



PORTUGAL

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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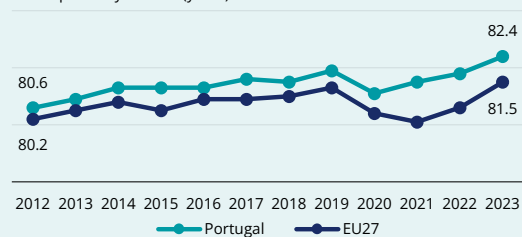
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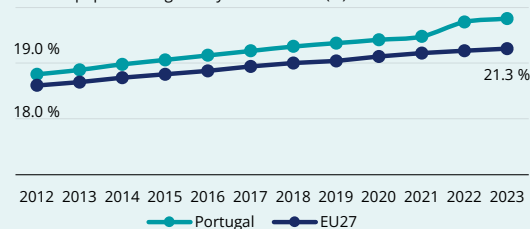
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Key health system and demographic statistics

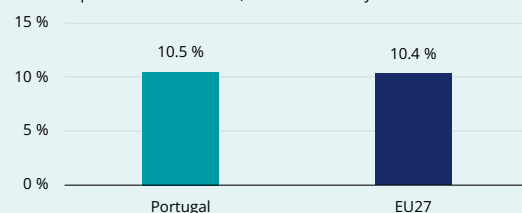
Life expectancy at birth (years)



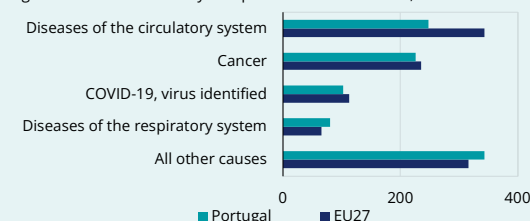
Share of population aged 65 years and over (%)



Health expenditure as % of GDP, 2022 or nearest year



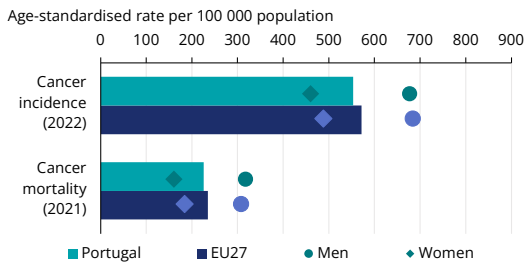
Age-standardised mortality rate per 100 000 inhabitants, 2021



Source: Eurostat Database.

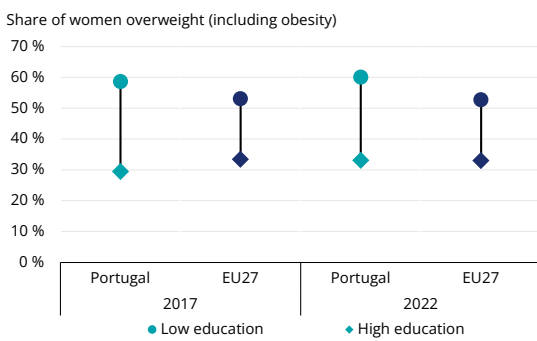
1. Highlights

Cancer in Portugal



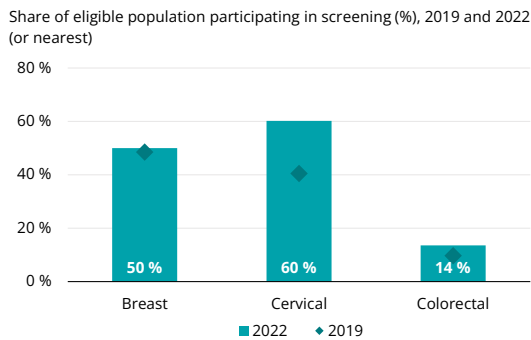
Estimated cancer incidence in Portugal, while around the EU average, is projected to increase 20% by 2040, with the country currently leading EU rates for stomach and paediatric cancers. As the second leading cause of death in the country, cancer's mortality rate is declining slower than the EU average, with men facing double the mortality risk of women. Despite this, cancer prevalence increased 27% from 2010-20.

Risk factors and prevention policies



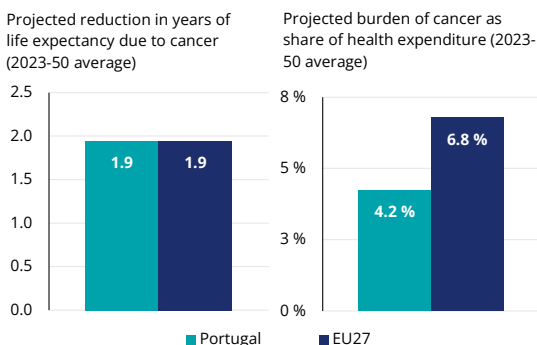
Portugal's expenditure on preventive health in 2021 was half the EU average, but the country excelled in some risk factor prevention, boasting high vaccination rates for HPV and hepatitis B. However, obesity remains a challenge, with 53% of adults living with overweight or obesity despite policy efforts, while socio-economic disparities in health behaviours persist. The gap in overweight and obesity prevalence between the most and least educated women is the widest observed across the EU. While smoking rates are below average, Portugal lags in alcohol consumption reduction policies.

Early detection



Portugal provides nationwide screening programmes for breast, cervical, and colorectal cancers, primarily through primary care services. In 2022, these programmes rebounded strongly from pandemic-related declines. Breast cancer effective screening rate achieved 50%, while cervical cancer screening reached 60%. However, inequalities persist across different population groups. Furthermore, colorectal cancer screening faces high regional disparities, and achieved a low 14% rate.

Cancer care performance



Portugal offers free cancer care through its National Health Service, with significant resource increases in recent years. Medical staff and imaging equipment numbers have grown substantially. EU funding will help replace ageing radiation therapy equipment (50% exceed optimal lifespan), and a proton therapy centre is planned. Delays in drug reimbursement decisions and public hospitals consultation waiting times are ongoing issues. While palliative care is expanding, more focus is needed on cancer survivor rehabilitation. The overall burden of cancer is projected to account for 4.2% of health expenditure between 2023 and 2050.

2. Cancer in Portugal

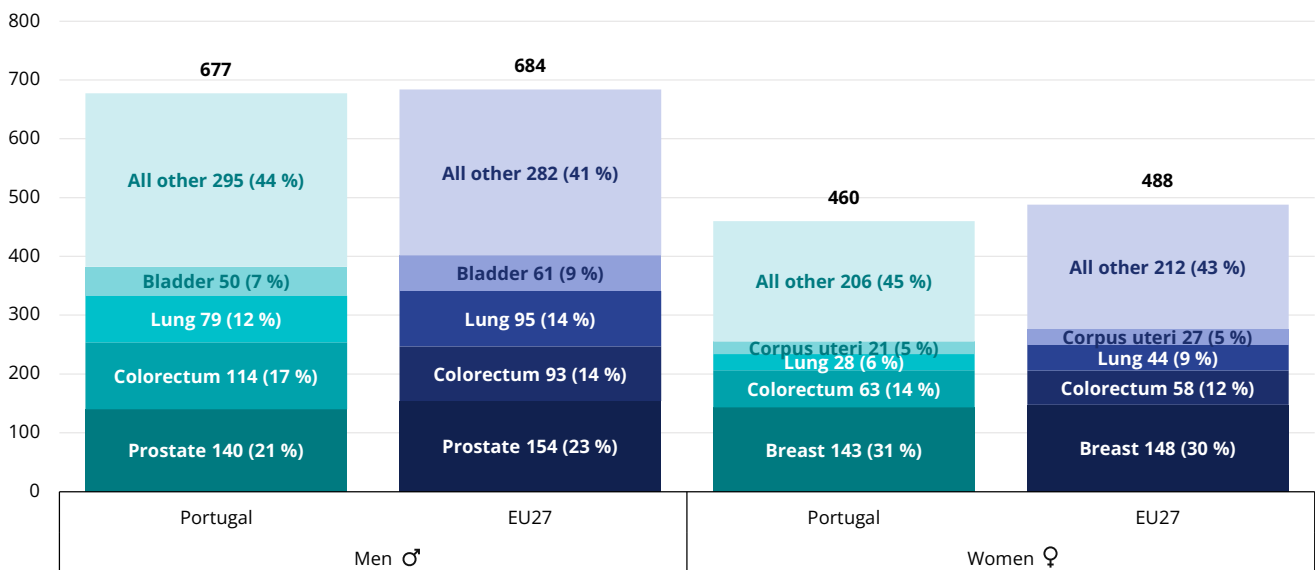
Cancer incidence in Portugal is on a par with the EU average, but younger age groups are more impacted

According to the European Cancer Information System (ECIS) of the Joint Research Centre based on incidence trends from pre-pandemic years, age-standardised cancer incidence rates for 2022 in Portugal were expected to be below the EU average for women (6% lower) and close to the EU average among men (1% lower). Among the 677 new cases per 100 000 men, Portugal exhibits a similar pattern to the EU with the highest share of estimated new cases in prostate cancer (140 per 100 000), followed by colorectal (114 per

100 000), lung¹ (79 per 100 000) and bladder (50 per 100 000) cancers. Women had much lower expected incidence of cancer, with 460 new cases per 100 000, which is 32% less than men. Among women, the main cancer locations are breast (143 per 100 000), colorectum (63 per 100 000), thyroid (31 per 100 000) and lung (28 per 100 000). This is slightly different from the EU averages, where corpus uteri cancer is more frequent than thyroid cancer (Figure 1). Stomach cancer is the fifth most frequent cancer location both for men and women in Portugal, with incidence rates almost double the EU average, and Portuguese women registering the second highest incidence across all EU+2² countries.

Figure 1. Cancer incidence in Portugal is on a par with the EU average, but the gender gap is slightly wider

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.

There is a pattern of early cancer detection in Portugal. The age group 15-49 had the second highest rate of cancer incidence in both sexes across EU+2 countries, while the remaining age groups (50-69; 70 and over) had some of the lowest cancer incidence rates. While several

factors could contribute to this pattern, the notably high incidence among those aged 15-49, suggests that good access to healthcare and opportunistic case-finding – outside formal screening programmes (see Section 4) – may play a significant role.

¹ Lung cancer also refers to trachea and bronchus cancers.
² EU+2 countries include 27 EU Member States (EU27), plus Iceland and Norway.

ECIS estimates show an increase in new cancer cases for all EU countries from 2022 to 2040. Portugal is expected to register a 12% increase in new cancer cases by 2030 and a 20% increase by 2040 – higher than the EU averages of 9% by 2030 and 18% by 2040. Men will have a greater increase in new cancer cases (26%) than women (13%).

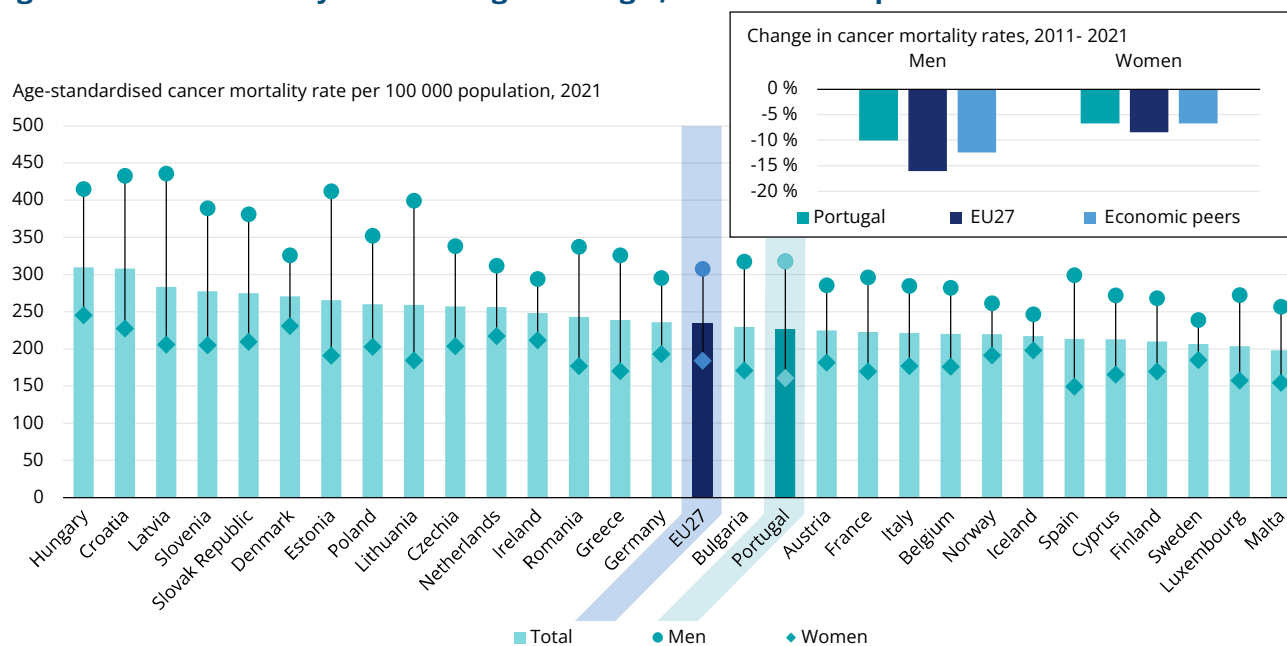
Portugal's cancer mortality is slightly below the EU average, but improvement has slowed over the last decade

In 2021, cancer was the second leading cause of death in Portugal (23%), behind diseases of the circulatory system (25%). Age-standardised death rate from cancer stood at 226 deaths per 100 000 population, which is slightly below the EU average (-4%) but significantly lower than the average among the country's economic peers³ (-12%). Portugal has one of the highest inequalities in cancer mortality by gender, with a gap of 157 per 100 000: men (318 per 100 000) have almost double the cancer mortality rate of women (161 per 100 000) compared to an average gap of 124 per 100 000 across the EU (Figure 2). This difference is partly driven by the three cancer locations with the highest mortality: lung (37 per 100 000), colorectum

(29 per 100 000) and stomach (17 per 100 000). These are related to the higher prevalence of behavioural risk factors among men (see Section 3).

Over 2011-21, cancer mortality in Portugal decreased by 8%, which is less than the EU average decline (12%) and the average decline among its economic peers (10%). Improvements in cancer mortality have lagged behind those in other countries – particularly among people aged under 65, whose mortality rates decreased by 11%, which is less than half the 23% reduction across the EU and the 22% decrease among Portugal's economic peers. Conversely, the country has managed to reduce mortality rates for some of the most frequent cancer types – such as bladder (-34%), cervical (-26%), colorectal (-22%) and prostate (-22%) – faster than averages across the EU and Portugal's economic peers over 2011-21. Lung cancer mortality rates decreased by 3% among men but increased almost 23% in women, reflecting changing patterns of behavioural risk factors (see Section 3). Coupled with only a small 5% reduction in breast cancer mortality, this explains the relative underperformance of the cancer mortality reduction among women (-7%) compared to men (-10%).

Figure 2. Cancer mortality is decreasing in Portugal, but at a slower pace than most countries



Notes: Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for PT are BG, EE, EL, HR, HU, LV, PL, RO and SK. Source: Eurostat Database.

³ Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for PT are BG, EE, EL, HR, HU, LV, PL, RO and SK.

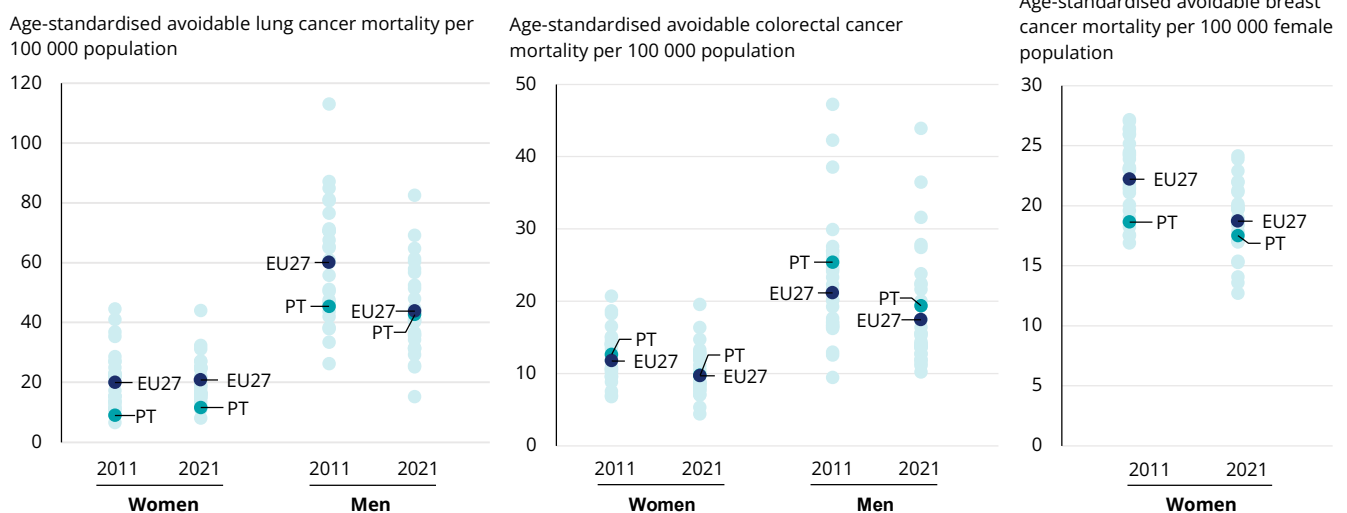
Avoidable mortality has decreased, but progress in lung and breast cancer mortality has lagged behind the EU average

Thanks to improved prevention strategies and advances in treatment options, a significant proportion of cancer deaths among people aged under 75 are considered avoidable.⁴ Portugal registered 56 preventable cancer deaths per 100 000 people in 2021 – similar to the EU average (57 per 100 000), and 8% lower than in 2011. Lung cancer accounted for 46% of all preventable cancer deaths, followed by stomach cancer at 17%. Preventable mortality from lung cancer among Portuguese women was about a quarter that of men. However, it increased by 29% among women in 2011-21, while it decreased by only 6% among men (Figure 3). In contrast, the EU average increased by 4% for women and decreased by 27% for men. While this indicates slower improvement in Portugal in reducing preventable lung mortality rates over the past decade (due to for example

failure to completely ban smoking in public places like bars and restaurants), Portugal has been adopting increasingly restrictive measures regarding tobacco consumption (see Section 3).

Regarding treatable cancer mortality, Portugal recorded 28 deaths per 100 000 population – slightly above the EU average of 27 per 100 000. Among treatable deaths, colorectal cancer represented 52% while breast cancer accounted for an additional 34%. Despite higher treatable mortality rates for colorectal cancer compared to the EU average for both women (1% higher) and men (11% higher), these rates showed a more significant reduction (23% for each sex) than the EU average (around 18% for each sex) during 2011-21, coinciding with implementation of population-based colorectal cancer screening in Portugal (see Section 4). In contrast, breast cancer mortality, although 7% lower than the EU average, only decreased by 6% since 2011, which is less than half the EU average decrease of 16%.

Figure 3. Treatable mortality for colorectal cancer improved considerably among men



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

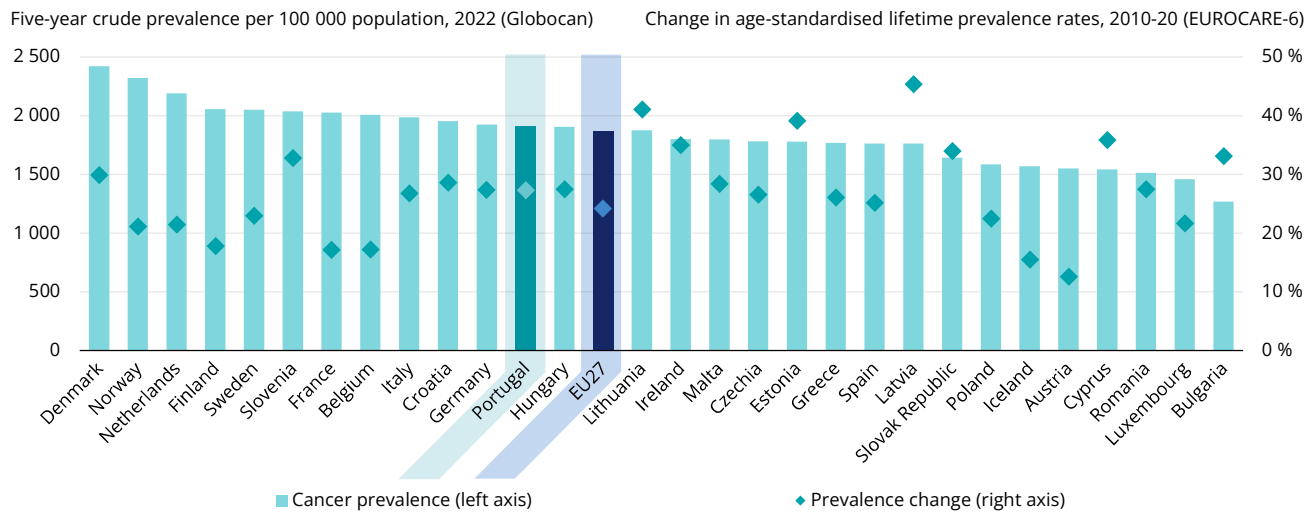
Cancer prevalence has increased

It is estimated that Portugal had five-year all-cancer prevalence⁵ rate of 1910 cases per 100 000 people in 2022 – above the EU average of 1 876 per 100 000 (Figure 4). Stemming from the higher incidence rates among men and older age groups, and decreasing mortality rates, men (2078 per 100 000) and people aged over 70 (4 471 per 100 000) registered higher prevalence than

women and younger cohorts. According to the EUROCare-6 study, lifelong cancer prevalence increased by 27% between 2010 and 2020, which is also higher than the EU average of 24%.

⁴ 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.
⁵ 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. Cancer prevalence is close to the EU average and increased more quickly



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

Portugal has approved its strategic plan against cancer for the current decade

After several delays that started with the onset of the COVID-19 pandemic, in December 2023, Portugal officially published its current cancer plan – the National Strategy Against Cancer – 2030 Horizon (NSAC) (Ministry of Health, 2023). This will guide new investment and integrate all stakeholders under a comprehensive strategy. It

aligns with Europe’s Beating Cancer Plan (Box 1), and is anchored around four pillars: prevention, early detection, diagnosis and treatment, and survivors and survivorship. The plan leverages existing strategic health plans, aiming to reduce incidence of preventable cancers (see Section 3) and improve patient survival and quality of life (see Sections 4, 5.2 and 5.4).

Box 1. Portugal’s NSAC aligns well with the four pillars of Europe’s Beating Cancer Plan

Portugal’s NSAC prioritises: addressing behavioural risk factors such as tobacco and alcohol consumption, promoting healthy lifestyles, reducing environmental and occupational exposure to oncogenic agents, and preventing virus-related cancers; expanding cancer screening programmes, evaluating new screening initiatives and raising awareness of hereditary cancer syndromes; creating an Oncology Referral Network with integrated oncology centres to improve access and effective resource allocation; and measuring survivor morbidity and quality of life, providing structured summaries of care, and incorporating European Directives on patient rights into law. While the NSAC covers the transversal themes of Europe’s Beating Cancer Plan – including inequalities, paediatrics and research – the focus varies (Table 1). Research was prioritised with specific goals and strategies to enhance, expand and better monitor cancer research nationwide. In contrast, the other themes received less attention throughout the Strategy.

Table 1. Portugal’s NSAC aligns well 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 Portugal’s NSAC includes a specific section on the topic; orange indicates that the topic is covered in one of the NSAC’s sections without being the only focus; and pink indicates that this topic is not covered in the Strategy.

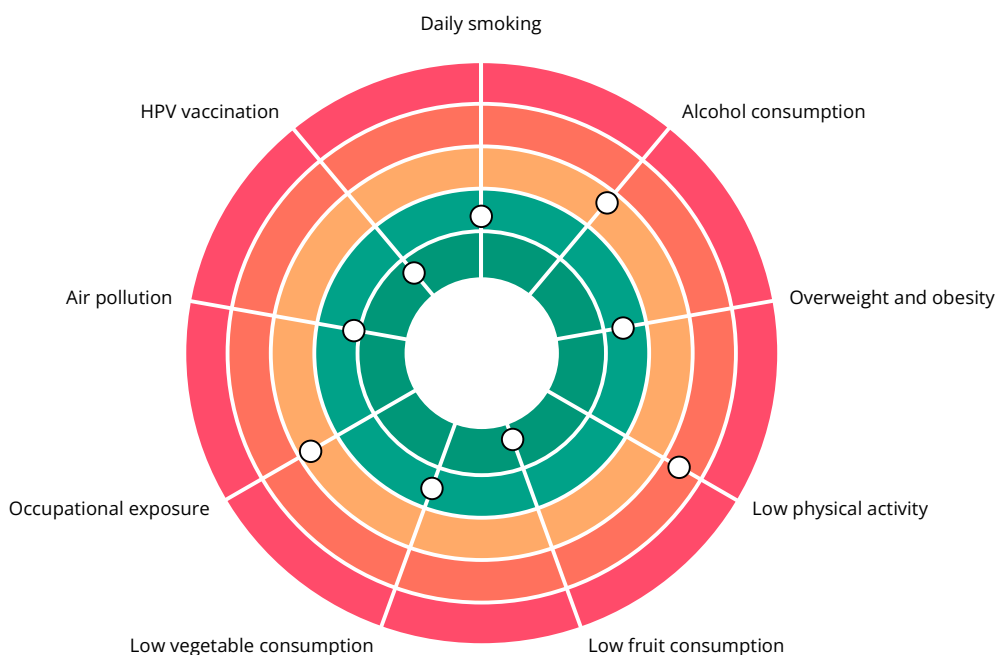
Source: Adapted from “Study on mapping and evaluating the implementation of Europe’s Beating Cancer Plan” (not yet published).

3. Risk factors and prevention policies

In 2019, spending on preventive care as a share of total health spending was 1.8% in Portugal – slightly below the 2.1% share in 2010 and 2.9% EU average⁶. Even with a significant increase to 3.2% in 2021 to tackle the COVID-19 pandemic, spending remained about half the EU average (6.0%). Per capita health expenditure on preventive care (adjusted for differences in purchasing power) amounted to EUR 83 placing Portugal in the bottom third of EU countries (EU average of EUR 213). However, Portugal performs relatively well on several risk factors such as human papillomavirus (HPV) vaccination, fruit consumption, exposure to air pollution and smoking (Figure 5).

According to the last round of the European Health Literacy Population Survey (HLS19 Consortium of the WHO Action Network M-POHL, 2021), 70% of the population had a sufficient or higher level of health literacy – the second highest among the 14 participating countries. Health literacy empowers individuals to make informed lifestyle choices, potentially reducing health-damaging behaviours and the prevalence of cancer risk factors. Recognising its importance, health literacy is a strategic goal of the new National Health Plan 2030, and the renewed National Health Literacy and Behavioural Sciences 2023-30 Plan has set the roadmap for further advancement in the country.

Figure 5. Portugal ranks poorly on alcohol consumption, physical activity and occupational exposure to chemicals



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_{2.5}).
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).

⁶ 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.

Maintaining the progress on smoking prevalence requires continuous efforts

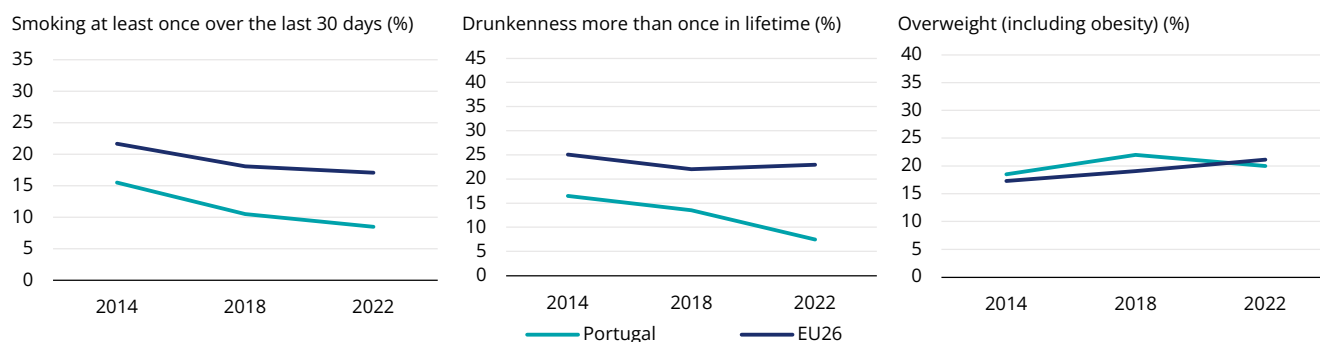
In 2019, 14% of Portuguese people aged 15 and over were daily smokers, down from 17% in 2014 and below the EU average of 18%. Among men, prevalence was 20% – double that among women (9%). Among 15-year-olds, smoking prevalence dropped from 16% in 2014 to 9% in 2022, when girls (9%) had higher prevalence than boys (8%). Electronic cigarette or vape use among teens was the lowest in the EU at 8% – well below the 21% EU average. In the 2021 Tobacco Control Scale ranking, Portugal placed 30th of 37 European countries in tobacco control activities. Key gaps in policy action included failure to completely ban smoking in public places like bars and restaurants, and unchanged tobacco affordability over the previous decade. Despite these policy gaps, Portugal has taken some steps towards tobacco regulation. The country was among the first to incorporate heated tobacco and electronic cigarettes into its smoking ban policies and, in 2018, it further tightened restrictions on permitted smoking areas. However, a 2023 comprehensive legislative initiative to further restrict tobacco sales and consumption substantially was watered down and resulted only

in alignment of national law with the EU directive on heated tobacco exceptions. Nevertheless, the NSAC aims to reduce tobacco prevalence to 10% by 2030.

Alcohol consumption has remained stagnant, but drunkenness among adolescents has decreased significantly

In 2019, average alcohol consumption was 10 litres per person – similar to five years earlier and in line with the EU average. However, IARC estimated that 16 per 100 000 of the cancer incidence in Portugal in 2020 were attributable to alcohol, which is 34% higher than the EU average. In 2022, only 8% of 15-year-olds reported having been drunk at least twice – less than half the EU average of 23%, and a 53% reduction from 2014 (Figure 6). As with smoking, the gender gap in alcohol abuse has reversed over time. While boys were 20% more likely to report repeated drunkenness in 2014, girls were 11% more likely to do so in 2022. Aligned with the new National Plan for Reducing Addictive Behaviours and Addictions 2030, which aims to reduce alcohol consumption further, the NSAC has chosen to develop fiscal policies for consumption reduction – a policy lever that has not yet been employed in Portugal.

Figure 6. Favourable trends among adolescents in smoking and drinking reductions are overshadowed by a lack of progress in overweight and obesity



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.

Dietary habits are improving, and the share of overweight people has stagnated, but significant socio-economic inequalities remain

In 2022, only 20% of adults in Portugal did not eat fruit daily – the second lowest among EU+2 countries, where the average is 39%. However, daily vegetable consumption levels had decreased: 37% of adults did not eat vegetables daily – up from 22% in 2017, although still below the EU average (40%). There are significant socio-economic disparities in eating habits: adults with lower

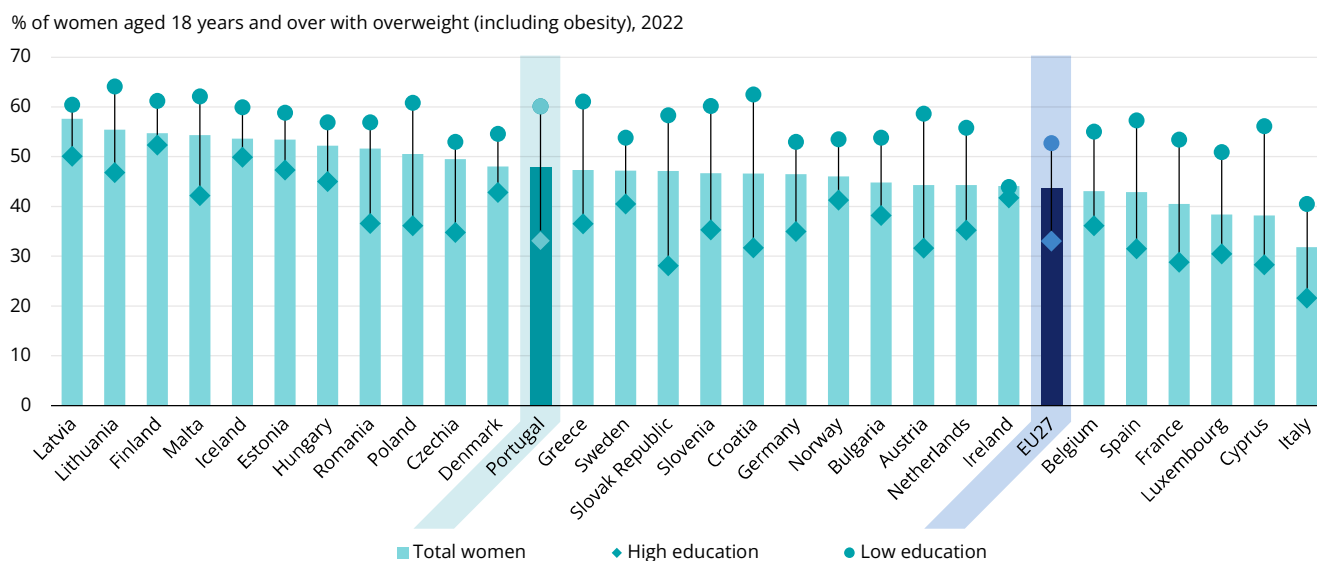
education levels reported a 13% higher likelihood of not eating fruit and a 37% higher likelihood of not eating vegetables daily compared to those with higher education levels. Financial constraints further influence dietary choices, with those under the poverty threshold 43% more likely to forgo fruit and 24% more likely to skip vegetables daily.

Trends in the eating behaviours of school-aged children in Portugal are encouraging. Among 15-year-olds, daily fruit consumption was 41% in 2022 – the highest in the EU+2 – and daily vegetable

consumption had increased faster than across the EU since 2014, standing at 33%, which is just under the EU average (34%). Portugal has focused on healthy eating through intersectoral policy actions leveraged by its National Programme for the Promotion of Healthy Eating, including recent policy changes like increasing the tax on sugary beverages and levying a temporary 0% value added tax on purchases of a healthy food basket during the 2023 cost-of-living crisis. A 2024 impact assessment of the 2019 law restricting child-targeted food advertising revealed that despite high compliance, many ads still appeal to children and feature unhealthy products. The report recommends focusing policy efforts on emerging, less-regulated channels, particularly emphasising the need to address marketing strategies relying on digital content creators (“influencers”).

In 2022, 53% of Portuguese adults were overweight or obese, which is slightly above the EU average (51%) and about the same as in 2017. Overweight or obesity rates were higher among men (59%) than women (48%), and there were significant differences across education levels: 40% of those with the highest education levels were overweight or obese compared to 63% among those with the lowest education levels. Women are disproportionately affected by socio-economic disparities, with a significant gap in overweight or obesity prevalence between the most (33%) and least educated (60%) – one of the widest observed across the EU+2 (Figure 7). Among adolescents, overweight or obesity has held relatively steady, and in 2022 was 20% – slightly below the EU average of 21% (see Figure 6). Despite minimal gender differences, a socio-economic gradient is evident from a young age: 21% of children from more affluent households were overweight or obese compared to 33% of the least affluent.

Figure 7. The share of overweight women is higher than the EU average, and the rate among women with lower education levels is one of the highest in the EU



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

Lack of physical activity contributes to overweight and obesity. In 2022, 26% of Portuguese aged over 15 engaged in physical activity at least three times per week – lower than the EU average (31%). The share of 15-year-olds engaging in 60 minutes of physical activity daily in Portugal is also low – at 14%, compared to 15% in the EU.

Portugal has relatively low levels of air pollution

In 2020, Portugal had some of the lowest levels of exposure to PM_{2.5}, at 8 µg/m³, which is 30% lower than the EU average (12 µg/m³). In 2021, occupational exposure to chemicals in Portugal was 25% – lower than the EU average of 26%, although far above the 17% share of the Netherlands, which is the best performing country. Men and women had similar exposure levels.

Portugal has the highest vaccination coverage for oncogenic viruses

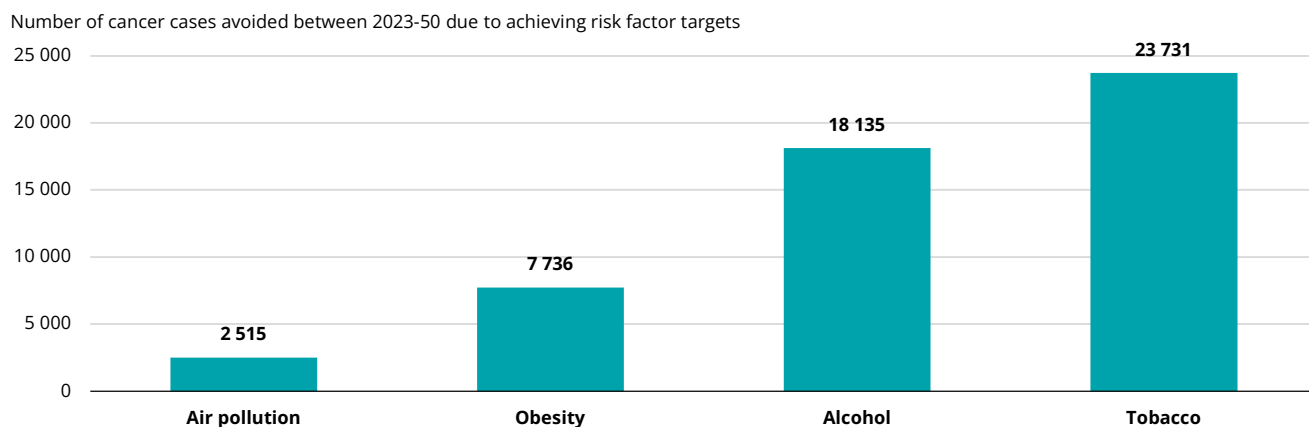
Portugal has garnered strong public support and widespread acceptance for its national vaccination programme. Vaccinations are provided free of charge at primary care services, leveraging the high level of trust the population has in healthcare professionals, and maximising the programme’s principle of taking advantage of all available vaccination opportunities. Over the years, vaccination coverage for hepatitis B virus (HBV) among children has consistently remained close to full coverage, reaching 99% in 2023 – the highest rate in the EU+2. Since the initiation of an HPV vaccination programme in 2008, there have been notable updates, including the replacement of the 4-valent vaccine with a new 9-valent version in 2017, and the inclusion of boys in the HPV vaccination programme in 2021. By 2023, according to WHO, 91% of 15-year-old girls had completed the HPV vaccination scheme – one of the highest rates among EU+2 countries. According to national

estimation, the HPV vaccination rate reached 95% among 15-year-old girls in 2023. Despite the recent inclusion of boys in the programme, a 2024 report on the national vaccination programme (Directorate-General of Health, 2024) revealed that 88% of boys aged 14 had already received the two doses of the vaccine, surpassing the national target of 85%.

Further decreasing smoking and drinking prevalence will yield the biggest reductions in new cancer cases

According to OECD Strategic Public Health Planning (SPHeP) modelling work, achieving specific cancer risk factor milestones (Figure 8) could prevent over thousands of new cancer cases in Portugal between 2023 and 2050. Notably, meeting tobacco consumption reduction targets alone would avert over 23 000 new cases. Following smoking, alcohol consumption and obesity present the greatest potential for preventing 18 135 and 7 736 additional cancer cases respectively in the coming decades through effective policy interventions.

Figure 8. Portugal has a substantial opportunity to prevent new cancer cases if tobacco and alcohol reduction targets are met



Notes: The target for tobacco is 30% reduction in tobacco use between 2010 and 2025, and less than 5% of population using tobacco by 2040. For alcohol, the target is a reduction of at least 20% in alcohol consumption and 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_{2.5} level capped at 10 µg/m³ by 2030 and at 5 µg/m³ 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>.

4. Early detection

Population-based screening programmes are at the centre of current cancer policies and efforts

Portugal has established three nationwide cancer screening programmes, targeting breast, cervical and colorectal cancer. These initiatives are publicly financed through the National Health Service (NHS), and are predominantly managed by the five regional health administrations on the mainland and health authorities in the two autonomous regions. External organisations are contracted to conduct breast cancer screening activities. Primary care services and family physicians play pivotal roles in these screening programmes, from identifying and inviting patients for screening to managing screening samples and providing follow-up appointments. Despite their long history dating back to the 1990s, implementation of these screening programmes faces various challenges, including data governance issues and the lack of standardised operational procedures across regions.

The NSAC identifies early diagnosis as a strategic priority, and has set ambitious goals to enhance screening accessibility and uptake by 2030. These objectives include achieving 100% territorial coverage, 95% populational coverage and 65% take-up rate across all screening programmes. To accomplish these targets, the government established a new National Co-ordination Centre for Population-Based Screening Programmes at the end of 2023, tasked with developing standardised operating procedures, co-ordinating programme implementation, and enhancing data collection and governance for improved monitoring.

Recent efforts have focused on collaborating with the Directorate-General for Health to develop new screening programme guidelines. These aim to standardise procedures and enhance the effectiveness of screening initiatives. Additionally, a centralised information system for all screening programmes was slated to become operational by

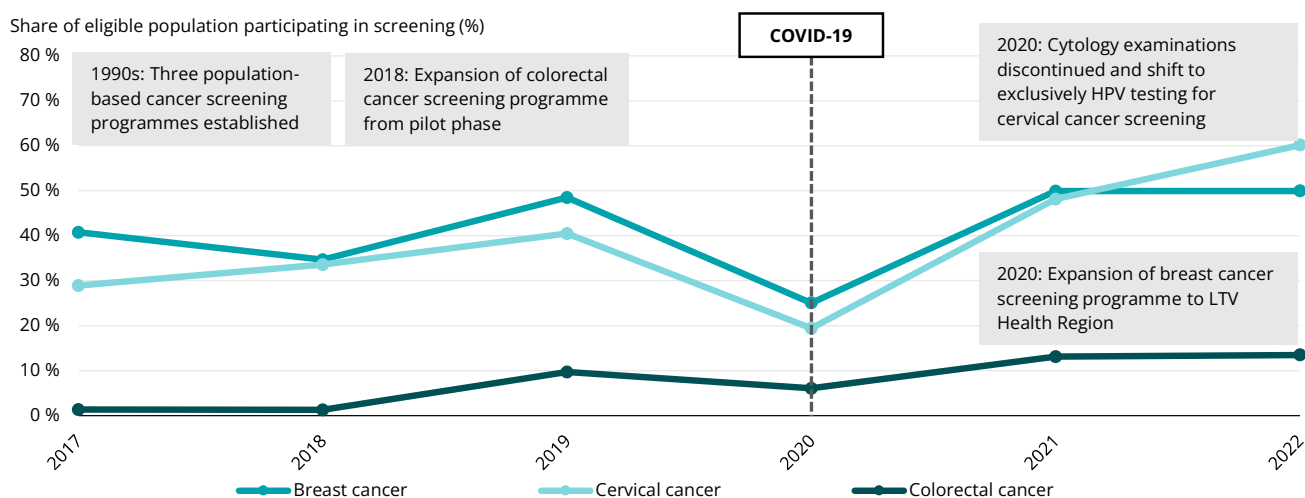
the end of 2024, facilitating better co-ordination and monitoring of screening efforts nationwide.

In 2022, Portugal achieved full invitation coverage of the eligible population to breast cancer screening

Breast cancer screening has been in place in Portugal since 1990, targeting women aged 50-69, who are invited for digital bilateral mammography every two years, in line with the Council recommendation on cancer screening. The programme is now operational across all regions of Portugal. On the mainland, regional health administrations identify eligible populations, which are then communicated to external contractors such as the Portuguese League Against Cancer and the Algarve Oncology Association. These contractors conduct primary testing using mobile and permanent screening units. In the autonomous regions, regional health services oversee all aspects of the programme.

Following stagnant screening activity and disruptions due to the COVID-19 pandemic, the breast cancer effective screening rate rebounded to 50% in 2022, which is the highest on record (Figure 9). This increase is largely due to the significant expansion of the invited target population – from approximately 40% in 2020 to 98% in 2022 (Table 2). The programme's introduction in the Lisbon and Tagus Valley (LTV) Health Region, the largest in the country, in 2020 was a major contributor to these gains: the target population invited in the LTV region surged from 15% to 100% between 2020 and 2022. However, this sudden expansion led to a 10 percentage point decrease in screening uptake, reflecting the initial experience of the population with the new screening programme. By 2022, all health regions achieved 100% population coverage, except for the Alentejo Health Region (81%). Screening uptake varied, ranging from 32% in the LTV Health Region to 74% in the Azores Autonomous Region.

Figure 9. After a significant drop in 2020 due to COVID-19, screening has been increasing across all programmes



Notes: Data refer to mammography screening among women aged 50-69 within the past two years (based on programme data), HPV test screening among women aged 25-60 within the past five years (based on programme data) and faecal immunochemical test for colorectal screening among people aged 50-74 over the past two years (based on programme data). A series break occurs for breast cancer screening data in 2021 due to a change in methodology of data collection and treatment. Only breast cancer screening data include Madeira Autonomous Region for 2022.

Source: Programa Nacional para as Doenças Oncológicas (2023).

Table 2. The colorectal cancer screening programme has significantly lower population coverage and uptake than other programmes

Screening programme (2022)	Eligible population invitation coverage	Uptake of screening invitation	Effective screening rate
Breast cancer	98%	51%	50%
Cervical cancer	64%	94%	60%
Colorectal cancer	33%	41%	14%

Source: Programa Nacional para as Doenças Oncológicas (2023).

Population invitation for cervical cancer screening remains limited

Cervical cancer screening has been established in Portugal for over three decades and is operational across all health regions. It targets women aged 25-60, who are invited every five years for an HPV test (cytology examination was discontinued in 2020). In mainland Portugal, regional health administrations identify the eligible population, who are invited for screening by family physicians. In the Azores Autonomous Region, the Azores Oncology Centre is responsible for identifying and inviting patients. Madeira Autonomous Region initiated its population-based cervical cancer screening pilot in 2022, so data are not yet available.

In 2022, cervical cancer screening achieved a record effective screening rate of 60%, up from 19% in 2020, making it the most successful screening programme in the country (see Figure 9). Screening

is conducted by family physicians at primary care services, potentially contributing to its high uptake rate of 94% and its resilience to COVID-19 pandemic challenges. Despite complete geographical coverage, increasing screening rates is hindered by invitation capacity (see Table 2). In 2022, the proportion of the eligible population invited varied from 38% to 92% across health regions. Notably, the health regions with the lowest invitation rates also had the highest shortages of family physicians: 17% of the population of Algarve and 24% of the population of LTV lacked an assigned family physician (Ministry of Health, 2024a). Although patients without an assigned family doctor are meant to be invited for screening by the head of their primary care unit, the stretched primary care workforce faces challenges in ensuring timely invitation and testing of all patients. In October 2024, the Directorate-General for Health released updated guidelines for cervical cancer screening,

introducing significant changes to the programme. The eligible age range was adjusted to include individuals aged 30 to 69, and self-sampling was made available for patients who prefer it or have not responded to two consecutive invitations. These updates are anticipated to enhance the coverage and effectiveness of Portugal’s cervical cancer screening programme.

Colorectal cancer screening rates are the lowest among all programmes

The population-based colorectal cancer screening programme was initially introduced in Portugal in 2008 and is currently operational in all mainland health regions and the Azores Autonomous Region. A pilot programme was launched in Madeira Autonomous Region in 2023. The programme targets men and women aged 50-74, who are invited to undergo a faecal immunochemical test (FIT). Regional health administrations are tasked with identifying each year’s eligible population, and eligible users receive an invitation letter followed by a testing kit if the invitation is not declined.

After collecting a stool sample, users return the kit to their primary care unit, from where it is sent to public health laboratories for testing. Users with a positive FIT test are invited for a colonoscopy examination. Colorectal screening has the lowest invitation coverage and adherence rates of all population-based screening programmes in the country (see Table 2). In 2022, only 33% of eligible individuals were invited to participate; of those, only 41% accepted, resulting in an effective screening coverage of 14%.

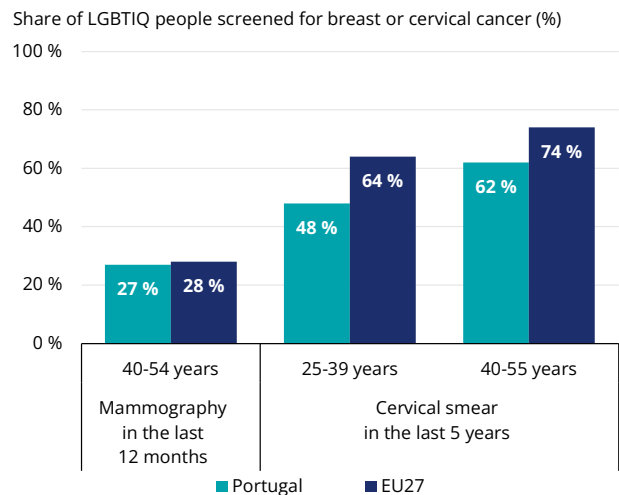
Regional disparities in the share of the eligible population invited indicate varying levels of maturity of this screening programme across regions. In the North Health Region, where invitations are centralised and not dependent on family physicians, 86% of eligible individuals received testing kits, compared to only 8% in the LTV Health Region. Follow-up is also a concern: only 35% of patients with a positive screening result in 2022 underwent a colonoscopy.

A recent study commissioned by the Directorate-General of Health highlighted significant regional differences in implementation of the colorectal screening programme (Lunet et al., 2023). The study also identified potential deterrents to patient adoption, such as reluctance towards the testing procedure and fear of undergoing a colonoscopy.

LGBTIQ people participate less in cancer screening in Portugal than their counterparts in the EU

The EU LGBTIQ Survey III revealed lower cancer screening rates among LGBTIQ populations in Portugal compared to EU averages (Figure 10). For breast cancer, 27% of LGBTIQ cisgender females, transgender females, and intersex people aged 40-54 reported having a mammogram in the previous 12 months, slightly below the 28% EU average. For cervical cancer screening, 48% of the relevant LGBTIQ population aged 25-39 (compared to 64% EU average) and 62% of those aged 40-55 (compared to 74% EU average) reported having a cervical smear test in the previous 5 years.

Figure 10. LGBTIQ persons in Portugal reported lower participation in breast and cervical cancer screening 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).

Further progress is needed to meet cancer screening goals

The NSAC’s screening coverage and adoption goals aim for an effective screening rate of nearly 62%. The breast cancer screening programme needs to enhance uptake; the cervical cancer programme requires improvements to invitation coverage; and the colorectal cancer programme has to improve both invitation coverage and uptake to meet the target. Another limitation of the current system is the absence of monitoring for inequalities in cancer screening.

In July 2024, the Directorate-General for Health, aligned with the EBCP, published general standard operating procedures for cancer screening programmes in Portugal. These procedures defined

several key strategies, namely: focusing the screening process around citizens, standardising invitation procedures, establishing indicators for programme monitoring and evaluation, supporting the optimisation of information systems, and quantifying and reducing inequalities in screening activities. In October 2024, it was announced that the breast cancer screening programme would be expanded to include women aged 45-75, broadening the targeted age group from the previous range of 50-69.

The EU-funded BRIGHT Project is evaluating precision breast screening approaches by tailoring screenings based on genetic risk. In March 2024, the Azores autonomous region launched a *Helicobacter pylori* pilot screening programme. The mainland was also preparing to implement a pilot stomach cancer screening programme within the framework of the EUCanScreen Joint Action and TOGAS project. As of September 2024, no pilot project for establishing new lung cancer screening programmes were underway in Portugal.

5. Cancer care performance

5.1 Accessibility

Cancer care in Portugal is primarily delivered through the NHS at hospitals within one of the 39 local health units or at the three national institutes of oncology. The national institutes of oncology are specialised cancer centres that, in 2021, managed 27% of all new cancer cases, performed 44% of all oncology surgeries, and handled 57% of radiotherapy treatment plans in the country.

In June 2022, Portugal eliminated user charges across all health services, except for emergency department visits without a referral. As a result, all cancer care services – including vaccination, screening, consultations, diagnostics and treatment – are fully subsidised by the NHS and provided free of charge. This complete coverage extends to cancer medications for both inpatient and outpatient treatment. Other drugs fall under various upfront reimbursement schemes – for example, opioids for pain relief are covered by a specific 90% reimbursement scheme. The NHS also subsidises non-urgent patient transport for clinical appointments and treatments, particularly for those facing health or economic challenges. Furthermore, prostheses and other technical aids

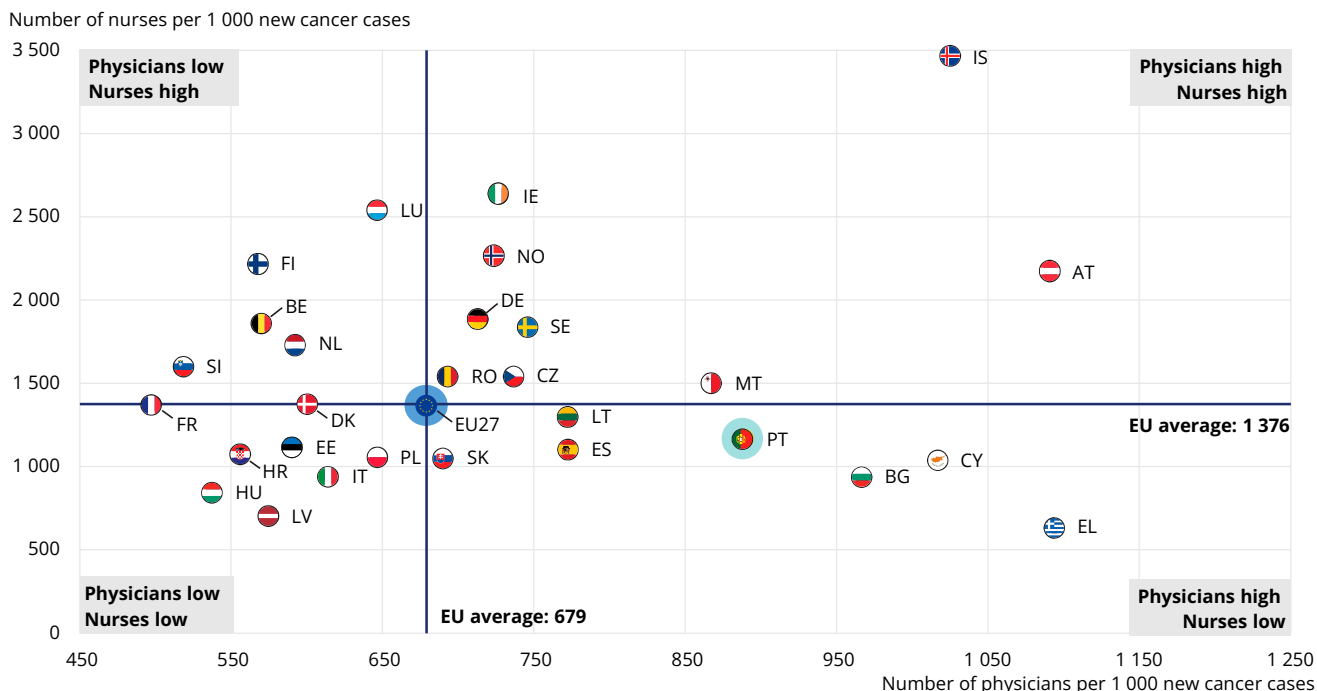
prescribed by doctors are reimbursed, ensuring comprehensive support for patients, without financial burden.

Workforce shortages compromise cancer care at different stages

In the Portuguese NHS, family physicians are pivotal for cancer care, serving as gatekeepers to specialised medical services. They are involved in screening programmes (see Section 4), follow-up appointments after screening, referrals to specialists, and management of sick leave and patient support. However, as of April 2024, over 1.5 million people (15% of the population) lacked an assigned family doctor (Ministry of Health, 2024a), impeding early detection and timely treatment.

Portugal's healthcare workforce includes 1 169 professionally active nurses per 1 000 new cancer cases – a lower rate than the 1 376 per 1 000 across the EU. Portugal had 889 licensed physicians per 1 000 new cancer cases (Figure 11) but the estimated number of practising physicians is 30% lower than the licensed physicians, placing the country below the EU average of 679 practising physicians per 1 000 cases.

Figure 11. There are fewer nurses per cancer case in Portugal 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 unweighted.

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

Despite these overall challenges, the number of medical specialists in key areas of cancer care within the NHS has been increasing. From 2017 to 2023, the number of full-time equivalent (FTE) medical oncologists rose from 164 to 285 – a 74% increase (Ferreira et al., 2024). Radiation oncology also saw a steady but smaller growth, with FTEs increasing by almost 17%, from 77 in 2017 to 90 in 2023. While medical oncologists are present in almost every public hospital, there are only 11 NHS radiotherapy centres, resulting in geographical disparity in the distribution of radiation oncologists.

Portugal lacks a master’s programme or specialisation in cancer nursing. Despite the comparatively low ratio of nurses per cancer cases, the number of nursing FTEs in the NHS increased by 18% between 2017 (43 356) and 2023 (50 970). A 2021 report on NHS resources in oncology (Directorate-General of Health, 2022) identified 21 medical physicists and 255 radiation therapy technologists (RTT) working in the NHS. The current ratio of 4.6 physicists per 1 000 000 population is well below international recommendations of 18 per 1 000 000. This shortfall is a bottleneck to increasing activity, implementing new techniques, conducting clinical trials and complying with European radiation security directives.

Portugal is modernising radiation therapy equipment and expanding robotic surgery capabilities

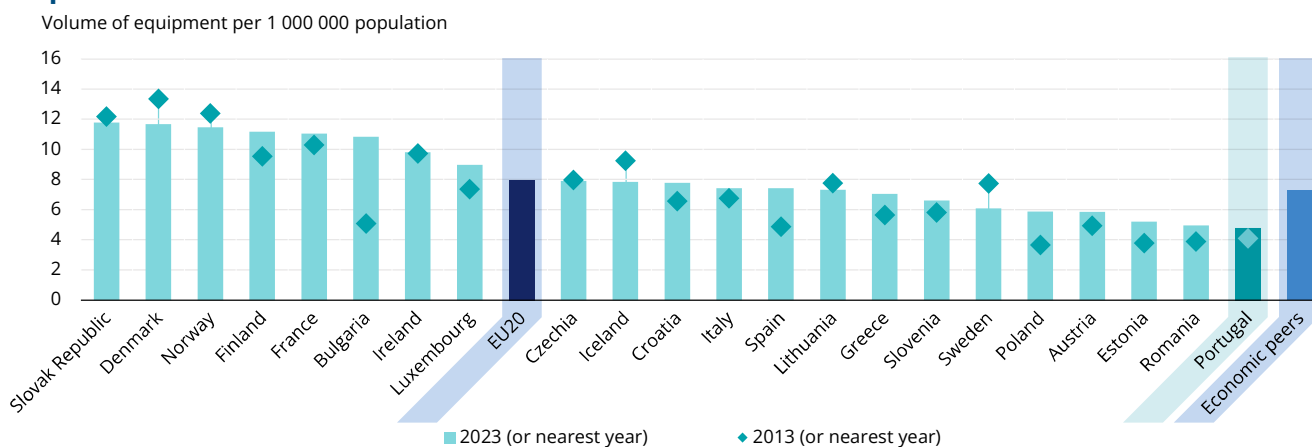
In Portugal, the volume of radiation therapy equipment was 5 per 1 000 000 population in 2022, which was 40% lower than the EU average (8 per 1 000 000) and 34% lower than the average of its economic peers (7 per 1 000 000) (Figure 12). Notably, this figure accounts only for units available at hospitals, not the total number. Considering 2023 data from the IAEA, which identified 74 radiation therapy units in the country, the ratio of equipment is 7 per 1 000 000 population – just below the EU average and the average of Portugal’s economic peers.

Portugal had 57 megavoltage (MV) radiotherapy units, of which at least 33 were owned by the NHS. Additionally, there were 17 brachytherapy units, 11 of which were in the NHS. In 2018, a government resolution set the goal of building a proton therapy centre, and authorised funds to hire and train researchers and physicians. Later in 2020, the Strategic Vision for Portugal’s Economic Recovery Plan 2020-30 prioritised this centre as a key health sector investment. The centre will collaborate with the national institutes of oncology, featuring a main hub in Lisbon and a specialised ophthalmology node in Coimbra.

In Portugal, 47% of brachytherapy and 46% of MV radiotherapy units were more than 15 years old, which is older than the optimal lifespan of radiotherapy equipment defined by WHO. Information on computed tomography (CT) scanners and magnetic resonance imaging (MRI) machines is also only available for units located in hospitals, complicating comparisons with other countries. Nevertheless, the number of hospital-based CT scanners per 1 000 000 population increased by 15% and MRI machines per 1 000 000 by 94% between 2012 and 2022.

At the end of 2023, Portugal had 10 surgical robots, with 5 installed in NHS hospitals (up from 1 in 2022). In December 2023, the Executive Board of the NHS announced an investment programme, mostly funded by the EU-wide Recovery and Resilience Programme, to install 8 new surgical robots in the NHS during 2024. This investment will more than double the NHS's capacity, and bring the ratio to nearly 1 per 500 000 people (up from 1 per 1 000 000). This initiative is part of a broader EUR 117 million investment programme to modernise NHS equipment, which will also replace 25 CT scanners, 18 MRI machines and 11 linear accelerators.

Figure 12. Portugal has less radiation therapy equipment than the EU average, but supply has improved since 2013



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 PT are BG, EE, EL, HR, PL, RO and SK. The EU average is unweighted.
Source: OECD Health Statistics 2024.

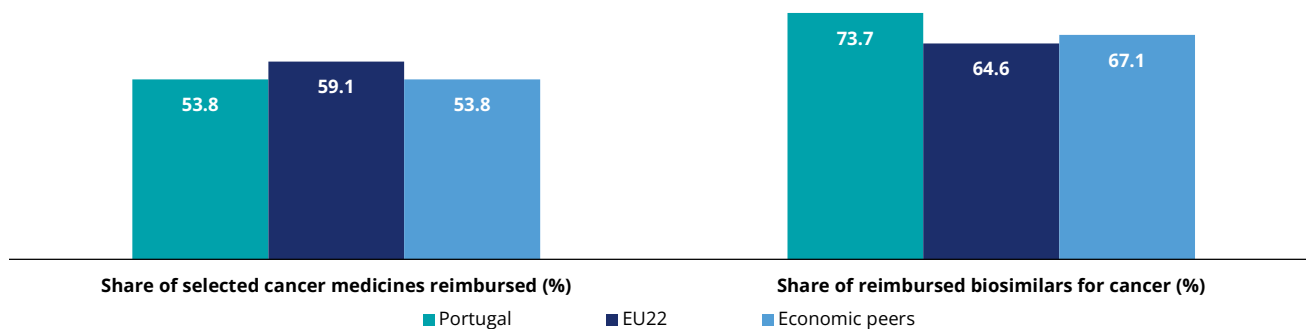
Reimbursement approval of new cancer medicines is close to the EU average

In Portugal, 54% of indications for a sample of new cancer medicines (for breast and lung cancer) with a high clinical benefit were publicly reimbursed – a rate equal to that of the country’s economic peers but lower than the EU average (59%) (Figure 13). The mean time between approval by the European Medicines Agency and coverage decisions on this sample was 748 days – 45% longer than the EU average. Given these constraints, the NSAC has set a goal of establishing a maximum decision time for reimbursement of new cancer drugs by 2025. In May 2024, the new cabinet announced an

increased focus on fully implementing the National Health Technology Assessment System as part of its comprehensive new Health Emergency Plan (Ministry of Health, 2024b).

In 2023, the share of biosimilars for cancer medicines with public reimbursement in Portugal was 74%, which is higher than averages across both the EU (65%) and the country’s economic peers (67%) (Figure 13). It took, on average, 266 days for Portugal to decide on reimbursement of these drugs following approval by the European Medicines Agency – significantly less than the EU average of 505 days.

Figure 13. Portugal has a high share of biosimilars for cancer care that are publicly reimbursed



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 PT are BG, EE, EL, HR, HU, LV and PL. The EU average is unweighted. Source: Hofmarcher, Berchet and Dedet (2024), "Access to oncology medicines in EU and OECD countries", <https://doi.org/10.1787/c263c014-en>.

Portugal is focusing on reducing and better monitoring oncology waiting times

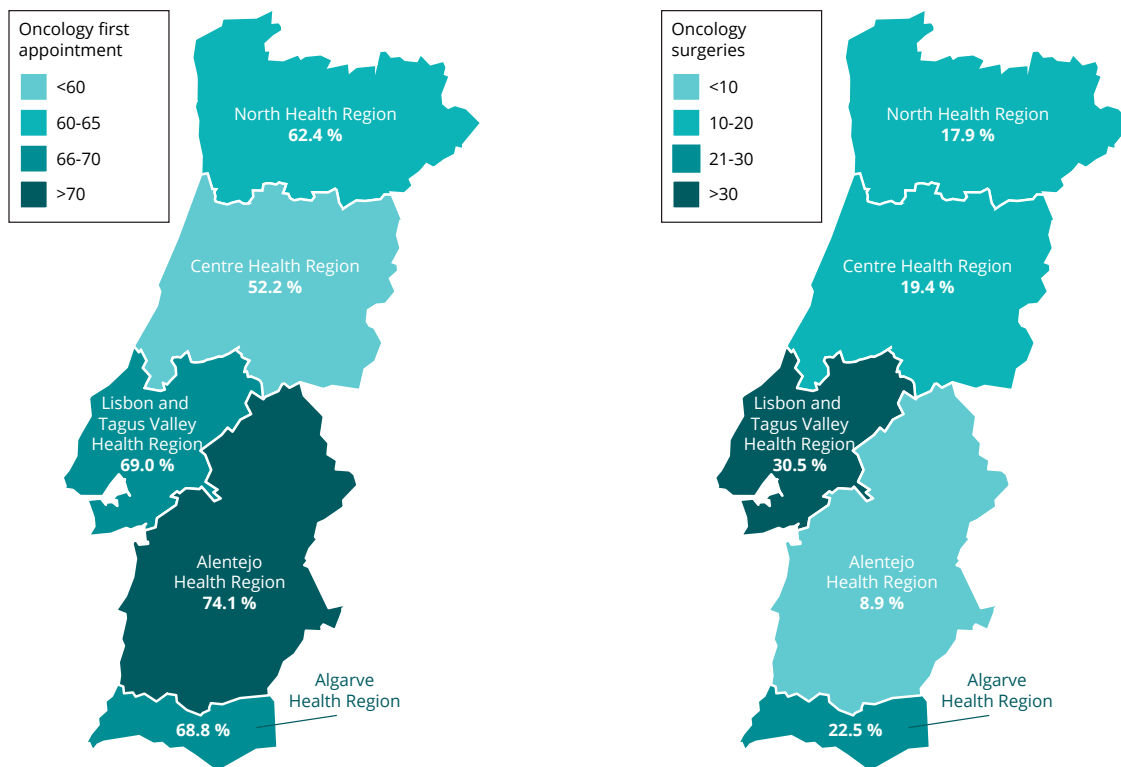
In 2017, Portugal established maximum guaranteed response times (MGRTs) for initial appointments and surgical procedures based on clinical priority. For oncological care, waiting times are defined for both initial appointments after referral (Level 1 within 30 days; Level 4 immediately) and scheduled cancer surgery (Level 1 within 60 days; Level 4 within 72 hours). If NHS hospitals cannot meet these time limits, patients can be transferred to another provider or given a voucher to seek private care of their choosing.

The Health Regulatory Authority (HRA) oversees waiting times in Portugal's NHS, covering 126 entities that offer surgery and 68 entities that provide consultations. Generally, due to information systems' limitations, only primary care consultation referrals to a general hospital's medical and radiation oncology departments are assessed, excluding other specialties, internal or inter-hospital requests – limiting representativeness. In June 2023, an updated information system in 39 hospitals identified oncology-related consultations to other specialties, enabling analysis of cancer-specific response times for all referrals in those institutions. At the national institutes of oncology, all consultations are assumed to be cancer-related, except genetic consultations.

In 2023, 62% of public hospitals exceeded MGRTs (up from 46% in 2022) for an initial consultation after referral due to cancer suspicion or diagnosis. Median waiting times for an initial appointment after referral were 25 days – higher than 17 days in 2022. MGRTs for oncology surgery were exceeded by only 23% of NHS hospitals, up from 22% in 2022, with a median waiting time of 26 days (26 days in 2022) (HRA, 2024a). As of 2023, 10 775 patients with suspected or confirmed cancer were awaiting a first appointment, with 82% already exceeding the legally defined MGRT. At the same time, 7 282 cancer patients were awaiting surgery in the NHS (5% increase from 2022), of which 20% were over the MGRTs.

There are regional differences (Figure 14) and priority-level differences in MGRT compliance due to varying practices in cancer care organisation and priority classification. The NSAC aims to harmonise these classification procedures to improve monitoring and define MGRTs for different radiation therapy procedures. The May 2024 Health Emergency Plan also introduced the OncoStop2024 Programme as its strategy to eliminate delays in oncology surgery by increasing public hospital capacity and forming new contracts with private providers. Additionally, it supports the NSAC's goal of standardising priority classification and monitoring mechanisms.

Figure 14. Regional differences in the share of oncology first appointments and surgeries that exceeded maximum guaranteed response times are large



Source: Adapted from HRA (2024a).

5.2 Quality

The momentum for certification of new cancer centres has stalled

In 2014, Portugal’s Directorate-General of Health initiated a programme to certify reference centres, aiming to enhance the quality of healthcare services. This was especially critical for cancer care, where there is a strong link between case volume and quality. By 2018, 47 reference centres were certified for various cancers: oesophageal (6), rectal (21), testicular (4), hepato-bilio-pancreatic (10), soft tissue and bone sarcomas (5), and ophthalmic (1). Some of these certified centres later joined European Reference Networks, further enhancing their capabilities. However, no new cancer reference centres have been recognised since 2018.

Although there is an inter-hospital referral network, a cancer-specific referral network that focuses on cancer patients needs and addresses the multidisciplinary requirements of cancer care has yet to be created. The NSAC aims to establish the Oncology Referral Network by 2026, with goals to treat over 90% of patients at certified centres, implement precision and genomic medicine services, and provide specialised psycho-oncology support.

The closure of seven breast cancer centres in April 2024, due to factors such as insufficient case volume, lack of surgeons, or unavailable necessary expertise, highlighted the challenge of balancing access and quality. While this decision might worsen the uneven distribution of cancer care (see Section 5.1), consolidating care in high-volume centres could improve outcomes and reduce potential years of life lost (PYLL).

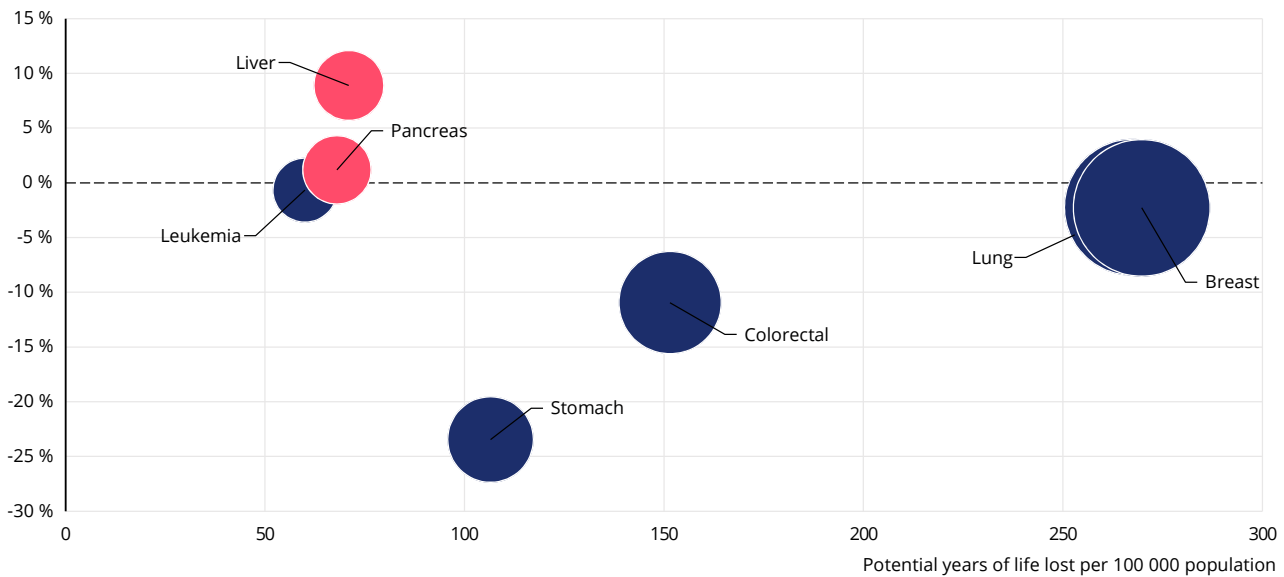
The potential years of life lost declined for many cancers between 2012 and 2019, except for pancreatic and liver cancers

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 Portugal, the overall PYLL due to cancer in 2019 was 1 494 per 100 000 people, which is 10% higher than the EU average. Although PYLL have decreased by 6% since 2012, this is significantly less than the 19% reduction across the EU. Lung (267 years per 100 000) and colorectal (152 years per 100 000) cancers had the highest PYLL, despite reductions since 2012 (Figure 15). Among women, breast cancer led to 270 PYLL per 100 000 women.

Figure 15. Lung cancer is responsible for the majority of potential years of life lost in Portugal

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.

Quality of cancer care is improving in several dimensions

Despite Portugal’s comprehensive national strategy for health quality and patient safety, there is no specific assessment system for cancer care quality. The National Cancer Registry, established in 2018, has successfully integrated data from regional cancer registries, the Paediatric Cancer Registry and the registries of the two autonomous regions. While it has published valuable information on cancer incidence and mortality, crucial data on survival rates and the stage at diagnosis remain unpublished.

Indicators of cancer care quality show some progress in the country. The average length of hospital stay for cancer patients decreased from 12 days in 2001 to 9 days in 2021, though it remains higher than the EU average of 7 days. The profile of breast cancer surgery has evolved significantly over the past 20 years. In 2022, 67% of all mastectomies performed were partial, marking an improvement from 59% in 2002, albeit still slightly below the EU average of 70%. Meanwhile, 75% of partial mastectomies were inpatient procedures – a decrease from 81% in 2002 but still above the 64% EU average.

Quality initiatives in cancer care are ongoing in Portugal

Reflecting high organisational quality standards in cancer care, a 2021 report on NHS resources in oncology (Directorate-General of Health, 2022) showed that 98% of NHS hospitals conducted

multidisciplinary therapeutic decision meetings, and 95% operated outpatient cancer clinics. Additionally, 83% of hospitals managed therapeutic preparations at the pharmacy level.

To improve cancer care quality, the NSAC emphasises the importance of cancer research – particularly clinical trials, aiming to double the number of trials and recruited patients by 2027. According to the Portuguese National Authority of Medicines and Health Products, INFARMED, the number of approved clinical trials more than doubled from 99 in 2012 to 203 in 2023. Of the approved trials in 2023, 58 were for antineoplastic and immunomodulatory drugs.

To enhance the patient-centredness aspect of cancer care, the NSAC advocates development of new patient-reported outcome and experience measures (PROMs and PREMs) specifically for cancer screening programmes. Currently, the systematic application of these indicators in cancer care is rare and not formally established. However, a national initiative was launched in 2020 by inviting motivated healthcare professionals to collect PROMs data from women undergoing breast cancer intervention (breast conserving therapy, mastectomy, or reconstruction) due to breast cancer. A recent study utilising the OECD PaRIS Breast Cancer PROMs Working Group protocol across 10 public hospitals revealed that breast cancer PROMs satisfaction scores were among the highest across a sample of OECD regions (Coelho et al., 2023).

5.3 Costs and value for money

The burden of cancer on health expenditure is projected to be lower in Portugal than in the EU

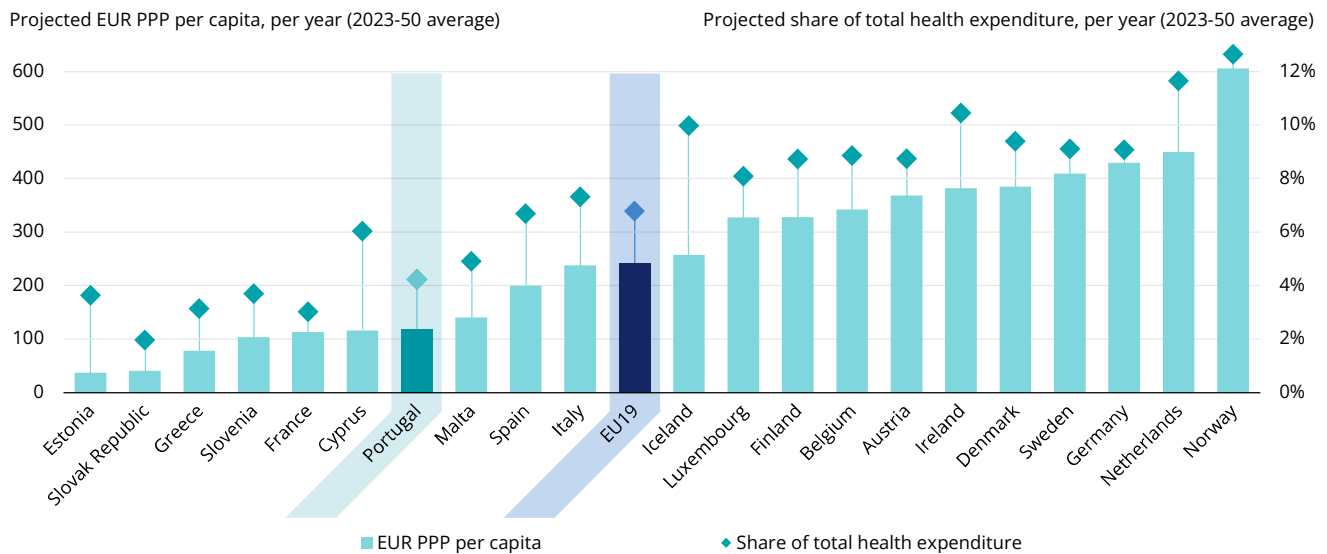
According to OECD SPHeP modelling work, between 2023 and 2050, total health expenditure is estimated to be 4.2% higher in Portugal due to the burden of cancer. This equates to an average of EUR (PPP) 117 per person per year (Figure 16). This figure is much lower than the EU19 average (EUR 242). Overall, the per capita health expenditure on cancer care is expected to grow by 58% in Portugal between 2023 and 2050, compared to 59% in the EU27.

A significant proportion of cancer care expenditure in Portugal is attributed to pharmaceuticals. In 2023, NHS hospitals allocated just over EUR 625 million to oncology drugs alone, accounting for 32% of total pharmaceutical expenditure or 4.2% of the EUR 14.86 billion government health budget for the year. This

reflects a notable 16% increase in expenditure over 2022 (INFARMED, 2023). This rise in oncology drug costs has been a prominent issue, highlighted in May 2024 when the Court of Auditors voided two purchase contracts for oncology drugs at a cancer institute due to budget limit constraints.

The OECD SPHeP modelling work provides further insight into the indirect costs of cancer. Between 2023 and 2050, on average, cancer is expected to lead to a loss of 200 full-time equivalent workers (FTEs) per 100 000 people in Portugal due to reduced employment. This figure is higher than the EU average of 178 FTEs per 100 000, highlighting the significant impact of cancer on workforce participation in Portugal. Additionally, annual losses of 38 FTEs per 100 000 people due to absenteeism and 43 FTEs per 100 000 due to presenteeism⁷ (equal to the EU average) are expected, representing a substantial productivity loss attributable to cancer’s effects on working individuals.

Figure 16. The burden of cancer is projected to account for 4.2% of total health spending between 2023 and 2050



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

Policies are in place in Portugal to link incentives to cancer care performance

The NHS Executive Board, in its 2024 operational framework for contracting with primary care services (NHS Executive Board, 2024), included targets for cervical and colorectal cancer screening in the list of performance indicators. These indicators determine both individual and

institutional financial incentives. Additionally, since 2012, the Integrated Surgery Registration Management System (SIGIC) has provided financial incentives for additional surgical production outside regular working hours to reduce waiting times. However, the Emergency Plan for the NHS has announced that SIGIC will be replaced by a new system.

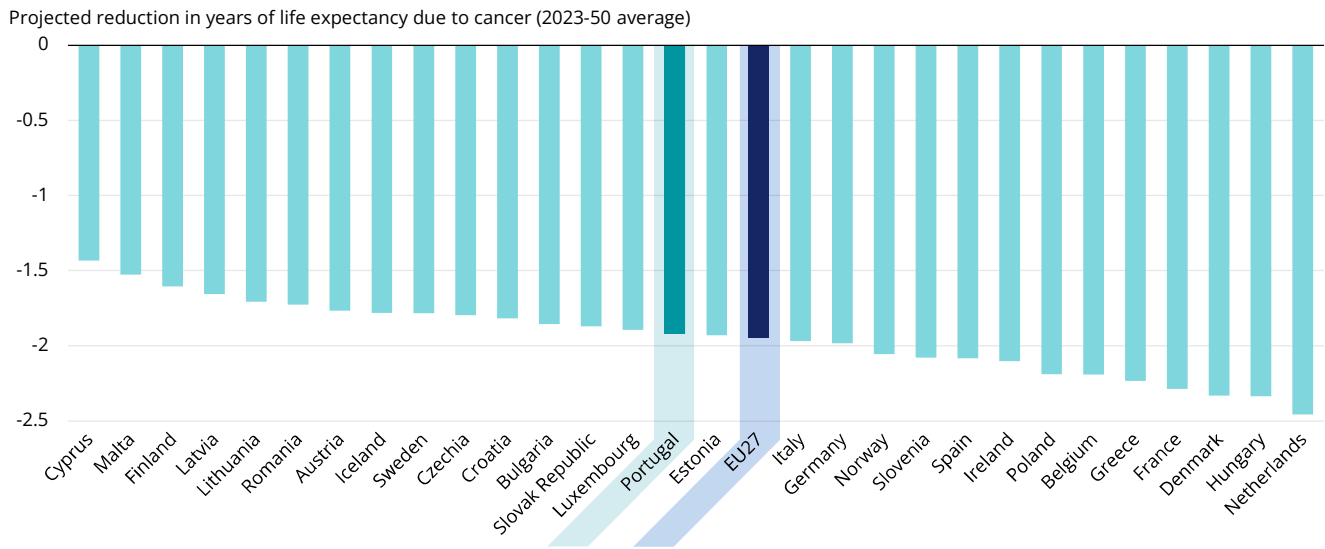
⁷ Presenteeism refers to lost productivity that occurs when employees are not fully functioning in the workplace because of an illness, injury or other condition.

Several hospitals have adopted integrated responsibility centres (IRCs) focused on cancer care, such as the breast cancer centre at São João Hospital and the oesophagus cancer centre at the Institute of Oncology in Coimbra. IRCs are middle management structures that have contracted performance goals linked to financial and non-financial incentives – both individual and institutional. Despite the potential benefits, adoption of IRCs for cancer care has not been widespread across hospitals in Portugal.

5.4 Well-being and quality of life

With incidence of cancer expected to continue to grow (see Section 2), its impact on public health will become increasingly significant. According to OECD SPHeP modelling work, between 2023 and 2050, cancer will reduce the average life expectancy in the country by 1.9 years compared to a scenario without cancer. This reduction is similar to the EU average reduction (Figure 17).

Figure 17. Cancer is expected to reduce life expectancy in Portugal by almost 2 years between 2023 and 2050



Note: The EU average is unweighted.

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

Portugal has implemented policies to help patients and carers cope with cancer's impact

A notable policy change in recent years is the automatic issuance of a five-year medical certificate of multipurpose disability to cancer patients. Previously, obtaining this document could take months or even years, and sometimes incurred fees. The certificate provides recipients with a range of benefits, including income tax relief, reduced taxes on personal vehicles, favourable conditions for securing mortgages and direct cash transfers for households below a specified income threshold.

Supporting cancer patients also means supporting their carers – especially informal ones. In 2019, Portugal recognised informal carers; by the end of 2023, this recognition was expanded to include non-relatives. Legislation for informal carers in the country provides cash transfers under certain conditions. Additional measures – such as work absences for parents of children with cancer and labour market laws that protect workers and allow

for adjusted working hours – have been in place for a long time.

The National Programme for Oncologic Diseases has recently launched a patient resource guide focusing on cancer literacy and informing patients of their rights and available resources. For many years, Portugal has provided free reproductive health services to cancer patients seeking to preserve fertility.

In addition, cancer takes a substantial toll on the mental health of the population, through its associated symptoms and treatment side effects, impact on daily life, social roles and work. According to the OECD's SPHeP model, Portugal will experience the highest age-standardised rate of new depression cases due to cancer at an average of 31 per 100 000 people per year between 2023 and 2050, above the EU average of 17 per 100 000. Although not solely focused on cancer, the NHS has been working to increase its mental health capacity. In 2023, there were more than

2.2 million psychology consultations in the NHS, a 27% increase from 1.8 million in 2018 (Ministry of Health, 2024a). The Emergency Plan for the NHS announced the urgent hiring of an additional 100 psychologists.

Rehabilitation is another crucial element of cancer care. In Portugal, rehabilitation for all conditions is organised under the National Integrated Continued Care Network (NICCN). This comprises four types of units providing at-home and inpatient care for up to 30 days, 30-90 days and more than 90 days of admission. While at-home care and recovery units (up to 30 days) are provided free of charge, the others require copayments that vary according to patients' wealth. At the end of 2022, the NICCN had a contracted capacity of 15 269 patients across all health conditions, with most receiving at-home care (5 690) (HRA, 2024b). By the end of the first quarter of 2024, 2 338 patients were on the waiting list, mostly for long-term units (Ministry of Health, 2024a).

Geographical coverage of the NICCN appears to be extensive, with more than 90% of the population living less than 60 minutes from a unit and only 9-22% living further than 30 minutes, depending on the unit type. However, there are significant regional disparities in supply and waiting times. Portugal has also integrated other elements of cancer rehabilitation into its system, such as breast reconstruction surgery and placement of prostheses for oral rehabilitation of patients treated for head and neck cancer.

Palliative care in Portugal is evolving quickly but challenges remain

Portugal has a well developed and integrated palliative care network, financed by the NHS budget and provided free of charge to patients in need. By the end of 2022, there were 245 palliative

care beds in hospitals and an additional 169 beds in the NICCN, distributed across the health regions of mainland Portugal. Of 46 public hospitals, only two did not have an intra-hospital palliative care support team and did not provide appointments for external patients. There were also 12 paediatric palliative care support teams. Across primary care, there were 27 community palliative care support teams and 8 palliative care home support teams.

The Portuguese Palliative Care Observatory highlighted several challenges in its latest report. Few teams have doctors working full-time in palliative care, and specialisation levels are low among doctors (40%) and nurses (10%), potentially compromising service quality and differentiation. The report also identified geographic disparities in palliative care coverage across the country. Based on survey results, it estimated FTE shortages of 39 physicians, 246 nurses, 19 psychologists, and 18 social workers in 2022.

Palliative care has been a policy focus in recent years, leading to several significant changes. The new Strategic Plan for Palliative Care for 2023-24 (Silva et al., 2023), launched in December 2023, introduced minimum training requirements for all palliative care professional groups, including physicians, nurses, psychologists and social assistants. It also established a set of quality indicators for assessing palliative care units, and defined minimum staffing ratios of each professional group relative to palliative care beds or population density. Additionally, the NHS Executive Board has reorganised palliative care services in line with the integration of primary care and hospital care under local health units throughout the country. As part of this process, several performance indicators have been proposed, such as ensuring an average time for a first palliative care consultation of under 20 days.

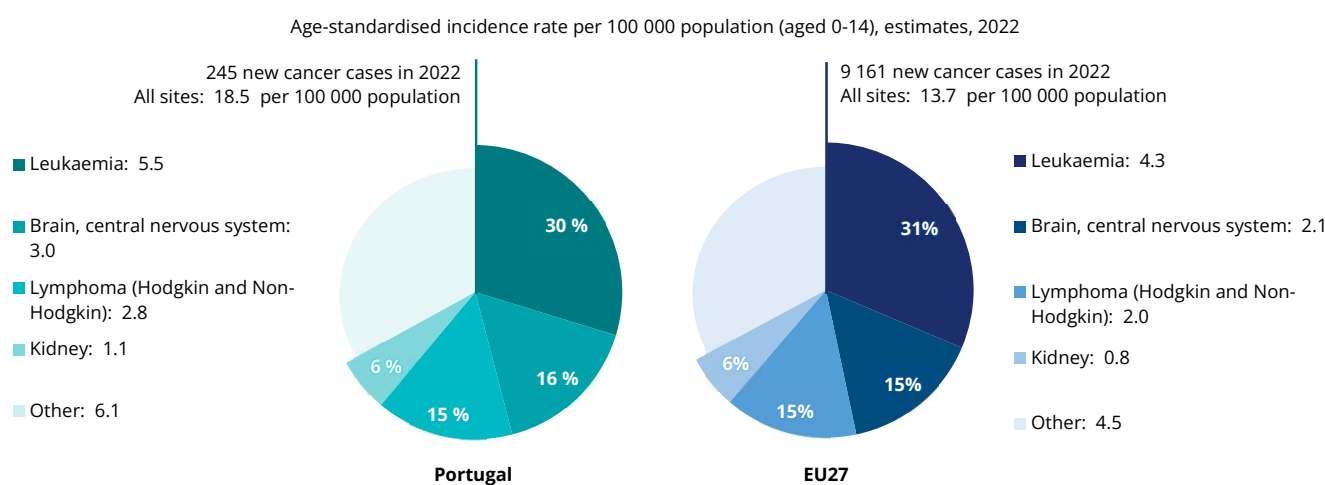
6. Spotlight on paediatric cancer

According to ECIS, it is estimated that 245 children and adolescents up to age 15 were diagnosed with cancer in 2022 in Portugal. Incidence rates for ages 0-14 in 2022 were estimated at 19 per 100 000 children in Portugal, the highest among EU+2 countries and considerably above the EU average of 14 (Figure 18). In Portugal, incidence rates among boys are slightly higher than among girls, similar to the EU, with both about 30% higher

than the EU average. The most common cancer groups are leukaemia (6 cases per 100 000 children, 30%), brain and central nervous system (3 cases per 100 000, 16%), lymphoma (3 cases per 100 000, 15%), and kidney (1 per 100 000, 6%).

Eurostat data shows that mortality rates are also higher in Portugal, with a 3-year average age-standardised mortality rate of 2.6 per 100 000 children as compared to 2.1 in the EU.

Figure 18. Cancer incidence among children in Portugal is the highest across EU+2 countries



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.

According to the European Society of Paediatric Oncology (SIOPE)'s Organisation of Care & Research for Children with Cancer in Europe (OCEAN) Project, Portugal has organised its paediatric cancer care around four institutions (SIOPE, 2024). Two are at national institutes of oncology (in Lisbon and Porto) and two at university hospital centres (in Coimbra and São João).

Twelve of 13 infrastructural and treatment modalities, including chemotherapy, stem cell transplant, radiation therapy, and palliative care, are available for paediatric cancer patients in Portugal. While proton radiation therapy is not yet available in the country (see Section 5.1), the government arranges for selected patients who need this treatment to receive it in countries such as Spain or Denmark.

Despite the high incidence rate of childhood cancer in Portugal, relatively little research is being conducted in the country.

In 2018, 84% out of 68 medicines identified as essential for treating cancer in patients aged 0 to 18 were available in Portugal, compared to 76% in the EU on average (Vassal et al., 2021). However, between 2010 and 2022, Portugal registered only 22 clinical trials enrolling children and young people, representing 5% of the 436 European trials during this period. This is significantly lower than countries with similar population size, such as Czechia (14%) (SIOPE, 2024).

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Country abbreviations

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

European Cancer Inequalities Registry

Country Cancer Profile 2025

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

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

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

Each Country Cancer Profile provides a short synthesis of:

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

Please cite this publication as:

OECD/European Commission (2025), *EU Country Cancer Profile: Portugal 2025*, EU Country Cancer Profiles, OECD Publishing, Paris, <https://doi.org/10.1787/46c3a9e0-en>.

Series: EU Country Cancer Profiles



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