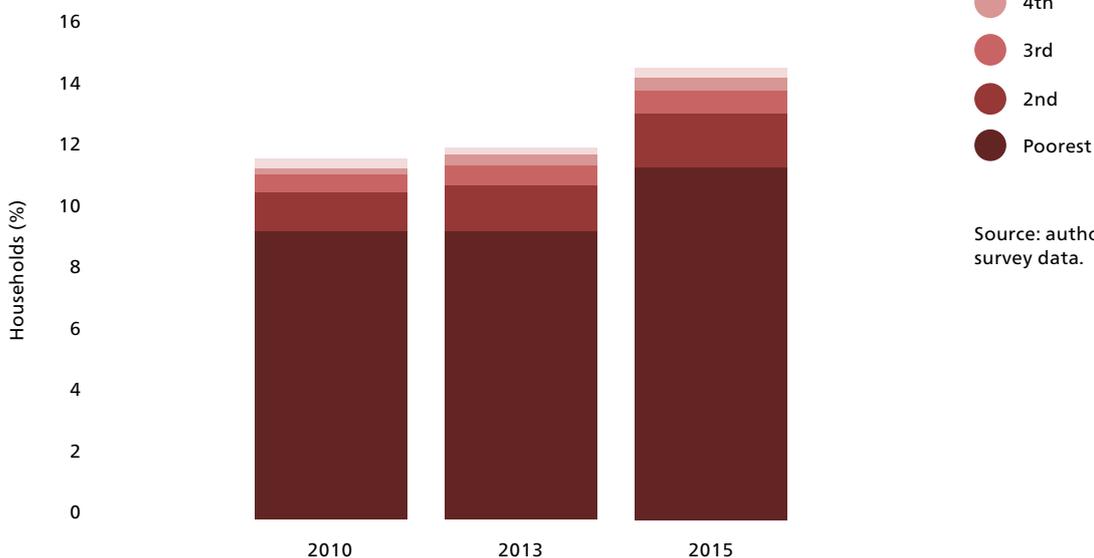
Fig. 15. Breakdown of households with catastrophic spending by risk of impoverishment



Source: authors based on household budget survey data.

Catastrophic spending is heavily concentrated among the poorest households. Fig. 16 shows that the increase in catastrophic spending was largely driven by increased incidence among the two poorest quintiles; the incidence of catastrophic spending among the poorest quintile rose from 50% in 2010 to 63% in 2015.

Fig. 16. Share of households with catastrophic spending by consumption quintile

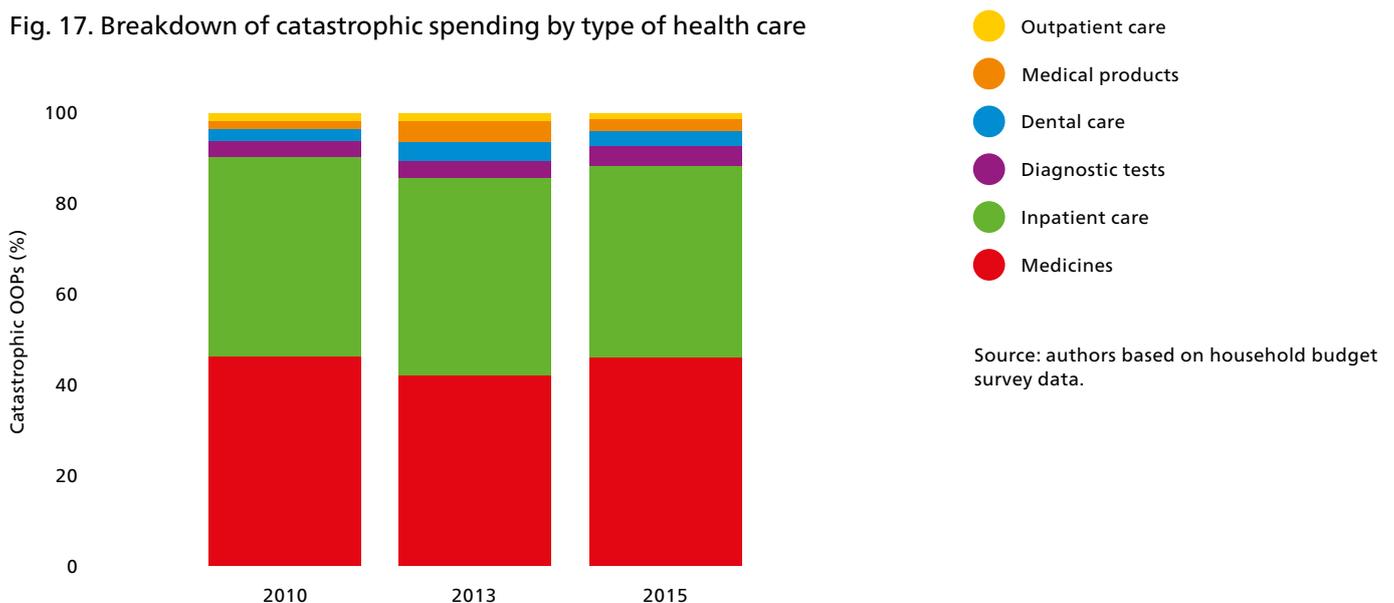


Source: authors based on household budget survey data.

5.3 Which health services are responsible for financial hardship?

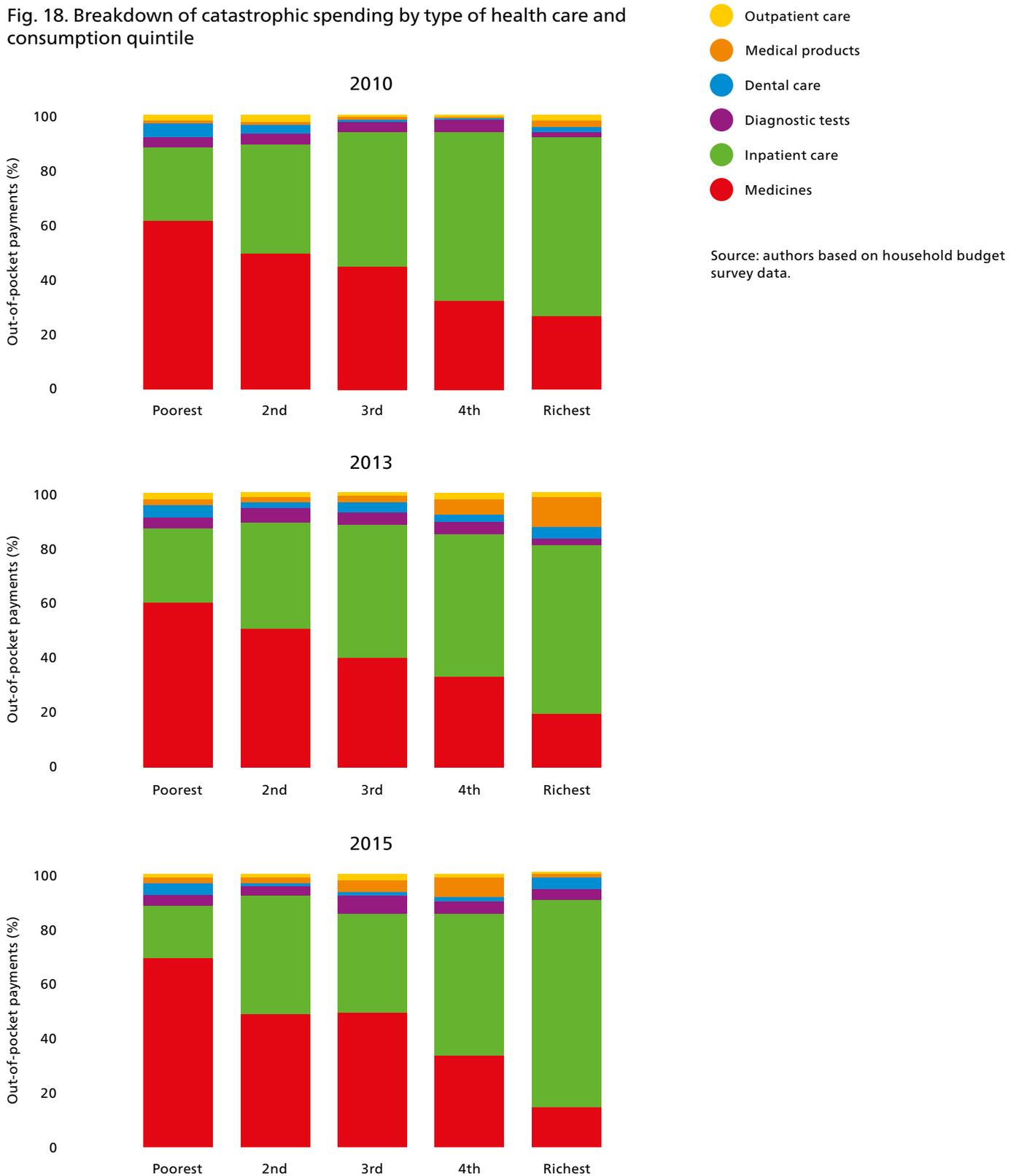
Medicines and inpatient care are the largest drivers of catastrophic spending in Ukraine. Spending on medicines as a share of catastrophic spending was 46% in 2010 and 2015 (Fig. 17). The share of inpatient care in catastrophic spending fell slightly, from 44.4% in 2010 and 43.7% in 2013 to 42.5% in 2015. However, the fact that inpatient care accounts for nearly half of all catastrophic spending on health is highly unusual in European health systems, where inpatient care is generally the area of care with the best protection against catastrophic spending on health (WHO Barcelona Office for Health Systems Strengthening, in press).

Fig. 17. Breakdown of catastrophic spending by type of health care



The medicines share of catastrophic spending on health is larger for poorer households than richer households (Fig. 18). For the poorest households, the medicines share increased from 61.7% in 2010 to 69.1% in 2015, while the inpatient-care share fell from 26.3% in 2010 to 18.8% in 2015. This may reflect growing unmet need for health care among poorer households and poor households prioritizing spending on medicines when ill. For the richest households, the largest driver of catastrophic spending is inpatient care, which increased from 64.9% in 2010 to 76.1% in 2015 (Fig. 18).

Fig. 18. Breakdown of catastrophic spending by type of health care and consumption quintile



5.4 How much financial hardship?

Among all households with catastrophic out-of-pocket payments, the amount spent on health care as a share of total household spending rises progressively with income (Fig. 19): the richer the household, the larger is the share of its budget allocated to health. Further impoverished households spent on average 5.7% of their budgets on health in 2015 (408 UAH) (Fig. 20).

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

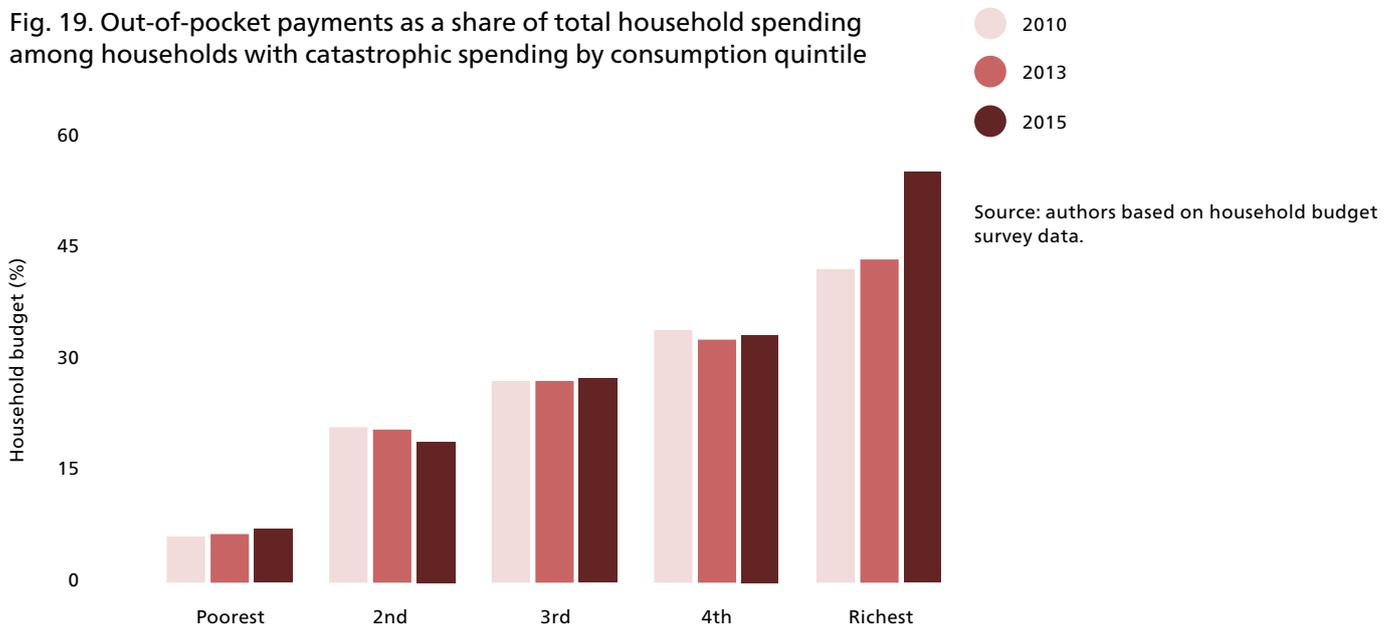
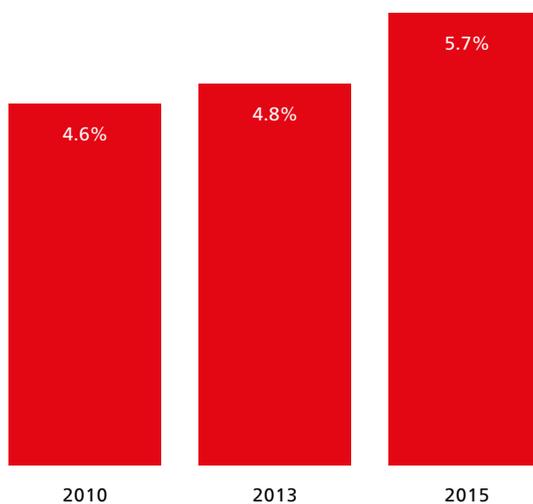


Fig. 20. Out-of-pocket payments as a share of total household spending among further impoverished households

Source: authors based on household budget survey data.



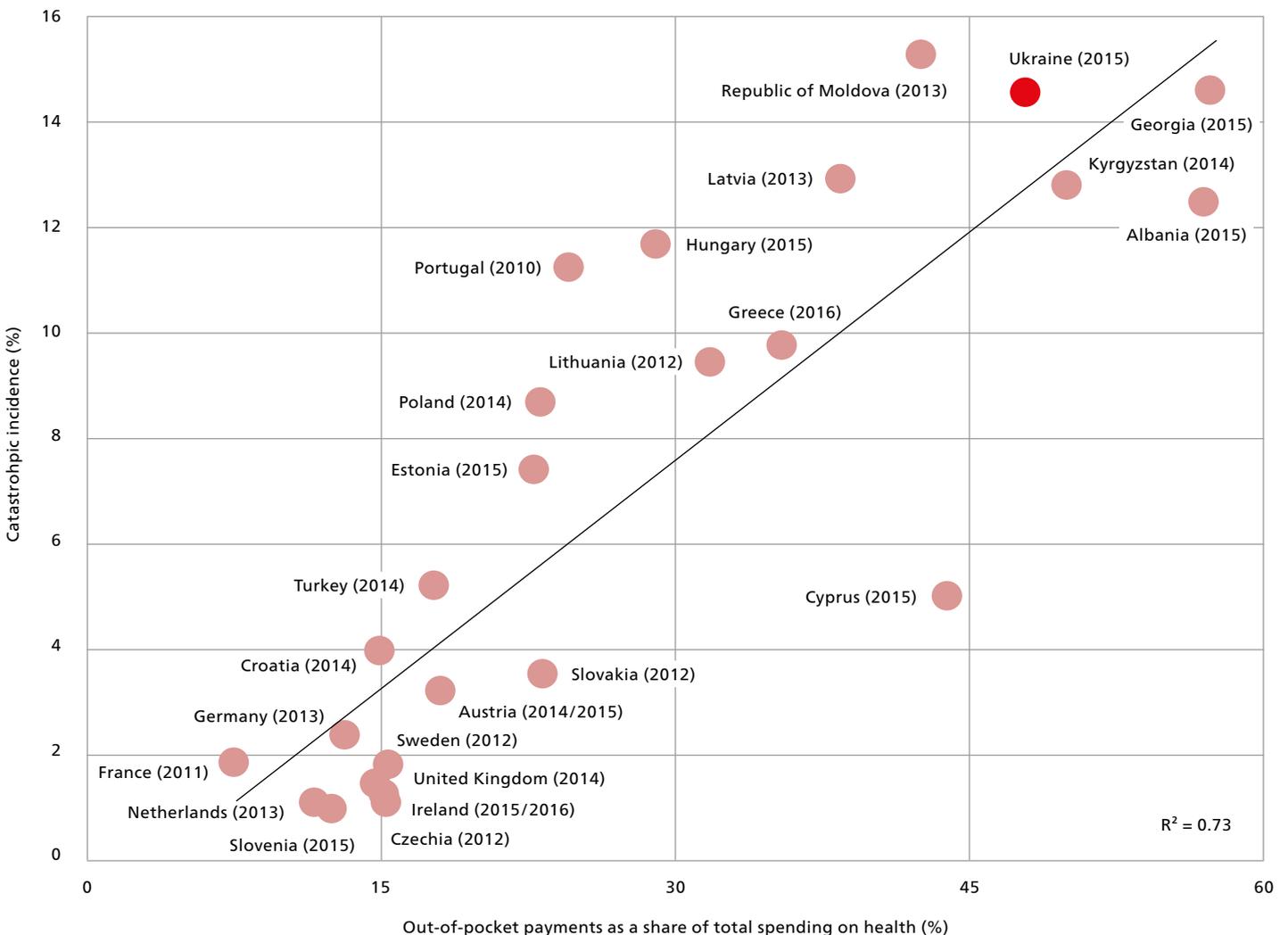
5.5 International comparison

The incidence of catastrophic spending on health is very high in Ukraine compared to many other countries in Europe, including some other non-EU countries that were part of the former Soviet Union, such as Kyrgyzstan (Fig. 21).

Fig. 21. Incidence of catastrophic spending on health and out-of-pocket share of total spending on health in selected European countries, latest year available

Notes: R²: coefficient of determination. The out-of-pocket payment data are for the same year as the catastrophic spending data. Ukraine is highlighted in red.

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



5.6 Summary

Out-of-pocket payments are increasingly leading to poverty. The incidence of impoverishing spending on health rose from 7.6% of households in 2010 and 2013 to 9.0% in 2015. The share of households impoverished, further impoverished or at risk of impoverishment is high compared to other countries in Europe. The incidence of catastrophic spending on health is also high compared to other countries; it increased from 11.5% of households in 2010 to 14.5% in 2015.

Catastrophic spending on health is heavily concentrated in the poorest quintile. The overall increase in the incidence of catastrophic spending seen between 2010 and 2015 was driven largely by a significant increase in incidence for the poorest quintile, which rose from 50% in 2010 to 63% in 2015.

Medicines and inpatient care are the largest drivers of catastrophic spending overall. The high share of catastrophic out-of-pocket payments for inpatient care is unusual in European health systems. For the poorest households in Ukraine, catastrophic spending is mainly caused by medicines; for the richest households, it is mainly caused by inpatient care. The medicines and inpatient-care shares were higher in 2015 than in 2013 for the poorest and richest quintiles respectively.

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 Ukraine and which may explain the trend over time. It begins by looking at factors outside the health system affecting people’s capacity to pay – for example, changes in incomes and the cost of living – and then looks at factors in the health system.

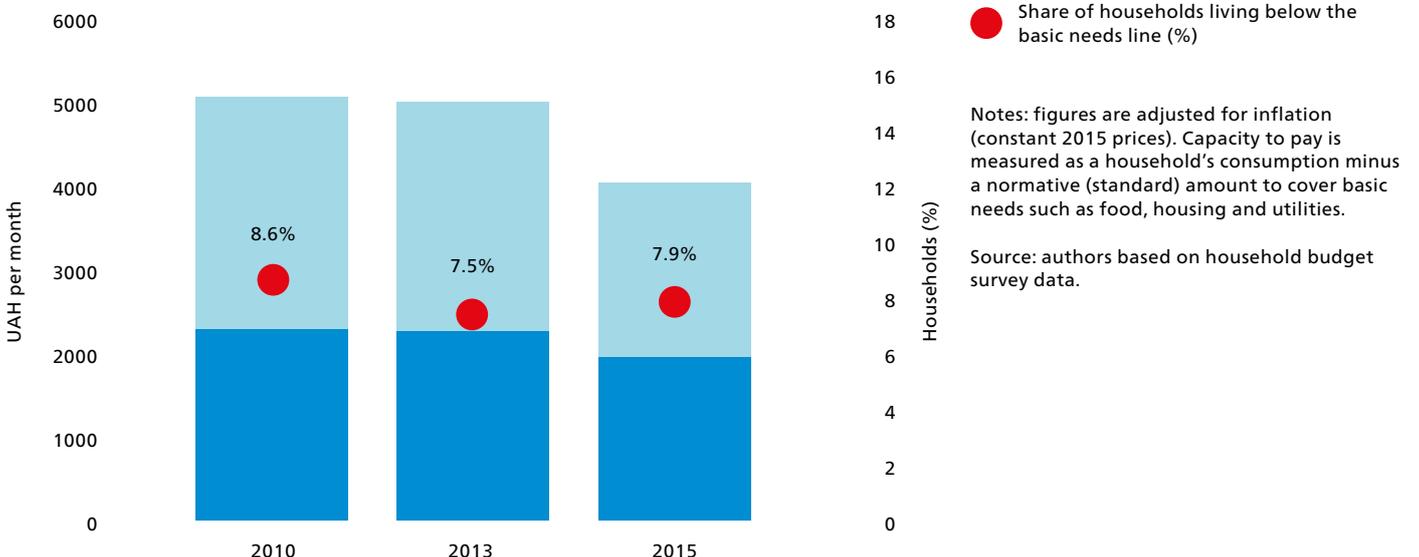
6.1 Factors affecting people’s capacity to pay for health care

Ukraine’s economy experienced a sharp decline in 2009 following the global financial crisis. It then stabilized from 2010 to 2013 and GDP regained its pre-crisis level. The next economic contraction occurred in 2014 and 2015, caused by political instability and armed conflict in the east of Ukraine. As a result of a sharp economic decline, fiscal space for health decreased significantly, while spending pressures increased.

Household budget survey data show that the cost of meeting basic needs and household capacity to pay grew steadily between 2010 and 2015 in nominal terms. In real terms, however, they remained stable between 2010 and 2013 and fell in 2015 (Fig. 22). The fall in capacity to pay for health care in 2015 may reflect the fact that salaries fell by 6.5% in real terms in 2014 and by a further 20.2% in 2015.

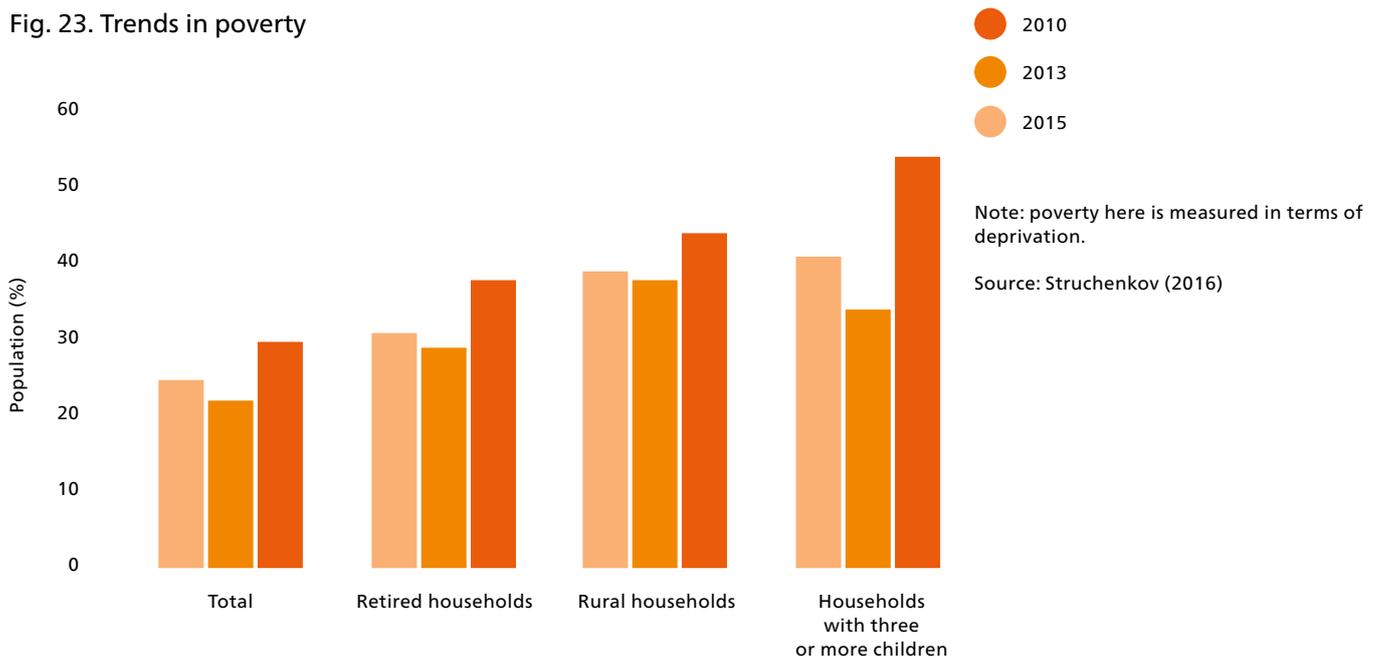
The share of households living below the basic needs line fell from 8.6% in 2010 to 7.5% in 2013 and then rose slightly to 7.9% in 2015 (Fig. 22).

Fig. 22. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line, in real terms



National statistics show that the households most affected by poverty in Ukraine are those living in rural areas, those with three or more children and those where all members are retired (Struchenkov, 2016) (Fig. 23).

Fig. 23. Trends in poverty



The level of perceived poverty (defined by individual self-assessment of being poor) grew steadily between 2010 and 2015, despite some economic growth in 2010–2013. In 2010, 60% of households in Ukraine considered themselves poor, but this had increased to 72.3% by 2015 (State Statistics Service, 2018). This indicator is important, as it is likely to influence household decisions to seek health services and purchase medicines; the increase in perceived poverty over time may explain some of the large increases in self-reported unmet need for health care between 2010 and 2015 (see above).

Overall, there is evidence to suggest that the increase in the incidence of catastrophic spending on health seen in Ukraine between 2013 and 2015 is partly the result of factors beyond the health system – growing poverty and a decline in actual living standards.

6.2 Health system factors

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

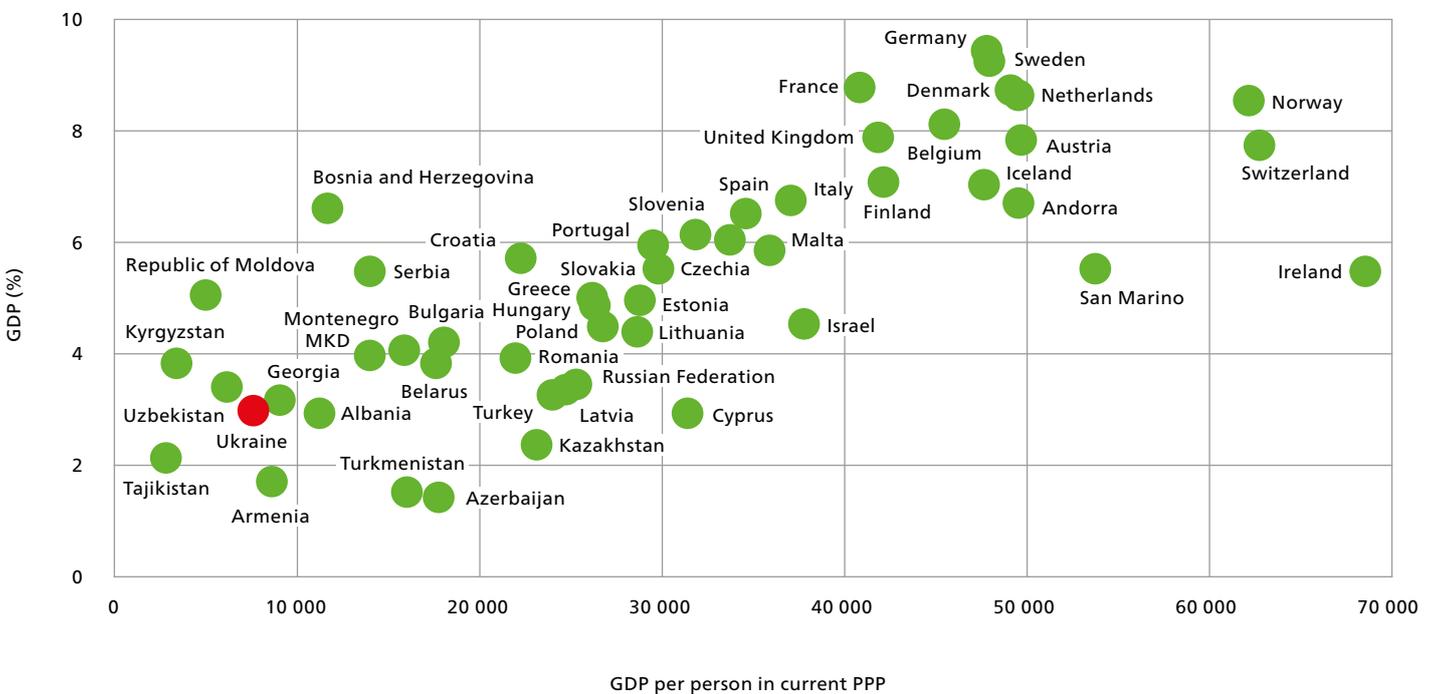
6.2.1 Health spending

The health system is heavily dependent on out-of-pocket payments due to very low levels of public spending on health; public spending on health as a share of GDP is one of the lowest in the European Region (Fig. 24).

Fig. 24. Public spending on health and GDP per person, WHO European Region, 2015

Notes: PPP: purchasing power parity. Ukraine is highlighted in red. The figure excludes Luxembourg and Monaco. MKD (ISO abbreviation): the former Yugoslav Republic of Macedonia.

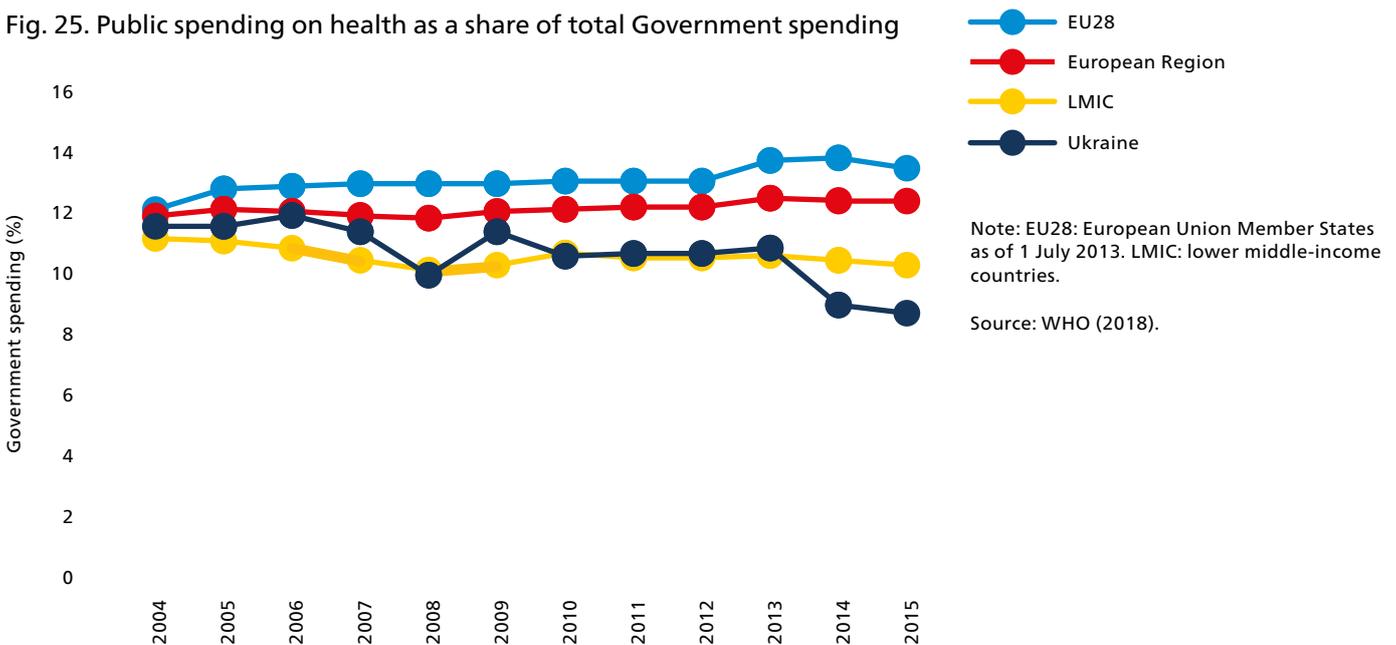
Source: WHO (2018).



Public spending on health accounts for a very low share of total Government spending (8.6% in 2015) (Fig. 25). The priority given to health in Government spending allocations has been declining for the past decade, while it has grown in EU countries and the European Region as a whole (Fig. 25). There was a sharp decline in 2014 caused by dramatic economic decline in parallel with increased Government spending on defence and utilities.

Because of historically low public investment in health and the sharp decrease seen during the crisis, health-care costs have been shifted onto households; this has increased financial hardship, particularly for poorer households. Public spending on health will need to increase significantly to improve financial protection in the future. There is also scope for efficiency gains to be made, particularly through efforts to reduced hospital fixed costs (see below).

Fig. 25. Public spending on health as a share of total Government spending



6.2.2 Health coverage

De jure, there should be very few gaps in health coverage, because all citizens and permanent residents are entitled to health care in public facilities, user charges are applied only to a handful of health services and service coverage is comprehensive. De facto, however, this is not the case; medicines are barely covered in outpatient or inpatient settings, informal payments are widespread throughout the health system and access to health services is largely determined by whether people can afford to pay out of pocket.

Weak coverage leads to high levels of unmet need for health care on the one hand, and high levels of catastrophic and impoverishing out-of-pocket payments on the other. Income inequality in unmet need and financial hardship is also significant. One of the major challenges associated with the

current design of coverage policy is that it limits the Government's ability to protect poor people and regular users of health care (that is, people with chronic conditions) from exposure to out-of-pocket payments. The current design of user-charges policy does not include sufficient protection through, for example, exemptions from, or caps on, co-payments (see Table 2); such protections are impossible to apply to informal payments.

The health system reforms initiated in 2017 aim to improve financial protection and equitable use of health services by addressing de facto gaps in coverage.

6.2.3 Medicines

Although prescribed medicines are fully covered in theory, in practice people pay for almost all medicines out of pocket (section 3.1.2). As a result, people are exposed to the full cost of medicines for all except a handful of conditions (for example, medicines for communicable diseases such as HIV and tuberculosis and, since 2017, some international non-proprietary names for cardiovascular disease, type 2 diabetes and bronchial asthma). Medicines for cancer and rare diseases are nominally covered, but funding is unable to meet demand and people still need to pay out of pocket for medicines for these conditions.

De facto lack of coverage is the primary reason why medicines are the most important driver of catastrophic spending on health in Ukraine, but inefficiencies in the health system also contribute to financial hardship linked to medicines. For example:

- public spending on medicines in inpatient settings is crowded out by the need to finance overcapacity in hospitals (see below);
- there are few effective controls on prescribing; people are prescribed numerous drugs, including those not included in clinical guidelines (Gorachuk, 2015); an analysis of inpatient pneumonia treatment in children in one regional hospital showed that on average each patient was prescribed 9.3 medicines (Gorachuk, 2015);
- there is almost no regulation of the price of medicines; and
- there is no comprehensive strategy to ensure rational use of medicines through priority-setting processes and policies to promote the prescribing, dispensing and use of generics.

The increase in out-of-pocket spending on medicines between 2013 and 2015, which was particularly high among the poorest quintile, is likely to have been caused by: the application of value-added tax to medicines in 2014 at a rate of 7%; people being fully exposed to the effects of currency fluctuation and inflation during the crisis in the absence of policy to control the price of medicines; and an increase in poverty (Fig. 23), which may have led people to self-treat via medicines purchased over the counter rather than seeking and paying for health care. This is supported by evidence of growing unmet need for health care.

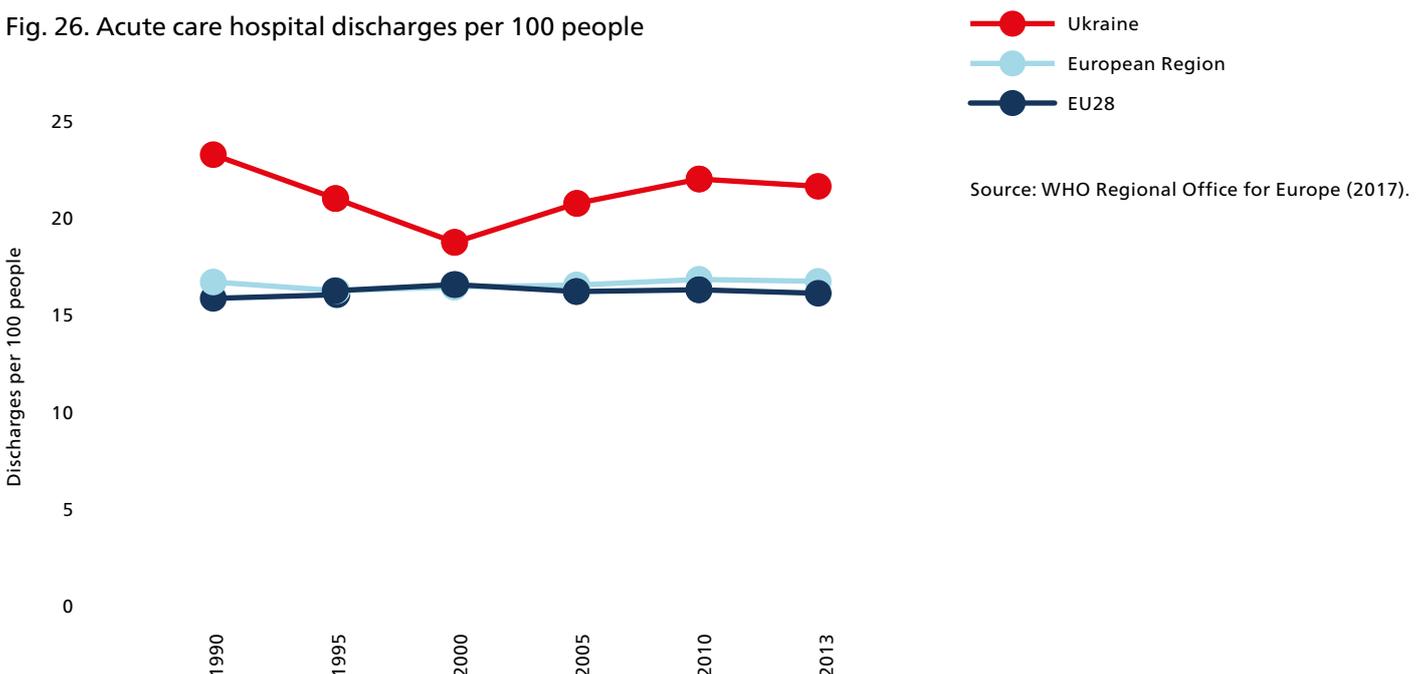
6.2.4 Inpatient care

Public resources are allocated to health facilities based on inputs rather than outputs. This creates incentives to increase staff and bed numbers and dampens incentives to improve performance, leading to the following inefficiencies:

- Ukraine has about 1.7 times more hospital beds per person than the average for EU countries (WHO Regional Office for Europe, 2017);
- to justify overcapacity in hospitals, people are hospitalized much more often than in other countries in Europe (Fig. 26);
- the average length of stay in hospitals is 3.1 days longer in Ukraine than in other countries in Europe (WHO Regional Office for Europe, 2017);
- the level of avoidable hospitalizations is very high in Ukraine; an analysis of district hospitals in 2013 suggests that about 35% of hospitalizations were without clinical indications, ranging from 9% for infectious disease departments to 48% in neurological departments (Pariy et al., 2015); and
- people tend to postpone seeking care at earlier stages of disease and consequently are hospitalized in an acute condition.

Addressing these inefficiencies would lead to significant savings in the health system which, if used to invest in improving coverage (particularly for poorer households), would help to reduce unmet need and financial hardship.

Fig. 26. Acute care hospital discharges per 100 people



6.3 Summary

The high and increasing incidence of catastrophic and impoverishing spending on health can be attributed to major gaps in coverage in practice, meaning people must pay out of pocket for a high share of outpatient and inpatient services and almost all medicines. As a result, access to health care is rationed implicitly on the basis of whether people can afford to pay out of pocket.

One of the major challenges associated with the current design of coverage policy is that it limits the Government's ability to protect poor people and regular users of health care (that is, people with chronic conditions) from exposure to out-of-pocket payments and rising health-care prices. The current design of user-charges policy does not include sufficient protection through, for example, exemptions from, or caps on, co-payments; such protections are impossible to apply to informal payments.

De facto gaps in coverage reflect a combination of factors, including: very low levels of public spending on health; inefficiency and inequity in allocating and spending public resources; and widespread informal payments.

Out-of-pocket payments account for a very high share of total spending on health in Ukraine. Their share has grown substantially in recent years, as the share of the Government budget allocated to health has fluctuated but fallen overall, reaching a low of 8.6% in 2015; this is below the average of 10.2% for lower middle-income countries and far below the EU average of 13.5% and the European Region average of 12.5%.

Inefficiencies and inequities in the way in which these very limited public resources are allocated and used in the health system exacerbate access barriers and financial hardship, particularly for medicines and inpatient care, the two types of health care responsible for almost all catastrophic spending. Financial protection could be improved by addressing these inefficiencies and using any savings gained to enhance coverage for those most in need of protection – poor people and people with chronic conditions.

The increase in the incidence of catastrophic spending on health seen in Ukraine between 2013 and 2015 is partly the result of factors beyond the health system – growing poverty and a substantial decline in living standards.

Catastrophic and impoverishing out-of-pocket payments are concentrated among the poorest quintile. National statistics indicate that households living in rural areas, households with three or more children and those in which all members are retired are most affected by poverty and, consequently, should be prioritized for enhanced protection.

7. Implications for policy

The level of financial protection is low in Ukraine compared to other countries in Europe, including other post-Soviet countries. The high incidence of catastrophic and impoverishing out-of-pocket payments in Ukraine reflects major gaps in de facto health coverage, which in turn are the result of very low levels of public spending on health, inefficiency and inequity in allocating and spending public resources, and widespread informal payments.

Catastrophic spending on health is heavily concentrated in the poorest consumption quintile and has increased since 2013. The increase was driven largely by an increase in incidence in the two poorest quintiles.

Medicines and inpatient care are the largest drivers of catastrophic spending on health. While medicines are an important source of financial hardship in several countries, particularly for poorer households, the role of inpatient care in causing financial hardship is much larger in Ukraine than in other countries in Europe. Medicines account for over two thirds of catastrophic spending among the poorest quintile in Ukraine. The inpatient-care share of catastrophic spending rises progressively with consumption and is highest among the richest quintile. This pattern is likely to reflect higher levels of unmet need for health care among poorer households.

Unmet need for health care is a growing problem in Ukraine. Survey data indicate that the share of people reporting unmet need doubled between 2010 and 2015. Income inequality in unmet need is significant.

The increase in the incidence of catastrophic spending on health between 2013 and 2015 is partly the result of factors beyond the health system – growing poverty and a substantial decline in living standards. The households most likely to be affected by poverty are those living in rural areas, those with three or more children and those where all members are retired. If unmet need had not grown so rapidly during the study period, the incidence of catastrophic spending on health might have been even higher in 2015.

Improving financial protection will only be possible with increased public investment in health. Currently, half of all spending on health and almost all spending on medicines – including inpatient medicines – comes from out-of-pocket payments.

Tackling inefficiencies in the health system will also help to improve financial protection. Outpatient care and preventative health services require greater priority which, along with efforts to improve quality, may reduce avoidable hospitalizations and hospital days. Reducing fixed hospital costs would be one of the most effective ways of shifting public funding towards outpatient and inpatient medicines; it requires a fundamental restructuring of the way hospital care is financed.

Increased public investment and efforts to enhance efficiency must also be accompanied by reform of coverage policy. Defining a more explicit benefits package presents an opportunity to increase financial protection by carefully targeting the groups of people most in need of better protection.

If user charges are imposed, they should be simple and carefully designed, drawing on international good practice – for example, exemptions for poor households and regular users of health care (people with chronic conditions).

Caps on co-payments (or out-of-pocket payments) also lead to better protection, particularly if they apply over time, apply to all co-payments and are linked to household income.

Medicines illustrate the need for comprehensive action that combines increased investment, better coverage design, efforts to enhance efficiency and greater transparency and accountability. Public spending on medicines is extremely low. Current coverage design exposes people to the cost of many medicines, even when living standards are falling and prices are rising. There is almost no regulation of medicine prices, and policies to ensure appropriate prescribing and dispensing are limited.

The recently introduced Affordable Medicines Programme is a welcome step towards improving access to medicines and financial protection for people with chronic conditions. This approach should be extended, with increased public investment, to include more international non-proprietary names based on agreed criteria and to enable the introduction of exemptions for vulnerable groups of people. Inappropriate prescribing and dispensing also increase out-of-pocket payments and require policy attention, accompanied by strategies to change the culture of medicine use.

Efforts to improve financial protection will also reduce unmet need and lower inequalities in access to health care.

References

- Arora V, Karanikolos M, Clair A, Reeves A, Stuckler D, McKee M (2015). Data resource profile: the European Union Statistics on Income and Living Conditions (EU-SILC). *Int J Epidemiol*. 44:451–61. doi:10.1093/ije/dyv069.
- Bernabé E, Masood M, Vujicic M (2017). The impact of out-of-pocket payments for dental care on household finances in low and middle income countries. *BMC Public Health* 17:109 (<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4042-0>).
- Bredenkamp C, Wagstaff A, Buisman L, Prencipe L, Rohr D (2012). Health equity and financial protection datasheets. Europe and central Asia. Washington (DC): World Bank (Report No. 72011; <http://documents.worldbank.org/curated/en/711401468038087048/Health-equity-and-financial-protection-datasheet-Europe-and-Central-Asia>).
- EXPH (Expert Panel on Effective Ways of Investing in Health) (2016). Opinion on access to health services in the European Union. Brussels: European Commission (https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/015_access_healthservices_en.pdf).
- EXPH (Expert Panel on Effective Ways of Investing in Health) (2017). Opinion on benchmarking access to healthcare in the EU, 2017. Brussels: European Commission (https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/docsdir/opinion_benchmarking_healthcareaccess_en.pdf).
- Gaál P, McKee M (2004). Informal payments for health care and the theory of “inquit”. *Int J Health Plann Manage*. 19:163–78.
- Gaál P, Jakab M, Shishkin S (2010). Strategies to address informal payments for health care. In: Kutzin J, Cashin C, Jakab M, editors. *Implementing health financing reform. Lessons from countries in transition*. Copenhagen: WHO Regional Office for Europe, on behalf of the European Observatory on Health Systems and Policies:327–60 (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications/2010/implementing-health-financing-reform-lessons-from-countries-in-transition-2010>).
- Gorachuk V (2015). Медико-соціальне обґрунтування моделі системи управління якістю медичної допомоги [Clinical and social justification for a quality management model] [dissertation submitted for the degree of Doctor of Medical Science]. Kyiv: PL Shupik National Medical Academy (Ref: УДК 614.2:616-082; <http://nmapo.edu.ua/zagruzka/DrAr/ArGorahuk.pdf>) (in Ukrainian).
- Kyiv International Institute of Sociology (KIIS), School of Public Health, National University of Kyiv-Mohyla Academy (NaUKMA) (2016). Health index. Ukraine – 2016 results of the national household survey. Kyiv: NaUKMA (<http://health-index.com.ua/files/zvit-index-2016-eng.pdf>).
- Kyiv International Institute of Sociology (KIIS), School of Public Health, National University of Kyiv-Mohyla Academy (NaUKMA) (2017). Health index. Ukraine – 2017 results of the national household survey. Kyiv: NaUKMA (<http://health-index.com.ua/zvit-index-2017-eng.pdf>).

Kyiv School of Economics, Lykhanova N, Vakhitova H, Sologub I, Yavorskyi P (2017). Public Expenditure Tracking Survey/Quantitative Service Delivery Survey (PETS/QSDS) Kyiv: United Nations Development Programme Ukraine (http://www.ua.undp.org/content/dam/ukraine/docs/DG/Health/undp_med_ENG-web-optimized.pdf).

Lekhan V (2016). Ukraine. In: Sagan A, Thomson S, editors. Voluntary health insurance in Europe: country experience. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies:151–6 (<http://www.euro.who.int/en/health-topics/Health-systems/health-systems-financing/publications/2016/voluntary-health-insurance-in-europe-country-experience-2016>).

Lekhan V, Rudyi V, Shevchenko O, Nitzan-Kaluski D, Richardson E (2015). Ukraine: health system review. *Health Systems in Transition* 17(2):1–153.

Masood M, Sheiham A, Bernabé E (2015). Household expenditure for dental care in low and middle income countries. *PLoS One* 10(4):e0123075 (<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0123075>).

Murphy A, Mahal A, Richardson E, Moran AE (2013). The economic burden of chronic disease care faced by households in Ukraine: a cross-sectional matching study of angina patients. *Int J Equity Health* 12(38): doi:10.1186/1475-9276-12-38 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3691525/>).

Pariy V, Hrishchuk S, Boris V (2015). Визначення показників для проведення оптимізації ліжкового фонду закладів охорони здоров'я госпітального округу [Determining the indicators for the optimization of hospital beds in hospital districts]. *Scientific Journal "ScienceRise"* 10/3(15):97–100 (<http://journals.uran.ua/sciencerise/article/view/51925>) (in Ukrainian).

Richardson E, Sautenkova N, Bolokhovets G (2014). Pharmaceuticals in the former Soviet Union. In: Rechel B, Richardson E, McKee M, editors. Trends in health systems in the former Soviet Union. Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies:145–58 (<http://www.euro.who.int/en/publications/abstracts/trends-in-health-systems-in-the-former-soviet-countries-2014>).

Saksena P, Hsu J, Evans DB (2014). Financial risk protection and universal health coverage: evidence and measurement challenges. *PLoS Med*. 11(9):e1001701 (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4171370/>).

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

State Statistics Service of Ukraine (Ukrstat) (2018). Statistical bulletins. Kyiv: Ukrstat (<http://www.ukrstat.gov.ua/>) (in Ukrainian).

Stepurko T, Pavlova M, Gryga I, Murauskiene L, Groot W (2015). Informal payments for health care services: the case of Lithuania, Poland and Ukraine. *Journal of Eurasian Studies* 6(1):46–58 (<https://www.sciencedirect.com/science/article/pii/S1879366514000244>).

Stepurko T, Semigina T (2018). Health index. Ukraine – 2017. Results of the National Household Survey. Kyiv: NaUKMA (http://health-index.com.ua/upload/files/+Report%20Health%20Index%202017_web.pdf784933025.pdf) (in Ukrainian).

Struchenkov O (2016). Динаміка бідності в Україні в 2005–2015 роках [Poverty trends in Ukraine, 2005–2015]. Український соціологічний журнал [Ukrainian Sociology Journal] 1(1–2):81–8 (in Ukrainian).

Thomson S, Evetovits E, Cylus J (2018). Financial protection in high-income countries: a comparison of the Czech Republic, Estonia and Latvia. Copenhagen: WHO Regional Office for Europe (http://www.who.int/health_financing/events/who_europe_uhc_day_report_web.pdf?ua=1).

Wagstaff A, van Doorslaer E (2003). Catastrophe and impoverishment in paying in health care: with applications to Vietnam 1993–98. Health Econ. 2(11):921–34.

WHO (2010). The world health report. Health systems financing: the path to universal health coverage. Geneva: World Health Organization (<http://www.who.int/whr/2010/en/>).

WHO (2018). Global Health Expenditure Database [online database]. Geneva: World Health Organization (<http://apps.who.int/nha/database/Select/Indicators/en>).

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

WHO Barcelona Office for Health Systems Strengthening (in press). Can people afford to pay for health care? New evidence on financial protection in Europe. Copenhagen: WHO Regional Office for Europe.

WHO Regional Office for Europe (2017). European Health Information Gateway [online database]. Copenhagen: WHO Regional Office for Europe (<https://gateway.euro.who.int/en/hfa-explorer/>).

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

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

Yerramilli P, Fernández Ó, Thomson S (2018). Financial protection in Europe: a systematic review of the literature and mapping of data availability. Health Policy 122(5):493–508 (<https://www.sciencedirect.com/science/article/pii/S0168851018300496>).¹

1. All websites accessed on 14 September 2018.

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).

References

Eurostat (2015). Household Budget Survey 2010 Wave EU Quality report. Brussels: Eurostat (http://ec.europa.eu/eurostat/documents/54431/1966394/LC142-15EN_HBS_2010_Quality_Report_ver2+July+2015.pdf/fc3c8aca-c456-49ed-85e4-757d4342015f, accessed 19 March 2018).

United Nations Statistics Division (2018). COICOP code 06 detailed structure and explanatory notes. In: United Nations Statistics Division [website]. New York (NY): United Nations Statistics Division (<https://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=5&Lg=1&Co=06>, accessed 19 March 2018).

Yerramilli P, Fernández O, Thomson S (2018). Financial protection in Europe: a systematic review of the literature and mapping of data availability. Health Policy ([http://www.healthpolicyjrn.com/article/S0168-8510\(18\)30049-6/fulltext](http://www.healthpolicyjrn.com/article/S0168-8510(18)30049-6/fulltext), accessed 19 March 2018).

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:

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

Each household's total consumption expenditure (less imputed rent), food expenditure, utilities expenditure and rent expenditure is divided by the equivalent household size to obtain respective equalized 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 equalized per person household expenditure. Household weights should be used when grouping the population by quintile. Countries may find it relevant to analyse other equity dimensions such as differences between urban and rural populations, regions, men and women, age groups and types of household.

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

Structure of catastrophic out-of-pocket payments

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

References

Thomson S, Evetovits T, Cylus J, Jakab M (2016). Monitoring financial protection to assess progress towards universal health coverage in Europe. *Public Health Panorama*. 2(3):357–66 (<http://www.euro.who.int/en/publications/public-health-panorama/journal-issues/volume-2,-issue-3,-september-2016/original-research2>, accessed 19 March 2018).

United Nations Statistics Division (2018). COICOP code 06 detailed structure and explanatory notes. In: United Nations Statistics Division [website]. New York (NY): United Nations Statistics Division (<https://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=5&Lg=1&Co=06>, accessed 19 March 2018).

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

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

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

Annex 3. Regional and global financial protection indicators

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

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

Regional indicators (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)	<p>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</p> <p>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</p> <p>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</p>

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.

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

Recent global studies most commonly report impoverishing out-of-pocket payments using absolute 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).

References

- Cylus J, Thomson S, Evetovits T (2018). Catastrophic health spending in Europe: equity and policy implications of different calculation methods. *Bull World Health Organ.* 96:599–609 (<http://dx.doi.org/10.2471/BLT.18.209031>, accessed 14 September 2018).
- Saksena P, Smith T, Tediosi F (2014). Inputs for universal health coverage: a methodological contribution to finding proxy indicators for financial hardship due to health expenditure. *BMC Health Serv Res.* 14:577.
- WHO, World Bank. Tracking universal health coverage: first global monitoring report. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/174536/1/9789241564977_eng.pdf?ua=1, accessed 19 March 2018).
- WHO, World Bank. Tracking universal health coverage: 2017 global monitoring report. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/universal_health_coverage/report/2017/en/, accessed 19 March 2018).
- Yerramilli P, Fernández O, Thomson S (2018). Financial protection in Europe: a systematic review of the literature and mapping of data availability. *Health Policy* ([https://www.healthpolicyjrn.com/article/S0168-8510\(18\)30049-6/fulltext](https://www.healthpolicyjrn.com/article/S0168-8510(18)30049-6/fulltext), accessed 19 March 2018).

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).

Co-payments (user charges or user fees): Money people are required to pay at the point of using health services covered by a third party such as the government, a health insurance fund or a private insurance company. Fixed co-payments are a flat amount per good or service; percentage co-payments (also referred to as co-insurance) require the user to pay a share of the good or service price; deductibles require users to pay up to a fixed amount first, before the third party will cover any costs. Other types of user charges include 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.

Member States

Albania
Andorra
Armenia
Austria
Azerbaijan
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czechia
Denmark
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
Romania
Russian Federation
San Marino
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Tajikistan
The former Yugoslav Republic of Macedonia
Turkey
Turkmenistan
Ukraine
United Kingdom
Uzbekistan

World Health Organization Regional Office for Europe

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01

Email: eurocontact@who.int

Website: www.euro.who.int

ISBN 9789289053655



9 789289 053655 >