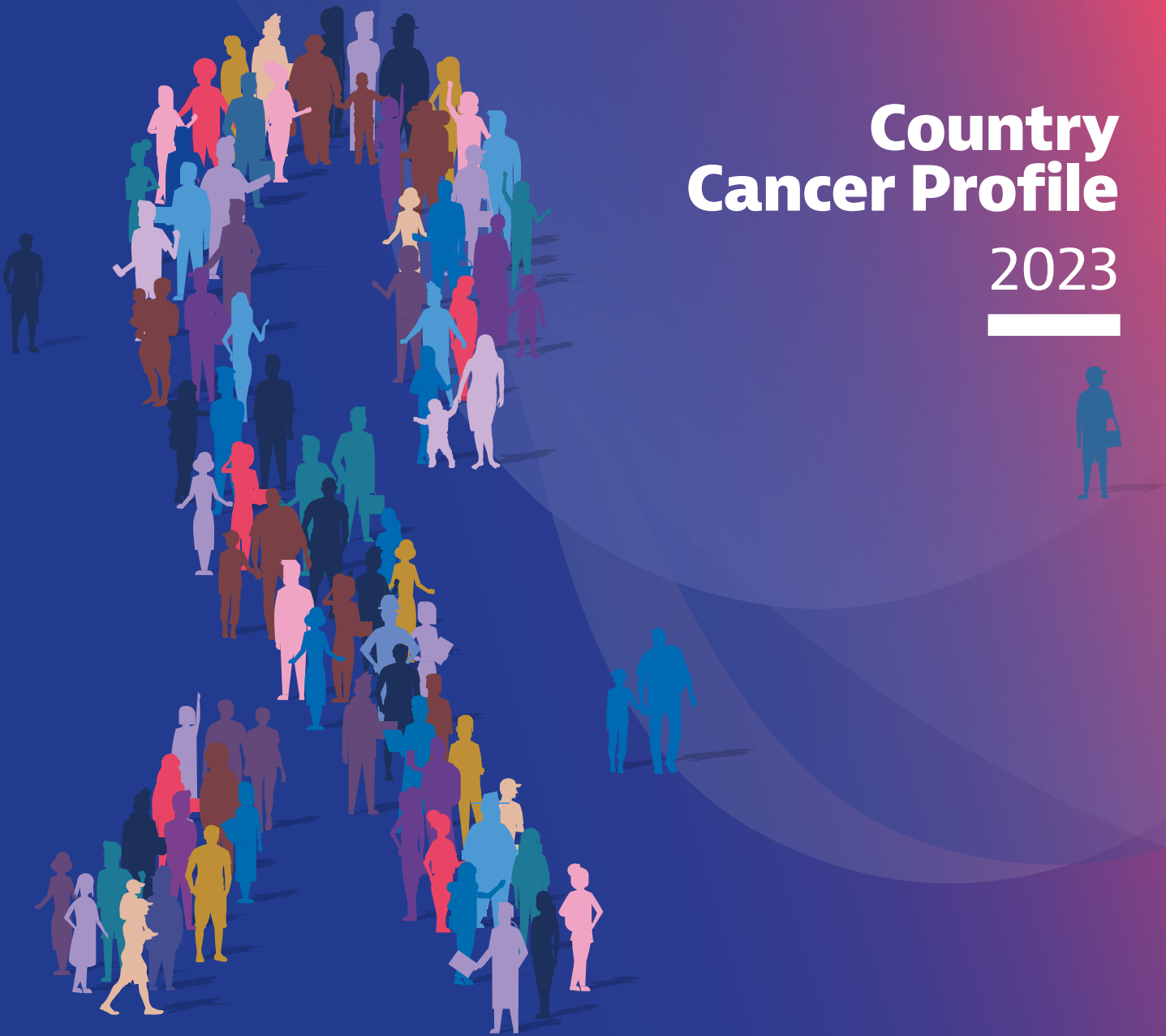




AUSTRIA

Country Cancer Profile

2023



The Country Cancer Profile Series

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 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 inputs received from national experts and comments provided by the OECD Health Committee and the EU Expert Thematic 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 also come from the World Health Organization (WHO), the International Agency for Research on Cancer (IARC), the International Atomic Energy Agency (IAEA), the Institute for Health Metrics and Evaluation (IHME) 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.

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.

Disclaimer: This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the Member countries of the OECD. This work was produced with the financial assistance of the European Union. The views expressed herein can in no way be taken to reflect the official opinion of the European Union.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

Note by the Republic of Türkiye: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Türkiye shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

©OECD 2023

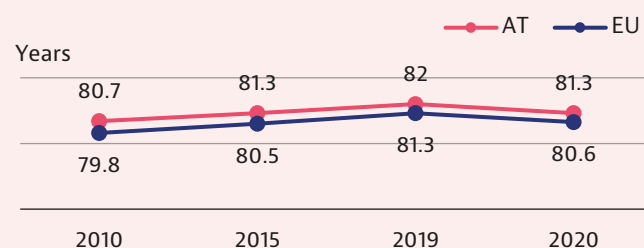
The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <https://www.oecd.org/termsandconditions>.

Contents

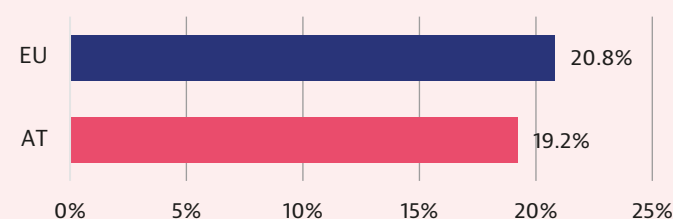
1. HIGHLIGHTS	3
2. CANCER IN AUSTRIA	4
3. RISK FACTORS AND PREVENTION POLICIES	7
4. EARLY DETECTION	9
5. CANCER CARE PERFORMANCE	11
5.1 Accessibility	11
5.2 Quality	14
5.3 Costs and value for money	15
5.4 COVID-19 and cancer: building resilience	17
6. SPOTLIGHT ON INEQUALITIES	18

Summary of the main characteristics of the health system

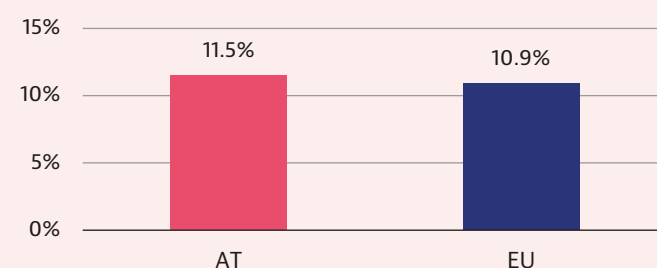
LIFE EXPECTANCY AT BIRTH (YEARS)



SHARE OF POPULATION AGED 65 AND OVER (2021)

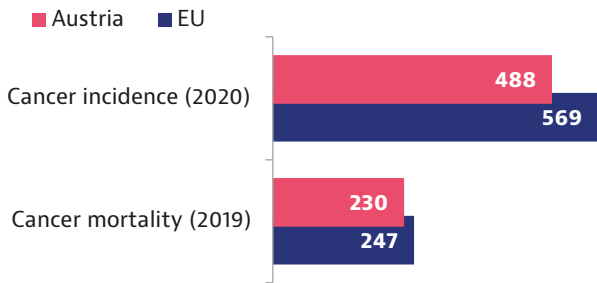


HEALTH EXPENDITURE AS A % OF GDP (2020)

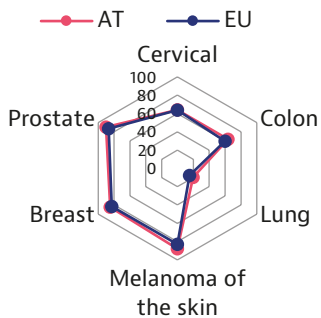
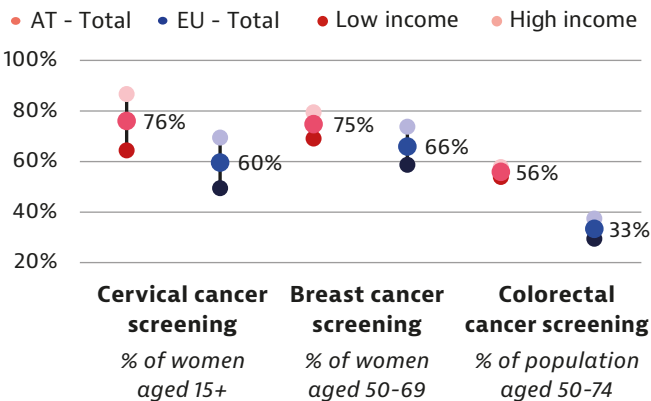
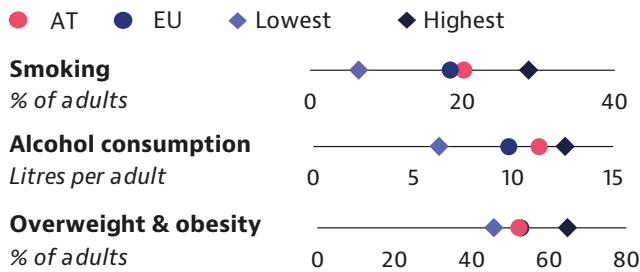


Source: Eurostat Database.

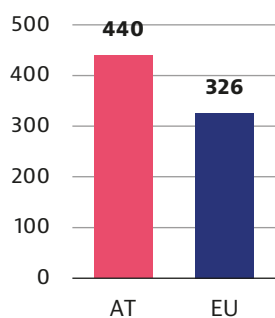
1. Highlights



Age-standardised rate per 100 000 population



Five-year net survival rate by cancer site, 2010-14



Total cost of cancer (EUR per capita PPP), 2018

Cancer in Austria

Incidence and prevalence of cancer have increased in Austria in the past decade, as have the chances of survival. Expected age-standardised cancer incidence and mortality rates are below the EU averages. Lung cancer remains the leading cause of death by cancer, while mortality from colorectal and gastric cancers have declined markedly.

Risk factors and prevention policies

Prevalence of smoking remains high, and overweight and obesity are increasing problems – particularly among people of working age and with low education levels. Prevention is guided by the National Cancer Framework Programme.

Early detection

Early detection of breast, colorectal and cervical cancer are priorities of the National Cancer Framework Programme. Although a national screening programme is only in place for breast cancer, uptake of testing for colorectal and cervical cancers is also high. National screening programmes for the latter are currently being discussed.

Cancer care performance

Access to care is generally not considered a major issue in Austria, which has higher direct health care costs attributable to cancer than the EU average. Five-year net survival has increased across nearly all the most common cancer types in recent decades, except cervical cancer, and survival remains above the EU average. For people with rare cancers, five-year survival is above the EU average but remains below the rate in top-performing countries.

2. Cancer in Austria

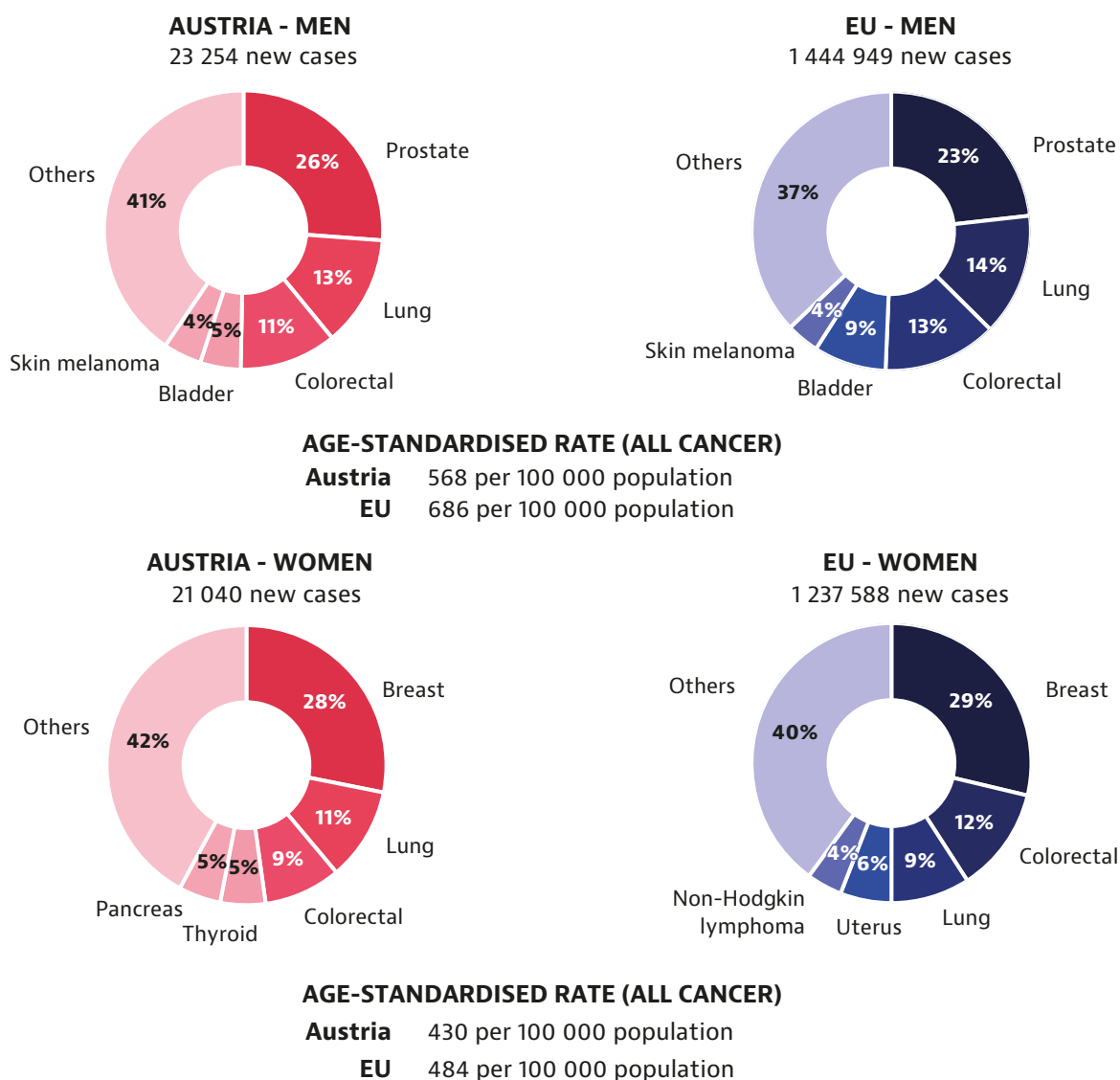
Both incidence and prevalence of cancer have increased in Austria in the past decade, as have the chances of survival for cancer patients. Increasing incidence is mainly related to an ageing population and the growing risk of developing cancer with age – as well as better screening and diagnostic methods, leading to earlier detection and an increase in newly reported cases. Increasing prevalence is driven by higher survival rates (Krebshilfe & OeGHO, 2021).

More than 44 000 new cancer cases were expected in Austria in 2020

According to European Cancer Information System (ECIS) of the Joint Research Centre based on incidence trends from pre-pandemic years, around 44 000 new cases of cancer were expected in Austria in 2020 (Figure 1) – equivalent to 504 cases per 100 000 population. The age-standardised incidence rate was expected to be lower in Austria

Figure 1. Age-standardised cancer incidence is lower in Austria than the EU for both sexes in 2020

Distribution of cancer incidence by sex in Austria and the EU



Note: Corpus uteri does not include cancer of the cervix. These estimates were created before the COVID-19 pandemic, based on incidence trends from previous years, and may differ from observed rates in more recent years. Source: European Cancer Information System (ECIS). From <https://ecis.jrc.ec.europa.eu>, accessed on 09/05/2022. © European Union, 2022.

(488 per 100 000 population) than across the EU (569 per 100 000 population). Across all cancer types, incidence was expected to be around 30 % higher among Austrian men (568 per 100 000) than women (430 per 100 000), while the difference was expected to be 40 % in the EU (686 vs. 484 per 100 000) (Figure 1). The burden of cancer in the population, measured by disability-adjusted life years (DALYs) lost was lower in Austria than the EU average (4 936 vs. 5 757 per 100 000 population).

In women, breast cancer was expected to be the most common type, accounting for 28 % of new cases in Austria in 2020 (29 % in the EU). This was followed by lung (11 % vs. 9 % in the EU) and colorectal (9 % vs. 12 % in the EU) cancer. Incidence rates for women were expected to be lower in Austria than the EU for breast and colorectal cancer but higher for lung, thyroid and pancreatic cancer.

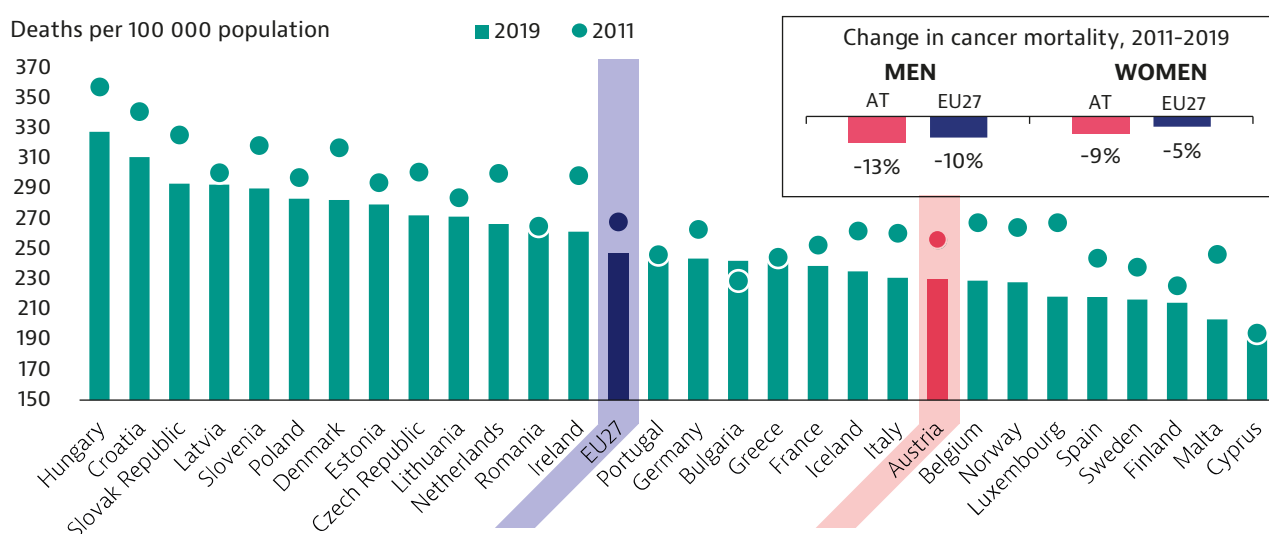
In men, prostate cancer was expected to be the most common type, accounting for 26 % of new cases, followed by lung (13 %), colorectal (11 %) and

bladder cancer (5 %), as well as melanoma (4 %). These five leading types match those in the EU, but their incidence was expected to be lower in Austria than the EU average. For paediatric cancer, the age-standardised incidence rate in children under 15 years in 2020 was 15 per 100 000, which is similar to the EU average. In 2013, the estimated number of new rare cancer cases in Austria was 10 576.

Overall cancer mortality in Austria is below the EU average

Mortality from cancer was below the EU average in 2011 (256 per 100 000 population in Austria vs. 268 in the EU) and, as a result of more rapid reductions in Austria, the difference had widened by 2019 (230 vs. 247). The decrease was more marked for men (-13 %) than women (-9 %), but the falls exceeded those in the EU (-10 % for men and -5 % for women) (Figure 2).

Figure 2. In recent years, mortality from cancer has decreased more rapidly in Austria than the EU

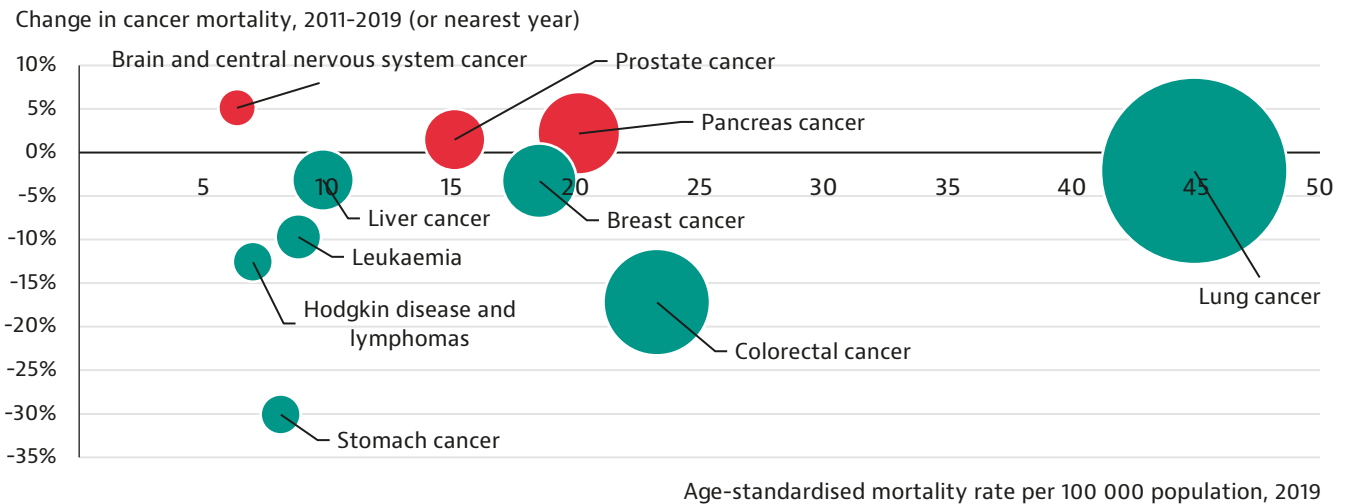


Note: The EU average is weighted (calculated by Eurostat for 2011-2017 and by the OECD for 2018-2019). Source: Eurostat Database.

Reductions in mortality from colorectal and gastric (stomach) cancers were the largest single contributors to this overall decrease (Figure 3), although the aggregate decrease across all other cancers that are not classified by a single site was the main driver. As in 2011, lung, colorectal and pancreatic cancers remained the three most deadly cancer sites in 2019. While a slight reduction was achieved in lung cancer mortality, pancreatic cancer mortality slightly increased over the period.

In 2019, gastric (stomach) cancer accounted for an overall mortality rate of 8 per 100 000 population, which is slightly lower than the EU average (10 per 100 000 population). Skin melanoma accounted for an overall mortality rate of 4 per 100 000 population (compared to 3 per 100 000 population in the EU).

Figure 3. Lung, colorectal and pancreas cancers were the most important drivers of mortality by cancer



Note: Red bubbles signal an increase in the percentage change in cancer mortality during 2011-2019; green bubbles signal a decrease. The size of the bubbles is proportional to the mortality rates in 2019. The mortality of some of these cancer types is low; hence, the percentage change should be interpreted with caution. Bubble sizes for mortality rates are not comparable between countries. Source: Eurostat Database.

As with the pattern across the EU, mortality from all cancers in 2019 was higher among men (292 per 100 000 in Austria vs. 328 in the EU) than women (187 per 100 000 in Austria vs. 191 in the EU). This is likely to be driven by higher prevalence of risk factors and different health behaviours in men, related to higher incidence, rather than by treatment results: while in 2018 the preventable mortality rate¹ for men (76 per 100 000) was more than double that for women (35 per 100 000), the opposite was true for treatable mortality² (15 per 100 000 among men vs. 31 among women).

Overall, between 2000 and 2019, Austria saw a relative decrease of 32 % in potential years of life lost due to malignant neoplasms. In 2019, Austrian inhabitants lost 1 106 years per 100 000 people aged up to 75 years.

Progress in action against cancer is closely monitored at the national level

The National Cancer Framework Programme is the overarching policy that guides cancer prevention, detection and treatment in Austria. It has been implemented across all relevant sectors of public health and the health system since its adoption in 2014. Six strategic goals guide the Programme, each supported by several operative goals (Bundesministerium für Gesundheit, 2014).

In 2009, an Oncology Advisory Board was established to advise the Minister of Health in matters of cancer prevention and care, as well as implementation of the national cancer framework programme. The Board comprises policy makers and experts from health care providers, health payers, government departments and agencies, as well as representatives of patient organisations. Since the inception of the National Cancer Framework Programme, the Board has monitored progress towards its goals, and publishes biannual reports (BMSGPK, 2021a). A national Screening Committee was also established in 2021, comprising medical, legal, public health and legal experts, as well as a patient representative, to guide the expansion of national screening programmes beyond breast cancer, initially for colorectal cancer (see Section 4).

Patients are generally considered well represented in national policy making through inclusion of patient group representatives in the Oncology Advisory Board and Screening Committee. However, they are less well represented at the institutional level, such as in quality assurance processes at cancer centres.

¹ Preventable mortality refers to malignant neoplasm of lip, oral cavity, pharynx, oesophagus, stomach, liver, trachea, bronchus and lung, cervix and bladder.
² Treatable mortality refers to malignant neoplasm of colon and rectum, breast, cervix, uterus, testis and thyroid.

Several stakeholders and civil society organisations play prominent roles in cancer policy

In addition to the federal government and its agencies, cancer policy in Austria is driven by several stakeholders in the health system. These include social health insurance (SHI) funds, specialist medical associations and private non-profit organisations, such as Krebshilfe, a donor-funded cancer aid association. Krebshilfe pursues goals related to prevention, detection and treatment of cancer, including raising public awareness, promoting research and quality assurance, and providing education to health

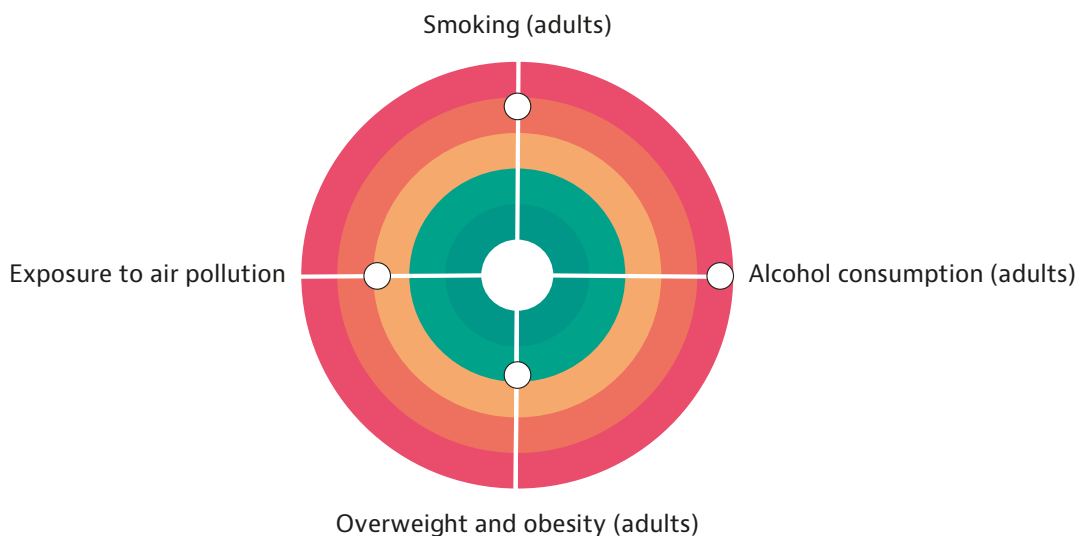
professionals. In collaboration with the Austrian Society for Haematology and Medical Oncology (OeGHO), Krebshilfe publishes an annual report about cancer in Austria (Krebshilfe & OeGHO, 2021).

Various efforts have been made in recent years to improve coordination in planning and execution of health policy in Austria between the federal and state governments and several stakeholders, mainly through written agreements and joint plans (OECD, 2019). These include cancer-related policy and health services (see Section 5.1).

3. Risk factors and prevention policies

In Austria, smoking and alcohol consumption are higher risk factors for cancer than in other EU countries (Figure 4).

Figure 4. Smoking and alcohol consumption are important risk factors for cancer in Austria



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

Sources: OECD calculations based on the European Health Interview Survey (EHIS) 2019 for smoking and overweight/obesity rates, OECD Health Statistics 2022 and WHO Global Information System on Alcohol and Health (GISAH) for alcohol consumption (2020) and Eurostat for air pollution (2019).

Cigarette smoking is more prevalent in Austria than in most EU countries

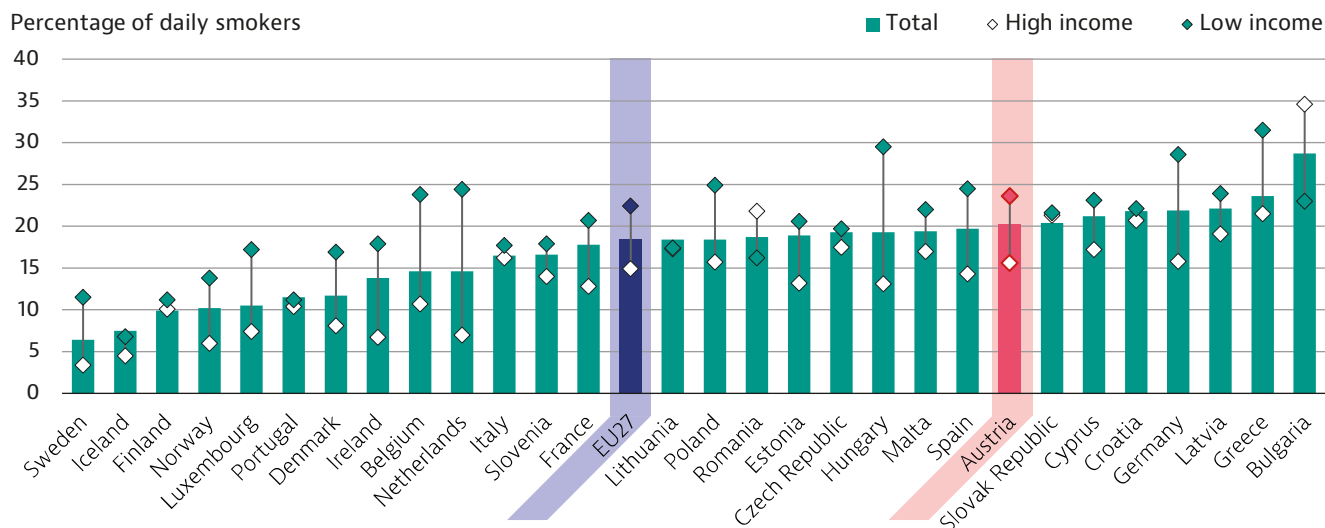
Cigarette smoking is more common in Austria than across the EU. Despite a more marked reduction since 2014 than the EU average, 20 % of

the Austrian population reported daily cigarette smoking in 2019, compared to 18 % across the EU. The proportion of daily smokers exceeded the EU average across all population groups except people aged 65 years and over (7 % in Austria vs.

9 % in the EU), and the difference was particularly marked among the working-age population (24 % in Austria vs. 22 % in the EU) and women (18 % vs. 15 % in the EU). Within Austria, men were more likely to smoke than women, and there were clear

education and income gradients: prevalence was six percentage points higher among people with low than with high education levels, and eight percentage points higher among people on low than on high incomes (Figure 5).

Figure 5. The income gap in prevalence of smoking is substantial



Note: The EU average is weighted (calculated by Eurostat).

Source: Eurostat Database, European Health Information Survey (EHIS). Data refer to 2019.

Alcohol consumption is higher than in many other EU countries

Austrians aged 15 years and over consumed on average 11.3 litres of pure alcohol in 2020 (OECD, 2022), which is higher than the EU average of 9.8 litres. As with the pattern across the EU, men consume more alcohol than women. Hazardous alcohol consumption is also more common among men (1.1 % vs. 0.7 % of women) and among people on low incomes (1.0 % vs. 0.9 % of people on high incomes). This is reflected in part in higher incidence of cancer attributable to alcohol in men in 2020, which was 13 per 100 000 (vs. 18 across the EU) compared with 9.9 per 100 000 women (vs. 12.3 across the EU). Contrary to many other behavioural risk factors, alcohol consumption is more common among population groups with higher education levels. Alcohol control policies in Austria include restrictions on marketing and strict drink-driving sanctions, but policies on restricting availability of alcohol to adolescents and minors are looser.

Overweight and obesity are on the rise in Austria

Overweight and obesity are increasing risk factors in the Austrian population. While the share of the Austrian population who were overweight or obese was below the EU average in 2014 (47 % vs. 50 %), it had increased and almost converged with the EU

average by 2019 (52 % in Austria vs. 53 % across the EU). More than 60 % of men were overweight or obese in 2019 compared to 44 % of women; however, increases over time were comparable. On the other hand, they were particularly driven by people of working age and those with lower education levels.

This trend may be partly driven by unhealthy lifestyles, including poor diet and a lack of physical activity. Daily fruit consumption and time spent on health-enhancing physical activity decreased in Austria between 2014 and 2019, and daily vegetable consumption remained constant, while they increased across the EU. The decrease in physical activity was particularly marked among people with low education levels and people aged 65 years and over. Although above the EU average of 25 %, only 29 % of the Austrian population with low education levels reported at least 150 minutes of physical activity per week in 2019 – far below the 44 % in 2014 (vs. 23 % in the EU). Stronger prevention and greater public health efforts could help to reduce unhealthy lifestyles. In 2020, 3.6 % of Austria's health spending was on prevention – higher than the EU average of 3.4 %.

Exposure to air pollution is lower in Austria than in the EU

In 2019, exposure to PM₁₀³ in Austria reached 17 µg/m³, which is lower than the EU average (21 µg/m³). Austria had a slightly lower concentration of PM_{2.5} than in the EU (12.0 µg/m³ vs. 13 µg/m³). According to the Institute for Health Metrics and Evaluation, ozone and PM_{2.5} exposure accounted for an estimated 3 % of all deaths in Austria in 2019, a proportion lower than the average across the EU.

The National Cancer Framework Programme set objectives to foster prevention

Policies to prevent cancer are guided by the National Cancer Framework Programme, which set reducing cancer incidence as the first of its six strategic goals. The Programme also planned provision of evidence-based information to specific target groups to help the population make choices that promote health and navigate the health system. Areas of focus are general health promotion, smoking, physical activity, exposure to ultraviolet radiation from sunlight, traffic and mobility, infectious agents and health literacy.

Smoking cessation is an operative goal of the Programme, and specific measures included a smoking ban in bars, restaurants and workplaces, as well as smoking cessation support for target groups.

The national online health portal publishes information on cancer as part of an operative goal to improve health literacy, including summaries of risk factors and prevention measures in plain language. These include descriptions of infections and environmental and behavioural risk factors for cancer, and recommendations on smoking cessation; physical activity, healthy eating and obesity; alcohol consumption; protection from ultraviolet radiation; and vaccination.

Improving uptake of vaccination against infectious agents associated with cancer and reducing emission from road traffic are further operative goals of the National Cancer Framework Programme. To date, however, vaccination rates are below the EU averages (Box 1).

Box 1. Human papillomavirus and Hepatitis B vaccination rates are below the EU averages

Although no robust data are available about uptake of human papillomavirus (HPV) vaccination, it is estimated that fewer than 50 % of 15-year-old Austrian girls are vaccinated, which is below the EU average (59 %) and much lower than in many other EU countries. Vaccination is recommended by the Federal Ministry of Health for all up to the age of 30 years. While there is no recommendation made for people over 30 years, there are recommendations for people with specific risk factors. A vaccination programme for children makes HPV vaccination available free of charge for girls and boys aged 9-12 years. Two vaccinations at intervals of 6-12 months are recommended.

Sources: BMSGPK, 2022b; Krebshilfe, 2022.

For adolescents aged up to 18 years (increased from 15 years since the COVID-19 pandemic), catch-up vaccinations are offered at public vaccination centres at discounted prices.

According to WHO, 87 % of 1-year-olds in Austria were vaccinated against hepatitis B in 2020, which is below the EU average (94 %). The Ministry of Health recommends vaccination for all ages up to 65 years. For specific risk groups, antibody tests and regular booster doses are recommended. Vaccination is free of charge for all children up to school-leaving age, and is part of the general vaccination programme for infants.

4. Early detection

The only national screening programme is for breast cancer

Early detection of breast, colorectal and cervical cancer are priorities of the National Cancer

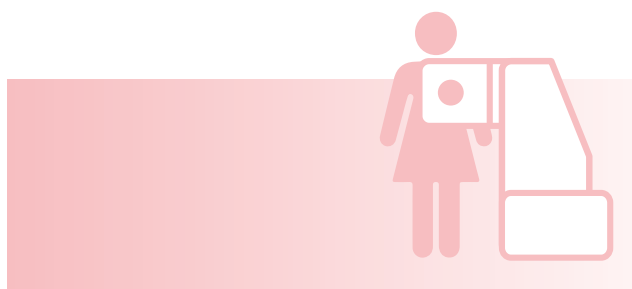
Framework Programme, and uptake of screening for all these cancers is above the EU average. Adherence to criteria of cost-effectiveness and appropriateness for screening programmes and achievement of quality criteria in screening

3 Particulate matter (PM) is classified according to size: PM₁₀ refers to particles less than 10 micrometres in diameter; PM_{2.5} to particles less than 2.5 micrometres in diameter.

are operational goals of the Programme. Only one national screening programme (for breast cancer, adopted in 2014) is in place thus far, while early detection of other cancer types remains opportunistic. The breast cancer screening programme is based on the European guidelines (European Commission, 2022), and is targeted at women aged 45-69 years, although opt-in participation is possible for women aged 40 and above.

Work towards a comprehensive screening programmes for colorectal cancer is currently under way. Implementation of further screening programmes will adhere to recommendations by the European Council, which provide revised guidance for breast, colorectal, and cervical cancer screening. A national Screening Committee was established in 2021 to oversee this and to promote quality-assured screening programmes. Although they do not fully reflect national or regional cancer policy, Krebshilfe publishes the following screening recommendations in collaboration with specialist medical associations:

- breast cancer: mammography every other year for women aged 40 years and over, with supplementary ultrasound if a need is established by a radiologist based on the results;
- cervical cancer: annual smear test for cancer for women aged 20 years and over; HPV test every three years for women aged 30 years and over, regardless of vaccination status, although simultaneous HPV vaccination and smear testing should be avoided;
- prostate cancer: regular exam (at unspecified intervals) for men aged 45 years and over;
- colorectal cancer: annual test for blood in stools for people aged 40 years and over; colonoscopy every 10 years for people aged 50 years and over at quality-certified diagnostic centres;
- skin cancer: self-examination twice a year and dermatologist consultations for any changes observed.



Breast cancer screening rates are higher in Austria than in most other EU countries

In 2019, 75 % of Austrian women aged 50-69 years reported having had a mammogram in the previous two years, compared to 66 % across the EU. Screening rates were lower among women with low education levels (71 % compared with 74 % among women with high education levels), low incomes (69 % compared with 79 % among women with higher incomes); disparities between these population groups were also smaller than the EU averages. In 2014, screening rates were higher among women living in cities (75 %) relative to women living in rural areas (70 %).

Between 2014 and 2019, the national screening programme identified 443 malignant tumours per 100 000 exams – equivalent to 2.1 times the incidence rate prior to its introduction. The mean time between exam and diagnosis was 1.6 working days, and 77 % of cases were at an early stage, with an associated positive prognosis. While participation in the programme remained below the target of 70 %, targets for detecting new breast cancer cases were exceeded (Gollmer, Link & Weißenhofer, 2021).

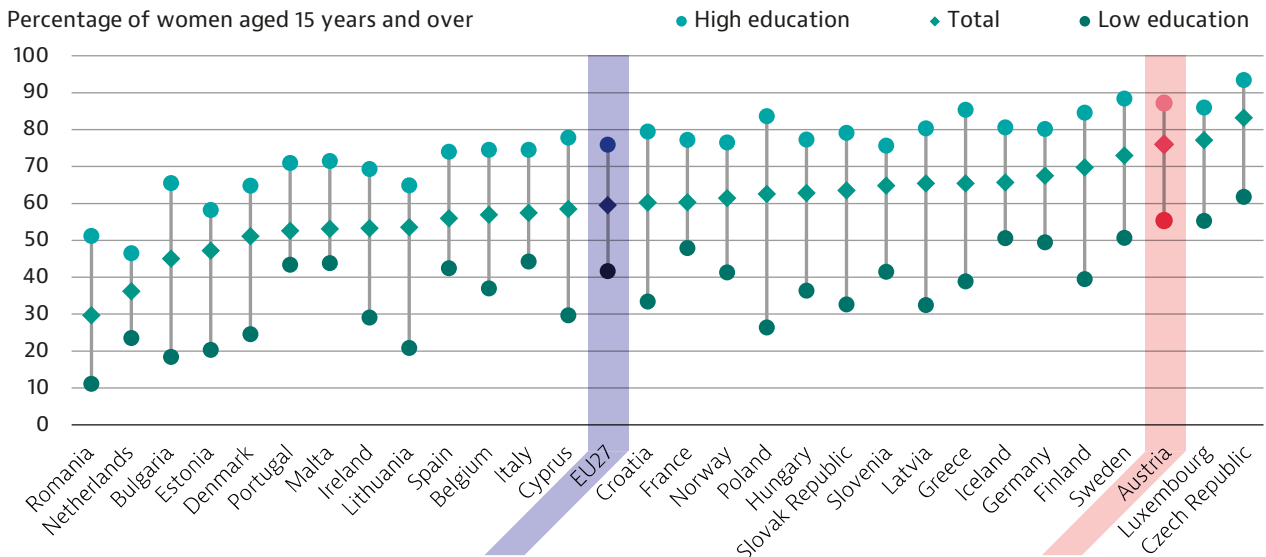
Uptake of opportunistic screening for cervical cancer is among the highest in the EU

Although testing is opportunistic and there is no systematic quality assurance, screening rates for cervical cancer through smear tests were also higher in Austria than the EU average (76 % of women aged 15 years and over vs. 60 %) in 2019 (Figure 6). However, as across the EU, screening was more common among women aged 15-64 years, and there were marked disparities: 87 % of women with high education levels reported having taken a smear test in the prior three years compared to 55 % of women with low education levels, and 87 % of women on high incomes compared to 64 % on low incomes. In contrast, screening was more common among women living in rural areas than in cities (80 % vs. 77 %).

Disparities in colorectal cancer screening are small in Austria

In 2019, 56 % of the Austrian population aged 50-74 years reported having a colorectal screening test in the past two years, making uptake among the highest in the EU (where the average is 33 %), although testing remains opportunistic and without systematic quality assurance. Disparities by sex and income and between urban and rural populations are small. Screening rates are higher among people with high education levels (59 %) than among those with low education levels (50 %).

Figure 6. Education gradients can be seen in uptake of cervical cancer screening



Note: The EU average is weighted (calculated by Eurostat). The figure reports the percentage of women aged 15 years and over who reported having a cervical smear test in the past three years. Source: Eurostat, EHIS. Data refer to 2019.

5. Cancer care performance

5.1 Accessibility

Access to cancer care is one of the six strategic goals of the National Cancer Framework Programme

Access to health care, including cancer care, is generally not considered a major issue in Austria. Equitable access to health care that is appropriate but does not exceed what is necessary is a basic principle of the country's SHI. The National Cancer Framework Programme recognises equal access to health care and innovation in care, regardless of age, sex, ethnicity and socioeconomic background as one of its six strategic goals. Efforts to improve accessibility are guided by the Joint Structural Plan for Health at the federal level, which aims to lower physical and social barriers to accessing health care in general, including implementation of monitoring mechanisms of opening and waiting times and of satisfaction with health services among the population.

By virtue of these principles, cancer services are generally free of charge at the point of use. According to the EU-SILC survey, unmet medical

needs for reasons related to finances, geographical accessibility or waiting lists are close to zero in Austria in 2020, while 1.8 % of the population of the EU was estimated to forgo medical examinations for these reasons. Variations in unmet needs across sexes and income groups are also minimal.

Financing and delivery structures of cancer care are fragmented in Austria

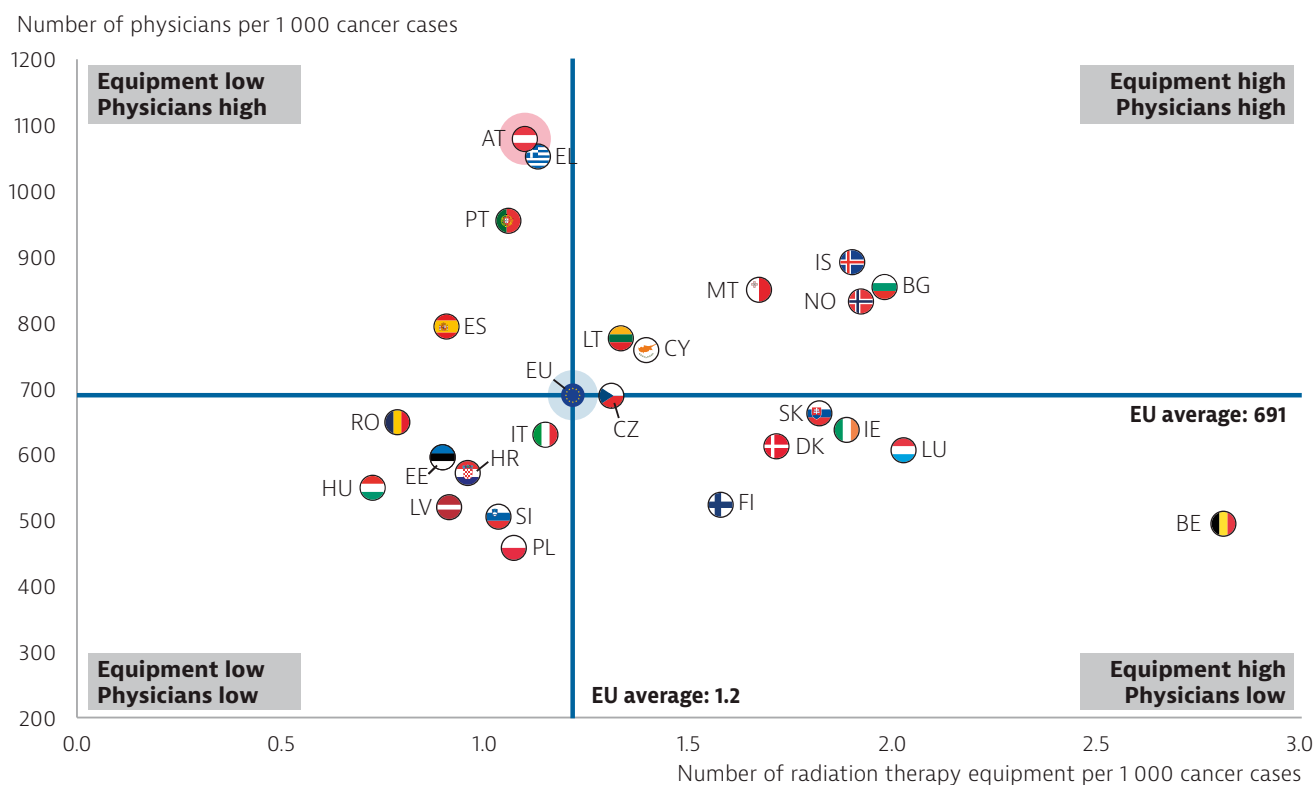
While overall policy is mainly formulated at the federal level (see Section 2), financing and delivery structures in the Austrian health system are fragmented and rely on collaboration between the federal and state governments, SHI funds and other stakeholders. While raising public awareness relies heavily on private non-profit organisations such as Krebshilfe, early detection relies on opportunistic screening by health care providers and a coordinated screening programme, which are implemented by SHI through contracts with screening centres. Treatment is mainly provided by state-funded hospitals and supported by office-based specialists, funded by SHI. Among other services, Krebshilfe operates 63 professionally staffed counselling centres that support patients

and their families with advice on psycho-oncology, nutrition, social and legal matters, sexual health and cancer, and communication for parents of children with cancer. They also provide aid for cancer patients in financial distress.

Although internationally comparable data about physical accessibility are limited, the Austrian health system continues to be hospital-centred. Inpatient case rates per 100 000 population are above the EU averages for all cancer types. While

the number of physicians relative to the number of cancer cases, and the number of particle therapy centres and advanced imaging machines per 100 000 population, are also above the EU averages, the density of radiation therapy equipment is below the EU average (Figure 7). At the national level, the Joint Structural Plan for Health guides the physical availability of cancer-related services – in particular, specialised treatment across three tiers of provider organisations (see Section 5.2).

Figure 7. Austria has a high density of physicians but lower density of radiation therapy equipment



Notes: The EU average is unweighted (calculated by the OECD). Radiation therapy equipment is from hospitals and providers of ambulatory care. Data refer to medical doctors (excluding nursing and caring professionals). Sources: Eurostat and OECD Health Database (data refer to 2020, or nearest year).

New cancer therapies appear to be highly accessible in Austria

Data on access to medicines are also scarce, but generally suggest that this is not a problem in Austria and that uptake is at the high end of the range across EU countries. No budget ceilings or volume constraints are in place, and all outpatient medicines are covered by SHI, but the use of some may be subject to prior authorisation. Local constraints may be imposed on inpatient medicines by individual hospitals, however, so access variations may exist between hospitals. Equitable access to new diagnostic and therapeutic technology for cancer through coverage by the national hospital remuneration system is an operative goal of the National Cancer Framework

Programme and subject to monitoring. So far, it has only been evaluated in terms of utilisation of monoclonal antibodies in hospitals. The volume of treatments used more than tripled from 2007 to 2018; they were mainly used in specialised treatment centres; and an average of 18 months elapsed between regulatory approval by the European Medicines Agency and availability in the catalogue of hospital services.

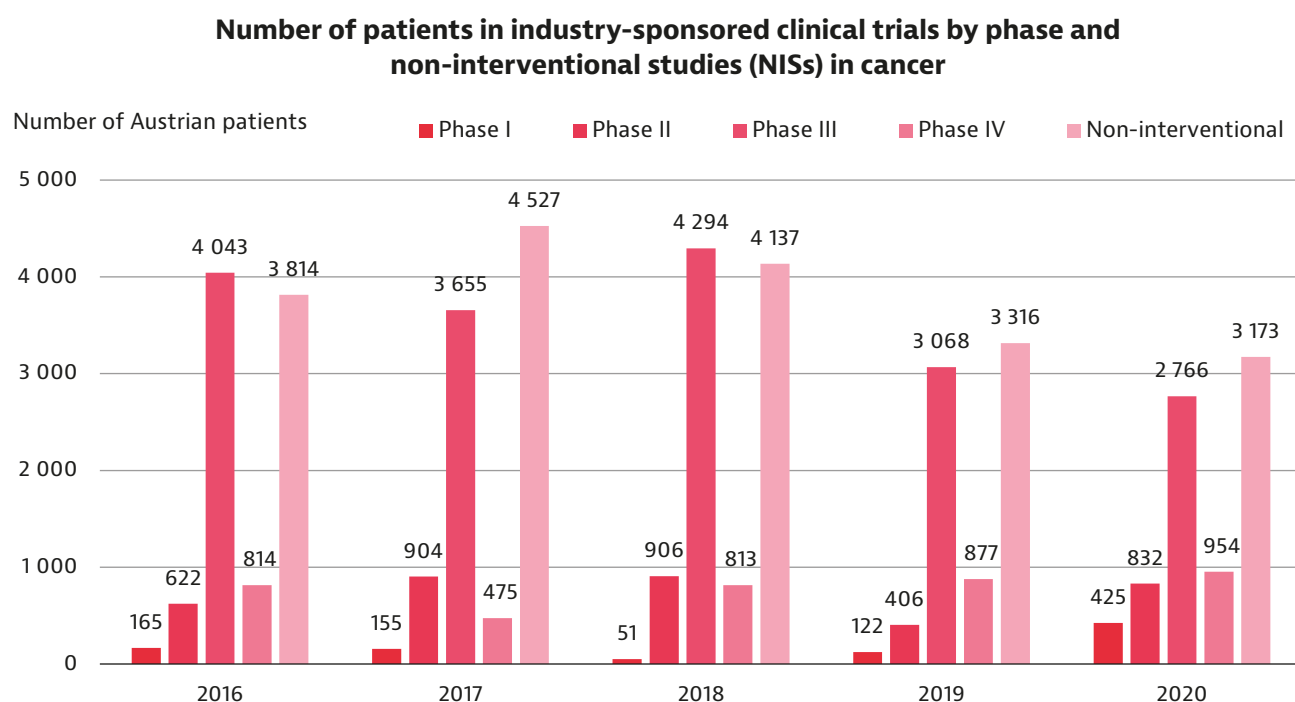
Use of cancer-related services in outpatient settings has increased rapidly since 2014, while use as part of hospital day cases started declining from a peak in 2017 and use in inpatient settings remained close to constant (Mathis-Edenhofer & Eglau, 2020). This is related to a deliberate policy to shift activity from inpatient to outpatient settings, accompanied

by a change in hospital remuneration for outpatient services, aligning the payment model more closely with that for inpatient services.

To make participation in clinical studies of novel cancer treatments more accessible – another operative goal of the National Cancer Framework Programme – a dedicated website was created in 2018, following recommendations by the Oncology Advisory Board and a trial phase in 2016-2017.

The site is accessible through the national public health portal; it provides a centralised source of information about clinical studies for health professionals to support possible enrolment of patients, and information for the public. However, while the number of clinical studies in Austria remained constant in 2015-2019, the number of patients participating declined (Figure 8).

Figure 8. The number of Austrian patients in clinical cancer studies declined between 2016 and 2020



Note: Raw survey data, absolute numbers of patients enrolled in an average of 86 % of all clinical trials.
Source: PHARMIG Verband der pharmazeutischen Industrie Österreichs member survey (2022).

Increasing availability of end-of-life care has been a priority over the past 15 years

End-of-life care is a policy focus, and the National Cancer Framework Programme recognised the insufficient supply and unmet needs. Accordingly, the Programme provided three operative goals related to expanding availability of specialised palliative services, monitoring their uptake and providing training for health professionals.

A total of 357 provider organisations provide care according to a multi-tier framework for adults, established between 2004 and 2006 in a collaboration between the federal and state governments and all relevant stakeholders. The end-of-life care framework for adults was complemented by one for children, adolescents and young adults in 2013. These frameworks are integrated into the Joint Structural Plan for Health. Provider types comprise in-hospital palliative units and hospice units in long-term care facilities,

providing a total of 492 beds, complemented by day-hospice centres, outpatient and mobile teams who support both health professionals and patients (Hospiz Österreich, 2021). Cancer patients account for the majority of patients, ranging from 72 % of palliative patients in long-term care units and 88 % of patients of in-hospital palliative units. To monitor access to end-of-life care, two indicators were prioritised: waiting time between registration with a residential palliative care unit and admission; and proportion of patients registered but not admitted as a result of resource constraints (BMSGPK, 2022a). Data are currently only available for the waiting time indicator and no reports have yet been published.

The National Cancer Framework Programme also included a rehabilitation plan, drawn up in 2012. This forecasts increasing need for rehabilitation as a result of increasing prevalence and survival, and aims to increase availability of inpatient and outpatient services that facilitate not only

mental and physical rehabilitation but also social and vocational rehabilitation, with the aim of reintegrating cancer survivors into society and the workplace.

5.2 Quality

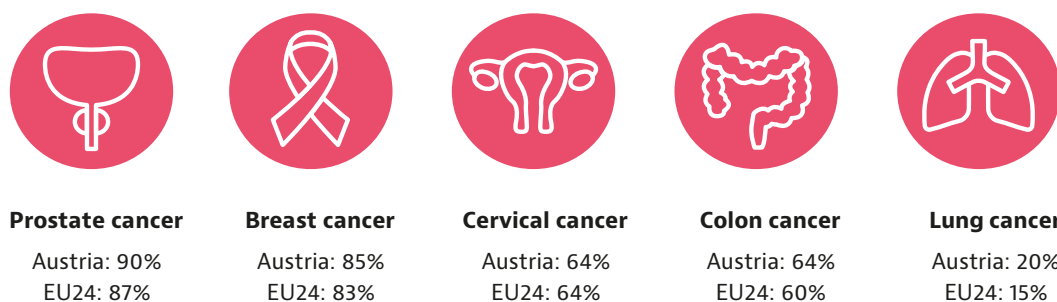
Overall quality of cancer care has improved in Austria

Five-year net survival increased in Austria between 2004 and 2014 across nearly all the most common cancer types. Although the increase was slower than the EU average, survival rates remain above the EU averages because of a higher baseline (Figure 9).

For people diagnosed between 2010 and 2014, the highest survival rates were in prostate (90 %

in Austria vs. 87 % across the EU) and breast cancer (85 % vs. 83 %). Survival rates remain poor for lung cancer (20 % vs. 15 %), despite a 4.3 percentage-point increase from just above 15 % for people diagnosed between 2000 and 2004. Notable increases in survival rates have also been achieved in Austria for stomach cancer (+5.4 percentage points), melanoma (+4.4) and colorectal cancer (+4.0). In contrast, survival rates for cervical cancer declined by -1.5 percentage points, compared to a +5.5 percentage-point increase in the EU, meaning that the levels converged. Survival rates for prostate cancer remained flat while the EU average increased substantially. For people with rare cancers, the five-year survival rate is 52 %, which is above the EU average of 49 % but below the rates in top-performing countries (59 % in Iceland and 54 % in Finland, Italy and Norway).

Figure 9. Five-year net survival is above the EU average in Austria for most cancers



Note: Data refer to people diagnosed between 2010 and 2014. Childhood leukaemia refers to acute lymphoblastic cancer. Source: CONCORD Programme, London School of Hygiene and Tropical Medicine.

Cancer treatment is provided according to a three-tier system

Two of the six strategic goals of the National Cancer Framework Programme are related to quality of care: reducing mortality and increasing survival through evidence-based and timely early detection, diagnosis and treatment; and improvement or maintenance of high quality of life of patients in all cancer stages, as well as their relatives and carers. The Programme sets out quality assurance processes and mandatory evaluation of structural, process and outcome-related quality criteria defined in operational goals and other federal guidelines. It also promotes easily accessible information that supports patient literacy and decision making. However, implementation of monitoring processes has been slow, and few quality indicators are yet reported.

Specialised cancer treatment is provided across three tiers, as defined in the Joint Structural Plan for Health, which represents the main mechanism

for enhancing quality. The most specialised treatment is provided by oncology reference centres, which should have a catchment area of at least 500 000 people and be reachable by the entire population within 120 minutes; and specialist centres, which cover at least 300 000 people within 60 minutes. Associated oncology centres mainly support specialist centres with diagnosis, referral and continuity of care, as do office-based specialists. The plan also defines structural and process-related criteria, which are most demanding for reference centres, including availability of professionals in oncological sub-specialties, availability of diagnostic and therapeutic technology and multi-disciplinary collaboration through establishment of “tumour boards” (Box 2).

Research, teaching and treatment of rare cancers and high-risk patients are centralised at reference centres. Treatment of rare cancers is also subject to the National Action Plan for Rare Diseases, which ensures participation of hospitals in European reference networks. Children with cancer are

treated at reference and specialist centres, which operate a dedicated network for paediatric oncology and focus on research into paediatric cancers.

Box 2. Interdisciplinary tumour boards oversee clinical decision making

Establishment of tumour boards and interdisciplinary decision making in the treatment of cancer for individual patients is a key component of structural policies to enhance quality. This is the only operative goal related to quality assurance in cancer treatment that has yet been achieved. Since 2015, a national policy based on recommendations of the Oncology Advisory Board has governed tumour boards, including requirements related to their composition and decision-making processes and the documentation to be kept. Tumour boards must comprise at least five different specialists, including the relevant oncological sub-specialty, internal medicine and haematology, radiation therapy, radiology and pathology.

Source: Krebshilfe & OeGHO (2021).

Patient-reported measures are not used to assess quality of cancer care in Austria

Mortality amenable to health care is the main outcome-related quality indicator currently monitored in Austria as part of the process agreed between the federal and state governments and SHI (BMSGPK, 2021b). However, it is not broken down by disease, and cancer-specific indicators are not reported separately. Use of patient-reported outcome and experience measures (PROMs and PREMs) is still in its infancy and primarily for research purposes. Overall satisfaction with health care in the population is the only PREM reported periodically. To monitor end-of-life care quality, one structural and two PROM indicators were prioritised in agreements between the federal and state governments and SHI: share of palliative care units that have implemented PROMs; share of patients who experience moderate to severe pain between the start and end of treatment; and share of patients who have moderate to severe shortness of breath between the start and end of treatment (BMSGPK, 2022a). These measures are not specific to oncology, and data are not yet available.

Changes in data structuring and governance may facilitate more granular analysis of cancer data

The National Cancer Registry is the main data source for epidemiology, diagnosis and treatment of cancer. It covers the entire country and is maintained by the National Statistics Agency, which publishes annual analyses of risk factors, incidence, prevalence and survival. Cancer centres

and state authorities – some of which maintain regional registries – submit data through an electronic notification form. Since 2019, the data include an encrypted unique patient ID that enables the National Statistics Agency to link data in the Registry with other datasets while adhering to data protection principles. This could, in principle, facilitate more granular analysis of cancer data – in particular of inequalities along dimensions beyond disaggregation by sex and age, using variables captured in the Registry. However, no analyses of linked datasets have yet been published. An analysis of tumour staging data is under way.

While the National Cancer Framework Programme does not identify specific measures for disadvantaged socioeconomic groups, it does aim to make oncological care more accessible and appropriate for children and adolescents and for elderly people. One operative goal is the introduction of a “survivorship passport” for young people, providing a central repository of all information relevant to follow-up care in the long term. Although an implementation plan was created in 2017, use of the passport is still in early stages and limited to pilot hospitals in Vienna. Since 2021, it has been funded by the PanCareSurPass Project of the EU Horizon 2020 Programme. For older people, the focus is on improvement of cross-professional collaboration to provide interdisciplinary care and promotion of research about cancer in people of advanced ages.

5.3 Costs and value for money

Efficient use of health care resources is a basic principle of SHI in Austria (Bundesministerium für Gesundheit, 2014). Good accessibility and performance of cancer-related services come at a high cost to the health system, and systemic cost containment remains difficult – not least because of fragmented financing responsibilities between the federal and state of governments and other stakeholders (notably the SHI funds). Austria has among the highest health care expenditure in the EU, both in absolute terms per capita and relative to GDP. Despite the National Cancer Framework Programme’s recognition of efficient use of resources as a guiding principle, it provides no explicit mechanism for cost control or transparent and rational allocation of resources. Efficiency criteria are only mentioned for national screening programmes, noting that a programme should only be implemented if all other more economical measures – including primary prevention – have been tried and if there is evidence that it is a cost-effective intervention.

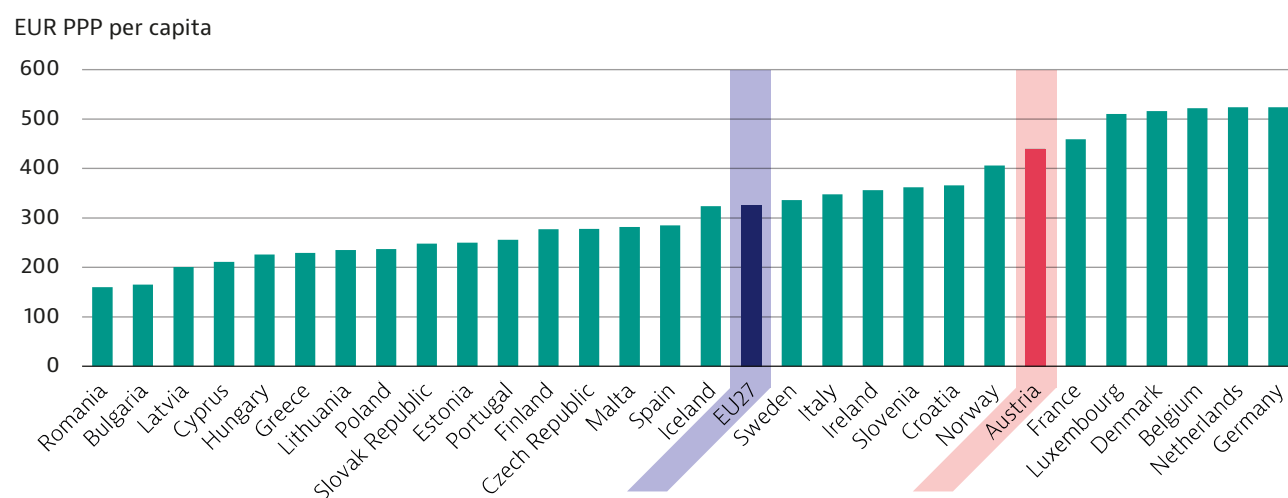
Per capita expenditure on cancer care in Austria is among the highest in the EU

In 2018, the total cost of cancer in Austria was EUR 440 per capita, adjusted for purchasing power parity (PPP). This is markedly higher than the EU average (EUR 326) but lower than in countries with the highest costs, where they exceed EUR 500 per capita (Figure 10). Direct health care expenditure represents nearly 60 % of the total cost (vs. 49 % across the EU), including 22 % for cancer medicines (vs. 15 % in the EU). In recent price comparisons, Austria was found to have among the highest prices in the EU for medicines used in hospitals, including many cancer therapies (Vogler et al., 2021). On the other hand, the shares of costs

attributed to informal care (9 % in Austria vs. 12 % in the EU) and morbidity-related productivity losses (7 % in Austria vs. 13 % in the EU) are below the EU averages, and productivity losses from premature mortality are 25 % in both Austria and the EU.

It should be noted that several stakeholders that contribute to cancer care in Austria rely on charitable funding and/or non-remunerated staff who provide services on a voluntary basis. This includes all public awareness, training, screening and patient support activities offered by *Krebshilfe*, but also carers who contribute to palliative and end-of-life services, such as hospice counsellors.

Figure 10. Good accessibility of cancer care comes at a high cost in Austria



Note: The EU27 average is unweighted (calculated by the OECD).
Source: Hofmarcher et al. (2020).

Health technology assessment is a way to improve efficiency but is not yet used systematically

Provider payment and cost containment mechanisms, to the extent that they exist, are the same for cancer as other disease areas. Coverage of outpatient services and prescription medicines is subject to decisions by SHI, with specialist services mainly provided on a fee-for-service basis. Funding for the hospital inpatient sector is pooled between the federal and state governments and SHI, and allocated through block grants and budgets based on diagnosis-related groups (DRGs). Outpatient and day-case services provided by hospitals have been remunerated on a DRG basis since 2019, accompanied by a significant shift of pharmaceutical-based cancer treatment from the inpatient to the outpatient sector. At the federal level, structural planning and system-wide resource allocation decisions, including expenditure targets for the whole health system,

are driven by agreements between the federal and state governments and SHI, represented in the Target-Based Governance Commission (OECD, 2019).

While promotion of health technology assessment (HTA) has been recognised as a goal of joint target-based planning, and a national HTA agency exists, its use remains limited and unsystematic. No legal basis exists for mandatory use of HTA for decision making; nor are there explicit and generally accepted methodological principles. In cases where HTA is conducted, results are not published, making decisions non-transparent. In 2020, the Federal Ministry of Health, based on a decision of the Target-Based Governance Commission, published a catalogue of 12 recommendations for HTA, including prioritising areas in which HTA should be applied, such as cancer medicines. The National Court of Auditors also recommended use of HTA to inform coverage decisions related to inpatient medicines.

Finally, in its latest activity report monitoring implementation of the National Cancer Framework Programme for 2019-2021, the Oncology Advisory Board recommended introducing more systematic evaluation of oncology medicines and their use, including cost-benefit and budget impact analyses and monitoring of appropriate use (BMSGPK, 2021a).

5.4 COVID-19 and cancer: building resilience

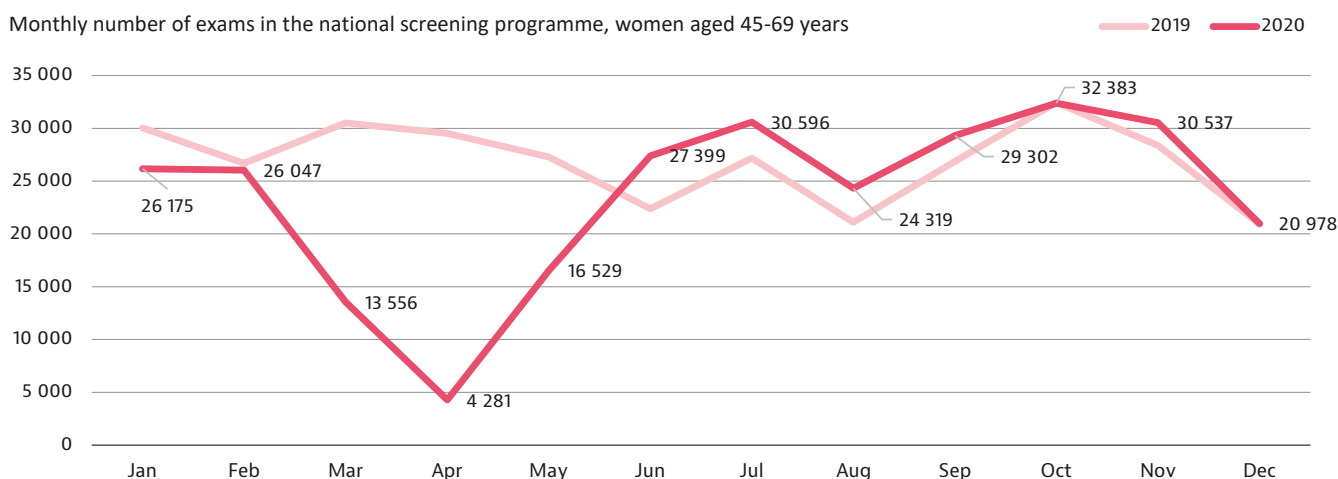
Screening activity was severely affected by the first lockdown

The COVID-19 pandemic, which led to a first general lockdown in Austria in March 2020, affected cancer detection and treatment in two main ways. First, patients undergoing cancer treatment had a higher risk of severe COVID-19 because of weakened immune systems and cancer therapy – this is also related to shared risk factors between the two diseases. Data from Austria clearly show higher COVID-19 mortality among cancer patients than in the general population.

Second, uptake of screening services declined, and some campaigns were halted altogether in the first months of the pandemic. Together with freeing up hospital capacity for treatment of COVID-19 cases, this led to delays in diagnosis and treatment of cancer. In general, effects on utilisation of non-COVID-19 health services were particularly marked during the first lockdown, but with implementation of policies to prevent transmission of COVID-19, services rebounded quickly in the remaining months of 2020, and the volume provided over the year declined less significantly compared to prior years than expected.

The national screening programme for breast cancer, for example, reported uptakes of early detection examinations (mammography and sonography) of only 44 % in March and 14 % in April 2020 compared with the same months in 2019. From May, however, uptake was comparable to the prior year, and screening continued throughout the second lockdown in October and November 2020 (Figure 11), so that a decline of only 12 % was reported for the entire year.

Figure 11. The impact of COVID-19 on breast cancer screening was significant but rebounded quickly



Source: Österr. Brustkrebs-Früherkennungsprogramm (BKFP) / Gesundheit Österreich GmbH (GOeG).

Similarly, the number of colonoscopies for early detection of colorectal cancer dropped to almost zero at the start of the first lockdown, but were back to their 2019 level within 10 weeks, so that the total number for 2020 was 15 % lower than in 2019 (Krebshilfe & OeGHO, 2021). Coverage of vaccination against hepatitis B, on the other hand, did not change in 2020 compared to prior years.

Volumes of cancer treatment were also reduced by COVID-19 containment and mitigation strategies

The effect of COVID-19 is also apparent in the volume of cancer treatments. Non-urgent diagnostic procedures and interventions were postponed during the first lockdown, and a lagged effect of the temporary reduction in screening during lockdown is apparent in April-June 2020. Inpatient hospital admissions for cancer treatment overall, regardless of treatment type, were approximately 20 % lower in April and May 2020

than in the same months of 2019, but resumed from June and remained close to 2019 levels for the remainder of 2020 (Eglau, 2021). The strongest effect of COVID-19 on treatment volumes occurred in surgical interventions – in particular breast cancer surgery. The volume of radiation therapy also declined, albeit to a lesser extent, and the number of patients treated with cancer medicines continued to grow in 2020 but at a slower pace than in prior years.

Apart from stricter physical distancing and hygiene protocols in health care settings to prevent transmission of COVID-19 following the first wave and lockdowns in 2020, as well as public awareness campaigns and continued operation of health services, no policies with a particular focus on cancer care were adopted as a result of the pandemic. Recommendations for COVID-19 vaccination and treatment for patients with cancer were formulated by OeGHO and published in collaboration with Krebshilfe. The Austrian National Immunisation Technical Advisory Group has also provided specific recommendations for COVID-19 vaccination for cancer patients.

6. Spotlight on inequalities

Incidence and prevalence of cancer have increased in Austria, as have the chances of survival. On an age-standardised basis, cancer incidence was expected to be below the EU averages for both sexes, albeit approximately 30 % higher among Austrian men than among women.

Unhealthy lifestyles, overweight and obesity are increasing risk factors for cancer in the population and prevalence of smoking remains high. This is particularly true for people at the low end of the income distribution and with low educational attainment.

- Prevalence of obesity is almost 40 % higher among people with low educational attainment than those with the highest level of education; and 24 % of people in the lowest income quartile report daily cigarette smoking, which is more than 50 % above the prevalence in the highest income quartile. Alcohol consumption, on the other hand, is slightly higher among more educated people.
- There are also inequalities in access to early diagnosis services. Breast cancer screening rates are higher among women with higher education levels, higher incomes and living in urban areas, although differences between these subgroups do not exceed 15 %.
- For cervical cancer, uptake of screening is more than 50 % higher among women with high than low education levels and 35 % higher in the highest income than the lowest quintile. Although a national screening programme is

only in place for breast cancer so far, uptake of screening services is above the EU average not only for breast but also for colorectal and cervical cancers, where testing for early detection is opportunistic.

- Access to health care, including cancer care, is generally not considered a major issue. Equitable access to health care is a basic principle of social health insurance, and the National Cancer Framework Programme recognises equal access to health care and innovation in care regardless of age, sex, ethnic and socioeconomic background as a strategic goal. Cancer services are generally free of charge at the point of use, and unmet medical needs for reasons related to finances, geographical accessibility or waiting lists are close to zero.

This comes at a high cost: direct health care costs attributable to cancer are above the EU average. The National Cancer Framework Programme and the Joint Structural Plan for Health constitute the main overarching cancer policies and bring together all relevant stakeholders in the health system, including the federal and state governments, social health insurance and various actors and charities, including Krebshilfe.

References

- BMSGPK (2021a), *Onkologie in Österreich: Tätigkeitsbericht des Onkologie-Beirates 2019–2021*. Vienna, Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz,
- BMSGPK (2021b), *Outcome-Messung im Gesundheitswesen (aktualisierte Fassung 2021)*. Vienna, Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz,
- BMSGPK (2022a), *Fact Sheet & Methodische Übersicht: Outcome-Messung: Hospiz- und Palliativversorgung (Palliativstationen)*. Vienna, Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz,
- BMSGPK (2022b), *Impfplan Österreich 2022*. Vienna, Bundesministerium für Soziales, Gesundheit, Pflege und Konsumentenschutz,
- Bundesministerium für Gesundheit (2014), *Krebsrahmenprogramm Österreich*. Vienna, Bundesministerium für Gesundheit,
- Eglau K (2021), *Auswirkungen der COVID-19-Pandemie auf die stationäre Spitalsversorgung anhand ausgewählter Bereiche*. Vienna, Gesundheit Österreich, <https://jasmin.goeg.at/id/eprint/1633>.
- European Commission (2022), *European guidelines on breast cancer screening and diagnosis*. <https://healthcare-quality.jrc.ec.europa.eu/ecibc/european-breast-cancer-guidelines>; accessed on 11/10/2022.
- Gollmer A, Link T, Weißenhofer S (2021), *Dritter Evaluationsbericht zum Österreichischen Brustkrebs-Früherkennungsprogramm*. Vienna, Gesundheit Österreich, <https://jasmin.goeg.at/id/eprint/1875>.
- Hofmarcher T et al. (2020), *The cost of cancer in Europe 2018*, *European Journal of Cancer*, 129:41-49.
- Hospiz Österreich (2021), *Hospiz und Palliative Care in Österreich, Datenauswertung 2020*. Vienna, Dachverband Hospiz Österreich, <https://www.hospiz.at/statistik/>.
- Krebshilfe, OeGHO (2021), *Österreichischer Krebsreport 2021*. Vienna, MedMedia Verlag und Mediaservice, <https://www.krebsreport.at/>.
- Krebshilfe (2022), *HPV-Impfung gegen Krebs*. Vienna, Österreichische Krebshilfe, https://www.krebshilfe.net/fileadmin/user_upload/Dachverband/Brosch%C3%BCren/2022_HPV_01.pdf
- Mathis-Edenhofer S, Eglau K (2020), *Verwendung innovativer onkologischer Pharmakotherapie in österreichischen Krankenanstalten*. Vienna, Gesundheit Österreich, <https://jasmin.goeg.at/id/eprint/1379>.
- OECD (2021), *Preventing harmful alcohol use: key findings Austria*, Paris, OECD Publishing, <https://www.oecd.org/austria/Preventing-Harmful-Alcohol-Use-Key-Findings-AUSTRIA.pdf>.
- OECD (2019), *Austria: Country Health Profile 2019*, Paris, OECD Publishing, <https://doi.org/10.1787/d4349682-en>.
- Vogler S et al. (2021), *Preisvergleich ausgabenstarker Arzneispezialitäten 2019*, Vienna, Gesundheit Österreich, <https://jasmin.goeg.at/id/eprint/1868>.

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
Czech Republic	CZ	Greece	EL	Lithuania	LT	Portugal	PT		

European Cancer Inequalities Registry

Country Cancer Profile 2023

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 Expert Thematic 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 the impact of COVID-19 on cancer care.

Please cite this publication as:

OECD (2023), *EU Country Cancer Profile: Austria 2023*, EU Country Cancer Profiles, OECD Publishing, Paris, <https://doi.org/10.1787/798b21c9-en>.

ISBN 9789264377325 (PDF)

Series: EU Country Cancer Profiles

