The Country Health Profile series

The State of Health in the EU’s Country Health Profiles provide a concise and policy-relevant overview of health and health systems in the EU/European Economic Area. They emphasise the particular characteristics and challenges in each country against a backdrop of cross-country comparisons. The aim is to support policymakers and influencers with a means for mutual learning and voluntary exchange.

The profiles are the joint work of the OECD and the European Observatory on Health Systems and Policies, in cooperation with the European Commission. The team is grateful for the valuable comments and suggestions provided by the Health Systems and Policy Monitor network, the OECD Health Committee and the EU Expert Group on Health Systems Performance Assessment (HSPA).

Data and information sources

The data and information in the Country Health Profiles are based mainly on national official statistics provided to Eurostat and the OECD, which were validated to ensure the highest standards of data comparability. The sources and methods underlying these data are available in the Eurostat database and the OECD health database. Some additional data also come from the Institute for Health Metrics and Evaluation (IHME), the European Centre for Disease Prevention and Control (ECDC), the Health Behaviour in School-Aged Children (HBSC) surveys and the World Health Organization (WHO), as well as other national sources.

The calculated EU averages are weighted averages of the 27 Member States unless otherwise noted. These EU averages do not include Iceland and Norway.

This profile was completed in September 2021, based on data available at the end of August 2021.

Demographic and socioeconomic context in Estonia, 2020

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Estonia</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population size (mid-year estimates)</td>
<td>1 328 976</td>
<td>447 319 916</td>
</tr>
<tr>
<td>Share of population over age 65 (%)</td>
<td>20.0</td>
<td>20.6</td>
</tr>
<tr>
<td>Fertility rate¹ (2019)</td>
<td>1.7</td>
<td>1.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socioeconomic factors</th>
<th>Estonia</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita (EUR PPP²)</td>
<td>25 691</td>
<td>29 801</td>
</tr>
<tr>
<td>Relative poverty rate³ (% 2019)</td>
<td>21.7</td>
<td>16.5</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>6.8</td>
<td>7.1</td>
</tr>
</tbody>
</table>

¹ Number of children born per woman aged 15-49. ² Purchasing power parity (PPP) is defined as the rate of currency conversion that equalises the purchasing power of different currencies by eliminating the differences in price levels between countries. ³ Percentage of persons living with less than 60% of median equivalised disposable income. Source: Eurostat database.

Disclaimer: The opinions expressed and arguments employed herein are solely those of the authors and do not necessarily reflect the official views of the OECD or of its member countries, or of the European Observatory on Health Systems and Policies or any of its Partners. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Additional disclaimers for WHO apply.

© OECD and World Health Organization (acting as the host organisation for, and secretariat of, the European Observatory on Health Systems and Policies) 2021
1 Highlights

The life expectancy of Estonians has grown strongly over the last two decades. However, while the health status of the population has been getting closer to the EU average since 2001, aggregate numbers obscure inequalities by region, gender and socioeconomic group. Compared to most other EU countries, Estonia spends less on health care, and although direct government transfers were injected into the system to address the COVID-19 pandemic, the health system remains chronically underfinanced. As a leader in e-health Estonia’s health system has been able to effectively support a variety of pandemic response measures and to deliver health services.

Health Status

Since 2000, Estonia’s life expectancy has increased more than any other EU country, although it fell by 0.4 years between 2019 and 2020 due to the COVID-19 pandemic. On average, women live 8.5 years longer than men; this gap in life expectancy by gender is much greater than the EU average of 5.6 years. Sizeable health inequalities also exist across income levels, regions and education.

Risk factors

Behavioural risk factors accounted for nearly two fifths of all deaths in Estonia in 2019. Overweight and obesity are a growing concern. More than one in five Estonian adults is obese, and obesity is increasingly common among adolescents. Smoking rates have been decreasing, but nearly 20 % of adults still smoke daily. Similarly, alcohol consumption has declined overall but is still high for adult men and adolescents.

Health system

In per capita terms, spending on health in 2019 was EUR 1 733, which is less than half the EU average. Total health expenditure was also significantly lower when measured as a share of GDP (6.7 % compared to an average of 9.9 % of GDP in the EU). Around three quarters of health spending in Estonia comes from public sources, with one quarter from out-of-pocket payments – mostly for medicines and dental care.

Effectiveness

Both preventable and treatable mortality are higher in Estonia than the EU averages, but they have decreased substantially since 2012. Ischaemic heart disease remains one of the leading cause of avoidable deaths. Estonia has lower avoidable hospital admissions for chronic diseases than many other EU countries.

Accessibility

Before the pandemic, Estonia’s population reported the highest level of unmet medical needs in the EU. During the COVID-19 crisis, reported unmet needs were higher than usual, but the rapid uptake of remote consultations supported by existing digital infrastructure helped to maintain access to care.

Resilience

Estonia leveraged its extensive digital infrastructure to respond to the COVID-19 pandemic, including for testing and contact tracing. Digital tools also facilitated the rollout of the COVID-19 vaccination programme, with 41 % of the population receiving two doses (or equivalent) by end August 2021.
2 Health in Estonia

Life expectancy has increased more than in any other EU country since 2000

Life expectancy at birth in Estonia rose by 7.5 years between 2000 and 2020, from 71.1 to 78.6 years. This is the sharpest increase in life expectancy in the EU during that period, and Estonian life expectancy is now closer to the EU average, although still two years below it (Figure 1). However, disability-free life expectancy has stagnated, hovering between 54 and 57 years since 2008. Between 2019 and 2020, life expectancy fell from 79 to 78.6 years, due mainly to deaths from COVID-19 but also a greater number of deaths from injuries and accidental poisoning (Statistics Estonia 2021).

Figure 1. Life expectancy in Estonia is still lower than the EU average but has caught up fast

Note: The EU average is weighted. Data for Ireland refer to 2019.
Source: Eurostat Database.

Stark gender, socioeconomic and regional inequalities persist

Women in Estonia live, on average, 8.5 years longer than men. This is the third largest gender gap in life expectancy in the EU after Lithuania and Latvia, and much greater than the EU average of 5.6 years. Inequalities are also very marked by socioeconomic status. Further, Estonia experiences significant regional disparities in life expectancy. For example, the disability-free life expectancy of residents in the western Lääne and Pärnu counties is 14 years longer than those in the eastern Põlva and Võru counties (NIHD, 2021a).

Cardiovascular diseases are the main cause of death

Despite a 60% decrease since 2000, in 2019 ischaemic heart disease was still the main cause of death in Estonia (Figure 2), and its mortality rate was twice the EU average. This large decrease can mainly be attributed to reductions in the prevalence of important risk factors for health in the Estonian population – such as smoking, particularly among men – as well as significant improvements in the quality of health care (see Sections 3 and 5.1). The death rate from stroke also decreased markedly to a level below the EU average. Lung cancer is the most frequent cause of death from cancer among the Estonian population, and the third highest cause overall, accounting for more than 4% of deaths in 2019. Deaths from prostate and colorectal cancer have increased since 2000, in part due to improved diagnosis, and are emerging public health issues.

From March to December 2020, COVID-19 accounted for about 250 deaths in Estonia – an estimated 1.5% of all deaths (Figure 2). An additional 1 040 deaths were registered up to the end of August 2021. The mortality rate from COVID-19 in 2020 was the second lowest in the EU after Finland. However, the broader indicator of excess mortality – defined as the number of deaths from all causes above what would normally be expected based on the baseline from previous years – suggests that the direct and indirect death toll related to COVID-19 could be significantly higher. Indeed, the number of excess deaths from March to December 2020 was three times higher (786 deaths) than the 250 registered COVID-19 deaths (see Section 5.3).
**Figure 2. Ischaemic heart disease is still by far the main cause of death in Estonia**

![Chart showing causes of death in Estonia](chart)

Note: The number and share of COVID-19 deaths refer to 2020, while the number and share of other causes refer to 2019. The size of the COVID-19 box is proportional to the size of the other main causes of death in 2019.

Sources: Eurostat (for causes of death in 2019); ECDC (for COVID-19 deaths in 2020, up to week 53).

---

**Self-reported health status varies widely across income groups**

In 2019, only 57% of the Estonian population reported being in good or very good health, compared with more than two thirds across the EU. However, more than three quarters of people in the highest income quintile considered themselves to be in good health compared with only one third in the lowest. This is the largest gap across income groups in all EU countries (Figure 3).

---

**Figure 3. Inequalities in self-rated health by income level are very large in Estonia**

![Bar chart showing self-rated health by income level in Estonia](bar_chart)

Note 1. The shares for the total population and the population on low incomes are roughly the same.

Source: Eurostat Database, based on EU-SILC (data refer to 2019).
Nearly half of the adult population has a chronic condition

Around 44% of adults reported having at least one chronic condition in 2019 – a proportion well above the EU average (36%), according to EU-SILC. Many of these chronic health problems increase the risk of severe complications from COVID-19. As with self-reported health, there is a substantial gap in the prevalence of chronic conditions by age and income group: nearly two thirds of Estonian adults in the lowest income group reported having at least one chronic condition compared with under a third of those in the highest.

Estimated mortality from cancer is well above the EU average

According to estimates from the Joint Research Centre based on incidence trends in previous years, around 7 700 new cancer cases were expected in Estonia in 2020. Estonia has above-average estimated cancer incidence among men, with prostate cancer projected to make up approximately 30% of all cancer diagnoses (Figure 4). In contrast, estimated cancer incidence among Estonian women is below the EU average. In 2020, an estimated 3 980 Estonians died of cancer. This equates to 293.5 deaths per 100 000 population in Estonia compared to 263.6 deaths per 100 000 across the EU.

Figure 4. Estimated cancer incidence in men is higher than the EU average, while in women it is lower

<table>
<thead>
<tr>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 074 new cases</td>
<td>3 632 new cases</td>
</tr>
<tr>
<td>Others</td>
<td>Others</td>
</tr>
<tr>
<td>25%</td>
<td>37%</td>
</tr>
<tr>
<td>Prostate</td>
<td>Breast</td>
</tr>
<tr>
<td>30%</td>
<td>23%</td>
</tr>
<tr>
<td>Pancreas</td>
<td>Others</td>
</tr>
<tr>
<td>3%</td>
<td>14%</td>
</tr>
<tr>
<td>Stomach</td>
<td>Pancreas</td>
</tr>
<tr>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Bladder</td>
<td>Cervix</td>
</tr>
<tr>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Kidney</td>
<td>Uterus</td>
</tr>
<tr>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Colorectal</td>
<td>Lung</td>
</tr>
<tr>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>Lung</td>
<td>Breast</td>
</tr>
<tr>
<td>30%</td>
<td>23%</td>
</tr>
</tbody>
</table>

Age-standardised rate (all cancer)
EE: 817 per 100 000 population
EU: 686 per 100 000 population

Age-standardised rate (all cancer)
EE: 451 per 100 000 population
EU: 484 per 100 000 population

Note: Non-melanoma skin cancer is excluded; uterus cancer does not include cancer of the cervix.
Source: ECIS – European Cancer Information System

3 Risk factors

Behavioural risk factors account for a substantial share of all deaths

Behavioural risk factors – including dietary factors, tobacco smoking, alcohol consumption and low physical activity – were responsible for 39% of all deaths in Estonia in 2019, which is equivalent to the EU average. Almost one fifth of all deaths could be attributed to dietary risks, which is a share close to the EU average. Tobacco consumption (including second-hand smoking) is the second major behavioural risk factor contributing to mortality, and is responsible for 15% of deaths. Alcohol consumption was responsible for 8% of total deaths in 2019. Air pollution in the form of fine particulate matter (PM2.5) and ozone exposure alone accounted for about 1% of all deaths – a lower share than the EU average of 4% (Figure 5).

1. It should be noted that these estimates were made before the COVID-19 pandemic; this may have an effect on both the incidence and mortality rates of cancer during 2020.
Figure 5. Around 4 in 10 deaths in Estonia can be attributed to modifiable lifestyle risk factors

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Estonia</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary risks</td>
<td>18%</td>
<td>17%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Air pollution</td>
<td>2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Note: The overall number of deaths related to these risk factors is lower than the sum of each one taken individually, because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetable intake, and high sugar-sweetened beverages consumption. Air pollution refers to exposure to PM2.5 and ozone.
Sources: IHME (2020), Global Health Data Exchange (estimates refer to 2019).

Policy action on nutrition and obesity is lagging

In Estonia, nearly one in five adults are obese, which is among the highest rates in the EU. More than half of adults aged 16-64 were either overweight or obese in 2020, with the share of overweight or obese men almost 10 percentage points higher than a decade ago (NIHD, 2021a). Overweight and obesity rates are also a growing issue in adolescents, as the rates have increased substantially over the last two decades, reaching 19% in 2018, up from only 7% in 2002.

Nearly half of the adult population report that they do not eat any fruit (49%) or vegetables (47%) on a daily basis (Figure 6).

The government began working on a green paper on nutrition and physical activity in 2014, but it has not yet been approved. This has delayed policy action that might tackle the rising overweight and obesity rates, although some measures are under development, including a plan for food reformulation and a voluntary code on responsible marketing.

Figure 6. Estonia fares worse than most EU countries on many risk factors to health

Note: The closer the dot is to the centre, the better the country performs compared to other EU countries. No country is in the white “target area” as there is room for progress in all countries in all areas.
Sources: OECD calculations based on HBSC survey 2017-18 for adolescents indicators; and OECD health statistics, EU-SILC 2017, EHIS 2014 and 2019 for adults indicators.
More than one fifth of adults smoke daily

Tobacco consumption is still a major public health concern in Estonia, particularly among men, although smoking rates have decreased since 2000. One in four men still reported smoking daily in 2020, and men are twice as likely as women to be daily smokers (NIHD, 2021a). The smoking rate among 15-year-olds has decreased over the past decade and is now on par with the EU average (18 % reported that they had smoked during the past month in 2018), but the use of e-cigarettes has increased.

Heavy alcohol consumption among adolescents and adult men is a pressing issue

In 2018, 27 % of 15-year-olds reported having been drunk more than once in their life – a share above the EU average (22 %). According to national data, overall alcohol consumption has been decreasing over recent years, and 13.3 % of adults reported binge drinking at least once a week in 2020. However, this diverges widely by gender, with 22 % of males binge drinking at least once a week compared to only 4 % of women (NIHD, 2021a).

People in Estonia are less physically active than in most other EU countries

Regular physical activity is slightly less prevalent in Estonia than in most other EU countries, with 60 % of adults meeting the WHO recommendation of doing at least 150 minutes of moderate physical activity per week, compared to an EU average of 64 %. Results from the 2020 Health Behaviour Data survey also show an increasingly sedentary lifestyle, with more than 22 % of respondents having more than four hours of screen time per day – up from 16 % in 2018 (NIHD, 2021b).

4 The health system

Estonia has a centralised health system with a single health insurance fund

The Estonian health system is largely funded through payroll tax. The Estonian Health Insurance Fund (EHIF) operates as a semi-autonomous public organisation, pooling most of the public funding for health and organisating the purchasing of health care. The Ministry of Social Affairs oversees the Estonian health system, and one of its agencies – the Health Board – led Estonia’s health system response to the COVID-19 pandemic, in accordance with the provisions of the Emergency Act (Box 1). All major hospitals in Estonia are publicly owned; they provide inpatient care and the majority of outpatient specialist care. Most primary health and dental care providers are private, as are some providers of outpatient specialist and nursing care.

Box 1. Estonia organised a whole-of-government response to COVID-19

A state of emergency was declared on 12 March 2020, at which time Estonia formed a government emergency committee to handle the spread of the coronavirus and manage the public health and economic implications. On 31 March, the medical director of the committee decided to divide the country into two zones (northern and southern regions), with regional emergency centres in Tallinn (north) and Tartu (south).

During the state of emergency, the government emergency committee met three times per week. Every Thursday, after the weekly formal Estonian government meeting, all members of the government could discuss the work of the committee together. After the emergency situation ended on 17 May 2020, the committee was disbanded. A scientific advisory board – comprising professors from the University of Tartu, doctors from regional hospitals and a representative of the National Institute of Health Development – provided scientific guidance to the government.

Source: COVID-19 Health Systems Response Monitor

Health spending in Estonia has grown in recent years but remains comparatively low

Despite sustained growth in health spending between 2013 and 2019, Estonia spends considerably less on health care than most other EU countries, at EUR 1 733 per capita (adjusted for differences in purchasing power), which is less than the EU average of EUR 3 523 in 2019 (Figure 7). Estonia spends 6.7 % of its GDP on health, which is substantially below the

2. Binge drinking is defined as consuming six or more alcoholic drinks on a single occasion for adults, and five or more alcoholic drinks for children.
9.9 % EU average. Around 74.5 % of health spending in Estonia is financed through government and compulsory insurance schemes, while 23.9 % comes from out-of-pocket (OOP) payments, mostly in the form of co-payments for medicines and dental care. This exceeds the EU average of 15.4 % of health spending coming from OOP expenditure.

**Figure 7. Spending in Estonia is relatively low, both in per capita terms and as a share of GDP**

Note: The EU average is weighted.

**Direct government transfers represent an increasingly important source of health financing**

The EHIF budget comes from an earmarked earnings-based employer contribution of 13 % for health benefits. Since health system financing reforms in 2017, a state budget transfer on behalf of non-working pensioners also provides funding for the EHIF. While this transfer has progressed as planned and will increase to 13 % of annual pensions in 2022, the COVID-19 pandemic also led to extraordinary government transfers (Box 2). This was the first time Estonia’s government had transferred additional funding to the EHIF due to the insufficiency of its reserves, and it has implications for the long-term sustainability of the health system (see Section 5.3).

**The Estonian Health Insurance Fund has persistent coverage gaps**

The health insurance system managed by the EHIF covers about 95 % of the population, with those in temporary or unstable employment among uninsured people (see Section 5.2). Around half of the insured population – including children, pensioners and registered unemployed people – do not pay a premium, which shows strong solidarity in the system. The EHIF also finances certain health services for the uninsured population, including emergency care, COVID-19 medical care and vaccinations and, since January 2021, cancer screening. Although the EHIF is increasingly responsible for financing health

---

**Box 2. Estonia adopted a supplementary state budget to cover COVID-19 costs**

Until the COVID-19 pandemic, Estonia had never transferred additional funding from the state budget to the EHIF to cover budget deficits, but EHIF reserves were deemed inadequate during COVID-19. To ensure availability of care services, on 15 April 2020 the Estonian parliament approved an additional state budget transfer to the EHIF of EUR 213.2 million – about 13 % of its planned budget for 2020. During the emergency situation and for the following 60 days, the EHIF used EUR 94.7 million (44 %) of the additional funds to ensure provision of health services – including personal protective equipment (EUR 30 million), reimbursement of fixed costs for hospitals (EUR 21.5 million) and additional costs related to medical treatment (EUR 23.4 million). The remaining EUR 19.8 million was spent on sickness benefits.

After the initial supplementary state budget transfer, Estonia’s government continued to make smaller additional transfers to the EHIF as the COVID-19 pandemic continued. Further, the government covered the shortfall in social tax in 2020 and plans the same approach for the 2021 budget, which diverges from previous policies.

services for the entire population, the uninsured population continues to face barriers to accessing essential services such as prescription medicines, leading to increasing inequalities within the health system (see Section 5.2).

The Estonian Health Insurance Fund has a positive list of health procedures and products

The EHIF defines the benefits package and price list for health services, pharmaceuticals and medical products. The price list contains over 2,000 items with a range of payment mechanisms, and is updated at least once per year. The EHIF covers most hospital and outpatient medical care, with pharmaceuticals, dental care and therapeutic appliances often using elements of cost-sharing (see Section 5.2). Once the list is approved by the government, the EHIF contracts with providers, which receive payments for services provided. In general, specialists working in hospitals receive a salary, specialists working in ambulatory care are paid on a fee-for-service basis, and family doctors have mixed reimbursement mechanisms. Hospital payment mechanisms include diagnosis-related groups, fee-for-service and per diem payments.

The outpatient sector has a larger role in Estonia than in many other EU countries

A primary care network of mostly private family doctors acts as the first point of contact for health care in Estonia. Secondary health care services are available at hospitals and outpatient care clinics; Estonia’s two largest hospitals, located in Tallinn and Tartu, account for around half the total volume of specialist services provided in the country. The number of hospital beds was 4.5 per 1,000 population in 2019, which is lower than the EU average of 5.3, and has decreased markedly over time as service provision has shifted to the outpatient setting. However, Estonia did not experience a shortage of beds during the COVID-19 pandemic (see Section 5.3). Estonians use the health system less frequently than other EU countries, with 7% fewer hospital discharges and 18% fewer doctor consultations than the EU average in 2019. However, such low utilisation levels may not necessarily reflect lower health needs of the Estonian population, since high levels of unmet needs are still reported (see Section 5.2).

The largest share of Estonia’s health expenditure is directed to outpatient care (Figure 8), followed by inpatient care and outpatient pharmaceuticals. However, outpatient care includes dental services, and dental care costs in Estonia are high (see Section 5.2).

Figure 8. Estonia spends less than the EU average on all care areas – especially long-term care

<table>
<thead>
<tr>
<th>EUR PPP per capita</th>
<th>Estonia</th>
<th>EU27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient care</td>
<td>1,022</td>
<td>1,010</td>
</tr>
<tr>
<td>Inpatient care</td>
<td>722</td>
<td>727</td>
</tr>
<tr>
<td>Pharmaceuticals and medical devices</td>
<td>630</td>
<td>632</td>
</tr>
<tr>
<td>Long-term care</td>
<td>617</td>
<td>613</td>
</tr>
<tr>
<td>Prevention</td>
<td>102</td>
<td>62</td>
</tr>
</tbody>
</table>

Note: The costs of health system administration are not included. 1. Includes home care and ancillary services (e.g. patient transportation). 2. Includes curative-rehabilitative care in hospital and other settings. 3. Includes only the outpatient market. 4. Includes only the health component. 5. Includes only spending for organised prevention programmes. The EU average is weighted. Sources: OECD Health Statistics 2021, Eurostat Database (data refer to 2019).

Estonia is training too few doctors and nurses

In 2019, Estonia had fewer physicians (3.5 per 1,000 population) and nurses (6.2 per 1,000 population) than the EU averages of 3.9 physicians and 8.4 nurses per 1,000 population (Figure 9). Moreover, the rates of graduating doctors and nurses have dropped. The number of graduating doctors declined from 151...
in 2017 to 138 in 2020, while graduating nurses fell from 467 to 383 during the same period. This wide gap between workforce needs and trained staff will challenge the resilience of the health system (see Section 5.3). The low numbers of nurses and other allied health professionals, including nutritionists and physiotherapists, also reduces the potential for task-shifting in Estonia.

Figure 9. The numbers of doctors and nurses in Estonia are below EU averages

Figure 9. The numbers of doctors and nurses in Estonia are below EU averages

Practicing nurses per 1 000 population

Doctors Low Nurses High

Doctors High Nurses Low

Doctors Low Nurses Low

Doctors High Nurses High

EU average: 8.4

EU average: 3.9

Practicing doctors per 1 000 population

0 2 4 6 8 10 12 14 16 18 20

2 3 4 5 6 6/period.round55/period.round54/period.round53/period.round52/period.round5

0 2 4 6 8 10 12 14 16 18 20

2 3 4 5 6 6/period.round55/period.round54/period.round53/period.round52/period.round5

Note: The EU average is unweighted. In Portugal and Greece, data refer to all doctors licensed to practise, resulting in a large overestimation of the number of practising doctors (e.g. of around 30 % in Portugal). In Austria and Greece, the number of nurses is underestimated as it only includes those working in hospitals.
Source: Eurostat Database (data refer to 2019 or the nearest year).

5 Performance of the health system

5.1 Effectiveness

Death rates from preventable and treatable causes have decreased rapidly, but remain high

Deaths that are deemed avoidable through both more effective health care and public health policies decreased by about 20 % between 2011 and 2018 in Estonia (Figure 10). The EU average during that period fell by around 10 %. Despite these improvements, Estonia still reports higher rates of mortality from preventable and treatable causes than the EU average (Figure 11).

The most frequent causes of preventable mortality include alcohol-related diseases, ischaemic heart disease and lung cancer. High mortality rates from these causes reflect the relatively high prevalence of risk factors for health (such as alcohol consumption, obesity and smoking) among the Estonian population compared to most other EU countries. Overweight and obesity rates are particularly worrying owing to a lack of policy action (see Section 3). Total mortality rates from hypertensive diseases in 2018 exceeded those of any other EU country, at 23 deaths per 100 000 population in Estonia compared with 5 in Lithuania and 11 in Latvia; however, differences in coding deaths may explain some of this variation.
Figure 10. There have been steeper decreases in mortality from preventable and treatable causes than the EU average

Source: Eurostat Database.

Figure 11. Mortality rates from preventable and treatable causes are higher than in many EU countries

Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Treatable mortality is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Half of all deaths for some diseases (e.g. ischaemic heart disease and cerebrovascular disease) are attributed to preventable mortality; the other half are attributed to treatable causes. Both indicators refer to premature mortality (under age 75). The data are based on the revised OECD/Eurostat lists.

Source: Eurostat Database (data refer to 2018, except for France 2016).
Strengthened primary care contributes to low levels of avoidable hospital admissions

Estonia’s hospitalisation rates for conditions that could have been effectively managed in outpatient settings are lower than in most other EU countries for which data are available. This result follows a sizeable reduction in the number of avoidable hospital admissions registered over the past years. In 2010, 623 people were admitted to hospital for asthma, compared with only 344 people in 2017, representing a 45% reduction. Similarly, between 2014 and 2018, avoidable admissions for diabetes declined by 25% and for congestive heart failure by 18% (Figure 12).

These positive results come in part from ongoing efforts to strengthen outpatient care, but the future for primary care will be challenging. A report released in November 2020 found that the number of permanently vacant primary care physician positions has quadrupled since 2015, and almost half of family doctors are aged 60 and over (National Audit Office, 2020).

Figure 12. Estonia has fewer avoidable hospital admissions than the EU average

Note: Data for congestive heart failure are not available in Latvia and Luxembourg. Source: OECD Health Statistics 2021 (data refer to 2019 or nearest year).

Historically low influenza vaccination rates are increasing as a result of policy interventions and COVID-19

In 2019, Estonia had among the lowest rates of influenza vaccination among people aged 65 and over in the EU – at 15% compared to EU average of 42%. However, this rate has increased considerably from less than 1% of the population aged 65 and over in 2012. A series of policy interventions, including providing the influenza vaccine in pharmacies and nursing homes, were implemented to increase vaccination rates.

Demand for the influenza vaccine in 2020 also grew markedly because of the COVID-19 pandemic. In September 2020, the EHIF purchased around 153 000 doses of influenza vaccine, which would have been sufficient to meet demand based on previous experience: around 132 000 doses were administered in the 2019/20 season. However, private companies also ordered the influenza vaccine for their workers, and supply ran out in most places by mid-October 2020. Some family doctors warned that the unprecedented demand for the influenza vaccine meant that some people in high-risk groups might remain unvaccinated. This experience contributed to a policy change so that, from 1 October 2021, the influenza vaccine will be part of the national immunisation schedule for everyone aged 65 and over, and will be covered by the EHIF.

While cancer screening rates have not increased, cancer survival rates have improved over time

Estonia runs cancer screening programmes for breast, colorectal and cervical cancers, but there is room to improve participation rates. In 2019, Estonia’s cancer screening participation rates were about 5% below the EU average for breast cancer and 20% lower for cervical cancer. Breast cancer screening rates generally hovered between 50% and 60% of the eligible population over the last decade, with rates peaking in 2010 at 62% and dropping to 51% a year later.

From January 2021, participation in cancer screening programmes is covered by the EHIF for the uninsured population, after more than a decade of discussions. This expansion of screening coverage aims to reduce population mortality, inequalities in access to
screening services and delays in necessary treatment. However, implementation of the plan faced delays due to the policy attention on COVID-19 (see Section 5.3).

Five-year cancer survival rates have risen since 2000-04, particularly for childhood leukaemia, which increased from a 64 % five-year survival rate in 2000-04 to 88 % in 2010-14. Cancer survival rates roughly match the EU averages for six cancers (Figure 13). Although many advances have occurred in cancer diagnosis and treatment, Estonia has identified several areas for improvement, and has developed a comprehensive cancer plan (Box 3), which aligns with the new Europe’s Beating Cancer Plan of the European Commission (2021a).

Figure 13. Survival rates for lung and cervical cancer and childhood leukaemia exceed EU averages

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Estonia</th>
<th>EU23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate cancer</td>
<td>86 %</td>
<td>87 %</td>
</tr>
<tr>
<td>Childhood leukaemia</td>
<td>88 %</td>
<td>85 %</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>77 %</td>
<td>82 %</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>67 %</td>
<td>63 %</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>58 %</td>
<td>60 %</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>17 %</td>
<td>15 %</td>
</tr>
</tbody>
</table>

Note: Data refer to people diagnosed between 2010 and 2014. Childhood leukaemia refers to acute lymphoblastic cancer.
Source: CONCORD Programme, London School of Hygiene and Tropical Medicine.

Box 3. Estonian Cancer Control Plan 2021-30

In April 2021, Estonia published a comprehensive Cancer Control Plan covering the period 2021-30, setting out a vision for cancer control from prevention to the end of life. To achieve this, Estonia has identified centralised management, better communication with target groups, development of patient pathways, quick implementation of research results in practice, monitoring these activities and a competent and motivated workforce as key priority actions. The plan will fit within the framework of the Estonian National Health Plan 2020-30, involving a steering committee and the Ministry of Social Affairs, working with other agencies.


5.2 Accessibility

Estonians report a high level of unmet needs for medical care, mainly due to waiting times

More people in Estonia reported that their health needs were not met than in any other EU country in 2019, with 15.5 % experiencing unmet needs for medical care compared to an EU average of 1.7 % (Figure 14). Unlike all other EU countries, individuals in the highest income group reported a higher level of unmet needs than those in the lowest, at 16.5 % compared to 15.4 %. This demonstrates that unmet needs in Estonia are not tied to income level; indeed, reported unmet needs due to costs fell from 1.1 % in 2016 to 0.4 % in 2019. Instead, excessive waiting lists are the largest contributor to the very high level of unmet medical needs in Estonia. Nearly 15 % of the population self-reported unmet needs for medical care due to waiting lists – far above the EU average of 0.7 %. In Estonia, 86 % of patients waited more than three months for cataract surgery, 89 % for hip replacement surgery and 93 % for knee replacement surgery in 2019. Although the health system has room for improvement in access to care, a 2020 EHIF survey found that 62 % of the Estonian population considered access to medical services good or rather good – the highest measured result since 2011.

According to the Eurofound survey³, 19 % of the Estonian population reported unmet needs during the COVID-19 pandemic, but this was below the EU average of 21 % (Eurofound, 2021). This may have resulted from high use of digital technologies, including digital consultations for specialist services, which were not available prior to the pandemic (see Section 5.3). During the COVID-19 pandemic, 46 % of Estonians reported having a teleconsultation, compared with a 39 % EU average.

³ The data from the Eurofound survey are not comparable to those from the EU-SILC survey because of differences in methodologies.
Figure 14. Estonians face the highest average level of unmet needs in the EU

Unmet needs for medical care

- High income
- Total population
- Low income

<table>
<thead>
<tr>
<th>Country</th>
<th>Unmet needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>Green</td>
</tr>
<tr>
<td>Greece</td>
<td>Yellow</td>
</tr>
<tr>
<td>Romania</td>
<td>Green</td>
</tr>
<tr>
<td>Finland</td>
<td>Yellow</td>
</tr>
<tr>
<td>Latvia</td>
<td>Green</td>
</tr>
<tr>
<td>Poland</td>
<td>Yellow</td>
</tr>
<tr>
<td>Iceland</td>
<td>Yellow</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Green</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Yellow</td>
</tr>
<tr>
<td>Ireland</td>
<td>Green</td>
</tr>
<tr>
<td>Belgium</td>
<td>Yellow</td>
</tr>
<tr>
<td>Denmark</td>
<td>Green</td>
</tr>
<tr>
<td>Italy</td>
<td>Yellow</td>
</tr>
<tr>
<td>Portugal</td>
<td>Yellow</td>
</tr>
</tbody>
</table>

Note: Data refer to unmet needs for a medical examination or treatment due to costs, distance to travel or waiting times. Caution is required in comparing the data across countries as there are some variations in the survey instrument used.
Source: Eurostat Database, based on EU-SILC (data refer to 2019, except Iceland 2018).

Health insurance in Estonia does not cover the whole population

In 2019, 5% of the overall Estonian population did not have health insurance. Coverage is most often linked to employment, so that individuals of working age with part-time work, unstable jobs or informal employment are more likely to be uninsured (Figure 15). Over 50 criteria define eligibility for health insurance in different legislative acts, which makes it difficult for citizens to navigate the system and maintain coverage if they have unstable employment.

The level of population coverage varies regionally: 86.3% of residents in Ida-Viru county aged 20-59 had health insurance in 2020, while the rate in Põlva county was 89.6%.

Figure 15. More than one in ten working-age Estonians have no health insurance coverage, but cover varies by region

Prior to the COVID-19 pandemic, uninsured Estonians had access only to emergency care and a few other services such as tuberculosis and HIV treatment. From 2021, however, routine cancer screening and COVID-19 testing and vaccinations are also covered. Moreover, in 2020 the parliament adopted temporary changes during the emergency situation to maintain health insurance coverage for those insured people who did not pay their insurance premium during the pandemic; this potentially affected up to 6% of the employed population.

Out-of-pocket spending causes financial hardship in Estonia

OOP payments represented 23.9% of health expenditure in Estonia in 2019 – significantly above the EU average of 15.4% and up from 20.3% in 2009 (Figure 16). Around 32% of OOP spending is directed to outpatient pharmaceuticals in Estonia, while dental care absorbs a particularly large share of OOP spending, at 28% compared to an average of 13% in the EU.
Reforms of adult dental and pharmaceutical coverage aim to improve financial protection

Estonia has attempted to reduce OOP health spending by adapting the levels of reimbursement for both dental care and pharmaceuticals, which have relatively low funding from government and compulsory sources (Figure 17). In the aftermath of the financial crisis of 2008, Estonia reduced its levels of public spending on adult dental coverage to cut costs, but from 2017 the government introduced a new dental care benefits package, which was extended in 2019. This covers the most basic dental services for all adults, along with a 50% co-payment and a EUR 40 annual cap in reimbursement for all adults, and a 15% co-payment and a EUR 85 cap for certain population groups with higher needs.

Estonia has also introduced reforms to lower OOP expenditure on pharmaceuticals for outpatient medicines. Before 2018, the co-payment for pharmaceuticals varied depending on the cost of the medicine. Following a 2018 reform, the co-payment was harmonised to EUR 2.50 per prescribed item. Patients also pay a share of the price of the pharmaceutical at 0%, 25% or 50%, depending on the reimbursement rate. After the reform, if an individual's total OOP expenditure on prescription medicines in a year exceeds EUR 100, the EHIF automatically reimburses 50% of the OOP cost; if spending is above EUR 300, it reimburses 90%. The calculation and administration take place at the time of purchase. So far, the reform has considerably increased the number of people receiving OOP payment reimbursement, so that fewer people spend a high amount on prescription medicines. Between 2017 and 2018, the share of Estonians who spent more than EUR 250 per year on prescriptions dropped from 2.8% to only 0.1% of the population. Early assessments indicate that these two policy changes
have had a positive impact by increasing access to medicines, although there is still scope to improve financial protection (WHO Regional Office for Europe, European Commission, European Observatory on Health Systems and Policies, 2021).

**Estonia has the opportunity to increase the use of generics**

Estonia’s use of generics by value has hovered around 16 % in the last five years. By volume, the share increased to 39 % of total pharmaceutical volume in 2020, up nearly six percentage points in 10 years. However, this falls below the average rate in the EU (49.5 %), while neighbouring Latvia has a generics volume share of 76 %.

**The COVID-19 pandemic exposed potential vulnerabilities in the supply of essential medicines**

Estonia does not produce any pharmaceuticals and relies on international trade and imports for essential medicines. As many countries closed their borders or restricted exports of pharmaceuticals during the COVID-19 pandemic, some Estonian households began stockpiling medicines. The government implemented several temporary regulations to prevent shortages, such as prescribing medicines for people with chronic conditions for no more than two months at a time, stopping exports of certain pharmaceuticals to protect stocks for anticipated increases in intensive care unit (ICU) patients and prohibiting sales of more than 30 tablets of paracetamol per customer. Additionally, wholesalers were subject to new reporting requirements so that the government had an overview of the situation at all times. One of the goals of the European Commission’s pharmaceutical strategy for Europe is to secure the supply of pharmaceuticals, which may reduce these pressures in future health crises (European Commission, 2020).

---

4. In this context, health system resilience has been defined as the ability to prepare for, manage (absorb, adapt and transform) and learn from shocks (EU Expert Group on Health Systems Performance Assessment, 2020).

### 5.3 Resilience

This section on resilience focuses mainly on the impacts of and responses to the COVID-19 pandemic*. As noted in Section 2, the pandemic had less of an impact in Estonia than in other EU countries on population health and mortality, with 1,291 COVID-19 deaths recorded between January 2020 and the end of August 2021. The measures taken to contain the pandemic also had an impact on the economy, leading to a 2.9 % decline in GDP in 2020, which is less than the EU average decrease of 6.2 % of GDP.

**Estonia responded quickly to the COVID-19 pandemic, but the situation escalated in the second wave**

The first case of COVID-19 in Estonia was reported on 27 February 2020. Two weeks later, Estonia declared a state of emergency that lasted from 12 March to 17 May. During the state of emergency, Estonia closed schools, prohibited public gatherings and public events, shut down restaurants and non-essential shops, introduced a 2+2 rule (where only two people could meet in public spaces at a distance of 2 metres) and required remote working as much as feasible, among other restrictions. After the state of emergency was lifted, Estonia gradually reopened public life, while generally still requiring the 2+2 rule and imposing 50 % occupancy restrictions in the hospitality sector.

During the first wave, the highest number of weekly cases occurred in the week of 30 March 2020, at a rate of 31.5 reported COVID-19 cases per 100,000 population. By the last week of October 2020, the weekly reported case numbers exceeded that of the first wave, and in the week of 15 March 2021 surpassed 775 reported cases per 100,000 (Figure 18). Restrictions were reintroduced in Estonia, starting in the regions with the highest infection rates and extending to the entire country by 11 March 2021 but gradually eased in early summer 2021. The Health Board declared a health emergency on 11 August 2021 in connection with the Delta variant.
Material shortages became acute during the COVID-19 pandemic

In addition to potential shortages in the supply of essential medicines (see Section 5.2), Estonia faced shortages of the personal protective equipment (PPE) needed to protect health workers and vulnerable groups, especially at the beginning of the pandemic. The national emergency stockpile of PPE managed by the Health Board and health care providers’ individual emergency stockpiles quickly proved insufficient to meet high demand during the COVID-19 crisis. Moreover, the terms previously negotiated with suppliers became obsolete as global demand for PPE skyrocketed. The EHIF adopted an emergency mechanism for financing PPE, providing additional flexibility to increase the funding available when higher need occurs due to an infectious disease.

To ensure sufficient levels of PPE, the Minister of Public Administration took over the central procurement, storage and distribution process until the end of 2020. Estonia also participated in joint procurement conducted by the EU. At the same time, many hospitals managed their own PPE procurement, and regional hospitals conducted larger procurement campaigns, including with allied health care providers and nursing homes.

The testing rates in Estonia exceeded those of most other EU countries in spring 2020

Initially, when testing capacity was limited, Estonia prioritised COVID-19 testing for older people, chronically ill patients and all patients with COVID-19 symptoms, based on GP referrals. Consequently, test positivity rates were much higher than the EU average (Figure 19). A digital referral system was developed in the middle of March 2020 to simplify the testing referral process and prevent in-person contact with potentially infected cases. Using the system, family doctors determined the need for testing and submitted an electronic order to the laboratory to refer the patient.

Testing in Estonia was mostly handled by private laboratories with strong links to primary health care. For sample collection, all major county centres operated testing centres, with larger cities containing several testing sites, and some testing locations opened and closed depending on need. Drive-in testing points were established at eight regional centres, and mobile teams picked up tests at home for people unable to drive to a testing location. Even though testing capacity did not meet total demand at certain times, Estonia had one of the highest testing rates per 100 000 population among EU countries in the first weeks of the COVID-19 pandemic in March and April 2020.
Figure 19. Although testing levels vacillated, positivity rates generally fell below the EU average

Test results were available to the public relatively quickly, supported by digital technologies

Patients in Estonia can view their test results digitally on the Estonian patient portal, after the information is entered into the national health information system. From 1 April 2020, data on the COVID-19 situation, including the number of tests performed, was made public in open data format on the Health Board’s website. When a test is positive, the Health Board contacts the individual to provide further instructions and initiate contact tracing. In general, test results were provided within two days; contracts executed with private providers also specified this turnaround time. This was facilitated by the close link between private testing providers and primary health care providers.

Estonia postponed nearly all elective care during the first weeks of the COVID-19 pandemic

Between 17 March and 21 April 2020, Estonia stopped all elective inpatient and outpatient care, although the treating physician had the final decision on whether to continue care. Dental and private specialist clinics closed from 26 March until 26 April except for emergency services. The Health Board provided instructions and minimum requirements, developed in collaboration with emergency medical directors and the Estonian Society of Infectious Diseases, for providers to restart services. These included requirements for infection prevention and control, employee training, supply of equipment and ability to test and treat COVID-19-positive patients.

After the first wave, maintaining essential services and resuming elective care remained a priority, and Estonia did not have any major countrywide disruptions until March 2021, when COVID-19 cases peaked. However, some hospitals had to reallocate wards for COVID-19 patients. These adjustments resulted in postponing some types of elective care on an ad hoc basis.

Existing hospital networks reasserted their role in the Estonian health system

The Estonian hospital network links smaller hospitals with the large North Estonia Medical Centre (for the northern part of Estonia) and the Tartu University Hospital (for the southern part). This proved an important source of coordination throughout the COVID-19 pandemic, when actions such as increasing ICU bed capacity and coordinating care were needed. For example, the majority of network hospitals established separate departments for COVID-19 patients, requiring 1 doctor per 10 COVID-19 patients.

Primary care providers continued to act as the first point of contact for Estonian patients

In addition to referring patients for testing, primary care providers represented the first point of care for patients potentially infected with COVID-19; this is consistent with their role before the pandemic. Symptomatic patients were asked to consult their family doctor via phone or other digital channels, or to call the family doctor advisory line, which was available 24/7. Family doctors consulted mild cases over the phone and only saw patients in person during dedicated consultation hours with pre-registration. The EHIF added remote consultations to the health service list in July 2020; before this they were reimbursed but not formally part of the benefits package.

Note: The EU average is weighted (the number of countries used for the average varies depending on the week).
Source: ECDC.
During the first wave, Estonians were able to apply for sick leave certificates in the patient portal to reduce the number of calls to primary health care providers. This supported isolation and quarantine measures, as potentially infected patients could stay at home more easily.

**Short-term measures were introduced to alleviate workforce shortages**

Estonia entered the COVID-19 pandemic with fewer doctors and nurses per 1,000 population than many other EU countries (see Section 4). In particular, the numbers of nurses, primary care providers and certain specialists allied to medicine were insufficient. Estonia introduced a variety of temporary measures to address existing workforce shortages (Figure 20). Medical professionals who treated COVID-19 patients received a bonus equivalent to 1.5-2 times their monthly salary. The Defence Forces were deployed at various points, including to an island municipality with the first major outbreak in Estonia. A non-governmental organisation set up a database of inactive health workers who might be willing to contribute voluntarily if needed; medical and nursing students close to graduation supplemented existing staff; and hospitals collaborated to reassign staff with relevant training to places with COVID-19 patients. Despite these adjustments, the health workforce faced substantial and ongoing pressures and exhaustion.

As a longer-term measure, Estonia increased the distance allowance for family doctors working in rural areas. From April 2020, family doctors operating more than 40 km from the nearest hospital received an extra EUR 1,646.82 per month (up from a previous EUR 563.15), and physicians operating 20-40 km from the nearest hospital received an additional EUR 823.41 per month (up from EUR 196.55).

**Figure 20. Estonia introduced several measures to manage workforce shortages**

Nursing homes came under pressure during the COVID-19 pandemic

Like many other EU countries, Estonia’s nursing homes bore a significant burden during the pandemic, and as early as 3 April 2020, 19 nursing homes had COVID-19 cases. Several interventions were put in place to reduce the risk of infection, such as prohibiting visitors, testing symptomatic personnel and residents, and implementing new staffing arrangements. However, the capacity to staff nursing homes diminished, and public announcements were made to attract volunteers. Further, 11 designated infection control officers were put in place to report to the Social Insurance Inspectorate and make recommendations for nursing homes.

**Several e-health innovations during COVID-19 built on existing digital infrastructure**

Even before the COVID-19 pandemic, Estonia was considered a leader in e-health. Over 96 % of the population hold an identification card that enables digital authentication for government services. Every Estonian has an electronic health record, and prescriptions, referrals, ambulance services, consultations and booking specialist appointments are all possible online. Many of these existing innovations in Estonia are already in line with the European Health Data Space initiative (European Commission, 2021b).

Estonia leveraged its existing digital infrastructure when responding to the COVID-19 pandemic. As early as 9 March 2020, two thirds of the Estonian population received email instructions in Estonian, Russian and English on how to respond and who to contact in the case of a suspected COVID-19 infection. A self-assessment tool, supported by the Ministry of Finance, Ministry of Social Affairs and the Health Board, was launched on 19 March for people to determine whether they might have COVID-19. The EHIF started to fund digital and remote consultations for specialist services. On 17 September, Estonia introduced an automated computer system to call contacts of COVID-19-positive cases to reduce the burden on contact tracers and inform the contacts of their potential exposure as soon as possible. From 1 January 2021, Estonia added a new service to the benefits list, enabling digital consultations in specialised ambulatory care, aiming to initiate and empower interdisciplinary consultations to improve continuity of treatment and access to services.
Vaccination rollout prioritised health care workers, welfare service providers and vulnerable groups

The Estonian government approved the COVID-19 vaccination plan on 15 December 2020, with multiple revised versions in 2021. The Ministry of Social Affairs Advisory Committee on Immunoprophylaxis defined the priority groups for vaccination, including health care workers, welfare service providers and individuals at high risk. The Health Board is responsible for the logistics of the vaccination campaign; it receives the vaccines and transfers them to vaccination sites including hospitals, primary care providers, nursing homes, workplaces and infectious disease clinics. Vaccination of risk groups was primarily carried out by family doctors, based on vaccination lists using EHIF data. Specialised vaccination centres were opened, with the involvement of private providers, as vaccinations became available to the whole population in May 2021. Estonia had a similar vaccination rate to the EU average until mid-May 2021, but this diverged over the summer. By the end of August, 41 % of the population had received two doses (or equivalent) (Figure 21).

Figure 21. COVID-19 deaths in Estonia fell as the vaccination rate increased through spring 2021

Note: The EU average is unweighted (the number of countries used for the average varies depending on the week).
Sources: ECDC for COVID-19 cases and Our World In Data for vaccination rates.

Novel digital solutions aided the vaccination campaign

EHIF and primary health care centres used an information technology solution to support vaccine distribution. The system automatically sent proposals for vaccination orders to over 700 family doctors, taking into account the number of vaccines that had arrived in Estonia and the number of patients in priority groups on the patient lists. Family doctors could edit and approve the order, after which the Health Board started to fulfil it. The solution also gave family doctors a clear overview of the timing of delivery and allowed them to track first and second doses. Citizens could register for vaccinations through their patient portal, which also displays whether an individual is in a high-risk priority group.

Estonia’s health system faces continuing pressures on its financial sustainability

The Estonian government passed legislation enabling the EHIF to use the state budget during the emergency situation, and budget transfers have made up an increasing source of health funding in recent years (see Section 4). However, the emergency transfers do not represent a stable source of funding, and transfers on behalf of pensioners are not expected to raise funding levels. As a result, there are ongoing concerns about the long-term sustainability of health system financing. A recent study commissioned by a think tank at the Estonian parliament concluded that, by 2035, the shortfall in EHIF revenues will be equivalent to 24 % of total annual health expenditure, or 1.8 % of GDP.
Key findings

- Life expectancy in Estonia has risen more quickly than in any other country in the EU since 2000. However, over the same period, disability-free life expectancy has plateaued, and health inequalities across regions and socioeconomic groups have widened. Self-reported health status by income level in Estonia has the widest gap in the EU, and disability-adjusted life expectancy varies by 14 years across regions.

- Mortality and morbidity vary considerably across the Estonian population, mirroring large differences in the prevalence of behavioural risk factors. High and growing overweight and obesity rates are a concern. Risky behaviours are more prevalent among Estonian men, with 22% of males reporting binge drinking at least once a week compared to only 4% of women. Similarly, men are twice as likely as women to be daily smokers. Some additional policy actions to target these behaviours have been proposed, but they require implementation.

- Progress in public health and health system development has been challenged by the COVID-19 pandemic. The National Health Plan 2020-30; green papers on nutrition and physical activity; and the Cancer Control Plan 2021-30 have faced delays in their implementation. The frequency of exhaustion among the health workforce and policy makers may further slow necessary changes, especially since fewer health workers are being trained to meet future health needs. This will be particularly crucial in primary care, since over half of family doctors are aged 60 and over.

- In 2019, nearly 15% of the Estonian population reported unmet needs for medical care because of waiting lists, which is far above the EU average of 0.7%. Consequently, Estonia has the highest level of unmet medical needs in the EU. During the COVID-19 pandemic, the level of unmet needs was slightly greater than usual, but lower than in many other EU countries. Access to care during the crisis was promoted with the rapid uptake of remote consultations, which was supported by Estonia’s existing digital infrastructure. The long-term impact of COVID-19 on waiting lists for elective care is not yet known, however.

- Health spending in Estonia is among the lowest in the EU, and out-of-pocket payments accounted for nearly a quarter of all health spending in 2019. Only 30% of dental care services and 52% of outpatient pharmaceuticals are publicly funded. Recent reforms expanding dental care and pharmaceutical benefits have targeted ways to reduce out-of-pocket spending and increase financial protection for the population.

- Estonia injected additional funds into the Estonian Health Insurance Fund during the pandemic, using direct government transfers. However, given pre-existing challenges with underfunding, ensuring the sustainability of health system financing will necessitate other longer-term financing mechanisms. These mechanisms are also required to close existing gaps in population coverage by extending health insurance to the whole population.

- COVID-19 prompted several changes in the governance of the Estonian health system. Hospital networks played a leading role in bolstering bed capacity, reorganising provision and coordinating care. The private sector also increased its involvement in the health system, particularly in testing and vaccination, although the effectiveness of pre-existing collaboration with primary health care providers proved to be a deciding factor in the success of these initiatives.
Key sources


References


Eurofound (2020), Living, working and COVID-19 survey, second round (July 2020).


European Commission (2021b), The European Health Data Space.


NIHD (2021a), Health Statistics and Health Research Database, https://statistika.tai.ee/.

NIHD (2021b), Adult Health Behaviour Survey, Tallinn.


Country abbreviations

<table>
<thead>
<tr>
<th>Country</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>AT</td>
</tr>
<tr>
<td>Belgium</td>
<td>BE</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>BG</td>
</tr>
<tr>
<td>Croatia</td>
<td>HR</td>
</tr>
<tr>
<td>Cyprus</td>
<td>CY</td>
</tr>
<tr>
<td>Czechia</td>
<td>CZ</td>
</tr>
<tr>
<td>Denmark</td>
<td>DK</td>
</tr>
<tr>
<td>Estonia</td>
<td>EE</td>
</tr>
<tr>
<td>Finland</td>
<td>FI</td>
</tr>
<tr>
<td>France</td>
<td>FR</td>
</tr>
<tr>
<td>Germany</td>
<td>DE</td>
</tr>
<tr>
<td>Greece</td>
<td>EL</td>
</tr>
<tr>
<td>Hungary</td>
<td>HU</td>
</tr>
<tr>
<td>Iceland</td>
<td>IS</td>
</tr>
<tr>
<td>Ireland</td>
<td>IE</td>
</tr>
<tr>
<td>Italy</td>
<td>IT</td>
</tr>
<tr>
<td>Latvia</td>
<td>LV</td>
</tr>
<tr>
<td>Lithuania</td>
<td>LT</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>LU</td>
</tr>
<tr>
<td>Malta</td>
<td>MT</td>
</tr>
<tr>
<td>Netherlands</td>
<td>NL</td>
</tr>
<tr>
<td>Norway</td>
<td>NO</td>
</tr>
<tr>
<td>Poland</td>
<td>PL</td>
</tr>
<tr>
<td>Portugal</td>
<td>PT</td>
</tr>
<tr>
<td>Romania</td>
<td>RO</td>
</tr>
<tr>
<td>Slovakia</td>
<td>SK</td>
</tr>
<tr>
<td>Slovenia</td>
<td>SI</td>
</tr>
<tr>
<td>Spain</td>
<td>ES</td>
</tr>
<tr>
<td>Sweden</td>
<td>SE</td>
</tr>
</tbody>
</table>
The Country Health Profiles are an important step in the European Commission's ongoing State of Health in the EU cycle of knowledge brokering, produced with the financial assistance of the European Union. The profiles are the result of joint work between the Organisation for Economic Co-operation and Development (OECD) and the European Observatory on Health Systems and Policies, in cooperation with the European Commission.

The concise, policy-relevant profiles are based on a transparent, consistent methodology, using both quantitative and qualitative data, yet flexibly adapted to the context of each EU/EEA country. The aim is to create a means for mutual learning and voluntary exchange that can be used by policymakers and policy influencers alike.

Each country profile provides a short synthesis of:

- health status in the country
- the determinants of health, focusing on behavioural risk factors
- the organisation of the health system
- the effectiveness, accessibility and resilience of the health system

The Commission is complementing the key findings of these country profiles with a Companion Report.

For more information see: ec.europa.eu/health/state


ISBN 9789264789531 (PDF)
Series: State of Health in the EU
SSN 25227041 (online)