

ICELAND

# Country Cancer Profile

2025

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## The Country Cancer Profile Series

The European Cancer Inequalities Registry is a flagship initiative of Europe's Beating Cancer Plan. It provides sound and reliable data on cancer prevention and care to identify trends, disparities and inequalities between Member States, regions and population groups. The Country Cancer Profiles identify strengths, challenges and specific areas of action for each of the 27 EU Member States, Iceland and Norway, to guide investment and interventions at the EU, national and regional levels under Europe's Beating Cancer Plan. The European Cancer Inequalities Registry also supports Flagship 1 of the Zero Pollution Action Plan. The Profiles are the work of the OECD in co-operation with the European Commission. The team is grateful for the valuable inputs received from national experts and comments provided by the OECD Health Committee and the EU Thematic Working Group on Cancer Inequality Registry.

### Data and information sources

The data and information in the Country Cancer 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.

Additional data and information also come from the European Commission's Joint Research Centre (EC-JRC), the EU statistics on income and living conditions (EU-SILC) Survey, the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), the International Atomic Energy Agency (IAEA), the European Society for Paediatric Oncology (SIOPE), the European Union Agency for Fundamental Rights (FRA LGBTIQ), the Health Behaviour in School-aged Children (HBSC) survey as well as from the 2023 Country Health and Cancer Profiles, and other national sources (independent of private or commercial interests). The calculated EU averages are weighted averages of the 27 Member States unless otherwise noted. These EU averages do not include Iceland and Norway. Mortality and incidence rates are age-standardised to the European standard population adopted by Eurostat in 2013.

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.

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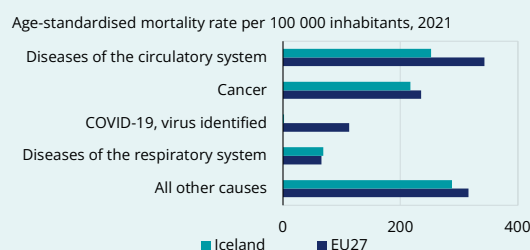
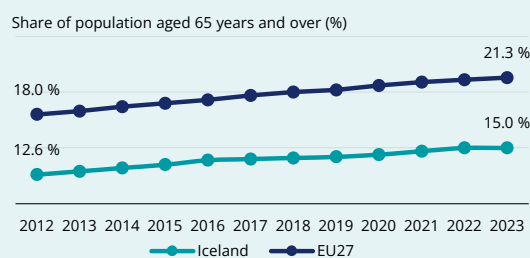
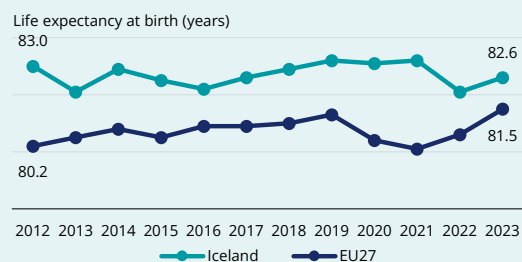
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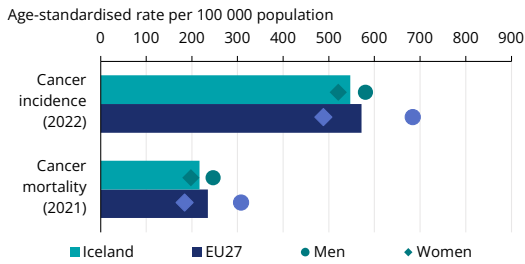
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## Key health system and demographic statistics



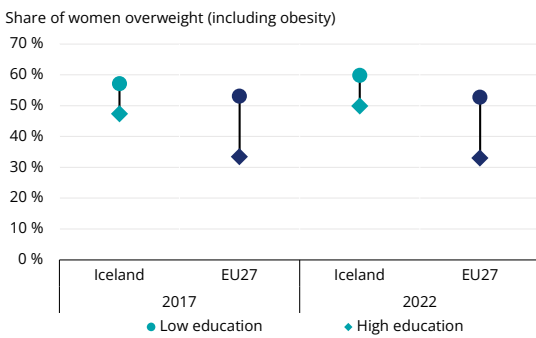
Source: Eurostat Database.

# 1. Highlights



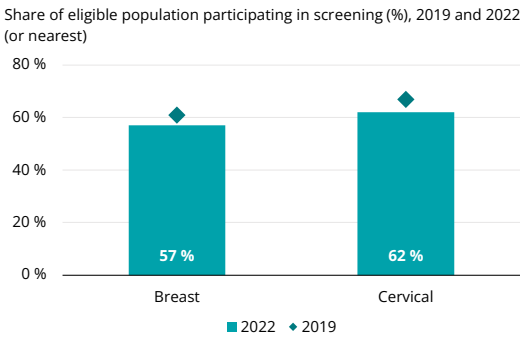
## Cancer in Iceland

Iceland has relatively low estimated cancer incidence and mortality rates compared to other EU+2 countries. Estimated incidence rates for men are the third lowest but rates for women are slightly higher than the EU average. Over the past decade, cancer mortality has decreased substantially. Among women, avoidable mortality rates increased for breast and colorectal cancers between 2011 and 2021, while they decreased in most EU+2 countries.



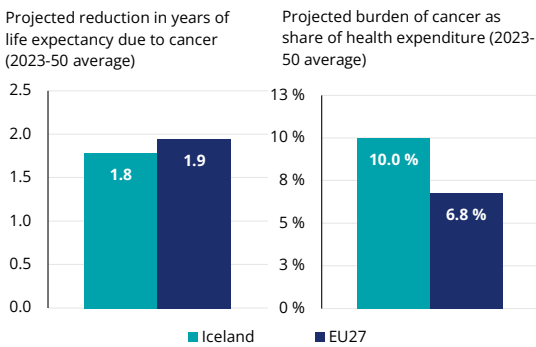
## Risk factors and prevention policies

The population in Iceland generally has low risk factors for cancer. However, rates of overweight and obesity are high, although socio-economic gaps are relatively small, and fruit consumption is low. Smoking rates have declined over recent decades, reaching the lowest rate in EU+2 countries, but e-cigarette use is relatively high – particularly among young adults and women.



## Early detection

Iceland's cervical and breast cancer screening programmes have a long history. Participation rates in cancer screening programmes are high in Iceland, even though co-pays are required. In the past decade participation rates have declined particularly among foreign-born women and remain relatively low in some regions. Given the increasing incidence rate, Iceland is preparing to introduce a population-based colorectal cancer screening programme.



## Cancer care performance

While specialised cancer care is centralised in Iceland, geographical access is ensured through decentralised chemotherapy and follow-up care. However, financial barriers exist since patients need to pay for certain primary care services. Securing a stable cancer care workforce is also challenging. Access to new oncology medicines is ensured, but biosimilar coverage is low and the process lengthy. A range of supportive information, rehabilitation, financial support and palliative care is available for cancer patients. Over 2023-50, the burden of cancer as a share of health expenditure is expected to be higher than the EU average.

## 2. Cancer in Iceland

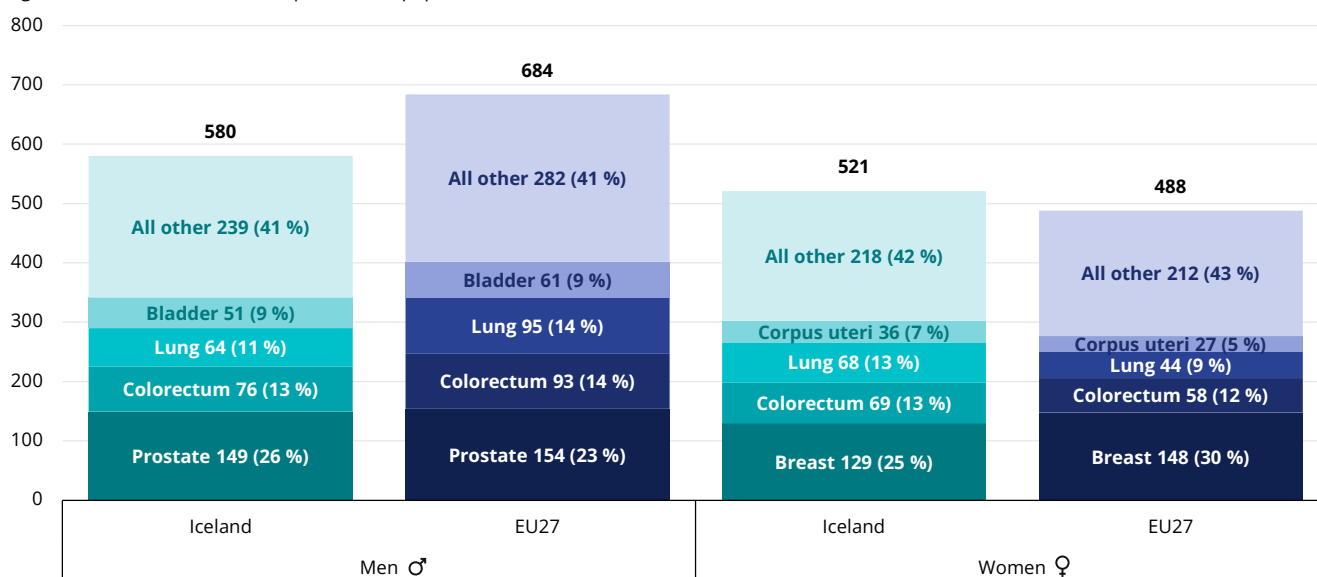
### Estimated cancer incidence in Iceland among men is lower than in most countries in the EU+2

According to European Cancer Information System (ECIS) of the Joint Research Centre based on incidence trends from pre-pandemic years, over 1 660 people (847 men and 816 women) were expected to be newly diagnosed with cancer in Iceland in 2022. This is in line with figures

published by the Icelandic Cancer Registry of 937 men and 916 women diagnosed on average between 2018-2022. According to ECIS, the age-standardised rate was expected to be 580 new cancer cases per 100 000 men, which was the third lowest in EU+2 countries<sup>1</sup> and 15 % lower than the EU average, and 521 new cancer cases per 100 000 women, which was 7 % higher than the EU average (Figure 1).

### Figure 1. Cancer incidence among men was expected to be the third lowest in EU+2 countries in 2022

Age-standardised incidence rate per 100 000 population, estimates, 2022



Notes: 2022 figures are estimates based on incidence trends from previous years, and may differ from observed rates in more recent years. Includes all cancer sites except non-melanoma skin cancer. Corpus uteri does not include cancer of the cervix.

Source: European Cancer Information System (ECIS). From <https://ecis.jrc.ec.europa.eu>, accessed on 10 March 2024. © European Union, 2024. The incidence percentage breakdown was re computed based on age-standardised incidence rates and as such differs from the percentage breakdown of absolute numbers shown on the ECIS website.

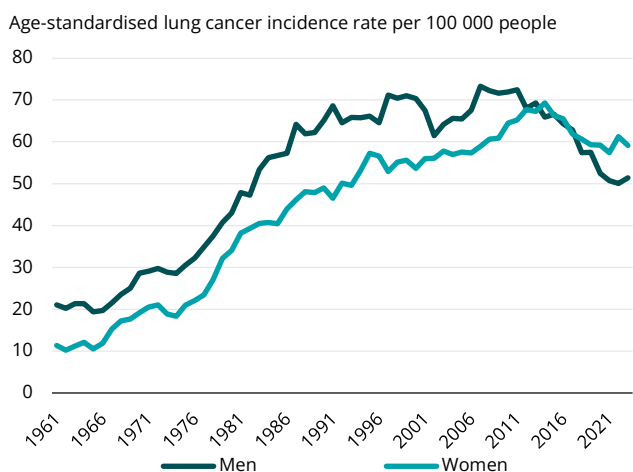
Among men, most common new cancer cases were prostate, colorectal and lung<sup>2</sup> cancers, but their incidence rates were all lower than the EU averages. Among women, breast, colorectal and lung cancers were most common new cancer cases, with incidence rates for lung and colorectal

cancers higher than the EU averages. In relation to lung cancer, reflecting a downward trend in smoking rates over recent decades (see Section 3), incidence rates appear to have peaked in 2007 among men and in 2014 among women (Figure 2).

<sup>1</sup> EU+2 countries include 27 EU Member States (EU27), plus Iceland and Norway.

<sup>2</sup> Lung cancer also refers to trachea and bronchus cancers.

**Figure 2. Lung cancer incidence rates are dropping sharply among men and gradually among women**



Note: Rates are age-standardised to the Nordic standard population which refers to the population age distribution for Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands and Greenland in year 2000.

Source: Icelandic Cancer Registry (2024).

**The gender difference in cancer incidence rates is the lowest in EU+2 countries**

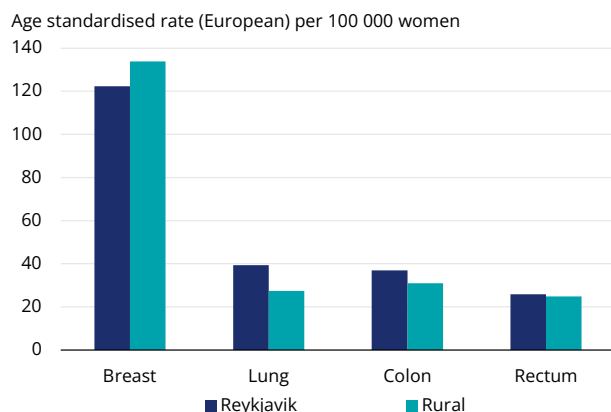
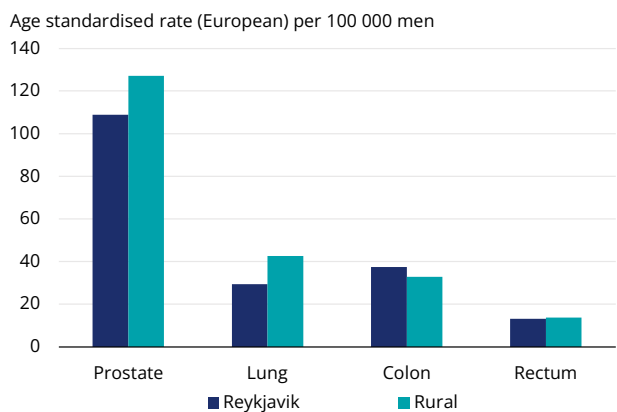
In Iceland, the gender difference in cancer incidence rates was expected to be 11 % in 2022

– the lowest in EU+2 countries – while the EU average was 40 %. This is due to substantially lower incidence of colorectal and lung cancers among men and relatively high incidence of lung cancer among women in Iceland. According to ECIS, the colorectal cancer incidence rate was 10 % higher among men than among women in Iceland, but this is much lower than the average gender difference of about 60 % across the EU. In recent years, the incidence rate for lung cancer declined faster among men than women, and Iceland and Sweden became the only two EU+2 countries in which lung cancer incidence rates are higher among women than men.

**Incidence rates for certain cancers vary across regions and between native-born and foreign-born populations**

In 2021, the overall cancer incidence rate was almost the same between Reykjavik and the rest of the country (only 2 % higher in the capital city). However, incidence rates for breast and prostate cancers were higher in rural areas than in Reykjavik. For lung cancer, the incidence rate among women was 43 % higher in the capital city, while the rate among men was 45 % higher in rural areas (Figure 3).

**Figure 3. Incidence rates for prostate and breast cancers were higher in rural areas than in Reykjavik**



Note: Rates are age-standardised to the European standard population. Source: Association of the Nordic Cancer Registries (NORDCAN) 2023.

Incidence rates for certain cancers also vary between native-born and foreign-born populations. Based on data pooled from 1986 to 2020, non-Western immigrant women had a lower risk than the native-born population of developing breast (by 42 %), colorectal (by 23 %) and lung (by 41 %) cancers initially after migration, although the risk increased with the length of stay in Iceland (Lamminmäki et al., 2023).

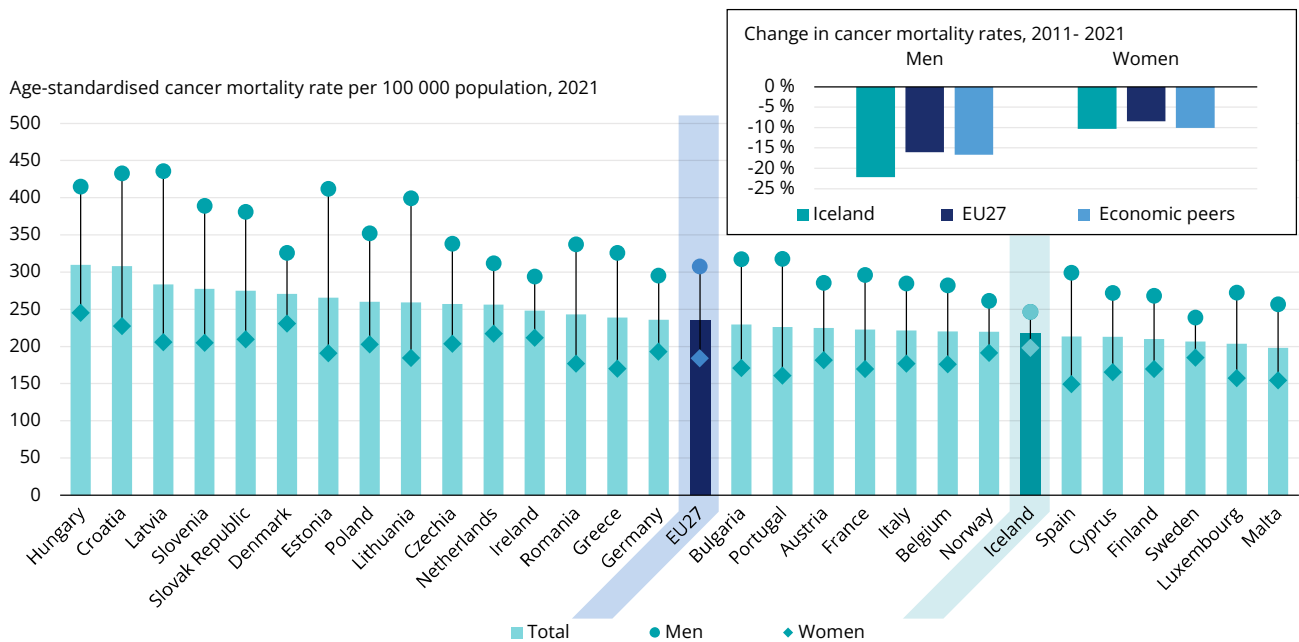
**Cancer mortality rates in Iceland decreased rapidly over the past decade, and are lower than the EU average**

In 2021, the cancer mortality rate in Iceland was 217 deaths per 100 000 population, which was 8 % lower than the EU average of 235 per 100 000. The rate among men (246 deaths per 100 000) was the second lowest in EU+2 countries and 20 % lower than the EU average; the rate among women (198 deaths per 100 000) was 8 % higher than the EU average, resulting in the lowest gender gap in EU+2

countries (Figure 4). Five-year average mortality rates for leading causes of cancer death such as lung, colorectal, and pancreas cancers were lower in Iceland than the EU averages while female breast cancer mortality rates were fairly similar.

However, the five-year average mortality rate for prostate cancer among men – the fourth highest cause of cancer deaths in Iceland – was 43 % higher than the EU average.

**Figure 4. The cancer mortality rate among men in Iceland is the second lowest in EU+2 countries**



Notes: Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for IS are AT, BE, DE, DK, IE, LU, NL, NO and SE. Source: Eurostat Database.

Between 2011 and 2021, cancer mortality rates decreased faster in Iceland than in most EU+2 countries. The reduction among men was 22 % (compared to average declines of 16 % across the EU and 17 % among the country's economic peers<sup>3</sup>), and reduction among women was 10 % (compared to average declines of 8 % across the EU average and 10 % among Iceland's economic peers). The overall decrease was mainly attributable to large declines in lung and stomach cancer mortality rates.

### Avoidable mortality rates in Iceland did not always follow the decreasing trends seen across the EU

Unlike the downward trend in avoidable mortality<sup>4</sup> across the EU over the past decade, avoidable mortality rates for breast cancer increased

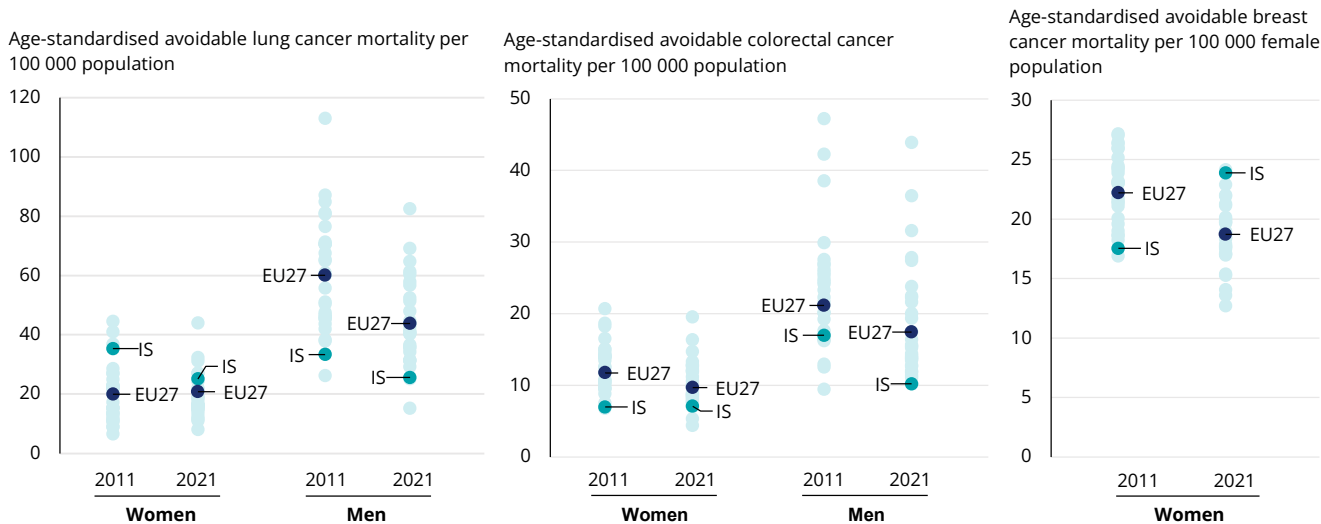
substantially in Iceland between 2011 and 2021 (Figure 5), reaching the second highest rate in EU+2 countries (24 deaths per 100 000 population), 28 % higher than the EU average. Avoidable mortality from colorectal cancer among women also slightly increased in Iceland (by 2 %), while the EU average decreased by 18 % during 2011-21. These figures suggest the importance of improving breast and colorectal cancer screening uptake, and of access to and quality of cancer care to reduce the disease burden in Iceland (see Sections 4 and 5).

In contrast, avoidable mortality from lung cancer among women decreased substantially in recent years; however, it is still above EU average (by 21 %), underscoring the importance of public health and prevention measures, and illustrating that it takes time to reduce lung cancer deaths (see Section 3).

<sup>3</sup> Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for IS are AT, BE, DE, DK, IE, LU, NL, NO and SE.

<sup>4</sup> Avoidable mortality includes both preventable deaths that can be avoided through effective public health and prevention interventions, and treatable deaths that can be avoided through timely and effective healthcare interventions.

**Figure 5. Among women, avoidable mortality rates increased for breast cancer and colorectal cancer**



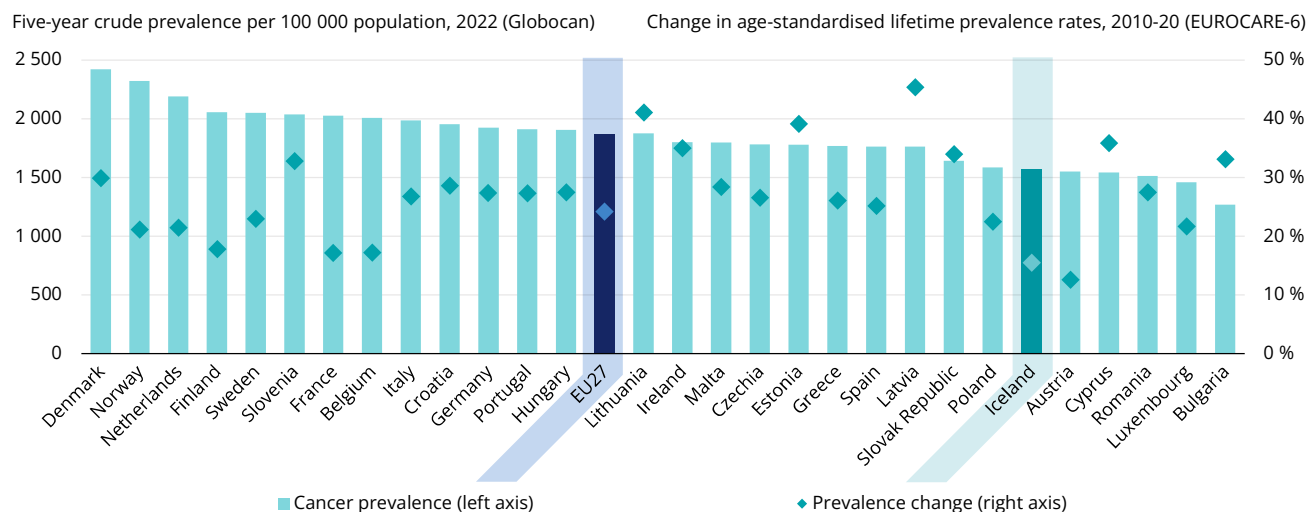
Note: Avoidable mortality figures relate to deaths of people aged under 75.  
Source: Eurostat Database. Data refer to 2021.

**Cancer prevalence in Iceland is lower than the EU average**

In 2022, given low cancer incidence, prevalence<sup>5</sup> of cancer was low at 1 569 per 100 000 population in Iceland, compared to the EU average of 1 876

per 100 000 (Figure 6). In Iceland, the cancer prevalence rate increased by only 15 % during 2010-20, while the average increase across the EU was 24 %. Although the overall burden of cancer on the health system is lower in Iceland than in most EU+2 countries, it is still considerable.

**Figure 6. Cancer prevalence increased more slowly in Iceland than in most EU+2 countries**



Sources: IARC Globocan Database 2024; EUROCARE-6 study (De Angelis et al., 2024).

**Iceland's first National Cancer Plan is being implemented from 2019 until 2030**

To tackle the burden of cancer, Iceland developed its first National Cancer Plan in 2016, based on input from providers including various health professionals and hospitals and the Icelandic Cancer Society – a nationwide non-profit umbrella organisation of 34 member associations. This Plan

is being implemented during 2019-30, focusing on nine policy areas including prevention (to address risk factors such as tobacco use, alcohol consumption, unhealthy diet, physical inactivity and exposure to ultraviolet radiation); screening and early diagnosis; education and human resources development; evidence-based cancer care; active involvement of cancer patients and

<sup>5</sup> Cancer prevalence refers to the proportion of the population who have been diagnosed with cancer and are still alive, including those currently undergoing treatment for cancer and those who have completed treatment. Five-year cancer prevalence includes people who have been diagnosed within the previous five years, while lifetime prevalence considers those who have ever received a cancer diagnosis.

their families; timely provision of continuous, integrated care; well-being of cancer patients; geriatric oncology; a cancer registry for monitoring and performance improvement; and science and

research (Ministry of Health, 2016). The priorities in the Plan generally align the main pillars in Europe’s Beating Cancer Plan (Box 1).

**Box 1. Iceland’s National Cancer Plan generally aligns with the Europe’s Beating Cancer Plan priorities**

Prevention, early detection, quality of life, diagnosis and treatment and research and innovation are priorities in the National Cancer Plan (Table 1). Paediatrics is not a focus area of the Plan, probably because access to paediatric cancer treatment is ensured through international collaboration (see Section 6). While not its own section in the Plan, the issue of cancer inequalities is intertwined in other sections. Furthermore, inequalities in Iceland by region are relatively low thanks to the centralised structure of cancer care delivery with decentralised follow-up care (see Section 5.1). Nevertheless, inequalities in cancer screening participation rates by socio-economic status are observed (see Section 4), and access to high-quality cancer care may vary.

**Table 1. Iceland’s National Cancer Plan does not prioritise all the transversal themes of the Europe’s Beating Cancer Plan**

Pillars of EBCP				Transversal themes of EBCP		
Prevention	Early Detection	Diagnosis and treatment	Quality of life	Cancer inequalities	Paediatric cancer	Research and innovation
●	●	●	●	●	●	●

*Notes: EBCP = Europe’s Beating Cancer Plan; Blue indicates that the National Cancer Plan includes a specific section on the topic; orange indicates that the topic is covered in one of the Plan’s sections without being the only focus; and pink indicates that this topic is not covered in the Plan.*

*Source: Adapted from “Study on mapping and evaluating the implementation of Europe’s Beating Cancer Plan” (not yet published).*



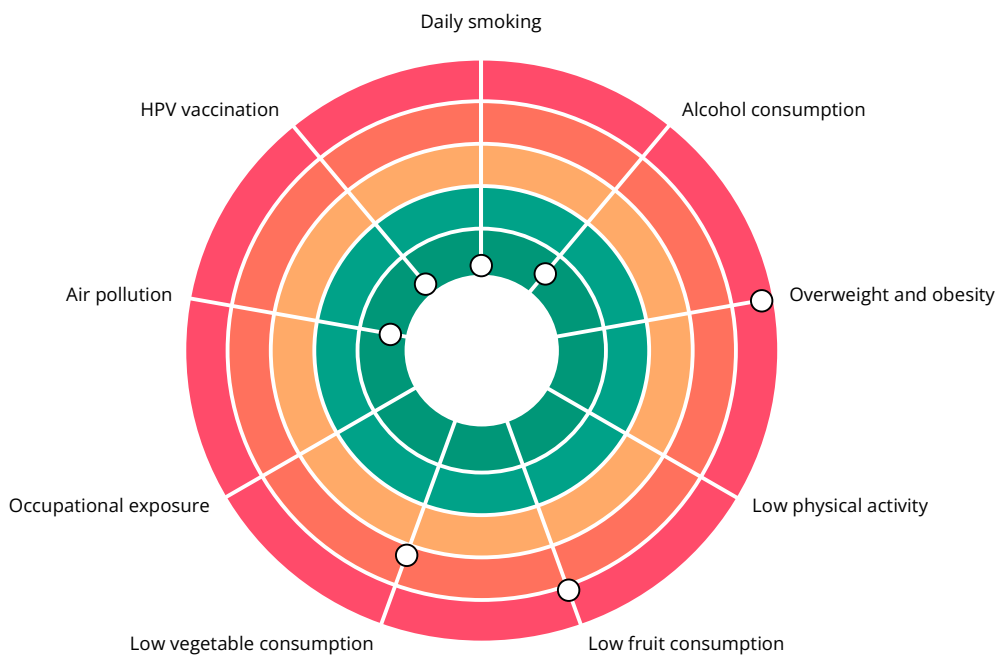
# 3. Risk factors and prevention policies

## The population in Iceland generally has low risk factors for cancer

In Iceland, 3.8 % of health expenditure went on preventive care in 2021 – much lower than the EU average of 6.1 %<sup>6</sup>. However, Iceland has implemented various public health policies in recent years. The Directorate of Health started

the Health Promoting Community Programme in 2013, in collaboration with local authorities and other stakeholders including schools, with a focus on creating healthy lifestyles and overall well-being. Iceland also introduced specific policies to tackle obesity, physical activity, smoking and alcohol consumption, resulting in relatively healthy lifestyles (Figure 7).

**Figure 7. Iceland performs very well on several risk factors, but overweight and obesity rates are high and diets are low on fruits and vegetables**



Notes: 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. Air pollution is measured as particulate matter with a diameter less than 2.5 micrometres (PM<sub>2.5</sub>). Data not available for physical activity and occupational exposure. Sources: OECD calculations based on 2022 EU-SILC Survey for overweight, obesity, physical activity, fruit and vegetable consumption (in adults); Eurofound Survey for occupational exposure; OECD Health Statistics for smoking, alcohol consumption (in adults) and air pollution; and WHO for HPV vaccination (15-year-old girls). For Iceland, 2019 EHIS data is used for overweight, fruit and vegetable consumption (in adults).

## Among cancer risk factors, overweight and nutrition are the major challenges for Iceland

Overweight is apparent among young people: 21 % of 15-year-olds in Iceland were overweight or obese in 2022 – similar to the EU average (Figure 8). Prevalence of overweight is higher among children in the least affluent families (25 %) than those

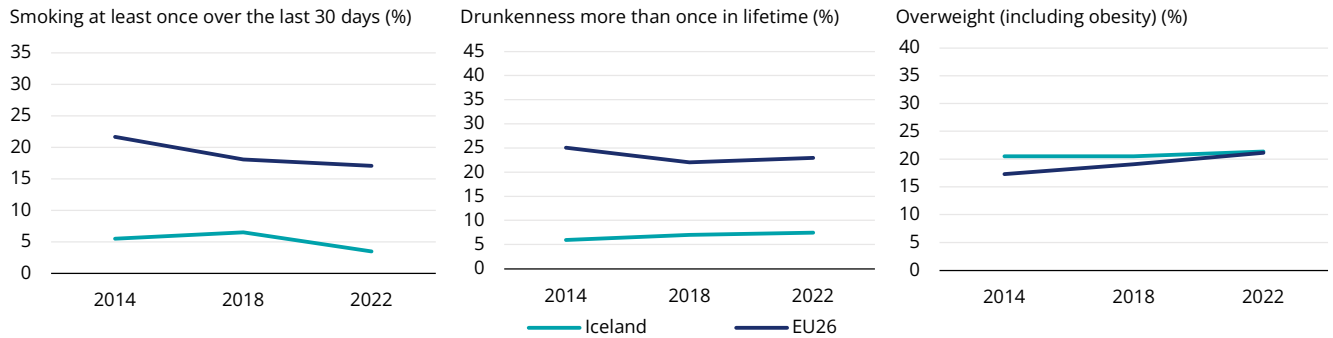
in the most affluent (13 %) based on the Family Affluence Scale. There have been some concerning trends in nutrition among adolescents in Iceland, with the prevalence of daily fruit and vegetable consumption dropping between 2014 and 2022 to below the EU average. Among 15-year-olds in Iceland in 2022, less than one in three reported

<sup>6</sup> Prevention expenditures as reported in health accounts should include activities outside of national programmes (e.g. opportunistic cancer screening or counselling for smoking cessation during a routine physician contact), however in practice countries may have difficulty in identifying prevention spending outside of such programmes.

daily fruit consumption (28 %) and daily vegetable consumption (27 %). In 2022, 18 % of adolescents in Iceland reported a daily 60 minutes of physical

activity, marginally better than the low 15 % rate reported in the EU on average.

**Figure 8. More than one in five 15-year-olds in Iceland are overweight**

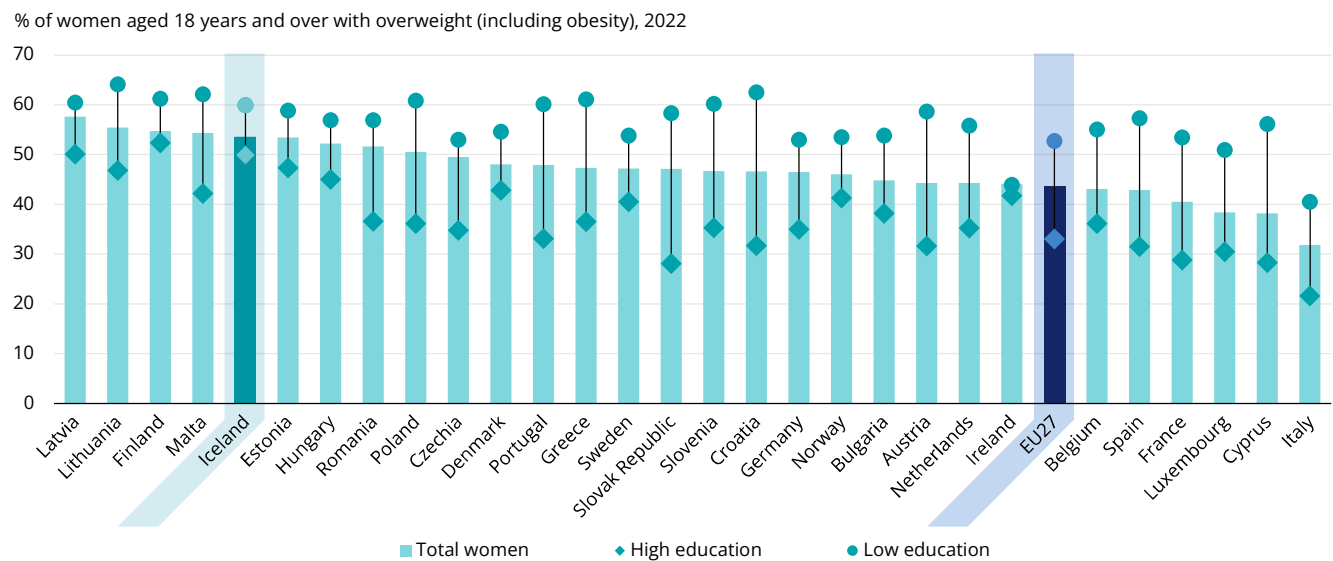


Note: The EU average is unweighted. Data refer to 2022, and are based on children aged 15 years. EU26 for smoking and drunkenness; EU25 for overweight.  
Source: Health Behaviour in School-aged Children Survey.

Among adults, prevalence of overweight was 62 % in 2019, higher than the EU average of 51 % in 2022. In Iceland, overweight and obesity is more prevalent among adult men (71 %) than adult women (54 %), and more common among people with lower (66 %) than higher (57 %) education

levels. These socio-economic gaps are relatively small however, with higher educated women in Iceland having overweight rates at 50 % compared to 60 % for lower educated women in 2019 (Figure 9). This ten-percentage point gap is about half the rate seen in the EU on average.

**Figure 9. While overweight rates are high in Iceland, the gap between lower and higher educated women is smaller than in the EU**



Note: Overweight (including obesity) includes those with a BMI above 25.  
Source: Eurostat Database. Data refer to 2022, except for Germany and Iceland which refer to 2019.

A larger share of people in Iceland do not consume vegetables daily (49 %, compared to the EU average of 40 %) or fruit daily (53 %, compared to the EU average of 39 %). However, according to the European Health Interview Survey, the share of the population engaging in at least moderate physical activity (56 %) was much higher than the EU

average (33 %) in 2019, although it had decreased from 61 % in 2014.

To reverse the increasing trend of overweight and obesity, Iceland has introduced measures to promote healthy eating habits. These include nutritional standards for school canteens, and banning unhealthy foods and beverage advertising

on TV and radio during hours when children are the main audience. Iceland uses the Nordic<sup>7</sup> Keyhole nutrition label, established in Sweden in 1989 and also adopted in Denmark, Norway and Sweden. This does not include negative front-of-pack labelling but highlights healthier alternatives within a product group. Furthermore, in 2020, Iceland published its first set of clinical guidelines on care for adults living with obesity.

However, additional policies to tackle obesity could be implemented. Iceland could introduce health-related food taxes or tariffs, or set national-level limits or reduction targets for food producers on selected nutrients such as salt, total fat, saturated fat and sugars (OECD, 2024). It could also introduce targeted health promotion policies for people with lower socio-economic backgrounds to change their eating habits and lifestyle, since low daily vegetable consumption and low physical activity rates are more common among people with low education and low income levels.

### **Iceland has the lowest smoking rate in EU+2 countries, but e-cigarette use is relatively high**

In the mid-1980s, about one in three adults in Iceland smoked daily. Following a steep decline over the past few decades, the smoking rate among those age 15+ is now the lowest in EU+2 countries, at 6 %. It should be noted that the successful decline in smoking took a few decades to reverse the high incidence rates of lung cancer in Iceland (see Section 2).

At 4 % among 15-year-olds in 2022, the share of adolescents smoking at least once over the last 30 days was the lowest in EU+2 countries in 2022. The difference in smoking rates among 11- to 15-year-olds adolescents by family affluence level is the lowest in EU+2 countries, at 0.5 percentage points (2.6 % among adolescents in the least affluent families, compared to 2.1 % among those in the most affluent). These rates are much lower than the EU averages.

The continuous decline in smoking rates is attributable to Iceland's comprehensive tobacco control policies, including the Tobacco Control Act in 2002. Iceland has bans on tobacco advertising across all mediums, sponsorships, points of sale and product displays; regulates tobacco packaging and labelling; and safeguards smoke-free environments. Furthermore, to tackle problems of smoking and drinking alcohol among adolescents, the Drug-free Iceland intervention was initiated to improve the overall environment in

which adolescents are raised. It includes parental monitoring, involvement, quality family time and adolescent participation in youth activities and sports. Iceland also has one of the highest per capita expenditure rates on anti-tobacco campaigns in the EU+2 countries (OECD, 2024).

Since 2019, Iceland has enhanced regulation of e-cigarettes, refill containers and other nicotine products, such as bans on their use in public, restrictions on advertisement and marketing, and regulations on their packaging and labelling. In 2022, Iceland also restricted their sales to minors.

Despite these policy interventions, however, use of e-cigarettes is relatively high: in 2023, 5 % of adults in Iceland were daily e-cigarettes users – higher than the EU average of 3 %. Among people aged 15-24, the share had declined since 2021 but was still 8 % in 2023, which is higher than the EU average of 6 %. In Iceland, use of vaping products is more common among women than men for both adolescents and adults.

### **Overall alcohol consumption is low in Iceland, but repeated drunkenness has increased slightly among 15-year-olds**

Iceland has relatively low alcohol consumption, at 7.4 litres per capita in 2020, which is lower than the EU average of 10.0 litres. While the share of 15-year-olds who had experienced repeated drunkenness in their lifetime is increasing slowly, it was still much lower at 8 % in Iceland than the EU average of 23 % in 2022, and the rate was very low among 11- to 15- year olds adolescents in both the least and most affluent families.

The low rates of alcohol consumption are partly attributable to Iceland's comprehensive prevention approach, launched in the late 1990s. Additional policies on alcohol prevention have been introduced in recent years. Iceland has the largest alcohol tax in EU+2 countries (OECD, 2020a), and implements minimum unit pricing – a policy that sets a mandatory floor price per unit of alcohol or standard drink. As in other Nordic countries (Finland, Norway and Sweden), Iceland has a state-owned monopoly chain of liquor stores to sell alcoholic beverages above 4.75 % alcohol by volume. This limits alcohol availability through lower retail outlet density, shorter opening hours and controlled sales prices, although private online shops are increasingly affecting the impact of this policy. Iceland also bans national television advertising for beer and wine. Furthermore, between 2013 and 2020, a comprehensive strategy

<sup>7</sup> Nordic countries refer to Denmark, Finland, Iceland, Norway and/or Sweden.

on alcohol and drug prevention was published, focusing on limiting access, protecting vulnerable people from the harmful effect of alcohol and drugs, and ensuring access to seamless, integrated services to help people with alcohol and drug problems.

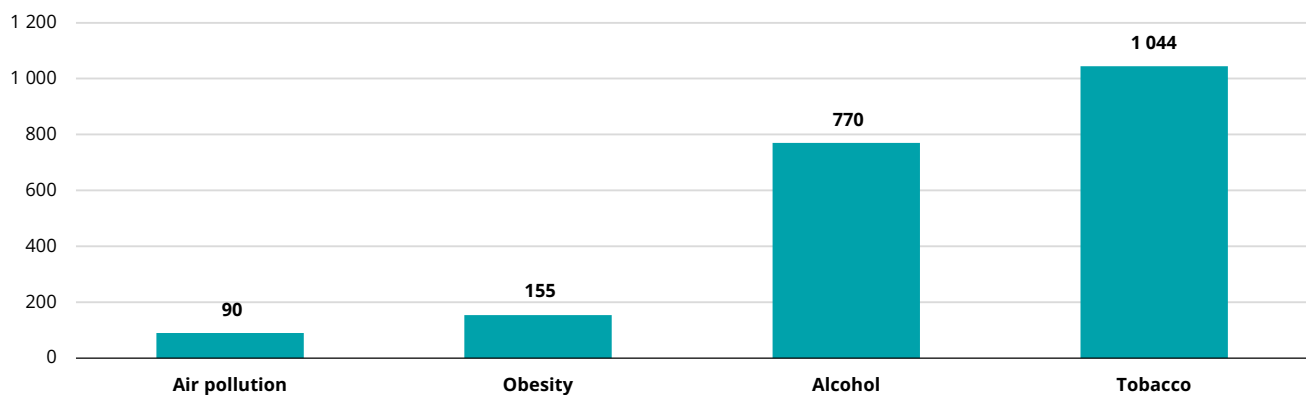


### Additional reductions in smoking and alcohol consumption could contribute to reduced cancer incidence

According to OECD Strategic Public Health Planning (SPHeP) modelling work, by achieving risk factor reduction targets, Iceland could prevent many new cancer cases in 2023-50 (Figure 10). If Iceland attains the tobacco target, 1 044 new cancer cases could be prevented. Meeting the alcohol target would yield positive results, preventing 770 new cancer cases. Additionally, 155 new cancer cases would be prevented by attaining the obesity target and 90 new cancer cases prevented if targets for combating air pollution were met.

**Figure 10. An even healthier lifestyle in Iceland would prevent many new cancer cases between 2023-50**

Number of cancer cases avoided between 2023-50 due to achieving risk factor targets



Notes: The target for tobacco is 30 % reduction in tobacco use between 2010 and 2025 and less than 5 % of the population using tobacco by 2040. For alcohol, it is a reduction of at least 20 % in alcohol consumption and 20 % reduction in binge drinking between 2010 and 2030. For air pollution, it is an annual average  $PM_{2.5}$  level capped at  $10 \mu\text{g}/\text{m}^3$  by 2030 and at  $5 \mu\text{g}/\text{m}^3$  by 2050. On obesity, the target is a reduction in obesity level to 2010 level by 2025.

Source: OECD (2024), *Tackling the Impact of Cancer on Health, the Economy and Society*, OECD Health Policy Studies, OECD Publishing, Paris, DOI: <https://doi.org/10.1787/85e7c3ba-en>.

### Exposure to air pollution is among the lowest in EU+2 countries

In 2020, exposure to  $PM_{2.5}$  in Iceland was  $5.5 \mu\text{g}/\text{m}^3$  – the second lowest rate in EU+2 countries. The impact of air pollution on population health is a concern for Iceland however. Following volcanic activity, government agencies provide information about the risks of poor air pollution and ways to avoid it, such as closing windows, turning off ventilation and avoiding outside activities. Further efforts to improve air quality would also lead to reductions in new cancer cases.

### Iceland has the highest human papillomavirus vaccination rate among EU+2 countries

Iceland's HPV vaccination rate is 96 % among 15-year-old girls – the highest in EU+2 countries in 2023, and above the 90 % target set by WHO for all countries by 2030. The HPV vaccination was

first given to girls born in 1998 and 1999. Prior to 2023, it was provided to girls aged 12 as part of the school-based vaccination programme; pharmacists can also provide HPV vaccination. From 2023, Iceland has adopted a gender-neutral vaccination strategy with all 12-year-olds offered the 9-valent HPV vaccine, free of charge. However, data for vaccine uptake among boys is not yet available. For older cohorts, the vaccination is available on prescription with an out-of-pocket payment.

## 4. Early detection

### **Iceland has long-standing cervical and breast cancer screening programmes**

Iceland introduced a nationwide population-based cervical cancer screening programme in 1964. Based on assessment of the programme, the frequency and target population have been changed several times. As of January 2021, women aged 23-29 were invited to have a smear test every three years, and women aged 30-59 were invited to have an HPV test every five years. As of January 1, 2024, the primary screening method for the 23-29 group also became HPV testing. Women aged 60-64 are invited to have an HPV test; if the result is negative, they are discharged from the screening programme. The plan is to introduce self-sampling in the coming years (Directorate of Health, 2024a).

Iceland rolled out a population-based breast cancer screening programme nationally in 1987. Mammography is provided every two years for women aged 40-69 and every three years for women aged 70-74. Women with mutations in the tumour-suppressor (BRCA1 and BRCA2) genes are at increased risk of developing breast cancer; these women undergo targeted screening, including an earlier start, more frequent examination and closer monitoring at Landspítali University Hospital. Women who have had breast cancer are supervised by an oncologist or a surgeon for five years following treatment at Landspítali University Hospital, and they go back into the general screening programme and receive invitations to screening until age 79. For younger women who have not reached the screening target age five years after cancer treatment, screening is provided annually until they reach age 40.

In 2021, cancer screening services were transferred from the Icelandic Cancer Society to the public sector, thereby changing the provider, location and implementation of screening services. The cancer screening programme structure and quality standards were brought closer to the EU screening guideline recommendations. Cervical cancer screening is provided by gynaecologists at their clinics as well as midwives. Breast cancer

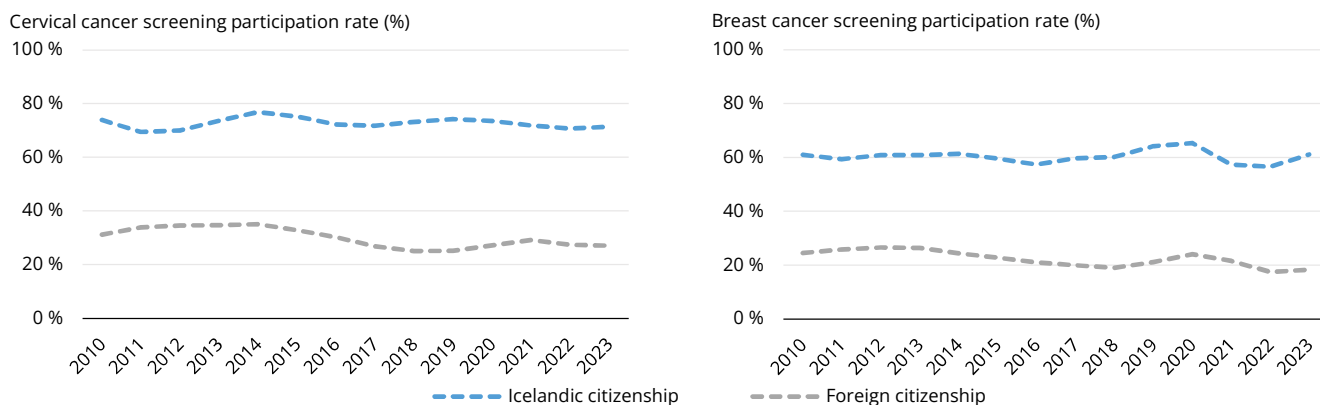
screening is provided at Landspítali University Hospital and Akureyri Hospital, and via a portable x-ray machine that travels to facilities in rural areas. Organisation and staffing of this vehicle are managed by Landspítali University Hospital.

The Coordination Centre for Cancer Screening within the public primary care service is responsible for organising screening programmes, coordinating their implementation with all stakeholders involved and implementing screening guidelines to assure access to high-quality cancer screening nationwide. It also sends screening results and information about follow-up if needed. Invitations to cancer screening are sent electronically and by mail, and women can book an appointment online or by phone. Screening results are sent electronically to an individual's online account for health and public services. Unlike in other countries, women in the target age groups in Iceland need to make a copayment of ISK 500 (EUR 3) for a smear and ISK 6 098 (EUR 41) for a mammogram.

### **Cancer screening participation rates are high, but need to be improved among foreign-born women and in some regions**

The participation rate in the cervical cancer screening programme was 62 % in 2023 (Figure 12) – higher than the EU average of 55 %, although not as high as in Finland (72 % in 2022) and Sweden (79 % in 2022). However, the rate among women with Icelandic citizenship has been high over recent decades (72 % in 2023), while the rate among women with foreign citizenship has been significantly lower (27 % in 2023) (Figure 11). Cervical cancer screening rates also vary by region, with the lowest (53 %) in the Southern Peninsula region and the highest (64 %) in the capital region of Reykjavik. To reduce cervical cancer incidence, along with the high HPV vaccination rate and its expanded coverage among boys (see Section 3), Iceland needs to increase cervical cancer screening participation rates among foreign-born women and women particularly in regions such as the Southern Peninsula and Westfjords regions.

**Figure 11. Among women with foreign citizenship, participation in both cervical and breast cancer screening programmes is very low**



Source: Directorate of Health (2024b).

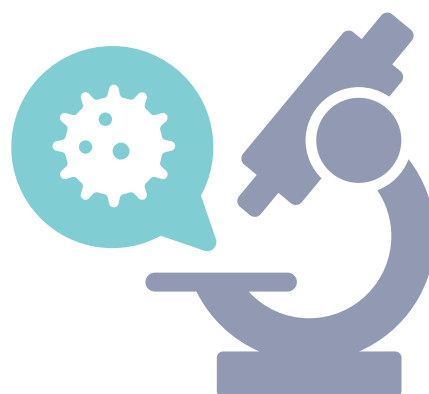
Since incidence of breast cancer continues to increase in Iceland (Icelandic Cancer Society, 2024; see Section 2), the importance of early detection through breast cancer screening is clear. However, the participation rate in Iceland has been around the EU average over the past decade, and was 57 % in 2023, compared to 56 % in EU countries in 2022. The rate was much lower than in Denmark (83 % in 2021), Finland (82 % in 2022) and Sweden (81 % in 2022). Like cervical cancer, the breast cancer screening rate among foreign-born women has been low over recent decades, and was only 18 % in 2023, while the rate among native-born women was 61 %. Breast cancer screening participation ranges between 40 % in the Southern Peninsula region and 63 % in the East region.

Iceland is making efforts to promote participation in both cervical and breast cancer screening among foreign-born women by providing information on the programme and booking in different languages such as English and Polish (in Iceland, Polish people accounted for 36 % of all foreign citizens in 2024, followed by people from Lithuania and Ukraine). However, more needs to be done as the share of foreign-born population is increasing, reaching 17 % of Iceland's population (Statistics Iceland, 2024). Targeted approaches are also needed for regions and population groups with low participation.

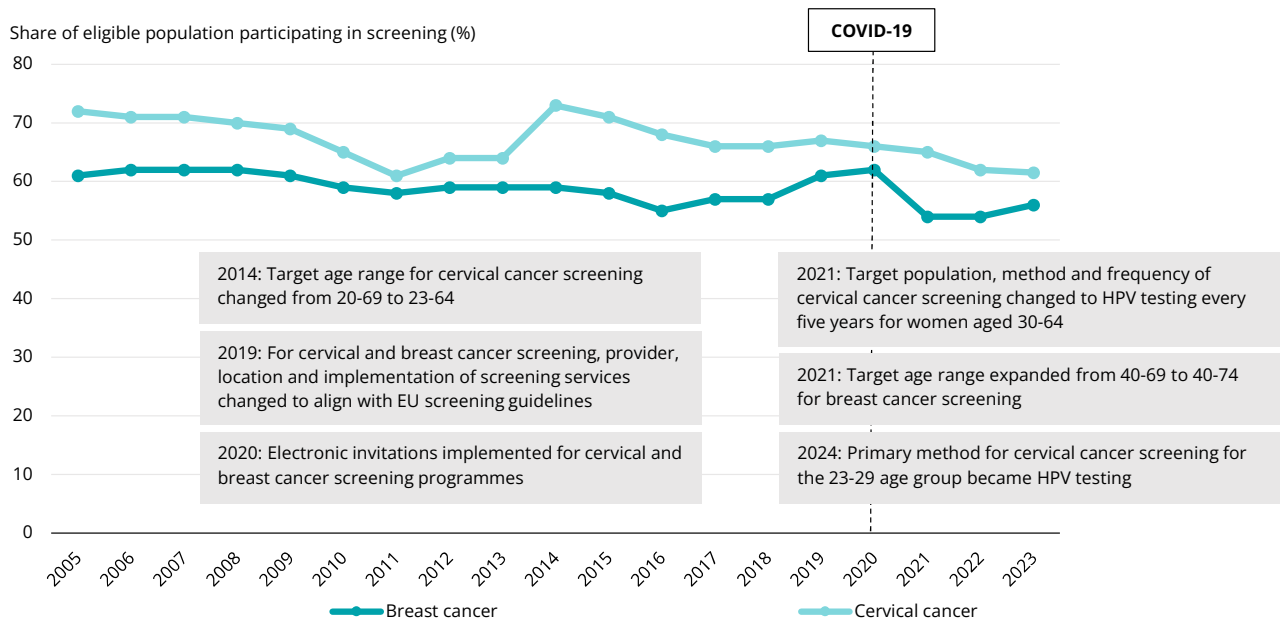
### Breast and cervical cancer screening rates in Iceland dropped during the COVID-19 pandemic

In Iceland, the cervical cancer screening rate – including both programme participation and opportunistic screening – has followed a general downward trend since 2014 (Figure 12). Although screening rates in 2020 in Figure 12 do not appear to drop, this is because annual cervical cancer screening rates in Iceland are calculated over a 3.5-year window. However, looking at annual screening rates referring to a specific year, rates for 2018 and 2019 were quite high but rates dropped substantially in 2020. This is due to a 6-week closure of screening activities in March through May 2020, reluctance of women to attend screening during the COVID pandemic, and to the closure of screening services at the Icelandic Cancer Society in the last months of the year associated with the transition of the programme to the public sector.

Similarly, breast cancer screening was affected negatively during the pandemic, and the screening rate (both programme participation and opportunistic screening) decreased from 62 % in 2020 to 54 % in 2021 and 2022. In 2023, however, there were signs of recovery, as rates increased to 57 %.



**Figure 12. Breast and cervical cancer screening rates have experienced declines during the COVID-19 pandemic**



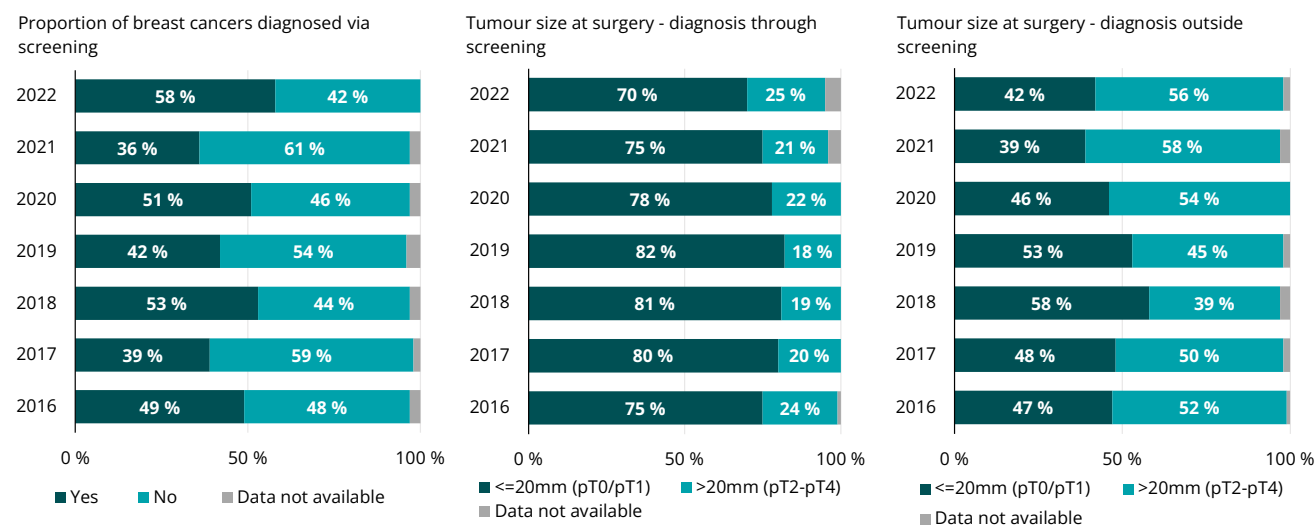
Notes: Data refer to mammography screening among women aged 40-69 within the past two years, cervical cancer screening among women aged 23-65 within the past three years. For breast and cervical cancers, data refer to programme data. Source: OECD Health Statistics 2024.

**Cancer screening programmes have been assessed annually**

The Directorate of Health is responsible for managing and maintaining the cancer screening registry. This includes data such as population-based and non-population-based screening participation, stage at diagnosis, age, region and nationality, and is linked with the Icelandic Cancer Registry, which includes diagnosis and treatment data, although not genetic

information. In 2022, 58 % of new cases of breast cancer were detected through the screening programme. Among women diagnosed through the breast cancer screening programme in 2022, 70 % had a tumour up to 20 mm, but the proportion was only 42 % among women diagnosed outside the programme, indicating that screening is helping to detect earlier-stage cancers (Figure 13). Most of the data in the screening registry are analysed by region and citizenship status, although not by socio-economic status.

**Figure 13. The breast cancer screening programme supports early detection of breast cancer**



Source: Adapted from Icelandic Cancer Registry 2024.

For quality control, the Directorate of Health sets quality requirements, performance criteria and quality indicators for each phase of the cancer screening programme, such as invitation, participation, screening results, follow-up and diagnosis. Its report includes detailed assessments of waiting times between screening attendance and receiving screening results electronically, and between abnormal screening results and further examination for diagnosis. In 2023, the average waiting time for screening results was 6 days for mammography and 9 days for cervical cancer screening. The waiting time from receipt of abnormal screening results to a specialist consultation was 4 days on average for breast cancer. In 2023, 92 % of women attended colposcopy within 12 weeks of receipt

of cervical cancer screening results, a substantial improvement from the rates in 2022.

### **Colorectal cancer screening is opportunistic, and participation remains very low in Iceland**

Iceland is one of the few EU+2 countries that has not implemented a population-based colorectal cancer screening programme. However, since colorectal cancer incidence is increasing (see Section 2), Iceland is preparing to introduce a population-based colorectal cancer screening programme. It plans to invite people at age 50 and over for colonoscopy, and people aged 60-69 for faecal immunochemical testing every two years. Based on assessment of the pilot programme, the plan is to increase the target population to those aged 50-74 (OECD, 2024).

## **5. Cancer care performance**

### **5.1 Accessibility**

#### **Financial barriers to access cancer care may exist among lower-income populations**

In Iceland, patients need to pay for primary care services such as consultation and diagnostic examinations, although these services are free for children aged under 2. Since December 2023, the maximum payment in a month is ISK 34 950 (EUR 234) per person or ISK 23 301 (EUR 156) for older people, disabled people and children aged over 2. The maximum payment of ISK 34 950 (EUR 234) is applied to primary care services for all children in the same household. Patients do not need to pay beyond the maximum payment, but once the limit is reached, a general monthly fee of ISK 5 825 (EUR 39) – ISK 3 884 (EUR 26) for older people, disabled people and children – is required for the following six months.

Inpatient care – including surgery and drugs administered in hospitals – is provided free of charge (Ministry of Justice, 2023; Iceland Health, 2024a). For patients requiring cancer care far from their homes, travel costs are partially reimbursed, and accommodation services are provided at low cost (Iceland Health, 2024b). Cancer patients with income below a certain level can apply for reimbursement of expensive medical and pharmaceutical costs and travel expenses.

#### **Access to cancer care is ensured through decentralised chemotherapy and follow-up care and international collaboration**

The majority of specialised cancer care – including most surgery and all radiation therapy – is provided at Landspítali University Hospital in Reykjavik, but regional hospitals – such as Akureyri, Selfoss, Ísafjörður, Neskaupsstaður and Vestmannaeyjar hospitals – also provide outpatient and inpatient chemotherapy and undertake minor procedures. To collaborate among the limited number of professionals spread out in different parts of Iceland and specialists abroad, online multidisciplinary tumour boards are used extensively, ensuring access to high-quality cancer care. Primary care is playing an increasing role in follow-up care in the community, and regional hospitals also continue to provide follow-up care. For rare cancers including childhood cancer, Iceland ensures access to high-quality care through international collaboration (see Section 6).

Iceland collaborates with hospitals in Sweden to ensure access to certain cancer care which is not available domestically. Currently, a formal agreement is being concluded between Landspítali University Hospital and Sahlgrenska Hospital in Gothenburg, Sweden, for Sahlgrenska Hospital to provide isolated hepatic perfusion and stereotactic body radiation therapy for cancer patients from Iceland. For rare cancers, funding is made available



to seek cancer care abroad and cover travel and healthcare costs.

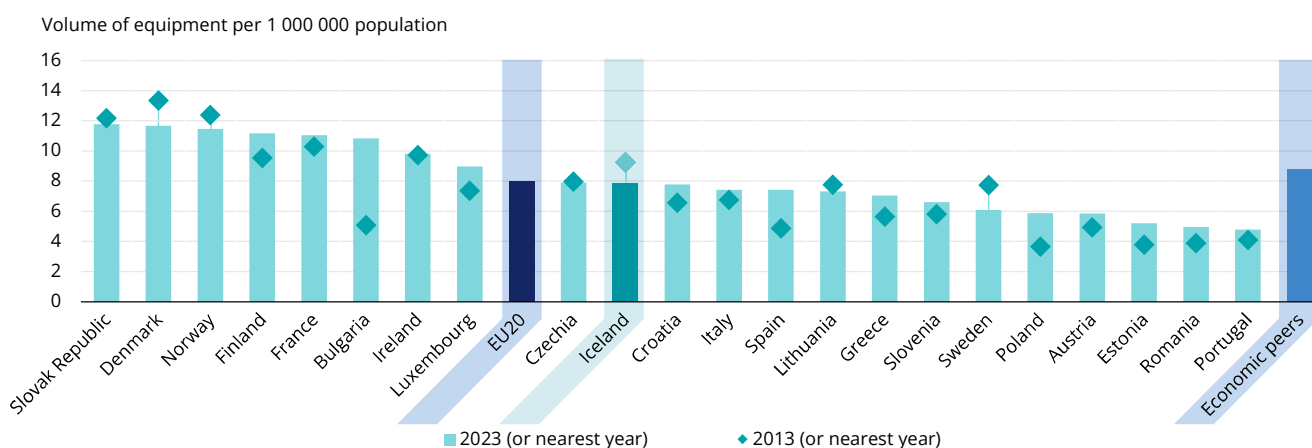
### Iceland has a sufficient supply of medical equipment for cancer care

Given the relatively low cancer incidence in Iceland (see Section 2), the availability of medical equipment seems sufficient. Despite a large decline in the supply of radiation therapy equipment over the decade, in 2023, the rate was 7.8 radiation

therapy units per 1 000 000 population – very similar to the EU average (Figure 14). All radiation therapy equipment is 5-15 years old, which is relatively new compared to most EU+2 countries.

Availability of other equipment was also high, at 24 magnetic resonance imaging (MRI) scanners per 1 000 000 population – above the EU average – and 44 computed tomography (CT) scanners per 1 000 000, which is over 1.6 times the EU average.

**Figure 14. Despite a large decline over the past decade, the supply of radiation therapy equipment seems sufficient for Iceland**



Notes: The vast majority of radiotherapy equipment in EU countries is found in hospitals. Data for Portugal and France includes equipment in hospitals only while data for other countries refer to all equipment. Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for IS are AT, DK, IE, LU, NO and SE. The EU average is unweighted.  
Source: OECD Health Statistics 2024

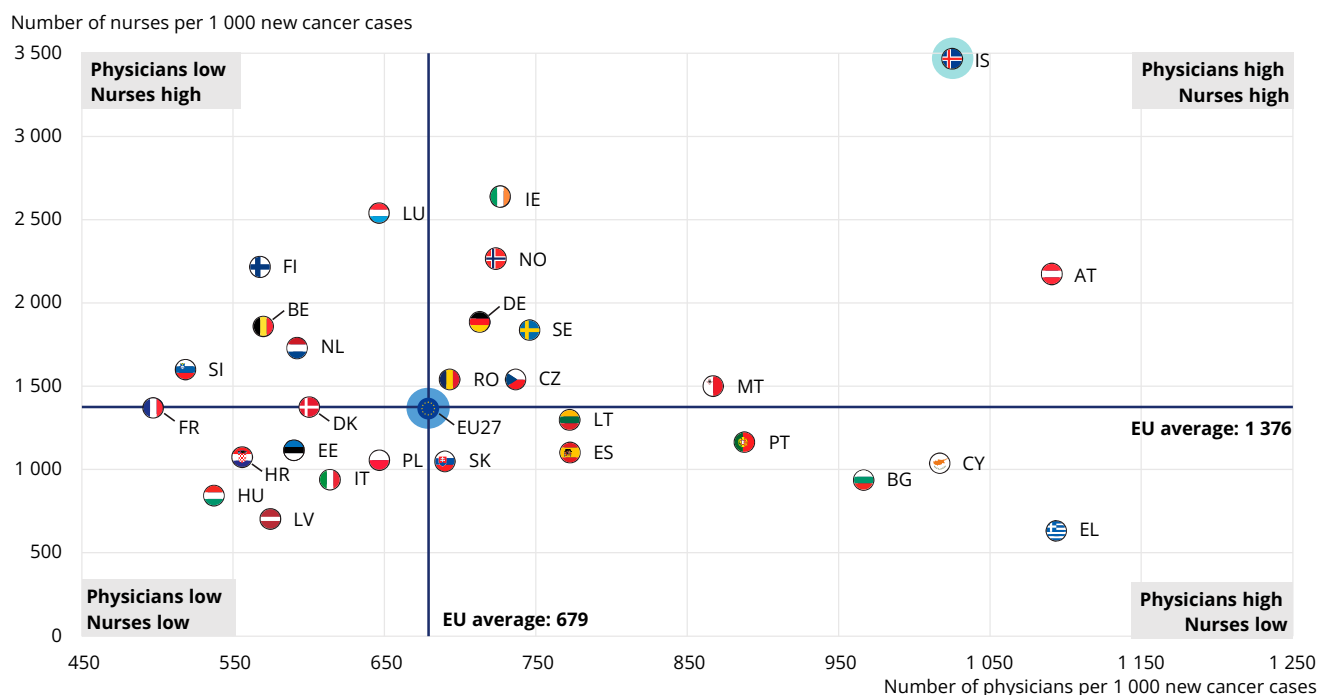
### Securing a stable workforce in cancer care is challenging in Iceland with its small population size

In Iceland, there are 1 025 physicians and 3 462 nurses per 1 000 new cancer cases – both among the highest rates in the EU, which has an average of 679 physicians and 1 376 nurses per 1 000 cases (Figure 15). However, it is perceived that there are shortages of various healthcare professionals involved in cancer care including oncologists, radiologists, radiation therapists, general practitioners, oncology nurses and nurses in home/community-based settings working in oncology.

In Iceland, the number of oncologists, paediatric oncologists and oncologists specialising in gynaecology fell in recent years – from 6.9 per

100 000 population in 2018 to 5.3 per 100 000 in 2022 – and is much lower than the 7.2 oncologists per 100 000 population in Sweden. Since native-born doctors train in oncology specialisations abroad, and many work abroad, efforts have been made to recruit these doctors to the national health system. Iceland has also increased its number of foreign-born doctors in recent years – especially from Denmark and the Slovak Republic. Although the proportion is still very small, their number has increased in radiation oncology. Recruitment of foreign-born nurses is challenging because of the language barrier, but through an increased number of people with a licence to practise nursing, the shortage of nurses experienced during and following the pandemic has been improved recently.

**Figure 15. Given its low cancer incidence, the supply of physicians and nurses per cancer cases is very high in Iceland**



Notes: The data on nurses include all categories of nurses (not only those meeting the EU Directive on the Recognition of Professional Qualifications). Data refer to practising nurses except in Portugal and the Slovak Republic, where they refer to professionally active nurses. In Greece, the number of nurses is underestimated as it only includes those working in hospitals. In Portugal and Greece, data refer to all doctors licensed to practise, resulting in a large overestimation of the number of practising doctors. The EU average is unweighted.

Source: OECD Health Statistics 2024. Data refer to 2022 or latest available year.

Owing to the country’s size, a small change in numbers of health workforce can have a large impact on cancer care delivery, so securing healthcare professionals is a continuous challenge. Education and human resources development in cancer care were therefore identified as one of the nine priorities of the National Cancer Plan (see Section 2). To address shortages of healthcare professionals providing cancer care, Iceland has increased training capacities, uses multidisciplinary team practice and task reallocation among healthcare professionals, and has introduced financial incentives.

**Waiting times are monitored in Iceland, but ensuring timely access to cancer care remains difficult**

The Directorate of Health monitors waiting times, by hospital, to promote timely access to healthcare, including cancer care. Key statistics such as the percentage of people waiting more than 3, 6, 9 and 12 months for specific procedures – including mastectomy and partial excision of mammary gland – are reported, by hospital, on its website. In January 2024, the share of patients waiting more than 3 months for procedures was 71 % for mastectomy and 22 % for partial excision of

mammary gland (Directorate of Health, 2024c). At Landspítali University Hospital and Akureyri Hospital, dates of diagnosis, multidisciplinary meeting and initiation of treatment (chemotherapy, radiation and surgery) are also collected.

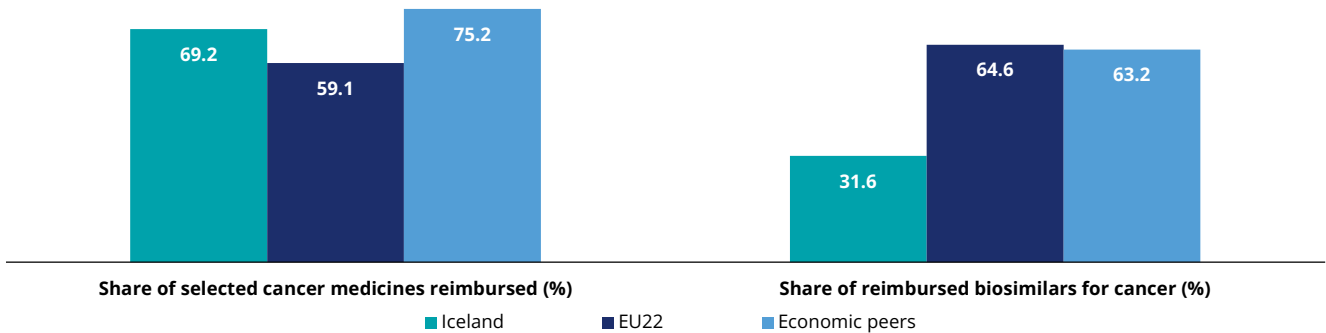
**Access to new oncology medicines is ensured, but access to biosimilars is low and slow**

The Icelandic Medicine Agency makes coverage and reimbursement decisions on new oncology medicines/indications based on relative therapeutic benefit, medical necessity, relative cost-effectiveness and budget impact. One study found that for 13 indications of 10 new oncology medicines with high clinical benefit for treating breast and lung cancers, the average time between European Medicines Agency (EMA) approval and public reimbursement was 272 days, which was shorter than most of EU+2 countries studied. Within this total time, the average time required for the reimbursement decision following application was the third shortest after Germany and Austria. The share of these medicines reimbursed publicly was 69 %, which was higher than the EU average but lower than the average among Iceland’s economic peers (Figure 16).

Conversely, access to biosimilars is relatively poor: the average time from EMA approval to public reimbursement of 19 biosimilars of three oncology medicines (bevacizumab, rituximab and trastuzumab) was 796 days. This was third longest after Cyprus and Greece. The share of these biosimilars covered publicly was also the third

lowest after Malta and Cyprus. As pharmaceutical companies tend to have a low incentive to apply for market authorisation for relatively inexpensive medicines like biosimilars in countries with small market size, Iceland increases cooperation with the Nordic countries to improve timely access to biosimilars.

**Figure 16. In Iceland, the proportion of publicly reimbursed biosimilars for cancer is about half that of its economic peers and the EU average**



Notes: The analysis includes a sample of 13 indications of 10 new cancer medicines for breast and lung cancer with a high clinical benefit and nineteen biosimilars of three cancer medicines (bevacizumab, rituximab, trastuzumab), with active marketing authorisation by the European Medicines Agency as of 26 March 2023. The data represent the share of the indications or biosimilars that were on the public reimbursement list on 1 April 2023. Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for IS are AT, BE, DE, DK, IE, NL, NO and SE. The EU average is unweighted.

Source: Hofmarcher, Berchet and Dedet (2024), "Access to oncology medicines in EU and OECD countries", OECD Health Working Papers, No. 170, OECD Publishing, Paris, <https://doi.org/10.1787/c263c014-en>.

For new oncology medicines before EMA market authorisation, early access programmes are available but limited to specific patients, and the proportion of patients who are clinically eligible for early access is lower than 10 %. Icelandic patients sent abroad for special treatment abroad by the responsible physician in Iceland do not have to pay for oncology medicines prescribed abroad. If the responsible physician recommends using medicine that is not publicly reimbursed in Iceland, the physician can apply for state funding, which is either approved and the patient does not need to pay for the cost, or is rejected and the patient does not receive that treatment.

## 5.2 Quality

### High-quality cancer care is provided through collaboration among skilled professionals adopting international standards

In Iceland, high-quality cancer care is provided through use of international guidelines and multidisciplinary tumour board meetings. Given the limited national capacity, professionals in Iceland use international clinical guidelines, including those developed by the National Institute for Health and Care Excellence (United Kingdom), the National Comprehensive Cancer Network (United States) and specialist associations in Nordic

and other European countries. Multidisciplinary tumour board meetings are held regularly as a case management programme to discuss patient cases and provide timely, high-quality, seamless cancer care, and to ensure that the treatment given complies with international guidelines. International collaboration with cancer centres abroad is also actively sought at the institutional and professional levels.

High-quality cancer care is also maintained by a well-trained workforce. The majority of oncologists in Iceland have specialist licences in oncology. Physicians are updated on the latest cancer care, as many of them complete specialised training abroad, and they interact and collaborate actively because of their low numbers, mutually promoting their skills and enhancing their expertise.

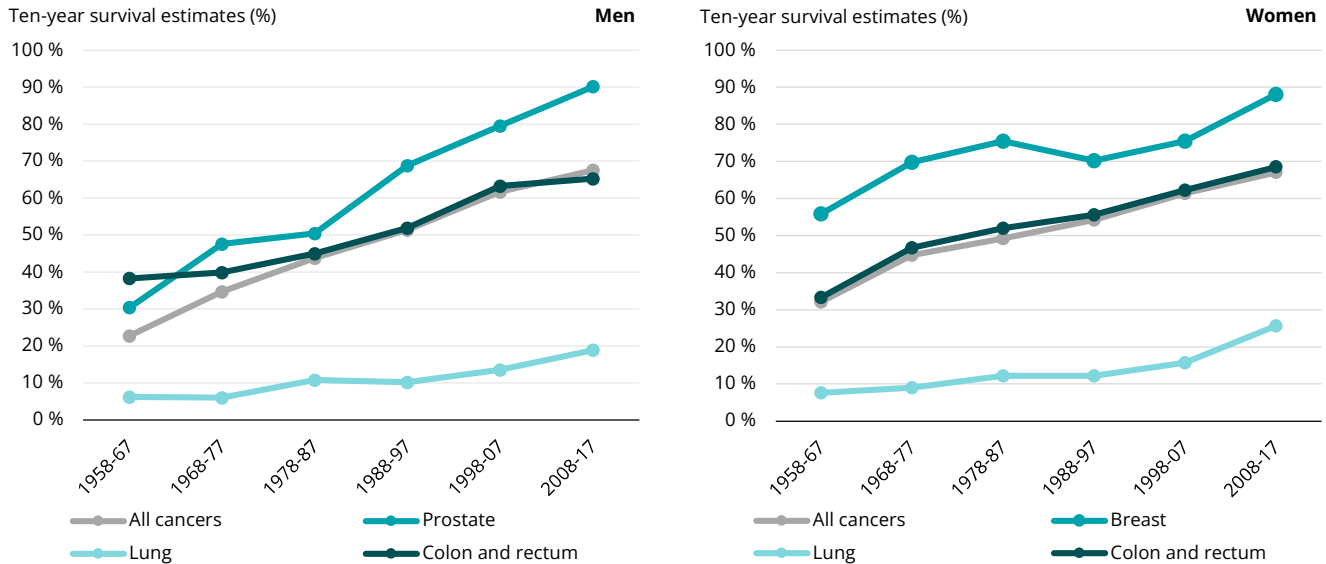
Quality of nursing – in particular cancer nursing – is relatively high in Iceland. Nurse specialists who have completed a master’s degree are increasing; undergraduate and master’s level education focusing on cancer nursing is available; and the role of advanced cancer nurse has been established, creating strong career development perspectives and helping to retain talent. To promote good working environment, safety guidelines and training related to the use of hazardous medicines are also available (EONS, 2020).

## Survival of cancer patients has improved over recent decades

Cancer care quality in Iceland has improved over the past few decades, as illustrated by the increased five-year relative survival estimates

of people diagnosed with cancer. This was 23 % among patients diagnosed in 1958-67, but increased to 68 % among patients diagnosed in 2008-17. Survival estimates improved for most common cancers in Iceland including prostate, breast, colorectal and lung cancers (Figure 17).

**Figure 17. Survival estimates for cancer patients have improved over time**



Source: Icelandic Cancer Registry (2024).

## Monitoring of cancer care performance has been enhanced in recent years

To monitor and assess the burden of cancer and quality of cancer care, the Icelandic Cancer Registry, established in 1954, collects a broad range of data on diagnosis, stage at diagnosis, treatment procedures and medications – from pathology and haematology laboratories, hospitals, general practice, individual physicians and private clinics. Genetic information, however, is not included. The Registry publishes key statistics including incidence, mortality and survival by cancer, gender and age group, in the public domain.

A quality registry is being developed for 23 cancers including breast, cervical, colorectal, lung and prostate cancers. The quality of cancer care is monitored throughout patient pathways using sets of indicators specific to each cancer, although monitoring of follow-up care is limited. For cancers in the quality registry, beyond key statistics, more data are reported, but are not used to benchmark hospital performance. For example, for breast cancer, data such as screening participation, stage at diagnosis, tumour size, preoperative consultation, type of treatment (surgery, size of excision, chemotherapy, radiation therapy, hormone therapy) and postoperative consultation are reported by patient age group on the website

of the Icelandic Cancer Registry. The plan is to expand reporting of cancer care quality for other cancers.

## Iceland is exploring the use of patient voices to deliver more people-centred cancer care

In Iceland, a mechanism for patients to raise concerns and complaints has existed for some time, but until recently, patients were not asked to take part systematically in improving cancer care quality. Patient representatives were not able to participate in the processes of market authorisation and coverage decision making for new oncology medicines. Since July 2022, however, the User Council, composed of seven representatives from patient organisations, ensures that users' perspective is considered when making decisions on healthcare issues that concern patients' interest.

Iceland also explores ways to utilise digital supportive tools to provide people-centred cancer care through timely symptom assessment, patient education and feedback, as illustrated in a study of patients with ongoing chemotherapy treatment (Fridriksdottir et al., 2023).

To ensure the relevance of the Icelandic Cancer Society, adults who have completed cancer treatment within six years or their families are invited to take part in the User Council of the

Cancer Society to help protect the interests of people diagnosed with cancer and their close ones.

Patient-reported measures that could inform quality of cancer care and quality of life of cancer patients have not been collected systematically and used for quality improvement in the Icelandic Cancer Registry. However, Iceland conducted a survey to measure patient-reported experiences (PREMs) in 2020 and 2021, and plans to collect patient-reported outcomes measures (PROMs) and PREMs more systematically and regularly in the Registry in the future.

### The number of potential years of life lost to cancer is relatively low

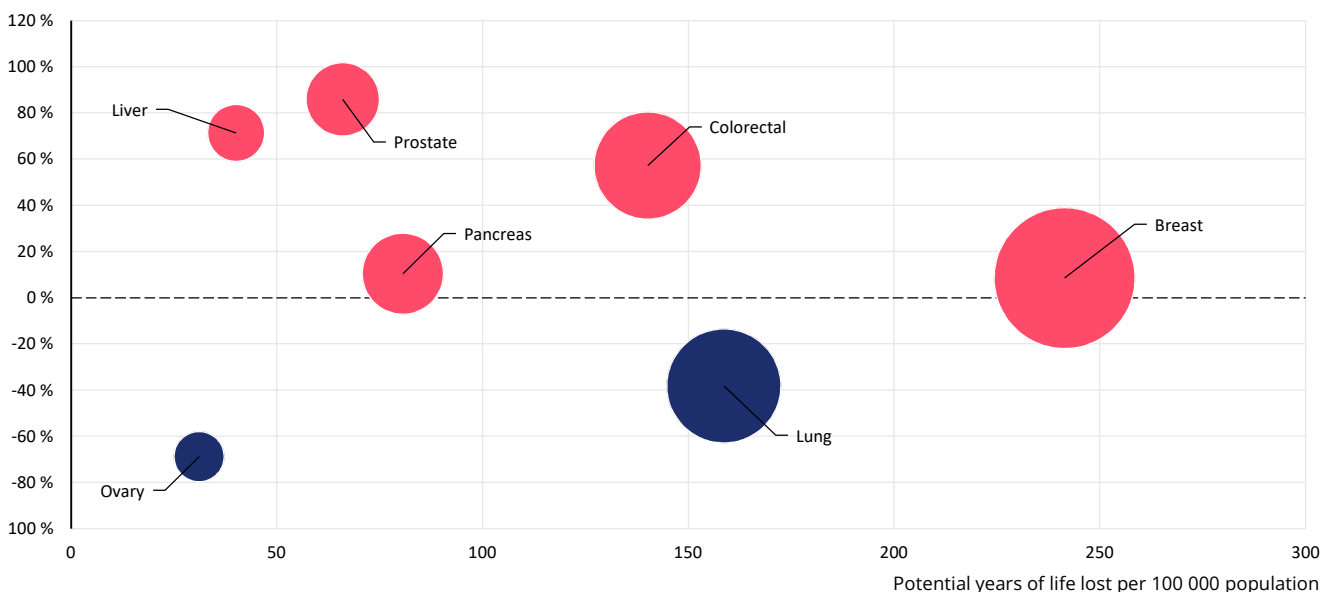
In addition to survival data, potential years of life lost (PYLL) is an interesting complementary measure of the impact of different cancers on

society, because it puts a higher weight on cancer deaths among younger individuals. Examining the change in PYLL over time across various cancer sites can point to improvements in cancer care systems via reductions in premature mortality. In Iceland, the overall PYLL due to cancer was 1 040 per 100 000 population in 2022, which was 23 % lower than the EU average (1 355 per 100 000).

The PYLL rate has decreased by 10 % since 2012, which is substantially lower than the average declines across the EU (19 %). For breast cancer, reflecting increasing incidence and mortality, the PYLL rate among women increased (by 8.5 %) in the past decade. In 2022, breast cancer was responsible for the most PYLL among women, at 241 years per 100 000 population. The PYLL rate also increased for liver, colorectal, pancreas and prostate cancers between 2012 and 2022, but decreased for lung and ovary cancers during the same period (Figure 18).

**Figure 18. Although there was an overall decline in potential years of life lost to cancer between 2012-22, a number of cancer sites experienced an increase**

Percentage change in potential years of life lost 2012-22 (or nearest available year) (%)



Notes: The rate of PYLL from breast, cervical and ovarian cancer is calculated in women only, while the rate of PYLL from prostate cancer refers to men. Pink bubbles signal an increase in the percentage change in PYLL during 2012-2022 (or latest available year); blue bubbles signal a decrease. The size of the bubbles is proportional to the PYLL rates in 2022.

Source: OECD Health Statistics 2024.

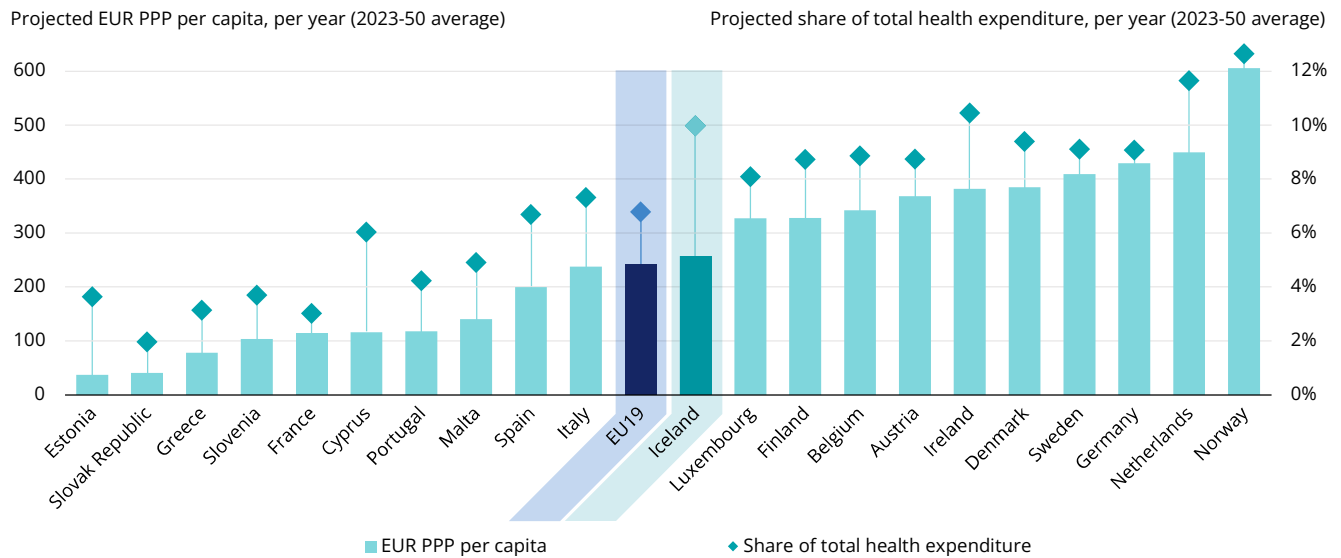
### 5.3 Costs and value for money

#### The burden of cancer on health spending is expected to be higher than the EU average

Although cancer incidence, mortality and prevalence are relatively low in Iceland compared to most EU+2 countries, according to OECD SPHeP modelling work, between 2023 and 2050, total

health expenditure is estimated to be 10 % higher in Iceland due to the burden of cancer. This equates to an average of EUR (PPP) 257 per person per year (Figure 19). This figure is higher than the EU19 average (EUR 242). Overall, the per capita health expenditure on cancer care is expected to grow by 78 % in Iceland between 2023 and 2050, higher than the EU27 average of 59 %.

**Figure 19. The burden of cancer as a share of health expenditures is expected to be relatively high over the next few decades**



Note: The EU average is unweighted.  
 Source: OECD (2024), *Tackling the Impact of Cancer on Health, the Economy and Society*, OECD Health Policy Studies, OECD Publishing, Paris, DOI: <https://doi.org/10.1787/85e7c3ba-en>.

In addition to the direct healthcare costs of cancer care, there are major economic costs as well. On average between 2023 and 2050, there is expected to be a loss of 139 full-time equivalent workers (FTEs) per 100 000 people annually due to the need to reduce employment because of cancer, which is lower than the EU average of 178 FTEs per 100 000. It is also expected that Iceland will see a loss of 47 FTEs per 100 000 due to both absenteeism and presenteeism,<sup>8</sup> which is lower than the EU average of 81 FTEs per 100 000.

#### Efforts are made to control cancer care cost increases, but increasing costs of oncology medicines challenge access

While improving the quality of cancer care (see Section 5.2), Iceland has streamlined cancer care delivery in recent years by moving healthcare more into outpatient settings, as in many EU+2 countries. The rate of hospital discharges due to cancer decreased substantially from 1 062 per 100 000 population in 2012 to 817 per 100 000 in 2022.

To address high and increasing medicine costs, physicians are obliged to prescribe the cheapest option for treatment. Early access to new oncology medicines is possible only through purely financial managed entry agreements for a limited number of patients. Moreover, in Iceland, a companion diagnostic is automatically covered on coverage decision for a new oncology medicine/indication; thus, unlike in most EU countries, a separate health technology assessment (HTA) cost is not incurred.

After austerity following the 2008 financial crisis, budget impact is considered a less important perspective for deciding publicly funded coverage of new oncology medicines owing to the better fiscal situation. Since 2022, Iceland has allocated the annual budget for newly licensed drugs of ISK 500 million (EUR 3.3 million), which is equivalent to 0.14 % of health spending in 2022. However, rapidly increasing costs of new oncology medicines lead to challenges in ensuring access.

<sup>8</sup> Presenteeism refers to lost productivity that occurs when employees are not fully functioning in the workplace because of an illness, injury or other condition.

Moreover, since the price of oncology medicines tends to be high for small market size, Iceland could explore the possibility of joint purchases of new and expensive oncology medicines with other Nordic countries to reduce costs and increase access (Ministry of Health, 2016).

## 5.4 Well-being and quality of life

### Cancer is expected to take a toll on life expectancy and mental health in Iceland in the decades to come

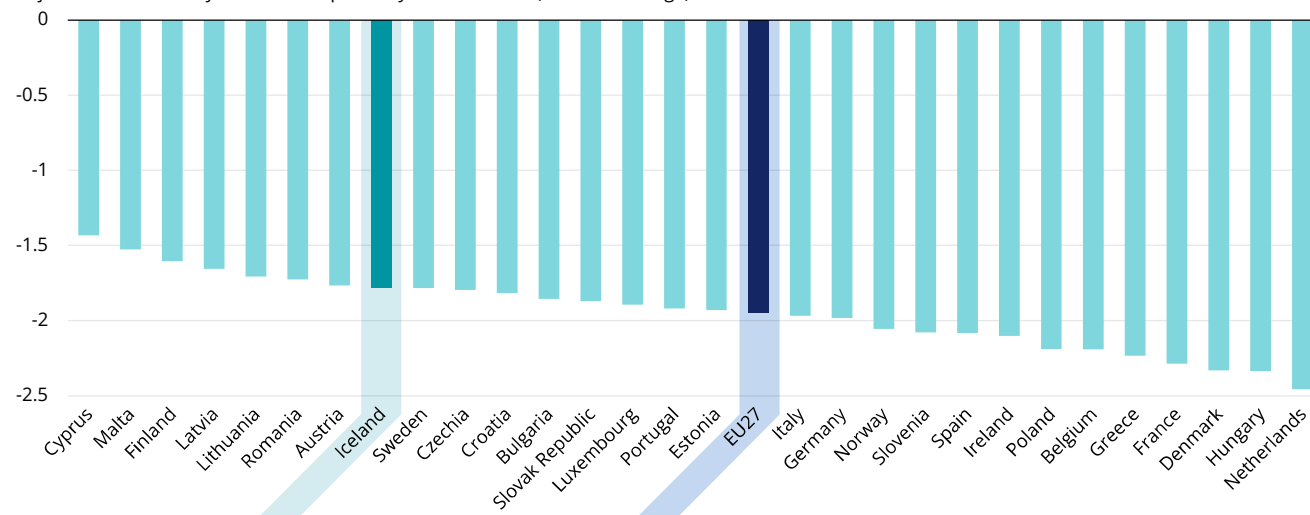
According to OECD SPHeP modelling work, almost 1.8 years are expected to be lost in life expectancy in Iceland due to cancer on average every year

over 2023-50. However, the impact of cancer on life expectancy is low compared to most EU+2 countries (Figure 20), given the country's low cancer incidence.

In addition, cancer takes a substantial toll on the mental health of the population through its associated symptoms and treatment side effects, and impact on daily life, social roles and work. According to the OECD's SPHeP model, Iceland is anticipated to have an additional age-standardised depression rate of 8 cases per 100 000 per year in 2023-50 due to cancer: lower than the average of 17 per 100 000 across the EU.

**Figure 20. In Iceland, the impact of cancer on life expectancy is expected to be lower than the EU average over 2023-50**

Projected reduction in years of life expectancy due to cancer (2023-50 average)



Note: The EU average is unweighted.

Source: OECD (2024), *Tackling the Impact of Cancer on Health, the Economy and Society*, OECD Health Policy Studies, OECD Publishing, Paris, DOI: <https://doi.org/10.1787/85e7c3ba-en>.

As more cancer patients are surviving in Iceland, there are options for fertility preservation procedures. In Iceland the private sector has been preserving gametes since 1996. However, the main hospital (Landspítali University hospital) has not collected nor preserved/stored gametes or embryos for quite some time.

### A broad range of supportive information is available for cancer patients and people around them

The Icelandic Cancer Society's website includes a wide range of cancer-related information for the general public, cancer patients and people around them. It provides guidance about diet, exercise and healthy lifestyles to reduce risk factors for cancer in general. It also includes information specific to common cancers for each phase of the cancer

care pathway, such as symptoms, risk factors, screening, diagnosis, treatment and prognosis, to promote early detection, improve awareness and increase knowledge about different types of cancers. In addition, in 2021, Landspítali University Hospital launched a digital portal for cancer patients to facilitate patient engagement, self-care management and symptom burden reduction (Fridriksdóttir et al., 2023).

### Professional advice including mental healthcare is available for patients and people around them

The Icelandic Cancer Society employs professionals such as nurses, psychologists and social workers to provide various kinds of advice and support on any issues related to cancer diagnosis, treatment and social services free of charge, to respond to needs

of people diagnosed with cancer and people around them. These services are provided face to face at the Cancer Society and regional cancer societies, online or by phone or email in Icelandic, English and Polish. Events and workshops such as support groups for English- and Polish-speaking people and yoga classes are organised regularly.

Additionally, peer support is given by individuals who have been diagnosed with cancer or carers for cancer patients, after they have completed training with a psychologist to become a support worker. It is available throughout the country via phone, email or face-to-face meeting.

### **After treatment, rehabilitation is provided to address various needs of people with cancer**

A multidisciplinary rehabilitation team is responsible for planning and providing rehabilitation services for people diagnosed with cancer at Landspítali University Hospital. Personalised goals and rehabilitation plans are developed for each patient, based on a holistic assessment of the individual's well-being and anticipated challenges. The team provides counselling, lectures and education materials about regaining and maintaining the best possible physical functioning, health and quality of life, based on a holistic, multifaceted evidence-based approach. For breast cancer, group aerobics training with a physiotherapist is available at the hospital, and physiotherapy is available in outpatient settings for pain and mobility impairment following breast cancer surgery. Cancer patients can receive physiotherapy, psychotherapy, occupational therapy, speech therapy, vocational rehabilitation, nutritional counselling and sex counselling at Reykjalundur, a health institution providing comprehensive rehabilitation. Another organisation, Ljósið, provides support for cancer patients and their families, with offerings such as educational meetings, yoga and walking groups, craft groups and massage. The Health Institute of Natural Medicine Society of Iceland also offers rehabilitation with personalised training, which usually requires a four-week stay.

### **Financial support is available for people living with cancer and their families**

Iceland provides various types of financial support for sick individuals including cancer patients and their families, with information on available support compiled on the Icelandic Cancer Society's website. Financial support such as sickness leave, sickness per diem benefits, a rehabilitation pension and a disability pension are available for patients, although they cannot be received concurrently.

Sickness per diem benefits are provided to individuals who are not able to return to work after sick leave, and a rehabilitation pension is available to those undergoing rehabilitation to return to the labour market. A disability pension is available for those who cannot return to work due to long-lasting disability. Benefits such as spousal and carer benefits and per diem payments due to serious illness of a partner are also available for a spouse or a relative of cancer patients. The Cancer Society's website also includes financial support and tax deductions available to families in the case of a cancer patient's death.

### **Access to palliative care has grown in Iceland, and quality of palliative care is monitored for further improvement**

The Icelandic Cancer Society started the first palliative home care team in Reykjavik in 1987, and availability has expanded since then. Palliative care is available at Landspítali University Hospital, Akureyri Hospital and the Healthcare Institution of South Iceland, as well as in nursing homes and via a home care team. At Landspítali University Hospital, the Pain Centre and Pain Team diagnose and treat children and adults with chronic or severe pain in both inpatient and outpatient settings, and provide specialised counselling for pain problems. Palliative care provided at home, or in a hospital or nursing home is publicly covered and financed (OECD, 2023). The Palliative Counselling Team at Landspítali University Hospital also provides care to prevent and treat symptoms and discomfort related to disease and treatment, and to address mental, psychological and social consequences. Palliative care is available throughout cancer care pathways, is publicly funded and can be provided with other treatments.

Mandatory palliative care training is provided in undergraduate medical school curricula. Landspítali University Hospital's Palliative Counselling Team provides training in palliative care for professionals including nurses, and support for implementation of clinical guidelines to promote access to high-quality palliative care throughout the country, although a training certificate is not required to work in palliative care.

Iceland is implementing the Palliative Care Action Plan 2021-25 (Ministry of Health, 2021), which emphasises the importance of expanding access to palliative care, integrating efficient and safe palliative care delivery, developing existing and future professionals delivering palliative care, building public and user understanding of palliative care, improving the quality of palliative care and preparing for the future of palliative



care – such as use of telehealth. It aims to provide effective treatment of pain and other symptoms, alongside psychosocial and spiritual support, while respecting individual and family needs.

To improve the quality of end-of-life care, Iceland monitors use of anti-cancer therapy to evaluate invasive care at the end of life, and utilisation of hospital care such as emergency room visits, intensive care and acute care units to assess

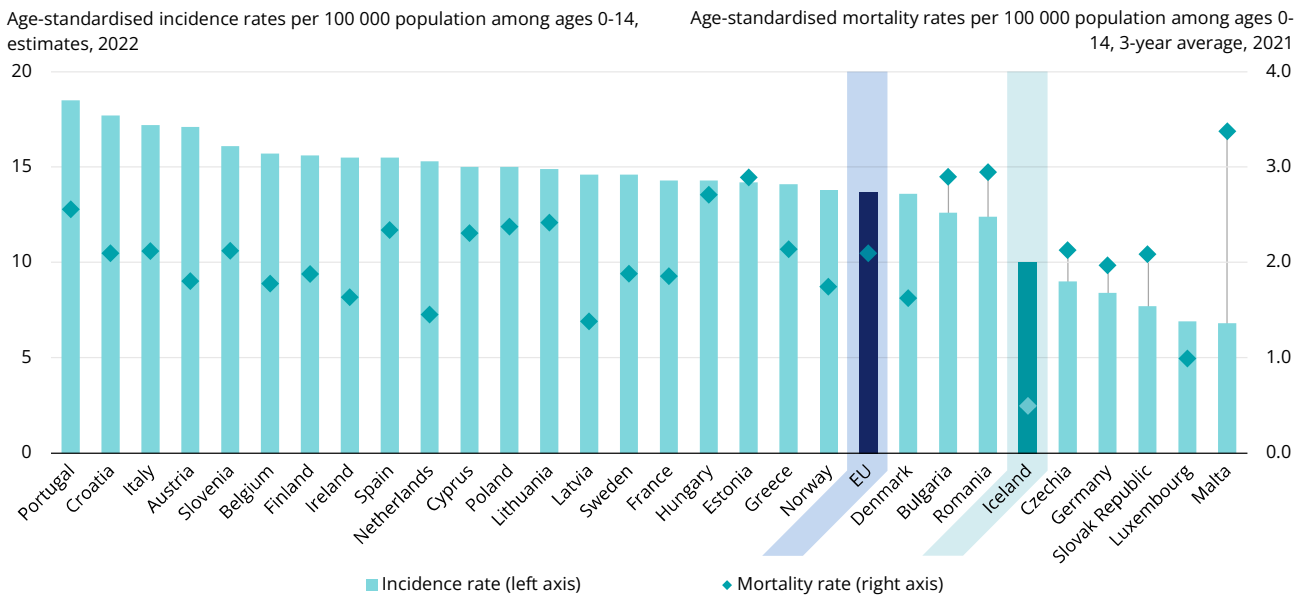
the quality of care provided at the end of life. It examines access to hospices, quality of life and availability of palliative care in the community. Access to hospices or palliative services improved at Landspítali University Hospital from 2017, when it was available to 37 % of cancer patients who died, to 2022, when it was available to 62 %.

# 6. Spotlight on paediatric cancer

According to ECIS, it is estimated that 7 children and adolescents up to age 15 in Iceland were diagnosed with cancer in 2022. In Iceland, incidence rates for ages 0-14 were estimated at 10.0 per 100 000 children – lower than the EU average of 13.7 (Figure 21). The most common cancer was

leukaemia, at 7.2 new cases per 100 000 children (72 %). Eurostat data shows that mortality rates from cancer among children are particularly low in Iceland, at 0.5 per 100 000 children as compared to 2.1 in the EU.

**Figure 21. Estimated cancer incidence rates among children in Iceland are lower than the EU average**



Notes: 2022 estimates are based on incidence trends from previous years, and may differ from observed rates in more recent years. "All sites" includes all cancer sites except non-melanoma skin cancer. Sources: European Cancer Information System (ECIS) for cancer incidence. From <https://ecis.jrc.ec.europa.eu>, accessed on 10/03/2024. © European Union, 2024. Eurostat Database for cancer mortality.

Five-year relative survival of cancer patients aged under 15 has improved in recent decades, reaching 91.5 % for boys and 95.8 % for girls in 2008-17 (Icelandic Cancer Registry, 2024).

According to the European Society of Paediatric Oncology (SIOPE)'s Organisation of Care & Research for Children with Cancer in Europe (OCEAN) Project, Iceland has one institution treating children with cancer (SIOPE, 2024). Paediatric cancer care is thus centralised and provided at one facility: Landspítali University Hospital.

Of 13 infrastructural and treatment modalities such as, photon radiation therapy, clinical trials, survivorship care clinic and palliative care, 8 are

available to care for paediatric cancer patients in Iceland, while stem cell transplant, proton radiation therapy, brachytherapy are not available. Of the 436 clinical trials involving paediatric and adolescent cancer patients in Europe between 2010 and 2022, only 2 were running in Iceland (0.5 %).

For childhood cancers for which specific treatment is not available in the country, Iceland actively collaborates with university hospitals in Scandinavian countries – particularly in Sweden. To ensure access to care for rare cancers abroad, funding is available to cover travel and healthcare costs.

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## Country abbreviations

Austria	AT	Denmark	DK	Hungary	HU	Luxembourg	LU	Romania	RO
Belgium	BE	Estonia	EE	Iceland	IS	Malta	MT	Slovak Republic	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		

# European Cancer Inequalities Registry

## Country Cancer Profile 2025

The European Cancer Inequalities Registry is a flagship initiative of the Europe's Beating Cancer Plan. It provides sound and reliable data on cancer prevention and care to identify trends, disparities and inequalities between Member States and regions. The Registry contains a website and data tool developed by the Joint Research Centre of the European Commission (<https://cancer-inequalities.jrc.ec.europa.eu/>), as well as an alternating series of biennial Country Cancer Profiles and an overarching Report on Cancer Inequalities in Europe.

The Country Cancer Profiles identify strengths, challenges and specific areas of action for each of the 27 EU Member States, Iceland and Norway, to guide investment and interventions at the EU, national and regional levels under the Europe's Beating Cancer Plan. The European Cancer Inequalities Registry also supports Flagship 1 of the Zero Pollution Action Plan.

The Profiles are the work of the OECD in co-operation with the European Commission. The team is grateful for the valuable comments and suggestions provided by national experts, the OECD Health Committee and the EU Thematic Working Group on Cancer Inequality Registry.

Each Country Cancer Profile provides a short synthesis of:

- the national cancer burden
- risk factors for cancer, focusing on behavioural and environment risk factors
- early detection programmes
- cancer care performance, focusing on accessibility, care quality, costs and quality of life.

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