

Can people afford to pay for health care?

New evidence on financial protection in the United Kingdom Nora Cooke O'Dowd Stephanie Kumpunen Holly Holder

Singdon

WHO Barcelona Office for Health Systems Strengthening

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

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

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

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

200 21 2020

705

TTTT

11111



Can people afford to pay for health care?

New evidence on financial protection in the United Kingdom

Written by: Nora Cooke O'Dowd Stephanie Kumpunen Holly Holder

Edited by: Mary MacLennan Sarah Thomson

Series editors: Sarah Thomson Jonathan Cylus Tamás Evetovits

Abstract & keywords

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

HEALTHCARE FINANCING HEALTH EXPENDITURES HEALTH SERVICES ACCESSIBILITY FINANCING, PERSONAL POVERTY UNITED KINGDOM UNIVERSAL COVERAGE

ISBN 9789289053310

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

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

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

© World Health Organization 2018

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

About the series

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

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

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

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

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

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

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

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

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

Contents

Figures, tables & boxes			
Abbreviations			
	Acknowledgements		
Execu	utive summary	х	
1.	Introduction	1	
2.	Methods	5	
2.1	Analytical approach	6	
2.2	Data sources	7	
3.	Coverage and access to health care	9	
3.1	Coverage	10	
3.2	Access, use and unmet need	17	
3.3	Summary	21	
4.	Household spending on health	23	
4.1	Out-of-pocket payments	24	
4.2	What drives changes in out-of-pocket payments?	30	
4.3	Summary	32	
5.	Financial protection	33	
5.1	How many households experience financial hardship?	34	
5.2	Who experiences financial hardship?	36	
5.3	Which health services are responsible for financial hardship?	39	
5.4	How much financial hardship?	40	
5.5	International comparison	42	
5.6	Summary	43	
6.	Factors that strengthen and undermine financial protection	45	
6.1	Factors affecting people's capacity to pay	46	
6.2	Health system factors	49	
6.3	Summary	54	
7.	Implications for policy	57	
Refer	rences	60	
Anne	ex 1. Household budget surveys in Europe	65	
	ex 2. Methods used to measure financial protection in Europe	68	
	ex 3. Regional and global financial protection indicators	74	
	ex 4. Glossary of terms	77	

Figures

Fig. 1. Number of households in the Living Costs and Food Survey by country, 2008–2014 7

Fig. 2. Number of courses of dental treatment by patient type in England, 2006–2016 14

Fig. 3. Share of households with VHI by consumption quintile 15

Fig. 4. Self-reported unmet need for health care and dental care due to cost, distance to facilities, or waiting time, United Kingdom and EU27, 2005–2015 19

Fig. 5. Income inequality in selfreported unmet need for health and dental care due to cost, distance and waiting time in the United Kingdom, 2005–2015 20

Fig. 6. Out-of-pocket payments for health care as a share of household consumption by consumption quintile 24

Fig. 7. Share of households reporting no out-of-pocket payments by consumption quintile 25

Fig. 8. Share of households reporting no out-of-pocket payments by country 26

Fig. 9. Annual out-of-pocket spending on health care per person by consumption quintile 27

Fig. 10. Annual out-of-pocket spending on health care per person by type of health care 28

Fig. 11. Breakdown of total out-ofpocket spending by type of health care and consumption quintile in 2014 28

Fig. 12. Breakdown of total out-ofpocket spending by type of health care 30

Fig. 13. Spending on health per person by financing scheme, 2005–2015 31

Fig. 14. Out-of-pocket payments as a share of total spending on health, United Kingdom and selected countries in western Europe, 2005–2015 31

Fig. 15. Share of households impoverished after out-of-pocket payments 34

Fig. 16. Share of households with catastrophic out-of-pocket payments 35

Fig. 17. Share of households with catastrophic spending by risk of impoverishment 36

Fig. 18. Share of households with catastrophic spending by consumption quintile 37

Fig. 19. Breakdown of households with catastrophic spending by household structure 38

Fig. 20. Breakdown of people living in households with catastrophic spending by age 38

Fig. 21. Breakdown of catastrophic spending by type of health care 39

Fig. 22. Breakdown of catastrophic spending in the poorest consumption quintile by type of health care 40

Fig. 23. Out-of-pocket payments as a share of total household spending among households with catastrophic spending by consumption quintile 41

Fig. 24. Incidence of catastrophic spending on health and the out-of-pocket share of total spending on health in selected European countries, latest year available 42

Fig. 25. Changes in the cost of meeting basic needs, capacity to pay and the share of households living below the basic needs line 46

Tables

Boxes

Fig. 26. Share of the United Kingdom Table 1. Key dimensions of population at risk of poverty or social exclusion by age, 2005–2016 47 6 Fig. 27. Breakdown of households in the poorest consumption quintile by age and household structure 12 48 Fig. 28. Public spending on health 16 and GDP per person in the EU, 2015 50 Fig. 29. Public spending on health per person, EU15, 2015 51 Fig. 30. Use of medicines in EU countries, 2014

Fig. 31. Use of non-prescribed medicines by age, United Kingdom and EU28, 2014 52

52

catastrophic and impoverishing spending on health

Table 2. User charges for publicly financed health services

Table 3. Gaps in NHS and VHI coverage

Box 1. Unmet need for health care 18

Abbreviations

Acknowledgements

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

The review of financial protection in the United Kingdom was written by Nora Cooke O'Dowd, Stephanie Kumpunen and Holly Holder (Nuffield Trust). It was edited by Mary MacLennan and Sarah Thomson (WHO Barcelona Office).

The WHO Barcelona Office is grateful to John Appleby, Mark Dayan and Nigel Edwards (Nuffield Trust), Anita Charlesworth (Health Foundation) and Jon Sussex (RAND Europe) for their feedback on an earlier draft of the review.

Thanks are also extended to the United Kingdom Office for National Statistics for making the household budget survey data available to the authors.

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

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

Please cite the review as: Cooke O'Dowd N, Kumpunen S, Holder H (2018). Can people afford to pay for health care? New evidence on financial protection in the United Kingdom. Copenhagen: WHO Regional Office for Europe.

Executive summary

Financial protection is stronger in the United Kingdom than in many other European Union countries, reflecting relatively high levels of public spending on health; population entitlement to National Health Service (NHS) care based on residence; comprehensive service coverage; and very limited use of patient charges for services covered by the NHS.

Most NHS care is free at the point of use. Optometry services are not covered, however, and co-payments are applied to dental care (in all four countries of the United Kingdom) and outpatient medicines (for a minority of patients in England only). Wales, Northern Ireland and Scotland abolished user charges for outpatient prescriptions in 2007, 2010 and 2011, respectively.

Where user charges are applied, these are almost always in the form of fixed co-payments (as opposed to percentage co-payments) and many people are exempt from having to pay them. Children aged under 16 years (or under 18 years if in full-time education) and low-income households are exempt from all NHS charges, while pregnant women, people with selected chronic conditions and people aged over 60 years are exempt from prescription charges and may be exempt from certain dental charges in some of the four countries. As a result, even in England, around 90% of outpatient prescriptions and half of all NHS dental treatment are free of charge.

Private medical insurance – also called voluntary health insurance – mainly plays a supplementary role, providing a small share of the population (11%) with faster access to acute care. It may also fill some gaps in dental care. However, most people covered by private insurance are from higher socioeconomic groups; private insurance therefore exacerbates inequalities in access to health care.

This review analyses data from the Living Costs and Food Survey, an annual household budget survey. It finds that in 2014, 1.4% of households in the United Kingdom – over one million people – experienced catastrophic spending on health (an established indicator of financial protection, defined by WHO as out-of-pocket payments that account for more than 40% of a household's capacity to pay for health care). Over two thirds of households with catastrophic out-of-pocket payments are in the poorest consumption quintile. Just over half of them are living in very poor households – those spending less than £112 a week on average in 2014 – and they are pushed further into poverty by having to pay for health care at the point of use.

Catastrophic spending is mainly driven by out-of-pocket payments for medical products and dental care. Although outpatient medicines do not lead to financial hardship for the general population, they are the most significant source of financial hardship for households in the poorest quintile, in spite of income-based exemptions from prescription charges. This could reflect spending on over-the-counter medicines, which may increase in the future as the NHS plans to limit the availability of prescriptions for medicines that can be purchased over the counter.

The incidence of catastrophic and impoverishing out-of-pocket payments did not change significantly during the study period (2008–2014), even though these were years marked by recession, rising (and subsequently falling) unemployment, austerity and unprecedented financial pressure on health and social care budgets. Some of this may be accounted for by longer waiting times and an increase in unmet need for health and dental care.

There are reasons to be concerned about access to health care and financial protection in the future. Not all of the tax and benefit changes introduced since 2010 had come into effect during the study period. Recent analysis suggests that the poorest households have borne the brunt of the tax and benefit changes already in place and that the changes still to be implemented are also likely to hit the poorest households hardest, further limiting their capacity to pay for health care. The NHS is also facing exceptional financial pressure owing to public spending levels that are lower than needed, as well as cuts to social care budgets. Strategies to ration NHS care may increase the need for people to pay out of pocket. While those who can afford to do so may pay for private treatment, households already facing financial pressure may be forced to delay or forego care.

The vital and effective role the NHS plays in protecting people from financial hardship when they are ill should be safeguarded by ensuring that public spending on health is adequate to meet health needs.

1. Introduction

This review examines the extent to which people living in the United Kingdom experience financial hardship when using health services. It covers the period between 2008 and 2014, a time during which policy responses to the global financial crisis and to the recession in the United Kingdom affected health and social care budgets. 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.

The National Health Service (NHS) ensures the delivery of necessary health services to United Kingdom residents. Established in 1948, it offers care that is largely free at the point of use across all four countries of the United Kingdom (England, Scotland, Wales and Northern Ireland), ensuring that very few people have to pay out of pocket. In 2015, out-of-pocket payments accounted for a relatively small share of total spending on health in the United Kingdom (14.8%). However, as shown by the household budget survey data analysed in this review, the use of some health services results in out-of-pocket payments that lead to financial hardship for just over 1% of households (roughly 1 million people in 2014).

Following the financial crisis of 2008 and the recession of 2008–2009, the United Kingdom Government restrained public spending. Total public spending was cut by 2.7% between 2009–2010 and 2014–2015 (Institute For Fiscal Studies, 2015). The health budget was relatively well protected compared to other sectors, but funding for the NHS has not kept up with the level of spending required to meet demand for services (Gainsbury, 2016). This has resulted in decreased funding allocations to local purchasers and health care providers, as well as very high expectations (never previously achieved) for efficiency savings, leaving hospitals with deficits (Gainsbury, 2016, 2017).

The United Kingdom Government's decision to reduce public spending meant that the devolved administrations of Scotland, Wales and Northern Ireland received smaller funding allocations overall, and also had to determine whether to protect or cut spending in particular sectors. In Scotland, the NHS budget was cut by 1% in real terms between 2009–2010 and 2014–2015 (Johnson & Phillips, 2014). In Wales, funding for the NHS fell by an average of 2.5% a year in real terms between 2010–2011 and 2012–2013 (Roberts & Charlesworth, 2014). However, developments likely to improve financial protection also took place in the devolved administrations: Northern Ireland and Scotland abolished user charges for prescription medicines in 2010 and 2011, respectively (Thomson et al., 2014). Wales had already abolished prescription charges in 2007, before the economic crisis.

Beyond these developments in Northern Ireland, Scotland and Wales, and in spite of the financial upheaval that health budgets faced between 2011 and 2014, the health system as a whole was not subject to any particular reforms that would have had a major impact on financial protection. The introduction of Clinical Commissioning Groups in the NHS in England in 2013, replacing Primary Care Trusts, has created greater variation in how funding allocations are spent at local levels, but is unlikely to have significantly affected financial protection because the range of services covered by the NHS remains broad overall.

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. Annex 1 provides information on household budget surveys; Annex 2 the methods used; Annex 3 regional and global financial protection indicators; and Annex 4 a glossary of terms.

2. Methods

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

2.1 Analytical approach

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

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

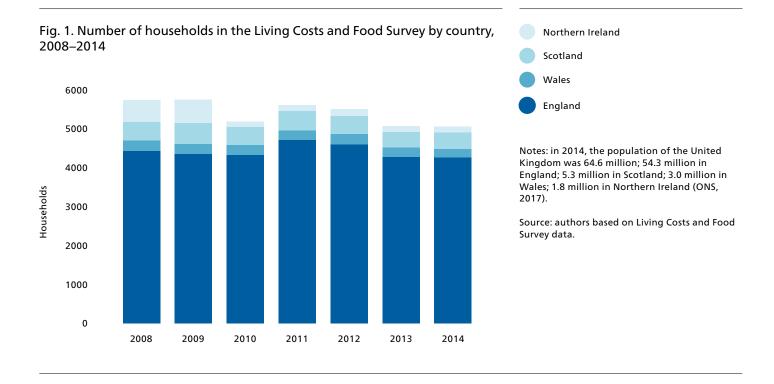
Note: See Annex 4 for definitions of words in italics.

Source: Thomson et al. (2018).

	Catastrophic out-of-pocket payments		
Definition The share of households with out-of-pocket payments that are g 40% of household capacity to pay for health care			
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 basic needs line, calculated as the average amount spent on food, housing and utilities by households between the 25th and 35th percentile of the household consumption distribution, adjusted for household size and composition		
Poverty dimensions captured	The share of households further impoverished, impoverished, at risk of impoverishment and not at risk of impoverishment after out-of-pocket payments		
Disaggregation	Results can be disaggregated into household quintiles by consumption and other factors where relevant		

2.2 Data sources

The study analyses data from the Living Costs and Food Survey, an annual household budget survey (ONS, 2016). Anonymized microdata from surveys carried out between 2008 and 2014 were obtained from the United Kingdom Office for National Statistics (ONS). Each calendar year, the survey selects a representative random sample of households in England, Scotland, Wales and Northern Ireland. Most households in the survey are in England (84.2% in 2014) (Fig. 1), reflecting the large share of the United Kingdom population living there. The analysis is not weighted by region, so although health care in the four countries is distinct, England dominates the analysis.



7

3. Coverage and access to health care

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

The NHS has been in operation since 1948 and offers services that are mostly free at the point of use for those qualifying for entitlement across the four regions: England, Scotland, Wales and Northern Ireland. Each country has its own NHS of varying size, with England being the largest (serving a population of 54.3 million in 2014) and Northern Ireland the smallest (serving a population of 1.8 million in 2014) (ONS, 2017). The four health systems are funded by the United Kingdom Government through general taxation and, to a much lesser extent, through user charges.

3.1.1 Population entitlement

The NHS operates a residence-based health system (NHS Choices, 2015). Any person ordinarily resident in the United Kingdom can use NHS health care services, without paying at the point of use. "Ordinarily resident" means that the residence is not temporary and the individual is in the country legally (Cylus et al., 2015). It is not dependent on nationality, payment of United Kingdom taxes, payment of National Insurance contributions, being registered with a general practitioner (GP), having an NHS number or owning property in the United Kingdom (Public Health England, 2014).

3.1.2 Service coverage

There is no explicit list of benefits covered by the NHS, but legislation from the 1970s charges ministers with ensuring the delivery of necessary health services (Cylus et al., 2015). Each country determines its own benefits and user charges, but all cover primary care, outpatient specialist care with referral, and inpatient care. Eye care (optometry services such as sight tests, glasses and contact lenses) is not covered, except for a small number of exempted cases. The NHS in England and Wales does not provide social care, but health and social care are provided as an integrated service in Northern Ireland and Scotland (although even in these countries, social care is not free at the point of use to the same extent as health care).

The purchasing and delivery of care is organized by agencies at local level, including Clinical Commissioning Groups in England, NHS Boards in Scotland, Health Boards in Wales, and Health and Social Care Trusts in Northern Ireland. These bodies have geographic responsibilities to organize care based on population needs, and have decision-making power about which services are provided in their local areas. This local autonomy creates differences in the services and treatments available to residents in different areas, which has led to criticisms of the NHS being more of a "postcode lottery" than a universal system (Robertson et al., 2017).

The main gap in NHS coverage is eye care, for which people must pay the full cost in all four countries. There is also a gap in dental care, which requires partial payment in all four countries, as well as in outpatient prescription medicines, which involve user charges in England. See Table 2 for more detail.

People have the right to access certain services commissioned by NHS bodies within maximum waiting times. Patients are entitled to start consultant-led non-emergency treatment within 18 weeks of a GP referral in England and Scotland (Department of Health, 2012); Wales aims to treat patients within 26 weeks, but these targets are often missed across countries (Dayan, 2017).

Publicly funded social care is organized by local authorities, not the NHS, and is thus excluded from this analysis. An international comparison of outof-pocket payments for social care is available from the Organisation for Economic Co-operation and Development (OECD) (Muir, 2017).

3.1.3 User charges

While most NHS treatment is free at the point of use, people aged over 16 years are required to pay user charges for dental care and optometry services (categorized here as eye care) (see Table 2). Adults are also required to pay for outpatient prescriptions in England. The three other countries of the United Kingdom have abolished prescription charges (April 2007 in Wales, 2010 in Northern Ireland and 2011 in Scotland).

There are multiple exemptions from user charges, based mainly on age and income but also for selected conditions. For example, 90% of all outpatient prescription items in England are dispensed for free, as the people who are most likely to need outpatient medicines (e.g. those aged over 60 years or people with specified chronic conditions) are exempt from prescription charges (Health and Social Care Information Centre, 2016). In 2015, 971.6 million items were dispensed for free to people exempt from prescription charges. In England, the share of revenue generated by the NHS from all user charges was estimated to be 1.2% between 2007 and 2011 (McKenna et al., 2017). More recently, in 2016, income from user charges in England was 1.3 billion, which is 1.1% of the Department of Health budget (The Kings Fund, 2017).

About half of all NHS dental treatments in England are provided free at the point of use to non-paying adults and children – roughly 19 million treatments in 2014–15 (Fig. 2). The share of people exempt from dental charges has decreased slightly from 50% in 2011–13 to 48% in 2015–16.

Table 2. User charges for publicly financed health services

Service area	Type of user charge	Exemptions	Сар
Outpatient visits	None	NA	NA
Diagnostic tests	None	NA	NA
Inpatient care	None	NA	NA
Inpatient medicines	None	- <u>NA</u>	NA
Outpatient prescription medicines	England: fixed co-payment per prescription item of £8.05* in 2014–2015; co-payment increases over time (£8.80 from April 2018) Northern Ireland: none (since April 2010) Scotland: none (since April 2011; before that, reduced gradually from April 2007)	England – free prescriptions for: • children under 16 years • full-time students aged 16–18 years • people aged 60 years and over • people who receive, or who have a partner/guardian who receives means-tested benefits • people who are entitled to tax credit exemptions and whose annual income is less than £15,276**	England: People who know they will need more than 3 (12) prescriptions a quarter (year) can buy a pre-payment certificate which caps quarterly spending at £29.10 and annual spending at £104.00
	Wales: none (since April 2007)	 England - all prescriptions free with an exemption certificate for: pregnant women and women within 12 months of childbirth people with specified chronic conditions: hypoparathyroidism; myasthenia gravis; myxoedema; diabetes; permanent fistula; hypoadrenalism; epilepsy; cancer effects, cancer, effects of cancer treatment people with a continuing physical disability that prevents them from going out without help from another person war pensioners (where treatment is for disability for which the pension is received) 	
		England – prescriptions for the following treatment are exempt for everyone: • prescribed contraceptives • medicines supplied at a hospital/ clinic to treat sexually transmitted infection or tuberculosis • medicines supplied at a hospital/ clinic to treat mental illness for those subject to a supervised community treatment order	
Medical products	England: fixed co-payments vary by item and are re-adjusted over time; for most products there are no national limits; local Clinical Commissioning Groups may set their own limits (e.g. wheelchair services available to people who have a long- term need for mobility help), but specific criteria are decided locally Northern Ireland: NHS appliances are free Scotland and Wales: NHS fabric	Hearing aids are available on the NHS for anyone who needs them; the assessment of eligibility and need for other medical products is run by local health authorities across the United Kingdom; this varies by item and location	No

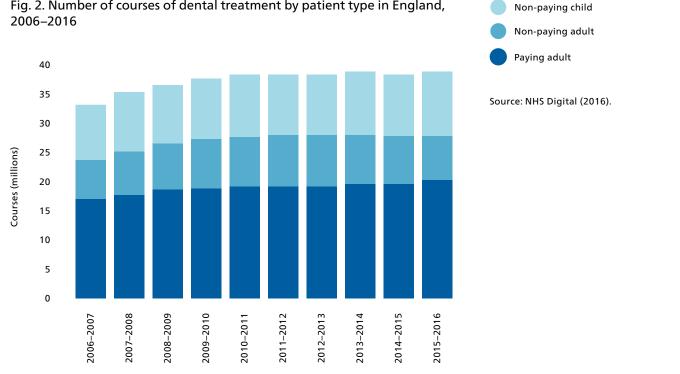
supports supplied through a hospital are free

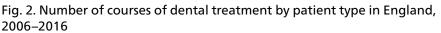
Table 2. contd

Notes: E: England. W: Wales. *In 2015, £8.05 had the equivalent purchasing power of €8.73 in the average for all European Union countries since July 2013 (EU28). **In 2014, approximately 1.5 million in-work families (8% of all families) were entitled to NHS exemptions (Living Costs and Food Survey).

Sources: prescribing charges (Parkin & Bate, 2018); Northern Ireland (NI Direct, 2017); Scotland & Wales (NHSBSA, 2017); England (NHS Choices, 2017).

Service area	Type of user charge	Exemptions	Сар
Dental care	NHS charges vary by course of treatment England and Wales: fixed co- payments in 3 NHS charge bands (2014) Band 1: preventive examination, diagnosis and care £20.60 (E); £14.00 (W) Band 2: covers everything listed in Band 1, plus further treatment, such as fillings, root-canal treatments or extractions £56.30 (E); £44.00 (W) Band 3: covers everything listed in Bands 1 and 2, plus crowns, dentures or bridges £244.30 (E); £190.00 (W) Northern Ireland and Scotland: percentage co-payment of 80% of the dentist's fee up to £384 per course of treatment	England, Scotland and Northern Ireland: children aged under 18 years or aged 18 and in full-time education; women who are pregnant or have given birth in the last 12 months; people receiving dental treatment from an NHS hospital (may be charged for dentures and bridges if not entitled to free NHS treatment); partners and children of parents in receipt of means-tested benefits; war pensioners (where treatment is for disability for which the pension is received) Wales: in addition to the criteria for England, Scotland and Northern Ireland, people aged under 25 years and people aged over 60 years are entitled to free dental examination	Νο
Eye care (optometry services such as sight tests, glasses and contact lenses)	Full costs required: varies by supplier For those who qualify for exemptions: free sight tests and vouchers for glasses or contact lenses valued from £39.10 to £215.50, depending on strength of lenses needed	The following are similar across all countries: Optical vouchers: • people aged under 16 years or full- time students aged 16–18 years • people, partners and children of parents in receipt of means-tested benefits • those entitled to, or named on, a valid NHS tax credit exemption certificate • people with the need for complex lenses • war pensioners (where treatment is for disability for which the pension is received) Sight tests – in addition to the criteria for optical vouchers: • registered blind or partially sighted people • those diagnosed with diabetes or glaucoma • people aged 60+ years • those aged 40+ years with close relative with a history of glaucoma • people advised by an ophthalmologist to be at risk of glaucoma	Νο
Travel to specialist treatment and diagnostic tests	 Full cost required Some exceptions are made to help eligible people, who: are referred by a doctor, ophthalmic practitioner or dentist make an extra journey to receive NHS care travel by the cheapest method of transport reasonable for them to use 	Similar across all countries: • people, partners and children of parents in receipt of means-tested benefits • those entitled to, or named on, a valid NHS tax credit exemption certificate • war pensioners (where the treatment is for disability concerned)	No





3.1.4 The role of VHI

VHI in the United Kingdom - commonly known as private medical insurance - plays a largely supplementary role, providing access to private providers (e.g. private hospitals, private wards of NHS hospitals, private specialists) and different levels of service (e.g. faster access to care or diagnostic tests). Approximately 11% of the population (7 million people) were covered by some form of VHI in 2015, which was a 2.1% increase in subscribers, following a period of flat demand from 2012 to 2014 and shrinking demand from 2008 to 2011 (LaingBuisson, 2017); probably in response to the recession. There is no tax relief (tax subsidy) for VHI. It is therefore mainly purchased by employers (82% in 2011) rather than individuals (18% in 2011) (Commission on the Future of Health and Social Care in England, 2014).

In 2009, 10% of households in the Living Costs and Food Survey reported having VHI cover, rising to above 12% from 2010 onwards (Fig. 3). The share of households with VHI varies considerably by consumption quintile. In 2014, 24.6% of households in the richest quintile had VHI cover, compared to only 3.9% in the poorest quintile. This represented an increase in the share of households in the poorest quintile with VHI, from 2.1% in 2008 and 2009. In 2014, average annual spending on VHI in households with VHI ranged across quintiles from £405 in the poorest, to £1191 in the richest.

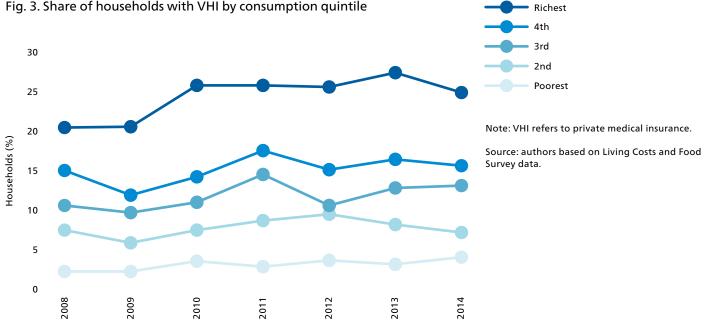


Fig. 3. Share of households with VHI by consumption quintile

The literature supports the distribution found in the Living Costs and Food Survey, indicating that coverage is concentrated among wealthier groups. It is worth noting that most policy-holders live in England, with lower rates of cover in Scotland, Wales and Northern Ireland (Boyle, 2011; Steel & Cylus, 2012; Longley et al., 2012; O'Neill et al., 2012).

National Health Accounts data show that in 2015 VHI accounted for 3.4% of total spending on health and 16.8% of private spending on health (WHO, 2018).

Table 3 highlights key issues in the governance of coverage, summarizes the main gaps in publicly financed coverage and indicates the role of VHI in filling these gaps – or rather, its inability to fill them.

Table 3. Gaps in NHS and VHI coverage

Note: NA: not applicable. VHI refers to private medical insurance.

Source: authors.

	Population entitlement	Service coverage	User charges
lssues in the governance of publicly	None for residents	Long waiting times for some NHS diagnostics and treatment	Local variation in publicly financed support for
financed coverage		Waiting time targets are in place, but are often exceeded (targets include 18 weeks from GP referral to seeing a specialist for a non-urgent medical issue in England and Scotland and 26 weeks in Wales)	medical products such as wheelchairs
		Local variation in access to some health services, arising from variation in local commissioning policy	
Main gaps in publicly financed coverage	None for residents	Eye care (optometry services such as sight tests, glasses and contact lenses) is excluded from coverage	User charges (co-payments) for dental care across the United Kingdom and for
		Access to non-approved medicines (e.g. medicines not considered cost-effective by national health technology assessment bodies)	outpatient prescriptions in England
Are these gaps covered by VHI?	NA	The tests, treatments and medicines covered by VHI depend on the plan selected (and the distance patients are willing to travel)	VHI does not cover NHS user charges (co-payments); some people have dental
		Most high-cost and resource-intensive treatments, as well as private family medicine (general practice) would not be covered by VHI	care cover
		VHI only covers around 11% of the population; these are mainly richer people and people living in urban areas; there is also regional variation in VHI coverage; for those covered, however, VHI does reduce waiting times	

3.2 Access, use and unmet need

There has been steady growth in demand in all areas of the health service since 2009 (Imison et al., 2017). The absolute number of hospital admissions in the United Kingdom over time has increased: from 13.5 million in 2007/2008 to 15.9 million in 2014/2015 – an increase from 26 235 to 29 259 per 100 000 population (Health and Social Care Information Centre, 2015). Demand for GP services has also grown over time. The total number of face-to-face GP consultations increased by 13.3% between 2010/2011 and 2014/2015, and telephone contact with GPs increased by 62.6% in the same period (Baird, et al. 2016). The rise in the amount of contact with GPs is the result of a complex range of factors, including increasing patient demand and higher acuity of need among older people (Baird et al., 2016).

European Union (EU) Statistics on Income and Living Conditions (EU-SILC) allow a comparison of unmet need for health care (see Box 1) across countries (Fig. 4). Since 2008, around 5% of the United Kingdom population have reported unmet need for health or dental care (Eurostat, 2018a). Unmet need increased from 2.7% in 2012 to 5.0% in 2015 for health care and from 2.5% to 4.9% for dental care across the same period. The most commonly cited reason for unmet need for health care is waiting time (2.5% of the population in 2015). For dental care, cost is the reason most often cited (2% of the population in 2015).

Although it remained below the average for Member States of the EU from January 2007 to July 2013 (EU27), unmet need for health care due to waiting time in the United Kingdom increased between 2010 and 2015. Data for 2016 suggest a decrease in unmet need, but it is not clear whether these can be compared with earlier years. The increase up to 2015 may be reflected in the waiting list size for NHS treatment: in mid-2007, over 4 million people were waiting for treatment in England and this was drastically reduced to fewer than 2.5 million by winter 2008/2009. At that time, the median wait for treatment was 9.1 weeks for admitted patients (inpatient care) and 4.6 weeks for non-admitted patients (outpatient care). However, the waiting list size has since increased, exceeding 3 million in April 2014 and there has been an upward trend in the median waiting time (NHS England, 2017a). The share of total spending on health care in the private sector (two thirds of which was from households) was growing at an average rate of 7.5% up to 2008 but fell between 2008 and 2010, following the economic downturn, and grew at a slower average rate of 2.6% per year between 2010 and 2013 (ONS, 2015). This suggests that people had not yet begun to bypass the public system to access private care.

EU-SILC data demonstrated that from 2006 to 2011 the biggest barrier to accessing dental care in the United Kingdom was reported as being waiting time, and this was considerably higher than the EU27 average. In 2012, cost became the main reported barrier, although it was less of an issue in the United Kingdom than in other EU27 countries. In 2015, 2.0% of those surveyed in the United Kingdom reported unmet need for dental treatment due to cost, compared to 4.1% in the EU27 countries. This is reflected in the Adult Dental Health Survey in England, where 19% of adults surveyed reported that they had delayed dental treatment due to cost in the past and 26% of adults said that cost influenced the type of dental treatment they opted to have (Nuttall et al., 2011).

Box 1. Unmet need for health care

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

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

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

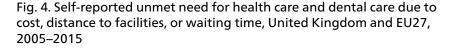
This review draws on data on unmet need to complement the analysis of financial protection (section 3.2). It also draws attention to changes in the share and distribution of households without any out-of-pocket payments (section 4.1). If increases in the share of households without out-of-pocket payments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

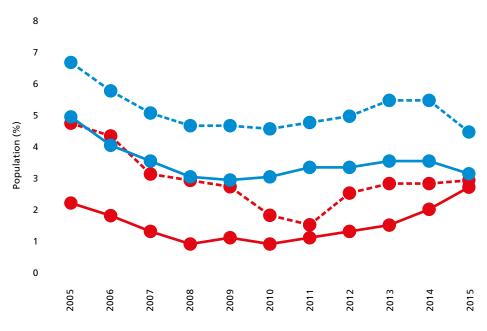
Every year, EU Member States collect data on unmet need for health and dental care through the EU-SILC. Although this important source of data lacks explanatory power and is of limited value for comparative purposes because of differences in reporting by countries, it is useful for identifying trends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

Source: WHO Barcelona Office for Health Systems Strengthening.





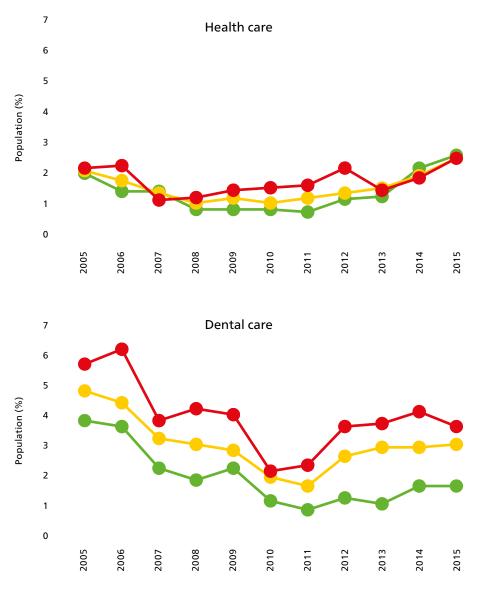


Notes: population is people aged over 16 years. The survey asks people about health care ("medical examination") and dental care ("dental examination") separately. Data for 2016 are available and indicate a decrease in unmet need in the United Kingdom and on average in EU27 countries. The 2016 data for the United Kingdom are not included here due to uncertainty about their comparability to data in earlier years.

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

Income inequality in unmet need is greater for dental care than for health care. Between 2008 and 2012, those in the poorest quintile were most likely to report unmet need for health care, but this has evened out across quintiles since 2013 (Fig. 5). Those in the poorest quintile were also consistently more likely to report unmet need for dental care due to cost, distance or waiting time and this gap has increased since 2010. This was reflected in research that found socioeconomic inequalities for oral health-related quality of life among adults in the United Kingdom (Sanders et al., 2009).

Fig. 5. Income inequality in self-reported unmet need for health and dental care due to cost, distance and waiting time in the United Kingdom, 2005–2015



Poorest quintile
Total
Richest quintile

Notes: population is people aged over 16 years. Quintiles are based on income. Data for 2016 are available and indicate a decrease in unmet need in the United Kingdom and on average in EU27 countries. The 2016 data for the United Kingdom are not included here due to uncertainty about their comparability to data in earlier years.

Source: Eurostat (2018a).

3.3 Summary

The United Kingdom has a tax-funded health system that has been in operation since 1948 – the NHS. Each of the four countries makes its own decisions about health coverage.

Most health services are free at the point of use. Optometry services are not covered, however, and co-payments are applied to dental care (in all four countries) and outpatient medicines (in England only). Northern Ireland, Scotland and Wales abolished user charges for outpatient prescriptions in 2010, 2011 and 2007, respectively.

Children aged under 16 years, full-time students aged under 18 years and people with low incomes benefit from relatively comprehensive coverage because they are exempt from dental and prescription charges and are usually entitled to publicly financed optometry services. Pregnant women and those who have given birth in the last 12 months, people with selected chronic illnesses and people aged over 60 years are also exempt from prescription charges and may be exempt from certain dental charges in some of the four countries. As a result, around 90% of outpatient prescriptions and half of all NHS dental treatment in England are free of charge.

VHI mainly plays a supplementary role, providing 11% of the population with faster access to acute care. It may also fill some gaps in dental care. However, most people covered by VHI are from higher socioeconomic groups; VHI therefore exacerbates inequalities in access to health care.

EU-SILC data indicate that the level of unmet need in the United Kingdom is similar to the EU average for health care and slightly below the EU average for dental care. Unmet need has risen steadily for health care since 2008 and for dental care since 2011. Income inequality in unmet need for health and dental care has persisted. Among the poorest quintile, unmet need for health care rose from 1.1% in 2007 to 2.8% in 2014, while unmet need for dental care rose from 2.1% in 2010 to 4.1% in 2014.

4. Household spending on health

In the first part of this section, data from the Living Costs and Food 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 (as opposed to prepayment through taxes or VHI premiums). This section also briefly discusses the main drivers of changes in out-of-pocket payments over time.

4.1 Out-of-pocket payments

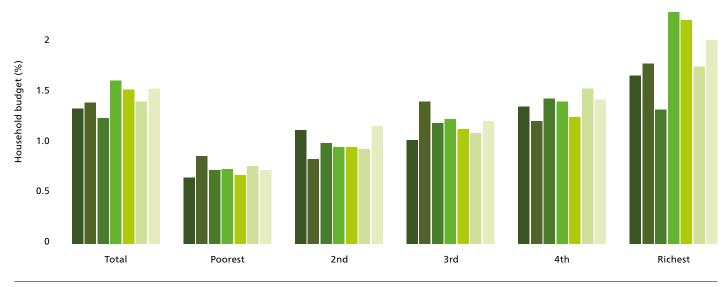
2.5

In 2014, out-of-pocket payments for health care accounted for 1.5% of total household consumption (spending) on average (Fig. 6). There was some fluctuation in the out-of-pocket share of spending between 2008 and 2014, but no statistically significant change over time. Household spending on health is progressive, with those in the poorer quintiles spending a lower share of their budget on health than richer quintiles.

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



Source: authors based on Living Costs and Food Survey data.



20

0

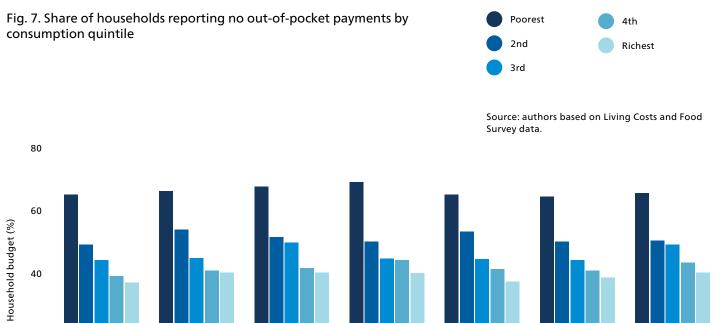
2008

2009

2010

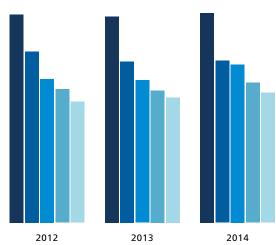
overall and much higher for the poorest quintile (around 65%) than the richest quintile (around 40%) (Fig. 7). This pattern has been consistent over time.

Where survey respondents have no out-of-pocket spending on health, it is difficult to know whether they simply have no need for health care; whether they need care and are able to use services free of charge; or whether they need care and are unable to access services. The relatively high share of households without any out-of-pocket spending on health probably reflects the absence of user charges for doctor visits and inpatient care. The much higher share of people without any out-of-pocket payments among the poorest guintile may also reflect exemptions from user charges for dental care and prescription medicines for children aged under 16 years, adults aged over 60 years and poor households.



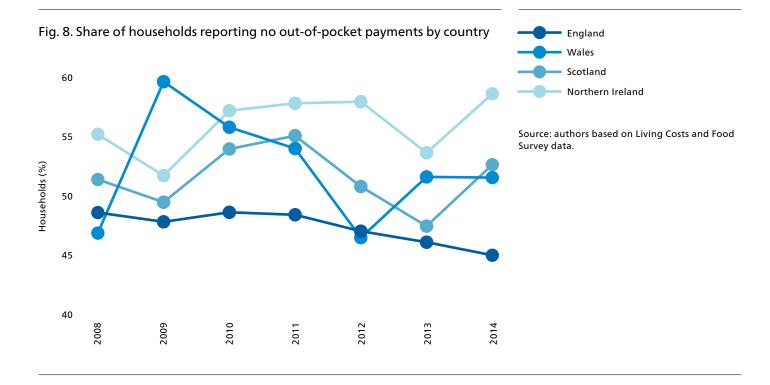
2011

The share of households with no out-of-pocket payments is around 50%



Looking at the breakdown of households with no out-of-pocket payments by country, England has the lowest share (Fig. 8), which is to be expected as England has more user charges than the other countries. Wales abolished prescription charges in April 2007 and there is a sharp increase in the share of Welsh households without out-of-pocket payments in 2009 compared to 2008. A similar trend can be seen in Scotland, where prescription charges were gradually reduced from April 2007 until being abolished in April 2011. The impact of the abolition of prescription charges in Northern Ireland in 2010 seems to have had a smaller impact on the share of households without out-of-pocket payments.

1. In 2014, £154 had the equivalent purchasing power of €163 in the average EU country.



In 2014, the average annual amount spent on health per equivalent person across all households (including those with no out-of-pocket payments) was £154.¹ This represents an increase from £114 in 2008 (after adjusting for inflation, this is an increase of 3.4% per year), with fluctuation by quintile (Fig. 9). The average amount spent has increased quite a lot for the richest quintile (from £297 in 2008 to £442 in 2014 – an inflation-adjusted increase of 5.1% per year), but not much among the poorer quintiles, perhaps suggesting that the poorer quintiles have cut back on out-of-pocket spending. There is a progressive gradient in spending across quintiles, with out-of-pocket payments 17 times higher in the highest consumption quintile (£442) than the lowest (£26) in 2014 (Fig. 9).

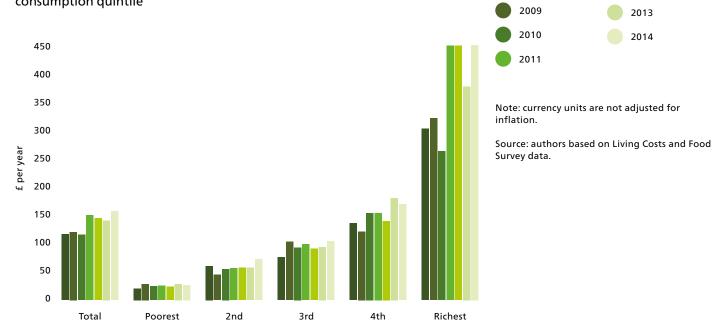


Fig. 9. Annual out-of-pocket spending on health care per person by consumption quintile

In this analysis, out-of-pocket spending is classified under six different types of health care: medicines (e.g. NHS prescription charges, over-the-counter medicines), medical products (e.g. wheelchairs, glasses, plasters), outpatient care, dental care (e.g. NHS or private dental charges), diagnostic tests (which includes allied health professional services, e.g. physiotherapy and speech therapy) and inpatient care (e.g. hospital services). Fig. 10 shows the average annual out-ofpocket payment per equivalent person on each type of health care between 2008 and 2014, while Fig. 11 shows the share of total out-of-pocket health spending for each quintile and on which types of health care in 2014.

The amount of money spent on each type of health care has fluctuated over time but medicines, dental care and medical products have consistently been the biggest spending areas (Fig. 11). 2012

2008

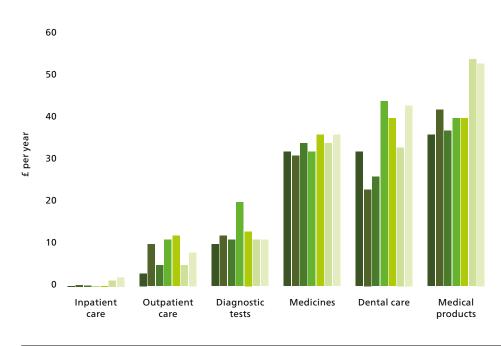


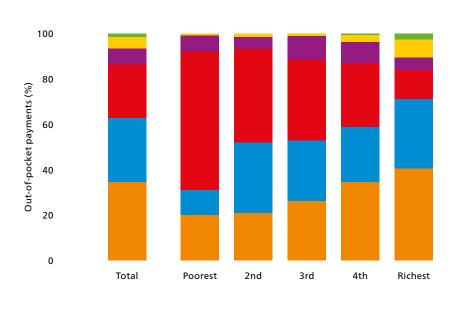
Fig. 10. Annual out-of-pocket spending on health care per person by type of health care



Notes: diagnostic tests include allied health professional services; medical products include non-medicine products and equipment. Currency units are not adjusted for inflation.

Source: authors based on Living Costs and Food Survey data.

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





Note: diagnostic tests include allied health professional services; medical products include non-medicine products and equipment.

Source: authors based on Living Costs and Food Survey data.

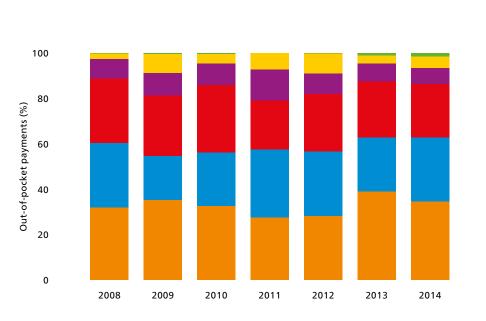
Different types of health care costs drive out-of-pocket spending in each quintile, as seen in Fig. 11. In 2014, medical products made up the largest share of expenditure in the two richest quintiles. Medical products include items such as glasses; it is possible that some of this spending reflects people with more money choosing to buy more expensive glasses and more frequently, but the data do not indicate whether or not the spending is discretionary.

Medicines accounted for the largest out-of-pocket expenditure in the lowest three quintiles, covering 61% of household out-of-pocket spending in the poorest quintile. Out-of-pocket payments on medicine arise when households are ineligible for prescription charge exemptions or when they buy overthe-counter medicines. Given that 90% of prescribed items are dispensed for free and people in the poorest quintile would have an income that exempts them from charges, it is likely that most of this spend is on over-the-counter medicines. According to the Statistical Office of the EU (Eurostat), in 2014 the United Kingdom had higher use of over-the-counter medicines (43.3%) compared to the European average (34.6%) (Eurostat, 2018b).

The share of patients who were unable to get an appointment to see or speak to a GP or nurse the last time they attempted to was 10.6% in 2013/2014 (NHS England, 2017b). Long waits for GP appointments could also mean people end up buying some prescription medicines over the counter that would otherwise be free (e.g. medicines for children that are available over the counter but are free with a prescription). In 2017, NHS England launched a review of low-value prescription items, which may see the some over-the-counter items being no longer available on prescription (NHS England, 2018) and could lead to an increase in out-of-pocket spending on medicines in future.

Dentistry payments accounted for only 10% of total out-of-pocket payments in the poorest quintile in 2014, compared to 25–30% in the richest quintile. Most people in the poorest quintile would have an income that exempts them from charges because they receive some form of income support. However, unmet need is also highest in this group (Eurostat 2018a).

The share of total out-of-pocket spending on each type of health care over time can be seen in Fig. 12. Medical products accounted for the largest share of expenditure in most years, followed either by medicines or dental care. Diagnostic tests, outpatient and inpatient care represent very small shares compared to the other three groups; when combined, they accounted for a total of 14% of all out-of-pocket spending on health in 2014. Inpatient care (covering hospital services) accounted for the smallest share of out-ofpocket spending, but this increased from 0.14% in 2008 to 1.43% in 2014. It is unclear why this might be; as all inpatient care is covered by the NHS, this may be spending on private inpatient services. The share of total outof-pocket spending on medicines fell from 29.9% in 2010 to 21.6% in 2011, which may reflect some of the impact of the removal of prescription charges in Scotland in 2011 (although households from Scotland represented only 8.7% of the survey sample in 2011). The abolition of prescription charges in Northern Ireland in 2010 does not seem to appear, but this may be because these households only made up 2.8% of the sample. There were no other substantial changes to user charges over the period covered by the analysis.







Source: authors based on Living Costs and Food Survey data.

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

National Health Accounts data show that out-of-pocket payments per person have increased slightly over time (Fig. 13). There was a steady increase in public spending on health per person from 2000 to 2009, after which it fell slightly. Between 2012 and 2013 there was a break in the data series, as a new method of accounting for spending on health began to include healthrelated social care and long-term care in the United Kingdom and in other countries. The change in method partly explains why out-of-pocket payments reported in National Health Accounts are higher than those reported in the Living Costs and Food Survey.

As a share of total spending on health, out-of-pocket payments in the United Kingdom rose between 2005 and 2007, fell between 2007 and 2009 and have risen since then (Fig. 14). In comparison to other countries in western Europe, the out-of-pocket share of total spending on health has historically appeared to be much higher in the United Kingdom than in France, and much lower than in Germany, Denmark and Sweden (Fig. 14). However, until 2013, United Kingdom health spending data were not comparable to health spending data in other countries. After 2013, when the United Kingdom began to apply the OECD/Eurostat/WHO System of Health Accounts to report health spending data, the comparative picture changed. In 2015, the out-of-pocket payment share in the United Kingdom (14.8%) was higher than in all of the other countries mentioned, except Sweden, but below the average of 17.8% for countries belonging to the EU up to 30 April 2004 (EU15) (WHO, 2018).

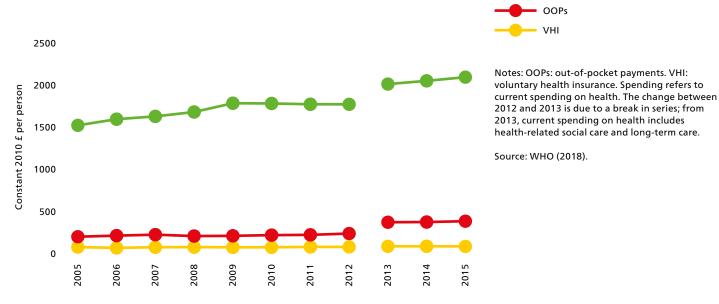
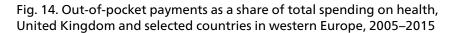
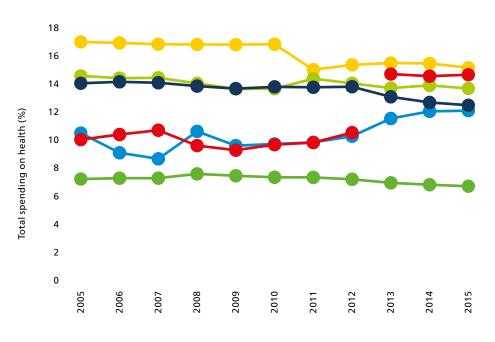


Fig. 13. Spending on health per person by financing scheme, 2005–2015







Public

Notes: spending refers to current spending on health. The change between 2012 and 2013 in the United Kingdom data is due to a break in series; from 2013, current spending on health includes health-related social care and long-term care.

Source: WHO (2018).

4.3 Summary

With the exception of eye care and dental care in all four countries and outpatient prescriptions in England, most health care goods and services are provided free at the point of use to United Kingdom residents, through the NHS. Relatively low levels of out-of-pocket spending on health are therefore to be expected.

In 2014, households spent on average 1.5% of their total consumption on health care. This share has remained stable over time. Richer households consistently spend a greater share of their budget on health than poorer households.

Around half of all households do not report any out-of-pocket spending on health. The share of households without any out-of-pocket spending is much lower in England than in the other three countries, reflecting England's greater reliance on user charges. The share of households with no out-of-pocket payments is generally much higher among the poorest consumption quintile than the richer quintiles. This is likely to reflect exemptions from dental and prescription charges for poor households, but could also reflect a degree of unmet need for health and dental care among these groups of population.

The type of health care being paid for out of pocket varies by quintile. Poorer households are mainly paying out of pocket for medicines, while richer groups are mainly spending on medical products and dental care. As people with low incomes are exempt from prescription charges, much of the spending on medicines by people in the poorest quintile may be on overthe-counter medicines. In the richer quintiles, it is difficult to distinguish between discretionary and non-discretionary spending (for example, on items such as glasses).

National Health Accounts data suggest that the out-of-pocket share of total spending on health has grown since 2005. In 2015, this share was 14.8%, making it higher than in many comparator countries in western Europe, including Denmark (13.7%), France (6.8%), Germany (12.5%) and the Netherlands (12.2%), but below the average for EU15 countries (17.8%).

5. Financial protection

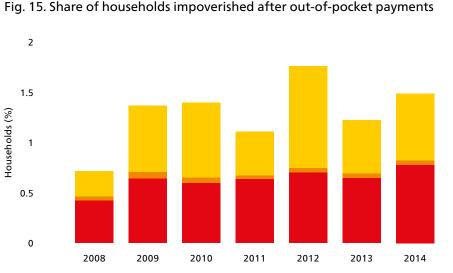
In this section, data from the Living Costs and Food Surveys are used to assess the extent to which out-of-pocket payments result in financial hardship for households who use health care goods and services. The section shows the relationship between out-of-pocket spending on health and risk of impoverishment,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

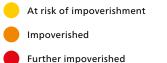
5.1 How many households experience financial hardship?

5.1.1 Out-of-pocket payments and risk of impoverishment

Fig. 15 shows the relationship between out-of-pocket spending on health and risk of impoverishment across households in the survey over time. The poverty line used here reflects the cost of spending on basic needs (food, rent and utilities) among a relatively poor part of the United Kingdom population (households between the 25th to 35th percentiles of the consumption distribution and adjusted for household composition and size). The average weekly household cost of meeting basic needs – the basic needs line – has increased over time from £128 per week in 2008 to £152 per week in 2014. After adjusting for inflation this represents an increase of 1.2% per year.

The share of the population who were impoverished or further impoverished after out-of-pocket payments has remained at less than 1% of households since 2008. The share of those who were further impoverished by out-of-pocket payments has been slowly growing, from 0.42% in 2008 to 0.78% in 2014, reflecting the increase in the share of households living below the basic needs line (from 2.1% in 2008 to 3.3% in 2014). It is unclear what explains the fluctuation in households at risk of impoverishment. There was quite a large increase in the three categories in total between 2008 and 2012, but it is important to note that in context, these are small numbers.





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

Source: authors based on Living Costs and Food Survey data.

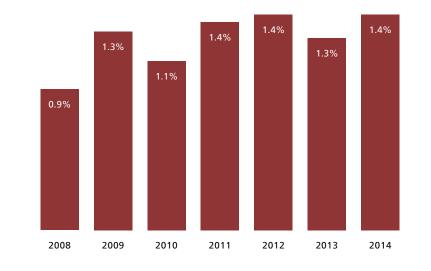
cket payments Ot risk of impoveri

5.1.2 Catastrophic out-of-pocket payments

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

In 2014, 1.4% of households experienced catastrophic out-of-pocket payments in a given week in the United Kingdom (Fig. 16). There has been no statistically significant change in this level since 2008. Accounting for household size, this suggests that in 2014, 1.7% of the United Kingdom population (about 1.1 million people) lived in households with catastrophic out-of-pocket payments in a given week. This population-level figure masks important differences in distribution (see section 5.2).

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



Source: authors based on Living Costs and Food Survey data.

5.2 Who experiences financial hardship?

Over time, an increasing share of households facing catastrophic expenditures are further impoverished after out-of-pocket payments (Fig. 17). In 2014, of all households facing catastrophic out-of-pocket payments, 55% (approximately 600 000 people) were already living below the basic needs line and were pushed further below the line as a result of their spending on health. An additional 12% (approximately 130 000 people) were impoverished or at risk of impoverishment after out-ofpocket payments. The remaining third of households who experienced catastrophic spending in a given week were not classified as being at risk of impoverishment as a result of out-of-pocket payments.

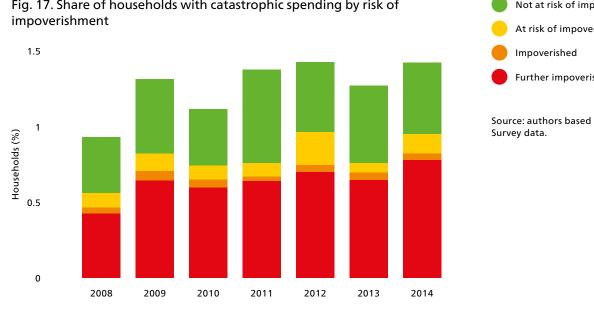


Fig. 17. Share of households with catastrophic spending by risk of

The incidence of catastrophic out-of-pocket payments is highly concentrated among the poorest consumption quintile (Fig. 18). In 2014, 70% of households experiencing catastrophic out-of-pocket payments in a given week were in the poorest quintile.

Not at risk of impoverishment At risk of impoverishment Further impoverished

Source: authors based on Living Costs and Food

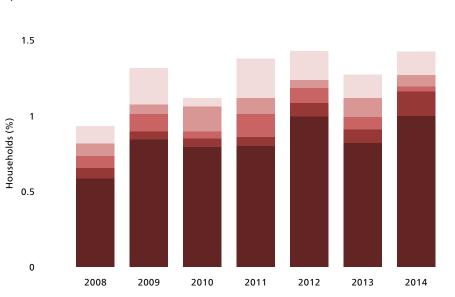
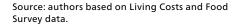


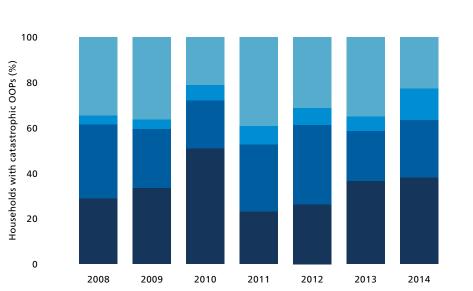
Fig. 18. Share of households with catastrophic spending by consumption quintile

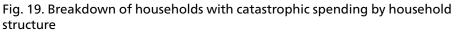


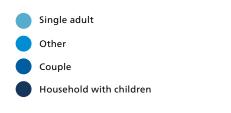


Over time, an increasing number of households with catastrophic outof-pocket spending includes children: this share increased from 29% of households with catastrophic spending in 2008 to a peak of 51% in 2010 (Fig. 19). The share then fell, but has steadily increased since 2011. In 2014, while only 29% of all households in the survey had children, 38% of households experiencing catastrophic payments had children. This indicates that although children are exempt from NHS charges, they can still live in households that experience catastrophic out-of-pocket payments.

Looking at the individuals who made up households facing catastrophic out-of-pocket spending in 2014, 43% were among the adult working-age population (aged 18–65 years), 33% were children and 24% were aged 65 years or over (Fig. 20). Although everyone aged under 16 or over 60 years, as well as full-time students aged 16–18 years are exempt from prescription and dental charges, these groups account for over half of all households with catastrophic spending.

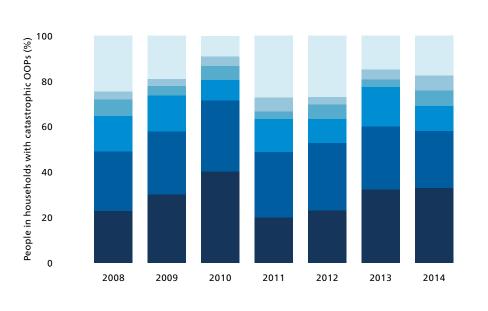


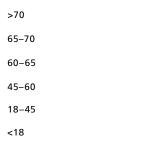




Source: authors based on Living Costs and Food Survey data.

Fig. 20. Breakdown of people living in households with catastrophic spending by age

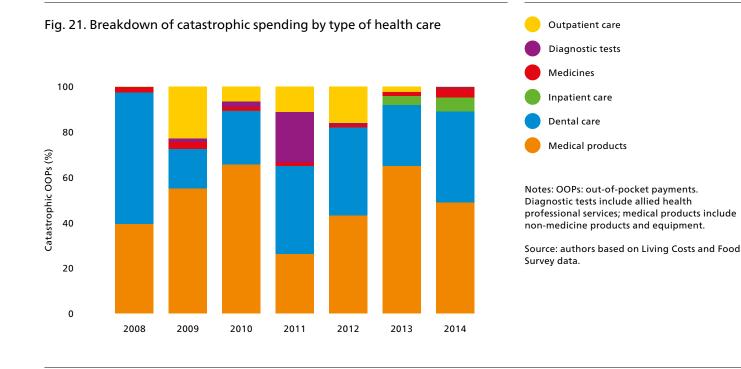




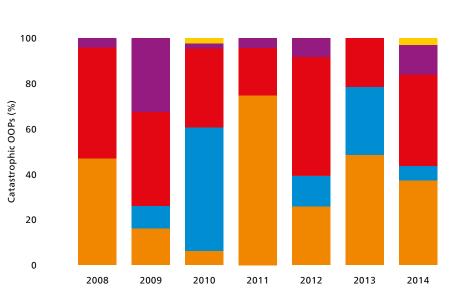
Note: OOPs: out-of-pocket payments. Source: authors based on Living Costs and Food Survey data.

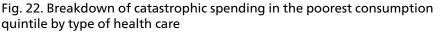
5.3 Which health services are responsible for financial hardship?

Medical products (e.g. wheelchairs, glasses, plasters) and dental care were the biggest drivers of catastrophic health expenditure between 2008 and 2014 in the United Kingdom (Fig. 21). Owing to the small number of households, it is difficult to draw discernible patterns in spending on other types of health care over time.



Given that the incidence of catastrophic out-of-pocket payments is concentrated among the poorest consumption quintile, it is particularly important to look at the drivers of catastrophic spending on health in that quintile. Fig. 22 shows the breakdown of out-of-pocket spending in the poorest quintile by the type of health care. Medicines and medical products account for the largest share of out-of-pocket spending in the poorest quintile. These shares fluctuated over time; again, probably influenced by the small numbers in the dataset. In 2014, medicines accounted for 40% of catastrophic spending in the poorest quintile, compared to 4% in the richest. Most households in the poorest quintile should be eligible for free prescriptions, so some of this spending is likely to have been on over-the-counter medicines. A high share (69%) of all households surveyed were in receipt of some kind of social security benefit in 2014, but this share was considerably higher (97%) among households that experienced catastrophic expenditure.





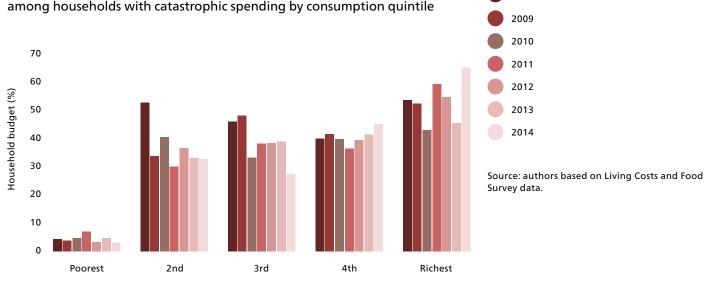


Notes: OOPs: out-of-pocket payments. Diagnostic tests include allied health professional services; medical products include non-medicine products and equipment. Given the very small numbers involved in this analysis, these numbers are subject to error, particularly in richer quintiles (e.g. the 3rd quintile has no dental spending in 2014).

Source: authors based on Living Costs and Food Survey data.

5.4 How much financial hardship?

Fig. 23 shows out-of-pocket spending as a share of the total household budget in households experiencing catastrophic spending on health. This highlights that – given the limited capacity to pay of the poorest quintile – out-of-pocket spending that is a relatively small share of the total household budget (3.1% in 2014) is enough to be catastrophic for the household. On average, households that experienced catastrophic out-of-pocket health care payments spent 35.7% of their total household budget on health, compared to only 1.2% of total household budget in households with non-catastrophic spending. Households that were further impoverished after out-of-pocket payments spent, on average, 1.4% of their total budget on health care in 2014.



2008

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

In 2014, households that experienced catastrophic out-of-pocket payments spent an average of £104 out of pocket in a given week. This ranged from £5 per week in the poorest quintile (an average of 3.1% of total household consumption) to £724 per week in the richest quintile (an average of 64.4% of total household consumption). For the poorest quintile, this figure could represent the cost of buying cough medicine for a child: £5.50 for 200ml of Calpol.

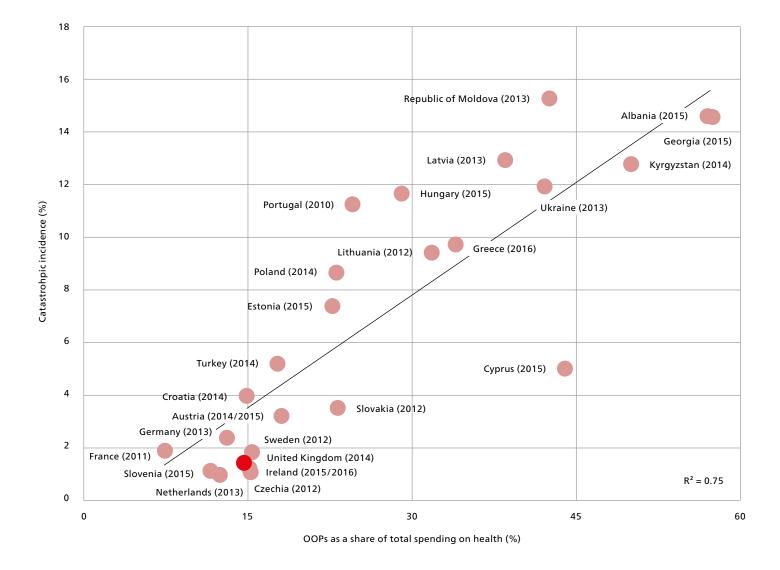
5.5 International comparison

The incidence of catastrophic out-of-pocket payments in the United Kingdom is low compared to other European countries. It is on par with Ireland and France (Fig. 24).

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

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

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



5.6 Summary

The United Kingdom health system provides relatively strong financial protection in comparison to many other EU countries.

In 2014, 1.4% of households experienced catastrophic out-of-pocket spending in a given week in the United Kingdom (about 1.1 million people). This share has not changed significantly since 2008.

Just over half of all households facing catastrophic out-of-pocket payments (55%, around 600 000 people) were already living below the basic needs line and were pushed even further below the line after spending on health.

The incidence of catastrophic spending on health varies substantially across income groups, ranging from 5% of households in the poorest quintile in 2014 to 1% of households in the richest quintile.

The main drivers of catastrophic spending overall are medical products and dental care. Outpatient medicines are not a source of financial hardship for the general population. Among the poorest quintile, however, they are the largest single driver of catastrophic out-of-pocket payments. Given that people with low incomes are exempt from prescription charges, this may be due to spending on over-the-counter medicines.

In 2014, only 29% of households included in the survey had children but 38% of households experiencing catastrophic out-of-pocket payments had children. This indicates that although children are exempt from NHS charges, they can still live in households facing catastrophic spending on health.

Less than a quarter of households with catastrophic out-of-pocket payments were aged over 65 years in 2014, reflecting exemption from prescription charges for people aged over 60 years in the United Kingdom health system.

6. Factors that strengthen and undermine financial protection

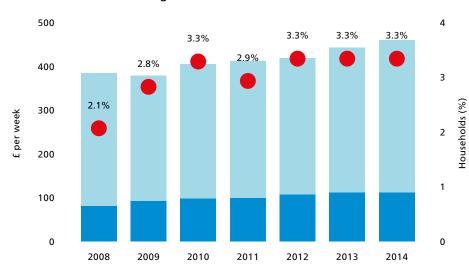
This section considers the factors that may be responsible for financial hardship caused by out-of-pocket payments in the United Kingdom and that may explain the trend over time. It begins by looking at factors outside the health system that affect people's capacity to pay for health care – for example, changes in living standards and the cost of living – then looks at factors within the health system.

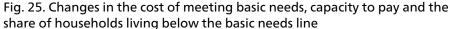
6.1 Factors affecting people's capacity to pay

The following paragraphs draw on the Living Costs and Food Survey and other sources to examine 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.

GDP fell slightly in the United Kingdom in 2008 and then fell more sharply (by over 4%) in 2009. It grew again until 2014, when it was almost back to its 2007 level. Unemployment rose between 2008 and 2011, but had returned to its pre-financial crisis level by 2014.

Between 2008 and 2014, the period of this study, household spending to meet basic needs grew by nearly 40% on average in the United Kingdom (Fig. 25). However, household capacity to pay for health care fell in 2009 and did not grow much after that; it was about 14% higher in 2014 than in 2008. This means that, on average, households would have had proportionately less to spend on health care after 2008. The share of households living below the basic needs line – that is, on less than £81 a week in 2008 and less than £112 a week in 2014 – rose from 2.1% to 3.3% between 2008 and 2010 and remained stable between 2012 and 2014.





Average capacity to pay (£)
 Cost of meeting basic needs (£)
 Share of households living below the basic needs line (%)
 Notes: the basic needs line and capacity to pay

are per household. 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. Currency units are not adjusted for inflation.

Source: authors based on Living Costs and Food Survey data.

Fig. 26 shows how the risk of poverty or social exclusion in the United Kingdom, as calculated by Eurostat, has changed over time. It was falling, on average, before the financial crisis, but rose in 2008, 2010, 2012 and 2013. It has fallen steadily since 2014, but did not reach its pre-crisis level until 2016. Just before the crisis, the gap between people aged over 60 years and those aged under 60 years widened owing to an increase in the risk of poverty facing older people, but after 2009 the position of older and younger people reversed. The risk of poverty or social exclusion among younger people rose relative to older people between 2010 and 2013 and the gap was still wide in 2016.

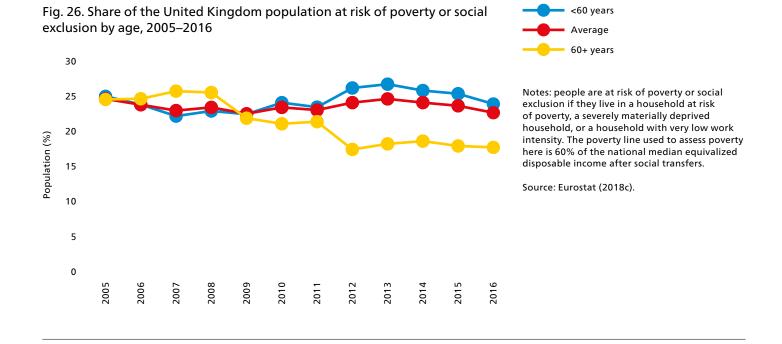


Fig. 27 provides a breakdown of individuals living in households in the poorest consumption quintile by age in the United Kingdom. It shows that the age structure of the poorest quintile is almost identical to the age structure of households with catastrophic spending on health (Fig. 20). There is a higher share of children and people aged over 70 years living both in the poorest households and households experiencing catastrophic out-of-pocket expenditure. Poorer households in the survey had a higher average number of children.

The breakdown of the poorest consumption quintile by economic activity of the household indicates that retired households are also vulnerable to poverty. A total of 60% of households in the poorest quintile are retired, compared to 40% of the whole sample. This includes people who are retired or inactive, whether they are of minimum state pension age or not. This may include people who retire due to ill health and have low income as a result.

While people aged 18–60 years are less likely to live in a household in the poorest consumption quintile, they do not qualify for age-based exemptions from NHS charges and may be especially vulnerable if they are in households with part-time or low-intensity work but do not qualify for income-based exemptions.

100

80

60

40

20

0

2008

2009

2010

2011

2012

2013

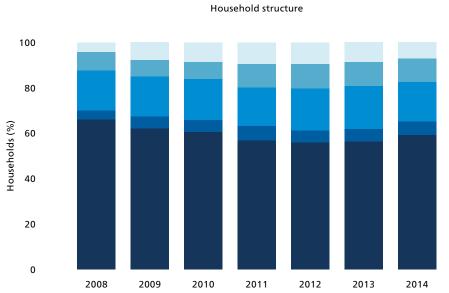
2014

Households (%)

Fig. 27. Breakdown of households in the poorest consumption quintile by age and household structure

Source: authors based on Living Costs and Food Survey data.







>70

65–70

60-65

45-60

18–45 <18



The high share of younger people in the poorest quintile may partly explain why the incidence of catastrophic spending on health in the United Kingdom is relatively low: younger people are generally less likely to need health care than older people.

In contrast to the health sector, which was relatively well protected during and after the financial crisis, the social protection system in the United Kingdom was explicitly targeted for cuts in public spending. Major reforms to taxes and to publicly financed benefits for disabled people and low-income households were introduced after 2010, many of which had not yet come into effect during the study period of 2008–2014.

Recent analysis has indicated that these reforms have already hit the poorest households the hardest and will continue to affect poorer households more than richer people in the future; it is estimated that by 2020–2021, households in the poorest quintile will have lost around 10% of their net income as a result of these reforms, compared to losses of around 6% in the second quintile and 2% in the third quintile, with no overall loss in the two richest quintiles (Portes & Reed, 2018).

6.2 Health system factors

The following subsections look at health spending and health coverage, examining trends and policies that may have influenced the results described in sections 4 and 5.

6.2.1 Health spending

From 2008 to 2014, public spending on health and social care fell in real terms across all United Kingdom countries. Since 2010, annual increases in spending in real terms have been at the level of around 1% per year in England and roughly flat per person in Wales, Scotland and Northern Ireland, compared to an historical annual increase in real terms of nearly 4% (Dayan, 2017).

The United Kingdom performs well in terms of public spending on health compared to many EU countries, but falls behind in relation to comparator countries in western Europe (Fig. 28). In 2015, public spending on health accounted for 7.9% of GDP in the United Kingdom, compared to 8.6% in the Netherlands, 8.7% in Denmark and France, 9.2% in Sweden and 9.4% in Germany. Fig. 29 shows how, in per-person terms, public spending on health in the United Kingdom is at the lower end of the spectrum for EU15 countries, higher only than in Finland and countries hit heavily by the economic crisis, such as Greece, Italy, Portugal and Spain.

Fig. 28. Public spending on health and GDP per person in the EU, 2015

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

Source: WHO (2018).

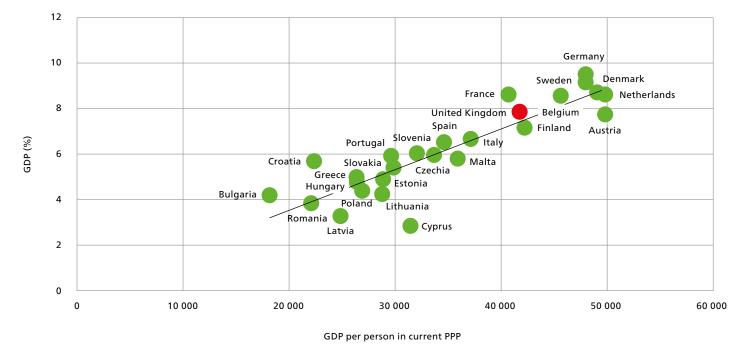
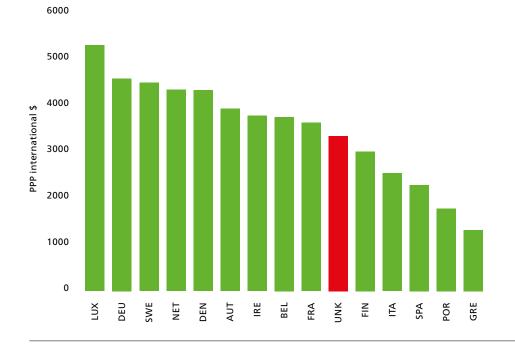


Fig. 29. Public spending on health per person, EU15, 2015

Note: PPP: purchasing power parity.

Source: WHO (2018).



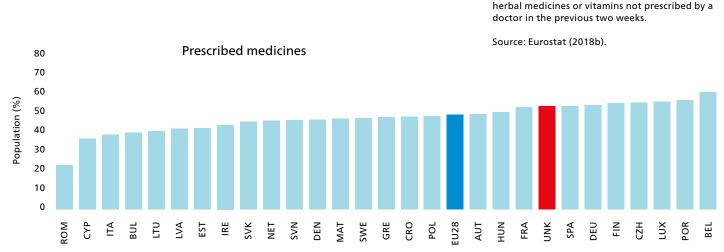
6.2.2 Health coverage

The United Kingdom's residence-based approach to **population entitlement** to NHS services means coverage is close to universal. Combined with relatively high levels of public spending on health, this means most people are entitled to a comprehensive range of publicly financed health services that are largely free at the point of use. The main gaps can be seen in **service coverage** – optometry services are excluded from the publicly financed benefits package – and **user charges** for dental care in all four countries, along with prescription charges in England.

These gaps are reflected in out-of-pocket payments, which are spent on medical products (35% in 2014), dental care (28%) and medicines (24%) (Fig. 12). Catastrophic out-of-pocket payments, however, are dominated by medical products and dental care; there is hardly any catastrophic spending on medicines – only about 4% in 2014 (Fig. 21). As a result of the abolition of prescription charges in Northern Ireland, Scotland and Wales, and the extensive exemptions from prescription charges in England, including for everyone aged over 60 years, outpatient medicines are not a source of financial hardship for the general population.

The picture is different for the poorest consumption quintile. Medicines are the largest single item on which the poorest households spend out of pocket (60% in 2014), followed by medical products (20%) (Fig. 11). Medicines account for a lower but still substantial share of catastrophic out-of-pocket payments (40%), along with medical products (37%). The reasons for this are not clear, since low-income households are exempt from prescription charges. It is possible that households in the poorest quintile are not receiving the benefits to which they are entitled or that they are spending on over-the-counter medicines. Fig. 30 and Fig. 31 support the latter interpretation; they suggest that the United Kingdom has a higher use of non-prescribed medicines compared to the rest of the EU.

The recent decision by NHS England to restrict routine prescribing of overthe-counter medicines for minor, self-limiting or short-term health conditions may lead to an increase in out-of-pocket payments for medicines in England, potentially increasing financial hardship for low-income households (NHS England, 2018). Fig. 30. Use of medicines in EU countries, 2014



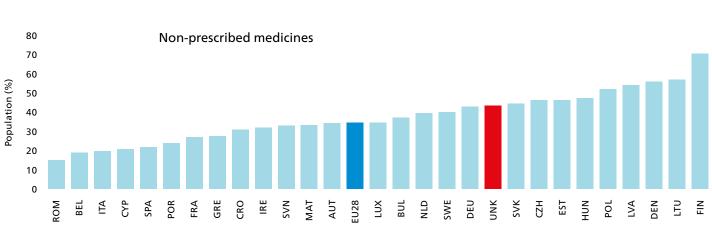
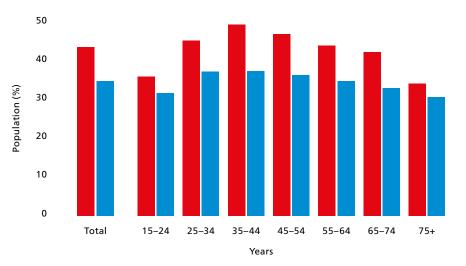


Fig. 31. Use of non-prescribed medicines by age, United Kingdom and EU28, 2014



United Kingdom

Note: share of the population who used medicines prescribed by a doctor or medicines,

Source: Eurostat (2018b).

52

6.2.3 The longer-term effects of financial pressure on the NHS and households

There is concern that some health services are being increasingly rationed in response to growing pressure on the NHS budget and on local governments responsible for funding social care (Robertson et al., 2017).

Although the health budget has been relatively well protected since the financial crisis in comparison to other spending areas, the rate of growth of funding for the NHS has slowed significantly when compared to historical trends. It is estimated that the Department of Health's budget (which covers England only) will grow by 1.2% in real terms between 2009–2010 and 2020–2021. This is substantially lower than the long-term average increases in health spending of approximately 4% a year (above inflation) since the NHS was established; it is also well below the annual rate of increase needed based on projections by the independent Office of Budget Responsibility (4.3%) (The King's Fund, 2017). The NHS is estimated to face a funding shortfall of £22 billion by 2020. Even if hospitals and other NHS providers were to manage to make cost savings of 2% a year, year after year, the funding gap would still be around £6 billion by 2020–2021 (Gainsbury, 2016).

The consensus appears to be that England, Scotland, Northern Ireland and Wales have all started in different ways to look at reducing the provision of treatments deemed to be of less benefit to patients, which could mean that some people might not receive treatment on the NHS in future and might have to pay out of pocket for their care (Dayan, 2017). This could have substantial implications for financial protection in the future.

Some of the local rationing strategies introduced in response to budget pressure have been blocked by national NHS leaders because of public backlash – for example, attempts to restrict hip replacements only to those in acute levels of pain. Yet other local rationing strategies continue and have created what has been termed a postcode lottery – areas where some services are offered but not others. Rationing may also be occurring through waiting. Unmet need for health and dental care has increased in recent years (Fig. 4 and Fig. 5) and may increase further as budget pressure continues.

National data suggest that private spending as a share of total spending on health fell, on average, between 2008 and 2012; in 2012, private spending accounted for 16% of total spending on health, the lowest share in over 15 years (equal with 2010) (Lloyd, 2015). This reduction in private spending on health, at a time when growth in public spending on health had also slowed substantially, suggests households were spending less in response to financial pressures. This situation may be reversed in future, however, as continuing budget pressure within the NHS may encourage those who can afford it to pay out of pocket to bypass waiting lists for NHS treatment.

In contrast to the health care system, publicly financed social care (support for non-medical needs, such as assistance with getting dressed and preparing meals) is much more limited. Entitlement to publicly financed social care is not only means-tested, with a very restricted threshold, but also based on a definition of need which has become more restrictive over time. Meeting local eligibility criteria has become increasingly difficult following cuts in central government funding to local governments, which fell by 37% in real terms between 2010–2011 and 2015–2016 (National Audit Office, 2014). Between 2013–2014 and 2014–2015, 40% of the savings achieved by local governments was through a reduction in the provision of social care for adults (National Audit Office, 2014). Reductions in public funding for social care and growing levels of unmet need for social care affect health care in many ways. They are already exerting pressure on the NHS and will continue to do so in the future – the most visible manifestation of this is the rapid growth in delayed discharges from hospital (Humphries et al., 2016).

This review does not consider financial protection for social care because social care is not delivered in the health care system and the Living Costs and Food survey does not include people living in residential care homes. In 2014, only 24 of the 5103 households in the survey had paid out of pocket for social care. However, social care costs can incur significant out-of-pocket expenditure. The Dilnot Commission found that in 2009/2010, 1 in 10 older people had an average cost of future lifetime care of more than £100 000 (Dilnot, 2011).

6.3 Summary

The strong financial protection the United Kingdom health system provides is the result of relatively high levels of public spending on health; population entitlement to NHS care based on residence; comprehensive service coverage; and very limited use of patient charges for NHS services, especially in Northern Ireland, Scotland and Wales, where prescription charges have been abolished.

Where user charges are applied, these are almost always in the form of fixed co-payments rather than percentage co-payments, and many people are exempt from having to pay them. Children aged under 16 years (or under 18 years if in full-time education) and low-income households are exempt from all NHS charges, while pregnant women, people with selected chronic conditions and people aged over 60 years are exempt from paying any prescription charges.

Northern Ireland, Scotland and Wales have a higher share of households with no out-of-pocket spending than England. This suggests that the abolition of prescription charges in England would enhance financial protection even further. Although use of outpatient medicines does not lead to financial hardship for the general population in the United Kingdom, they are the most important source of financial hardship for households in the poorest consumption quintile, in spite of income-based exemptions from prescription charges. This could reflect spending on over-the-counter medicines. Recent moves to restrict prescribing of medicines that can be purchased by the patient over the counter may therefore add to financial hardship among poor households, especially since households in the poorest quintile account for around 70% of households with catastrophic spending on health.

The incidence of catastrophic and impoverishing out-of-pocket payments did not change significantly during the study period (2008–2014), even though these years were marked by financial crisis, economic recession, rising (and subsequently falling) unemployment, substantial reductions in the growth rate of public spending on health, reductions in public spending on social care and, since 2010, a government policy of austerity. Data from the Living Costs and Food Survey show that household capacity to pay for health care fell in 2009 and only grew by 14% between 2008 and 2014, whereas household spending to meet basic needs grew by 40% over this period. This suggests that, on average, households had proportionately fewer resources available to spend on health care after 2008.

There are a number of reasons why financial protection did not appear to change in the years since the financial crisis and why it might look worse in future:

- the poorest consumption quintile is relatively young and the risk of poverty among younger people grew relative to older people during the study period; younger people are generally less likely to need health care than older people;
- not all of the tax and benefit changes introduced since 2010 had come into effect during the study period; recent analysis suggests that these changes are likely to hit the poorest households hardest, further limiting their capacity to pay for health care;
- there is some evidence of households cutting back on health spending in response to financial pressure; unmet need for health and dental care has increased substantially since 2008 (for health care) and 2011 (for dental care), especially among people in the poorest quintile;
- under severe financial pressure, the NHS has started to look into ways of decreasing the provision of treatments deemed to be of less benefit to patients, in order to reduce costs; this could mean fewer people receive treatment on the NHS in future – or more have to wait for NHS treatment – leading to increases in out-of-pocket spending on health; it may also exacerbate regional variation in the scope of covered services; and
- cuts in publicly funded social care continue to exert increasing pressure on the NHS and on households, with potential knock-on effects including greater rationing of NHS care and lower capacity to pay for health care among households.

7. Implications for policy

Financial protection in the United Kingdom is on a par with western European countries such as France and Sweden. It is stronger in the United Kingdom than in many other EU countries because most health services are free at the point of use; and, where user charges are applied, children aged under 16 years and households with low incomes are exempt from having to pay them. In addition, people aged over 60 years are always exempt from prescription charges and sometimes exempt from dental charges.

Nevertheless, in 2014, over one million people living in the United Kingdom experienced catastrophic out-of-pocket payments; most of them live in poor households. Over two thirds of households with catastrophic spending on health are in the poorest quintile. Just over half of them are living in very poor households – those spending less than £112 a week on average in 2014 – and they are pushed further into poverty by having to pay for health care at the point of use.

Although children are exempt from NHS user charges, they may live in households facing financial hardship due to the use of health care. In 2014, 38% of households with catastrophic out-of-pocket payments contained children; 58% of people living in households with catastrophic spending were aged under 45 years.

Catastrophic out-of-pocket payments are driven by spending on medical products and dental care. While medicines are not a source of financial hardship for the general population, they are the most important driver of catastrophic spending for the poorest quintile. Given that low-income households are exempt from prescription charges, this may reflect spending on over-the-counter medicines. The use of over-the-counter medicines among poorer households therefore warrants policy attention.

The incidence of catastrophic and impoverishing out-of-pocket payments did not change significantly during the study period (2008–2014), even though these were years marked by recession, rising (and subsequently falling) unemployment, austerity and unprecedented financial pressure on health and social care budgets. Data from the Living Costs and Food Survey show that household spending to meet basic needs grew at a faster rate than household capacity to pay for health care during this time, with a fall in capacity to pay in 2009. This suggests that, on average, households had proportionately fewer resources available to spend on health care after 2008.

It is possible that financial protection did not appear to deteriorate as a result of growing unmet need for health and dental care, meaning households responded to growing financial pressure by delaying or foregoing care. The share of the population reporting unmet need rose sharply after 2008 for health care and after 2010 for dental care, and doubled among people in the poorest quintile.

There are reasons to be concerned about access to health care and financial protection in the future. Not all of the tax and benefit changes introduced since 2010 had come into effect during the study period. Recent analysis suggests that the poorest households have borne the brunt of the tax and benefit changes already in place and that the changes still to be implemented are also likely to hit the poorest households hardest, further limiting their capacity to pay for health care. The NHS is also facing unprecedented

financial pressure owing to public investment levels that are lower than needed, along with cuts to social care budgets. Strategies to ration NHS care may increase the need for people to pay out of pocket. While those who can afford to do so may pay for private treatment, households already facing financial pressure may be forced to delay or forego care.

The vital and effective role the NHS plays in protecting people from financial hardship when they are ill should be safeguarded by ensuring that public spending on health is adequate to meet health needs. A commitment to funding preventive measures that reduce people's need for health care is also essential to ensuring financial protection in the longer term.

References

Arora V, Karanikolos M, Clair A, Reeves A, Stuckler D, McKee M (2015). Data resource profile: the European Union Statistics on Income and Living Conditions (EU-SILC). Int J Epidemiol. 44:451–461.doi:10.1093/ije/dyv069.

Baird B, Charles A, Honeyman M, Maguire D, Das P (2016). Understanding pressures in general practice. London: The King's Fund (https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/Understanding-GP-pressures-Kings-Fund-May-2016.pdf).

Boyle S (2011). United Kingdom (England): health system review. Health Systems in Transition 13(1):1–486 (http://www.euro.who.int/__data/assets/pdf_file/0004/135148/e94836.pdf?ua=1).

Commission on the Future of Health and Social Care in England (2014). The UK private health market. London: The King's Fund (https://www.kingsfund. org.uk/sites/default/files/media/commission-appendix-uk-private-health-market.pdf).

Cylus J, Richardson E, Findley L, Longley M, O'Neill C, Steel D (2015). United Kingdom: health system review. Health Systems in Transition 17(5):1–126 (http://www.euro.who.int/__data/assets/pdf_file/0006/302001/UK-HiT. pdf?ua=1).

Dayan M (2017). Is the NHS at breaking point? [website]. London: Nuffield Trust (https://www.nuffieldtrust.org.uk/news-item/is-the-nhs-at-breakingpoint#outcomes-and-effectiveness).

Department of Health (2012). NHS constitution for England. London: Department of Health and Social Care (https://www.gov.uk/government/ publications/the-nhs-constitution-for-england).

Dilnot A (2011). Briefing note on the report of the Commission on Funding of Care and Support. London: Commission on Funding of Care and Support (http://webarchive.nationalarchives.gov.uk/20130221121534/http://www. dilnotcommission.dh.gov.uk/our-report/).

Eurostat (2018a). EU statistics on income and living conditions (EU-SILC) [online database]. Brussels: European Commission (http://ec.europa.eu/eurostat/web/income-and-living-conditions/data/main-tables).

Eurostat (2018b). European Health Interview Survey [online database]. Brussels: European Commission (http://ec.europa.eu/eurostat/web/ microdata/european-health-interview-survey).

Eurostat (2018c). Statistical database [online database]. Brussels: European Commission (http://ec.europa.eu/eurostat/data/database).

EXPH (2016). Access to health services in the European Union – final opinion. Brussels: European Commission (https://ec.europa.eu/health/expert_panel/ sites/expertpanel/files/015_access_healthservices_en.pdf). EXPH (2017). Opinion on benchmarking access to healthcare in the EU. Luxembourg: Publications Office of the European Union (https://ec.europa. eu/health/expert_panel/sites/expertpanel/files/docsdir/opinion_ benchmarking_healthcareaccess_en.pdf).

Gainsbury S (2016). Feeling the crunch: NHS finances to 2020. PLACE: London: Nuffield Trust (https://www.nuffieldtrust.org.uk/files/2017-01/feeling-the-crunch-nhs-finances-to-2020-web-final.pdf).

Gainsbury S (2017). The bottom line. Understanding the NHS deficit and why it won't go away. London: Nuffield Trust (https://www.nuffieldtrust.org.uk/files/2017-11/the-bottom-line-final-nov-amend.pdf).

Health and Social Care Information Centre (2015). Hospital episode statistics, admitted patient care - England, 2014-15. Leeds: NHS Digital (http://content. digital.nhs.uk/catalogue/PUB19124).

Health and Social Care Information Centre (2016). Prescriptions dispensed in the community. England 2005-2015. Leeds: NHS Digital (http://content. digital.nhs.uk/catalogue/PUB20664/pres-disp-com-eng-2005-15-rep.pdf).

Humphries R, Thorlby R, Holder H, Hall P, Charles A (2016). Social care for older people : home truths. London: Nuffield Trust (https://www.nuffieldtrust. org.uk/research/social-care-for-older-people-home-truths).

Imison C, Curry N, Holder H, Castle-Clarke S, Nimmons D, Appleby J, et al. (2017). Shifting the balance of care. Great expectations. London: Nuffield Trust (https://www.nuffieldtrust.org.uk/files/2017-02/shifting-the-balance-of-care-report-web-final.pdf).

Institute For Fiscal Studies (2015). Total UK public spending [website]. London: Institute for Fiscal Studies (https://www.ifs.org.uk/tools_and_resources/ fiscal_facts/public_spending_survey/total_public_spending).

Johnson P, Phillips D (2014). Observations. The Scottish NHS - more financially secure outside the UK? [website]. London: Institute for Fiscal Studies (https://www.ifs.org.uk/publications/7366).

LaingBuisson (2017). Health cover, UK market report [website]. London: LaingBuisson (https://www.laingbuisson.com/laingbuisson-release/demandprivate-medical-cover-increases-corporates-extend-schemes/).

Lloyd T (2015). Funding overview. Historical trends in the UK. London: The Health Foundation (http://www.health.org.uk/sites/health/files/ FundingOverview_HistoricalTrendsInTheUK.pdf).

Longley M, Riley N, Davies P, Hernández-Quevedo C (2012). United Kingdom (Wales): health system review. Health Systems in Transition 14(11):1–84 (http://www.euro.who.int/__data/assets/pdf_file/0006/177135/E96723. pdf?ua=1).

McKenna H, Dunn P, Northern E, Buckley T (2017). How health care is funded [website]. London: The King's Fund (https://www.kingsfund.org.uk/publications/how-health-care-is-funded).

Muir T (2017). Measuring social protection for long-term care. OECD Health Working Papers, No. 93. Paris: OECD Publishing (https://www.oecd-ilibrary.org/docserver/a411500a-en. pdf?expires=1527070354&id=id&accname=guest&checksum= E0F0AB0E8B6DD28B3B7F695CA53776D5).

National Audit Office (2014). The impact of funding reductions on local authorities. London: National Audit Office (https://www.nao.org.uk/wp-content/uploads/2014/11/Impact-of-funding-reductions-on-local-authorities.pdf).

NHSBSA (2017). NHS help with health costs [website]. Newcastle upon Tyne: NHS Business Services Authority (https://www.nhsbsa.nhs.uk/nhs-help-health-costs).

NHS Choices (2015). Information for those visiting or moving to England [website]. Leeds: NHS Choices (http://www.nhs.uk/NHSEngland/ AboutNHSservices/uk-visitors/Pages/access-services-in-England.aspx).

NHS Choices (2017). NHS in England: help with health costs [website]. Leeds: NHS Choices (http://www.nhs.uk/NHSEngland/Healthcosts/Pages/ Prescriptioncosts.aspx).

NHS Digital (2016). NHS dental statistics for England – 2015-16. Leeds: NHS Digital (https://digital.nhs.uk/data-and-information/publications/statistical/ nhs-dental-statistics/nhs-dental-statistics-for-england-2015-16).

NHS England (2017a). Consultant-led referral to treatment waiting times [website]. Leeds: NHS England (https://www.england.nhs.uk/statistics/ statistical-work-areas/rtt-waiting-times/).

NHS England (2017b). GP patient survey [website]. Leeds: NHS England (https://gp-patient.co.uk/practices-search).

NHS England (2018). Conditions for which over the counter items should not routinely be prescribed in primary care: Guidance for CCGs. Leeds: NHS England (https://www.england.nhs.uk/publication/conditions-for-whichover-the-counter-items-should-not-routinely-be-prescribed-in-primary-careguidance-for-ccgs/).

NI Direct (2017). Health services [website]. Belfast: Northern Ireland Direct (https://www.nidirect.gov.uk/information-and-services/health-and-wellbeing/health-services).

Nuttall N, Freeman, R, Beavan-Seymour C, Hill K (2011). Access and barriers to care - a report from the Adult Dental Health Survey 2009. Leeds: NHS Digital (https://files.digital.nhs.uk/publicationimport/pub01xxx/pub01086/adul-dent-heal-surv-summ-them-the8-2009-re10.pdf).

O'Neill C, McGregor P, Merkur S (2012). United Kindgom (Northern Ireland): health system review. Health Systems in Transition 14(10):1–91 (http://www. euro.who.int/__data/assets/pdf_file/0007/177136/Northern-Ireland-HiT. pdf?ua=1). ONS (2015). Expenditure on healthcare in the UK: 2013. Newport: Office for National Statistics (https://www.ons.gov.uk/ peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/ articles/expenditureonhealthcareintheuk/2015-03-26#total-healthcareexpenditure-in-the-uk).

ONS (2016). Living Costs and Food Survey (Expenditure and Food Survey). Colchester: UK Data Service Discover (https://discover.ukdataservice.ac.uk/ series/?sn=2000028).

ONS (2017). Dataset: population estimates for UK, England and Wales, Scotland and Northern Ireland [online database]. Newport: Office for National Statistics (https://www.ons.gov.uk/peoplepopulationandcommunity/ populationandmigration/populationestimates/datasets/ populationestimatesforukenglandandwalesscotlandandnorthernireland).

Parkin E, Bate A (2018). The prescription charge and other NHS charges. Briefing paper number 07227, 20 April 20158. London: House of Commons Library

(http://researchbriefings.parliament.uk/ResearchBriefing/Summary/CBP-7227#fullreport).

Portes J, Reed H (2018). The cumulative effect of tax and welfare reforms. Manchester: Equity and Human Rights Commission (https://www. equalityhumanrights.com/en/publication-download/cumulative-impact-taxand-welfare-reforms).

Public Health England (2014). NHS entitlements: migrant health guide. London: HM Government (updated January 2018) (https://www.gov.uk/ guidance/nhs-entitlements-migrant-health-guide).

Roberts A, Charlesworth A (2014). A decade of austerity in Wales? The funding pressures facing the NHS in Wales to 2025/26. London: Nuffield Trust (https://www.nuffieldtrust.org.uk/research/a-decade-of-austerity-in-wales-the-funding-pressures-facing-the-nhs-in-wales-to-2025-26).

Robertson R, Wenzel L, Thompson J, Charles A (2017). Understanding NHS financial pressures : how are they affecting patient care? London: The King's Fund (https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/Understanding%20NHS%20financial%20pressures%20-%20 full%20report.pdf).

Sanders AE, Slade GD, John MT, Steele JG, Suominen-Taipale AL, Lahti S, et al. (2009). A cross-national comparison of income gradients in oral health quality of life in four welfare states: application of the Korpi and Palme typology. J Epidemiol Community Health 63(7):569–574 (http://www.ncbi.nlm.nih.gov/pubmed/19351621).

Steel D, Cylus J (2012). United Kingdom (Scotland): health system review. Health Systems in Transition 14(9):1–150 (http://www.euro.who.int/__data/ assets/pdf_file/0008/177137/E96722-v2.pdf?ua=1). The King's Fund (2017). The NHS budget and how it has changed [website]. London: The King's Fund (https://www.kingsfund.org.uk/projects/nhs-in-a-nutshell/nhs-budget).

Thomson S, Figueras J, Evetovits T, Jowett M, Mladovsky P, Maresso A, et al. (2014). Economic crisis, health systems and health in Europe: impact and implications for policy. Copenhagen: WHO Regional Office for Europe (http://www.euro.who.int/__data/assets/pdf_file/0008/257579/Economic-crisis-health-systems-Europe-impact-implications-policy.pdf).

Thomson S, Evetovits T, Cylus J (2018). Financial protection in highincome countries. A comparison of the Czech Republic, Estonia and Latvia. Copenhagen: WHO Regional Office for Europe (http://www.euro. who.int/en/health-topics/Health-systems/health-systems-financing/ publications/2018/financial-protection-in-high-income-countries.-acomparison-of-the-czech-republic,-estonia-and-latvia-2018).

Wagstaff A, van Doorslaer E (2003). Catastrophe and impoverishment in paying in health care: with applications to Vietnam 1993-98. Health Econ. 2(11):921–934.

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

WHO (2018). Global Health Expenditure Database [online database]. Geneva: World Health Organization (http://apps.who.int/nha/database/Select/ Indicators/en).¹

Xu K, Evans D, Carrin G, Aguilar-Rivera A, Musgrove P, Evans T (2007). Protecting households from catastrophic health spending. Health Aff (Millwood). 26(4):972–983.

Xu K, Evans D, Kawabata K, Zeramdini R, Klavus J, Murray C (2003). Household catastrophic health expenditure: a multicountry analysis. Lancet 362:111–117.

1. All websites accessed in May/June 2018.

Annex 1. Household budget surveys in Europe

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

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

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

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

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

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

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

Are household budget surveys comparable across countries? Household budget surveys vary across countries in terms of frequency, timing, content and structure. These differences limit comparability. Even among EU countries, where there have been sustained efforts to harmonize data collection, differences remain. An important methodological difference in quantitative terms is owneroccupier imputed rent. Not all countries impute rent and, among those that do, the methods used to impute rent vary substantially (Eurostat, 2015). In this series, imputed rent is excluded when measuring total household consumption.

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

Source: United Nations Statistics Division (2018).

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

References

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

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

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

Annex 2. Methods used to measure financial protection in Europe

Background

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

Data sources and requirements

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

The following variables are required at household level:

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

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

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

Defining household consumption expenditure variables

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

Total household consumption expenditure not including imputed rent

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

Food expenditure

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

Housing expenditure on rent and utilities

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

Health expenditure (out-of-pocket payments)

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

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

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

Defining a basic needs line

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

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

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

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

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

Calculating the basic needs line

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

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

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

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

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

Calculating basic needs expenditure levels for each household

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

Capacity to pay for health care

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

Estimating impoverishing out-of-pocket payments

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

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

Not at risk of impoverishment after out-of-pocket payments are non-poor households with out-of-pocket payments that do not push them below the multiple of the basic needs line. At risk of impoverishment after out-of-pocket payments are non-poor households with out-of-pocket payments that push them below a multiple of the basic needs line. This review uses a multiple of 120%, but the author also prepared estimates using 105% and 110%.

Impoverished after out-of-pocket payments are non-poor households that are pushed into poverty after paying out of pocket for health services. For them, the ratio of out-of-pocket payments to capacity to pay is greater than one. In the exceptional case that capacity to pay is zero and out-of-pocket payments are greater than zero, a household would be considered to be impoverished by out-of-pocket payments.

Further impoverished after out-of-pocket payments are households already below the basic needs line with out-of-pocket payments. Any household whose ratio of out-of-pocket payments to capacity to pay is less than zero (that is, negative) is pushed further into poverty by out-of-pocket payments.

Estimating catastrophic out-of-pocket payments

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

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

- those with out-of-pocket payments greater than 40% of their capacity to pay; this includes all households who are impoverished after out-of-pocket payments, because their ratio of out-of-pocket payments to capacity to pay is greater than one; and
- those with out-of-pocket payments whose ratio of out-of-pocket payments to capacity to pay is less than zero (negative) – that is, all households who are further impoverished after out-of-pocket payments.

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

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

Distribution of catastrophic out-of-pocket payments

The first equity dimension is expenditure quintile. Expenditure quintiles are determined based on equivalized per person household expenditure. Household weights should be used when grouping the population by quintile. Countries may find it relevant to analyse other equity dimensions such as differences between urban and rural populations, regions, men and women, age groups and types of household. In some countries it is common to finance out-of-pocket payments from savings or borrowing, which might artificially inflate a household's consumption and affect household ranking. Where this is an issue, it may be preferable to calculate quintiles based on non-health equivalized per person household expenditure.

Structure of catastrophic out-of-pocket payments

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

References

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

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

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

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

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

Annex 3. Regional and global financial protection indicators

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

Catastrophic out-of-pocket payments

Impoverishing out-of-pocket payments

Global indicators (G1-G4)

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

expenditure on health using an international

poverty line of PPP-adjusted US\$ 1.90 per

Indicator G2: changes in the incidence and severity of poverty due to household

consumption or income)

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

Regional indicators (R1, R2)

Indicator R1: the proportion of households

Indicator R2: risk of poverty due to out-

impoverished, at risk of impoverishment or not

of-pocket payments – the proportion of households further impoverished,

of household capacity to pay

with out-of-pocket payments greater than 40%

Note: PPP: purchasing power parity.

Sources: WHO headquarters and WHO Regional Office for Europe.

at risk of impoverishment after out-of-pocket payments using a country-specific line based on	person per day	
household spending to meet basic needs (food, housing and utilities)	Indicator G3: changes in the incidence and severity of poverty due to household expenditure on health using an international poverty line of PPP-adjusted US\$ 3.10 per person per day	
	Indicator G4 : changes in the incidence and severity of poverty due to household expenditure on health using a relative poverty line of 60% of median consumption or income per person per day	
Regional indicators		
States. They were developed by the W Strengthening (part of the Division of WHO Regional Office for Europe), at t	nent to the needs of European Member HO Barcelona Office for Health Systems Health Systems and Public Health in the he request of the WHO Regional Director mber States for performance measures	

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 wellbeing: 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.

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. This implies that very poor households spending small amounts on out-of-pocket payments, which constitute a relatively small share of their total budget, may experience financial hardship, while wealthier households are assumed to not

experience hardship until they have spent a comparatively greater share of their budget on out-of-pocket payments.

This approach results in the incidence of catastrophic out-of-pocket payments being highly concentrated among poor households in all countries. For countries seeking to improve financial protection, the appropriate response to this type of distribution is clear: design policies that protect poorer households more than richer households.

Recent global studies most commonly report impoverishing out-of-pocket payments using absolute international poverty lines set at US\$ 1.90 or US\$ 3.10 a day in purchasing power parity (indicators G2 and G3) (WHO & World Bank 2015; 2017). These poverty lines are found to be too low to be useful in Europe, even among middle-income countries. For example, the most recent global monitoring report suggests that in 2010 only 0.1% of the population in the WHO European Region was impoverished after out-of-pocket payments using the US\$ 1.90 a day poverty line (0.2% at the US\$ 3.10 a day poverty line) (WHO & World Bank, 2017).

European studies make greater use of national poverty lines or poverty lines constructed to reflect national patterns of consumption (Yerramilli et al., 2018). While national poverty lines vary across countries, making international comparison difficult, poverty lines constructed to reflect national patterns of consumption – such as that which is used as the poverty line for the regional indicator R2 – facilitate international comparison (Saksena et al., 2014).

References

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

WHO, World Bank. Tracking universal health coverage: first global monitoring report. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/174536/1/9789241564977_eng.pdf?ua=1, accessed 19 March 2018).

WHO, World Bank. Tracking universal health coverage: 2017 global monitoring report. Geneva: World Health Organization; 2017 (http://www.who.int/healthinfo/universal_health_coverage/report/2017/en/, accessed 19 March 2018).

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

Annex 4. Glossary of terms

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

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

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

Budget: See household budget.

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

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

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

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

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

Co-payments (user charges or user fees): Money people are required to pay at the point of using health services covered by a third party such as the government, a health insurance fund or a private insurance company. Fixed co-payments are a flat amount per good or service; percentage co-payments (also referred to as co-insurance) require the user to pay a share of the good or service price; deductibles require users to pay up to a fixed amount first, before the third party will cover any costs. Other types of user charges include extra billing (a system in which providers are allowed to charge patients more than the price or tariff determined by the third party payer) and reference pricing (a system in which people are required to pay any difference between the price or tariff determined by the third party payer – the reference price – and the retail price).

Equivalent adult: To ensure comparisons of household spending account for differences in household size and composition, equivalence scales are used to calculate spending levels per equivalent adult in a household. This review uses the Oxford scale (also known as the Organisation for Economic Co-operation and Development equivalence scale), in which the first adult in a household counts as one equivalent adult, subsequent household members aged 13 or over count as 0.7 equivalent adults and children under 13 years count as 0.5 equivalent adults.

Exemption from user charges (co-payments): A mechanism to protect people from out-of-pocket payments. Exemptions can apply to groups of people, conditions, diseases, goods or services.

Financial hardship: People experience financial hardship when out-of-pocket payments are large in relation to their ability to pay for health care.

Financial protection: The absence of financial hardship when using health services. Where health systems fail to provide adequate financial protection, households may not have enough money to pay for health care or to meet other basic needs. Lack of financial protection can lead to a range of negative health and economic consequences, potentially reducing access to health care, undermining health status, deepening poverty and exacerbating health and socioeconomic inequalities.

Further impoverishing out-of-pocket payments: An indicator of financial protection. Out-of-pocket payments made by households living below a national or international poverty line or a basic needs line. A household is further impoverished if its total consumption is below the line before out-of-pocket payments and if it then incurs out-of-pocket payments.

Health services: Any good or service delivered in the health system, including medicines, medical products, diagnostic tests, dental care, outpatient care and inpatient care. Used interchangeably with health care.

Household budget: Also referred to as total household consumption. The sum of the monetary value of all items consumed by the household during a given period and the imputed value of items that are not purchased but are procured for consumption in other ways.

Household budget survey: Usually national sample surveys, often carried out by national statistical offices, to measure household consumption over a given period of time. Sometimes referred to as household consumption expenditure or household expenditure surveys. European Union countries are required to carry out a household budget survey at least once every five years.

Impoverishing out-of-pocket payments: An indicator of financial protection. Out-of-pocket payments that push people into poverty or deepen their poverty. A household is measured as being impoverished if its total consumption was above the national or international poverty line or basic needs line before out-ofpocket payments and falls below the line after out-of-pocket payments.

Out-of-pocket payments: Also referred to as household expenditure (spending) on health. Any payment made by people at the time of using any health good or service provided by any type of provider. Out-of-pocket payments include: (a) formal co-payments (user charges or user fees) for covered goods and services; (b) formal payments for the private purchase of goods and services; and (c) informal payments for covered or privately purchased goods and services. They exclude pre-payment (for example, taxes, contributions or premiums) and reimbursement of the household by a third party such as the government, a health insurance fund or a private insurance company.

Poverty line: A level of personal or household income or consumption below which a person or household is classified as poor. Poverty lines are defined in different ways. This study uses basic needs line and poverty line interchangeably. See basic needs line.

Quintile: One of five equal groups (fifths) of a population. This study commonly divides the population into quintiles based on household consumption. The first quintile is the fifth of households with the lowest consumption, referred to in the study as the poorest quintile; the fifth quintile has the highest consumption, referred to in the study as the richest quintile.

Risk of impoverishment after out-of-pocket payments: After paying out of pocket for health care, a household may be further impoverished, impoverished, at risk of impoverishment or not at risk of impoverishment. A household is at risk of impoverishment (or not at risk of impoverishment) if its total spending after out-of-pocket payments comes close to (or does not come close to) the poverty line or basic needs line.

Universal health coverage: All people are able to use the quality health services they need without experiencing financial hardship.

Unmet need for health care: An indicator of access to health care. Instances in which people need health care but do not receive it due to access barriers.

User charges: Also referred to as user fees. See co-payments.

Utilities: Water, electricity and fuels used for cooking and heating.

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

Member States

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



World Health Organization Regional Office for Europe UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01 Email: eurocontact@who.int Website: www.euro.who.int