





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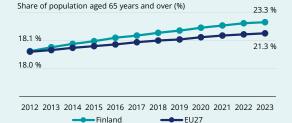
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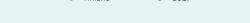
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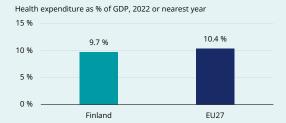
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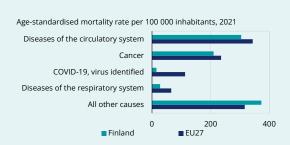
#### Key health system and demographic statistics





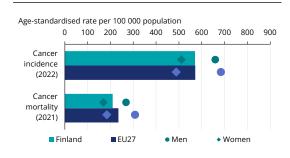


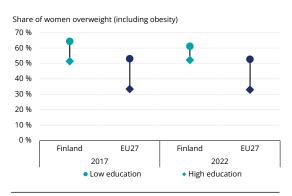


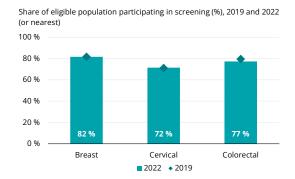


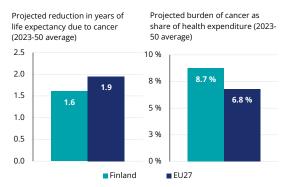
Source: Eurostat Database.

## 1. Highlights









#### Cancer in Finland

Estimated cancer incidence in Finland is near the EU average. The most common new cases among men are prostate, colorectal and lung cancers. Among women, breast, colorectal and lung cancers are most common. Following a fast downward trend, cancer mortality rates are among the lowest in the EU, although rates are higher among people with lower socio-economic status.

#### Risk factors and prevention policies

Prevalence of overweight in Finland is the third highest in the EU, despite high levels of physical activity, although socio-economic gaps in overweight are relatively low. Over recent decades, smoking rates in Finland have decreased significantly, reaching one of the lowest rates in the EU. However, smoking rates are relatively high among adolescents and people with lower socio-economic status, suggesting a need for targeted policies. Alcohol consumption in Finland is higher than neighbouring countries but well below the EU average. The country is performing well in terms of human papillomavirus vaccination.

#### **Early detection**

Finland has long-established national screening programmes for breast and cervical cancers, and implemented a nationwide population-based colorectal cancer screening programme in 2022. In 2021, participation rates in the breast and cervical screening programmes and the colorectal cancer screening pilot were among the highest in the EU. However, inequalities exist, and rates are lower among people with lower socio-economic status and people speaking a non-domestic language as their mother tongue.

#### Cancer care performance

In Finland, barriers to cancer care may exist among people with lower incomes because of the upfront payment required for many cancer care services, even though financial support is available. While there is a shortage of physicians, availability of other resources such as nurses and medical equipment is relatively good. Quality of cancer care has improved over time, as seen in increasing cancer survival estimates. High-quality cancer care is assured through accredited university hospitals, collaboration, and national policy and guideline implementation via national and regional networks. Cancer is expected to take a larger burden as a share of healthcare spending than in the EU on average.

### 2. Cancer in Finland

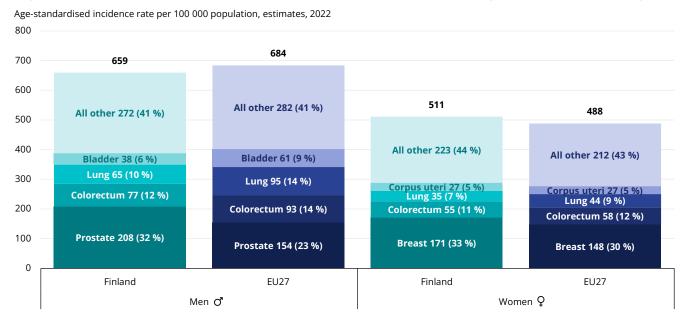
#### Cancer incidence in Finland is about the EU average

According to the European Cancer Information System (ECIS) of the Joint Research Centre based on incidence trends from pre-pandemic years, almost 35 300 new cancer cases were expected in Finland in 2022. These figures are slightly lower than the 37 268 new cancer cases (19 646 among men and 17 622 among women) recorded in the Finnish Cancer Registry. Cancer incidence is slightly lower

than the EU among Finnish men but slightly higher among Finnish women (Figure 1).

In Finland, the most common new cancer cases among men are prostate, colorectal and lung1 cancers. Prostate cancer incidence is much higher than the EU average, while lung and colorectal cancer incidence are lower. Among women, breast cancer has the highest incidence, followed by colorectal and lung cancers. The incidence rate is higher than the EU average for breast cancer, but rates are lower for colorectal and lung cancers.

Figure 1. Incidence rates for breast and prostate cancers in Finland are higher than the EU averages



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.

#### In Finland, cancer incidence is increasing for women but has remained stable for men over the past decade

According to the Finnish Cancer Registry, age-standardised cancer incidence rates for women have followed an upward trend in recent years, with an annual increase of about 1 % between 2007 and 2019. For men, incidence rates were relatively stable between 2004 and 2019, with an annual decrease of 0.2 %. In 2020, incidence rates decreased for both men and women, and 1600

fewer new cancer cases were diagnosed than would have been expected without the COVID-19 pandemic. In 2021, there were 900 fewer cancer cases than estimated based on past incidence trends and in 2022, there were 1 000 fewer than estimated because of the pandemic (Seppä et al., 2023; Pitkäniemi et al., 2024).

Among women, incidence of breast cancer has put upward pressure on overall cancer incidence rates over the past few decades, with about one in eight women expected to develop breast cancer in their

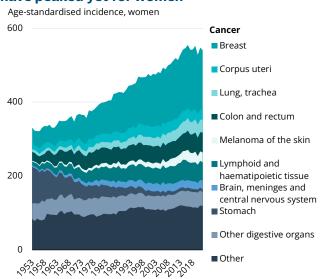
Lung cancer also refers to trachea and bronchus cancers.

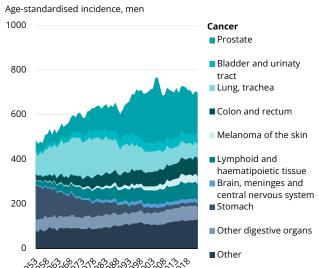
lifetime. A review from the Finnish Cancer Institute found that between 2012 and 2021, the average risk of developing breast cancer among women increased by 0.6 % a year in Finland. Among men, the incidence rate for prostate cancer increased in the 1990s but peaked in 2004, and incidence rates for lung cancer have decreased since the 1970s, leading to a downward trend in new cancer cases

in recent years (Figure 2). Among both women and men, the incidence rate for stomach cancer has decreased significantly in recent decades (Seppä et al., 2023).

Looking forward, ECIS estimates that new cancer cases will increase by 16 % in Finland between 2022 and 2040

Figure 2. Lung cancer incidence has decreased among men since the late 1970s but does not seem to have peaked yet for women





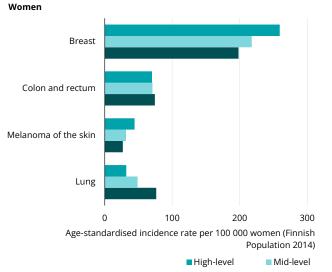
Source: Pitkäniemi et al. (2024).

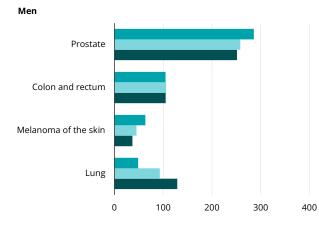
#### In Finland, lung cancer incidence is higher among people with lower education levels

Overall cancer incidence in Finland is lower among people with higher than lower education levels. The gap is large for lung cancer, where the rate is more than twice as high among people with lower than higher education levels among both women

and men (Figure 3). This reflects long-standing high smoking rates among people with low education (see Section 3). In contrast, incidence rates are higher among people with higher than lower education levels for breast and prostate cancers (Seppä et al., 2023).

Figure 3. Incidence of breast and prostate cancer and skin melanoma is higher among people with higher education levels





Age-standardised incidence rate per 100 000 men (Finnish Population

■ Primary education or unknown

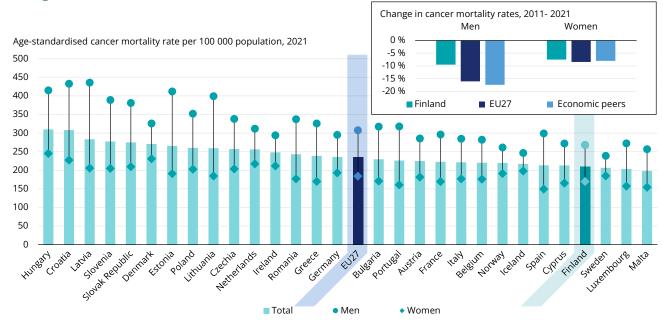
Source: Pitkäniemi et al. (2024).

Cancer incidence varies across Finnish regions; southern regions have higher rates than northern regions among both men and women. Finland has 21 well-being services counties, plus the city of Helsinki and the Åland islands; these are responsible for organising publicly financed primary and secondary care services. According to the Finnish Cancer Registry, in 2022, the incidence rate (adjusted for the Finnish population in 2014) was 738 per 100 000 women and 824 per 100 000 men in the Åland islands, which is over 60 % higher than the lowest rate among women (in South Savo county) and almost 30 % higher than the lowest rate among men (in North Savo county).

#### Following substantial downward trends over past decades, the cancer mortality rate in Finland is among the lowest in the EU

In 2021, the age-standardised cancer mortality rate in Finland was the fourth lowest in EU+2 countries,2 at 210 per 100 000 people, compared to the EU average of 235 per 100 000. Among both men and women, mortality rates in Finland (268 per 100 000 men and 169 per 100 000 women) were lower than the EU averages (308 per 100 000 men and 184 per 100 000 women) and averages among the country's economic peers (Figure 4).3 Compared to its economic peers, the cancer mortality rate for men in Finland decreased more slowly, while the rate for women decreased at the same rate. In Finland, the mortality rate was almost 60 % higher among men than among women, similar to patterns seen in the EU on average.

Figure 4. The cancer mortality rate in Finland was the fifth lowest among men and the sixth lowest among women across the EU



Notes: Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for FI are CY, CZ, ES, FR, IT, LT, MT and SI. Source: Eurostat Database.

National data from the 1953 to 2022 shows that age-standardised cancer mortality rates have decreased steadily for women over the last sixty years, and rates for men have decreased since the 1980s. Over time, stomach cancer mortality rates have decreased substantially, contributing to downward trends in overall cancer mortality rates (Pitkäniemi et al., 2024).

#### Avoidable cancer mortality has generally decreased in Finland over the past decade

Between 2011 and 2021, avoidable mortality<sup>4</sup> decreased among women for breast (decreased by 11 %), colorectal (decreased by 16 %) and lung cancers (decreased only 2 %), and decreased 24 % among men for lung cancer. However, unlike the downward trend in EU+2 countries, avoidable

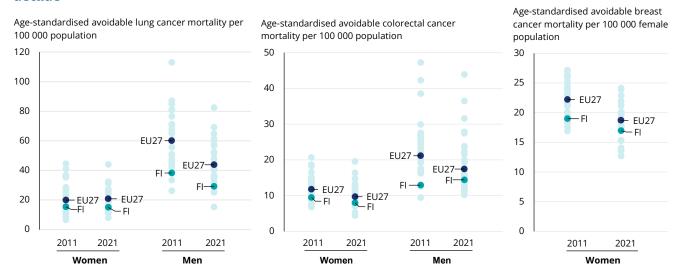
EU+2 countries include 27 EU Member States (EU27), plus Iceland and Norway.

Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for FI are CY, CZ, ES, FR, IT, LT, MT and SI.

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.

mortality rates for colorectal cancer increased among Finnish men by 12% in 2021 compared to 2011 (Figure 5). This may be related to the late introduction of the nationwide population-based colorectal cancer screening programme compared to many EU+2 countries, and relatively low screening participation among men compared to women in Finland (see Section 4).

Figure 5. The avoidable mortality rate for colorectal cancer increased among Finnish men in the past decade



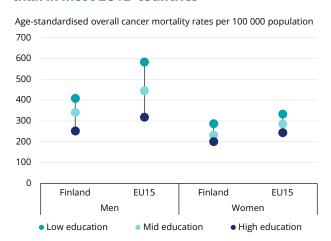
Note: Avoidable mortality figures relate to deaths of people aged under 75. Source: Eurostat Database.

#### Cancer mortality rates are high among people with lower education levels

As in most other EU+2 countries, cancer mortality rates are higher among people with lower education than higher education levels in Finland (Figure 6). The education gap among Finnish men stands at 62 %, lower than the EU average education gap among men (84 %). Among Finnish women the gap is bigger (43 %) than the EU average (37 %). Existing inequalities in mortality rates highlight the importance of targeted approaches to reducing cancer risk factors and promoting early detection among people with lower socio-economic status (see Sections 3 and 4), and to supporting access to high-quality cancer care throughout patient pathways (see Section 5.1).



#### Figure 6. The gap in mortality rates among men by educational attainment is smaller in Finland than in most EU+2 countries



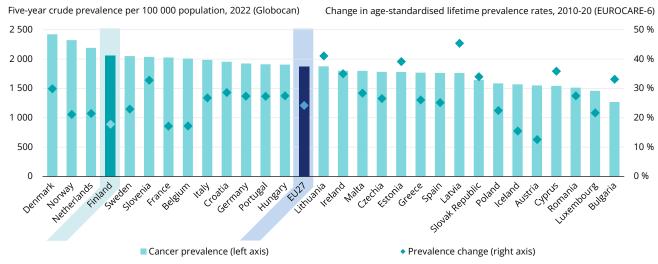
Notes: Data come from the EU-Canlneq study and refer to 2015-19.. EU15 refers to unweighted average of 14 EU countries and Norway.

Source: European Commission/IARC/Erasmus MC (2024), Mapping Socio-economic Inequalities in Cancer Mortality across European Countries. ECIR Inequalities factsheet.

#### The burden of cancer is high in Finland due to high cancer prevalence

Cancer incidence in Finland is around the EU average, cancer mortality is low, and life expectancy is longer than the EU average; as a result, five-year cancer prevalence⁵ is the fourth highest across the EU, putting a high burden on the Finnish health system. Cancers with the highest prevalence by far are breast cancer among women and prostate cancer among men, followed by colorectal cancer (Pitkäniemi et al., 2024). Between 2010 and 2020, cancer prevalence increased by 18 % in Finland, adding to the disease burden, but the pace was the fifth lowest across EU+2 countries, and lower than the EU average of 24 % (Figure 7).

Figure 7. Prevalence of cancer in Finland is the fourth highest across EU+2 countries



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

#### To tackle the high burden of cancer, Finland has developed and implemented national cancer plans

In Finland, Development of Cancer Treatment in 2010-20 was published in 2010 and Development of Cancer Prevention, Early Detection and Rehabilitation for 2014-25 in 2014. Both are considered to constitute national cancer plans (Box 1). These plans are not implemented in their entirety systematically, and each stakeholder - including patient organisations, healthcare

professionals and providers, and decision-makers in municipalities and national levels – follows the recommendations laid out at their discretion. In 2021, for example, the Cancer Society of Finland (comprising regional cancer societies; national patient organisations; the Cancer Foundation, which supports cancer prevention and research; and the Finnish Cancer Registry) introduced its strategy for 2021-25, focusing on cancer prevention, quality of cancer care and support for people with cancer and their loved ones.

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.

#### Box 1. Finland's National Cancer Plans, aligned with EBCP's pillars, are being implemented

Development of Cancer Treatment in 2010-20 and Development of Cancer Prevention, Early Detection and Rehabilitation for 2014-25 are closely aligned with the focus areas of the EBCP (Table 1).

More precisely, the earlier plan focuses on diagnosis and treatment of cancer care through centralised cancer care while ensuring access to high quality care regardless of socio-economic status and place of residents among patients. It includes strengthening of primary care and palliative care for seamless care delivery, addressing shortages of specialised nurses, oncologists and radiologists and developing comprehensive monitoring of cancer care at the national level and seamless support throughout patient pathway through improved information sharing.

The second plan aims to: 1) reduce risk factors associated with cancer, such as tobacco use, alcohol consumption, unhealthy nutrition, physical inactivity through prevention and health promotion; 2) strengthen the existing cancer screening programmes and improve early detection of cancers by building public awareness and increasing counselling services, enhancing capacity for early detection and securing adequate resources particularly in primary care; 3) provide comprehensive and tailored rehabilitation assistance to support patients and those around them at all stages of cancer care pathway; 4) train healthcare professionals in primary, rehabilitative and palliative care; 5) undertake multidisciplinary research to promote healthy lifestyles, evaluate cancer screening programmes, and conduct quantitative and qualitative research on rehabilitative care. Cancer inequalities and paediatric cancer are not priority areas of the Finnish National Cancer Plans (NCPs). In addition, preparation of a National Cancer Strategy covering the entire pathway from primary prevention to quality of life is underway, with publication planned for 2025.

Table 1. Finland's NCPs are 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 the NCPs includes a specific section on the topic; orange

# 3. Risk factors and prevention policies

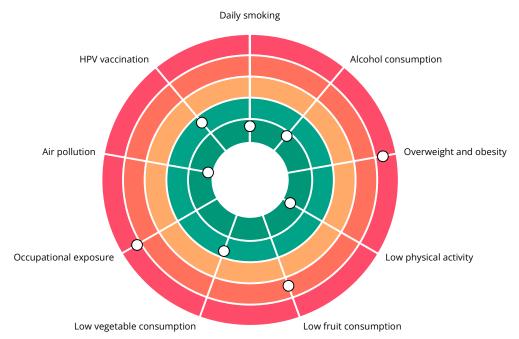
#### Finland invests in prevention, but more could be done to improve healthy lifestyles

In Finland, 8.3% of health expenditure was spent on preventive care in 2021 – higher than the EU average of 6.1% and the fifth-highest across EU countries<sup>6</sup>. Municipalities are responsible for promoting people's health and well-being, and they set objectives and implement measures. In Finland, the smoking rate and alcohol consumption are low, while the share of the population doing sufficient physical activity is high, and air quality is the best  $(4.9 \mu g/m^3 \text{ of } PM_{2.5})$  across EU+2 countries. On the other hand, overweight and obesity is a significant and growing public health concern. Occupational exposure to chemical is also high: almost one in three people reported that they are frequently exposed to chemical products or substances at work (Figure 8).

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

Air pollution is measured as particulate matter with a diameter less than 2.5 micrometres (PM<sub>2.5</sub>).

Figure 8. In Finland, prevalence of overweight and occupational exposure are among the highest in the EU



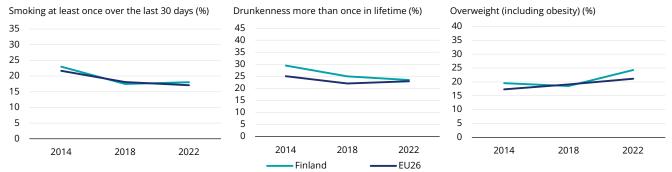
Notes: The closer the dot is to the centre, the better the country performs compared to other EU countries. No country is in the white "target area" as there is room for progress in all countries in all areas.

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).

#### Prevalence of overweight among adults in Finland is the second highest in the EU, despite high levels of physical activity

In 2022, Finland had the second highest share of adults reporting being overweight or obese (60 %) across the EU. Prevalence is also high among adolescents: in 2022, almost one in four 15-year-olds was overweight (24 %), which was the sixth highest rate in the EU. This contrasts with smoking and repeated drunkenness, where rates among 15-year-olds in Finland in 2022 were more in line with EU averages (Figure 9). While overweight is more common among males than among females in Finland, as in other EU+2 countries, the gender difference in the prevalence of overweight is comparatively very small.

Figure 9. Almost one in four adolescents in Finland is overweight



Notes: 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.

Overweight and obesity are common issues among adults across all education levels, but – as in most other countries across the EU – prevalence is lower among Finnish women with higher (52 % in 2022) than with lower (61 %) education levels, although

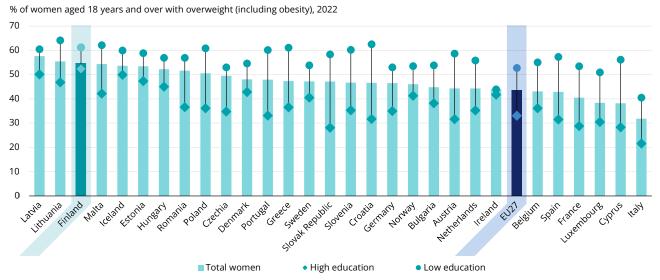
the gap narrowed from 13 percentage points in 2017 to 9 percentage points in 2022 (Figure 10).

Overweight is also a concern among children, but aligning with the overall trend across the EU, it is more common among children with lower socio-economic background in Finland. In 2022, 29 % of children aged 11-15 in the least affluent families based on the Family Affluence Scale, and 21 % of children in most affluent families were overweight.

Poor nutrition contributes to overweight and obesity. In 2022, about half of adults consumed fruits less than once daily, and that figure stood at almost four in ten for vegetable consumption, rates that are worse than the EU average. While daily fruit and vegetable consumption among adolescents in Finland increased faster than in the EU between 2014 and 2022, rates remain lower than the EU average.

In contrast, trends in physical activity are encouraging. In 2022, almost two-thirds (64 %) of people in Finland aged over 15 engaged in physical activity at least three times per week - over double the EU average (31 %). Similarly, among adolescents, while only 21 % engaged in daily 60 minutes of physical activity, this figure has increased almost four percentage points since 2014 and is substantially higher than the EU average

Figure 10. Prevalence of overweight among adults in Finland is high, regardless of education levels



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

#### Finland is undertaking a range of policies to tackle overweight and obesity

To promote physical activity – which, in turn, contributes to lowering prevalence of overweight -Finland has implemented various measures. These include the Fit for Life Project, a joint effort of municipal sports and health services, workplaces, occupational health, sports clubs, various associations and public health organisations, which encourages people aged over 40 to integrate physical activity into their daily lives. Finland also conducts information campaigns on public or active transport, and supports active transport to school and work. These efforts are translated into the second lowest prevalence of inactivity (defined as the population spending less than 150 minutes on health-enhancing aerobic physical activity in a week) across the EU.

Finland has also implemented a broad range of nationwide policies, reflecting its strong commitment to tackling overweight. It has

implemented an excise tax on sugar-sweetened beverages, menu labelling in restaurants, front-of-pack labelling of food products (using the heart symbol for positive assessments, and describing the amount of fat and sodium to signal negative health impacts), and voluntary limits on sugars for food producers. For school children, Finland regulates the type of food and drink available in schools, restricting sugar-sweetened beverages and providing free school meals for primary and secondary school children. However, restrictions on direct advertising of unhealthy food and beverages to young people are self-regulated. In healthcare, nutrition advice and counselling are available. Finland also implemented a national programme between 2012 and 2018 to tackle obesity, including public awareness campaigns and collaboration among different health actors at the national and local levels. These measures have not yet led to a reversal of the increasing prevalence of overweight and obesity and additional, efficient public health policies are needed.

#### Smoking rates have decreased significantly in recent decades, but targeted policies are needed for adolescents and people with lower socio-economic status

In Finland, 11 % of adults smoked cigarettes daily in 2022, which was among the lowest rates across the EU. Nonetheless, smoking remains the leading risk factor for cancer in Finland. Furthermore, prevalence of smoking is not low among children and adolescents in the country. Among 15-year-olds, 18 % had smoked at least once over the last 30 days in 2022, which was slightly higher than the EU average of 17 % (see Figure 9).

Over the past decade, Finland has implemented various tobacco policies to reduce smoking, including high taxation on tobacco products, bans on tobacco advertising across all mediums - including sponsorship and point of sale or product displays, standardised packaging and labelling of tobacco products, smoking cessation programmes and public awareness campaigns. Along with Estonia and Denmark, Finland has the highest taxes as a share of the average retail price, at over 85 %. The ongoing Tobacco-free Finland 2030 Project aims to decrease the share of tobacco smokers or nicotine product users to below 5 % of the adult population by 2030. Finland has also strictly regulated use of e-cigarettes and of flavours in liquids for e-cigarettes to avoid children becoming dependent on nicotine products. To avert interest among young people, standardised packaging is also used for e-cigarettes and e-liquids. However, regular vaping product users are increasing in recent years, reaching 2.4% of the population aged 15 and over in 2022.

Alongside a large reduction in prevalence of daily smoking in Finland, the population is well informed about the risks. Four out of five daily smokers in the country are worried about the negative health effects; over half wish to quit; and about a third have tried to quit smoking (ASH Finland, 2024). However, over recent decades, smoking rates have been high among people with lower education levels, leading to gaps in lung cancer incidence by education (see Section 2). In 2022, the share of daily smokers was more than double among adults with lower (14 %) than higher (6 %) education levels (Ruokolainen et al., 2019). Among adolescents, while 2 % of students in general secondary schools smoked daily, prevalence was 18 % among students at vocational institutions in 2021 according to the Finnish Institute for Health and Welfare. These figures suggest that more targeted approaches are needed to support adults and adolescents with lower socio-economic status not to start smoking and to quit.

#### Alcohol consumption in Finland is lower than the EU average but higher than in neighbouring countries

In 2022, on average, people in Finland consumed 7.6 litres of pure alcohol, which is lower than the EU27 average (10 litres per person) and lower than the 9.3 litres per capita in 2012. However, this is still higher than its neighbouring country, Norway, where consumption was 6.6 litres in 2022. Although the rate has decreased over time, a slightly higher share of 15-year-olds in Finland (24%) had experienced repeated drunkenness in their life than the EU average (23%) in Sweden (18%) and Norway (14%).

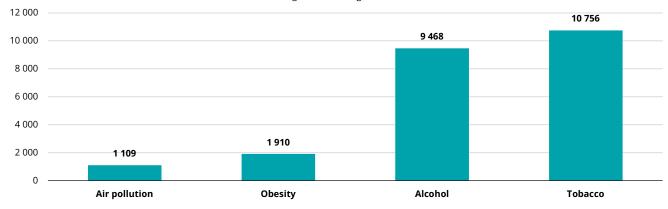
Finland has implemented alcohol taxation, regulates alcohol advertising, and limits opening hours for sales of alcohol in bars and restaurants. Like Sweden, Finland also has a retail monopoly system that is government owned, controlling when, where and at what price alcohol beverages is sold. This system effectively regulates sales of strong alcohol through lower retail outlet density and shorter opening hours. However, recent reforms eased alcohol sales and advertisement restrictions. Whereas before alcohol by volume of 5.5 % had to be sold via the state-owned monopoly, an amendment to Finland's Alcohol Act that came into force in June 2024 relaxed that threshold to 8.0%. A 2023 study estimated that without the state monopoly, there would be a 9 % increase in alcohol consumption, and significant increases in alcohol-related economic costs and mortality (Sherk et al., 2023).

#### Through improved lifestyles, Finland could further reduce new cases of cancers

According to OECD Strategic Public Health Planning (SPHeP) modelling work, the biggest reduction of about 10 756 cancer cases between 2030-50, would occur in Finland if tobacco targets were met (Figure 11). If alcohol targets were met, then 9 468 cancer cases could be avoided during this period. Meeting air pollution targets could potentially reduce cancer cases by 1 109, while meeting obesity targets would help avoid 1 910 cancer cases.

Figure 11. Meeting tobacco targets could help avert over 10 000 cancer cases between 2023-50 in **Finland** 

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



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 binge drinking between 2010 and 2030. For air pollution, it is an annual average  $PM_{2.5}$  level capped at 10  $\mu$ g/m³ by 2030 and at 5  $\mu$ g/m³ by 2050. On 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, OECD Health Policy Studies, OECD Publishing, Paris, DOI: https://doi.org/10.1787/85e7c3ba-en.

#### The human papillomavirus vaccination rate is low, particularly among children with foreign-born parents

Finland launched a national HPV vaccination programme for 12-year-old girls in 2013. It was expanded to boys in 2020. Two doses of HPV vaccination are provided to all 10- to 12-year-olds free of charge in school health services, with the goal of reducing cervical cancer incidence. In 2022, as a catch-up, free HPV vaccination was also provided to children aged 13-15 who were not previously vaccinated. In 2023, 76 % of 15-year-old girls in Finland had received the last dose of HPV vaccine - much higher rates than the EU average of 64 % – while this figure stood at 65 % of 15-year-old boys in Finland. However, despite availability of information in nine languages, HPV vaccination rates are low among children with parents speaking a non-domestic language as their mother tongue (Hussein et al., 2024), highlighting the need to improve communication strategies for immigrants.

# 4. Early detection

#### Finland has long-established national screening programmes for breast and cervical cancers and a newly introduced colorectal cancer screening programme

Breast cancer screening has been in place in Finland since 1987, and women aged 50-69 are invited to have a mammogram every two years for free.

The cervical cancer screening programme started in 1963, and women aged 30-65 are invited to attend free screening every five years. Some well-being services counties also invite women aged 25 and/or 65. In Finland, a pap smear test is recommended as the primary test for women aged 25, and HPV tests for women aged 30 and over. Women with mild cellular changes or HPV-positive results are invited to screening every 12-24 months.

The colorectal cancer screening programme was rolled out nationally in 2022. Prior to this, a pilot screening programme was conducted from 2019, during which personal invitations were sent with a test kit to eligible men and women aged 60-66 in volunteer municipalities (with the target age expanded to age 68 in 2021). From 2022, an invitation to free colorectal cancer screening with a sampling kit for a faecal immunochemical test and a paid return envelope is sent to the target population every two years. In 2024, the target

population was those aged 60-70, and this will be expanded gradually to people aged 56-74 by 2031. People who test positive will be informed by letter and referred for further examination. The screening algorithm recommended by the national expert group entails that if the finding at follow-up (primarily colonoscopy), is negative, the individual is invited to screening six years later; if colorectal cancer is treated and followed up according to the standard, the next invitation to screening is to be sent 10 years later.

#### In Finland, well-being services counties are responsible for organising all cancer screening

Following the reform in 2023, 21 well-being services counties and the city of Helsinki became responsible for organising health, social and emergency services, including cancer screening. In addition, the region of Åland is responsible for organised screening in its area. Prior to the reform, municipalities - the local administrative authorities - organised cancer screening, which was provided by either the municipality or a private provider contracted by the municipality. Nowadays, well-being services counties send invitation letters for breast and cervical cancer screening, including, in certain areas, a pre-booked appointment time and location (which can be changed). For colorectal cancer screening, invitations are sent alongside a sampling kit.

For breast cancer screening, well-being services counties provide mammography and confirmatory

examinations if needed. Screening may also be provided in mobile mammography units. Finland is exploring opportunities to use artificial intelligence (AI) in breast cancer screening. This could address the shortage of healthcare professionals by supporting radiologists and reducing their workload and healthcare costs.

For cervical cancer, screening is performed either at health centres or at a screening laboratory. For colorectal screening, participants send their sample directly to the laboratory for testing.

Some well-being services counties may organise additional screening for prostate, lung and/or skin cancers, but these have not met the criteria for systematic population-based screening in Finland. A study of prostate cancer screening (FinRSPC) undertaken at Tampere University, found that, compared to benefits, screening could lead to more harms - such as false-positive cases and overdiagnosis. Lung cancer screening may also lead to many false-positive cases.

#### Breast cancer screening rates in Finland are the second highest in the EU, but inequalities exist

Although breast cancer screening participation rates in Finland have been declining gradually over recent decades, they remain quite high. In 2022, the rate stood at 82 % (Figure 12), second in the EU only to Denmark (83 %). According to a review by the Finnish Cancer Registry, screening prevents about 100 breast cancer deaths annually in the country.

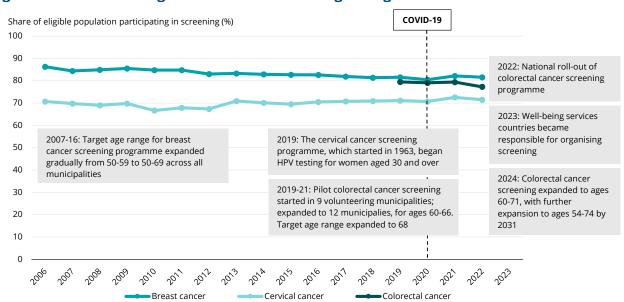


Figure 12. Cancer screening rates in Finland are among the highest in the EU

Notes: Data refer to mammography screening among women aged 50-69 invited during the reporting year, cervical cancer screening among women aged 30-60 invited during the reporting year and colorectal cancer screening among the population aged 60-66 invited during the reporting year. Programme data are shown for all cancer types and all years covered. Source: OECD Health Statistics 2024.

There are significant variation in rates between regions. According to the Finnish Cancer Registry, between 2017 and 2021, the lowest age-standardised participation rate was in Uusimaa – particularly in Helsinki (73 %). This is likely because opportunistic screening outside the screening programme is more frequent in the capital city. The highest participation rate was in the Åland islands (86 %), and eight well-being services counties achieved at least 85 % participation.

Rates also differ significantly by socio-economic status. The age-standardised participation rate in breast cancer screening was low among women not in employment (60 %) including students, unemployed women and pensioners, compared to the 87 % among employed women in 2020-21. It was also lower among non-domestic language speakers (63 %) than among women speaking Finnish, Swedish and Sami (82 %), and lower among women with lower (66 %) than higher (85 %) education levels.

To improve awareness of cancer screening programmes, online education guides, video messages and other screening information are made available in the public domain, many of which – along with screening invitations – are available in various languages. However, more targeted approaches seem to be needed to close gaps among population groups.

#### The cervical cancer screening rate in Finland is the fifth highest in the EU

In Finland, the cervical cancer screening participation rate was 72 % in 2022, which was the fifth highest in the EU after Sweden (79 %), Czechia and Slovenia (74 %), and Ireland (73 %). In Finland, around 60 % of precancers (along with just below 25 % of cervical cancers) are detected through the screening programme. This contributes to the low age-standardised cervical cancer incidence rate estimated in the country (6 new cases per 100 000 women), which was about half the EU average in 2022 and the low age-standardised mortality rate from cervical cancer (1.9 deaths per 100 000 women), also about half the EU average.

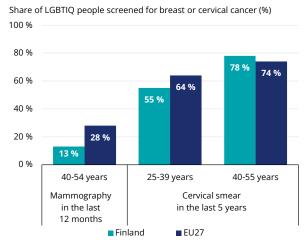
Participation rates for cervical cancer screening vary by population group. They are lower among women aged 25-30 (62 %) than among those aged 45-65 (75 %). As with breast cancer screening, the Åland islands had the highest age-standardised participation rate at 78 % in 2017-21, while the lowest rate was 61 % in North Savo well-being services county. Cervical cancer screening participation rates in Finland also show differences between domestic language speakers (73 %) and speakers of a non-domestic language as their mother tongue (57 %). A 2023 review by the Finnish Cancer Registry found that participation rates also vary by socio-economic background, with rates of 78 % among women with higher education levels and 69 % among women in employment, compared to 51 % among women with lower education levels and 52 % among unemployed women.

An increasing number of EU+2 countries distribute sampling kits as part of the cervical cancer screening programme to improve participation rates, but this is not done on a nationwide basis in Finland. Together with targeted communication strategies for people with lower socio-economic status and speakers of a non-domestic language as their mother tongue, an option of sending sampling kits could be explored to improve participation.

#### LGBTIQ people in Finland participate less in breast cancer screening than their counterparts in the EU

According to the EU LGBTIQ Survey III, 13 % of LGBTIQ cisgender females, trans women and intersex people aged 40-54 years reported having had a mammogram in the previous 12 months, much lower than the EU average of 28 % (Figure 13). For cervical cancer screening, 55 % of the relevant LGBTIQ population aged 25-39 in Finland reported having had a smear test in the previous 5 years (lower than the 64 % in the EU), while 78 % of those aged 40-55 in the country reported a smear test (higher than the 74% in the EU).

#### Figure 13: Among LGBTIQ people aged 25-39, participation rates in cervical cancer screening are lower in Finland 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).

#### In municipalities taking part in the pilot, colorectal cancer screening participation rates were very high

Prior to introducing a nationwide population-based programme in 2022, randomised colorectal cancer screening that invited about half of people aged 60-69 in Finland was undertaken during 2004-16, and a pilot programme was conducted in 2019-21. Evaluation of these pilots contributed to developing implementation plans for the national screening programme, such as sending two reminders to non-participants.

Data from the Finnish Cancer Registry on the newly rolled out colorectal cancer screening programme shows that about 77 % of the target population returned the test kits, with about 5 % testing positive on the stool results in 2022. Gender differences were observed, with participation rates of 81 % among women and 73 % among men.

#### In Finland, COVID-19 pandemic did not affect cancer screening programmes significantly

The COVID-19 pandemic did not seem to have a significant impact on participation rates in breast, cervical or colorectal cancer screening in Finland in 2020 and 2021 (see Figure 13). This is despite the fact that all municipalities paused invitations for cancer screening during the first wave of COVID-19 in March-April 2020.

#### Finland undertakes assessments to improve the quality and effectiveness of cancer screening

A mass screening registry, which contains data on various phases of cancer screening, is part of the Finnish Cancer Registry and can be linked with socio-economic data available in Statistics Finland, time of death, place of residence, emigration and immigration status, and medical data. Using these linked data, the quality and impact of cancer screening on mortality have been analysed and findings are used to further develop screening programmes. Key findings and statistics are published in annual reports. Since high-quality data are the backbone of high-quality cancer screening, internal audits have been also conducted to validate data accuracy (Lunkka et al., 2021).

The Registry plans to implement a system that facilitates monitoring by municipalities, and wherein the individual's screening data is made available to the screener, promoting quality improvement of screening programmes at decentralised levels and professional levels. Using other data including genetic data collected in FinnGen (see Section 5.3), research is ongoing to improve effective implementation of cancer screening – for example, by targeting people with higher risk factors.

### 5. Cancer care performance

### **5.1 Accessibility**

# While free public health services are available, financial barriers to cancer diagnosis and treatment may exist for people on low incomes

In Finland, all medical care for people under 18 is free. For adults, a broad range of public healthcare services are provided free of charge, including laboratory and X-ray examinations, mental healthcare in primary care, and rehabilitation counselling that may be used by patients diagnosed with cancer. However, a copayment is required for other medical services such as a doctor consultation in primary care, hospitalisation, day surgery and sequential therapy at hospitals, including radiotherapy and rehabilitation.

Copayments differ somewhat across well-being services counties, but the maximum payment is set for Finland: the fee for a doctor consultation at a health centre is capped at EUR 23, copayment for a doctor consultation up to three times in a calendar year (or capped at EUR 46 in a calendar year); outpatient clinic fees are capped at EUR 46, daily hospital charges at EUR 54.60 per day, and day surgery procedures in hospitals at EUR 150.80. The maximum annual payment ceiling is fixed (EUR 762 in 2024) and beyond this, no copayment is required for medical services. For outpatient medicines, EUR 50 is required for adults as an initial deductible, and a copayment is needed for most medications, with a few exceptions - including certain oncology medicines- up to the maximum annual limit (EUR 626.94 in 2024). Beyond this limit, the copayment is EUR 2.5 for each medicine (Contact Point for Cross-Border Healthcare, 2024; Kela, 2024a).

In 2022, out-of-pocket payments accounted for about 16 % of current health expenditure in Finland, fairly similar to the EU average. To cover copayments, the share of the population with voluntary health insurance has increased in recent years, and almost one in four people have supplementary voluntary health insurance, which is often based on employment.

In case of financial difficulties, well-being services counties reduce or waive charges for healthcare goods and services. The Cancer Society of Finland also provides financial assistance for cancer patients in financial difficulties and families of

children with cancer can also apply for allowances issued by the Cancer Foundation's Children's Cancer Fund. It is important to raise awareness about these financial support schemes to ensure timely access to cancer care among people with lower socio-economic status.

# Cancer care delivery is well structured, and geographical access is ensured by financial support

In Finland, publicly financed primary and specialised care was originally organised by over 300 municipalities but, from 2023, 21 well-being services counties have assumed these responsibilities. Cancer diagnosis usually starts in primary care, and cancer treatment and follow-up care are usually provided at hospitals, in the community or in primary care. Tertiary care is organised within five collaborative areas, centralised at a university hospital in each, which provides specialised cancer treatment including treatment of rare cancers. Helsinki, in the Southern collaborative area, also has a private hospital specialising in cancer care.

To overcome challenges in geographical access to care, Finland – which is large and has sparsely populated regions – initiated a national strategy to develop and implement e-health in the mid-1990s. This resulted in well-established infrastructure and extensive use of telemedicine before the COVID-19 pandemic. Telemedicine is available for cancer care including clinical consultations, diagnostics, observations, monitoring and certain treatment.

For cancer care, however, access to hospital is sometimes necessary, and Finland ensures that patients have such access through financial support for travel costs. Travel costs to seek treatment at the nearest hospital or health centre are reimbursed, although there is a copayment of up to EUR 25 per trip up until a maximum annual limit (EUR 300).

# While Finland has a shortage of physicians, the supply of nurses is relatively good

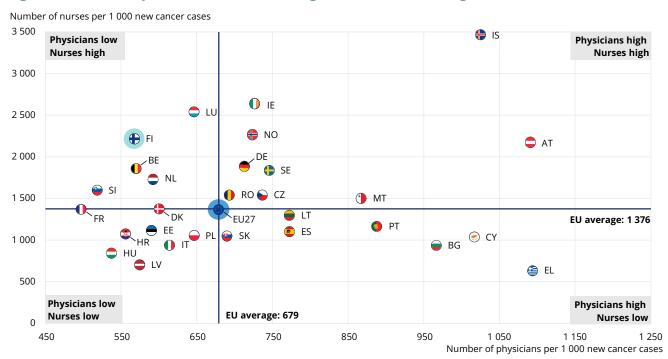
Finland has a shortage of physicians. In 2022, it had 568 physicians per 1 000 new cancer cases, lower than the EU average (679 per 1 000). There are also notable regional variations in the distribution of doctors: the northern regions have lower ratios (fewer than 2 doctors per 1 000 new cancer

cases) than the southern regions (including the capital city of Helsinki, which has a high density). According to a 2010 report from the Ministry of Social Affairs and Health, the number of oncologists is inadequately low in some regions.

The physician shortage is a serious concern particularly in primary care. Finland launched a strategic roadmap for 2022-27 to secure physicians along with other health and social service professionals that are also in short supply. The roadmap lays out plans to increase training capacity, reorient tasks among healthcare professionals, facilitate international recruitment, and reorganise work through digitalisation and better care coordination.

On the other hand, the supply of nurses (2 223 per 1 000 cancer cases) was higher than the EU average (1 376 per 1 000) in 2022 (Figure 14). In Finland, since the early 2000s, nurses have taken on some tasks that were previously solely carried out by physicians – such as prescribing and consultations in primary care – and play more advanced roles in hospital care. In cancer care, nurses have opportunities to gain expertise, as Helsinki University Hospital Comprehensive Cancer Centre provides multi-level continuous training programmes for oncology nurses in Finland throughout their career, making oncology nursing an attractive professional field and ensuring that nurses keep abreast of fast-changing technological developments. In relation to cytotoxic medicines, safety guidelines and formal training are available for oncology nurses, and the Finnish Oncology Nursing Society supports professionals by organising training and supporting its members in attending international conferences. The European Oncology Nursing Society's 2020 index suggests that advanced oncology nursing roles could be further established in Finland.

Figure 14. The density of nurses in Finland is higher than the EU average



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

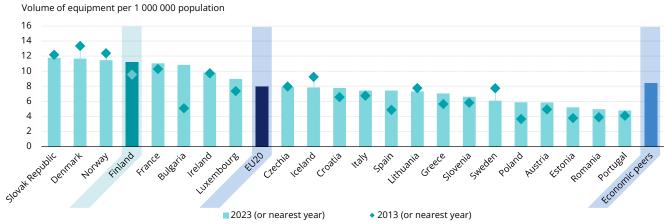
Source: OECD Health Statistics 2024. Data refer to 2022 or latest available year.

## Availability of medical equipment is relatively good

Finland also has a relatively high supply of radiotherapy equipment, at 11.2 units per 1 000 000, about a third higher than its economic peers (at 8.4) (Figure 15). This equipment is relatively new: almost 25 % of units are less than 5 years old and 86 % is less than 15 years old.

Finland also has more magnetic resonance imaging units, with 34 per 1 000 000 population in 2023 compared to the EU average of 18 per 1 000 000. However, it has fewer computed tomography (CT) scanners, with 19 per 1 000 000 (compared to the EU average of 27 per 1 000 000).

Figure 15. Availability of radiotherapy equipment in Finland is above 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 FI are CZ, ES, FR, IT, and SI. The EU average is unweighted.

Source: OECD Health Statistics 2024.

### To improve timely access to cancer care, waiting times are monitored

Long waiting times were an issue in Finland as indicated in Finnish Recovery and Resilience Plan launched in 2021. Finland has maximum waiting time targets for access to specialised treatment, such as six weeks between a referral concerning a suspected case of cancer and the start of primary treatment, and four weeks between surgical treatment and adjuvant therapies, depending on the patient's state of health.

For faster access, however, private healthcare is available. Patients are charged higher fees than those for public providers. While only a small share of hospitals are for-profit privately owned, the share of the population with voluntary health insurance coverage increased from 17.1 % in 2012 to 23.2 % in 2022. This trend may lead to inequalities in timely access to cancer care for disadvantaged population groups.

# Processes involved in market authorisation and public reimbursement of new oncology medicines are complex in Finland

New medicines are assessed nationally by the Finnish Medicines Agency (Fimea) and the Council for Choices in Health Care (COHERE), which are

subordinates of the Ministry of Social Affairs and Health. Fimea grants market authorisation of medical products based on the recommendations of the European Commission and the European Medicines Agency (EMA). It also conducts health technology assessment (HTA) and collaborates with others – including universities and research institutions – nationally and internationally. Fimea, for example, takes part in FINOSE, an HTA collaboration network with Norway and Sweden, and jointly undertakes clinical and health economic assessment of new medicines. COHERE provides national recommendations on inclusion and exclusion of healthcare services and goods, including medicines used in publicly funded healthcare at hospitals, while the Social Insurance Institution (Kela) makes coverage decisions for outpatient medicines. HTA is also conducted at university hospitals; the Finnish Coordinating Centre for HTA coordinates HTA conducted across universities, and cooperates with international bodies such as the European Network for HTA.

Following national recommendations on new oncology medicines, a chief medical director of each collaborative area confirms them and then uptake is decided at the individual hospital level. If a new indication is accepted in one hospital, it is

usually accepted in other hospitals without delay. However, actual timing for access to new medicines among cancer patients in Finland may differ slightly across regions.

### **5.2 Quality**

#### High-quality cancer care is assured through a centralised delivery system, with accredited hospitals and national and regional networks

Helsinki University Hospital Comprehensive Cancer Centre is the largest centre providing a broad range of cancer care services including radiation therapy, chemotherapy, surgery, specialised palliative and end-of-life care. It conducts research into new medical technologies and clinical trials for development of new oncology medicines and is the only comprehensive cancer centre in Finland accredited by the Organisation of European Cancer Institutes (OECI). It is also an accredited member of the European Reference on Rare Adult Solid Cancers. Four other university hospitals located in other collaborative areas (Oulu, Tampere, Turku and Kuopio) are OECI-accredited cancer centres.

In Finland, cancer care delivery is centralised (see Section 5.1), and national and regional networks ensure access to high-quality cancer care throughout the care continuum. The national network is organised through a collaboration of the Finnish National Cancer Centre (FICAN) the national coordination unit - and five regional cancer centres (FICAN East, FICAN Mid, FICAN North, FICAN South and FICAN West). FICAN aims to implement and coordinate national policies and guidelines concerning cancer prevention, diagnosis, treatment and rehabilitation through collaboration with regional centres, while ensuring a research-based foundation for policy and guideline development. A regional network is organised by well-being services counties, including hospitals and a medical university. Regional cancer centres collaborate with local hospitals to implement national policies and guidelines and ensure access to high-quality care. To improve quality, smaller hospitals take part in a benchmarking programme to evaluate their performance based on a broad range of indicators.

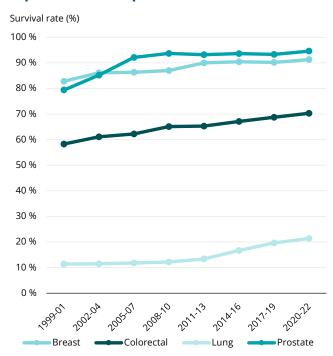
Quality of cancer care is assured through clinical guidelines, which are developed for most common cancers across the entire care pathway at the level of the well-being services county, and adapted to resource availability in the region for each phase of the cancer pathway. High-quality cancer care is also assured by multidisciplinary tumour boards, which develop and implement personalised care plans for patients.

#### Quality of cancer care has improved over time

Age-standardised five-year relative survival estimates have improved in Finland, reaching 69 % among male patients and 71 % among female patients in 2020-22, which is a 0.6 percentage point increase for both men and women compared to 2017-19 (Pitkäniemi et al., 2024).

Five-year survival estimates reached 91 % for breast cancer, 95 % for prostate cancer, 70 % for colorectal cancer and 21 % for lung cancer in 2020-22 (Figure 16). Estimates do not significantly differ across regions, suggesting that the quality of care is comparable across the country. However, the Finnish Cancer Registry found that five-year survival estimates among people with lower eduction levels (64 % among men and 65 % among women) are significantly lower than those among people with higher education levels (77 % among men and 78 % among women). Financial and non-financial hurdles may exist for people with lower socio-economic status to access high-quality screening programmes and cancer care in a timely manner, underlining the importance of supporting them throughout cancer pathways.

Figure 16. Cancer survival estimates have improved over the past two decades



Source: Finnish Cancer Registry. Cancer statistics, 2024.

#### Potential years of life lost also signals relatively good quality of cancer care in Finland

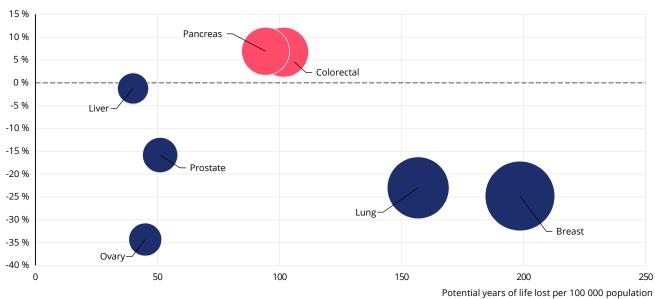
In addition to survival data, potential years of life lost (PYLL) is an interesting complementary measure of the impact of different cancers on society, because it puts a higher weight on cancer deaths among younger individuals. Examining the change in PYLL over time across various cancer sites can point to improvements in cancer care systems via reductions in premature mortality.

In Finland, the overall potential years of life lost due to cancers was 986 per 100 000 population

in 2021, which is 27 % lower than the EU average (1 355). The pace of improvement was slightly slower in Finland: the number of potential years of life lost has decreased by 16 % since 2012, compared to a 19% decrease across the EU. The cancer responsible for the most potential years of life lost among women was breast cancer, at 199 years per 100 000 women, which showed a substantial decrease from 2012 (-25%). Colorectal and pancreatic cancers registered an increase in the potential years of life lost between 2012-2021 (Figure 17).

#### Figure 17. The number of potential years of life lost from colorectal and pancreatic cancer increased over the past decade

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.

#### The Finnish Cancer Registry is well established and assessed regularly for quality improvement

The Finnish Cancer Registry, founded in 1953, aims to evaluate the cause and impact of cancer and the effectiveness of cancer screening programmes. It also analyses the cancer burden in the Finnish population – including incidence, risk factors, prevention, early detection, survival of patients, quality of life and mortality – predicts future disease burden, and produces data for epidemiological, clinical and biological studies. The quality of the Cancer Registry is monitored regularly, and considered complete and up to date (Seppä et al., 2023).

Finland values evidence-based, data-driven approaches in developing cancer care systems and improving cancer care quality. This can be seen

in assessments of cancer screening programme development and in benchmarking of hospitals providing cancer care via the use of various indicators, reinforced by data linkages. Cancer survival estimates are regularly updated; and are available by cancer site, region, age group and education background, and over time. Finland plans to expand the cancer quality registry to report on additional data such as cancer stage at diagnosis, waiting times, treatment and outcomes.

Finland is also expanding measurement efforts to promote person-centred cancer care quality. Using the Finnish quality of life scale, patient-reported outcome measures are collected electronically at Helsinki University Hospital Comprehensive Cancer Centre.

### 5.3 Costs and value for money

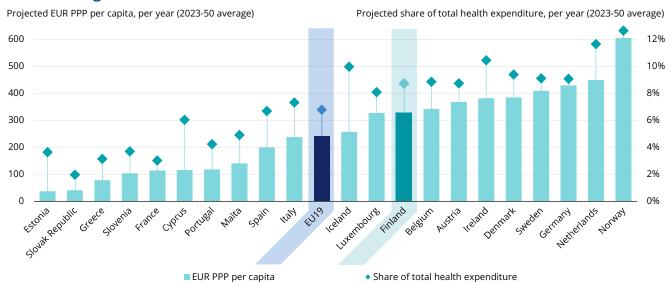
#### Finland is expected to face a higher burden of cancer on health expenditure than the EU on average

Related to the high prevalence of cancer patients (see Section 2), cancer has a large impact on healthcare spending in Finland. According to OECD SPHeP modelling work, between 2023 and 2050,

total health expenditure is estimated to be 9% higher in Finland due to the burden of cancer. This equates to an average of EUR (PPP) 328 per person per year (Figure 18). 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 35 % in Finland between 2023 and 2050, compared to 59 % in the EU27.

#### Figure 18. The burden of cancer on health spending from 2023 to 2050 is expected to be higher 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.

Alongside direct healthcare costs of cancer, there are also indirect economic costs. Between 2023 and 2050 on average, there is expected to be a loss of 124 full-time equivalent workers (FTEs) per 100 000 people annually due to the need to reduce employment because of cancer, which is less than the EU average of 178 FTEs per 100 000. It also anticipated that Finland will see a loss of 78 FTEs per 100 000 people due to both absenteeism and presenteeism8 - also somewhat lower than the EU average of 81.

#### Finland invests in cancer research for future return

Finland has invested in initiatives to develop personalised medicine. FinnGen, a public-private research project on genomics and personalised medicine managed by the University of Helsinki, has collected genome samples from half a million people in its biobank, to examine biological mechanisms of diseases - including cancer - and their progression. The project is expected to

bring breakthroughs in prevention, diagnosis and treatment of diseases (FinnGen. 2024). The iCAN Flagship Project – run by the Research Council of Finland (a specialised agency in science and research within the Finnish Ministry of Education, Science and Culture) – is a biobank study that links deep molecular profiling data on tumours with comprehensive longitudinal health data, including electronic health record and registry information in real time. The project facilitates research into various areas including cancer progression, impact of treatment and immune system interaction across different cancers, which could contribute to development of precision oncology medicines.

Finland is taking part in a trial to repurpose existing medicines for new indications. The Finnish National Study to Facilitate Patient Access to Targeted Anticancer Drugs aims to assess the efficacy and safety of EMA-approved targeted oncology medicines or combinations for treating advanced cancers with a known molecular profile.

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

The trial performs next-generation sequencing and tumour/liquid biopsies for biomarker analyses. The Dutch Drug Rediscovery Protocol coordinates the trial. Similar trials are also undertaken in Denmark, Norway and Sweden, and data are shared across these countries.

Finland also invests in cancer immunotherapy. As part of Business Finland's Personalised Health Programme, a public-private consortium called the Cancer Immuno-oncology, coordinated by the University of Helsinki, aims to advance collaborative research and innovation in cancer immunotherapy.

#### Finland seeks efficiency gains in delivering cancer care

While improving the quality of cancer care (see Section 5.2), Finland (as well as many EU+2 countries) has managed to decrease hospital discharges among cancer patients, reduce the duration of hospital stays and increase the share of cancer care provided in ambulatory care, thereby increasing efficiency gains. Between 2011 and 2021, the rate of hospital discharges due to cancer decreased from 1 732 per 100 000 population to 1 340 per 100 000, and the average length of stay for cancer patients decreased from 8.4 days to 6.6

While the rate of partial excisions of mammary gland performed in inpatient care decreased from 45 per 100 000 population in 2011 to 41 per 100 000 in 2021, the rate performed in ambulatory care increased rapidly from 25 per 100 000 to 60 per 100 000 during the same period. Similarly, the share of total mastectomies provided in ambulatory care increased from 5 %

to 40 % during 2011-21. MyKanta – a platform for accessing, sharing and managing individual health and treatment records introduced in 2010 - also contributes to cost savings, as it facilitates prescription renewal and care coordination among healthcare professionals.

#### Finland could explore reducing costs of cancer care by streamlining regulatory systems and purchasing mechanisms for medicines

Multiple bodies are involved in decision making on use of new medicines at the hospital level. In view of improving and harmonising processes, a working group is currently assessing authorisation and coverage decision-making processes for both ambulatory and hospital medicines.

Finland has five hospital procurement mechanisms, coordinated by each collaborative area, which differs from the processes at the national, centralised processes utilised by many other EU countries. Well-being services counties are also responsible for price negotiations and hospitals oversee managed entry agreements in Finland, while these are often set up at the national level in other countries.

### 5.4 Well-being and quality of life

#### The impact of cancer on life expectancy is one of the lowest in the EU

According to OECD SPHeP modelling work, over 1.6 years are expected to be lost in life expectancy due to cancer on average every year over 2023-50 in Finland. However, the impact of cancer on life expectancy is the third lowest in the EU (Figure 19).

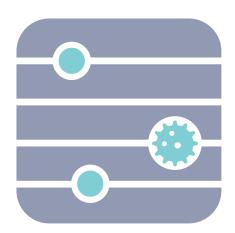
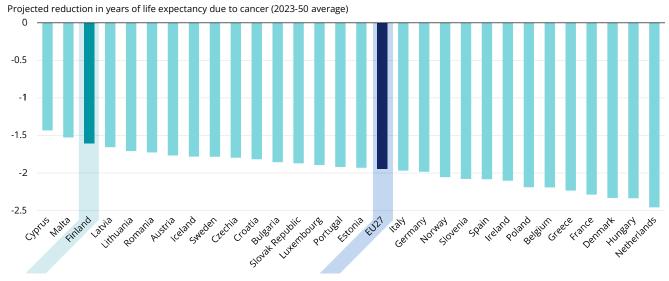


Figure 19. In Finland, the impact of cancer on life expectancy is lower than the EU average over 2023-50



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.

#### Various types of support are available for people diagnosed and living with cancer throughout the care pathway

For cancer patients and people around them, the Cancer Society of Finland's website provides comprehensive information covering a range of topics – including diet, relationships, exercise, work, financial support and sexuality during treatment. The Society also organises advice services with a nurse specialist in cancer, at which they receive information about cancer prevention, symptoms, the cancer pathway, recovery and rehabilitation. This is provided via face-to-face meetings or via free phone call, email and chat. Such advice services are also available from the member organisations of the Society, which include national patient organisations and regional cancer societies located in different parts of the country.

To facilitate the transition back to everyday life, the Cancer Society of Finland, Kela, some hospitals, regional cancer associations and national patient organisations provide rehabilitation services. Information related to life after treatment and a range of courses for patients, survivors and people around them are offered to support physical, psychological and social recovery, and to improve quality of life and build coping skills. Peer support activities are also organised.

Following cancer treatment, patients may experience economic loss. One study based on the data available for 2000-16 found that breast cancer patients had about a 5 % decrease in annual earnings, equivalent to a decline of around EUR 1 700 in Finland (Vaalavuo, 2021). In cases of reduced income due to cancer, the tax authority can reassess required tax payments, and may grant tax deductions due to inability to pay or invalidity. Cancer patients can also obtain deductions, such as for nursing care and housekeeping. Alongside providing financial support (see Section 5.1), the Cancer Society of Finland provides a benefits advice service that supports cancer patients in understanding and accessing the financial benefits to which they are entitled. In addition, social workers and rehabilitation counsellors at hospitals, Kela and private health insurance are available to provide advice related to financing cancer care.

#### More support, including mental healthcare, may be needed

Access to information and services must be ensured for all cancer patients. While most of the information useful for cancer patients and survivors and people around them is provided on the Cancer Society of Finland's website in Finnish, Swedish and English, not all services are available in Swedish and English.

Alongside its adverse physical impact, cancer affects mental health due to its associated symptoms and treatment side effects, and impact on daily life, social roles and work. According to OECD SPHeP's model, in Finland, cancer is estimated to add an additional age-standardised rate of 11 depression cases per 100 000 per year between 2023 and 2050. Although it is somewhat lower than the 17 cases per 100 000 EU average,

this illustrates that mental healthcare support is needed for people diagnosed and living with cancer.

Mental ill health caused by cancer has also an overall negative health impact. In Finland, children who recovered from cancer had higher risks of poor mental health, and the higher risk continued to persist later in life, underlining the importance of mental healthcare in survivorship care (Frederiksen et al., 2021). Nevertheless, psychosocial support for cancer patients and those around them following a cancer diagnosis is considered limited in Finland (Tiirola et al., 2021).

#### Finland is expanding access to different levels of palliative care

Finland structures palliative care into three levels: basic, special and demanding special. Basic-level palliative care is provided at 24-hour service housing, community housing, home care and inpatient wards of health centres that do not specialise in palliative care but provide other services (such as primary care and rehabilitative and some specialist cancer care). Special-level palliative care is provided at hospitals, hospices and hospital-at-home by specially trained healthcare professionals whose primary tasks is palliative care. Demanding special-level palliative care is provided at palliative centres at university hospitals.

However, availability of palliative care is still limited. While the European Association of Palliative Care recommends 2 palliative care units per 100 000 population, in 2019, Finland had 0.7 per 100 000, which was less than half of the 1.6 per 100 000 in Sweden (a country known to have highly developed palliative care) and also lower than the 1.2 per 100 000 in Norway (Sánchez-Cárdenas et al., 2021). In Finland, 59 % of palliative care units were home care units, 26 % were hospital palliative care units, 10 % were inpatient hospice and 5 % were hospital palliative care support team (Axelsson, 2022). To improve access, palliative care is also provided by a non-profit organisation supported by the Cancer Foundation and regional cancer societies, and a cancer pain phone hotline is available at Helsinki University Central Hospital's Pain Clinic. Volunteers, trained by the Cancer Society of Finland, also provide palliative care support.

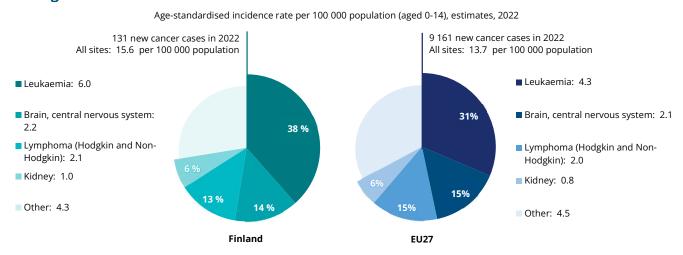
For quality assurance, Finland has started to train healthcare professionals in palliative care. Two-year postgraduate education in palliative care has been offered to practising physicians since 2008. By 2021, 192 physicians had completed specialisation in palliative medicine, which equates to 3.2 per 100 000 population – much more than the 1 per 100 000 average across the EU (Vanhanen, Niemi-Murola & Pöyhiä, 2021). Undergraduate-level palliative care education for nurses and master's level palliative care education for advanced practice nurse has been provided since 2020.

## 6. Spotlight on paediatric cancer

According to ECIS, it is estimated that in Finland 131 children and adolescents up to age 15 were diagnosed with cancer in 2022. In 2022, Finland had incidence rate of 15.6 per 100 000 children aged 0-14, higher than the EU27 average of 13.7 (Figure 20). However, Eurostat data shows mortality rates are lower in Finland, with a 3-year average mortality rate of 1.9 per 100 000 children, compared to 2.1 in the EU.

In Finland, incidence rates among boys are higher than among girls, mirroring the EU pattern. The most common cancer types are leukaemia with 6 cases per 100 000 children (38 %), brain and central nervous system cancers with 2.2 cases per 100 000 (14 %), lymphoma with 2.1 cases per 100 000 (13 %), and kidney cancer, with 1 case per 100 000 (6 %).

Figure 20: Estimated cancer incidence rates among children in Finland are higher 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. Source: European Cancer Information System (ECIS) for cancer incidence. From https://ecis.jrc.ec.europa.eu, accessed on 10/03/2024. © European Union, 2024.

According to the SIOPE's OCEAN Project on paediatric cancer care, Finland has organised its paediatric cancer care around five institutions (SIOPE, 2024). These institutions include paediatric university hospitals, paediatric general hospitals, university hospitals with paediatric units, and general hospitals with paediatric units that also treat children with other diseases. Two of these institutions, the University Hospitals in Tampere and Helsinki, are designated Innovative Therapies for Children and adolescents with Cancer Consortium Centres, providing access to innovative therapies for children and young people with relapsed or refractory malignancies.

Eleven of thirteen infrastructural and treatment modalities, including chemotherapy, surgery solid tumours stem cell transplant, radiation therapy, and palliative care, are available for paediatric cancer patients in Finland. However, proton

radiation therapy and brachytherapy are not yet offered to young cancer patients.

In 2018, 74 % of the 68 medicines identified as essential for treating cancer in patients aged 0 to 18 were available in Finland, compared to 76 % in the EU on average (Vassal et al., 2021). However, between 2010 and 2022, Finland participated in 27 of the 436 European clinical trials on cancer involving children, accounting for 6.2 % of the total.

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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	ΙE	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	<i>C7</i>	Greece	FI	Lithuania	ΙT	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.

Please cite this publication as:

OECD/European Commission (2025), *EU Country Cancer Profile: Finland 2025*, EU Country Cancer Profiles, OECD Publishing, Paris, https://doi.org/10.1787/1b14100d-en.

Series: EU Country Cancer Profiles



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