**European Cancer Inequalities Registry** 



# **Country Cancer Profile** 2025





#### **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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#### Key health system and demographic statistics





Health care expenditure per capita in EUR PPP (current prices), 2022



Age-standardised mortality rate per 100 000 inhabitants, 2021



Source: Eurostat Database.

**Cancer in Ireland** 

Estimated new cancer diagnoses in Ireland were the second highest among EU countries in 2022. Cancer mortality decreased substantially over the last decade, but is still higher than the EU average. Ireland's third National Cancer Strategy (2017-26) aims to reduce cancer burden, improve care, enhance patient involvement, and drive progress through technology, research and workforce planning.

#### **Risk factors and prevention policies**

Ireland outperforms most EU countries in managing risk factors, particularly excelling in tobacco control policies. Over the past decade, the country has seen reductions in the share of daily cigarette smokers, in alcohol consumption, and in prevalence of overweight and obesity. Notably, prevalence of overweight among women with lower education levels has decreased significantly, aligning more closely with their counterparts with higher education levels.

#### **Early detection**

The National Screening Service's five-year strategic plan Choose Screening, launched in 2023, aims to deliver evidence-based, quality-assured screening programmes. Additionally, the Service's five-year framework "Improving Equity in Screening" prioritises reducing gaps in screening by leveraging partnerships, technological innovations and evidence-based approaches, including research and participant feedback. Participation in breast, cervical and colorectal cancer screening declined slightly between 2019 and 2022.

#### **Cancer care performance**

Five-year survival estimates in Ireland have increased over recent decades. Among the most common cancers, prostate cancer has the highest survival, while lung cancer has by far the lowest. Ireland utilises concentration of services, multidisciplinary team meetings and cancer care networks to improve care quality. Expenditure on cancer medicines experienced a notable increase over the decade leading to 2022. Between 2023-50, the burden of cancer as a share of total health expenditure is expected to be higher than the EU average, as is the reduction in life expectancy due to cancer. Through diverse initiatives, the country aims to improve quality of life for cancer patients.

Share of eligible population participating in screening (%), 2019 and 2022 (or nearest) 100 %

73 %

Cervical

2022 • 2019

34 %

Colorectal

Projected reduction in years of Projected burden of cancer as share of health expenditure (2023life expectancy due to cancer (2023-50 average) 50 average) 2.5 13 % 2.0 10 % 2.1 10.5 % 1.9 1.5 8 % 6.8 % 10 5 % 0.5 3% 0.0 0% Ireland EU27







Men

Women

■ FU27



Ireland

80 %

60 %

40 %

20 %

0%

70 %

Breast

### 2. Cancer in Ireland

#### Based on projections, estimated cancer incidence in Ireland is the second highest among EU countries

According to European Cancer Information System (ECIS) of the European Commission's Joint Research Centre based on incidence trends from pre-pandemic years, 561 new cancer cases per 100 000 women and 733 new cancer cases per 100 000 men were expected in Ireland in 2022. Both rates are higher than the predicted EU averages of 488 per 100 000 women and 684 per 100 000 men (Figure 1).

### Figure 1. The cancers with the highest incidence rates in Ireland are also the leading cancers across the EU

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.

The main cancer sites among men and women are mostly consistent with broader EU patterns. For men, prostate cancer was expected to be the most common invasive cancer in 2022, with 29% of cancer incidence (209 new cases per 100 000 population) – higher than the 23% across the EU27 (154 per 100 000). This is followed by colorectal (93 per 100 000) and lung (83 per 100 000) cancers. Among Irish men, colorectal cancer incidence is on par with the EU average, and lung cancer<sup>1</sup> incidence is 13% lower.

Among women, breast cancer was expected to be the most common with 29% of cancer incidence (161 new cases per 100 000 population) – slightly lower than the EU average rate of 30%. This is followed by lung (72 per 100 000) and colorectal (62 per 100 000) cancers. Among Irish women, lung cancer incidence is substantially higher (63%) and colorectal cancer incidence is slightly higher (7%) than the EU averages.

Looking forward, ECIS estimates that cancer cases will increase by 47% between 2022 and 2040.

### Cancer mortality rates improved significantly in the last decade

Circulatory diseases and cancer were the leading causes of death in Ireland in 2021, each accounting for 27% of all deaths. In 2021, cancer caused 248 deaths per 100 000 population, a 17% decline from 299 per 100 000 in 2011. During this period,

<sup>1</sup> Lung cancer also refers to trachea and bronchus cancers.

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cancer mortality decreased by 21% among men and 16% among women in Ireland, surpassing the reductions seen among the country's economic peers<sup>2</sup> (declines of 17% among men and 10% among women) and across the EU (declines of 16% among men and 9% among women). However, Irish cancer mortality rates in 2021 were still higher by 5.4% than the EU average of 235 deaths per 100 000 (Figure 2).



### Figure 2. Ireland experienced a large reduction in cancer mortality over the decade to 2021, but the rate is still higher than the EU average

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

As in all other EU+2 countries,<sup>3</sup> men had a significantly higher mortality rate (294 per 100 000) than women (212 per 100 000). This gender gap of 39% in Ireland was narrower than the 67% gap across the EU.

Age-standardised cancer mortality decreased for almost all cancer types in 2011-21. Lung cancer had the highest mortality rate in 2021, at 49 deaths per 100 000 population, although the rate among men in Ireland (55 per 100 000) was 21% lower than the EU average. Matching incidence patterns, lung cancer mortality rates for Irish women (43 per 100 000) were 45% higher than the EU average. The mortality rate from colorectal cancer in Ireland was very similar to the EU average in 2021, at 27 deaths per 100 000.

#### Ireland experienced a more significant decline in avoidable mortality rates compared to the EU averages

For the most common cancer types, both men and women in Ireland had a more significant reduction in avoidable mortality<sup>4</sup> rates than the EU average. Avoidable mortality from lung cancer among women in Ireland was 19% higher than the EU average in 2021, reflecting historically higher smoking rates compared to other EU countries, despite lower rates in recent years (see Section 3). In contrast, among Irish men, the rate was 29% lower than the EU average. Between 2011 and 2021, rates decreased by 9% among women (compared to a 4% increase across the EU) and by 31% among men (compared to a 27% decrease in the EU) (Figure 3).

In 2021, avoidable mortality from breast cancer in Ireland was 19 per 100 000 women – close to the EU average. However, the rate had decreased by 27% compared to 2011 – faster than the decline across

<sup>2</sup> Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for IE are AT, BE, DE, DK, IS, LU, NL, NO and SE.

<sup>3</sup> EU+2 countries include 27 EU Member States (EU27), plus Iceland and Norway.

<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.

the EU, potentially related to higher participation rates in breast cancer screening programmes in Ireland (see Section 4). Avoidable mortality rates from colorectal cancer in Ireland in 2021 were 10% lower than the EU average among women and 12% lower than the EU average among men. The decreases of 26% among Irish women and 31% among Irish men since 2011 are much larger than the reductions across the EU. Efforts to improve cancer care quality, such as centralisation and multidisciplinary team meetings (see Section 5.2), may have contributed to the faster decreases in both breast and colorectal cancer avoidable mortality.

# Figure 3. Avoidable mortality from breast cancer in Ireland has converged with the EU average, while avoidable mortality from colorectal cancer among men has declined to levels below the EU average



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

#### Cancer prevalence among both men and women in Ireland was lower than the EU average in 2022

In 2022, Ireland had a five-year prevalence<sup>5</sup> of 1 801 cancer cases per 100 000 population – 4% lower than the 1 876 cases per 100 000 population across the EU, and with lower rates among both men and women. Between 2010 and 2020, lifelong cancer prevalence in the country increased by 35%, surpassing the EU average increase of 24% (Figure 4). This significant rise underscores the increasing importance of prioritising quality of life and survivorship (see Section 5.4), as more individuals are living longer with cancer, and an increasing number have a history of the disease.



<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.

### Figure 4. Lifetime cancer prevalence in Ireland increased more than the EU average between 2010 and 2020

Five-year crude prevalence per 100 000 population, 2022 (Globocan)

Change in age-standardised lifetime prevalence rates, 2010-20 (EUROCARE-6)



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

# Ireland's third National Cancer Strategy aims to reduce the cancer burden and deliver optimal care

The National Cancer Control Programme (NCCP) in Ireland, established in 2007 within the Health Service Executive (HSE), collaborates with health service providers and partners to prevent, treat and improve the quality of life for cancer patients. The NCCP translates research and outcomes into actionable strategies, and is responsible for implementing most of the National Cancer Strategy's recommendations.

Ireland's third National Cancer Strategy, covering 2017-26, sets four main goals: reducing the cancer burden, providing optimal care, maximising patient involvement and quality of life, and enabling and assuring change through technology and research, workforce planning and performance measuring. The strategy includes 23 actions with key performance indicators (KPIs) across 8 objectives related to cancer diagnosis, treatment and research, and lists 52 policy recommendations – each with an accountable lead agency. These recommendations address areas such as national surveillance services for vulnerable groups, patient involvement in policy planning, psychosocial care, survivorship programmes, workforce training, care integration and research (Box 1).

Annual implementation reports detail progress on improving cancer services and patient outcomes. The 2022 implementation report, published in June 2023, highlighted significant achievements, including recruitment of 172 new staff, improved access and reduced waiting times, EUR 3 million for cancer surgery, EUR 3.4 million for rapid access clinics, and EUR 3 million for chemotherapy and immunotherapy, including new treatments like paediatric CAR-T cell therapy and radiolabelled therapy.

The NCCP underscores the importance of adhering to evidence-based guidelines throughout the patient journey, from early detection to end-of-life care, with multidisciplinary teams planning and delivering care. Annually, the NCCP allocates over EUR 100 million to cancer services, supplemented by additional funding for other supporting services. In 2021 and 2022, an extra EUR 20 million was provided each year for new service developments. Additionally, the NCCP is a founding member and co-ordinator of the Irish Cancer Prevention Network.

#### Box 1. Ireland's National Cancer Control Programme is aligned with Europe's Beating Cancer Plan

The NCCP aims to address cancer risk factors (such as reducing smoking rates); to detect early cancerous (or pre-cancerous) cells and reduce cancer mortality in asymptomatic populations through screening programmes; to implement an integrated model of care, ensuring earlier and accurate diagnosis and effective treatment, and provide safe, high-quality patient-centred care; and to emphasise patient involvement in cancer care and survivorship. It also aims to increase funding for cancer research and enhance participation in clinical trials, as well as reducing inequalities in cancer incidence and survival between the top and bottom quintiles of deprivation. It is closely aligned with Europe's Beating Cancer Plan (Table 1).

#### Table 1. Ireland's National Cancer Control Programme is closely aligned with 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 Ireland's NCCP includes a specific section on the topic; orange indicates that the topic is covered in one of the NCCP's sections without being the only focus; and pink indicates that this topic is not covered in the NCCP.

Source: Adapted from "Study on mapping and evaluating the implementation of Europe's Beating Cancer Plan" (not yet published).

#### The National Cancer Registry is a vital component of Ireland's fight against cancer, providing essential data, supporting research and fostering cross-border collaboration

The National Cancer Registry Ireland (NCRI) records all cancer cases in Ireland since 1994. Its functions include collecting and analysing cancer data, supporting research and service planning, publishing annual reports, and providing advice and information to the Minister of Health. Ireland is among the EU+2 countries that provide national incidence information by region, socio-economic status and deprivation level. In February 2023, the NCRI released a report detailing the disparities in cancer incidence and survival rates between populations residing in the most and least deprived areas of the country (NCRI, 2023).

Cross-border co-operation is a feature of the NCRI's work – notably through the Ireland – Northern Ireland National Cancer Institute Cancer Consortium, established in 1999. This collaboration has produced several all-Ireland cancer statistics reports, documenting cancer trends and outcomes across the island of Ireland.

### 3. Risk factors and prevention policies

According to the Global Burden of Disease 2019 study, 46% of cancer deaths in Ireland were attributable to the risk factors (GBD 2019 Cancer Risk Factors Collaborators, 2022). However, Ireland is in the top third of EU+2 countries on cancer risk factors such as daily smoking, overweight and obesity, low physical activity levels, low fruit and vegetable consumption, and air pollution. On the other hand, it is weakest on occupational exposure, with three in ten people aged 15 and over reporting exposure to chemical products and substances (Figure 5).

In Ireland, spending on preventive measures represented 5.9% of current health expenditure in 2021 – a major increase of 2.7 percentage points from 2020 due to COVID-19 related spending, and slightly lower than the EU average of 6%.<sup>6</sup>





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>).

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).

#### The share of daily cigarette smokers has decreased significantly in Ireland, in line with implementation of strict tobacco control policies

Among people aged 15 and over in Ireland, the proportion of daily smokers decreased by 5 percentage points from 2015 to 2022, reaching 14%, which is below the EU average of 18%. This decline was particularly notable among women. In 2021, the share of daily smokers among Irish men was 16% – significantly lower than the EU average of 23%. Among Irish women, the share was 12% – also lower than the EU average of 14%. A few decades ago, smoking rates among Irish women exceeded those in most EU countries for which data are available, probably accounting for

<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.

the higher rates of avoidable mortality from lung cancer among Irish women (see Section 2).

Among 15-year-olds, tobacco use over the last 30 days dropped from 9.5% in 2014 to 7.0% in 2022, which was substantially lower – by 10 percentage points – than the EU average (Figure 6). The share of smoking was 4.4% among school-age children in the bottom 20% of family affluence based on the Family Affluence Scale – significantly higher than the 2.6% among the top 20% of family affluence.

# Figure 6. Among 15-year-olds, Ireland fares better than the EU average in smoking and drunkenness

Smoking at least once over the last 30 days (%)





Notes: The EU average is unweighted. Data refer to 2022, and are based on children aged 15 years. Source: Health Behaviour in School-aged Children Survey.

Despite the overall decline in smoking rates, vaping among individuals aged 15 and over rose from 3% in 2015 to 8% in 2023. The increase was even more pronounced among those aged 15-24, where prevalence of vaping surged from 1% in 2015 to 10% in 2023. Ireland is among countries that monitor e-cigarette use among both adults and adolescents, implementing measures to regulate their use.

The Tobacco Free Ireland Programme, established in 2016, aims to improve health and well-being by reducing the number of smokers, with the goal of achieving a tobacco-free Ireland (less than 5% prevalence) by 2025. Key objectives include protecting children and denormalising smoking.

Ireland's tobacco control policies are among the strongest globally, earning the highest score on the 2021 Tobacco Control Scale (Tobacco Control Scale, 2022). Ireland mandates plain packaging for tobacco products, applies high taxation, bans smoking in various places, runs public awareness campaigns and provides cessation support. Additionally, Ireland is one of the few EU+2 countries that earmark tobacco taxes for public health purposes and offer full coverage of nicotine replacement therapies.

In line with the National Cancer Strategy's objective of reducing the proportion of adults in the population who smoke, further measures were introduced in 2022. These include removing value-added tax (VAT) from all nicotine replacement therapy from 1 January 2023, and imposing further restrictions on e-cigarettes. In December 2023, the government prohibited the sale of nicotine inhaling products to minors, with penalties for non-compliance. Lastly, in May 2024, Ireland's Cabinet approved legislation to raise the legal age for tobacco sales to 21, making Ireland the first EU country to enact such a measure.

### Alcohol consumption has decreased over the past decade

Between 2013 and 2023, annual alcohol consumption per capita among people aged 15 and over in Ireland decreased by 7% to 9.9 litres, which is slightly under the EU average of 10.0 litres per person per year. Alcohol consumption patterns vary across population groups, with men drinking more than women. Drunkenness more than once in a lifetime among 15-year-olds decreased from 16% in 2014 to 13% in 2022, which is 10 percentage points lower than the EU average. Harmful alcohol use among school-age children was 7% among the bottom 20% of family affluence – significantly higher than the 4% among the top 20% of family affluence.

In January 2022, Section 11 of the Public Health (Alcohol) Act 2018, which pertains to minimum unit pricing, came into effect in Ireland. This sets a floor price of 10 cents per gramme of alcohol, aiming to prevent the sale of very cheap alcohol, targeting hazardous drinking patterns. It is anticipated to have a more pronounced impact among low-income groups than high-income groups.

Ireland is also among the few EU+2 countries that that have set on-premises and off-premises outlet restrictions. Additionally, in May 2023, Ireland became the first country to mandate comprehensive health labelling on alcohol products, including cancer warnings. Effective from May 2026, these labels will detail health risks associated with alcohol consumption, such as liver disease and cancer.

### More than half of the adult population in Ireland is overweight or obese

From 2017 to 2022, the percentage of adults classified as overweight or obese declined from 57% to 53% in Ireland, marking a more substantial decrease than the EU average, which saw a slight decline from 52% to 51%.

As in other EU countries, women with lower education levels in Ireland were more likely to be overweight: 44% of women with lower education levels were overweight in 2022, compared to 42% of those with higher education levels (Figure 7). The period 2017-22 saw a significant decline in overweight prevalence among women with lower education levels, dropping by 26%, making Ireland the EU+2 country with the smallest educational gap in overweight prevalence among women. This progress can be partly attributed to A Healthy Weight for Ireland: Obesity Policy and Action Plan (2016-25), which targets a 10% reduction in obesity disparities between the highest and lowest socio-economic groups. Key actions include mobilising health services through community-based health promotion programmes and a communications strategy to educate the public and stakeholders on healthy weight benefits. Efforts also focus on reaching disadvantaged groups.





Note: Overweight (including obesity) includes those with a body mass index (BMI) above 25. Source: Eurostat Database.

#### Both adults and adolescents in Ireland exhibit healthier dietary habits and engage in more physical activity than the EU average

While Ireland outperforms the EU averages on fruit and vegetable consumption and physical activity, continued improvements in these health indicators are key to reducing overweight and obesity rates further. In 2022, 28% of adults in Ireland consumed vegetables less than once a day, compared to the average of 40% across the EU. Similarly, 35% consumed fruits less than once daily in Ireland, compared to 39% in the EU. Additionally, the percentage of the adult population engaging in insufficient physical activity was 51% in Ireland – significantly lower than the EU average of 70%.

Adolescents in Ireland also perform favourably compared to their EU counterparts on nutrition and physical activity. About 41% of 15-year-olds in Ireland report daily fruit consumption (compared to 30% in the EU) and 43% report daily vegetable consumption (compared to 34% in the EU). The share of 15-year-olds engaging in 60 minutes of physical activity daily in Ireland is quite low – at 17%, although this is slightly higher than the 15% EU average.

To enhance dietary habits and encourage informed choices, Ireland employs several strategies. These include levying excise taxes on sugar-sweetened beverages and implementing nutritional menu labelling in restaurants. Additionally, the country offers nutrition advice and counselling to specific target groups within healthcare settings (OECD, 2024).

In Ireland, the National Transport Authority oversees initiatives like Smarter Travel Workplaces and Smarter Travel Campus, aimed at promoting sustainable commuting options in collaboration with employers and higher education institutions. These programmes include materials like promotional posters advocating walking and guidance on implementing initiatives. Ireland is also among the EU+2 countries with national policies targeting cyclist and pedestrian safety enhancement.

### Exposure to air pollution in Ireland is lower than the EU average

Exposure to air pollution in Ireland in the form of  $PM_{2.5}$  stood at 8.0 µg/m<sup>3</sup> in 2020, reflecting a drop of 35% since 2000 and remaining below the EU average of 11.7 µg/m<sup>3</sup>. In terms of occupational

exposure, 29% of people aged 15 and over reported exposure to chemical products and substances in 2021, placing it in the bottom third among EU+2 countries. Higher exposure rates were noted among men and individuals aged 15-34. The Public Health (Tobacco) Act in 2004 banned smoking in all workplaces to eliminate occupational exposure to second-hand smoke. Additionally, the National Skin Cancer Prevention Plan emphasises reducing occupational UV exposure among other efforts to prevent skin cancer (Box 2).

#### Box 2. Ireland's second National Skin Cancer Prevention Plan was published in 2023

Melanoma skin cancer accounted for 5.8% of estimated new cancer cases in 2022, with diagnoses on the rise. Exposure to ultraviolet radiation is the main risk factor for skin cancer. According to Healthy Ireland's 2022 survey findings, 86% of individuals in Ireland regularly employ sun protection methods during the summer, with women and older adults demonstrating a higher tendency than men and those aged under 35. Despite these efforts, 18% of the population have used sunbeds at some point in their lives, and current sunbed usage is most prevalent among women under 45, at 6% (Healthy Ireland, 2022). The aim of the National Skin Cancer Prevention Plan 2023-26 is to develop and implement evidence-based strategies through cross-sectoral collaboration, which will increase awareness and facilitate adoption of skin cancer prevention behaviours.

#### Ireland adopted a one-dose human papillomavirus vaccine regimen for individuals up to the age of 25

In 2010, the national vaccination programme began offering the HPV vaccine to girls aged 12 as part of the HSE School Immunisation Programme. In 2019, the programme expanded to include boys aged 12. HPV vaccination coverage among 15-year-old girls has varied significantly over the years – including a low of 58% (2019) and a high of 88% (2017) – and it was 75% in 2023. Among boys, coverage rates have also fluctuated somewhat over the past few years and stood at 69% in 2023.

In April 2022, WHO recommended a one-dose HPV vaccine regimen for girls aged under 20. Ireland adopted this simplified regimen, which reduces vaccination costs and potentially improves coverage – particularly among vulnerable populations. In November 2022, the National Immunisation Advisory Committee updated its guidelines to recommend a single-dose schedule for individuals aged 9-24, and a two-dose schedule at an interval of 6-12 months for those aged 25-45, with a third dose if the second dose is administered less than five months after the first.

In December 2022, the HSE offered a catch-up opportunity for those who missed the vaccine during the School Immunisation Programme, providing free vaccinations for all unvaccinated students from the 2nd to 6th year in secondary school, and all unvaccinated females who had left secondary school and were 24 or younger. In August 2023, the Minister for Health announced an expansion of the catch-up programme, which ran until the end of 2023, to include males up to age 22.

In 2023, Ireland's roadmap to eliminate cervical cancer by 2040 was launched. This goal will be achieved by increasing HPV vaccination rates for girls by age 15 to 90% by 2030, maintaining cervical screening coverage at or above 73% (see Section 4), and ensuring that at least 97% of women receive treatment for cervical cancer within the first year of diagnosis, consistently exceeding WHO targets.

#### Many new cancer cases would be prevented during 2023-50 if target reductions in cancer risk factors were achieved

According to the OECD Strategic Public Health Planning (SPHeP) modelling work, achieving tobacco targets could prevent 20 536 new cancer cases in Ireland between 2023 and 2050 (Figure 8). Similarly, meeting alcohol targets could prevent 15 368 new cancer cases over the same period. An additional 7 794 cases could be prevented by meeting obesity targets, and 2 439 cases by achieving pollution targets.

### Figure 8. Over 20 000 cancer cases could be prevented in Ireland between 2023-50 if tobacco reduction targets were met





Notes: The target for tobacco is a 30% reduction in tobacco use between 2010 and 2025, and less than 5% of the population using tobacco by 2040. For alcohol, the target is a reduction of at least 20% in overall alcohol consumption and a 20% reduction in heavy drinking (six or more alcoholic drinks on a single occasion for adults) between 2010 and 2030. For air pollution, it is an annual average PM<sub>2.5</sub> level capped at 10 µg/m<sup>3</sup> by 2030 and at 5 µg/m<sup>3</sup> by 2050. For obesity, the target is a reduction to the 2010 obesity level by 2025.

Source: OECD (2024), Tackling the Impact of Cancer on Health, the Economy and Society, https://doi.org/10.1787/85e7c3ba-en.



#### Ireland maintains three population-based cancer screening programmes, and is dedicated to improving equity in screening

The National Screening Service (NSS), established in January 2007 and part of the HSE, delivers three national population-based cancer screening programmes for breast, cervical and colorectal cancers. The NSS's five-year strategic plan, Choose Screening (2023-27), outlines six primary goals including operational excellence, quality-assured screening; good governance and value for money. The aim is to achieve participation rates of 70% for breast cancer screening, 80% for cervical cancer screening and 50% for colorectal cancer screening among the eligible population. The country is also involved in projects on early detection of prostate, lung and gastric cancers (Box 3).

#### Box 3. Ireland has joined projects aimed at early detection of prostate, lung and gastric cancers

The NSS has joined the EU-wide PRAISE-U project, which aims to reduce the burden of prostate cancer. In Ireland, the project will test the feasibility of population-based screening using a home-based test for prostate-specific antigen. The study will involve 8 000 men from diverse socio-economic backgrounds and populations to evaluate the new screening approach's effectiveness, feasibility, acceptability and cost – effectiveness. The SOLACE Project seeks to enhance lung cancer screening in Europe by aiding countries with implementing and optimising low-dose computed tomography (CT) screening programmes, offering a customisable toolbox to address regional needs and health disparities. The TOGAS Project aims to combat gastric cancer by providing evidence-based knowledge for designing, planning and implementing new screening and early detection methods.

The NSS's Improving Equity in Screening framework for 2023-27 prioritises enhancing equity in screening through evidence-based approaches, including research and participant feedback. It emphasises the importance of education and development for HSE staff and stakeholders, raising awareness and developing new content as needed. The framework advocates a partnership approach to build capacity and capability, addressing service barriers from participants' perspectives through technological innovations and creative solutions.

The National Screening Advisory Committee is an independent body that advises the Minister for Health on new population-based screening programmes or changes to existing ones. In December 2023, the Committee launched its annual call for 2023, inviting the public and health professionals to submit suggestions on screening programmes in Ireland. These submissions shape the Committee's work, and past calls have led to a number of recommendations to the minister.

# The participation rate in breast cancer screening saw a decline during the COVID-19 pandemic

BreastCheck, the national breast screening programme in Ireland, began in 2000. The programme was initially for women aged 50-64 but has expanded over the years. Since 2021, it offers free mammograms to women aged 50-69 every two years. Mammograms take place at BreastCheck clinics or mobile screening units.

Participation in breast cancer screening in Ireland has been declining, with a notable drop in 2021. Despite this, the rate remains higher than the EU average (56%). Between 2002 and 2022, partly due to the COVID-19 pandemic, the participation rate decreased from 78% to 70% (Figure 9). BreastCheck was halted twice in 2020 and 2021, losing nearly a year of screening time.

### Figure 9. Participation in breast, cervical and colorectal cancer screening has slightly decreased in recent years



Notes: Recent data refer to mammography screening among women aged 50-69 within the past two years, cervical cancer screening among women aged 25-65 within the past five years, and FIT testing among people aged 60-69 within the past two years. All figures come from programme data. Source: OECD Health Statistics 2024.

#### Ireland transitioned from smear tests to human papillomavirus testing for cervical cancer screening in 2020

CervicalCheck, Ireland's national cervical screening programme launched in 2008, provides free HPV cervical screening to women and individuals with a cervix aged 25-60, increasing the screening age range to 25-65 in 2020. Screening frequency depends on age: it is every three years for those aged 25-29 and every five years for those aged 30-65. Participants are invited to find a registered sample taker in their local area.

The programme aims to detect high-risk HPV types associated with cervical cancer, checking for abnormal cells if HPV is found. This method,

introduced in March 2020, replaces the previous smear test, which solely targeted abnormal cells.

The rate of participation in cervical cancer screening saw a notable rise from 61% in 2011 to 80% in 2017, followed by marginal declines until 2020, with a significant drop to 73% in 2022 (Figure 9). Nevertheless, the participation rate remained significantly above the EU average (55%).

A study is being conducted to understand attitudes to HPV self-sampling in Ireland. It will also explore the types of support and information needed for correct self-sampling, such as general practitioner (GP) consultations, videos or illustrated leaflets, and preferences for receiving the self-sampling kit by mail or from a GP or pharmacist.

#### LGBTIQ people participate more in cervical cancer screening but less in breast cancer screening than their counterparts in the EU

In line with its dedication to eliminating cervical cancer, Ireland has implemented various initiatives - notably embracing measures to promote LGBTQ+ inclusivity in screening. However, according to the EU LGBTIQ Survey III, only 12% of LGBTIQ cisgender females, transgender females and intersex people aged 40-54 years in Ireland reported having had a mammogram in the previous 12 months, less than half of the EU average of 28% (Figure 10). For cervical cancer screening, the results are more encouraging. Some 68% of the relevant LGBTIQ population aged 25-39 in Ireland reported having had a cervical smear test in the previous 5 years (higher than the 64% in the EU), while 82% of those aged 40-55 reported cervical cancer screening (higher than the 74% in the EU).

#### Figure 10. Among LGBTIQ people aged 40-54, mammography rates are much lower in Ireland than in the EU



Note: LGBTIQ survey results refer to age groups and/or screening intervals that do not align with the population screening approach in EU countries, and should not be compared. Source: The European Union Agency for Fundamental Rights (EU LGBTIQ Survey III).

#### Ireland plans to expand the age range for bowel cancer screening from 59-69 to 55-74

BowelScreen, the national bowel screening programme in Ireland, began in 2012, initially inviting men and women aged 60-69 to take a free screening test every three years. It transitioned from a three-year to a two-year screening cycle in 2016. The programme began expanding its age range to invite men and women aged 59 in 2023, and plans to expand eligibility to those aged 55-74.

BowelScreen's primary goal is to reduce the incidence and mortality of colorectal cancer.

Eligible individuals receive a home faecal immunochemical testing (FIT) kit. If the test is positive, a follow-up colonoscopy is performed.

Participation in colorectal cancer screening in Ireland has shown an upward trend through 2021, but a decrease in 2022 when it stood at 34% (Figure 9).

#### Early detection policies aim to increase participation rates, improve early diagnosis and outcomes, and ensure access for vulnerable populations

Ireland is among the EU+2 countries actively promoting public awareness campaigns to reach vulnerable populations. Specific campaigns are being tailored for the indigenous minority of Irish Travellers, focusing on prevalent cancers within this community. The Traveller Health Project, initiated in 2022, addresses cancer prevention and early detection, providing screening information to Travellers in the Finglas and Blanchardstown suburbs of Dublin. As part of this programme, primary healthcare workers received training to deliver BreastCheck and BowelScreen messages to these communities. Additionally, the NSS has created video messages in 25 languages on these screening programmes for migrant communities.

In Ireland, mobile breast cancer screening units serve vulnerable and remote populations, while pharmacies improve colorectal cancer screening rates due to their ability to increase accessibility of FIT kits. A pilot project in County Kerry demonstrated a 74% return rate for colorectal screening kits obtained from pharmacies, compared to the national average of 38% (Flaherty, Flaherty & Farrelly, 2019). Additionally, primary healthcare providers facilitate early cancer detection and screening participation. Cervical cancer screening is often performed by GPs and practice nurses.

To better understand attendance patterns and enhance the screening experience, real-time feedback is collected through a patient-reported experience measures (PREMs) programme. Initially piloted in 2022 with BowelScreen, the programme achieved a 47% response rate by 2023. Subsequently, it was expanded to include feedback from women attending BreastCheck, with SMS invitations sent to those receiving normal mammogram results. The PREMs programme will be extended to CervicalCheck in 2025.

The NCCP launched the Early Diagnosis of Symptomatic Cancer Plan 2022-25 to enhance early cancer detection in Ireland, focusing on diagnosing cancers at stages I and II. Efforts include stakeholder collaboration, educational sessions for high-risk and underserved groups, easy-read posters on cancer signs, and an e-learning programme for primary healthcare professionals. Additionally, a National Survey on Cancer Awareness and Attitude was published, with plans for similar studies targeting marginalised groups.

Fast-track pathways have been developed to reduce delays in cancer diagnosis. In 2022, rapid access clinics and early diagnosis pathways received nearly EUR 3.5 million in new development funding. This funding helped reduce waiting times and increase clinic capacity through extended hours and additional temporary staffing support. As a result, the longest waiting times for rapid access clinics for the four main cancer types (breast, colorectal, lung and prostate) significantly reduced in December 2022 compared to the previous 11 months.

### 5. Cancer care performance

#### 5.1 Accessibility

### Designated cancer centres and public hospitals provide the majority of cancer care in Ireland

The NCCP oversees development of national cancer treatment services, including surgery, radiotherapy and systemic anti-cancer therapy (SACT). The majority of adult cancer surgery is performed in eight designated cancer centres. Additionally, 17 public hospitals provide SACTs, such as chemotherapy and immunotherapy, for solid and haematological cancers. Radiation oncology services are available in the public sector in Dublin, Cork and Galway. Approximately 80% of cancer patients are treated in designated cancer centres and other public hospitals, with the remaining 20% receiving care in private hospitals. There is movement between the public and private healthcare systems and patients are not necessarily in to one or the other throughout their entire care journey.

The health system in Ireland is funded through both public and private sources, with the HSE managing public services largely financed by the national budget. Despite significant government funding, user fees and copayments are common. To prevent catastrophic health expenses, the system includes mechanisms such as medical cards for low-income and vulnerable populations, fee waivers for certain groups including pregnant women and elderly people, and a drugs payment scheme that caps monthly pharmaceutical costs per household at EUR 80 per month. Those who do not qualify for medical cards pay for insurance that partly covers their healthcare costs.

Over the years, the proportion of out-of-pocket payments in current health spending has steadily decreased from 14% in 2014 to 11% in 2022.

### Ireland has a strong healthcare workforce but still experiences shortages in specific fields

In Ireland, there are 728 physicians per 1 000 new cancer cases, which is higher than the EU average ratio of 679 per 1 000. The country has 2 626 nurses per 1 000 new cancer cases, which is significantly higher than the EU average ratio of 1 376 per 1 000, and ranks among the highest among EU+2 countries. Therefore, Ireland belongs to the group of countries with a high supply of physicians and a high supply of nurses relative to new cancer cases (Figure 11).

### Figure 11. Ireland is among the EU+2 countries with the highest numbers of physicians and nurses per 1 000 new cancer cases

Number of nurses per 1 000 new cancer cases



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.

Despite this high ratio of physicians and nurses per 1 000 new cancer cases, Ireland faces shortages of various cancer care professionals, including GPs, radiologists, radiation therapists and others. To address this, the country has increased training capacity, encouraged task substitution, provided financial incentives and recruited foreign-trained professionals. Pharmacists have been supported to enhance their role in cancer care by the National Competency Framework and there are plans to further expand their role to include prescribing as an opportunity to leverage their expertise while alleviating the growing service delivery burden on clinicians. Educational initiatives, including e-learning programmes, have been developed to equip healthcare professionals with the necessary skills for safe and effective cancer care.

According to the European Oncology Nursing Society (EONS) Cancer Nursing Index, Ireland offers specialist education and master's programmes in cancer nursing, with dedicated professors in 2022 (EONS, 2024). Additional programmes include the National SACT Competency Programme for Nurses, Community Cancer Nursing E-Learning Programme and 3-day Cancer Education Programme for Non-Specialist Nurses. The National SACT Competency Programme has a module on safe handling of cytotoxic drugs, spills and waste.

#### The average density of radiation therapy equipment per 1 000 000 population has remained stable over the last decade

In Ireland, the supply of radiation therapy equipment in 2022 was 9.8 per 1 000 000 population – much higher than the averages across the EU (8.0 per 1 000 000) and among its economic peers (8.8 per 1 000 000). The volume has remained fairly steady since 2013 (Figure 12).

### Figure 12. Ireland has a higher volume of radiation therapy equipment per 1 000 000 population than the EU average



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 IE are AT, DK, IS, LU, NO and SE. The EU average is unweighted.

Source: OECD Health Statistics 2024.

However, the supply of diagnostic equipment in Ireland lags behind the EU average. The country has 17.1 magnetic resonance imaging (MRI) units per 1 000 000 population, which is below the EU average of 18.4 per 1 000 000, and 19.6 CT scanners per 1 000 000 population – below the EU average of 26.5 per 1 000 000. Ireland also has 1.7 positron emission tomography (PET) scanners per 1 000 000 population, while the EU average is 2.3 per 1 000 000.

### Irish patients have access to a narrower range of new oncology medicines than the EU average

In Ireland, access to innovative cancer medicines is relatively low compared to the average of EU+2 countries. The proportion of indications of a sample of cancer medicines (for breast and lung cancer) with high clinical benefit that are publicly reimbursed is 38% - lower than the EU average of 59% and only about half the average among Ireland's economic peers (75%) (Figure 13). The share of cancer biosimilars (which generally lowers treatment expenses by providing more cost-effective alternatives to original biologic medicines) covered is also low in Ireland, at 47%, compared to 63% among Ireland's economic peers. Time to patient access for new cancer medicines in Ireland averages 502 days from European Medicines Agency approval to coverage decision (Hofmarcher, Berchet & Dedet, 2024). However, once a medicine is approved for reimbursement and its price is agreed upon, Irish patients have universal access to it.



### Figure 13. Ireland has lower shares of reimbursed new oncology medicines and biosimilars than the averages across the EU and among its economic peers

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 19 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 IE are AT, BE, DE, DK, IS, 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.

### Ireland has established waiting time targets to improve access to cancer care

The NCCP has significantly advanced cancer services in Ireland, including development of rapid access clinics for early diagnosis (see Section 4). These clinics prioritise access based on clinical need rather than ability to pay, ensuring timely care for all patients. For patients with urgent breast cancer symptoms, the target is an appointment within 2 weeks for 95% of patients, while non-urgent cases have a 12-week target. Further, 95% of suspected lung cancer patients should be seen within 10 working days, and 90% of suspected prostate cancer cases within 20 working days.

### 5.2 Quality

### Five-year survival estimates have increased in recent decades

The net survival rate for all invasive cancers, excluding non-melanoma skin cancer, has been increasing steadily in Ireland. The five-year net survival rate rose from 57% among those diagnosed between 2004 and 2008 to 65% among those diagnosed between 2014 and 2018 (Figure 14). Historically, men had lower net survival estimates compared to women, but this trend has reversed recently.



Figure 14. Five-year survival estimates in Ireland vary by cancer type

Source: National Cancer Registry. https://www.ncri.ie/content/survival-statistics-new. 2024.

Survival rates have improved for all cancer types except bladder cancer in recent decades, but they vary significantly by site. Among the most common cancers, prostate cancer has the highest survival rate, while lung cancer has the lowest. However, lung and pancreatic cancer (which also has low survival rates) experienced the most significant improvements.

### Survival rates differ based on socio-economic status

Cancer patients residing in the most deprived regions exhibited lower five-year survival rates compared to those in the least deprived areas. Individuals in the most deprived areas faced, on average, a 43% higher risk of mortality within five years following cancer diagnosis compared to their counterparts in the least deprived regions, or a 28% higher risk after accounting for cancer type variations. Additionally, numerous specific cancer types displayed inferior survival outcomes in the most deprived areas (NCRI, 2023).

### The rate of potential years of life lost to cancer in Ireland is lower than the EU average

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. In Ireland, the overall PYLL rate due to cancer across all sites in 2020 was 1 165 years per 100 000 population, which is 14% lower than the EU average. The PYLL rate has decreased by 18% since 2012 – a slightly smaller reduction than the 19% across the EU.

In 2020, the cancer responsible for the most PYLL among women was breast cancer, at 269 years per 100 000 women, which showed a decrease of 19% from 2012. Liver cancer registered an increase (22%) in PYLL between 2012 and 2021 (Figure 15).

### Figure 15. Potential years of life lost decreased for most cancer types, but rates of improvement varied

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 2012-22 (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.

### Ireland has implemented various initiatives to improve cancer care quality

To achieve the best outcome for patients, the NCCP ensures that designated cancer centres for individual tumour types have adequate case volumes, expertise and concentration of specialist skills by utilising cancer care networks and multidisciplinary teams. Ireland has also improved inter-specialty training among healthcare professionals to increase the availability of high-quality multidisciplinary cancer care.

The NCRI highlights the impact of the NCCP initiative - which began in 2007 - to centralise cancer services (particularly surgery) in specialised centres in Dublin and other cities. This centralisation has led to improved survival rates for most cancer types - including breast, pancreatic, rectal, stomach and lung cancers. All breast cancer surgery and most rectal and prostate surgery now occurs in these designated centres, with further consolidation planned. The concentration of care is associated with better outcomes, lower perioperative morbidity and higher quality of end-of-life care. A recent study showed that Irish rectal cancer patients treated at cancer centres had significantly higher five-year survival rates (81%) than those treated elsewhere (76%) (O'Connell et al., 2022). Centralisation has also greatly improved paediatric cancer outcomes - particularly for central nervous system tumours (Gatta et al., 2019). In Ireland, all children

diagnosed with cancer are referred to Children's Health Ireland for centralised treatment planning (see Section 6).

The NCCP collects a suite of KPIs for each cancer centre to monitor, in near real-time, the delivery and organisation of national cancer services according to international best practices. This ensures continuous evidence that each cancer centre meets the required standards. A core set of KPIs is published regularly as part of the HSE's Performance Assurance Report. These include metrics such as 95% of new patients attending rapid access clinics for breast (urgent), lung and prostate cancers within the recommended timeframe, and 90% of patients receiving radiotherapy treatment within 15 working days. In 2023, the NCCP began developing additional quality indicators to support the monitoring of cancer services for adolescents and young adults, and for gynaecological cancer services.

The National Cancer Strategy recommends that the NCCP develops targeted cancer patient experience surveys to cover treatment and survivorship, aligning with Health Information and Quality Authority's (HIQA) standard approach on assessing patient-reported inpatient care experiences. The National Inpatient Experience Survey, conducted annually over a month, asks patients – including cancer patients – about their recent hospital experiences. This initiative is a partnership between HIQA, the HSE and the Department of Health. For 2022-24, cancer treatment and survivorship were included in the National Inpatient Experience Survey. In 2024, the NCCP was working to support HIQA to develop a specific Cancer Patient Experience Survey tool and recruiting cancer experts for the National Care Experience Programme team to aid in its development, implementation and analysis.

In 2023, an NCCP-led multidisciplinary advisory group launched the Hereditary Cancer Model of Care, which serves as a blueprint to improve access, quality and governance of hereditary cancer genetics services in Ireland.

### 5.3 Costs and value for money

### Expenditure on cancer medications has been experiencing a notable rise

The HSE is responsible for decisions regarding reimbursement of new drug technologies in Ireland. The National Centre for Pharmacoeconomics (NCPE) advises the HSE on the value for money of new medicines to ensure effective, safe and cost-effective treatments. The NCPE evaluates new active substances, new indications for existing drugs and high-cost drugs already reimbursed. Their two-step process includes a rapid review for initial assessment and a full health technology assessment (HTA) for more detailed analysis. For oncology drugs, a report is also sent to the NCCP. Recommendations from the NCPE are based on efficacy, cost – effectiveness and budget impact, in compliance with the Health (Pricing and Supply of Medical Goods) Act 2013, which mandates that the HSE considers these factors before making reimbursement decisions. The HSE also considers additional factors such

as public health needs and resource availability when making reimbursement decisions. The NCPE involves patient organisations and clinicians in the assessment process to ensure comprehensive evaluation and informed decision making. Ireland is a member of the Beneluxa Initiative, a regional collaboration that conducts joint evaluations of the effectiveness of selected cancer medicines to accelerate public reimbursement decisions on costly new medicines.

In 2012, cancer medicines accounted for 19% of HTA submissions to the NCPE, rising to 43% in 2022. A higher proportion of cancer medicine submissions (69%) are recommended for a full HTA compared to non-cancer or orphan drugs (17%). In 2024, 63% of medicines expected for reimbursement applications were cancer treatments. Between 2012 and 2020, spending on cancer medications under the High Tech Drug Arrangement Scheme surged, growing by 15% annually. Hospital oncology medicine spending tripled from 2018 to 2022, reaching EUR 151 million (Walsh, Trela-Larsen & Adams, 2024).

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

According to OECD SPHeP modelling work, between 2023 and 2050, total health expenditure is estimated to be 10.5% higher in Ireland due to the burden of cancer. This equates to an average of EUR PPP 382 per person per year (Figure 16). This figure is much higher than the EU19 average (EUR 242).

Overall, the per capita health expenditure on cancer care is expected to grow by 80% in Ireland between 2023 and 2050, compared to 59% in the EU27.



### Figure 16. The burden of cancer on health spending is anticipated to be higher in Ireland than the EU 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.

Between 2023 and 2050 on average, it is expected that there will be a loss of 159 full-time equivalent workers (FTEs) per 100 000 people due to the need to reduce employment because of cancer – significantly lower than the EU average of 178 per 100 000. A loss of the equivalent of 88 FTEs per 100 000 people due to both absenteeism and presenteeism<sup>7</sup> is also expected – 9% higher than the EU average.

### 5.4 Well-being and quality of life

### Cancer is expected to reduce both life expectancy and quality of life in Ireland

According to OECD SPHeP modelling work, between 2023 and 2050, cancer is expected to reduce population life expectancy on average by 2.1 years in Ireland compared to a scenario without cancer. This number is higher than the EU average of 1.9 years (Figure 17). 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, Ireland is expected to have higher depression rates because of cancer, at an additional age-standardised rate of 13 cases per 100 000 per year – somewhat below the EU average of 17 cases per 100 000.

<sup>7</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.

### Figure 17. Ireland is projected to experience a bigger decline in life expectancy due to cancer compared to the EU average

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.

Key needs identified by the National Cancer Survivorship Needs Assessment launched by the NCCP in 2019 included readjusting to normal life and dealing with psychological issues, socio-economic concerns, and managing long-term consequences of cancer and its treatments. The assessment proposed several priority actions including standardising survivorship care nationally; targeting services to meet specific group needs and reduce inequalities; addressing the needs of childhood, adolescent and young adult (CAYA) cancer survivors; and monitoring and evaluating outcomes.

The NCCP Cancer Survivorship Stratified Self-Managed Follow-Up Framework, launched in 2023, aims to standardise post-treatment follow-up care nationally with a personalised approach for cancer patients.

#### Ireland has implemented various initiatives to improve the quality of life of cancer patients and survivors

The National Cancer Strategy's focus on quality of life has led to significant investment in psycho-oncology services. The Adult Psycho-Oncology Model of Care (published in 2020) and the CAYA Psycho-Oncology Model of Care (published in 2023) aim to enhance psychological well-being through early diagnosis and intervention.

The Adult Model seeks to promote psychological health; improve access to services; and foster collaboration between cancer centres, hospitals

and community care. Community cancer support centres have been established to provide ongoing psychosocial support in local communities, with the NCCP setting up multidisciplinary meetings and standard operating procedures to enhance service co-ordination. The centres run several survivorship programmes. The Cancer Thriving and Surviving Programme, a six-week initiative, helps individuals transition from active treatment to living well with cancer through self-management and well-being modules. The CLIMB® Programme supports children (aged 5-12) whose parents have cancer, using art and play therapy to help them cope. The LACES Workshop, for post-treatment cancer patients, offers information to improve quality of life and access to community support. In 2021, EUR 545 743 in grants was awarded to 24 cancer support centres and national organisations to enhance operational systems, expand services to help with cancer treatment side-effects of lymphoedema, and develop survivorship programmes, with participating centres involved in a quality of life impact monitoring study.

The CAYA Model aims to address the significant psychological impact of a cancer diagnosis on children and adolescents and their families. The primary goal is to ensure a comprehensive evaluation of psychological needs of paediatric cancer patients, leading to appropriate referrals across hospital, primary care and community settings. The secondary goal is to recognise and support the psychological impact on the families. Significant progress has been achieved in implementing the Framework for the Care and Support of Adolescents and Young Adults (AYA) in Ireland (2021-26), with the establishment of three new AYA-designated units and the introduction of a national multidisciplinary meeting focused on AYA cancer care.

#### Financial assistance for transportation is available to Irish patients facing financial difficulties

Travel2Care is a transportation assistance fund established by the NCCP and managed by the Irish Cancer Society to aid patients travelling to designated cancer centres, approved centres or children's hospitals in Ireland. The fund aims to alleviate the financial burden of travel expenses for individuals facing genuine financial difficulties in reaching their medical appointments. Eligibility criteria include permanent residency in Ireland; demonstrated financial need; travel distance exceeding 50 km to the designated medical facilities; and the purpose of travel being assessment, diagnosis, surgery or active treatment. In addition to Travel2Care, other options such as HSE-provided transport and volunteer driver initiatives are also available to assist patients with their travel needs.

### Insurance companies in Ireland have developed a code of practice on the right to be forgotten

In Ireland, the insurance industry has taken proactive steps by introducing a code of practice around the right to be forgotten to promote access to financial services for cancer survivors. According to this code, insurers are obligated to overlook past cancer diagnoses if treatment concluded more than seven years before the application, or more than five years if the applicant was under 18 at the time of treatment completion.

### Ireland has implemented numerous initiatives to enhance palliative care

Ireland's palliative care policies encompass various initiatives such as investment in training programmes, development of home and community-based services, and psychological support at the end of life. Generalist palliative care – particularly from primary care providers - plays a crucial role in meeting the needs of individuals with cancer. Specialist palliative care is delivered through community home care teams and hospices. In 2023, specialist palliative care consultations in community services served 14 227 patients, 62% of whom were cancer patients. In acute hospitals, 14 952 patients received specialist palliative care consultations, with 55% facing cancer diagnoses. Moreover, hospice beds for specialist palliative care inpatients accommodated

4 159 individuals, 79% of whom were diagnosed with cancer.

Access to palliative care is free of charge and based on need. The government has adopted a policy to fund all specialist palliative care in Ireland in full, ensuring equitable access as part of universal healthcare. In 2024, an additional EUR 18.7 million was allocated to voluntary service providers to cover all core specialist palliative care costs. While specialist palliative care remains a mix of state and voluntary provision, voluntary services are now fully state-funded for core services, and their staff are regarded as public servants.

The 2020 Programme for Government commits to updating the Palliative Care Policy for Adults to reflect advances in end-of-life care and international best practices. A new policy was expected to be published in 2024. The National Cancer Strategy also includes recommendations for enhancing palliative care, ensuring that oncology staff are trained to identify, assess and manage patients' palliative care needs. The HSE, in collaboration with the Irish Hospice Foundation and the All-Ireland Institute of Hospice and Palliative Care, is implementing the five-year Caru Nursing Home Programme to improve palliative, end-of-life and bereavement care in nursing homes through staff training and stronger links with specialist palliative care services. A similar initiative, Hospice Friendly Hospitals, aims to enhance end-of-life care in acute hospitals. Additionally, funding was secured to redevelop an e-learning programme for the HSE's palliative care needs assessment, ensuring that all clinical staff can assess and address patients' palliative care needs competently. Initiatives like the Aspire CAYA Palliative Care Fellowship and collaborations between the NCCP and the HSE Palliative Care Programme further strengthen palliative care services.

The HSE oversees the development of children's palliative care, ensuring access for all children with life-limiting conditions. Each region of Ireland has two clinical nurse co-ordinators for these children. The National Specialist Children's Palliative Care Team has also received increased medical and nursing resources to provide specialised services in Children's Health Ireland and remote support for regional services nationwide.

Quality control measures – including national KPIs and a minimum data set that requires health services including palliative care services to provide data on a monthly basis – are used to ensure service standards and timely access to care. Additionally, in February 2024, the government approved the phased development of a clinical management system for specialist palliative care. Phase 1, initiated in 2024, focuses on developing and implementing this system to enhance patient experience, ensure safer care, and improve the efficient management of staffing and resources within specialist palliative care. Ireland has also implemented an initiative that employs standardised clinical assessment tools to enhance practice in palliative care (Box 4).

Awareness initiatives such as Palliative Care Week and efforts by organisations like the Irish Hospice Foundation aim to promote understanding of palliative and end-of-life care.

#### Box 4. The Palliative Care Outcomes Collaboration is implemented throughout Ireland

The Palliative Care Outcomes Collaboration (PCOC) is an initiative that employs standardised clinical assessment tools to enhance practice and measure patient outcomes in palliative care. Central to the PCOC is a comprehensive framework and protocol for systematic clinical assessment and response. This relies on routine collection of clinical data at the point of care, capturing clinically significant information within palliative care settings.

Launched in Australia in 2005, the PCOC has been adopted by 19 specialist palliative care services in Ireland. Several services are already submitting data and receiving biannual benchmarked outcome reports. The PCOC framework incorporates quality improvement methodologies, iterative education, outcome reports and creation of communities of practice to integrate it into clinical practice. To support implementation of the PCOC within specialist palliative care services in Ireland, funding has been allocated for two full-time PCOC improvement facilitators and a 0.3 FTE programme manager.

## 6. Spotlight on paediatric cancer

According to ECIS, it is estimated that in Ireland 153 children and adolescents up to age 15 were diagnosed with cancer in 2022.

In 2022, Ireland had an estimated incidence rate of 15.5 per 100 000 children aged 0-14, higher than the EU27 average of 13.7 (Figure 18). In Ireland, incidence rates among boys are lower than among girls, which is the opposite of the EU pattern. The most common cancer types are leukaemia with 5.3 cases per 100 000 children (34%), brain and central nervous system cancers with 2.9 cases per 100 000 (19%), lymphoma with 2 cases per 100 000 (13%), and kidney cancer, with 0.8 cases per 100 000 (5%). In contrast to the higher cancer incidence rates, Eurostat data shows that Ireland had a lower mortality rate, with a 3-year average mortality rate in 2021 at 1.6 per 100 000 children, compared to 2.1 in the EU.

A 2023 report by the NCRI indicated that the five-year observed survival rate for all cancers combined in children (aged 0-15 years) has improved from 82% for those diagnosed between 2002-10 to 87% for those diagnosed between 2011-19.



#### Figure 18: Cancer incidence rates among children in Ireland are slightly higher than the EU average



Age-standardised incidence rate per 100 000 population (aged 0-14), estimates, 2022

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. Source: European Cancer Information System (ECIS) for cancer incidence. From https://ecis.jrc.ec.europa.eu, accessed on 10 March 2024. © European Union, 2024.

The National Children's Cancer Service – at Children's Health Ireland in Crumlin – provides a national service for all children and young people diagnosed with cancer between 0 – 16 years. This service is provided in collaboration with 16 shared care units across Ireland. The Children's Health Ireland in Crumlin is also the Innovative Therapies for Children and Adolescents with Cancer (ITCC) Centre in the country. The ITCC Consortium is a network that guarantees access to innovative therapies for children and young people with relapsed or refractory cancer.

According to the SIOPE OCEAN Project on paediatric cancer care, ten out of the 13 available infrastructure and treatment modalities –such as chemotherapy, surgery for solid tumours, stem cell transplants, photon radiation therapy and palliative care –are accessible to paediatric cancer patients in Ireland (SIOPE, 2024). Between 2010 and 2022, 436 clinical trials involving children and young people were conducted in Europe, with only 27 of these trials (6.2%) taking place in Ireland. Of those trials 26% (7 trials) were early phase and 59% (16 trials) late phase, with the majority of them focusing on novel therapies and having an international, multicentre design. In 2018, 84% of the 68 medicines identified as essential for treating cancer in patients aged 0 to 18 were available in Bulgaria, compared to 76% in the EU on average (Vassal et al., 2021).

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#### **Country abbreviations**

Austria
Belgium
Bulgaria
Croatia
Cyprus
Czechia

AT Denmark ΒE Estonia BG Finland HR France CY Germany CZ Greece

DK | Hungary EE | Iceland FL Ireland FR Italy DE Latvia EL Lithuania Н

HU	Luxembourg	LU	Romania	RO
IS	Malta	MT	Slovak Republic	SK
ΙE	Netherlands	NL	Slovenia	SI
IT	Norway	NO	Spain	ES
LV	Poland	PL	Sweden	SE
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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