European Commission

State of Health in the EU

Iceland

Country Health Profile 2019

OECD
BETTER POLICIES FOR BETTER LIVES

European Observatory on Health Systems and Policies
a partnership hosted by WHO

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 Information.

Contents

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 28 Member States unless otherwise noted. These EU averages do not include Iceland and Norway.

This profile was completed in August 2019, based on data available in July 2019.

To download the Excel spreadsheet matching all the tables and graphs in this profile, just type the following URL into your Internet browser: http://www.oecd.org/health/Country-Health-Profiles-2019-Iceland.xls

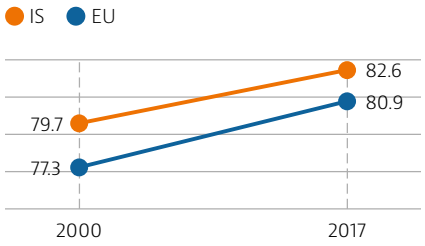
Demographic and socioeconomic context in Iceland, 2017

Demographic factors	Iceland	EU
Population size (mid-year estimates)	343 000	511 876 000
Share of population over age 65 (%)	14.0	19.4
Fertility rate[1]	1.7	1.6
Socioeconomic factors		
GDP per capita (EUR PPP[2])	39 100	30 000
Relative poverty rate[3] (%)	8.8	16.9
Unemployment rate (%)	2.8	7.6

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.

1 Highlights

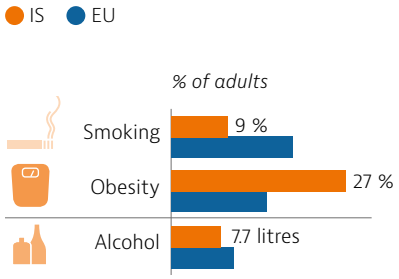
The life expectancy of the Icelandic population is well above the EU average and the health status of the population is generally good, although there are important socioeconomic inequalities. Behavioural risk factors are implicated in more than one-third of all deaths in Iceland, with poor nutrition and growing obesity rates of particular concern. The Icelandic health system performs relatively well in providing good access to high-quality care, but disparities exist between income groups in terms of unmet needs. An important challenge is to strengthen the primary care system and the gatekeeping role of general practitioners to better respond to the growing burden of chronic diseases.



Life expectancy at birth, years

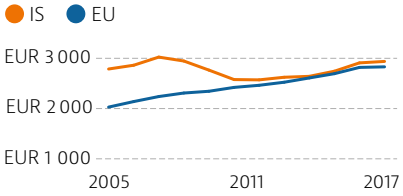
Health status

Life expectancy at birth in Iceland increased by nearly three years between 2000 and 2017 to reach 82.6 years, almost two years above the EU average. Reductions in deaths from ischaemic heart disease and stroke drove these gains. However, inequalities in life expectancy by education level have widened since 2011 as the gains among the least educated lagged behind the gains of the higher educated.



Risk factors

More than one in four Icelandic adults (27 %) were obese in 2017, a rate higher than in any EU country. However, tobacco and alcohol consumption are among the lowest. Less than one in ten adults smoke daily – half the rate of EU countries. Icelandic adults also have one of the lowest levels of alcohol consumption in Europe, at about 20 % less than the average in EU countries.



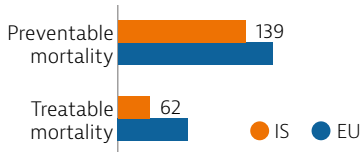
Per capita spending (EUR PPP)

Health system

Health spending per capita in Iceland has been similar to the average in the EU in recent years, but accounts for a lower share of GDP. Public expenditure accounted for 82 % of health expenditure in 2017, slightly above the EU average of 79 %. Most of the remaining spending is paid out of pocket by households, primarily for pharmaceutical and dental expenses.

Effectiveness

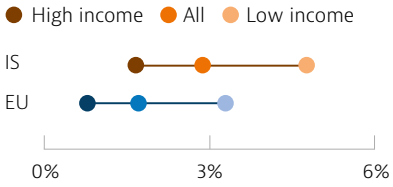
Preventable mortality is low, reflecting the effectiveness of prevention policies. Treatable causes of mortality are also much lower than the EU average, indicating that the health system provides effective acute care for potentially fatal conditions.



Age-standardised mortality rate per 100 000 population, 2016

Accessibility

Icelanders generally report low unmet needs for medical care, although disparities between income groups are larger than the EU average and any other Nordic country. Waiting times for elective surgery have been reduced, but remain higher than in many EU countries.



% reporting unmet medical needs, 2016

Resilience

Health expenditure is expected to grow in the future because of population ageing and new technologies. Progress has been achieved in improving efficiency in hospital care and transferring simpler services from hospitals to primary care and other care providers, but the primary care system faces the challenge of responding to growing demands from population ageing in innovative and efficient ways.

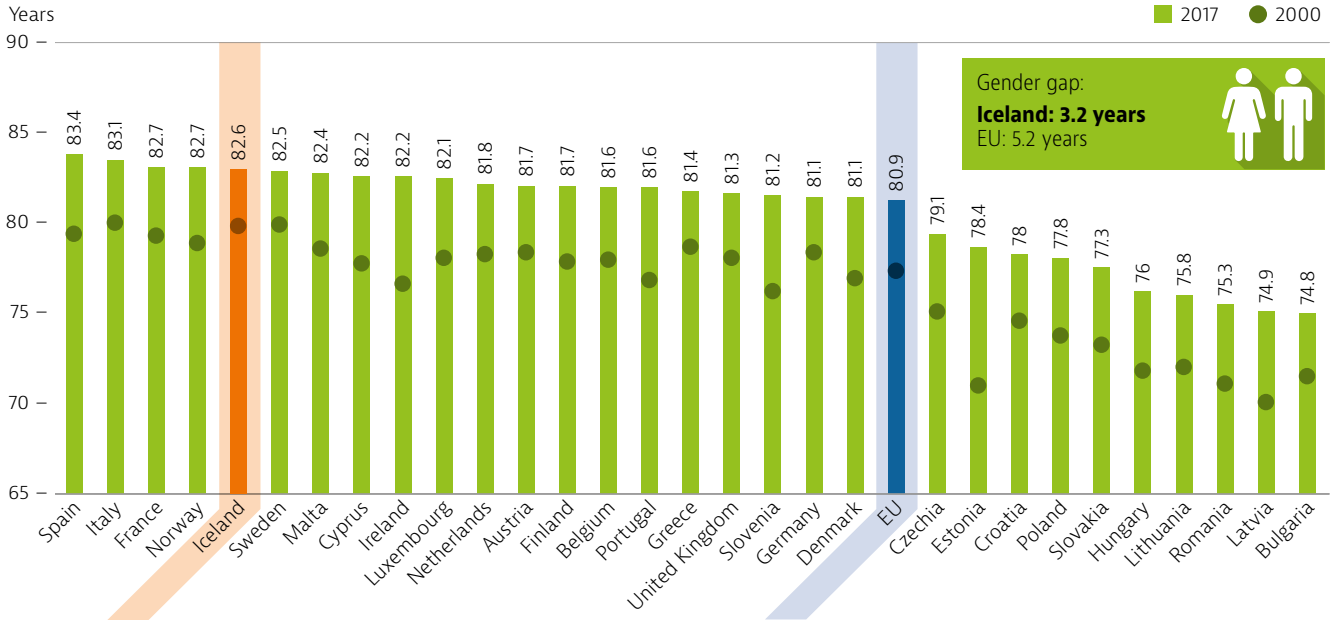
2 Health in Iceland

Life expectancy in Iceland is higher than the EU average, but gains are slowing

Life expectancy at birth in Iceland increased over the last decade to reach 82.6 years in 2017, almost two years above the EU average of 80.9 years (Figure 1).

However, the progress in life expectancy since 2000 has been slower than in some EU countries that now have a higher life expectancy (Spain, Italy and France). On average, women live 3.2 years longer than men (84.3 compared to 81.1 years), although this gender gap is smaller than the EU average of 5.2 years.

Figure 1. Life expectancy at birth in Iceland is more than one year above the EU average



Source: Eurostat Database.

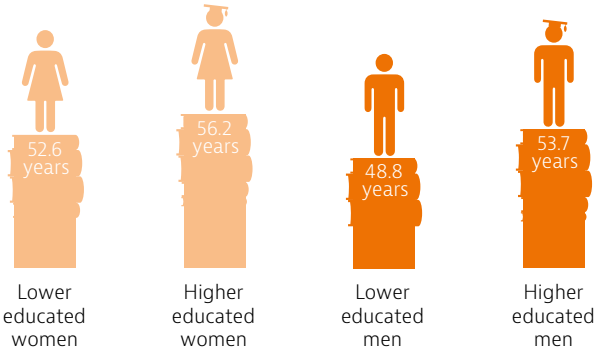
Social inequalities in life expectancy are widening

Inequalities in life expectancy in Iceland exist not only by gender but also by socioeconomic status, including education and income level. In 2018, 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 3.6 years (Figure 2).

Between 2011 and 2018, the gap between those most and least educated widened by 1.5 years, as there was virtually no gain among the least educated (Statistics Iceland, 2019).

This education gap in life expectancy can be explained partly by differences in exposure to various risk factors and lifestyles, including higher smoking rates, poorer nutritional habits and higher obesity rates among men and women with low levels of education (see Section 3).It is also related to differences in income level and living standards, which affect exposure to other risk factors and access to health care.

Figure 2. The education gap in life expectancy is about 5 years for men and 3.5 years for women



Education gap in life expectancy at age 30:

Iceland: 3.6 years	Iceland: 4.9 years
EU21: 4.1 years	EU21: 7.6 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 2018) and Eurostat Database for the EU average (data refer to 2016).

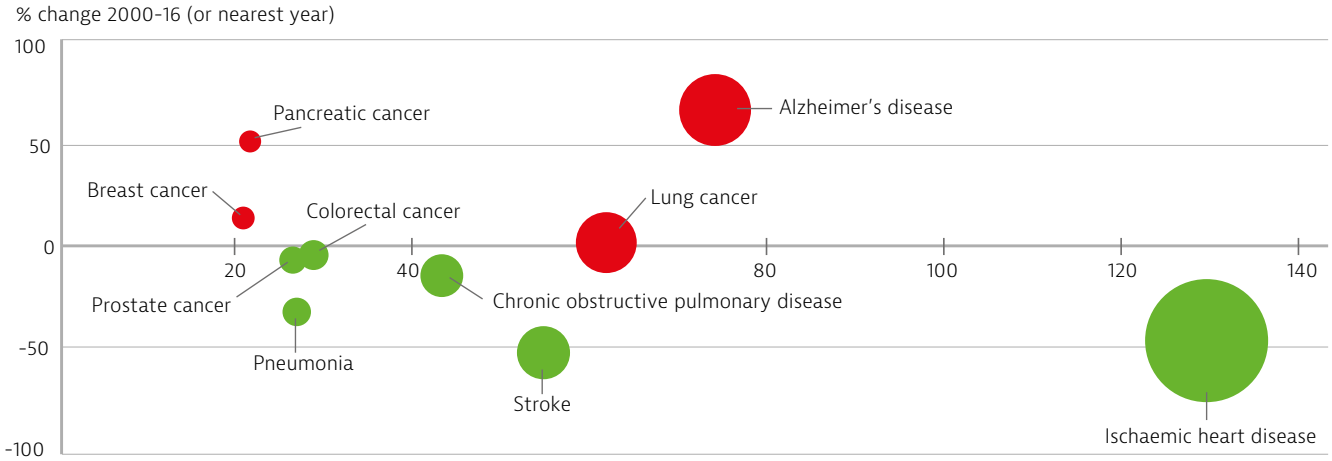
The main cause of death in Iceland remains ischaemic heart disease, but mortality from Alzheimer's disease is increasing

The mortality rate from ischaemic heart disease decreased substantially between 2000 and 2016 (Figure 3), partly due to a reduction in tobacco consumption (see Section 3). Nevertheless, 13 % of all deaths in Iceland in 2016 were attributed to ischaemic heart disease.

Mortality rates from Alzheimer's disease have increased greatly since 2000, making this the second cause of death in Iceland, although the increase is due at least partly to improvements in diagnosis and changes in death registration practices.

Lung cancer is still the most frequent cause of death by cancer, followed by colorectal cancer and prostate cancer.

Figure 3. Cardiovascular diseases are still the leading causes of death in Iceland

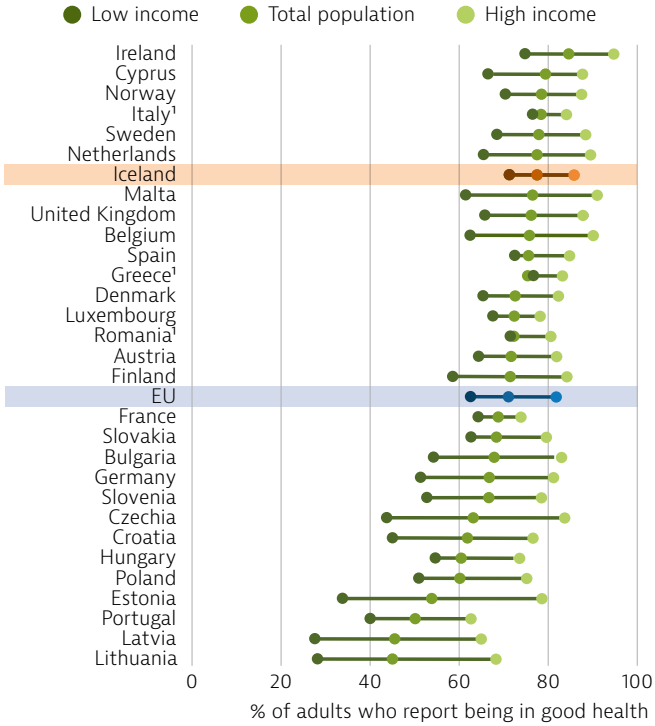


Note: The size of the bubbles is proportional to the mortality rates in 2016. The increase in mortality rates from Alzheimer's disease is largely due to changes in diagnostic and death registration practices.
Source: Eurostat Database.

Most Icelandic people report being in good health, but disparities by income group persist

Three-quarters of people report being in good health, a higher proportion than the EU average of 70 %. However, as in other countries, people on lower incomes are less likely to report being in good health: 70 % in the lowest income group report being in good health, compared to 84 % in the highest (Figure 4).

Figure 4. Inequalities in self-rated health by income level are similar to the EU average



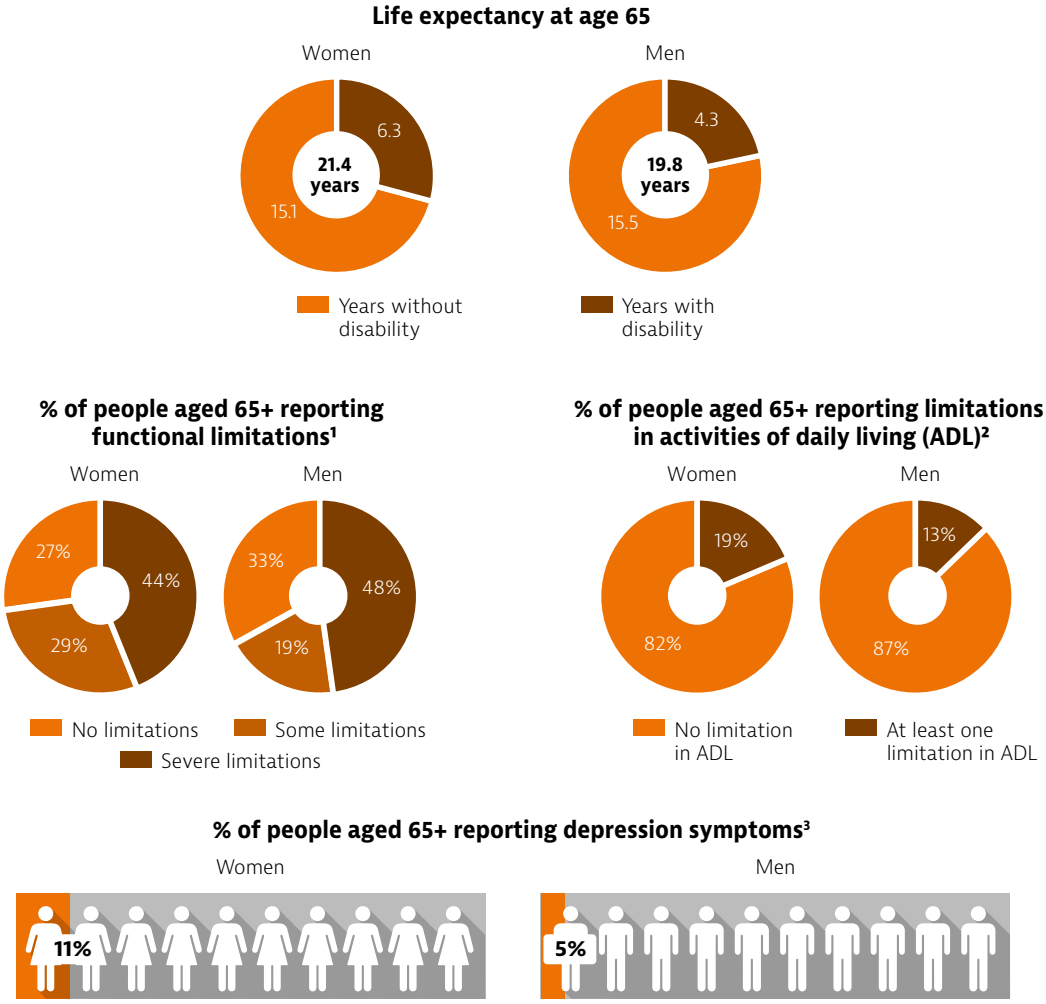
Note: 1. The shares for the total population and the population on low incomes are roughly the same.
Source: Eurostat Database, based on EU-SILC (data refer to 2017, except for Iceland 2016).

Several years of life in old age are lived with some diseases and disabilities

The share of people aged 65 and over is steadily growing in Iceland because of rising life expectancy and declining fertility rates. In 2019, 14 % of people were aged 65 and over, up from 10 % in 1980, and this is projected to reach 25 % by 2050.

In 2017, Icelanders aged 65 could expect to live more than 20 years, with women expected to live an additional 21.4 years and men a further 19.8 years (Figure 5). However, this gender gap is reversed when it comes to the number of years lived with disability because women live a greater proportion of their lives with chronic diseases and disabilities. Women aged 65 and over are also more than twice as likely as men to report depressive symptoms.

Figure 5. Two-thirds of Icelanders aged 65 or over report a functional limitation



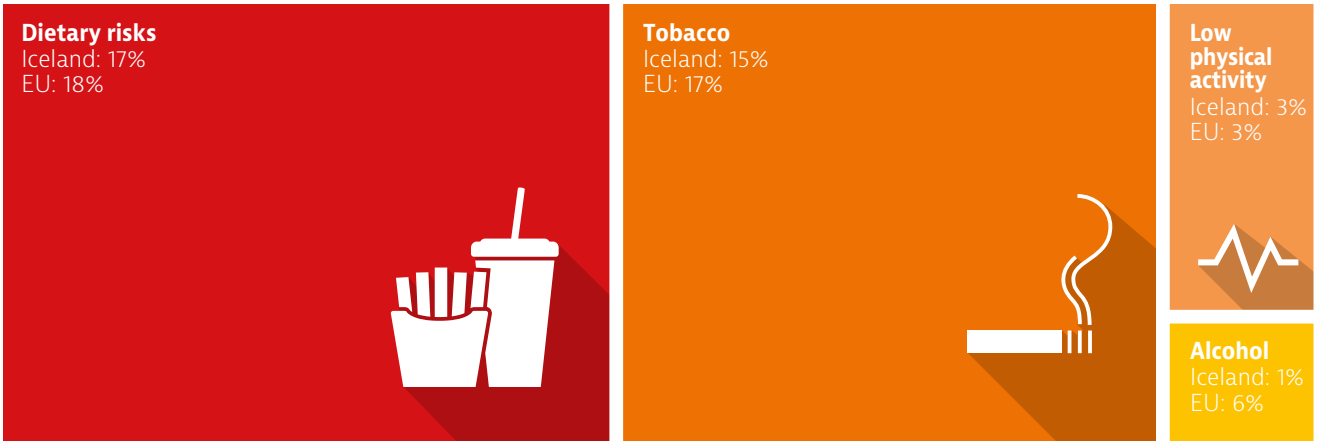
Note: 1. Functional limitations include physical and sensory limitations (seeing, hearing and walking). 2. Basic activities of daily living include dressing, walking across a room, bathing or showering, eating, getting in or out of bed and using the toilet. 3. Based on the PHQ-8 index, people are considered to have depression symptoms if they report two or more depression-related problems (out of eight variables).
Source: Eurostat Database for life expectancy with and without disability (data refer to 2017); European Health Interview Survey for other indicators (data refer to 2015).

3 Risk factors

Behavioural risk factors account for more than one-third of all deaths in Iceland

Behavioural risk factors contribute to more than one-third of all deaths in Iceland (Figure 6). Dietary risks contributed to more than one in six of all deaths in 2017, including low fruit and vegetable intake, as well as high sugar and salt consumption. Tobacco consumption (including direct and second-hand smoking) was responsible for an estimated 15 % of all deaths. In contrast, alcohol consumption was estimated to be responsible for only 1 % of deaths, far lower than the EU average of 6 %. Low physical activity was estimated to be responsible for 3 % of deaths, the same as the EU average.

Figure 6. More than one in three deaths in Iceland are attributed to modifiable lifestyle risk factors



Note: The overall number of deaths (800) related to these risk factors is lower than the sum of each one taken individually (850), because the same death can be attributed to more than one risk factor. Dietary risks include 14 components such as low fruit and vegetables diet, high sugar-sweetened beverages consumption; and tobacco include smoking and second-hand smoking.
Source: IHME (2018), Global Health Data Exchange (estimates refer to 2017).

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

Obesity results in a higher risk of hypertension, diabetes, heart attack and other cardiovascular diseases, and is also a risk factor for some forms of cancer. Obesity rates among Icelandic adults have increased over the past decade, from 12 % in 2002 to 27 % in 2017. One in five 15-year-old Icelandic boys and girls were overweight or obese in 2013-14, the third highest rate in Europe.

In contrast, one in five (19.5 %) of 15-year-olds engage in moderate to vigorous physical activity, which is higher than the EU average (15 %) although there is a stark difference between the rates of physical activity in girls (14 %) and boys (25 %). Despite regular physical activity being more frequent in Icelandic children, as well as adults, than in most EU countries, poor nutritional habits are likely to contribute to obesity rates. In 2017, nearly half of adults reported that they do not even eat a single portion of fruit every day, a higher proportion than in most EU countries. The proportion of adults who report not eating a portion of vegetables per day is lower (about one-third) and close to the EU average (Figure 7).

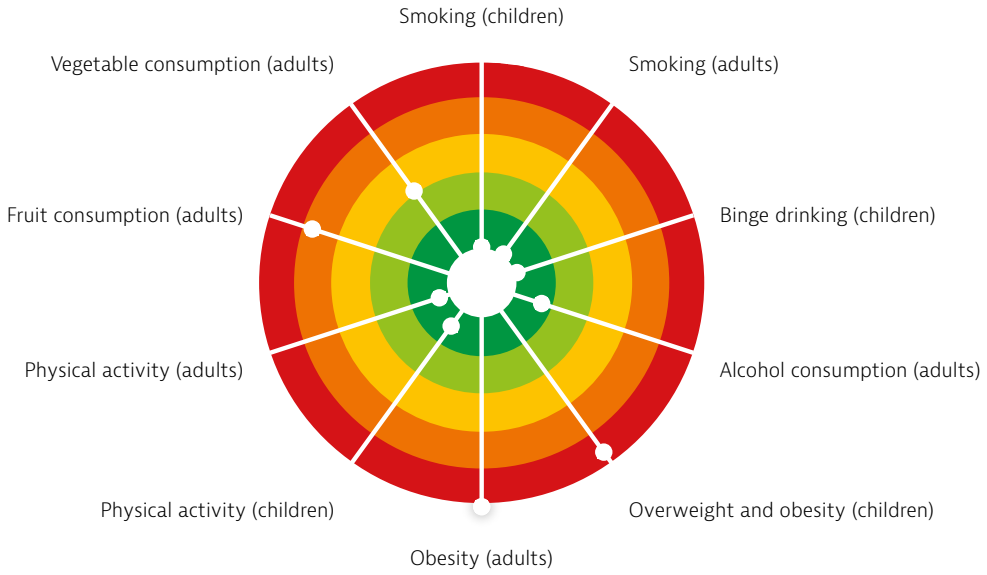
Adolescent tobacco and excessive alcohol consumption rates are very low

The smoking rate in adolescents is lower in Iceland than in any EU country, with only 5 % of 15- and 16-year-old boys and 7 % of girls reporting that they had smoked cigarettes in the past month in 2015. This rate has been steadily decreasing since 1995. Among Icelandic adults, less than 10 % reported smoking daily in 2018 – a share that is among the lowest in Europe. However, the proportion of smokers among the population with limited education is more than double that among the highly educated population.

Excessive alcohol consumption is also more limited in Iceland than in many EU countries. Around 7 % of 15- and 16-year-old boys and 8 % of girls reported at least one episode of heavy alcohol drinking (also called binge drinking[1]) during the past month in 2015, the lowest rate in Europe. Icelandic adults also consume much less alcohol compared to most EU countries.

The low rates of tobacco and excessive alcohol consumption among adolescents are partly attributable to Iceland's prevention approach, which was launched in the late 1990s. This initiative sought to strengthen community protective factors, including parental monitoring, parental communication, social involvement and adolescent participation in organised sports to decrease risk factors (Kristjansson et al., 2016).

Figure 7. Obesity is a major public health issue in Iceland



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.
Source: OECD calculations based on ESPAD survey 2015 and HBSC survey 2013-14 for children indicators; and EU-SILC 2017, EHIS 2014 and OECD Health Statistics 2019 for adults indicators.

1: Binge drinking is defined as consuming five or more alcoholic drinks on a single occasion for children and adolescents.

4 The health system

Iceland has a state-centred system with universal coverage

The health system in Iceland is mostly publicly funded, covering all residents, with a partly integrated purchaser-provider relationship (a tax-based, state-run system). There are seven health care regions and the national health insurance system is financed through the annual national budget.

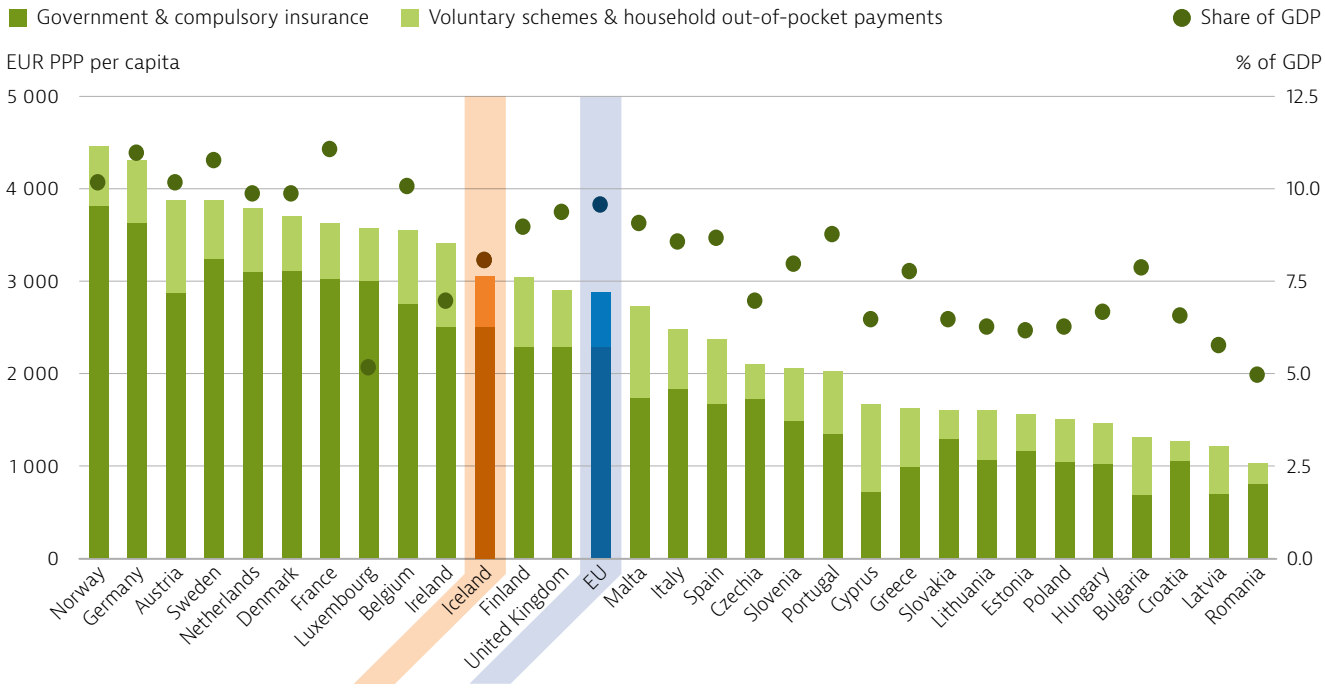
The private sector has grown rapidly

While most health care providers are public, the number and scope of private non-profit and private for-profit providers has increased in recent years. This has made health care provision more diverse and fragmented and has resulted in the need for regulation and contracting. In the absence of the primary care sector exercising a gatekeeping role, medical specialists were able to set up private clinics and enter into contract-based fee-for-service payments with the Icelandic Health Insurance Agency, which is the main public purchaser of services. A new health care policy has recently been adopted that seeks to address many of these issues – emphasising the gatekeeping role of primary care and the importance of integration across the health care system as well as value-based financing.

Iceland spends more than the EU average per person on health, but less as a share of GDP

Health expenditure per capita in Iceland is slightly higher than the EU average, but lower as a percentage of GDP (Figure 8). Health spending per capita amounted to EUR 3 055 in 2017 (adjusted for differences in purchasing power), slightly above the EU average of EUR 2 884. However, Iceland spent 8.3 % of its GDP on health, much less than the EU average of 9.8 %.

Figure 8. Health expenditure per capita in Iceland is slightly higher than the EU average, but lower as a share of GDP



Source: OECD Health Statistics 2019 (data refer to 2017).

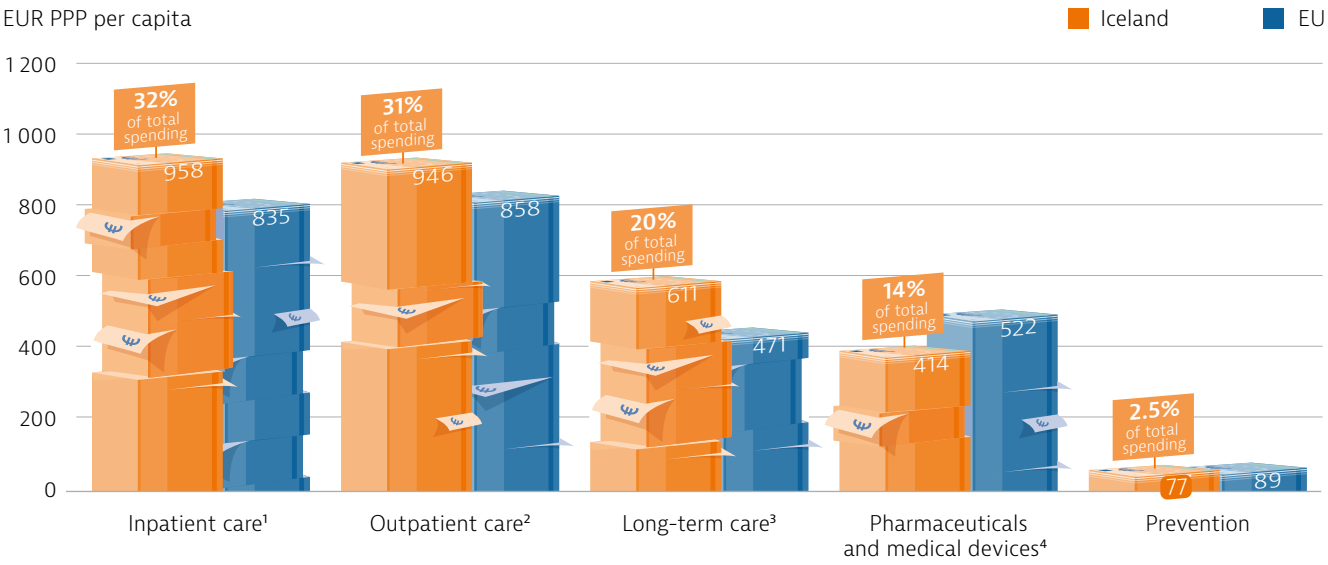
Most health spending is publicly funded

Public expenditure accounts for the bulk of health expenditure in Iceland, amounting to almost 82 % of current health expenditure in 2017, above the EU average (79 %). Out-of-pocket (OOP) payments accounted for nearly all of the remaining spending – almost 17 % of health expenditure in 2017 – slightly above the EU average of almost 16 %. These are mainly co-payments for primary care visits, dental care and pharmaceuticals, but reductions or exemptions are provided to vulnerable groups. Inpatient care is free of charge, as are all tests and medications required during hospitalisation.

A large share of 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, allocating to each slightly more than 30 % of the total (Figure 9). In 2017, it also spent one-fifth (20 %) of health expenditure on long-term care, a larger share than the EU average of 16 %. Through a range of measures, Iceland has brought down the share it spends on pharmaceuticals and medical devices from more than 18 % in 2010 to 14 % in 2017. Only 2.5 % of health spending was allocated to prevention in 2017 (below the EU average of 3.1 %).

Figure 9. Inpatient and outpatient care are the two main expenditure categories



Note: Administration costs are not included. 1. Includes curative-rehabilitative care in hospital and other settings; 2. Includes home care; 3. Includes only the health component; 4. Includes only the outpatient market.
Source: OECD Health Statistics 2019; Eurostat Database (data refer to 2017).

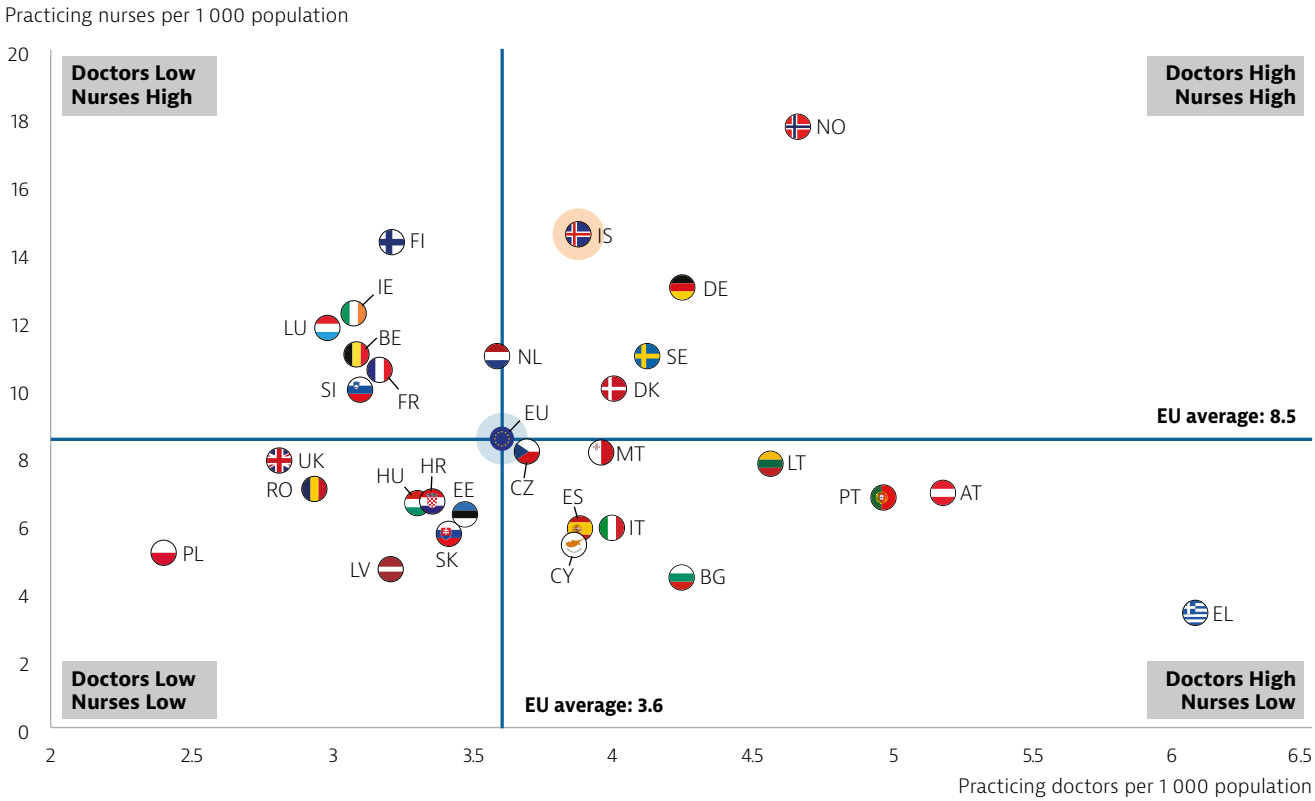
The number of doctors and nurses is higher than the EU average

Iceland has a high number of doctors and nurses per capita compared to the EU average (Figure 10). However, a large share of doctors are specialists, with general practitioners (GPs) accounting for only one in six doctors in 2017 (16.5 %), compared to an EU average of more than one in four (27 %). The high number of specialists compared to GPs results in higher visit rates to specialists compared to other Nordic countries.

In the absence of a GP gatekeeping and referral function, the primary care sector is relatively weak. The first point of contact is often a private medical specialist. Nevertheless, there are public primary care centres (PCCs) throughout the country, where GPs are salaried. These centres offer a broad range of primary care services, including home nursing, school nursing, health promotion and disease prevention, as well as after-hour services. There are also private PCCs, which provide the full range of primary care services based on a contract with the Icelandic Health Insurance Agency.

Iceland has a comparatively high number of nurses, including both registered professional nurses and associate practical nurses. However, the demand for nurses is increasing rapidly due to population ageing and the resultant increased demand for their services in both hospitals and nursing homes. Training and recruiting sufficient numbers of new nursing professionals has proved challenging, exacerbated by a considerable proportion of the nursing workforce approaching retirement (Icelandic National Audit Office, 2017).

Figure 10. Iceland has more doctors and nurses than the EU average, but shortages remain



Note: 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 hospital.
Source: Eurostat Database (data refer to 2017 or the nearest year).

Hospital care is entirely public and focused on outpatient and day care services

Each of Iceland's seven health regions has one main regional hospital, which provides general services including primary and secondary care, inpatient and outpatient services. However, the availability of specialist care varies. Tertiary care is provided at Landspitali University Hospital in Reykjavík and Akureyri Regional Hospital. Landspitali is the only university hospital in Iceland. Akureyri Regional Hospital serves as an affiliated teaching hospital. Hospitals are increasingly shifting activities from inpatient care to outpatient and day care services (see Section 5.3).

The number of hospital beds has fallen steadily over time

The number of hospital beds has been decreasing for the last decade (falling to 3.1 beds per 1 000 population in 2017, compared to an EU average of 5.0) and some acute care hospital beds have been converted to long-term care beds. Hospital admissions have decreased, and the average length of stay in hospitals (about 6 days in 2017) is lower than the EU average of about 8 days.

Patients have direct access to outpatient private specialists

A growing segment of private medical specialist services is provided outside hospitals, which patients can access directly. Most private specialised clinics are located in the Capital Region. Entry to the medical specialist market is largely unregulated, with specialists increasingly performing more complex operations that were previously performed exclusively in public hospitals. The National Audit Office has criticised the way the Icelandic Health Insurance Agency is managing its growing purchases of services from private specialised clinics, on the grounds that the contracts are solely based on fee-for-service payments, leading to supply-induced demand and increases in volumes of activity without adequate accountability mechanisms to monitor the quality of care (Icelandic National Audit Office, 2018).

5 Performance of the health system

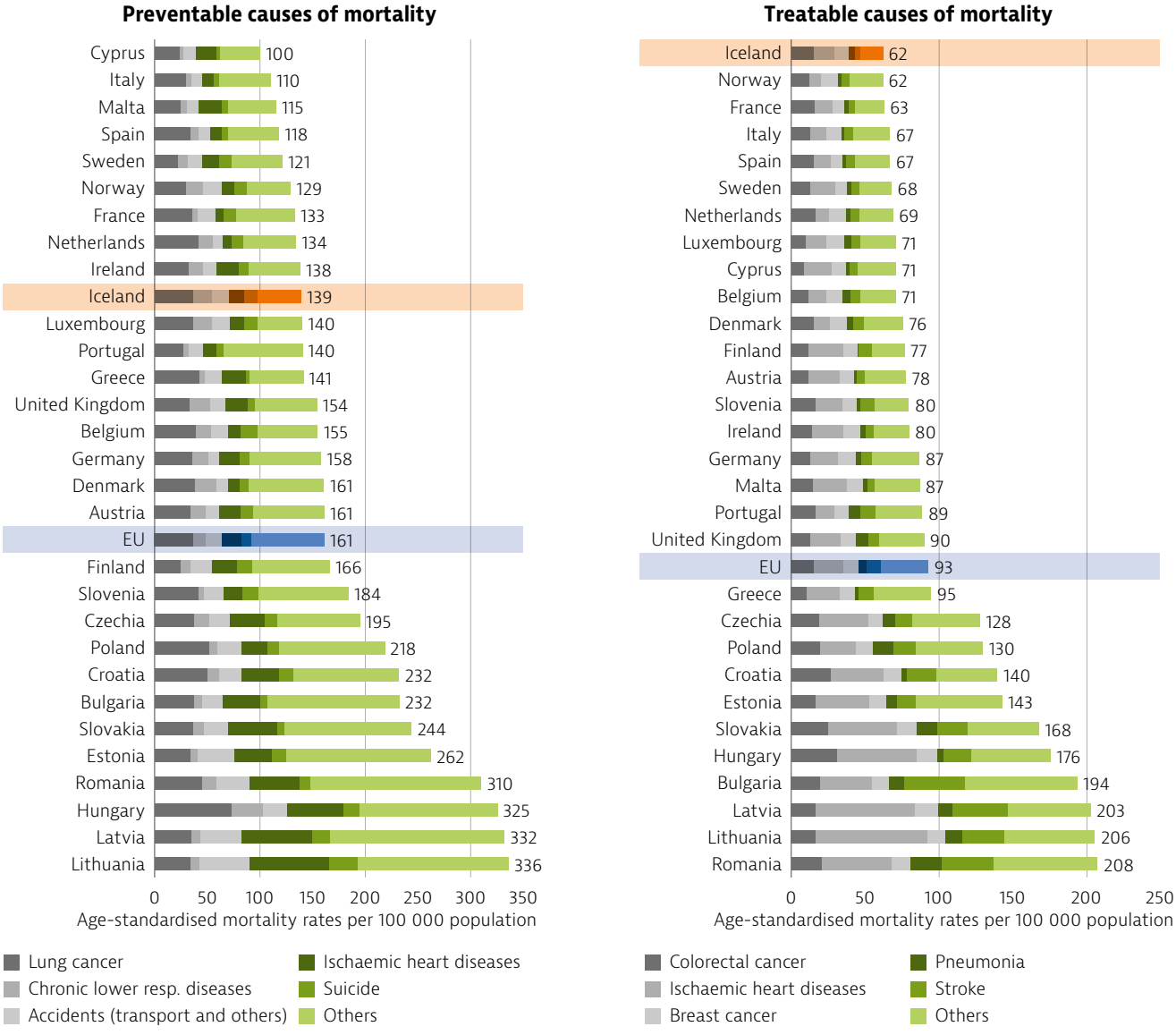
5.1. Effectiveness

Preventable and treatable causes of mortality are well below the EU average

Mortality from treatable causes of death in Iceland was lower in 2016 than in any EU country (Figure 11). This indicates that the health system is effective in saving the lives of people with life-threatening conditions. However, while mortality rates from ischaemic heart disease and cerebrovascular disease are much lower in Iceland than the EU average, mortality rates from colorectal and breast cancer are similar to the EU average.

Iceland also has a relatively low rate of preventable mortality overall, but some preventable causes of death, such as lung cancer and chronic lower respiratory diseases, are relatively high.

Figure 11. Iceland has low rates of preventable and treatable causes of mortality



Note: Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Mortality from treatable (or amenable) causes is defined as death that can be mainly avoided through health care interventions, including screening and treatment. Both indicators refer to premature mortality (under age 75). The data is based on the revised OECD/Eurostat lists.
Source: Eurostat Database (data refer to 2016).

Tobacco and alcohol control policies have been effective

Lower tobacco consumption in Iceland was precipitated by the early introduction of comprehensive anti-smoking measures from the late 1960s, including health warning labels on tobacco packages; bans on tobacco advertising, promotion and sponsorship; prohibitions on smoking in certain public places and workplaces; and assistance for those wanting to quit. Iceland has the highest spending on tobacco control per capita in Europe, and legislation obliges the government to spend at least 0.9 % of gross tobacco sales on tobacco control. In 2016, Iceland ranked third among European countries with the most comprehensive tobacco control policies (Joossens & Raw, 2017).

Iceland has one of the lowest levels of alcohol consumption in Europe because of strict alcohol control policies that include high taxes on alcohol, a high minimum age for purchasing alcohol (20) and other restrictions on alcohol sales, regulations on advertising and sales promotions of alcohol and strict enforcement of drink–driving laws. Iceland's current policy priority on alcohol and illicit drug prevention focuses on young people and vulnerable groups, with goals including restricting access, preventing consumption, reducing dangerous habits and ensuring those addicted have access to coordinated services.

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 countries and most EU countries. Iceland has responded to this growing public health issue by introducing health promotion and prevention measures in settings such as the community and schools. These include mandatory nutritional standards for schools, regulation of trans fats, 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 1; OECD, 2017). However, these measures do not yet appear to have had any major impact in reducing overweight and obesity.

Box 1. 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, more fibre and whole grain compared to foods within the same food group that do not fulfil the criteria for the label. While only adopted by Iceland in 2013, by 2015 an Icelandic survey indicated 90 % of Icelanders were familiar with the label and 93 % trusted it (Maskina, 2015).

Vaccination rates of children and older people are low

Immunisation is one of the most cost-effective public health interventions to prevent the spread of vaccine-preventable diseases. Since 2002, the Chief Epidemiologist has been responsible for monitoring the vaccinations taking place under national vaccination programmes, which are free of charge and recommended for children but not mandatory. Recommended vaccinations for infants begin at three months, with each child monitored through their regional primary care centre. Despite this, Iceland has one of the lowest vaccination rates compared with EU countries for children aged 2 for diphtheria, tetanus and pertussis: this was only 91 % in 2018 – below the 95 % coverage recommended by WHO (Figure 12). The vaccination rate for measles has also remained below the WHO recommendation since 2009. Five Icelanders were diagnosed with measles in early 2019 (Chief Epidemiologist of Iceland, 2019). This resulted in the Chief Epidemiologist issuing guidance regarding vaccination prioritisation and offering free vaccination for measles in the Eastern and Capital Regions, for 6- to 18-month-old children as well as unvaccinated adults, as a precautionary measure.

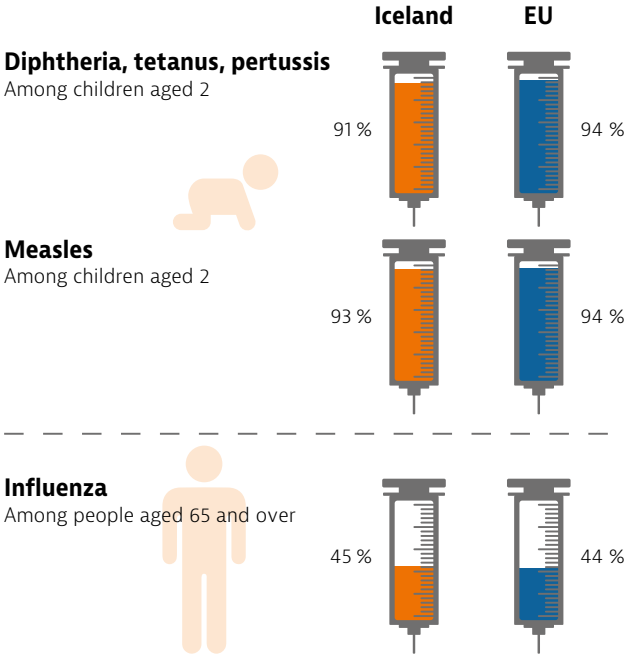
Vaccination against influenza is recommended for people aged 60 and over in Iceland as they are at greater risk of serious complications. However, vaccination coverage for people above 65 is low, with less than half (45 %) of people in that age group vaccinated in 2017, well below the WHO target of 75 %. The reasons for this low rate of uptake need to be explored.

It is expected that new funding for primary care services will address vaccination rates, as financial incentives are offered to primary care centres for encouraging older people to be vaccinated, as well as encouraging parents to have their children vaccinated (Chief Epidemiologist of Iceland, 2018).

Hospitals provide high-quality treatment to people requiring acute care

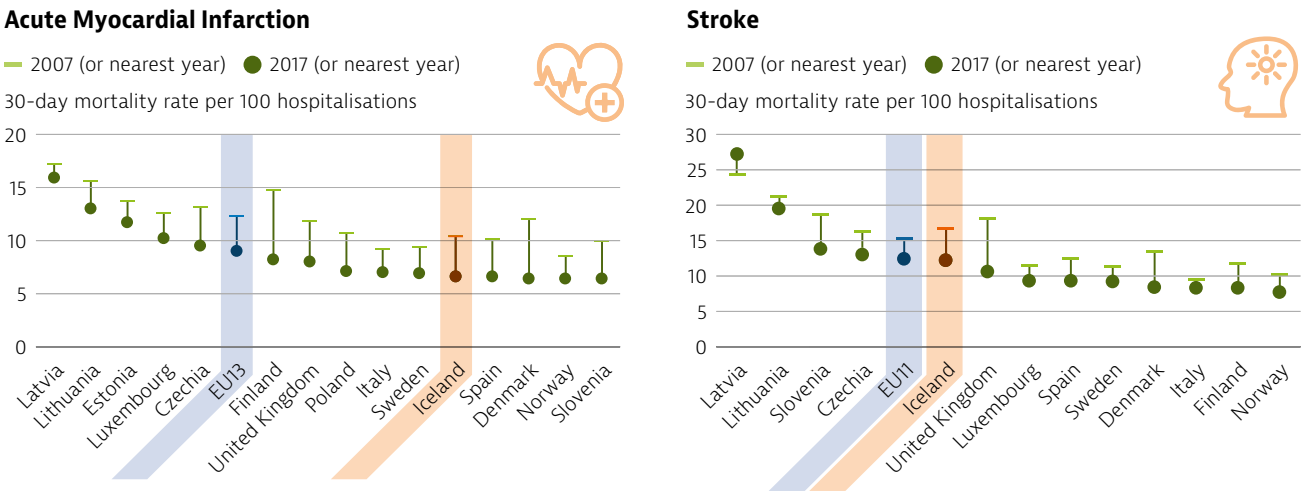
Hospitals in Iceland deal effectively with patients requiring acute care following acute myocardial infarction (AMI) and stroke. Substantial progress was achieved over the past decade in reducing mortality rates for people admitted to hospital for these life-threatening conditions, so that the 30-day mortality rate is now one of the lowest compared with EU countries with available data for AMI (Figure 13). This results from streamlining emergency care processes and providing better treatments, although further progress may be achieved in providing more timely and effective treatments for ischaemic stroke.

Figure 12. Childhood vaccination rates are below the WHO target and EU average



Note: The data refer to the third dose for diphtheria, tetanus and pertussis, and the first dose for measles.
Source: WHO/UNICEF Global Health Observatory Data Repository for children (data refer to 2018); OECD Health Statistics 2019 and Eurostat Database for people aged 65 and over (data refer to 2017 or nearest year).

Figure 13. Mortality rates following hospital admissions for AMI and stroke have dropped



Note: Figures are based on patient data and have been age-sex standardised to the 2010 OECD population aged 45+ admitted to hospital for AMI and ischaemic stroke.
Source: OECD Health Statistics 2019.

Cancer survival rates are higher than the average in Europe, but screening rates are low

In Iceland, all women aged 40-69 years are offered screening for breast cancer every two years to enable diagnosis at an early stage. However, only 55 % of women in that age group followed this recommendation in 2016, down from 62 % in 2008. Despite having a relatively low screening rate, Iceland has a higher survival rate five years after diagnosis for breast cancer than the EU average (Figure 14).

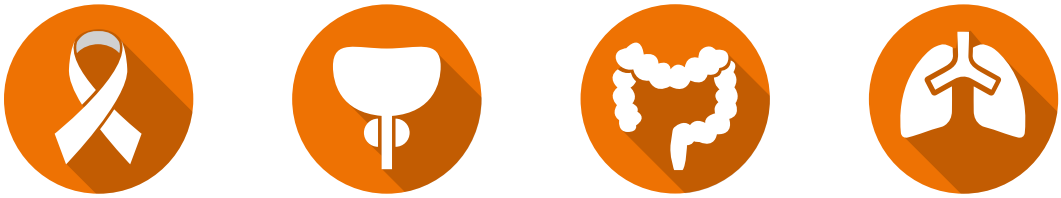
No national screening programme is yet in place for colorectal cancer, although screening has been recommended by the Directorate of Health for men and women between the ages of 60 and 69. This minimum age threshold in Iceland is higher than in most other countries, where screening is often recommended from 50 years. Nonetheless, survival following a diagnosis for colon cancer is also higher in Iceland (68 %) than the EU average (60 %).

A new cancer plan is being implemented (Ministry of Welfare, 2016) in which the organisation of cancer screening will be revised. This is part of a new health policy for 2030 approved by parliament in June 2019 (Alþingi, 2019).

Quality of care for chronic diseases seems to have improved

The rate of potentially avoidable hospital admissions for chronic diseases in Iceland is lower than in most EU countries for many conditions – particularly diabetes, for which Iceland has the lowest rates in Europe (Figure 15). This may reflect the implementation of formal clinical guidelines to support diabetes care delivery at the primary level, published in 2009, as well as the result of incorporating training into formal education to help establish a new standard of care.

Figure 14. Iceland has higher survival rates following a diagnosis for cancer than the EU average



Breast cancer
Iceland: 89 %
EU26: 83 %

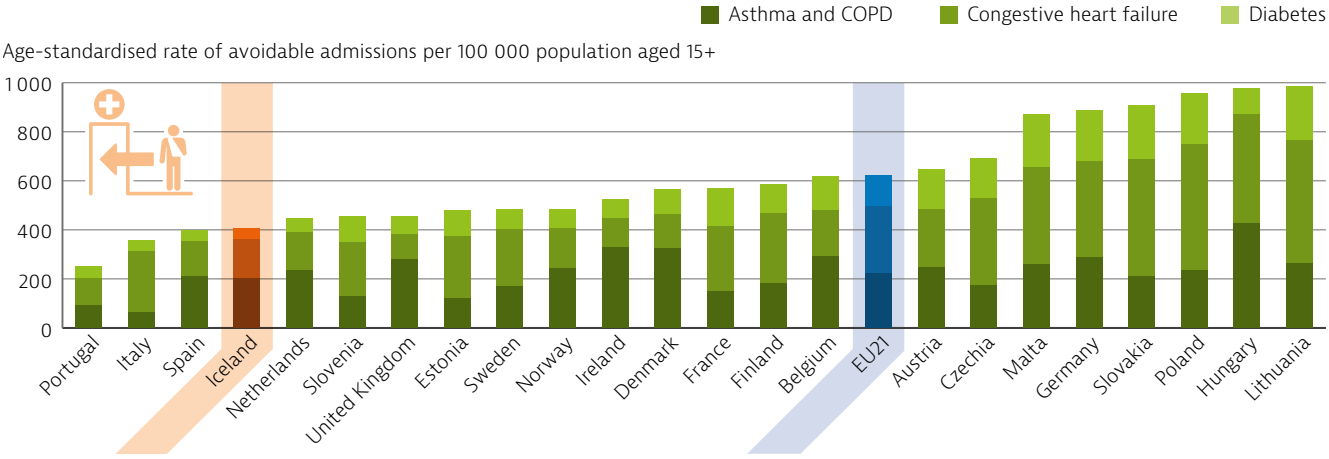
Prostate cancer
Iceland: 91 %
EU26: 87 %

Colon cancer
Iceland: 68 %
EU26: 60 %

Lung cancer
Iceland: 20 %
EU26: 15 %

Note: Data refer to people diagnosed between 2010 and 2014.
Source: CONCORD programme, London School of Hygiene and Tropical Medicine.

Figure 15. Iceland has low rates of avoidable admissions, particularly for diabetes



Source: OECD Health Statistics 2019 (data refer to 2017 or nearest year).

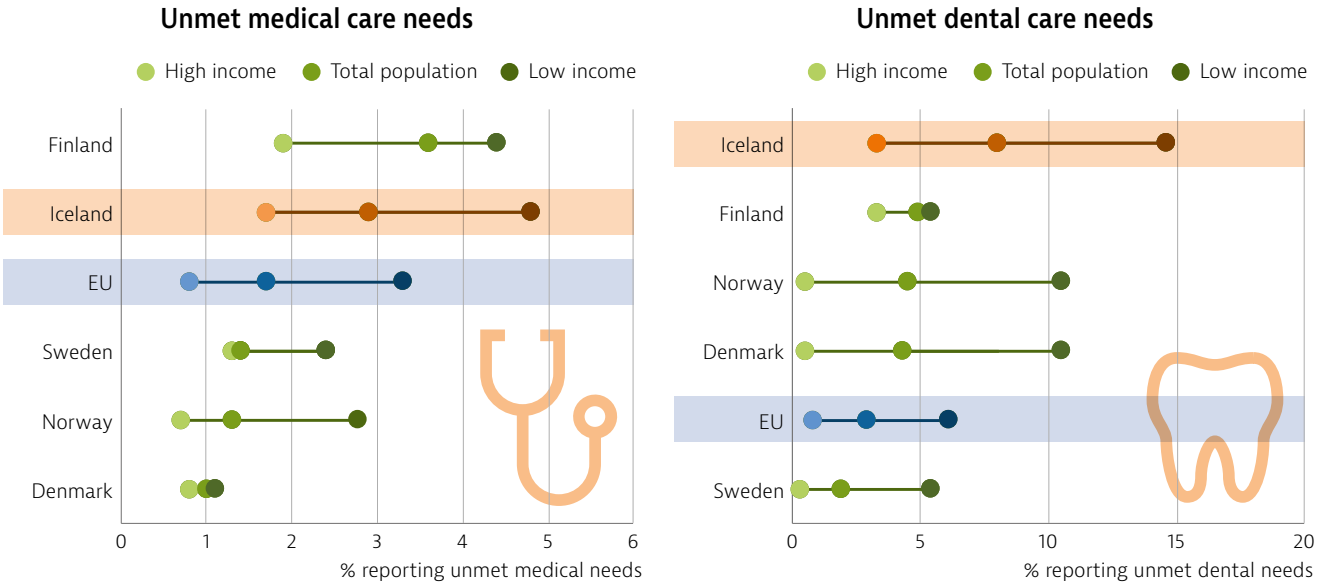
5.2. Accessibility

Unmet medical care needs are generally low, but higher for low-income groups

Everyone who has been legally resident in Iceland for six months automatically becomes a member of the Icelandic health insurance system. Nonetheless, some people report unmet needs for care for financial reasons or from other barriers. The proportion of people who reported unmet needs for medical care due to cost, distance or waiting times was about 3 % in 2016. However, the rate of unmet needs among those in the lowest income quintile reached about 5 %, more than double the rate among those in the highest (2 %). This disparity by income group is wider than in any other Nordic country (Figure 16).

Unmet needs are greater for services that are covered to a lesser extent under the public scheme, such as dental care. General dental and orthodontic treatment for adults between 18 and 66 years is generally not covered by the national health insurance, with private dentists charging according to their own fee schedules, although exceptions exist. In 2016, 8 % of the population reported unmet needs for dental care, but there was a more than a fourfold difference in unmet needs by income group: almost 15 % of people in the lowest income quintile reported some unmet needs for dental care compared with only 3 % for people in the highest. This proportion of unmet needs among people on low incomes is far greater than in any other Nordic country.

Figure 16. Unmet medical and dental care needs are higher among people on low incomes



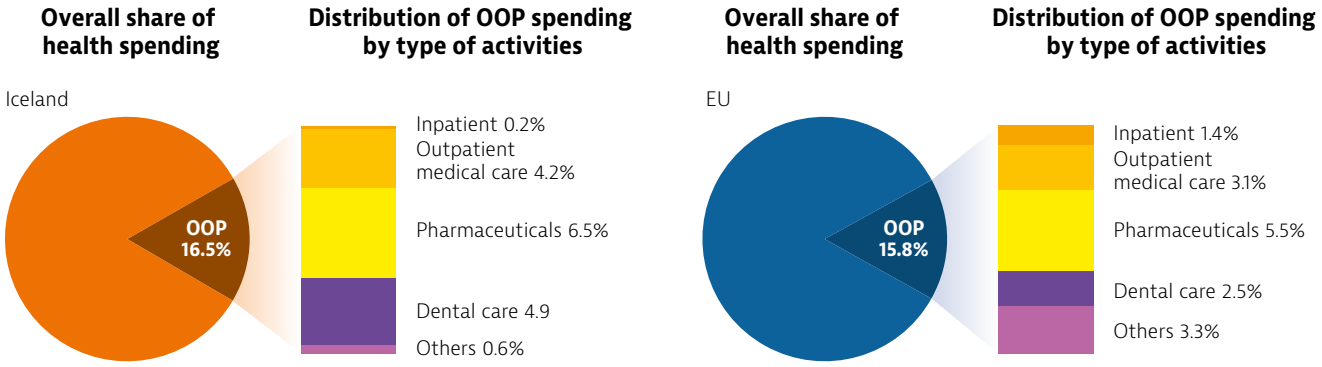
Note: Data refer to unmet needs for a medical or dental examination or treatment due to costs, distance to travel or waiting times.
Source: Eurostat Database based on EU-SILC (data refer to 2017, except for Iceland 2016).

Ceilings exist to protect vulnerable groups against high out-of-pocket spending

As noted in Section 4, the share of OOP spending in Iceland is slightly higher than the average in the EU, with private households directly financing almost 17 % of all health spending in 2017. More than two-thirds of direct household payments are for dental care and pharmaceuticals (Figure 17).

A new ceiling for OOP spending, although not including prescriptions and dental care, was introduced in May 2017, aiming to lower the expenses of those who require a considerable amount of health care. In 2019, the maximum amount of money an individual pays each month is 17 400 Icelandic króna (about EUR 131) for pensioners, people with disabilities and children; 26 100 Icelandic króna (about EUR 196) for others. When this ceiling is reached, the individual only pays a low fixed amount of user fees. Prescriptions, dental care and some other services fall under separate cost-sharing systems.

Figure 17. Most out-of-pocket payments go on pharmaceuticals, dental and outpatient medical care



Source: OECD Health Statistics 2019 (data refer to 2017).

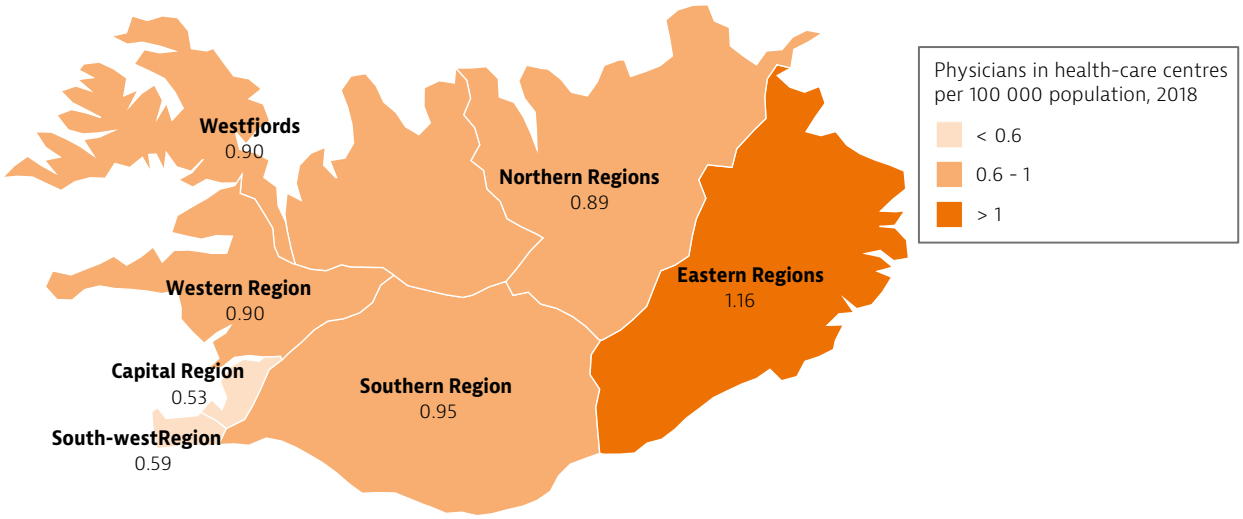
The number of doctors has increased, but regional disparities remain

The number of doctors in Iceland has increased over the past decade, from 3.6 per 1 000 population in 2007 to 3.9 in 2018, but there continue to be variations across regions, including for primary care doctors.

The primary care governance system is slowly being decentralised. Budgets are established at the national level, and management of primary care centres decentralised to regional levels. Regions are encouraged to support the development of health centre networks in rural and isolated communities, to improve after-hours services. The proportion of GPs compared to specialists is low (see Section 4), and GPs are unevenly distributed across the regions (Figure 18): a higher density of GPs work in primary care centres in the Eastern Region, in contrast to the Capital and South-West Regions. This may be explained by the fact that very few specialist doctors choose to practice in rural regions, resulting in Icelanders seeking private medical specialists as the first point of contact, particularly in the Capital and South-West regions.

Due to the sparse population and large service area of the Northern and Southern Regions, eHealth is increasingly used by GPs for consultations and guidance (Box 2).

Figure 18. The density of doctors in primary care centres varies across regions in Iceland



Sources: Alþingi (2018) for doctor numbers; Statistics Iceland (2019) for population numbers (data refer to 2018).

Box 2. The growing use of eHealth in rural Iceland

Since 2013, the Klaustur project has provided a telemedicine service for consultations and guidance in southern Iceland. A doctor visits a telemedicine clinic in Klaustur, a rural village in the Southern Region, twice a month. When the doctor is not present, a nurse manages all primary care cases with the support of the same doctor via telephone or computer. The Klaustur project has expanded to include four additional telemedicine clinics in the Southern Region and four in the Eastern Regions.

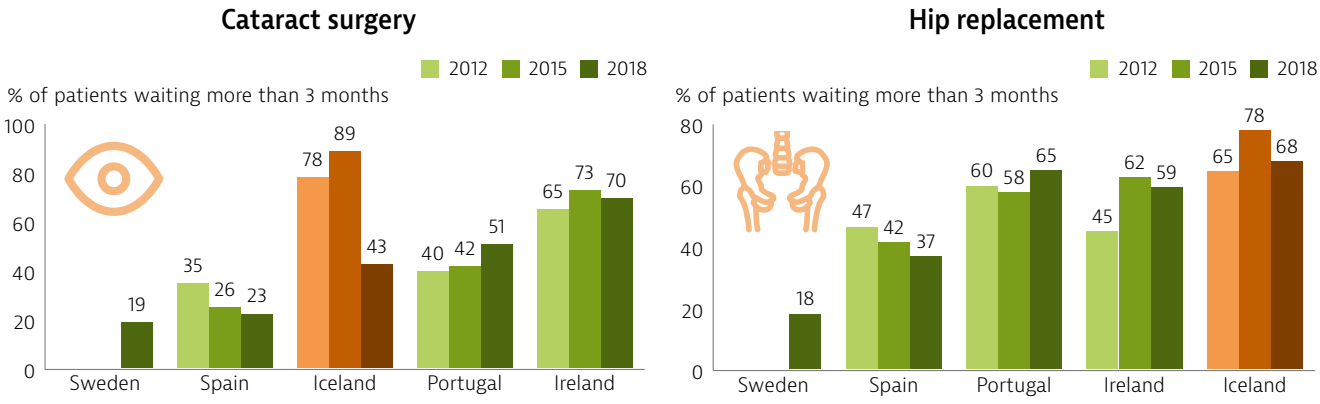
In north Iceland, the Life-line project by the Icelandic telecommunication company Siminn has tested telemedicine solutions for patients at sea. To provide advice and treatment to these patients, health care professionals log into a patient's electronic health record, connect remotely with the patient and input the data directly into the record.

Waiting times for elective surgery have been reduced in recent years

As in many other national health service systems, waiting times have been a longstanding feature of the Icelandic health system and the problem has been subject to numerous policy initiatives. This was exacerbated by the economic crisis and the resulting cuts in health spending, as well as by population ageing, which results in growing care needs. Long strikes among doctors, nurses and other health care workers in 2014 and 2015 further 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 (Government of Iceland, 2016). The waiting time for some of these operations was substantially lowered by 2018, particularly for cataract surgery and coronary angioplasty, while waiting times for hip replacement were reduced but remained high (Figure 19).

Figure 19. Waiting times for elective surgery have been reduced, but remain high



Source: OECD Health Statistics 2019.

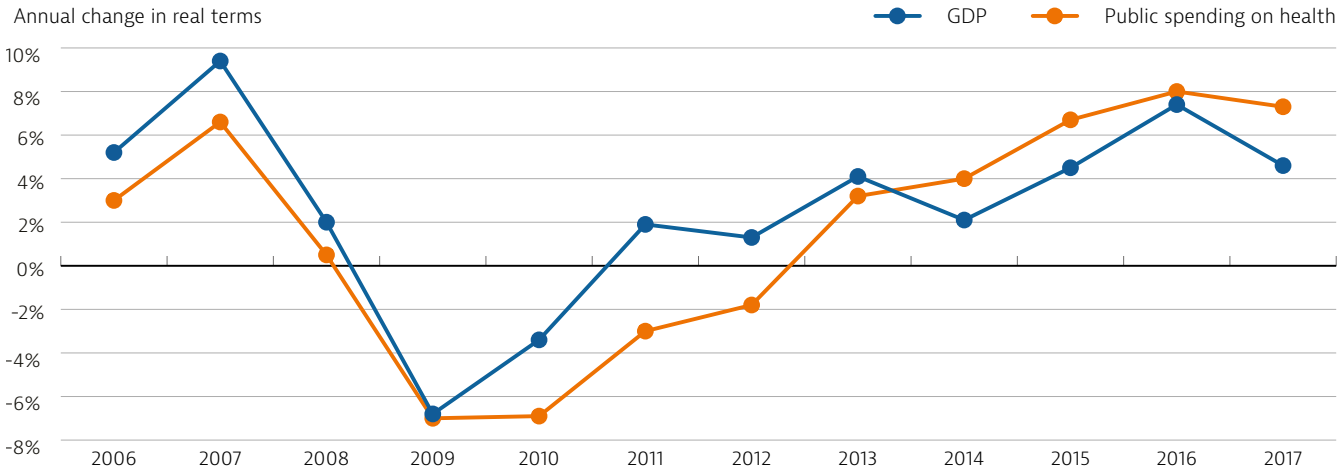
5.3 Resilience[2]

Health spending as a share of GDP has declined over the past decade

Following the marked reduction in health spending after the economic crisis in 2008, public spending on health rose again from 2013, at a rate slightly higher than GDP growth (Figure 20). Overall health spending accounted for 8.3 % in 2017, slightly down from 8.6 % in 2007 and 2008.

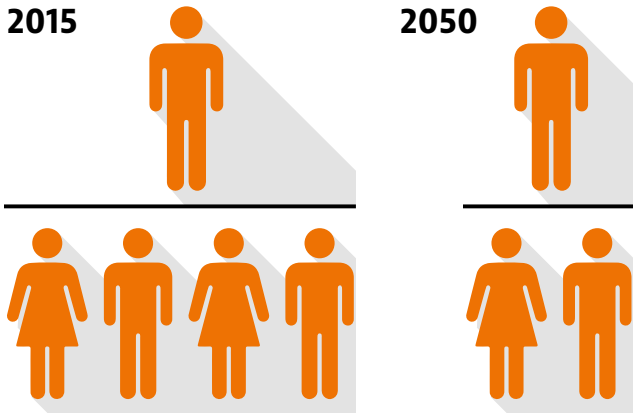
Looking ahead, population ageing and technological progress are expected to put pressures on health spending in the coming decades. Population ageing will increase the needs for health and long-term care, while there will be fewer working-age people to respond to these needs (Figure 21). Iceland is already increasing resources in home health care and establishing new nursing homes. Based on OECD projections, the health spending share of GDP is expected to grow from 8.3 % of GDP in 2015 to 10.4 % of GDP in 2030 under the current set of policies (Lorenzoni et al., 2019).

Figure 20. Health spending in Iceland has grown at about the same rate as GDP since 2012



Source: OECD Health Statistics 2019; Eurostat Database.

Figure 21. The number of working-age people per person aged over 65 will be reduced by two by 2050



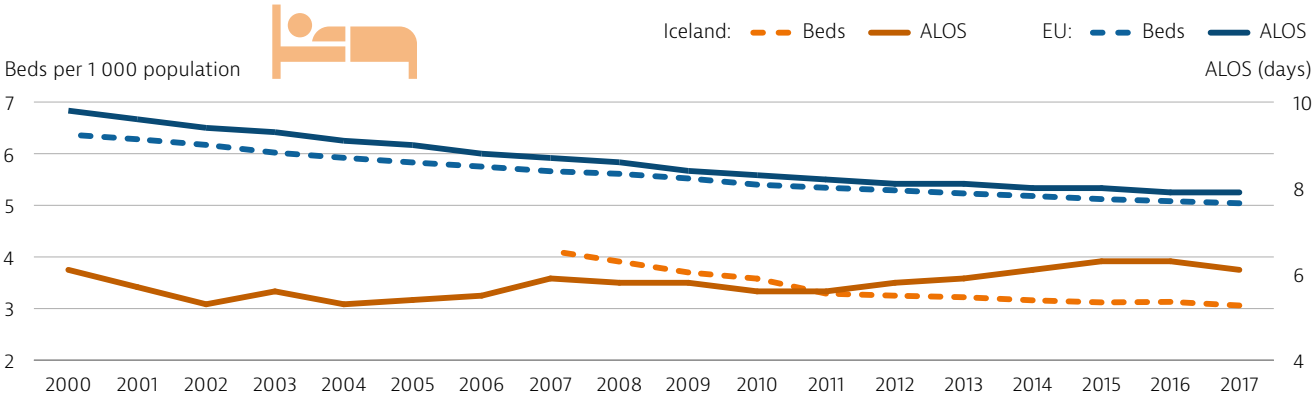
Note: This graphic shows the number of people aged 20-64 (denominator) per person aged 65+ (numerator).
Source: UN Population Projections.

The hospital system is functioning more efficiently

Both the number of hospital beds per population and average length of stay are well below the EU average (Figure 22). For example, the average length of stay for a normal delivery is less than two days, compared to slightly more than three days on average in the EU. For cardiac care, the average length of stay following an AMI was less than five days in 2017, compared to an EU average of seven days (OECD/EU, 2018). Between 2007 and 2017, the reduction in the number of hospital beds in Iceland per 1 000 population has been greater than in the EU as a whole.

2: Resilience refers to health system's capacity to adapt effectively to changing environments, sudden shocks and crises.

Figure 22. The number of hospital beds and average length of stay are below the EU average



Source: Eurostat Database.

The Icelandic primary care system faces challenge of responding to greater demand

The Health Care Act stipulates that services should be provided at the most appropriate level of care, and that PCCs should be the first point of contact for patients. However, given the low number of GPs and the absence of a gatekeeping function and referral system, a significant proportion of primary care is provided by private specialists.

In response to concerns about shortages of GPs, the government increased the number of training places in primary care medicine from 33 in 2000 to 53 in 2016 and put in place incentives to encourage more doctors to choose primary care, as part of a wider plan to strengthen the primary care system. Nurses have also begun to play a bigger role in primary care, although these new roles remain limited and the number of nurses involved in more advanced practice is still relatively small (Box 3).

Box 3. The role of nurses could be expanded across the health care system

The relatively large proportion of nurses compared to doctors in Iceland, combined with the high quality of nursing education and training, provides opportunities for greater task sharing between nurses and doctors in most fields. Some examples of more advanced practice nursing already exist. For instance, in primary care some nurse-led ambulatory clinics are responsible for patients with lung problems, for children and adolescents with diabetes, and for pre-dialysis patients. At Landspitali University Hospital, nurses with geriatric expertise are lead providers of care for older patients in the emergency department, while others lead advanced pain and wound care services.

However, Iceland remains at an early stage in developing new advanced roles for nurses in primary care and in hospitals. A Master's degree programme has been put in place to train clinical nurse specialists, but the number of students enrolled in this programme is limited.

Source: Gunnarsdóttir (2017).

In 2017, a new funding scheme for primary care centres was introduced in the Capital Region, which applies to both public and private centres. It is based on a mixed funding scheme, including a capitation formula, with financial incentives for providing certain types of services such as vaccination, as well as bonuses for displaying good results on pre-defined quality indicators. In addition, competition was introduced between primary care centres, enabling patients to choose their GP and centre, with funding following the patient. Two new private centres started operating in the Capital Region in 2018 based on service agreements with the Icelandic Health Insurance Agency.

Initiatives are underway to control pharmaceutical costs

As noted in Section 4, the share of health spending allocated to pharmaceuticals declined from almost 16 % in 2010 to 11 % in 2017. The reduction in pharmaceutical spending since 2010 has been achieved mainly through price reductions, as the volume of consumption of pharmaceutical products increased. These price reductions have been achieved notably by use of external reference pricing, mandatory substitution of originator pharmaceuticals with generics when available and changes in cost-sharing arrangements, resulting in a shift from public to private expenditure.

Concerning access to new medicines and procurement, organisations from Iceland are part of the Nordic Pharmaceutical Forum (Nordisk Lægemiddelforum), an alliance established in 2015 with the aim of identifying opportunities and undertaking shared projects to make it attractive to supply pharmaceuticals jointly to the five Nordic countries. One of the major activities of the Forum is the Joint Nordic Procurement pilot project, which aims to lower prices and improve supply security for products, increasing availability and affordability of pharmaceutical products. This project is of particular interest to Iceland as, due to its small market size, limited competition often results in overspending of pharmaceutical budgets. This hampers medicine availability, as only half of valid medicine market authorisations are physically available in the country. The Nordic Pharmaceutical Forum also works with the Nordic Pricing and Reimbursement Group, an informal collaboration between national pricing and reimbursement authorities.

The Icelandic information infrastructure is not fully integrated across regions and sectors

Since 1996, the Icelandic government has sought to establish integrated and interconnected health information systems to share medical and health information more effectively across institutions and sectors. While all hospitals and primary care clinics use electronic medical records, integration across the seven health regions and between public and private sector clinics has not yet been achieved.

The Directorate of Health oversees all national eHealth projects in Iceland. Between 2016 and 2020, as part of its eHealth strategies, the Directorate aims to secure seamless access for health professionals to patient information and for patients to their own health information; to ensure security and quality of health information in electronic health records; and to enhance electronic health record data retrieval (Icelandic Directorate of Health, 2016).

6 Key findings

- Life expectancy in Iceland is above the EU average, although recent gains have been small compared to EU countries. The gap in longevity between those most and least educated has widened since 2011, as the life expectancy of the most educated continued to increase while there was no gain among the least educated. Women still live a few years more than men do, but the gender gap in the number of healthy years is in favour of men, as Icelandic women tend to live a greater proportion of their lives with chronic diseases and disabilities.

- Tobacco and alcohol consumption are substantially lower than in most other European countries, which is credited to longstanding and comprehensive efforts to combat their use. However, the rising rate of overweight and obesity is a growing public health issue, with one in five adolescents now being overweight or obese, and one in four adults obese. Iceland has begun to respond to this public health concern by issuing guidelines on nutrition and physical activity, as well as restricting marketing of certain foods towards children. The results so far appear modest, however.

- Health expenditure per capita in Iceland is above the EU average, yet as a percentage of GDP it is below the EU average (8.3 % compared with an EU average of 9.8 %). Most expenditure is publicly funded (82 %), with out-of-pocket payments accounting for most of the remaining expenditure, as private health insurance only plays a marginal role. More than two-thirds of out-of-pocket payments are for dental care and pharmaceuticals, with these services and goods covered to a lesser extent by health insurance. This results in higher unmet needs for dental care than for other care, particularly among people on low incomes.

- Iceland has a relatively high number of doctors and nurses compared with most EU countries, but there are persisting issues regarding the composition and geographical distribution of the medical workforce, as well as growing concerns about shortages of nurses. Only one in six doctors is a general practitioner, and availability is particularly low in the Capital and South-west Regions. While primary care clinics should be the first point of contact for patients, specialists provide a significant proportion of first contacts, as general practitioners do not provide a gatekeeping function. Nurses have started to play a greater role in primary care and in emergency departments in hospitals, but these new roles are rare, and the number of advanced practice nurses is still limited.

- Long waiting times for some health services are a persistent issue in Iceland, which became more pronounced following the economic crisis and a series of strikes among health professionals. A 2016 government plan that defined waiting time targets and allocated additional funding has resulted in shorter waiting times for operations like cataract surgery and cardiac angioplasty. However, waiting times for hip and knee replacements still exceed the targets.

- Iceland continues to work towards the creation of a more integrated and interconnected health information system. The overall aim is to be able to share information with patients and across institutions, the public and private sector, and the seven health regions, in order to improve care coordination and reduce duplication of tests and procedures.

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Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Luxembourg	LU	Romania	RO
Belgium	BE	Estonia	EE	Iceland	IS	Malta	MT	Slovakia	SK
Bulgaria	BG	Finland	FI	Ireland	IE	Netherlands	NL	Slovenia	SI
Croatia	HR	France	FR	Italy	IT	Norway	NO	Spain	ES
Cyprus	CY	Germany	DE	Latvia	LV	Poland	PL	Sweden	SE
Czechia	CZ	Greece	EL	Lithuania	LT	Portugal	PT	United Kingdom	UK

European Commission

State of Health in the EU
Country Health Profile 2019

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.

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

Please cite this publication as: OECD/European Observatory on Health Systems and Policies (2019), *Iceland: Country Health Profile 2019, State of Health in the EU*, OECD Publishing, Paris/European Observatory on Health Systems and Policies, Brussels.

ISBN 9789264771772 (PDF)
Series: State of Health in the EU
SSN 25227041 (online)

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