



ROMANIA

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.

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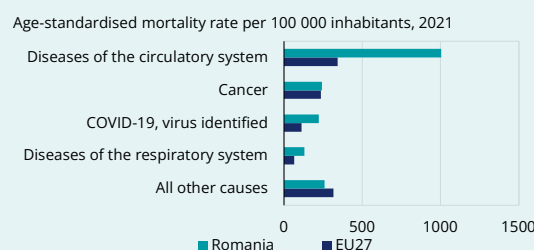
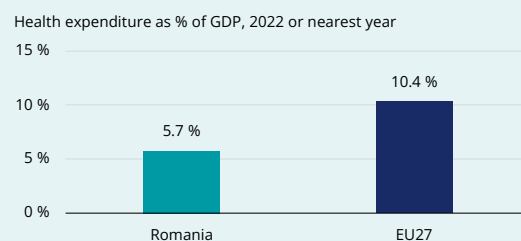
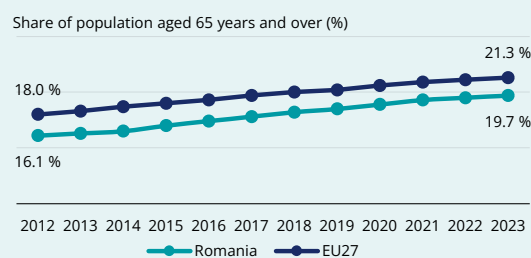
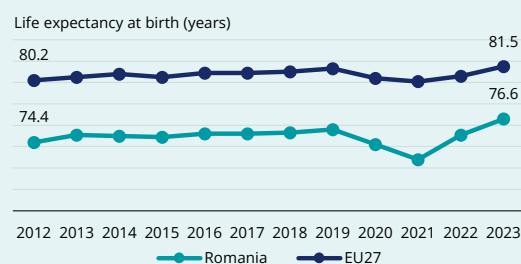
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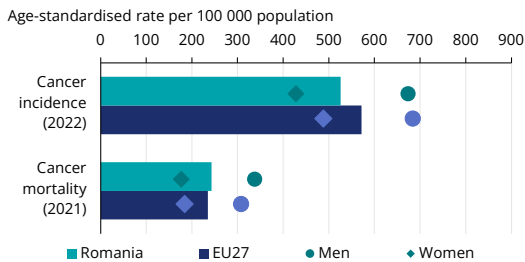
Key health system and demographic statistics



Source: Eurostat Database.

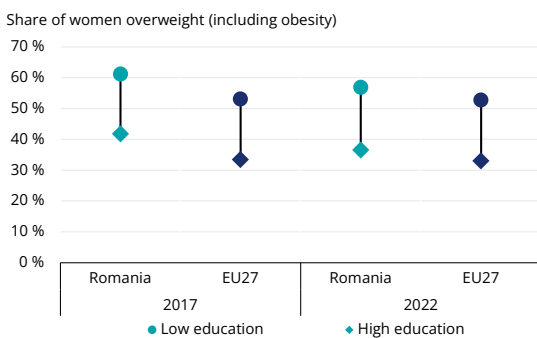
1. Highlights

Cancer in Romania



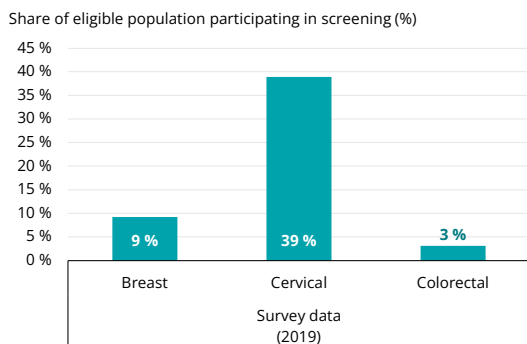
Estimated cancer incidence and prevalence in Romania remained below the EU average in 2022. Cancer mortality was 10% higher among men and 4% lower among women than the EU averages. Prevalence will rise given the expected improved early detection and treatment of cancer, resulting in longer life expectancy for people living with cancer. The National Cancer Plan has prompted development of a series of policies targeting all areas of cancer prevention and control.

Risk factors and prevention policies



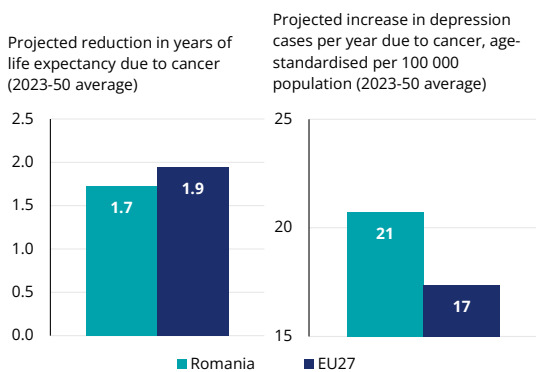
Romania has high prevalence of most cancer risk factors among adults. It implemented a series of tobacco control measures in the last decade (a ban in public spaces, visual warning labels, and an advertising ban), however the smoking rate among men remains one of the highest in the EU. Romania has a reverse social gradient in smoking and alcohol consumption for both genders, although overweight rates are higher among low compared to high educated women. Human papillomavirus vaccination coverage rates are low but increasing. Primary prevention policies still lack an integrated and systematic approach.

Early detection



Uptake of screening remains low for breast and colorectal cancers, although cervical cancer screening rates have been increasing. However, screening pilot programmes for breast and colorectal cancer have been implemented with EU funding, and plans for regional and national rollouts have been developed. In addition, plans for a revised rollout for cervical cancer screening include primary HPV testing. Quality and safety indicators were adopted for colorectal and cervical cancer screening in 2024, while quality indicators for breast cancer screening are in the process of approval. Registries have recently been established for the pilot screening programmes, to facilitate monitoring, evaluating and reporting activities.

Cancer care performance



Important financial allocations from the National Cancer Plan are directed towards improvement of cancer infrastructure to meet service quality criteria. In 2024, the country developed its first strategic plan on clinical trials, which aims to recruit patients, increase human resources, and develop policies to foster innovation. Development of the health workforce is an important priority – both improving the competencies of existing personnel and training a higher number of specialists. Romania does not have a national cancer registry, although this is under development with EU funding. Between 2023-50, cancer is expected to lead to more cases of depression in Romania, but to reduce life expectancy by less than in the EU on average.

2. Cancer in Romania

Cancer incidence in Romania remained slightly below the EU average

According to the European Cancer Information System (ECIS) of the Joint Research Centre based on incidence trends from pre-pandemic years, around 100 471 new cancer cases were expected in Romania in 2022. 55% of these were expected to occur among men, with cancer affecting more men than women, as in other EU countries. Cancer incidence in Romania remained below the EU average: the age-standardised incidence rate for all cancers was 2% lower among men and 12% lower among women than the EU averages. According to ECIS, the number of cancer cases will increase by 8% by 2040.

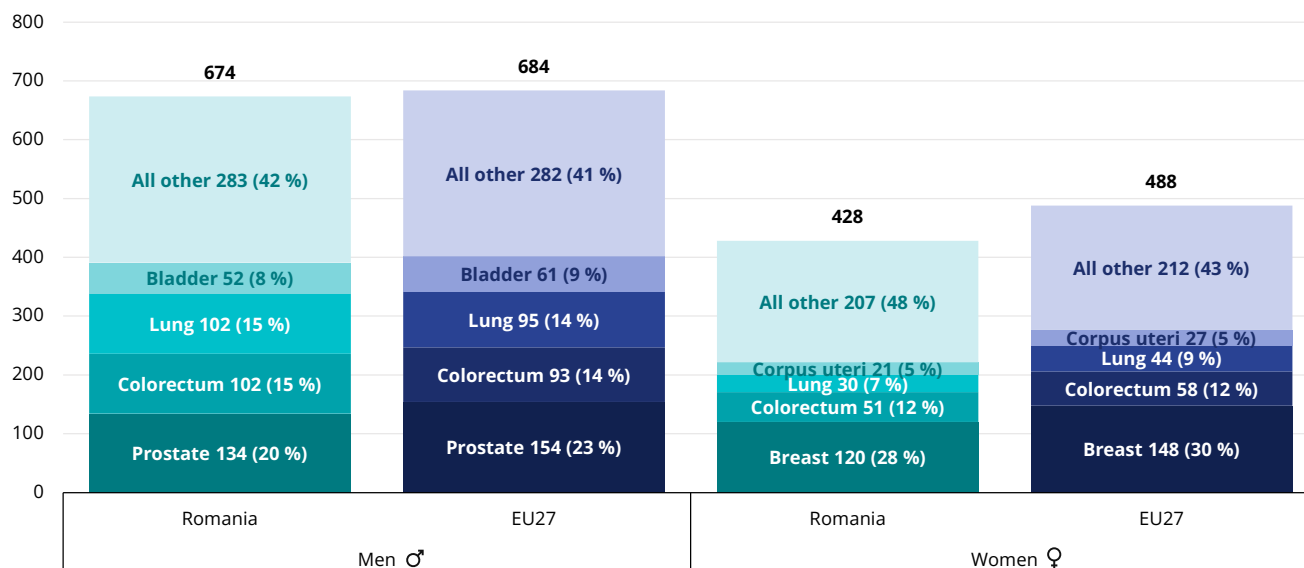
The structure of incidence by type of cancer reveals some particularities for Romania (Figure 1). Among men, the four most common types of cancer are prostate, lung,¹ colorectal and bladder cancers, accounting for 58% of total incident cases in Romania (compared to 59% across the EU), although with a lower contribution of prostate

cancer (20%, compared to 23% across the EU). Romania has the highest incidence rates in the EU among men for larynx, liver and nasopharynx cancers, and the second highest for lip, oral cavity and oropharynx cancers.

Among women, the four most common cancers in the EU (breast, colorectal, lung and corpus uteri) accounted for only 52% of cancers among women in Romania (compared to 57% across the EU), with lower contributions for breast (28% in Romania compared to 30% across the EU) and lung (7% in Romania compared to 9% across the EU) cancers. Cervical cancer (included in "All others" in Figure 1) is the third most common cancer in Romania after breast and colorectal cancer, which differs from the pattern across the EU. Cervical cancer has almost three times the incidence rate in Romania (33 cases per 100 000) compared to the EU (12 per 100 000), highlighting the importance of human papillomavirus (HPV) vaccination (see Section 3). Romania also has the highest incidence rates in the EU for liver and nasopharynx cancers among women.

Figure 1. Prostate cancer for men and breast cancer for women represent a smaller share of total cancer incidence in Romania than in the EU on average

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.

¹ Lung cancer also refers to trachea and bronchus cancers.

Cancer mortality in Romania is well above the EU average among men, with a modest decline in the last decade

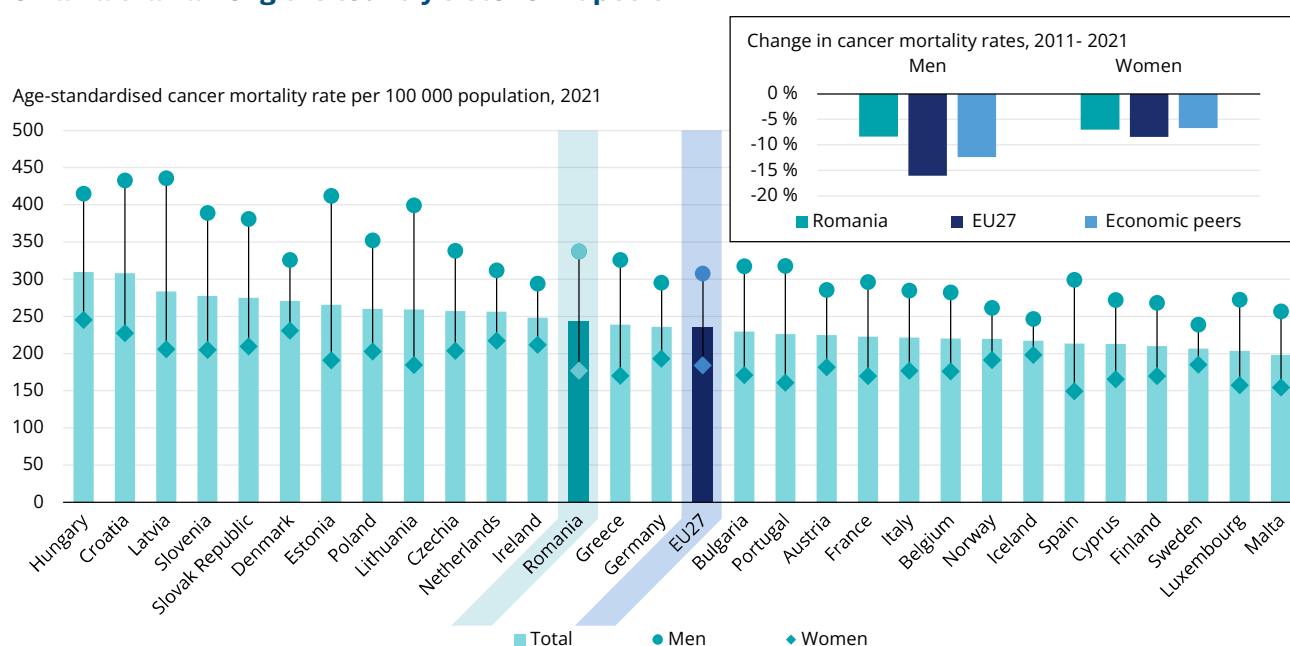
Cancer is the second leading cause of death in Romania after cardiovascular diseases, accounting for 19% of all deaths in 2019. This proportion decreased from 2020 due to excess deaths caused by COVID-19.

In 2022, 45 866 people died of cancer in Romania according to the National Institute of Statistics. The age-standardised cancer mortality rate was 243 deaths per 100 000 people in 2021, which is 3% above the EU average, with a 10% higher mortality rate among men and a 4% lower mortality rate

among women than the EU averages. Furthermore, the change in cancer mortality rates during 2011-21 reflects more modest progress in Romania than in other EU countries – especially among men (Figure 2). Although the decline of 8% in cancer mortality among Romanian men between 2011 and 2021 was significant, it remained smaller than the averages across the EU (16% decline) and among Romania’s economic peers (12% decline).²

Similarly, mortality rates among women decreased by 7% between 2011 and 2021; this change was slightly lower than the average across the EU (9% decline) but comparable to the average among the country’s economic peers (7% decline).

Figure 2. Cancer mortality rates among men have declined more slowly in the last decade in Romania than among the country’s economic peers



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

Lung cancer is the leading cause of cancer death among men in Romania, while breast cancer leads among women

In 2021 the most common cancer deaths among men were due to lung cancer, with 75 age-standardised deaths per 100 000 people, which was 8% higher than the EU average. This was followed by colorectal (49 deaths per 100 000, 35% higher than the EU average), prostate (34 deaths per 100 000, 2% lower than the EU average) and stomach (23 deaths per 100 000, 66% higher than the EU average) cancers.

Among women, the highest cancer mortality was due to breast cancer, with 31 deaths per 100 000 people, which was 2% higher than the EU average. This was followed by colorectal (23 deaths per 100 000, 13% higher than the EU average), lung (20 deaths per 100 000, 33% lower than the EU average) and cervical (12 deaths per 100 000, 239% higher than the EU average) cancers.

² Economic peers are defined as tercile clusters based on 2022 GDP per capita in purchasing power standard terms. Economic peers for RO are BG, EE, EL, HR, HU, LV, PL, PT and SK.

Mortality rate decreases were slower across a range of cancer sites in Romania over the past decade than in the EU

Between 2011 and 2021, lung cancer mortality rates in Romania decreased at about the same rate as in the EU. However, while mortality from breast cancer decreased in the EU during this period, it increased slightly in Romania. Similarly, while the EU saw large decrease in colorectal cancer mortality, there was an increase in Romania over this period.

Some other cancers for which Romania had lower mortality reductions during the decade than the EU averages were prostate (9% increase in Romania, compared to 9% reduction across the EU), kidney (7% increase in Romania, compared to 16% reduction across the EU), melanoma (6% increase in Romania, compared to 8% reduction across the EU) and ovarian (4% reduction in Romania, compared to 14% across the EU) cancers.

Cervical cancer mortality decreased in Romania by 25% in 2011-21 (compared to a 16% decrease across the EU), but it remained 3 times as high as the EU average in 2021 (12 deaths per 100 000 population in Romania compared to 4 per 100 000 across the EU). Analysis by age group reveals improvements for younger generations: among women aged under 65, the mortality gap between Romania and the EU decreased over the decade, although it remained more than 2 times as high as in Romania than in the EU in 2021 (Table 1).

Table 1. The cervical cancer mortality rate in Romania remained remarkably high compared to the EU average, but with slight improvements among younger women

| Year | Women aged under 65 | | Women aged 65 and over | |
|------|---------------------|------|------------------------|------|
| | Mortality rate | | Mortality rate | |
| | EU | RO | EU | RO |
| 2021 | 2.4 | 7.7 | 8.8 | 30.9 |
| 2011 | 3.0 | 11.9 | 9.5 | 33.9 |

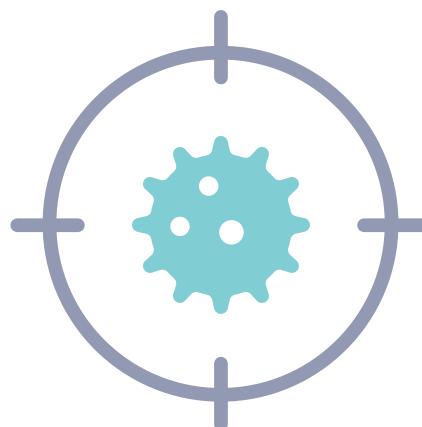
Source: Eurostat Database.

Romania had lower declines in avoidable mortality than the EU during 2011-21

The avoidable mortality rate³ from lung cancer (classified as preventable) in Romania was 15 deaths per 100 000 women (29% lower than the EU average) and 60 per 100 000 men (38% higher than the EU average). Compared to 2011, the rate had decreased by 3% among women (compared to an EU average increase of 4%) and decreased by 25% among men, slightly below the 27% decrease among men across the EU (Figure 3). This is due to historically high smoking rates among men, while those among women are at the lower end (see Section 3).

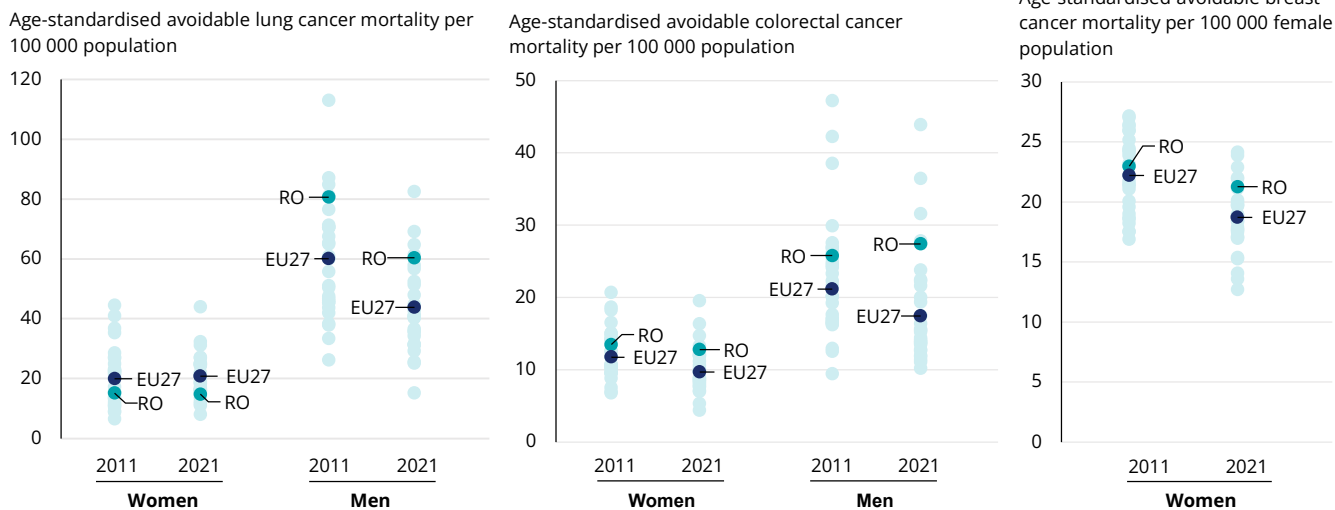
In 2021, avoidable mortality from breast cancer (classified as treatable) in Romania was 21 deaths per 100 000 women, which is 14% higher than the EU average. The rate had decreased by 7% compared to 2011, while the EU average had decreased by 16%, underlining the need to increase breast cancer screening and timely access to care (see Section 4).

Avoidable mortality from colorectal cancer (classified as treatable) in Romania was 13 deaths per 100 000 women (32% higher than the EU average) and 27 per 100 000 men (57% higher than the EU average). Compared to 2011, the rate had decreased slightly among women and increased somewhat among men, in contrast to substantial decreases (of over 17%) for both genders across the EU. This growing gap is due to limited availability in Romania of colorectal cancer screening, which has only been available via pilot projects since 2019.



³ Avoidable mortality includes both preventable deaths that can be avoided through effective public health and prevention interventions, and treatable deaths that can be avoided through timely and effective healthcare interventions.

Figure 3. Gaps in avoidable mortality between Romania and the EU grew for breast and colorectal cancers between 2011 and 2021



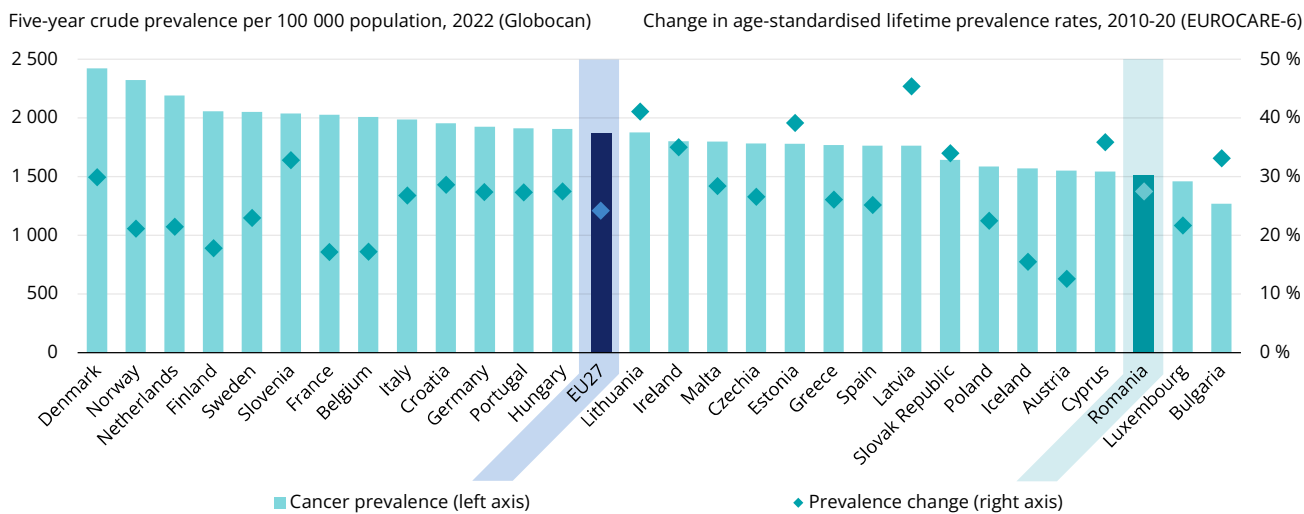
Note: Avoidable mortality figures relate to deaths of people under 75 years of age. Source: Eurostat Database. Data refer to 2021.

Cancer prevalence in Romania is relatively low but increasing quickly

Globocan estimates show that Romania has one of the lowest five-year cancer prevalence⁴ rates among EU countries (at 1 512 cases per 100 000), which is aligned with the country’s lower incidence

and higher mortality rates. However, as seen across the EU, Romania had a major increase in prevalence (by 28%) between 2010 to 2020 (Figure 4). This highlights the importance of focusing on improving quality of life and services for cancer survivors (see Section 5.4).

Figure 4. Five-year cancer prevalence in Romania is among the lowest in the EU



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

⁴ 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.

The National Cancer Plan is a valuable tool for accelerating progress in cancer control

The new National Health Strategy 2023-30 approved by the Romanian Government in 2022 recognises cancer as a national priority, in terms of health education, access to screening, access to improved diagnosis and treatment, and quality of care. Implementation of Romania's National Cancer Plan 2023-30 (NCP), adopted in 2022, started in 2023 through a number of new policies addressing services, standards of care and quality of life, as well as through improving existing legislation. It addresses the four pillars of Europe's Beating Cancer Plan (Box 1).

The objectives of the NCP relate to strengthening prevention of non-communicable diseases, cancer risk factors policies, improved diagnosis and access to innovative treatment for all, improved clinical practice, affiliation to European networks and personalised medicine. The law adopting the NCP is enacted through a series of secondary regulations referring to cancer registration, national criteria for diagnosis of main cancers, national guidelines for cancer screening and standardisation of pathology reporting.

Financial allocations to the NCP use various sources, and are directed mainly towards improving the infrastructure for cancer diagnostics, treatment and research. Construction of a new oncology institute in Timișoara has been initiated, funded through the National Recovery and Resilience Plan (NRRP). The Health Programme (funded through both the European Social Fund Plus and the European Regional Development Fund) allocated important funds to cancer prevention, including financial support for screening services for vulnerable populations, cancer care and research, training of health professionals and cancer infrastructure, rehabilitation of oncology centres and wards, equipment and technology (Ministry of European Investments and European Projects, 2022). World Bank funding primarily contributes to increasing access to radiotherapy. The national budget has already contributed to financing new services for cancer patients, such as genetic testing, early detection services for all patients regardless of their insured status, and new radiotherapy and rehabilitation services. All these financial allocations contribute to implementation of the NCP.

Box 1. Romania's new National Cancer Plan includes important strategies on cancer prevention and care

Romania's NCP, launched in 2022, aligns with the four pillars of Europe's Beating Cancer Plan (Table 2). It aims to enhance palliative care in hospitals and homes, set criteria for home-based care, provide genetic diagnosis and personalised treatments, ensure access to advanced radiotherapy, and establish a national cancer registry by 2024; adopt legislation on the right to be forgotten, and introduce measures for improved quality of life, including psychological support and paid leave for patients and caregivers. The NCP also focuses on scientific research, increasing funding and multidisciplinary collaboration, and establishing a cancer knowledge centre for personalised medicine. The Plan also combats cancer risk factors such as smoking and alcohol, implements national screening programmes and enhances screening approaches with new technologies; however, the areas of primary and secondary cancer prevention still need further improvement. The NCP does not prioritise cancer inequalities and paediatric cancer, although discussions on these are ongoing.

Table 2. Romania's National Cancer Plan is closely aligned with Europe's Beating Cancer Plan

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

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

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

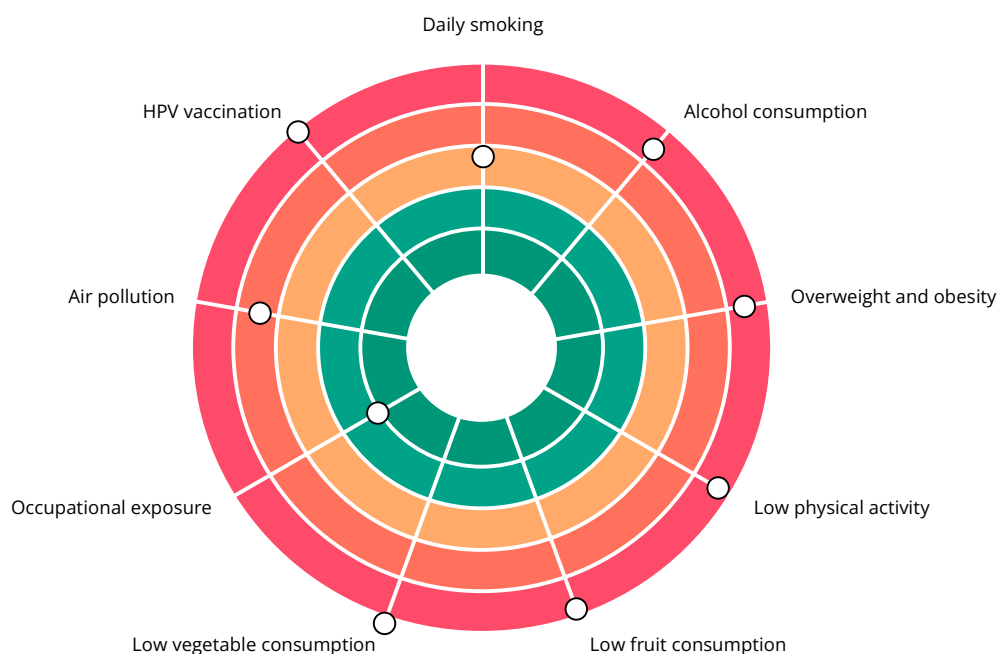
3. Risk factors and prevention policies

Romania has alarming prevalence of most behavioural cancer risk factors among adults, as well as high air pollution levels (Figure 5).

Romania performs in the top third of countries on occupational exposure, which is an important

cancer risk factor in Europe. On the other hand, it performs among the bottom third of EU countries in terms of alcohol consumption, overweight and obesity, low physical activity, low consumption of fruit and vegetables, air pollution and HPV vaccination.

Figure 5. Most cancer risk factors continue to have high prevalence in Romania



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 (programme coverage among girls).

In 2021, Romania devoted 4% of total health expenditure to prevention compared to the 6% EU average⁵. Given the much lower overall spending on health in Romania, adjusted for differences in purchasing power, this also accounts for much lower spending per capita, at EUR 62 compared to the EU average of EUR 213.

The National Prevention Plan, which implements the Law on Health Promotion and Prevention of Diseases (adopted in 2020), is under development. It addresses common risk factors for chronic

conditions (tobacco, alcohol, unhealthy diet, physical activity) in an integrated manner to provide coherence and consistency in public health interventions on risk factors.

Primary prevention policies such as those on tobacco and alcohol control, even though they are supported by strategic documents adopted in recent years, still lack an integrated and systematic approach, consistent implementation and enforcement, and need improvements in terms of effectiveness, coverage and equity.

⁵ 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.

Smoking remains popular among Romanian men

Tobacco remained the leading risk factor responsible for the cancer burden across the EU, and was responsible for over a quarter of cancer deaths. In Romania, smoking prevalence remained close to the EU average and showed a modest reduction in recent years (19% in 2019 compared to 20% in 2014). However, Romania has one of the widest gender gaps in daily smoking in the EU. It has the second lowest prevalence of daily smoking among women (8%, compared to the 14% EU average), but one of the highest among men (31%, compared to the 23% EU average).

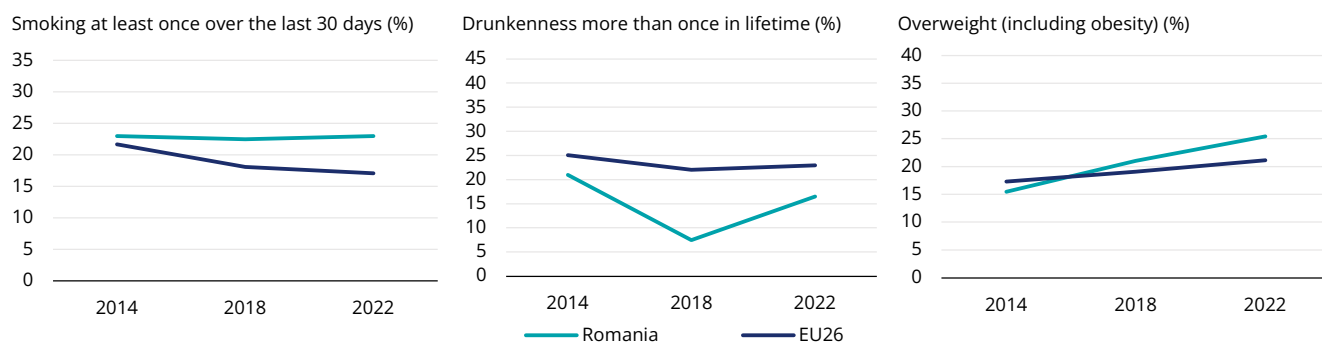
According to the latest European Health Interview Survey (EHIS) data from 2019, Romania has a reverse social gradient in smoking prevalence, with higher daily smoking prevalence among both men and women with higher education levels. Daily smoking prevalence was 25% among men with lower and 28% among those with higher education levels. Among women, prevalence was 6% among

those with lower and 9% among those with higher education levels.

Between 2014 and 2019, tobacco consumption in Romania remained fairly stable at 14 cigarettes per smoker per day in 2019 (compared to 13 cigarettes across the EU). Vaping appears to be less popular among adults in Romania than in the EU. Among men, the rate was 2% in Romania compared to 6% across the EU; among women it was 2% in Romania and 6% across the EU.

However, smoking among Romanian adolescents was slightly higher than the EU average in 2014, and while the rate decreased by 21% across the EU, it stayed steady in Romania during 2014-22 (Figure 6). As such, by 2022 the share of Romanian adolescents who had smoked at least once over the last 30 days was 35% higher than the EU average (23% in Romania and 17% across the EU). In addition, 43% of adolescents in Romania reported ever having used an e-cigarette as compared to 35% of adolescents in the EU on average.

Figure 6. Romanian adolescents have higher rates of smoking and overweight than the EU averages



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.

Romania implemented a series of tobacco control measures in the last decade (including a ban on tobacco in public spaces, visual pictorial warning labels, an advertising ban and support for smoking cessation). Tobacco legislation has been recently amended to transpose the Commission Delegated Directive (EU) 2022/2 100 on the withdrawal of certain exemptions in respect of heated tobacco products, addressing the marketing, sale and packaging of tobacco products, electronic cigarettes, heated tobacco and related products. The updated law defines previously unregulated new products, such as “product for smokeless inhalation of tobacco substitutes”, “pouch with nicotine for oral use” and “electronic device for heating products for smokeless inhalation of tobacco substitutes”, and specifically prohibits sales to children under 18, with penalties ranging from

fines to closure of the business for noncompliance. It also contains provisions on advertising and selling tobacco, tobacco products and electronic devices within and outside education facilities, and places an obligation on educational institutions to develop internal regulations to enact and enforce the law.

In 2021, Romania ranked 8th on the Tobacco Control Scale, which assess implementation of tobacco control policies. This is an improvement on its 12th place ranking in 2019, and was one of the best performances among central European countries (Joossens et al., 2022). However, there is an urgent need for effective enforcement of tobacco control policies. Furthermore, the National Tobacco Control Programme, which is funded and co-ordinated by the Ministry of Health, has discontinued provision of smoking

cessation medication and just provides psychologic counselling on demand. Prevention of smoking uptake and brief interventions for smoking cessation are listed in the package of services to be provided by primary healthcare, but specialised smoking cessation services providing psychological counselling, nicotine replacement therapy and prescribed medicines are needed. In addition, health education campaigns primarily targeting minors are delivered inconsistently and on an opportunistic basis.

Alcohol consumption has increased slightly in Romania

In 2022, alcohol consumption reached 12 litres of pure alcohol per person aged 15 and over per year (from 10 litres per capita in 2012), above the 2022 EU average of 10 litres per capita. According to EHIS data from 2019, Romania has a higher proportion of abstainers (those who never drink alcohol or have not done so in the last 12 months) among women (42%, compared to 33% across the EU), while among men the figure is close to the EU average (17% in Romania and 18% across the EU). As with tobacco consumption, Romania has a reverse social gradient for both genders. The proportion of abstainers is much lower among men with higher (14%) than lower (30%) education levels,

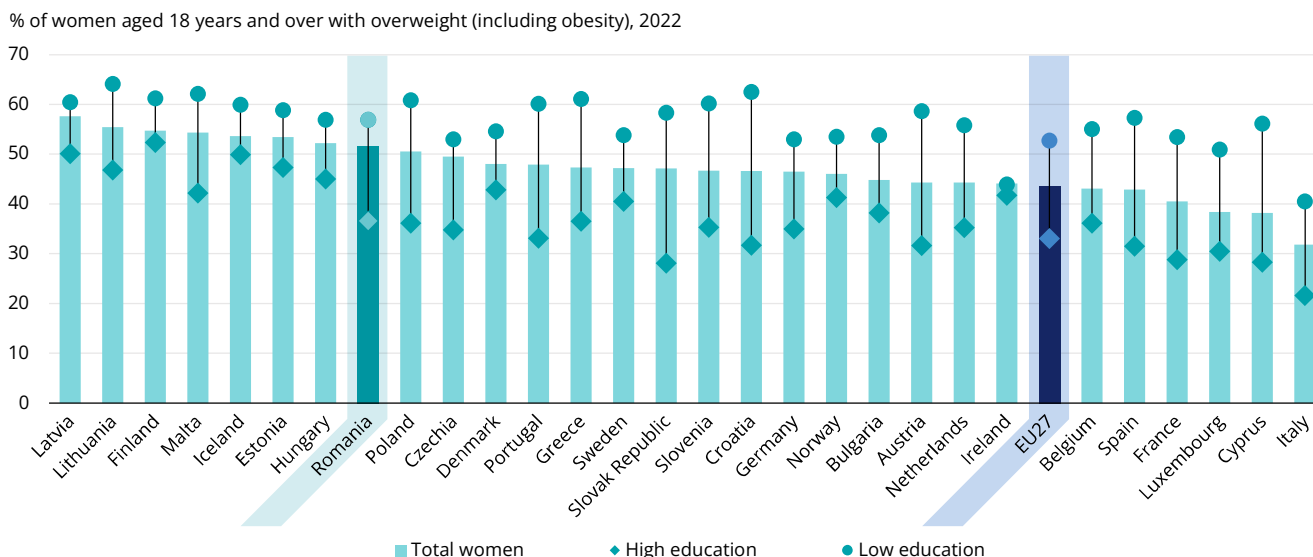
and among women with higher (34.8%) than lower (51%) education levels.

Harmful alcohol consumption among adolescents is below the EU average: 17% of 15-year-olds reporting being drunk more than once in their lifetime compared to 23% across the EU. Romania has implemented some alcohol control policies, including increasing excise duty, banning advertising of alcoholic beverages around schools, restricting TV advertising to night-time broadcasting and instituting firmer penalties – ranging from fines to closure of business for selling alcohol to children under 18. However, more visibility and consistent implementation of these policies are needed, and they should be complemented by systematic awareness campaigns, and by expanding screening and brief interventions in primary care.

Obesity and low levels of physical activity are more prevalent in Romania than across the EU, especially among women with lower education levels

In Romania prevalence of overweight (including obesity) among adult women in 2022 was 52%, which is higher than the EU average (44%). As in all countries, rates of overweight were much higher among women with lower than higher education levels (Figure 7).

Figure 7. Rates of overweight and obesity in adult women are higher in Romania than the EU average



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

The decline in the share of overweight and obesity among adult women achieved by Romania in 2017-21 (a 9% decrease) was more substantial than that across EU (a 2% decrease). The change was

due to increased awareness among the population and improved availability of healthy foods, rather than to specific policies addressing the issue. The overweight rate among 15-year-olds increased

sharply in Romania (from 16% in 2014 to 26% in 2022, compared to 21% across the EU in 2022). Thus, committed health education campaigns should be planned, especially for younger generations.

Romania has a higher proportion of adults reporting low levels of physical activity than the EU average: 81% of adults reported engaging in physical activity less than three times in a typical week (with fairly similar rates for men and women), while the EU average was 69%. Low levels of physical activity are more prevalent among people with lower (84%) than higher (73%) education levels. Among 15-year-olds in Romania, 15% engaged in 60 minutes of physical activity daily – similar to the EU average (15%)

Dietary habits are worse in Romania than across the EU

Poor nutrition and lack of physical activity contribute to overweight and obesity. In 2022, 62% of the Romanian population had low levels of daily fruit consumption, and 64% had low levels of vegetable consumption, ranking in the bottom third among EU countries. The proportion of adolescents reporting daily vegetable consumption in Romania was also 4 percentage points lower than the EU average.

Air pollution rates are higher in Romania than across the EU, despite progress in recent years

Mean population exposure to PM_{2.5} in Romania, despite decreasing substantially during the last decade from 21 µg/m³ in 2011 to 14 µg/m³ in 2020, remained higher than the EU average (12 µg/m³ in 2020). In 2021, air pollution was responsible for one of the highest premature death rates in the EU due to exposure to PM_{2.5}, at 102 deaths per 100 000 population.

Occupational exposure to chemical products or substances was reported among 22% of the population aged 15+ in 2021 (placing Romania among the top third performers in the EU on this indicator). The shares of population exposure were lower among men (20.9%) than women (23%), and among people aged 15-34 (19%) than those age 50+ (23%).

Human papillomavirus vaccination rates are low, although efforts are being made to promote uptake

Although Romania's incidence and mortality rates for cervical cancer are the highest in the EU, the HPV vaccination programme was not fully implemented until 2019. The first programme in 2008 failed to gain acceptance by the population.

It was resumed in 2019, initially providing the vaccine for free of charge to all girls aged 11-14, and later to all girls aged 11-18. Data reported in the National Electronic Vaccination Registry in 2022 show that 28 234 girls aged 11-14 (5% of the age group) and 22 446 girls aged 15-18 (6% of the age group) were vaccinated with the complete regimen. These data reflect only the number of girls vaccinated free of charge through the national vaccination programme, however. A proportion of parents opted to purchase the vaccine in private settings, and these vaccinations are not reported. Thus, coverage information is fragmented, even though Romania has a fully functioning national e-registry for vaccinations.

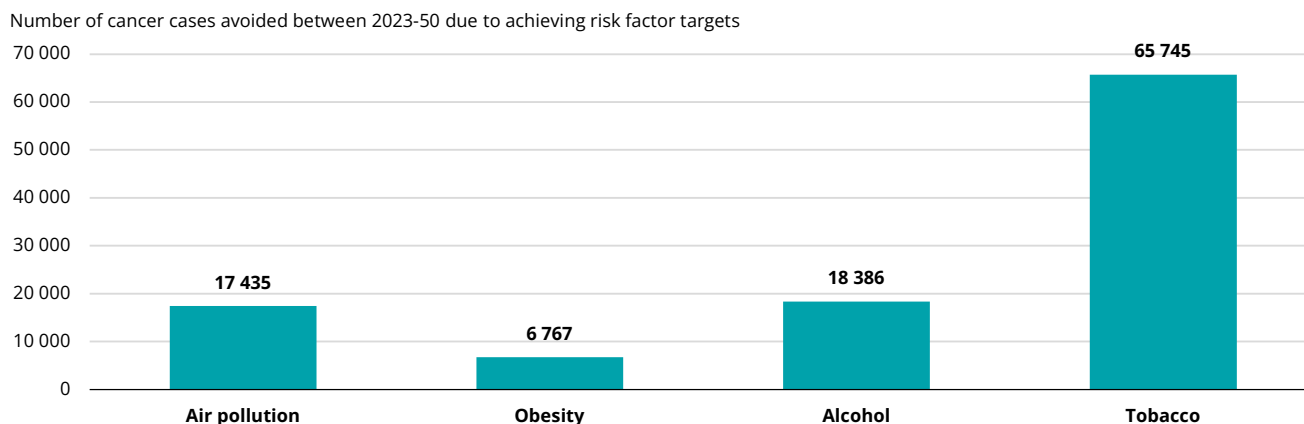
Since the end of 2023, the vaccine is offered for free to all girls and boys aged 11-18, and is also reimbursed at 50% for women up to age 45. Preliminary data from the National Electronic Vaccination Registry show an increase to 100 000 girls aged 11-18 being vaccinated during the first half of 2024, representing around 10% coverage according to preliminary data from the National Electronic Vaccinations Registry.

Awareness campaigns have been implemented in the last six years, targeting both vaccination and screening. They take place every year in January (Cervical Cancer Awareness Month), March (HPV Awareness Day), April (European Immunisation Week) and November (Global Day for Cervical Cancer Elimination) (see Section 4). Acceptance of HPV vaccination has been increasing among the public. In a 2020 survey, 75% of respondent mothers were in favour of HPV vaccination for their daughters (National Institute of Public Health & Institute of Oncology Cluj, 2020).

Continued efforts to reduce risk factors could yield important reductions in cancer incidence

According to OECD Strategic Public Health Planning (SPHeP) modelling work, the biggest potential – to prevent about 66 000 cancer cases between 2023 and 2050 – would occur in Romania if tobacco reduction targets were met (Figure 8). Meeting alcohol targets would further reduce the number of cancer cases during this period by 18 386, while meeting other risk factor targets would also reduce the cancer burden: air pollution by 17 435 cases and obesity targets by 6 767 cases.

Figure 8. Romania could prevent over 65 000 cancer cases in 2023-50 by achieving smoking reduction 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, it is a reduction of at least 20% in alcohol consumption and a 20% reduction in heavy drinking (six or more alcoholic drinks on a single occasion for adults) between 2010 and 2030. For air pollution, it is an annual average $PM_{2.5}$ level capped at $10 \mu g/m^3$ by 2030 and at $5 \mu g/m^3$ by 2050. On obesity, the target is a reduction in obesity level to 2010 level by 2025. Source: OECD (2024), *Tackling the Impact of Cancer on Health, the Economy and Society*, <https://doi.org/10.1787/85e7c3ba-en>.

4. Early detection

Early detection and cancer screening have been identified as public health priorities

Early detection and cancer screening were recognised as public health priorities in the National Health Strategy 2023-30. However, there is a lack of systematic cancer screening practice in Romania. The high number of annual new cancer cases requires high spending and resource utilisation for diagnostic and treatment disavouring spending on prevention and early diagnosis.

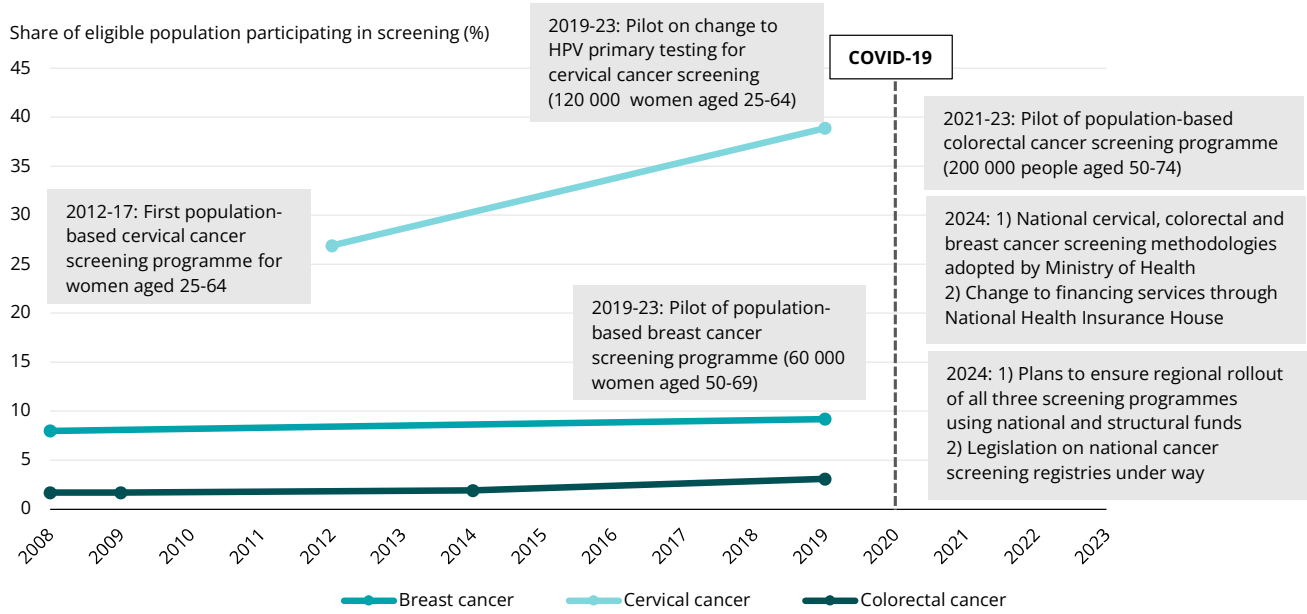
Since 2018, Romania has put efforts and resources into developing population-based screening programmes for cervical, breast and colorectal cancer, by implementing pilot programmes financed with EU funds. These aimed to develop the infrastructure and national guidelines for screening, in accordance with the updated Council recommendation on cancer screening of 2022, and European guidelines for quality assurance for cancer screening programmes. The funding contributed to increased access to high-quality services, but further investment is needed to make screening services available across the country. Efforts were also directed to training health professionals, to increasing awareness

across the population and to improving access for vulnerable populations – including rural residents, Roma communities, people on low income and communities identified as socio-economically marginalised (Ministry of Labour and Social Solidarity, 2023).

Although plans for regional and national rollouts of the screening programmes have been developed and screening boards are being set up, governance and ownership of the screening programmes, quality assurance and equity of access still face challenges. This is due to a lack of human resources needed to address both preventive programmes and diagnostics and care of existing patients.

Uptake of screening is low for breast and colorectal cancers (Figure 9), although cervical cancer screening rates have increased. Organised screening programmes are in the initiation phases, and they lack consistency in practice and accessibility – primarily due to a lack of qualified specialists and uneven distribution of specialised services across the country. Cancer screening tests are offered predominantly on an opportunistic basis, with little or no follow-up for positive cases.

Figure 9. Participation in breast and colorectal cancer screening is very low, although new pilot projects hold promise for growth



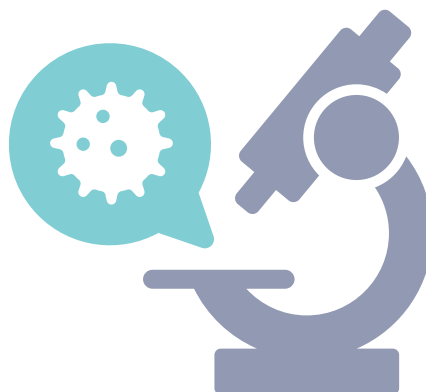
Notes: Data refer to mammography screening among women aged 50-69 within the past two years (based on survey data), cervical cancer screening among women aged 20-69 within the past three years (based on survey data) and colorectal cancer screening coverage among people aged 50-74 (based on survey data). Source: OECD Health Statistics 2024.

Romania has socio-economic gaps in breast cancer screening participation

In 2019, the proportion of women aged 50-69 who had had a bilateral mammography within the past two years was 9%, which was the lowest in the EU. According to wave 8 (2019-20) of the Survey of Health, Ageing and Retirement in Europe, the proportion of women who reported having been screened for breast cancer was four times lower among those with lower education levels (4%) than those with higher education levels (17%).

A pilot screening programme for breast cancer has been initiated

In 2018, Romania initiated a breast cancer screening programme, funded by the European Social Fund, through which 60 000 women were tested with bilateral mammography in four regions of the country, mostly in rural areas. Two mobile units were purchased and put into operation to provide services in remote areas. The pilot project provided screening services for one round (2022-23) and provided a framework for national rollout (Box 2).



Box 2. Romania is investing major efforts into organising population-based screening programmes

- National plans to scale up pilots into population-based screening programmes were put in place in 2024 by the Ministry of Health and the National Institute of Public Health. They include training programmes – especially for primary healthcare physicians, but also for other healthcare workers. Increased involvement of community nurses and health mediators is also planned.
 - National strategies for cervical, colorectal and breast cancer screening were adopted. Specific provisions have been made for use of national and structural funds. Structural funds are dedicated to testing, diagnostics and treatment of precancerous lesions among vulnerable population groups. The strategies contain objectives linked to the planned gradual increase in capacity and availability of health workers, as well as to integrating the screening services into the health system.
 - Quality and safety indicators were adopted for colorectal and cervical cancer screening in 2024.
- Quality indicators for breast cancer screening are in the process of approval.
- Screening registries have recently been established for the pilot screening programmes to allow monitoring, evaluating and reporting activities. As of August 2024, quality checks were being conducted.
 - Investment has been made in the infrastructure of specialised ambulatory services to increase capacity for follow-up, diagnostics and treatment. Financial allocations are provided through structural funds, a World Bank project for health system reform and the NRRP.
 - Partnerships with non-governmental organisations (NGOs) and patient associations have been established to improve communication with and education of hard-to-reach populations, and to support vulnerable individuals to access the early diagnostic services.
 - Planning for prostate and lung cancer pilot screening programmes has begun.

Romania is reorganising the population-based cervical cancer screening programme

In 2019, based on survey data, the proportion of women aged 25-69 screened for cervical cancer in Romania was 39% (see Figure 9). The rate includes women having been tested within the past three years through both opportunistic and organised programmes.

The first national cancer screening programme in the country was for cervical cancer, initiated in 2012. It showed modest results in the first five years of implementation. In 2018, the programme was reorganised, and primary HPV testing was piloted in four regions of the country. A total of 200 000 women aged 25-64, of whom over 50% were from vulnerable groups, were tested in the pilot. However, development of the cervical cancer screening programme was severely disrupted by the COVID-19 pandemic, and recovery has been slow. Based on the results of the pilot programme, a strategy for regional and national rollout was adopted in 2024. This calls for primary HPV testing, followed by cytology triage, to be offered to all eligible women aged 25-65 every five years, regardless of their insured status.

Participation in cancer screening among LGBTIQ persons is lower in Romania than in other EU countries

According to the EU LGBTIQ Survey III, participation in cancer screening among LGBTIQ

persons is lower in Romania than in other EU countries (Figure 10). For breast cancer screening, only 14% of LGBTIQ cisgender females, trans women and intersex people aged 40-54 years in Romania reported having had a mammogram in the previous 12 months, much lower than the EU average of 28%. For cervical cancer screening, 39% of the relevant LGBTIQ population aged 25-39 in Romania reported having had a smear test in the previous 5 years (slightly lower than the 64% in the EU), while 41% of those aged 40-55 reported a smear test (much lower than the 74% in the EU). This aligns with the relatively low screening rates seen in Romania in the general population as compared with the EU.

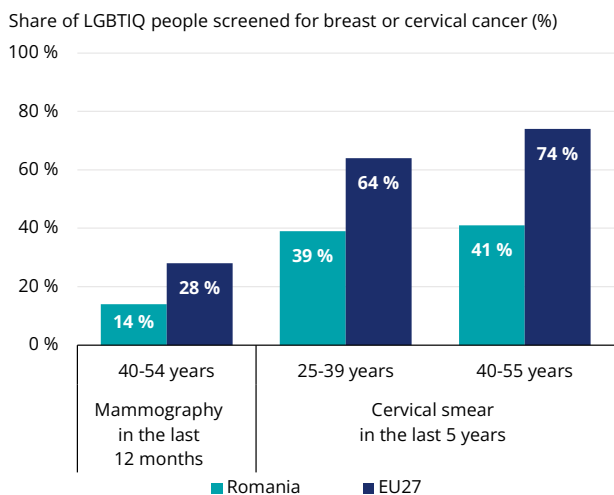
Plans for regional and national rollout of colorectal screening have been developed

A pilot colorectal cancer screening programme was initiated in 2018. The share of eligible population aged 50-74 (men and women) who reported having been tested for colorectal cancer was 3% in 2019, which was an increase from 2% in 2008. Uptake among women was marginally higher, at 3% compared to among men. The preferred test is faecal immunochemical testing every two years for the population at medium risk, while people identified as being at high risk are offered a colonoscopy every five years.

Funded by the European Social Fund, regional pilot programmes targeted 200 000 people in four

regions of the country, with a focus on vulnerable groups. Data from the pilot project show that uptake was 52%, and targeted counselling and material support were offered to individuals with positive results to help them access colonoscopy centres (Manuc et al., 2024). Plans for regional and national rollouts have been developed, based on the pilot project results. The colorectal cancer screening programme will use national and European Social Fund Plus funds.

Figure 10. LGBTIQ persons in Romania participate less in breast and cervical cancer screening than their counterparts in the EU

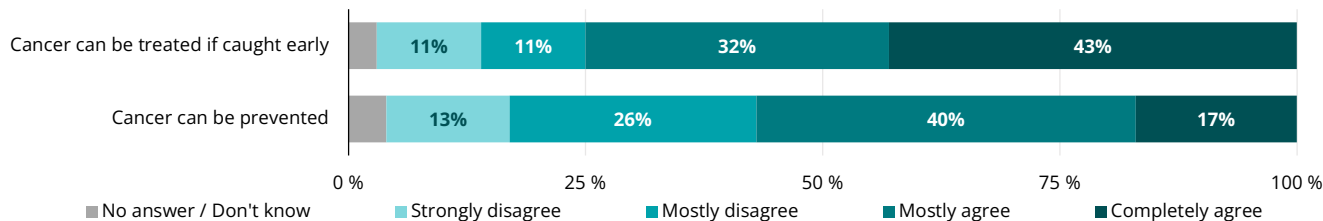


Note: LGBTIQ survey results refer to age groups and/or screening intervals that do not align with the population screening approach in EU countries, and should not be compared. Source: The European Union Agency for Fundamental Rights (EU LGBTIQ Survey III).

Awareness campaigns on early detection of cancer utilise community health nurses and tailored messaging

Public awareness of early detection and screening for cancer has improved in recent years. A national survey on cancer attitudes conducted by the

Figure 11. The population of Romania has a reasonably positive attitude to cancer prevention and early detection



Source: National Institute of Public Health (2023).

National Institute of Public Health in 2023 showed that 75% of the population believed that cancers can be healed if detected early, and over 50% agreed that cancers can be prevented (Figure 11). This shows that the population would be willing to participate in preventive programmes if services were available and easily accessible (National Institute of Public Health, 2023).

In 2018, specific awareness campaigns were implemented, targeting especially vulnerable groups with tailored messages to meet specific needs for information. They also promoted the European Code against Cancer, embedding the messages of the Code within screening programmes. The campaigns used community health nurses and health mediators to reach underserved groups, as well as NGOs and patient associations. Surveys assessing the knowledge, perceptions and attitudes of the population regarding cancer prevention and cancer screening are carried out at regular intervals, especially to identify barriers in accessing screening services.

Support services for vulnerable groups are currently provided by NGOs and patient associations working closely with public health professionals; however, sustainable measures to address the challenge of ensuring equal access for vulnerable populations to specialised services for diagnostics and treatment have yet to be identified. Other challenges include compliance with minimum screening standards on levels of staff training and ensuring continuity of services.

In 2024, over 100 health service packages, which include diagnostic procedures for most solid tumours and evaluation of the disease extension for confirmed cases, were made available for all patients, regardless of their insured status. These are expected to improve access to early diagnostics and timely provision of treatment plans.

5. Cancer care performance

5.1 Accessibility

Access to cancer care is guaranteed by law

The Romanian health system is based on social health insurance, with funds managed by the National Health Insurance House. The proportion of the population that is uninsured is around 14% (National Health Insurance House, 2023). Cancer diagnostic procedures beyond screening are generally not covered for uninsured people, and European Social Fund Plus funds are used to provide diagnostic procedures for uninsured patients with positive cancer screening results.

However, once cancer is confirmed, cancer care is guaranteed and free of charge for all patients, regardless of their insured status. Cancer care is provided through hospital admission, and chemotherapy and radiation therapy are provided (mostly) as outpatient services. Financial barriers exist due to high levels of out-of-pocket payments, which increased from 19% of health expenditure in 2019 to 21% in 2022.

Three cancer institutes, of which two are members of the Organisation of European Cancer Institutes Network, treat most cancer patients in Romania. Cancer treatment is also provided in specialised private centres, which are reimbursed through a contract with National Health Insurance House. Apart from these, oncology wards in each major

hospital provide both diagnostics and treatment; however, due to their lack of capacity, many function as an intermediary stop before patients are referred to the specialised oncology institutes.

The density of health workforce available for cancer care is near the EU average

Romania faces workforce shortages in the oncology sector, affecting the delivery of cancer prevention, screening, diagnosis, treatment, follow-up and palliative care. According to the Ministry of Health's Oncology Multidisciplinary Commission Assessment, in 2022, the country had 4.4 oncologists per 100 000 population. In 19 of its 42 counties, the number of specialised oncologists and residents in oncology was below 2 per 100 000 population; in 15 counties, it was between 2 and 4 per 100 000.

Romania has 694 physicians per 1 000 new cancer cases (higher than the EU average of 679 per 1 000) and 1 548 nurses per 1 000 new cancer cases (slightly above the EU average of 1 376 per 1 000) (Figure 12).

The health workforce and technology are unevenly distributed across the country, resulting in patients having to travel long distances for monitoring and treatment. This results in barriers to access to treatment due to additional costs, long waiting times and difficulty in accessing care services.

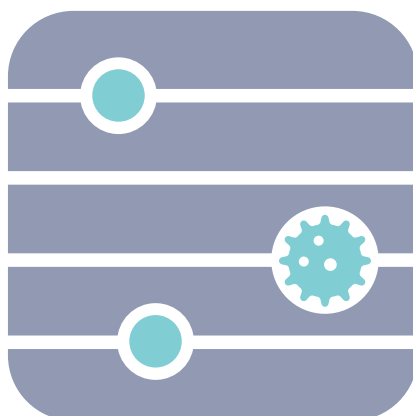
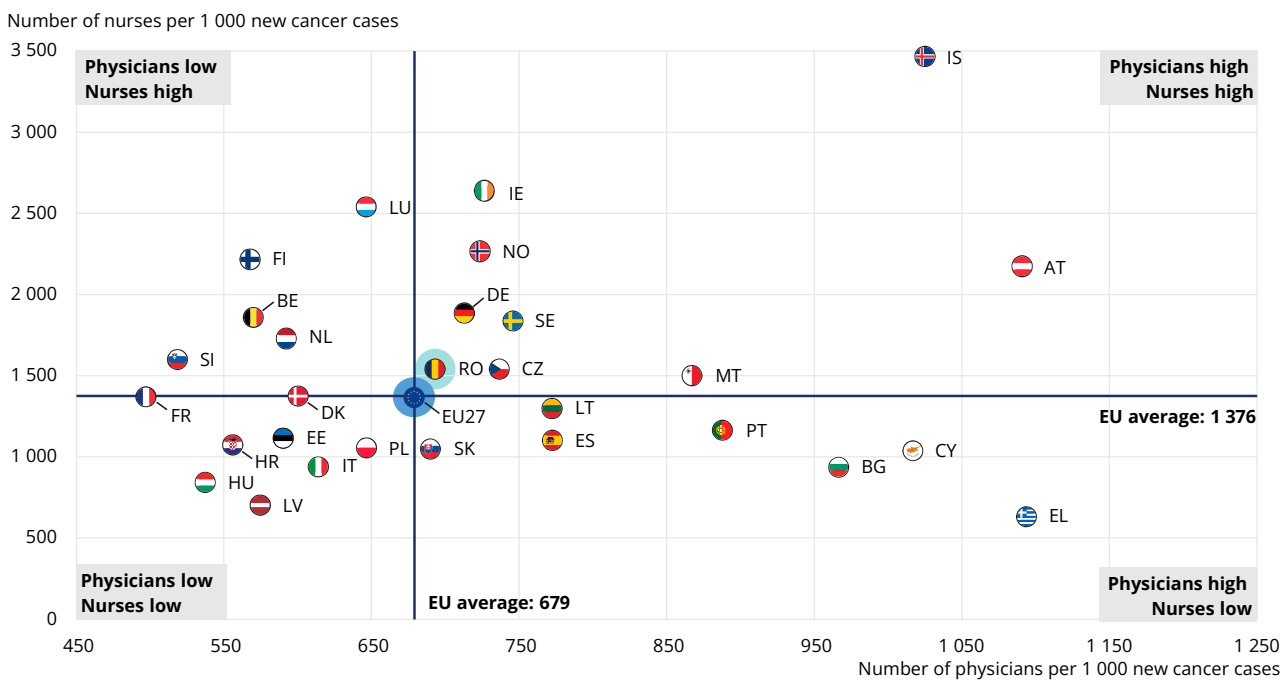


Figure 12. The supply of physicians and nurses per 1 000 new cancer cases is close to the EU averages



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.

Access to primary healthcare physicians is insufficient, especially in rural areas. In 2020, 328 communities had no family physician, meaning that approximately 500 000 people in Romania were not registered with a family physician due to a lack of availability (Petrencic, 2020).

Currently, no specific specialisation programme for oncology nursing is available in Romania. Training of oncology nurses is carried out in the workplace, with a period of shadowing alongside senior staff. Preparation of cytotoxic drugs is performed by pharmacy personnel, following clear safety guidelines.

One important challenge in human resources is the shortage of technical (non-medical) staff (e.g. physicists and biochemists), who are difficult to recruit and retain in the public system due to the unattractive wages compared to those of medical staff and to wages offered by the private sector.

Romania has taken steps to address this shortage of human resources by adopting the National Strategy for Human Resources Development in Health 2022-30, as part of the NRRP, funded by the EU with support from the WHO Regional Office for Europe. The Strategy focuses on policies related to employment and retention of human resources and ensuring professional development within national health institutions.

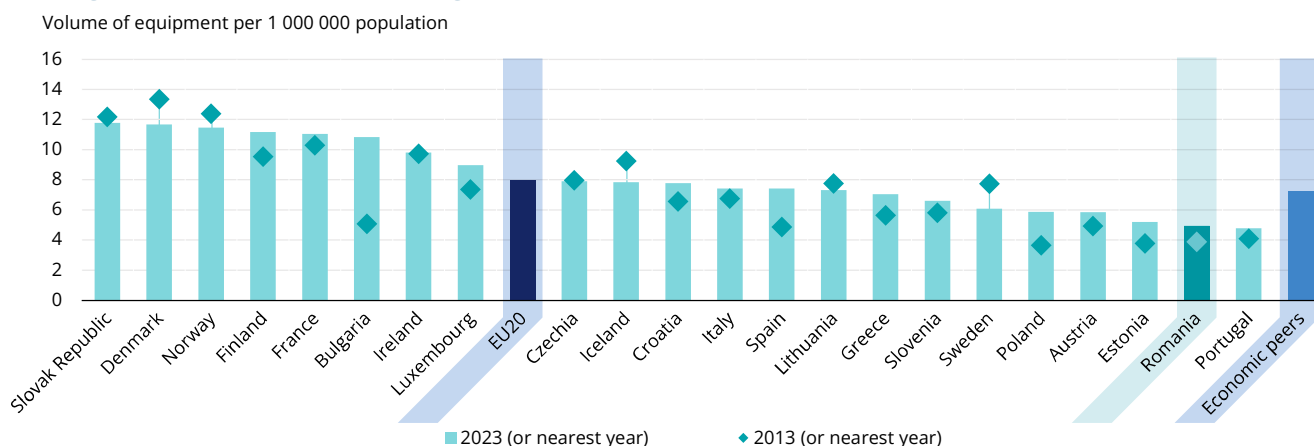
Diagnostic and therapy equipment are unevenly distributed across the country

Diagnostic equipment supply has improved over time in Romania. The number of computed tomography (CT) scanners more than doubled between 2012 and 2022, from 9 per 1 000 000 population to 24 machines per 1 000 000. Similarly, the density of magnetic resonance imaging (MRI) scanners increased from 4 per 1 000 000 in 2011 to 15 per 1 000 000 in 2022. The main challenge is the distribution of the equipment and the availability of specialists to use them.

Positron emission tomography (PET) scan accessibility has also improved significantly. The number of PET scanners increased by over four-fold between 2012 and 2021, from 0.2 per 1 000 000 population to 0.9 per 1 000 000. In 2022, new regulations to remove administrative barriers to access for PET examinations were adopted.

In Romania, the volume of radiation therapy equipment in 2022 was 5 per 1 000 000 population, which is 38% lower than the EU average (8.0 per 1 000 000) and 32% lower than the average among Romania's economic peers (7.3 per 1 000 000). The volume has grown quickly in Romania – increasing by 27% since 2013 (Figure 13).

Figure 13. The volume of radiation therapy equipment has increased but remains well below the averages across the EU and among Romania's economic peers



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

Although Romania has invested in radiotherapy equipment in recent years, 24 of its 42 counties still lack radiotherapy equipment. This results in patients having to travel long distances for treatment, and in oncology centres having to provide radiotherapy via hospitalisation, rather than as an outpatient service. Over 50% of the patients of the three oncologic institutes travel long distances from their counties of residence. The Regional Oncology Institute in Iași has found a solution by establishing a patients' hotel, in which it offers treatment for patients from outside the city. According to the Ministry of Health, overall, 87% of radiotherapy treatments are offered as outpatients services – slightly below the level suggested by European recommendations.

Access to oncology medication has improved significantly in recent years

Oncology medication is provided free of charge through the National Oncology Programme, funded by the National Health Insurance House for all patients, regardless of their insured status. The list of molecules, including innovative medicines, is regularly updated once a product has undergone health technology assessment. National regulations on the assessment process have been simplified in recent years to reduce the average time between marketing authorisation and availability.

As part of implementation of the NCP, Romania is preparing a programme to increase access to new cancer drugs. Managed by the National Health Insurance House, this will provide reimbursement of newly authorised medicines by the European Medicines Agency until the product is added to the national reimbursement list. Criteria for

inclusion and pricing methodologies and financing mechanisms are currently in development.

Access to CAR-T cell therapy and tumour genetic testing have been added recently

Romania has provided CAR-T cell therapy in one healthcare unit since 2022. In 2024, the country developed the first Strategic Plan on Clinical Studies, co-ordinated by the National Agency of Medicines and Medical Devices. The Plan contains clear objectives including development of a mechanism for recruiting patients, increasing the human resources involved in clinical studies, and development of economic and fiscal policies to foster innovation. Since 2023, tumour genetic testing for breast, ovarian, lung and colorectal cancer has been reimbursed through the National Oncology Programme to guide precision treatment.

5.2 Quality

Data on quality of cancer care are scarce and fragmented

There is a lack of information in general on cancer control in the country, as Romania does not have a national cancer registry (although this is in preparation with funds from the NRRP). Although regulated since 2007, only two out of eight regional registries collect data on a routine basis.

Thus, current data on cancer patients' survival are not available. However, data from previous studies of five-year net survival rates show lower proportions for all cancers in Romania compared to EU averages. In addition, data on patient outcomes are of suboptimal quality, with limited coverage and completeness. There is also heterogeneity in

reporting, and use of data to analyse the quality of medical practice is rare.

More potential years of life are lost due to cancer in Romania than among the EU average

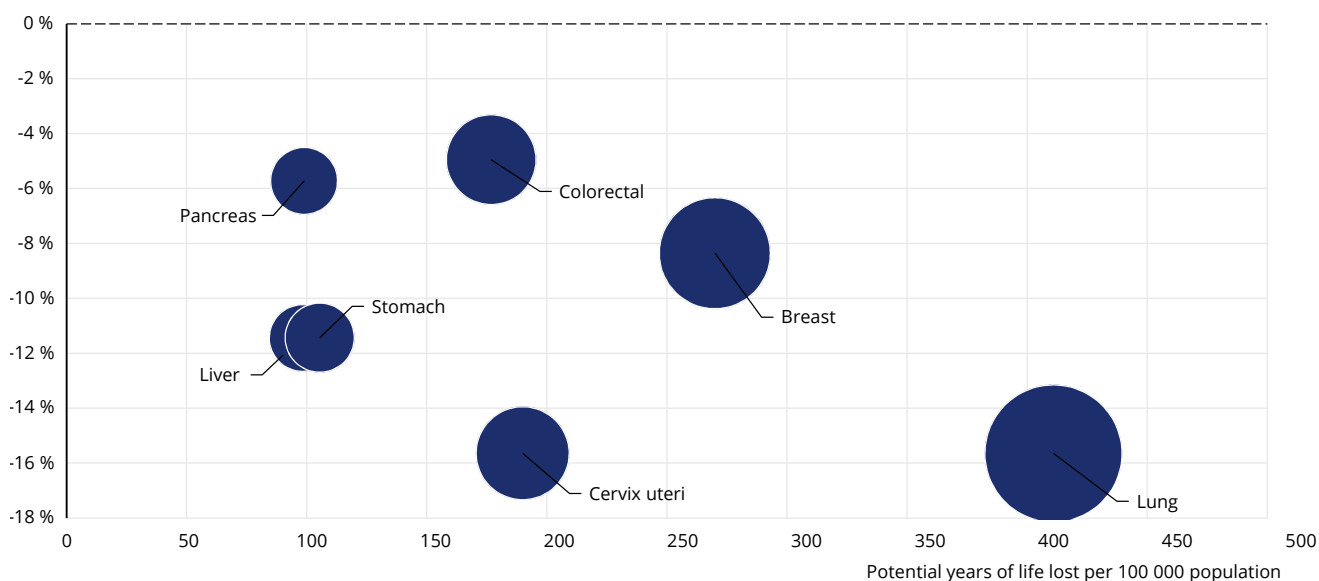
Potential years of life lost (PYLL) is an interesting complementary measure of the impact of different cancers on society, because it puts a higher weight on cancer deaths among younger individuals. Examining the change in PYLL over time across various cancer sites can point to improvements in cancer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

sites in 2019 was 1 946 per 100 000 population in Romania, which is 30% higher than the EU average (1 355 per 100 000). The PYLL rate has decreased by 13% since 2012, compared to average declines of 19% across the EU.

PYLL per 100 000 population in Romania decreased in 2019 compared to 2012 for all the top contributors to PYLL from cancer. In 2021, the cancer responsible for most PYLL was lung cancer, at 411 years per 100 000 population, which had fallen by 16% since 2012. No cancer site registered an increase in PYLL between 2012 and 2019 (Figure 14).

Figure 14. Potential years of life lost decreased for most cancer sites 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 2012-22 (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 not standardised across the country

Some quality data are collected by the National Authority for Quality Management in Healthcare. The list of quality standards for hospital accreditation contains two specific standards for use of oncology: tumour boards and monitoring of the radiotherapy practice, as well as a quality standard for palliative care services. The only publicly available data are on the accreditation status of healthcare facilities.

Even though required for accreditation, tumour boards are enforced and functioning in only a few cancer centres. Cancer care units in university centre use interdisciplinary tumour boards as standard practice, but this is not established consistently in smaller oncology centres due to a

lack of health professionals. A new regulation on establishment and functioning of tumour boards using teleconsultation to fill the lack of onsite specialists is under discussion.

The cancer centres in large university cities follow international cancer care protocols and treatment guidelines. In other cancer care facilities, however, there is a variability in protocols, and no formally approved clinical guidelines are in place. However, prescribing protocols for reimbursed cancer medication are in place, and major quality improvements are under way (Box 3).

Box 3. Important cancer care quality investments and improvements are under way in Romania

A 2023 decision of the Romanian Government called for establishment of a national cancer registry. The National Institute of Public Health is implementing a project funded through the NRRP to develop this. It is expected that the registry will be fully functioning by the end of 2025; it will also be connected with screening registries and the National Childhood Registry. A module of standardised reporting of pathology results will also be included.

Patient pathways for major tumours were developed and promoted through the Romanian Society of Medical Oncology, with formal approval by the Ministry of Health anticipated.

Two of Romania's three oncology institutes participate in EU activities including the CRANE Joint Action to establish EU Comprehensive Cancer Centres and JANE Join Action on Networks of Expertise on cancer. It is capitalising on the results to establish one comprehensive cancer centre and develop cancer care networks.

Meanwhile, major investments in infrastructure and technology are allocated to all three oncology institutes, as well as to other cancer centres, aiming to improve pathology laboratories, upgrade technology and rehabilitate the cancer care infrastructure, and to improve cancer diagnostics and treatment services. Project calls were launched in 2024.

5.3 Costs and value for money

Despite various financing sources for cancer care in Romania, gaps in coverage remain

Cancer care in Romania is covered by several mechanisms: diagnostics are covered by public sources or paid out of pocket; cytostatic treatment is covered through the National Oncology Programme and via managed entry agreements; radiotherapy is included in the National Oncology Programme; day and continuous hospitalisation are covered by the National Health Insurance House; and ambulatory visits and tests are covered by the National Health Insurance House or through out-of-pocket payments. This combination of mechanisms sometimes makes it difficult to ensure continuity of care, and some needed services remained uncovered – including some examinations needed for diagnosis or treatment monitoring like genetic tests and psychological support. It is also difficult to estimate the cost of cancer, considering the multiple sources of financing.

Cancer is anticipated to lead to a larger reduction in employment in Romania as compared to the EU

According to OECD SPHeP modelling work, between 2023 and 2050 on average, cancer is expected to lead to a loss of 224 full time equivalent workers (FTEs) per 100 000 people in Romania due to reduced employment, which is more than the EU average of 178 FTEs per 100 000 (Figure 15). It is

also anticipated that Romania will face a loss of 67 FTEs per 100 000 due to both absenteeism and presenteeism,⁶ which is somewhat lower than the EU average of 81 FTEs per 100 000.

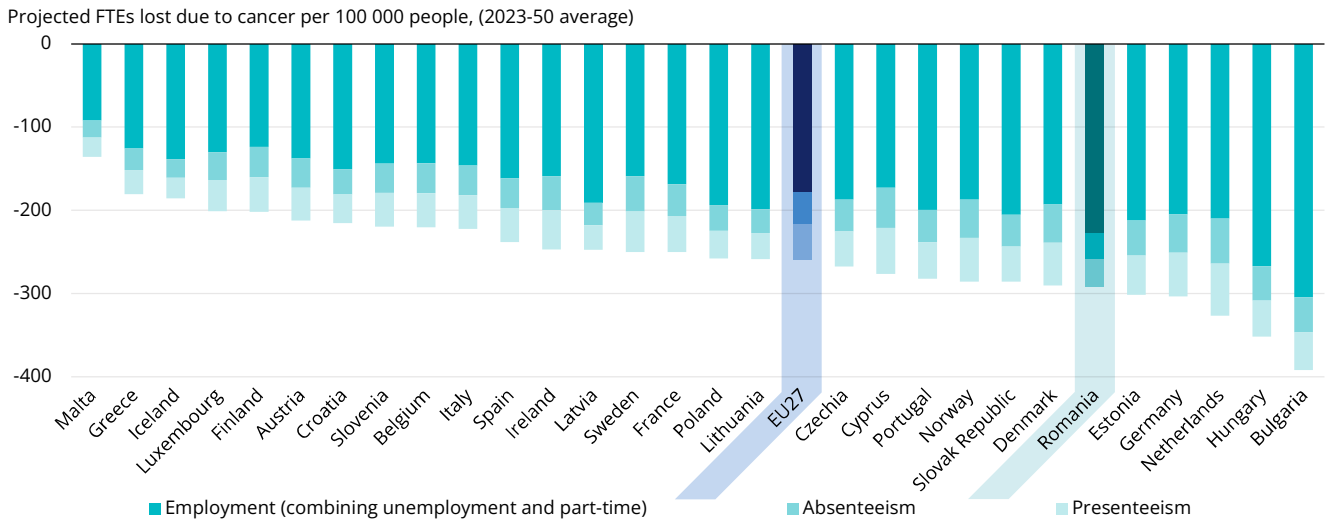
Furthermore, the per capita health expenditure on cancer care is expected to grow by 52% in Romania between 2023 and 2050, compared to 59% in the EU27.

Romania has several ongoing investments in cancer infrastructure

One major achievement is represented by the NCP, the EU-financed Health Programme and the NRRP, which opened a window of opportunity for many investments in cancer infrastructure, technology and digitalisation, as well as in quality of care and training of health professionals. Thus, the Health Programme includes investments for the public infrastructure of three oncological institutes and other public regional or county hospitals that diagnose and treat cancer, as well as investments in genetics and pathology laboratories for cancer diagnosis (Ministry of European Investments and Projects, 2022). The NRRP includes investments for a new oncology institute and radiotherapy equipment.

⁶ Presenteeism refers to lost productivity that occurs when employees are not fully functioning in the workplace because of an illness, injury or other condition.

Figure 15. Cancer is expected to lead to greater employment losses in Romania compared to the EU average



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>.

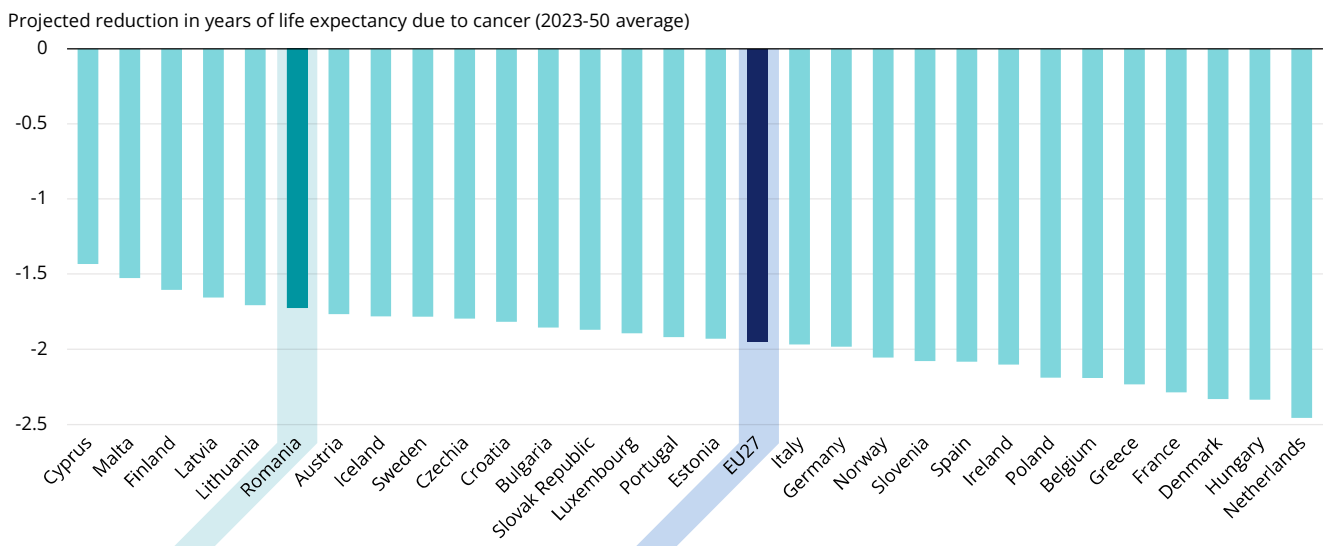
5.4 Well-being and quality of life

The impact of cancer on mental health in Romania is substantial

According to OECD SPHeP modelling work, between 2023 and 2050, cancer will reduce average population life expectancy in Romania by 1.7 years compared to a scenario without cancer (Figure 16). This is less than the EU average for 2023-50 (1.9 years).

In addition, cancer also takes a 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, Romania is expected to have much higher depression rates because of cancer, at an additional age-standardised rate of 21 cases per 100 000 per year compared to the average of 17 per 100 000 across the EU.

Figure 16. Cancer is expected to reduce life expectancy in Romania by 1.7 years in 2023-50



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>.

New regulations for psycho-oncology services have been enacted

A recent review revealed the scarcity of studies on quality of life in Romanian cancer patients, underlining the urgent need to develop psycho-oncology services in the country (Licu, Ionescu & Paun, 2023). The need for psychological support is well recognised by the NCP. As part of the Plan's implementation, psycho-oncology services have recently been regulated (in terms of types of services, conditions for provision and requirements for the professionals) and included in the basic package of services reimbursed by the National Health Insurance House.

A new regulation on the functioning of psychology facilities for cancer patients was adopted in 2023. It includes types of psychology services provided to cancer patients. New support services for cancer patients and their carers were introduced for reimbursement: psychologic counselling for cancer patients and their families (annual psychological evaluation and at least five counselling sessions), extended home care services (paid transport to and from treatment facilities for patients with no access to services in their residence locality), and paid leave for cancer patients' carers to accompany them for treatment and surgery (capped at 45 days per year of paid leave of absence).

Romania has adopted a law on the right to be forgotten, providing access to financial products for cancer patients after five years of remission.

Palliative care services are suboptimal, but efforts are under way to improve them

The National Health Strategy 2023-30 reveals that development of palliative care is suboptimal, with insufficient numbers and qualifications of professionals, and an inadequate and/or precarious infrastructure. It stipulates the need to develop inpatient, ambulatory and home care palliative services. At present, palliative services – inpatient, ambulatory and home care – are reimbursed by health insurance as part of the basic package of services, but the volume of contracted services and the number of providers remain low.

A national evaluation of palliative care in 2019 showed that only 5% of palliative care needs are met in Romania. Of 33 000 patients needing palliative care, 29 650 had to be hospitalised, as this was the only form of palliation to which they could have access. Home palliative care was provided for only 5% of patients, because these types of services are underdeveloped, and are only available through private providers, including NGOs and commercial societies (Ministry of Health, 2019). Furthermore, A Ministry of Health order updated requirements for regulation of organising, functioning and authorisation of palliative care.

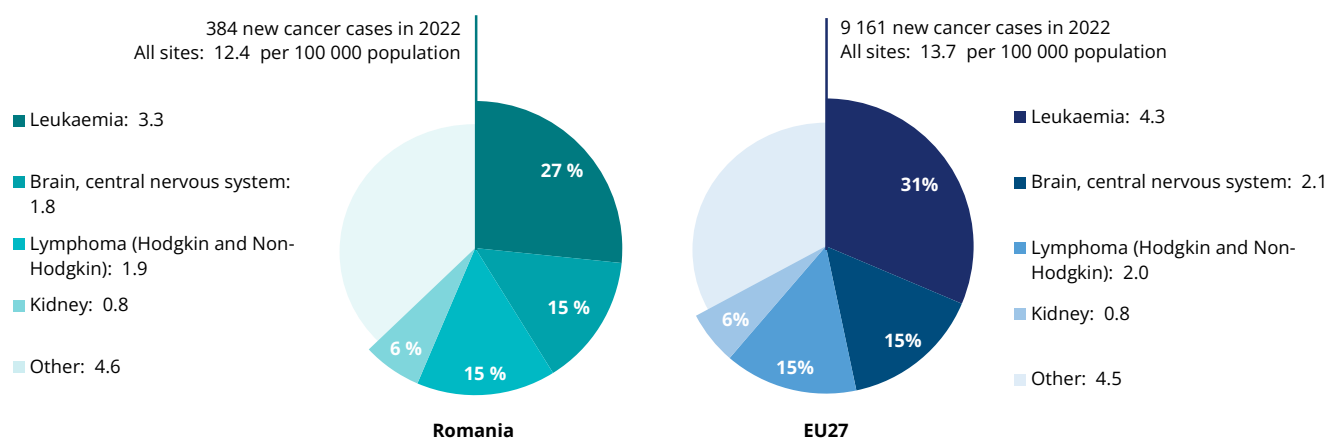
6. Spotlight on paediatric cancer

According to ECIS, it is estimated that 384 children and adolescents up to age 15 were diagnosed with cancer in Romania in 2022. Incidence rates for children aged 0-14 in 2022 were estimated at 12.4 per 100 000 children, slightly lower than the 13.7 per 100 000 EU average (Figure 17). The most common cancer groups are leukaemia at 3.3 cases

per 100 000 children (27%), brain and central nervous system cancer at 1.8 cases per 100 000 (15%) and lymphoma at 1.9 cases per 100 000 (15%). Paediatric cancer mortality rates in Romania are higher than the EU average, with a 3-year average mortality rate of 2.9 per 100 000 children, according to Eurostat.

Figure 17. Cancer incidence rates among children in Romania are slightly lower than in the EU

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



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

According to the European Society of Paediatric Oncology (SIOPE)'s Organisation of Care & Research for Children with Cancer in Europe (OCEAN) Project, Romania has 11 institutions treating children and young people with cancer (SIOPE, 2024). Two of them are classified as tertiary cancer centres.

Of 13 infrastructural and treatment modalities such as photon therapy, stem cell transplants, palliative care and chemotherapy, 10 are available to care for paediatric cancer patients in the country, while proton radiation therapy, brachytherapy and a survivorship clinic are not available (SIOP, 2024). Patients can have consultations at multidisciplinary tumour boards in tertiary paediatric cancer centres.

The only nationally functional registry is the Childhood Cancer Registry, which has national coverage and high-quality data. It is maintained by the Romanian Society for Paediatric Onco-Haematology, a professional association that also provides support to children with cancer and their families, with support from an NGO. The

Childhood Cancer Registry has recently presented the latest data on five-year survival in children aged 0-14, showing a significant increase from 69% (for patients diagnosed in 2010-13) to 74% (for those diagnosed in 2014-17) (Romanian Society for Paediatric Onco-Haematology, 2023).

A pilot project to develop electronic health records for paediatric cancer patients allows multidisciplinary consultations between two oncology centres in Bucharest and Constanța, and facilitates exchanges with international specialists if the child has been treated abroad. Classification of paediatric cancer centres by level of competencies is under approval.

The access to clinical trials for Romanian children with cancer is limited. From 436 clinical trials enrolled children and young people in Europe between 2010-22, only 16 (4%) were implemented in Romania (one national and 15 international). In addition in 2018, 53% of the 68 medicines identified as essential for treating cancer in patients aged 0 to 18 were available in Romania, compared to the EU average of 76% (Vassal et al., 2021).

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Country abbreviations

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

European Cancer Inequalities Registry

Country Cancer Profile 2025

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

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

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

Each Country Cancer Profile provides a short synthesis of:

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

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