State of Health in the EU
Iceland
Country Health Profile 2021
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).

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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 Iceland, 2020

<table>
<thead>
<tr>
<th>Demographic factors</th>
<th>Iceland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population size (mid-year estimates)</td>
<td>364 134</td>
<td>447 319 916</td>
</tr>
<tr>
<td>Share of population over age 65 (%)</td>
<td>14.4</td>
<td>20.6</td>
</tr>
<tr>
<td>Fertility rate¹ (2019)</td>
<td>1.7</td>
<td>1.5</td>
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<table>
<thead>
<tr>
<th>Socioeconomic factors</th>
<th>Iceland</th>
<th>EU</th>
</tr>
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<tbody>
<tr>
<td>GDP per capita (EUR PPP²)</td>
<td>37 074</td>
<td>29 801</td>
</tr>
<tr>
<td>Relative poverty rate¹ (%, 2019)</td>
<td>8.8</td>
<td>16.5</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>5.5</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.

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1 Highlights

Life expectancy in Iceland was higher than in all EU countries in 2020. The country was less affected by the COVID-19 pandemic than nearly all other European countries owing to prompt and stringent containment measures, as well as to the country’s geography. However, social inequalities in life expectancy are widening. The health system covers all residents and access to care is generally good, but unmet health care needs are greater among people in lower-income households.

Health Status

Life expectancy at birth in Iceland was the second highest in Europe in 2020, at 83.1 years. The COVID-19 pandemic had very little impact, compared with the situation in many EU countries. However, the gap in life expectancy in Iceland between the most and least educated widened by more than a year between 2011 and 2020, with virtually no gain among the least educated.

Risk factors

Behavioural risk factors account for more than one third of all deaths in Iceland, and are more common among people with low socioeconomic status. While smoking and alcohol consumption are less prevalent in Iceland than in most EU countries, obesity rates are higher.

Health system

Iceland has a largely publicly funded system, with universal population coverage. Health expenditure is lower than the EU average, both per capita and as a percentage of GDP. Public spending accounted for 83 % of health expenditure in 2019. The number of doctors is equal to the EU average, but there are relatively few general practitioners.

Effectiveness

Preventable mortality in Iceland is low compared to most EU countries, with substantially lower rates of alcohol-related mortality, fatal accidents and mortality from lung cancer. Iceland also had the one of lowest rates of mortality from treatable causes, indicating that the health system is effective in saving the lives of people with potentially fatal conditions.

Access to health care is generally good. Only about 3 % of Icelanders reported unmet needs for medical care in 2018, but disparities between income groups are larger than in any other Nordic country and the EU average.

Resilience

The COVID-19 pandemic had a much more limited impact on mortality in Iceland in 2020 compared with all EU countries. Mass testing, contact tracing, and quarantine and isolation proved effective in controlling COVID-19. As of the end of August 2021, 82 % of the total population had received at least one dose of a COVID-19 vaccine, and 77 % had received two doses (or equivalent).
2 Health in Iceland

Life expectancy in Iceland was higher than in all EU countries, but slightly lower than in Norway

Life expectancy at birth in Iceland was 83.1 years in 2020, which is 2.5 years above the EU average (Figure 1). Iceland had higher life expectancy than all EU countries, as the life expectancy that had traditionally been longer in countries such as Spain, Italy and Sweden decreased sharply in 2020 due to the COVID-19 pandemic, while in Iceland it remained virtually unchanged.

On average, women live 2.8 years longer than men (84.5 years compared to 81.7 years). This gender gap is much smaller than the EU average of 5.6 years.

Figure 1. Life expectancy in Iceland was much higher than the EU average in 2020

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

Social inequalities in life expectancy are widening

Inequalities in life expectancy in Iceland exist not only by gender but also by socioeconomic status, including education and income level. In 2020, the life expectancy of men at age 30 with the lowest level of education was almost five years lower than for those with the highest level. This education gap in longevity was smaller among women, at 3.3 years (Figure 2). Differences in life expectancy by education can be explained in part by differing levels of exposure to various risk factors and unhealthy lifestyles, which are higher among Icelandic men with a low level of education (see Section 3). However, despite reductions in several behavioural risk factors, the gap in life expectancy between the most and least educated widened by over a year between 2011 and 2020, as there was virtually no gain among the least educated (Statistics Iceland, 2021).

Figure 2. The education gap in life expectancy is about 5 years for men and over 3 years for women

Education gap in life expectancy at age 30:
Iceland: 3.3 years Iceland: 4.8 years
EU18: 3.4 years EU18: 6.9 years

Note: Data refer to life expectancy at age 30. High education is defined as people who have completed tertiary education (ISCED 5-8) whereas low education is defined as people who have not completed secondary education (ISCED 0-2).

Sources: Statistics Iceland (data refer to 2020) and Eurostat Database for the EU average (data refer to 2017).

1. Data from Eurostat show a slight decrease in life expectancy at birth of 0.1 years in 2020, while data from Statistics Iceland show a slight increase of 0.1 years.
Circulatory diseases, Alzheimer's disease and cancer are the main causes of death

Iceland's increase in life expectancy over the past two decades was driven to a large extent by reductions in mortality rates from circulatory diseases. Nevertheless, ischaemic heart disease remained the main cause of death in 2018, representing 13.5% of deaths (Figure 3). This was followed by Alzheimer's disease and other dementias, stroke and lung cancer. Lung cancer is the most frequent cause of death from cancer, followed by colorectal cancer.

COVID-19 deaths represented 1.2% of all deaths in 2020 – a much smaller share than in most other European countries. The mortality rate from COVID-19 in 2020 and the first eight months of 2021 was lower than in any EU country and Norway, and about 18 times lower than the EU average (about 90 per million population compared with 1 590 in the EU as a whole) (see Section 5.3).

Figure 3. Ischaemic heart disease is the leading cause of death in Iceland

Most people in Iceland report being in good health, but nearly one in three have a chronic condition

Three quarters of people reported being in good health in 2018 – a higher proportion than the EU average. However, as in other countries, people on lower incomes are less likely to report being in good health: 66% in the lowest income group report being in good health, compared to 86% in the highest. This gap is comparable to the EU average.

Around one third of adults in Iceland (32%) reported having at least one chronic condition in 2018, according to EU-SILC survey data. This is a lower proportion than the EU average.

The burden of cancer in Iceland is considerable

According to estimates from the Joint Research Centre based on incidence trends from previous years, around 1 580 new cases of cancer and around 640 cancer deaths were expected in Iceland in 2020. Incidence and mortality from cancer are greater among men than women. Figure 4 shows that the main cancer sites expected among men in 2020 were prostate, colorectal and lung cancer. Among women, breast cancer was expected to be the most frequently diagnosed cancer, followed by lung and colorectal cancer.

Note: The number and share of COVID-19 deaths refer to 2020, while the number and share for other causes refer to 2018. The size of the COVID-19 box is proportional to the size of the other main causes of death in the previous year.
Sources: ECDC for COVID-19 deaths (2020); Eurostat for other causes (2018 data).

2. 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 4. Around 1,500 people were expected to be diagnosed with cancer in Iceland in 2020

Age-standardised rate (all cancer)
<table>
<thead>
<tr>
<th></th>
<th>IS: 602 per 100 000 population</th>
<th>EU: 686 per 100 000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td></td>
<td></td>
</tr>
<tr>
<td>820 new cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prostate</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Bladder</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Lung</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>28%</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Kidney</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

Age-standardised rate (all cancer)
<table>
<thead>
<tr>
<th></th>
<th>IS: 511 per 100 000 population</th>
<th>EU: 484 per 100 000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td></td>
<td></td>
</tr>
<tr>
<td>757 new cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Lung</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Colorectal</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Uterus</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Skin melanoma</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Non-Hodgkin lymphoma</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Kidney</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Pancreas</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>

Notes: 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 more than one third of all deaths in Iceland

Behavioural risk factors contributed to more than one third of all deaths in Iceland in 2019, with tobacco consumption and dietary risks making up the largest proportion (Figure 5). These behavioural health risks are more common among people with low socioeconomic status. Alcohol consumption and low physical activity also contributed to mortality, but to a lesser extent. Air pollution in the form of fine particulate matter (PM$_{2.5}$) and ozone exposure alone accounted for only 1% of all deaths – a much lower proportion than the EU average.

Figure 5. Tobacco and dietary risks are major contributors to mortality

<table>
<thead>
<tr>
<th>Tobacco</th>
<th>Iceland: 17%</th>
<th>EU: 17%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Dietary risks</th>
<th>Iceland: 15%</th>
<th>EU: 17%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Iceland: 3%</th>
<th>EU: 6%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Low physical activity</th>
<th>Iceland: 3%</th>
<th>EU: 2%</th>
</tr>
</thead>
</table>

| Air pollution | Iceland: 1% | EU: 4% |

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 exposure to PM$_{2.5}$ and ozone.

Sources: IHME (2020), Global Health Data Exchange (estimates refer to 2019).

Smoking rates have decreased overall, but e-cigarettes have become more popular among young people

The smoking rate has decreased among adults and adolescents over the past decade and is now lower than in any EU country.

In 2019, only 8% of adults reported that they smoked tobacco daily – a significant reduction from 15% in 2009. However, the proportion of smokers among the least educated population is more than double that among the most educated.
The smoking rate among adolescents is also lower in Iceland than in any EU country: only 6% of 15-year-olds reported that they had smoked cigarettes in the past month in 2018. However, use of e-cigarettes has become more popular: 17% of 15-16-year-olds in Iceland reported smoking e-cigarettes in 2019, which is a higher proportion than the EU average of 14% (according to the ESPAD survey).

**Alcohol consumption among adolescents and adults is relatively low**

The prevalence of excessive alcohol consumption is also more limited in Iceland than in all EU countries. Only 7% of 15-year-olds reported having been drunk more than once in their life in 2018 – a rate three times lower than the EU average (22%). Icelandic adults also consume much less alcohol than those in most EU countries (about 25% less than the EU average in 2018).

The low rates of tobacco and alcohol consumption among adolescents are partly attributable to Iceland’s comprehensive prevention approach, which was launched in the late 1990s and sought to reduce risk factors. At the national level, Iceland taxes alcohol and tobacco, with the largest alcohol tax of any country in Europe (OECD, 2020). Access to alcohol is controlled through a state-owned monopoly chain of liquor stores, which are the only retail sites allowed to sell alcoholic beverages containing more than 4.75% alcohol by volume. The minimum age to purchase alcohol is 20 years.

**Overweight and obesity rates are higher in Iceland than in most EU countries**

On a less positive note, overweight and obesity rates have increased over the past decade in Iceland among both adolescents and adults. The obesity rate among adults increased from 20% in 2007 to 27% in 2017, and is now higher than in any EU country except Malta. Among 15-year-olds, overweight and obesity rates were 21% in 2018 – the fifth highest rate in Europe.

Physical activity among adolescents is slightly higher than in most EU countries, but still only about one in five reported engaging in at least moderate physical activity each day in 2018. As in other countries, 15-year-old girls are much less likely to do at least moderate physical activity than boys (16% compared with 23%). A higher proportion of adults in Iceland report engaging in at least moderate physical activity each week than in most EU countries, but at least one in five did not meet the WHO recommendation of minimum physical activity per week in 2014.

When it comes to nutritional habits, 40% of Icelandic adults reported that they did not eat a single portion of vegetables every day in 2019, but this is still a lower proportion than in most EU countries. Among adolescents, nearly two third of 15-year-olds reported that they did not eat a portion of vegetables every day, which is close to the EU average (Figure 6).

**Figure 6. Overweight and obesity among adolescents and adults is an important public health issue**

![Figure 6: Overweight and obesity among adolescents and adults is an important public health issue](image)

*Note: The closer the dot is to the centre, the better the country performs compared to 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 and EHIS 2014 and 2019 for adults indicators.*
4 The health system

Iceland has a largely publicly funded system with universal population coverage

The health system in Iceland is funded mainly through public sources and covers all residents. A dominant feature is the integrated purchaser–provider relationship, in which the government is both the payer and the owner of most organisations providing health services. Policy, administration, regulation and financing are centralised at the national level.

There are seven health care regions, but these are planning devices with no administrative authority or separate revenue streams. This centralised approach is reflected in the country’s governance arrangements for responding to the COVID-19 pandemic (Box 1).

The national health insurance system is financed through the annual national budget. While most health care providers are public, the number and scope of private non-profit and private for-profit providers have increased in recent years.

Iceland spends less per person and a lower percentage of GDP than the EU averages on health

Health expenditure in Iceland is lower than the EU average both in per capita terms and as a percentage of GDP (Figure 7). Health spending per capita in Iceland amounted to EUR 3 138 in 2019 (adjusted for differences in purchasing power), compared to the EU average of EUR 3 523. This translated to 8.6 % of GDP allocated to health expenditure compared to the EU average of 9.9 %.

Box 1. The Ministries of Health and Justice had main responsibility for responding to the pandemic

While all government departments played a role in responding to the COVID-19 pandemic, the main responsibility rested with the Ministry of Health and the Ministry of Justice. The National Response Plan for Global Pandemics was activated and implemented jointly by the Civil Protection Department of the Icelandic Police and the Chief Epidemiologist under the authority of the Minister of Health. While coordinated nationwide, the responses were decentralised to the regional police and health authorities around the country, who activated local crisis coordination centres to coordinate and manage responses at the local level.


Iceland spends less per person and a lower percentage of GDP than the EU averages on health

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Figure 7. Health expenditure per capita and as a share of GDP are lower in Iceland than in the EU

Note: The EU average is weighted.
Most health spending is publicly funded

Public expenditure accounts for the bulk of health expenditure in Iceland, at 83 % of total health spending in 2019 – slightly above the EU average of 80 %. Out-of-pocket (OOP) payments accounted for 16 % of health expenditure in 2019 – very close to the EU average. These are mainly co-payments for primary care visits, outpatient care and outpatient pharmaceuticals, with reductions or exemptions for vulnerable groups. Inpatient care is free of charge, as are all tests and medications required during hospitalisation. Voluntary health insurance (VHI) is virtually non-existent in Iceland.

Most funding goes to inpatient and outpatient care, but little to prevention

Iceland spends the largest share of its health resources on inpatient and outpatient care, each of which accounts for almost one third of health spending (Figure 8). In 2019, 19 % of health expenditure was allocated to long-term care – more than the EU average of 16 %.

Through a range of measures pursued by the commissioning agency for pharmaceuticals (including reference lists and competition between retailers), Iceland has brought down the share it spends on pharmaceuticals, from almost 19 % in 2010 to 14 % in 2019. Spending on prevention amounted to only 2.3 %, which is close to the EU average (2.9 %).

The number of hospital beds has fallen steadily

Each of Iceland’s seven health regions has at least one main regional hospital; these vary in size and function. Most private specialised clinics are located in the Capital region. The number of hospital beds has decreased over the last two decades (falling from 4.1 beds in 2007 to 2.8 per 1 000 population in 2019, compared to an EU average of 5.3). Some hospital beds around the country have been converted into long-term care beds.

Hospital admission rates are much lower in Iceland than the EU average, and the average length of stay in hospitals is also lower (5.8 days in 2019 compared with an EU average of 7.4 days).

The capacity in intensive care units (ICUs) was increased in March 2020 to respond to any potential surges in demand due to COVID-19, but the hospital system did not experience any shortages of hospital beds or equipment during the pandemic (see Section 5.3).

The numbers of doctors is equal to the EU average, but with few general practitioners

The number of doctors in Iceland in 2019 was equal to the EU average (3.9 per 1 000 population), but the vast majority are specialists. Only 15 % of doctors were general practitioners (GPs) in 2019, which is a lower proportion than the EU average (21 %). The high number of specialists results in higher consultation rates with specialists compared to other Nordic countries. Entry to the medical specialist workforce is more or less unregulated, and there are indications of oversupply.
The number of nurses is relatively high (15.4 per 1,000 population) compared to the EU average (8.4), but it includes both nurses and licensed practical nurses (who have lower qualifications). The demand for nurses is increasing rapidly due to population ageing and growing demand for their services in hospitals and nursing homes, while a considerable number of currently practising nurses are approaching retirement. Training and recruitment of a sufficient number of new nurses has proved challenging. In 2020, the Ministry of Health proposed to increase the number of nursing students and graduates, and set up a task force to develop a plan to improve recruitment of nurses (Ministry of Health, 2020).

**Primary care does not perform a gatekeeping function**

In the absence of a GP gatekeeping and referral function, the first point of contact for patients is often a private specialist. Nevertheless, there are public primary health care centres throughout the country and in each of the seven health care regions, staffed by salaried health professionals, offering a broad range of primary care services. These include home nursing, school health care, health promotion and disease prevention, and after-hours services. A growing number of GPs also practice in private primary care centres.

**Hospital care is entirely public and increasingly focused on outpatient and day surgery services**

All hospitals providing inpatient and ambulatory care are public. Hospitals in each of the seven health regions provide 24/7 general medical care in outpatient and inpatient departments, but the availability of specialist care varies. Highly specialised tertiary care is mainly provided at Landspitali University Hospital in Reykjavik, and to a lesser extent at Akureyri Hospital. Hospitals are increasingly shifting from inpatient care to outpatient and day surgery services.

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**5 Performance of the health system**

**5.1 Effectiveness**

**Mortality from preventable and treatable causes are low in Iceland**

Iceland had one of the lowest mortality rates from causes deemed as treatable in 2018, indicating that the health care system is effective in saving the lives of people with potentially fatal conditions (Figure 9). It has substantially lower mortality rates from treatable causes such as cerebrovascular diseases and colorectal cancer than the EU, and rates of ischaemic heart diseases and breast cancer are also low.

Preventable mortality in Iceland was also low in 2018 compared to most EU countries. Iceland had substantially lower rates of alcohol-related mortality, fatal accidents and mortality from lung cancer, reflecting the relatively low prevalence of risk factors for health among the Icelandic population. The infrastructure to promote public health in Iceland is well developed. The Public Health Department within the Directorate of Health promotes and coordinates work on public health, while programmes such as the Health-Promoting Communities Programme have been rolled out in municipalities covering over 90% of the population.
Figure 9. Preventable and treatable causes of mortality are markedly lower than the EU average

Iceland has comprehensive tobacco control legislation

As noted in Section 3, tobacco smoking among adolescents and adults in Iceland has declined sharply over the past two decades and is now lower than in any EU country. Since 2002, Iceland has instituted smoke-free public places and workplaces; a comprehensive ban on tobacco advertising and promotion; and warning texts on tobacco packaging and labelling. Iceland was one of the first countries to introduce a point-of-sale product display ban (except in specialist tobacco shops). The country recorded significant drops in youth smoking shortly after the ban came into effect.

Legislation prohibits sales of tobacco products by vending machine and in health care facilities, schools and institutions for children and teenagers, as well as the sales to those aged under 18.

Since March 2019, the import, marketing, use and safety of e-cigarettes and refill containers have been regulated. Excise duty on both tobacco and alcohol rose by 2.5% in 2021.

Actions to reduce obesity have not yet had any major impact

As outlined in Section 3, overweight and obesity rates among Icelandic adolescents and adults have increased over the past 15 years and are now higher than in other Nordic and most EU countries.
To try to reverse this trend, Iceland has introduced health promotion and disease prevention measures in schools and the community. These include nutritional standards for schools, banning food and beverage advertising on TV and radio during hours when children are the main audience and using the Nordic keyhole nutrition label, which highlights the healthier alternatives within a product group (Box 2). However, these measures do not yet appear to have had any major impact in terms of reducing overweight and obesity. In 2020, Iceland published its first set of clinical guidelines on care for adults living with obesity.

**Box 2. Iceland adopted the Nordic keyhole nutrition label**

Originating in Sweden in 1989, the Nordic keyhole nutrition label has since been adopted by Iceland, Denmark and Norway. Products bearing the label contain less and healthier fat, less salt and sugar, and more fibre and whole grains compared to foods within the same food group that do not fulfil the criteria for the label. A survey in 2020 indicated that 74% of Icelanders were familiar with the label.

In 2015 and in 2021, definitions behind the keyhole nutrition label were revised and adopted in all four countries, in line with Nordic nutrition recommendations. In Iceland, the Icelandic Food and Veterinary Authority and local health authorities are responsible for ensuring compliance with the rules on the use of the logo. Manufacturers are free to use the keyhole nutrition label on the products that meet the criteria (Government of Iceland, 2021a).

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**Influenza vaccination among older people increased in 2020**

Over half (55%) of people aged 65 and over in Iceland were immunised against influenza in 2020, up from 48% in 2019. However, this remained lower than the WHO-recommended vaccination rate of at least 75% of this population group, who are at greater risk of severe complications and death when exposed to influenza. Due to increased demand for influenza vaccination during the COVID-19 pandemic, most health centres in the Greater Reykjavik region ran out of the vaccine in October 2020, although it remained available at pharmacies.

**Avoidable hospitalisations are lower in Iceland than in many EU countries**

Iceland compares well with EU countries on avoidable hospital admissions for many chronic conditions – particularly for diabetes and congestive heart failure, of which Iceland has among the lowest rates (Figure 10). Most patients with chronic conditions receive care from outpatient services at an ambulatory or day surgery department of Landspitali University Hospital in Reykjavik, or at Akureyri Hospital in the North region.

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**Figure 10. Avoidable hospital admissions are lower in Iceland than in many EU countries**

Age-standardised rate of avoidable admissions per 100,000 population aged 15+

<table>
<thead>
<tr>
<th>Country</th>
<th>Asthma and COPD</th>
<th>Congestive heart failure</th>
<th>Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portugal</td>
<td>200</td>
<td>400</td>
<td>600</td>
</tr>
<tr>
<td>Italy</td>
<td>180</td>
<td>380</td>
<td>580</td>
</tr>
<tr>
<td>Iceland</td>
<td>160</td>
<td>360</td>
<td>560</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>140</td>
<td>340</td>
<td>540</td>
</tr>
<tr>
<td>Latvia</td>
<td>120</td>
<td>320</td>
<td>520</td>
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<td>Spain</td>
<td>100</td>
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<td>Slovenia</td>
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<td>Netherlands</td>
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<tr>
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<td>350</td>
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<td>130</td>
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<tr>
<td>Belgium</td>
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<td>320</td>
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<td>Germany</td>
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<td>110</td>
<td>310</td>
</tr>
<tr>
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</tr>
<tr>
<td>Iceland</td>
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<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Luxembourg</td>
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<tr>
<td>Sweden</td>
<td>1</td>
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</tr>
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<tr>
<td>Iceland</td>
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</tr>
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<td>Sweden</td>
<td>1</td>
<td>20</td>
<td>50</td>
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<tr>
<td>Estonia</td>
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<td>25</td>
</tr>
<tr>
<td>Norway</td>
<td>0.5</td>
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<td>25</td>
</tr>
<tr>
<td>Finland</td>
<td>0.5</td>
<td>10</td>
<td>25</td>
</tr>
</tbody>
</table>

*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).
Iceland has a comprehensive cancer registry and cancer plan

The Icelandic Cancer Society, a nationwide not-for-profit organisation financed by donations and health authorities, is responsible for the Icelandic Cancer Registry (ICR) – one of the oldest nationwide cancer registries in the world, founded in 1954. It covers more than 99% of all cancer diagnoses in the country, with information sourced from pathology and haematology laboratories, medical departments, general practice, individual physicians and private clinics. The purpose of the ICR is to gain knowledge about cancer in Iceland, and to monitor its diagnosis and treatment, as well as the quality and outcomes of treatment. Data from the ICR have led to the publication of over 600 scientific research papers and were used in the study of the human papillomavirus vaccine, which aims to prevent cervical cancer and genital warts.

Iceland launched a Cancer Plan in 2019 that extends until 2030, based on the extensive recommendations of an advisory group. While most of the infrastructure is already in place, the Plan recommends increased focus on continuity of services, a wider variety of rehabilitation options and improved access to information by patients and family members (Ministry of Health, 2019a). The main objectives of the Cancer Plan are aligned with the objectives set out in the European Commission’s new Europe’s Beating Cancer Plan (European Commission, 2021).

Iceland’s cancer survival rates compare favourably with EU countries

Iceland fares well compared with EU countries for five-year survival rates following five common cancers and childhood leukaemia, based on the most recent comparative data available for people diagnosed between 2010 and 2014 (Figure 11).

Survival rates have increased in all categories of cancer except cervical cancer, for which 2010-14 rates are lower than those in 2000-04, although still well above the EU average. It is notable that a lower percentage of women were screened for cervical cancer in 2020 (66%) than in 2000 (74%), although this remains higher than the EU average of 58%.

Following the conclusion of a contract with the Icelandic Cancer Society for cervical and breast cancer screening, from 2021 health care centres took over cervical cancer screening, while Landspitali University Hospital and Akureyri Hospital took over breast cancer screening. The Coordination Centre for Cancer Screening within the Public Primary Care Service is responsible for ensuring access to cancer screening in Iceland.

Figure 11. Iceland compares favourably with EU countries for five-year cancer survival rates

<table>
<thead>
<tr>
<th>Cancer Type</th>
<th>Iceland</th>
<th>EU23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate cancer</td>
<td>91%</td>
<td>87%</td>
</tr>
<tr>
<td>Childhood leukaemia</td>
<td>92%</td>
<td>85%</td>
</tr>
<tr>
<td>Breast cancer</td>
<td>89%</td>
<td>82%</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>80%</td>
<td>63%</td>
</tr>
<tr>
<td>Colon cancer</td>
<td>68%</td>
<td>60%</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>20%</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.

5.2 Accessibility

Public coverage is very high for inpatient care, but much lower for dental care and pharmaceuticals

Public health insurance provides comprehensive coverage for a core set of services, including hospital care and outpatient medical care, but coverage of dental care and outpatient pharmaceuticals is much more limited than in many EU countries (Figure 12). Only a small proportion of spending on dental care (29%) and pharmaceuticals (38%) is covered through public insurance, with most spending through OOP payments by households. This results in some unmet care needs for services and goods with lower levels of public coverage.
Under an agreement between the Icelandic Health Insurance Fund and the Dentists’ Association of Iceland, dental care became free of charge for all children under 18 from January 2018 to ensure that children receive essential dental care, regardless of their parents’ financial situation.

The agreement covers oral check-ups, preventive measures, fillings and other repair work considered essential dental care, with the exception of an annual appointment charge of ISK 2 500 (EUR 16.53) (Government of Iceland, 2018).

Figure 12. Coverage is much greater for inpatient care than for dental care and pharmaceuticals

Public spending as a proportion of total health spending by type of service

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Iceland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient care</td>
<td>99%</td>
<td>89%</td>
</tr>
<tr>
<td>Outpatient medical care</td>
<td>81%</td>
<td>75%</td>
</tr>
<tr>
<td>Dental care</td>
<td>29%</td>
<td>31%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>38%</td>
<td>57%</td>
</tr>
<tr>
<td>Therapeutic appliances</td>
<td>82%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Note: Outpatient medical services mainly refer to services provided by generalists and specialists in the outpatient sector. Pharmaceuticals include prescribed and over-the-counter medicines as well as medical non-durables. Therapeutic appliances refer to vision products, hearing aids, wheelchairs and other medical devices. The EU average is unweighted. Source: OECD Health Statistics 2021 (data refer to 2019 or nearest year).

Most out-of-pocket expenditure is directed to dental care and pharmaceuticals

Reflecting the different degree of public coverage for various health services and goods, virtually all OOP spending by households in Iceland is directed to outpatient pharmaceuticals, dental and outpatient care services (Figure 13).

In late 2019, the Minister of Health announced an expansion to the public benefits package, involving an ISK 3.5 billion (EUR 25.8 million) investment to lower OOP expenses of patients to below 15% of total health expenditure by 2024. This involved increasing dental care subsidies to pensioners and babies with specific dental needs, as well as covering dental expenses for accidents and congenital defects. Pharmaceutical subsidies and subsidies for specified assistive technologies for those with lung disease or diabetes increased, while fees for accessing primary health care centres will be progressively lowered and later eliminated. This investment seeks to reduce a major barrier to accessing health care and consequently reduce health inequalities. The plan seeks to ensure Iceland’s alignment with the lower rates of OOP expenditure in other Nordic countries (Ministry of Health, 2019b).

Figure 13. Out-of-pocket expenditure is mainly on pharmaceuticals and dental care

Overall share of health spending

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Iceland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>OOP</td>
<td>15.5%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Government/compulsory schemes</td>
<td>82.9%</td>
<td>79.7%</td>
</tr>
</tbody>
</table>

Distribution of OOP spending by function

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Iceland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>Outpatient medical</td>
<td>4.3%</td>
<td></td>
</tr>
<tr>
<td>Dental care</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>0.2%</td>
<td></td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>6.3%</td>
<td></td>
</tr>
<tr>
<td>Therapeutic appliances</td>
<td>37%</td>
<td></td>
</tr>
</tbody>
</table>

Overall share of health spending

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Iceland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>OOP</td>
<td>15.5%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Government/compulsory schemes</td>
<td>79.7%</td>
<td>79.7%</td>
</tr>
</tbody>
</table>

Distribution of OOP spending by function

<table>
<thead>
<tr>
<th>Type of Service</th>
<th>Iceland</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Outpatient medical</td>
<td>3.4%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Dental care</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Others</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>37%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Note: The EU average is weighted. VHI = voluntary health insurance, which includes other voluntary prepayment schemes. Sources: OECD Health Statistics 2021; Eurostat Database (data refer to 2019).
Unmet needs for medical and dental care are relatively high, particularly for low-income groups

Unmet needs for medical care due to cost, distance or waiting times are significant: 3.4% of adults reported unmet needs in 2018, compared to an EU average of 1.8%. Most people reporting some unmet needs cited financial reasons, although some also gave waiting times as the main reason. Large inequalities exist across income groups: 6.6% of people in the lowest income quintile reported going without medical care for financial, distance or waiting time reasons, compared to 1.3% of people in the highest.

This inequality between income quintiles in Iceland is the greatest among Nordic countries and much larger than the EU average.

Unmet needs are greater for services that are less comprehensively covered by Iceland’s public health insurance scheme, such as dental care: 7.8% of Icelandic adults reported some unmet needs in 2018, compared to the EU average of 3%. Of those in the lowest income quintile, 14.2% reported going without dental care due to cost, distance or waiting time, compared to only 3.8% of people in the highest (Figure 14).

**Figure 14. Unmet needs for medical and dental care are much higher among people on low incomes**

Waiting times for elective surgery have been reduced in recent years

As in many other health systems, excessive waiting times have been a longstanding feature of the Icelandic health system, and the problem has been subject to numerous policy initiatives. The issue was exacerbated in the early 2010s by the economic crisis and the resulting cuts to health spending, as well as by population ageing, resulting in growing needs for cataract surgery and joint replacements. Long strikes by doctors, nurses and other health care workers in 2014 and 2015 deepened the problem.

In 2016, the Minister of Health introduced a government plan for extra funding between 2016 and 2018 to reduce waiting lists for hip and knee replacements, cataract surgery and coronary angioplasty, with a view to meeting the three-month waiting time target. The waiting time for some of these operations has been reduced since then, although about half of patients still had to wait more than three months to undergo cataract surgery in 2020 and two thirds of patients had to wait that long to get a hip replacement (Figure 15).
### Measures were introduced to minimise the impact of COVID-19 on access to essential care

Iceland sought to minimise the impact of the COVID-19 pandemic on essential care, particularly for vulnerable groups. Helplines and alternative communication channels were promoted, such as the “covid.is” online chat function, which was launched in August 2020 to handle queries relating to COVID-19. Daily press conferences broadcast live on radio and TV encouraged people to reach out to their primary care centres or medical doctors when needed.

The Minister of Social Affairs and Children, the Minister of Transport and Local Government and the Chairman of the Icelandic Association of Local Authorities agreed measures to address challenges due to COVID-19 faced by state institutions, social services and others providing services to vulnerable groups. These aimed to ensure the safe continuation of necessary services, such as welfare and domestic social care services for those who need daily or regular assistance, including people with disabilities, older people and children and families. A response team to serve vulnerable groups was also established, in collaboration with the Icelandic Police’s Department of Civil Protection and Emergency Management, to reduce the interruption of social services.

Primary health care practices continued to work with patients to manage chronic conditions and maintain access to essential services, as well as to identify high-risk patients, and provide testing and patient education on COVID-19. Primary health care centres designated separate hours to keep suspected and confirmed COVID-19 patients and others apart.

### Telemedicine

Telemedicine, which had already been in use prior to 2020, was more extensively and systematically employed during the pandemic. Between March and April 2020, the number of teleconsultations increased by 35% compared to the same months in 2018 and 2019, while the number of telephone and web-based consultations more than doubled. The number of prescriptions from telephone and web-based consultations rose by 55% (Sigurdsson et al., 2020). In addition, priority was given to increased access to mental health services for vulnerable groups.

### 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 a much more limited impact on mortality in Iceland in 2020 than all EU countries, but the measures taken to contain it affected the economy. Icelandic GDP fell by 6.6% in 2020; employment also fell, particularly due to the collapse of foreign tourism and international travel, which account for almost one fifth of GDP (OECD, 2021; Statistics Iceland, 2020).

### Rapid measures were effective in containing and suppressing the pandemic

The first confirmed case of COVID-19 in Iceland was detected on 28 February 2020, and the first cases of transmission identified within the country on 6 March 2020. By the end of August 2021, Iceland had had about 10 000 confirmed infections and 33 deaths, with all but two aged 60 and over. Relative to its population size, COVID-19 deaths were the lowest in Europe (Figure 16).

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3. 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).
Figure 16. Iceland was better able to contain the spread and impact of COVID-19 than most EU countries

Like other countries in Europe, Iceland went through two waves of the pandemic in 2020, but was able to contain and suppress the spread of the virus more rapidly and effectively (Figure 17). One week after the first case of COVID-19 was detected, an emergency alert was declared, in accordance with Iceland’s National Response Plan for Global Pandemics. Iceland adopted a series of measures focused on early detection of infections through extensive testing; isolation for those infected; contact tracing and quarantine; restrictions on gatherings and travel recommendations; and extensive provision of information to the public.

From 13 March 2020, limits on gatherings were introduced, and secondary schools and universities were closed, with restrictions in place at preschools and primary schools. Following the control of infections in the first wave, from late April 2020 preschools and primary schools, and sport and youth clubs were able to reopen without restrictions, although social distancing of 2 metres was encouraged. From May 2020, swimming facilities and gyms were able to operate at half their maximum capacity. All restaurants, pubs and clubs could remain open until 23:00.

Control of entry points into the country was greatly facilitated by the fact that Iceland is an island. Icelanders were advised not to travel abroad, and those on holiday abroad were encouraged to return home on 14 March 2020. Icelandic citizens and residents were required to undertake a 14-day quarantine from 19 March 2020, and this requirement was later extended to everyone arriving in Iceland, with the length of quarantine made flexible when combined with testing. Quarantine exemptions applied to travellers from the Faroe Islands and Greenland from 15 May 2020, and this exemption was extended to those from Denmark, Norway, Finland and Germany from 16 July 2020.

A second wave of COVID-19 infections commenced in late July 2020 and rose in September 2020. Restrictions on gatherings were reintroduced from 14 August 2020, as well as minimum distances to be maintained in secondary schools and universities and for sports activities. Masks were mandated in professional situations necessitating closer contact than 2 metres, and on public transport for journeys longer than 30 minutes.
In September 2020, in response to the big rise in cases within the Capital region, pubs and clubs in the area closed for 10 days, following which seating obligations were introduced in all restaurants serving alcohol, to minimise congregations of large groups. At the same time, masks were mandated for students, teachers and other staff of secondary schools and universities in the Capital region. With the peak of infections in the second wave at the end of October 2020, nationwide infection prevention measures were tightened to their strictest level since the pandemic began. Public gatherings were restricted to 10 people; sports activities and performing arts were prohibited; and mask-wearing was mandated for those aged 16 and over (later lowered to 10 and over).

These restrictions were reduced from mid-November 2020 following a reduction in infections. In early 2021, Iceland moved to a lower warning level, with restrictions further relaxed for preschools and primary schools, while upper secondary schools recommenced on-site studies.

Figure 17. Iceland contained the two waves of COVID-19 in 2020, but a third wave hit in summer 2021

On 25 March 2021, Iceland was placed on red alert, and a civil protection emergency was declared throughout the country due to a sudden third wave of infections, which included children becoming infected with the alpha variant. Stricter infection prevention measures were reintroduced, with a 10-person public gathering limit; and all school levels except preschools were required to begin their Easter break two days early, with a ban on on-site study. By mid-April 2021, the Iceland alert system was lowered, accompanied by a relaxation of restrictions including the number of people allowed in stores, swimming pools, sports clubs, cultural and religious events. Restaurants and pubs could remain open until 23:00, but all guests had to be registered and alcohol only served to seated guests.

As of 15 June 2021, Iceland relaxed restrictions, including increasing the general limit on gatherings from 150 to 300 people and reducing the distance rule to 1 metre. Distance rules at sit-down events (such as theatre shows, sports events, activities of organisations, conferences) were abandoned, but everyone in attendance was required to wear a face mask. The opening hours of restaurants was extended until midnight. From the end of June, with 87% of the adult population having received at least one dose of a COVID-19 vaccine, the government removed all domestic restrictions including social distancing, limits on gatherings, mask-wearing and limits on opening hours.

However, within a month, numbers of positive cases skyrocketed owing to the more transmissible delta variant. Most cases were linked to nightclubs and to residents who travelled to London to attend Euro 2020 football matches. From late July 2021, Iceland reinstated limits on social gatherings of 200 people, mask-wearing and the 1-metre social distancing rule. While these restrictions remained largely in place at the end of August 2021, the requirement to maintain a distance of at least 1 metre was abolished at sports events and staged art events.
Mass testing, contact tracing and quarantine proved effective in controlling COVID-19 in Iceland

From a very early stage in the pandemic, Iceland pursued policies of testing as many people as possible, tracing as many infections as possible, identifying risk areas early, and quarantining and/or testing those coming to Iceland, as well as quarantining anybody who had had contact with infected people.

Box 3. Partnership with a human genetics company facilitated tracing and containment of COVID-19

Iceland detected its first positive COVID-19 case on 28 February 2020, and within a week there were 47 cases, with Landspitali University Hospital reaching maximum testing capacity. Within days, deCODE – one of the world’s leading human genetics companies based in Reykjavik – offered to work with Iceland’s Directorate of Health. A laboratory jointly run by Landspitali University Hospital and deCODE was established, and from 13 March 2020 COVID-19 testing was made available to the entire Icelandic population, with results available within 24 hours. Within the first nine months, this resulted in more than half of residents being screened for COVID-19.

Positive tests results were registered in a centralised database, and individuals who tested positive were enrolled in a telehealth monitoring service for a 14-day isolation period. Their symptoms were logged in a national electronic health record system, enabling triage of individuals whose symptoms worsened. In parallel, the laboratory tested each positive sample for the quantity of the virus, which was used as an indicator for the contagiousness and severity of illness. For each sample, the full RNA genome of the virus was sequenced to determine the strain of the virus and its origin. The sampling and sequencing of every case of COVID-19, combined with monitoring of individuals’ symptoms, facilitated understanding of how COVID-19 was spreading and mutating. It was found that almost half of those infected were asymptomatic, and that children were much less likely to become sick than adults.

Iceland was one of the frontrunners in Europe in terms of testing capacity early in the pandemic, and testing activities picked up greatly to help manage the second wave in autumn 2020 (Figure 18).

From 15 June 2020, testing became available at Keflavík International Airport: every arriving passenger undertook testing or quarantine, and travellers were encouraged to download a tracking application. Domestic testing (for individuals with symptoms) organised by the Chief Epidemiologist was always free of charge, while testing at the borders became free of charge from December 2020.

Figure 18. Testing began early in Iceland and increased to manage the second wave in autumn 2020

<table>
<thead>
<tr>
<th>Weekly tests per 100 000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iceland</td>
</tr>
<tr>
<td>European Union</td>
</tr>
</tbody>
</table>

Note: The EU average is weighted (the number of countries included in the average varies depending on the week). Source: ECDC.
Testing from early in the pandemic was complemented by a comprehensive contact tracing system – both manual and digital. The contact tracing team was established hours prior to the first case in Iceland being discovered, headed by a detective within the Reykjavik police department. The team included police officers, nurses and criminologists, who scanned airline manifests and security-camera footage to trace those who might have been exposed. This manual tracing was complemented by the release of the official Rakning C-19 tracking app from the Icelandic Government on 2 April 2020. By May 2020, the app had been downloaded by almost 40% of the Icelandic population – one of the largest penetration rates of all contact trackers in Europe at that time.

During the second wave, when a high number of COVID-19 infections were traced back to pubs and clubs in central Reykjavik, venues were closed in the Capital region. Similarly, when an individual with the alpha variant – who had gone to work in a hospital and on to a concert with 800 others – was identified in early 2021, within hours everyone exposed had been contacted, and within days more than 1,000 had been tested and further spread contained.

From late April until end of May 2021, a new regulation meant arriving passengers had to quarantine in an isolation facility if they came from countries with high infection rate. This temporary measure was in place until a sufficient percentage of the population had been vaccinated.

From 1 July 2021, once 87% of the adult population had received at least one dose of a COVID-19 vaccine, travellers with valid vaccination certificates were no longer tested at the border. However, by the end of July, with a surge of cases, all vaccinated travellers visiting Iceland were required to present a COVID-19 test certificate before departure, while those who were residents or had widespread social ties were encouraged to get tested after arriving in the country. From 16 August, vaccinated passengers with ties to Iceland – including Icelandic citizens and residents, and those with an Icelandic work permit – were required to undergo free testing within 48 hours of arrival and remain in quarantine until results were available.

The pandemic in Iceland primarily affected older people

Outbreaks of COVID-19 in Iceland emerged in care homes and geriatric wards in hospitals, although swift measures limited spread of the virus and deaths among this highly vulnerable population. During the first wave of the pandemic in April 2020, an outbreak emerged in a nursing home in Bolungarvik in the Westfjords: 10 residents were infected, resulting in two deaths. Following the positive tests of six employees and an additional 23 workers being required to quarantine or self-isolate, replacement carers were transported from Reykjavik to Bolungarvik to help staff cope with the crisis (Alþingi, 2021).

During the second wave in October 2020, there was an outbreak in the Landakot geriatric ward affiliated with Landspitali University Hospital. This was attributed to several infections entering the site in quick succession, alongside inadequate staffing and facilities, poor ventilation, cramped premises, and movement of staff and equipment between areas. Prior to the outbreak’s discovery, some residents were moved to other facilities, resulting in infections and deaths of residents of those institutions. In total, the outbreak resulted in 14 deaths and 140 infections, including 60 older patients and 62 hospital staff, with 150 nursing staff needing to quarantine (Alþingi, 2021).

Additional hospital capacity and health workers were mobilised to respond to the pandemic if needed

On 22 March 2020, health services were restructured, prioritising care for COVID-19 patients, while ensuring continued provision of necessary health care for other patients. All elective treatments that could wait for more than eight weeks were postponed until 31 May to reduce the risk of infection, as well as potential hospitalisations that might follow some of these procedures (Government of Iceland, 2020a).

In addition, to increase capacity for COVID-19 patients, some operating theatres at Landspitali University Hospital were converted into ICUs. However, Iceland’s effective testing, tracing and isolation efforts meant that pressures on the hospital system were minimised. A specialised COVID-19 ambulatory care unit was also prepared at the hospital to meet the needs of everyone who tested positive. Patients were monitored by telephone; if they required hospitalisation, they were directed to COVID-19 ICUs to separate them from other patients.

In March 2020, the Directorate of Health established a health service reserve list to enable mobilisation and redeployment of health care staff across the country. The Icelandic Medical Association, Nurses Association and Association of Licensed Practical Nurses supported this reserve list, putting a call out to doctors, nurses, auxiliaries, retired health workers and medical and nursing students who were willing to join the public health service temporarily on short notice – whether full time, part time or on an hourly basis. Over 1,000 health professionals signed up. A separate welfare reserve list of people willing to work in social
services was organised by the Ministry of Social Affairs and Children and the Icelandic Association of Local Authorities (Government of Iceland, 2020b).

**Iceland rolled out a COVID-19 vaccination campaign in late 2020**

As in EU countries, vaccination against COVID-19 in Iceland began at the end of December 2020. At that time, Iceland outlined its goal of vaccinating at least 60% of the population to achieve herd immunity. By the end of August 2021, over 80% of the total population had received two doses (or equivalent) – a much higher percentage than the EU average (Figure 19). Vaccinations are free of charge and voluntary.

At the end of August 2021, the Chief Epidemiologist of Iceland noted that widespread vaccination in Iceland had prevented infections and – in particular – serious consequences of COVID-19, with the risk of infection among non-vaccinated people double that of vaccinated people, the risk of hospitalisation four times higher, and admission to ICUs six times more likely (Government of Iceland, 2021b).

Vaccination appointments could not be booked: eligible individuals received a text message to attend a health care centre, while employees and patients in hospitals, and residents and staff in nursing homes and group homes, were vaccinated within those institutions.

There were 10 priority groups, with the highest priority given to front-line health care staff working in emergency wards and ICUs, COVID-19 outpatient and inpatient wards and geriatric wards in hospitals, and residents in nursing and retirement homes.

Those who are fully vaccinated can collect a digital vaccination certificate on their personal health page, enabling them to be exempt from COVID-19 border measures in accordance with the rules of the country concerned (Government of Iceland, 2021c). The interoperable European digital COVID-19 vaccination certificate was trialled in Iceland from early June 2021, available in both Icelandic and English, in paper and digital formats.

**Figure 19. The share of vaccinated people was much greater than the EU average by August 2021**

![Graph showing weekly deaths and vaccination rates](https://example.com/graph.png)

*Sources: ECDC for COVID-19 deaths and Our World In Data for vaccination rates.*
6 Key findings

- Life expectancy in Iceland was 2.5 years above the EU average in 2020 and higher than all EU countries because the COVID-19 pandemic had much less of an impact than on some EU countries with previously higher life expectancies. Overall, COVID-19 death rates in 2020 and the first eight months of 2021 were almost 18 times lower than the EU average. However, social inequalities in life expectancy have widened over the past decade, owing in part to greater exposure to various risk factors among people with low socioeconomic status.

- While tobacco smoking has decreased greatly and alcohol consumption is relatively low, actions to reduce obesity have yet to make an impact. Overweight and obesity rates among 15-year-olds increased from 17 % in 2010 to 21 % in 2018, which is the fifth highest rate in Europe. In adults, obesity rates increased from 20 % in 2007 to 27 % in 2017, and are now higher than in nearly all EU countries.

- Health expenditure in Iceland is lower than the EU average on a per capita basis and as a share of GDP, with 8.5 % of GDP allocated to the health sector in 2019 (compared with 9.9 % in the EU as a whole). Less than 3 % of all health spending is allocated to prevention.

- The health system provides universal access, but dental care and pharmaceuticals enjoy lower levels of public coverage than in most EU countries. Unmet needs for medical and dental care are much greater than in other Nordic countries. Large inequalities exist for unmet medical needs, and for unmet needs for dental care are even greater: 14 % of those in the lowest income quintile reported going without dental care in 2018, mainly due to cost, compared to only 4 % of people in the highest. In addition, waiting times for elective surgery remain long.

- Iceland’s successful strategy to manage the COVID-19 pandemic included, from the very early stages, mass testing, tracing all infections, isolation, identifying risk areas early, quarantining and/or testing those coming to Iceland, and quarantining those who had had contact with infected people. Control of entry points was greatly facilitated by the fact that Iceland is an island. People living in Iceland were advised not to travel abroad, and everyone entering the country was required to undergo quarantine, with the length made flexible when combined with testing. The number of positive cases increased greatly in summer 2021 due to the more transmissible delta variant, which led to a temporary reinstatement of containment measures.

- The health system remained relatively flexible throughout the pandemic. Additional hospital capacity and health workers were mobilised to respond to peaks in demand in certain areas. Iceland introduced measures to minimise the impact of COVID-19 on essential care via the use of website chats, helplines and telemedicine, which was used extensively during the pandemic.

- Initially, Iceland aimed to vaccinate at least 60 % of the population to achieve herd immunity. By the end of August 2021, over 80 % of the population had received two doses (or equivalent) – a much higher proportion than the EU average. As in other countries, vaccination in Iceland has reduced greatly the risk of infection, hospitalisation and admission to intensive care units.
Key sources


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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, focussing 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.

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