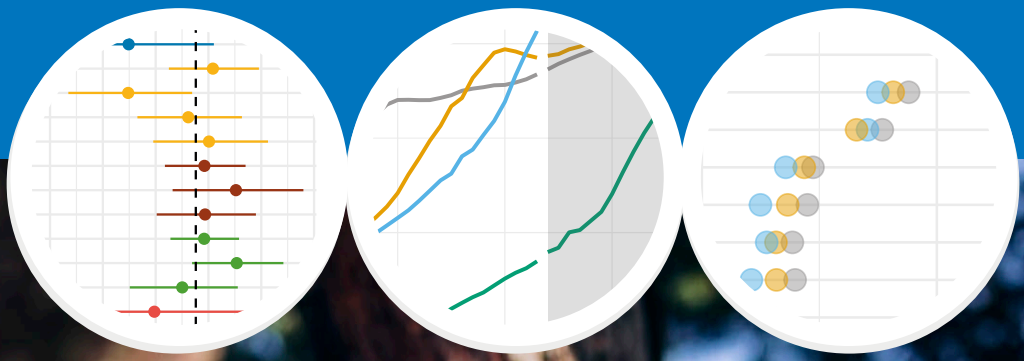
Finnish Cancer Registry

Finnish institute for health and welfare

Karri Seppä, Sanna Lappi-Heikkinen, Sebastian Johansson, Nea Malila, Janne Pitkäniemi

CANCER IN FINLAND 2023



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Contents

1 Foreword

The Finnish Cancer Registry published the cancer statistics for 2023 and the preliminary data for 2024 at the end of April 2025 (cancerregistry.fi/statistics/cancer-statistics). Compared to the preliminary data for 2023 published a year ago, the statistics were supplemented by a total of nearly 5,000 cancer cases. Most of these cases were pancreatic cancer (528 cases), lung cancer (572 cases) and haematological cancer (546 cases). In addition, there will be a delay in the reporting of central nervous system tumours, so the preliminary statistics are not reliable in this regard.

This report compiles the latest statistical data on new cancer cases, cancer deaths and patient survival in Finland. In addition, the report presents the number of people living with and after cancer, the years of life lost due to cancer as well as predictions of the cancer burden until 2040. All told, there were 39,199 new cancer cases and 13,645 cancer deaths recorded in 2023. The most common new cases were breast cancer in women and prostate cancer in men, followed by colorectal cancer in both men and women. The most common causes of cancer deaths in women were lung cancer and breast cancer. In men, the most common causes of cancer deaths were lung cancer and prostate cancer.

The cancer burden will increase significantly in the coming years as the population ages. Based on predictions, the number of cancer cases diagnosed each year will increase to 48,800 by 2040. People with cancer are expected to live longer, which will only further increase the cancer burden. At the end of 2040, there will be a projected 460,000 people alive in Finland with a past cancer diagnosis.

The report now also examines the cancer burden by wellbeing services county and collaborative area for healthcare and social welfare. There are significant differences between wellbeing services counties in the incidence of the most common cancers and the mortality they cause. The differences were greatest in the case of lung cancer in women. There were only a few discrepancies in the cancer-specific patient prognoses compared to the nationwide prognosis.

The cancer statistics in this report have been compiled in line with the clinical cancer classification system (ICD- 10), going back as far as 1953, the year the Finnish Cancer Registry was founded. The data sources of the Finnish Cancer Registry are healthcare providers and pathology laboratories. In particular, cases for which no tissue or cell sample has been obtained and cases of haematological tumours may remain unreported. The aim is to improve the data coverage of these data through cooperation with health services and developers of patient information systems. The updated, latest statistics on clinical cancer notifications, also including preliminary data for 2024, are available on our website (syoparekisteri.fi/tilastot/kliinisten-ilmoitusten-tilasto).

The disclosure of cancer data on 2023 for research purposes began in May 2025. The Finnish Cancer Registry is a research institute under the Cancer Society of Finland that maintains a national registry of all diagnosed cancer cases and a registry on cervical, breast and colorectal cancer screening. The Finnish Institute for Health and Welfare is the controller of the cancer registry and as such has given the Cancer Society of Finland responsibility for the operation of the registries.

We want to extend our sincerest thanks to all our collaborators and data providers. The reliable knowledge base on cancer provided by comprehensive and long time series lays a solid foundation for both healthcare development and research.

Helsinki, 1 June 2025

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2 Cancer situation in 2023

There were a total of 39 199 new cancer cases diagnosed in Finland in 2023. Of these, 18 553 were diagnosed in women and 20 646 in men. A total of 13 645 people died from cancer in 2023 (Table 1). More than 330,000 Finns who had been diagnosed with cancer were alive at the end of 2023: 56% were women and 44% were men. The five-year relative survival rate of cancer patients monitored between 2021 and 2023 was 71%.

Table 1: New cancer cases and cancer deaths in 2023, cancer prevalence and five-year relative survival ratio of patients in the Finnish population separately for women and men.

Total population	Female	Male
39 199 new cases	**18 553** new cases	**20 646** new cases
13 645 cancer deaths	**6 281** cancer deaths	**7 364** cancer deaths
334 024 living patients	**186 589** living patients	**147 435** living patients
71% five-year survival rate	**72%** five-year survival rate	**70%** five-year survival rate

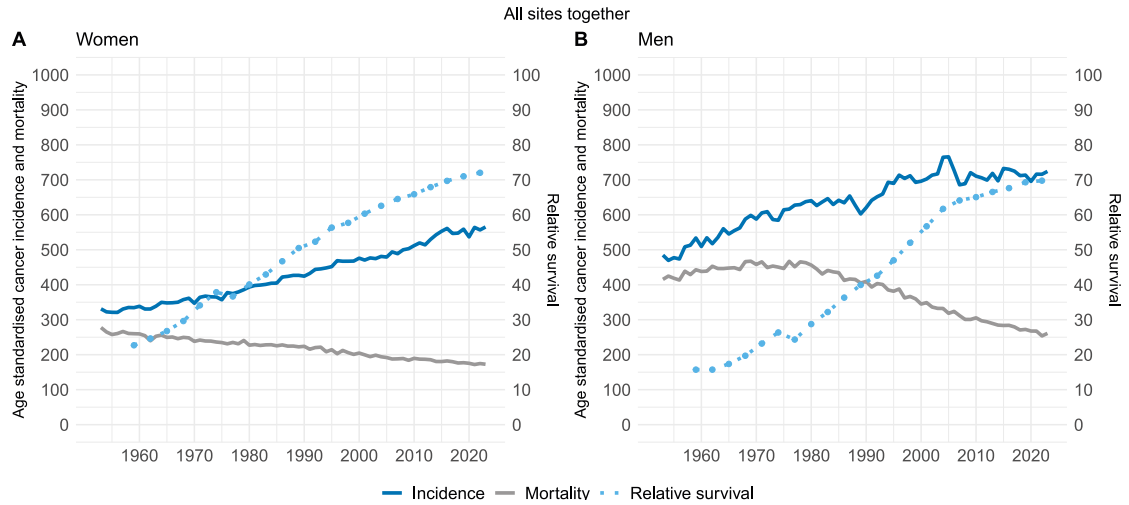

Figure 1: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

Figure (Figure 1) shows the age-standardised cancer incidence and mortality and the relative survival rate of patients from 1953 to 2023. The incidence of cancer in women increased by an average of 0.9% per year between 1990 and 2015, and by an average of 0.5% per year thereafter (Table 12). In men, the previous increase (1.0% per year in 1990–2003, Table 13) has levelled out (-0.1% per year in 2004–2023). Cancer mortality decreased among women and men: on average by 0.5% per year (2006–2023) in women and by

1.2% per year in men (2008–2023, Table 14 and Table 15). The relative survival rate has improved steadily in women, and the previous rapid improvement in the survival rate in men has slowed down since the early 2000s.

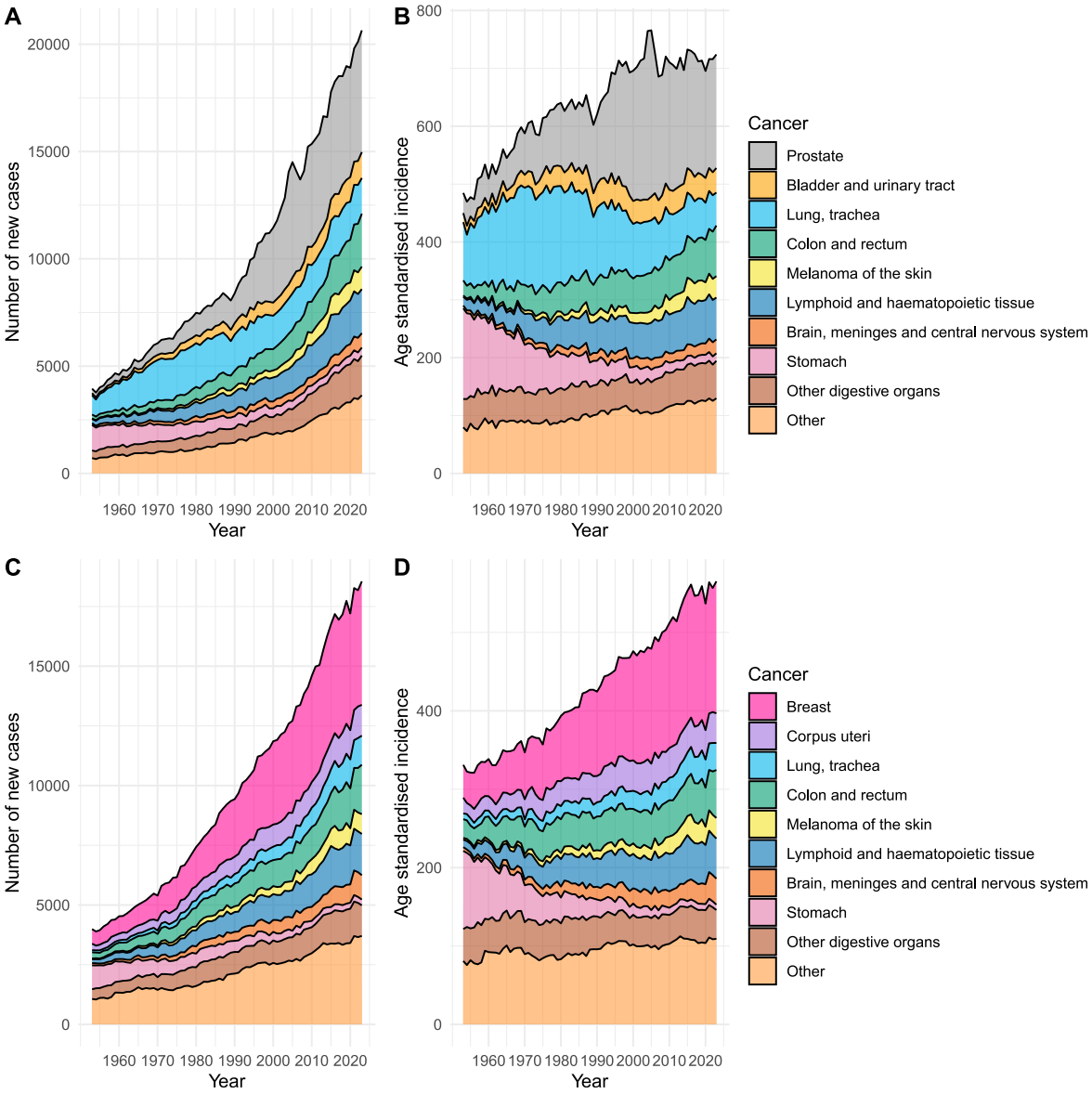

Figure 2: Number and incidence of new cancer cases (per 100,000 person-years and age standardised to the 2014 Finnish population), stratified by cancer type in men (Figures A and B) and women (C and D) in 1953–2023. Other digestive organs include cancer of the oesophagus, small intestine, anus, liver, gallbladder and bile ducts, pancreas and other or unspecified digestive organs.

Figure (Figure 2) shows the annual number of new cancer cases and the age-standardised incidence of the most common types of cancer by gender. In the 1950s, around 2 000 new cases of stomach cancer were diagnosed annually in Finland, and it was the most common cancer among both men and women. Today, around 640 new cases of stomach cancer are diagnosed annually. The incidence of lung cancer has also decreased in men since the 1970s. The incidence of prostate cancer began to increase significantly in the 1990s. In women, the incidence of breast cancer increased until the early 2010s.

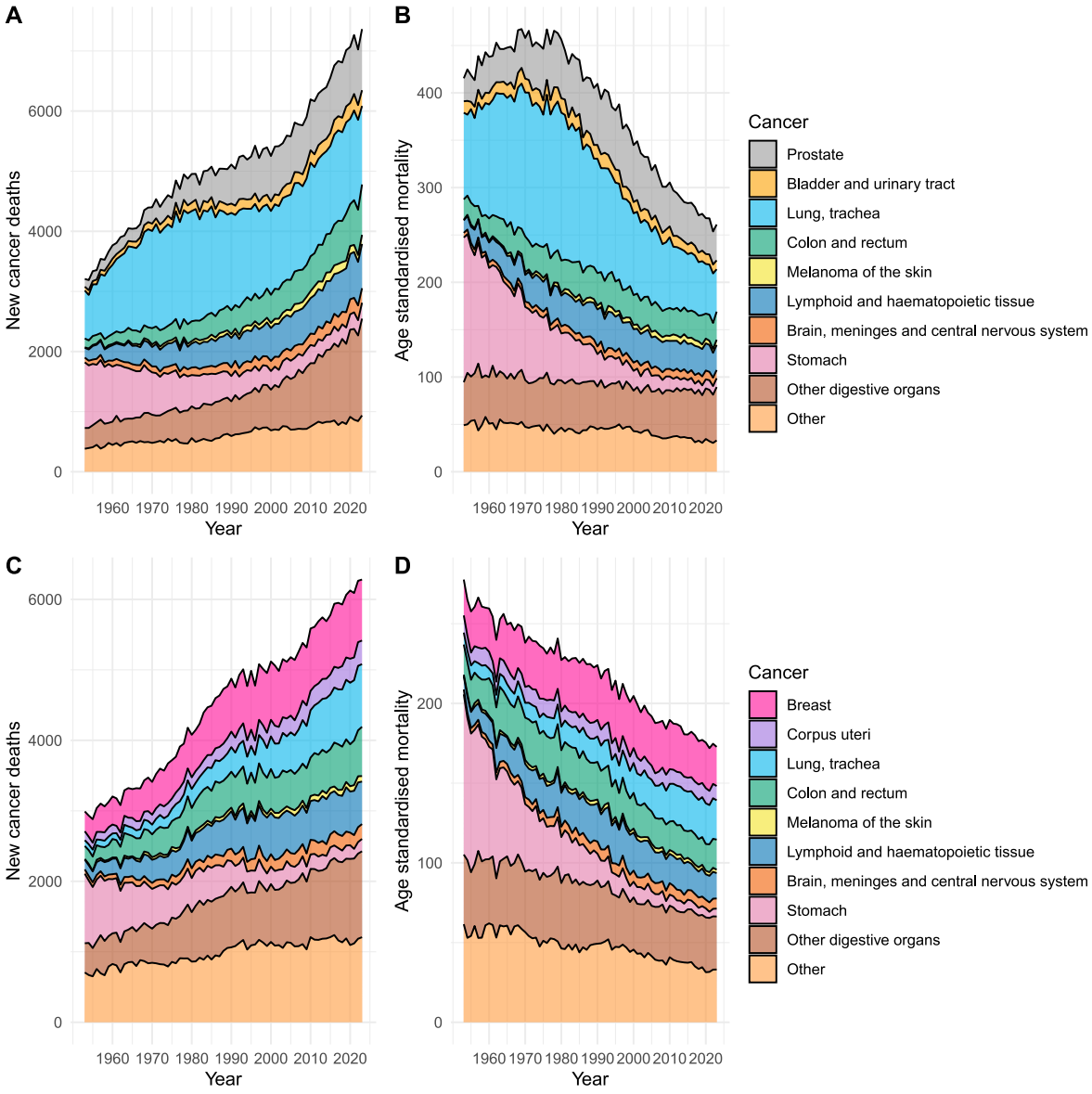

Figure 3: Number of new cancer deaths and mortality rate (per 100,000 person-years and age standardised to the 2014 Finnish population), stratified by cancer type, in men (Figures A and B) and women (C and D) in 1953–2023. Other digestive organs include cancer of the oesophagus, small intestine, anus, liver, gallbladder and bile ducts, pancreas and other or unspecified digestive organs.

Figure (Figure 3) shows the number of cancer deaths and the age-standardised mortality in men and women since 1953. The number of cancer deaths in women has grown relatively steadily throughout the period considered, while in men the strong increase declined in the 1980s and 1990s, but accelerated thereafter. The changes in prostate cancer mortality in men and breast cancer mortality in women have had a relatively small impact on the change in overall cancer mortality. This has been mostly influenced by a significant decrease in stomach cancer mortality in both men and women, and by a decrease in lung cancer mortality in men. In women, lung cancer mortality has increased, and lung cancer is now a major cause of cancer deaths.

The age-standardised incidence of cancer is predicted to increase moderately (Figure 4). From 2023 to 2040, the average annual increase is projected to be 0.2% for women and men. The decline in mortality is projected to continue. On average, mortality in women is set to decrease by 0.6% per year and mortality in men by 0.7% per year.

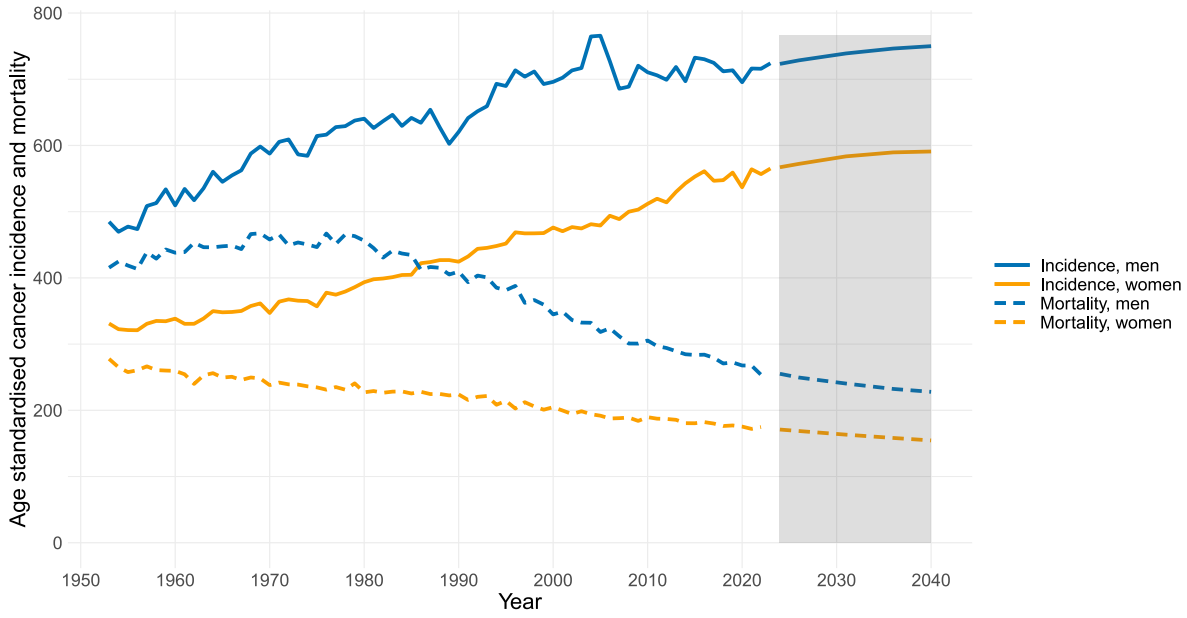

Figure 4: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) in 1953–2023, and projected development until 2040 by sex.

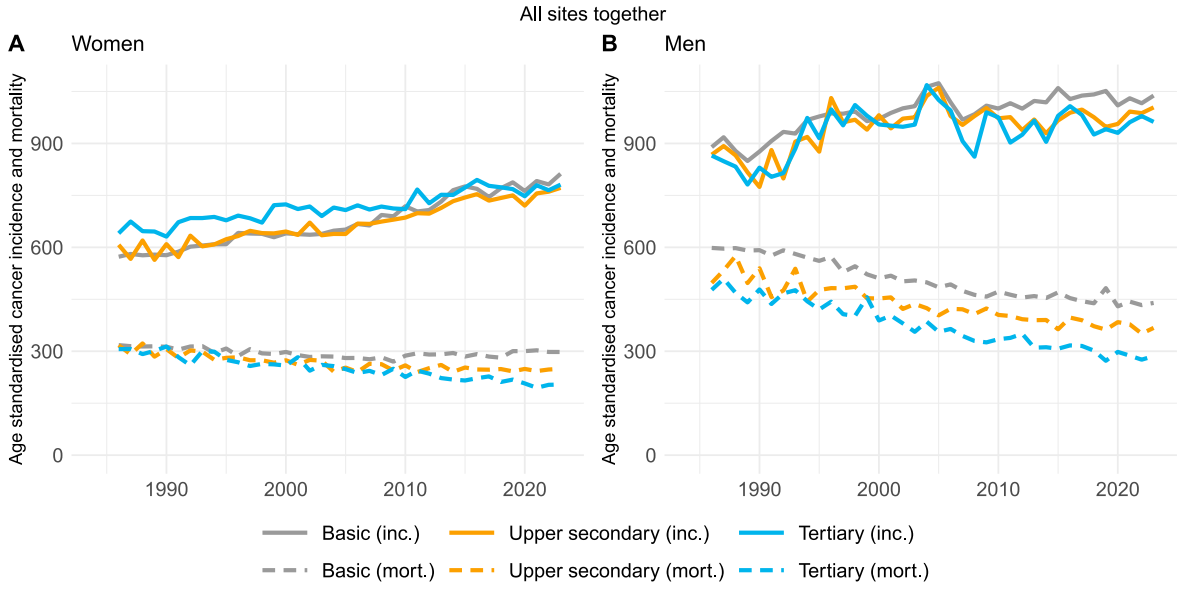

Figure 5: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) in the population aged 25 and over by sex and level of education in 1986–2023.

As a whole, the incidence of cancer and the mortality rate were highest among those with a basic education and lowest among those with a higher education (Figure 5). The greatest differences were observed for lung cancer. However, the incidence of the most common cancer types among women and men, breast cancer and prostate cancer, was highest among people with a higher education. Overall, the greatest differences between educational levels were found in men's cancer mortality, where the mortality rate among those with a basic education was higher than among those with a higher education for all cancers included in the examination. Similarly, the cancer mortality among highly educated women was generally slightly lower than among those with a basic level of education.

3 Statistical methods

3.1 Definitions

Incidence The number of new cancer cases in the population or part of it over a specific period of time (e.g. one calendar year). The incidence rate is the number of cases per 100,000 person-years.

Prevalence Number of deaths attributable to cancer in the population or part of it over a specific period of time. The mortality rate is the number of deaths per 100,000 person-years.

Vallitsevuus The number of people in the population or part of it who have been diagnosed with cancer and who are alive at a specific point in time. The prevalence proportion is the corresponding number in relation to the population.

Age-standardised incidence, mortality and prevalence In this report, incidence, mortality and prevalence have been standardised to the age structure of the Finnish population in 2014 with a view to, for example, improving the comparability of calendar-year figures, taking into account changes in the age structure.

Risk of cancer Estimate of the proportion of people in the population who will develop cancer.

Risk of developing and dying from cancer Estimate of the proportion of people in the population who will develop and die from cancer.

Relative survival rate Estimate of the proportion of patients who are alive after a certain period of time after diagnosis, if the cancer would be the only factor affecting the mortality. It is used as an indicator of cancer patient survival.

Age-standardised relative survival rate In this report, an age-standardised relative survival rate for patients diagnosed in Finland during the most recent three-year period. It is aimed, for example, at improving the comparability of calendar-year figures, taking into account changes in the age structure.

Cancer burden The harms caused by cancer in the population. The most commonly used indicators are incidence, cancer mortality and relative survival rate.

3.2 New cancer cases – incidence

The cancer statistics are based on reports on the number of new **cancer cases diagnosed** over a specific period of time. The period is often one year. **Incidence** refers to the number of new cancer cases diagnosed per 100,000 person-years. The number of person-years in the Finnish population, i.e. the time accumulated by the population at risk of cancer, broken down by statistical year, gender and age, is derived from the population data maintained by Statistics Finland. These data play a key role in the assessment of cancer burden indicators, as the age structure of the Finnish population has changed dramatically over the past decades (Figure 6). As the population ages, the number of cancers increases, but this does not necessarily mean that the incidence of cancer increases by age group.

Age-standardised incidence describes the number of new cancer cases per 100,000 person-years if the age structure of the Finnish population corresponded to the standard population. There are two options for the standard population: 'standard world population' and 'Finland 2014'. The standard world population is based on the global age structure in the 1950s. Selecting 'Finland 2014' standardises the figures to correspond

to the age structure of the Finnish population in 2014. The purpose of age standardisation is to improve the comparability of figures between population groups with different age structures and between different periods of time. The 'Finland 2014' standard population is well suited for comparing, for example, calendar years and hospital districts, and the standard world population enables comparisons with other countries.

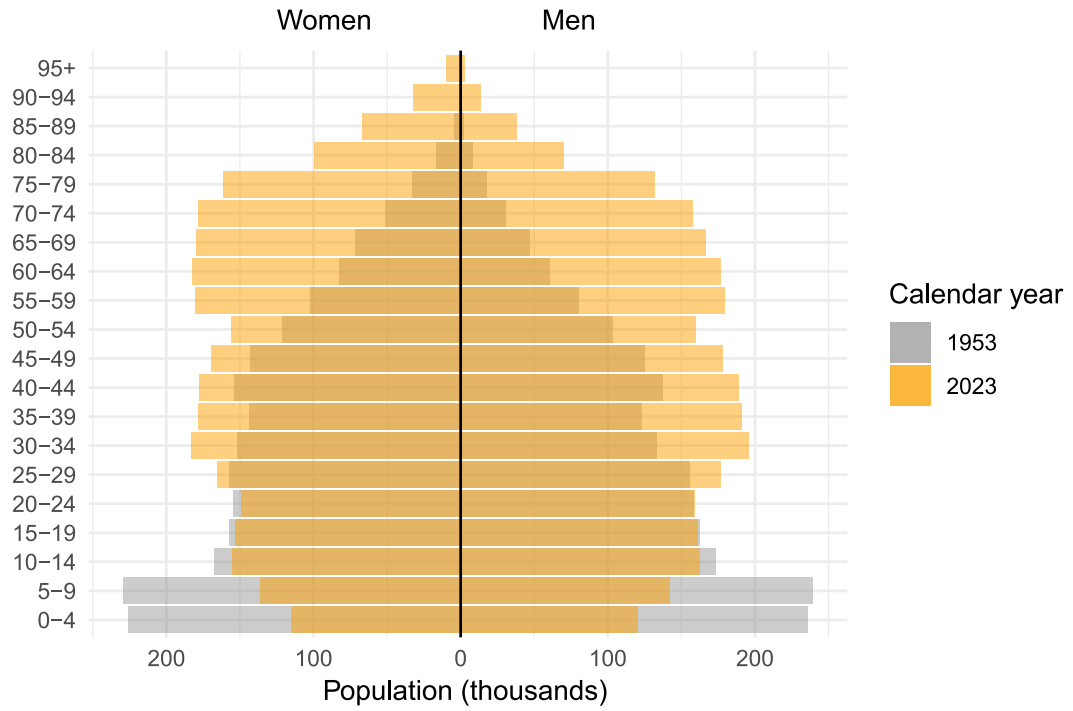

Figure 6: Age structure of the Finnish population by sex in 1953 and 2023.

3.3 Cancer deaths – cancer mortality

The number of deaths attributable to cancer is often reported for a single year or another chosen period of time. **Cancer mortality** refers to the number of cancer-related deaths (cancer as the primary cause of death) per 100,000 person-years.

Age-standardised cancer mortality describes the number of cancer deaths per 100,000 person-years if the age structure of the Finnish population corresponded to the 'standard population'. There are two options for the standard population: 'standard world population' and 'Finland 2014'. The standard world population is based on the global age structure in the 1950s. Selecting 'Finland 2014' standardises the figures to correspond to the age structure of the Finnish population in 2014. Age standardisation makes it possible to compare cancer mortality figures between population groups with different age structures and between different periods of time. The 'Finland 2014' standard population is well suited for comparing, for example, calendar years and hospital districts, and the standard world population enables comparisons with other countries.

3.4 Persons diagnosed with cancer – prevalence

Prevalence refers to the number of people in the population who have been diagnosed with cancer and who are alive at a specific point in time. The prevalence is broken down by time since diagnosis. For example, a five-year figure only includes patients whose cancer was diagnosed no more than five years ago (e.g. at the earliest on 31 December 2005, if counted from 31 December 2010).

Prevalence proportion refers to the number of persons diagnosed with cancer in the population relative to the population. For example, a prevalence proportion of 5,000 per 100,000 means that 5,000 persons of 100,000 persons (5% of the population) have a previous cancer diagnosis.

3.5 Risk of cancer and risk of cancer death

Risk of cancer refers to the average lifetime probability in the population of developing cancer. In the present report, the risk assessment is based on the cancer incidence and overall mortality rates of the population in the last five-year period, by age group. The assessment takes into account that part of the population will avoid developing cancer because they will die from other causes before that.

Risk of developing and dying from cancer refers to the average lifetime probability in the population of developing and dying from cancer. The risk assessment is based on the age-group mortality rates and the overall mortality rates of the population in the last five-year period. The assessment takes into account that part of the population will avoid dying from cancer because they will die from other causes before that.

3.6 Prognoses for cancer patients – survival

The relative survival rate (patient's prognosis) is calculated by comparing the patient mortality rate with the mor- tality rate of the Finnish population of the same gender and the same age and in the same calendar period. It is an indicator of the hazards of cancer. Relative survival can be interpreted as the probability that a patient would be alive after a specific period of time after diagnosis if the cancer in question were the only possible cause of death for the patient. Survival is often presented as a five-year relative survival rate.

The age-standardised relative survival rate standardises the age structure of patients across the country to the age structure of patients diagnosed in the most recent three-year period by cancer type and gender. The purpose of age standardisation is to improve the comparability of figures between areas with different age structures and between different periods of time. This report uses the traditional method of age standardisation, which is based on age-group-specific survival rates. The age-standardised survival rate is missing if no patients are alive in an age group five years after the diagnosis.

3.7 Years of life lost due to cancer

Years of life lost due to cancer have been calculated by estimating the average life expectancy of patients and comparing it with the average life expectancy of a population of the same age and gender. Ten years after the cancer diagnosis, the mortality rate for surviving patients was assumed to be similar to the overall mortality rate for the population of the same age. The exceptions to this are prostate and breast cancer, where it was assumed that after ten years patients would continue to have an annual excess mortality rate of around 1% compared to the mortality in the population. The number of years of life lost for the whole population was obtained by multiplying the patient's average years of life lost by the number of patients diagnosed in a single year (annual average 2014– 2023).

3.8 Time series and change assessment

Long-term development. The development of cancer incidence and cancer mortality is measured by an average annual change (percentage). This method assesses whether the age-standardised trend has been steady or whether it has changed during the period considered. If there has been a statistically significant change, two change percentages will be used to describe the development before and after the point of change.

The time series for survival rates is based on patient monitoring in 13 five-year periods: 1959–1963, ..., 2019–2023. The time series has been age-standardised to the age structure of patients diagnosed in 2019–2023 (by cancer type). The rates for women and men were standardised to the same age structure. The age standardisation was based on a statistical method that provided an estimate of the survival rate for as many periods as possible, including in the smallest patient datasets.

The time series coverage for haematological cancers is described in more detail in section 4.3, Time series cover-age.

3.9 Predictions of incidence and mortality

The predictions of cancer incidence and mortality for 2024–2040 were calculated with the Nordpred statistics programme developed by the Cancer Registry of Norway. The method estimates the effects of age, calendar year and year of birth on the observed incidence of cancer using a statistical model. The effects were estimated by gender and cancer type based on the last 10–35 years. The incidence prediction assumes that the observed calendar trend will level out over time. The observed linear trend was cut by one-fourth in 2029–2033 and by half from 2034 onwards. The incidence predictions were used to derive predictions of the annual number of new cancer cases by using Statistics Finland's 2024 forecast for Finland's population in 2025–2040.

3.10 Regional statistics

Statistics by wellbeing services county and collaborative area are presented for cancer incidence, relative survival rates, five-year prevalence and cancer mortality for the period 2019–2023. The regional statistics are based on the persons' municipality of residence in the year the cancer was diagnosed, except in the case of cancer mortality, where they are based on the municipality of residence in the year of death.

The incidence, prevalence and mortality have been age-standardised to Finland's age structure in 2014. The relative survival rate has been calculated for persons diagnosed with cancer between 2019 and 2023, with mortality follow-up until the end of 2024, and it has been age-standardised to the cancer-specific age structure of cancer patients in the whole country. A 95% confidence interval estimating the statistical random error is presented for incidence, survival and mortality.

3.11 Risk ratios for incidence and mortality between levels of education

In the statistics presented by educational level, the population was divided into three groups according to the highest degree obtained. The educational data are based on Statistics Finland's Register of Completed Education and Degrees and the classification of educational levels. Persons at the basic educational level had not obtained a degree at a higher level than basic education, primary school (folk school), civic school or middle school. The upper secondary level of education included persons who had completed the matriculation examination or a voca- tional qualification (e.g. 1–3-year vocational qualifications and basic vocational qualifications as well as specialist vocational qualifications). The tertiary level of education included those who had completed lowest level tertiary education (e.g. technician engineer diploma, diploma in business and administration and diploma in nursing, which are not polytechnic degrees), lower-degree level tertiary education or higher-degree level tertiary education.

Differences in the incidence and mortality of cancer between different levels of education were examined by comparing the average incidence and mortality rates per age group in the last five-year period. The age-standardised risk ratio (RR) describes the average relative difference between age-group-specific incidence and mortality rela- tive to the population in persons with basic or secondary level of education compared to persons with a tertiary level of education. Confidence intervals of 95% are shown for the risk ratios to assess random errors.

4 Data and quality

4.1 Objectives of the Cancer Registry

The Finnish Cancer Registry monitors the cancer burden in the entire Finnish population. This encompasses the number of new cancer cases and cancer deaths, the survival of patients, the risk factors of cancer, cancer prevention and early detection. The Registry also compiles predictions of the future cancer burden.

More and more people survive cancer. One of the challenges for the future is therefore to ensure the quality of life of cancer survivors. It is important to examine the potentially harmful effects of cancer treatments and how such effects can be prevented and treated.

Epidemiological research aims to set out the broad lines for directing research. The Cancer Registry provides data for a number of epidemiological, clinical and cancer biology studies. Registry employees help in planning cancer research and in choosing research designs.

4.2 Cancer types recorded and reported

The Cancer Registry collects data on all cancer cases diagnosed in Finland. The country's healthcare providers have a statutory obligation to deliver the data to the Registry. A cancer notification must also be made in cases of strong suspicion of cancer, especially in the absence of histological or cytological confirmation.

As the statistics must be comparable over time and with corresponding figures in other countries, they follow the international rules for multiple primary cancers, with the exception of haematological cancers (see section 4.3, Time series coverage). In the case of the brain and the central nervous system, data on all tumours, including benign tumours, are collected in the register and included in the statistics. For the urinary tracts, data are recorded on malign tumours, tumours with an unclear growth tendency and carcinomas in situ. Data are also collected on certain other non-malignant tumours, which are recorded separately from actual cancers, so they are not included in the overall cancer figures. These include basal cell carcinoma of the skin, borderline ovarian tumours, intraductal breast cancers and pre-cancer of the cervix.

The Cancer Registry annually updates data from Statistics Finland on causes of death for all patients included in the register. In addition, the cancer register is updated with information on cancer deaths that have not been reported. In such cases, the cancer data are based solely on the death certificate (death certificate only, DCO).

4.3 Time series coverage

Finland's cancer data have been comprehensively recorded ever since 1953. Due to improvements in classification and changes in definitions, the registration of certain disease entities began later.

Table (Table 2) shows the years of initiation for the time series on haematological cancers, most of which differ from when the registry was started, that is, from 1953 for new cases and cancer deaths and from 1958 for survival statistics.

The detection and classification of haematological cancers has changed significantly during the registry's operation. Reliable methods for detecting different forms of the disease only became available in the 1990s. In 2008, the Finnish Cancer Registry adopted the ICD-O-3 classification, which was used to register cases from 2007. New specifications in the classification, which guides the registration, have also been introduced since then. The specifications have made the registry data more detailed for researchers to use.

Table 2: Starting year of time series for incidence, mortality, survival and prevalence for malignant disease groups of the lymphoid and haematopoietic tissues.

Cancer site	ICD-10	Incidence and mortality	Survival	Prevalence, time since diagnosis		
			5-year	1 year	5 years	10 years
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	1953	1958	1953	1957	1962
Hodgkin lymphoma	C81	1953	1958	1953	1957	1962
Mature B-cell neoplasms	–	2007	2012	2007	2011	2016
Chronic lymphatic leukaemia	C91.1	1953	1958	1953	1957	1962
Diffuse B lymphoma	C83.3	2007	2012	2007	2011	2016
Follicular B lymphoma	C82	2007	2012	2007	2011	2016
Myeloma and other plasma cell tumors	C90	1953	1958	1953	1957	1962
Burkitt's lymhoma/leukaemia	C83.7	2007	2012	2007	2011	2016
Marginal zone lymphoma	C83.8	2007	2012	2007	2011	2016
Mantle cell lymphoma	C83.1	2007	2012	2007	2011	2016
Malignant immunoproliferative diseases	C88	2007	2012	2007	2011	2016
Other mature B-cell neoplasms	–	2007	2012	2007	2011	2016
Mature T and NK cell lymphomas/leukaemias	C84	2007	2012	2007	2011	2016
Mature T-cell neoplasias of the skin	C84.0-1	2007	2012	2007	2011	2016
Other T and NK cell lymphomas/leukaemias	C84.3-5	2007	2012	2007	2011	2016
Acute lymphoblastic leukaemia/lymphoma	C91.0	1964	1969	1964	1968	1973
Acute myeloid leukaemia	C92.0	1964	1969	1964	1968	1973
Non-Hodgkin lymphoma, other or unspeficied	C85	2007	2012	2007	2011	2016
Leukaemia, other or unspecified	C95	1964	1969	1964	1968	1973
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3	2007	2012	2007	2011	2016
Chronic myeloid leukaemia	C92.1	1953	1958	1953	1957	1962
Polycythaemia vera	D45	1969	1974	1969	1973	1978
Myelofibrosis	D47.1	1969	1974	1969	1973	1978
Essential thrombocythemia	D47.3	2007	2012	2007	2011	2016
Myeloproliferative neoplasm, other	D47.1	2007	2012	2007	2011	2016
Myelodysplastic syndromes and myelodysplastic/myeloproliferative neoplasms	–	2007	2012	2007	2011	2016
Myelodysplastic syndromes	D46	2007	2012	2007	2011	2016
Myelodysplastic/myeloproliferative neoplasms	–	2007	2012	2007	2011	2016
Other, unspecified or mixed hematological disease	C96, D76	2007	2012	2007	2011	2016
Mastocytosis	C96.2	2007	2012	2007	2011	2016
Histiocytic and denritic cell neoplasms	C96.1, D76	2007	2012	2007	2011	2016
Other, unspecified or mixed hematological disease	C96.7-9	2007	2012	2007	2011	2016

For these reasons, the figures for most haematological cancers can only be considered reliable from the 2000s onwards, for certain subtypes only from 2007 onwards. In other solid tumours, the time series have been reliable since the 1950s, taking into account a certain reporting deficit.

The Cancer Registry also compiles statistics on basal cell carcinoma of the skin (since 1964) and high-grade cervical dysplasia (since around 1991).

4.4 Data sources

The Cancer Registry has several independent sources of data. The most important of these are notifications from pathology laboratories (diagnoses). Each year, the Cancer Registry receives more than 330,000 of these. All pathology laboratories in Finland provide data based on either the old SNOMED II classification or the SNOMED CT classification in a structured format (organ of origin or topography and cell type or morphology). They also submit a verbal statement for samples that carry a malignant diagnosis. Electronic submission was introduced in the late 1980s and has been used for more than 30 years.

All healthcare providers are obliged to submit on new cancer cases a summary of the case at diagnosis (clinical cancer notification). Clinical cancer notifications are essential for cancers where histological confirmation is not available. In addition, clinical data form the basis for recording the cancer stage at the time of diagnosis. Information on cancer cases is also collected through treatment notifications by the care provider, which can typically be submitted in several different ways for different courses and methods of treatment.

All notifications are submitted in electronic format. The Cancer Registry maintains the data models and classifications. Since 2024, the data models have been available for download from the Registry's website and the classifications from a server maintained by the Finnish Institute for Health and Welfare, from where they can be deployed for the collection of structured data.

The municipality of residence, migration history and date of death of persons with cancer are updated from the Population Information System maintained by the Digital and Population Data Services Agency. Statistics Finland in turn provides data on the persons' causes of death, socio-economic status and education.

All clinical cancer data are based on the activity of notifiers, and the low number of notifications is currently a cause for concern. In recent years, the Cancer Registry has received clinical notifications on only around 40% of new cancer cases. Because clinical cancer notifications provide information that is not available from other sources, such as information on cancers that lack histological confirmation, there is a lack of coverage particularly in the case of malignant blood diseases. For the statistical year 2023 and the preliminary statistical year 2024, we have published the statistics on notification activity on our website (syoparekisteri.fi/tilastot/kliinisten-ilmoitusten-tilasto, in Finnish) The figures can be examined by wellbeing services county or collaborative area for the most common cancers on which statistics are collected.

4.5 Compilation of cancer data

Cancer cases are compiled into a national registry with the help of individual notifications (see above). A case summary suitable for statistical and research use is recorded for each cancer case, with the date and method of diagnosis, the organ of origin or primary site, the histological type and stage at diagnosis. The work is guided by international guidelines and classifications (ICD-O-3) for cancer registration. The work is carried out by professionals at the Registry who are tasked with compiling cancer data based on the information received, either as new cases or as part of cases diagnosed previously.

Since the statistical year 2018, the compilation of case summaries has been partly automated. However, the automated processing is based on structured data and therefore depends on the notification content complying with the data definitions. The automated processing is applied to 13 common cancer types. In previous years, checks performed based on random sampling of automatically compiled cases have been found to be of good quality. No changes were made to the automations in use. A new automatic process was introduced to remove notifications of non-recorded diseases from the manual processing.

With regard to the compilation of cancer data, it is essential that the persons carrying out the cancer registration have sufficient qualifications and competence. The chief medical officer and expert pathologist of the Cancer Registry advise on the registration of complex cases. The date of diagnosis of new cancer cases based solely on data from death certificates is specified by using the diagnosis and visit data from the national care register of the Finnish Institute for Health and Welfare, if the data result in an earlier date. The Gleason score, which indicates the spread of prostate cancer, is extracted from the cancer notifications. More than 90% of cases have at least one Gleason score within four months of the cancer diagnosis between 2015 and 2023. The Gleason score coverage is lower for earlier years.

4.6 Quality indicators

Typically, the quality of a cancer registry is described by indicators such as the percentage of microscopically verified cases (%MV) that is, cases confirmed from cell or tissue samples, the percentage of cases confirmed by death certificate only (%DCO) and the percentage of cases with unknown primary site (%) of all cancer cases. The most recent statistical year is always partly indicative for these indicators, as new cancer cases, especially those registered through death certificates, still appear in the registry several years afterwards. According to the most recent statistics, the %MV for cancers diagnosed in 2023 was 91.2% (90.2% in 2022), the %DCO was 1.5% (1.6% in 2022) and the percentage of cases with unknown primary site was 1.5% (1.4% in 2022). Most of the unknown primary site cases were found in persons aged 70 and older. Table (Table 3) shows the %MV and %DCO in cancers diagnosed in 2022 and 2023, and the %MV in the preliminary statistics for cancers diagnosed in 2024. Death certificate data are not yet available for 2024. Due to this and other additions to the statistics, the %MV in 2024 will largely be higher than in 2022 and 2023.

Table 3: Percentage of microscopically verified cancer cases (MV) and cancer cases confirmed by death certificate only (DCO) by cancer disease.

		MV (%)			DCO (%)	
Cancer site	ICD-10	2022	2023	2024	2022	2023
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	90.2	91.2	95.6	1.6	1.5
Mouth, pharynx	C00-14	98.2	98.2	97.8	0.4	0.7
Lip	C00	98.0	100.0	94.4	0.0	0.0
Tongue	C02	99.4	98.4	98.4	0.0	1.6
Salivary glands	C07-08	98.8	98.9	98.3	0.0	0.0
Mouth, other or unspecified	C03-06	97.9	98.7	99.0	0.0	0.4
Pharynx	C01,C09-14	97.4	97.1	96.8	1.1	0.6
Digestive organs	C15-26	84.8	87.4	95.0	1.7	1.9
Oesophagus	C15	92.4	93.1	97.3	1.1	1.5
Stomach	C16	96.0	96.1	99.5	1.1	0.8
Small intestine	C17	98.6	94.9	99.2	0.5	1.6
Colon and rectum	C18-20	95.6	96.4	98.5	0.7	0.7
Anus	C21	93.3	95.2	96.0	1.3	0.0
Liver	C22	68.7	70.3	81.9	2.1	1.9
Gallbladder, bile ducts	C23-24	70.2	73.7	90.7	3.0	5.6
Pancreas	C25	56.9	61.8	81.5	2.2	3.2
Digestive organs, other and unspecified	C26	60.7	70.9	93.5	17.1	16.4
Respiratory and intrathoracic organs	C30-39	80.6	83.0	94.1	3.0	2.5
Nose, sinuses	C30-31	100.0	95.1	95.3	0.0	0.0
Larynx, epiglottis	C32	95.4	96.1	99.2	2.0	2.4
Lung, trachea	C33-34	79.6	82.4	93.8	3.0	2.4
Other or unspecified respiratory or intrathoracic organs	C37-39	74.6	73.2	95.7	7.5	12.7
Breast	C50	99.2	99.2	99.7	0.4	0.5
Female genital organs	C51-58	95.3	96.7	99.0	2.6	1.8
Cervix uteri	C53	99.0	99.5	99.0	0.5	0.0
Corpus uteri	C54	98.2	98.8	99.3	0.3	0.4
Ovary etc.	C48.1-2 (Serous), C56, C57.0-4	91.9	95.5	98.6	6.4	3.8
Vulva	C51	96.4	97.2	99.1	0.0	0.0
Vagina	C52	92.0	96.6	100.0	4.0	3.4
Placenta	C58	-	100.0	100.0	-	0.0
Female genital, other and unspecified	C55,C57.5-9	66.1	63.2	97.7	16.1	12.3
Male genital organs	C60-63	98.9	98.9	99.6	0.4	0.4
Penis	C60	98.2	95.9	100.0	1.8	2.0
Prostate	C61	98.9	99.0	99.6	0.4	0.4
Testis	C62	100.0	99.4	97.1	0.0	0.6
Male genital, other and unspecified	C63	100.0	100.0	100.0	0.0	0.0
Urinary organs	C64-68,D09.0-1,D41.1-9	95.5	96.4	99.0	1.2	0.9
Kidney	C64	92.6	94.9	98.9	2.1	1.7
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	97.6	97.3	99.0	0.6	0.4
Skin	C43-44	99.8	99.9	99.5	0.0	0.0
Melanoma of the skin	C43	99.8	99.8	99.2	0.0	0.1
Skin, squamous cell carcinoma	C44 (Squamous cell)	100.0	100.0	99.8	0.0	0.0
Skin, other	C44 (Other)	97.3	98.2	99.4	0.7	0.0
Eye	C69	54.0	41.3	37.8	0.0	0.0
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	52.2	54.6	60.8	0.8	0.6
Glioma		99.7	96.9	97.6	0.0	0.0
Meningeoma		99.5	99.8	99.2	0.0	0.0
CNS, nerve sheath tumor		40.6	36.2	42.7	0.0	0.0
Other and unspecified tumor of brain, meninges and central nervous system		7.3	7.1	8.9	1.7	1.4
Endocrine glands	C73-75	98.8	98.2	98.9	0.2	0.6
Thyroid gland	C73	99.1	98.7	99.3	0.0	0.3
Adrenal gland	C74	95.9	100.0	93.5	2.0	0.0
Other endocrine glands	C75	100.0	88.2	100.0	0.0	5.9
Mesothelioma	C45	98.9	97.0	100.0	0.0	3.0
Bone	C40-41	91.1	92.6	98.0	0.0	3.7
Soft tissues	C48-49	94.0	94.8	95.7	2.0	0.7
Peripheral nerves, autonomic nervous system	C47	91.7	100.0	100.0	8.3	0.0
Ill-defined or unknown	C76,C80	51.2	50.9	95.7	30.1	29.4
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	88.0	88.0	89.7	1.9	1.6
Hodgkin lymphoma	C81	100.0	98.4	98.9	0.0	0.0
Mature B-cell neoplasms		93.7	93.1	93.4	0.5	0.5
Mature T and NK cell lymphomas/leukaemias	C84	97.8	100.0	98.3	0.7	0.0
Acute lymphoblastic leukaemia/lymphoma	C91.0	97.7	92.2	92.1	0.0	0.0
Acute myeloid leukaemia	C92.0	82.4	83.2	85.5	2.6	2.7
Non-Hodgkin lymphoma, other or unspeficied	C85	73.9	75.2	92.8	12.2	8.0
Leukaemia, other or unspecified	C95	42.9	41.3	72.7	21.4	17.4
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3	82.2	81.3	77.2	2.3	2.3
Myelodysplastic syndromes and myelodysplastic/myeloproliferative neoplasms		58.0	64.7	74.4	8.0	4.6
Other, unspecified or mixed hematological disease	C96, D76	76.9	57.1	96.0	0.0	0.0

5 Incidence and new cancer cases

Figure (Figure 7) shows the age-standardised incidence rates for the most common cancer types and Figure (Figure 8) shows the number of new cancer cases.

Breast cancer was the most common new cancer diagnosed in women in 2023. It had an age-standardised incidence of 168.3 per 100,000 person-years, with a total of 5 173 new cases diagnosed. The second most common new cancer diagnosed was colorectal cancer (incidence 61.2, 2 070 cases), and the third most common was lung and tracheal cancer (incidence 34.5, 1 217 cases).

Prostate cancer was the most common new cancer diagnosed in men in 2023. It had an age-standardised inci- dence of 194.9 per 100,000 person-years, with a total of 5 631 new cases. The second most common new cancer diagnosed in men was colorectal cancer (incidence 87.4, 2 467 new cases), followed by lung and tracheal cancer (incidence 57, 1 663 new cases).

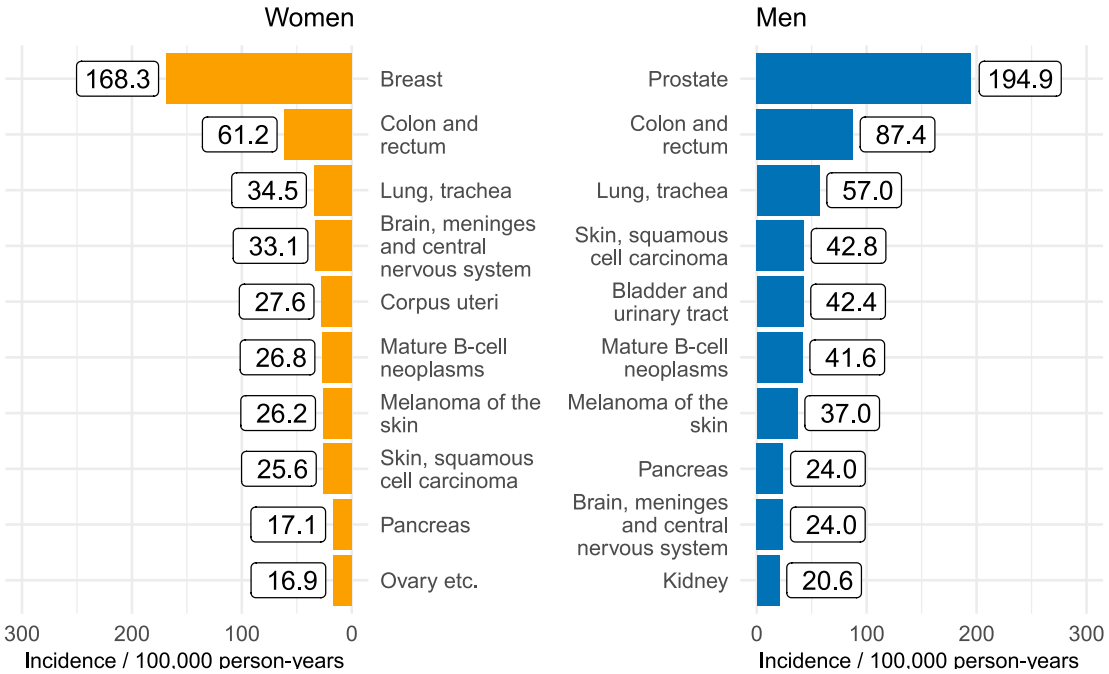

Figure 7: Incidence of cancer among women and men (per 100,000 person-years and age standardised to the 2014 Finnish population) for the most common cancer types in 2023.

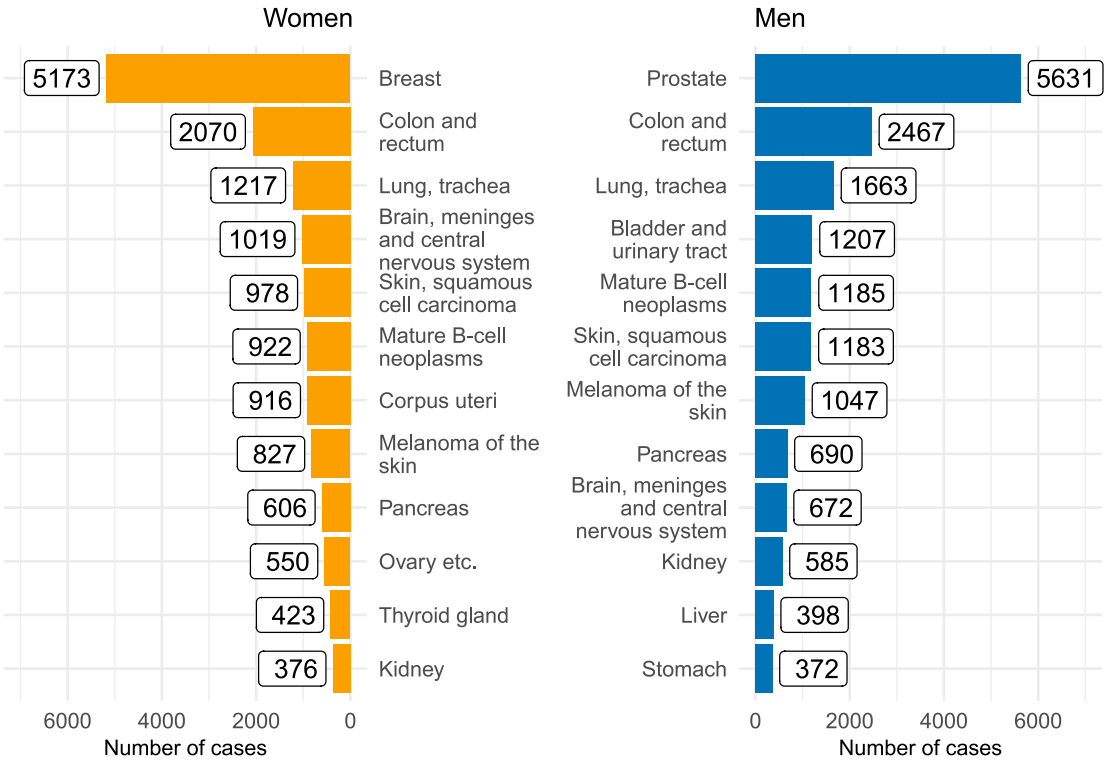

Figure 8: Number of new cancer cases in women and men for the most common cancer types in 2023.

5.1 Incidence by age group

Cancers in children and young adults differ from cancers in older persons. New cancers diagnosed in children and young people are usually haematological (blood and lymphatic) cancers or brain and central nervous system tumours such as gliomas. Figure (Figure 9) shows the incidence of cancer in the population under 20 years of age. In 2023, the incidence of cancer among people under 20 years of age was approximately 20 cases per 100,000 persons, with 225 new cases diagnosed. Acute lymphoblastic leukaemia and Hodgkin's lymphoma were among the most common cancer types in children and young adults.

Figures (Figure 10) and (Figure 11) show the incidence of cancer in 2023 in the population aged 20–69 and the population aged 70 and over. The highest incidences in the female population aged 20–69 were recorded for breast cancer (incidence 181.2/100 000, 3 109 new cases), colorectal cancer (48.4, 830 cases) and melanoma of the skin (27, 463 cases). In the male population of the same age, the highest incidences were observed for prostate cancer (126.7, 2 238 new cases), colorectal cancer (62.8, 1 109 cases) and lung and tracheal cancer (31.5, 555 cases).

The most common cancer types in the female population aged 70 and over were breast cancer (379.7/100 000, 2 064 new cases), colorectal cancer (227, 1 234 cases) and squamous cell carcinoma of the skin (148.8, 809 cases). In the male population of the same age, the most common cancer types diagnosed were prostate cancer (827.1, 3 393 cases), colorectal cancer (330.8, 1 357 cases) and lung and tracheal cancer (269.4, 1 105 cases).

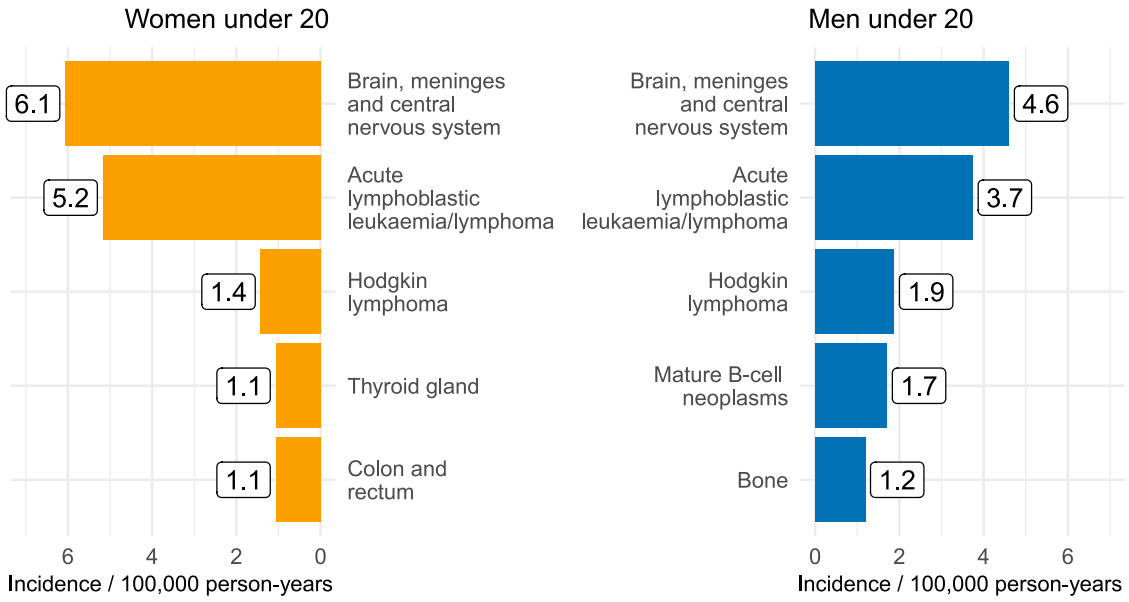

Figure 9: Incidence of cancer among women and men aged under 20 (per 100,000 person-years) for the most common cancer types in 2023.

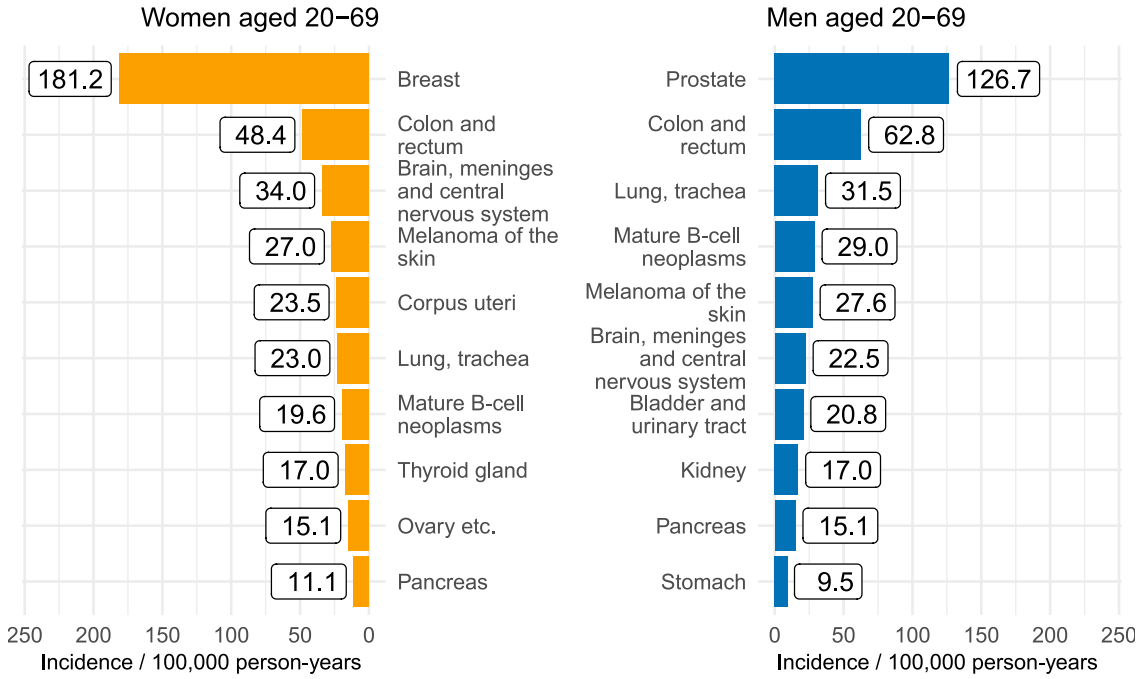

Figure 10: Incidence of cancer among women and men aged 20–69 (per 100,000 person-years) for the most common cancer types in 2023.

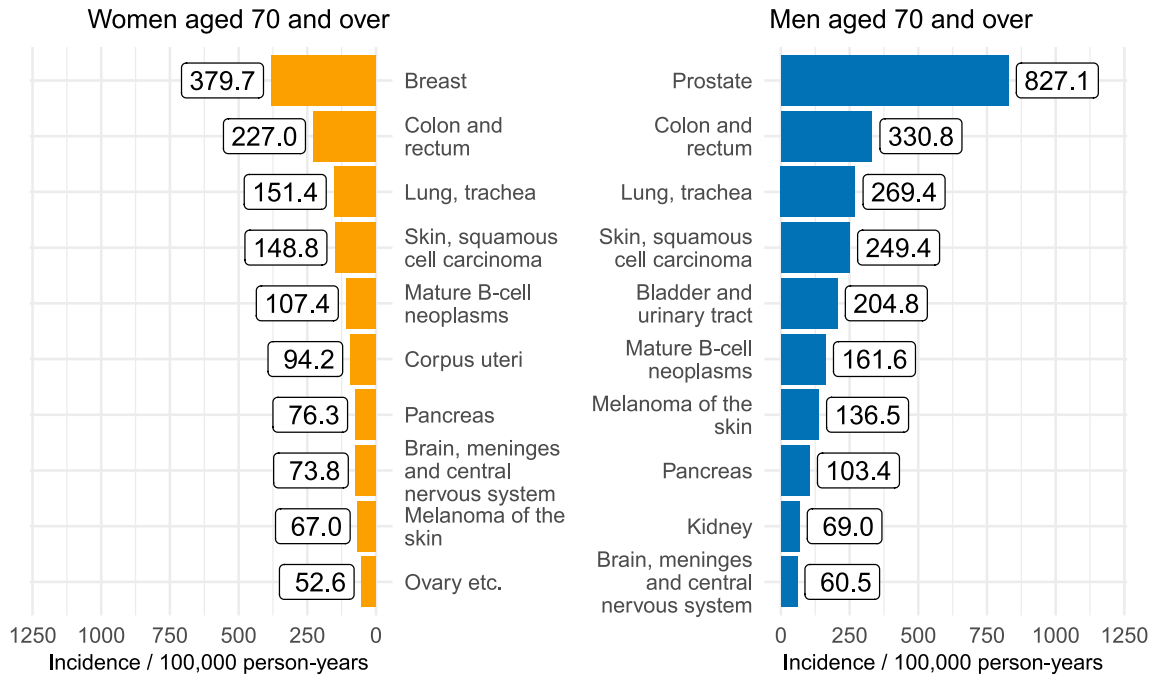

Figure 11: Incidence of cancer among women and men aged 70 and over (per 100,000 person-years) for the most common cancer types in 2023.

5.2 Risk of developing and dying from cancer

Table (Table 4) shows estimates of the proportions of women and men that will develop cancer and the proportions that will die from cancer during their lifetime. On average, 36% of women and 38% of men develop cancer during their lifetime. On average, 17% of women and 20% of men die from cancer. The estimates can be interpreted as a newborn child's lifetime risk of developing and dying from cancer. The estimates assume that a person's risk of cancer, risk of cancer death and risk of overall death at different stages of life would equal the risks in a population of the same age in 2019–2023.

Analysed by cancer type, 13.2% of women develop breast cancer and 13.9% of men develop prostate cancer. 3.0% of women die from breast cancer and 3.8% of men die from prostate cancer. According to the estimate, 3.4% of women and 5.2% of men develop lung cancer. On average, 2.7% of women and 4.7% of men die from lung cancer. Given the major changes in smoking habits among both women and men, it is unlikely that these estimates reflect the actual risk of lung cancer in any of the birth cohorts. Fewer and fewer newborns start smoking in later life, which reduces the risk of lung cancer in relation to the estimate.

Table 4: Lifetime risk (%) of developing and dying from cancer. The calculation is based on cancer incidence, cancer mortality and overall mortality in the population in 2019–2023.

		Women		Men	
Cancer site	**ICD-10**	Develop cancer	Die from cancer	Develop cancer	Die from cancer
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	36.4	17.0	37.9	19.6
Prostate	C61	–	–	13.9	3.8
Breast	C50	13.2	3.0	0.1	<0.1
Colon and rectum	C18-20	5.0	2.1	5.9	2.6
Lung, trachea	C33-34	3.4	2.7	5.2	4.7
Melanoma of the skin	C43	2.3	0.3	2.7	0.4

6 Mortality

Figure (Figure 12) shows the age-standardised mortality rates and Figure (Figure 13) the number of deaths for the cancers types with the highest mortality. The cancers responsible for the most cancer deaths were lung and tracheal cancer (2 195 deaths), colorectal cancer (1 537 deaths) and pancreatic cancer (1 365 deaths).

The most common cause of cancer death in women was lung and tracheal cancer (mortality 24.7 per 100,000 person-years, 889 deaths). Breast cancer caused the second most deaths (24.6, 865 deaths) and colorectal cancer the third most deaths (18.9, 699 deaths) in women.

The most common cause of cancer death in men was lung and tracheal cancer (mortality 44.7 per 100,000 person-years, 1 306 deaths). Prostate cancer caused the second most deaths (37.6, 1 012 deaths) and colorectal cancer the third most deaths (29.7, 838 deaths) in men.

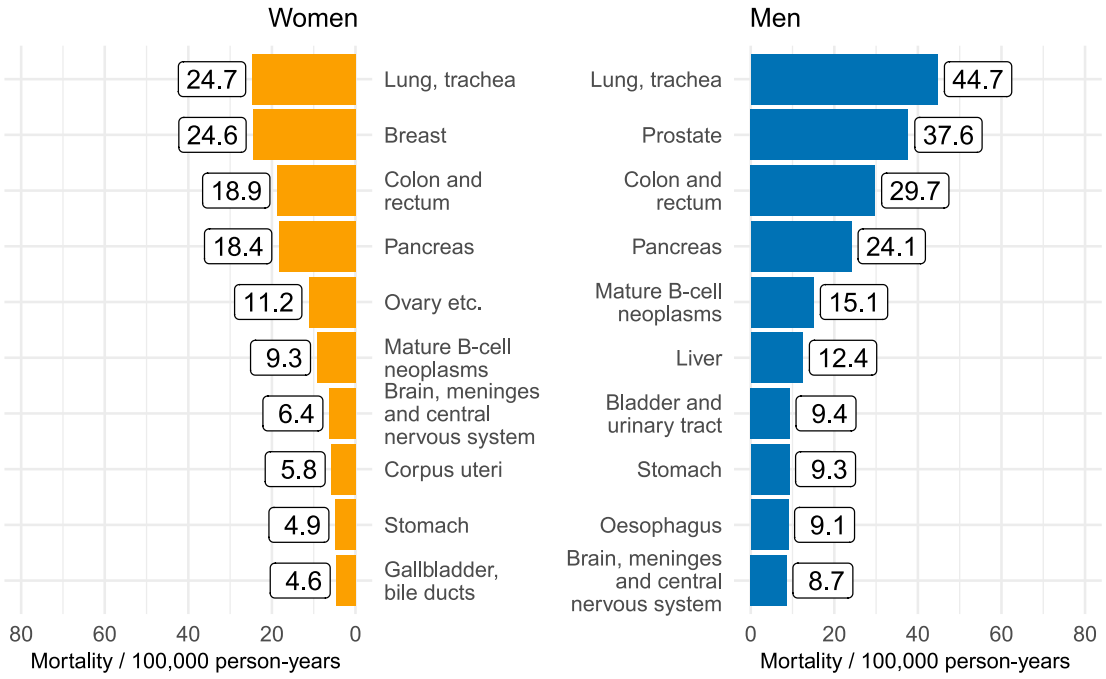

Figure 12: Cancer mortality (per 100,000 person-years and age standardised to the 2014 Finnish population) in women and men for the cancer types with the highest mortality rate in 2023.

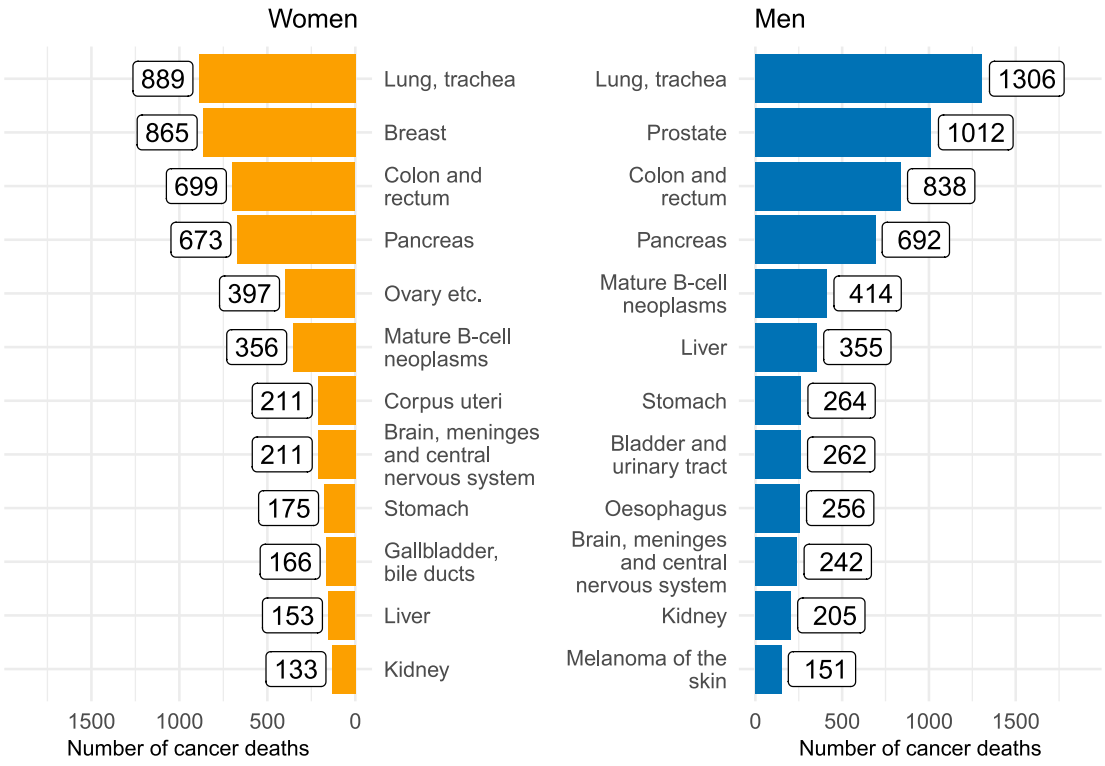

Figure 13: Number of cancer deaths in women and men for the cancer types with the highest mortality rate in 2023.

6.1 Mortality by age group

In 2023, a total of 26 people under 20 years of age died from cancer, and their most common cause of cancer death was brain and central nervous system tumours.

Figures (Figure 14) and (Figure 15) show the cancer mortality (per 100,000 persons in 2023) in the population aged 20–69 and the population aged 70 and over. In women aged 20–69, the main causes of cancer death were breast cancer (mortality rate 16.1, 277 deaths), lung and tracheal cancer (14.3, 242 deaths) and pancreatic cancer (9.8, 166 deaths). In men of the same age, the main causes of cancer death were lung and tracheal cancer (20.4, 357 deaths), colorectal cancer (12.7, 225 deaths) and pancreatic cancer (12.5, 220 deaths).

In women aged 70 and over, the main causes of cancer death were lung and tracheal cancer (118.3, 643 deaths), breast cancer (108.2, 588 deaths) and colorectal cancer (99.1, 539 deaths). In men aged 70 and over, the main causes of cancer death in 2023 were lung and tracheal cancer (230.4, 945 deaths), prostate cancer (213.5, 876 deaths) and colorectal cancer (149.4, 613 deaths).

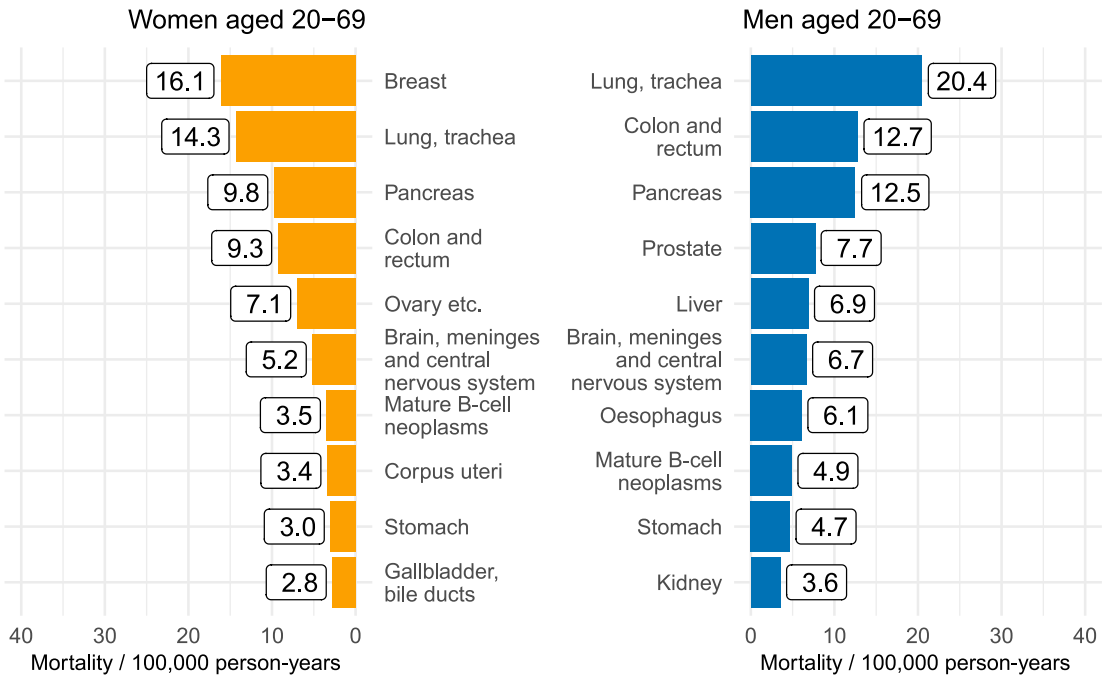

Figure 14: Cancer mortality (per 100,000 person-years) in women and men aged 20–69 for the cancer types with the highest mortality rate in 2023.

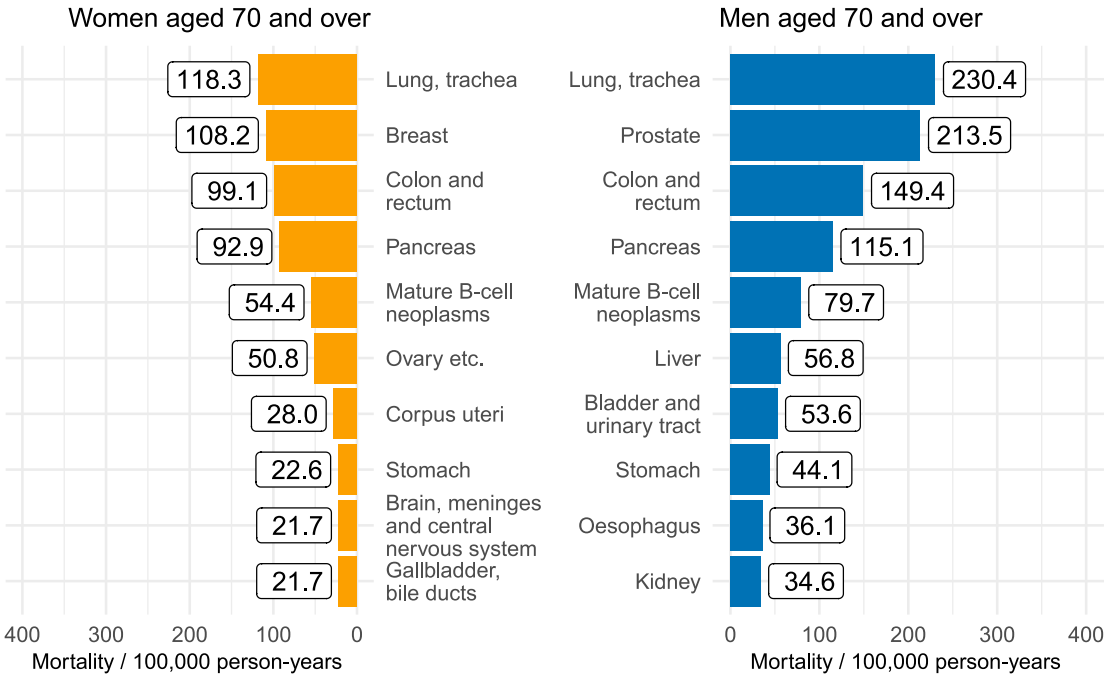

Figure 15: Cancer mortality (per 100,000 person-years) in women and men aged 70 and over for the cancer types with the highest mortality rate in 2023.

7 Prevalence

The prevalence of cancer is a statistical indicator used to assess the burden on and resources of healthcare services. Prevalence is influenced by incidence and also by age of onset and patients' prognoses. For example, although there are many new cases of lung cancer diagnosed, lung cancer has a low prevalence due to its high mortality rate.

At the end of 2023, there were 334 024 people (prevalence) alive in Finland with a past cancer diagnosis. This was equivalent to 6% of the Finnish population (prevalence proportion). The most prevalent cancer types are shown by sex in Figure (Figure 16).

At the end of 2023, the prevalence of breast cancer in women was 84 004, the prevalence of colorectal cancer was 16 422 and the prevalence of endometrial cancer was 13 354. The prevalence of prostate cancer at year-end 2023 was 63 042. There were a total of 16 340 men alive with colorectal cancer and 11 454 alive with melanoma of the skin.

Looking only at people with no more than five years since cancer diagnosis (diagnosed in 2019-2023), there were 55 288 women and 55 158 men alive at year-end 2023.

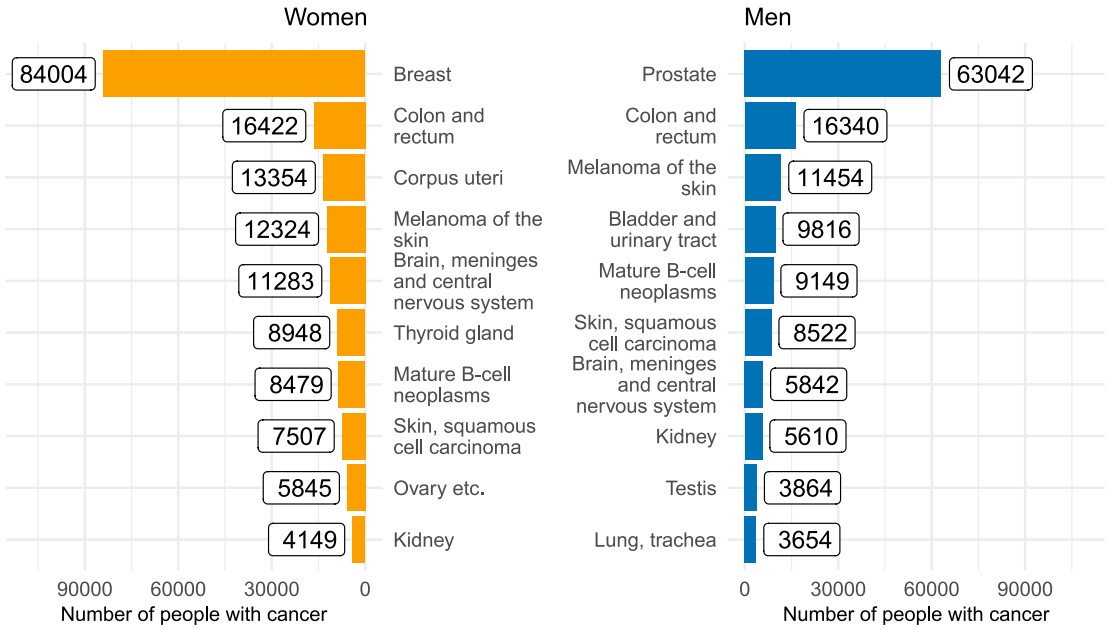

Figure 16: Number of people living with cancer at the end of 2023.

8 Cancer patient survival

The five-year relative survival rate in 2021–2023 was 70% in male patients and 72% in female patients. Compared to the previous period of 2018–2020, the survival rate had increased by 1.0 percentage points in both women and men.

For patients monitored in 2021–2023, the survival rate for breast cancer in women was 92% and the survival rate for prostate cancer was 94%a (Figure 17). The average survival rate for colorectal cancer was 68%, while lung cancer had an average survival of 19%. The survival rate for pancreatic cancer was only 7%. Among these five cancer types, the survival rate for women increased the most for lung cancer (by 2.1 percentage points from 2018–2020 to 2021–2023), and the survival rate for men increased the most for colorectal cancer (1.4 percentage points).

Figures (Figure 18 and Figure 19 and Taulukko 10 and Taulukko 11) show the survival rates for three age groups: patients diagnosed with cancer aged 0–54, 55–74 and 75 and over. The survival rates in the youngest age group were higher than those of the older age groups for most cancer types. For breast cancer and melanoma of the skin in women, the survival rates were approximately the same for persons under 55 years of age and persons aged 55–74. For women aged 75 and over, however, the survival rates were lower than for the other age groups. In lung cancer, the survival rates clearly differed between people under 55 years of age and people aged 55–74. The five-year survival rate of women diagnosed with lung cancer at under 55 years of age was 48%; the corresponding rates for women diagnosed at 55–74 and at 75 and over were 26% and 19%, respectively.

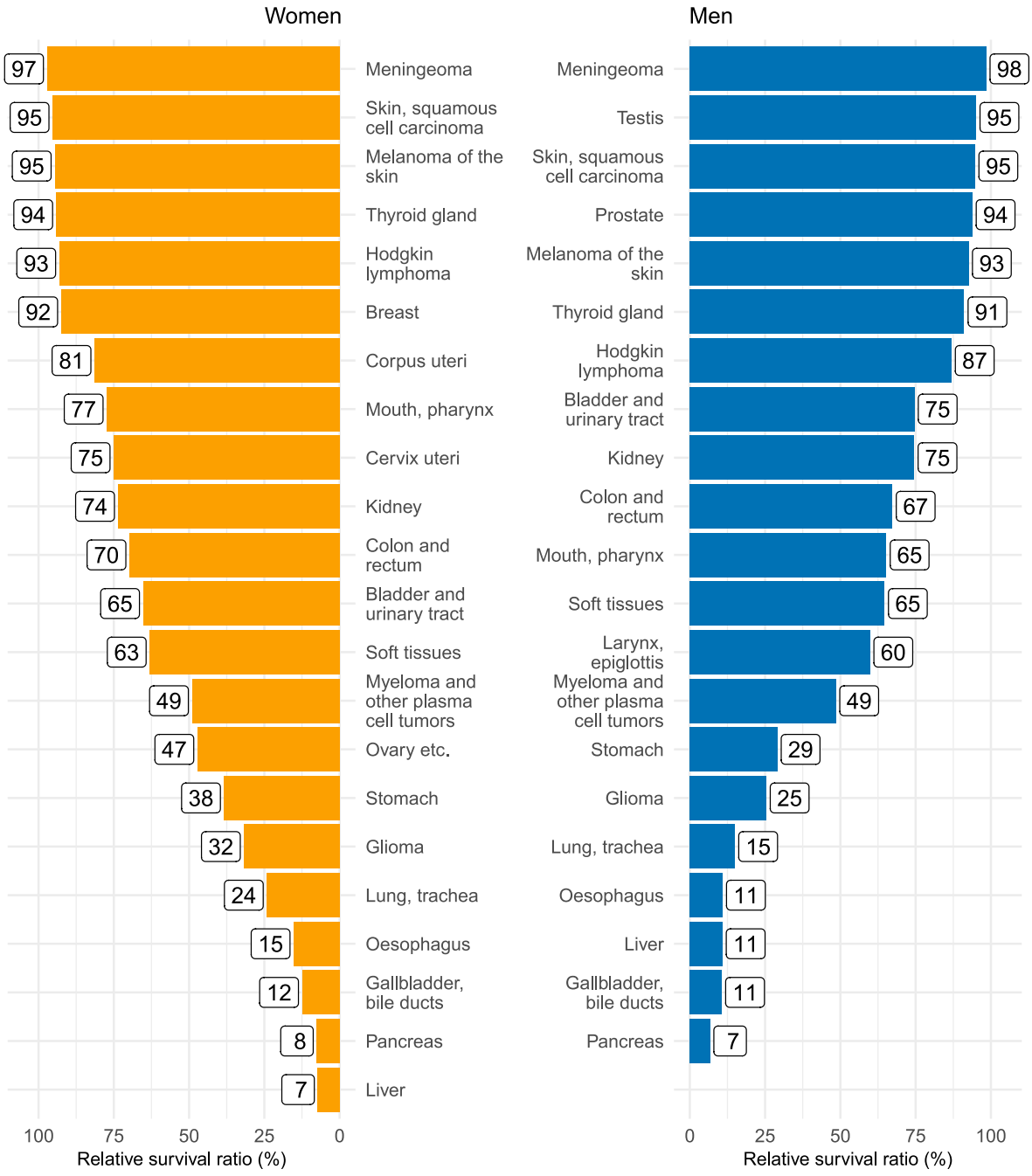

Figure 17: Five-year relative survival ratios (%) in patients followed up in 2021–2023 by sex and cancer type. The survival ratios for laryngeal cancer in women and breast cancer in men are not presented due to a small number of cases.

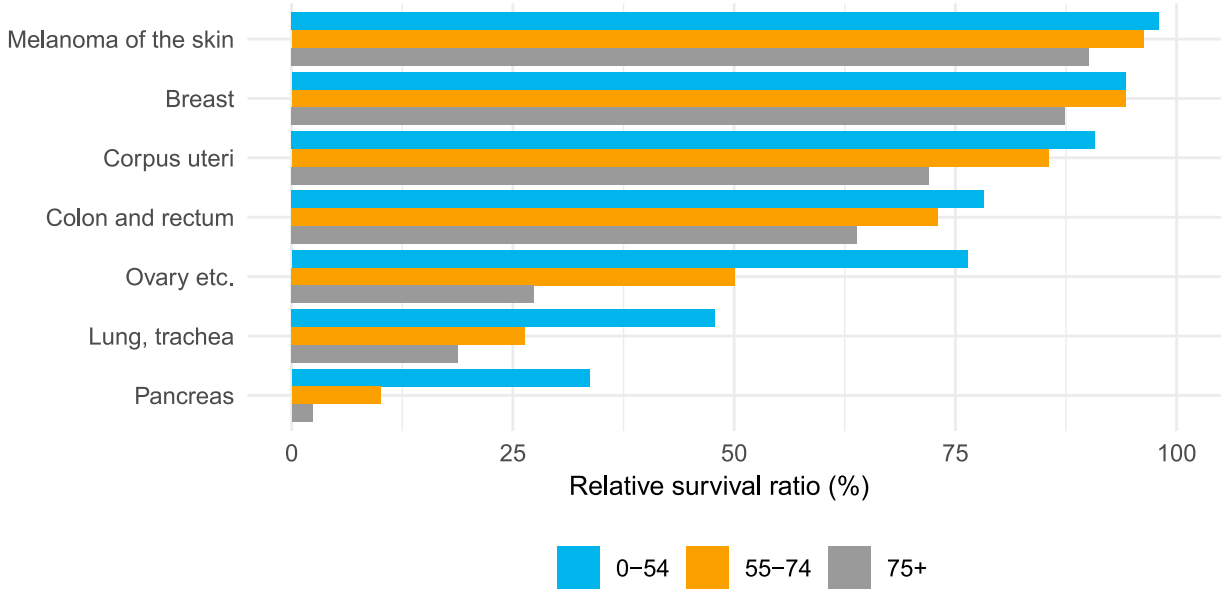

Figure 18: Five-year relative survival ratios (%) in female patients followed up in 2021-2023 by age group (under 55, 55–74 and 75 and over) for the seven most common cancer types in women (excl. mature B-cell neoplasms and cutaneous squamous cell carcinoma).

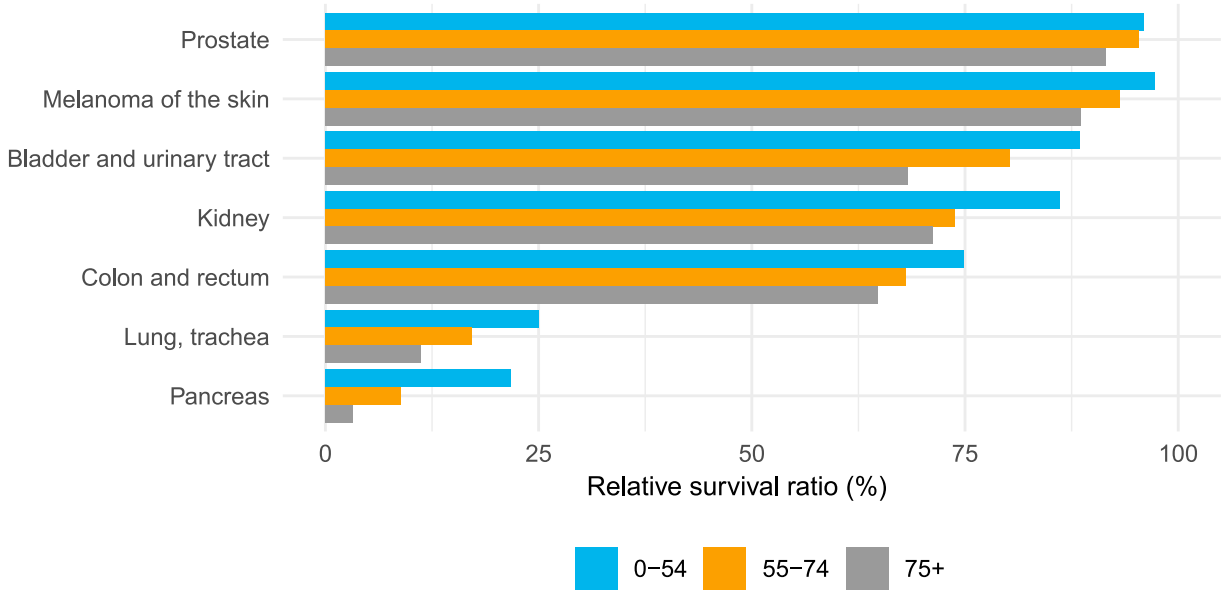

Figure 19: Five-year relative survival ratios (%) in male patients followed up in 2021-2023 by age group (under 55, 55–74 and 75 and over) for the seven most common cancer types in men (excl. mature B-cell neoplasms and cutaneous squamous cell carcinoma).

9 Years of life lost due to cancer

It was estimated that a total of around 193 000 years of life are lost in the population in a single year due to cancer (Table 5). Women lose 95 000 years and men 97 800 years.

In the population as a whole, lung cancer caused the greatest number of years of life lost (34 300 years). The next greatest number of years of life lost was due to lymphatic and haematopoietic cancers (19 300), followed by colorectal cancer (17 800), pancreatic cancer (17 500) and breast cancer (16 000). For other cancer types, the combined years of life lost by men and women were significantly lower. Women lose the greatest number of years of life due to breast cancer. For men, the number of years of life lost to prostate cancer (6 260) was slightly lower than the number of years of life lost to pancreatic cancer (8 560).

Figures (Figure 20 and Figure 21) show the average age at cancer diagnosis and estimates of average patient life expectancy and years of life lost due to cancer for cancers diagnosed between 2014 and 2023. The number of years of life lost by a cancer patient is affected not only by the length of life after cancer, but also by the age of onset. The average age of onset ranged from 36 years for men with testicular cancer to 80 years for women with squamous cell carcinoma of the skin. Cancer can reduce life expectancy, particularly in young people.

The average age of onset for women diagnosed with breast cancer was 65 years. They were expected to live an average of 19.5 years after the cancer diagnosis and to lose 3.2 years of life, as they would have been expected to live 22.7 years based on population mortality. The number of years of life lost in the population as a whole is also affected by the incidence of cancer. On average, 4 983 women were diagnosed with breast cancer each year between 2014 and 2023. It was estimated that a total of 15 900 years of life were lost in the female population in a single year due to breast cancera (Table 5, coloured area Figure 20).

The average age at diagnosis for prostate cancer patients was 72 years. They were expected to live an average of 13.1 years after the cancer diagnosis and to lose 1.2 years of life. Between 2014 and 2023, an average of 5 215 cases of prostate cancer were diagnosed each year. On average, 6 260 years of life are lost in the population in a single year due to prostate cancera (Table 5, coloured area Figure 21).

Table 5: Number of years of life lost to cancer in a single year, by gender and cancer type. Calculation includes cancer cases diagnosed in 2014–2023.

Cancer site	ICD-10	Women	Men	Total
All sites together	C00-96,D09.0-1,D32-33,D41-43,D45-47,D76	95 000	97 800	193 000
Lung, trachea	C33-34	13 800	20 500	34 300
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	9 060	10 200	19 300
Colon and rectum	C18-20	8 310	9 460	17 800
Pancreas	C25	8 890	8 560	17 500
Breast	C50	15 900	93	16 000
Liver	C22	2 440	4 840	7 280
Stomach	C16	2 820	4 030	6 850
Glioma	–	2 700	3 610	6 300
Prostate	C61	–	6 260	6 260
Ovary etc.	C48.1-2 (Serous), C56, C57.0-4	5 620	–	5 620
Kidney	C64	1 890	3 240	5 130
Oesophagus	C15	1 230	3 480	4 710
Mouth, pharynx	C00-14	1 470	3 120	4 590
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	1 360	3 010	4 370
Gallbladder, bile ducts	C23-24	2 210	1 720	3 930
Corpus uteri	C54	2 790	–	2 790
Melanoma of the skin	C43	791	1 370	2 160
Soft tissues	C48-49	674	863	1 540
Skin, squamous cell carcinoma	C44 (Squamous cell)	672	703	1 380
Cervix uteri	C53	1 120	–	1 120
Larynx, epiglottis	C32	136	779	915
Thyroid gland	C73	308	228	536
Meningeoma	–	305	78	383
Testis	C62	–	227	227
Other	–	10 400	11 400	21 800

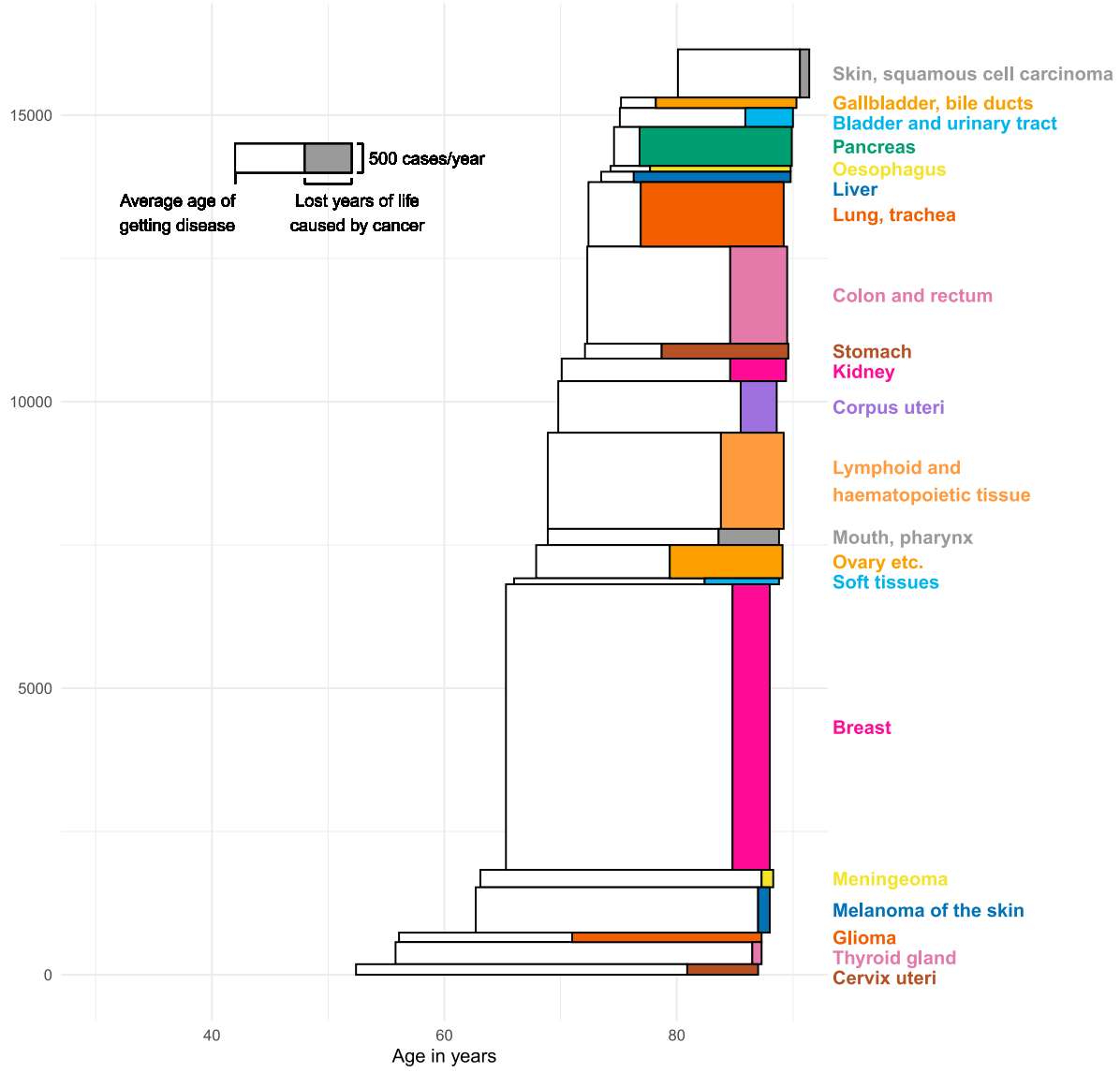

Figure 20: Average age of onset, life expectancy after diagnosis and years of life lost to cancer for women by cancer type in patients diagnosed 2014–2023.

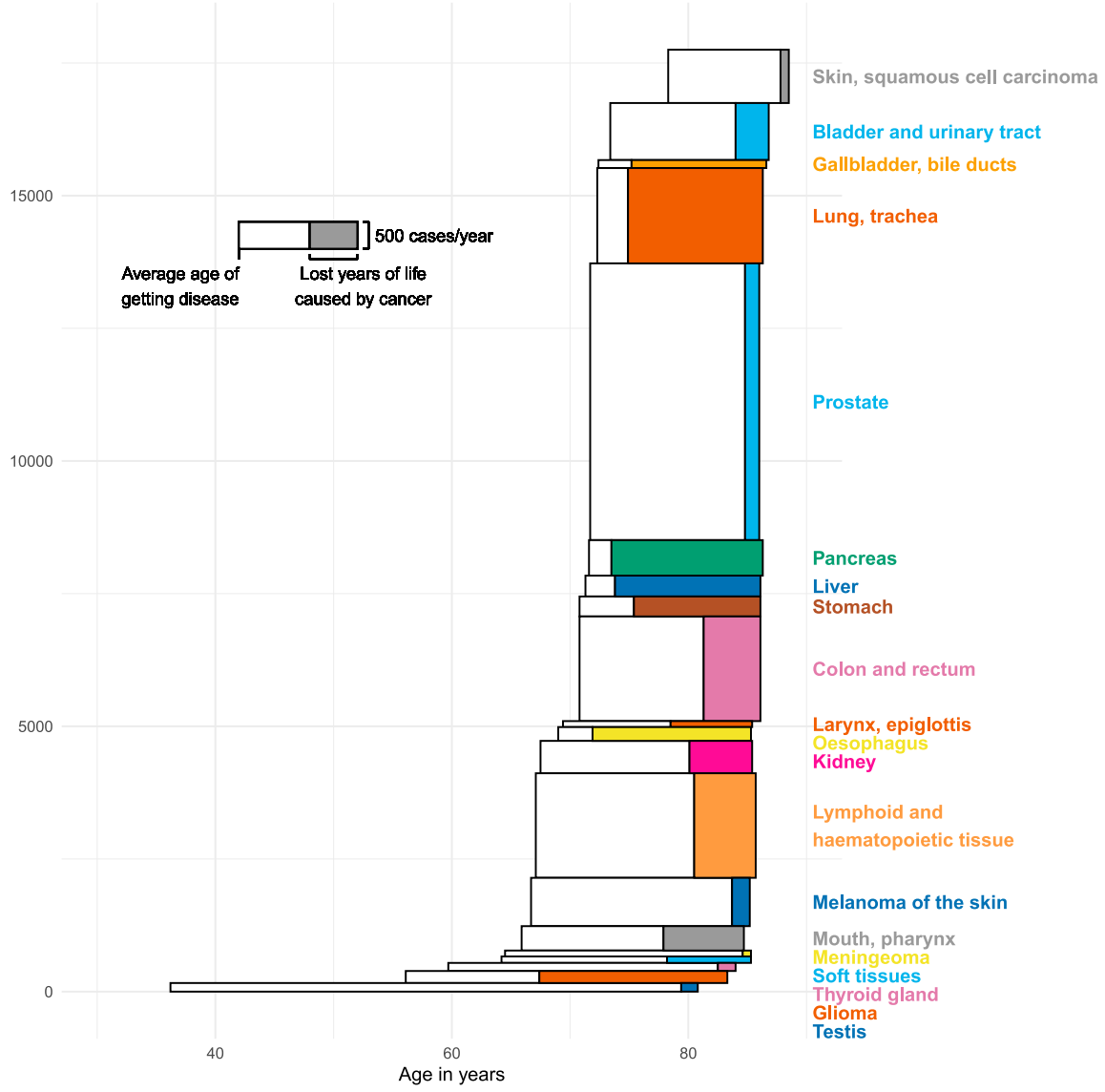

Figure 21: Average age of onset, life expectancy after diagnosis and years of life lost to cancer for men by cancer type in patients diagnosed 2014–2023.

10 Time series

Figures Figure 22 – Figure 30 show the time series for the incidence and mortality of cancer and the five-year relative survival rate of patients in line with the ICD-10 classification. Changes in incidence and mortality since the beginning of the 1990s are presented in tables Table 12 – Table 15. The change is shown as an average annual change percentage. If there has been a statistically significant change, separate percentages are presented for two consecutive calendar-year periods.

1. **Lip:** In men, incidence and mortality have decreased. In women, both incidence and mortality have remained low. The survival rate has been around 90% in recent years (Figure 22).
2. **Pharynx:** Incidence has risen in the 2000s. In men, the incidence is about three times higher than in women. Mortality has remained at the same level. The survival rate has increased steadily since the 1990s and is currently around 70% among women and around 60% among men (Figure 22).
3. **Oesophagus:** Incidence and mortality decreased until the early 2000s. In men, the incidence has shown a slight increase in the 2000s. The survival rate has increased slowly and is currently around 20% among women and 15% among men (Figure 22).
4. **Stomach:** Incidence and mortality have decreased throughout the observation period. The survival rate has remained at around 30% among women and around 25% among men during the 2000s (Figure 23).
5. **Colon and rectum:** Incidence has increased in both women and men. The nationwide colorectal cancer screening programme launched in 2022 has increased the incidence, as screening facilitates early detection. Mortality has decreased since the 1990s. The survival rate has increased and is currently around 70% in both women and men (Figure 23).
6. **Liver:** Incidence and mortality have increased, more so among men than among women. The survival rate has increased slowly and is currently around 10% (Figure 23).
7. **Gallbladder, bile ducts:** Incidence increased until the 1980s and decreased thereafter, especially in women until the turn of the 2010s. The survival rate has increased slowly and is currently around 15% in women and 10% in men (Figure 24).
8. **Pancreas:** Incidence and mortality have remained at the same level since the 1980s among both women and men. Survival is currently nearly 10% in women and above 5% in men (Figure 24).
9. **Larynx:** Among men, incidence and mortality have decreased since the 1970s. Among women, both incidence and mortality have remained low. Survival has long been steady at around 60% (Figure 24).
10. **Lung, trachea:** Among women, incidence and mortality have increased throughout the period considered. Among men, the increase started to decline at the end of the 1970s. The incidence among men is still almost twice as high as the incidence among women. The survival rate has increased to nearly 25% among women and to 15% among men (Figure 25).
11. **Breast, women:** Incidence increased until the early 2010s. Mortality began to fall in the 1990s. Survival is currently above 90% (Figure 25).
12. **Prostate:** Incidence has increased. The increase accelerated in the 1990s, with the highest incidence recorded in 2004. Currently, the incidence is at the same level as in the mid-1990s. Mortality began to fall in the 1990s. The survival rate has increased and is currently nearly 95% (Figure 25).

13. **Cervix uteri:** Incidence decreased from the 1960s until the 1990s and has remained at the same level since then. The decrease in mortality has continued in the 2000s. Survival is currently around 75% (Figure 25).
14. **Corpus uteri:** Incidence increased until the turn of the century and then began to fall slightly. Mortality has remained at the same level. The survival rate increased until the early 2000s and is currently above 80% (Figure 25).
15. **Ovary, etc.:** Incidence and mortality increased until the 1990s and then began to decrease. Survival has remained at around 45% during the 2000s (Figure 26).
16. **Testis:** Incidence increased sharply from the 1980s onwards, but the increase levelled out in the 2010s. Mortality and survival have remained at the same level since the 1990s. Survival is currently at around 95% (Figure 26).
17. **Kidney:** Incidence and mortality increased until the 1990s. In the 2000s, the incidence in men first declined and later began to rise again. In women, the incidence remained stable from the 1990s to the mid-2010s, after which it began to decline. Mortality has decreased in the 2000s. The survival rate has continued to increase in the 2000s and is currently above 70% (Figure 26).
18. **Bladder and urinary tract:** Among women, mortality increased until the 1990s and has since remained at the same level. Among men, incidence peaked in the mid-1990s. After that, it first decreased and later levelled out. Among men, the incidence is about four times higher than among women. Mortality has decreased since the 1970s. The survival rate has increased and is currently nearly 70% among women and around 75% among men (Figure 26).
19. **Melanoma of the skin:** Incidence increased until the mid-2010s. Among women, mortality has remained at the same level since the 1970s. The mortality among men increased until the mid-2010s, but considerably more moderately than the incidence. Survival is currently around 95% (Figure 27).
20. **Squamous cell carcinoma of the skin:** Incidence has increased throughout the observation period. Among men, the increase in incidence has accelerated in the 2000s. Mortality has remained very low, and survival has remained above 90% (Figure 27).
21. **Glioma:** Incidence has increased throughout the observation period. Mortality increased until the 1990s, after which it has remained at the same level among women and continued to grow among men. The survival rate has increased slowly and is currently around 30% among women and 25% among men (Figure 27).
22. **Meningioma:** Incidence increased until the 2000s and has since then remained steady. The incidence among women is more than double that among men. Mortality has been low and has further declined since the 1990s. The survival rate has increased and is currently around 95% (Figure 28).
23. **Thyroid gland:** Incidence has increased among women and men. The incidence among women is more than double that among men. Among women, mortality declined from the early 1990s to the early 2000s. Among men, mortality has remained at the same level since the early 1990s. The survival rate is currently around 95% among women and 85% among men (Figure 28).
24. **Soft tissues:** Incidence increased among women until the 1990s. Among men, the incidence increased throughout the observation period. There have been no changes in mortality in either women or men. Survival is currently at around 60% (Figure 28).
25. **Hodgkin lymphoma:** Incidence has increased slightly since the early 1990s, but mortality continued to decline in the 1990s. The survival rate has increased and is currently around 90% (Kuva 29).
26. **Myeloma and other plasma cell tumours:** Incidence and mortality increased until the late 1980s among both women and men. Since then, incidence has remained at the same level but mortality has decreased. The survival rate has increased and is currently around 50% among women and 45% among men (Figure 29).

27. **Acute lymphoblastic leukaemia/lymphoma:** Incidence has remained at the same level since the 1980s, but mortality has decreased. The survival rate has increased considerably and is currently above 75% (Figure 29).
28. **Chronic lymphatic leukaemia:** Incidence and mortality have decreased since the 1980s among both women and men. The survival rate has increased steadily and is currently nearly 85% among women and around 75% among men (Figure 30).
29. **Acute myeloid leukaemia:** Incidence has remained at the same level since the 1980s, but mortality has declined. The survival rate has increased clearly since the 1980s and is currently above 25% among women and 20% among men (Figure 30).
30. **Chronic myeloid leukaemia:** Incidence and mortality have decreased throughout the observation period for both women and men. The survival rate has increased particularly strongly in the 2000s and is currently around 70% (Figure 30).

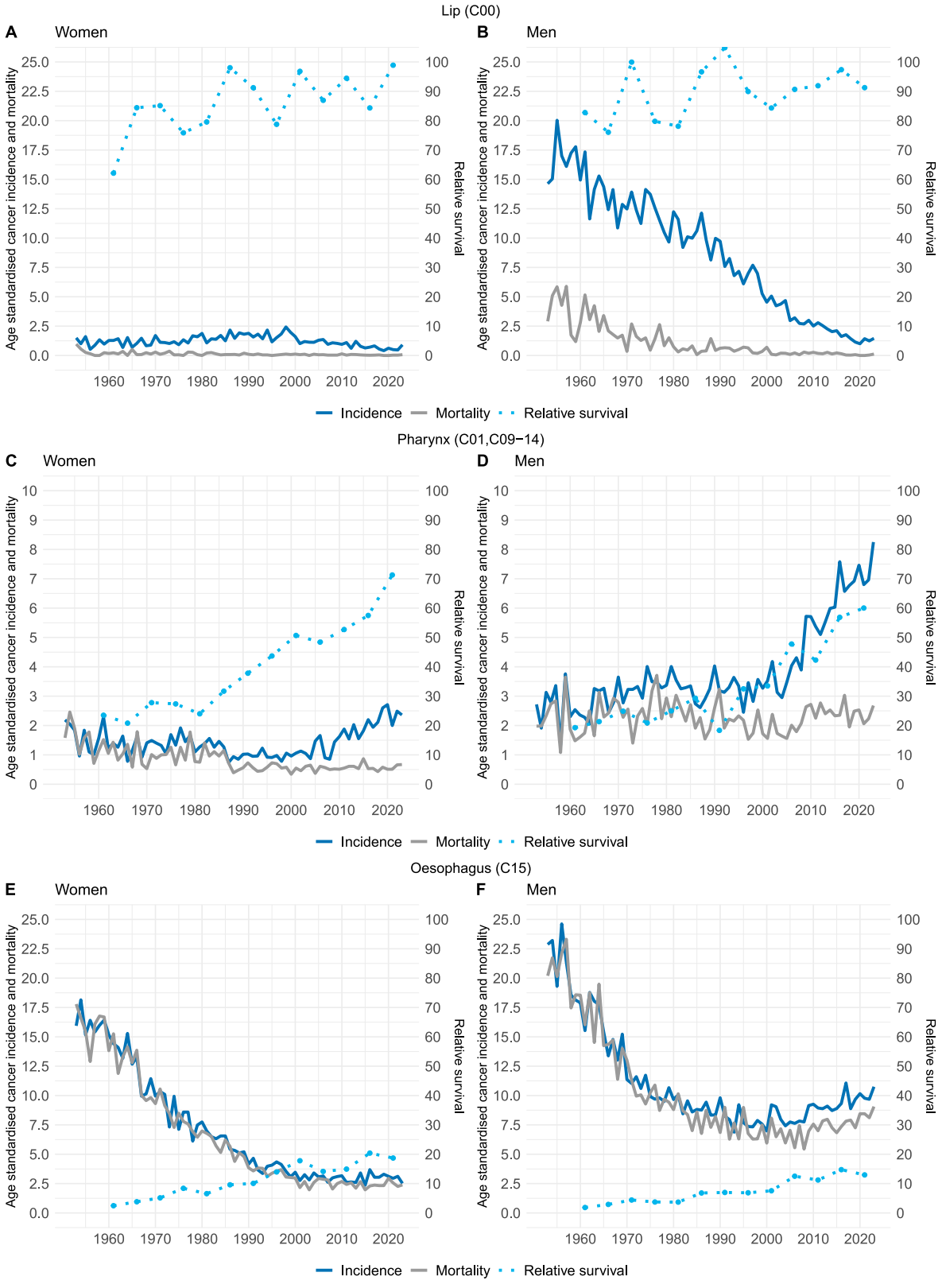

Figure 22: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

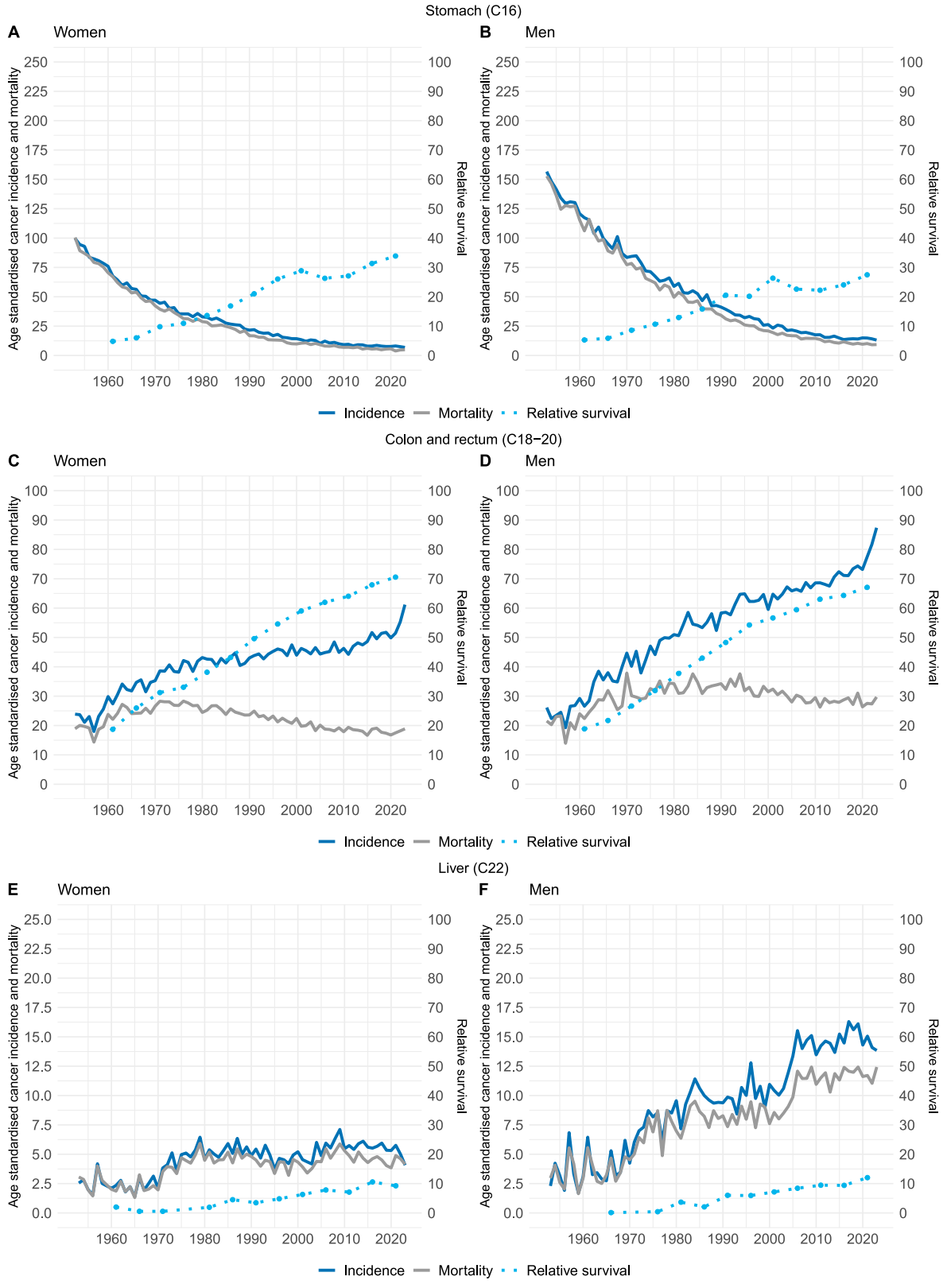

Figure 23: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

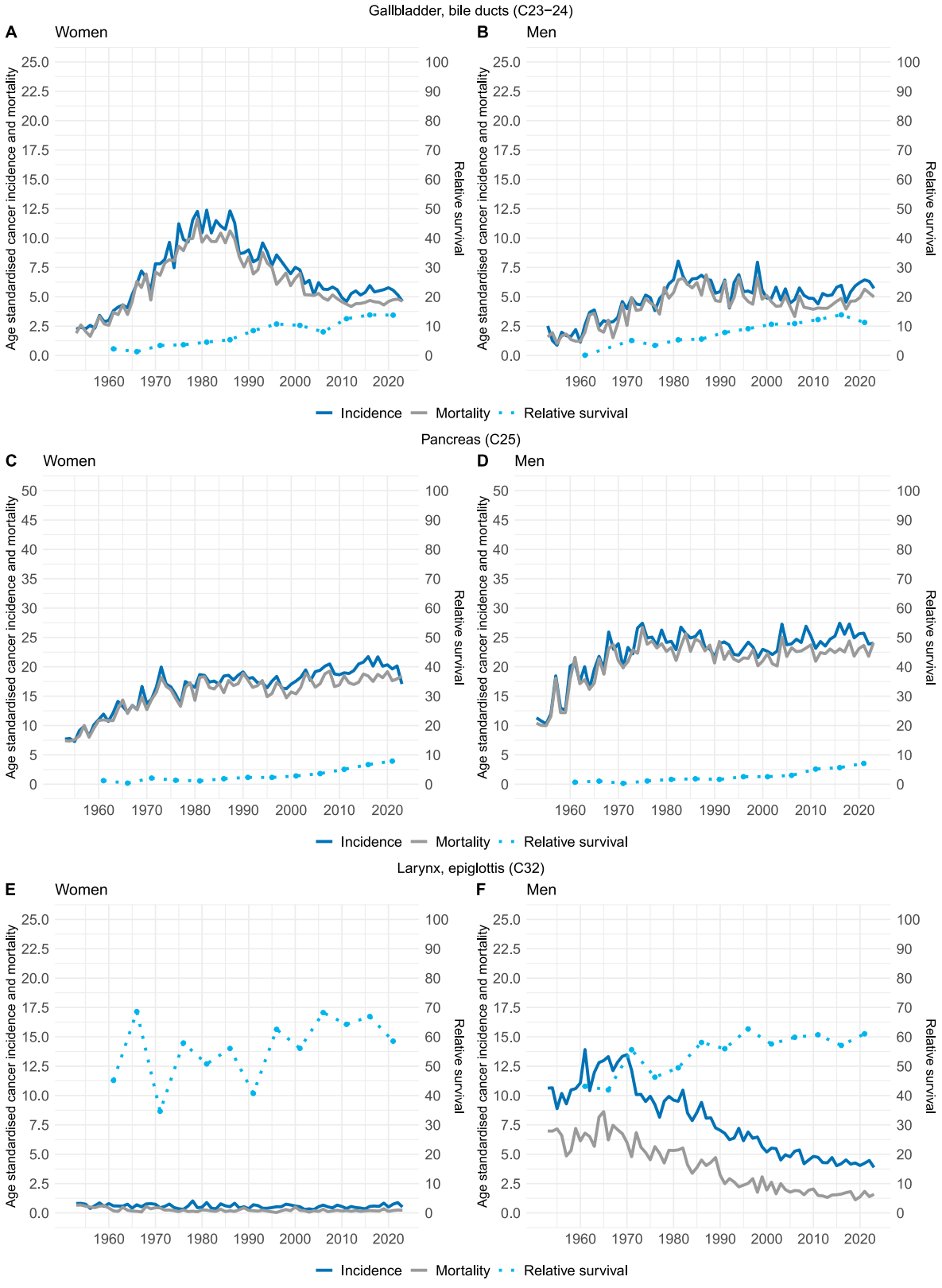

Figure 24: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

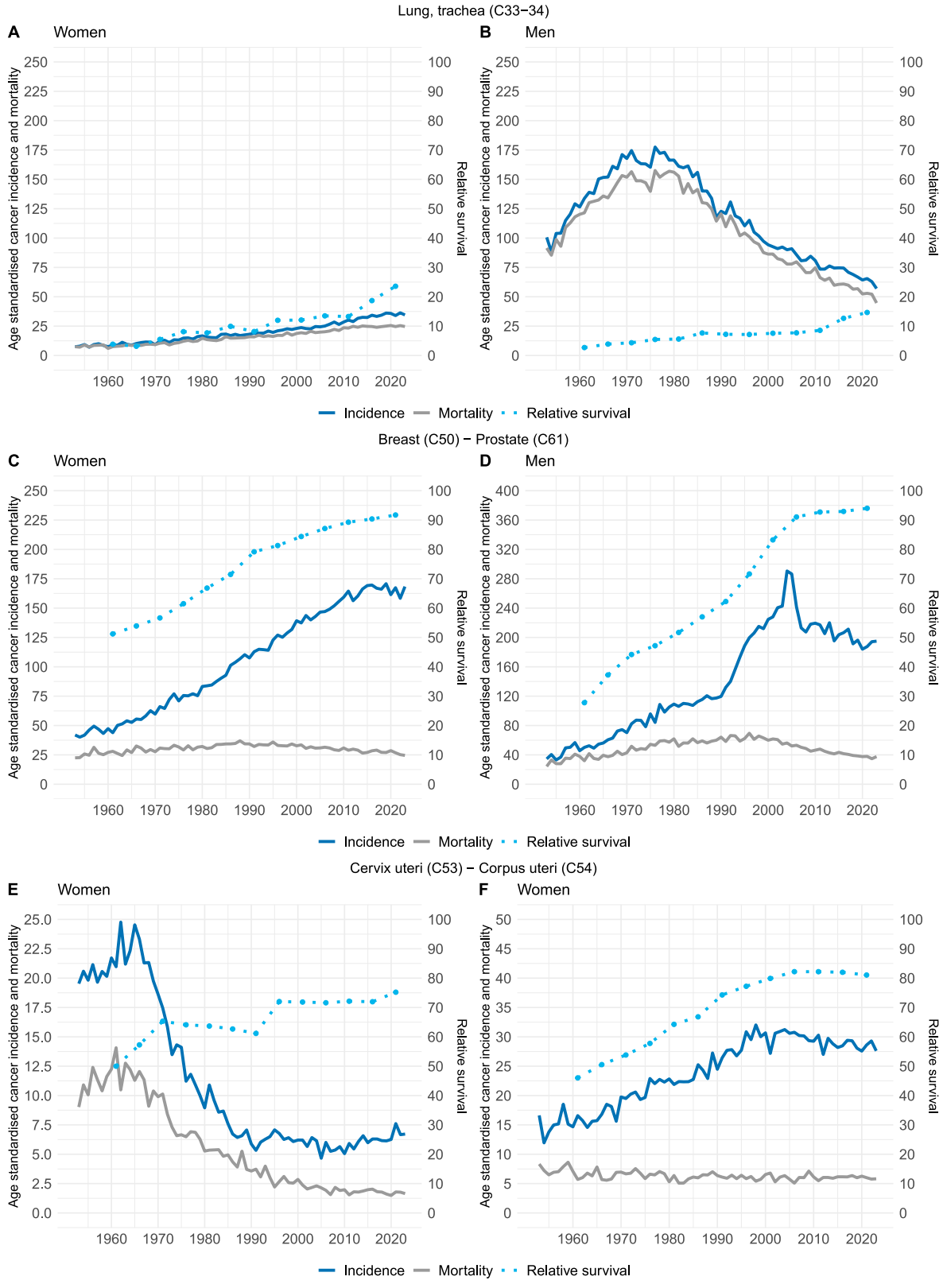

Figure 25: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

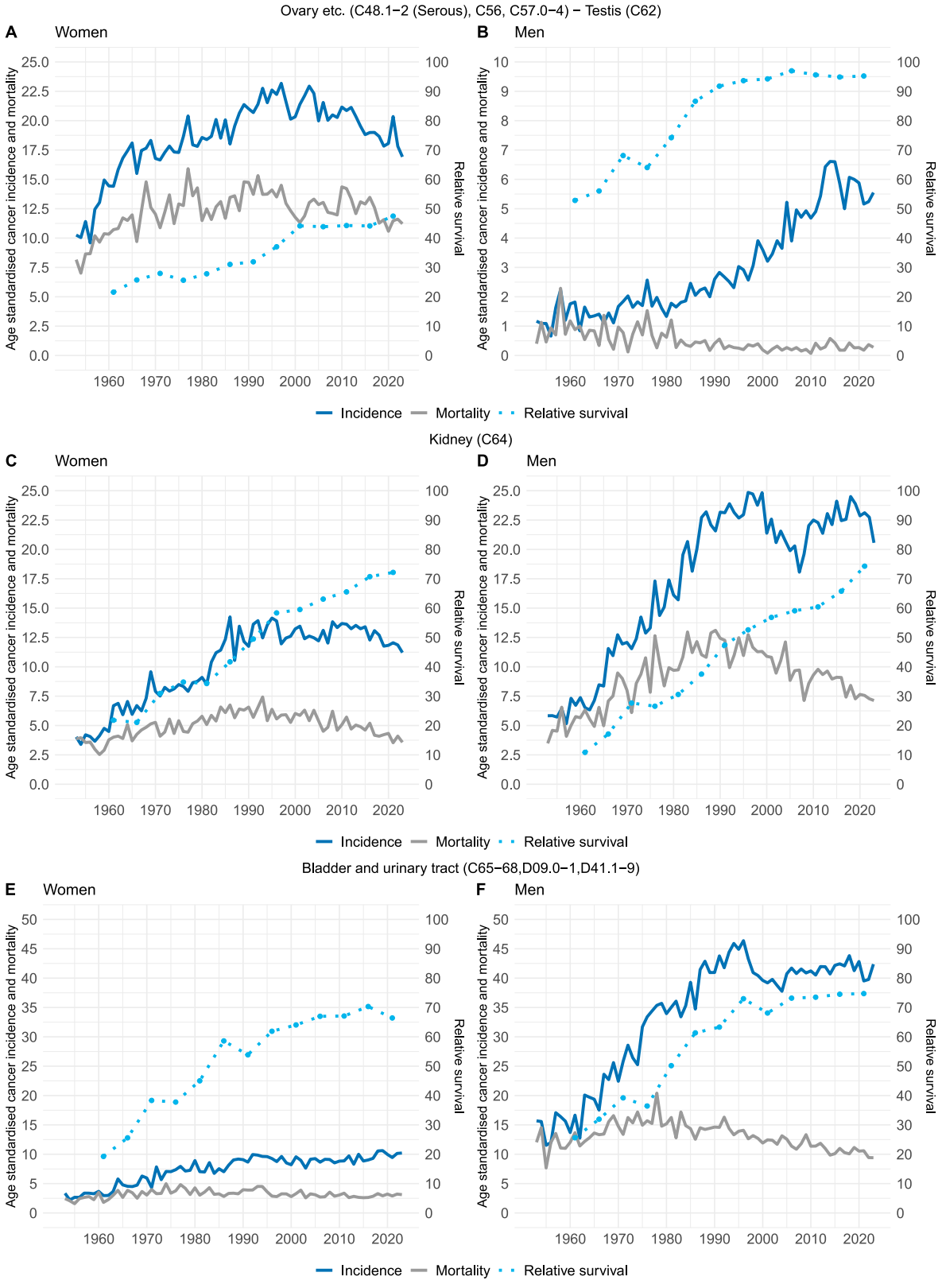

Figure 26: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

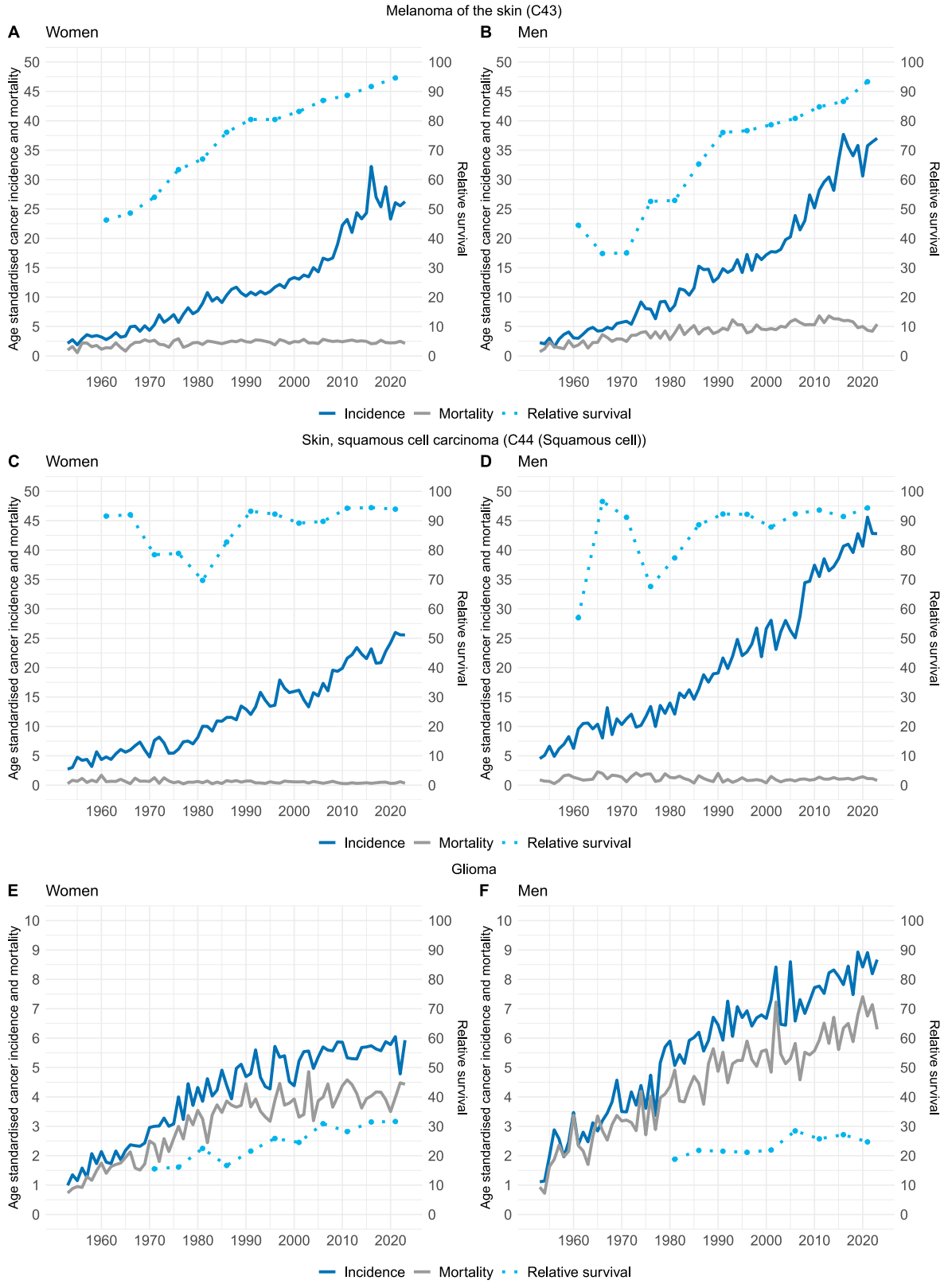

Figure 27: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

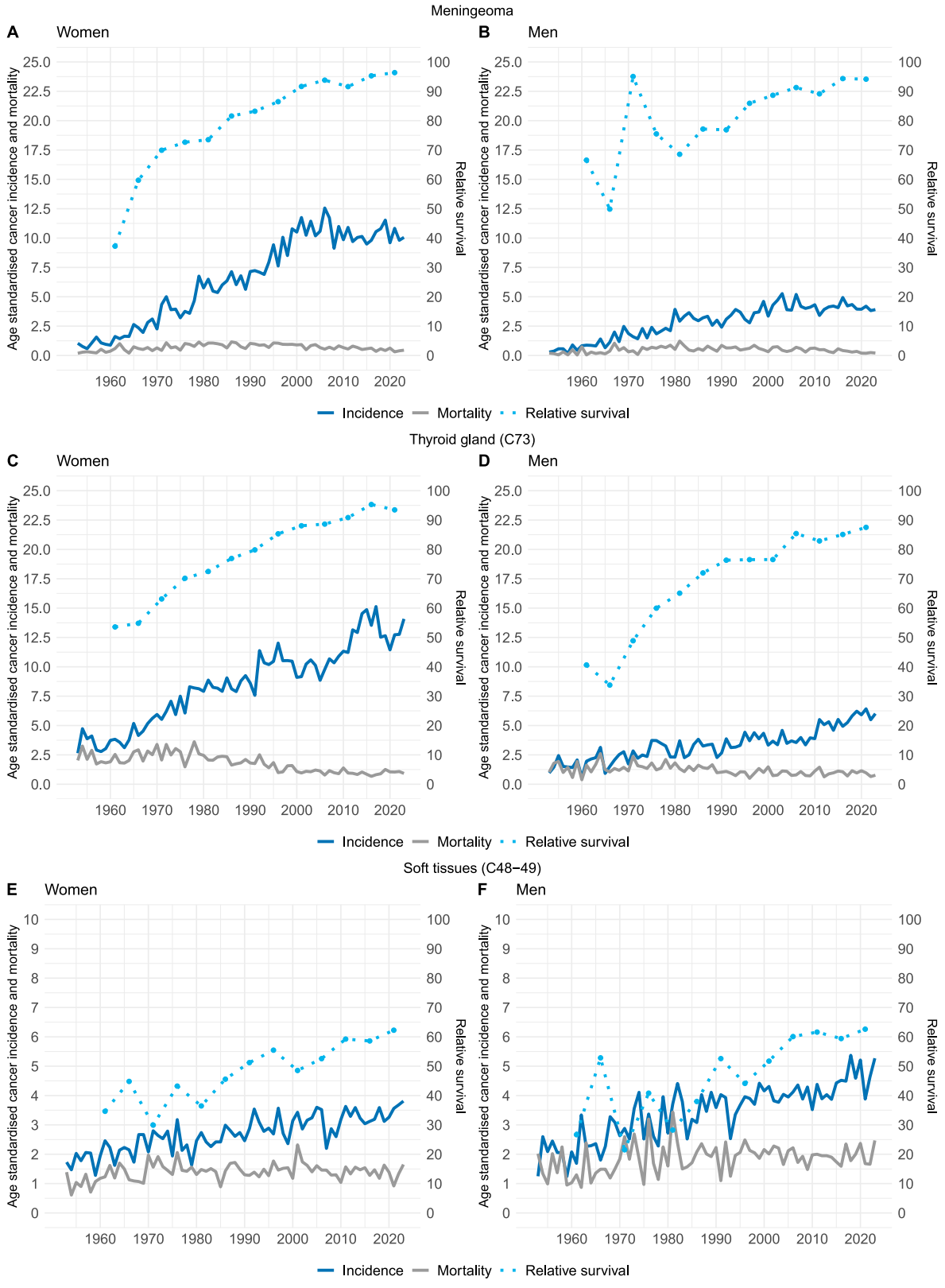

Figure 28: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

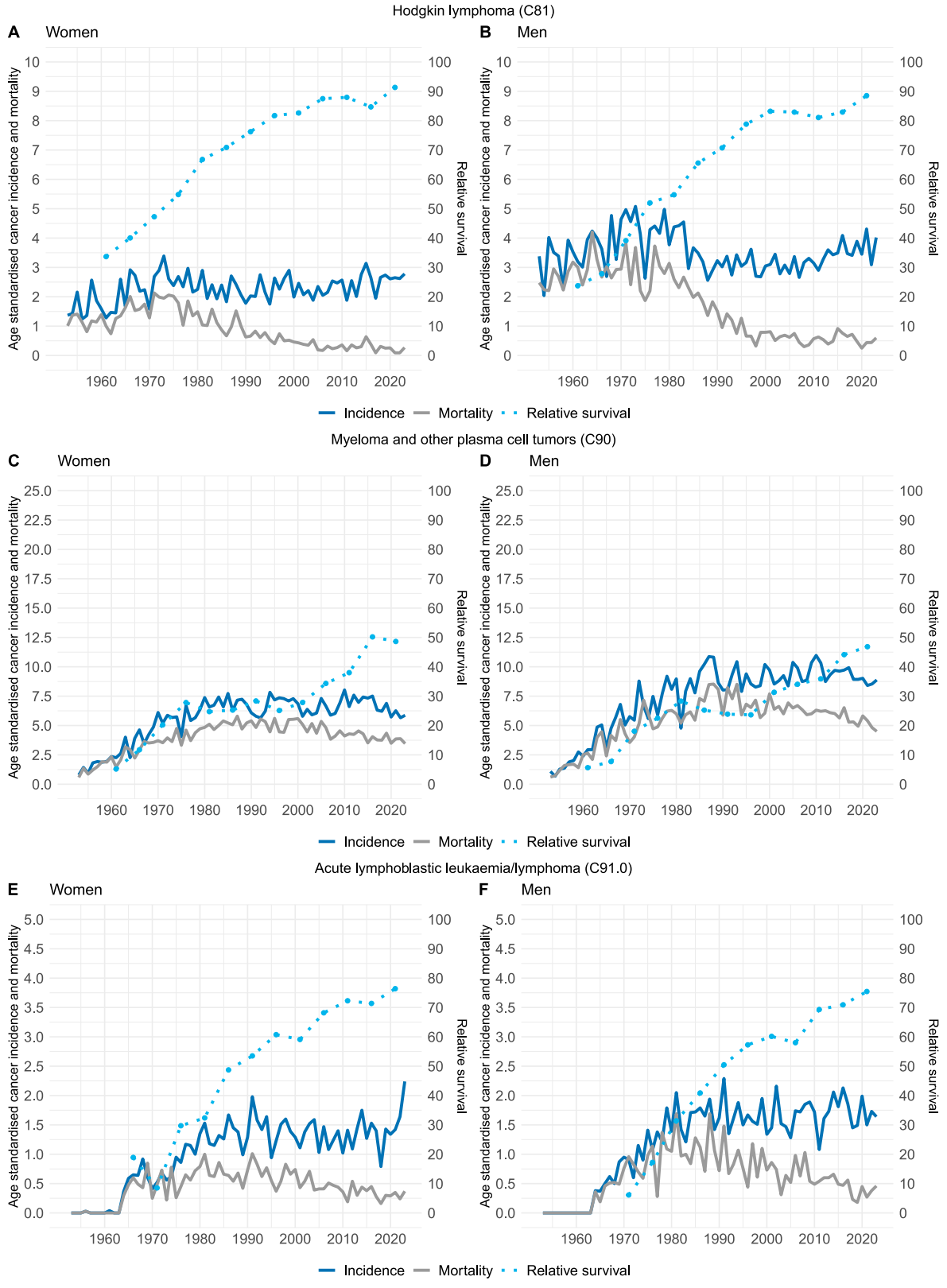

Figure 29: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

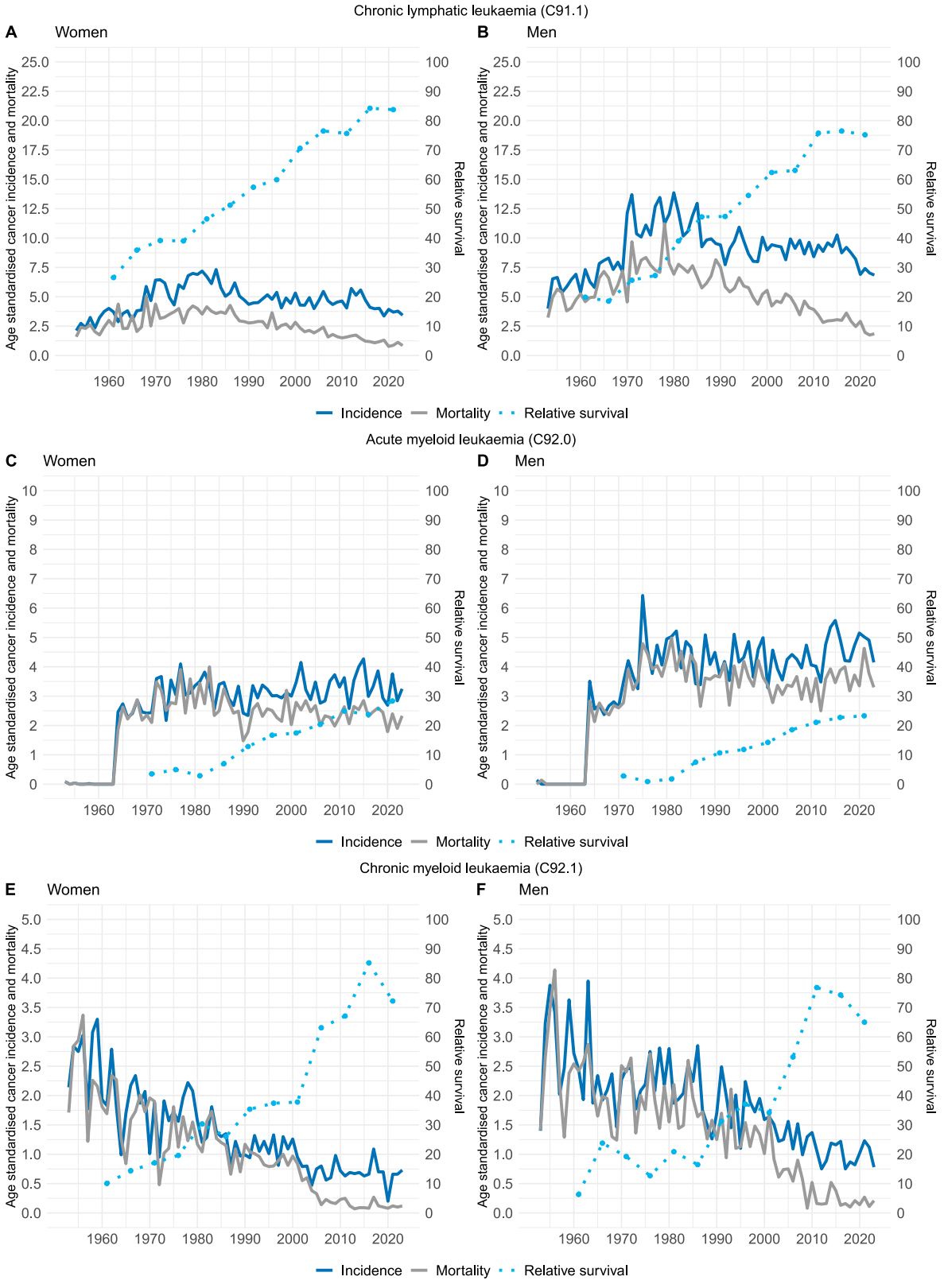

Figure 30: Cancer incidence and mortality (per 100,000 person-years and age-standardised to the 2014 Finnish population) and age-standardised five-year relative survival ratio (%) by sex in 1953–2023.

11 Predictions

The predicted number of new cancer cases diagnosed in 2040 is approximately 48 800 (Table 6). The annual number of cases is projected to increase by 25% compared to year 2023. The increase is mainly due to population ageing. The number of cancer cases in persons aged 75 and older will increase by 61% from 15 410 cases to 24 800 cases (Figure 31). The number of cases in persons under 75 years of age will remain almost unchanged in the coming years. The age-standardised incidence of cancer is expected to rise by 4%: by 5% in women and 4% in men.

The prediction for prostate cancer is not based on a model that makes use of the observed trend, as the irregular incidence trend caused by increasingly common PSA testing is not suitable as a basis for the model. The prostate cancer prediction assumed that the incidence in each age group will remain at the same level as in 2019–2023. In prostate cancer, the number of cases will increase from 5 631 to 6 470 (15% increase, Table 6). In breast cancer, the increase from 5 173 to 5 390 cases (4% increase, Table 6) will be more moderate than in prostate cancer, as the incidence of breast cancer stops increasing after the age of 65. The incidence of prostate cancer increases with age and peaks at 80 years of age.

When looking at the most common cancers types, the number of cases of melanoma of the skin will increase proportionally the most (48%, Table 6). The exceptionally large increase is due to a considerable increase in age-standardised incidence of melanoma of the skin, and the increase is projected to continue (by 26% from 2023 to 2040, Table 6). With regard to colorectal cancer, it should be noted that the prediction based on observed trends does not take into account the national screening, which is expected to significantly reduce the incidence over the next ten years.

The prediction of the incidence of lung cancer shows a clear difference between men and women (Table 6). In women, the age-standardised incidence is projected to increase until 2031. In 2040, the number of cases of lung cancer will have increased by 19% compared to 2023. In men, lung cancer will become less common, and the age-standardised incidence is predicted to decrease by 17%.

According to the prediction, age-standardised cancer mortality will continue to decrease (Table 6). The mortality from all cancers combined will decrease on average by 12% from 2023 to 2040: by 11% in women and 13% in men. In 2040, a total of 15 800 people will die from cancer, which is 16% more than in 2023. The largest decrease in mortality will be recorded for melanoma of the skin ((46%) and lung (20%) and prostate cancer (20%) in men. Mortality due to lung cancer will also decrease in women (on average by 12%), but the prediction varies by age group. Mortality will decrease by 25% in people aged 65–74. In older women, mortality due to lung cancer will increase by 6%.

Table 6: Prediction of the number of new cancer cases, the age standardised incidence, the number of cancer deaths and the age-standardised mortality in 2040 as well as the relative change (in percentages) from 2023 for all cancers and the seven most common cancer type groups. The prediction for lung cancer is presented by sex.

		Number of cases		Incidence		Deaths from cancer		Mortality	
Cancer site	ICD-10	Number	Change	Rate[1]	Change	Number	Change	Rate[1]	Change
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	48 800	25 %	670.5	4 %	15 800	16 %	191.2	-12 %
Prostate	C61	6 470	15 %	191.4	-2 %	1 260	24 %	30.0	-20 %
Colon and rectum	C18-20	6 060	33 %	81.8	10 %	1 830	19 %	22.0	-9 %
Breast (women)	C50	5 390	4 %	154.2	-8 %	952	10 %	21.8	-11 %
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	4 730	25 %	63.6	3 %	1 630	21 %	18.7	-12 %
Melanoma of the skin	C43	2 780	48 %	39.8	26 %	171	-26 %	2.0	-46 %
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	1 940	23 %	25.2	-4 %	545	41 %	6.1	-3 %
Lung, trachea (men)	C33-34	1 660	0 %	47.6	-17 %	1 270	-3 %	35.6	-20 %
Lung, trachea (women)	C33-34	1 440	19 %	33.6	-3 %	1 000	13 %	21.7	-12 %

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

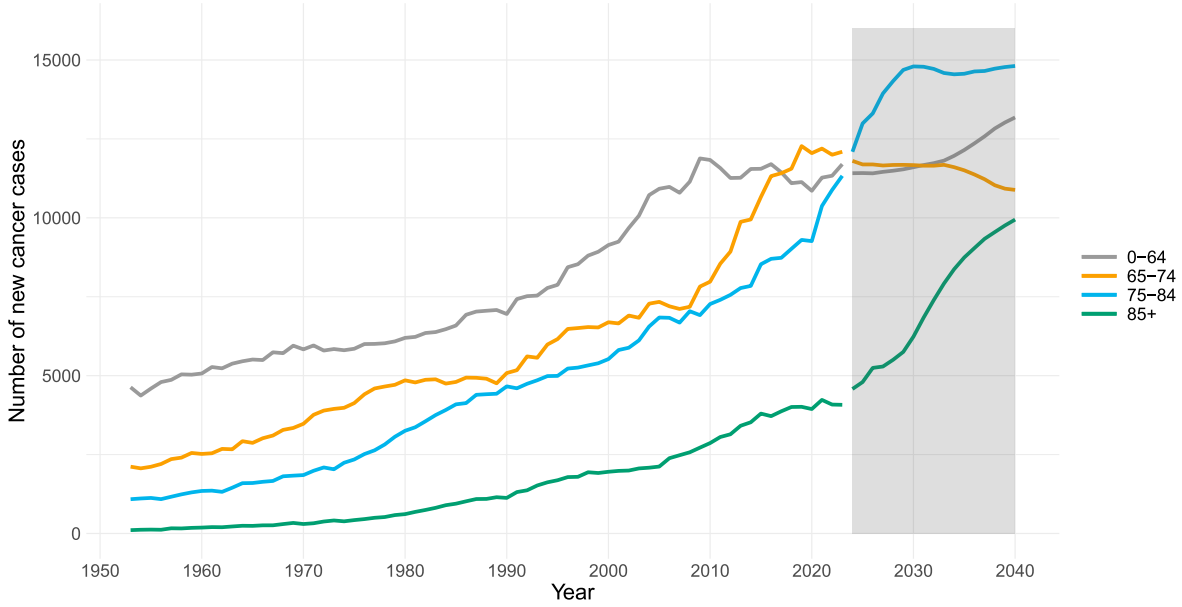

Figure 31: Annual number of new cancer cases diagnosed in 1953–2023 and the projected development until 2040 in different age groups..

At the end of 2040, there will be a projected 459,000 people in Finland (approx. 7.7% of the population, age-standardised proportion 6.2%) who have previously been diagnosed with cancer (Table 7). Cancer prevalence will increase by 38% compared to the end of 2023. When the analysis is limited to people diagnosed with cancer in the previous five years (i.e. between 2036 and 2040), the prediction is that 141,000 people will be alive, which is 28% more than at the end of 2023. The cancer prevalence is therefore expected to increase more than the number of new cases, as the prognosis for cancer patients is also expected to continue to improve.

The prevalence will increase particularly in the oldest age groups. At the end of 2040, there will be a projected 140 000 people aged between 75 and 84 living in Finland with a past cancer diagnosis. This will be a 36% increase compared to the end of 2023 (Figure 32). There will be 95 500 people over the age of 85 living with cancer, 125% more than at the end of 2023. There will be 38 400 people aged 75–84 and 21 900 people aged 85 and over with a cancer diagnosis within the last five years (Figure 33).

When examined by cancer disease, people with breast cancer and prostate cancer have the highest survival rates. At the end of 2040 in Finland, predictions show that there will be 102,000 women who have had breast cancer during their lifetime and 77,600 men who have had prostate cancer (Table 7). Of those diagnosed in the previous five years, 24,300 people with breast cancer and 27,800 people with prostate cancer will still be alive. Based on predictions, the prevalence of colorectal cancer will increase the most, but this is based on previous trends and does not take into account the screening programme launched in 2022, which is expected to reduce the incidence of colorectal cancer.

Table 7: Prediction of number of people alive with a previously diagnosed cancer, of age-standardised prevalence at the end of 2040 and of relative change (in percentages) from 2023 for all cancers and the most common cancers. Prevalence is presented for all individuals and separately for those diagnosed with cancer within the last five years.

		All				Less than 5 years since diagnosis			
		Number of people		Prevalence		Number of people		Prevalence	
Cancer site	ICD-10	Number	Change	Rate[1]	Change	Number	Change	Rate[1]	Change
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	459000	38 %	6 188	16 %	141000	28 %	2 008	12 %
Breast	C50	102000	21 %	2 604	4 %	24300	7 %	701	-4 %
Prostate	C61	77600	23 %	2 084	-5 %	27800	19 %	810	1 %
Colon and rectum	C18-20	58300	76 %	743	43 %	22400	59 %	302	35 %
Lung, trachea	C33-34	9030	24 %	119	6 %	4830	8 %	66	-4 %

[1] per 100,000 persons and age-standardised to the population of Finland in 2014

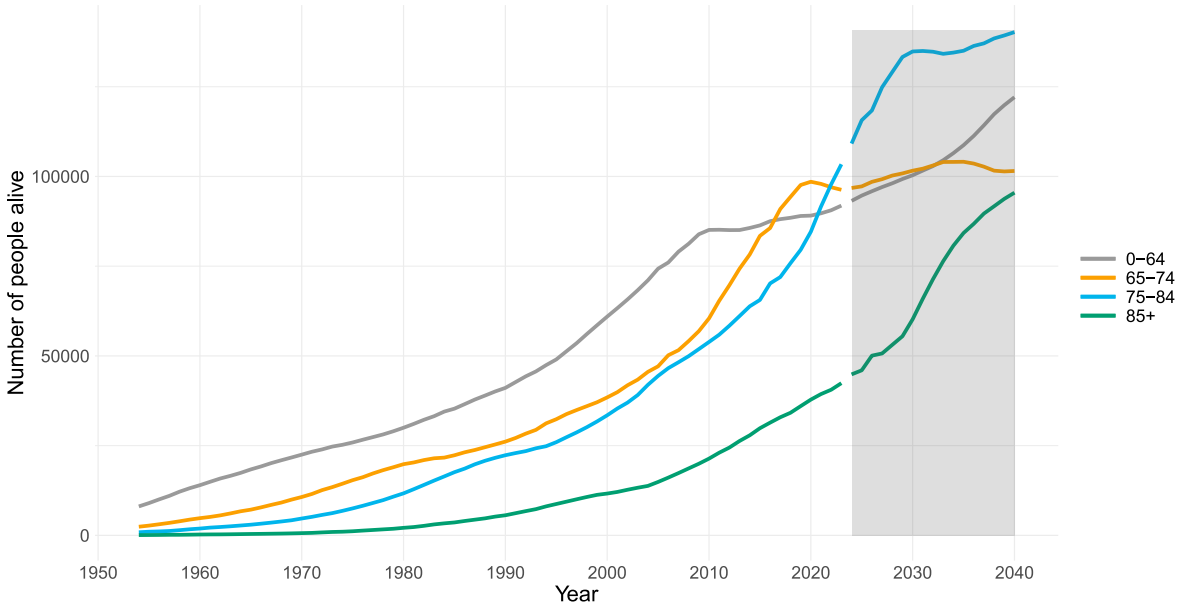

Figure 32: Number of people alive with a previous cancer diagnosis, 1953–2023 and projected trend until 2040 for different age groups.

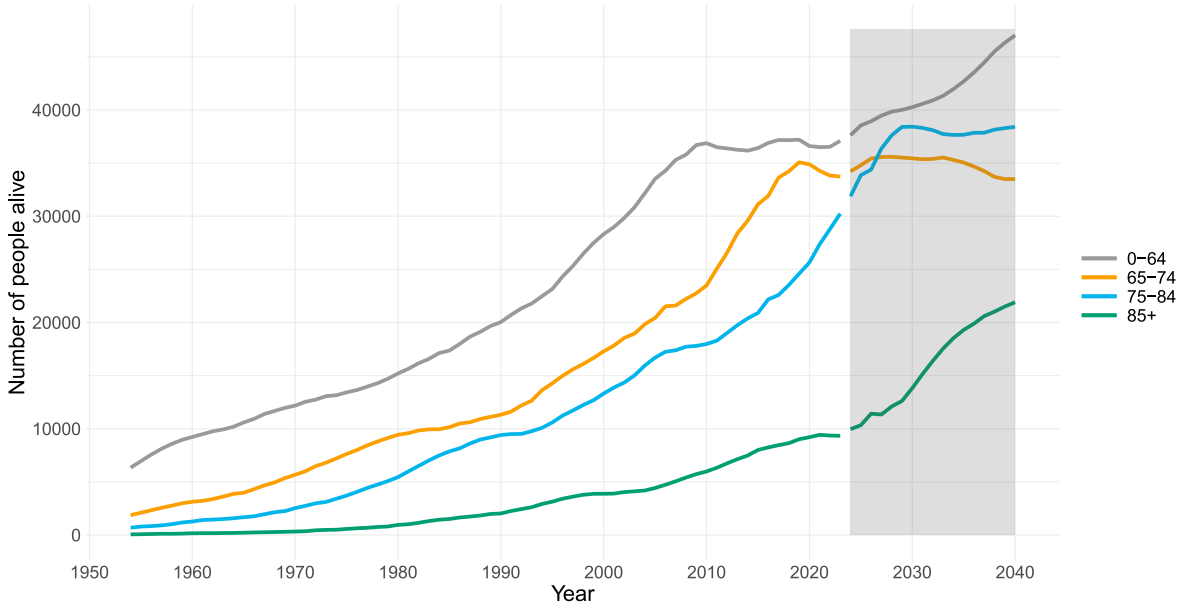

Figure 33: Number of people alive with a previous cancer diagnosis, 1953–2023 and projected trend until 2040 for different age groups. The number is limited to persons with a cancer diagnosis within the last five years.

12 Regional statistics

Figures Figure 34 – Figure 38 show the age-standardised incidence of cancer, the five-year relative survival rate of people diagnosed with prostate, breast (women), colorectal or lung cancer in 2019–2023 and the age-standardised mortality in 2019–2023 in the wellbeing services counties and Helsinki. Tables Table 16 – Table 20 show, in addition to the information above, the number of new cancer cases, the number of people diagnosed in 2019–2023 who were alive at the end of 2023, and the number of cancer deaths. These statistics are also presented in the tables for collaborative areas and for Finland as a whole. A 95% confidence interval estimating the statistical random error is also presented for age-standardised incidence, survival and mortality.

12.1 Prostate cancer

A total of 26 748 cases of prostate cancer were diagnosed in Finland between 2019 and 2023, which is an average of 5 350 new cases per year, with an age-standardised incidence of 191.3. The incidence of prostate cancer was significantly higher than the national average in the Inland Finland collaborative area (204.1) and in the wellbeing services counties of Päijät-Häme, South Savo, Ostrobothnia, Central Ostrobothnia and Lapland. The incidence was significantly lower than the national average in the Southern Finland collaborative area (182.6) and in the wellbeing services counties of Satakunta, Kainuu and North Ostrobothnia.

The age-standardised five-year relative survival rate (five-year prognosis) for prostate cancer patients diagnosed between 2019 and 2023 was 93.8% nationwide. There were no significant differences between wellbeing services counties in the prognosis.

At the end of 2023, there were 23 250 people alive in Finland who had been diagnosed with prostate cancer no more than five years earlier (i.e. the cancer had been diagnosed between 2019 and 2023). Between 2019 and 2023, a total of 4 764 men died from prostate cancer, and the age-standardised mortality rate was 37.3. Prostate cancer mortality was higher than the national average in the wellbeing services counties of North Karelia, Satakunta and Lapland, while in the wellbeing services county of West Uusimaa, it was significantly lower than the national average (31.6).

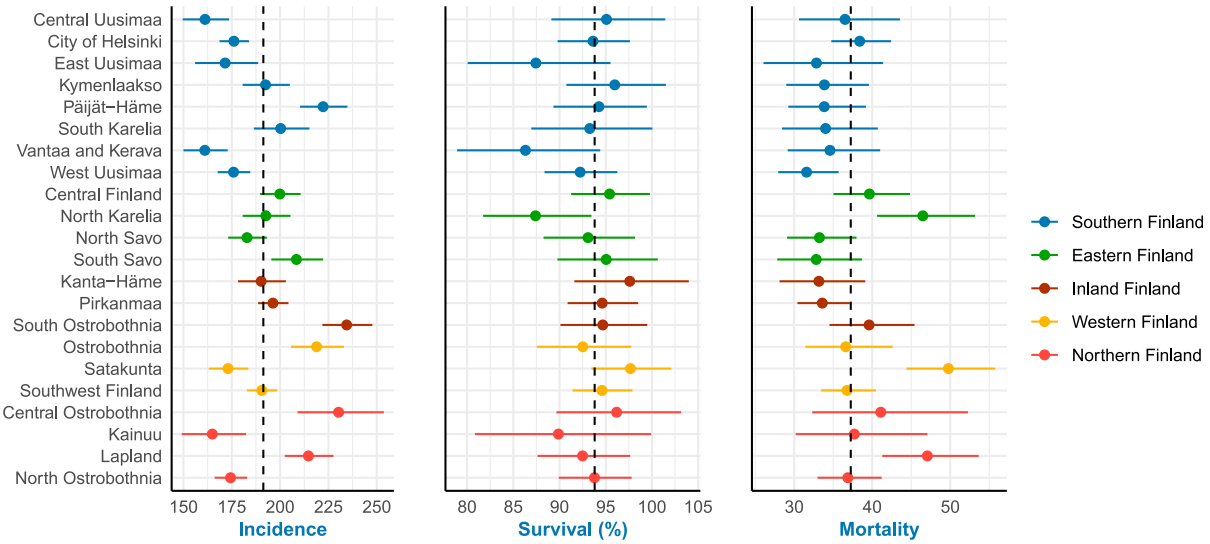

Figure 34: Age-standardised incidence of prostate cancer (per 100,000 person-years) in 2019–2023, five-year relative survival rate of patients diagnosed in 2019–2023, and cancer mortality (per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki.

12.2 Breast cancer (women)

A total of 25 189 cases of breast cancer were diagnosed in Finland between 2019 and 2023. On average, this was 5 038 new cases per year, with an age-standardised incidence of 165.3 in the whole country. The age-standardised incidence of breast cancer was significantly lower than the national average in the Northern Finland collaborative area (143.5) in all wellbeing services counties, and higher in the Southern and Western Finland collaborative areas (172.9 and 172.7). Examined by wellbeing services county, the incidence was significantly lower than the national average in the wellbeing services counties of South Savo, North Karelia and Ostrobothnia, and higher in Helsinki and the wellbeing services counties of West Uusimaa, Vantaa and Kerava, and Southwest Finland.

The age-standardised five-year relative survival rate (five-year prognosis) for breast cancer patients diagnosed be- tween 2019 and 2023 was 93.0% nationwide. The prognosis was significantly better than the national prognosis in the Central Ostrobothnia wellbeing services county, while the prognoses for other counties did not differ sig- nificantly from the nationwide figure.

At the end of 2023, there were 22 724 people alive in Finland who had been diagnosed with breast cancer no more than five years earlier (i.e. the cancer had been diagnosed between 2019 and 2023). Between 2019 and 2023, a total of 4 506 women died from breast cancer, and the age-standardised mortality rate for the whole of Finland was 26.4. The mortality rate in Helsinki was significantly higher than the national average (32.7), while the mortality in the North Ostrobothnia wellbeing services county was lower (20.1).

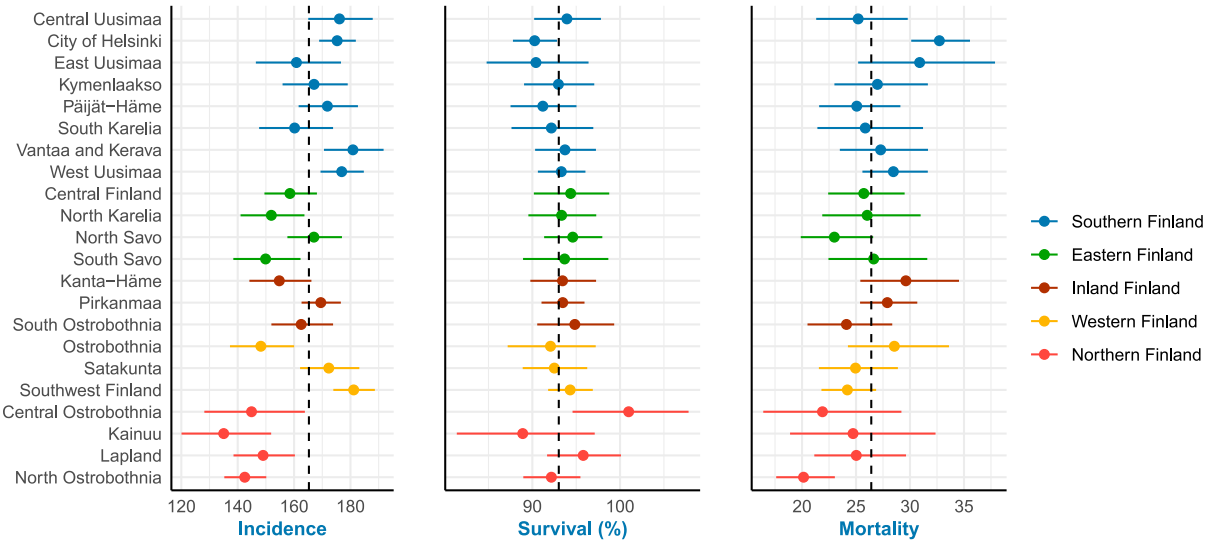

Figure 35: Age-standardised incidence of breast cancer in women (per 100,000 person-years) in 2019–2023, five- year relative survival rate of patients diagnosed in 2019–2023, and cancer mortality (per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki.

12.3 Colorectal cancer

A total of 19 889 cases of colorectal cancer were diagnosed in Finland between 2019 and 2023 On average, this was 3 978 new cases per year, with an age-standardised incidence of 65.0 nationwide. Of these, 9 064 cases were diagnosed in women (incidence 53.9) and 10 825 cases in men (incidence 78.7). The age-standardised incidence of colorectal cancer was significantly lower than the national average in the Northern and Eastern Finland collab- orative areas (58.6 and 61.7), due in particular to the low incidence in the wellbeing services counties of North Karelia, North Savonia and North Ostrobothnia, and higher in the wellbeing services counties of Kymenlaakso and Päijät-Häme.

The age-standardised five-year relative survival rate (five-year prognosis) for colorectal cancer patients diagnosed between 2019 and 2023 was 69.8% nationwide. The prognosis was significantly better than the national prognosis in the wellbeing services counties of Central Uusimaa and Kanta-Häme, while the prognoses for other counties did not differ significantly from the nationwide figure.

At the end of 2023, there were 13 814 people alive in Finland who had been diagnosed with colorectal cancer no more than five years earlier (i.e. the cancer had been diagnosed between 2019 and 2023). Between 2019 and 2023, a total of 7 002 people died from colorectal cancer, and the age-standardised mortality rate in the whole country was 22.3. Mortality rates significantly higher than the national average were recorded in the wellbeing services counties of Kymenlaakso (26.4), South Ostrobothnia (26.0), Pirkanmaa (24.6) and Satakunta (25.8).

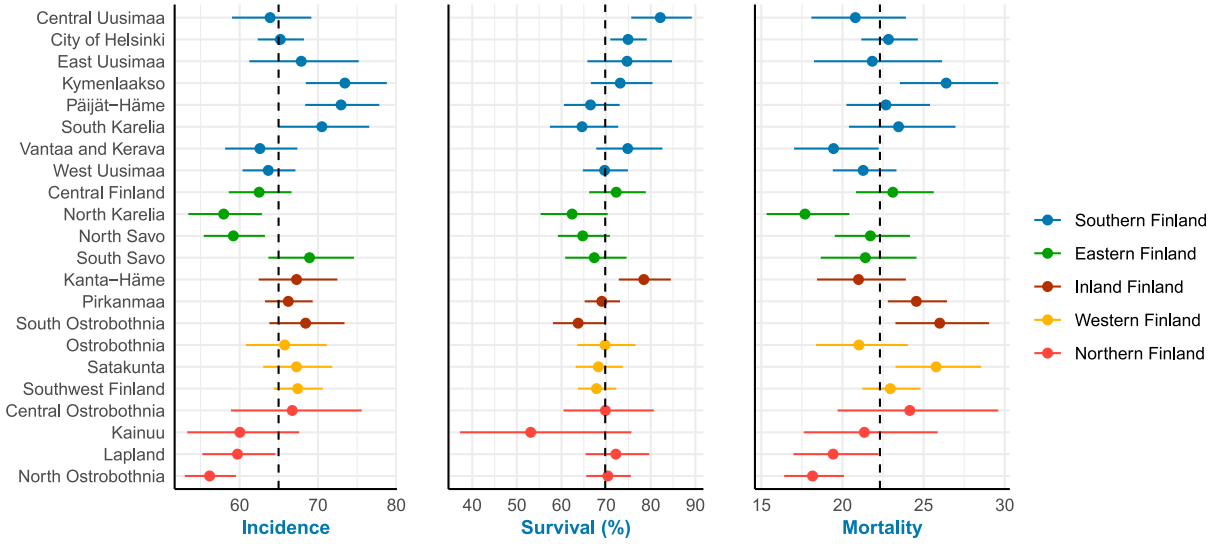

Figure 36: Age-standardised incidence of colorectal cancer (per 100,000 person-years) in 2019–2023, five-year relative survival rate of patients diagnosed in 2019–2023, and cancer mortality (per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki.

12.4 Lung cancer

In Finland, a total of 14 926 new cases of lung cancer were diagnosed between 2019 and 2023, of which 6 030 in women and 8 896 in men. This was an average of 1 206 new cases per year in women and 1 779 in men. The age-standardised incidence of lung cancer was 35.4 in women and 63.2 in men. The incidence of lung cancer in women was significantly higher than the national average in Helsinki (43.6), the wellbeing services counties of Vantaa and Kerava (45.2) and Lapland (45.7), and lower than the national average in the Eastern Finland collaborative area (27.7). The incidence of lung cancer in men was higher than the national average in the wellbeing services county of Lapland (82.4) and lower in the wellbeing services county of Central Ostrobothnia (49.0).

The age-standardised five-year relative survival rate (five-year prognosis) for lung cancer patients diagnosed be- tween 2019 and 2023 was 25.6% in women and 16.2% in men nationwide. The figures for the wellbeing services counties did not differ significantly from the figures for Finland as a whole. The five-year prognosis for men in the wellbeing services county of Central Finland was significantly higher than the national average (23.4%).

At the end of 2023, there were 4 434 people, 2 138 women and 2 296 men, alive in Finland who had been diagnosed with lung cancer no more than five years earlier (i.e. the cancer had been diagnosed between 2019 and 2023). Between 2019 and 2023, a total of 4 377 women and 7 228 men died from lung cancer;

the age-standardised mortality rate in the whole country was 25.1 for women and 51.7 for men. The age-standardised lung cancer mortality rate in women was higher than the national average in the Southern Finland (27.7) and Northern Finland (28.6) collaborative areas (in Helsinki and the wellbeing services counties of Vantaa and Kerava and Lapland) and lower in the Eastern Finland collaborative area (19.9) (in the wellbeing services counties of Central Finland and North Savo) and the wellbeing services county of South Ostrobothnia (20.4). The age-standardised mortality rate in men was significantly higher than the national average in the wellbeing services counties of Kymenlaakso (59.5) and Lapland (66.7) and lower in the wellbeing services counties of North Savo (43.9), Pirkanmaa (45.8) and Central Ostrobothnia (37.6).

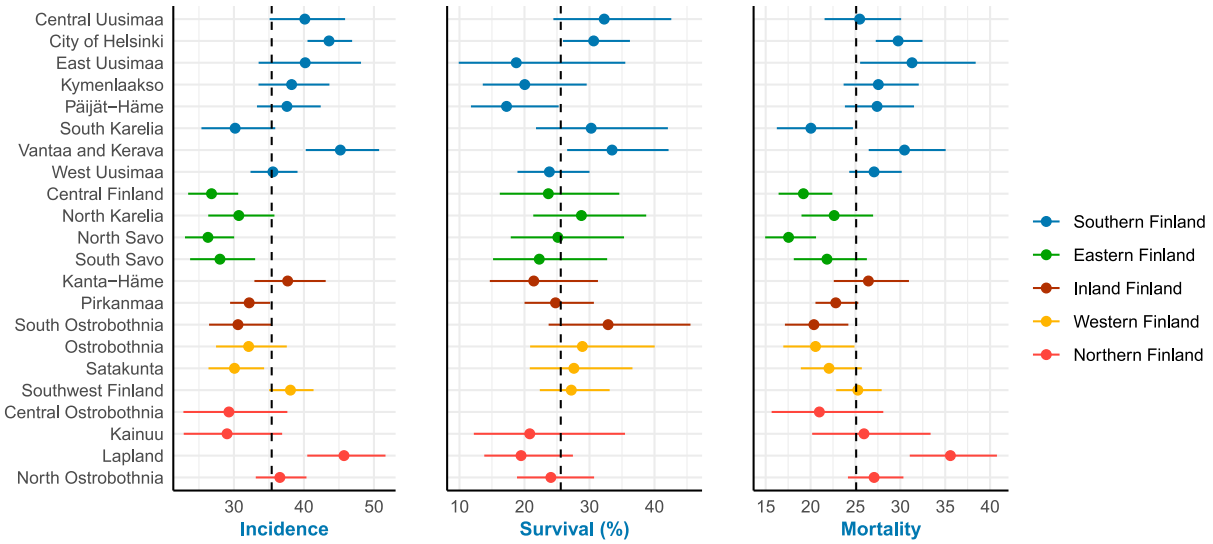

Figure 37: Age-standardised incidence of lung cancer in women (per 100,000 person-years) in 2019–2023, five- year relative survival rate of patients diagnosed in 2019–2023, and cancer mortality (per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki.

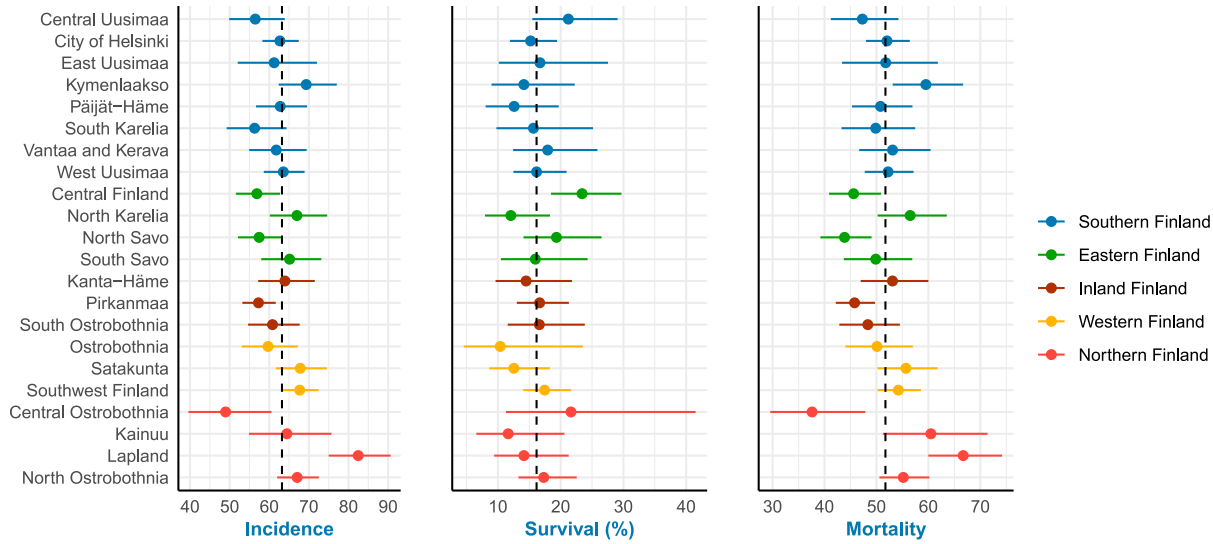

Figure 38: Age-standardised incidence of lung cancer in men (per 100,000 person-years) in 2019–2023, five-year relative survival rate of patients diagnosed in 2019–2023, and cancer mortality (per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki.

13 Educational level and cancer burden

In the statistics presented by level of education, the population was divided into three groups according to the highest degree obtained (see Statistical methods, definitions). Figures Figure 39 – Figure 42 show the age-standardised cancer incidence and cancer mortality rates for women and men aged 25 and over per 100,000 person-years by level of education. In terms of incidence, the analysis covered the ten most common cancer types. In terms of mortality, it covered the ten cancer types with the highest mortality rates. In the case of women, the examination also covered cervical cancer and liver cancer, which have previously been found to differ in incidence or mortality by level of education.

13.1 Cancer incidence by level of education

In women, the differences between educational levels in the incidence of cancer (Figure 39) were proportionally greatest for lung and tracheal cancer. The incidence of lung and tracheal cancer at the basic education level was more than double the incidence at the tertiary education level (78.3 vs 31.1, risk ratio (RR) at basic level 2.32, 95% confidence interval [2.16, 2.50]). The incidence of cervical cancer was highest among those with a basic level of education and lowest among those with a higher education (12.9 vs 7.1, RR at basic level 1.79 [1.49, 2.15])), as were liver and pancreatic cancer (liver cancer incidence 9.2 vs 5, RR at basic level 1.73 [1.43, 2.09] and pancreatic cancer incidence 31.6 vs 24.9, RR at basic level 1.22 [1.12, 1.34]). The differences in the incidence of melanoma of the skin were also considerable, albeit in the opposite direction. The incidence was highest at the tertiary level (44.3) and lowest at the basic level (26.5, RR 0.62 [0.57, 0.68] compared to those with a higher education).

Breast cancer was also more common among those with a tertiary-level education (260.6) than among those with a basic education (198.7). At the basic level of education, the RR of breast cancer was 0.77 [0.75, 0.80] compared to those with a higher education. At the basic level of education, therefore, the incidence of breast cancer was almost a quarter (23%) lower than among those with a higher education. The differences in the incidence of colorectal cancer were very small: the incidence was approximately 6% higher at the basic level (77.6) than at the tertiary level (72.6), RR 1.06 [1.01, 1.12]..

In men, the greatest differences in cancer incidence between education levels were observed for lung and tracheal cancer (Figure 40). The incidence of lung and tracheal cancer at the basic education level was approximately 2.5 times higher than among those with a higher education (127.1 vs 47, RR at basic level 2.67 [2.51, 2.84] compared to the higher education level). The incidence of liver, bladder, pancreatic and kidney cancer was also highest among those with a basic education and lowest among those with a higher education (liver cancer 26.2 vs 15.1, RR 1.68 [1.49, 1.88]; bladder and urinary tract 64.6 vs 53, RR 1.20 [1.13, 1.29]; pancreatic cancer 38.9 vs 32.7, RR 1.16 [1.06, 1.26]; and kidney cancer 34.1 vs 29.9, RR 1.10 [1.00, 1.20]). Melanoma of the skin, squamous cell carcinoma of the skin and prostate cancer, on the other hand, were less common among those with a basic education than among those with a higher education (melanoma of the skin 35.3 vs 64.4, RR 0.57 [0.53, 0.61] and squamous cell carcinoma of the skin 57.3 vs 67.6, RR 0.84 [0.79, 0.89], prostate cancer 249.2 vs 290.2, RR 0.87 [0.85, 0.90]). The differences in the incidence of colorectal cancer between the basic and tertiary education levels were small and not statistically significant (109.6 vs 107, RR 1.04 [0.99, 1.09]).

Figure 39: Incidence of cancer in women (per 100,000 person-years and age-standardised to the 2014 Finnish population) in the population aged over 25 by level of education in 2019–2023.

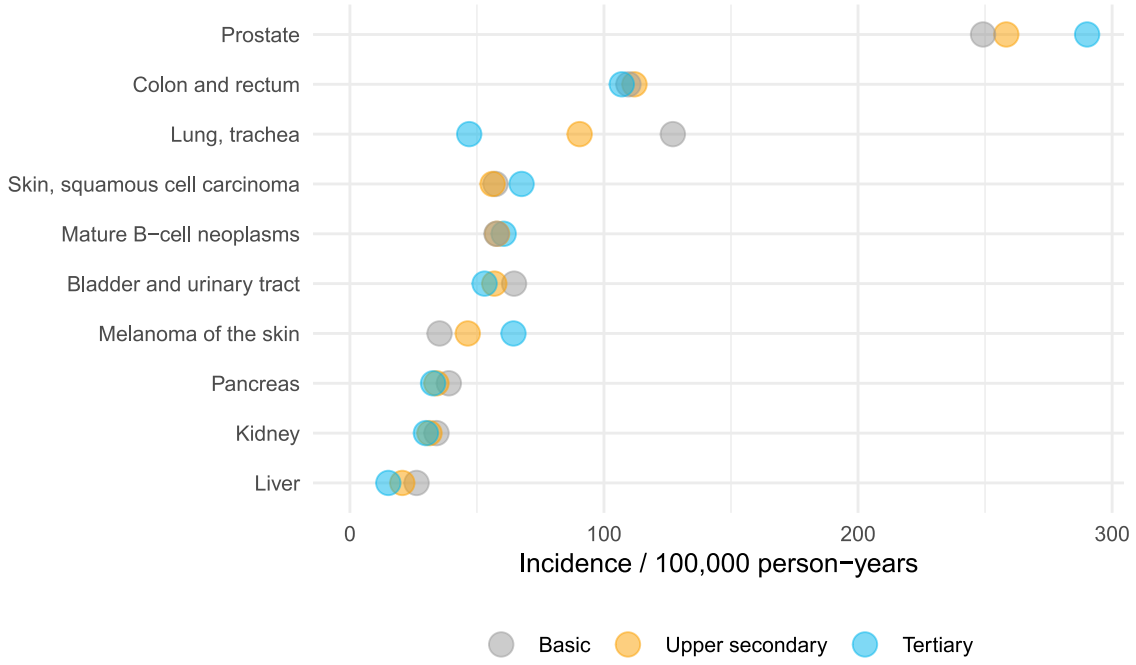

Figure 40: Incidence of cancer in men (per 100,000 person-years and age-standardised to the 2014 Finnish population) in the population aged over 25 by level of education in 2019–2023.

13.2 Cancer mortality by level of education

Cancer mortality also showed differences between educational levels. In women, the mortality rate was overall highest at the basic level of education (Figure 41). The greatest statistically significant difference was observed for cervical cancer, where the mortality was more than 3,5 times higher among those with a basic level of education than among those with a higher education (4.1 vs 1.1, RR 3.62 [2.48, 5.28]). For lung and tracheal cancer, the difference was 2.5-fold (57.8 vs 19.8, RR 2.71 [2.48, 2.97]). There was also a more than 1.5-fold difference in liver and stomach cancer mortality between the basic and the tertiary level (liver cancer 7.9 at basic level vs 4.2 at tertiary level, RR 1.72 [1.40, 2.11]; stomach cancer 9 vs 5, RR 1.64 [1.35, 1.99]). The mortality rates for gallbladder and bile duct cancer, endometrial cancer, pancreatic cancer, colorectal cancer and ovarian cancer were also highest among those with basic level of education and lowest among those with a higher education (gallbladder and bile duct 7.7 vs 5.5, RR 1.36 [1.13, 1.64]; endometrial cancer 9.5 vs 7.1, RR 1.34 [1.14, 1.59]; pancreatic cancer 29.6 vs 22.7, RR 1.26 [1.14, 1.38]; colorectal cancer 27.9 vs 22.2, RR 1.19 [1.08, 1.31]; ovarian cancer 17.6 vs 15, RR 1.12 [1.00, 1.27]). In the case of breast cancer mortality, there were no differences between education levels (RR 1.03 [0.95, 1.11]).

In men, the mortality rate was highest at the basic and lowest at the tertiary level of education for all cancer types examined (Figure 42). The difference was particularly marked in the case of lung and tracheal cancer, where the mortality among men with basic-level qualifications was more than 2.5 times higher than among men with a tertiary-level education (104.1 vs 37.5, RR 2.78 [2.60, 2.98]). The difference in mortality was also significant in the case of oesophageal cancer, where the mortality at the basic education level was double the mortality at the tertiary level (15.1 vs 7.5, RR 1.97 [1.67, 2.32]). Stomach cancer had a 63% higher and liver cancer a 60% higher mortality rate at the basic education level compared to the higher level (stomach cancer 16.1 vs 10, RR 1.63 [1.41, 1.89]; liver cancer 21.3 vs 12.6, RR 1.60 [1.41, 1.82]). In the case of colorectal cancer and prostate cancer, the mortality rate among those with a basic level of education was more than one-third higher than among those with a tertiary level of education: 44.2 vs 33.5 (RR 1.35 [1.24, 1.46]) for colorectal cancer and 58.4 vs 43.3 (RR 1.35 [1.25, 1.45]) for prostate cancer.

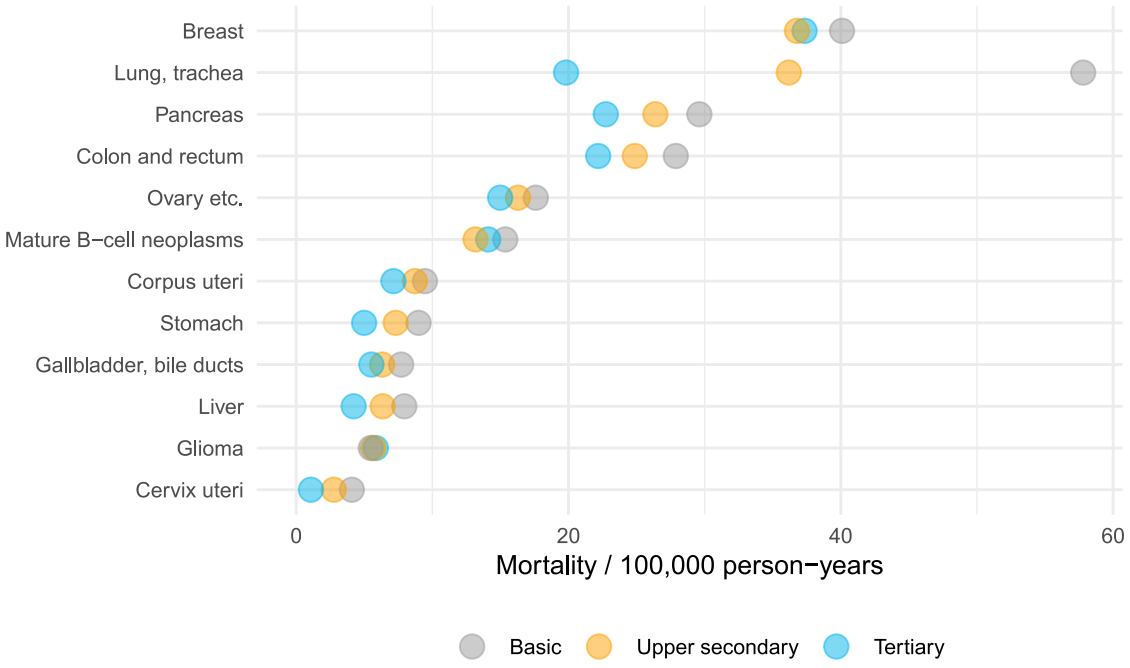

Figure 41: Cancer mortality in women (per 100,000 person-years and age-standardised to the 2014 Finnish pop- ulation) in the population aged over 25 by level of education in 2019–2023.

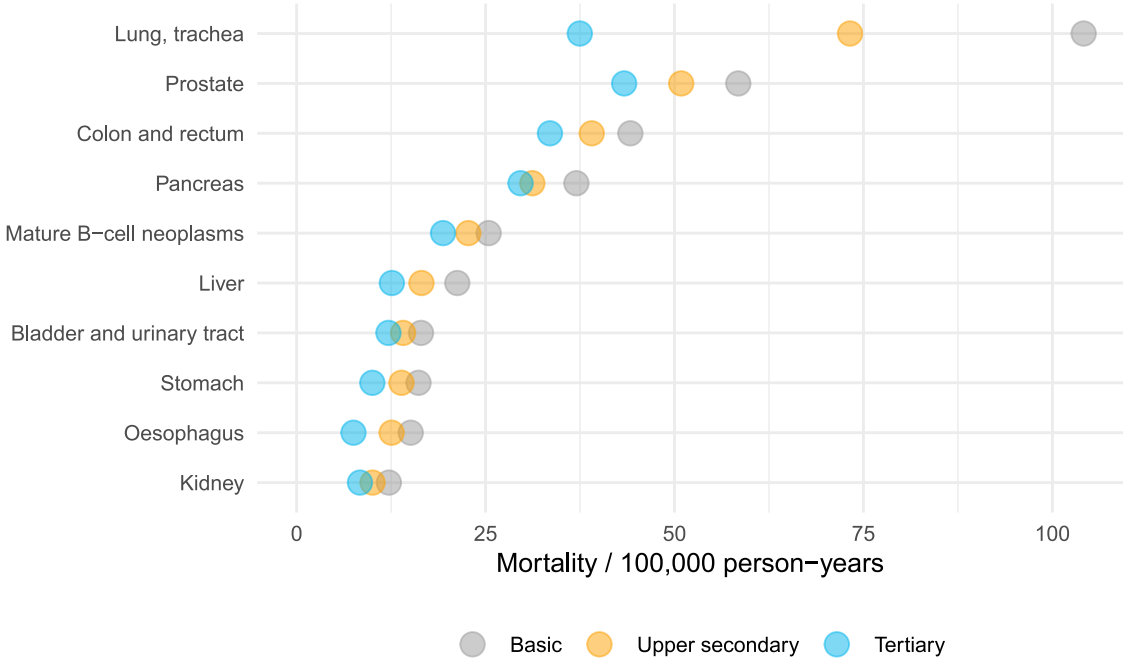

Figure 42: Cancer mortality in men (per 100,000 person-years and age-standardised to the 2014 Finnish popula- tion) in the population aged over 25 by level of education in 2019–2023.

14 Tables

14.1 Incidence, mortality and prevalence

Table 8: Number and age-standardised rate of new cancer cases and deaths in 2023 and number and age-standardised proportion of cancer survivors in the population on 31 December 2023, female.

		Incidence		Mortality		Prevalence	
Cancer site	ICD-10	Count	Rate[1]	Count	Rate[1]	Count	Proportion[2]
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	18553	565.17	6281	172.74	186589	5561.9
Mouth, pharynx	C00-14	322	9.83	99	2.79	3011	89.8
Lip	C00	32	0.91	–	0.07	276	7.1
Tongue	C02	81	2.47	27	0.78	764	22.8
Salivary glands	C07-08	39	1.29	10	0.25	575	17.5
Mouth, other or unspecified	C03-06	98	2.80	37	1.01	802	22.9
Pharynx	C01,C09-14	72	2.36	22	0.67	661	21.4
Digestive organs	C15-26	3592	104.79	2093	57.05	20905	591.4
Oesophagus	C15	90	2.52	88	2.39	243	6.7
Stomach	C16	240	6.89	175	4.93	1565	44.3
Small intestine	C17	114	3.60	33	0.88	823	24.7
Colon and rectum	C18-20	2070	61.18	699	18.87	16422	460.1
Colon	C18	1429	41.74	482	12.87	10989	306.4
Rectum, rectosigmoid	C19-20	641	19.44	217	6.00	5564	157.2
Anus	C21	52	1.61	14	0.36	393	11.9
Liver	C22	141	4.07	153	4.14	279	8.3
Gallbladder, bile ducts	C23-24	160	4.62	166	4.62	386	10.9
Pancreas	C25	606	17.07	673	18.42	883	26.8
Digestive organs, other and unspecified	C26	119	3.22	92	2.44	105	3.1
Respiratory and intrathoracic organs	C30-39	1296	36.99	925	25.60	4065	116.7
Nose, sinuses	C30-31	24	0.76	12	0.31	170	5.2
Larynx, epiglottis	C32	16	0.51	9	0.23	166	5.0
Lung, trachea	C33-34	1217	34.53	889	24.67	3585	102.0
Other or unspecified respiratory or intrathoracic organs	C37-39	39	1.18	15	0.39	159	5.0
Breast	C50	5173	168.32	865	24.56	84004	2494.6
Female genital organs	C51-58	1855	56.72	777	21.75	23618	685.3
Cervix uteri	C53	193	6.72	51	1.65	3267	110.4
Corpus uteri	C54	916	27.61	211	5.82	13354	365.3
Ovary etc.	C48.1-2 (Serous), C56, C57.0-4	550	16.92	397	11.22	5845	176.9
Vulva	C51	107	3.03	43	1.14	974	27.3
Vagina	C52	29	0.81	16	0.41	179	5.2
Placenta	C58	–	0.12	0	0.00	84	2.9
Female genital, other and unspecified	C55,C57.5-9	57	1.51	59	1.52	161	4.5
Urinary organs	C64-68,D09.0-1,D41.1-9	749	21.41	257	6.68	7094	198.6
Kidney	C64	376	11.21	133	3.57	4149	119.9
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	373	10.21	124	3.12	2978	79.6
Skin	C43-44	1893	54.22	101	2.66	20437	591.1
Melanoma of the skin	C43	827	26.25	78	2.13	12324	381.4
Skin, squamous cell carcinoma	C44 (Squamous cell)	978	25.56	15	0.35	7507	190.8
Skin, other	C44 (Other)	88	2.41	8	0.19	929	27.0
Eye	C69	25	0.83	15	0.40	475	14.5
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	1019	33.15	211	6.37	11283	354.8
Glioma	–	174	5.93	141	4.43	1538	54.6
Meningeoma	–	302	10.06	15	0.45	6028	181.8
CNS, nerve sheet tumor	–	87	2.92	–	0.04	1512	47.5
Other and unspecified tumor of brain, meninges and central nervous system	–	456	14.23	54	1.45	2341	75.3
Endocrine glands	C73-75	463	15.45	40	1.13	9313	300.0
Thyroid gland	C73	423	14.08	34	0.92	8948	287.8
Adrenal gland	C74	25	0.89	6	0.21	276	9.4
Other endocrine glands	C75	15	0.48	0	0.00	101	3.2
Mesothelioma	C45	24	0.64	24	0.64	60	1.7
Bone	C40-41	24	0.80	9	0.27	453	15.2
Soft tissues	C48-49	124	3.81	58	1.65	1283	39.4
Peripheral nerves, autonomic nervous system	C47	–	0.07	–	0.06	115	4.0
Illdefined or unknown	C76,C80	262	7.03	202	5.21	567	16.8
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	1730	51.11	603	15.92	16088	488.3
Hodgkin lymphoma	C81	79	2.78	10	0.27	1751	61.7

Table 8: (continuation)

Cancer site	ICD-10	Incidence		Mortality		Prevalence	
		Count	Rate[1]	Count	Rate[1]	Count	Proportion[2]
Mature B-cell neoplasms	–	922	26.80	356	9.33	8479	242.3
Chronic lymphatic leukaemia	C91.1	119	3.43	35	0.84	1415	38.9
Diffuse B lymphoma	C83.3	302	8.64	136	3.71	2579	74.3
Follicular B lymphoma	C82	161	4.82	20	0.49	2157	61.6
Myeloma and other plasma cell tumors	C90	205	5.87	132	3.46	1223	35.4
Burkitt's lymhoma/leukaemia	C83.7	–	0.14	–	0.02	75	2.5
Marginal zone lymphoma	C83.8	69	2.04	13	0.33	733	21.1
Mantle cell lymphoma	C83.1	32	0.93	17	0.42	223	6.2
Malignant immunoproliferative diseases	C88	25	0.76	–	0.03	226	6.4
Other mature B-cell neoplasms	–	5	0.17	–	0.02	78	2.4
Mature T and NK cell lymphomas/leukaemias	C84	51	1.51	11	0.32	562	17.4
Mature T-cell neoplasias of the skin	C84.0-1	15	0.47	–	0.02	289	8.9
Other T and NK cell lymphomas/leukaemias	C84.3-5	36	1.03	10	0.30	276	8.6
Acute lymphoblastic leukaemia/lymphoma	C91.0	60	2.24	11	0.37	974	36.0
Acute myeloid leukaemia	C92.0	110	3.25	86	2.33	660	22.1
Non-Hodgkin lymphoma, other or unspeficied	C85	59	1.57	26	0.65	739	21.1
Leukaemia, other or unspecified	C95	19	0.55	13	0.34	92	3.0
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3	328	9.62	38	0.99	2574	77.2
Chronic myeloid leukaemia	C92.1	25	0.73	5	0.12	296	9.7
Polycythaemia vera	D45	80	2.23	10	0.25	615	17.6
Myelofibrosis	D47.1	41	1.27	7	0.21	247	7.3
Essential thrombocythemia	D47.3	147	4.35	11	0.29	1202	36.2
Myeloproliferative neoplasm, other	D47.1	35	1.03	5	0.13	342	10.2
Myelodysplastiset ja myelodysplastiset/-proliferatiiviset oireyhtymät	–	99	2.71	51	1.30	332	9.3
Myelodysplastic syndromes	D46	82	2.26	45	1.15	261	7.4
Myelodysplastic/myeloproliferative neoplasms	–	17	0.45	6	0.15	72	2.0
Other, unspecified or mixed hematological disease	C96, D76	–	0.10	–	0.04	126	4.4
Mastocytosis	C96.2	0	0.00	0	0.00	57	2.0
Histiocytic and denritic cell neoplasms	C96.1, D76	–	0.08	–	0.04	52	1.9
Other, unspecified or mixed hematological disease	C96.7-9	–	0.02	0	0.00	17	0.5
Not included above							
Basal cell carcinoma of the skin	C44 (Basal cell)	5274	153.37	–	0.12	69953	1931.3
Basal cell carcinoma of the genitals	C51-53,C60-63 (Basal cell)	8	0.26	0	0.00	145	3.9
Cervix uteri, non-invasive neoplasms	N87.1-2, D06	2813	102.43	0	0.00	38598	1392.3
Vagina and vulva non-invasive neoplasms	N89-N90,D07.1-2	250	8.80	0	0.00	1825	60.6
Carcinoma in situ of the breast	D05	689	23.78	0	0.00	10003	306.2
Ductal carcinoma on situ of the breast	D05.1	595	20.69	0	0.00	9095	278.7
Lobular carcinoma in situ of the breast	D05.0	39	1.49	0	0.00	634	19.9
Other or unspecified carcinoma in situ of the breast	D05.7-9	55	1.59	0	0.00	274	7.6
Borderline tumour of the ovary	D39	187	6.37	5	0.12	3447	111.1

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] per 100 000 persons and age-standardised to the population of Finland in 2014

Table 9: Number and age-standardised rate of new cancer cases and deaths in 2023 and number and age-standardised proportion of cancer survivors in the population on 31 December 2023, male.

		Incidence		Mortality		Prevalence	
Cancer site	ICD-10	Count	Rate[1]	Count	Rate[1]	Count	Proportion[2]
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	20646	724.10	7364	261.04	147435	5148.7
Mouth, pharynx	C00-14	578	20.44	163	5.73	4097	145.4
Lip	C00	40	1.46	–	0.12	544	20.2
Tongue	C02	110	3.78	37	1.29	816	28.8
Salivary glands	C07-08	56	2.04	9	0.30	498	17.7
Mouth, other or unspecified	C03-06	136	4.90	37	1.34	796	27.9
Pharynx	C01,C09-14	236	8.25	77	2.68	1508	53.1
Digestive organs	C15-26	4688	165.23	2712	95.33	21328	748.5
Oesophagus	C15	303	10.75	256	9.06	631	21.7
Stomach	C16	372	13.13	264	9.30	1625	56.5
Small intestine	C17	139	4.81	69	2.43	836	29.3
Colon and rectum	C18-20	2467	87.37	838	29.71	16340	575.7
Colon	C18	1475	52.42	464	16.52	9589	339.7
Rectum, rectosigmoid	C19-20	992	34.95	374	13.19	6980	244.0
Anus	C21	31	1.10	15	0.54	179	6.3
Liver	C22	398	13.84	355	12.43	715	24.4
Gallbladder, bile ducts	C23-24	163	5.72	144	4.98	320	10.9
Pancreas	C25	690	24.03	692	24.08	857	29.6
Digestive organs, other and unspecified	C26	125	4.48	79	2.79	106	3.7
Respiratory and intrathoracic organs	C30-39	1843	63.37	1383	47.37	5022	170.1
Nose, sinuses	C30-31	37	1.36	7	0.23	253	8.9
Larynx, epiglottis	C32	111	3.88	47	1.59	961	33.2
Lung, trachea	C33-34	1663	57.00	1306	44.74	3654	122.7
Other or unspecified respiratory or intrathoracic organs	C37-39	32	1.13	23	0.81	180	6.2
Breast	C50	41	1.40	5	0.19	317	11.2
Male genital organs	C60-63	5846	202.54	1036	38.49	67283	2322.5
Penis	C60	49	1.79	15	0.53	414	14.7
Prostate	C61	5631	194.94	1012	37.65	63042	2171.6
Testis	C62	159	5.55	8	0.28	3864	137.5
Male genital, other and unspecified	C63	7	0.25	–	0.03	76	2.7
Urinary organs	C64-68,D09.0-1,D41.1-9	1792	62.94	467	16.55	15290	534.7
Kidney	C64	585	20.56	205	7.13	5610	196.0
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	1207	42.38	262	9.41	9816	343.4
Skin	C43-44	2306	82.62	182	6.57	20378	731.8
Melanoma of the skin	C43	1047	37.02	151	5.40	11454	406.1
Skin, squamous cell carcinoma	C44 (Squamous cell)	1183	42.80	22	0.81	8522	312.2
Skin, other	C44 (Other)	76	2.80	9	0.36	910	32.5
Eye	C69	38	1.36	19	0.74	481	17.1
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	672	23.96	242	8.66	5842	206.2
Glioma	–	243	8.67	180	6.30	1658	59.1
Meningeoma	–	110	3.91	6	0.21	1753	61.2
CNS, nerve sheet tumor	–	73	2.56	–	0.04	1260	44.7
Other and unspecified tumor of brain, meninges and central nervous system	–	246	8.81	55	2.10	1241	43.8
Endocrine glands	C73-75	211	7.46	32	1.10	2710	95.9
Thyroid gland	C73	170	6.01	22	0.77	2399	84.9
Adrenal gland	C74	22	0.81	5	0.18	218	7.8
Other endocrine glands	C75	19	0.64	5	0.15	98	3.4
Mesothelioma	C45	75	2.43	59	1.96	123	4.1
Bone	C40-41	30	1.09	14	0.51	495	17.7
Soft tissues	C48-49	145	5.27	66	2.47	1327	47.1
Peripheral nerves, autonomic nervous system	C47	9	0.32	5	0.18	121	4.3
Illdefined or unknown	C76,C80	316	11.23	242	8.66	495	17.4
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	2054	72.39	737	26.55	17403	608.5
Hodgkin lymphoma	C81	110	4.02	16	0.60	2127	75.5
Mature B-cell neoplasms	–	1185	41.62	414	15.06	9149	317.1
Chronic lymphatic leukaemia	C91.1	196	6.85	50	1.85	1939	66.8
Diffuse B lymphoma	C83.3	384	13.51	150	5.47	2698	93.8
Follicular B lymphoma	C82	146	5.11	24	0.82	1659	57.4
Myeloma and other plasma cell tumors	C90	253	8.88	124	4.50	1343	46.5
Burkitt's lymhoma/leukaemia	C83.7	16	0.59	–	0.13	203	7.2
Marginal zone lymphoma	C83.8	64	2.24	5	0.16	487	16.9
Mantle cell lymphoma	C83.1	63	2.20	43	1.60	494	17.0
Malignant immunoproliferative diseases	C88	49	1.74	8	0.28	307	10.7

Table 9: (continuation)

Cancer site	ICD-10	Incidence		Mortality		Prevalence	
		Count	Rate[1]	Count	Rate[1]	Count	Proportion[2]
Other mature B-cell neoplasms	–	14	0.51	6	0.25	271	9.5
Mature T and NK cell lymphomas/leukaemias	C84	80	2.74	43	1.45	640	22.5
Mature T-cell neoplasias of the skin	C84.0-1	28	1.02	7	0.25	361	12.7
Other T and NK cell lymphomas/leukaemias	C84.3-5	52	1.72	36	1.20	283	9.9
Acute lymphoblastic leukaemia/lymphoma	C91.0	43	1.64	13	0.46	1090	38.5
Acute myeloid leukaemia	C92.0	116	4.15	94	3.30	574	20.5
Non-Hodgkin lymphoma, other or unspeficied	C85	54	1.86	26	0.95	1272	44.8
Leukaemia, other or unspecified	C95	27	1.03	24	0.92	103	3.7
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3	293	10.32	29	1.01	2214	77.9
Chronic myeloid leukaemia	C92.1	22	0.78	7	0.21	356	12.8
Polycythaemia vera	D45	75	2.64	9	0.32	596	20.8
Myelofibrosis	D47.1	50	1.74	5	0.17	260	9.0
Essential thrombocythemia	D47.3	95	3.37	5	0.19	820	28.8
Myeloproliferative neoplasm, other	D47.1	51	1.78	–	0.12	306	10.8
Myelodysplastiset ja myelodysplastiset/-proliferatiiviset oireyhtymät	–	142	4.85	77	2.78	395	13.5
Myelodysplastic syndromes	D46	120	4.12	67	2.44	311	10.7
Myelodysplastic/myeloproliferative neoplasms	–	22	0.73	10	0.34	85	2.8
Other, unspecified or mixed hematological disease	C96, D76	–	0.16	–	0.03	117	4.2
Mastocytosis	C96.2	0	0.00	0	0.00	47	1.7
Histiocytic and denritic cell neoplasms	C96.1, D76	–	0.12	–	0.03	58	2.1
Other, unspecified or mixed hematological disease	C96.7-9	–	0.04	0	0.00	12	0.4
Not included above							
Basal cell carcinoma of the skin	C44 (Basal cell)	4800	168.40	–	0.13	55493	1969.1
Basal cell carcinoma of the genitals	C51-53,C60-63 (Basal cell)	–	0.04	0	0.00	11	0.4
Carcinoma in situ of the breast	D05	–	0.08	0	0.00	33	1.2
Ductal carcinoma on situ of the breast	D05.1	–	0.08	0	0.00	27	1.0
Lobular carcinoma in situ of the breast	D05.0	0	0.00	0	0.00	0	0.0
Other or unspecified carcinoma in situ of the breast	D05.7-9	0	0.00	0	0.00	6	0.2

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] per 100 000 persons and age-standardised to the population of Finland in 2014

14.2 Survival of cancer patients

Table 10: Five-year relative survival rates in cancer patients followed up in 2021–2023 by age group, female.

		5-year relative survival (%)			
			Age at diagnosis		
Cancer site	ICD-10	All	0-54	55-74	75+
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	72	89	75	60
Mouth, pharynx	C00-14	77	91	76	73
Digestive organs	C15-26	45	66	49	37
Oesophagus	C15	15	38	14	13
Stomach	C16	38	58	43	28
Colon and rectum	C18-20	70	78	73	64
Colon	C18	69	79	72	64
Rectum, rectosigmoid	C19-20	70	77	75	62
Liver	C22	7	16	9	4
Gallbladder, bile ducts	C23-24	12	31	18	5
Pancreas	C25	8	34	10	2
Respiratory and intrathoracic organs	C30-39	26	54	28	19
Lung, trachea	C33-34	24	48	26	19
Breast	C50	92	94	94	87
Female genital organs	C51-58	67	85	71	52
Cervix uteri	C53	75	88	56	42
Corpus uteri	C54	81	91	86	72
Ovary etc.	C48.1-2 (Serous), C56, C57.0-4	47	76	50	27
Urinary organs	C64-68,D09.0-1,D41.1-9	69	83	73	62
Kidney	C64	74	84	74	67
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	65	80	72	58
Skin	C43-44	94	98	96	92
Melanoma of the skin	C43	95	98	96	90
Skin, squamous cell carcinoma	C44 (Squamous cell)	95	99	96	95
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	79	91	80	63
Glioma	–	32	69	14	3
Meningeoma	–	97	99	96	97
Endocrine glands	C73-75	94	99	96	77
Thyroid gland	C73	94	100	97	74
Soft tissues	C48-49	63	82	64	52
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	69	92	77	48
Hodgkin lymphoma	C81	93	100	88	41
Mature B-cell neoplasms	–	68	92	78	51
Myeloma and other plasma cell tumors	C90	49	89	62	30

Table 11: Five-year relative survival rates in cancer patients followed up in 2021–2023 by age group, male.

		5-year relative survival (%)			
			Age at diagnosis		
Cancer site	ICD-10	All	0-54	55-74	75+
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	70	80	70	65
Mouth, pharynx	C00-14	65	77	61	67
Digestive organs	C15-26	42	54	43	38
Oesophagus	C15	11	16	14	5
Stomach	C16	29	33	33	23
Colon and rectum	C18-20	67	75	68	65
Colon	C18	66	75	65	65
Rectum, rectosigmoid	C19-20	70	74	72	65
Liver	C22	11	20	12	8
Gallbladder, bile ducts	C23-24	11	36	15	4
Pancreas	C25	7	22	9	3
Respiratory and intrathoracic organs	C30-39	19	35	22	13
Larynx, epiglottis	C32	60	60	65	49
Lung, trachea	C33-34	15	25	17	11
Male genital organs	C60-63	94	95	95	92
Prostate	C61	94	96	95	91
Testis	C62	95	95	93	136
Urinary organs	C64-68,D09.0-1,D41.1-9	75	87	78	69
Kidney	C64	75	86	74	71
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	75	88	80	68
Skin	C43-44	93	97	94	91
Melanoma of the skin	C43	93	97	93	89
Skin, squamous cell carcinoma	C44 (Squamous cell)	95	94	96	94
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	60	76	56	48
Glioma	–	25	53	13	4
Meningeoma	–	98	99	97	101
Endocrine glands	C73-75	89	94	84	88
Thyroid gland	C73	91	96	86	92
Soft tissues	C48-49	65	81	69	50
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	63	90	71	43
Hodgkin lymphoma	C81	87	97	79	50
Mature B-cell neoplasms	–	65	89	75	48
Myeloma and other plasma cell tumors	C90	49	92	59	32

14.3 Long-term changes, incidence

Table 12: Average annual percent change in incidence in 1990–2023, female.

		Trend change and period	
Cancer site	ICD-10	1. trend	2. trend
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	0.9% (1990-2015)	0.5% (2016-2023)
Mouth, pharynx	C00-14	1.1% (1990-2023)	–
Lip	C00	0.8% (1990-1997)	-4.7% (1998-2023)
Pharynx	C01,C09-14	-2.0% (1990-1997)	4.2% (1998-2023)
Digestive organs	C15-26	-0.6% (1990-2009)	0.8% (2010-2023)
Oesophagus	C15	-2.3% (1990-2006)	0.1% (2007-2023)
Stomach	C16	-4.0% (1990-2011)	-2.0% (2012-2023)
Colon and rectum	C18-20	0.2% (1990-2010)	1.6% (2011-2023)
Colon	C18	0.5% (1990-2010)	1.7% (2011-2023)
Rectum, rectosigmoid	C19-20	-0.4% (1990-2012)	1.6% (2013-2023)
Liver	C22	1.0% (1990-2016)	-4.5% (2017-2023)
Gallbladder, bile ducts	C23-24	-2.7% (1990-2009)	0.0% (2010-2023)
Pancreas	C25	0.6% (1990-2021)	-16.5% (2022-2023)
Respiratory and intrathoracic organs	C30-39	2.3% (1990-2019)	0.0% (2020-2023)
Larynx, epiglottis	C32	0.6% (1990-2023)	–
Lung, trachea	C33-34	2.3% (1990-2019)	-0.2% (2020-2023)
Breast	C50	1.7% (1990-2010)	0.4% (2011-2023)
Female genital organs	C51-58	2.0% (1990-1995)	-0.2% (1996-2023)
Cervix uteri	C53	0.2% (1990-2023)	–
Corpus uteri	C54	2.3% (1990-1997)	-0.2% (1998-2023)
Ovary etc.	C48.1-2 (Serous), C56, C57.0-4	1.7% (1990-1994)	-0.7% (1995-2023)
Urinary organs	C64-68,D09.0-1,D41.1-9	0.0% (1990-2023)	–
Kidney	C64	0.2% (1990-2013)	-1.9% (2014-2023)
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	-0.4% (1990-2008)	1.2% (2009-2023)
Skin	C43-44	3.1% (1990-2015)	0.6% (2016-2023)
Melanoma of the skin	C43	4.3% (1990-2015)	-0.6% (2016-2023)
Skin, squamous cell carcinoma	C44 (Squamous cell)	2.1% (1990-2023)	–
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	1.0% (1990-2013)	4.8% (2014-2023)
Glioma	–	0.6% (1990-2023)	–
Meningeoma	–	4.5% (1990-2000)	-0.3% (2001-2023)
Endocrine glands	C73-75	0.3% (1990-2004)	2.0% (2005-2023)
Thyroid gland	C73	0.5% (1990-2004)	1.8% (2005-2023)
Soft tissues	C48-49	0.6% (1990-2023)	–
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	1.2% (1990-2014)	0.0% (2015-2023)
Hodgkin lymphoma	C81	0.7% (1990-2023)	–
Mature B-cell neoplasms	–		
Chronic lymphatic leukaemia	C91.1	0.2% (1990-2013)	-4.1% (2014-2023)
Myeloma and other plasma cell tumors	C90	0.4% (1990-2015)	-3.1% (2016-2023)
Acute lymphoblastic leukaemia/lymphoma	C91.0	-0.4% (1990-2020)	43.2% (2021-2023)
Acute myeloid leukaemia	C92.0	0.9% (1990-2014)	-2.3% (2015-2023)
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3		
Chronic myeloid leukaemia	C92.1	-2.0% (1990-2023)	–

Table 13: Average annual percent change in incidence in 1990–2023, male.

Cancer site	ICD-10	Trend change and period	
		1. trend	2. trend
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	1.0% (1990-2003)	-0.1% (2004-2023)
Mouth, pharynx	C00-14	-0.7% (1990-2004)	1.6% (2005-2023)
Lip	C00	-6.4% (1990-2023)	–
Pharynx	C01,C09-14	1.7% (1990-2002)	4.1% (2003-2023)
Digestive organs	C15-26	-0.1% (1990-2011)	1.1% (2012-2023)
Oesophagus	C15	-7.0% (1990-1992)	1.2% (1993-2023)
Stomach	C16	-4.1% (1990-2012)	-1.0% (2013-2023)
Colon and rectum	C18-20	0.8% (1990-2019)	5.8% (2020-2023)
Colon	C18	0.9% (1990-2017)	3.3% (2018-2023)
Rectum, rectosigmoid	C19-20	0.5% (1990-2019)	6.2% (2020-2023)
Liver	C22	2.0% (1990-2017)	-3.2% (2018-2023)
Gallbladder, bile ducts	C23-24	-1.0% (1990-2009)	2.2% (2010-2023)
Pancreas	C25	0.6% (1990-2017)	-1.4% (2018-2023)
Respiratory and intrathoracic organs	C30-39	-3.0% (1990-2000)	-1.8% (2001-2023)
Larynx, epiglottis	C32	-1.8% (1990-2023)	–
Lung, trachea	C33-34	-3.1% (1990-2000)	-1.9% (2001-2023)
Male genital organs	C60-63	6.2% (1990-2002)	-1.6% (2003-2023)
Prostate	C61	6.3% (1990-2002)	-1.7% (2003-2023)
Testis	C62	4.4% (1990-2013)	-1.7% (2014-2023)
Urinary organs	C64-68,D09.0-1,D41.1-9	-1.0% (1990-2003)	0.4% (2004-2023)
Kidney	C64	-1.0% (1990-2005)	0.8% (2006-2023)
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	-1.1% (1990-2001)	0.2% (2002-2023)
Skin	C43-44	3.0% (1990-2015)	1.1% (2016-2023)
Melanoma of the skin	C43	3.7% (1990-2016)	1.0% (2017-2023)
Skin, squamous cell carcinoma	C44 (Squamous cell)	2.6% (1990-2015)	1.3% (2016-2023)
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	0.3% (1990-2011)	3.6% (2012-2023)
Glioma	–	0.8% (1990-2023)	–
Meningeoma	–	2.9% (1990-2002)	-0.5% (2003-2023)
Endocrine glands	C73-75	0.6% (1990-2005)	3.2% (2006-2023)
Thyroid gland	C73	2.2% (1990-2023)	–
Soft tissues	C48-49	0.8% (1990-2023)	–
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	1.2% (1990-2017)	-0.6% (2018-2023)
Hodgkin lymphoma	C81	0.7% (1990-2023)	–
Mature B-cell neoplasms	–		
Chronic lymphatic leukaemia	C91.1	0.3% (1990-2014)	-4.4% (2015-2023)
Myeloma and other plasma cell tumors	C90	0.9% (1990-2009)	-1.1% (2010-2023)
Acute lymphoblastic leukaemia/lymphoma	C91.0	0.4% (1990-2023)	–
Acute myeloid leukaemia	C92.0	0.4% (1990-2023)	–
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3		
Chronic myeloid leukaemia	C92.1	-2.3% (1990-2023)	–

14.4 Long-term changes, mortality

Table 14: Average annual percent change in cancer mortality in 1990–2023, female.

Cancer site	ICD-10	Trend change and period	
		1. trend	2. trend
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	-1.0% (1990-2005)	-0.5% (2006-2023)
Mouth, pharynx	C00-14	-0.1% (1990-2023)	–
Lip	C00	-2.5% (1990-2023)	–
Pharynx	C01,C09-14	0.1% (1990-2023)	–
Digestive organs	C15-26	-2.5% (1990-1998)	-0.6% (1999-2023)
Oesophagus	C15	-3.4% (1990-2002)	-0.6% (2003-2023)
Stomach	C16	-4.0% (1990-2023)	–
Colon and rectum	C18-20	-1.6% (1990-2006)	-0.3% (2007-2023)
Colon	C18	-1.5% (1990-2003)	-0.1% (2004-2023)
Rectum, rectosigmoid	C19-20	-1.9% (1990-2019)	5.9% (2020-2023)
Liver	C22	0.4% (1990-2020)	-5.9% (2021-2023)
Gallbladder, bile ducts	C23-24	-2.9% (1990-2011)	0.5% (2012-2023)
Pancreas	C25	-2.6% (1990-1994)	0.5% (1995-2023)
Respiratory and intrathoracic organs	C30-39	1.9% (1990-2013)	0.6% (2014-2023)
Larynx, epiglottis	C32	0.4% (1990-2023)	–
Lung, trachea	C33-34	1.9% (1990-2013)	0.5% (2014-2023)
Breast	C50	-0.8% (1990-2023)	–
Female genital organs	C51-58	-1.5% (1990-1998)	-0.1% (1999-2023)
Cervix uteri	C53	-2.5% (1990-2023)	–
Corpus uteri	C54	0.1% (1990-2023)	–
Ovary etc.	C48.1-2 (Serous), C56, C57.0-4	-0.5% (1990-2023)	–
Urinary organs	C64-68,D09.0-1,D41.1-9	-1.2% (1990-2023)	–
Kidney	C64	-1.1% (1990-2015)	-3.9% (2016-2023)
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	-4.8% (1990-1996)	-0.3% (1997-2023)
Skin	C43-44	-0.2% (1990-2023)	–
Melanoma of the skin	C43	-0.1% (1990-2023)	–
Skin, squamous cell carcinoma	C44 (Squamous cell)	-1.1% (1990-2023)	–
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	-0.5% (1990-2023)	–
Glioma	–	0.4% (1990-2023)	–
Meningeoma	–	-2.6% (1990-2023)	–
Endocrine glands	C73-75	-1.8% (1990-2023)	–
Thyroid gland	C73	-5.5% (1990-2001)	-0.5% (2002-2023)
Soft tissues	C48-49	-0.1% (1990-2023)	–
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	0.8% (1990-1994)	-1.5% (1995-2023)
Hodgkin lymphoma	C81	-3.6% (1990-2023)	–
Mature B-cell neoplasms	–		
Chronic lymphatic leukaemia	C91.1	-3.5% (1990-2023)	–
Myeloma and other plasma cell tumors	C90	-1.1% (1990-2023)	–
Acute lymphoblastic leukaemia/lymphoma	C91.0	-3.2% (1990-2023)	–
Acute myeloid leukaemia	C92.0	31.5% (1990-1991)	-0.3% (1992-2023)
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3		
Chronic myeloid leukaemia	C92.1	-8.0% (1990-2023)	–

Table 15: Average annual percent change in cancer mortality in 1990–2023, male.

Cancer site	ICD-10	Trend change and period	
		1. trend	2. trend
All sites together	C00-96,D09.0-1,D32-33, D41-43,D45-47,D76	-1.7% (1990-2007)	-1.2% (2008-2023)
Mouth, pharynx	C00-14	0.3% (1990-2023)	–
Lip	C00	-6.5% (1990-2023)	–
Pharynx	C01,C09-14	0.7% (1990-2023)	–
Digestive organs	C15-26	-1.6% (1990-2001)	-0.1% (2002-2023)
Oesophagus	C15	-0.5% (1990-2005)	1.6% (2006-2023)
Stomach	C16	-4.3% (1990-2013)	-2.1% (2014-2023)
Colon and rectum	C18-20	-1.0% (1990-2010)	0.1% (2011-2023)
Colon	C18	-0.2% (1990-2023)	–
Rectum, rectosigmoid	C19-20	-1.6% (1990-2010)	-0.1% (2011-2023)
Liver	C22	2.0% (1990-2010)	0.5% (2011-2023)
Gallbladder, bile ducts	C23-24	-1.5% (1990-2010)	2.7% (2011-2023)
Pancreas	C25	0.2% (1990-2023)	–
Respiratory and intrathoracic organs	C30-39	-3.3% (1990-1999)	-2.5% (2000-2023)
Larynx, epiglottis	C32	-2.2% (1990-2023)	–
Lung, trachea	C33-34	-3.4% (1990-1999)	-2.5% (2000-2023)
Male genital organs	C60-63	0.0% (1990-1997)	-2.4% (1998-2023)
Prostate	C61	0.7% (1990-1995)	-2.4% (1996-2023)
Testis	C62	0.5% (1990-2023)	–
Urinary organs	C64-68,D09.0-1,D41.1-9	-1.6% (1990-2023)	–
Kidney	C64	-1.8% (1990-2023)	–
Bladder and urinary tract	C65-68,D09.0-1,D41.1-9	-1.4% (1990-2023)	–
Skin	C43-44	1.0% (1990-2014)	-3.2% (2015-2023)
Melanoma of the skin	C43	1.0% (1990-2014)	-3.8% (2015-2023)
Skin, squamous cell carcinoma	C44 (Squamous cell)	0.6% (1990-2023)	–
Brain, meninges and central nervous system	C70-72,D32-33,D42-43	-0.1% (1990-2023)	–
Glioma	–	0.8% (1990-2023)	–
Meningeoma	–	-3.3% (1990-2023)	–
Endocrine glands	C73-75	-0.7% (1990-2023)	–
Thyroid gland	C73	-0.3% (1990-2023)	–
Soft tissues	C48-49	-0.2% (1990-2023)	–
Lymphoid and haematopoietic tissue	C81-96,D45-47,D76	-1.2% (1990-2023)	–
Hodgkin lymphoma	C81	-11.1% (1990-1997)	-1.0% (1998-2023)
Mature B-cell neoplasms	–		
Chronic lymphatic leukaemia	C91.1	-3.2% (1990-2017)	-10.2% (2018-2023)
Myeloma and other plasma cell tumors	C90	-1.1% (1990-2023)	–
Acute lymphoblastic leukaemia/lymphoma	C91.0	-2.8% (1990-2023)	–
Acute myeloid leukaemia	C92.0	-0.1% (1990-2023)	–
Myeloproliferative neoplasms	C92.1,D45,D47.1,D47.3		
Chronic myeloid leukaemia	C92.1	0.1% (1990-1997)	-9.9% (1998-2023)

14.4 Regional statistik

Table 16: Age-standardised incidence of prostate cancer (number and ratio per 100,000 person-years) in 2019–2023, five-year relative survival rate for patients diagnosed in 2019–2023 (prevalence), number of patients diagnosed in 2019–2023 who were alive at the end of 2023 and mortality (number and ratio per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki, in the collaborative areas and nationwide.

	Incidence		Relative survival	Prevalence	Mortality	
Region	Number	Rate[1]	5 years[2]	Number	Number	Rate[1]
Southern Finland	8923	182.6 (178.8, 186.5)	93.0 (91.1, 94.9)	7802	1507	34.7 (33.0, 36.6)
East Uusimaa	444	171.5 (156.0, 188.6)	87.4 (80.1, 95.5)	379	76	32.9 (26.1, 41.4)
Central Uusimaa	730	161.2 (149.6, 173.6)	95.1 (89.1, 101.4)	649	134	36.5 (30.6, 43.6)
West Uusimaa	1739	175.9 (167.7, 184.5)	92.2 (88.4, 96.3)	1548	272	31.6 (27.9, 35.7)
Vantaa and Kerava	812	161.0 (150.0, 172.9)	86.3 (78.9, 94.4)	709	145	34.6 (29.2, 41.0)
Päijät-Häme	1328	222.2 (210.3, 234.8)	94.3 (89.3, 99.5)	1156	189	33.9 (29.3, 39.2)
Kymenlaakso	988	192.4 (180.6, 205.0)	96.0 (90.7, 101.5)	850	165	33.9 (29.0, 39.6)
South Karelia	768	200.3 (186.4, 215.2)	93.3 (87.0, 100.1)	653	123	34.0 (28.4, 40.7)
City of Helsinki	2114	176.1 (168.6, 183.9)	93.6 (89.8, 97.6)	1858	403	38.4 (34.8, 42.4)
Eastern Finland	4706	194.7 (189.1, 200.4)	93.2 (90.7, 95.7)	4044	852	37.8 (35.3, 40.5)
South Savo	969	208.4 (195.5, 222.2)	95.1 (89.8, 100.6)	829	146	32.8 (27.8, 38.7)
North Savo	1321	182.9 (173.1, 193.1)	93.1 (88.3, 98.2)	1122	224	33.2 (29.1, 38.0)
North Karelia	971	192.6 (180.6, 205.4)	87.4 (81.7, 93.5)	817	221	46.5 (40.6, 53.2)
Central Finland	1445	199.9 (189.7, 210.6)	95.4 (91.3, 99.8)	1276	261	39.6 (35.0, 44.8)
Inland Finland	4712	204.1 (198.3, 210.1)	95.2 (92.5, 97.9)	4141	758	35.0 (32.6, 37.6)
Kanta-Häme	934	190.2 (178.2, 203.0)	97.6 (91.6, 104.0)	827	146	33.2 (28.1, 39.1)
Pirkanmaa	2477	196.3 (188.6, 204.3)	94.6 (90.9, 98.5)	2195	403	33.6 (30.4, 37.1)
South Ostrobothnia	1301	234.4 (221.9, 247.7)	94.7 (90.1, 99.5)	1119	209	39.6 (34.5, 45.4)
Western Finland	4536	191.6 (186.0, 197.4)	95.2 (92.9, 97.5)	3906	905	40.3 (37.7, 43.0)
Southwest Finland	2383	190.5 (182.9, 198.4)	94.6 (91.4, 97.9)	2084	433	36.8 (33.4, 40.5)
Satakunta	1140	173.0 (163.1, 183.6)	97.7 (93.4, 102.1)	959	303	49.8 (44.4, 55.8)
Ostrobothnia	1013	218.9 (205.6, 233.0)	92.5 (87.5, 97.8)	863	169	36.6 (31.4, 42.6)
Northern Finland	3640	189.8 (183.6, 196.1)	93.2 (90.5, 95.9)	3154	699	40.2 (37.3, 43.4)
Central Ostrobothnia	425	230.3 (209.0, 253.7)	96.2 (89.7, 103.2)	376	68	41.1 (32.3, 52.3)
North Ostrobothnia	1681	174.3 (166.1, 183.0)	93.8 (89.9, 97.8)	1477	319	36.9 (33.0, 41.2)
Kainuu	389	164.9 (149.1, 182.4)	89.9 (80.8, 99.9)	320	80	37.7 (30.2, 47.1)
Lapland	1145	214.6 (202.4, 227.6)	92.5 (87.6, 97.6)	981	232	47.1 (41.3, 53.7)
Whole Finland	26748	191.3 (189.0, 193.7)	93.8 (92.8, 94.9)	23250	4764	37.3 (36.2, 38.3)

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] age-standardised to the age distribution of patients in the whole country

Table 17: Age-standardised incidence of breast cancer in women (number and ratio per 100,000 person-years) in 2019–2023, five-year relative survival rate for patients diagnosed in 2019–2023 (prevalence), number of patients diagnosed in 2019–2023 who were alive at the end of 2023 and mortality (number and ratio per 100,000 person- years) in 2019–2023, in the wellbeing services counties and Helsinki, in the collaborative areas and nationwide.

	Incidence		Relative survival	Prevalence	Mortality	
Region	Number	Rate[1]	5 years[2]	Number	Number	Rate[1]
Southern Finland	10096	172.9 (169.5, 176.4)	92.0 (90.8, 93.3)	9097	1805	28.6 (27.3, 29.9)
East Uusimaa	450	160.8 (146.4, 176.6)	90.4 (84.8, 96.4)	394	95	30.9 (25.2, 37.9)
Central Uusimaa	926	176.1 (165.0, 187.9)	93.9 (90.2, 97.8)	854	139	25.2 (21.3, 29.8)
West Uusimaa	2085	176.9 (169.4, 184.7)	93.3 (90.6, 96.1)	1913	348	28.5 (25.6, 31.6)
Vantaa and Kerava	1151	180.9 (170.6, 191.7)	93.7 (90.3, 97.3)	1054	176	27.3 (23.5, 31.7)
Päijät-Häme	1105	171.8 (161.6, 182.7)	91.2 (87.5, 95.0)	978	186	25.1 (21.6, 29.1)
Kymenlaakso	871	167.1 (155.9, 179.0)	93.0 (89.1, 97.1)	777	165	27.0 (23.0, 31.7)
South Karelia	622	160.2 (147.6, 173.8)	92.2 (87.6, 97.0)	557	120	25.9 (21.4, 31.2)
City of Helsinki	2886	175.3 (168.9, 181.9)	90.3 (87.8, 92.8)	2570	576	32.7 (30.1, 35.6)
Eastern Finland	3822	158.4 (153.3, 163.7)	94.2 (92.2, 96.2)	3466	695	25.1 (23.2, 27.1)
South Savo	683	149.9 (138.5, 162.3)	93.7 (88.9, 98.7)	608	146	26.6 (22.4, 31.6)
North Savo	1217	167.0 (157.6, 177.0)	94.6 (91.3, 98.0)	1102	194	23.0 (19.9, 26.6)
North Karelia	744	151.9 (141.0, 163.7)	93.3 (89.5, 97.3)	673	139	26.0 (21.9, 31.0)
Central Finland	1178	158.5 (149.5, 168.1)	94.4 (90.2, 98.8)	1083	216	25.7 (22.4, 29.5)
Inland Finland	4101	164.9 (159.8, 170.2)	93.8 (91.9, 95.6)	3695	782	27.4 (25.5, 29.5)
Kanta-Häme	808	154.8 (144.2, 166.1)	93.4 (89.8, 97.3)	721	173	29.6 (25.4, 34.5)
Pirkanmaa	2382	169.5 (162.7, 176.6)	93.5 (91.0, 95.9)	2158	451	27.9 (25.4, 30.7)
South Ostrobothnia	911	162.5 (151.9, 173.8)	94.8 (90.6, 99.3)	816	158	24.1 (20.5, 28.4)
Western Finland	4250	172.7 (167.5, 178.1)	93.4 (91.5, 95.4)	3831	728	25.3 (23.4, 27.2)
Southwest Finland	2441	181.1 (173.9, 188.7)	94.3 (91.8, 96.9)	2226	375	24.2 (21.8, 26.9)
Satakunta	1115	172.3 (162.1, 183.1)	92.5 (88.9, 96.3)	996	196	25.0 (21.6, 28.9)
Ostrobothnia	694	148.2 (137.3, 160.0)	92.1 (87.2, 97.2)	609	157	28.5 (24.3, 33.6)
Northern Finland	2791	143.5 (138.1, 149.0)	93.6 (91.3, 95.9)	2523	472	22.1 (20.1, 24.2)
Central Ostrobothnia	271	144.9 (128.2, 163.8)	101.0 (94.6, 107.8)	248	49	21.9 (16.4, 29.2)
North Ostrobothnia	1451	142.5 (135.3, 150.1)	92.2 (89.0, 95.5)	1314	220	20.1 (17.6, 23.0)
Kainuu	307	135.0 (120.1, 151.9)	88.9 (81.4, 97.1)	269	60	24.7 (18.9, 32.4)
Lapland	762	149.0 (138.5, 160.3)	95.8 (91.7, 100.1)	692	143	25.0 (21.1, 29.6)
Whole Finland	25189	165.3 (163.2, 167.4)	93.0 (92.2, 93.8)	22724	4506	26.4 (25.6, 27.2)

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] age-standardised to the age distribution of patients in the whole country

Table 18: Age-standardised incidence of colorectal cancer (number and ratio per 100,000 person-years) in 2019–2023, five-year relative survival rate for patients diagnosed in 2019–2023 (prevalence), number of patients diag- nosed in 2019–2023 who were alive at the end of 2023 and mortality (number and ratio per 100,000 person-years) in 2019–2023, in the wellbeing services counties and Helsinki, in the collaborative areas and nationwide.

	Incidence		Relative survival	Prevalence	Mortality	
Region	Number	Rate[1]	5 years[2]	Number	Number	Rate[1]
Southern Finland	7408	66.8 (65.3, 68.3)	72.0 (69.9, 74.2)	5222	2501	22.4 (21.5, 23.3)
East Uusimaa	372	67.9 (61.2, 75.2)	74.7 (65.8, 84.7)	266	121	21.8 (18.2, 26.1)
Central Uusimaa	625	63.9 (59.0, 69.1)	82.1 (75.6, 89.2)	455	200	20.8 (18.1, 23.9)
West Uusimaa	1397	63.6 (60.4, 67.1)	69.7 (64.8, 74.9)	1001	463	21.3 (19.4, 23.3)
Vantaa and Kerava	730	62.6 (58.1, 67.4)	74.8 (67.8, 82.6)	536	223	19.4 (17.0, 22.2)
Päijät-Häme	958	72.9 (68.4, 77.8)	66.5 (60.6, 73.0)	653	310	22.7 (20.2, 25.4)
Kymenlaakso	811	73.4 (68.4, 78.8)	73.2 (66.6, 80.4)	550	303	26.4 (23.5, 29.6)
South Karelia	593	70.5 (64.9, 76.5)	64.6 (57.4, 72.7)	399	206	23.5 (20.4, 27.0)
City of Helsinki	1922	65.2 (62.3, 68.2)	74.9 (70.9, 79.1)	1362	675	22.8 (21.2, 24.6)
Eastern Finland	3142	61.7 (59.6, 63.9)	67.1 (63.8, 70.5)	2154	1120	21.2 (20.0, 22.5)
South Savo	655	68.9 (63.7, 74.6)	67.3 (60.8, 74.6)	454	217	21.4 (18.7, 24.6)
North Savo	913	59.2 (55.4, 63.2)	64.7 (59.2, 70.8)	617	346	21.7 (19.5, 24.2)
North Karelia	609	58.0 (53.5, 62.8)	62.4 (55.3, 70.3)	418	190	17.7 (15.3, 20.4)
Central Finland	965	62.5 (58.6, 66.6)	72.3 (66.2, 78.9)	665	367	23.1 (20.8, 25.6)
Inland Finland	3394	67.0 (64.7, 69.3)	69.6 (66.8, 72.5)	2306	1272	24.1 (22.8, 25.5)
Kanta-Häme	713	67.3 (62.4, 72.5)	78.4 (72.8, 84.5)	492	233	21.0 (18.4, 23.9)
Pirkanmaa	1869	66.2 (63.2, 69.3)	69.0 (65.2, 73.1)	1266	716	24.6 (22.8, 26.4)
South Ostrobothnia	812	68.4 (63.8, 73.4)	63.7 (58.1, 69.9)	548	323	26.0 (23.3, 29.0)
Western Finland	3454	67.0 (64.8, 69.3)	68.2 (65.3, 71.2)	2375	1254	23.4 (22.1, 24.7)
Southwest Finland	1858	67.4 (64.4, 70.6)	67.8 (63.7, 72.3)	1318	650	22.9 (21.2, 24.8)
Satakunta	942	67.3 (63.0, 71.8)	68.3 (63.2, 73.7)	617	383	25.8 (23.3, 28.5)
Ostrobothnia	654	65.7 (60.8, 71.1)	69.8 (63.5, 76.6)	440	221	21.0 (18.4, 24.0)
Northern Finland	2350	58.6 (56.2, 61.0)	68.8 (64.7, 73.2)	1662	800	19.4 (18.1, 20.8)
Central Ostrobothnia	256	66.7 (58.9, 75.6)	69.8 (60.5, 80.7)	174	95	24.1 (19.7, 29.6)
North Ostrobothnia	1154	56.2 (53.0, 59.5)	70.4 (65.6, 75.6)	836	379	18.2 (16.4, 20.1)
Kainuu	288	60.0 (53.3, 67.6)	53.1 (37.3, 75.7)	184	109	21.3 (17.6, 25.9)
Lapland	652	59.7 (55.2, 64.6)	72.2 (65.4, 79.7)	468	217	19.4 (17.0, 22.2)
Whole Finland	19889	65.0 (64.1, 65.9)	69.8 (68.5, 71.1)	13814	7002	22.3 (21.8, 22.8)

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] age-standardised to the age distribution of patients in the whole country

Table 19: Age-standardised incidence of lung cancer in women (number and ratio per 100,000 person-years) in 2019–2023, five-year relative survival rate for patients diagnosed in 2019–2023 (prevalence), number of patients diagnosed in 2019–2023 who were alive at the end of 2023 and mortality (number and ratio per 100,000 person- years) in 2019–2023, in the wellbeing services counties and Helsinki, in the collaborative areas and nationwide.

	Incidence		Relative survival	Prevalence	Mortality	
Region	Number	Rate[1]	5 years[2]	Number	Number	Rate[1]
Southern Finland	2478	39.4 (37.9, 41.1)	26.3 (23.9, 29.0)	907	1775	27.7 (26.4, 29.0)
East Uusimaa	121	40.2 (33.5, 48.2)	18.7 (9.9, 35.5)	40	95	31.3 (25.5, 38.4)
Central Uusimaa	219	40.1 (35.1, 45.9)	32.3 (24.4, 42.6)	95	141	25.5 (21.6, 30.1)
West Uusimaa	444	35.6 (32.4, 39.1)	23.8 (18.9, 30.0)	140	339	27.1 (24.3, 30.2)
Vantaa and Kerava	295	45.2 (40.3, 50.7)	33.5 (26.6, 42.2)	128	200	30.5 (26.5, 35.1)
Päijät-Häme	280	37.6 (33.3, 42.4)	17.2 (11.8, 25.3)	86	208	27.4 (23.8, 31.5)
Kymenlaakso	236	38.2 (33.5, 43.6)	20.0 (13.6, 29.6)	78	179	27.5 (23.7, 32.0)
South Karelia	137	30.2 (25.4, 35.9)	30.3 (21.8, 42.1)	56	93	20.0 (16.2, 24.7)
City of Helsinki	746	43.6 (40.5, 46.9)	30.6 (25.9, 36.2)	284	520	29.8 (27.3, 32.5)
Eastern Finland	778	27.7 (25.8, 29.8)	25.7 (21.7, 30.4)	273	572	19.9 (18.3, 21.6)
South Savo	151	28.0 (23.7, 33.0)	22.3 (15.2, 32.7)	45	120	21.8 (18.1, 26.3)
North Savo	226	26.3 (23.0, 30.0)	25.1 (17.9, 35.3)	79	155	17.5 (14.9, 20.6)
North Karelia	172	30.7 (26.3, 35.8)	28.8 (21.4, 38.7)	65	130	22.6 (19.0, 27.0)
Central Finland	229	26.8 (23.5, 30.6)	23.7 (16.2, 34.6)	84	167	19.2 (16.4, 22.4)
Inland Finland	934	32.9 (30.8, 35.2)	25.5 (21.7, 29.9)	329	669	23.0 (21.3, 24.9)
Kanta-Häme	223	37.7 (32.9, 43.1)	21.4 (14.7, 31.3)	77	162	26.4 (22.6, 31.0)
Pirkanmaa	516	32.2 (29.5, 35.2)	24.8 (20.0, 30.7)	179	371	22.8 (20.5, 25.3)
South Ostrobothnia	195	30.6 (26.4, 35.3)	32.9 (23.7, 45.5)	73	136	20.4 (17.1, 24.2)
Western Finland	992	34.8 (32.6, 37.1)	27.7 (24.0, 32.0)	364	690	23.5 (21.8, 25.4)
Southwest Finland	587	38.1 (35.0, 41.4)	27.2 (22.4, 33.1)	219	403	25.3 (22.9, 27.9)
Satakunta	238	30.1 (26.4, 34.3)	27.6 (20.8, 36.6)	87	175	22.1 (18.9, 25.7)
Ostrobothnia	167	32.1 (27.4, 37.5)	28.9 (20.9, 40.0)	58	112	20.5 (17.0, 24.9)
Northern Finland	810	37.4 (34.8, 40.1)	21.6 (17.9, 26.0)	256	633	28.6 (26.4, 30.9)
Central Ostrobothnia	64	29.3 (22.8, 37.6)	-	20	47	21.0 (15.7, 28.1)
North Ostrobothnia	405	36.6 (33.1, 40.4)	24.1 (18.9, 30.7)	134	305	27.1 (24.2, 30.3)
Kainuu	71	29.0 (22.8, 36.9)	20.8 (12.2, 35.5)	19	65	26.0 (20.2, 33.4)
Lapland	270	45.7 (40.5, 51.6)	19.5 (13.8, 27.5)	83	216	35.6 (31.0, 40.8)
Whole Finland	6030	35.4 (34.5, 36.3)	25.6 (24.0, 27.2)	2138	4377	25.1 (24.3, 25.8)

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] age-standardised to the age distribution of patients in the whole country

Table 20: Age-standardised incidence of lung cancer in men (number and ratio per 100,000 person-years) in 2019–2023, five-year relative survival rate for patients diagnosed in 2019–2023 (prevalence), number of patients diagnosed in 2019–2023 who were alive at the end of 2023 and mortality (number and ratio per 100,000 person- years) in 2019–2023, in the wellbeing services counties and Helsinki, in the collaborative areas and nationwide.

	Incidence		Relative survival	Prevalence	Mortality	
Region	Number	Rate[1]	5 years[2]	Number	Number	Rate[1]
Southern Finland	3043	62.3 (60.1, 64.6)	15.9 (14.1, 18.0)	757	2518	52.1 (50.1, 54.2)
East Uusimaa	152	61.2 (52.0, 72.0)	16.7 (10.1, 27.5)	37	128	51.8 (43.4, 61.8)
Central Uusimaa	262	56.5 (49.9, 63.9)	21.2 (15.5, 29.1)	78	215	47.3 (41.2, 54.2)
West Uusimaa	617	63.6 (58.6, 68.9)	16.2 (12.5, 20.9)	149	501	52.2 (47.7, 57.1)
Vantaa and Kerava	300	61.8 (54.9, 69.4)	17.9 (12.4, 25.9)	76	249	53.1 (46.7, 60.4)
Päijät-Häme	385	62.8 (56.7, 69.6)	12.6 (8.0, 19.7)	93	309	50.8 (45.3, 56.9)
Kymenlaakso	358	69.3 (62.4, 77.0)	14.1 (9.0, 22.3)	83	310	59.5 (53.1, 66.7)
South Karelia	221	56.3 (49.3, 64.4)	15.7 (9.8, 25.1)	55	197	49.9 (43.3, 57.5)
City of Helsinki	748	62.7 (58.3, 67.4)	15.2 (11.9, 19.4)	186	609	52.0 (48.0, 56.4)
Eastern Finland	1473	60.7 (57.6, 63.9)	18.5 (15.8, 21.7)	381	1171	48.1 (45.4, 51.0)
South Savo	298	65.1 (58.0, 73.1)	16.0 (10.5, 24.3)	75	231	49.9 (43.7, 56.9)
North Savo	417	57.4 (52.1, 63.3)	19.3 (14.1, 26.5)	125	317	43.9 (39.2, 49.1)
North Karelia	343	67.0 (60.1, 74.6)	12.1 (7.9, 18.3)	71	290	56.5 (50.2, 63.5)
Central Finland	415	56.9 (51.6, 62.7)	23.4 (18.5, 29.7)	110	333	45.6 (40.9, 50.9)
Inland Finland	1404	59.5 (56.4, 62.7)	16.0 (13.3, 19.2)	378	1123	47.9 (45.2, 50.9)
Kanta-Häme	320	63.9 (57.2, 71.5)	14.5 (9.6, 21.8)	83	265	53.1 (47.0, 60.0)
Pirkanmaa	737	57.3 (53.2, 61.6)	16.6 (13.0, 21.3)	199	584	45.8 (42.2, 49.7)
South Ostrobothnia	347	60.8 (54.6, 67.7)	16.6 (11.6, 23.8)	96	274	48.3 (42.9, 54.5)
Western Finland	1588	66.1 (62.8, 69.5)	15.5 (13.0, 18.6)	431	1281	53.8 (50.8, 56.8)
Southwest Finland	858	67.7 (63.2, 72.5)	17.4 (14.0, 21.7)	247	673	54.2 (50.2, 58.6)
Satakunta	447	67.8 (61.7, 74.5)	12.5 (8.6, 18.3)	110	370	55.7 (50.2, 61.8)
Ostrobothnia	283	59.7 (53.0, 67.2)	10.4 (4.6, 23.6)	74	238	50.1 (44.0, 57.0)
Northern Finland	1327	69.2 (65.5, 73.1)	15.4 (12.6, 18.9)	336	1086	57.3 (53.9, 60.8)
Central Ostrobothnia	88	49.0 (39.6, 60.5)	21.6 (11.3, 41.5)	25	69	37.6 (29.6, 47.8)
North Ostrobothnia	644	67.0 (62.0, 72.5)	17.3 (13.3, 22.6)	179	522	55.2 (50.6, 60.2)
Kainuu	153	64.4 (54.9, 75.7)	11.6 (6.6, 20.6)	22	144	60.5 (51.2, 71.4)
Lapland	442	82.4 (75.0, 90.6)	14.1 (9.4, 21.3)	110	351	66.7 (60.0, 74.2)
Whole Finland	8896	63.2 (61.9, 64.6)	16.2 (15.0, 17.4)	2296	7228	51.7 (50.5, 53.0)

[1] per 100 000 person-years and age-standardised to the population of Finland in 2014

[2] age-standardised to the age distribution of patients in the whole country

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