



World Health
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REGIONAL OFFICE FOR Europe

Can people afford to pay for health care?

New evidence
on financial protection
in Kyrgyzstan

Melitta Jakob
Baktygul Akkazieva
Jarno Habicht



Kyrgyzstan

WHO Barcelona Office for Health Systems Strengthening

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

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Abstract & keywords

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

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About the series

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

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

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

- how much households spend on health out of pocket in relation to their capacity to pay; out-of-pocket payments that exceed a threshold of a household's capacity to pay are considered to be *catastrophic*;
- household ability to meet basic needs after paying out of pocket for health; out-of-pocket payments that push households below a poverty line or basic needs line are considered to be *impoverishing*;
- how many households are affected, which households are most likely to be affected and the types of health care that result in financial hardship; and
- changes in any of the above over time.

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

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

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

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

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

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Abbreviations

ADP	Additional Drug Programme
CIS	Commonwealth of Independent States
GDP	gross domestic product
KIHBS	Kyrgyz integrated household budget survey
KGS	Kyrgyz som
MHIF	Mandatory Health Insurance Fund
SGBP	State Guaranteed Benefits Programme
VHI	voluntary health insurance

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Executive summary

Since its independence, Kyrgyzstan's commitment to moving towards universal health coverage has been reflected in a series of national health strategies and in policy dialogue on meeting the Sustainable Development Goals. It has led to documented improvement in access to health care, quality, efficiency and financial protection and recognition of Kyrgyzstan as a regional leader in health system transformation.

Health coverage is regulated by the State Guaranteed Benefits Programme (SGBP) and the Additional Drug Programme (ADP). Under the SGBP, all citizens are entitled to free emergency care; free primary care (which includes a limited selection of medicines); free outpatient specialist care with referral; and inpatient care with referral and co-payments. Groups of people with high expected health care costs are exempt from or entitled to reduced co-payments for inpatient care. People who have paid their mandatory health insurance contributions (around 74% of the population) are entitled to 61 outpatient medicines at reduced prices under the ADP and to reduced SGBP co-payments for inpatient care.

Between 2000 and 2014, out-of-pocket payments in Kyrgyzstan grew substantially. They currently account for about 50% of total spending on health. As a share of household spending, out-of-pocket payments fell between 2000 and 2009, largely driven by a decline among the three poorest quintiles, but they increased sharply from 2009 to 2014 for all quintiles, undermining earlier achievements.

In spite of the increase in out-of-pocket payments, financial protection in Kyrgyzstan is better than in countries with similar incomes. It improved from 2000 to 2006, particularly for the poorest households, coinciding with the introduction of the single payer reforms and steady improvement in living standards. Although it deteriorated between 2009 and 2014, it did not worsen among the poorest quintile.

The health system factors that contribute to financial protection include:

- an increase in public spending on health after 2006, with an explicit target to allocate 13% of the government budget to health, which temporarily expanded fiscal space but leaves its adequacy under discussion as the target has not been updated since then;
- the establishment of a single pool for general tax and payroll tax revenues, which avoids segmentation along formal and informal sector lines;
- relatively comprehensive service coverage with an emphasis on free access to primary care visits;

- the protective features of co-payments for hospitals, namely the use of fixed co-payments rather than percentage co-payments and exemptions for people with high expected health care costs, some of whom are also at high risk of poverty, such as small children and pensioners; and
- SGBP and ADP coverage of outpatient medicines, which gives priority to key medicines for ambulatory care sensitive conditions such as asthma, hypertension and pneumonia.

The following health system factors have undermined financial protection.

- The health spending target established in 2006 was not revised in the following decade; in addition, using internationally agreed methods to calculate the share of the government budget allocated to health indicates that this share was 10% in 2015 (rather than the target of 13%), leaving room for a further increase.
- Inadequate enforcement of mandatory health insurance contributions (the payroll tax) leads to a shortfall in SGBP funding and means that 26% of the population – comprised of relatively vulnerable groups of people – is not able to benefit from lower co-payments for hospital care under the SGBP or from access to the subsidized outpatient medicines covered by the ADP.
- The SGBP co-payment exemptions do not explicitly target poor people although several targeting categories correlate at risk of poverty; introducing means-tested exemptions requires a joint approach with the Ministry of Labour and Social Development, which has not yet emerged.
- The ADP's ability to ensure financial protection is limited because of the low level of funding allocated to it. It generally covers less than 50% of the retail price of medicines; 26% of the population is not entitled to it, and in practice it only reaches a fraction of those who are entitled to it due to budget caps and provider-level rationing.
- Medicine prices and distribution mark-ups are unregulated, exposing people (and the public purse) to higher than necessary costs.
- The shortfall in SGBP funding is demonstrated by declining but persistent informal payments for hospital services; these contribute to catastrophic out-of-pocket payments, and their informal nature makes it difficult to protect poor households.

- There are persistent inefficiencies in the use of existing resources, including limited mapping of infrastructure to population health needs, over-hospitalization for ambulatory care sensitive conditions, inappropriate use of medicines, rigidities in human resource policies and fragmented hospital procurement systems.
- The strategic purchasing function requires further strengthening to include a greater range of instruments to close the funding gap through efficiency gains.
- The growing number of households with out-of-pocket payments and the growing number of households finding it difficult to pay for health care erode trust in the health system and in pooled funding.

To continue to strengthen financial protection in Kyrgyzstan, the following policies need to be considered: prioritize public spending on health and reforms in the public sector, with an explicit focus on improving financial protection; keep and strengthen the SGBP and ADP as foundations of the single payer system; enforce the collection of mandatory health insurance contributions (payroll tax); expand coverage of outpatient medicines by increasing funding allocations and introduce regulation of medicine prices; review the design of co-payment policy, considering the costs and benefits of current and alternative protection mechanisms; increase public awareness of entitlement to publicly financed health services under the SGBP and ADP; and strengthen strategic purchasing and seek further efficiency gains.

1. Introduction

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

Since 1996, Kyrgyzstan's commitment to moving towards universal health coverage has been reflected in a series of national health strategies – Manas (1996–2005), Manas Taalimi (2006–2011), Den Sooluk (2012–2018) and a new programme “Healthy Person – Prosperous Country” (2019–2030) – leading to documented improvements in access to health care, quality, efficiency and financial protection and recognition as a regional leader in health system transformation (Kutzin, 2003; Kutzin et al., 2010; Balabanova et al., 2011; Akkazieva et al., 2016; Jakab et al., 2016).

Kyrgyzstan has also invested in institutional capacity to monitor and evaluate the impact of health system reforms, including the regular and consistent collection of survey data to assess trends in access and financial protection. This review – one outcome of investing in high-quality survey data – draws on the Kyrgyz integrated household budget survey (KIHBS) to analyse financial protection from 2000 to 2014, a diverse time in the history of the country in terms of health system reform and socio-political context.

Three phases of health system reform took place during this period, alongside economic growth – as Kyrgyzstan transitioned from a low-income to a lower middle-income country in 2014 and joined the Eurasian Economic Union in 2015 – and a large reduction in poverty. However, the financial crisis of 2008 affected socioeconomic development for several years and paved the way for political instability, including a revolution in 2010.

The first reform phase (1996–2005) focused on building capacity and institutions with the establishment of the Mandatory Health Insurance Fund (MHIF) in 1997 and the introduction of a single payer system from 2001. The single payer system pools public funding for health in the MHIF at the national level. It was designed to shift away from an administratively fragmented system of public financing, which had led to significant duplication in service delivery infrastructure, particularly hospitals. The creation of a national purchasing agency enabled a move away from historical line-item budget processes driven by input-based norms towards strategic purchasing arrangements based on outputs and population health needs (Kutzin, 2001). This in turn contributed to a reconfiguration of service delivery infrastructure, leading to savings that were reinvested in patient care, for example, the purchase of medicines in hospitals.

The second reform phase (2006–2011) focused on consolidating achievements. However, a challenging economic environment, political instability and the slow pace of public finance and public sector reforms meant that progress slowed, and health system performance fell short of expectation (Ibraimova et al., 2011). The third reform phase (2012–2018) focused on improving service quality, integrating vertical programmes into the single payer system and addressing persistent rigidities in public finance management arrangements (Jakab et al., 2016).

Kyrgyzstan has been included in several global studies of financial protection drawing on survey data up to 2010 (van Doorslaer et al., 2006, 2007; WHO & World Bank, 2015; Wagstaff et al., 2016; Xu et al., 2003; Xu et al., 2007), while a handful of national studies have focused on financial protection among people with selected diseases (Arnold et al., 2016; Skordis-Worrall et al., 2017). This review of financial protection in Kyrgyzstan uses nationally representative data up to 2014. It attempts to link analysis of financial protection and access to health care to trends in and beyond the health system.

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 of household data, with a focus on out-of-pocket payments in Section 4 and financial protection in Section 5. Section 6 provides a discussion of the results of the financial protection analysis and identifies factors that strengthen and undermine financial protection: those that affect people's capacity to pay for health care, and health system factors. Section 7 highlights implications for policy and draws attention to areas that require further analysis. Annex 1 provides information on household budget surveys; Annex 2 the methods used; Annex 3 regional and global financial protection indicators; Annex 4 a glossary of terms; and Annex 5 the KIHBS.

2. Methods

This section summarizes the study's analytical approach and main data sources. More detailed information can be found in Annexes 1–3 and Annex 5.

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 National Statistical Committee conducts the KIHBS regularly to monitor trends in consumption and poverty. Since 2000, the KIHBS has included an additional module on health care use and spending (out-of-pocket payments). This allows data on household health care use and spending to be linked to detailed information on household income and consumption patterns.

Both parts of the survey use the same sampling design. Data are representative at the national and oblast levels (Akkazieva et al., 2016). As the survey sample is not weighted, weighting coefficients were applied to adjust for oversampling of certain underpopulated regions. The sample size over the study period ranged from 2000 households (12 901 individuals) to 5016 households (21 257 individuals), with a very high response rate across all years (97% or more). The sampling procedure was improved after 2000; the data from 2000 may not adequately represent poor and marginalized groups of people and may therefore paint an overly optimistic picture of financial protection in that year.

The survey collects detailed records of service use and spending per person through interviews. Spending on health care includes formal and informal payments made at any level of service delivery, with a 30-day recall for outpatient spending (including medicines) and a 12-month recall for inpatient spending (see Annex 5).

All currency units are presented in Kyrgyz som (KGS).

3. Coverage and access to health care

This section briefly describes the governance and dimensions of publicly financed health coverage (population entitlement, service coverage and user charges) and 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

Entitlements of the population to health services are defined by the SGBP and the ADP, established in 2001 in the context of comprehensive health financing and service delivery reforms (Giuffrida et al., 2013). Both programmes are funded through a mix of general taxes and payroll taxes (mandatory health insurance contributions) pooled in the MHIF. The MHIF contracts with semi-autonomous public health facilities, some private facilities and private pharmacies.

The **SGBP regulates entitlement to health services for citizens**. The current version of the SGBP is approved by a Government decree (MHIF, 2018a). In the past, the benefits package was revised and approved annually by the government as part of the annual budget law based on expected revenues and levels of use. From 2018, in line with changes in forming the government budget, it will only be revised when needed (MHIF, 2018b).

The **ADP regulates entitlement to outpatient medicines for those who pay mandatory health insurance contributions and for those for whom the government pays contributions**. It was introduced to provide enhanced coverage of outpatient medicines and as an incentive to improve compliance with mandatory health insurance in a country with a large informal sector.

3.1.1 Population entitlement

There are three different entitlement or beneficiary groups, which are not mutually exclusive.

- **All citizens are entitled to the coverage provided by the SGBP:** free primary care and emergency care (no co-payments), free outpatient specialist care (with referral) and hospital care (with referral and co-payments). The SGBP covers outpatient medicines for five selected conditions (epilepsy, asthma, schizophrenia, affective disorders and cancer).
- **Selected groups of people are exempt or partially exempt from SGBP co-payments for inpatient care.** These groups are broadly defined based on their high expected need for health care (see below).
- **People who pay contributions or for whom the government pays contributions (73.6% of the population) benefit from reduced co-payments for inpatient care and entitlement to outpatient medicines covered by the ADP.** Mandatory contributions are paid by employers on behalf of employees, farmers working on their own land and self-employed people. The government pays contributions for pensioners, unemployed people and children under 5 years.

Although contributions are mandatory, there are enforcement problems; collection is particularly difficult among people who work in the agricultural sector, self-employed people, those working in temporary or irregular jobs and those working in the shadow economy. In 2017, the enrolment rate was 73.6%. This means that a quarter of the population does not benefit from reduced co-payments and has limited entitlement to publicly financed outpatient medicines.

3.1.2 Service coverage

The **SGBP** is explicitly defined and provides fairly comprehensive coverage of all health services except outpatient medicines. The description of the services covered is relatively broad, leaving room for coverage decisions to take place at the level of the purchasing agency (through contracts with providers) and at the level of individual providers.

Service coverage under the SGBP is organized in the following categories: primary health care; emergency care in outpatient settings; emergency transport (ambulance services); outpatient specialist care; hospital care; high-technology services financed by the High Technology Fund; dental care; medicines; and vaccinations. Within each category, coverage is further defined through a mix of positive and negative lists, and rules about types of providers and service delivery levels.

Primary health care services are defined through a fairly extensive positive list; the list includes selected **diagnostic and laboratory tests**, and specifies that excluded services can be provided in return for direct payments set out in an approved price list. The rules for **outpatient specialist care** are less specific; there is a negative list of excluded services, leaving most rationing decisions to the purchaser and providers. Outpatient specialist services excluded from the SGBP can be obtained in return for direct payments set out in an approved price list. Non-emergency **dental care** is not covered. Dental care is also heavily rationed at provider level, with long waiting times for publicly provided services; as a result, most dental care is through private providers, without any public financing. People with five conditions (epilepsy, asthma, schizophrenia, affective disorders and cancer) are able to obtain **outpatient medicines** under the SGBP free of charge if they are enrolled with a primary care provider, but there are concerns that this is not always the case in practice. For **hospital services**, there is neither a positive nor a negative list; explicit rationing takes place through contracting, volume controls and co-payments, and implicit rationing takes place through informal payments and provider decisions.

Under the **ADP**, people can obtain selected medicines at reduced prices from contracted pharmacies. These medicines are prescribed by primary care physicians, mainly for primary care sensitive conditions such as asthma, hypertension, other cardiovascular conditions and pneumonia. The reimbursement rate is set by the MHIF at 50% of the median wholesale price. Effectively, this is often less than 50% of the retail price because of legitimate cost variations, differences in competitive conditions and unregulated mark-ups.

The ADP currently includes 61 medicines (international nonproprietary names) – up from 34 when it was introduced in 2001 – and three medical devices selected on the basis of defined criteria, including:

- priorities identified by the Ministry of Health, which are in line with health priorities in national health reform programmes, including chronic conditions (particularly cardiovascular disease), maternal and child health, tuberculosis and HIV (WHO Regional Office for Europe, 2016);
- evidence-based proposals from prominent health care practitioners and organizations;
- medicines on the national essential medicines list (with some exceptions);
- medicines included in standard treatment regimens;
- authorized medicines;
- medicines with locally available generic alternatives; and
- price considerations.

In 2017, the funds allocated to the ADP were very low, accounting for 1.7% of public spending on health. These funds are not sufficient to cover the cost of providing ADP medicines (HPAC, 2006). As a result, access is heavily rationed at provider level: ADP budget caps are set at family medicine centre level; family medicine centres distribute special prescription forms for ADP medicines to primary care physicians on a monthly basis; and if need exceeds the number of forms, primary care physicians have the discretion to decide which of their patients will receive medicines under the ADP and which will have to pay the full price. There are no established criteria to guide physician decisions and no monitoring.

Clinical guidelines, continuing medical education training programmes and monitoring of generic prescribing and dispensing rates aim to ensure effective use of ADP medicines (Abdraimova et al., 2012).

3.1.3 User charges (co-payments)

Under the SGBP, co-payments have been applied in a phased manner since 2000 to enhance transparency; replace informal payments; promote access for defined population groups via exemption mechanisms; and generate additional revenue. Currently, they are applied to hospital care (Table 2).

Hospital co-payments are set as a flat fee payable on admission. The level of co-payment varies by oblast, level of health facility, patient beneficiary status and exemption category, intervention type (e.g. childbirth, surgery or internal medicine) and whether the patient has a written referral from a primary care physician.

There is an extensive system of exemptions from SGBP hospital co-payments, which aims to protect people with high expected health care costs. Exemptions fall into two categories: social and medical.

- List I exempts people in 30 social categories, including: children under 5 years, pensioners aged over 70 years, disabled people and pregnant women.

- List II exempts people with 16 medical conditions (including diabetes, cancer, tuberculosis and asthma) from co-payments for admissions related to their condition.

To reduce the risk of selection at provider level, the MHIF compensates providers for the loss of co-payment revenue when treating people in these groups.

Over time, the groups of people eligible for exemption from SGBP hospital co-payments have grown in number from 29 in 2001 to 46 in 2016. For example, in 2006, co-payments were eliminated for children aged 1–5 years, pensioners aged over 75 years and all types of childbirth deliveries. The share of hospital patients eligible for exemption from co-payments or reduced co-payments increased from 9% in 2003 to over 50% in 2009; in 2009, 33% of patients in hospitals made no official co-payments, and 11% made reduced co-payments (Giuffrida et al., 2013; Jakab et al., 2016).

The current design of protection from co-payments presents two challenges. First, although the exemptions target people with high expected health care costs and are easy and cheap to administer, studies show that they are not sufficiently poverty targeted and suffer from inclusion and exclusion errors (Jamal & Jakab, 2013). Second, growth in the number of exempt patients increases the SGBP's funding gap because additional public funds are needed to compensate providers for the loss of co-payment revenue.

Informal payments are a persistent problem, particularly in hospitals, indicating a funding gap in the SGBP and placing a greater financial burden on poorer people. Informal payments are discussed in more detail in section 4.2.

Table 2. User charges (co-payments) for publicly financed health services, 2018

Notes: PPP: purchasing power parity. KGS values are converted into equivalent purchasing power parity in the average EU country. The price list for excluded services is determined by the Ministry of Health and the State Agency of Antimonopoly Regulation.

Source: authors based on the Government of Kyrgyzstan's Regulation on the State Guaranteed Benefit Programme #790 (MHIF, 2018a).

Service area	Type and level of user charge	Exemptions	Cap on user charges paid
Outpatient visits	<p>None: primary care and specialist care under the SGBP for people enrolled with primary care providers</p> <p>Users pay full price: people not enrolled with FMCs or FGPs and services excluded from SGBP coverage based on a price list</p>	No	No
Outpatient prescription medicines	<p>Users pay full price: all outpatient medicines except the medicines covered under the ADP (61 medicines) and SGBP</p> <p>ADP medicines; users pay the difference between the retail price and the reimbursement (reference) price specified in a handbook approved by the MHIF and calculated as 50% of the median wholesale price of the largest wholesalers</p> <p>SGBP medicines; people with epilepsy, asthma, schizophrenia, affective disorders and cancer pay 0% of the reimbursement (reference) price for medicines related to their condition; people with diabetes, haemophilia and tuberculosis pay 0% of the reimbursement (reference) price for medicines related to their condition</p>	No	No
Diagnostic tests	<p>None: for 12 basic laboratory and diagnostic tests in primary care for enrolled people with referral and for basic tests in outpatient-diagnostic departments at inpatient level with referral</p> <p>Users pay full price: other tests, including 8 costly tests, based on a price list</p>	<p>Exempt from payment for other tests: List I and List II with referral</p> <p>Exempt from payment for 8 costly tests: people who fought or were wounded in World War II</p>	No
Medical products	Similar to outpatient prescription medicines	No	No
Dental care	<p>None: emergency dental care</p> <p>Users pay full price: all non-emergency visits and treatment based on a price list</p>	Exempt from payment for basic dental treatment: children under 10 years old, pensioners over 70 years old and registered pregnant women	No
Inpatient care	<p>None: emergency care</p> <p>Fixed co-payments for non-emergency admissions with or without referral: co-payments vary based on oblast, type of admission – childbirth, surgery (KGS 1090; €PPP 39) or internal medicine (KGS 840; €PPP 30) – as well as insurance status, exemption status and referral status</p> <p>Uninsured people pay higher co-payments than insured people: KGS 3440 (€PPP 123) for surgery and KGS 2650 (€PPP 94) for internal medicine</p> <p>People without a referral pay the maximum level of co-payment, regardless of insurance and exemption status</p>	<p>List I with referral for up to 2 planned hospitalizations a year; additional planned hospitalizations incur a co-payment (except for children under 5 years)</p> <p>List II with referral but only for the conditions listed</p> <p>Poor people, people without a permanent residence, people without official identification and conscripts</p>	No
Inpatient prescription medicines	Usually none but if the hospital has insufficient funds for medicines, they ask patients to purchase medicines for their treatment	NA	No

3.1.4 The role of VHI

VHI plays a very minor role in the health system, covering less than 3% of the population in 2015.

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

Table 3. Gaps in coverage

Source: authors.

	Population entitlement	Service coverage	User charges
Issues in the governance of publicly financed coverage	Universal population coverage is a strength, but weak enforcement of mandatory contributions means about 26% of the population has very limited entitlement to publicly financed outpatient medicines	Comprehensive but loosely defined package with explicit rationing by the purchasing agency through contracts and volume caps and implicit rationing by providers, with persistent informal payments The ADP is very limited both in terms of medicines and coverage, accounting for only 1.7% of public spending on health in 2017	Co-payments and prices for excluded services are tightly regulated, but prices for medicines and medical products and wholesale and pharmacy mark-ups are not regulated Informal payments persist, particularly in hospitals, indicating a funding gap in the SGBP and placing a greater financial burden on poorer people
Main gaps in publicly financed coverage	No formal gaps in population coverage	Service coverage is fairly comprehensive relative to fiscal space, but the SGBP's coverage of outpatient medicines is limited; the ADP covers 61 medicines for insured people with a tight rationing mechanism due to restricted funding which is insufficient to cover need; there is no coverage of non-emergency dental care; coverage of laboratory and diagnostic tests is also limited	Co-payment increases have been well below inflation placing a lower financial burden on people over time Extensive exemptions from co-payments aim to protect people with high expected health care need, but they are not means tested and do not specifically target poor people
Are these gaps covered by VHI?	No	No	No

3.2 Access, use and unmet need

KIHBS data on use, unmet need and out-of-pocket spending suggest that the health system reforms improved access to outpatient care. From 2000 to 2014, the share of survey respondents reporting use of outpatient care increased from 9% to 13%. Inequality in use between the poorest and richest quintiles also decreased (Akkazieva et al., 2016). Other studies confirm these findings (Jakab & Manjjeva, 2008; World Bank, 2015).

The use of inpatient services shows a more mixed pattern. The share of survey respondents reporting use of inpatient care in the past 12 months dropped from 6.5% to 5.5% between 2000 and 2003 but increased again after 2003. The decline in use was more pronounced among the richer quintiles, but hospitalization rates continue to be significantly higher in the richer than the poorer quintiles (Akkazieva et al., 2016). Considering

low access barriers and high overall hospitalization rates, this may reflect overuse of hospital services among richer households rather than underuse among poorer households.

Although access to health services has improved overall, there are specific concerns about access in rural and remote areas where there are shortages of health care workers. In particular, there is a problem with access to ambulance, specialized care and laboratory diagnostic services. There are also transportation barriers to access higher levels of care (Oxford Policy Management, 2016).

Box 1 describes how unmet need for health care relates to financial protection.

Box 1. Unmet need for health care

Source: WHO Barcelona Office for Health Systems Strengthening.

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

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

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

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

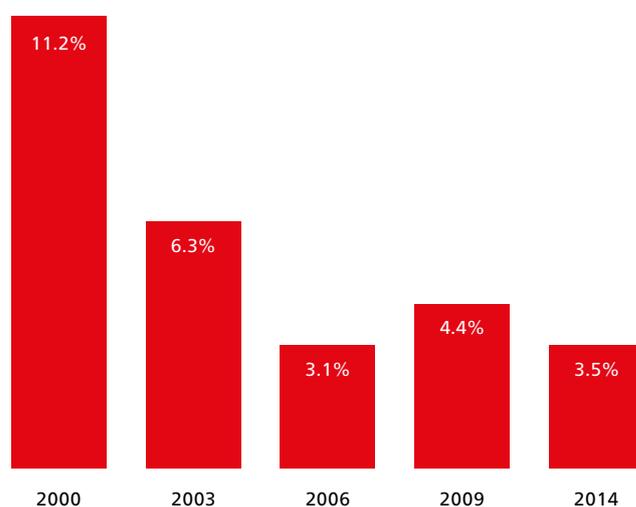
Among people reporting that they needed health services but did not seek care, more than 50% said they did not seek care because they thought they could treat themselves, while the share reporting that they did not seek care due to cost or distance fell from 11.2% in 2000 to 3.5% in 2014 (Fig. 1).

Among people reporting that they had received a prescription but not purchased some or all of the medicines prescribed, the share reporting that they did not purchase medicines due to cost rose from 40% in 2009 to 64% in 2014.

Although financial and geographical access barriers have decreased for health services, coping with out-of-pocket payments is a growing challenge. In 2014, 46% of households reported that it was "difficult" or "very difficult" to pay for health services, a large increase from 38% in 2009.

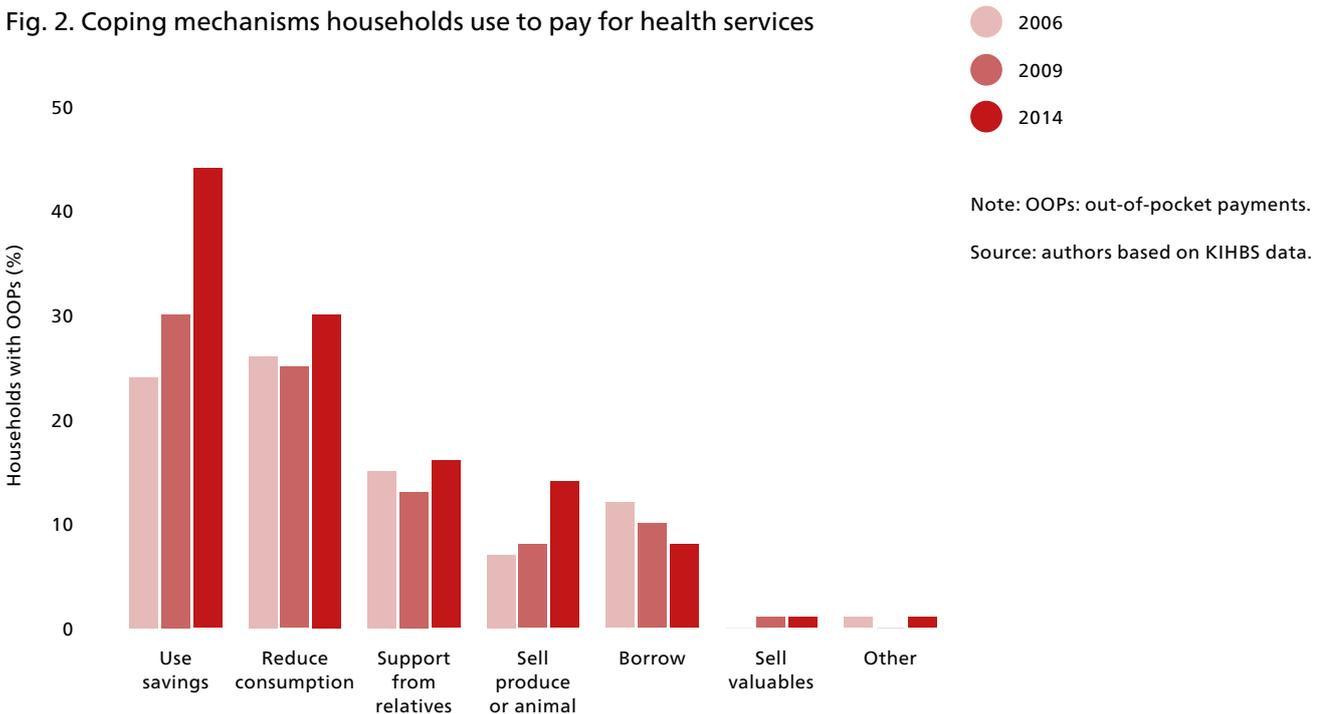
Fig. 1. Share reporting cost or distance as the main reason for not seeking health services among people who needed but did not seek care

Source: authors based on KIHBS data.



Households rely on a range of coping mechanisms to overcome financial difficulties in paying for health services – the most common being to use savings, reduce consumption of other things and seek help from relatives (Fig. 2) – and the use of these mechanisms has increased substantially over time.

Fig. 2. Coping mechanisms households use to pay for health services



3.3 Summary

Health coverage is regulated by the SGBP and the ADP. Under the SGBP, all citizens are entitled to free emergency care; free primary care; free outpatient specialist care with referral; inpatient care with referral and co-payments; and a limited selection of medicines for five conditions.

Groups of people with high expected health care costs are exempt or partially exempt from co-payments for inpatient care. Under the ADP, people who have paid their mandatory health insurance contributions (around 74% of the population) are entitled to 61 outpatient medicines at reduced prices and to reduced co-payments for inpatient care.

The main gaps in coverage are related to:

- weaknesses in enforcing the collection of mandatory health insurance contributions, which leads to a shortfall in public revenue and leaves about 26% of the population with no automatic entitlement to reduced co-payments for inpatient care and limited entitlement to publicly financed outpatient medicines;

- the limited protection provided by the ADP due to low funding (less than 2% of public spending on health in 2017) results in heavy rationing without established criteria at provider level;
- limited coverage of non-emergency dental care and laboratory and diagnostic tests;
- imperfections in the system of co-payment exemptions, from the perspective of explicitly targeting poor households; and
- persistent informal payments, particularly for inpatient care, which place a greater financial burden on poorer people without the possibility of protection.

The SGBP and ADP were introduced as part of a comprehensive reform of health financing arrangements and service delivery, including the use of a wide range of strategic purchasing and contractual mechanisms to ensure genuine entitlement to publicly financed health services. The reforms have successfully improved overall access to health care, although there are pockets of concern in rural areas.

Concerns about financial protection have remained throughout the reform period, in spite of evidence of improvement in the early phases of reform. As access to health services has improved, households have been exposed to a growing burden of out-of-pocket payments and financial barriers to purchasing prescribed medicines have increased. In 2014, 46% of households reported that it was difficult or very difficult to pay for health services (up from 38% in 2009). Households are increasingly resorting to coping mechanisms such as drawing on savings, reducing consumption, seeking family support or selling assets to pay for health care.

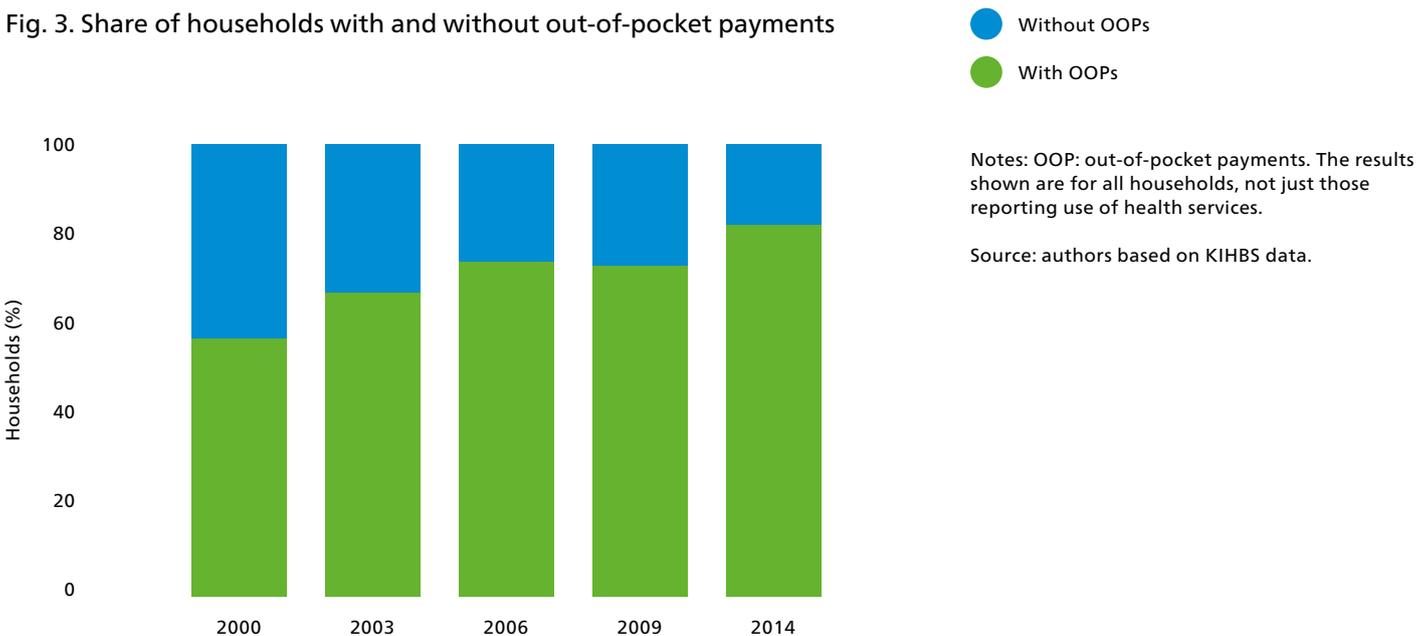
4. Household spending on health

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

4.1 Out-of-pocket payments

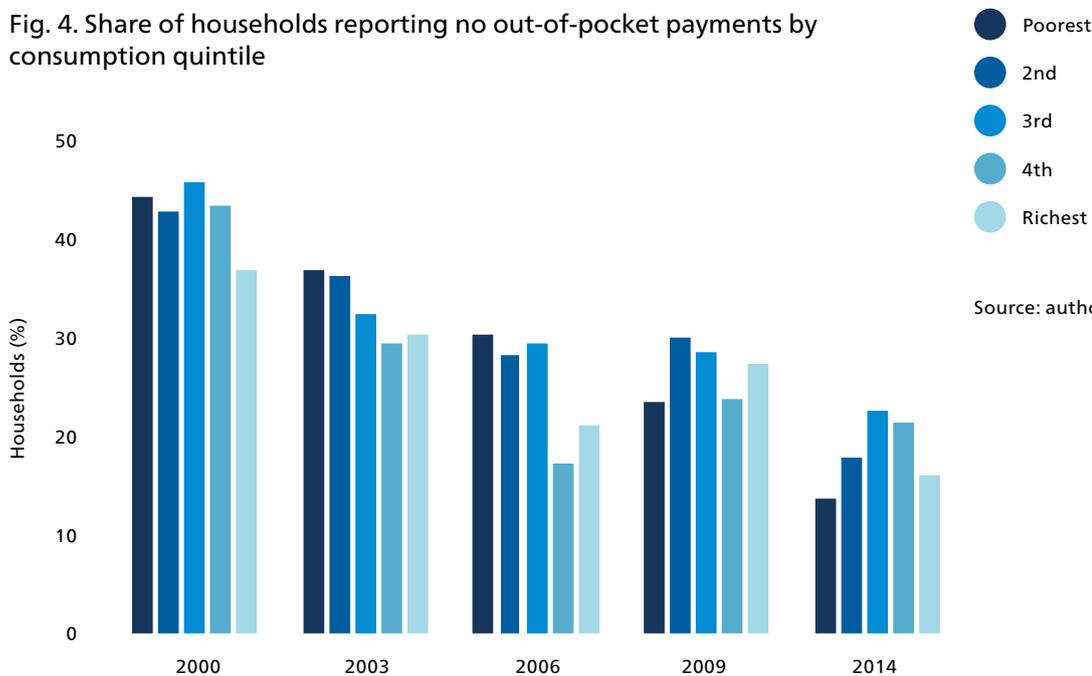
From 2000 to 2014, the share of households making out-of-pocket payments increased substantially. In 2000, 57% of households reported paying for health services out of pocket; by 2014 this share had risen to 82% (Fig. 3).

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



In earlier years, households without out-of-pocket payments were more likely to be poor than rich, perhaps indicating unmet need for health care. In 2009 and 2014, however, households without out-of-pocket payments were more likely to be rich than poor (Fig. 4). This may reflect underlying health status: poorer households generally have a greater need for health care. It may also reflect more frequent use of self-treatment with medicines or a lack of awareness of entitlements among poorer households (e.g. paying for services that should be free or available for a reduced co-payment).

Fig. 4. Share of households reporting no out-of-pocket payments by consumption quintile



Source: authors based on KIHBS data.

In 2014, the average annual amount spent on health per equivalent person across all households (including those with no out-of-pocket payments) was KGS 2600. This represents a substantial increase in nominal terms from KGS 273 in 2000 (Fig. 5, top panel).

The nominal figures mask important changes in real terms, however. Adjusting for inflation (Fig. 5, bottom panel), out-of-pocket payments per person tripled during the study period as a whole, rising from KGS 947 in 2000 to KGS 2689 in 2014 (in constant 2015 prices) – an average annual increase of 7.7% in real terms.

The increase was not even across the whole period: from 2000 to 2006, out-of-pocket payments rose rapidly in real terms, with an average annual increase of 15.2% (Fig. 6); from 2006 to 2009, they fell in real terms, with an average annual decrease of 11.4%; from 2009 to 2014, they grew again, but at a slower rate than before, with an average annual increase of 11.8%.

The pattern of growth in real terms also varied across quintiles. For the three richest quintiles, out-of-pocket payments grew fastest between 2000 and 2006, with a very sharp increase in spending (a doubling) between 2003 and 2006 for the two richest quintiles (Fig. 5). For the two poorest quintiles, growth in out-of-pocket payments was fastest between 2009 and 2014 (Fig. 6). The poorest and third quintiles did not experience a decrease in out-of-pocket payments between 2006 and 2009, unlike the others. This suggests that growth in out-of-pocket payments was driven by growth among rich households from 2000 to 2006 and by growth among poor households between 2009 and 2014, particularly the second quintile.

In 2000, out-of-pocket payments were twice as high in the richest quintile as in the poorest quintile (Fig. 5). By 2006, they were five times as high, but by 2009, the gap had narrowed to approximately three times as high; by 2014, they were only twice as high. Again, this suggests a growing financial burden on poorer households in recent years.

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

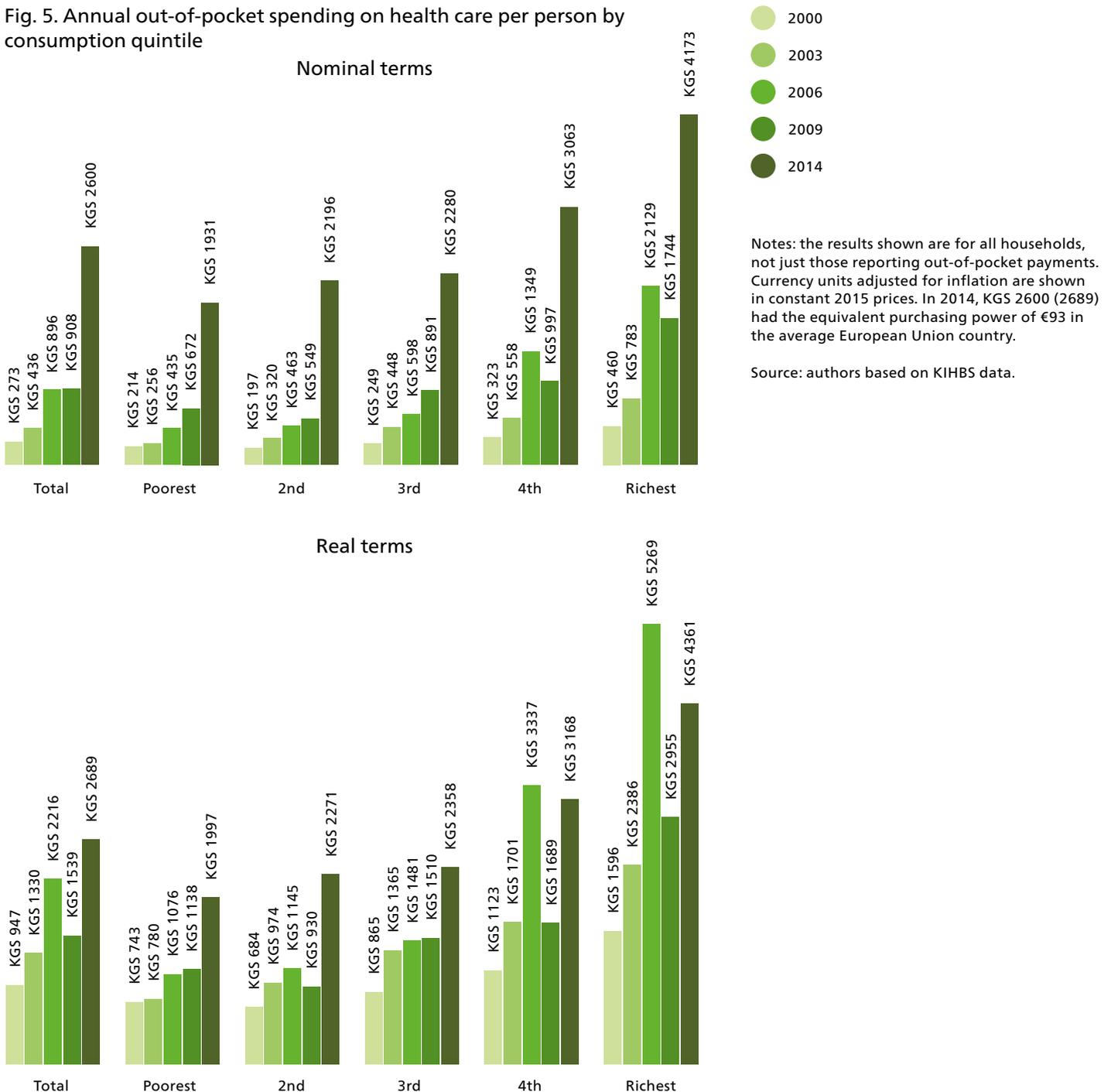
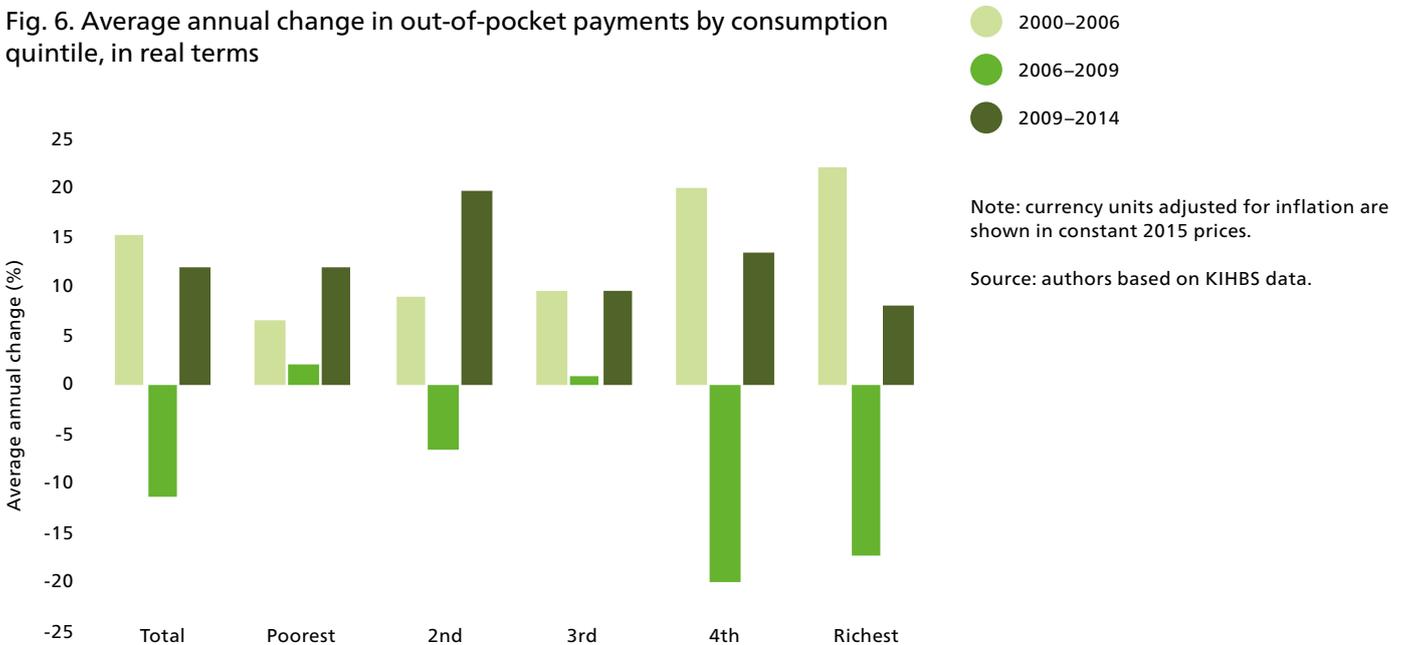


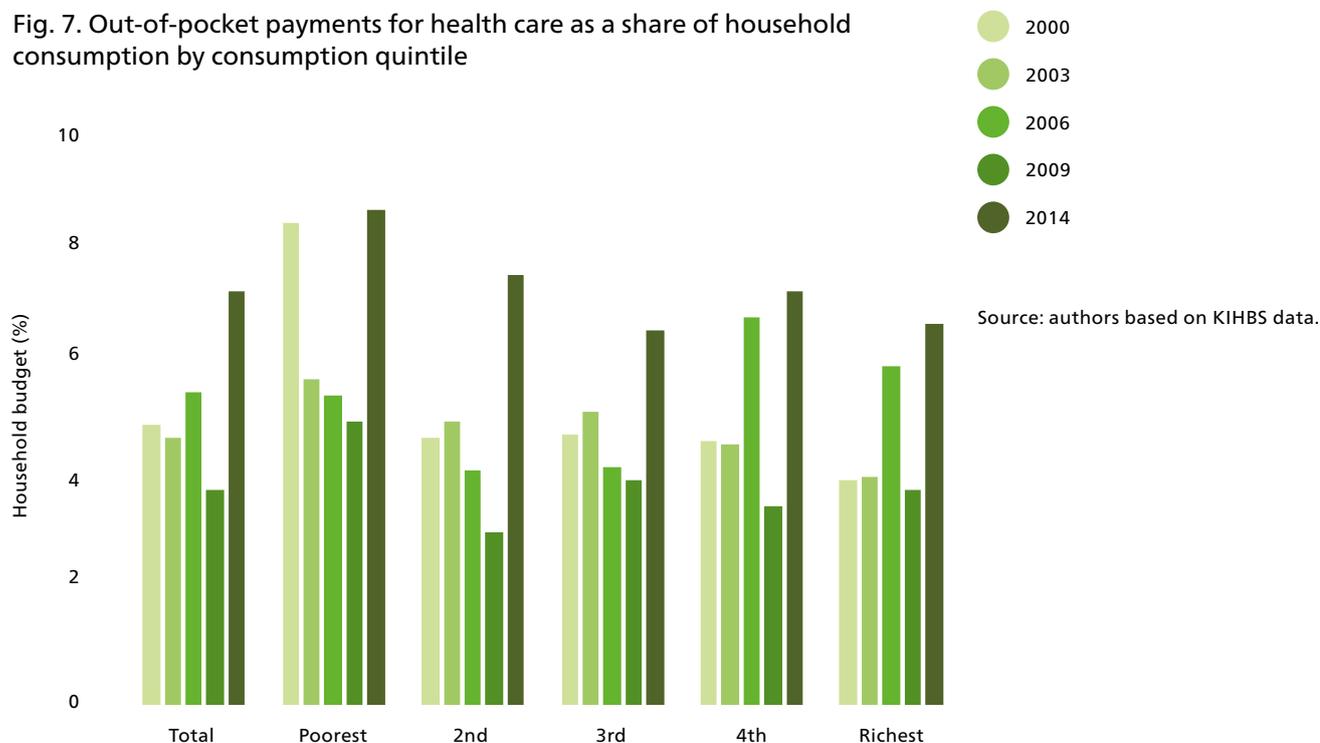
Fig. 6. Average annual change in out-of-pocket payments by consumption quintile, in real terms



In 2014, out-of-pocket payments for health care accounted for 7.2% of total household consumption (spending) on average (Fig. 7). The distribution across quintiles is regressive, with households in the poorer quintiles spending a higher share of their budget on health than richer quintiles (Fig. 7).

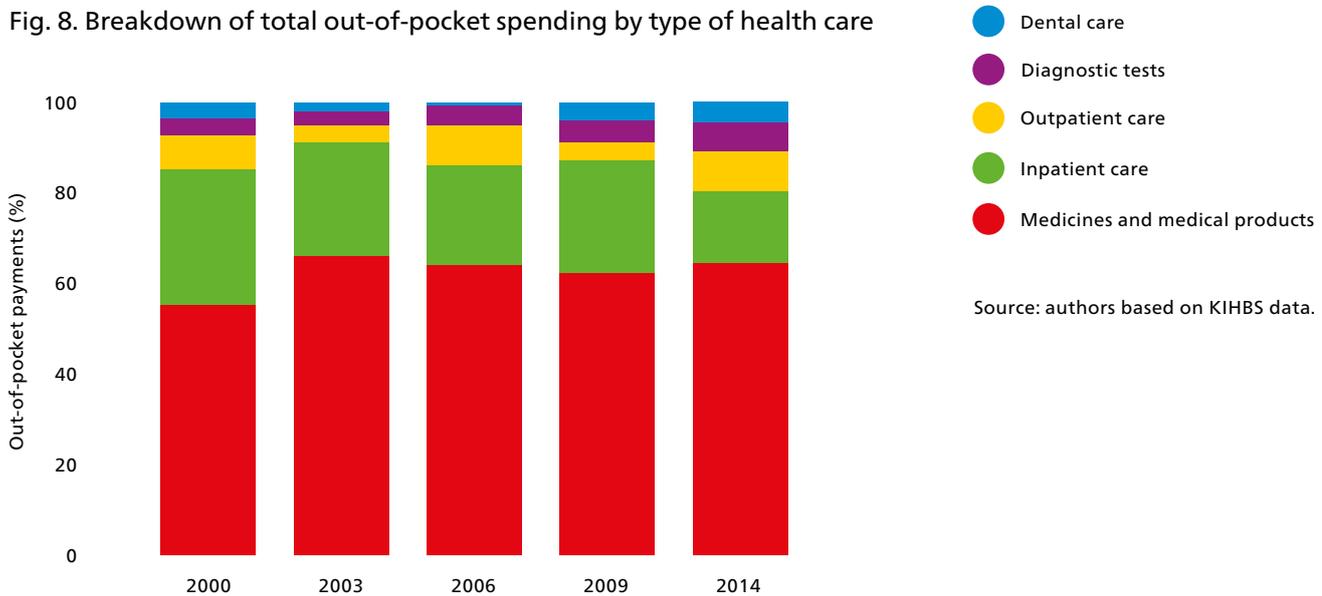
The share of out-of-pocket payments for health care in the household budget follows a roughly U-shaped trend for the three poorest quintiles, decreasing between 2000 and 2009 and then increasing sharply between 2009 and 2014. The decline from 2000 to 2009 was largely driven by a decrease in the poorest two quintiles, which may be attributed to the single payer reforms implemented during this time (Jakab & Kutzin, 2009). After 2009, out-of-pocket payments rose dramatically, doubling from 3.8% to 7.2% on average, and undermining earlier achievements. The increase in budget share between 2009 and 2014 was largest for the second and fourth quintiles. During this time, out-of-pocket payments grew at a much faster rate than household budgets (Akkazieva et al., 2016).

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



The main drivers of out-of-pocket spending are medicines and medical products, which together account for more than 50% of household spending in all years (Fig. 8). Their share increased rapidly between 2000 and 2003, from 56% to 66%, but has remained relatively stable since then. The second largest driver is inpatient care; its share has fallen from 30% in 2000 to 16% in 2014, with a steady decline from 2000 to 2006, followed by an increase in 2009 and a sharp decrease in 2014. The third largest driver is outpatient care; its share has fluctuated over time. The share of out-of-pocket payments for outpatient care, diagnostic tests and dental care has risen from 15% in 2000 to 20% in 2014; this is in line with expansion in the availability of outpatient services, including through the private sector in urban areas.

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

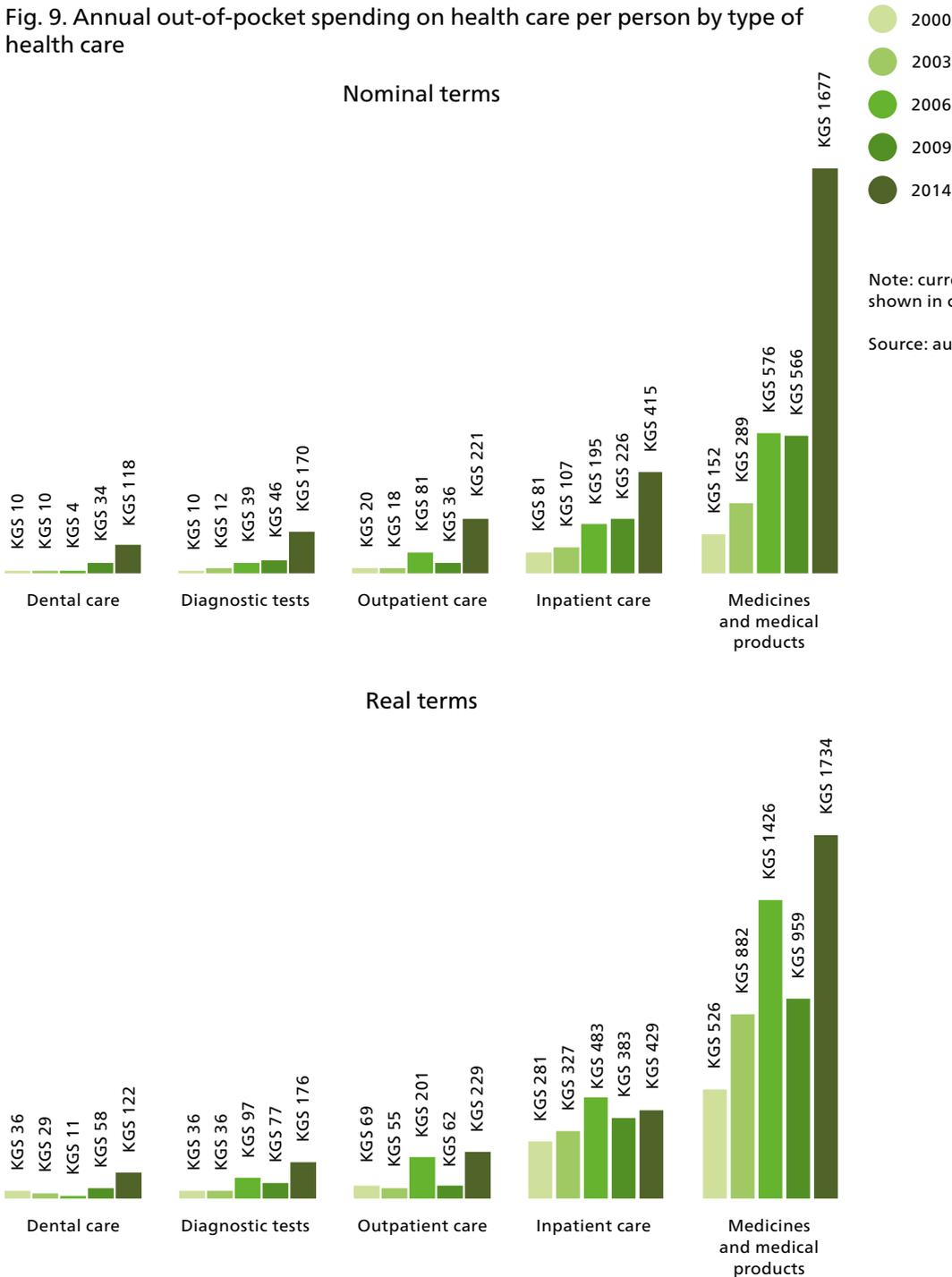


Between 2000 and 2014, the largest growth in spending was for diagnostic tests and dental care, which grew from a very low base, followed by outpatient care (also from a low base) and medicines and medical products; spending on inpatient care grew at a much slower rate (Fig. 9).

Household spending on medicines and medical products grew fastest from 2000 to 2006, fell from 2006 to 2009, and grew from 2009 to 2014, but at a much slower rate than before (Fig. 9). Diagnostic tests and inpatient care followed the same pattern of fastest growth up to 2006, a decline in 2009 and much slower growth after 2009. In contrast, dental care and outpatient care experienced the fastest growth after 2009.

Broken down by consumption quintile, however, the spending pattern for medicines and medical products is slightly different (Fig. 10). Between 2000 and 2014, out-of-pocket payments for medicines and medical products grew steadily for the poorest quintile – with no decrease in spending in 2009 – and the fastest growth occurred after 2009. Spending decreased slightly in 2009 for households in the fourth quintile before growing rapidly in 2014. For households in the richest quintile, the growth in spending was fast from 2000 to 2006, followed by a sharp decrease in 2009 and then much slower growth after 2009.

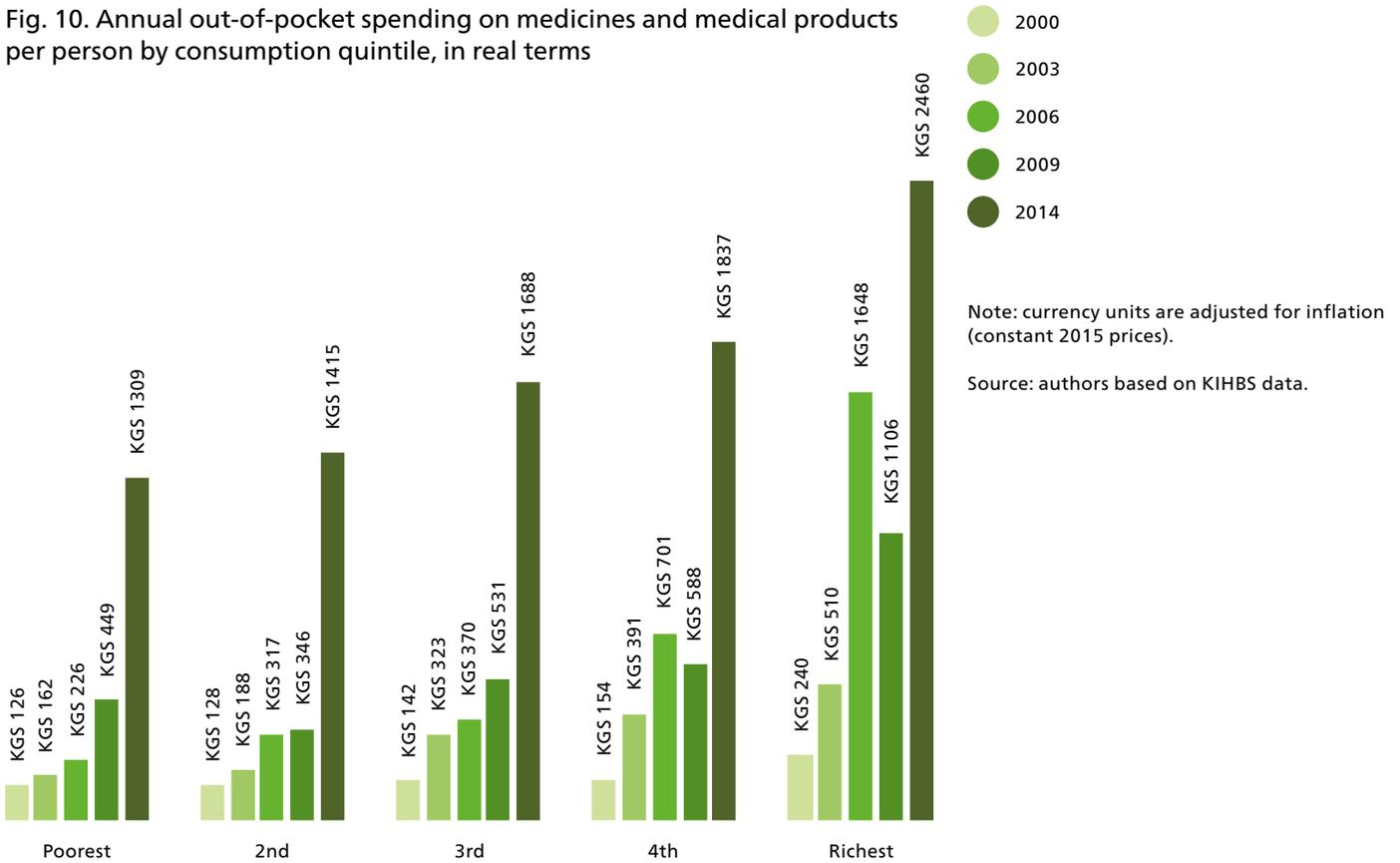
Fig. 9. Annual out-of-pocket spending on health care per person by type of health care



Note: currency units adjusted for inflation are shown in constant 2015 prices.

Source: authors based on KIHBS data.

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

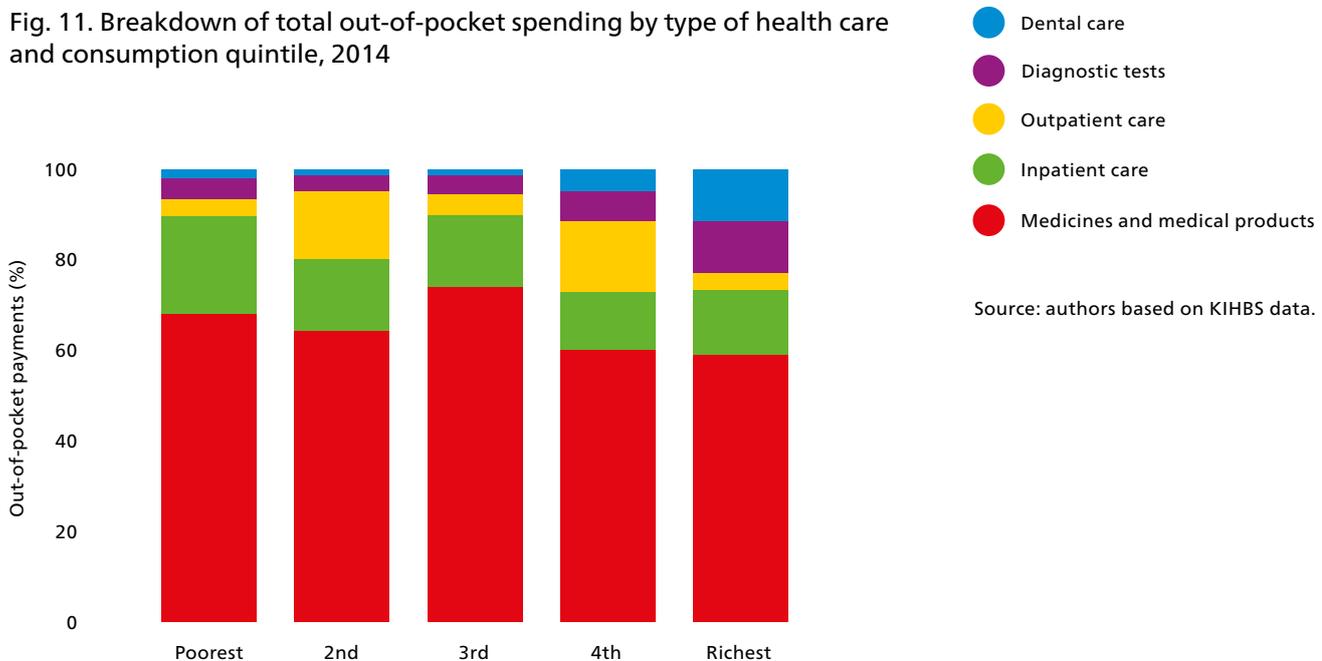


In 2014, spending on medicines and medical products was roughly similar across all quintiles; inpatient care accounted for the largest share among the poorest quintile; the two richest quintiles generally spent a greater share than the other quintiles on diagnostic tests and dental care; and there was no clear pattern for outpatient care (Fig. 11).

The low dental care share, especially among the three poorest quintiles, is likely to reflect substantial unmet need for dental care among poorer households. The SGBP only covers emergency dental care, and publicly provided dental care is heavily rationed at provider level, with long waiting times; those wanting dental care generally have to pay the full cost out-of-pocket in the private sector.

For spending on diagnostic tests, the quintile pattern is similar, reflecting the greater ability of richer households to pay for expensive diagnostics tests and analysis, which are often carried out in private diagnostic centres. Richer households may also duplicate diagnostics tests in different places to crosscheck results.

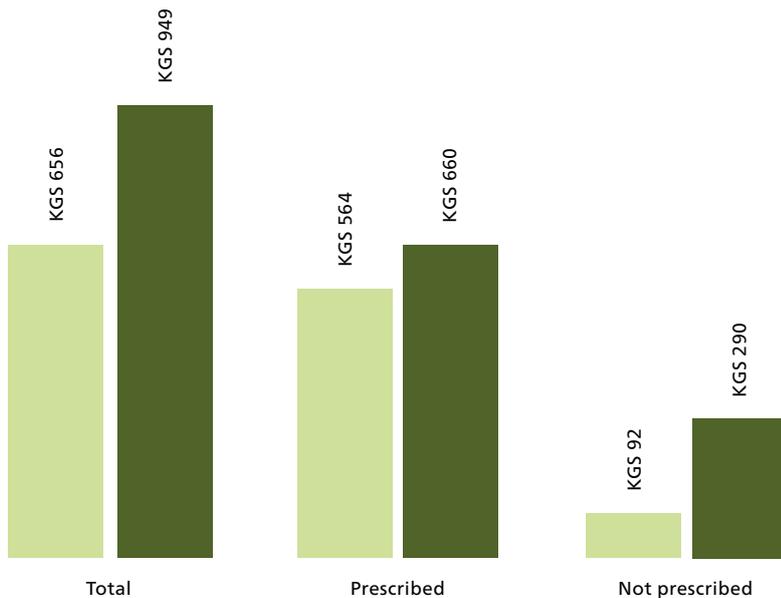
Fig. 11. Breakdown of total out-of-pocket spending by type of health care and consumption quintile, 2014



The increase in household spending on outpatient medicines and medical products after 2009, which mainly affected the poorer quintiles, has been analysed in depth (WHO Regional Office for Europe, 2016). The cost of medicines increased, an increase largely attributed to the absence of regulation of ex-factory, wholesale and retail prices and pharmacy mark-ups on the one hand and, on the other, to currency fluctuations and devaluation in a market heavily reliant on imported medicines. The depreciation of the rouble following the economic crisis in the Russian Federation led to a fall in the Kyrgyz som in 2014 and 2015. Consequently, while the volume of imported medicines did not change between 2013 and 2015, Kyrgyzstan had to pay nearly 20% more for them in 2015.

In addition to changes in prices, there may have been changes in patterns of use, possibly linked to weak enforcement of prescribing. Publicly financed outpatient medicines under the ADP require a prescription, but only account for a small share of the medicines market; other medicines can be obtained without a prescription. Growth in household spending on outpatient medicines was much faster for medicines obtained without a prescription than for prescribed medicines between 2006 and 2014 (Fig. 12).

Fig. 12. Monthly out-of-pocket payments for medicines among people using outpatient services in the past 30 days by type of medicine, in real terms



2006

2014

Note: currency units are adjusted for inflation (constant 2015 prices).

Source: authors based on KIHBS data.

4.2 Informal payments

Kyrgyzstan has collected data on informal payments since 2001 using a specially designed survey of hospitalized patients. Informal payments occur mainly at the hospital level, for inpatient admissions, and most are given to health care workers or used to purchase medicines (Fig. 13).

Informal payments rose from 2001 to 2003, mainly for staff. They fell in 2004 and 2006, particularly for medicines and medical supplies, following the first phase of health system reforms, which were rolled out nationwide from 2003 to 2006 (Fig. 13). This is likely to be due to new purchasing mechanisms enabling facility reconfiguration and leading to savings on fixed costs that were then channelled into purchasing medicines. However, between 2006 and 2013 these positive results began to be eroded, and informal payments rose again, in particular for staff and, to a smaller extent, for medicines. This setback was large enough to offset earlier gains.

The average amount of informal payment is roughly the same across income groups; because informal payments account for a much larger share of the household budget for poorer people, they are highly regressive, placing a greater financial burden on poorer than richer households (Jakab, 2007; Jakab et al., 2016).

Fig. 13. Trends in informal payment per hospital admission among those making informal payments, in real terms

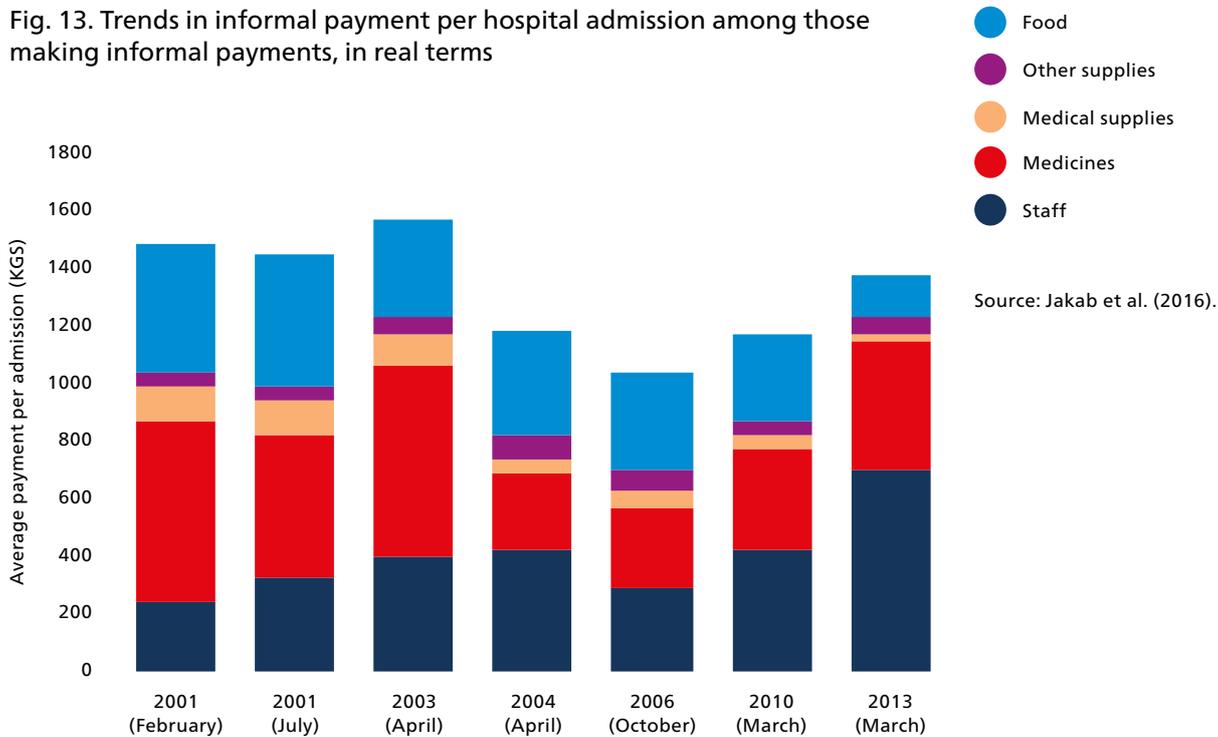
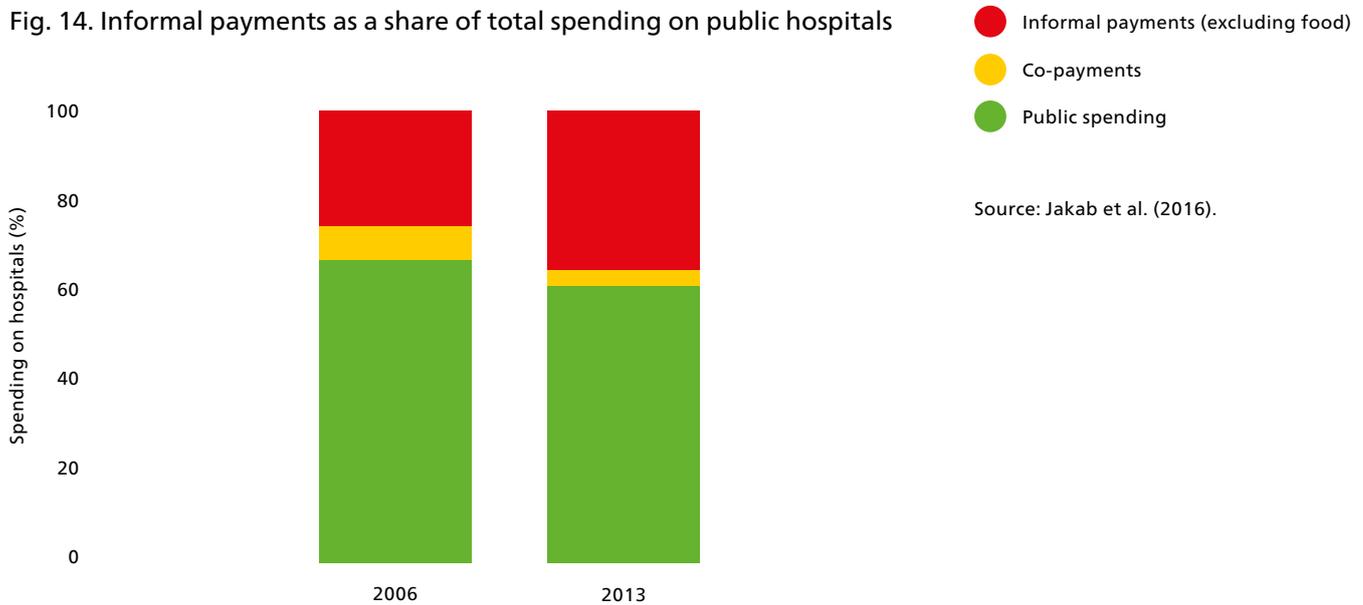


Fig. 14 shows how the informal payment share of total spending on hospitals grew from 26% in 2006 to 35% in 2013. During this time, the share coming from co-payments and public sources fell. Various analyses of SGBP funding needs, using different data sources, identified the shortfall in hospital funding as being in the range of 25–39% in 2006–2007 (Manjieva et al. 2007; Socium Consulting Services, 2007; AOK Consulting, 2009). The way in which hospital care is provided under the SGBP suffers from inefficiencies, including over-hospitalization of ambulatory care sensitive conditions, oversupply of hospital beds, overuse of medicines and substantial variation in the purchase of inpatient medicines across providers. The gap between what is currently spent, which includes a degree of waste, and what would optimally be spent is filled by informal payments.

Fig. 14. Informal payments as a share of total spending on public hospitals



Although there was some improvement following reforms introduced from 2003 to 2006, the persistence of informal payments is an important policy problem because informal payments result in an unpredictable financial burden for households. Their informality means it is impossible to protect poor households, and they undermine the credibility of the benefits guaranteed under the SGBP.

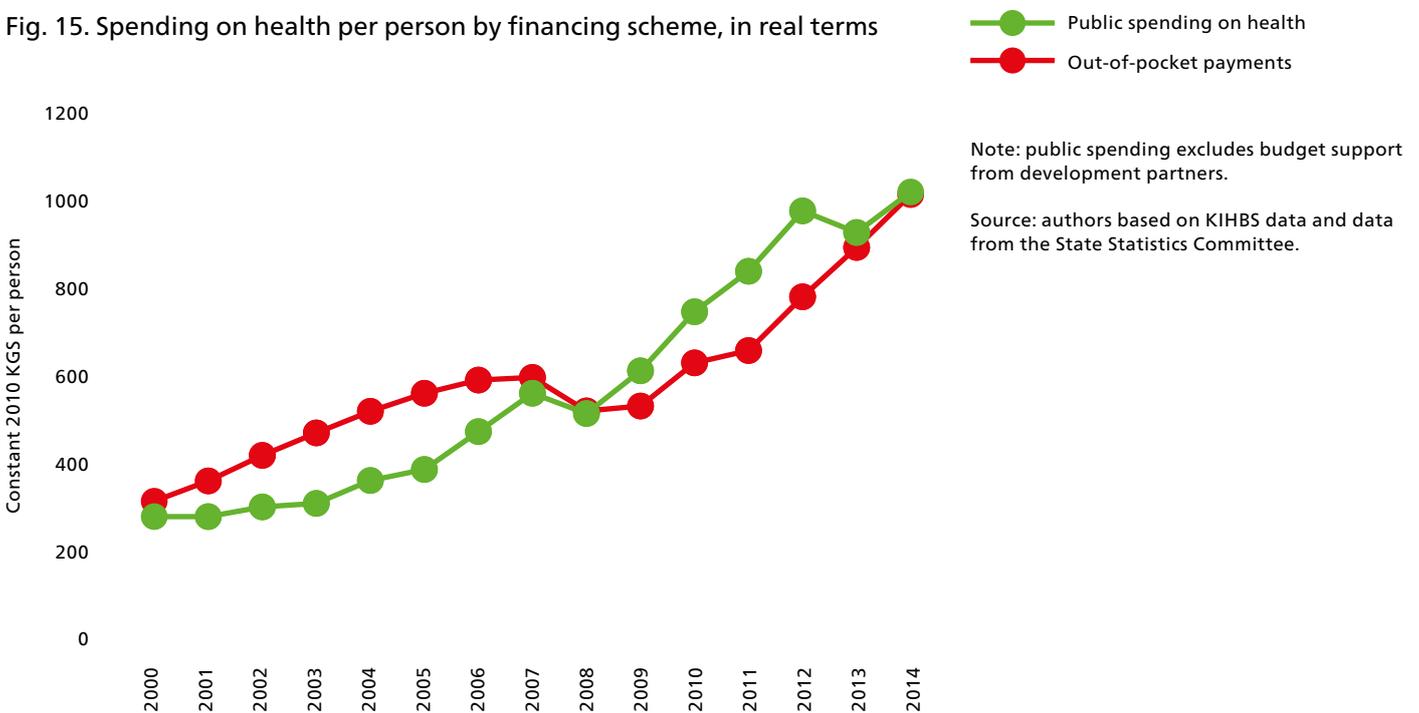
4.3 What drives changes in out-of-pocket payments?

National Health Accounts data show that between 2000 and 2014, public spending on health and out-of-pocket payments increased in real terms (Fig. 15). From 2000 to 2006, out-of-pocket payments increased faster than public spending on health, but from 2008 to 2014, public spending increased faster than out-of-pocket payments. In 2007, out-of-pocket payments stabilized and then fell in 2008. This temporary slowdown may be attributed to the implementation and expansion of the nationwide single payer system, which included progressive centralization of funding and a shift to population and output-based provider payment. These changes created the conditions for restructuring, leading to a reduction in spending on infrastructure and an increase in spending on medicines and supplies.

Public spending on health grew substantially from 2006 to 2014, with small dips in 2008 and 2013. An important reason for this growth was the 2006 agreement between the government and development partners under a sector-wide approach to increase public spending on health by 0.6% a year to reach a target of allocating 13% of the government budget to health.

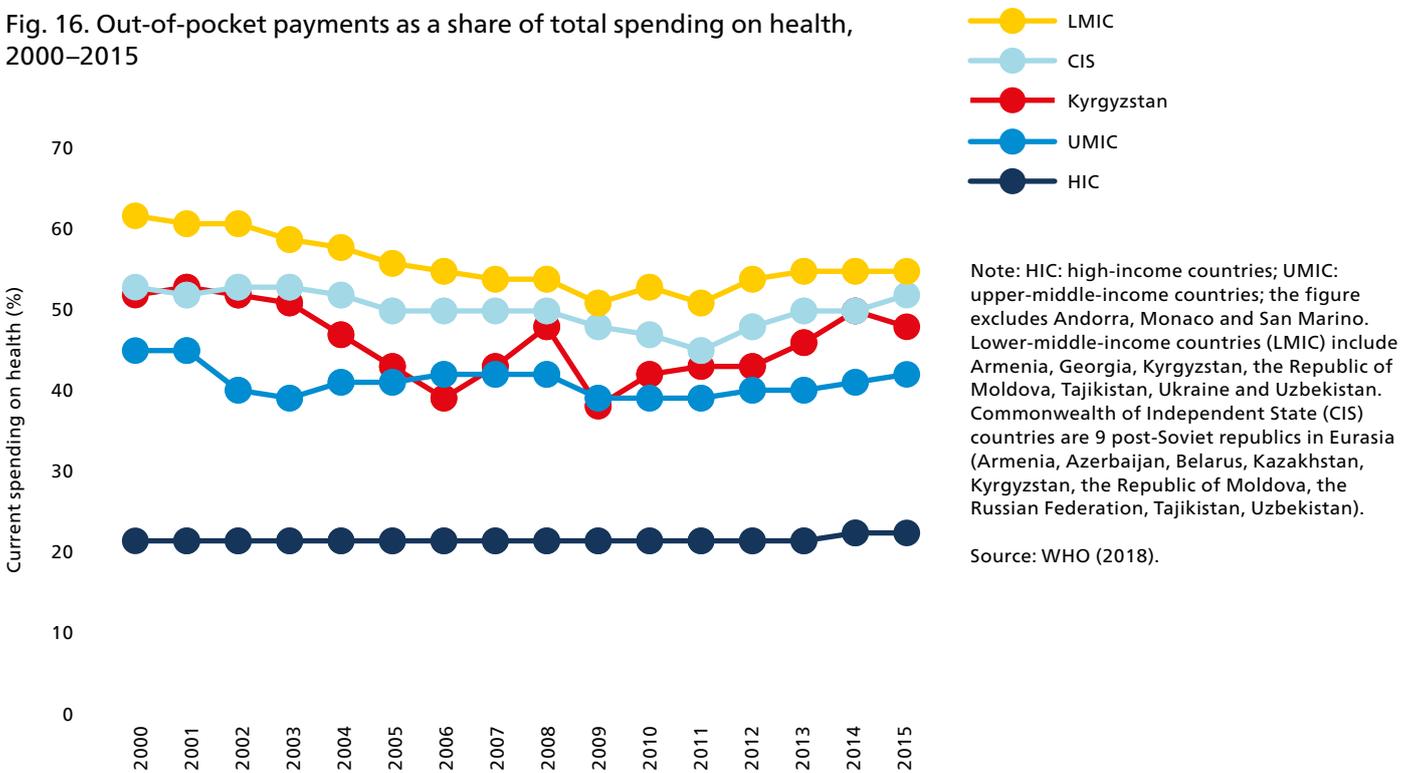
The target aimed to ensure a predictable increase in public spending on health during the Manas Taalimi programme. As a result, the share of the government budget allocated to health rose from 10.3% in 2005 to reach the agreed target of 13% in 2013. When the Den Sooluk health care programme was initiated in 2012, the target was left at 13%, and government allocations were accompanied by additional funds from development partners (Ministry of Health, 2017).

Fig. 15. Spending on health per person by financing scheme, in real terms



The increase in public spending on health during the study period moderated the increase in out-of-pocket payments; public and private spending grew at roughly the same pace and in line with the economy. In 2015, out-of-pocket payments in Kyrgyzstan accounted for about 50% of total spending on health, which is significantly lower than the average for lower-middle-income and Commonwealth of Independent State (CIS) countries but higher than the average for upper-middle-income and high-income countries (Fig. 16). Although the increase in public spending did not lead to a reduction in out-of-pocket payments, without reforms out-of-pocket payments are likely to have been even higher for several reasons: economic growth and poverty reduction enabled households to spend more out of pocket; public spending increased in line with GDP growth; efficiency gains only allowed for a modest expansion in coverage; and growth in medicine prices was uncontrolled, especially in recent years.

Fig. 16. Out-of-pocket payments as a share of total spending on health, 2000–2015



4.4 Summary

The share of households making out-of-pocket payments has increased substantially over time, rising from 57% of households in 2000 to 82% in 2014. The increase occurred in all quintiles. In 2014, poorer households were more likely to report out-of-pocket payments than richer households.

The average amount spent out of pocket tripled in real terms between 2000 and 2014, with the fastest growth occurring between 2000 and 2006 overall and for the three richest quintiles. For the two poorest quintiles, growth in out-of-pocket payments was fastest between 2009 and 2014. On average, the richest quintile spends twice as much out of pocket as the poorest quintile.

Out-of-pocket payments have also increased as a share of total household spending, rising from 4.9% in 2000 to 7.2% in 2014. The distribution across quintiles is regressive, with households in the poorer quintiles spending a higher share of their budget on health than richer quintiles. The budget share of out-of-pocket payments for health fell between 2000 and 2009, largely driven by a decrease in the poorest two quintiles, which may be attributed to the health system reforms implemented during this time. However, the budget share nearly doubled between 2009 and 2014, undermining earlier achievements.

Throughout the study period, household spending on health is concentrated on outpatient medicines and medical products (around 60% of all out-of-

pocket payments) and inpatient care (around 25%). Between 2000 and 2014, household spending on all health services except inpatient care grew very rapidly. However, the overall increase in out-of-pocket payments over time is mainly driven by spending on outpatient medicines and medical products (Fig. 9, bottom panel).

Among the three poorest quintiles, the fastest growth in spending on outpatient medicines and medical products occurred after 2009, while for the two richest quintiles it slowed after 2009. Increased spending on medicines after 2009 can be attributed to cost increases linked to the absence of price and mark-up regulation, vulnerability to exchange rate shocks in a market heavily reliant on imported medicines and inappropriate use of medicines due to limited enforcement of prescriptions. Spending on medicines issued without a prescription grew at a much faster rate than spending on prescribed medicines.

Informal payments are a persistent problem, mainly in hospitals. Although they fell following the first phase of health system reforms, they rose again after 2006, offsetting earlier gains. Informal payments place a greater financial burden on poorer than richer households; their informality means it is impossible to protect poor households, and they undermine the credibility of the benefits guaranteed under the SGBP. They are symptomatic of underfunding of the SGBP and inefficiencies in service delivery.

Data from National Health Accounts show that public spending on health grew substantially from 2000 to 2014, and out-of-pocket payments grew at a comparable rate. Currently, out-of-pocket payments account for about 50% of total spending on health, which is significantly lower than the average for lower-middle-income and CIS countries but higher than the average for upper-middle-income and high-income countries.

5. Financial protection

In this section, data from the KIHBS are used to assess the extent to which out-of-pocket payments result in financial hardship for households who use health care goods and 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.

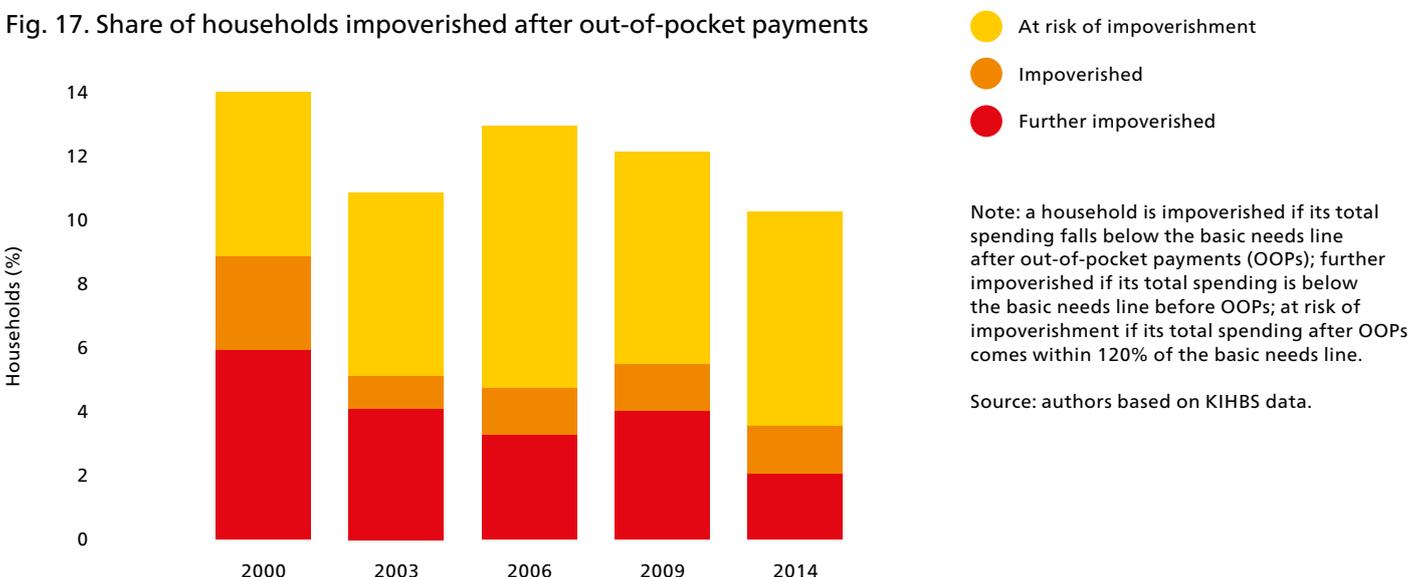
5.1 How many households experience financial hardship?

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

Fig. 17 shows the share of households at risk of impoverishment after out-of-pocket spending on health care. The poverty line reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the Kyrgyz population (households between the 25th and 35th percentiles of the consumption distribution, adjusted for household size and composition). In 2014, the average cost of meeting these basic needs – the basic needs line – was KGS 7984 per household per month. The study's basic needs line is well below the national poverty line calculated by the National Statistical Committee.

The share of households who were further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments decreased from 14.0% to 10.3% between 2000 and 2014 (Fig. 17). This trend is driven by a large fall in the share of households further impoverished after out-of-pocket payments, which decreased steadily between 2000 and 2006, rose in 2009 and fell again in 2014; the fall between 2009 and 2014 took place in spite of the large increase in out-of-pocket payments for the poorest quintiles during this period (Fig. 5).

Fig. 17. Share of households impoverished after out-of-pocket payments



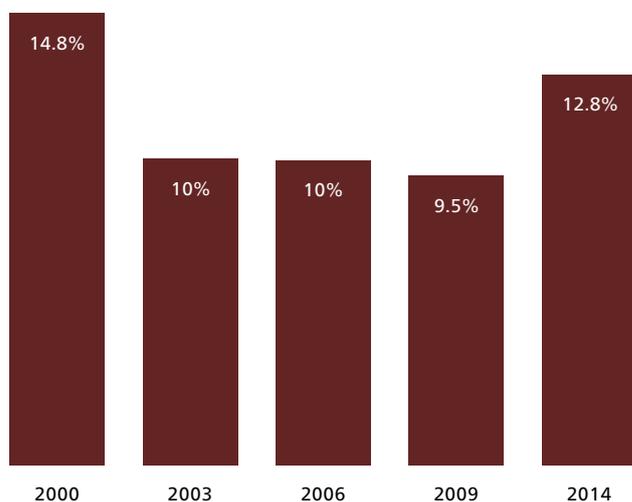
5.1.2 Catastrophic out-of-pocket payments

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 who are impoverished after out-of-pocket payments (because they no longer have any capacity to pay) and further impoverished (because they have no capacity to pay even before paying out of pocket for health care).

In 2014, 12.8% of households experienced catastrophic spending on health (Fig. 18). Over time, the share of households with catastrophic out-of-pocket payments follows a U-shaped curve, with a substantial reduction between 2000 and 2003, a period coinciding with the early phase of the implementation of the single payer reforms. Between 2003 and 2009, the incidence of catastrophic payments held steady at about 10%, in spite of the 2008 financial crisis. Between 2009 and 2014, however, the trend reversed and the share of households with catastrophic out-of-pocket payments increased substantially.

Fig. 18. Share of households with catastrophic out-of-pocket payments

Source: authors based on KIHBS data.



5.2 Who experiences financial hardship?

In 2014, just over half of all households with catastrophic out-of-pocket payments were further impoverished, impoverished or at risk of impoverishment (Fig. 19). Their share declined steadily between 2000 and 2006, rose in 2009 and fell again in 2014. In 2014, fewer than 20% of households with catastrophic spending was further impoverished, down around 40% in 2000. The increase in the overall incidence of catastrophic spending in 2014 was mainly driven by an increase in households not at risk of being impoverished. The pro-poor gains of earlier years were not reversed, although there was an increase in the share of households at risk of being impoverished in 2014.

Fig. 19. Share of households with catastrophic spending by risk of impoverishment

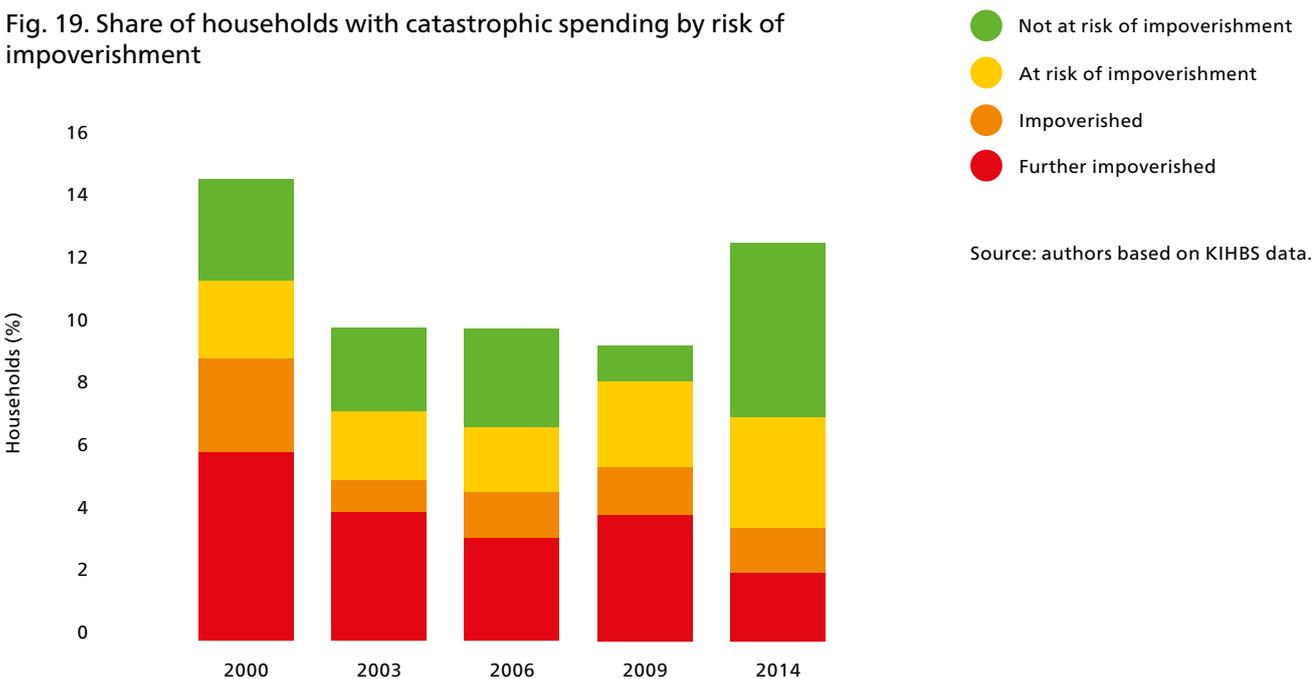
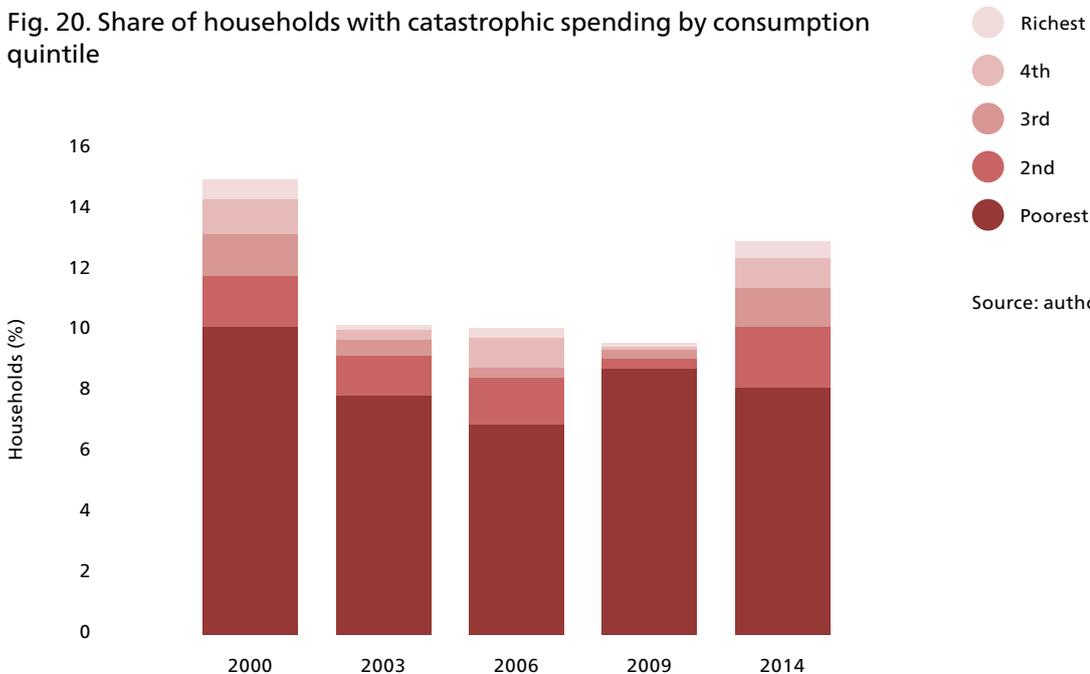


Fig. 20 confirms the pattern seen in Fig. 19; the decline in catastrophic incidence between 2000 and 2006 was largely driven by a fall in incidence in the poorest quintile. The increase in overall incidence in 2014 was entirely driven by a rise in incidence in the second, third, fourth and richest quintiles. Nevertheless, catastrophic spending remains heavily concentrated among the poorest quintile; in 2014, nearly two thirds of households with catastrophic spending were in the poorest quintile.

Fig. 20. Share of households with catastrophic spending by consumption quintile



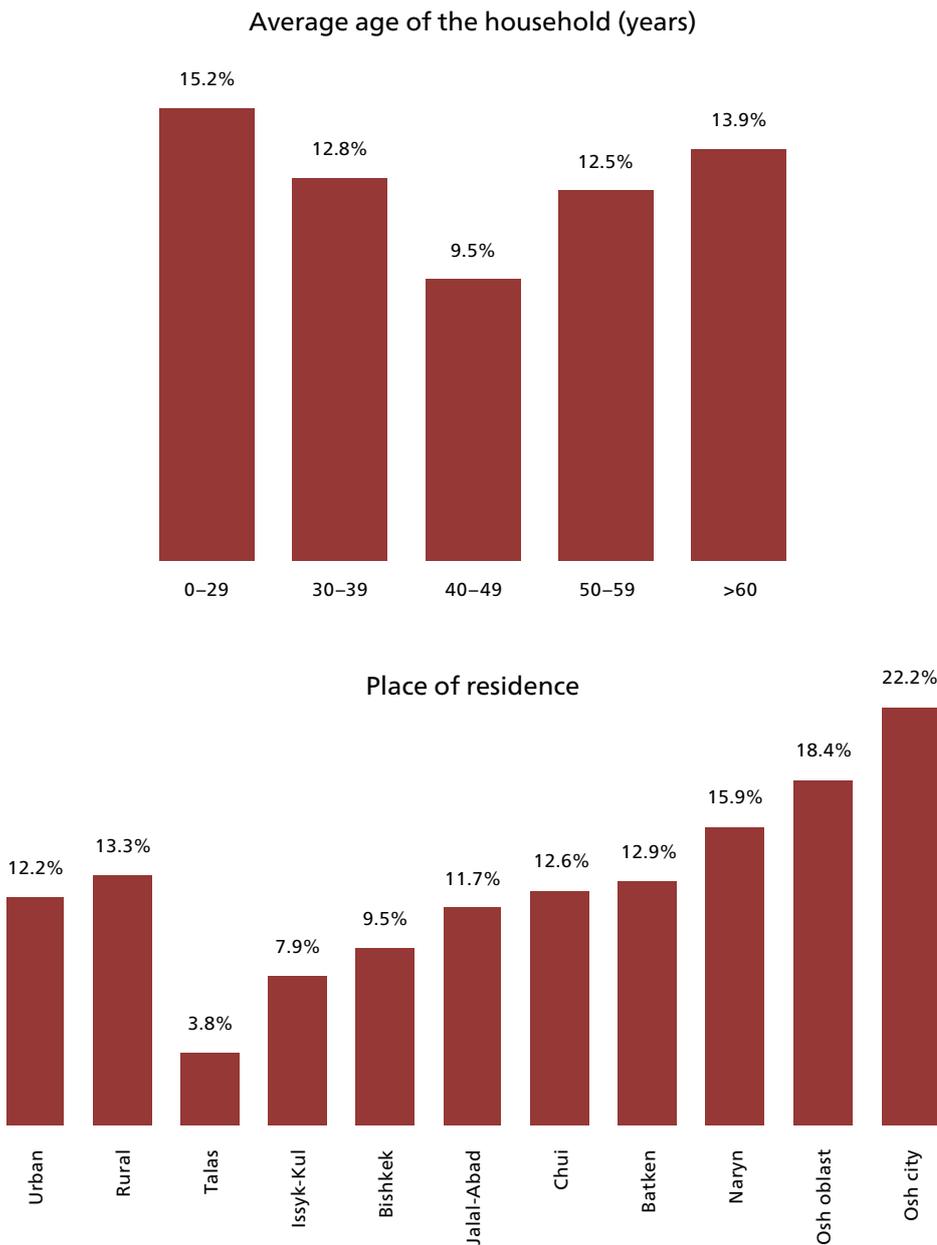
Source: authors based on KIHBS data.

Looking at the incidence of catastrophic spending within different groups of people in 2014 shows that the incidence of catastrophic spending is highest in households with an average age of under 30 years and households with an average age of over 60 years, and lowest in households with an average age of between 40 and 49 years (Fig. 21). Kyrgyzstan's population is relatively young; younger households generally have a higher number of dependent children; and children in Kyrgyzstan are more likely than adults to live in poverty (World Bank, 2007). Younger households may also be less aware of their entitlements than older households, especially regarding entitlement to the ADP. This younger group needs attention because they account for the largest share of households with catastrophic spending on health. The high incidence of catastrophic spending among older households may reflect their greater need for health care.

The incidence of catastrophic out-of-pocket payments is similar in urban and rural settings, but varies significantly by oblast (administrative division) (Fig. 21). Three oblasts display an above average incidence of catastrophic spending: Osh city, Osh oblast and Naryn. The incidence is below average in Talas, Issyk-Kul and Bishkek. A number of factors are likely to drive these results, including differences in living standards, the competitiveness of the medicines retail market, which may affect medicine prices, and the depth of health care reforms, particularly the extent of facility restructuring and of reinvestment of savings achieved through these efficiency gains.

Fig. 21. Share of households with catastrophic spending by household average age and place of residence, 2014

Source: authors based on KIHBS data.



5.3 Which health services are responsible for financial hardship?

Throughout the study period, outpatient medicines and medical products have accounted for about 60% of catastrophic spending on health, far more than any other type of health care (Fig. 22). The outpatient care share has fluctuated over time. The inpatient care share has declined since 2003. The share spent on diagnostic tests and dental care has grown.

Fig. 22. Breakdown of catastrophic spending by type of health care

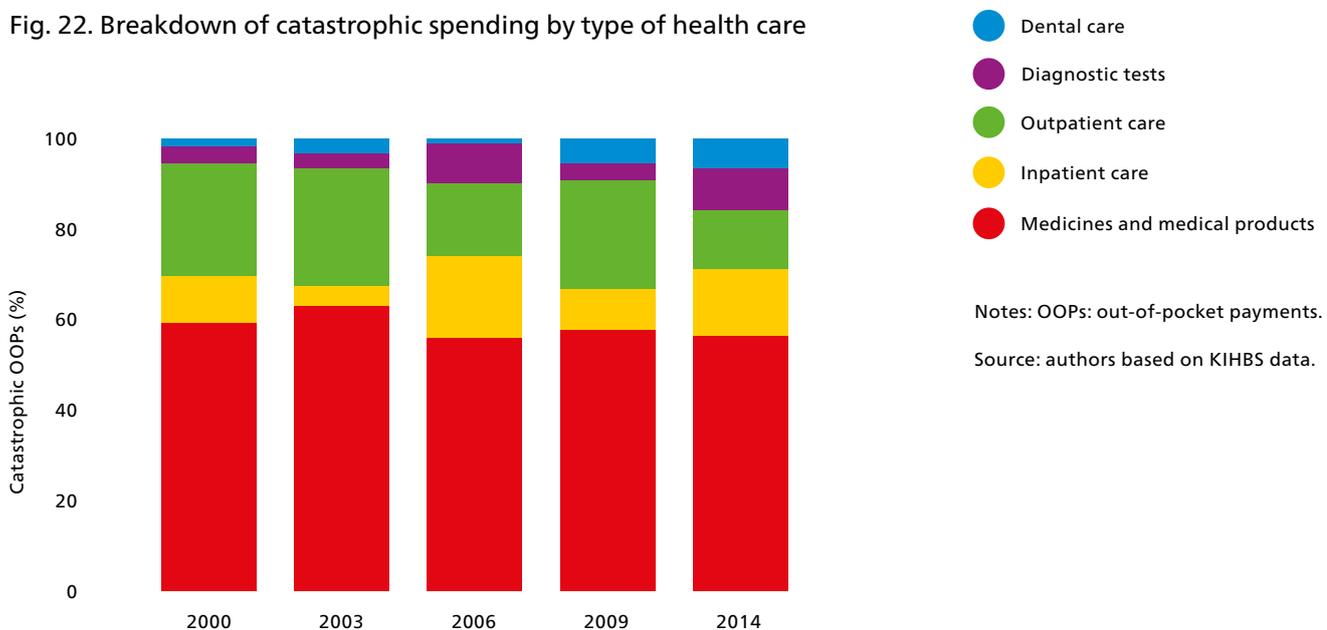
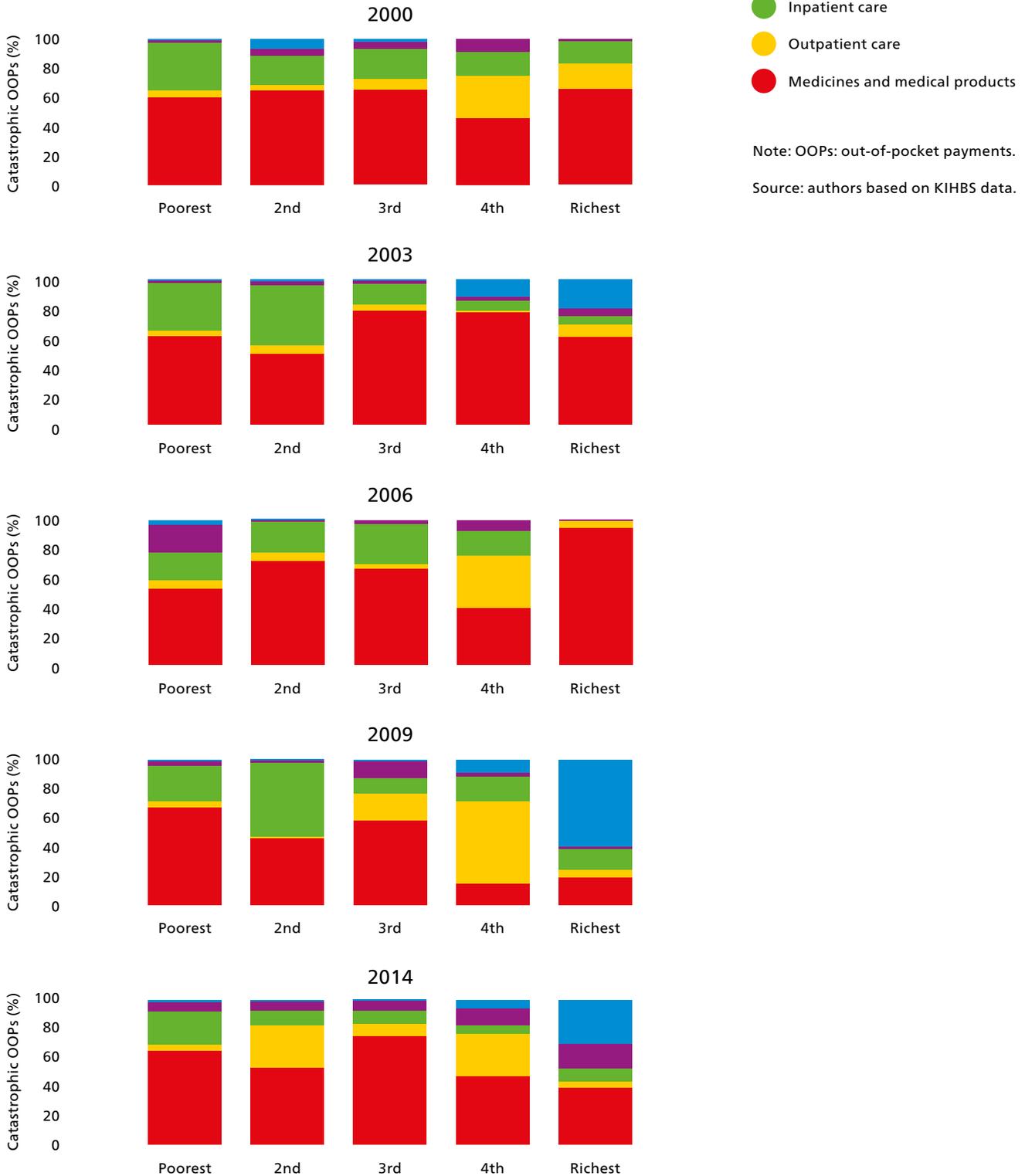


Fig. 23 shows the breakdown of catastrophic spending by type of health care and consumption quintile. For most years, outpatient medicines and medical products accounted for the largest share across all quintiles.

Over the 2000–2014 period, the fastest growing share of catastrophic spending in richer households came from dental care and diagnostic tests. At this level of disaggregation, however, it is important to be cautious as the breakdown could reflect the small number of people with catastrophic spending in some of the categories.

For the poorest quintile, the share spent on outpatient medicines and medical products – the largest share – has remained relatively stable over time, at around 60%. Inpatient care consistently accounts for the second largest share of catastrophic spending, but its share fell from 33% in 2000 to 19% in 2006, before increasing again to around 25% in 2009 and 2014. The pattern of changes in the inpatient care share closely mirrors the trend in informal payments seen during the study period (Fig. 13).

Fig. 23. Breakdown of catastrophic spending by type of health care and consumption quintile



5.4 How much financial hardship?

Fig. 24 shows out-of-pocket payments as a share of total household spending (the household budget) by risk of impoverishment. Over time, this share decreased across all four groups between 2000 and 2009, before rising again in 2014. The decrease was particularly sharp among further impoverished and impoverished households between 2000 and 2009. Among households at risk or not at risk of impoverishment, the increase in 2014 offset the gains made in earlier years.

Fig. 24. Out-of-pocket payments as a share of total household spending among households by risk of impoverishment

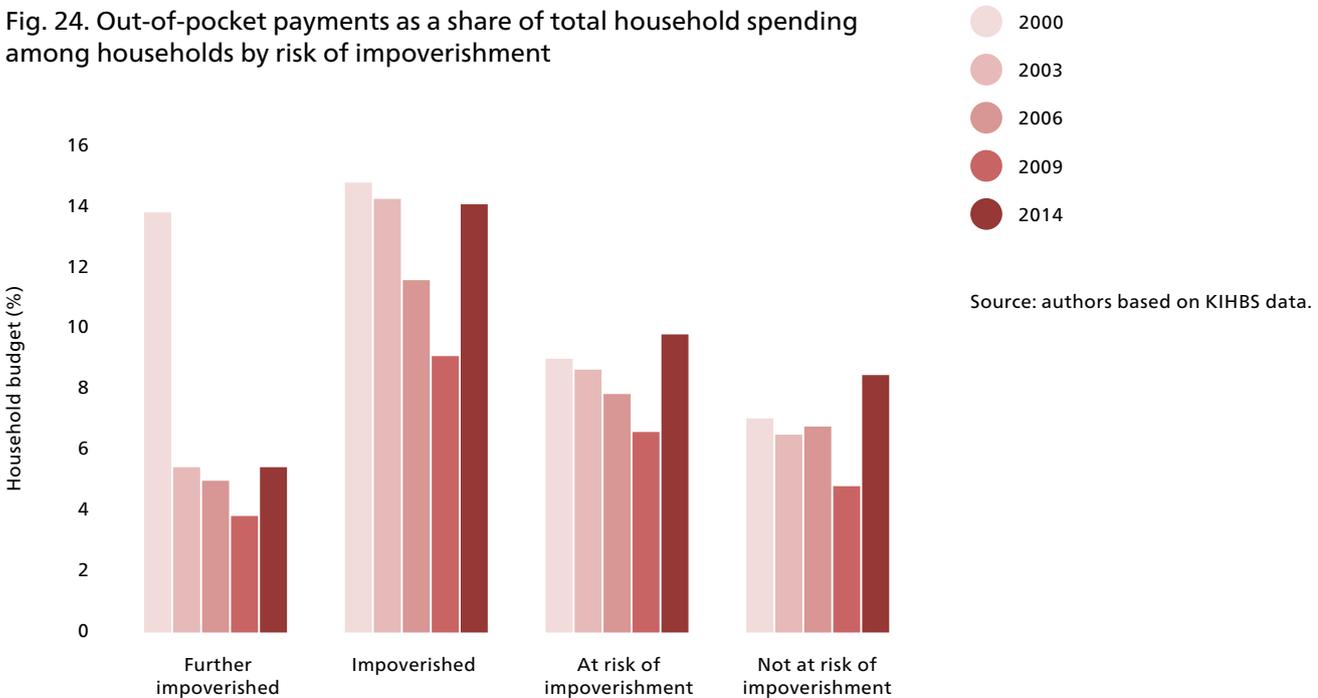
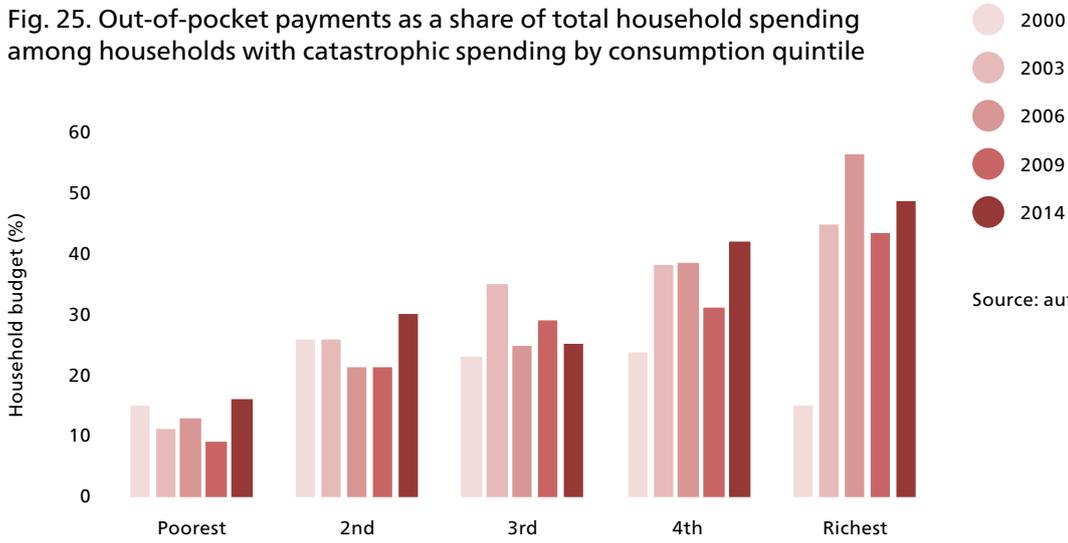


Fig. 25 shows how out-of-pocket payments as a share of total household spending by consumption quintile rise progressively with income. Over time, their share has remained relatively stable for the three poorest quintiles, suggesting that health care reforms may have been relatively protective for these groups of people. Nevertheless, the average budget share rose particularly sharply for the poorest quintile between 2009 and 2014, is high (16% in 2014) and deserves continued policy attention.

Fig. 25. Out-of-pocket payments as a share of total household spending among households with catastrophic spending by consumption quintile



Source: authors based on KIHBS data.

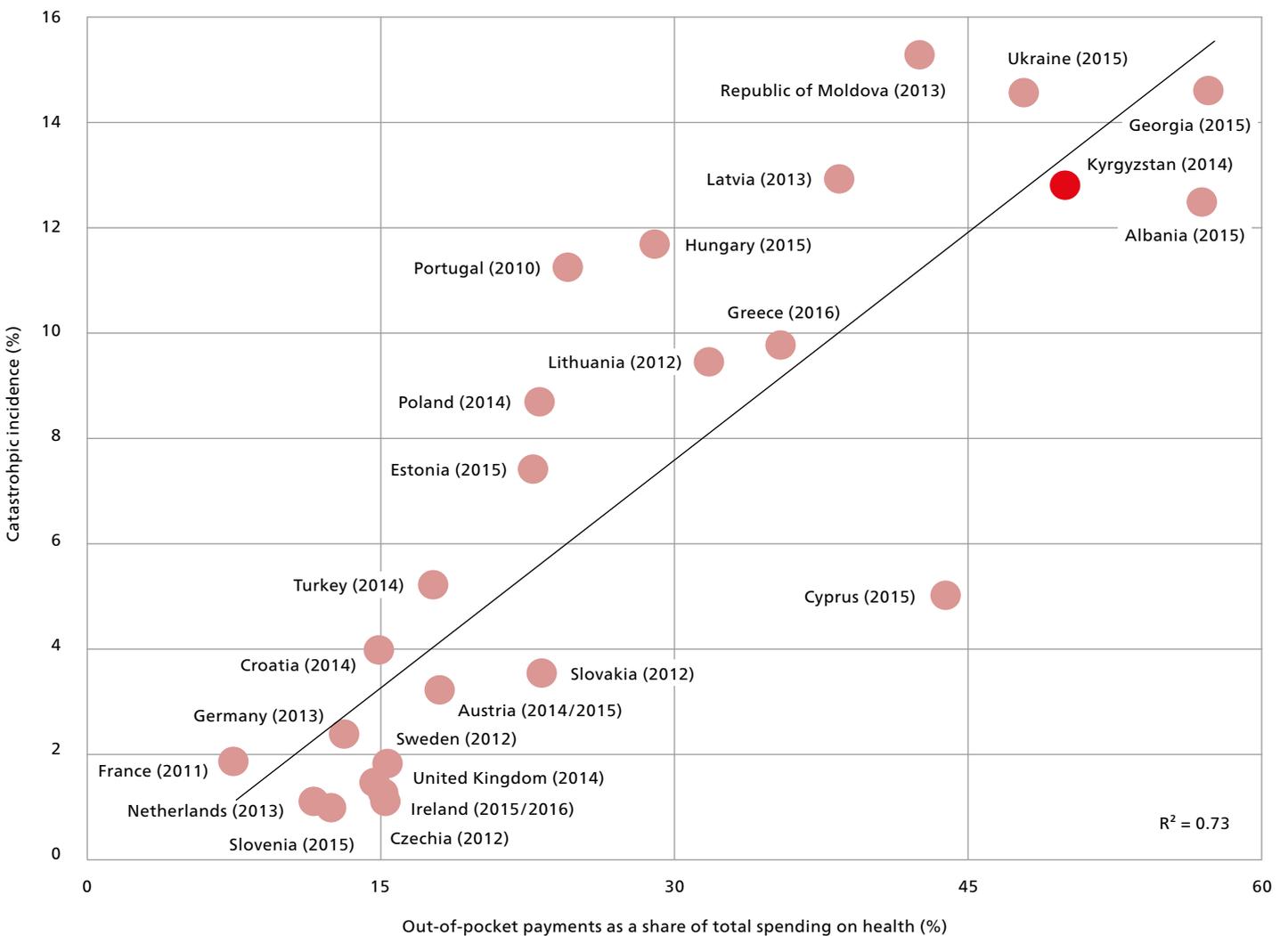
5.5 International comparison

The incidence of catastrophic out-of-pocket payments in Kyrgyzstan is high compared to many countries in the WHO European Region, but it is lower than in countries such as Albania, Georgia, Latvia and the Republic of Moldova, in which out-of-pocket payments account for a similarly high share of total spending on health (Fig. 26).

Fig. 26. Incidence of catastrophic spending on health and the out-of-pocket share of total spending on health in selected European countries, latest year available

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

Sources: WHO Barcelona Office for Health Systems Strengthening and WHO (2018).



5.6 Summary

In 2014, 12.8% of households experienced catastrophic out-of-pocket payments. The share of households with catastrophic out-of-pocket payments decreased substantially between 2000 and 2003, held steady between 2003 and 2009, and increased between 2009 and 2014.

Catastrophic spending is heavily concentrated among poor households. In 2014, nearly two thirds of households with catastrophic spending were in the poorest quintile. Within this quintile, 40% of households incurred catastrophic out-of-pocket payments. The incidence of catastrophic spending is highest among households aged under 30 years (15%) and over 60 years (14%). It is roughly similar across urban (12%) and rural (13%) populations, but varies significantly by oblast (ranging from 4% to 22%).

The share of households further impoverished, impoverished or at risk of poverty after out-of-pocket payments decreased from 14% in 2000 to 10% in 2014. This trend took place despite an overall increase in out-of-pocket payments after 2009.

Outpatient medicines and medical products are the largest single driver of financial hardship, accounting for around 60% of catastrophic spending in all years. The second largest driver is inpatient care, although its share has declined since 2003, while the shares spent on dental care and diagnostic tests have grown.

For the poorest quintile, the main drivers are medicines and medical products and inpatient care; the medicines and medical products share has remained stable over time, at around 60%, but the inpatient care share fell in 2006 and rose again in 2009 and 2014, closely mirroring changes in informal payments.

The incidence of catastrophic out-of-pocket payments in Kyrgyzstan is high compared to many countries in the WHO European Region, but it is lower than in countries with similar or even higher income levels.

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

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

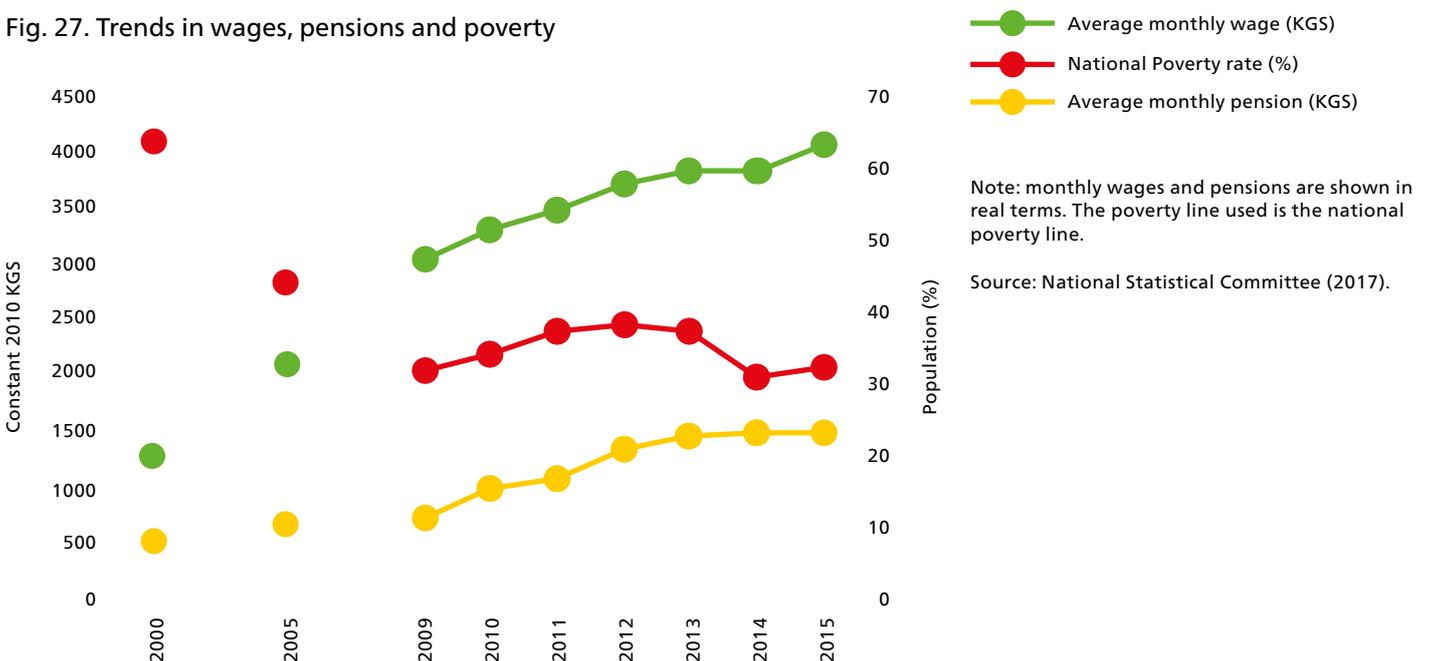
This section draws on data from the KIHBS and other sources to review changes in people’s capacity to pay for health care over time and some of the key economic and social policies that may explain these changes.

Since 2000, GDP per capita has increased by 60% in real terms, and poverty rates have fallen from 63% in 2000 to 32% in 2009 (Fig. 28). Yet income inequality has increased; the Gini index rose from 31 in 2000 to a peak of 37 in 2006 (World Bank, 2014).

The 2008 financial and economic crisis led to a worsening of macroeconomic indicators and a temporary rise in poverty rates, which peaked at 38% in 2012 before falling to 31% by 2014 (Fig. 27) (UNDP, 2016). During this period, consumer prices, particularly for food and energy, increased substantially. Currency devaluation further affected living costs (and medicine prices).

After this period of instability, slow and steady GDP growth resumed in 2014. Income inequality also improved, with the Gini index falling to 26.8 by 2016.

Fig. 27. Trends in wages, pensions and poverty



Over time, labour migration and remittances have played a significant role in increasing consumption and reducing poverty (Bespalov, 2009; Gapalan & Rajan, 2010). Remittances have increased steadily in the last few decades and in 2008 accounted for 28% of GDP, putting Kyrgyzstan among the top 10 countries with high remittances.

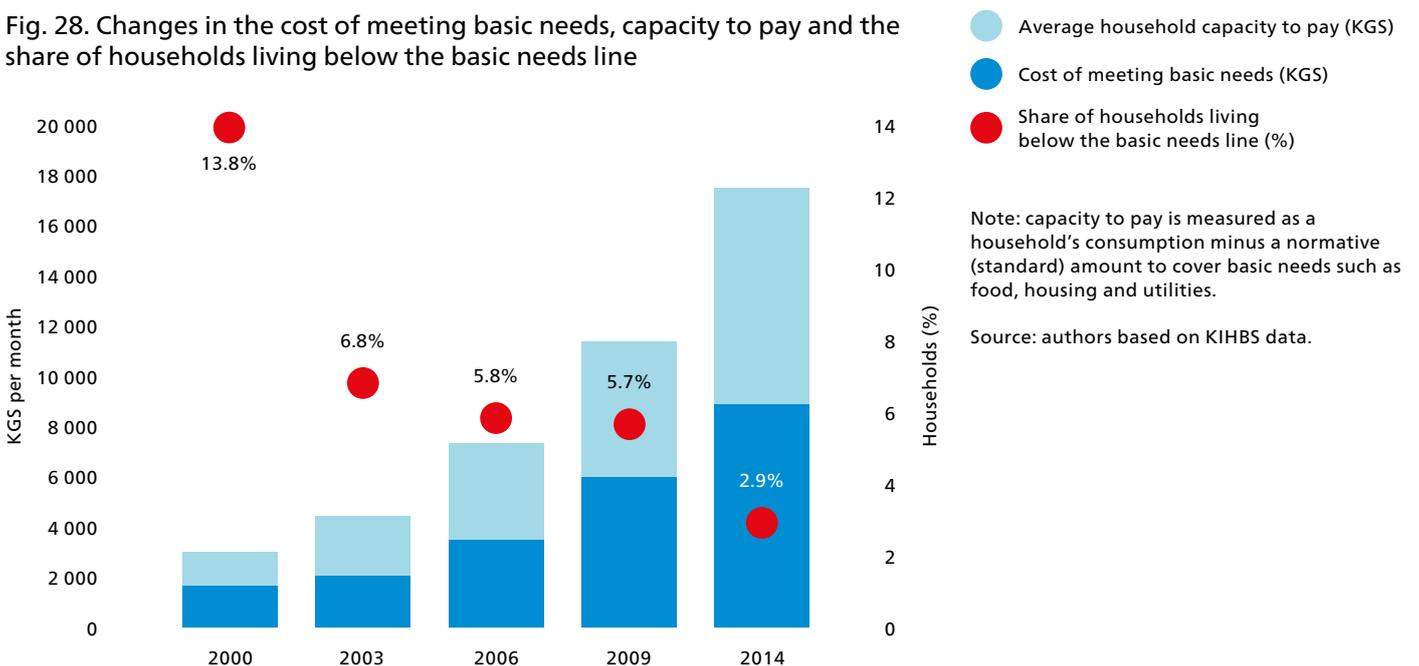
Between 2000 and 2014, KIHBS data show that household spending to meet basic needs grew on average by nearly five times in nominal terms (Fig. 28). Household capacity to pay also rose, but at a slightly slower rate. In real terms, however, the cost of meeting basic needs was only twice as high in 2009 as in 2000 and fell slightly in 2014, while capacity to pay grew between 2000 and 2006 but remained stable after that (data not shown).

The share of households living below the basic needs line fell sharply from 13.8% in 2000 to 6.8% in 2003, fell slightly between 2003 and 2006, and fell sharply to 2.9% in 2014. This pattern is closely mirrored by the trend in the share of households who are further impoverished after out-of-pocket payments, which fell from 6% in 2000 to 4% in 2003, 3% in 2006 and 2% in 2014 (Fig. 17). This suggests that some of the improvement in financial protection seen in the poorest quintile over time can be attributed to improvements in living standards.

The analysis may also show the impact of the 2008 financial crisis on living standards. On average, the cost of meeting household basic needs increased more rapidly over the 2006–2009 period, and the share of households living below the basic needs line, which had fallen before 2006, remained flat in 2009.

Both of these findings highlight the importance of targeting poor households for protection from out-of-pocket payments.

Fig. 28. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line



From 2000 to 2015, pensions grew at a slower rate than wages and inflation (Fig. 28). As a result, about 35% of Kyrgyz citizens living below the national poverty line were older people in 2005, and 32% of pensioners living on their own were poor (World Bank, 2007). Pensioners' increasing risk of poverty is a challenge for the health system as older people generally have a greater need for health care than younger people. It may explain the higher than average incidence of catastrophic spending on health among older people (Fig. 22). In addition to older people, other vulnerable groups of people include large families with many dependent children and households living in rural areas.

6.2 Health system factors

The following subsections look at health spending and health coverage, then focus in more detail on outpatient medicines coverage, prices and use, since outpatient medicines and medical products are the largest single driver of catastrophic spending on health. A final subsection highlights inefficiencies in health service delivery that contribute to financial hardship for households.

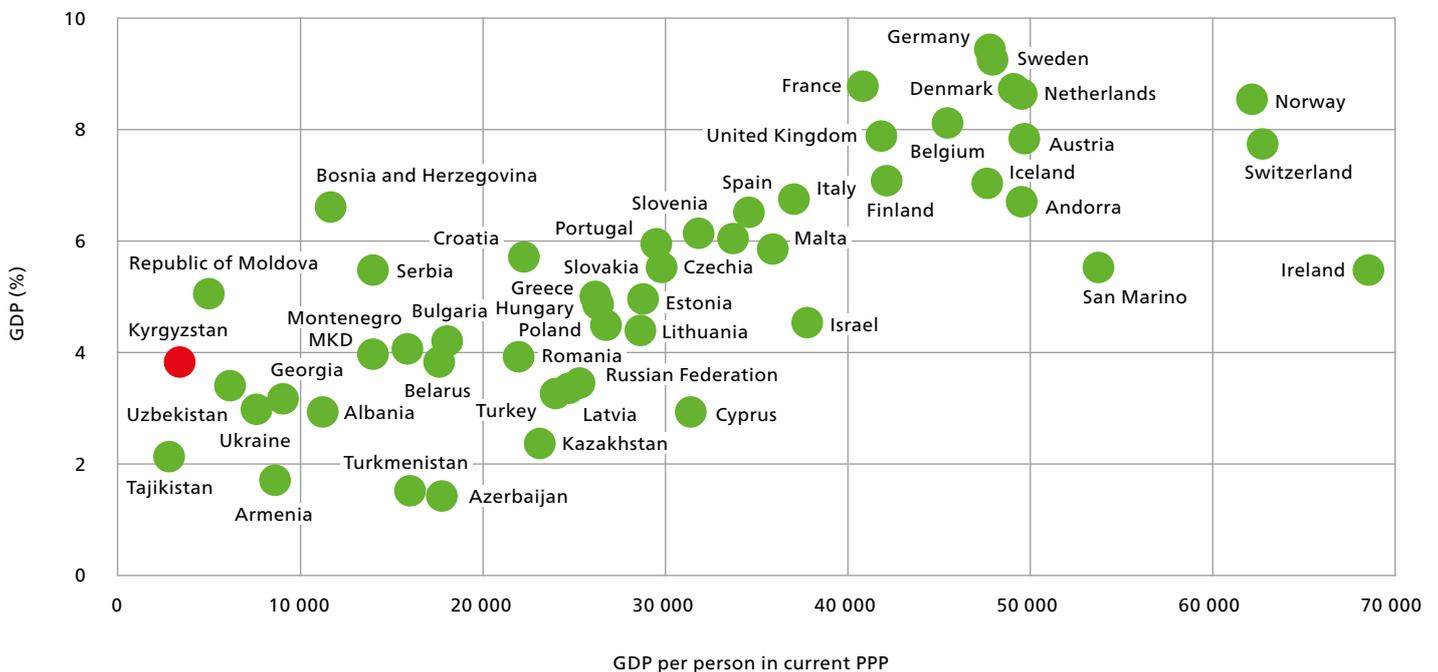
6.2.1 Spending on health

Kyrgyzstan invests significantly more in its health system than other CIS countries at similar or higher income levels such as Armenia, Azerbaijan, Tajikistan and Uzbekistan. In 2015, for example, public spending on health in Kyrgyzstan was relatively high given its GDP level (Fig. 29). The government has kept its commitment, made in 2006, to allocate 13% of the government budget to health. It has also sought to get more out of existing resources through efficiency gains, mostly through the restructuring of facilities and the use of savings to fund care for patients, including medicines. Since 2006, government funding has been supplemented by a small pooled budget channelled to the SGBP and ADP. Overall, public spending on health has had a positive effect on financial protection in Kyrgyzstan.

Fig. 29. Public spending on health and GDP per person, WHO European Region, 2015

Notes: PPP: purchasing power parity. Public refers to all compulsory financing arrangements. Kyrgyzstan is shown in red. The figure excludes Luxembourg and Monaco. MKD (ISO abbreviation): the former Yugoslav Republic of Macedonia.

Source: WHO (2018).



6.2.2 Health coverage

Population entitlement is universal based on citizenship. When payroll tax was introduced in 1996, one of the options Kyrgyzstan considered was the possibility of segmenting population coverage along formal and informal sector lines. The introduction of the single payer system in 2000 and the decision to pool general tax and payroll tax revenues enabled it to design a single universal entitlement, which has been important for financial protection.

However, inadequate enforcement of mandatory health insurance contributions (the payroll tax) hinders the effectiveness of the system. It is particularly difficult to collect contributions from self-employed people and from people in temporary and irregular jobs, including in the informal economy. In 2017, the enrolment rate was 73.6%, which means that 26% of the population does not benefit from an automatic reduction in co-payments for hospital care under the SGBP or from access to the subsidized outpatient medicines covered by the ADP.

Service coverage is fairly comprehensive, with benefits regulated through the SGBP using a mix of negative and positive lists. The main gaps in

coverage include outpatient medicines, dental care and diagnostic tests. Over time, financial and geographic barriers to access have declined, as well as differences in use between urban and rural populations. However, the SGBP has not been adequately funded, and its design leaves substantial room not only for explicit rationing through strategic purchasing, but also for implicit rationing through provider level decision-making. This leads to informal payments (given continued overcapacity in the system), service dilution and waiting times. Informal payments undermine financial protection and deserve policy attention.

The SGBP **user charges** (co-payment) policy was designed to align with health system objectives and increase transparency. It has a number of protective features. First, there are no user charges for primary care visits. Second, it uses fixed co-payments rather than percentage co-payments; the fixed co-payment payable on admission to hospital is not linked to the severity or cost of hospitalization, enhancing transparency. Third, a system of exemptions aims to protect people with high expected health care costs. Exemptions do not target poor people, but groups at high risk of poverty – for example, small children and pensioners – are exempt, which may partly explain how the single payer reforms managed to reduce financial hardship among the poorest quintile in the early reform period, at a time when out-of-pocket payments were increasing.

Although the system of exemptions from hospital co-payments could be strengthened, attention should also focus on improving the regulation of prices in the private sector. Prices in public facilities for services outside the SGBP are tightly regulated, but price regulation in the private sector is weak, for medicines and services.

Coverage of **outpatient medicines** is provided in two ways: through the provision of medicines for selected diseases under the SGBP and through the ADP's positive list, which contains 61 medicines (international non-proprietary names) and three medical devices. In spite of these important entitlements, outpatient medicines and medical products are the main driver of catastrophic and impoverishing spending on health in Kyrgyzstan, for two main reasons.

First, only a fraction of people who are entitled to publicly financed outpatient medicines are able to access them; in 2017, for example, only 1.2 million prescriptions were processed for a country with an estimated 1 million people requiring regular prescriptions for hypertension (WHO Regional Office for Europe, 2018). This is largely due to the fact that public funding for medicines covered through the ADP and the SGBP is very limited, amounting to only 1.7% of public spending on health in 2017 (WHO Regional Office for Europe, 2018). There is also evidence of outpatient medicines being heavily rationed at provider level. Special prescription forms are used for prescribing under the ADP. Budget caps are set at family medicine centre level and lead to individual physicians deciding which of their patients will have medicines prescribed using ADP forms. There are no established criteria to guide physician decisions and no monitoring.

Second, the design of the ADP exposes people to health care prices (in contrast to the fixed co-payments used for hospital care under the SGBP, for example). The ADP generally requires people to pay more than half of the retail price of medicines, while those who are not entitled to ADP benefits or

who are entitled but implicitly “rationed out” by providers pay the full retail price. This is compounded by the fact that the Kyrgyz medicines market is heavily reliant on imports and therefore vulnerable to shocks such as currency devaluations, and by the lack of regulation of ex-factory, wholesale and retail prices and pharmacy mark-ups. When prices increase, the effect of the budget caps is to lower the volume of medicines that can be prescribed under the ADP, further shifting costs onto households; the number of ADP prescriptions fell by 14% between 2013 and 2015 (WHO Regional Office for Europe, 2016).

To address these drivers of financial hardship requires a better regulated pharmaceutical market, which would yield substantial benefits in terms of financial protection. It also requires increased public funding, an expansion of the number of medicines covered by the SGBP and the ADP, and an easing of rationing mechanisms.

The protective impact of SGBP and ADP coverage of outpatient medicines could be enhanced through policies to:

- improve budget allocation, prioritization and planning, including of provider-level budget caps;
- improve clinical governance, including renewal of guidelines and strengthening of continuing medical education;
- revise the list of medicines covered;
- enhance digitalization of the prescription process, including monitoring and analysis;
- strengthen facility-level quality improvement and management processes;
- align prescribing with strategic purchasing and primary care performance bonuses;
- regulate medicine prices and margins throughout the distribution chain; and
- strengthen monitoring and analysis of equity, efficiency and financial protection.

Since the last round of the KIHBS in 2014, Kyrgyzstan has introduced sweeping changes to improve financial protection through better access to affordable medicines. In 2017, three new laws on the regulation of medicines and health technologies were implemented. In 2018, new legislation was introduced to establish a robust regulatory framework, which will contribute to making medicines and medical devices more affordable and meet the requirements of accession to the Eurasian Economic Union and its common market. For the first time, the new laws will allow the government to regulate the prices of medicines and medical devices. These changes were complemented by the revision of the national essential medicines list in 2018 and an initiative to update ADP pricing, with a focus on medicines addressing areas of high disease burden, also in 2018.

6.2.3 Inefficiencies in service delivery

Beyond provider-level rationing of access to publicly financed medicines and previously inadequate regulation of the medicines market, other limitations in service delivery also lead to financial hardship. For example, the late detection of chronic conditions due to poor outreach means that by the time people access the health system, they are in greater need of medicines and treatment, increasing their exposure to out-of-pocket payments. Many conditions such as hypertension, diabetes and asthma are being treated in hospital rather than at primary care level, exposing people to co-payments and informal payments, as well as wasting resources and undermining health outcomes (Jakab et al., 2014; Farrington et al. 2017). Rigidities in human resource policies and fragmented procurement leading to variation in the price of medicines purchased by providers are other sources of inefficiency that contribute to financial hardship for households using health services.

The single payer reforms led to service delivery adjustments and efficiency gains that were reinvested in patient care, resulting in an initial reduction in informal payments for hospital care, particularly for medicines in hospital, as shown in Fig. 13. However, these positive results were not sustained over time. Inefficiencies in service delivery remain, providing further scope for improving primary care and restructuring the hospital sector (Oxford Policy Management, 2016; WHO, 2018).

6.3 Summary

Financial protection in Kyrgyzstan is better than in countries with similar levels of GDP. It improved from 2000 to 2006, particularly for the poorest households, coinciding with the introduction of the single payer reforms and steady improvement in living standards. The share of households living below the basic needs line fell dramatically from 14% in 2000 to 7% in 2003 and 3% in 2014.

Financial protection deteriorated between 2009 and 2014, largely driven by increased out-of-pocket spending on outpatient medicines and medical products. The incidence of catastrophic out-of-pocket payments increased substantially in all except the poorest quintile. For the poorest quintile, the incidence of catastrophic spending did not change between 2009 and 2014. This may be partly due to the sharp fall in the share of households living below the basic needs line, which led to a fall in the share of households further impoverished after out-of-pocket payments. It may also reflect the protection provided by the SGBP and the ADP.

Catastrophic incidence in the poorest quintile remained high, however; in 2014, 40% of households in the poorest quintile experienced catastrophic spending on health, compared to 13% of all households in Kyrgyzstan. Also, among households with catastrophic spending, the average amount spent out of pocket as a share of total household spending rose particularly sharply for the poorest quintile between 2009 and 2014.

The health system factors that contribute to financial protection include:

- an increase in public spending on health after 2006, with an explicit target to allocate 13% of the government budget to health, which temporarily expanded fiscal space but leaves its adequacy under discussion as the target has not been updated since then;
- the establishment of a single pool for general tax and payroll tax revenues, which avoids segmentation along formal and informal sector lines;
- relatively comprehensive service coverage with an emphasis on free access to primary care visits;
- the protective features of co-payments for hospitals, namely the use of fixed co-payments rather than percentage co-payments and exemptions for people with high expected health care costs, some of whom are at high risk of poverty, such as small children and pensioners; and
- SGBP and ADP coverage of outpatient medicines, which gives priority to key medicines for ambulatory care sensitive conditions such as asthma, hypertension and pneumonia.

The following health system factors have undermined financial protection.

- The health spending target established in 2006 was not revised in the following decade; in addition, using internationally agreed methods to calculate the share of the government budget allocated to health indicates that this share was 10% in 2015 (rather than the target of 13%), leaving room for a further increase.
- Inadequate enforcement of mandatory health insurance contributions (the payroll tax) leads to a shortfall in SGBP funding and means that 26% of the population – comprised of relatively vulnerable groups of people – is not able to benefit from lower co-payments for hospital care under the SGBP or from access to the subsidized outpatient medicines covered by the ADP.
- The SGBP co-payment exemptions do not explicitly target poor people although several targeting categories correlate with risk of poverty; introducing means-tested exemptions requires a joint approach with the Ministry of Labour and Social Development, which has not yet emerged.
- The ADP's ability to ensure financial protection is limited because of the low level of funding allocated to it. It generally covers less than 50% of the retail price of medicines; 26% of the population is not entitled to it, and in practice it only reaches a fraction of those who are entitled to it due to budget caps and provider-level rationing.
- Medicine prices and distribution mark-ups are unregulated, exposing people (and the public purse) to higher than necessary costs.
- The shortfall in SGBP funding is demonstrated by declining but persistent informal payments for hospital services; these contribute to catastrophic out-of-pocket payments, and their informal nature makes it impossible to protect poor households.

- There are persistent inefficiencies in the use of existing resources, including limited mapping of infrastructure to population health needs, over-hospitalization for ambulatory care sensitive conditions, inappropriate use of medicines, rigidities in human resource policies and fragmented hospital procurement systems.
- The strategic purchasing function requires further strengthening to include a greater range of instruments to close the funding gap through efficiency gains.
- The growing number of households with out-of-pocket payments and the growing number of households finding it difficult to pay for health care erode trust in the health system and in pooled funding.

7. Implications for policy

Financial protection in Kyrgyzstan is better than in countries with similar levels of income, reflecting political commitment to increasing public spending on health and intensive health system reforms. In 2014, 13% of households experienced catastrophic out-of-pocket payments.

Financial protection improved from 2000 to 2006, particularly for the poorest households, coinciding with the introduction of the single payer reforms, improvement in living standards and a reduction in poverty. The share of households living below the basic needs line fell dramatically between 2000 and 2003.

Financial protection deteriorated between 2009 and 2014. During this period, the incidence of catastrophic out-of-pocket payments increased substantially in all except the poorest quintile. For the poorest quintile, the incidence of catastrophic spending did not change between 2009 and 2014, although it remained high. In 2014, nearly two thirds of households with catastrophic spending were in the poorest quintile. Within this quintile, 40% of households incurred catastrophic out-of-pocket payments, which is much higher than the incidence of 13% for all households in Kyrgyzstan. Also, among households with catastrophic spending, the average amount spent out of pocket as a share of total household spending rose particularly sharply for the poorest quintile between 2009 and 2014.

The increase in catastrophic incidence in recent years has been driven mainly by increased out-of-pocket spending on outpatient medicines. Increased out-of-pocket spending on medicines is attributed to price increases linked to the absence of price and mark-up regulation, vulnerability to exchange rate shocks in a market heavily reliant on imported medicines and inappropriate use of medicines due to limited enforcement of prescriptions.

Outpatient medicines and medical products are the largest single driver of financial hardship in all years, followed by inpatient care. The medicines and medical products share of catastrophic spending has been relatively stable over time. The inpatient care share has declined since 2003 overall; for the poorest quintile, it fell between 2000 and 2006, but grew again in 2009 and 2014.

To continue to strengthen financial protection in Kyrgyzstan, the following policies need to be considered.

Continue to prioritize public spending on health and reforms in the public sector, with an explicit focus on improving financial protection. Kyrgyzstan now has the opportunity to revitalize efforts to move towards universal health coverage in the context of the health sector programme “Healthy Person – Prosperous Country” for 2019–2030 and discussion of the Sustainable Development Goals. Kyrgyzstan’s earlier experience demonstrates its potential to achieve more in the future.

Keep and strengthen the SGBP and ADP as foundations of the single payer system. This analysis has shown that the system has been effective in providing financial protection. Where it does not work so well – coverage of outpatient medicines – the root causes are evident and some of them are already being addressed through recent reforms to improve access to affordable medicines.

Enforce the collection of mandatory health insurance contributions (payroll tax) through investment in information technology to increase coverage from its current level of 74%. This will boost the SGBP's revenue and allow more citizens to benefit from reduced SGBP co-payments and access to the publicly financed outpatient medicines covered by the ADP.

Expand coverage of outpatient medicines and introduce regulation of medicine prices. The ADP's small size is an obstacle to progress. Funding flowing to the ADP should be increased several fold, the list of covered medicines revised and the provider-level rationing processes eased. Mandatory prescriptions should be enforced and further digitalized. This has and will continue to provide an analytical base to ensure rational use of medicines, including generic prescribing. The introduction of price regulation at various levels, including control of pharmacy margins, is also necessary. This should be accompanied by efforts to strengthen information systems for monitoring and evaluation and to develop stakeholder capacity.

Review the design of co-payment policy, considering the costs and benefits of current and alternative protection mechanisms. The current system of exemptions from co-payments targets people with high expected health care costs but does not explicitly target poor households. Means-tested exemptions should be explored and, in line with international good practice, the health system should use existing mechanisms to identify poor people – for example, the Monthly Benefit for Poor Families – rather than creating its own means test.

Increase public awareness of entitlement to publicly financed health services under the SGBP and ADP. Investing in information campaigns and other measures to enhance people's knowledge of their rights and to improve care-seeking patterns will enhance financial protection.

Strengthen strategic purchasing and seek further efficiency gains. If savings are invested in patient care, they will improve access and health outcomes in addition to reducing financial hardship for households.

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Annex 1. Household budget surveys in Europe

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

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

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

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

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

What health-related information do they contain? Information on household consumption expenditure is gathered in a structured way, usually using the United Nations Classification of Individual Consumption According to Purpose (COICOP). Information on health-related consumption comes under COICOP code 6, which is further divided into three groups, as shown in Table A1.1. In this study, health-related information from household budget surveys is divided into six groups (with corresponding COICOP codes): medicines (06.1.1), medical products (06.1.2 and 06.1.3), outpatient care (06.2.1), dental care (06.2.2), diagnostic tests (06.2.3) and inpatient care (06.3).

Surveys will usually specify that household spending on health services should be net of any reimbursement to the household from a third party such as the government, a health insurance fund or a private insurance company. Some surveys ask households about spending on voluntary health insurance, but this is reported under a different COICOP code (12.5.3 Insurance connected with health, which covers "Service charges for private sickness and accident insurance") (United Nations Statistics Division, 2018).

Are household budget surveys comparable across countries? Household budget surveys vary across countries in terms of frequency, timing, content and structure. These differences limit comparability. Even among EU countries, where there have been sustained efforts to harmonize data collection, differences remain.

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

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

Source: United Nations Statistics Division (2018).

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

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Annex 2. Methods used to measure financial protection in Europe

Background

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

Data sources and requirements

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

The following variables are required at household level:

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

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

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

Defining household consumption expenditure variables

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

Total household consumption expenditure not including imputed rent

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

Food expenditure

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

Housing expenditure on rent and utilities

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

Health expenditure (out-of-pocket payments)

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

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

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

Defining a basic needs line

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

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

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

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

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

Calculating the basic needs line

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

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

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.

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Annex 3. Regional and global financial protection indicators

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

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

Regional indicators (R1, R2)	Global indicators (G1–G4)
Catastrophic out-of-pocket payments	
Indicator R1: the proportion of households with out-of-pocket payments greater than 40% of household capacity to pay	Indicator G1: the proportion of the population with large household expenditure on health as a share of total household consumption or income (greater than 10% or 25% of total household consumption or income)
Impoverishing out-of-pocket payments	
Indicator R2: risk of poverty due to out-of-pocket payments – the proportion of households further impoverished, impoverished, at risk of impoverishment or not at risk of impoverishment after out-of-pocket payments using a country-specific line based on household spending to meet basic needs (food, housing and utilities)	<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).

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Annex 4. Glossary of terms

Ability to pay for health care: Ability to pay refers to all the financial resources at a household's disposal. When monitoring financial protection, an ability to pay approach assumes that all of a household's resources are available to pay for health care, in contrast to a capacity to pay approach (see below), which assumes that some of a household's resources must go towards meeting basic needs. In practice, measures of ability to pay are often derived from household survey data on consumption expenditure or income and may not fully capture all of a household's financial resources— for example, savings and investments.

Basic needs: The minimum resources needed for sustenance, often understood as the consumption of goods such as food, clothing and shelter.

Basic needs line: A measure of the level of personal or household income or consumption required to meet basic needs such as food, housing and utilities. Basic needs lines, like poverty lines, can be defined in different ways. They are used to measure impoverishing out-of-pocket payments. In this study the basic needs line is defined as the average amount spent on food, housing and utilities by households between the 25th and 35th percentiles of the household consumption distribution, adjusted for household size and composition. Basic needs line and poverty line are used interchangeably. See poverty line.

Budget: See household budget.

Cap on benefits: A mechanism to protect third party payers such as the government, a health insurance fund or a private insurance company. A cap on benefits is a maximum amount a third party payer is required to cover per item or service or in a given period of time. It is usually defined as an absolute amount. After the amount is reached, the user must pay all remaining costs. Sometimes referred to as a benefit maximum or ceiling.

Cap on user charges (co-payments): A mechanism to protect people from out-of-pocket payments. A cap on user charges is a maximum amount a person or household is required to pay out of pocket through user charges per item or service or in a given period of time. It can be defined as an absolute amount or as a share of a person's income. Sometimes referred to as an out of pocket maximum or ceiling.

Capacity to pay for health care: In this study capacity to pay is measured as a household's consumption minus a normative (standard) amount to cover basic needs such as food, housing and utilities. This amount is deducted consistently for all households. It is referred to as a poverty line or basic needs line.

Catastrophic out-of-pocket payments: Also referred to as catastrophic spending on health. An indicator of financial protection. Catastrophic out-of-pocket payments can be measured in different ways. This study defines them as out-of-pocket payments that exceed 40% of a household's capacity to pay for health care. The incidence of catastrophic health spending includes households who are impoverished (because they no longer have any capacity to pay after incurring out-of-pocket payments) and households who are further impoverished (because they have no capacity to pay from the outset).

Consumption: Also referred to as consumption expenditure. Total household consumption is the monetary value of all items consumed by a household during a given period. It includes the imputed value of items that are not purchased but are procured for consumption in other ways (for example, home-grown produce).

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.

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