Can people afford to pay for health care?

New evidence on financial protection in Estonia 2023

Andres Vörk
Triin Habicht
Kristina Köhler

Estonia
The WHO Barcelona Office is a centre of excellence in health financing for universal health coverage (UHC). It works with Member States in Europe and Central Asia to promote evidence-informed policy making. It also offers training courses on health financing.

A key part of the work of the Office is to assess country and regional progress towards UHC by monitoring financial protection – affordable access to health care. Financial protection is a core dimension of health system performance, an indicator for the Sustainable Development Goals, part of the European Pillar of Social Rights and central to the European Programme of Work, WHO/Europe’s strategic framework. The Office supports countries to strengthen financial protection through tailored technical assistance, including analysis of country-specific policy options, high-level policy dialogue and the sharing of international experience.

Established in 1999, the Office is supported by the Government of the Autonomous Community of Catalonia, Spain. It is part of the Division of Country Health Policies and Systems of the WHO Regional Office for Europe.
Can people afford to pay for health care?

New evidence on financial protection in Estonia 2023

Andres Vörk
Triin Habicht
Kristina Köhler
Corrigendum


The names of the authors Triin Habicht and Kristina Köhler were added to the front cover and inserted in the disclaimer in the suggested citation. This correction was incorporated into the electronic file on 12 December 2023.
Abstract

This review is part of a series of country-based studies generating new evidence on financial protection – affordable access to health care – in health systems in Europe and central Asia. Financial protection is central to universal health coverage and a core dimension of health system performance assessment. Financial protection improved in Estonia between 2015 and 2020, reflecting positive changes in coverage policy and other factors. However, catastrophic health spending continues to be higher in Estonia than in many European Union countries – mainly driven by out-of-pocket payments for outpatient medicines and dental care – and is heavily concentrated among households with low incomes. Levels of unmet need for health care are also well above average for the WHO European Region, reflecting long waiting times for specialist care. Gaps in all three dimensions of health coverage undermine financial protection in Estonia and systematically affect households with low incomes. Linking entitlement to payment of contributions leaves 10% of working-age people without coverage. The benefits package – while quite broad – provides limited coverage of adult dental care. The Government has tried to protect people from co-payments for outpatient prescribed medicines and dental care but these efforts have not been sufficient for people with lower incomes. To improve financial protection, Estonia can change the basis for entitlement to residence; increase and fine-tune benefits to better target those in most need; reduce out-of-pocket payments in long-term health care; and increase protection from all co-payments, especially for households with low incomes.

Keywords

ESTONIA
HEALTHCARE FINANCING
HEALTH EXPENDITURES
HEALTH SERVICES ACCESSIBILITY
FINANCING, PERSONAL
POVERTY
UNIVERSAL COVERAGE
This series of country-based reviews monitors financial protection in European health systems. Financial protection – ensuring access to health care is affordable for everyone – is central to universal health coverage and a core dimension of health system performance.

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

**How do country reviews assess financial protection?** Each review is based on analysis of common indicators used to monitor financial protection: the share of people foregoing health care due to cost (*unmet need*) and the share of households experiencing financial hardship caused by out-of-pocket payments (*impoverishing and catastrophic health spending*). These indicators are generated using household survey data.

**Why is monitoring financial protection useful?** The reviews identify the health system 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 policymakers and others with robust, context-specific and actionable evidence that they can use to move towards universal health coverage.

**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 Financing, part of the Division of Country Health Policies and Systems of WHO/Europe. To facilitate international comparison the reviews follow a standard template, draw on similar sources of data and use the same equity-sensitive methods. Every review is subject to external peer review. Results are also shared with countries through a consultation process held jointly by WHO/Europe and WHO headquarters. The country consultation includes regional and global financial protection indicators.
What is the basis for WHO’s work on financial protection in Europe?
Financial protection is a Sustainable Development Goal, part of the European Pillar of Social Rights and at the heart of the European Programme of Work, WHO/Europe’s strategic framework. Through the European Programme of Work, WHO/Europe supports national authorities to reduce financial hardship and unmet need for health services (including medicines) by identifying gaps in health coverage and redesigning coverage policy to address these gaps. The Tallinn Charter: Health Systems for Health and Wealth and resolution EUR/RC65/R5 on priorities for health systems strengthening in the WHO European Region include a commitment to work towards a Europe free of impoverishing out-of-pocket payments. Other regional and global resolutions call on WHO to provide Member States with tools and support for monitoring financial protection, including policy analysis and recommendations.

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

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figures, tables and boxes</td>
<td>viii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>ix</td>
</tr>
<tr>
<td>Abbreviations</td>
<td>x</td>
</tr>
<tr>
<td>Executive summary</td>
<td>xii</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2. Methods</td>
<td>3</td>
</tr>
<tr>
<td>3. Financial protection</td>
<td>7</td>
</tr>
<tr>
<td>3.1. Financial hardship due to out-of-pocket payments</td>
<td>8</td>
</tr>
<tr>
<td>3.2. Unmet need for health care</td>
<td>12</td>
</tr>
<tr>
<td>4. What changed between 2015 and 2022?</td>
<td>15</td>
</tr>
<tr>
<td>5. What undermines financial protection?</td>
<td>19</td>
</tr>
<tr>
<td>6. Implications for policy</td>
<td>23</td>
</tr>
<tr>
<td>References</td>
<td>26</td>
</tr>
</tbody>
</table>
Figures

Fig. 1. Share of households at risk of impoverishment after out-of-pocket payments
8

Fig. 2. Share of households with catastrophic health spending by consumption quintile
9

Fig. 3. Households with catastrophic health spending and out-of-pocket payments as a share of current spending on health, Europe, 2019 or latest available year (before COVID-19)
10

Fig. 4. Breakdown of catastrophic health spending by type of care
11

Fig. 5. Breakdown of catastrophic spending by type of health care and consumption quintile, 2020
12

Fig. 6. Income inequality in unmet need for health care and dental care due to cost, distance and waiting time
13

Fig. 7. Perceived satisfaction in access to health care
14

Fig. 8. Share of the population covered by the EHIF
18

Tables

Table 1. Key dimensions of catastrophic and impoverishing spending on health
4

Table 2. Changes in coverage policy, 2015–2022
17

Boxes

Box 1. Unmet need for health care
6
Acknowledgements

This series of financial protection reviews is produced by the WHO Barcelona Office for Health Systems Financing, which is part of the Division of Country Health Policies and Systems in the WHO Regional Office for Europe. The series editors are Sarah Thomson, Jonathan Cylus and Tamás Evetovits (WHO Barcelona Office).

This review of financial protection in Estonia was written by Andres Võrk (University of Tartu), Triin Habicht (WHO Barcelona Office) and Kristina Köhler (WHO Country Office in Estonia). It was edited by María Serrano Gregori and Sarah Thomson (WHO Barcelona Office).

The WHO Barcelona Office is grateful to Kaija Kasekamp (Consultant, WHO Barcelona Office) for her feedback on the review. Thanks are also extended to Statistics Estonia and the National Institute for Health Development for making the household budget survey and health spending data available to the authors. Data on financial protection were shared with Statistics Estonia as part of a WHO consultation on universal health coverage indicators held in 2023.

The WHO Regional Office for Europe also gratefully acknowledges funding from the Government of the Autonomous Community of Catalonia, Spain and the European Union. This publication was produced with the financial assistance of the European Union. Its contents are the sole responsibility of WHO and can in no way be taken to reflect the views of the European Union.

Authors
Andres Võrk
Triin Habicht
Kristina Köhler

Editors
María Serrano Gregori
Sarah Thomson

Series editors
Sarah Thomson
Jonathan Cylus
Tamás Evetovits

Co-funded by the European Union
Abbreviations

COICOP  Classification of Individual Consumption by Purpose from the United Nations Statistics Division
COVID-19  coronavirus disease
EHIF  Estonian Health Insurance Fund
EHIS  European Health Interview Survey
EU  European Union
EU-SILC  EU Statistics on Income and Living Conditions
GDP  gross domestic product
HBS  household budget survey
NIHD  National Institute for Health Development
OTC  over-the-counter
SHA  (Estonian) System of Health Accounts
UHC  universal health coverage
VHI  voluntary health insurance
Countries

ALB Albania
ARM Armenia
AUT Austria
BEL Belgium
BIH Bosnia and Herzegovina
BUL Bulgaria
CRO Croatia
CYP Cyprus
CZH Czechia
DEN Denmark
DEU Germany
EST Estonia
FIN Finland
FRA France
GEO Georgia
GRE Greece
HUN Hungary
IRE Ireland
ISR Israel
ITA Italy
LTU Lithuania
LUX Luxembourg
LVA Latvia
MAT Malta
MDA Republic of Moldova
MKD North Macedonia
MNE Montenegro
NET Netherlands
POL Poland
POR Portugal
ROM Romania
SPA Spain
SRB Serbia
SVK Slovakia
SVN Slovenia
SWE Sweden
SWI Switzerland
TUR Türkiye
UKR Ukraine
UNK United Kingdom
Executive summary

This review assesses the extent to which people in Estonia experience financial hardship when they use health services, including medicines, and unmet need caused by financial barriers to access. It updates a report on financial protection in Estonia published in 2018.

The review draws on data from household budget surveys conducted in 2015, 2016, 2019 and 2020,* data from the Estonian System of Health Accounts for 2021,* data on unmet need for health care and dental care up to 2022* and information on coverage policy (population coverage, service coverage and user charges) up to 2023.

The review finds that in Estonia:

• 4.4% of households were at risk of impoverishment, impoverished or further impoverished after out-of-pocket payments in 2020;

• the incidence of catastrophic health spending is higher in Estonia than in many European Union (EU) countries – in 2020 7.2% of households experienced catastrophic health spending on average, rising to 19% in the poorest fifth of the population;

• catastrophic health spending is mainly driven by out-of-pocket payments for outpatient medicines and dental care and is heavily concentrated among households with low incomes and inactive people; and

• unmet need for dental care is below the EU average but, although unmet need for health care has fallen over time, it remains well above the EU average – particularly for people in the poorest fifth of the population – reflecting long waiting times for specialist care.

The factors that undermine financial protection, with a disproportionate impact on households with lower incomes, include the following.

• At least 5% of the population was not covered by the Estonian Health Insurance Fund (EHIF) in 2022, rising to at least 10% among working-age people (aged 20–59 years). Population coverage has increased in the last few years but is still far from universal.

• Although the EHIF benefits package is quite broad, it provides limited coverage of adult dental care. Other issues related to service coverage include concerns about the shortage of health care professionals in primary and specialist care, especially in remote areas, and long waiting times for specialist outpatient visits and elective surgery.

* The latest available year.
Protection from user charges for outpatient prescribed medicines, medical products, dental care and inpatient nursing care is inadequate, particularly for people with low incomes.

In recent years the Government has tried to protect people from co-payments for outpatient prescribed medicines and dental care, but these efforts have not been sufficient for people with lower incomes. To strengthen financial protection, policy should focus on:

- closing the gap in population coverage by changing the basis for entitlement to EHIF benefits to residence;
- monitoring co-payments in a more person-centred way (namely, looking at co-payments across all types of health care financed by the Estonian Health Insurance Fund) and introducing a cap on all co-payments – for example, by extending the protection mechanism used for outpatient prescribed medicines and applying it to all services;
- increasing protection from co-payments for households with low incomes – for example, by setting a protective) cap for them or exempting them from all co-payments;
- balance billing for primary care services (such as those provided by psychologists, physiotherapists and speech therapists) should be abolished to ensure that access does not depend on ability to pay;
- increasing and fine-tuning dental care benefits so that they are better targeted at the households in most need;
- reducing out-of-pocket payments in long-term health care by abolishing percentage co-payments and establishing a cap – ideally one that applies to co-payments for all types of health care;
- continuing to reduce out-of-pocket payments for prescribed medicines and medical products by ensuring that health care providers and pharmacies have incentives to prescribe and dispense the cheapest alternatives, as well as through price regulation; and
- improving the way in which over-the-counter medicines are sold and used by people, supported by more analysis.
1. Introduction
This review assesses the extent to which people in Estonia experience financial hardship when they use health services, including medicines, and unmet need caused by barriers to access. It updates an earlier review (Võrk & Habicht, 2018) and covers the period from 2015 to 2023, drawing on data from the annual household budget survey (HBS) carried out by Statistics Estonia between 2015 and 2020, data on unmet need for health care and dental care up to 2022 and information on coverage policy – the way in which health coverage is designed and implemented – up to 2023.

Research shows that financial hardship is more likely to occur when public spending on health is low relative to gross domestic product (GDP) and out-of-pocket payments account for a relatively high share of total spending on health (Xu et al., 2003; Xu et al., 2007; WHO, 2010; WHO Regional Office for Europe, 2019; WHO Regional Office for Europe, 2023a). Increases in public spending on health or reductions in out-of-pocket payments are not in themselves guarantees of better financial protection, however. Policy choices are also important. Coverage policy is a key determinant of the level and distribution of out-of-pocket payments (WHO Regional Office for Europe, 2019). Gaps in coverage lead to out-of-pocket payments, financial hardship and unmet need.

Estonia’s health system is financed mainly by a payroll tax – the earmarked share of the social tax. For working-age people in Estonia, access to publicly financed health care is based on payment of contributions (the social tax) to the Estonian Health Insurance Fund (EHIF). As a result, the EHIF covers around 95% of the population. Non-covered individuals typically include the long-term unemployed, younger and inactive individuals, or those working abroad. People in temporary or unstable employment face the risk of not having stable coverage.

Since 2018, an increasing share of the EHIF’s revenue comes from the state budget, including a formula-based transfer on behalf of non-working pensioners. All revenues are pooled by the EHIF and used to purchase health care services from contracted public and private providers. Levels of public spending on health in Estonia are low by European Union (EU) standards. In 2021 public spending on health accounted for 6% of GDP, below the EU average of 7% (WHO, 2023). This amounted to 2250 current purchasing power parities per person in 2020, which is significantly lower than the EU average of 3230 in current purchasing power parities per person.

In the last two decades out-of-pocket payments have ranged from 20% to 25% of current spending on health. In 2021 they accounted for 22%, which is above the EU average of 19% (WHO, 2023). Data from the Estonian System of Health Accounts (SHA) show that out-of-pocket payments are mainly spent on dental care (30%), followed by long-term health care (18%), prescription medicines (15%), over-the-counter (OTC) medicines (12%), specialist outpatient care (12%) and glasses, hearing aids and other medical products (7%) (NIHD, 2023).

This review is structured as follows. Section 2 sets out the analytical approach and sources of data used to measure financial protection. Section 3 assesses financial protection (financial hardship and unmet need for health and dental care) from 2015–2020. Section 4 reviews changes in household capacity to pay for health care and coverage policy since 2015. Section 5 discusses the factors that undermine financial protection and section 6 highlights implications for policy.
2. Methods
This section summarizes the study’s analytical approach and its main data sources. More detailed information about methods, data sources and terminology can be found in the Methods section of WHO Regional Office for Europe’s UHC watch database (WHO Regional Office for Europe, 2023b).

The analysis of financial protection in this study is based on an approach developed by the WHO Regional Office for Europe (Cylus, Thomson & Evetovits, 2018; WHO Regional Office for Europe, 2019), building on established methods of measuring financial protection (Wagstaff & van Doorslaer, 2003; Xu et al., 2003). All currency units in the review are presented in euros.

Financial hardship is measured using two indicators: impoverishing and catastrophic health spending. Table 1 summarizes the key dimensions of each indicator.

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

<table>
<thead>
<tr>
<th>Impoverishing health spending</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>The share of households impoverished or further impoverished after out-of-pocket payments</td>
</tr>
<tr>
<td><strong>Poverty line</strong></td>
<td>A basic needs line, calculated as the average amount spent on food, housing and utilities (water, electricity and fuel used for cooking and heating) by households between the 25th and 35th percentiles of the household consumption distribution, who report any spending on each item, respectively, adjusted for household size and composition using Organisation for Economic Co-operation and Development (OECD) equivalence scales. These households are selected based on the assumption that they are able to meet, but not necessarily exceed, basic needs for food, housing and utilities; this standard amount is also used to define a household’s capacity to pay for health care.</td>
</tr>
<tr>
<td><strong>Poverty dimensions captured</strong></td>
<td>The share of households further impoverished, impoverished and at risk of impoverishment after out-of-pocket payments and the share of households not at risk of impoverishment after out-of-pocket payments. A household is impoverished if its total consumption falls below the basic needs line after out-of-pocket payments; further impoverished if its total consumption is below the basic needs line before out-of-pocket payments; and at risk of impoverishment if its total consumption after out-of-pocket payments comes within 120% of the basic needs line.</td>
</tr>
<tr>
<td><strong>Disaggregation</strong></td>
<td>Results can be disaggregated into household quintiles by consumption and by other factors, where relevant.</td>
</tr>
<tr>
<td><strong>Data source</strong></td>
<td>Microdata from the national household budget survey.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catastrophic health spending</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
<td>The share of households with out-of-pocket payments that are greater than 40% of household capacity to pay for health care.</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>Out-of-pocket payments</td>
</tr>
<tr>
<td><strong>Denominator</strong></td>
<td>A household’s capacity to pay for health care is defined as total household consumption minus a standard amount to cover basic needs. The standard amount is calculated as the average amount spent on food, housing and utilities by households between the 25th and 35th percentiles of the household consumption distribution (as described above); this standard amount is also used as a poverty line (basic needs line) to measure impoverishing health spending.</td>
</tr>
<tr>
<td><strong>Disaggregation</strong></td>
<td>Results are disaggregated into household quintiles by consumption per person using OECD equivalence scales; disaggregation by place of residence (urban–rural), age of the head of the household, household composition and other factors is included where relevant.</td>
</tr>
<tr>
<td><strong>Data source</strong></td>
<td>Microdata from the national household budget survey.</td>
</tr>
</tbody>
</table>

Note: see the Glossary provided by WHO Regional Office for Europe’s UHC watch for definitions of words in italics (WHO Regional office for Europe, 2023b).

Source: WHO Regional Office for Europe (2019).
Financial hardship is measured using microdata from the Estonian HBS carried out in 2015, 2016, 2019 and 2020. The next survey will be carried out in 2026. The survey excludes people living in institutions (Statistics Estonia, 2023a).

In line with other HBSs, the Estonian survey collects information on household expenditure using the Classification of Individual Consumption by Purpose (COICOP) from the United Nations Statistics Division. Out-of-pocket payments are aggregated into six categories: medicines (prescription and OTC medicines – the latter including vitamins and food supplements); medical products (items like glasses, hearing aids and orthopaedic supplies); outpatient care; dental care; diagnostic tests (including other paramedical services); and inpatient care. Long-term health care is implicitly included under outpatient and inpatient care but spending by people living in long-term care institutions is not captured. Spending on mental health care is not assigned a separate category but is included under outpatient and inpatient care.

Out-of-pocket payments include user charges (co-payments) for publicly financed services covered by the EHIF, payments to non-contracted providers or for non-covered services, as well as informal payments.

The review also draws on the Estonian SHA, which is based on administrative data from the National Institute for Health Development (NIHD) (NIHD, 2023). HBS and SHA data on out-of-pocket payments are not directly comparable. The most important differences are for long-term health care and OTC medicines. SHA data show that out-of-pocket payments for long-term health care accounted for 18% of all out-of-pocket payments in 2020 (NIHD, 2023). However, this type of spending is not captured well by the HBS, which suggests that the review’s estimate of financial hardship may be underestimated, especially given the presence of heavy co-payments for inpatient nursing care. HBS data on OTC medicines include vitamins and food supplements, which are excluded from SHA data.

SHA data indicate that most out-of-pocket payments for outpatient care are for specialist care and that out-of-pocket payments for medical products are mainly spent on glasses and hearing aids.

Unmet need for health care is measured using survey data (Box 1) (Eurostat, 2023a).
Box 1. Unmet need for health care

Unmet need for health care is defined as instances in which people need health services but do not receive the care that they need because of access barriers. Self-reported data on unmet need should be interpreted with caution, especially across countries. However, analysis has found a positive relationship between unmet need and a subsequent deterioration in health (Gibson et al., 2019) and between unmet need and the out-of-pocket payment share of current spending on health (Chaupin-Guillot & Guillot, 2015), which suggests that unmet need can be a useful indicator of affordable access to health care services.

Every year EU Member States collect data on unmet need for health care (medical examination or treatment) and dental care (dental examination or treatment) through the European Union Statistics on Income and Living Conditions (EU-SILC) (Eurostat, 2023a). EU Member States also collect data on unmet need through the European Health Interview Survey (EHIS), carried out every 5–6 years (Eurostat, 2023b). The third wave of this survey was launched in 2019. Whereas the EU-SILC typically provides information on unmet need as a share of the population, the EHIS provides information on unmet need among people reporting a need for health care. The EHIS also asks households about unmet need for prescribed medicines.

Source: authors, based on WHO Regional Office for Europe (2019).
3. Financial protection
This section uses data from the Estonian HBS (Statistics Estonia, 2023a) to assess the extent to which out-of-pocket payments lead to financial hardship for households that use health services. It also looks at EU-SILC data (Eurostat, 2023a) on unmet need for health care and dental care.

3.1. Financial hardship due to out-of-pocket payments

In 2020 4.4% of households were at risk of impoverishment, impoverished or further impoverished after out-of-pocket payments, down from 5.4% in 2015 (Fig. 1).

In 2020 the incidence of catastrophic health spending was 7.2%, down from 8.0% in 2016 and 7.4% in 2015 (Fig. 2). This is higher than in many EU countries (Fig. 3) and well above the median incidence of 4.0% in EU countries in 2019 (or the latest available year before the coronavirus disease (COVID-19) pandemic) (WHO Regional Office for Europe, 2023a).

Catastrophic health spending is heavily concentrated in the poorest consumption quintile (Fig. 2). In 2020 nearly one in five households in the poorest quintile in Estonia experienced catastrophic health spending, down from 23% in 2016 and 20% in 2015. Catastrophic health spending is also heavily concentrated among inactive people (a group likely to overlap with households in the poorest quintile); in 2020, pensioner households...
accounted for about half of all households with catastrophic spending (data not shown).

Fig. 2. Share of households with catastrophic health spending by consumption quintile

Source: authors, based on HBS data (Statistics Estonia, 2023a).
Fig. 3. Households with catastrophic health spending and out-of-pocket payments as a share of current spending on health, Europe, 2019 or latest available year (before COVID-19)

Notes: data on catastrophic health spending and out-of-pocket payments are for the same year. The colour of the dots reflects the incidence of catastrophic health spending: green < 2%, yellow < 5%, orange < 10%, red < 15%, dark red > 15%. The list of country codes used here can be found in the Abbreviations.

Sources: data on catastrophic health spending from WHO Regional Office for Europe’s UHC watch database (WHO Regional Office for Europe, 2023b); and data on out-of-pocket payments from WHO (2023).
Outpatient medicines are the main driver of financial hardship in Estonia. In 2020 they accounted for nearly 59% of out-of-pocket payments in households with catastrophic health spending, followed by dental care (22%), medical products, such as glasses, hearing aids and orthopaedic supplies (10%) and outpatient care (8%) (Fig. 4). Catastrophic health spending on outpatient medicines was evenly divided between OTC medicines (30%) and prescribed medicines (29%). The breakdown of catastrophic health spending by type of health care has not changed much over time.

In the poorest quintile, financial hardship is largely driven by outpatient medicines (73% in 2020; 38% on prescription medicines and 35% on OTC medicines), followed by dental care (18%), medical products (3%) and outpatient care (3%) (Fig. 5). In contrast, dental care, medical products (mainly glasses) and outpatient care account for a much larger share of catastrophic health spending in richer households.

**Fig. 4. Breakdown of catastrophic health spending by type of care**

<table>
<thead>
<tr>
<th>Year</th>
<th>Inpatient care</th>
<th>Diagnostic tests</th>
<th>Outpatient care</th>
<th>Medical products</th>
<th>Dental care</th>
<th>Prescribed medicines</th>
<th>OTC medicines</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>36</td>
<td>29</td>
<td>30</td>
<td>29</td>
<td>30</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2016</td>
<td>33</td>
<td>30</td>
<td>29</td>
<td>30</td>
<td>29</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2019</td>
<td>26</td>
<td>22</td>
<td>29</td>
<td>22</td>
<td>29</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2020</td>
<td>30</td>
<td>22</td>
<td>29</td>
<td>29</td>
<td>29</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Notes: diagnostic tests include other paramedical services. Medical products include non-medicine products and equipment. Results for 2019 are unduly affected by the presence of a single household with very high spending on inpatient care, are not comparable to results for other years and should be interpreted with caution – with the exception of this single household, inpatient care was not an important driver of financial hardship in 2019.

Source: authors, based on HBS data (Statistics Estonia, 2023a).
3.2. Unmet need for health care

In 2020 13% of people reported unmet need for health care services due to cost, distance and waiting time (well above the EU average of 2%) and 3% reported unmet need for dental care for the same reasons (similar to the EU average of 3%) (Fig. 6). In 2019 4% of people with a need for health care (a different denominator from unmet need for health care or dental care) reported unmet need for prescribed medicines due to cost (similar to the EU average of 4%), rising to 9% in the poorest income quintile (EHIS data are not shown but are available from Eurostat (2023b)).

Unmet need for health care is mainly driven by waiting time in Estonia. It has generally fallen over time and income inequality has narrowed but data for 2022 show an increase on average and a widening gap between income groups (Fig. 6). Unmet need for dental care is mainly driven by cost in Estonia. It has fallen steadily over time and income inequality has narrowed considerably (Fig. 6).

Unmet need for prescribed medicines due to cost fell from 7% in 2014 and to 4% in 2019 and income inequality also narrowed (Eurostat, 2023a).

The improvement in unmet need may reflect an increase in satisfaction with access to health care, as shown in Fig. 7. The share of adults reporting good or quite good access to health care rose steadily between 2016 and 2020 but has fallen slightly since then. The decline since 2020 is likely to reflect the disruption caused in 2020–2021 by the COVID-19 pandemic.
Although the pressure of responding to COVID-19 limited access to health care, satisfaction increased in 2020 and 2021, perhaps because people understood the challenges the health system was facing. Over time, however, as the backlog has increased, people’s satisfaction has fallen.

Fig. 6. Income inequality in unmet need for health care and dental care due to cost, distance and waiting time

Note: population refers to people aged 16 and over.

Source: EU-SILC data from Eurostat (2023a).
Fig. 7. Perceived satisfaction in access to health care

Note: no survey was conducted in 2017.
Source: Kantar Emor (2022).
4. What changed between 2015 and 2022?
This section considers the trend in financial protection over time.

The incidence of impoverishing and catastrophic health spending increased between 2015 and 2016 in Estonia but had fallen by 2019 and remained stable in 2020 (see Fig. 1 and Fig. 2). Unmet need for health care and dental care also fell during this time (see Fig. 6).

Some of this improvement in financial protection may reflect changes in household capacity to pay for health care, which grew much faster than the cost of meeting basic needs between 2015 and 2020. This in turn reflects increases in employment and living standards. Between 2015 and 2022, unemployment in people aged 15–64 years fell from 6.3% to 5.9% (Statistics Estonia, 2023b). COVID-19 lockdowns in 2020 had a negative effect on the labour market but this was quickly reversed. As a result, absolute poverty rates in working-age people fell by six percentage points between 2015 and 2022 and were lower than ever in 2018–2021 (about 2%) (Statistics Estonia, 2023b).

The improvement may also reflect changes in coverage policy – the way in which health coverage is designed and implemented. The main changes are summarized in Table 2. Two key changes increased coverage of dental care and outpatient prescribed medicines.

Dental care benefits for adults were reintroduced in 2017, after being largely abolished in 2009, leading to an increase in the number of first-time visits to a dentist and the frequency of visits (National Audit Office, 2021). However, analysis has found that the dental care benefits were used by more people with higher incomes and did not reach people with lower incomes (National Audit Office, 2021). It is not clear why there was such a large reduction in self-reported unmet need for dental care; however, given that this reduction began before the 2017 policy change, it may reflect other factors.

Additional dental care benefits were introduced in 2022 (after the study period), this time focusing on registered unemployed people and people who receive a subsistence allowance (a means-tested benefit). The 2022 change in policy was significant because it was the first time that health benefits in Estonia were explicitly linked to a person’s income status.

In 2018 co-payments for outpatient prescribed medicines were reduced by lowering the annual threshold for increased protection from co-payments from €300 to €100 and automating it so that the benefit is applied in real time at the point of purchase. Prior to this, many people had not been aware of the benefit or had faced administrative barriers to accessing it. As a result of these changes, the share of people (who benefitted from reduced co-payments) collecting a prescription rose from 0.4% in 2017 to 15.6% in 2018 and 16.9% in 2020. Overall, the number of people spending more than €250 a year on outpatient prescribed medicines fell from 24 000 in 2017 to 1000 in 2018 (WHO Regional Office for Europe, 2023c).

Although there were no changes that aimed to increase population coverage, the share of people covered by the EHIF rose from 91% in 2015 to 95% in 2022 on average and from 84% to 90% among people aged 20–59 years (Fig. 8). This may have had a positive effect on financial protection.
Table 2. Changes in coverage policy, 2015–2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Policy area</th>
<th>Policy change</th>
<th>Health services targeted</th>
<th>People targeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>User charges</td>
<td>The annual threshold for reduced co-payments for outpatient prescribed medicines was lowered from €384 to €300</td>
<td>Outpatient prescribed medicines</td>
<td>EHIF-covered people</td>
</tr>
<tr>
<td>2017</td>
<td>Benefits package</td>
<td>Dental care benefits for adults were reintroduced after being largely abolished in 2009. Cash benefits replaced in-kind benefits for most essential dental care</td>
<td>Dental care</td>
<td>EHIF-covered people</td>
</tr>
<tr>
<td>2018</td>
<td>User charges</td>
<td>The fixed co-payment per prescription was set at the same rate for all medicines. The annual threshold for reduced co-payments for outpatient prescribed medicines was lowered from €300 to €100 and applied automatically at the point of purchase</td>
<td>Outpatient prescribed medicines</td>
<td>EHIF-covered people</td>
</tr>
<tr>
<td>2018</td>
<td>VHI</td>
<td>Income taxes and social taxes were abolished for VHI premiums purchased by employers</td>
<td>All services</td>
<td>People with VHI</td>
</tr>
<tr>
<td>2020</td>
<td>Population coverage</td>
<td>Payment of statutory health insurance contributions for self-employed people were temporarily deferred or suspended to ensure people can maintain coverage even if they have not paid contributions (in the context of COVID-19)</td>
<td>All services</td>
<td>EHIF-covered people</td>
</tr>
<tr>
<td>2020</td>
<td>User charges</td>
<td>COVID-19 testing and vaccinations became exempt from co-payments</td>
<td>Outpatient specialist care</td>
<td>Whole population</td>
</tr>
<tr>
<td>2020</td>
<td>User charges</td>
<td>COVID-19 related treatment became exempt from co-payments</td>
<td>Outpatient primary care, outpatient specialist care, inpatient care</td>
<td>Whole population</td>
</tr>
<tr>
<td>2021</td>
<td>Population coverage</td>
<td>Free cancer screening programmes were offered to people not covered by the EHIF</td>
<td>Outpatient specialist care</td>
<td>Uninsured people</td>
</tr>
<tr>
<td>2022</td>
<td>User charges</td>
<td>Dental care cash benefits increased from €40 to €85 a year for registered unemployed people and for people who receive a subsistence allowance* in the two calendar months preceding the month in which dental care was provided</td>
<td>Dental care</td>
<td>People with low incomes, registered unemployed people</td>
</tr>
</tbody>
</table>
Can people afford to pay for health care?

Fig. 8. Share of the population covered by the EHIF

Source: NIHD (2023).
5. What undermines financial protection?
This section considers factors within the Estonian health system that help to explain the findings on financial hardship and unmet need in the country.

Despite the improvement in financial protection between 2016 and 2019, the incidence of catastrophic health spending continues to be higher in Estonia than in many EU countries and levels of unmet need for health care are well above the EU average.

Weaker financial protection in Estonia reflects gaps in all three dimensions of health coverage: population coverage, service coverage and user charges (co-payments). These gaps systematically disadvantage households with low incomes – those who are at most risk of financial hardship and unmet need.

Estonia has a significant gap in population coverage.

- At the end of 2022, about 5% of the population was not covered by the EHIF, rising to about 10% among people aged 20–59 years (see Fig. 8). Population coverage has increased over the years but is still far from being universal. This gap in coverage mainly affects people with relatively low incomes.

- Although the EHIF automatically covers children and pensioners, entitlement is linked to employment and payment of contributions for people of working age. As a result, people who lack stable employment and regular wages – typically people with part-time jobs or in informal employment – are more likely to have trouble maintaining coverage and navigating the system.

- Refugees and people under subsidiary protection (including people fleeing the Russian Federation’s invasion) are entitled to be covered under the same conditions as Estonian citizens. As of mid-February 2023, 99.7% of displaced registered children (aged up to 19 years) from Ukraine were covered but only 70% of adults – a rate that is significantly lower than that of the general population (95%). This suggests that some refugees may lack adequate access to health care (European Observatory on Health Systems and Policies & European Commission, 2023).

- Asylum seekers and undocumented migrants are not entitled to EHIF benefits, only to a minimum set of publicly financed health services without user charges, including emergency care and public health programmes.

There are also issues with service coverage.

- Although the EHIF benefits package is quite broad in scope, it provides limited coverage of adult dental care. It also excludes optician services and products (e.g., glasses and contact lenses).

- Access is affected by a shortage of health care professionals in primary and specialist care, especially in remote areas, and by long waiting times for specialist outpatient visits and elective surgery. Waiting times have increased out-of-pocket payments for people who pay privately for faster access to outpatient specialist care.
In recent years the health system has tried to protect people from co-payments, especially for outpatient prescribed medicines and dental care. However, the use of percentage co-payments for some services (outpatient prescribed medicines, medical products, dental care and inpatient nursing care), without explicit exemptions from co-payments for people with low incomes and without a cap, requires further policy attention.

Some local municipalities offer additional protection from co-payments to people with low incomes but the system is retrospective and people need to apply for the benefit, which is likely to limit uptake, as can be seen from the Estonian experience of additional benefits for outpatient prescribed medicines (WHO Regional Office for Europe, 2023c).

The role of OTC medicines in driving financial hardship is not clear and requires further analysis.

Covered dental care is limited and generally subject to high co-payments. As a result, 70% of spending on dental care was financed through out-of-pocket payments in 2021 (OECD, 2023). The expansion of dental care benefits in 2017 led to increased use of dental care but mainly benefited richer households (National Audit Office, 2021) (see Fig. 4).

Out-of-pocket payments for other types of health care – for example, medical products, long-term health care services and balance billing in primary care – also give cause for concern, even though they may not be major drivers of catastrophic health spending.\(^3\)

Two-thirds of spending on medical products was financed through out-of-pocket payments in 2021 (OECD, 2023), partly reflecting gaps in the EHIF benefits package but also high co-payments.

In 2021 42% of spending on long-term health care was financed through out-of-pocket payments and long-term care accounted for 18% of out-of-pocket payments – one of the highest shares among OECD countries in Europe (OECD, 2023). These high out-of-pocket payments reflect co-payments for long-term inpatient nursing care: a fixed co-payment of €2.50 per day for up to 10 days and a percentage co-payment of 15% without any exemptions or caps. As a result, an older person requiring 30 days of long-term inpatient nursing care (the average length of stay was 27 days in 2022) must pay €596 in co-payments, which is equal to 88% of the average monthly old-age pension or 177% of the national minimum monthly pension (EHIF, 2023; Estonian Funded Pension Registry, 2023; Ministry of Social Affairs, 2023; NIHD, 2023).

Although Estonia has prioritized keeping primary care visits and services free at the point of use, there are concerns about additional out-of-pocket payments (a form of balance billing) that people may incur for primary-care services outsourced by family doctors from other providers. The Estonian Health Insurance Act only permits co-payments, in primary-care settings, for home visits. Due to a lack of clarity in the definition of primary care, however, it is common practice for co-payments to be applied to primary-care services funded by family doctor treatment funds, including services provided by psychologists,
physiotherapists and speech therapists. Although the co-payments for these services are regulated by the EHIF, agreements between family doctors and service providers allow health care professionals to charge people additional amounts for certain services. For example, the additional amount varied from €10 to €35 per visit for mental health services in 2023. This practice contravenes the Health Insurance Act and leads to income inequality in access to primary care. Although it has been acknowledged as an issue, it is not yet being addressed.

Voluntary health insurance (VHI) does not cover these gaps in coverage. It plays a small but growing role, providing faster access to covered services and services not covered by the EHIF but in 2022 it accounted for only 0.3% of current spending on health (WHO, 2023) and only covered 7% of working-age people.\(^5\) The tax subsidies for VHI introduced in 2018 (VHI premiums are now exempt from income and social taxes for employers) are likely to increase the number of people with VHI, increasing inequality in access to health care. International experience indicates that VHI generally exacerbates unequal access to health care (Sagan & Thomson, 2016; Thomson, Sagan & Mossialos, 2020).

\(^{5}\) Estonian Insurance Association data on medical expenses insurance in 2022, shared with the authors in March 2023.
6. Implications for policy
Affordable access to health care improved in Estonia between 2015 and 2020. The incidence of catastrophic health spending decreased overall and in the poorest quintile there was a steady decline in self-reported unmet need, particularly for dental care, and a narrowing of income inequality in unmet need. During this time population coverage increased, the EHIF expanded its coverage of dental care and co-payments for outpatient prescribed medicines were reduced for people spending more than €100 out of pocket per year. There is some evidence to suggest that the increase in dental care benefits was not sufficiently protective, however, especially for people with low incomes.

At the same time, levels of catastrophic health spending and unmet need continue to be higher in Estonia than in many other EU countries. The incidence of catastrophic health spending in Estonia (7%) is well above the EU median (4%) and unmet need for health care in the country (9%) is much higher than the EU average (2%) and this is mainly driven by long waiting times, reflecting a shortage of health care professionals and low levels of public spending on health care compared to the EU average.

Despite important policy changes in recent years, some gaps in coverage persist.

Linking entitlement to EHIF benefits to payment of contributions, combined with weak tax enforcement, leaves 10% of working-age people without EHIF coverage. This policy choice seems outdated in the context of a shift to more flexible and precarious employment. It also means that a significant share of refugees, who are entitled to the same benefits as residents in Estonia, lack coverage. Without change, the already substantial gap in population coverage in the country is unlikely to shrink. Also, given that the EHIF’s revenue is increasingly reliant on transfers from the Government budget, it seems unfair to exclude people who are already contributing through taxes (e.g. value-added tax).

Enhanced protection explicitly targeting households with low incomes and other groups of people at high risk of financial hardship is lacking. Children and pensioners benefit from some protection from co-payments – for example, exemptions or reduced co-payments for outpatient prescribed medicines – but more needs to be done to protect households with low incomes. Although municipalities may offer means-tested social assistance to help people with co-payments, people need to apply for assistance retrospectively, which means uptake is likely to be low (as demonstrated by Estonia’s recent experience of automating additional benefits for outpatient prescribed medicines) (WHO Regional Office for Europe, 2023c).

The affordability of inpatient long-term care is a growing concern. Administrative data indicate a heavy reliance on out-of-pocket payments to finance long-term health care in Estonia, reflecting high co-payments for inpatient nursing care without exemptions or a cap. HBS data do not capture household spending on long-term health care, which means catastrophic health spending in Estonia may be underestimated.
To reduce unmet need and financial hardship, the Government should continue to focus on improving the affordability of outpatient medicines and other services, as well as strengthening protection for households with low incomes. This can be done in the following ways.

- The gap in population coverage should be closed by changing the basis for entitlement to EHIF benefits to residence.

- Co-payments should be monitored in a more person-centred way (that is, looking at co-payments across all types of health care financed by the EHIF) and a cap on all co-payments should be introduced – for example, by extending the protection mechanism used for outpatient prescribed medicines and applying it to all services.

- Protection from co-payments should be increased for households with low incomes – for example by setting a cap for them or exempting them from all co-payments.

- Balance billing for primary care services (such as those provided by psychologists, physiotherapists and speech therapists) should be abolished to ensure that access does not depend on ability to pay.

- Dental care benefits should be increased and fine-tuned so that they are better targeted to help households in most need.

- Out-of-pocket payments for long-term health care can be reduced by abolishing percentage co-payments and establishing a cap – ideally one that applies to co-payments for all types of health care. This would improve financial protection and protect people from rapidly increasing prices.

- Out-of-pocket payments should continue to be reduced for prescribed medicines and medical products by ensuring that health care providers and pharmacies have incentives to prescribe and dispense the cheapest alternatives and through price regulation.

- The way in which OTC medicines are sold and used can be improved, supported by more analysis.

By focusing on these areas and improving protection for those most in need, Estonia will be able to ensure that affordable access to high-quality health care is not just a privilege but a universal right.
References


2. All references accessed on 1 December 2023.


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 (Kingdom of the)  
North Macedonia  
Norway  
Poland  
Portugal  
Republic of Moldova  
Romania  
Russian Federation  
San Marino  
Serbia  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
Tajikistan  
Türkiye  
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.who.int/europe