Cancer Registry of Norway
INSTITUTE OF POPULATION-BASED CANCER RESEARCH

Cancer in Norway 2021

Cancer incidence, mortality, survival and prevalence in Norway

Special issue:

Cancer survival in Norway 1965–2021: Extending standard reporting to improve communication of survival statistics

Cancer in Norway 2021

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General requests for cancer information or possible research collaboration are welcome, and should be sent to datautlevering@kreftregisteret.no. The application form on https://helsedata.no/ should be used to request for data from the Cancer Registry of Norway.

Cancer in Norway 2021

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Foreword

In the second year of the COVID-19 pandemic, cancer diagnostic activity seems to have largely returned to a pre-pandemic level. In the first year, 2020, we observed a slight decline in cases of some cancer types, there was no such decline or deficit in 2021.

When looking at trends in cancer occurrence in Norway, we examine both long- and short-term changes, as well as changes in rates and absolute numbers.

Comparing of five-year rates over time enables us to see the larger picture in cancer rates rather than year-to-year fluctuations. Overall age-standardised rates in Norway have been rather stable over the past decade. From the last five-year period (2012–2016) to the current one (2017–2021), there was a slight decline among men, and slight increase among women. There is, however, a large variation in how rates have changed for individual cancer sites. Among the most common cancers, the rate of skin, non-melanoma has increased the most. The largest decline in rates has been for prostate cancer. While it is comforting that age-standardised rates remain stable over time, this is of course only part of the picture. The number of cancer cases has increased by 20% over the past decade. This means that 6000 more patients are diagnosed annually now compared to in 2011. Perhaps we need to focus more on this absolute number since it reflects the increased workload that our hospitals, specialists and general practitioners must deal with. While it is important to tell the public that cancer rates are stable, we need to acknowledge the increased pressure on primary and secondary health care services with the growing absolute numbers. More and more diagnostic activity and treatments are offered on an out-patient basis, reducing the need for hospital stays. The downside of this, however is that this simply moves the bottlenecks to out-patient clinics and primary care services.

The number of cases is not going to decline soon. The post-war baby-boomers (born in 1946–1964) are in the middle of "cancer age", and there are many people in this generation in Norway. Currently 24% of inhabitants in Norway are aged 60 years or older. We hope those who plan health care services read our reports.

The number of cancer survivors have increased with one third (100 000 cases) from 2011 to 2021. Behind this picture is our ability to diagnose more cancer cases precisely and at an early stage, and major advanced in targeted treatment. Almost 40 000 more patients are alive after a prostate or breast cancer diagnosis than ten years ago, and 36 000 more are alive after a colorectal cancer, melanoma or lymphoma/hematopoietic cancer. This means that there are more people in the population at a higher risk of getting a second cancer, having experienced cancer treatment once before, possibly making a new treatment more complicated.

Modern diagnostic methods find more metastasis than we did previously. This makes it difficult to assess changes in stage-specific cancer rates over time. Cancers that were previously considered to be localised or regional, might have had small metastases that today would have been detected, leading to upstaging of the disease. This may explain why rates of cancer with distant metastasis have not declined that much even though more cancers are detected early.

It is difficult to compare cancer numbers from one year to the next, so our overall trend descriptions rely on longer timeframes, but the changes during the COVID-19 pandemic warrants some comments. From 2019 to 2020 we observed a decline in breast, cervical, uterine, ovarian and lung cancer (women). Part of this was due to the reduced number of women undergoing breast and cervical cancer screening, but part of the decline (uterine, ovarian and lung cancer) was not clearly understood. We speculated last year that some late-stage cancers simply never were detected among elderly patients dying of COVID-19. At the same time, we hoped that the decline in lung cancer also in women was the start of a real decline. Sadly, that was not the case. In the numbers for 2021, we see increases for breast, ovarian and lung cancer.

In this year's special issue, we are proud to show new ways of presenting survival statistics. We hope this will improve our understanding and be useful in communicating cancer survival to patients and clinicians. A large thanks to the special issue editorial team for their contribution. Thank you also to everyone who reports cancer cases to the Cancer Registry, and to all of those involved in coding cancer, those who help decipher cases that are difficult to code, those who handle the databases or analyses. Finally thank you to the editorial team. Hopefully this report will form the basis for many useful discussions.

Oslo, June 2022
Giske Ursin, MD, PhD
Director

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Chapter 1 Definitions

Incidence The number of new cases of a disease in a defined population within a specific period of time.

Incidence rate The number of new cases that arise in a population (incidence) divided by the number of people who are at risk of getting cancer in the same period. The rate is expressed per 100 000 person-years. Person-years is a metric that combines persons and time (in years) as the denominator in rates.

Crude rate Unadjusted rates, often estimated for the entire population, with no standardisation by age.

Age-specific rate A rate calculated within an age stratum, often a five-year interval.

Age-standardisation A procedure for adjusting rates, e.g. incidence rates, designed to minimize the disturbing effects of differences in age composition when comparing rates for different populations (observed by geographical residence or over different time periods). The adjusted rates are referred to as age-standardised (or age-adjusted) rates. For this report, we use a standard chosen to be the Norwegian mid-year population in 2014 (referred to in the text as Norwegian standard).

Prevalence Prevalence is the number or proportion of a population that has the disease at a given point in time. In this report we use lifetime cancer prevalence that can be defined as the number of living individuals having ever been diagnosed with cancer.

Relative survival The observed survival after a given period of time in a patient group, divided by the expected survival of a comparable group in the general population, comparable with respect to key factors affecting survival such as age, sex and calendar year of observation. Relative survival is thus determined by the mortality experienced by the patients regardless of whether an excess mortality (or even deficiency) may be attributable or linked to the disease under investigation. A key advantage is that it does not require information about cause of death.

Conditional relative survival The probability of surviving an additional number of years given that the person has already survived a certain number of years. As time from diagnosis lengthens, this statistic becomes more informative to survivors than the conventional relative survival estimate. A five-year conditional relative survival that reaches close to 100% some number of years after diagnosis indicates that from that point, there is little or no excess mortality in the patient group.

Most definitions are based on Last & al, 2001[1].

Chapter 2 Summary

The aim of the annual publication of Cancer in Norway (CiN) is to provide detailed cancer statistics. This publication should help health professionals, policy-makers and researchers to identify and make decisions about areas that need more attention and investigation. This publication may also be valuable for the media, educators and members of the public with an interest in cancer. Due to random variation in incidence rates from one year to another, cancer trends should be interpreted by examining the rates over the past several years. Furthermore, the numbers for 2021 might be slightly underreported due to delayed notification of cancer cases.

The report is available online at:

https://www.kreftregisteret.no/

Incidence data are available online at:

https://www.kreftregisteret.no/Registrene/data-og-statistikk/statistikkbank/

Incidence

A total of 36 998 new cancer cases were reported in 2021: 53.2% were among men and 46.8% were among women. The five most frequent types of cancer in men in 2017–2021 were prostate, lung, colon, skin (non-melanoma) and urinary tract. The five most frequent types of cancer in women in 2017–2021 were breast, lung, colon, skin (non-melanoma) and melanoma of the skin.

The incidence rate for all sites combined has decreased by 3.8% in men and increased by 2.1% in women when comparing the last five-year period (2017–2021) with the previous one (2012–2016) (Table 2.1). There has been a sharp increase in the incidence of skin cancer over the last 20 years, and rates are significantly higher in the last five-year period compared to the previous one for both genders. The incidence of thyriodea cancer also increase sharply. On the positive side, we observe a decline in the incidence rates for prostate, lung (among men only) and colorectal cancer. In addition, the worrying increase in cervical cancer, as we reported in the previous issue, has flattened out.

After the publication of CiN, we usually receive about 1–2% additional cases that should have been included in the last year incidence numbers. For cervical cancer, this number is usually higher - about 8% - and this must be taken into account when interpreting the incidence numbers.

The immigrant population in Norway consists of persons from more than 200 countries. First-generation immigrants comprise 15% of the total population, and around 8% of all cancer cases diagnosed in 2021 occured among immigrants.

Cancer incidence and COVID-19

In last year's report (CiN 2020) we could not see any convincing decrease in the incidence for the vast majority of cancers from 2019 to 2020, but there were some exceptions: The incidence rate of breast and cervical cancer decreased by 10% and 15%, respectively. There were also fewer uterine and ovarian cancers diagnosed in 2020, and the incidence rate of lung cancer in women decreased by 6%. In this year's report, we observe that the decline in incidence for breast, ovarian and lung cancer among women in 2020 is followed by increasing rates in 2021. Such an increase is not observed for cervical cancer. However, as decribed above, we assume that the numbers for cervical cancer in 2021 is incomplete and is thus difficult to interpret.

Prevalence

At the end of 2021 a total of 316 145 persons were alive after having had at least one cancer diagnosis at some point in time.

Mortality

There were 10 981 deaths due to cancer in 2020[1]. Cancer of the lung accounts for 20% of the cancer mortality, followed by cancer in the colon (11%), prostate (9%), pancreas (7%) and female breast (5%). Together these cancer sites account for 51% of the cancer mortality.

Survival

There has been a slight increase in the five-year relative survival for most cancers when comparing the five-

[1]We have not received complete data for 2021

year period (2017–2021) with the previous one. For the most common cancers, the largest increase in survival is observed for lung cancer.

Prostate cancer: Increased from 95.1% to 95.5%.
Breast cancer: Increased from 91.4% to 92.3%.

Lung cancer (M): Increased from 19.3% to 25.7%.
Lung cancer (F): Increased from 26.2% to 32.8%.

Colon cancer (M): Increased from 65.5% to 69.7%.
Colon cancer (F): Increased from 69.8% to 71.0%.

Rectum cancer (M): Increased from 71.1% to 71.9%.
Rectum cancer (F): Increased from 71.3% to 73.5%.

Table 2.1: Summary of cancer statistics for selected cancers

ICD-10	Site	Sex	Incidence cases, 2021[1]	Incidence rate, 2017–21[2]	Change in rate (%)[3]	Mortality rate, 2020[4]	Five-year relative survival (%)	
							2012–16	2017–21
C00–96	All sites	M	19 684	712.6	-3.8	230.4	74.4	77.1
		F	17 314	560.0	2.1	160.6	73.6	76.3
C18	Colon	M	1 517	56.6	-4.9	21.2	65.5	69.7
		F	1 687	52.5	-2.5	19.4	69.8	71.0
C19–20	Rectum, rectosigmoid	M	808	30.1	-10.6	9.0	71.1	71.9
		F	538	18.3	-9.6	4.2	71.3	73.5
C33–34	Lung, trachea	M	1 786	63.7	-8.5	42.5	19.3	25.7
		F	1 713	54.5	3.4	31.9	26.2	32.8
C43	Melanoma of the skin	M	1 279	44.9	10.3	6.8	86.9	90.3
		F	1 164	39.7	8.5	3.8	93.5	95.2
C44	Skin, non-melanoma	M	1 669	59.7	28.4	...	...	...
		F	1 428	39.1	31.6	...	...	...
C50	Breast	F	3 991	130.1	5.2	19.4	91.4	92.3
C53	Cervix uteri	F	345	13.5	0.3	3.6	80.2	82.6
C54	Corpus uteri	F	774	26.5	-4.7	2.8	85.1	85.4
C56, C57.0–4, C48.2	Ovary etc.	F	531	17.7	-9.0	9.0	48.6	51.1
C61	Prostate	M	5 188	184.3	-12.3	41.7	95.1	95.5
C62	Testis	M	295	11.0	-7.4	0.2	99.0	98.8
C65–68	Urinary tract	M	1 376	50.2	-2.0	9.9	78.6	80.3
		F	495	15.0	-6.0	3.3	72.8	75.8
C70–72	Central nervous system	M	444	16.9	-16.9	8.2	61.3	57.0
		F	544	19.3	-11.2	5.1	77.5	74.5
C73	Thyroid gland	M	163	5.1	14.0	0.6	90.0	90.0
		F	364	12.3	19.2	0.6	93.3	95.1
C82–86, C96	Non-Hodgkin lymphoma	M	604	21.7	-4.2	7.1	73.4	77.9
		F	486	15.5	-4.3	3.4	77.5	80.0
C91–95	Leukaemia	M	731	29.0	1.8	9.8	65.7	71.0
		F	600	20.3	3.2	5.6	73.9	75.7

[1] Number of new cases.
[2] Age-standardised (Norwegian std.) incidence rates per 100 000 person-years.
[3] Percent change in age-standardised incidence rate from 2012–16 to 2017–21.
[4] Age-standardised (Norwegian std.) mortality rates per 100 000 person-years. The mortality data is obtained from the Cause of Death Registry.
... Not estimated in this report.

Changes from the previous version

- **Staging of prostate cancer:** The proportion of patients with prostate cancer with an unknown stage is lower than that reported in CiN 2020. This is due to a change in the assessment of stage determination where cases were previously registered as an unknown stage, but which have cT = 0–2 and cN = 0 or X and cM = 0 or X is now classified as localised stage.
- **Staging of ovarian cancer:** In CiN 2020 the proportion of patients with ovarian cancer with distant stage was unusual low. This was related to a change in our code and mapping practices. The routines have now been reviewed, which have led to a higher proportion of patients with distant metastasis.
- **Adult granulosa cell tumour of ovary:** This tumour has in this edition been considered malignant and for the period 1993–2021 we have recoded approximately 200 cases from benign to cancer hence increasing incidence compared to CiN 2020.

Chapter 3 Data and data sources

3.1 The population of Norway

By 1 January 2022 the total number of inhabitants in Norway was 5 425 270[2]. Table 3.1 shows the age structure by sex for the Norwegian mid-year population in 2021. Back in 1953, when the cancer registration started in Norway, the number of inhabitants was 3 344 010. The population has increased by 62% from 1953 to 2022, largely because of rising life expectancy and, more recently, due to increase in net immigration. The size of the population is expected to reach 6 million in 2050[1], and the elderly will represent an increasing proportion of the population of Norway over the next decades[3]. Recent updates from Statistics Norway estimate that the proportion of persons 70 years or older will increase from 13%, in 2020, to 21% in 2050[3].

Table 3.1: Norwegian mid-year population 2021 by five-year age group and sex

Age group	Males	Females	Total
0–4	144 694	136 806	281 500
5–9	158 606	150 518	309 124
10–14	168 500	159 666	328 166
15–19	162 636	154 837	317 473
20–24	174 193	162 473	336 666
25–29	188 405	178 375	366 780
30–34	195 530	187 980	383 510
35–39	185 504	175 110	360 614
40–44	179 139	169 409	348 548
45–49	188 727	179 638	368 365
50–54	192 453	183 833	376 286
55–59	175 578	167 648	343 226
60–64	156 943	153 516	310 459
65–69	140 072	141 789	281 861
70–74	127 456	131 092	258 548
75–79	94 619	104 232	198 851
80–84	53 204	67 257	120 461
85+	42 040	75 850	117 890

The immigrant population

The immigrant population is heterogeneous with respect to length of stay, country of birth and reason for immigration. The first-generation immigrants consist of persons from more than 200 countries, and by 1 January 2022 they comprise 15.1% of the total population (819 356 persons). An additional 3.8% of the Norwegian population are second-generation immigrants (born in Norway with two foreign born parents). When classifying immigrants by country of birth, immigrants from Poland are the largest group with more than 100 000 persons, followed by immigrants from Lithuania, Sweden and Syria[4].

In 2018, the Regulations (*Kreftregisterforskriften*) were revised, and the Cancer Registry of Norway (CRN) was allowed to collect and process data on country of birth. Data on cancer incidence among immigrants is now included in Cancer in Norway (CiN). As mentioned above, Norway has immigrants from more than 200 countries. The number of immigrants from most of these countries are small, and it is thus not possible to provide cancer statistics by country of birth. In this report, immigrants are therefore categorised in six groups, of which cancer

[1] Considered the scenario of medium national growth

statistics are presented for five. We do not present data for immigrants from Latin America and the Carribean due to too few cases. Many immigrants in Norway are born in European countries, and Europe was divided in three categories: Nordic countries, Western Europe (including North America and Oceania as these countries have similar cancer patterns) and other European countries. Table 3.2 shows the countries included in each group. The countries are listed according to the number of immigrants and restricted to countries with more than 1000 immigrants.

Table 3.2: Number of first generation immigrants by country per 1 January 2022

Number of first generation immigrants	Nordic countries	Western Europe, North America and Oceania	Other European Countries	Middle East and Africa	Asia	Latin America and the Caribbean*
≥100 000			Poland			
50 000–99 999						
40 000–49 999			Lithuania			
30 000–39 999	Sweden			Syria		
20 000–29 999		Germany		Somalia	Philippines	
				Eritrea	Pakistan	
				Iraq	Thailand	
10 000–19 999	Denmark	United Kingdom	Russia	Iran	Afghanistan	
			Romania		India	
			Bosnia and Herzegovina		Vietnam	
			Turkey			
			Latvia			
			Kosovo			
1 000–9 999	Iceland	United States	Serbia	Ethiopia	China	Chile
	Finland	Netherlands	Bulgaria	Morocco	Sri Lanka	Brazil
		Spain	Ukraine	Sudan	Myanmar	Colombia
		France	Croatia	DR Congo	Nepal	Mexico
		Italy	Estonia	Palestine	Indonesia	Peru
		Portugal	Hungary	Lebanon	Bangladesh	Venezuela
		Canada	Slovakia	Uganda	South Korea	Argentina
		Australia	Greece	Ghana	Japan	Cuba
		Switzerland	North Macedonia	Nigeria	Kazakhstan	
		Austria	Albania	Kenya		
		Belgium	Czech Republic	Egypt		
		Ireland	Moldova	South Africa		
			Belarus	Algeria		
				The Gambia		
				Tunisia		
				Burundi		
				Saudi Arabia		

* Not shown as a separate group in table 5.25, 5.26, 5.27 and 5.28 due to few cancer cases.

3.2 The Cancer Registry of Norway

The CRN has, since the implementation of a directive from the Ministry of Health and Social Affairs in January 1952, systematically collected notifications on cancer occurrence for the Norwegian population. The registration is considered to be close to complete from 1953. The completeness for the registration period 2017–2021 is estimated to be 98.6% (Table 3.6), and this is at the same level as reported for the early 2000s[5]. The Regulations for the collection and processing of data in the CRN came into force in 2002. It is mandatory to report all malignant neoplasms and precancerous disorders and benign tumours of the central nervous system and meninges to the CRN.

Main objectives

The main objectives of the CRN can be summarized as the following:

- Collect data on cancer occurrence and describe the distribution of cancer and changes over time.
- Provide a basis for research on the aetiology, diagnostic procedures, natural course of the disease, and effects of treatment in order to determine appropriate preventive measures and to improve the quality of medical care.
- Provide advice and information to public authorities and the public about preventive measures.
- Perform epidemiological research of high international standard.

The incidence registry

The incidence registry contains basic data items collected from clinicians and pathologists, as well as data from the Norwegian Patient Registry (NPR) and the Cause of Death Registry. As of 1 May 2022, the incidence registry contained information registered since 1953 on 2 164 172 cancer cases (including premalignant, and benign conditions of the central nervous system). Of these cases, 1 299 774 (60%) are included in CiN. The main reasons for excluding cases registered in the incidence registry from the official cancer statistics are:

- Premalignant cases: 656 374 (30.3%)
- Basal cell carcinomas: 167 648 (7.7%)
- Multiple primary neoplasms, according to IARC rules: 29 538 (1.4%)
- Other reasons: 10 838 (0.5%)

”Other reasons” include, in descending order, cases registered as malignant, but not regarded as cancers (some borderline tumors of the ovary and Pagets disease of the breast), cases diagnosed before 1953 and after 2021, cases registered to persons with unknown address or unknown vital status, and cases in persons who emigrated before the date of diagnosis.

Each cancer case is based on an average of five notifications, ranging from two notifications as the lowest average number for C26 to eight as the highest for C40–41 and C81. This includes clinical notifications, pathology reports and death certificates. Death certificates are only registered if no information already exists in the incidence registry about the given case (DCN). If registering all death certificates – both those notifying the CRN of a new case and those supporting an already registered case – the average number of notifications to each case would be higher.

In addition to notifications, the CRN also receives information records from the NPR, radiation therapy machines and hospital administered cancer medications. On average, there is a solid base of notifications and information records behind each registered cancer case. The incidence registry is updated continuously with information on both new cases and cases diagnosed previous years.

The clinical registries

Clinical registries, i.e. comprehensive registration schemes dedicated to specific cancers, are established to provide detailed information about diagnostic procedures, pathology-examinations, treatment and follow-up. The aims are to provide data for monitoring patient outcome and survival, and to be an empirical basis for scientific studies concerning prognostic factors and treatment outcomes, as well as for evaluation of the quality of cancer care. Each clinical registry has an advisory board consisting of multi-disciplinary experts from clinical and research milieus in Norway. These experts advise on the contents and activities of each clinical registry and its strategic direction. Registries are integrated in the CRN coding, quality assurance and registration activities. Table 3.3 shows the status of the clinical registries as of June 2022. Recent reports (in Norwegian) from these registries are found here:

https://www.kreftregisteret.no/Generelt/Rapporter/Arsrapport-fra-kvalitetsregistrene/

Table 3.3: Status of the clinical registries, June 2022

Clinical registry for	Clinical reference/ project group	Established with extended data*	Clinical parameters for electronical report specified	Electronical report form in use	National status
Colorectal cancer	Yes	Yes	Yes	Yes	2009
Prostate cancer	Yes	Yes	Yes	Yes	2009
Breast cancer	Yes	Yes	Yes	Yes	2013
Childhood cancer	Yes	Yes	Yes	Yes	2013
Gynecological cancer**	Yes	Yes	Yes	Yes	2013
Lung cancer	Yes	Yes	Yes	Yes	2013
Lymphomas and lymphoid leukaemias	Yes	Yes	Yes	Yes	2013
Melanoma of the skin	Yes	Yes	Yes	Yes	2013
Oesophagus and stomach cancer	Yes	Yes	Yes	Yes	***
Sarcoma	Yes	Yes	Yes	Yes	***
Central nervous system	Yes	No	No	No	****
Urinary tract	Yes	No	Yes	No	***
Pancreatic cancer	Yes	Yes	Yes	Yes	****

* Either by having a separate clinical report form and/or by having a database with extended information beyond the incidence registry.
** Established for ovarian and cervical cancer, and will be extended to include all gynecological cancer.
*** Funding and status as national clinical registry has been applied for.
**** Applied for status as national clinical registry. The CRN has received funding from the Norwegian Cancer Society for establishment and operation for three years.

3.3 Sources of information

The sources of information and the notification process are illustrated in Figure 3.1. Information from clinical notifications, pathology reports and death certificates are the main sources that enables the CRN to code and store data on cancer patients in Norway. Information from the NPR is an important additional source for identifying cancer cases. The information is identified and linked by the personal identification number system that was established in Norway in 1964.

Information from pathology departments, hospitals and specialists

The CRN Regulations, as issued by the Ministry of Health and Social Affairs, require all health institutions in Norway involved in cancer diagnostics, treatment and follow-up to report to the CRN. Reporting should be done as soon as possible after end of diagnostics or treatment. The clinical registries use specific forms with extended information relevant for each cancer site. In addition, there are two generic forms for reporting solid or non-solid tumours not yet included in a clinical registry. These forms provide information on primary site, stage of disease, the basis for the diagnosis and primary treatment given to the patient. Clinical notifications are sent using the CRN electronical reporting service (KREMT) at the Norwegian Health Network. More information about KREMT can be found at:

https://www.kreftregisteret.no/Registrene/Innrapportering/KREMT---Kreftregisterets-elektroniske-meldetjeneste/

Pathology reports from hospitals and independent laboratories provide histological, cytological or autopsy information. About 80% of the pathology reports are sent electronically to the CRN. The aim is to further reduce the amount of paper copies over the next couple of years by having even more pathology departments report electronically.

Dispatching of reminders to clinicians

It is mandatory to report clinical information on all new cases of cancer, except those diagnosed at autopsy. Thus, at least one clinical notification should be registered for each cancer case. In those cases where the clinical notification is missing, a reminder is sent via the KREMT-portal to the hospital/ward/physician responsible for the treatment.

Information from national registries

The Norwegian Population Registry

The CRN receives monthly updates on patients' vital status from the Norwegian Population Registry. These data are used to estimate incidence rates and long-term survival patterns and trends.

The Norwegian Patient Registry

Since 2002, the CRN has received data from the Patient Administrative Data System used in all Norwegian hospitals. Information was first sent directly from the hospitals, and from 2010 it has been provided by the NPR. The data contain information regarding patients who have been treated for premalignant and malignant conditions, and reminders are sent to clinicians for all cancer cases not previously registered in the CRN. The NPR is a key source in finding information on unreported cases (Figure 3.1).

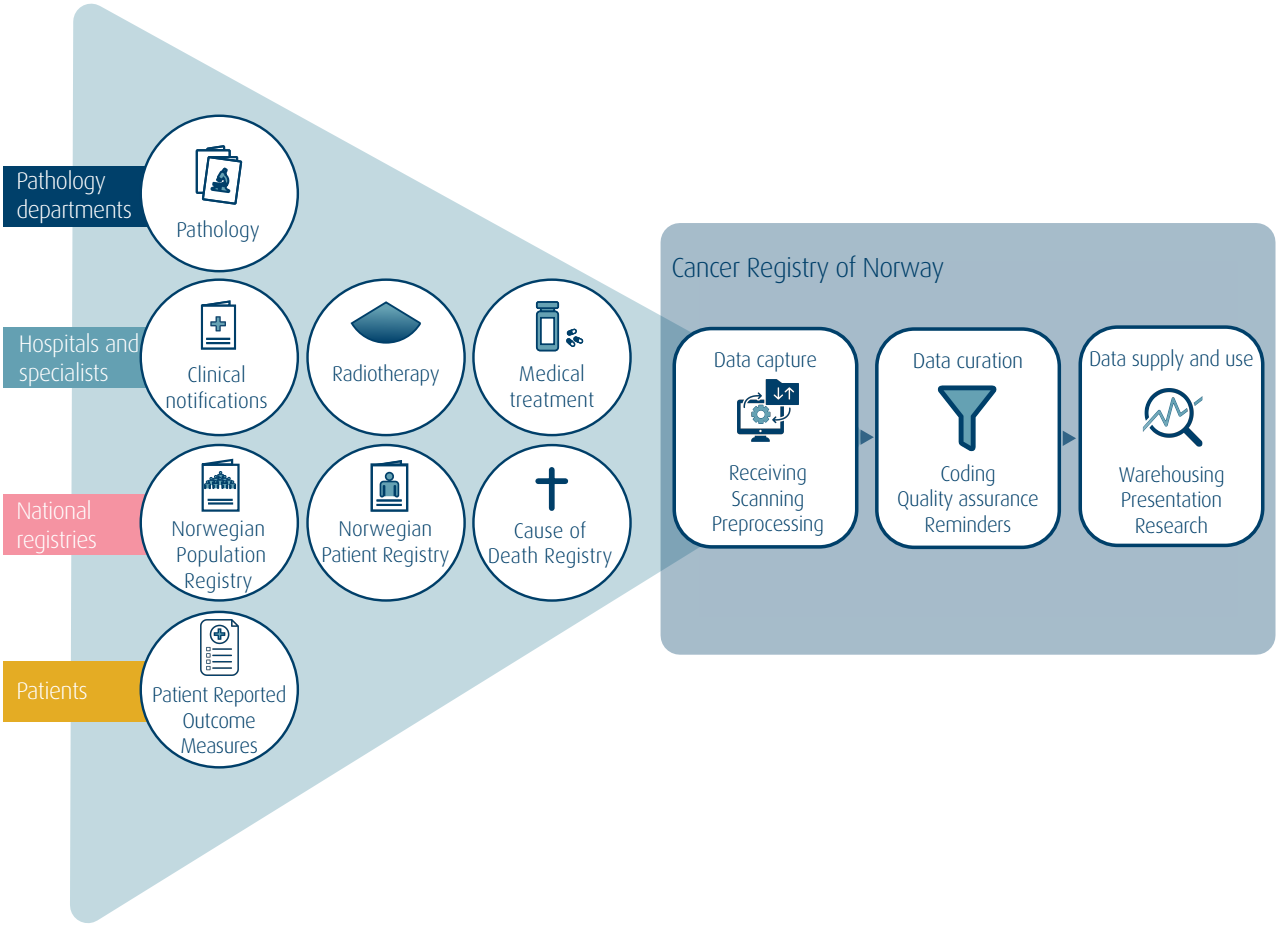
Cause of Death Registry

The Cause of Death Registry, run by the Norwegian Institute of Public Health, send death certificates and information on cause of death throughout the year. The automated procedure that matches registered cancer cases to death certificates is important for maintaining quality control, facilitating a high level of completeness and ensuring validity of the CRN data items. Death certificates also represent a complementary source of information on new cancer cases which are not previously reported, or where the diagnosis differs. Cancer cases first identified from death certificates are traced back to the health institution responsible for the treatment of the patient to verify the diagnosis and, if possible, get clinical information about the case. A recent study validating the cancer information on death certificates showed that 90% of the cancers mentioned on death certificates were already registered in the CRN. Of the remaining notifications, 40% were not regarded as a new case[6].

Patient Reported Outcome Measures

Most cancer patients have received some form of treatment (surgery, radiotherapy, chemotherapy) or symptom directed palliative therapy. Extensive cancer treatments sometime cause harmful complications and late side effects, which may also affect the quality of life. To gain better knowledge in this field, the CRN now invites patients with prostate cancer, breast cancer, colorectal cancer, and melanoma of the skin to research projects and/or population surveys. Additional cancers will be included in the next few years. The results from these Patient Reported Outcome Measures (PROMs) will provide valuable information that can be used to improve current health care and optimise future treatment strategies for cancer patients.

Figure 3.1: Sources of information and the process of cancer registration at the Cancer Registry of Norway



3.4 Incidence and mortality data

The incidence data presented in the first part of this report are based on an extraction from the incidence registry on1 May 2022. The tables and figures in general represent either the latest year of complete incidence (2021) or the latest five-year period (2017–2021). Population data, stratified by year, sex and age, are provided by Statistics Norway.

Registered codes from ICD-7, ICD-O-2 and ICD-O-3 are converted to ICD-10 using a combination of topography and morphology. According to the ICD-10 classification this means that, for example, a neuroendocrine tumour is included in the cancer site from which it originated. It is important to be aware of this, for instance when interpreting the cancer statistics. It will, for instance, influence survival of C25 pancreas. The main cancer types are tabulated according to their ICD-10 categories.

Table 3.4 gives a detailed description of specific morphologies that are included or excluded in all cancer statistics presented in the present report. The "All sites" figure comprises all malignant neoplasms (ICD-10 C00–96) and the D-diagnoses listed in Table 3.4. Corresponding mortality data coded in ICD-10 were obtained from the Cause of Death Registry and are presented in the same ICD-10 categories as for the rest of this report. Of notice is that in the subsequent tables and figures the D-codes are not shown in labels due to lack of space.

Table 3.4: Description of ICD-10 codes

ICD-10	Site	Comments
C00–96	All sites	Includes the following D-diagnoses: D32–33, D35.2–4, D42–43, D44.3–5 and D45–47. Excludes all basal cell carcinomas of all topographies. Registered codes from ICD-7, ICD-O-2 and ICD-O-3 are converted to ICD-10 using a combination of topography and morphology. This means that, for example, a neuroendocrine tumor is included in the cancer site from which it originated
C00	Lip	Includes the following ICD-10 codes: C00.0–2, C00.6, C00.8 (only included if Lip NOS), C00.9
C02–06	Oral cavity	Includes the following ICD-10 codes: C00.3–5, C00.8 (if the tumor is in mucosa of upper or lower lip), C02.0–4, C02.8–9, C03.0–9, C04.0–9, C05.0, C05.8, C05.9, C06.0–9
C07–08	Salivary glands	Includes the following ICD-10 codes: C07.9, C08.0–9
C09–10, C01, C14	Oropharynx	Includes the following ICD-10 codes: C01.9, C05.1–2, C09.0–9, C10.0–9, C14.0–8
C11	Nasopharynx	Includes the following ICD-10 codes: C11.0–9
C12–13	Hypopharynx	Includes the following ICD-10 codes: C12.9, C13.0–9
C38	Heart, mediastinum and pleura	Excludes mesotheliomas (which are included in C45)
C48–49	Soft tissues etc.	Includes retroperitoneum and peritoneum (C48). In women, cases in peritoneum (C48.2) are excluded, as these are included in ovary etc. (C56, C57.0–4, C48.2)
C50	Breast	Excludes Pagets disease
C56, C57.0–4, C48.2	Ovary etc.	Excludes borderline tumours. Includes the following sites: Neoplasms in peritoneum (C48.2, epithelial tumours), fallopian tube (C57.0), broad ligament (C57.1), round ligament (C57.2), parametrium (C57.3), uterine adnexa, unspecified (C57.4), and epithelial tumors supposed to originate from tube, ovary or peritoneum. It also includes adult granulosa cell tumour
C64	Kidney (excl. renal pelvis)	Excludes non-invasive tumours
C65	Renal pelvis	Includes non-invasive papillary tumours, dysplasia and carcinoma in situ
C66	Ureter	Includes non-invasive papillary tumours, dysplasia and carcinoma in situ
C67	Bladder	Includes non-invasive papillary tumours, dysplasia and carcinoma in situ
C68	Other and unspecified urinary organs	Includes non-invasive papillary tumours, dysplasia and carcinoma in situ
C70	Meninges	Includes benign tumours (D32–33, D42–43)
C71	Brain	Includes benign tumours (D32–33, D42–43)
C72	Spinal cord, cranial nerves and other parts of central nervous system	Includes benign tumours (D32–33, D42–43)
C75	Other endocrine glands and related structures	Includes benign tumours (D35.2–4, D44.3–5)
C90	Multiple myeloma	Includes plasmacytomas (C90.2–3)
C92	Myeloid leukaemia	Includes myelodysplastic syndrome (D46)
C95	Leukaemia of unspecified cell type	Includes polycythaemia vera (D45) and other unspecified tumours in lymphatic or hematopoietic tissue (D47)

Multiple primary neoplasms

Multiple primaries occur where two or more primary cancers develop within the same organ (or a pair of organs), as opposed to a recurrence or progression of an existing cancer. They may occur at the same time (synchronous), or in sequences (metachronous).

We use the recommendations for counting multiple primary neoplasms as outlined by the IARC/WHO/ENCR/IACR Working group in 2004. These are available at:

http://www.iacr.com.fr/images/doc/MPrules_july2004.pdf

The guidelines state that when counting cases, only one tumour is recognized as arising in an organ or a pair of organs or tissue. Furthermore, the IARC recommendations has a list of 17 groups of malignant neoplasms considered to be histologically 'different' for the purpose of defining multiple tumours (as described in Table 25, page 26, World health Organization International Classification of Diseases for Oncology, third edition, first revision, 2013[7]).

Thus, in this report only the first invasive tumour of a defined histological type is counted within one two-digit topography code (ICD-O-3) (for example breast C50). A new cancer of the same histological group in the same organ at a later point in time will not be counted. If there are different histological diagnoses, for example an adenocarcinoma and a sarcoma in the same organ, these will be counted as two cancer cases. Some organs are considered as only one organ in this respect (for example trachea C33 and lung C34). Multifocal tumours are counted only once. This is also the case for the systemic cancers like lymphomas, leukaemias and kaposi's sarcomas (defined as histological groups 8–15 in the IARC recommendations).

For metachronous cases within the same histological group, i.e. cancer cases considered to be histologically similar, the case with the first date of diagnosis is reported. For synchronous cases the case with the most severe metastasis status is reported. If the metastasis status is equal, the case with the numerically highest morphology code (ICD-O-3) is reported. Finally, if metastasis status, and morphology code is equal we report the first registered case.

In previous publications of CiN we have reported a slightly higher number of cases than if the IARC recommendations had been followed strictly because we considered non-specific groups as separate morphology groups. In this report, we have adjusted this to better comply to the IARC recommendations:

We now exclude cases with unspecific histological groups (5 and 17) if the person also is registered with another case within the same organ or pair of organs or tissue that has a specific histology (1–4, 6–7 and 16). Histology group 5 is preferred over 17 if a person only has several tumours with unspecified histology in the same organ. Among cases with tumours of haematopoietic and lymphoid tissues, we exclude cases with an unspecified histology (14) if the person also has a case with specified histology (8–13). These rules are followed regardless of time of diagnosis.

Extent of disease

In the present report we have classified stage as follows:

Localised stage: All cases where the tumour is confined to the primary organ.

Regional stage: All cases where the tumour has invaded neighbouring tissue outside of the primary organ or metastasised to regional lymph nodes.

Distant stage: All cases where the tumour has metastasised to other organs or distant lymph nodes.

Unknown: All cases where the primary origin of the tumour is not known and cases with insufficient information to set stage.

For some cases, the CRN only receive histological reports and no clinical notifications. A large proportion of these cases lack verified information on metastases at the time of diagnosis.

The following rules are used to set a specific stage for these patients: If a patient has major surgery and there is no clinical or pathological information that indicates metastasis, the patient is considered to have localised disease. If only a cytology or biopsy exist for the case, and there is no information about extent of disease, the patient is registered with an unknown stage. A detailed description of the assessment of stage is available at:

https://metadata.kreftregisteret.no/variables/detail/733

3.5 Data quality

A comprehensive assessment of the data quality in the CRN was conducted in 2007[5]. Larsen & al. reported that the coding and classification systems in general followed international standards. Estimated overall completeness was 98.8% for the registration period 2001–2005, a lower completeness was observed for haematological malignancies and cancers of the central nervous system.

Practical aspects and techniques for addressing the data quality at a cancer registry, including the documentation of comparability, validity and timeliness were reviewed in 2009[8]. Methods for the evaluation of registry completeness were also assessed the same year[9].

Two indicators of accuracy are shown in Table 3.5, namely the percentage of cases morphologically verified (MV%), and the percentage of death certificate only registrations (DCO%).

3.6 Completeness and timeliness

Table 3.6 presents completeness estimates for the period 2017–2021. For all cancers combined, the new estimates are nearly the same as those reported for the early 2000s. We still see that some few cancers have completeness estimates below 95% (e.g. cancer of the liver, central nervous system, pancreas and leukaemia).

Table 3.7 shows the number of cancer cases diagnosed in 2020 as extracted on 30 August 2021 (for CiN 2020), and on 1 May 2022.

The number of cancer cases diagnosed in 2020 reported and appearing in this issue (CiN 2021) are 345 (1.0%) more than reported in the previous report (CiN 2020). Of note is the high percentage difference for cervical cancer (8.2%). This is probably due to unreceived biopsy reports confirming all the malignant cases, especially for those diagnosed in the latest months of 2020.

This report is published before we have received the complete numbers of deaths from the Cause of Death Registry. However, since we receive death certificates throughout the whole year, we expect that we are close to complete for death certificates for 2021.

Table 3.5: Percentage distribution of morphologically verified (MV) and death certificate only (DCO) cases by primary site, 2017–2021

ICD-10	Site	Cases	MV (%)	DCO (%)
C00–96	**All sites**	**177 773**	**93.0**	**1.4**
C00–14	**Mouth, pharynx**	**3 399**	**98.8**	**0.4**
C00	Lip	490	100.0	0.0
C02–06	Oral cavity	1 114	98.7	0.3
C07–08	Salivary glands	335	97.9	1.5
C09–10, C01, C14	Oropharynx	1 227	98.5	0.5
C11	Nasopharynx	87	98.9	0.0
C12–13	Hypopharynx	146	98.6	0.0
C15–26	**Digestive organs**	**35 817**	**89.3**	**1.9**
C15	Oesophagus	1 671	95.2	1.2
C16	Stomach	2 216	94.3	1.4
C17	Small intestine	1 130	95.1	1.2
C18	Colon	15 523	94.4	1.4
C19–20	Rectum, rectosigmoid	6 791	97.4	0.4
C21	Anus	514	93.0	0.0
C22	Liver	1 829	61.6	4.8
C23–24	Gallbladder, bile ducts	846	70.8	5.6
C25	Pancreas	4 661	68.7	3.0
C26	Other digestive organs	636	84.9	11.5
C30–34, C38	**Respiratory organs**	**17 736**	**86.3**	**2.4**
C30–31	Nose, sinuses	221	98.6	0.5
C32	Larynx, epiglottis	550	97.1	0.4
C33–34	Lung, trachea	16 883	85.9	2.3
C38	Heart, mediastinum and pleura	82	59.8	23.2
C40–41	**Bone**	**279**	**97.5**	**0.7**
C43	**Melanoma of the skin**	**11 722**	**99.8**	**0.1**
C44	**Skin, non-melanoma**	**13 543**	**99.8**	**0.0**
C45	**Mesothelioma**	**411**	**92.9**	**1.0**
C47	**Autonomic nervous system**	**48**	**100.0**	**0.0**
C48–49	**Soft tissues**	**588**	**96.1**	**1.4**
C50	**Breast**	**18 438**	**99.4**	**0.4**
C51–58	**Female genital organs**	**8 955**	**97.1**	**1.2**
C51–52, C57.7–9	Other female genital	617	95.3	2.6
C53	Cervix uteri	1 806	99.3	0.4
C54	Corpus uteri	3 892	98.9	0.4
C55	Uterus, other	43	60.5	20.9
C56, C57.0–4, C48.2	Ovary etc.	2 588	94.0	2.1
C58	Placenta	9	66.7	0.0
C60–63	**Male genital organs**	**27 115**	**95.1**	**0.8**
C61	Prostate	25 289	94.8	0.8
C62	Testis	1 494	99.6	0.0
C60, C63	Other male genital	332	98.8	0.9
C64–68	**Urinary organs**	**13 485**	**96.1**	**1.0**
C64	Kidney (excl. renal pelvis)	4 550	92.4	1.8
C65–68	Urinary tract	8 935	98.0	0.5
C69	**Eye**	**417**	**58.0**	**0.5**
C70–72	**Central nervous system**	**4 999**	**72.9**	**2.5**
C73	**Thyroid gland**	**2 359**	**99.4**	**0.3**
C37, C74–75	**Other endocrine glands**	**897**	**64.3**	**1.2**
C39, C76, C80	**Other or unspecified**	**1 694**	**51.8**	**34.1**
C81–96	**Lymphoid/haematopoietic tissue**	**15 871**	**93.1**	**1.0**
C81	Hodgkin lymphoma	728	100.0	0.0
C82–86, C96	Non-Hodgkin lymphoma	5 236	99.0	0.3
C88	Immunoproliferative disease	456	97.4	0.9
C90	Multiple myeloma	2 600	93.2	0.9
C91–95	Leukaemia	6 851	87.5	1.8

Table 3.6: Completeness by primary site, 2017–2021

ICD-10	Site	Completeness (%)
C00–96	**All sites**	**98.6**
C00–14	**Mouth, pharynx**	**99.7**
C00	Lip	99.7
C02–06	Oral cavity	99.8
C07–08	Salivary glands	-
C09–10, C01, C14	Oropharynx	99.7
C11	Nasopharynx	99.0
C12–13	Hypopharynx	99.5
C15–26	**Digestive organs**	**98.8**
C15	Oesophagus	99.7
C16	Stomach	99.0
C17	Small intestine	98.2
C18	Colon	99.8
C19–20	Rectum, rectosigmoid	99.9
C21	Anus	99.4
C22	Liver	81.8
C23–24	Gallbladder, bile ducts	90.4
C25	Pancreas	90.7
C26	Other digestive organs	91.2
C30–34, C38	**Respiratory organs**	**98.9**
C30–31	Nose, sinuses	99.6
C32	Larynx, epiglottis	99.8
C33–34	Lung, trachea	99.0
C38	Heart, mediastinum and pleura	92.1
C40–41	**Bone**	**99.9**
C43	**Melanoma of the skin**	**100.0**
C44	**Skin, non-melanoma**	**99.8**
C45	**Mesothelioma**	**98.6**
C47	**Autonomic nervous system**	**-**
C48–49	**Soft tissues**	**99.6**
C50	**Breast**	**100.0**
C51–58	**Female genital organs**	**99.8**
C51–52, C57.7–9	Other female genital	99.9
C53	Cervix uteri	100.0
C54	Corpus uteri	99.9
C55	Uterus, other	91.8
C56, C57.0–4, C48.2	Ovary etc.	99.7
C58	Placenta	96.4
C60–63	**Male genital organs**	**99.6**
C61	Prostate	99.7
C62	Testis	99.7
C60, C63	Other male genital	99.6
C64–68	**Urinary organs**	**98.7**
C64	Kidney (excl. renal pelvis)	96.7
C65–68	Urinary tract	99.6
C69	**Eye**	**89.7**
C70–72	**Central nervous system**	**85.2**
C73	**Thyroid gland**	**99.5**
C37, C74–75	**Other endocrine glands**	**66.4**
C39, C76, C80	**Other or unspecified**	**68.4**
C81–96	**Lymphoid/haematopoietic tissue**	**97.2**
C81	Hodgkin lymphoma	100.0
C82–86, C96	Non-Hodgkin lymphoma	99.8
C88	Immunoproliferative disease	99.6
C90	Multiple myeloma	94.9
C91–95	Leukaemia	93.9

- Not estimable (see CiN Technical Supplement[10]).

Table 3.7: Registered cancer cases in Norway 2020, as obtained by 30 August 2021 and 1 May 2022

		Cases diagnosed 2020 as of			
ICD-10	**Site**	**30.8.2021**	**1.5.2022**	**Difference**	**%**
C00–96	**All sites**	**35 515**	**35 860**	**345**	**1.0**
C00–14	**Mouth, pharynx**	**686**	**692**	**6**	**0.9**
C00	Lip	100	101	1	1.0
C02–06	Oral cavity	222	224	2	0.9
C07–08	Salivary glands	60	62	2	3.3
C09–10, C01, C14	Oropharynx	249	251	2	0.8
C11	Nasopharynx	14	14	0	0.0
C12–13	Hypopharynx	41	40	-1	-2.4
C15–26	**Digestive organs**	**7 291**	**7 391**	**100**	**1.4**
C15	Oesophagus	388	392	4	1.0
C16	Stomach	462	470	8	1.7
C17	Small intestine	249	254	5	2.0
C18	Colon	3 121	3 137	16	0.5
C19–20	Rectum, rectosigmoid	1 373	1 394	21	1.5
C21	Anus	106	106	0	0.0
C22	Liver	377	397	20	5.3
C23–24	Gallbladder, bile ducts	179	180	1	0.6
C25	Pancreas	929	957	28	3.0
C26	Other digestive organs	107	104	-3	-2.8
C30–34, C38	**Respiratory organs**	**3 494**	**3 522**	**28**	**0.8**
C30–31	Nose, sinuses	49	48	-1	-2.0
C32	Larynx, epiglottis	100	101	1	1.0
C33–34	Lung, trachea	3 331	3 358	27	0.8
C38	Heart, mediastinum and pleura	14	15	1	7.1
C40–41	**Bone**	**46**	**47**	**1**	**2.2**
C43	**Melanoma of the skin**	**2 338**	**2 348**	**10**	**0.4**
C44	**Skin, non-melanoma**	**2 901**	**2 907**	**6**	**0.2**
C45	**Mesothelioma**	**71**	**72**	**1**	**1.4**
C47	**Autonomic nervous system**	**8**	**8**	**0**	**0.0**
C48–49	**Soft tissues**	**122**	**118**	**-4**	**-3.3**
C50	**Breast**	**3 455**	**3 461**	**6**	**0.2**
C51–58	**Female genital organs**	**1 700**	**1 735**	**35**	**2.1**
C51–52, C57.7–9	Other female genital	114	120	6	5.3
C53	Cervix uteri	328	355	27	8.2
C54	Corpus uteri	764	770	6	0.8
C55	Uterus, other	6	6	0	0.0
C56, C57.0–4, C48.2	Ovary etc.	487	482	-5	-1.0
C58	Placenta	1	2	1	100.0
C60–63	**Male genital organs**	**5 370**	**5 413**	**43**	**0.8**
C61	Prostate	5 030	5 072	42	0.8
C62	Testis	285	285	0	0.0
C60, C63	Other male genital	55	56	1	1.8
C64–68	**Urinary organs**	**2 746**	**2 746**	**0**	**0.0**
C64	Kidney (excl. renal pelvis)	894	899	5	0.6
C65–68	Urinary tract	1 852	1 847	-5	-0.3
C69	**Eye**	**78**	**78**	**0**	**0.0**
C70–72	**Central nervous system**	**957**	**982**	**25**	**2.6**
C73	**Thyroid gland**	**488**	**516**	**28**	**5.7**
C37, C74–75	**Other endocrine glands**	**161**	**175**	**14**	**8.7**
C39, C76, C80	**Other or unspecified**	**390**	**383**	**-7**	**-1.8**
C81–96	**Lymphoid/haematopoietic tissue**	**3 213**	**3 266**	**53**	**1.6**
C81	Hodgkin lymphoma	147	148	1	0.7
C82–86, C96	Non-Hodgkin lymphoma	1 062	1 058	-4	-0.4
C88	Immunoproliferative disease	94	101	7	7.4
C90	Multiple myeloma	556	562	6	1.1
C91–95	Leukaemia	1 354	1 397	43	3.2

Chapter 4 Statistical methods

In this report, we use four measures to describe the burden and risk of cancer: *incidence*, *mortality*, *prevalence* and *survival*.

4.1 Incidence and mortality

Incidence and mortality refer to the number of new cases and deaths, respectively. Both measures can be expressed as the absolute number, or as the rate, taking into account the size of the population at risk. Rates are essential for the comparisons of groups, and within a group over time. The denominator is the underlying person-time at risk in which the new cases or deaths in the numerator arise. Cancer incidence and mortality are presented in this report both as numbers and rates. Several different types of rates are also used in this report. We use the mid-year population (calculated as the mean of the population as obtained by January 1st and December 31st) as the denominator in the calculation of rates. For periods with several years, we use the sum of mid-year populations.

Age-specific rates

There are compelling reasons for adjusting for the distribution of age when comparing cancer risk in populations. Age is a strong determinant of cancer risk. The crude rate is a rate based on the frequency of cancer in the entire population irrespective of age. Although this measure is useful as an indicator of the total cancer burden, its utility in comparing cancer risk between different populations is severely limited when the age distribution differs between the groups, or where demographic changes in the size and age structure of a population have occurred over time.

To obtain a more accurate picture of the true risk of cancer, rates can be calculated for specific age strata, usually grouped in five-year intervals. The age-specific rate for age group i, denoted as r_i, is obtained by dividing the number of events, d_i, by the corresponding person-years, Y_i. As rates are most often given per 100 000 person-years we multiply by 100 000:

$$r_i = \frac{d_i}{Y_i} \cdot 100000$$

Usually, rates are provided separately for males and females, because of the different patterns by sex both in terms of number of cases (see Table 5.9 and 5.10) and persons under risk (see Table 3.1). Age- and sex-specific incidence and mortality rates are the basis of epidemiological analysis of cancer frequency data. Table 3.1

Age-standardised rates

To facilitate comparisons, a summary rate is derived that takes into account age-specific rates in each comparison group. The summary measure that appears in this report is the age-standardised rate (ASR), a statistic that is independent of the effects of age, thus allowing comparisons of cancer risk between different groups and over time. The calculation of the ASR is an example of direct standardisation, whereby the observed age-specific rates are applied to a standard population. The population size or proportion in each age group of the standard population are known as the weights to be used in the standardisation process. The ASR is calculated as:

$$\text{ASR} = \frac{\sum_i r_i w_i}{\sum_i w_i}$$

where w_i is a weight given a reference population.

The World Standard Population[11,12] has been used as reference population in several previous report of CiN. Since CiN 2014 we have used the Norwegian mid-year population in 2014 as the reference population. This standard is referred to as the *Norwegian standard*.

The two standards, using 18 age groups, are shown in Figure 4.1, and it clearly illustrates the difference between them: The Norwegian standard has higher weights for the oldest age groups.

The main advantage of using the Norwegian standard as the reference population is that we are getting age-standardised rates that resemble the crude rates for the Norwegian population. The main disadvantage is that the rates are not comparable with national rates from other countries. Table 5.1 shows the ASR in 2021 with the two different standards.

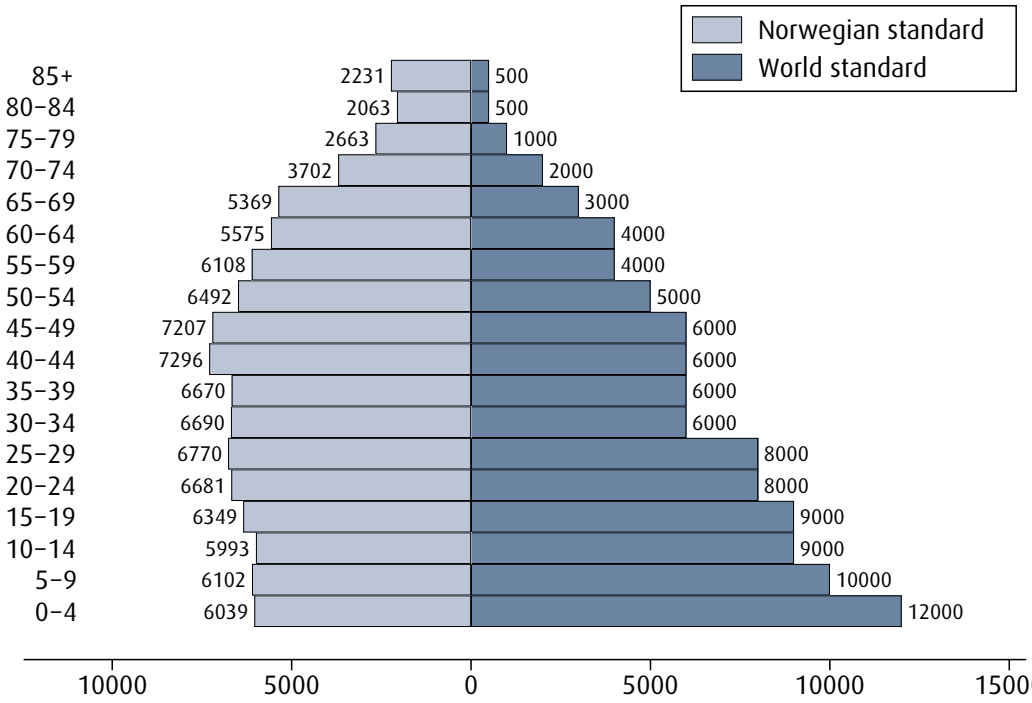
Of notice is that, in general, the ASRs with Norwegian standard gives twice as high rates as the ASRs with World standard. This is because the World standard has lower weights for the oldest age groups. Cancers that have the highest incidence rates in the youngest age groups

(e.g. testicular cancer) are less affected by the choice of reference population.

Age-standardised incidence rates (World standard) are available at:

https://sb.kreftregisteret.no/insidens

Figure 4.1: Comparison of population weights



Cumulative risk

The cumulative risk is the probability that an individual will develop the cancer under study during a certain age span, in the absence of other competing causes of death[13]. The age span over which the risk is accumulated must be specified, and in this report, the range 0–79 years is used and provides an approximation of the risk of developing cancer. If before the age of 80 the cumulative risk is less than 10%, as is the case for most cancer forms, it is reasonably approximated by the cumulative rate. This is the summation of the age-specific rates over each year of age from birth to a defined upper age limit. As age-specific incidence rates are computed according to five-year age groups, the cumulative rate is five times the sum of the age-specific rates calculated over the five-year age groups, assuming the age-specific rates are the same for all ages within the five-year age stratum:

$$\text{Cumulative rate} = 5 \sum_i r_i$$

The cumulative rate has several advantages compared to age-standardised rates. First, as a form of direct standardisation, the problem of choosing an arbitrary reference population is eliminated. Second, as an approximation to the cumulative risk, it has a greater intuitive appeal, and is more directly interpretable as a measurement of lifetime risk, assuming no other causes of death are in operation. The precise mathematical relationship between the two is:

$$\text{Cumulative risk} = 1 - e^{-\text{Cumulative rate}}$$

Completeness

Completeness was estimated by the use of the capture-recapture method described by Parkin and Bray[9].

This method has been used to estimate the size of a population and is widely used in field biology to estimate the size of a closed animal population. In that purpose, and briefly explained, animals are captured, marked, and released, followed by a new catch (recapture). The number of captured animals in the first catch, the number of new animals in the second catch and the number of recaptured animales are used to estimate the number of uncatched animals.

When this method is used to estimate completeness in a cancer registry context, we assume that cases are registered by two different data sources. Cases registered

on pathology reports and/or death certificates (source A) is the first 'catch', and cases registered on clinical notifications (source B) is the second 'catch'. A detailed description of the method can be found in CiN Technical Supplement[10].

4.2 Prevalence

Prevalence is the number or proportion of a population that has the disease at a given point in time. It is a complex measure of cancer incidence, mortality, and other factors affecting individuals after diagnosis and treatment.

Prevalence is a useful measure of the number of persons requiring care for chronic illnesses such as hypertension and diabetes. For cancer, on the other hand, many patients diagnosed in the past may now be considered cured, that is to say they no longer have a greater risk of death. However, there may be special needs and disabilities subsequent to cancer disease and treatment, thus it is likely that the number of prevalent cancer cases also represents a useful measure.

Cancer prevalence can be defined as the number of persons alive having ever been diagnosed with cancer. Such a measure can easily be derived from the CRN data, given the registration of cases and complete follow up over many years. We provide additional estimates that may be useful for quantifying care burden. Therefore, this report shows the numbers of persons alive on December 31st 2021 who were previously diagnosed with cancer during the last year, one to four years, five to nine years, and 10 or more years.

We also show the number of patients who have been diagnosed with metastatic disease or local recurrence with metastasis and who were alive at various specific time points. This is another estimate of how the cancer burden has increased over time.

4.3 Survival

The survival time of a cancer patient is defined as the time that elapses between a cancer diagnosis and subsequent death, emigration, or end of follow-up. A common measure of survival is five-year observed survival, which represents the percentage of patients still alive five years after their date of diagnosis.

Follow-up data

To estimate long-term survival patterns and trends, vital statistics of patients diagnosed with cancer during 1965–2021 were obtained from the National Population Registry and Statistics Norway through to December 31st 2021.

The 23 most common cancers were selected for analysis, grouped according to their respective ICD-10 categories. About 3% of cases were excluded as they were either registered on death certificate only (DCO), emigrated before diagnosis, or had zero survival time. It has been shown that exclusion of patients with a prior cancer diagnosis, which often is associated with a poorer prognosis, may artificially elevate estimates of survival[14]. Therefore patients with previous cancer diagnoses were included in each site-specific analysis. However, to provide an estimate of "all sites" survival, analysis was restricted to first primary cancers. While the inclusion of multiple primaries has been recommended for comparative purposes, the corresponding reduction in the overall survival estimates has been shown to be negligible. In Norway, the effect of their inclusion has been shown to reduce five-year survival by less than a percentage point[15].

Survival results should be interpreted with caution. Survival of prostate cancer and breast cancer has been affected by PSA testing and mammographic screening, respectively.

Relative survival (net survival)

Not all deaths among cancer patients are due to the cancer under study. Deaths resulting from other causes will lower the survival and may possibly invalidate comparisons between populations. Relative survival is calculated to circumvent this problem by providing an estimate of *net survival* the survival in a hypotetical world where the cancer is the only possible cause of death.

Relative survival is calculated as the observed survival proportion in a patient group divided by the expected survival of a comparable group in the general population with respect to age, sex and calendar year of investigation. At each time, $t(year)$, since diagnosis, the relative survival from the cancer, $R(t)$, is defined as follows:

$$R(t) = \frac{S_O(t)}{S_E(t)}$$

where $S_O(t)$ is the *observed survival* of cancer patients, the *expected survival*, $S_E(t)$, is based on the general population survival using national population life tables from Statistics Norway by sex, one-year age group and calendar year. Age standardised relative survival (net survival) was estimated by the Stata program stnet[16] using the Pohar Perme estimator[17]. The estimates were age standardised applying weights to individuals[18,19] based on the age distribution of the patient group the

last five-year period 2017–2021 (females and males combined for all groups, other than "All sites" where sex-specific weights were used).

For patient cohorts with complete five-year follow-up the *cohort* method was used.

With traditional cohort-based analyses, the most up-to-date estimates of long-term survival pertain to patients diagnosed in the distant past, with corresponding profiles of prognosis. A more up-to date picture of the current survival is obtained using the period method. In this report we used a five-year period window (2017–2021) to *predict* relative survival up to 15 years for patients diagnosed in 2017–2021 (Table 8.3 and Figure 8.1). The period approach consists of the pieces of survival experience observed in the period 2017–2021 for patients diagnosed up to 15 years ago. Thus, patients diagnosed in 2016–2021 contribute with (part of) their survival experience the first year of follow up, patients diagnosed in 2015–2020 contribute to the second year of follow-up, patients diagnosed in 2014–2019 contribute to the third year of follow-up and so on.

When analysing time trends in five-year relative survival (Figure 9.1) a rolling five-year window was used to obtain smoother curves. For patients with (potential) five-year obserervation the cohort approach was used. Thus, estimates for e.g. 2016 is based on patients diagnosed in 2012–2016. Estimates for 2021 were obtained using the most recent five-year period window, while estimates for the years where only part of the cohort had complete follow-up (2017–2020) were obtained using a combination of the cohort and period approach to ensure that minimal survival experience from patients diagnosed in the past was used.

Estimation was performed for groups with 30 or more patients at start of follow-up.

A detailed description of the methods can be found in CiN Techical Supplement[10].

Conditional relative survival

Cancer survivors want information on their current prognosis, once they have survived a certain period of time. Conditional survival is a key indicator in this respect, estimating survival proportions given that patients have already survived a certain duration of time[20,21].

The time at which five-year relative survival reaches 100% is the point from which there is no excess mortality among the cancer patients, and their survival is equivalent to survival in the general population. We present estimates of sex-specific five-year relative survival conditional on being alive 1 to 10 years after diagnosis in Figure 8.1.

Estimates were not plotted when there were less than twenty patients alive ($n < 20$).

Chapter 5 Incidence

5.1 New cancer cases

Number of new cases

In 2021, there were 36 998 new cases of cancer (in 36 017 individuals) recorded in Norway, of which 19 684 cases were diagnosed in men, and 17 314 in women (Table 5.1). This is nearly 1500 more new cases of cancer than reported in CiN 2020.

The four most common cancers (cancers of the prostate, female breast, lung and colon) accounted for 43% of the new cancer cases in 2021. The proportion increases to 47% if rectal cancer is included.

In men, prostate cancer continued to be the most common cancer site, with 5188 new cases; followed by lung (1786 cases) and colon cancer (1517 cases). Breast cancer remained the most frequent cancer site in women, with 3991 new cases; followed by lung cancer (1713 cases) and colon cancer (1687 cases).

There is a steady increase in the number of new cancer cases diagnosed per year. Since 2011, this number has increased by more than 6000.

Incidence rates

Among men, there has been a slightly decrease in the age-standardised incidence rate for all sites combined since 2016 (Table 5.7), while the rate in women has stabilised during the same period (Table 5.8). The interpretation of rates from one year to another is however prone to random varitations, especially for rare cancers. Thus, in order to interpret the risk of cancer we often compare rates for in five-year periods. When comparing the rates in the most recent five-year period (2017–2021) with the previous one (2012–2016) (Tables 5.15 and 5.16) we observe that:

- The rate for all cancers combined decreased by 3.8% for men and increased by 2.1% for women.
- The rate of prostate cancer decreased by 12.3%.
- The rate of breast cancer increased by 5.2%.
- The rate of lung cancer for men decreased by 8.5% and increased by 3.4% in women.
- The rate of colon cancer decreased by 4.9% in men, and 2.5% in women. The rate of rectal cancer decreased by 10.6% in men and 9.6% in women.
- The rates of melanoma of the skin increased by 10.3% in men and 8.5% in women.
- The rates of non-melanoma skin cancer, increased by 28.4% in men and 31.6% in women.
- Among more uncommon cancers, the notable increase in the rates for liver (especially in men), and thyroid cancer continues.

In 2017–2021, 9% of all cancer cases occured in immigrants, and for most cancers immigrants have lower incidence rates compared to Norwegian-borns. Exceptions exist especially for lung cancer in men, and liver and stomach cancers in both genders, where rates are higher among some immigrant groups. The incidence numbers and rates presented in Tables 5.25–5.28 must however be interpreted with caution as the number of cancer cases among immigrants are low and prone to random variation.

Cancer incidence and COVID-19

In last year's report (CiN 2020) we could not see any convincing decrease in the incidence for the vast majority of cancers from 2019 to 2020, but there were some exceptions: The incidence rate of breast cancer decreased by 10%. Most likely because the mammographic screening program was shut down for a few months. The centers opened gradually over the summer/fall, but the number of screening examinations were markedly fewer during 2020. Moreover, a 15% decrease in incidence of cervical cancer was seen, most likely caused by lower participation in cervical screening in 2020. There were also fewer uterine and ovarian cancers diagnosed in 2020. Finally, the incidence rate of lung cancer in women decreased by 6%.

In this year's report we observe that the decline in incidence for breast, ovarian and lung cancer among women in 2020, is followed by an increase in the rates in 2021. For breast cancer we observe that the increase in rates from 2020 to 2021 is most pronounced for women in screening age (50-69 years). Such an increase is not observed for cervical cancer. However, we assume that the numbers for cervical cancer in 2021 is incomplete and is thus difficult to interpret.

Table 5.1: Number and age-standardised rates of new cases by primary site and sex, 2021

		Cases			Age-standardised rates			
					Norwegian std.		World std.	
ICD-10	Site	Males	Females	Total	Males	Females	Males	Females
C00–96	**All sites**	**19 684**	**17 314**	**36 998**	**698.9**	**569.0**	**353.2**	**322.9**
C00–14	**Mouth, pharynx**	**477**	**260**	**737**	**16.8**	**8.5**	**9.4**	**4.8**
C00	Lip	57	45	102	2.0	1.4	0.9	0.7
C02–06	Oral cavity	123	109	232	4.3	3.5	2.3	1.8
C07–08	Salivary glands	46	33	79	1.7	1.1	1.0	0.7
C09–10, C01, C14	Oropharynx	204	66	270	7.1	2.3	4.3	1.4
C11	Nasopharynx	16	5	21	0.6	0.2	0.4	0.1
C12–13	Hypopharynx	31	2	33	1.1	0.1	0.6	0.0
C15–26	**Digestive organs**	**3 898**	**3 430**	**7 328**	**140.0**	**108.6**	**68.2**	**54.1**
C15	Oesophagus	255	89	344	9.1	2.8	4.4	1.3
C16	Stomach	227	166	393	8.4	5.3	3.7	2.7
C17	Small intestine	134	111	245	4.8	3.6	2.5	2.0
C18	Colon	1 517	1 687	3 204	55.1	52.9	25.6	25.5
C19–20	Rectum, rectosigmoid	808	538	1 346	28.4	17.4	15.0	9.2
C21	Anus	37	69	106	1.3	2.3	0.7	1.4
C22	Liver	266	138	404	9.5	4.4	4.9	2.3
C23–24	Gallbladder, bile ducts	88	102	190	3.1	3.2	1.5	1.5
C25	Pancreas	502	460	962	17.9	14.5	8.7	7.2
C26	Other digestive organs	64	70	134	2.3	2.2	1.1	0.9
C30–34, C38	**Respiratory organs**	**1 930**	**1 755**	**3 685**	**67.8**	**55.3**	**31.5**	**27.6**
C30–31	Nose, sinuses	25	22	47	0.9	0.7	0.4	0.3
C32	Larynx, epiglottis	108	15	123	3.7	0.5	1.9	0.3
C33–34	Lung, trachea	1 786	1 713	3 499	62.7	53.9	28.9	26.9
C38	Heart, mediastinum and pleura	11	5	16	0.5	0.2	0.2	0.1
C40–41	**Bone**	**31**	**25**	**56**	**1.1**	**0.9**	**1.0**	**0.9**
C43	**Melanoma of the skin**	**1 279**	**1 164**	**2 443**	**45.6**	**39.1**	**24.4**	**23.6**
C44	**Skin, non-melanoma**	**1 669**	**1 428**	**3 097**	**63.9**	**43.3**	**23.1**	**17.1**
C45	**Mesothelioma**	**75**	**9**	**84**	**2.6**	**0.3**	**1.0**	**0.1**
C47	**Autonomic nervous system**	**5**	**6**	**11**	**0.2**	**0.2**	**0.2**	**0.4**
C48–49	**Soft tissues**	**53**	**48**	**101**	**1.9**	**1.6**	**1.4**	**1.1**
C50	**Breast**	**32**	**3 991**	**4 023**	**1.1**	**138.3**	**0.5**	**88.0**
C51–58	**Female genital organs**		**1 777**	**1 777**		**59.6**		**36.2**
C51–52, C57.7–9	Other female genital		119	119		3.8		2.0
C53	Cervix uteri		345	345		12.6		9.6
C54	Corpus uteri		774	774		25.4		14.4
C55	Uterus, other		8	8		0.3		0.1
C56, C57.0–4, C48.2	Ovary etc.		531	531		17.5		10.1
C58	Placenta		0	0		0.0		0.0
C60–63	**Male genital organs**	**5 564**		**5 564**	**192.4**		**102.9**	
C61	Prostate	5 188		5 188	178.6		91.5	
C62	Testis	295		295	10.8		10.0	
C60, C63	Other male genital	81		81	2.9		1.4	
C64–68	**Urinary organs**	**2 000**	**801**	**2 801**	**70.2**	**25.5**	**34.4**	**13.4**
C64	Kidney (excl. renal pelvis)	624	306	930	21.4	10.0	12.5	5.9
C65–68	Urinary tract	1 376	495	1 871	48.8	15.5	21.9	7.5
C69	**Eye**	**41**	**43**	**84**	**1.5**	**1.4**	**0.9**	**0.8**
C70–72	**Central nervous system**	**444**	**544**	**988**	**15.9**	**18.9**	**11.4**	**13.4**
C73	**Thyroid gland**	**163**	**364**	**527**	**5.7**	**13.2**	**3.9**	**9.9**
C37, C74–75	**Other endocrine glands**	**79**	**76**	**155**	**2.8**	**2.7**	**2.1**	**2.0**
C39, C76, C80	**Other or unspecified**	**172**	**184**	**356**	**6.6**	**5.6**	**2.6**	**2.2**
C81–96	**Lymphoid/haematopoietic tissue**	**1 772**	**1 409**	**3 181**	**62.9**	**45.9**	**34.1**	**27.3**
C81	Hodgkin lymphoma	73	69	142	2.6	2.5	2.0	2.3
C82–86, C96	Non-Hodgkin lymphoma	604	486	1 090	21.2	15.7	11.3	8.9
C88	Immunoproliferative disease	64	33	97	2.3	1.0	1.1	0.5
C90	Multiple myeloma	300	221	521	10.6	7.0	4.9	3.5
C91–95	Leukaemia	731	600	1 331	26.2	19.7	14.9	12.1

5.2 Incidence by age

Most cancers in Norway, over 90% in men and 86% in women, are diagnosed among people aged 50 years or more (Figure 5.1). In men, 55% of all new cases occur in men at ages from 70 years or older, while 38% of the cases are diagnosed in those aged 50 to 69 years. In women, 49% of all cases are diagnosed at age 70 years or older, and 37% are diagnosed in the age group 50 to 69 years. In the age group 25 to 49 years, a smaller proportion of the cancers are diagnosed in men (6%) than in women (13%). About 1% of all cancers occurs in children and young adults (younger than 25 years), with equal frequencies in boys and girls.

Table 5.2 shows the median age at diagnosis at different time periods. For all sites combined, the median age at diagnosis is 70 years, and this has been stable over the last decades. However, there is some variation between the sites. Cancer in the autonomic nervous system, a very rare cancer, has the lowest median age at diagnosis (8.5 years). Among the more commons cancers, testis has the lowest median age at diagnosis (36 years). Non-melanoma skin cancer, on the other hand, has the highest median age (79 years). Moreover, the median age at diagnosis is 62 years for breast and 70 years for prostate cancer. For these two cancer sites there has been a reduction in median age at diagnosis with 4 and 5 years, respectively, in the latest period 2017–2021 compared to 1987–1991. For melanoma of the skin, median age at diagnosis has increased by 11 years during the same period. Changes in median age at diagnosis may be influenced by changes in the age distribution of the population, by diagnostic intensity and by the age-specific incidence rates at different periods. Thus, it might be difficult to interpret patterns and trends without information about these factors.

Figure 5.2 shows the most common cancer types by gender and age at diagnosis. The most commonly occurring cancers in boys and girls (0–14 years old) are leukaemia and tumours in the central nervous system. Testicular cancer is by far the most common cancer in young men (15–24 years) and is also the most common cancer in men aged 25–49 years. In young women, there is no single cancer standing out as the most common. Instead, thyroid gland, Hodgkin's lymphoma, skin melanoma and tumours in the central nervous system each make up 12–13% of the cases in this age group (15–24 years). Tumour in the central nervous system was previously the most common cancer among young girls (15–24 years) but has been bypassed by melanoma of the skin. Prostate cancer is the most frequent cancer in men above 50 years, while breast cancer is the most common cancer in women aged 25 through 69. For women above age 69 years, breast, colon, lung, and skin (non-melanoma) cancers stand out as the most common one. Each of them makes up between 12–14% of all the cases in the oldest age group (70+ years).

Figure 5.1: Percentage distribution of cancer incidence by age, 2017–2021

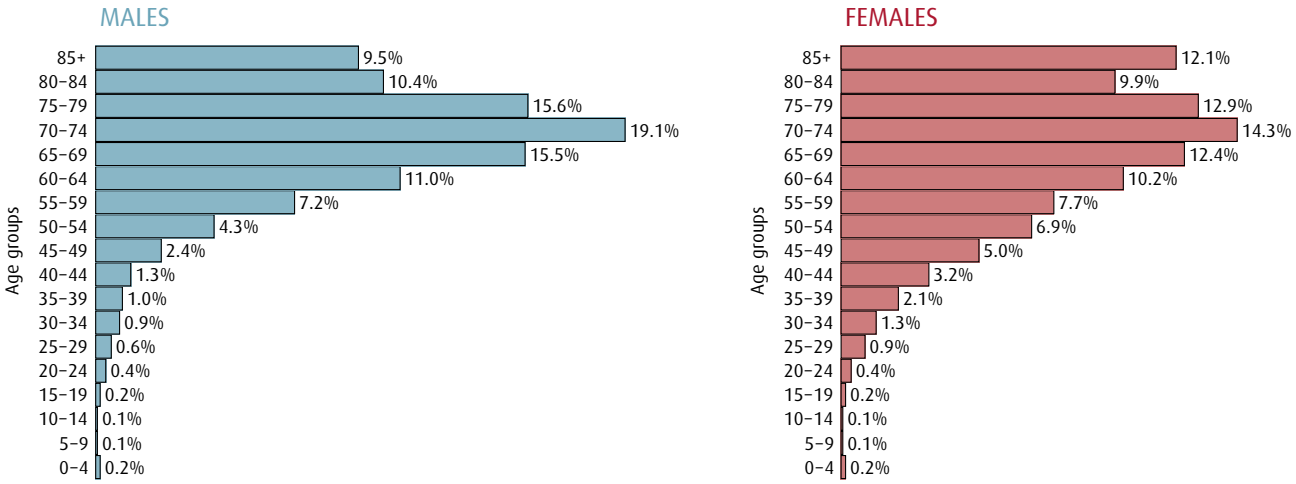


Table 5.2: Median age at diagnosis at different time periods by primary site

		Median age in			
ICD-10	**Site**	**1987–91**	**1997–01**	**2007–11**	**2017–21**
C00–96	**All sites**	**70.0**	**70.0**	**68.0**	**70.0**
C00–14	**Mouth, pharynx**	**68.0**	**66.0**	**65.0**	**67.0**
C00	Lip	72.0	72.5	73.0	75.0
C02–06	Oral cavity	67.0	67.0	67.0	70.0
C07–08	Salivary glands	67.0	67.0	64.0	67.0
C09–10, C01, C14	Oropharynx	63.0	60.0	61.0	63.0
C11	Nasopharynx	64.0	60.5	53.5	58.0
C12–13	Hypopharynx	65.0	67.0	66.0	69.0
C15–26	**Digestive organs**	**72.0**	**74.0**	**72.0**	**72.0**
C15	Oesophagus	70.0	72.0	69.0	71.0
C16	Stomach	74.0	75.0	74.0	73.0
C17	Small intestine	69.0	69.0	67.0	69.0
C18	Colon	72.0	74.0	74.0	74.0
C19–20	Rectum, rectosigmoid	72.0	72.0	70.0	70.0
C21	Anus	67.0	67.0	65.0	67.0
C22	Liver	71.0	72.0	71.0	71.0
C23–24	Gallbladder, bile ducts	73.0	74.0	73.0	73.0
C25	Pancreas	73.0	75.0	73.0	73.0
C26	Other digestive organs	79.0	78.0	75.0	74.0
C30–34, C38	**Respiratory organs**	**68.0**	**70.0**	**70.0**	**72.0**
C30–31	Nose, sinuses	71.0	69.5	66.0	70.0
C32	Larynx, epiglottis	67.0	68.0	67.0	70.0
C33–34	Lung, trachea	68.0	70.0	70.0	72.0
C38	Heart, mediastinum and pleura	70.0	70.5	67.0	75.0
C40–41	**Bone**	**37.0**	**40.0**	**46.0**	**52.0**
C43	**Melanoma of the skin**	**56.0**	**59.0**	**63.0**	**67.0**
C44	**Skin, non-melanoma**	**76.0**	**77.0**	**79.0**	**79.0**
C45	**Mesothelioma**	**67.5**	**70.0**	**72.0**	**75.0**
C47	**Autonomic nervous system**	**31.0**	**34.0**	**28.0**	**8.5**
C48–49	**Soft tissues**	**63.0**	**65.0**	**62.5**	**63.5**
C50	**Breast**	**66.0**	**61.0**	**61.0**	**62.0**
C51–58	**Female genital organs**	**63.0**	**63.0**	**64.0**	**66.0**
C51–52, C57.7–9	Other female genital	73.0	75.0	74.0	73.0
C53	Cervix uteri	51.0	48.0	46.0	46.0
C54	Corpus uteri	65.0	66.0	66.0	69.0
C55	Uterus, other	82.0	78.5	79.0	79.0
C56, C57.0–4, C48.2	Ovary etc.	65.0	65.0	65.0	68.0
C58	Placenta	26.0	29.0	31.0	33.0
C60–63	**Male genital organs**	**74.0**	**72.0**	**68.0**	**69.0**
C61	Prostate	75.0	73.0	69.0	70.0
C62	Testis	32.0	33.0	35.0	36.0
C60, C63	Other male genital	69.0	72.0	67.0	71.0
C64–68	**Urinary organs**	**71.0**	**72.0**	**71.0**	**72.0**
C64	Kidney (excl. renal pelvis)	69.0	70.0	67.0	67.0
C65–68	Urinary tract	72.0	73.0	73.0	73.0
C69	**Eye**	**65.5**	**67.0**	**64.0**	**65.0**
C70–72	**Central nervous system**	**59.0**	**58.0**	**59.0**	**61.0**
C73	**Thyroid gland**	**54.0**	**53.0**	**52.0**	**54.0**
C37, C74–75	**Other endocrine glands**	**50.0**	**51.0**	**54.0**	**58.0**
C39, C76, C80	**Other or unspecified**	**74.0**	**77.0**	**79.0**	**79.0**
C81–96	**Lymphoid/haematopoietic tissue**	**68.0**	**70.0**	**68.0**	**70.0**
C81	Hodgkin lymphoma	40.0	34.0	38.0	45.0
C82–86, C96	Non-Hodgkin lymphoma	67.0	67.0	66.0	70.0
C88	Immunoproliferative disease	71.0	72.0	71.0	74.0
C90	Multiple myeloma	72.0	73.0	72.0	72.0
C91–95	Leukaemia	70.0	71.0	70.0	71.0

Figure 5.2: The most frequent types of cancer by age and sex, 2017–2021

Figure 5.2–A: All ages

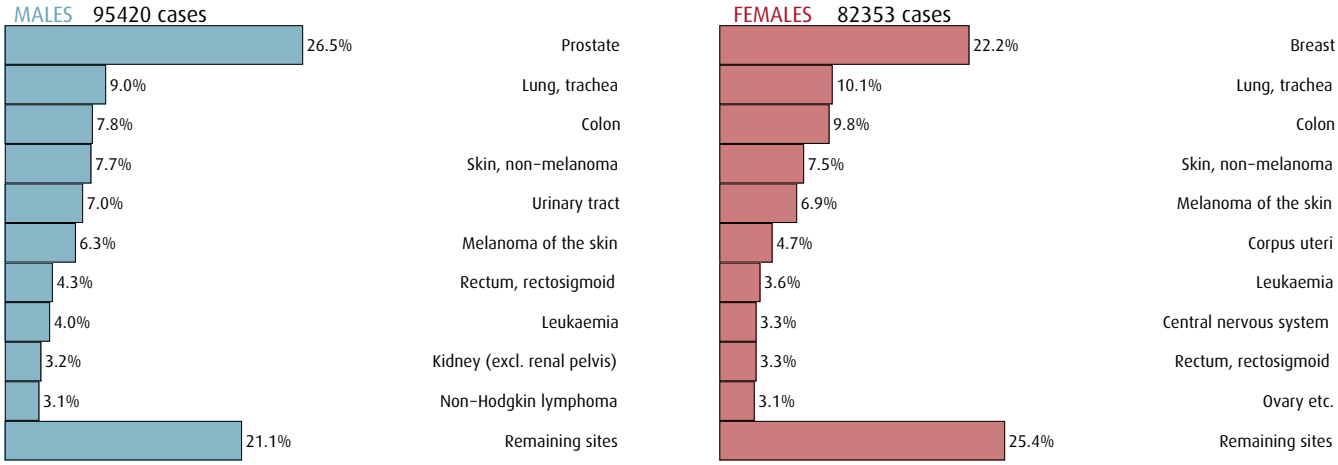


Figure 5.2–B: 0–14 years

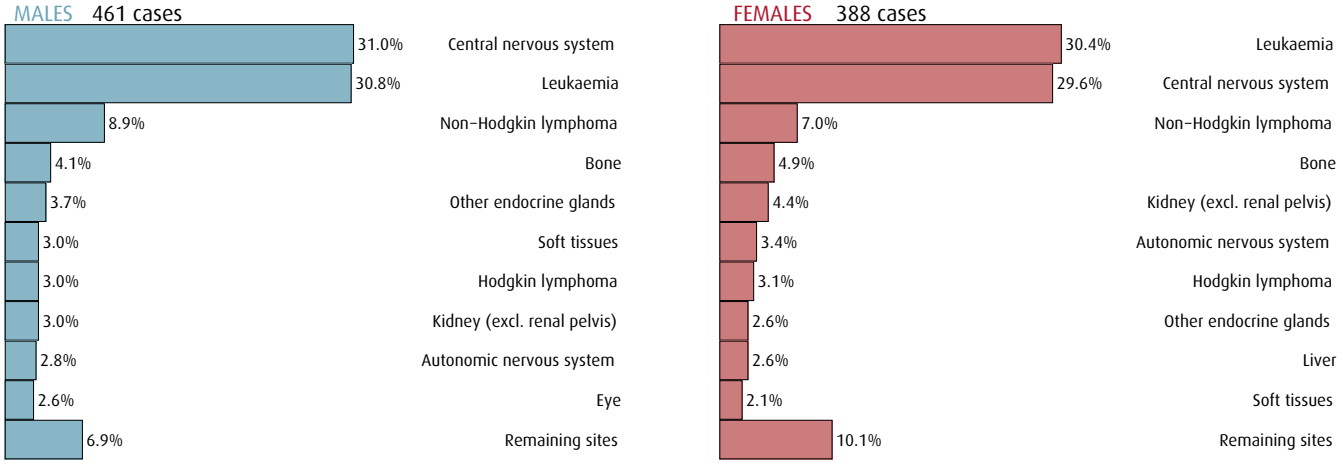


Figure 5.2–C: 15–24 years

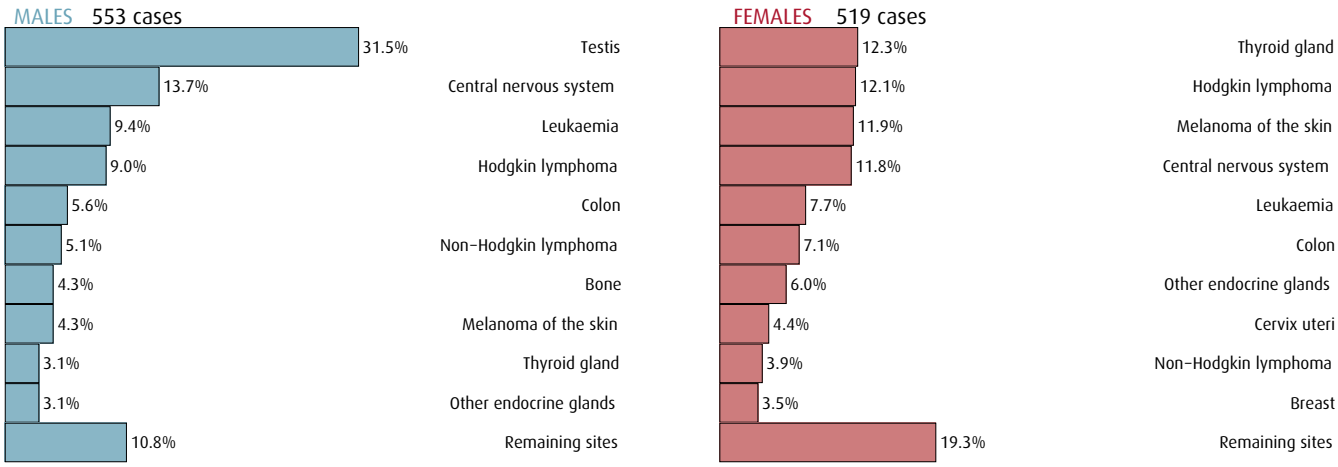


Figure 5.2: The most frequent types of cancer by age and sex, 2017–2021

Figure 5.2–D: 25–49 years

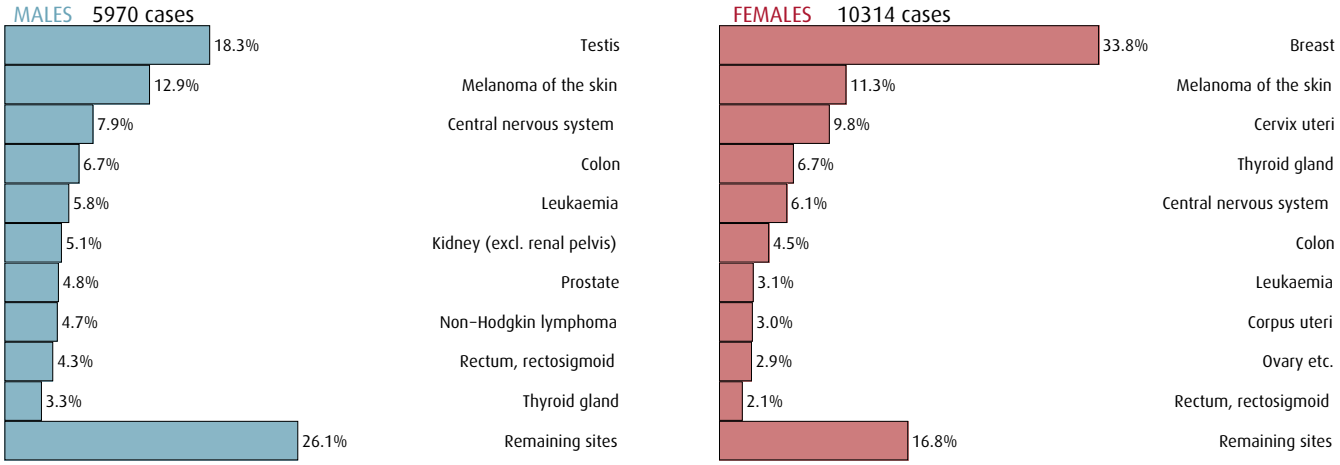


Figure 5.2–E: 50–69 years

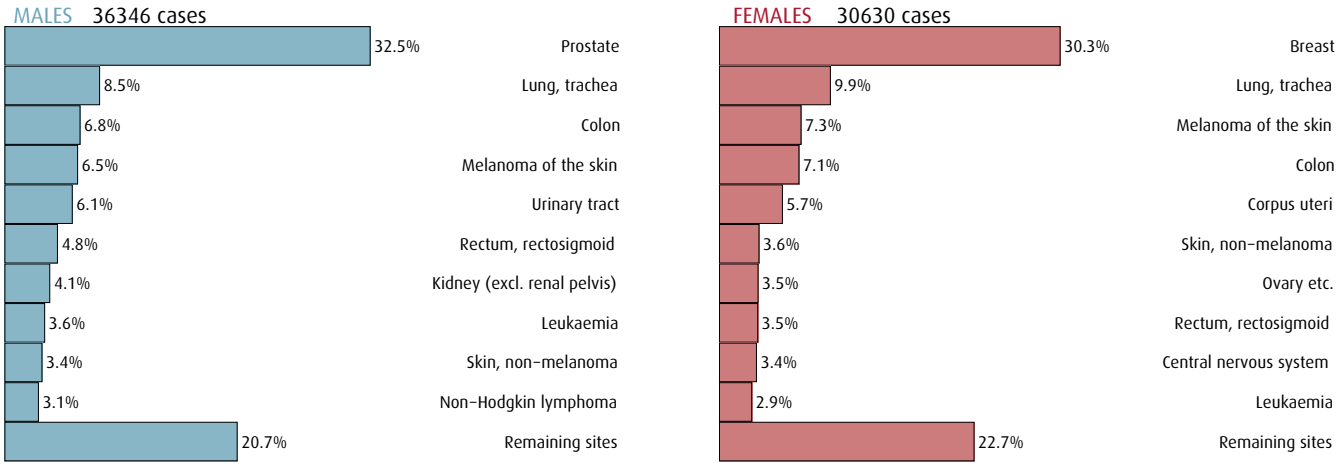
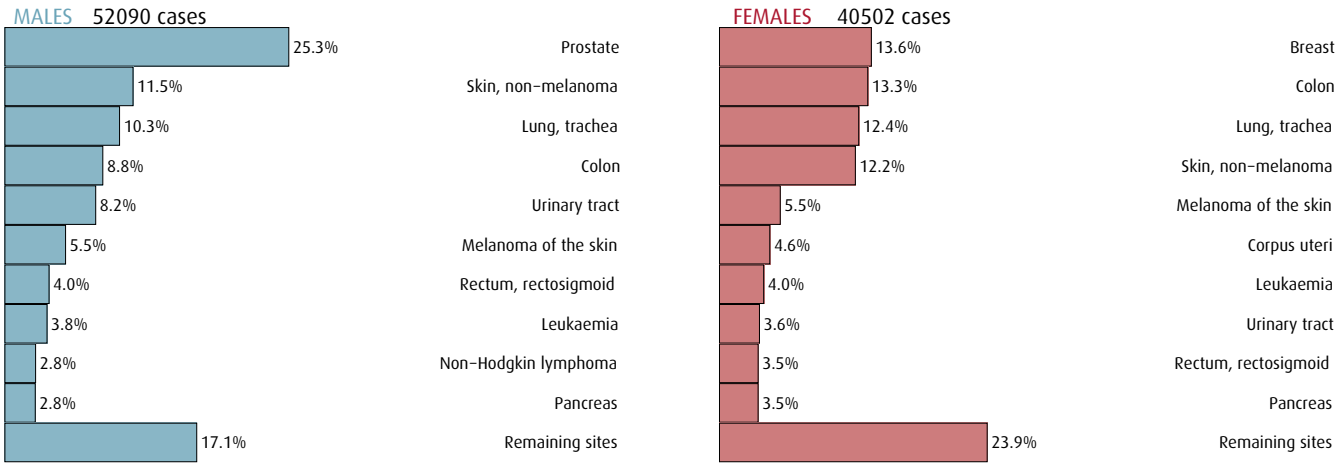


Figure 5.2–F: 70+ years



5.3 Male to female ratios

The age-standardised rates and male to female ratio (M:F) for selected cancer types in 1987–1991 and 2017–2021 are shown in Table 5.3. Men tend to have higher incidence rates for most cancer types in both time periods, except for cancer of thyroid gland, anus, and central nervous system. The highest M:F ratios were observed for mesothelioma, several sites of the head and neck and for cancers in the urinary tract.

The decline in the M:F ratio for several cancers over the last 30 years is largely a result of a more rapid increase in the incidence rates in women. For lung cancer, the increase in rate in women has been accompanied by a levelling off and a slight decline in the rate in men, and the M:F ratio is now at 1.2 compared to 3.0 in the late 1980s.

Table 5.3: Sex ratio (male:female) of age-adjusted rates (Norwegian standard) in 1987–1991 and 2017–2021 for selected cancers, sorted in descending order in last period

		1987–91			2017–21		
ICD-10	**Site**	**M**	**F**	**M:F ratio**	**M**	**F**	**M:F ratio**
C00–96	**All sites**	**536.4**	**393.7**	**1.4**	**712.6**	**560.0**	**1.3**
C12–13	Hypopharynx	1.5	0.3	5.0	0.9	0.1	6.3
C45	Mesothelioma	2.1	0.3	6.4	2.6	0.5	5.5
C32	Larynx, epiglottis	6.0	0.5	11.2	3.3	0.7	5.1
C38	Heart, mediastinum and pleura	0.4	0.2	2.0	0.5	0.1	3.8
C65–68	Urinary tract	44.2	11.7	3.8	50.2	15.0	3.4
C15	Oesophagus	6.0	1.7	3.5	9.2	2.8	3.3
C09–10, C01, C14	Oropharynx	1.9	0.6	3.3	6.6	2.2	3.1
C64	Kidney (excl. renal pelvis)	14.5	8.1	1.8	22.5	9.9	2.3
C11	Nasopharynx	0.6	0.2	3.6	0.4	0.2	2.2
C22	Liver	3.5	1.8	2.0	8.8	4.3	2.1
C88	Immunoproliferative disease	0.5	0.3	1.5	2.2	1.1	2.0
C16	Stomach	30.7	14.7	2.1	10.2	5.8	1.8
C30–31	Nose, sinuses	1.3	0.6	2.1	1.0	0.6	1.7
C90	Multiple myeloma	9.1	5.8	1.6	11.3	7.1	1.6
C19–20	Rectum, rectosigmoid	30.5	18.5	1.6	30.1	18.3	1.6
C00	Lip	5.0	0.9	5.6	2.1	1.4	1.6
C44	Skin, non-melanoma	24.6	13.1	1.9	59.7	39.1	1.5
C48–49	Soft tissues	2.3	2.2	1.1	2.5	1.8	1.4
C82–86, C96	Non-Hodgkin lymphoma	14.9	11.1	1.3	21.7	15.5	1.4
C02–06	Oral cavity	4.7	2.6	1.9	4.6	3.3	1.4
C17	Small intestine	1.5	1.4	1.0	4.7	3.3	1.4
C40–41	Bone	1.0	0.6	1.5	1.2	0.8	1.4
C91–95	Leukaemia	13.4	8.5	1.6	29.0	20.3	1.4
C81	Hodgkin lymphoma	2.5	1.5	1.6	3.0	2.3	1.3
C25	Pancreas	17.1	12.1	1.4	18.6	14.1	1.3
C07–08	Salivary glands	1.0	0.6	1.7	1.4	1.0	1.3
C33–34	Lung, trachea	64.0	21.2	3.0	63.7	54.5	1.2
C47	Autonomic nervous system	0.4	0.4	1.0	0.2	0.2	1.1
C69	Eye	1.2	1.1	1.1	1.6	1.4	1.1
C43	Melanoma of the skin	21.1	21.6	1.0	44.9	39.7	1.1
C18	Colon	44.9	38.7	1.2	56.6	52.5	1.1
C26	Other digestive organs	2.3	2.7	0.9	2.4	2.1	1.1
C39, C76, C80	Other or unspecified	16.7	12.3	1.4	6.3	5.8	1.1
C37, C74–75	Other endocrine glands	2.2	1.9	1.2	3.3	3.3	1.0
C23–24	Gallbladder, bile ducts	2.9	3.2	0.9	3.0	2.9	1.0
C70–72	Central nervous system	12.8	12.5	1.0	16.9	19.3	0.9
C21	Anus	0.6	1.4	0.4	1.3	2.3	0.6
C73	Thyroid gland	2.7	6.4	0.4	5.1	12.3	0.4

5.4 Incidence trends

Figure 5.3: Time trends in age-standardised (Norwegian standard) incidence rates for selected cancers, 1953–2021

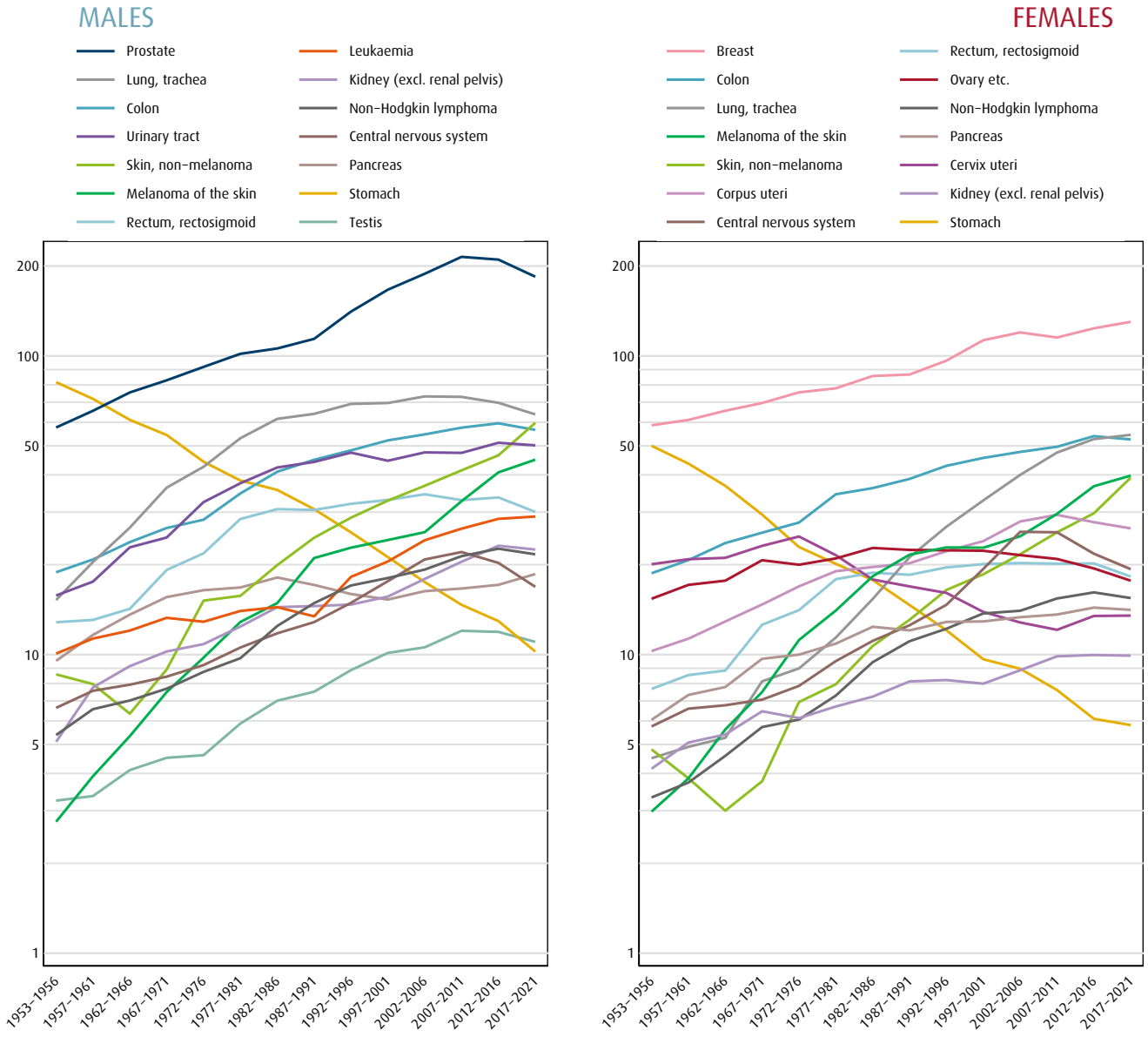


Figure 5.3 depicts time trends in incidence over seven decades for some selected cancers. The incidence rates have increased in Norway for most cancer types since the first observation period. The upward trends have been most pronounced for lung cancer among women and skin cancer (melanoma and non-melanoma) in both sexes. Stomach cancer is the only cancer that has had a sharp and steady decline in incidence since early 1950s. The rate for cervical cancer also declined from mid 1970s to late 1990s but has then after been followed by more stable rates and even had a slight increase for some few years in the last decade.

For most cancers, it is difficult to give a proper explanation of the incidence trends over time, even for cancers with known risk factors. Rates may also be influenced by diagnostic methods, screening activities, and changes in life expectancy or age distribution. Below we have given a short description of the trends for selected sites and listed some known factors that most possibly have influenced the trends.

Stomach cancer is the only cancer that has had a sharp and consistent decline. In the first observation period, stomach cancer was the most common cancer in men and second most common cancer in women, in line with observations of cancer mortality reported by Norwegian general practitioners one hundred years ago[22]. The monotonous drop in incidence from 1953 until today reflects improvement in hygiene and environmental ex-

posures. Changes in the prevalence of *Helicobacter pylori* infection and in dietary habits (refrigerators) are likely contributors to this trend. The decline illustrates the vast potential for primary prevention worldwide. Interestingly, the causes of stomach cancer were not adequately known until the 1980s, and the waning of the rates has been a chance phenomenon rather than an intended one.

Prostate cancer has been the most common cancer in men for many decades, and the age-standardised incidence rate has tripled since registration started in the early 1950s. A dramatic upsurge came from around 1990 with changes in diagnostic practice with unorganised screening and testing in the primary health care system. The introduction and subsequent widespread use of the Prostate Specific Antigen (PSA) test, followed by biopsies, are considered the main explanation for the increased rate. The rate is now on the decline.

Breast cancer has been the most common cancer in women since the establishment of the Cancer Registry of Norway, and during this period the incidence rate has doubled. There has been a monotonous increase in the rate up to 1990s with a steeper increase in the mid-1990s followed by a slight decline between 2005 and 2009. The Norwegian Breast Cancer Screening Programme started in 1996, and gradually expanded to become nationwide by 2005. The programme invites women aged 50–69 years to biennial mammography. The implementation of the screening programme explains much of the increasing incidence trend from the mid-1990s to 2005. There has been a slight increase in the last ten years, and age-specific rates (not shown) indicate that the increase is primarily limited to the age group 60–79 years.

Lung cancer in women has almost had a ten folded incidence increase since early 1950s. We have observed signs of a stabilisation in the rate during recent years. However, the rate reached an all-time high level in 2018 (details are shown in Table 5.8). It is too early to decide whether 2018 represents a turning point, but it is interesting to note that the lung cancer rates seem to decline for all age groups below 80. In men, the incidence has been levelling off over the last two decades (Table 5.7), and a slight overall decline is now observed in all age groups.

Colon and rectum cancer incidence rates are sometimes presented combined. However, the incidence trends for these cancers differ — colon cancer has increased steadily throughout the registration period. Fortunately, we are now seeing a decline among men, and a flattening among women. The incidence of rectal cancer has remained relatively stable over the last three decades in both sexes, and a decline is seen in the last few years.

Skin cancer i.e. skin melanoma and non-melanoma are cancers of concern. From being rare in 1953, they now rank among the leading cancers in men and women alike. The rates have had a remarkable increase, especially in the oldest age groups (above 70 years) (Table 5.7 and 5.8) most probably caused by adverse suntanning habits, but might also be influenced by other factors including awareness and diagnostic intensity.

Cervical cancer has had a downward incidence trend since the early 1970s. This is probably a result of identification and treatment of premalignant conditions as part of an organised screening programme. In 2009, vaccination against human papilloma virus (HPV) was introduced as part of the Norwegian Childhood Immunisation Programme for girls born in 1997 and after. A catch-up program was implemented in November 2016. In 2018, the programme also offered vaccination to boys. Still, we do not expect this primary prevention to affect the incidence rate for another 15 to 20 years. Furthermore, the worrying increase in cervical cancer, as we reported in the previous issue, has flattened out.

The incidence rates of **tumours in the central nervous system** in both sexes have declined in recent years. We believe that this is due to underreporting, and as shown in Tables 5.23–5.24 the reduction in rates is limited to non-malignant cases.

For **testicular cancer** and **non-Hodgkin lymphoma**, for example, genetic factors play a role, while other determinants are largely unknown.

Even if rates were to remain stable over the next 15 years, the number of new cases would increase as a result of the joint effects of population growth and aging. The NORDCAN project provides online access to predictions of incidence and mortality in the Nordic countries available at:

`http://www-dep.iarc.fr/nordcan.htm`

Trends in cancer incidence for all sites are given in Tables 5.15–5.16, and detailed trends in incidence, mortality and survival for 23 cancers are provided in Chapter 9.

5.5 Cumulative risk

Figure 5.4 and Table 5.4 show the cumulative risk of cancer in men and women. About four in ten Norwegians will develop a cancer before the age of 80. The risk of prostate cancer is the highest in men, as 16% will have a diagnosis by the age of 80. The risk of breast cancer is the highest in women, with 10.5%, indicating that one in ten Norwegian women will be diagnosed with the disease before turning 80. In both gender, lung and colon cancer rank second and third.

5.6 Incidence by county of residence

There has been a reform of the county structure in Norway, and the original 19 counties are now reduced to 11. The new county Viken is by far the most populous county and covers 23% of the Norwegian population. Nordland, on the other hand, has the lowest number of inhabitants and covers 4% of the population. Four of the original counties were not affected by reform, and one of these, Rogaland, had, and still has, the highest incidence of cancer (all sites combined) for both men and women. Some of the original counties had clear differences in the cancer incidence, and the merging of counties makes it difficult to keep up with some interesting trends, e.g. the lung cancer rates in men in the former county Finnmark, which has had the highest rate of lung cancer for several decades (Tables 5.17–5.20).

Digital maps are available online at:

https://www.kreftregisteret.no/Registrene/data-og-statistikk/statistikkbank/

5.7 Incidence tables

Tables 5.5–5.28 provide further information on cancer incidence in Norway. The number of incident cases and rates are tabulated according to year of diagnosis (Tables 5.5–5.8), age group (Tables 5.9–5.12), five-year period (Tables 5.13–5.16), county of residence (Tables 5.17–5.20), stage (Tables 5.21–5.24), and continent of birth (Tables 5.25–5.28).

Figure 5.4: Cumulative risk of developing cancer (%) by the age of 80 for selected cancers, 2017–2021

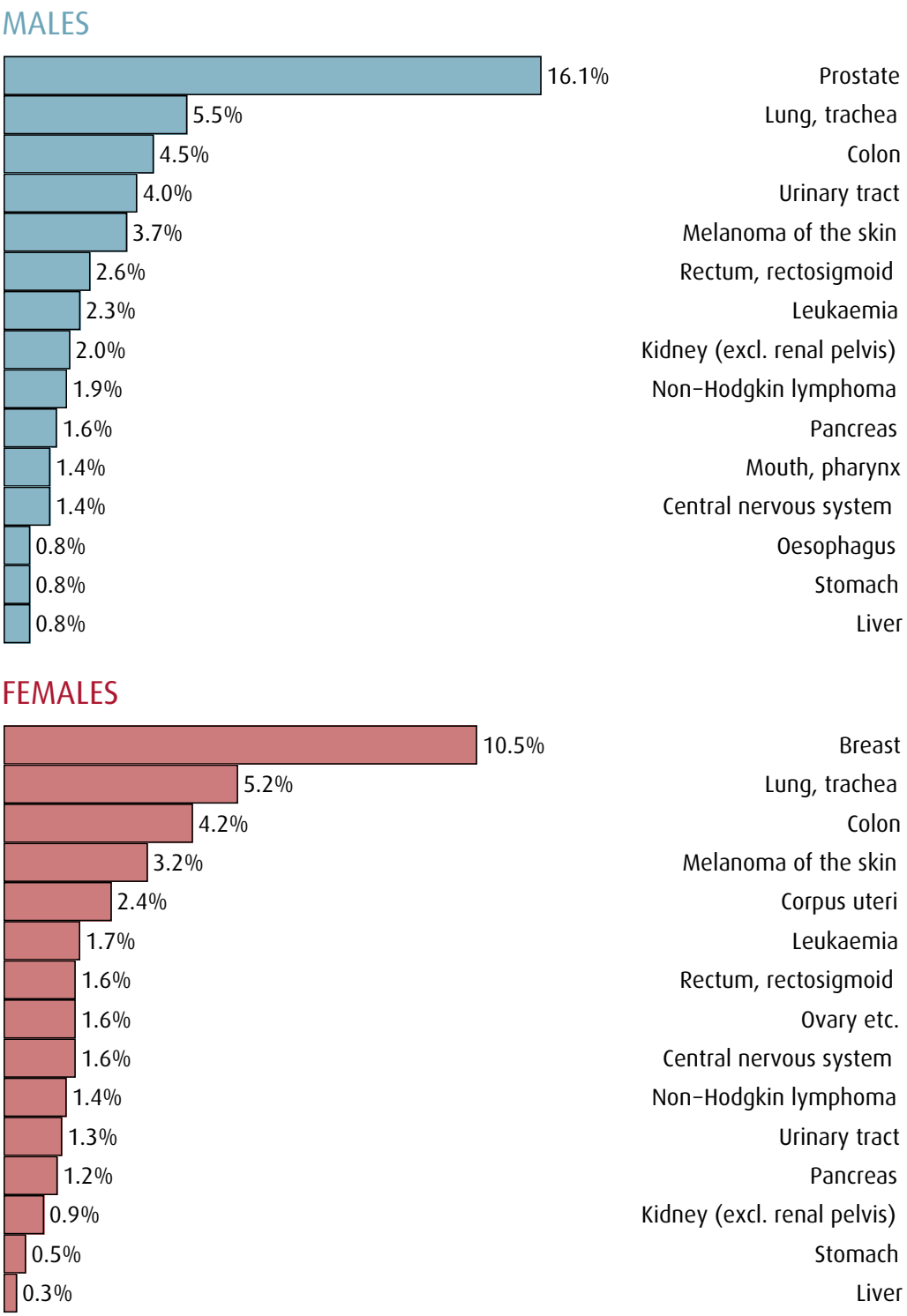


Table 5.4: Cumulative risk of developing cancer (%) by age of 80 by primary site and sex, 2017–2021

ICD-10	Site	Males	Females
C00–96	**All sites**	**45.5**	**37.6**
C00–14	**Mouth, pharynx**	**1.4**	**0.7**
C00	Lip	0.2	0.1
C02–06	Oral cavity	0.4	0.3
C07–08	Salivary glands	0.1	0.1
C09–10, C01, C14	Oropharynx	0.6	0.2
C11	Nasopharynx	0.0	0.0
C12–13	Hypopharynx	0.1	0.0
C15–26	**Digestive organs**	**11.4**	**8.6**
C15	Oesophagus	0.8	0.2
C16	Stomach	0.8	0.5
C17	Small intestine	0.4	0.3
C18	Colon	4.5	4.2
C19–20	Rectum, rectosigmoid	2.6	1.6
C21	Anus	0.1	0.2
C22	Liver	0.8	0.3
C23–24	Gallbladder, bile ducts	0.2	0.2
C25	Pancreas	1.6	1.2
C26	Other digestive organs	0.2	0.2
C30–34, C38	**Respiratory organs**	**5.9**	**5.3**
C30–31	Nose, sinuses	0.1	0.0
C32	Larynx, epiglottis	0.3	0.1
C33–34	Lung, trachea	5.5	5.2
C38	Heart, mediastinum and pleura	0.0	0.0
C40–41	**Bone**	**0.1**	**0.1**
C43	**Melanoma of the skin**	**3.7**	**3.2**
C44	**Skin, non-melanoma**	**3.6**	**2.5**
C45	**Mesothelioma**	**0.2**	**0.0**
C47	**Autonomic nervous system**	**0.0**	**0.0**
C48–49	**Soft tissues**	**0.2**	**0.2**
C50	**Breast**	**0.1**	**10.5**
C51–58	**Female genital organs**		**5.2**
C51–52, C57.7–9	Other female genital		0.3
C53	Cervix uteri		1.1
C54	Corpus uteri		2.4
C55	Uterus, other		0.0
C56, C57.0–4, C48.2	Ovary etc.		1.6
C58	Placenta		0.0
C60–63	**Male genital organs**	**16.9**	
C61	Prostate	16.1	
C62	Testis	0.8	
C60, C63	Other male genital	0.2	
C64–68	**Urinary organs**	**6.0**	**2.2**
C64	Kidney (excl. renal pelvis)	2.0	0.9
C65–68	Urinary tract	4.0	1.3
C69	**Eye**	**0.1**	**0.1**
C70–72	**Central nervous system**	**1.4**	**1.6**
C73	**Thyroid gland**	**0.4**	**1.0**
C37, C74–75	**Other endocrine glands**	**0.3**	**0.3**
C39, C76, C80	**Other or unspecified**	**0.4**	**0.3**
C81–96	**Lymphoid/haematopoietic tissue**	**5.5**	**3.9**
C81	Hodgkin lymphoma	0.3	0.2
C82–86, C96	Non-Hodgkin lymphoma	1.9	1.4
C88	Immunoproliferative disease	0.2	0.1
C90	Multiple myeloma	1.0	0.6
C91–95	Leukaemia	2.3	1.7

Table 5.5: Number of new cases by primary site and year, 2012–2021, **males**

		Year									
ICD-10	**Site**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
C00–96	**All sites**	**16 783**	**16 828**	**17 470**	**18 099**	**18 572**	**18 550**	**18 716**	**19 066**	**19 404**	**19 684**
C00–14	**Mouth, pharynx**	**361**	**337**	**404**	**400**	**409**	**392**	**431**	**425**	**459**	**477**
C00	Lip	62	48	62	58	51	51	51	53	65	57
C02–06	Oral cavity	108	112	115	118	123	123	138	115	122	123
C07–08	Salivary glands	30	28	45	36	43	28	43	27	38	46
C09–10, C01, C14	Oropharynx	132	126	148	159	161	155	175	197	189	204
C11	Nasopharynx	14	8	11	7	8	11	12	10	11	16
C12–13	Hypopharynx	15	15	23	22	23	24	12	23	34	31
C15–26	**Digestive organs**	**3 329**	**3 443**	**3 490**	**3 646**	**3 717**	**3 686**	**3 883**	**3 834**	**4 031**	**3 898**
C15	Oesophagus	175	200	225	224	214	214	243	235	296	255
C16	Stomach	286	307	307	297	309	289	244	291	289	227
C17	Small intestine	105	90	98	106	117	122	110	128	146	134
C18	Colon	1 302	1 336	1 367	1 432	1 451	1 462	1 512	1 462	1 512	1 517
C19–20	Rectum, rectosigmoid	752	802	813	798	845	800	847	785	835	808
C21	Anus	23	16	29	22	34	34	28	43	38	37
C22	Liver	138	179	147	185	195	192	226	241	258	266
C23–24	Gallbladder, bile ducts	86	96	72	81	85	65	86	80	83	88
C25	Pancreas	407	364	384	443	409	441	508	517	524	502
C26	Other digestive organs	55	53	48	58	58	67	79	52	50	64
C30–34, C38	**Respiratory organs**	**1 784**	**1 721**	**1 782**	**1 749**	**1 832**	**1 862**	**1 821**	**1 788**	**1 844**	**1 930**
C30–31	Nose, sinuses	32	35	30	15	25	28	24	27	29	25
C32	Larynx, epiglottis	99	105	115	88	86	72	107	85	83	108
C33–34	Lung, trachea	1 643	1 573	1 627	1 639	1 704	1 747	1 680	1 663	1 719	1 786
C38	Heart, mediastinum and pleura	10	8	10	7	17	15	10	13	13	11
C40–41	**Bone**	**33**	**18**	**30**	**33**	**31**	**27**	**35**	**43**	**28**	**31**
C43	**Melanoma of the skin**	**897**	**851**	**1 040**	**1 045**	**1 082**	**1 173**	**1 178**	**1 215**	**1 183**	**1 279**
C44	**Skin, non-melanoma**	**895**	**916**	**1 013**	**1 063**	**1 115**	**1 278**	**1 345**	**1 486**	**1 561**	**1 669**
C45	**Mesothelioma**	**66**	**78**	**58**	**69**	**62**	**75**	**54**	**82**	**54**	**75**
C47	**Autonomic nervous system**	**5**	**5**	**7**	**4**	**2**	**8**	**8**	**3**	**2**	**5**
C48–49	**Soft tissues**	**82**	**79**	**63**	**70**	**57**	**72**	**60**	**84**	**63**	**53**
C50	**Breast**	**27**	**35**	**24**	**24**	**31**	**33**	**28**	**27**	**31**	**32**
C60–63	**Male genital organs**	**5 289**	**5 262**	**5 348**	**5 540**	**5 686**	**5 458**	**5 322**	**5 358**	**5 413**	**5 564**
C61	Prostate	4 924	4 883	4 964	5 188	5 309	5 104	4 935	4 990	5 072	5 188
C62	Testis	322	332	325	292	290	290	321	303	285	295
C60, C63	Other male genital	43	47	59	60	87	64	66	65	56	81
C64–68	**Urinary organs**	**1 606**	**1 626**	**1 755**	**1 834**	**1 911**	**1 877**	**1 889**	**1 971**	**2 002**	**2 000**
C64	Kidney (excl. renal pelvis)	538	538	581	582	610	587	638	648	598	624
C65–68	Urinary tract	1 068	1 088	1 174	1 252	1 301	1 290	1 251	1 323	1 404	1 376
C69	**Eye**	**29**	**34**	**49**	**42**	**40**	**42**	**43**	**40**	**47**	**41**
C70–72	**Central nervous system**	**538**	**511**	**536**	**507**	**435**	**489**	**465**	**443**	**439**	**444**
C73	**Thyroid gland**	**92**	**105**	**115**	**105**	**141**	**136**	**120**	**146**	**135**	**163**
C37, C74–75	**Other endocrine glands**	**148**	**119**	**127**	**94**	**116**	**88**	**94**	**98**	**91**	**79**
C39, C76, C80	**Other or unspecified**	**130**	**154**	**162**	**158**	**147**	**124**	**155**	**155**	**169**	**172**
C81–96	**Lymphoid/haematopoietic tissue**	**1 472**	**1 534**	**1 467**	**1 716**	**1 758**	**1 730**	**1 785**	**1 868**	**1 852**	**1 772**
C81	Hodgkin lymphoma	85	72	79	109	91	94	92	68	94	73
C82–86, C96	Non-Hodgkin lymphoma	512	531	523	587	572	525	579	626	598	604
C88	Immunoproliferative disease	52	39	41	47	53	48	51	60	64	64
C90	Multiple myeloma	211	240	210	260	268	300	285	303	331	300
C91–95	Leukaemia	612	652	614	713	774	763	778	811	765	731

Table 5.6: Number of new cases by primary site and year, 2012–2021, **females**

		Year									
ICD-10	**Site**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
C00–96	**All sites**	**13 832**	**14 281**	**15 066**	**15 554**	**15 701**	**15 813**	**16 189**	**16 581**	**16 456**	**17 314**
C00–14	**Mouth, pharynx**	**186**	**191**	**216**	**224**	**242**	**255**	**238**	**229**	**233**	**260**
C00	Lip	37	41	31	45	46	51	34	47	36	45
C02–06	Oral cavity	67	83	98	80	108	92	108	82	102	109
C07–08	Salivary glands	17	18	27	39	29	40	29	27	24	33
C09–10, C01, C14	Oropharynx	52	38	43	55	49	60	56	63	62	66
C11	Nasopharynx	6	6	8	3	6	9	5	5	3	5
C12–13	Hypopharynx	7	5	9	2	4	3	6	5	6	2
C15–26	**Digestive organs**	**2 933**	**3 022**	**3 130**	**3 256**	**3 200**	**3 241**	**3 222**	**3 232**	**3 360**	**3 430**
C15	Oesophagus	72	63	71	77	72	76	80	87	96	89
C16	Stomach	182	166	189	168	152	194	165	170	181	166
C17	Small intestine	62	50	78	78	75	108	80	83	108	111
C18	Colon	1 420	1 461	1 475	1 579	1 647	1 572	1 596	1 578	1 625	1 687
C19–20	Rectum, rectosigmoid	500	579	575	579	536	538	536	545	559	538
C21	Anus	49	61	71	62	81	55	68	74	68	69
C22	Liver	81	83	89	105	116	121	119	129	139	138
C23–24	Gallbladder, bile ducts	104	104	109	83	77	83	69	93	97	102
C25	Pancreas	396	391	399	452	382	419	452	405	433	460
C26	Other digestive organs	67	64	74	73	62	75	57	68	54	70
C30–34, C38	**Respiratory organs**	**1 359**	**1 382**	**1 507**	**1 577**	**1 564**	**1 593**	**1 734**	**1 731**	**1 678**	**1 755**
C30–31	Nose, sinuses	19	20	19	22	15	10	17	20	19	22
C32	Larynx, epiglottis	19	21	20	20	23	18	24	20	18	15
C33–34	Lung, trachea	1 317	1 336	1 463	1 529	1 521	1 561	1 689	1 686	1 639	1 713
C38	Heart, mediastinum and pleura	4	5	5	6	5	4	4	5	2	5
C40–41	**Bone**	**15**	**25**	**29**	**27**	**28**	**27**	**24**	**20**	**19**	**25**
C43	**Melanoma of the skin**	**893**	**899**	**1 012**	**1 001**	**1 061**	**1 063**	**1 167**	**1 135**	**1 165**	**1 164**
C44	**Skin, non-melanoma**	**791**	**823**	**928**	**849**	**1 016**	**1 046**	**1 127**	**1 257**	**1 346**	**1 428**
C45	**Mesothelioma**	**16**	**11**	**11**	**13**	**14**	**15**	**14**	**15**	**18**	**9**
C47	**Autonomic nervous system**	**0**	**6**	**8**	**7**	**2**	**4**	**2**	**4**	**6**	**6**
C48–49	**Soft tissues**	**50**	**52**	**48**	**59**	**53**	**43**	**51**	**59**	**55**	**48**
C50	**Breast**	**2 936**	**3 183**	**3 323**	**3 421**	**3 392**	**3 588**	**3 561**	**3 717**	**3 430**	**3 991**
C51–58	**Female genital organs**	**1 590**	**1 665**	**1 756**	**1 848**	**1 817**	**1 711**	**1 839**	**1 893**	**1 735**	**1 777**
C51–52, C57.7–9	Other female genital	107	104	129	118	125	125	136	117	120	119
C53	Cervix uteri	312	291	358	391	367	332	381	393	355	345
C54	Corpus uteri	650	769	735	787	787	710	804	834	770	774
C55	Uterus, other	6	7	12	7	9	8	11	10	6	8
C56, C57.0–4, C48.2	Ovary etc.	511	492	520	543	525	535	504	536	482	531
C58	Placenta	4	2	2	2	4	1	3	3	2	0
C64–68	**Urinary organs**	**672**	**682**	**655**	**780**	**785**	**733**	**747**	**721**	**744**	**801**
C64	Kidney (excl. renal pelvis)	263	233	237	315	298	293	279	276	301	306
C65–68	Urinary tract	409	449	418	465	487	440	468	445	443	495
C69	**Eye**	**31**	**45**	**45**	**41**	**30**	**42**	**42**	**46**	**31**	**43**
C70–72	**Central nervous system**	**612**	**566**	**582**	**559**	**538**	**610**	**486**	**536**	**543**	**544**
C73	**Thyroid gland**	**229**	**249**	**253**	**265**	**327**	**295**	**303**	**316**	**381**	**364**
C37, C74–75	**Other endocrine glands**	**120**	**142**	**122**	**120**	**98**	**98**	**96**	**93**	**84**	**76**
C39, C76, C80	**Other or unspecified**	**169**	**185**	**186**	**162**	**189**	**154**	**179**	**188**	**214**	**184**
C81–96	**Lymphoid/haematopoietic tissue**	**1 230**	**1 153**	**1 255**	**1 345**	**1 345**	**1 295**	**1 357**	**1 389**	**1 414**	**1 409**
C81	Hodgkin lymphoma	62	55	59	56	77	45	61	78	54	69
C82–86, C96	Non-Hodgkin lymphoma	452	406	443	451	443	429	458	471	460	486
C88	Immunoproliferative disease	32	35	37	21	20	35	32	32	37	33
C90	Multiple myeloma	183	183	199	213	199	196	210	223	231	221
C91–95	Leukaemia	501	474	517	604	606	590	596	585	632	600

Table 5.7: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and year, 2012–2021, **males**

		Year									
ICD-10	**Site**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
C00–96	**All sites**	**741.9**	**725.7**	**737.6**	**746.7**	**749.4**	**730.4**	**715.9**	**714.4**	**704.2**	**698.9**
C00–14	**Mouth, pharynx**	**15.4**	**14.1**	**16.5**	**16.0**	**16.1**	**15.0**	**16.2**	**15.7**	**16.5**	**16.8**
C00	Lip	2.9	2.1	2.7	2.5	2.2	2.0	2.0	2.1	2.5	2.0
C02–06	Oral cavity	4.7	4.7	4.7	4.6	4.9	4.7	5.2	4.2	4.4	4.3
C07–08	Salivary glands	1.3	1.2	1.9	1.5	1.8	1.0	1.6	1.1	1.4	1.7
C09–10, C01, C14	Oropharynx	5.4	5.1	5.8	6.2	6.1	5.8	6.4	7.1	6.6	7.1
C11	Nasopharynx	0.6	0.3	0.4	0.3	0.3	0.4	0.5	0.4	0.4	0.6
C12–13	Hypopharynx	0.6	0.6	0.9	0.9	0.8	0.9	0.4	0.8	1.2	1.1
C15–26	**Digestive organs**	**149.0**	**150.0**	**149.0**	**152.0**	**150.6**	**146.2**	**149.4**	**143.6**	**145.8**	**140.0**
C15	Oesophagus	7.6	8.7	9.5	9.1	8.6	8.4	9.3	8.6	10.4	9.1
C16	Stomach	12.9	13.4	13.2	12.7	12.6	11.6	9.7	11.1	10.6	8.4
C17	Small intestine	4.6	3.8	4.1	4.3	4.6	4.7	4.1	4.7	5.3	4.8
C18	Colon	58.8	59.1	59.6	60.4	59.5	58.9	58.4	55.6	55.2	55.1
C19–20	Rectum, rectosigmoid	33.5	34.2	34.0	32.8	33.6	30.9	32.1	29.0	30.1	28.4
C21	Anus	1.0	0.7	1.2	0.9	1.4	1.3	1.1	1.6	1.4	1.3
C22	Liver	6.0	7.7	6.1	7.6	7.9	7.6	8.7	9.0	9.2	9.5
C23–24	Gallbladder, bile ducts	3.9	4.2	3.0	3.4	3.4	2.6	3.3	3.0	3.0	3.1
C25	Pancreas	18.2	15.9	16.3	18.4	16.7	17.6	19.6	19.1	18.8	17.9
C26	Other digestive organs	2.5	2.3	2.1	2.4	2.4	2.7	3.2	2.0	1.8	2.3
C30–34, C38	**Respiratory organs**	**79.7**	**74.7**	**76.1**	**72.5**	**74.3**	**73.3**	**69.2**	**66.7**	**66.1**	**67.8**
C30–31	Nose, sinuses	1.4	1.5	1.3	0.6	1.0	1.1	0.9	1.0	1.0	0.9
C32	Larynx, epiglottis	4.3	4.5	4.8	3.6	3.4	2.8	4.1	3.2	2.9	3.7
C33–34	Lung, trachea	73.5	68.4	69.5	68.0	69.1	68.8	63.8	61.9	61.6	62.7
C38	Heart, mediastinum and pleura	0.5	0.3	0.4	0.3	0.8	0.6	0.4	0.6	0.5	0.5
C40–41	**Bone**	**1.3**	**0.7**	**1.2**	**1.3**	**1.2**	**1.0**	**1.3**	**1.6**	**1.0**	**1.1**
C43	**Melanoma of the skin**	**38.9**	**36.0**	**43.3**	**42.3**	**42.8**	**46.0**	**45.1**	**45.4**	**42.7**	**45.6**
C44	**Skin, non-melanoma**	**43.2**	**43.6**	**47.0**	**48.2**	**50.2**	**55.4**	**56.6**	**60.7**	**61.1**	**63.9**
C45	**Mesothelioma**	**3.0**	**3.5**	**2.5**	**3.0**	**2.5**	**3.0**	**2.0**	**3.2**	**2.0**	**2.6**
C47	**Autonomic nervous system**	**0.2**	**0.2**	**0.3**	**0.2**	**0.1**	**0.3**	**0.3**	**0.1**	**0.1**	**0.2**
C48–49	**Soft tissues**	**3.5**	**3.3**	**2.6**	**2.9**	**2.3**	**2.7**	**2.3**	**3.2**	**2.3**	**1.9**
C50	**Breast**	**1.2**	**1.5**	**1.0**	**1.1**	**1.3**	**1.3**	**1.1**	**1.0**	**1.1**	**1.1**
C60–63	**Male genital organs**	**230.2**	**223.3**	**221.9**	**223.6**	**224.6**	**210.0**	**198.6**	**196.5**	**192.6**	**192.4**
C61	Prostate	215.8	208.4	207.0	210.1	210.2	196.6	184.2	182.9	180.1	178.6
C62	Testis	12.6	12.8	12.4	11.0	10.9	10.8	11.9	11.2	10.5	10.8
C60, C63	Other male genital	1.8	2.1	2.6	2.4	3.5	2.6	2.5	2.5	2.1	2.9
C64–68	**Urinary organs**	**71.6**	**70.6**	**74.7**	**76.7**	**77.8**	**74.3**	**72.2**	**73.8**	**72.9**	**70.2**
C64	Kidney (excl. renal pelvis)	22.8	22.4	23.5	23.3	23.8	22.4	23.6	23.6	21.4	21.4
C65–68	Urinary tract	48.7	48.2	51.2	53.4	54.1	51.8	48.6	50.2	51.5	48.8
C69	**Eye**	**1.2**	**1.4**	**2.0**	**1.7**	**1.6**	**1.6**	**1.6**	**1.5**	**1.7**	**1.5**
C70–72	**Central nervous system**	**22.5**	**20.7**	**21.5**	**20.0**	**16.9**	**18.7**	**17.4**	**16.4**	**16.1**	**15.9**
C73	**Thyroid gland**	**3.8**	**4.3**	**4.6**	**4.1**	**5.5**	**5.1**	**4.4**	**5.3**	**4.9**	**5.7**
C37, C74–75	**Other endocrine glands**	**6.1**	**4.9**	**5.0**	**3.6**	**4.5**	**3.3**	**3.5**	**3.6**	**3.3**	**2.8**
C39, C76, C80	**Other or unspecified**	**6.2**	**7.3**	**7.3**	**7.0**	**6.5**	**5.3**	**6.5**	**6.4**	**6.7**	**6.6**
C81–96	**Lymphoid/haematopoietic tissue**	**64.9**	**65.6**	**61.2**	**70.6**	**70.6**	**67.8**	**68.2**	**69.8**	**67.4**	**62.9**
C81	Hodgkin lymphoma	3.4	2.8	3.1	4.2	3.4	3.5	3.4	2.4	3.4	2.6
C82–86, C96	Non-Hodgkin lymphoma	22.4	22.4	21.8	23.9	22.7	20.5	21.8	23.2	21.5	21.2
C88	Immunoproliferative disease	2.3	1.6	1.7	1.9	2.2	1.9	2.0	2.2	2.3	2.3
C90	Multiple myeloma	9.6	10.7	8.8	10.9	10.9	11.9	11.1	11.1	11.9	10.6
C91–95	Leukaemia	27.1	28.1	25.9	29.7	31.4	30.0	29.8	30.8	28.3	26.2

Table 5.8: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and year, 2012–2021, **females**

		Year									
ICD-10	**Site**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
C00–96	**All sites**	**525.5**	**534.4**	**555.7**	**565.1**	**560.5**	**555.9**	**559.9**	**565.7**	**549.2**	**569.0**
C00–14	**Mouth, pharynx**	**6.9**	**7.1**	**8.0**	**8.1**	**8.7**	**8.8**	**8.2**	**7.8**	**7.6**	**8.5**
C00	Lip	1.3	1.5	1.1	1.5	1.6	1.7	1.1	1.5	1.1	1.4
C02–06	Oral cavity	2.5	3.1	3.6	2.8	3.9	3.1	3.7	2.8	3.2	3.5
C07–08	Salivary glands	0.6	0.7	1.0	1.4	1.0	1.4	1.0	0.9	0.8	1.1
C09–10, C01, C14	Oropharynx	2.0	1.5	1.7	2.1	1.8	2.2	2.0	2.3	2.1	2.3
C11	Nasopharynx	0.2	0.2	0.3	0.1	0.2	0.3	0.2	0.2	0.1	0.2
C12–13	Hypopharynx	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.1
C15–26	**Digestive organs**	**108.3**	**109.9**	**112.3**	**114.8**	**110.9**	**110.4**	**108.1**	**106.7**	**108.5**	**108.6**
C15	Oesophagus	2.7	2.3	2.6	2.7	2.5	2.6	2.7	2.8	3.1	2.8
C16	Stomach	6.7	6.0	6.8	5.8	5.3	6.6	5.6	5.7	5.9	5.3
C17	Small intestine	2.3	1.9	2.8	2.9	2.7	3.8	2.8	2.8	3.6	3.6
C18	Colon	52.4	52.5	52.6	55.3	56.6	53.2	53.0	51.8	51.9	52.9
C19–20	Rectum, rectosigmoid	18.7	21.5	21.0	20.9	19.0	18.7	18.3	18.3	18.6	17.4
C21	Anus	1.9	2.3	2.7	2.3	3.0	1.9	2.4	2.6	2.3	2.3
C22	Liver	2.9	3.1	3.2	3.7	4.1	4.1	4.1	4.2	4.6	4.4
C23–24	Gallbladder, bile ducts	3.9	3.8	3.9	2.9	2.7	2.8	2.3	3.1	3.1	3.2
C25	Pancreas	14.5	14.2	14.3	15.7	13.1	14.2	15.1	13.1	13.7	14.5
C26	Other digestive organs	2.4	2.3	2.5	2.6	2.2	2.5	1.9	2.2	1.7	2.2
C30–34, C38	**Respiratory organs**	**51.9**	**51.9**	**55.5**	**56.9**	**55.0**	**54.8**	**58.3**	**57.0**	**53.8**	**55.3**
C30–31	Nose, sinuses	0.7	0.7	0.7	0.8	0.5	0.4	0.6	0.7	0.6	0.7
C32	Larynx, epiglottis	0.7	0.8	0.7	0.7	0.8	0.6	0.9	0.7	0.6	0.5
C33–34	Lung, trachea	50.4	50.2	53.9	55.2	53.5	53.7	56.7	55.5	52.5	53.9
C38	Heart, mediastinum and pleura	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2
C40–41	**Bone**	**0.6**	**0.9**	**1.1**	**1.0**	**1.1**	**1.0**	**0.9**	**0.7**	**0.7**	**0.9**
C43	**Melanoma of the skin**	**34.8**	**34.3**	**38.0**	**37.2**	**38.7**	**38.5**	**41.3**	**39.7**	**40.1**	**39.1**
C44	**Skin, non-melanoma**	**27.5**	**28.0**	**31.4**	**28.4**	**33.3**	**34.2**	**36.0**	**40.0**	**41.6**	**43.3**
C45	**Mesothelioma**	**0.6**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**	**0.5**	**0.6**	**0.3**
C47	**Autonomic nervous system**	**0.0**	**0.2**	**0.3**	**0.3**	**0.1**	**0.2**	**0.1**	**0.2**	**0.2**	**0.2**
C48–49	**Soft tissues**	**1.9**	**2.0**	**1.9**	**2.1**	**2.0**	**1.6**	**1.8**	**2.0**	**1.9**	**1.6**
C50	**Breast**	**114.8**	**122.8**	**126.5**	**128.2**	**125.9**	**131.0**	**128.3**	**132.7**	**120.2**	**138.3**
C51–58	**Female genital organs**	**61.6**	**63.7**	**66.0**	**68.7**	**66.0**	**61.3**	**65.1**	**65.7**	**59.0**	**59.6**
C51–52, C57.7–9	Other female genital	4.0	3.7	4.5	4.2	4.4	4.3	4.6	3.9	3.9	3.8
C53	Cervix uteri	12.5	11.5	14.1	15.2	14.1	12.6	14.5	14.6	13.2	12.6
C54	Corpus uteri	25.0	29.3	27.4	29.0	28.1	25.0	27.9	28.4	25.5	25.4
C55	Uterus, other	0.2	0.2	0.4	0.2	0.3	0.3	0.3	0.3	0.2	0.3
C56, C57.0–4, C48.2	Ovary etc.	19.7	18.8	19.5	20.1	18.9	19.0	17.5	18.3	16.1	17.5
C58	Placenta	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.0
C64–68	**Urinary organs**	**24.9**	**25.0**	**23.9**	**27.9**	**27.4**	**25.4**	**25.2**	**24.0**	**24.3**	**25.5**
C64	Kidney (excl. renal pelvis)	10.1	8.7	8.8	11.5	10.6	10.4	9.7	9.4	10.1	10.0
C65–68	Urinary tract	14.8	16.3	15.1	16.4	16.9	15.0	15.5	14.7	14.2	15.5
C69	**Eye**	**1.2**	**1.7**	**1.7**	**1.6**	**1.1**	**1.5**	**1.5**	**1.6**	**1.1**	**1.4**
C70–72	**Central nervous system**	**24.0**	**21.8**	**22.2**	**21.0**	**19.9**	**22.2**	**17.5**	**19.1**	**19.1**	**18.9**
C73	**Thyroid gland**	**9.2**	**9.8**	**9.8**	**10.1**	**12.4**	**11.1**	**11.2**	**11.7**	**14.1**	**13.2**
C37, C74–75	**Other endocrine glands**	**4.8**	**5.6**	**4.7**	**4.6**	**3.7**	**3.7**	**3.5**	**3.4**	**3.0**	**2.7**
C39, C76, C80	**Other or unspecified**	**5.9**	**6.2**	**6.2**	**5.4**	**6.2**	**4.9**	**5.8**	**6.0**	**6.6**	**5.6**
C81–96	**Lymphoid/haematopoietic tissue**	**46.6**	**42.8**	**45.8**	**48.5**	**47.7**	**44.8**	**46.7**	**46.9**	**46.8**	**45.9**
C81	Hodgkin lymphoma	2.5	2.2	2.3	2.2	2.9	1.7	2.3	2.9	2.0	2.5
C82–86, C96	Non-Hodgkin lymphoma	17.3	15.2	16.3	16.3	15.7	14.9	15.7	15.8	15.3	15.7
C88	Immunoproliferative disease	1.2	1.3	1.3	0.8	0.7	1.2	1.0	1.0	1.2	1.0
C90	Multiple myeloma	6.8	6.6	7.1	7.6	6.9	6.7	7.2	7.4	7.4	7.0
C91–95	Leukaemia	18.8	17.4	18.8	21.7	21.4	20.5	20.5	19.8	20.9	19.7

Table 5.9: Average annual number of new cases by primary site and five-year age group, 2017–2021, **males**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**39**	**26**	**27**	**42**	**69**	**114**	**164**
C00–14	**Mouth, pharynx**	**1**	**0**	**0**	**1**	**1**	**2**	**3**
C00	Lip	0	0	0	0	0	0	0
C02–06	Oral cavity	0	0	0	0	0	1	1
C07–08	Salivary glands	0	0	0	0	0	1	1
C09–10, C01, C14	Oropharynx	0	0	0	0	0	0	0
C11	Nasopharynx	0	0	0	0	0	0	0
C12–13	Hypopharynx	0	0	0	0	0	0	0
C15–26	**Digestive organs**	**0**	**0**	**1**	**3**	**5**	**10**	**17**
C15	Oesophagus	0	0	0	0	0	0	1
C16	Stomach	0	0	0	0	0	1	1
C17	Small intestine	0	0	0	0	0	0	2
C18	Colon	0	0	1	3	3	4	8
C19–20	Rectum, rectosigmoid	0	0	0	0	0	2	4
C21	Anus	0	0	0	0	0	0	0
C22	Liver	0	0	0	0	1	1	0
C23–24	Gallbladder, bile ducts	0	0	0	0	0	1	0
C25	Pancreas	0	0	0	0	0	1	1
C26	Other digestive organs	0	0	0	0	0	0	0
C30–34, C38	**Respiratory organs**	**1**	**0**	**0**	**0**	**1**	**2**	**2**
C30–31	Nose, sinuses	0	0	0	0	0	0	0
C32	Larynx, epiglottis	0	0	0	0	0	0	0
C33–34	Lung, trachea	1	0	0	0	0	1	2
C38	Heart, mediastinum and pleura	0	0	0	0	0	0	0
C40–41	**Bone**	**0**	**1**	**3**	**3**	**2**	**2**	**2**
C43	**Melanoma of the skin**	**0**	**0**	**0**	**1**	**4**	**8**	**18**
C44	**Skin, non-melanoma**	**1**	**0**	**0**	**0**	**1**	**1**	**3**
C45	**Mesothelioma**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
C47	**Autonomic nervous system**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
C48–49	**Soft tissues**	**2**	**1**	**1**	**0**	**1**	**1**	**3**
C50	**Breast**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
C60–63	**Male genital organs**	**2**	**0**	**0**	**8**	**28**	**46**	**53**
C61	Prostate	0	0	0	0	0	0	0
C62	Testis	2	0	0	8	27	46	53
C60, C63	Other male genital	0	0	0	0	0	0	0
C64–68	**Urinary organs**	**2**	**1**	**0**	**1**	**2**	**4**	**8**
C64	Kidney (excl. renal pelvis)	2	1	0	0	1	2	5
C65–68	Urinary tract	0	0	0	0	1	1	3
C69	**Eye**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
C70–72	**Central nervous system**	**10**	**10**	**9**	**8**	**7**	**12**	**17**
C73	**Thyroid gland**	**0**	**0**	**0**	**1**	**3**	**5**	**9**
C37, C74–75	**Other endocrine glands**	**2**	**0**	**1**	**2**	**1**	**1**	**3**
C39, C76, C80	**Other or unspecified**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
C81–96	**Lymphoid/haematopoietic tissue**	**15**	**12**	**12**	**13**	**13**	**20**	**27**
C81	Hodgkin lymphoma	0	1	2	4	6	9	8
C82–86, C96	Non-Hodgkin lymphoma	2	3	4	3	3	4	8
C88	Immunoproliferative disease	0	0	0	0	0	0	0
C90	Multiple myeloma	0	0	0	0	0	0	1
C91–95	Leukaemia	14	8	6	6	4	7	11

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
195	**257**	**464**	**829**	**1 381**	**2 103**	**2 956**	**3 642**	**2 980**	**1 990**	**1 806**
5	**7**	**19**	**37**	**53**	**67**	**73**	**65**	**49**	**31**	**24**
0	1	1	2	3	5	6	10	10	9	9
2	2	5	10	13	14	20	21	15	11	7
1	2	3	3	3	4	4	5	4	3	3
1	3	8	21	31	39	33	24	15	5	4
1	0	2	1	1	2	1	1	1	1	0
0	0	0	1	2	3	7	4	4	2	1
30	**52**	**98**	**185**	**282**	**401**	**585**	**737**	**624**	**447**	**389**
1	2	6	11	17	35	44	53	36	22	20
2	4	5	11	17	25	37	51	42	35	36
3	2	7	9	14	14	19	22	16	12	9
15	19	33	57	92	131	211	280	261	194	179
5	15	26	52	67	97	129	157	120	83	57
0	1	3	3	4	5	7	5	5	1	3
1	4	5	11	25	30	39	42	35	22	20
1	1	1	5	5	6	14	17	13	9	9
1	3	11	23	37	54	77	99	84	59	49
0	1	1	3	4	4	10	12	11	9	7
5	**9**	**21**	**55**	**100**	**196**	**317**	**414**	**333**	**225**	**168**
0	1	1	1	2	3	3	5	5	2	3
1	1	1	5	7	11	16	18	16	8	6
3	7	18	48	91	182	297	390	310	213	156
0	1	1	1	0	1	1	1	1	3	3
1	**1**	**1**	**1**	**2**	**2**	**3**	**4**	**3**	**1**	**1**
29	**39**	**60**	**85**	**117**	**125**	**148**	**195**	**163**	**112**	**101**
3	**6**	**12**	**22**	**34**	**71**	**119**	**242**	**288**	**292**	**372**
0	**0**	**0**	**0**	**2**	**4**	**9**	**14**	**19**	**11**	**9**
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	**3**	**4**	**6**	**5**	**8**	**6**	**8**	**8**	**4**	**5**
0	**1**	**1**	**1**	**2**	**3**	**4**	**6**	**7**	**3**	**3**
49	**48**	**87**	**183**	**421**	**754**	**1 068**	**1 149**	**812**	**391**	**325**
2	7	48	163	406	741	1 054	1 136	800	383	316
46	39	35	17	10	8	4	3	1	1	1
1	1	4	4	5	5	10	11	10	7	8
14	**22**	**51**	**91**	**163**	**196**	**287**	**374**	**322**	**229**	**182**
9	16	29	47	75	80	95	117	74	39	28
5	7	22	44	88	116	193	257	248	190	154
1	**1**	**2**	**3**	**5**	**6**	**7**	**6**	**4**	**3**	**3**
19	**19**	**27**	**41**	**40**	**44**	**48**	**53**	**43**	**25**	**23**
9	**7**	**11**	**15**	**17**	**15**	**14**	**16**	**11**	**5**	**4**
3	**5**	**7**	**10**	**10**	**10**	**9**	**12**	**8**	**2**	**3**
0	**0**	**2**	**5**	**7**	**12**	**15**	**26**	**22**	**25**	**40**
26	**36**	**61**	**86**	**121**	**190**	**245**	**320**	**265**	**182**	**156**
4	5	5	4	8	7	5	9	6	2	1
10	12	23	31	43	64	86	108	88	56	42
0	0	1	2	1	6	8	12	12	8	7
1	3	9	11	21	35	46	62	50	33	31
12	16	23	38	48	77	100	130	110	83	76

Table 5.10: Average annual number of new cases by primary site and five-year age group, 2017–2021, **females**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**33**	**21**	**24**	**38**	**66**	**147**	**221**
C00–14	**Mouth, pharynx**	**0**	**0**	**0**	**0**	**1**	**1**	**4**
C00	Lip	0	0	0	0	0	0	0
C02–06	Oral cavity	0	0	0	0	0	0	2
C07–08	Salivary glands	0	0	0	0	0	0	1
C09–10, C01, C14	Oropharynx	0	0	0	0	0	0	0
C11	Nasopharynx	0	0	0	0	0	0	0
C12–13	Hypopharynx	0	0	0	0	0	0	0
C15–26	**Digestive organs**	**1**	**1**	**2**	**5**	**7**	**9**	**17**
C15	Oesophagus	0	0	0	0	0	0	0
C16	Stomach	0	0	0	0	1	1	2
C17	Small intestine	0	0	0	0	0	0	0
C18	Colon	0	0	1	3	4	4	9
C19–20	Rectum, rectosigmoid	0	0	0	0	1	1	3
C21	Anus	0	0	0	0	0	0	0
C22	Liver	1	0	0	1	0	1	1
C23–24	Gallbladder, bile ducts	0	0	0	0	0	0	1
C25	Pancreas	0	0	0	1	0	1	1
C26	Other digestive organs	0	0	0	0	0	0	0
C30–34, C38	**Respiratory organs**	**1**	**0**	**0**	**0**	**0**	**1**	**3**
C30–31	Nose, sinuses	0	0	0	0	0	0	0
C32	Larynx, epiglottis	0	0	0	0	0	0	0
C33–34	Lung, trachea	1	0	0	0	0	1	2
C38	Heart, mediastinum and pleura	0	0	0	0	0	0	0
C40–41	**Bone**	**0**	**1**	**2**	**2**	**1**	**0**	**1**
C43	**Melanoma of the skin**	**0**	**0**	**0**	**2**	**11**	**20**	**28**
C44	**Skin, non-melanoma**	**0**	**1**	**0**	**1**	**2**	**1**	**2**
C45	**Mesothelioma**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
C47	**Autonomic nervous system**	**2**	**1**	**0**	**0**	**0**	**0**	**0**
C48–49	**Soft tissues**	**0**	**0**	**1**	**1**	**1**	**1**	**1**
C50	**Breast**	**0**	**0**	**0**	**1**	**3**	**19**	**49**
C51–58	**Female genital organs**	**0**	**0**	**1**	**2**	**6**	**40**	**48**
C51–52, C57.7–9	Other female genital	0	0	0	0	0	0	2
C53	Cervix uteri	0	0	0	0	4	34	36
C54	Corpus uteri	0	0	0	0	0	1	4
C55	Uterus, other	0	0	0	0	0	0	0
C56, C57.0–4, C48.2	Ovary etc.	0	0	1	2	2	4	6
C58	Placenta	0	0	0	0	0	0	1
C64–68	**Urinary organs**	**3**	**1**	**0**	**0**	**1**	**3**	**3**
C64	Kidney (excl. renal pelvis)	3	1	0	0	1	1	2
C65–68	Urinary tract	0	0	0	0	1	2	1
C69	**Eye**	**1**	**0**	**0**	**0**	**0**	**1**	**1**
C70–72	**Central nervous system**	**7**	**7**	**9**	**7**	**5**	**14**	**16**
C73	**Thyroid gland**	**0**	**0**	**0**	**4**	**9**	**16**	**23**
C37, C74–75	**Other endocrine glands**	**1**	**0**	**0**	**2**	**4**	**3**	**5**
C39, C76, C80	**Other or unspecified**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
C81–96	**Lymphoid/haematopoietic tissue**	**15**	**9**	**8**	**11**	**14**	**18**	**19**
C81	Hodgkin lymphoma	0	0	2	5	7	7	6
C82–86, C96	Non-Hodgkin lymphoma	2	2	1	1	3	3	4
C88	Immunoproliferative disease	0	0	0	0	0	0	0
C90	Multiple myeloma	0	0	0	0	0	0	0
C91–95	Leukaemia	13	7	4	5	3	7	8

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
346	**527**	**821**	**1 143**	**1 271**	**1 674**	**2 039**	**2 354**	**2 121**	**1 638**	**1 988**
4	**5**	**10**	**18**	**21**	**27**	**26**	**38**	**33**	**21**	**34**
0	0	1	1	3	3	5	7	8	6	8
1	3	2	5	6	9	11	18	14	9	17
2	2	2	3	1	3	1	4	3	2	6
0	0	4	7	10	11	9	8	6	3	2
0	0	1	1	1	1	0	1	0	0	0
0	0	0	0	0	0	1	1	1	0	1
33	**51**	**89**	**137**	**192**	**295**	**398**	**541**	**521**	**457**	**540**
0	0	2	3	4	9	13	18	13	11	12
2	6	6	10	10	11	21	25	25	23	33
2	2	3	6	10	10	14	16	14	11	8
17	24	38	51	78	123	185	263	274	248	289
8	11	21	35	43	66	70	87	75	58	66
1	1	3	5	6	12	10	7	8	6	6
0	2	4	4	9	11	16	20	19	17	22
0	1	3	3	4	8	10	15	12	16	16
3	3	8	18	24	37	51	77	73	60	75
0	1	1	1	3	6	8	13	9	9	13
5	**9**	**25**	**53**	**102**	**189**	**282**	**384**	**309**	**184**	**150**
0	1	1	1	1	2	2	3	2	2	2
0	0	1	1	3	4	3	4	2	1	0
4	8	24	51	98	183	276	377	305	179	147
0	0	0	0	0	0	0	0	1	1	1
2	**1**	**1**	**1**	**2**	**2**	**2**	**1**	**1**	**1**	**2**
40	**57**	**89**	**105**	**110**	**112**	**122**	**138**	**114**	**87**	**105**
3	**7**	**19**	**24**	**39**	**58**	**99**	**161**	**188**	**219**	**416**
0	**0**	**0**	**1**	**1**	**1**	**1**	**4**	**1**	**2**	**2**
0	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	**3**	**4**	**4**	**4**	**4**	**5**	**8**	**6**	**3**	**4**
101	**199**	**329**	**466**	**410**	**479**	**504**	**354**	**324**	**208**	**214**
72	**80**	**98**	**137**	**154**	**197**	**221**	**253**	**199**	**141**	**141**
2	4	4	8	7	12	14	15	15	16	25
50	45	38	29	26	25	24	20	12	10	8
9	17	30	58	78	105	107	134	103	72	60
0	0	0	0	0	0	1	1	1	1	3
10	14	27	42	43	56	75	84	68	42	45
0	0	0	0	0	0	0	0	0	0	0
5	**13**	**20**	**36**	**55**	**78**	**100**	**128**	**120**	**84**	**100**
4	8	14	19	24	36	42	51	40	23	24
1	5	6	17	31	42	58	77	80	61	76
1	**0**	**2**	**3**	**5**	**5**	**7**	**6**	**4**	**2**	**3**
19	**29**	**48**	**46**	**53**	**57**	**50**	**63**	**48**	**33**	**33**
31	**34**	**32**	**33**	**26**	**30**	**33**	**26**	**15**	**10**	**9**
6	**6**	**8**	**5**	**7**	**8**	**9**	**9**	**8**	**4**	**3**
1	**0**	**3**	**5**	**6**	**10**	**13**	**18**	**27**	**29**	**70**
22	**33**	**43**	**69**	**85**	**122**	**166**	**222**	**203**	**154**	**163**
4	3	1	4	3	2	4	4	4	2	2
7	12	12	22	33	47	61	81	73	47	47
0	0	1	1	1	3	4	7	8	5	4
2	2	5	10	15	19	32	39	34	30	28
9	16	24	32	33	51	65	90	83	70	82

Table 5.11: Age-specific incidence rates per 100 000 person-years by primary site and five-year age group, 2017–2021, **males**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**26.1**	**16.1**	**16.3**	**25.5**	**39.0**	**60.3**	**87.0**
C00–14	**Mouth, pharynx**	**0.4**	**0.0**	**0.1**	**0.4**	**0.3**	**1.0**	**1.4**
C00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C02–06	Oral cavity	0.1	0.0	0.1	0.1	0.1	0.5	0.7
C07–08	Salivary glands	0.3	0.0	0.0	0.1	0.0	0.4	0.3
C09–10, C01, C14	Oropharynx	0.0	0.0	0.0	0.0	0.1	0.0	0.1
C11	Nasopharynx	0.0	0.0	0.0	0.1	0.1	0.0	0.2
C12–13	Hypopharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C15–26	**Digestive organs**	**0.1**	**0.2**	**0.5**	**2.1**	**3.0**	**5.1**	**9.0**
C15	Oesophagus	0.0	0.0	0.0	0.1	0.1	0.1	0.3
C16	Stomach	0.0	0.0	0.0	0.0	0.2	0.4	0.6
C17	Small intestine	0.0	0.0	0.0	0.0	0.2	0.1	0.8
C18	Colon	0.0	0.1	0.4	1.7	1.9	2.2	4.4
C19–20	Rectum, rectosigmoid	0.0	0.0	0.0	0.0	0.0	0.8	2.1
C21	Anus	0.0	0.0	0.0	0.0	0.0	0.1	0.0
C22	Liver	0.1	0.1	0.1	0.2	0.3	0.3	0.0
C23–24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.3	0.0
C25	Pancreas	0.0	0.0	0.0	0.0	0.1	0.4	0.6
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.2	0.0
C30–34, C38	**Respiratory organs**	**0.4**	**0.0**	**0.1**	**0.2**	**0.3**	**0.8**	**1.2**
C30–31	Nose, sinuses	0.0	0.0	0.1	0.0	0.1	0.2	0.2
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C33–34	Lung, trachea	0.4	0.0	0.0	0.1	0.1	0.5	0.8
C38	Heart, mediastinum and pleura	0.0	0.0	0.0	0.1	0.1	0.1	0.0
C40–41	**Bone**	**0.3**	**0.5**	**1.6**	**1.8**	**1.0**	**1.1**	**1.0**
C43	**Melanoma of the skin**	**0.0**	**0.1**	**0.0**	**0.5**	**2.3**	**4.2**	**9.6**
C44	**Skin, non-melanoma**	**0.4**	**0.2**	**0.0**	**0.2**	**0.7**	**0.7**	**1.5**
C45	**Mesothelioma**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
C47	**Autonomic nervous system**	**1.6**	**0.0**	**0.1**	**0.1**	**0.2**	**0.0**	**0.0**
C48–49	**Soft tissues**	**1.1**	**0.4**	**0.4**	**0.2**	**0.8**	**0.6**	**1.4**
C50	**Breast**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
C60–63	**Male genital organs**	**1.1**	**0.1**	**0.0**	**4.7**	**15.7**	**24.4**	**28.0**
C61	Prostate	0.0	0.0	0.0	0.0	0.1	0.0	0.0
C62	Testis	1.1	0.1	0.0	4.6	15.4	24.3	27.9
C60, C63	Other male genital	0.0	0.0	0.0	0.1	0.1	0.1	0.1
C64–68	**Urinary organs**	**1.3**	**0.5**	**0.0**	**0.4**	**0.9**	**2.0**	**4.0**
C64	Kidney (excl. renal pelvis)	1.3	0.5	0.0	0.2	0.5	1.3	2.6
C65–68	Urinary tract	0.0	0.0	0.0	0.1	0.5	0.7	1.4
C69	**Eye**	**1.3**	**0.2**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**
C70–72	**Central nervous system**	**6.4**	**5.9**	**5.7**	**5.1**	**3.9**	**6.2**	**9.1**
C73	**Thyroid gland**	**0.0**	**0.0**	**0.1**	**0.5**	**1.5**	**2.4**	**4.8**
C37, C74–75	**Other endocrine glands**	**1.5**	**0.2**	**0.5**	**1.2**	**0.8**	**0.7**	**1.5**
C39, C76, C80	**Other or unspecified**	**0.0**	**0.0**	**0.1**	**0.1**	**0.0**	**0.1**	**0.3**
C81–96	**Lymphoid/haematopoietic tissue**	**10.3**	**7.6**	**7.0**	**7.8**	**7.5**	**10.7**	**14.2**
C81	Hodgkin lymphoma	0.0	0.6	1.1	2.2	3.6	4.8	4.0
C82–86, C96	Non-Hodgkin lymphoma	1.1	1.8	2.2	1.8	1.5	1.9	4.0
C88	Immunoproliferative disease	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.1	0.5
C91–95	Leukaemia	9.2	5.2	3.8	3.8	2.4	3.9	5.6

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
107.0	**142.1**	**240.8**	**440.0**	**818.8**	**1 369.6**	**2 151.5**	**2 931.0**	**3 672.4**	**4 088.6**	**4 437.4**
2.6	**4.1**	**9.8**	**19.8**	**31.2**	**43.6**	**53.0**	**52.5**	**60.6**	**64.5**	**59.0**
0.1	0.3	0.4	0.8	1.5	3.4	4.7	8.0	12.3	19.3	21.1
1.1	1.2	2.5	5.2	7.7	9.4	14.8	16.7	18.7	23.4	17.2
0.5	0.9	1.5	1.5	1.5	2.3	3.1	4.0	5.4	6.2	8.4
0.5	1.4	4.2	11.3	18.4	25.3	24.2	19.5	18.2	10.3	9.3
0.3	0.2	1.1	0.4	0.8	1.2	1.0	0.6	1.0	1.6	0.5
0.0	0.0	0.1	0.5	1.2	2.1	5.2	3.5	4.9	3.7	2.5
16.7	**28.6**	**50.9**	**98.4**	**167.0**	**261.1**	**425.7**	**593.2**	**768.5**	**918.4**	**956.0**
0.8	1.1	3.1	5.9	10.2	22.8	32.2	42.5	44.4	44.4	49.2
1.0	2.3	2.7	5.7	10.2	16.4	26.8	40.9	52.3	71.9	89.0
1.5	1.2	3.6	4.8	8.2	9.4	13.5	17.5	19.7	23.8	21.1
8.1	10.5	17.2	30.5	54.6	85.3	153.4	225.6	321.9	399.4	439.9
2.7	8.5	13.4	27.7	39.8	63.3	93.9	126.5	147.9	170.9	140.6
0.2	0.3	1.5	1.4	2.4	3.0	4.8	4.0	6.4	2.9	6.4
0.8	2.1	2.4	5.9	14.6	19.5	28.2	33.6	43.6	46.0	50.1
0.5	0.4	0.6	2.5	2.8	3.8	9.9	13.5	15.5	19.3	22.1
0.8	1.7	5.7	12.3	22.0	34.9	55.9	79.3	103.5	120.4	119.9
0.2	0.3	0.6	1.6	2.1	2.6	7.1	9.7	13.3	19.3	17.7
2.5	**5.2**	**10.8**	**29.1**	**59.5**	**127.9**	**230.6**	**333.3**	**410.1**	**462.7**	**412.9**
0.1	0.4	0.4	0.6	1.4	2.2	1.9	3.7	5.9	4.1	6.4
0.7	0.6	0.5	2.7	3.9	6.9	11.9	14.8	20.0	16.4	15.7
1.5	3.9	9.3	25.5	54.2	118.3	216.0	314.2	382.5	436.8	384.4
0.2	0.3	0.5	0.3	0.0	0.5	0.7	0.6	1.7	5.3	6.4
0.5	**0.4**	**0.7**	**0.7**	**1.1**	**1.2**	**2.3**	**3.4**	**3.5**	**2.9**	**1.5**
15.8	**21.7**	**31.3**	**45.2**	**69.2**	**81.7**	**108.0**	**156.6**	**200.6**	**230.9**	**247.2**
1.8	**3.2**	**6.2**	**11.9**	**19.9**	**46.1**	**86.5**	**194.9**	**354.7**	**600.8**	**914.2**
0.0	**0.0**	**0.0**	**0.2**	**0.9**	**2.6**	**6.4**	**11.4**	**23.4**	**22.6**	**22.1**
0.0	**0.2**	**0.0**	**0.1**	**0.2**	**0.0**	**0.1**	**0.3**	**0.2**	**0.4**	**0.0**
0.9	**1.4**	**2.1**	**3.0**	**3.1**	**5.1**	**4.5**	**6.3**	**9.4**	**9.0**	**12.8**
0.0	**0.3**	**0.3**	**0.4**	**1.3**	**2.1**	**2.9**	**5.0**	**8.6**	**6.2**	**6.4**
26.8	**26.5**	**45.1**	**97.4**	**249.8**	**491.2**	**776.9**	**924.9**	**1 000.7**	**802.5**	**797.7**
1.1	4.1	25.1	86.7	240.9	482.6	766.8	914.1	986.4	787.3	776.6
25.0	21.6	18.1	8.8	6.2	5.2	2.6	2.1	1.7	1.6	1.5
0.7	0.8	1.9	1.9	2.7	3.4	7.6	8.7	12.6	13.6	19.7
7.5	**12.4**	**26.5**	**48.4**	**96.5**	**127.7**	**209.0**	**301.1**	**397.1**	**470.1**	**447.3**
4.7	8.6	15.3	24.9	44.5	51.8	68.8	94.3	90.9	79.3	69.8
2.7	3.8	11.2	23.6	52.0	75.8	140.2	206.8	306.1	390.8	377.5
0.5	**0.6**	**0.9**	**1.7**	**2.8**	**3.9**	**4.8**	**4.5**	**5.2**	**5.3**	**6.4**
10.4	**10.7**	**14.0**	**21.9**	**23.8**	**28.7**	**35.1**	**42.8**	**52.7**	**51.8**	**56.5**
4.7	**3.8**	**5.6**	**8.0**	**10.2**	**9.5**	**10.5**	**13.2**	**13.1**	**9.9**	**8.8**
1.6	**2.5**	**3.6**	**5.5**	**6.2**	**6.3**	**6.3**	**9.5**	**10.1**	**4.9**	**7.4**
0.2	**0.2**	**1.1**	**2.8**	**4.3**	**7.6**	**10.6**	**20.6**	**26.9**	**51.4**	**97.8**
14.5	**20.2**	**31.9**	**45.5**	**71.7**	**123.5**	**178.3**	**257.5**	**327.1**	**374.3**	**383.4**
2.0	2.7	2.6	2.1	4.5	4.8	3.9	7.1	6.9	3.7	2.0
5.4	6.9	12.0	16.2	25.4	41.6	62.3	86.6	108.0	115.1	103.2
0.0	0.1	0.5	1.2	0.8	3.8	5.7	9.3	15.3	17.3	16.2
0.8	1.7	4.7	5.7	12.7	23.1	33.5	50.1	61.6	67.4	75.2
6.4	8.9	12.0	20.2	28.3	50.3	72.9	104.4	135.3	170.9	186.8

Table 5.12: Age-specific incidence rates per 100 000 person-years by primary site and five-year age group, 2017–2021, **females**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**23.0**	**13.6**	**15.3**	**24.6**	**39.9**	**81.6**	**122.3**
C00–14	**Mouth, pharynx**	**0.1**	**0.0**	**0.3**	**0.1**	**0.5**	**0.8**	**2.0**
C00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C02–06	Oral cavity	0.0	0.0	0.0	0.1	0.2	0.2	1.0
C07–08	Salivary glands	0.0	0.0	0.3	0.0	0.1	0.2	0.8
C09–10, C01, C14	Oropharynx	0.0	0.0	0.0	0.0	0.1	0.2	0.0
C11	Nasopharynx	0.1	0.0	0.0	0.0	0.0	0.1	0.1
C12–13	Hypopharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C15–26	**Digestive organs**	**1.0**	**0.6**	**1.1**	**3.3**	**4.3**	**4.9**	**9.6**
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C16	Stomach	0.0	0.0	0.0	0.1	0.4	0.7	1.0
C17	Small intestine	0.0	0.0	0.0	0.0	0.1	0.0	0.2
C18	Colon	0.0	0.3	0.8	1.9	2.7	2.3	4.9
C19–20	Rectum, rectosigmoid	0.0	0.0	0.0	0.0	0.7	0.6	1.9
C21	Anus	0.0	0.0	0.0	0.1	0.0	0.0	0.2
C22	Liver	1.0	0.3	0.1	0.4	0.1	0.3	0.6
C23–24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.1	0.3
C25	Pancreas	0.0	0.1	0.1	0.8	0.2	0.7	0.4
C26	Other digestive organs	0.0	0.0	0.1	0.0	0.0	0.2	0.0
C30–34, C38	**Respiratory organs**	**0.8**	**0.0**	**0.0**	**0.1**	**0.1**	**0.8**	**1.5**
C30–31	Nose, sinuses	0.1	0.0	0.0	0.0	0.0	0.1	0.1
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C33–34	Lung, trachea	0.7	0.0	0.0	0.0	0.1	0.6	1.3
C38	Heart, mediastinum and pleura	0.0	0.0	0.0	0.1	0.0	0.1	0.1
C40–41	**Bone**	**0.3**	**0.8**	**1.4**	**1.3**	**0.7**	**0.1**	**0.6**
C43	**Melanoma of the skin**	**0.0**	**0.0**	**0.0**	**1.2**	**6.5**	**11.0**	**15.6**
C44	**Skin, non-melanoma**	**0.3**	**0.4**	**0.0**	**0.4**	**1.5**	**0.8**	**1.1**
C45	**Mesothelioma**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**
C47	**Autonomic nervous system**	**1.3**	**0.5**	**0.0**	**0.1**	**0.1**	**0.0**	**0.1**
C48–49	**Soft tissues**	**0.3**	**0.3**	**0.5**	**0.4**	**0.5**	**0.4**	**0.7**
C50	**Breast**	**0.0**	**0.0**	**0.0**	**0.4**	**1.8**	**10.3**	**27.1**
C51–58	**Female genital organs**	**0.0**	**0.0**	**0.6**	**1.4**	**3.7**	**22.0**	**26.8**
C51–52, C57.7–9	Other female genital	0.0	0.0	0.0	0.0	0.0	0.2	0.9
C53	Cervix uteri	0.0	0.0	0.1	0.3	2.6	19.0	20.1
C54	Corpus uteri	0.0	0.0	0.0	0.0	0.0	0.7	2.2
C55	Uterus, other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C56, C57.0–4, C48.2	Ovary etc.	0.0	0.0	0.5	1.0	1.0	2.1	3.2
C58	Placenta	0.0	0.0	0.0	0.1	0.1	0.0	0.3
C64–68	**Urinary organs**	**2.1**	**0.4**	**0.0**	**0.3**	**0.9**	**1.7**	**1.4**
C64	Kidney (excl. renal pelvis)	2.0	0.4	0.0	0.1	0.4	0.8	0.9
C65–68	Urinary tract	0.1	0.0	0.0	0.1	0.5	0.9	0.6
C69	**Eye**	**0.6**	**0.3**	**0.0**	**0.1**	**0.1**	**0.4**	**0.4**
C70–72	**Central nervous system**	**4.8**	**4.4**	**6.0**	**4.4**	**3.3**	**7.5**	**8.7**
C73	**Thyroid gland**	**0.0**	**0.0**	**0.1**	**2.7**	**5.2**	**9.1**	**12.9**
C37, C74–75	**Other endocrine glands**	**0.8**	**0.3**	**0.3**	**1.4**	**2.4**	**1.7**	**3.0**
C39, C76, C80	**Other or unspecified**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.3**	**0.2**
C81–96	**Lymphoid/haematopoietic tissue**	**10.4**	**5.7**	**5.0**	**7.0**	**8.4**	**9.7**	**10.3**
C81	Hodgkin lymphoma	0.0	0.1	1.4	3.5	4.4	3.8	3.5
C82–86, C96	Non-Hodgkin lymphoma	1.6	1.2	0.9	0.5	1.9	1.9	2.2
C88	Immunoproliferative disease	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.2	0.2
C91–95	Leukaemia	8.9	4.4	2.7	3.0	2.1	3.9	4.3

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
201.3	**308.9**	**448.3**	**638.8**	**785.6**	**1 105.1**	**1 474.4**	**1 824.4**	**2 316.1**	**2 579.5**	**2 600.6**
2.1	**3.0**	**5.2**	**10.2**	**13.1**	**17.7**	**18.9**	**29.6**	**35.8**	**32.8**	**44.2**
0.1	0.0	0.3	0.8	1.6	2.2	3.5	5.4	9.2	9.8	10.5
0.8	1.5	1.2	2.9	4.0	6.2	7.7	13.6	15.5	14.8	22.0
0.9	0.9	0.9	1.9	0.7	1.7	1.0	3.3	3.3	3.1	7.3
0.1	0.2	2.3	4.1	6.3	7.0	6.2	6.0	6.8	4.4	3.1
0.1	0.2	0.4	0.3	0.5	0.4	0.1	0.5	0.2	0.3	0.3
0.0	0.1	0.1	0.1	0.0	0.1	0.4	0.8	0.9	0.3	1.0
19.2	**30.1**	**48.8**	**76.5**	**118.5**	**194.5**	**288.1**	**419.3**	**569.2**	**719.3**	**706.8**
0.0	0.2	1.1	1.5	2.3	6.2	9.5	13.8	14.4	16.7	16.2
1.0	3.3	3.2	5.8	6.4	7.4	14.9	19.4	27.3	35.6	43.2
1.0	1.2	1.9	3.5	6.3	6.7	10.4	12.2	15.3	18.0	10.5
9.9	14.2	20.5	28.3	48.2	81.5	134.1	203.5	299.4	390.2	377.9
4.7	6.2	11.2	19.6	26.5	43.6	50.3	67.4	81.5	90.7	86.1
0.7	0.7	1.9	2.9	3.7	8.1	7.5	5.7	8.7	8.8	7.3
0.1	1.2	2.4	2.5	5.3	7.5	11.6	15.8	20.3	26.5	28.8
0.1	0.6	1.4	1.6	2.7	5.1	7.1	11.8	13.5	24.6	21.2
1.5	2.0	4.5	10.2	15.0	24.6	37.0	59.8	79.3	94.5	98.1
0.1	0.6	0.8	0.8	2.0	3.8	5.6	9.8	9.4	13.9	17.5
2.8	**5.2**	**13.9**	**29.9**	**63.2**	**124.5**	**203.9**	**297.9**	**337.9**	**289.1**	**196.0**
0.2	0.4	0.3	0.6	0.6	1.2	1.7	2.5	2.0	3.8	2.4
0.0	0.1	0.4	0.6	1.7	2.5	2.3	3.1	2.0	1.9	0.3
2.6	4.6	13.0	28.7	60.8	120.7	199.6	292.0	333.3	282.5	192.3
0.0	0.1	0.1	0.0	0.0	0.1	0.3	0.3	0.7	0.9	1.0
0.9	**0.6**	**0.3**	**0.4**	**1.0**	**1.5**	**1.3**	**1.1**	**1.3**	**1.6**	**2.1**
23.0	**33.2**	**48.7**	**58.6**	**68.0**	**74.1**	**88.1**	**107.3**	**124.1**	**137.6**	**137.1**
2.0	**4.1**	**10.2**	**13.4**	**24.0**	**38.3**	**71.7**	**124.9**	**205.5**	**345.1**	**544.0**
0.0	**0.0**	**0.2**	**0.3**	**0.6**	**0.9**	**0.9**	**2.9**	**1.1**	**3.5**	**2.6**
0.1	**0.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.2**	**0.0**	**0.0**
1.2	**1.8**	**2.0**	**2.1**	**2.2**	**2.9**	**3.5**	**6.0**	**6.6**	**4.4**	**5.8**
58.9	**116.4**	**179.5**	**260.4**	**253.4**	**316.2**	**364.2**	**274.4**	**353.4**	**327.2**	**280.0**
42.1	**47.1**	**53.7**	**76.7**	**95.3**	**130.2**	**159.5**	**195.9**	**216.9**	**221.7**	**184.5**
1.4	2.3	2.0	4.4	4.6	7.7	10.0	11.6	16.2	25.8	32.2
28.9	26.4	20.5	16.2	16.3	16.4	17.4	15.2	12.7	15.4	10.7
5.5	10.0	16.6	32.4	48.0	69.2	77.5	103.6	112.7	113.1	78.8
0.2	0.1	0.0	0.2	0.1	0.1	0.7	0.6	1.5	1.6	3.9
5.9	8.1	14.6	23.5	26.3	36.8	53.9	65.0	73.8	65.8	58.9
0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.8	**7.4**	**10.9**	**20.0**	**33.8**	**51.5**	**72.5**	**99.5**	**131.0**	**132.3**	**130.6**
2.1	4.6	7.9	10.5	14.6	23.5	30.7	39.7	43.2	35.9	31.4
0.7	2.8	3.1	9.5	19.2	28.0	41.8	59.8	87.8	96.4	99.2
0.5	**0.2**	**1.3**	**1.8**	**3.1**	**3.0**	**4.8**	**4.3**	**4.8**	**2.8**	**3.7**
10.9	**16.8**	**26.3**	**25.7**	**32.6**	**37.8**	**36.4**	**48.8**	**52.9**	**51.6**	**43.2**
18.2	**19.8**	**17.7**	**18.2**	**16.0**	**19.8**	**23.7**	**20.0**	**16.6**	**16.4**	**11.8**
3.6	**3.5**	**4.6**	**2.7**	**4.2**	**5.4**	**6.8**	**6.7**	**8.5**	**6.0**	**3.7**
0.3	**0.2**	**1.6**	**3.0**	**4.0**	**6.5**	**9.7**	**13.6**	**29.0**	**46.0**	**91.8**
12.7	**19.1**	**23.3**	**38.8**	**52.7**	**80.4**	**120.3**	**171.9**	**221.3**	**242.2**	**212.7**
2.2	1.6	0.8	2.0	1.9	1.6	2.9	3.1	4.8	3.1	2.4
4.3	6.8	6.3	12.5	20.4	31.0	44.4	63.1	80.2	74.6	62.0
0.0	0.2	0.5	0.4	0.7	2.1	2.9	5.4	8.7	7.2	4.7
0.9	0.9	2.7	5.8	9.5	12.3	23.0	30.5	37.1	46.6	36.6
5.2	9.5	12.9	18.0	20.2	33.4	47.2	69.8	90.4	110.5	107.0

Table 5.13: Average annual number of new cases by primary site and five-year period, 1962–2021, **males**

ICD-10	Site	1962–66	1967–71	1972–76	1977–81	1982–86
C00–96	**All sites**	**4 716**	**5 594**	**6 520**	**7 623**	**8 629**
C00–14	**Mouth, pharynx**	**188**	**215**	**244**	**236**	**255**
C00	Lip	90	108	110	105	94
C02–06	Oral cavity	36	53	59	66	82
C07–08	Salivary glands	13	15	14	14	15
C09–10, C01, C14	Oropharynx	24	14	29	23	30
C11	Nasopharynx	9	10	11	9	12
C12–13	Hypopharynx	17	15	22	19	22
C15–26	**Digestive organs**	**1 740**	**1 890**	**1 975**	**2 191**	**2 375**
C15	Oesophagus	78	80	81	89	84
C16	Stomach	786	745	649	600	579
C17	Small intestine	13	18	18	19	30
C18	Colon	306	368	416	541	675
C19–20	Rectum, rectosigmoid	186	270	328	448	514
C21	Anus	7	5	7	9	12
C22	Liver	23	41	54	50	68
C23–24	Gallbladder, bile ducts	22	27	29	38	47
C25	Pancreas	185	226	252	271	297
C26	Other digestive organs	135	109	142	127	68
C30–34, C38	**Respiratory organs**	**477**	**676**	**827**	**1 054**	**1 225**
C30–31	Nose, sinuses	21	21	23	25	21
C32	Larynx, epiglottis	50	68	74	94	108
C33–34	Lung, trachea	396	574	710	917	1 085
C38	Heart, mediastinum and pleura	10	13	20	19	12
C40–41	**Bone**	**17**	**17**	**22**	**21**	**24**
C43	**Melanoma of the skin**	**80**	**118**	**162**	**220**	**264**
C44	**Skin, non-melanoma**	**68**	**107**	**189**	**220**	**301**
C45	**Mesothelioma**	**2**	**4**	**9**	**21**	**27**
C47	**Autonomic nervous system**	**15**	**13**	**12**	**8**	**8**
C48–49	**Soft tissues**	**29**	**38**	**53**	**57**	**45**
C50	**Breast**	**8**	**9**	**10**	**11**	**12**
C60–63	**Male genital organs**	**961**	**1 153**	**1 387**	**1 664**	**1 892**
C61	Prostate	870	1 052	1 280	1 523	1 714
C62	Testis	68	78	85	115	149
C60, C63	Other male genital	23	23	22	26	29
C64–68	**Urinary organs**	**431**	**517**	**677**	**818**	**961**
C64	Kidney (excl. renal pelvis)	128	158	177	211	250
C65–68	Urinary tract	303	359	500	607	711
C69	**Eye**	**17**	**24**	**18**	**27**	**25**
C70–72	**Central nervous system**	**136**	**150**	**169**	**195**	**221**
C73	**Thyroid gland**	**26**	**35**	**36**	**44**	**46**
C37, C74–75	**Other endocrine glands**	**10**	**21**	**25**	**32**	**43**
C39, C76, C80	**Other or unspecified**	**88**	**127**	**160**	**185**	**229**
C81–96	**Lymphoid/haematopoietic tissue**	**423**	**482**	**547**	**620**	**676**
C81	Hodgkin lymphoma	53	61	62	68	53
C82–86, C96	Non-Hodgkin lymphoma	106	118	142	164	215
C88	Immunoproliferative disease	0	2	7	8	10
C90	Multiple myeloma	83	95	127	151	152
C91–95	Leukaemia	180	205	210	229	246

1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
9 300	**10 518**	**11 515**	**12 972**	**15 239**	**17 550**	**19 084**
252	**256**	**260**	**257**	**306**	**382**	**437**
85	65	51	44	61	56	55
81	91	87	82	91	115	124
18	18	23	20	21	36	36
33	47	62	79	105	145	184
10	10	11	10	9	10	12
26	25	27	22	19	20	25
2 387	**2 437**	**2 551**	**2 716**	**3 021**	**3 525**	**3 866**
104	107	121	138	162	208	249
519	449	381	327	305	301	268
26	33	48	53	75	103	128
760	847	947	1 037	1 187	1 378	1 493
527	562	601	660	697	802	815
11	19	17	19	23	25	36
60	59	71	82	111	169	237
49	53	61	63	70	84	80
295	280	276	310	345	401	498
36	28	28	27	47	54	62
1 285	**1 390**	**1 438**	**1 557**	**1 670**	**1 774**	**1 849**
24	20	23	22	23	27	27
105	104	107	105	97	99	91
1 148	1 251	1 293	1 417	1 539	1 637	1 719
8	15	16	13	11	10	12
20	**21**	**20**	**26**	**28**	**29**	**33**
380	**428**	**471**	**521**	**716**	**983**	**1 206**
392	**479**	**565**	**670**	**807**	**1 000**	**1 468**
37	**45**	**56**	**66**	**68**	**67**	**68**
8	**6**	**6**	**5**	**7**	**5**	**5**
43	**48**	**50**	**56**	**61**	**70**	**66**
13	**12**	**15**	**15**	**19**	**28**	**30**
2 112	**2 676**	**3 220**	**3 820**	**4 849**	**5 425**	**5 423**
1 921	2 439	2 952	3 531	4 511	5 054	5 058
166	204	238	247	293	312	299
25	33	30	42	45	59	66
1 011	**1 100**	**1 102**	**1 260**	**1 427**	**1 746**	**1 948**
254	268	293	356	447	570	619
757	832	810	904	980	1 177	1 329
23	**29**	**27**	**34**	**32**	**39**	**43**
243	**289**	**358**	**440**	**500**	**505**	**456**
51	**42**	**49**	**60**	**71**	**112**	**140**
42	**55**	**69**	**95**	**132**	**121**	**90**
279	**321**	**287**	**228**	**172**	**150**	**155**
721	**884**	**970**	**1 146**	**1 354**	**1 589**	**1 801**
51	52	58	70	77	87	84
270	318	343	388	465	545	586
8	20	30	33	34	46	57
154	163	162	183	214	238	304
237	332	377	472	564	673	770

Table 5.14: Average annual number of new cases by primary site and five-year period, 1962–2021, **females**

ICD-10	Site	1962–66	1967–71	1972–76	1977–81	1982–86
C00–96	**All sites**	**4 667**	**5 444**	**6 177**	**7 039**	**7 937**
C00–14	**Mouth, pharynx**	**69**	**73**	**80**	**90**	**103**
C00	Lip	5	6	7	9	15
C02–06	Oral cavity	22	34	34	44	53
C07–08	Salivary glands	14	13	12	15	13
C09–10, C01, C14	Oropharynx	13	8	14	12	13
C11	Nasopharynx	5	4	6	5	4
C12–13	Hypopharynx	10	7	8	5	6
C15–26	**Digestive organs**	**1 467**	**1 609**	**1 728**	**2 032**	**2 169**
C15	Oesophagus	32	28	31	31	35
C16	Stomach	532	492	419	406	387
C17	Small intestine	11	15	18	21	27
C18	Colon	359	438	513	691	785
C19–20	Rectum, rectosigmoid	140	215	261	359	405
C21	Anus	10	13	13	20	25
C22	Liver	13	23	30	36	44
C23–24	Gallbladder, bile ducts	52	59	56	73	82
C25	Pancreas	124	167	189	224	274
C26	Other digestive organs	195	159	199	171	104
C30–34, C38	**Respiratory organs**	**111**	**168**	**202**	**257**	**351**
C30–31	Nose, sinuses	12	14	13	13	15
C32	Larynx, epiglottis	5	6	7	11	11
C33–34	Lung, trachea	86	143	173	228	321
C38	Heart, mediastinum and pleura	7	5	9	5	4
C40–41	**Bone**	**9**	**14**	**13**	**13**	**14**
C43	**Melanoma of the skin**	**93**	**129**	**200**	**263**	**361**
C44	**Skin, non-melanoma**	**40**	**59**	**118**	**150**	**226**
C45	**Mesothelioma**	**1**	**2**	**2**	**2**	**5**
C47	**Autonomic nervous system**	**9**	**16**	**9**	**5**	**6**
C48–49	**Soft tissues**	**27**	**28**	**43**	**44**	**47**
C50	**Breast**	**1 071**	**1 218**	**1 381**	**1 493**	**1 720**
C51–58	**Female genital organs**	**961**	**1 122**	**1 226**	**1 268**	**1 290**
C51–52, C57.7–9	Other female genital	61	60	76	80	83
C53	Cervix uteri	359	403	441	400	354
C54	Corpus uteri	222	268	324	369	390
C55	Uterus, other	17	15	7	8	5
C56, C57.0–4, C48.2	Ovary etc.	300	372	377	408	455
C58	Placenta	3	4	1	3	3
C64–68	**Urinary organs**	**225**	**273**	**327**	**376**	**420**
C64	Kidney (excl. renal pelvis)	90	117	118	138	156
C65–68	Urinary tract	135	156	209	239	264
C69	**Eye**	**16**	**18**	**20**	**21**	**22**
C70–72	**Central nervous system**	**118**	**131**	**151**	**186**	**224**
C73	**Thyroid gland**	**61**	**91**	**111**	**132**	**143**
C37, C74–75	**Other endocrine glands**	**7**	**13**	**16**	**33**	**47**
C39, C76, C80	**Other or unspecified**	**70**	**99**	**112**	**176**	**224**
C81–96	**Lymphoid/haematopoietic tissue**	**312**	**383**	**437**	**495**	**566**
C81	Hodgkin lymphoma	37	47	43	40	38
C82–86, C96	Non-Hodgkin lymphoma	76	101	114	146	199
C88	Immunoproliferative disease	0	1	4	4	6
C90	Multiple myeloma	64	79	108	128	134
C91–95	Leukaemia	135	155	167	177	190

1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
8 556	**9 609**	**10 648**	**11 948**	**13 124**	**14 887**	**16 471**
108	**130**	**128**	**152**	**184**	**212**	**243**
20	19	16	21	36	40	43
55	63	62	70	73	87	99
12	21	20	19	25	26	31
11	18	23	30	40	47	61
3	3	3	5	4	6	5
6	5	5	7	5	5	4
2 204	**2 324**	**2 440**	**2 572**	**2 771**	**3 108**	**3 297**
39	40	50	53	59	71	86
341	295	242	230	205	171	175
31	29	43	49	62	69	98
883	1 015	1 115	1 205	1 313	1 516	1 612
422	455	476	497	519	554	543
28	36	36	45	46	65	67
42	42	47	47	69	95	129
75	73	80	78	87	95	89
282	311	326	340	363	404	434
61	27	25	28	50	68	65
481	**622**	**767**	**968**	**1 230**	**1 478**	**1 698**
14	17	15	18	20	19	18
11	20	20	16	19	21	19
451	579	724	927	1 184	1 433	1 658
5	6	7	6	7	5	4
14	**18**	**19**	**19**	**24**	**25**	**23**
443	**490**	**512**	**581**	**735**	**973**	**1 139**
304	**398**	**475**	**584**	**722**	**881**	**1 241**
7	**10**	**9**	**12**	**13**	**13**	**14**
9	**7**	**5**	**4**	**4**	**5**	**4**
46	**45**	**51**	**59**	**64**	**52**	**51**
1 820	**2 073**	**2 462**	**2 740**	**2 819**	**3 251**	**3 657**
1 318	**1 396**	**1 441**	**1 570**	**1 650**	**1 735**	**1 791**
85	95	96	102	104	117	123
346	345	310	300	295	344	361
412	467	526	649	723	746	778
6	8	9	9	7	8	9
464	477	495	506	519	518	518
6	4	4	4	2	3	2
447	**481**	**498**	**566**	**616**	**715**	**749**
181	190	189	216	250	269	291
266	291	309	350	366	446	458
25	**30**	**28**	**32**	**33**	**38**	**41**
260	**316**	**435**	**596**	**631**	**571**	**544**
135	**137**	**124**	**153**	**190**	**265**	**332**
39	**49**	**65**	**106**	**138**	**120**	**89**
285	**353**	**337**	**299**	**209**	**178**	**184**
610	**729**	**851**	**934**	**1 092**	**1 266**	**1 373**
34	34	42	48	54	62	61
243	273	317	337	387	439	461
8	13	16	21	24	29	34
133	139	147	154	167	195	216
191	269	327	375	459	540	601

Table 5.15: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and five-year period, 1962–2021, **males**

ICD-10	Site	1962–66	1967–71	1972–76	1977–81	1982–86
C00–96	**All sites**	**357.7**	**393.5**	**429.8**	**475.7**	**513.6**
C00–14	**Mouth, pharynx**	**14.5**	**15.3**	**15.8**	**14.7**	**15.1**
C00	Lip	7.3	8.0	7.2	6.8	5.7
C02–06	Oral cavity	2.9	3.7	3.9	4.1	4.9
C07–08	Salivary glands	0.8	1.0	0.9	0.9	0.8
C09–10, C01, C14	Oropharynx	1.7	0.9	1.9	1.3	1.8
C11	Nasopharynx	0.6	0.6	0.6	0.6	0.7
C12–13	Hypopharynx	1.2	1.1	1.4	1.1	1.3
C15–26	**Digestive organs**	**134.7**	**135.9**	**133.7**	**139.8**	**144.6**
C15	Oesophagus	6.1	5.8	5.5	5.6	5.0
C16	Stomach	61.1	54.4	44.2	38.3	35.6
C17	Small intestine	0.9	1.2	1.1	1.2	1.8
C18	Colon	23.8	26.5	28.3	34.7	41.0
C19–20	Rectum, rectosigmoid	14.2	19.2	21.8	28.5	30.7
C21	Anus	0.5	0.4	0.5	0.5	0.8
C22	Liver	1.6	2.8	3.4	3.0	4.0
C23–24	Gallbladder, bile ducts	1.6	1.9	2.0	2.5	2.8
C25	Pancreas	13.6	15.6	16.4	16.8	18.1
C26	Other digestive organs	11.3	8.1	10.4	8.8	4.8
C30–34, C38	**Respiratory organs**	**32.4**	**42.7**	**49.6**	**61.0**	**69.6**
C30–31	Nose, sinuses	1.6	1.4	1.4	1.4	1.3
C32	Larynx, epiglottis	3.4	4.3	4.4	5.4	6.1
C33–34	Lung, trachea	26.6	36.2	42.6	53.0	61.6
C38	Heart, mediastinum and pleura	0.7	0.8	1.1	1.1	0.7
C40–41	**Bone**	**0.9**	**0.9**	**1.2**	**1.1**	**1.2**
C43	**Melanoma of the skin**	**5.3**	**7.5**	**9.8**	**12.9**	**14.9**
C44	**Skin, non-melanoma**	**6.3**	**8.9**	**15.2**	**15.7**	**19.9**
C45	**Mesothelioma**	**0.2**	**0.3**	**0.5**	**1.2**	**1.5**
C47	**Autonomic nervous system**	**0.9**	**0.8**	**0.6**	**0.4**	**0.4**
C48–49	**Soft tissues**	**1.9**	**2.6**	**3.4**	**3.4**	**2.5**
C50	**Breast**	**0.7**	**0.6**	**0.6**	**0.7**	**0.8**
C60–63	**Male genital organs**	**81.5**	**89.2**	**98.0**	**109.3**	**114.7**
C61	Prostate	75.5	82.9	91.9	101.7	105.9
C62	Testis	4.1	4.5	4.6	5.9	7.0
C60, C63	Other male genital	2.0	1.8	1.5	1.7	1.7
C64–68	**Urinary organs**	**32.0**	**34.9**	**43.3**	**49.9**	**56.7**
C64	Kidney (excl. renal pelvis)	9.1	10.2	10.8	12.4	14.4
C65–68	Urinary tract	22.9	24.7	32.4	37.5	42.3
C69	**Eye**	**1.1**	**1.4**	**1.0**	**1.6**	**1.4**
C70–72	**Central nervous system**	**7.9**	**8.4**	**9.2**	**10.6**	**11.8**
C73	**Thyroid gland**	**1.8**	**2.2**	**2.2**	**2.6**	**2.5**
C37, C74–75	**Other endocrine glands**	**0.6**	**1.2**	**1.4**	**1.7**	**2.2**
C39, C76, C80	**Other or unspecified**	**6.4**	**9.3**	**10.7**	**11.7**	**14.2**
C81–96	**Lymphoid/haematopoietic tissue**	**28.4**	**31.5**	**33.8**	**37.3**	**39.5**
C81	Hodgkin lymphoma	3.3	3.6	3.5	3.5	2.8
C82–86, C96	Non-Hodgkin lymphoma	7.0	7.7	8.8	9.7	12.5
C88	Immunoproliferative disease	0.0	0.2	0.4	0.5	0.6
C90	Multiple myeloma	6.0	6.7	8.2	9.5	9.3
C91–95	Leukaemia	12.0	13.3	12.9	14.0	14.4

1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
536.4	**590.8**	**628.1**	**673.7**	**720.6**	**740.4**	**712.6**
14.6	**14.3**	**13.9**	**13.0**	**14.0**	**15.6**	**16.1**
5.0	3.6	2.9	2.4	3.0	2.5	2.1
4.7	5.0	4.6	4.1	4.2	4.7	4.6
1.0	1.0	1.3	1.1	1.0	1.5	1.4
1.9	2.6	3.2	3.9	4.6	5.7	6.6
0.6	0.6	0.5	0.5	0.4	0.4	0.4
1.5	1.4	1.4	1.1	0.9	0.8	0.9
140.0	**138.8**	**140.7**	**142.7**	**144.7**	**150.2**	**144.9**
6.0	6.1	6.6	7.3	7.6	8.7	9.2
30.7	25.7	21.2	17.5	14.7	12.9	10.2
1.5	1.8	2.7	2.6	3.5	4.3	4.7
44.9	48.3	52.2	54.6	57.5	59.5	56.6
30.5	32.0	33.0	34.4	32.9	33.6	30.1
0.6	1.1	0.9	1.0	1.0	1.0	1.3
3.5	3.1	3.8	4.2	5.2	7.1	8.8
2.9	3.1	3.5	3.3	3.3	3.6	3.0
17.1	16.0	15.3	16.3	16.6	17.1	18.6
2.3	1.6	1.7	1.4	2.3	2.3	2.4
71.7	**76.9**	**77.3**	**80.4**	**79.0**	**75.4**	**68.6**
1.3	1.2	1.1	1.1	1.1	1.1	1.0
6.0	5.8	5.7	5.4	4.5	4.1	3.3
64.0	69.1	69.6	73.2	73.0	69.7	63.7
0.4	0.8	0.8	0.6	0.5	0.5	0.5
1.0	**1.0**	**1.0**	**1.2**	**1.2**	**1.1**	**1.2**
21.1	**22.8**	**24.2**	**25.7**	**32.6**	**40.8**	**44.9**
24.6	**28.7**	**32.8**	**36.8**	**41.4**	**46.5**	**59.7**
2.1	**2.5**	**3.1**	**3.5**	**3.3**	**2.9**	**2.6**
0.4	**0.3**	**0.3**	**0.2**	**0.3**	**0.2**	**0.2**
2.3	**2.6**	**2.6**	**2.7**	**2.8**	**2.9**	**2.5**
0.8	**0.7**	**0.9**	**0.8**	**0.9**	**1.2**	**1.1**
123.2	**151.5**	**178.5**	**201.2**	**228.8**	**224.6**	**197.8**
114.1	140.8	166.7	188.5	214.7	210.2	184.3
7.5	8.9	10.1	10.6	12.0	11.9	11.0
1.5	1.8	1.7	2.2	2.1	2.5	2.5
58.7	**62.2**	**60.2**	**65.5**	**67.8**	**74.4**	**72.7**
14.5	14.7	15.6	17.9	20.5	23.1	22.5
44.2	47.5	44.6	47.6	47.4	51.2	50.2
1.2	**1.6**	**1.4**	**1.7**	**1.4**	**1.6**	**1.6**
12.8	**14.9**	**17.6**	**20.8**	**22.1**	**20.3**	**16.9**
2.7	**2.2**	**2.4**	**2.8**	**3.1**	**4.5**	**5.1**
2.2	**2.8**	**3.3**	**4.4**	**5.7**	**4.8**	**3.3**
16.7	**19.0**	**16.2**	**12.4**	**8.6**	**6.8**	**6.3**
40.3	**48.1**	**51.9**	**57.8**	**62.8**	**66.7**	**67.2**
2.5	2.4	2.7	3.2	3.3	3.4	3.0
14.9	17.0	18.0	19.3	21.4	22.6	21.7
0.5	1.1	1.7	1.7	1.6	2.0	2.2
9.1	9.4	9.0	9.5	10.1	10.2	11.3
13.4	18.2	20.5	24.2	26.4	28.5	29.0

Table 5.16: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and five-year period, 1962–2021, **females**

ICD-10	Site	1962–66	1967–71	1972–76	1977–81	1982–86
C00–96	**All sites**	**292.8**	**313.4**	**334.5**	**358.5**	**381.5**
C00–14	**Mouth, pharynx**	**4.5**	**4.4**	**4.4**	**4.6**	**4.9**
C00	Lip	0.3	0.4	0.4	0.5	0.7
C02–06	Oral cavity	1.5	2.1	1.9	2.3	2.4
C07–08	Salivary glands	0.8	0.8	0.7	0.7	0.6
C09–10, C01, C14	Oropharynx	0.9	0.5	0.8	0.6	0.6
C11	Nasopharynx	0.3	0.3	0.3	0.2	0.2
C12–13	Hypopharynx	0.6	0.4	0.4	0.2	0.3
C15–26	**Digestive organs**	**98.6**	**95.4**	**93.9**	**101.1**	**99.9**
C15	Oesophagus	2.3	1.7	1.6	1.6	1.6
C16	Stomach	36.8	29.4	22.9	20.1	17.8
C17	Small intestine	0.7	0.9	1.0	1.0	1.2
C18	Colon	23.6	25.6	27.7	34.4	36.1
C19–20	Rectum, rectosigmoid	8.8	12.6	14.1	17.9	18.8
C21	Anus	0.6	0.7	0.7	1.0	1.2
C22	Liver	0.8	1.3	1.5	1.8	2.1
C23–24	Gallbladder, bile ducts	3.4	3.4	3.0	3.5	3.8
C25	Pancreas	7.8	9.7	10.0	10.9	12.4
C26	Other digestive organs	13.8	10.0	11.5	8.9	4.9
C30–34, C38	**Respiratory organs**	**6.9**	**9.6**	**10.5**	**12.8**	**16.7**
C30–31	Nose, sinuses	0.8	0.9	0.7	0.6	0.7
C32	Larynx, epiglottis	0.3	0.3	0.4	0.6	0.5
C33–34	Lung, trachea	5.3	8.1	9.0	11.4	15.4
C38	Heart, mediastinum and pleura	0.4	0.3	0.5	0.3	0.2
C40–41	**Bone**	**0.5**	**0.7**	**0.7**	**0.6**	**0.7**
C43	**Melanoma of the skin**	**5.6**	**7.5**	**11.2**	**14.0**	**18.3**
C44	**Skin, non-melanoma**	**3.0**	**3.8**	**6.9**	**8.0**	**10.7**
C45	**Mesothelioma**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**
C47	**Autonomic nervous system**	**0.5**	**0.8**	**0.4**	**0.3**	**0.3**
C48–49	**Soft tissues**	**1.7**	**1.6**	**2.4**	**2.2**	**2.2**
C50	**Breast**	**65.5**	**69.6**	**75.5**	**77.9**	**85.7**
C51–58	**Female genital organs**	**56.9**	**63.2**	**66.3**	**66.2**	**64.6**
C51–52, C57.7–9	Other female genital	3.9	3.5	4.0	4.1	3.9
C53	Cervix uteri	21.1	23.1	24.9	21.5	17.8
C54	Corpus uteri	12.9	14.7	16.9	19.0	19.6
C55	Uterus, other	1.2	1.0	0.4	0.5	0.3
C56, C57.0–4, C48.2	Ovary etc.	17.7	20.7	20.0	21.0	22.8
C58	Placenta	0.2	0.2	0.1	0.1	0.1
C64–68	**Urinary organs**	**14.2**	**15.6**	**17.2**	**18.4**	**19.3**
C64	Kidney (excl. renal pelvis)	5.4	6.5	6.1	6.7	7.2
C65–68	Urinary tract	8.8	9.1	11.1	11.7	12.0
C69	**Eye**	**0.9**	**1.0**	**1.1**	**1.1**	**1.1**
C70–72	**Central nervous system**	**6.8**	**7.1**	**7.9**	**9.5**	**11.1**
C73	**Thyroid gland**	**3.8**	**5.2**	**6.1**	**6.9**	**7.0**
C37, C74–75	**Other endocrine glands**	**0.4**	**0.7**	**0.9**	**1.7**	**2.3**
C39, C76, C80	**Other or unspecified**	**4.3**	**5.9**	**6.1**	**8.7**	**10.3**
C81–96	**Lymphoid/haematopoietic tissue**	**18.6**	**21.3**	**23.0**	**24.3**	**26.3**
C81	Hodgkin lymphoma	2.2	2.6	2.3	1.9	1.7
C82–86, C96	Non-Hodgkin lymphoma	4.6	5.7	6.1	7.3	9.4
C88	Immunoproliferative disease	0.0	0.0	0.2	0.2	0.3
C90	Multiple myeloma	3.9	4.5	5.6	6.2	6.1
C91–95	Leukaemia	7.9	8.5	8.9	8.6	8.7

1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
393.8	**428.1**	**461.4**	**497.8**	**518.0**	**548.7**	**560.0**
5.0	**5.8**	**5.6**	**6.4**	**7.3**	**7.8**	**8.2**
0.9	0.8	0.7	0.8	1.4	1.4	1.4
2.6	2.8	2.6	2.9	2.8	3.2	3.3
0.6	0.9	0.9	0.8	1.0	1.0	1.0
0.6	0.9	1.1	1.4	1.7	1.8	2.2
0.2	0.1	0.1	0.2	0.2	0.2	0.2
0.3	0.2	0.3	0.3	0.2	0.2	0.1
96.2	**97.9**	**99.9**	**102.3**	**105.3**	**111.3**	**108.4**
1.7	1.7	2.1	2.1	2.2	2.5	2.8
14.7	12.1	9.6	9.0	7.6	6.1	5.8
1.4	1.3	1.9	2.1	2.5	2.5	3.3
38.7	42.9	45.6	47.7	49.6	53.9	52.5
18.5	19.6	20.1	20.3	20.2	20.2	18.3
1.4	1.7	1.6	1.9	1.8	2.4	2.3
1.8	1.8	1.9	1.9	2.6	3.4	4.3
3.2	3.0	3.3	3.0	3.3	3.4	2.9
12.1	12.9	12.9	13.3	13.6	14.4	14.1
2.7	1.1	0.9	1.1	1.8	2.4	2.1
22.6	**28.8**	**34.7**	**41.6**	**49.3**	**54.3**	**55.8**
0.6	0.7	0.6	0.7	0.8	0.7	0.6
0.5	0.9	0.9	0.7	0.8	0.8	0.7
21.2	26.8	32.8	40.0	47.5	52.7	54.5
0.2	0.3	0.3	0.2	0.3	0.2	0.1
0.6	**0.8**	**0.8**	**0.8**	**1.0**	**1.0**	**0.8**
21.6	**22.9**	**22.8**	**24.9**	**29.6**	**36.6**	**39.7**
13.1	**16.5**	**18.6**	**21.7**	**25.7**	**29.7**	**39.1**
0.3	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**	**0.5**
0.4	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**	**0.2**
2.2	**2.0**	**2.2**	**2.5**	**2.5**	**2.0**	**1.8**
86.7	**96.4**	**112.9**	**119.9**	**115.3**	**123.8**	**130.1**
63.8	**65.2**	**64.5**	**66.8**	**66.6**	**65.2**	**62.1**
3.8	4.1	3.8	4.1	3.9	4.2	4.1
16.9	16.1	13.9	12.8	12.1	13.5	13.5
20.2	22.2	24.0	27.9	29.4	27.8	26.5
0.3	0.3	0.4	0.3	0.2	0.3	0.3
22.4	22.3	22.3	21.5	20.9	19.4	17.7
0.2	0.2	0.2	0.2	0.1	0.1	0.1
19.8	**20.5**	**20.7**	**22.8**	**23.9**	**25.9**	**24.9**
8.1	8.2	8.0	8.9	9.9	10.0	9.9
11.7	12.2	12.7	13.9	14.0	15.9	15.0
1.1	**1.3**	**1.2**	**1.3**	**1.3**	**1.5**	**1.4**
12.5	**14.7**	**19.4**	**25.8**	**25.7**	**21.8**	**19.3**
6.4	**6.3**	**5.5**	**6.5**	**7.8**	**10.3**	**12.3**
1.9	**2.3**	**3.0**	**4.6**	**5.7**	**4.7**	**3.3**
12.3	**14.5**	**13.3**	**11.1**	**7.4**	**6.0**	**5.8**
27.2	**31.4**	**35.7**	**38.1**	**42.9**	**46.3**	**46.2**
1.5	1.5	1.9	2.0	2.3	2.4	2.3
11.1	12.2	13.7	14.0	15.4	16.2	15.5
0.3	0.6	0.7	0.8	0.9	1.0	1.1
5.8	5.7	6.1	6.1	6.5	7.0	7.1
8.5	11.5	13.4	15.1	17.8	19.6	20.3

Table 5.17: Average annual number of new cases by primary site and county, 2017–2021, **males**

ICD-10	Site	Norway	Viken	Oslo	Innlandet
C00–96	**All sites**	**19 084**	**4 425**	**1 808**	**1 513**
C00–14	**Mouth, pharynx**	**437**	**103**	**49**	**32**
C00	Lip	55	10	5	5
C02–06	Oral cavity	124	30	13	10
C07–08	Salivary glands	36	10	3	3
C09–10, C01, C14	Oropharynx	184	47	21	12
C11	Nasopharynx	12	2	3	0
C12–13	Hypopharynx	25	4	5	2
C15–26	**Digestive organs**	**3 866**	**838**	**348**	**326**
C15	Oesophagus	249	50	24	23
C16	Stomach	268	58	22	17
C17	Small intestine	128	25	13	9
C18	Colon	1 493	322	123	123
C19–20	Rectum, rectosigmoid	815	169	70	78
C21	Anus	36	8	7	3
C22	Liver	237	53	26	22
C23–24	Gallbladder, bile ducts	80	22	7	7
C25	Pancreas	498	117	48	38
C26	Other digestive organs	62	15	7	6
C30–34, C38	**Respiratory organs**	**1 849**	**401**	**157**	**154**
C30–31	Nose, sinuses	27	5	3	4
C32	Larynx, epiglottis	91	17	10	6
C33–34	Lung, trachea	1 719	374	141	143
C38	Heart, mediastinum and pleura	12	4	2	1
C40–41	**Bone**	**33**	**6**	**4**	**3**
C43	**Melanoma of the skin**	**1 206**	**301**	**126**	**85**
C44	**Skin, non-melanoma**	**1 468**	**371**	**126**	**96**
C45	**Mesothelioma**	**68**	**19**	**4**	**4**
C47	**Autonomic nervous system**	**5**	**2**	**1**	**0**
C48–49	**Soft tissues**	**66**	**15**	**8**	**5**
C50	**Breast**	**30**	**5**	**3**	**2**
C60–63	**Male genital organs**	**5 423**	**1 292**	**527**	**441**
C61	Prostate	5 058	1 220	480	413
C62	Testis	299	61	39	23
C60, C63	Other male genital	66	12	8	5
C64–68	**Urinary organs**	**1 948**	**451**	**179**	**154**
C64	Kidney (excl. renal pelvis)	619	144	55	46
C65–68	Urinary tract	1 329	307	124	108
C69	**Eye**	**43**	**10**	**4**	**4**
C70–72	**Central nervous system**	**456**	**103**	**48**	**31**
C73	**Thyroid gland**	**140**	**29**	**18**	**7**
C37, C74–75	**Other endocrine glands**	**90**	**26**	**7**	**5**
C39, C76, C80	**Other or unspecified**	**155**	**39**	**11**	**14**
C81–96	**Lymphoid/haematopoietic tissue**	**1 801**	**414**	**186**	**149**
C81	Hodgkin lymphoma	84	19	9	6
C82–86, C96	Non-Hodgkin lymphoma	586	125	61	51
C88	Immunoproliferative disease	57	12	6	2
C90	Multiple myeloma	304	75	28	28
C91–95	Leukaemia	770	183	82	62

Vestfold og Telemark	Agder	Rogaland	Vestland	Møre og Romsdal	Trøndelag	Nordland	Troms og Finnmark
1 714	**1 091**	**1 726**	**2 334**	**1 002**	**1 590**	**996**	**885**
41	**27**	**34**	**48**	**22**	**31**	**25**	**24**
6	5	7	7	3	5	2	2
13	9	10	13	8	7	6	6
2	4	2	5	1	4	1	1
16	9	12	20	9	13	13	12
1	0	1	1	1	1	0	1
3	1	2	3	1	2	2	1
339	**213**	**317**	**491**	**235**	**347**	**222**	**191**
23	18	25	25	12	24	13	10
24	14	18	36	17	23	20	19
12	6	11	18	9	13	6	7
135	81	126	201	99	133	84	66
68	39	70	109	46	75	52	39
3	1	3	3	2	2	2	2
21	16	16	23	14	22	12	11
6	3	5	12	5	6	3	5
42	29	39	57	26	44	28	29
6	5	4	7	4	4	2	4
165	**122**	**165**	**227**	**108**	**135**	**105**	**110**
2	2	2	3	1	2	1	1
12	5	6	13	6	7	6	4
149	115	157	211	101	127	98	104
2	1	1	1	0	0	1	0
2	**2**	**3**	**5**	**1**	**4**	**1**	**2**
125	**80**	**105**	**149**	**40**	**114**	**37**	**41**
165	**111**	**141**	**199**	**43**	**111**	**59**	**46**
6	**7**	**6**	**9**	**3**	**4**	**3**	**1**
0	**0**	**1**	**1**	**0**	**0**	**0**	**0**
6	**4**	**5**	**6**	**5**	**5**	**4**	**5**
2	**3**	**3**	**4**	**2**	**2**	**2**	**2**
435	**275**	**548**	**642**	**283**	**445**	**297**	**235**
403	253	515	598	262	417	283	213
26	19	29	35	16	23	12	16
6	3	5	8	5	5	2	7
179	**106**	**158**	**221**	**122**	**162**	**115**	**100**
56	38	50	75	35	54	34	31
123	68	108	147	87	108	81	69
4	**2**	**3**	**6**	**3**	**4**	**2**	**2**
41	**28**	**48**	**55**	**18**	**37**	**26**	**21**
13	**10**	**9**	**18**	**5**	**14**	**6**	**11**
7	**3**	**11**	**14**	**3**	**5**	**5**	**5**
18	**9**	**11**	**19**	**10**	**11**	**7**	**6**
166	**90**	**158**	**219**	**100**	**156**	**80**	**83**
8	6	6	11	5	7	4	4
50	32	51	72	34	52	25	33
7	1	5	6	4	6	5	3
32	13	24	37	17	25	13	11
68	38	72	94	40	66	33	31

Table 5.18: Average annual number of new cases by primary site and county, 2017–2021, **females**

ICD-10	Site	Norway	Viken	Oslo	Innlandet
C00–96	**All sites**	**16 471**	**3 855**	**1 700**	**1 296**
C00–14	**Mouth, pharynx**	**243**	**55**	**28**	**20**
C00	Lip	43	8	4	3
C02–06	Oral cavity	99	20	11	8
C07–08	Salivary glands	31	10	4	2
C09–10, C01, C14	Oropharynx	61	15	7	7
C11	Nasopharynx	5	1	1	0
C12–13	Hypopharynx	4	1	2	0
C15–26	**Digestive organs**	**3 297**	**730**	**325**	**285**
C15	Oesophagus	86	19	11	8
C16	Stomach	175	39	20	13
C17	Small intestine	98	22	10	9
C18	Colon	1 612	358	149	136
C19–20	Rectum, rectosigmoid	543	114	54	46
C21	Anus	67	16	8	4
C22	Liver	129	29	14	15
C23–24	Gallbladder, bile ducts	89	19	10	10
C25	Pancreas	434	100	42	38
C26	Other digestive organs	65	16	7	7
C30–34, C38	**Respiratory organs**	**1 698**	**390**	**165**	**138**
C30–31	Nose, sinuses	18	4	3	3
C32	Larynx, epiglottis	19	3	3	1
C33–34	Lung, trachea	1 658	382	158	134
C38	Heart, mediastinum and pleura	4	1	1	0
C40–41	**Bone**	**23**	**6**	**3**	**1**
C43	**Melanoma of the skin**	**1 139**	**262**	**111**	**79**
C44	**Skin, non-melanoma**	**1 241**	**301**	**101**	**71**
C45	**Mesothelioma**	**14**	**3**	**2**	**2**
C47	**Autonomic nervous system**	**4**	**1**	**0**	**0**
C48–49	**Soft tissues**	**51**	**13**	**8**	**5**
C50	**Breast**	**3 657**	**905**	**421**	**277**
C51–58	**Female genital organs**	**1 791**	**421**	**185**	**156**
C51–52, C57.7–9	Other female genital	123	29	11	10
C53	Cervix uteri	361	84	46	30
C54	Corpus uteri	778	180	76	73
C55	Uterus, other	9	2	1	1
C56, C57.0–4, C48.2	Ovary etc.	518	126	50	42
C58	Placenta	2	0	0	0
C64–68	**Urinary organs**	**749**	**175**	**63**	**61**
C64	Kidney (excl. renal pelvis)	291	70	19	24
C65–68	Urinary tract	458	105	44	37
C69	**Eye**	**41**	**10**	**4**	**4**
C70–72	**Central nervous system**	**544**	**122**	**58**	**43**
C73	**Thyroid gland**	**332**	**73**	**49**	**18**
C37, C74–75	**Other endocrine glands**	**89**	**24**	**9**	**5**
C39, C76, C80	**Other or unspecified**	**184**	**40**	**16**	**17**
C81–96	**Lymphoid/haematopoietic tissue**	**1 373**	**324**	**151**	**112**
C81	Hodgkin lymphoma	61	15	8	5
C82–86, C96	Non-Hodgkin lymphoma	461	96	46	38
C88	Immunoproliferative disease	34	6	4	2
C90	Multiple myeloma	216	55	21	20
C91–95	Leukaemia	601	152	71	48

Vestfold og Telemark	Agder	Rogaland	Vestland	Møre og Romsdal	Trøndelag	Nordland	Troms og Finnmark
1 496	**978**	**1 380**	**1 955**	**808**	**1 415**	**832**	**755**
21	**13**	**19**	**26**	**11**	**24**	**13**	**12**
4	3	4	5	2	6	1	1
8	4	8	13	5	8	6	7
2	2	2	3	1	2	2	1
7	3	4	4	2	6	4	3
0	0	1	1	0	0	0	0
1	0	0	0	0	0	0	0
292	**183**	**243**	**400**	**195**	**294**	**191**	**158**
9	6	5	7	5	8	5	4
12	11	9	23	10	17	12	10
9	6	8	13	6	9	5	2
145	92	124	193	103	145	92	75
53	24	39	70	32	54	32	25
9	3	6	8	2	4	5	3
9	7	10	14	5	13	6	8
6	4	8	11	3	9	4	6
37	26	31	56	24	32	27	22
4	4	4	6	4	5	4	3
140	**112**	**142**	**182**	**91**	**147**	**99**	**91**
2	1	2	1	0	2	1	0
1	1	1	2	1	2	2	1
137	110	139	179	90	143	97	89
0	0	0	1	0	0	0	0
1	**1**	**2**	**3**	**2**	**2**	**1**	**1**
118	**88**	**108**	**136**	**44**	**119**	**35**	**40**
143	**108**	**129**	**182**	**32**	**85**	**46**	**42**
1	**1**	**2**	**1**	**1**	**1**	**1**	**0**
1	**0**	**0**	**0**	**0**	**1**	**0**	**0**
4	**4**	**4**	**3**	**3**	**4**	**2**	**2**
309	**200**	**319**	**411**	**193**	**305**	**166**	**151**
162	**104**	**145**	**223**	**78**	**149**	**85**	**84**
12	7	8	15	5	12	8	5
33	18	33	43	13	28	16	16
68	48	59	103	34	68	36	33
1	1	0	1	1	0	0	1
48	31	44	61	24	41	23	27
0	0	0	0	0	0	0	1
73	**40**	**57**	**79**	**37**	**67**	**52**	**45**
27	16	23	36	14	28	19	16
46	25	34	42	24	39	33	29
3	**2**	**3**	**5**	**1**	**4**	**2**	**2**
50	**26**	**52**	**72**	**21**	**41**	**30**	**29**
30	**13**	**21**	**39**	**14**	**37**	**19**	**18**
7	**4**	**10**	**14**	**2**	**4**	**4**	**5**
19	**11**	**14**	**23**	**9**	**13**	**14**	**9**
122	**69**	**110**	**157**	**73**	**117**	**71**	**66**
3	4	5	7	3	5	2	3
42	26	37	56	24	42	27	26
3	1	3	4	2	5	3	1
20	9	17	24	10	15	15	10
55	28	48	66	34	49	24	26

Table 5.19: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and county, 2017–2021, **males**

ICD-10	Site	Norway	Viken	Oslo	Innlandet
C00–96	**All sites**	**712.6**	**713.9**	**706.0**	**670.1**
C00–14	**Mouth, pharynx**	**16.1**	**16.0**	**18.4**	**14.2**
C00	Lip	2.1	1.6	2.2	2.0
C02–06	Oral cavity	4.6	4.7	4.5	4.3
C07–08	Salivary glands	1.4	1.7	1.2	1.2
C09–10, C01, C14	Oropharynx	6.6	7.1	7.9	5.4
C11	Nasopharynx	0.4	0.4	1.0	0.2
C12–13	Hypopharynx	0.9	0.6	1.8	1.0
C15–26	**Digestive organs**	**144.9**	**135.8**	**136.7**	**143.9**
C15	Oesophagus	9.2	7.9	9.5	9.9
C16	Stomach	10.2	9.6	8.3	7.5
C17	Small intestine	4.7	3.9	4.4	4.2
C18	Colon	56.6	52.9	49.3	54.3
C19–20	Rectum, rectosigmoid	30.1	26.9	26.8	34.4
C21	Anus	1.3	1.2	2.8	1.3
C22	Liver	8.8	8.4	10.3	9.8
C23–24	Gallbladder, bile ducts	3.0	3.6	2.7	3.1
C25	Pancreas	18.6	19.0	19.9	16.7
C26	Other digestive organs	2.4	2.4	2.8	2.6
C30–34, C38	**Respiratory organs**	**68.6**	**64.1**	**62.6**	**66.0**
C30–31	Nose, sinuses	1.0	0.8	1.1	1.7
C32	Larynx, epiglottis	3.3	2.7	4.1	2.7
C33–34	Lung, trachea	63.7	59.8	56.6	61.3
C38	Heart, mediastinum and pleura	0.5	0.8	0.8	0.4
C40–41	**Bone**	**1.2**	**1.0**	**1.4**	**1.4**
C43	**Melanoma of the skin**	**44.9**	**48.6**	**47.8**	**39.0**
C44	**Skin, non-melanoma**	**59.7**	**65.7**	**58.4**	**44.4**
C45	**Mesothelioma**	**2.6**	**3.3**	**1.9**	**1.7**
C47	**Autonomic nervous system**	**0.2**	**0.3**	**0.3**	**0.1**
C48–49	**Soft tissues**	**2.5**	**2.5**	**2.8**	**2.5**
C50	**Breast**	**1.1**	**0.8**	**1.2**	**1.0**
C60–63	**Male genital organs**	**197.8**	**203.8**	**201.5**	**192.2**
C61	Prostate	184.3	191.8	188.8	176.7
C62	Testis	11.0	10.1	9.5	13.5
C60, C63	Other male genital	2.5	1.9	3.3	2.0
C64–68	**Urinary organs**	**72.7**	**72.5**	**70.8**	**68.1**
C64	Kidney (excl. renal pelvis)	22.5	22.4	20.7	20.6
C65–68	Urinary tract	50.2	50.1	50.1	47.5
C69	**Eye**	**1.6**	**1.6**	**1.4**	**1.8**
C70–72	**Central nervous system**	**16.9**	**16.4**	**16.3**	**14.3**
C73	**Thyroid gland**	**5.1**	**4.6**	**5.7**	**3.4**
C37, C74–75	**Other endocrine glands**	**3.3**	**4.0**	**2.6**	**2.3**
C39, C76, C80	**Other or unspecified**	**6.3**	**6.9**	**4.8**	**6.1**
C81–96	**Lymphoid/haematopoietic tissue**	**67.2**	**66.2**	**71.2**	**67.5**
C81	Hodgkin lymphoma	3.0	2.9	2.6	3.0
C82–86, C96	Non-Hodgkin lymphoma	21.7	19.6	23.2	23.1
C88	Immunoproliferative disease	2.2	2.0	2.5	1.0
C90	Multiple myeloma	11.3	12.2	10.7	12.2
C91–95	Leukaemia	29.0	29.4	32.1	28.3

Vestfold og Telemark	Agder	Rogaland	Vestland	Møre og Romsdal	Trøndelag	Nordland	Troms og Finnmark
736.5	**716.1**	**805.2**	**737.3**	**678.8**	**667.0**	**700.2**	**683.0**
17.4	**18.1**	**15.6**	**15.0**	**15.0**	**13.2**	**17.5**	**18.4**
2.5	3.2	3.3	2.2	2.0	2.2	1.4	2.0
5.8	5.9	4.6	3.9	5.5	2.9	4.2	4.4
0.8	2.8	1.0	1.6	0.8	1.4	0.8	1.0
6.7	5.7	5.2	6.1	5.8	5.4	9.3	9.1
0.4	0.0	0.4	0.3	0.5	0.5	0.3	0.9
1.1	0.5	1.0	0.8	0.5	0.8	1.4	1.0
145.7	**139.8**	**149.9**	**155.3**	**160.2**	**145.7**	**155.8**	**147.3**
9.7	11.6	11.7	7.8	8.1	10.2	9.5	7.8
10.9	9.0	8.8	11.8	11.9	10.1	14.1	14.4
5.4	3.8	4.9	5.5	6.1	5.6	4.3	5.4
58.4	54.2	60.7	64.0	67.9	56.0	59.0	51.3
28.7	26.0	31.6	34.2	31.1	30.8	36.1	29.6
1.2	0.8	1.5	0.9	1.5	0.9	1.4	1.2
8.7	10.4	7.4	7.4	9.8	9.5	8.5	8.4
2.6	2.0	2.7	3.7	3.1	2.5	2.2	3.6
17.7	19.3	18.4	17.7	17.9	18.3	19.6	22.5
2.4	2.7	2.1	2.3	2.9	1.7	1.2	3.0
68.9	**78.7**	**78.3**	**71.6**	**71.6**	**55.9**	**72.6**	**85.4**
1.0	1.3	0.9	0.8	0.7	0.7	0.9	1.1
4.8	2.7	2.6	4.0	3.8	2.7	4.0	3.2
62.1	74.1	74.5	66.4	67.1	52.4	67.3	81.1
1.0	0.5	0.3	0.3	0.0	0.1	0.4	0.0
0.9	**1.4**	**1.3**	**1.4**	**0.6**	**1.7**	**0.5**	**1.3**
54.0	**51.6**	**49.0**	**47.0**	**27.7**	**48.2**	**26.8**	**31.2**
76.0	**79.2**	**73.4**	**67.0**	**30.7**	**50.6**	**44.1**	**38.3**
2.7	**4.7**	**3.1**	**2.9**	**1.9**	**1.6**	**2.1**	**0.7**
0.2	**0.0**	**0.2**	**0.3**	**0.0**	**0.1**	**0.2**	**0.0**
2.5	**2.5**	**2.1**	**1.9**	**3.4**	**1.9**	**3.0**	**3.5**
0.6	**1.8**	**1.3**	**1.4**	**1.3**	**1.0**	**1.3**	**1.2**
183.1	**176.2**	**247.0**	**198.7**	**187.3**	**182.7**	**204.3**	**177.4**
167.4	161.5	233.3	185.1	171.3	170.7	192.1	159.4
12.9	12.6	11.5	10.9	12.1	9.8	10.7	12.8
2.9	2.1	2.3	2.7	3.9	2.2	1.5	5.2
76.9	**68.6**	**74.3**	**69.8**	**83.2**	**67.9**	**81.0**	**77.3**
23.8	23.9	22.5	22.8	24.2	22.5	24.1	22.7
53.0	44.8	51.8	47.0	59.0	45.4	56.9	54.6
1.6	**1.4**	**1.3**	**1.8**	**1.9**	**1.8**	**1.4**	**1.4**
17.8	**17.9**	**21.0**	**17.3**	**12.6**	**15.9**	**19.1**	**16.9**
5.6	**6.3**	**4.1**	**5.7**	**3.3**	**5.8**	**4.8**	**8.3**
3.0	**2.3**	**4.6**	**4.4**	**1.9**	**1.9**	**3.4**	**3.9**
8.4	**6.7**	**6.0**	**6.3**	**7.1**	**5.2**	**5.4**	**5.1**
71.3	**59.1**	**72.7**	**69.5**	**69.0**	**65.8**	**56.8**	**65.3**
3.6	4.2	2.5	3.3	3.4	2.8	3.1	2.9
21.6	21.5	22.7	22.6	23.1	21.4	17.4	26.1
2.9	0.5	2.3	1.8	3.0	2.7	2.9	2.6
13.5	8.4	11.0	11.8	11.6	10.7	9.3	9.0
29.7	24.5	34.3	30.0	27.8	28.2	24.1	24.7

Table 5.20: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and county, 2017–2021, **females**

ICD-10	Site	Norway	Viken	Oslo	Innlandet
C00–96	**All sites**	**560.0**	**558.0**	**549.1**	**537.1**
C00–14	**Mouth, pharynx**	**8.2**	**7.9**	**9.0**	**8.5**
C00	Lip	1.4	1.1	1.5	1.0
C02–06	Oral cavity	3.3	2.8	3.4	3.4
C07–08	Salivary glands	1.0	1.5	1.2	0.9
C09–10, C01, C14	Oropharynx	2.2	2.2	2.3	3.0
C11	Nasopharynx	0.2	0.2	0.2	0.2
C12–13	Hypopharynx	0.1	0.1	0.5	0.0
C15–26	**Digestive organs**	**108.4**	**102.9**	**106.4**	**111.0**
C15	Oesophagus	2.8	2.6	3.8	3.0
C16	Stomach	5.8	5.4	6.6	5.1
C17	Small intestine	3.3	3.1	3.4	3.7
C18	Colon	52.5	50.3	48.1	52.1
C19–20	Rectum, rectosigmoid	18.3	16.3	17.8	18.8
C21	Anus	2.3	2.3	2.7	1.5
C22	Liver	4.3	4.0	4.5	6.1
C23–24	Gallbladder, bile ducts	2.9	2.6	3.4	3.7
C25	Pancreas	14.1	13.9	13.9	14.4
C26	Other digestive organs	2.1	2.4	2.3	2.6
C30–34, C38	**Respiratory organs**	**55.8**	**54.4**	**54.2**	**53.1**
C30–31	Nose, sinuses	0.6	0.6	0.9	1.1
C32	Larynx, epiglottis	0.7	0.5	0.9	0.5
C33–34	Lung, trachea	54.5	53.2	52.0	51.3
C38	Heart, mediastinum and pleura	0.1	0.1	0.4	0.2
C40–41	**Bone**	**0.8**	**0.9**	**0.8**	**0.8**
C43	**Melanoma of the skin**	**39.7**	**38.7**	**35.2**	**34.4**
C44	**Skin, non-melanoma**	**39.1**	**41.3**	**31.8**	**25.3**
C45	**Mesothelioma**	**0.5**	**0.4**	**0.7**	**0.9**
C47	**Autonomic nervous system**	**0.2**	**0.2**	**0.1**	**0.0**
C48–49	**Soft tissues**	**1.8**	**1.9**	**2.4**	**2.0**
C50	**Breast**	**130.1**	**135.2**	**138.1**	**123.9**
C51–58	**Female genital organs**	**62.1**	**61.7**	**58.7**	**68.5**
C51–52, C57.7–9	Other female genital	4.1	4.1	3.8	4.5
C53	Cervix uteri	13.5	13.4	12.9	16.5
C54	Corpus uteri	26.5	25.8	25.3	29.6
C55	Uterus, other	0.3	0.3	0.2	0.3
C56, C57.0–4, C48.2	Ovary etc.	17.7	18.1	16.5	17.7
C58	Placenta	0.1	0.1	0.1	0.0
C64–68	**Urinary organs**	**24.9**	**24.8**	**20.7**	**24.3**
C64	Kidney (excl. renal pelvis)	9.9	10.1	6.2	9.8
C65–68	Urinary tract	15.0	14.7	14.5	14.5
C69	**Eye**	**1.4**	**1.4**	**1.4**	**1.7**
C70–72	**Central nervous system**	**19.3**	**18.5**	**18.3**	**19.2**
C73	**Thyroid gland**	**12.3**	**11.5**	**14.3**	**9.3**
C37, C74–75	**Other endocrine glands**	**3.3**	**3.8**	**3.0**	**2.3**
C39, C76, C80	**Other or unspecified**	**5.8**	**5.5**	**5.2**	**6.4**
C81–96	**Lymphoid/haematopoietic tissue**	**46.2**	**46.8**	**48.8**	**45.4**
C81	Hodgkin lymphoma	2.3	2.5	2.2	2.6
C82–86, C96	Non-Hodgkin lymphoma	15.5	13.6	15.2	15.1
C88	Immunoproliferative disease	1.1	0.9	1.4	0.7
C90	Multiple myeloma	7.1	7.9	7.1	7.4
C91–95	Leukaemia	20.3	21.9	22.9	19.5

Vestfold og Telemark	Agder	Rogaland	Vestland	Møre og Romsdal	Trøndelag	Nordland	Troms og Finnmark
581.0	**577.6**	**590.6**	**568.8**	**520.9**	**553.6**	**564.8**	**559.8**
8.3	**7.4**	**8.0**	**7.6**	**7.0**	**8.9**	**8.9**	**8.6**
1.5	1.8	1.7	1.5	1.2	2.2	0.9	0.6
2.9	2.4	3.5	3.7	3.3	2.9	4.2	4.9
0.9	1.2	0.7	0.9	0.6	0.9	1.0	0.6
2.6	1.9	1.7	1.1	1.6	2.6	2.6	2.4
0.2	0.1	0.4	0.3	0.2	0.1	0.0	0.2
0.2	0.0	0.0	0.1	0.1	0.1	0.3	0.0
107.9	**103.5**	**102.6**	**112.3**	**118.8**	**109.8**	**123.1**	**112.9**
3.1	3.2	2.2	1.8	3.2	2.8	3.3	2.5
4.4	6.4	3.7	6.5	6.4	6.5	7.5	7.0
3.4	3.6	3.3	3.7	3.9	3.5	3.3	1.7
53.0	52.1	52.0	53.7	61.7	53.1	58.4	53.0
20.0	13.9	16.6	20.5	20.7	20.3	21.7	18.3
3.6	1.5	2.5	2.3	1.2	1.8	3.2	2.3
3.3	3.8	4.4	3.9	2.9	5.0	3.9	6.0
2.2	2.1	3.3	3.0	2.1	3.3	2.5	4.0
13.5	14.5	13.0	15.3	14.3	11.8	16.8	15.9
1.4	2.4	1.7	1.7	2.4	1.8	2.6	2.2
51.6	**64.2**	**61.1**	**51.5**	**56.1**	**54.8**	**63.7**	**63.8**
0.7	0.3	0.7	0.3	0.3	0.6	0.4	0.1
0.5	0.8	0.5	0.6	0.5	0.8	1.1	1.1
50.4	62.9	59.8	50.5	55.2	53.5	62.2	62.5
0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.2
0.6	**0.6**	**0.9**	**0.9**	**1.1**	**0.9**	**0.8**	**1.1**
47.6	**54.8**	**46.7**	**40.1**	**29.3**	**48.7**	**26.2**	**30.4**
50.3	**59.5**	**53.8**	**47.4**	**18.1**	**30.8**	**28.7**	**30.3**
0.3	**0.3**	**0.7**	**0.2**	**0.8**	**0.3**	**0.7**	**0.1**
0.6	**0.1**	**0.2**	**0.0**	**0.2**	**0.4**	**0.2**	**0.1**
1.7	**2.2**	**1.8**	**1.0**	**1.8**	**1.6**	**1.4**	**1.3**
126.9	**124.0**	**138.9**	**127.2**	**133.8**	**125.9**	**121.3**	**117.5**
65.2	**63.0**	**62.4**	**66.3**	**52.4**	**59.9**	**59.4**	**64.3**
4.5	4.2	3.5	4.1	3.2	4.4	5.5	3.8
15.5	11.8	14.4	13.8	10.6	12.4	13.4	14.1
26.0	27.9	25.4	30.2	22.2	26.5	24.6	25.2
0.3	0.6	0.2	0.2	0.4	0.2	0.0	0.8
18.6	18.4	18.9	18.0	16.0	16.3	15.9	20.0
0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.5
26.9	**23.2**	**24.5**	**22.3**	**22.8**	**25.5**	**33.8**	**32.3**
10.4	9.3	10.1	10.5	8.7	11.0	12.9	11.8
16.5	13.9	14.4	11.8	14.1	14.5	20.9	20.5
1.4	**1.0**	**1.1**	**1.5**	**1.0**	**1.8**	**1.4**	**1.7**
21.1	**16.4**	**22.2**	**22.2**	**14.6**	**17.0**	**21.5**	**22.2**
13.6	**8.5**	**9.3**	**12.7**	**10.2**	**15.8**	**15.0**	**15.0**
3.0	**2.6**	**4.4**	**4.5**	**1.7**	**1.6**	**3.1**	**4.0**
6.9	**6.0**	**5.7**	**5.8**	**4.8**	**4.5**	**8.2**	**6.2**
47.2	**40.3**	**46.5**	**45.1**	**46.4**	**45.3**	**47.3**	**47.9**
1.4	2.5	2.2	2.3	2.5	2.2	1.6	2.6
16.1	15.6	15.8	16.3	14.7	16.3	18.2	18.6
1.0	0.7	1.1	1.0	1.4	1.8	2.0	0.8
7.4	5.3	7.3	6.6	6.0	5.8	9.4	7.0
21.3	16.2	20.2	18.8	21.8	19.2	16.2	18.9

Table 5.21: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1962–2021, **males**

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C00–14	Mouth, pharynx	**Total**	**188**	**215**	**244**	**236**
		Localised	133	137	161	149
		Regional	44	47	67	72
		Distant	6	10	10	8
		Unknown	5	21	6	7
C15	Oesophagus	**Total**	**78**	**80**	**81**	**89**
		Localised	46	41	37	44
		Regional	10	13	18	18
		Distant	18	18	22	22
		Unknown	4	8	4	5
C16	Stomach	**Total**	**786**	**745**	**649**	**600**
		Localised	220	183	164	177
		Regional	173	151	145	154
		Distant	342	328	297	233
		Unknown	50	84	43	36
C18	Colon	**Total**	**306**	**368**	**416**	**541**
		Localised	125	136	149	151
		Regional	72	89	120	217
		Distant	97	125	132	152
		Unknown	13	19	15	20
C19–20	Rectum, rectosigmoid	**Total**	**186**	**270**	**328**	**448**
		Localised	90	125	154	202
		Regional	50	72	90	153
		Distant	41	59	75	83
		Unknown	6	14	8	11
C22	Liver	**Total**	**23**	**41**	**54**	**50**
		Localised	11	20	24	24
		Regional	1	1	5	4
		Distant	10	16	21	16
		Unknown	0	4	3	5
C23–24	Gallbladder, bile ducts	**Total**	**22**	**27**	**29**	**38**
		Localised	8	9	8	11
		Regional	4	3	7	9
		Distant	9	12	13	16
		Unknown	1	2	1	2
C25	Pancreas	**Total**	**185**	**226**	**252**	**271**
		Localised	54	52	49	44
		Regional	21	30	33	35
		Distant	101	125	147	161
		Unknown	9	19	21	32
C33–34	Lung, trachea	**Total**	**396**	**574**	**710**	**917**
		Localised	136	187	225	300
		Regional	84	109	132	163
		Distant	154	242	303	390
		Unknown	22	36	49	64
C43	Melanoma of the skin	**Total**	**80**	**118**	**162**	**220**
		Localised	53	74	127	181
		Regional	11	15	16	16
		Distant	15	17	16	16
		Unknown	1	12	3	7
C61	Prostate	**Total**	**870**	**1 052**	**1 280**	**1 523**
		Localised	581	654	861	1 019
		Regional	31	41	73	66
		Distant	209	236	270	331
		Unknown	49	122	76	107

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21	2017–21 (%)
255	**252**	**256**	**260**	**257**	**306**	**382**	**437**	***100.0***
152	141	118	94	82	114	140	131	*29.9*
89	82	91	99	121	143	192	202	*46.2*
5	10	12	12	12	12	17	11	*2.6*
9	19	35	54	42	37	33	93	*21.3*
84	**104**	**107**	**121**	**138**	**162**	**208**	**249**	***100.0***
36	28	22	19	28	28	31	25	*9.9*
22	24	25	24	37	47	59	82	*33.1*
22	34	25	36	44	49	54	61	*24.6*
5	18	34	43	29	39	63	80	*32.3*
579	**519**	**449**	**381**	**327**	**305**	**301**	**268**	***100.0***
168	137	89	57	59	62	54	38	*14.2*
160	144	130	111	102	86	89	79	*29.6*
205	176	141	133	116	105	90	77	*28.7*
46	62	90	80	50	52	68	74	*27.5*
675	**760**	**847**	**947**	**1 037**	**1 187**	**1 378**	**1 493**	***100.0***
200	235	218	161	186	173	255	267	*17.9*
275	281	359	460	524	629	685	787	*52.7*
174	210	221	248	262	323	363	347	*23.2*
25	34	49	77	64	61	75	93	*6.2*
514	**527**	**562**	**601**	**660**	**697**	**802**	**815**	***100.0***
218	209	199	162	167	129	189	198	*24.3*
184	195	211	239	283	364	390	380	*46.7*
92	98	104	121	131	150	158	160	*19.6*
21	25	48	80	80	54	65	76	*9.4*
68	**60**	**59**	**71**	**82**	**111**	**169**	**237**	***100.0***
33	27	20	22	25	42	51	52	*21.9*
6	3	3	5	8	12	19	26	*10.8*
19	12	11	17	20	29	39	35	*14.8*
10	17	26	27	29	28	60	124	*52.5*
47	**49**	**53**	**61**	**63**	**70**	**84**	**80**	***100.0***
16	16	11	10	11	13	10	8	*10.0*
10	9	10	13	22	25	40	32	*39.6*
16	14	15	16	18	20	21	19	*23.6*
5	10	17	22	13	12	13	22	*26.9*
297	**295**	**280**	**276**	**310**	**345**	**401**	**498**	***100.0***
59	56	32	16	24	28	30	34	*6.9*
41	26	34	39	72	78	87	101	*20.2*
155	161	130	136	164	191	208	222	*44.6*
42	51	84	85	50	49	77	141	*28.4*
1 085	**1 148**	**1 251**	**1 293**	**1 417**	**1 539**	**1 637**	**1 719**	***100.0***
342	326	275	195	186	231	278	335	*19.5*
219	227	258	324	413	435	475	489	*28.4*
431	457	478	570	670	724	693	725	*42.2*
93	139	240	203	149	149	191	169	*9.9*
264	**380**	**428**	**471**	**521**	**716**	**983**	**1 206**	***100.0***
217	325	357	290	284	494	829	998	*82.7*
19	16	15	16	22	35	73	116	*9.6*
18	23	24	29	34	30	36	43	*3.5*
10	15	32	135	181	156	44	49	*4.1*
1 714	**1 921**	**2 439**	**2 952**	**3 531**	**4 511**	**5 054**	**5 058**	***100.0***
1 098	1 200	1 117	913	1 567	2 060	2 504	2 659	*52.6*
64	61	104	120	253	908	1 360	1 461	*28.9*
440	483	390	402	419	419	375	420	*8.3*
112	177	828	1 517	1 293	1 123	815	517	*10.2*

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Table 5.21: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1962–2021, **males** (Continued)

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C62	Testis	**Total**	**68**	**78**	**85**	**115**
		Localised	44	50	46	63
		Regional	4	7	17	26
		Distant	19	18	21	24
		Unknown	1	3	1	2
C64	Kidney (excl. renal pelvis)	**Total**	**128**	**158**	**177**	**211**
		Localised	69	74	75	81
		Regional	17	23	39	50
		Distant	39	56	59	75
		Unknown	3	5	3	5
C65–68	Urinary tract	**Total**	**303**	**359**	**500**	**607**
		Localised	256	281	395	493
		Regional	24	40	62	63
		Distant	18	20	33	38
		Unknown	5	18	11	14
C70–72	Central nervous system	**Total**	**136**	**150**	**169**	**195**
		Non-malignant	36	45	48	60
		Malignant	100	105	121	135
C73	Thyroid gland	**Total**	**26**	**35**	**36**	**44**
		Localised	5	12	17	21
		Regional	13	13	14	16
		Distant	8	8	5	7
		Unknown	0	1	0	1

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21	2017–21 (%)
149	**166**	**204**	**238**	**247**	**293**	**312**	**299**	***100.0***
83	111	141	132	141	209	259	217	*72.7*
41	28	35	37	45	37	32	61	*20.5*
23	24	22	31	25	29	20	17	*5.7*
2	3	6	37	36	17	1	3	*1.1*
250	**254**	**268**	**293**	**356**	**447**	**570**	**619**	***100.0***
111	115	132	109	163	253	401	385	*62.3*
50	44	39	43	39	44	51	81	*13.1*
79	80	66	75	84	90	77	76	*12.3*
10	15	31	66	70	61	41	76	*12.3*
711	**757**	**832**	**810**	**904**	**980**	**1 177**	**1 329**	***100.0***
581	623	633	423	498	691	1 032	1 146	*86.2*
63	55	45	46	78	76	77	92	*7.0*
28	34	28	37	40	44	43	50	*3.7*
39	45	127	303	287	169	24	41	*3.1*
221	**243**	**289**	**358**	**440**	**500**	**505**	**456**	***100.0***
70	76	128	171	242	270	255	195	*42.8*
152	167	161	187	198	230	250	261	*57.2*
46	**51**	**42**	**49**	**60**	**71**	**112**	**140**	***100.0***
20	27	19	19	19	25	53	60	*42.6*
17	15	12	17	26	33	45	56	*39.7*
8	8	9	7	7	7	7	6	*4.3*
1	1	2	6	8	5	7	19	*13.4*

Table 5.22: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1962–2021, **females**

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C00–14	Mouth, pharynx	**Total**	**69**	**73**	**80**	**90**
		Localised	41	40	42	54
		Regional	23	27	29	29
		Distant	3	3	5	3
		Unknown	2	4	5	5
C15	Oesophagus	**Total**	**32**	**28**	**31**	**31**
		Localised	21	17	15	17
		Regional	3	3	7	5
		Distant	4	6	6	7
		Unknown	3	3	3	2
C16	Stomach	**Total**	**532**	**492**	**419**	**406**
		Localised	156	109	103	117
		Regional	98	85	89	104
		Distant	218	233	193	150
		Unknown	60	64	34	36
C18	Colon	**Total**	**359**	**438**	**513**	**691**
		Localised	148	164	180	192
		Regional	84	119	154	277
		Distant	108	132	159	190
		Unknown	19	23	20	32
C19–20	Rectum, rectosigmoid	**Total**	**140**	**215**	**261**	**359**
		Localised	67	95	122	162
		Regional	37	59	76	116
		Distant	29	52	56	70
		Unknown	7	10	8	11
C22	Liver	**Total**	**13**	**23**	**30**	**36**
		Localised	6	9	16	17
		Regional	1	1	1	1
		Distant	6	11	11	14
		Unknown	1	2	1	4
C23–24	Gallbladder, bile ducts	**Total**	**52**	**59**	**56**	**73**
		Localised	15	14	15	22
		Regional	8	9	11	10
		Distant	27	35	26	36
		Unknown	2	2	3	5
C25	Pancreas	**Total**	**124**	**167**	**189**	**224**
		Localised	41	41	43	44
		Regional	12	19	24	30
		Distant	63	89	103	125
		Unknown	8	18	19	25
C33–34	Lung, trachea	**Total**	**86**	**143**	**173**	**228**
		Localised	28	47	51	68
		Regional	10	20	27	31
		Distant	43	65	84	108
		Unknown	5	11	11	20
C43	Melanoma of the skin	**Total**	**93**	**129**	**200**	**263**
		Localised	76	91	176	236
		Regional	7	8	10	9
		Distant	8	13	11	13
		Unknown	3	17	3	6

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21	2017–21 (%)
103	**108**	**130**	**128**	**152**	**184**	**212**	**243**	***100.0***
55	66	69	49	54	82	98	102	*42.0*
40	32	36	40	60	71	88	82	*33.8*
3	4	4	6	5	5	5	6	*2.3*
5	6	20	33	33	26	20	53	*21.9*
35	**39**	**40**	**50**	**53**	**59**	**71**	**86**	***100.0***
16	13	9	9	12	15	14	12	*13.6*
8	8	6	8	14	15	14	24	*27.6*
5	9	6	11	12	13	16	16	*18.2*
4	9	18	23	15	17	27	35	*40.7*
387	**341**	**295**	**242**	**230**	**205**	**171**	**175**	***100.0***
119	101	65	41	42	46	29	25	*14.2*
97	87	72	62	64	45	40	42	*23.9*
127	113	94	79	82	72	51	52	*29.6*
45	41	64	60	42	42	51	57	*32.4*
785	**883**	**1 015**	**1 115**	**1 205**	**1 313**	**1 516**	**1 612**	***100.0***
222	273	270	200	221	199	264	283	*17.6*
338	347	429	549	612	718	800	846	*52.5*
190	219	236	259	290	322	355	358	*22.2*
35	45	80	108	82	74	98	125	*7.7*
405	**422**	**455**	**476**	**497**	**519**	**554**	**543**	***100.0***
170	184	163	135	131	108	145	139	*25.6*
141	136	160	184	211	256	252	246	*45.3*
73	72	78	88	91	105	105	103	*18.9*
21	30	53	70	65	50	51	56	*10.2*
44	**42**	**42**	**47**	**47**	**69**	**95**	**129**	***100.0***
18	18	12	10	13	23	27	24	*18.9*
3	2	2	5	6	9	11	16	*12.5*
14	10	8	11	8	17	22	24	*18.3*
9	12	20	21	20	19	34	65	*50.3*
82	**75**	**73**	**80**	**78**	**87**	**95**	**89**	***100.0***
24	23	16	9	14	14	10	9	*9.9*
21	14	12	14	18	25	37	28	*31.5*
29	23	22	28	26	33	32	28	*31.1*
9	15	23	28	19	14	15	24	*27.5*
274	**282**	**311**	**326**	**340**	**363**	**404**	**434**	***100.0***
59	67	40	24	30	42	40	28	*6.5*
35	28	32	40	67	77	88	85	*19.5*
137	133	129	144	168	181	183	171	*39.5*
43	54	110	117	74	63	92	150	*34.5*
321	**451**	**579**	**724**	**927**	**1 184**	**1 433**	**1 658**	***100.0***
81	115	119	98	137	217	288	384	*23.2*
59	84	118	167	245	300	375	437	*26.4*
148	197	224	336	448	550	597	663	*40.0*
33	54	117	123	97	116	174	174	*10.5*
361	**443**	**490**	**512**	**581**	**735**	**973**	**1 139**	***100.0***
321	408	426	328	337	532	867	999	*87.7*
16	12	10	11	17	26	44	80	*7.0*
13	11	17	21	20	17	23	25	*2.2*
11	12	36	152	207	160	40	35	*3.1*

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Table 5.22: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1962–2021, **females** (Continued)

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C50	Breast	**Total**	**1 071**	**1 218**	**1 381**	**1 493**
		I	505	584	699	800
		II	348	384	421	425
		III	93	77	107	93
		IV	97	119	110	110
		Unknown	27	52	44	65
C53	Cervix uteri	**Total**	**359**	**403**	**441**	**400**
		I	144	199	235	206
		II	135	124	112	85
		III	48	47	59	55
		IV	22	19	24	23
		Unknown	11	14	11	30
C54	Corpus uteri	**Total**	**222**	**268**	**324**	**369**
		Localised	184	212	269	284
		Regional	13	15	23	45
		Distant	23	36	29	32
		Unknown	2	5	3	9
C56, C57.0–4, C48.2	Ovary etc.	**Total**	**300**	**372**	**377**	**408**
		Localised	99	120	129	97
		Regional	15	22	22	38
		Distant	177	218	219	262
		Unknown	9	12	7	11
C64	Kidney (excl. renal pelvis)	**Total**	**90**	**117**	**118**	**138**
		Localised	52	62	60	64
		Regional	9	16	23	27
		Distant	27	35	31	43
		Unknown	2	4	4	4
C65–68	Urinary tract	**Total**	**135**	**156**	**209**	**239**
		Localised	86	103	140	169
		Regional	22	22	30	33
		Distant	20	22	28	22
		Unknown	7	9	11	14
C70–72	Central nervous system	**Total**	**118**	**131**	**151**	**186**
		Non-malignant	56	58	61	83
		Malignant	62	72	90	103
C73	Thyroid gland	**Total**	**61**	**91**	**111**	**132**
		Localised	29	48	67	83
		Regional	22	27	28	32
		Distant	8	11	13	13
		Unknown	1	4	2	4

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21	2017–21 (%)
1 720	**1 820**	**2 073**	**2 462**	**2 740**	**2 819**	**3 251**	**3 657**	***100.0***
803	313	470	795	1 077	1 200	1 443	1 589	*43.4*
547	689	653	949	1 130	990	1 057	1 085	*29.7*
108	113	74	131	166	251	362	364	*10.0*
111	125	120	136	134	114	120	159	*4.3*
152	581	757	451	233	264	269	461	*12.6*
354	**346**	**345**	**310**	**300**	**295**	**344**	**361**	***100.0***
190	127	127	160	155	137	139	182	*50.3*
71	70	58	63	55	63	65	50	*14.0*
53	41	33	35	30	21	25	40	*11.0*
20	14	15	21	23	21	20	27	*7.5*
19	94	112	32	36	52	96	62	*17.2*
390	**412**	**467**	**526**	**649**	**723**	**746**	**778**	***100.0***
292	301	327	326	397	521	553	556	*71.5*
46	47	47	58	78	58	51	79	*10.2*
39	50	60	70	84	97	94	75	*9.6*
12	14	33	72	90	47	47	68	*8.7*
455	**464**	**477**	**495**	**506**	**519**	**518**	**518**	***100.0***
119	130	122	98	94	107	108	104	*20.0*
35	21	16	14	14	19	18	39	*7.5*
284	296	307	326	346	351	362	339	*65.5*
17	17	32	58	53	42	30	36	*7.0*
156	**181**	**190**	**189**	**216**	**250**	**269**	**291**	***100.0***
69	92	100	72	100	143	189	178	*61.3*
34	26	22	20	23	21	20	34	*11.8*
46	48	44	50	41	44	30	32	*11.1*
8	15	25	47	51	42	30	46	*15.8*
264	**266**	**291**	**309**	**350**	**366**	**446**	**458**	***100.0***
197	204	194	136	180	243	366	361	*78.8*
30	21	22	24	37	35	36	50	*11.0*
17	20	18	26	25	25	21	23	*5.0*
20	20	56	123	108	63	22	24	*5.2*
224	**260**	**316**	**435**	**596**	**631**	**571**	**544**	***100.0***
104	137	187	291	434	461	402	356	*65.4*
121	123	129	143	163	170	169	188	*34.6*
143	**135**	**137**	**124**	**153**	**190**	**265**	**332**	***100.0***
97	89	83	56	71	102	161	196	*59.2*
33	33	37	39	47	61	80	86	*26.0*
10	9	10	11	10	7	10	6	*1.9*
3	4	7	19	25	20	14	43	*12.9*

Table 5.23: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1962–2021, **males**

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C00–14	Mouth, pharynx	**Total**	**14.5**	**15.3**	**15.8**	**14.7**
		Localised	10.5	9.7	10.5	9.4
		Regional	3.2	3.3	4.4	4.4
		Distant	0.5	0.7	0.6	0.5
		Unknown	0.3	1.5	0.4	0.5
C15	Oesophagus	**Total**	**6.1**	**5.8**	**5.5**	**5.6**
		Localised	3.8	3.1	2.6	2.9
		Regional	0.7	0.9	1.1	1.0
		Distant	1.2	1.3	1.4	1.3
		Unknown	0.4	0.6	0.3	0.4
C16	Stomach	**Total**	**61.1**	**54.4**	**44.2**	**38.3**
		Localised	18.3	14.3	11.9	11.9
		Regional	12.3	10.0	9.3	9.4
		Distant	25.3	22.5	19.2	14.3
		Unknown	5.2	7.6	3.8	2.7
C18	Colon	**Total**	**23.8**	**26.5**	**28.3**	**34.7**
		Localised	9.9	10.1	10.2	9.9
		Regional	5.1	6.1	7.9	13.6
		Distant	7.4	8.7	8.9	9.5
		Unknown	1.4	1.7	1.3	1.6
C19–20	Rectum, rectosigmoid	**Total**	**14.2**	**19.2**	**21.8**	**28.5**
		Localised	6.9	9.1	10.5	13.3
		Regional	3.7	4.8	5.8	9.2
		Distant	3.0	4.1	4.9	5.1
		Unknown	0.7	1.2	0.7	0.9
C22	Liver	**Total**	**1.6**	**2.8**	**3.4**	**3.0**
		Localised	0.8	1.4	1.5	1.4
		Regional	0.1	0.1	0.4	0.2
		Distant	0.7	1.0	1.3	1.0
		Unknown	0.0	0.3	0.2	0.3
C23–24	Gallbladder, bile ducts	**Total**	**1.6**	**1.9**	**2.0**	**2.5**
		Localised	0.6	0.6	0.5	0.8
		Regional	0.3	0.2	0.5	0.5
		Distant	0.8	0.8	0.9	1.1
		Unknown	0.0	0.2	0.1	0.1
C25	Pancreas	**Total**	**13.6**	**15.6**	**16.4**	**16.8**
		Localised	4.1	3.7	3.3	2.9
		Regional	1.6	2.0	2.2	2.1
		Distant	7.2	8.6	9.5	9.7
		Unknown	0.7	1.4	1.4	2.1
C33–34	Lung, trachea	**Total**	**26.6**	**36.2**	**42.6**	**53.0**
		Localised	9.2	11.8	13.6	17.5
		Regional	5.4	6.6	7.6	9.1
		Distant	10.3	15.2	18.2	22.3
		Unknown	1.6	2.6	3.1	4.1
C43	Melanoma of the skin	**Total**	**5.3**	**7.5**	**9.8**	**12.9**
		Localised	3.6	4.7	7.6	10.6
		Regional	0.7	0.9	1.0	1.0
		Distant	1.0	1.1	1.0	0.9
		Unknown	0.0	0.8	0.2	0.4

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
15.1	**14.6**	**14.3**	**13.9**	**13.0**	**14.0**	**15.6**	**16.1**
9.1	8.3	6.5	5.1	4.2	5.3	5.8	4.9
5.2	4.6	5.1	5.2	6.0	6.3	7.7	7.3
0.3	0.5	0.6	0.6	0.6	0.6	0.7	0.4
0.6	1.2	2.0	3.0	2.2	1.8	1.4	3.5
5.0	**6.0**	**6.1**	**6.6**	**7.3**	**7.6**	**8.7**	**9.2**
2.2	1.7	1.3	1.0	1.5	1.3	1.3	0.9
1.2	1.3	1.4	1.3	1.9	2.2	2.4	3.0
1.2	1.9	1.4	1.9	2.3	2.3	2.2	2.2
0.3	1.1	2.0	2.4	1.6	1.8	2.7	3.0
35.6	**30.7**	**25.7**	**21.2**	**17.5**	**14.7**	**12.9**	**10.2**
11.1	8.6	5.1	3.2	3.2	3.1	2.3	1.4
9.2	7.9	7.2	6.0	5.3	4.0	3.8	3.0
11.9	10.1	7.8	7.3	6.1	5.0	3.8	2.8
3.3	4.0	5.6	4.8	2.9	2.6	3.0	3.0
41.0	**44.9**	**48.3**	**52.2**	**54.6**	**57.5**	**59.5**	**56.6**
12.3	13.7	12.3	8.8	9.8	8.3	10.9	10.1
16.4	16.5	20.5	25.2	27.5	30.6	29.5	29.6
10.4	12.4	12.3	13.5	13.6	15.4	15.5	12.9
1.9	2.3	3.2	4.6	3.6	3.2	3.7	3.9
30.7	**30.5**	**32.0**	**33.0**	**34.4**	**32.9**	**33.6**	**30.1**
13.3	12.1	11.3	8.8	8.8	6.1	7.9	7.3
10.5	11.1	11.7	12.9	14.5	17.1	16.3	13.9
5.4	5.6	5.8	6.6	6.8	7.0	6.5	5.9
1.5	1.7	3.1	4.6	4.3	2.7	2.9	2.9
4.0	**3.5**	**3.1**	**3.8**	**4.2**	**5.2**	**7.1**	**8.8**
2.0	1.6	1.1	1.2	1.3	2.0	2.1	1.9
0.4	0.2	0.1	0.3	0.4	0.5	0.7	0.9
1.1	0.7	0.6	0.9	1.0	1.3	1.6	1.3
0.6	1.0	1.4	1.5	1.5	1.3	2.6	4.7
2.8	**2.9**	**3.1**	**3.5**	**3.3**	**3.3**	**3.6**	**3.0**
1.0	1.0	0.6	0.5	0.6	0.6	0.5	0.3
0.5	0.5	0.6	0.7	1.1	1.2	1.6	1.2
0.9	0.7	0.8	0.9	0.9	1.0	0.9	0.7
0.3	0.6	1.0	1.3	0.7	0.6	0.6	0.9
18.1	**17.1**	**16.0**	**15.3**	**16.3**	**16.6**	**17.1**	**18.6**
3.9	3.3	2.0	0.9	1.3	1.4	1.3	1.3
2.4	1.5	1.8	2.1	3.7	3.7	3.6	3.6
9.0	9.2	7.1	7.4	8.5	9.0	8.7	8.1
2.8	3.1	5.0	4.9	2.8	2.5	3.5	5.6
61.6	**64.0**	**69.1**	**69.6**	**73.2**	**73.0**	**69.7**	**63.7**
19.5	18.1	15.0	10.5	9.5	11.0	11.7	12.2
12.2	12.4	14.0	17.1	21.2	20.6	19.9	17.8
24.4	25.3	26.4	30.5	34.5	34.0	29.3	26.7
5.5	8.1	13.7	11.5	8.0	7.3	8.8	7.0
14.9	**21.1**	**22.8**	**24.2**	**25.7**	**32.6**	**40.8**	**44.9**
12.1	17.9	18.9	14.8	14.0	22.4	34.3	37.1
1.1	0.9	0.8	0.8	1.1	1.7	3.1	4.3
1.0	1.3	1.4	1.6	1.7	1.4	1.5	1.6
0.6	0.9	1.7	7.0	9.0	7.2	1.9	1.9

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Table 5.23: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1962–2021, **males** (Continued)

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C61	Prostate	**Total**	**75.5**	**82.9**	**91.9**	**101.7**
		Localised	50.3	51.1	60.7	67.0
		Regional	2.9	3.2	5.5	4.3
		Distant	17.6	18.1	19.3	22.3
		Unknown	4.7	10.5	6.4	8.1
C62	Testis	**Total**	**4.1**	**4.5**	**4.6**	**5.9**
		Localised	2.6	2.9	2.5	3.2
		Regional	0.3	0.4	0.9	1.3
		Distant	1.1	1.0	1.1	1.2
		Unknown	0.1	0.2	0.1	0.1
C64	Kidney (excl. renal pelvis)	**Total**	**9.1**	**10.2**	**10.8**	**12.4**
		Localised	5.0	5.0	4.7	4.8
		Regional	1.1	1.4	2.3	2.9
		Distant	2.7	3.5	3.6	4.3
		Unknown	0.3	0.3	0.3	0.4
C65–68	Urinary tract	**Total**	**22.9**	**24.7**	**32.4**	**37.5**
		Localised	19.3	19.1	25.4	30.3
		Regional	1.8	2.9	3.9	3.8
		Distant	1.3	1.4	2.3	2.4
		Unknown	0.4	1.3	0.8	1.0
C70–72	Central nervous system	**Total**	**7.9**	**8.4**	**9.2**	**10.6**
		Non-malignant	2.2	2.6	2.7	3.4
		Malignant	5.8	5.8	6.5	7.2
C73	Thyroid gland	**Total**	**1.8**	**2.2**	**2.2**	**2.6**
		Localised	0.4	0.8	1.1	1.2
		Regional	0.8	0.7	0.8	0.9
		Distant	0.6	0.6	0.3	0.4
		Unknown	0.0	0.1	0.0	0.1

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
105.9	**114.1**	**140.8**	**166.7**	**188.5**	**214.7**	**210.2**	**184.3**
67.2	70.8	63.7	50.8	82.5	96.0	101.4	94.8
3.8	3.6	6.2	6.9	13.5	43.5	56.7	52.7
27.5	28.5	22.5	22.8	22.7	21.0	16.8	16.6
7.4	11.2	48.4	86.2	69.9	54.2	35.3	20.2
7.0	**7.5**	**8.9**	**10.1**	**10.6**	**12.0**	**11.9**	**11.0**
3.9	5.0	6.1	5.6	6.0	8.6	9.9	8.0
1.9	1.3	1.5	1.6	1.9	1.5	1.2	2.3
1.1	1.1	1.0	1.4	1.1	1.2	0.8	0.6
0.1	0.1	0.3	1.6	1.6	0.7	0.1	0.1
14.4	**14.5**	**14.7**	**15.6**	**17.9**	**20.5**	**23.1**	**22.5**
6.4	6.5	7.2	5.7	8.1	11.4	16.0	13.8
2.9	2.5	2.2	2.3	1.9	2.0	2.1	2.9
4.5	4.6	3.6	3.9	4.3	4.2	3.2	2.8
0.6	0.9	1.7	3.7	3.6	2.8	1.9	3.0
42.3	**44.2**	**47.5**	**44.6**	**47.6**	**47.4**	**51.2**	**50.2**
34.6	36.3	35.9	23.1	26.0	33.3	44.8	43.2
3.6	3.1	2.6	2.5	4.0	3.6	3.3	3.4
1.6	2.0	1.6	2.1	2.1	2.2	1.9	1.9
2.6	2.7	7.5	16.9	15.4	8.3	1.2	1.7
11.8	**12.8**	**14.9**	**17.6**	**20.8**	**22.1**	**20.3**	**16.9**
3.9	4.1	6.6	8.4	11.4	11.8	10.3	7.2
7.9	8.8	8.3	9.2	9.5	10.2	10.0	9.7
2.5	**2.7**	**2.2**	**2.4**	**2.8**	**3.1**	**4.5**	**5.1**
1.1	1.4	1.0	0.9	0.9	1.1	2.1	2.1
0.9	0.8	0.6	0.8	1.2	1.5	1.8	2.0
0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.2
0.1	0.1	0.2	0.3	0.4	0.2	0.3	0.7

Table 5.24: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1962–2021, **females**

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C00–14	Mouth, pharynx	**Total**	**4.5**	**4.4**	**4.4**	**4.6**
		Localised	2.6	2.4	2.3	2.8
		Regional	1.6	1.6	1.6	1.4
		Distant	0.2	0.2	0.3	0.1
		Unknown	0.1	0.2	0.3	0.3
C15	Oesophagus	**Total**	**2.3**	**1.7**	**1.6**	**1.6**
		Localised	1.5	1.0	0.8	0.9
		Regional	0.2	0.2	0.4	0.3
		Distant	0.3	0.3	0.3	0.3
		Unknown	0.3	0.2	0.1	0.1
C16	Stomach	**Total**	**36.8**	**29.4**	**22.9**	**20.1**
		Localised	11.2	6.9	5.9	5.9
		Regional	5.9	4.7	4.6	5.0
		Distant	14.4	13.4	10.4	7.3
		Unknown	5.3	4.5	2.1	2.0
C18	Colon	**Total**	**23.6**	**25.6**	**27.7**	**34.4**
		Localised	9.9	9.7	9.8	9.6
		Regional	5.2	6.6	8.0	13.6
		Distant	6.8	7.6	8.5	9.4
		Unknown	1.7	1.7	1.4	1.8
C19–20	Rectum, rectosigmoid	**Total**	**8.8**	**12.6**	**14.1**	**17.9**
		Localised	4.3	5.7	6.6	8.2
		Regional	2.2	3.3	4.0	5.6
		Distant	1.8	3.0	2.9	3.5
		Unknown	0.5	0.7	0.5	0.6
C22	Liver	**Total**	**0.8**	**1.3**	**1.5**	**1.8**
		Localised	0.3	0.5	0.8	0.8
		Regional	0.0	0.1	0.1	0.1
		Distant	0.4	0.6	0.6	0.7
		Unknown	0.0	0.1	0.0	0.2
C23–24	Gallbladder, bile ducts	**Total**	**3.4**	**3.4**	**3.0**	**3.5**
		Localised	1.0	0.8	0.9	1.1
		Regional	0.5	0.5	0.6	0.5
		Distant	1.8	2.0	1.3	1.7
		Unknown	0.1	0.1	0.2	0.2
C25	Pancreas	**Total**	**7.8**	**9.7**	**10.0**	**10.9**
		Localised	2.6	2.4	2.3	2.1
		Regional	0.7	1.1	1.2	1.5
		Distant	4.0	5.1	5.4	6.0
		Unknown	0.5	1.2	1.1	1.3
C33–34	Lung, trachea	**Total**	**5.3**	**8.1**	**9.0**	**11.4**
		Localised	1.7	2.7	2.6	3.3
		Regional	0.6	1.1	1.4	1.6
		Distant	2.6	3.7	4.4	5.4
		Unknown	0.3	0.7	0.6	1.0
C43	Melanoma of the skin	**Total**	**5.6**	**7.5**	**11.2**	**14.0**
		Localised	4.5	5.3	9.9	12.6
		Regional	0.4	0.5	0.5	0.5
		Distant	0.5	0.7	0.6	0.7
		Unknown	0.2	1.0	0.1	0.3

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
4.9	**5.0**	**5.8**	**5.6**	**6.4**	**7.3**	**7.8**	**8.2**
2.6	3.0	3.1	2.1	2.3	3.2	3.6	3.4
1.9	1.5	1.6	1.8	2.6	2.9	3.3	2.8
0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2
0.3	0.3	0.9	1.4	1.3	1.0	0.7	1.8
1.6	**1.7**	**1.7**	**2.1**	**2.1**	**2.2**	**2.5**	**2.8**
0.8	0.6	0.4	0.4	0.5	0.5	0.5	0.4
0.4	0.4	0.3	0.4	0.6	0.6	0.5	0.8
0.2	0.4	0.3	0.5	0.5	0.5	0.6	0.5
0.2	0.3	0.7	0.9	0.5	0.6	0.9	1.1
17.8	**14.7**	**12.1**	**9.6**	**9.0**	**7.6**	**6.1**	**5.8**
5.5	4.4	2.6	1.6	1.6	1.7	1.1	0.8
4.4	3.8	3.0	2.5	2.5	1.7	1.4	1.4
5.8	4.8	3.9	3.3	3.3	2.7	1.9	1.8
2.2	1.7	2.5	2.2	1.5	1.5	1.7	1.8
36.1	**38.7**	**42.9**	**45.6**	**47.7**	**49.6**	**53.9**	**52.5**
10.2	11.9	11.3	8.2	8.7	7.6	9.5	9.3
15.4	15.2	18.2	22.4	24.3	27.3	28.4	27.5
8.8	9.8	10.1	10.8	11.7	12.4	12.8	11.9
1.7	1.9	3.2	4.2	3.1	2.4	3.1	3.9
18.8	**18.5**	**19.6**	**20.1**	**20.3**	**20.2**	**20.2**	**18.3**
7.9	8.1	7.1	5.8	5.4	4.3	5.3	4.7
6.5	6.0	7.0	7.8	8.6	10.0	9.2	8.3
3.3	3.1	3.4	3.7	3.8	4.1	3.9	3.5
1.0	1.3	2.2	2.8	2.5	1.8	1.8	1.8
2.1	**1.8**	**1.8**	**1.9**	**1.9**	**2.6**	**3.4**	**4.3**
0.8	0.8	0.5	0.4	0.5	0.9	1.0	0.8
0.2	0.1	0.1	0.2	0.2	0.4	0.4	0.5
0.7	0.4	0.3	0.5	0.3	0.7	0.8	0.8
0.4	0.5	0.8	0.8	0.8	0.7	1.2	2.1
3.8	**3.2**	**3.0**	**3.3**	**3.0**	**3.3**	**3.4**	**2.9**
1.1	1.0	0.7	0.4	0.5	0.5	0.4	0.3
1.0	0.6	0.5	0.6	0.8	1.0	1.4	0.9
1.3	1.0	0.9	1.2	1.0	1.3	1.2	0.9
0.4	0.6	0.9	1.1	0.6	0.5	0.5	0.8
12.4	**12.1**	**12.9**	**12.9**	**13.3**	**13.6**	**14.4**	**14.1**
2.7	2.8	1.6	0.9	1.1	1.5	1.4	1.0
1.6	1.3	1.4	1.7	2.7	3.0	3.2	2.8
6.2	5.7	5.6	6.0	6.8	7.0	6.6	5.6
1.9	2.2	4.3	4.4	2.7	2.2	3.1	4.7
15.4	**21.2**	**26.8**	**32.8**	**40.0**	**47.5**	**52.7**	**54.5**
3.7	5.3	5.5	4.5	5.9	8.9	10.7	12.6
2.9	4.1	5.6	7.7	10.6	12.1	13.9	14.4
7.2	9.5	10.7	15.5	19.5	22.1	22.1	22.0
1.5	2.4	5.0	5.2	3.9	4.4	6.1	5.5
18.3	**21.6**	**22.9**	**22.8**	**24.9**	**29.6**	**36.6**	**39.7**
16.3	20.0	19.8	14.7	14.6	21.6	32.8	35.0
0.8	0.5	0.5	0.4	0.7	1.0	1.6	2.8
0.7	0.5	0.8	0.9	0.9	0.7	0.8	0.8
0.5	0.5	1.7	6.7	8.8	6.4	1.4	1.1

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Table 5.24: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1962–2021, **females** (Continued)

ICD-10	Site	Stage	1962–66	1967–71	1972–76	1977–81
C50	Breast	**Total**	**65.5**	**69.6**	**75.5**	**77.9**
		I	30.8	33.5	38.2	41.7
		II	20.6	21.4	22.9	22.2
		III	6.1	4.5	5.9	4.8
		IV	6.2	6.9	5.9	5.6
		Unknown	1.9	3.2	2.7	3.7
C53	Cervix uteri	**Total**	**21.1**	**23.1**	**24.9**	**21.5**
		I	8.4	11.6	13.8	11.4
		II	7.9	7.0	6.1	4.5
		III	2.9	2.6	3.1	2.9
		IV	1.3	1.1	1.3	1.2
		Unknown	0.7	0.9	0.6	1.6
C54	Corpus uteri	**Total**	**12.9**	**14.7**	**16.9**	**19.0**
		Localised	10.7	11.6	14.1	14.8
		Regional	0.8	0.8	1.2	2.2
		Distant	1.4	2.0	1.5	1.6
		Unknown	0.1	0.3	0.2	0.5
C56, C57.0–4, C48.2	Ovary etc.	**Total**	**17.7**	**20.7**	**20.0**	**21.0**
		Localised	5.9	6.7	7.0	5.1
		Regional	0.9	1.2	1.2	2.0
		Distant	10.4	12.0	11.5	13.4
		Unknown	0.6	0.8	0.4	0.6
C64	Kidney (excl. renal pelvis)	**Total**	**5.4**	**6.5**	**6.1**	**6.7**
		Localised	3.1	3.5	3.2	3.1
		Regional	0.5	0.9	1.2	1.3
		Distant	1.6	1.9	1.6	2.1
		Unknown	0.1	0.2	0.2	0.2
C65–68	Urinary tract	**Total**	**8.8**	**9.1**	**11.1**	**11.7**
		Localised	5.6	6.0	7.4	8.3
		Regional	1.4	1.2	1.6	1.6
		Distant	1.2	1.3	1.5	1.1
		Unknown	0.5	0.7	0.7	0.7
C70–72	Central nervous system	**Total**	**6.8**	**7.1**	**7.9**	**9.5**
		Non-malignant	3.3	3.2	3.3	4.3
		Malignant	3.4	3.8	4.6	5.2
C73	Thyroid gland	**Total**	**3.8**	**5.2**	**6.1**	**6.9**
		Localised	1.8	2.8	3.7	4.5
		Regional	1.4	1.6	1.5	1.6
		Distant	0.5	0.6	0.7	0.6
		Unknown	0.1	0.3	0.2	0.2

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	2017–21
85.7	**86.7**	**96.4**	**112.9**	**119.9**	**115.3**	**123.8**	**130.1**
39.6	15.0	22.2	38.3	49.5	50.7	56.0	57.5
27.6	33.3	30.8	43.6	49.3	40.4	40.2	38.4
5.2	5.3	3.2	5.8	6.9	10.2	13.7	12.9
5.4	5.8	5.7	6.0	5.6	4.5	4.5	5.5
7.9	27.3	34.5	19.2	8.6	9.5	9.4	15.9
17.8	**16.9**	**16.1**	**13.9**	**12.8**	**12.1**	**13.5**	**13.5**
9.7	6.2	5.9	7.2	6.7	5.7	5.5	7.0
3.7	3.5	2.8	2.8	2.4	2.6	2.5	1.8
2.6	2.0	1.5	1.5	1.3	0.9	1.0	1.5
1.0	0.7	0.7	1.0	1.0	0.9	0.8	1.0
1.0	4.6	5.2	1.4	1.5	2.1	3.7	2.3
19.6	**20.2**	**22.2**	**24.0**	**27.9**	**29.4**	**27.8**	**26.5**
15.0	15.0	15.7	15.1	17.3	21.3	20.7	19.1
2.3	2.3	2.2	2.6	3.3	2.4	1.9	2.7
1.8	2.3	2.8	3.1	3.6	3.9	3.5	2.5
0.6	0.6	1.5	3.1	3.7	1.8	1.7	2.2
22.8	**22.4**	**22.3**	**22.3**	**21.5**	**20.9**	**19.4**	**17.7**
6.1	6.4	5.8	4.5	4.1	4.4	4.2	3.7
1.8	1.1	0.8	0.6	0.6	0.7	0.7	1.3
14.0	14.2	14.4	14.7	14.7	14.3	13.6	11.5
0.8	0.7	1.4	2.5	2.1	1.5	1.0	1.1
7.2	**8.1**	**8.2**	**8.0**	**8.9**	**9.9**	**10.0**	**9.9**
3.3	4.1	4.4	3.2	4.3	5.8	7.2	6.2
1.5	1.2	1.0	0.8	0.9	0.8	0.7	1.2
2.1	2.2	1.9	2.1	1.6	1.7	1.1	1.1
0.3	0.6	0.9	1.9	2.0	1.6	1.0	1.4
12.0	**11.7**	**12.2**	**12.7**	**13.9**	**14.0**	**15.9**	**15.0**
9.0	9.0	8.3	5.8	7.3	9.3	13.2	11.9
1.3	1.0	0.9	1.0	1.4	1.4	1.3	1.6
0.8	0.8	0.8	1.1	1.0	1.0	0.7	0.7
0.9	0.9	2.3	4.9	4.2	2.4	0.7	0.7
11.1	**12.5**	**14.7**	**19.4**	**25.8**	**25.7**	**21.8**	**19.3**
5.1	6.6	8.7	12.9	18.8	18.8	15.4	12.7
6.0	5.9	6.0	6.4	7.0	6.9	6.4	6.6
7.0	**6.4**	**6.3**	**5.5**	**6.5**	**7.8**	**10.3**	**12.3**
4.9	4.4	3.9	2.6	3.0	4.3	6.3	7.3
1.5	1.5	1.7	1.7	2.0	2.5	3.1	3.2
0.5	0.4	0.5	0.4	0.4	0.3	0.4	0.2
0.2	0.2	0.3	0.8	1.1	0.8	0.5	1.6

Table 5.25: Average annual number of new cases by primary site and origin, 2017–2021, **males**

ICD-10	Site	Norwegian born	Nordic countries	W Europe, North America and Oceania	Other European Countries	Middle East and Africa	Asia
C00–96	**All sites**	**17 549**	**292**	**331**	**310**	**198**	**151**
C00–14	**Mouth, pharynx**	**392**	**9**	**9**	**9**	**6**	**6**
C00	Lip	52	0	1	1	0	0
C02–06	Oral cavity	110	3	3	2	1	3
C07–08	Salivary glands	33	1	1	1	1	1
C09–10, C01, C14	Oropharynx	169	3	3	4	1	1
C11	Nasopharynx	6	1	0	1	3	1
C12–13	Hypopharynx	22	0	0	0	1	0
C15–26	**Digestive organs**	**3 560**	**57**	**61**	**57**	**44**	**34**
C15	Oesophagus	230	5	5	4	1	0
C16	Stomach	235	2	6	8	7	3
C17	Small intestine	119	1	2	2	2	0
C18	Colon	1 398	17	19	18	13	8
C19–20	Rectum, rectosigmoid	756	15	12	9	7	5
C21	Anus	34	0	1	0	0	0
C22	Liver	203	4	4	5	7	9
C23–24	Gallbladder, bile ducts	71	2	2	2	0	1
C25	Pancreas	455	9	10	7	5	6
C26	Other digestive organs	58	1	0	0	1	1
C30–34, C38	**Respiratory organs**	**1 681**	**29**	**35**	**43**	**18**	**17**
C30–31	Nose, sinuses	24	0	0	1	0	0
C32	Larynx, epiglottis	81	1	2	3	2	1
C33–34	Lung, trachea	1 566	27	32	39	15	16
C38	Heart, mediastinum and pleura	11	0	0	0	1	0
C40–41	**Bone**	**27**	**1**	**1**	**2**	**1**	**1**
C43	**Melanoma of the skin**	**1 141**	**18**	**16**	**13**	**1**	**1**
C44	**Skin, non-melanoma**	**1 391**	**18**	**22**	**6**	**5**	**3**
C45	**Mesothelioma**	**64**	**1**	**1**	**0**	**0**	**0**
C47	**Autonomic nervous system**	**5**	**0**	**0**	**0**	**0**	**0**
C48–49	**Soft tissues**	**58**	**2**	**1**	**2**	**1**	**1**
C50	**Breast**	**28**	**0**	**1**	**0**	**1**	**0**
C60–63	**Male genital organs**	**5 029**	**86**	**94**	**60**	**48**	**34**
C61	Prostate	4 699	80	84	48	44	33
C62	Testis	268	5	8	11	3	1
C60, C63	Other male genital	61	1	1	1	0	0
C64–68	**Urinary organs**	**1 764**	**29**	**36**	**50**	**28**	**17**
C64	Kidney (excl. renal pelvis)	551	8	12	22	8	7
C65–68	Urinary tract	1 213	21	24	27	20	10
C69	**Eye**	**40**	**0**	**1**	**1**	**0**	**0**
C70–72	**Central nervous system**	**399**	**9**	**9**	**18**	**10**	**6**
C73	**Thyroid gland**	**117**	**3**	**4**	**5**	**5**	**4**
C37, C74–75	**Other endocrine glands**	**74**	**1**	**2**	**4**	**4**	**4**
C39, C76, C80	**Other or unspecified**	**144**	**1**	**2**	**3**	**1**	**1**
C81–96	**Lymphoid/haematopoietic tissue**	**1 635**	**26**	**36**	**35**	**27**	**22**
C81	Hodgkin lymphoma	73	1	2	3	3	2
C82–86, C96	Non-Hodgkin lymphoma	528	9	13	13	10	7
C88	Immunoproliferative disease	54	1	1	1	0	0
C90	Multiple myeloma	283	3	5	3	3	3
C91–95	Leukaemia	696	12	16	16	11	11

Table 5.26: Average annual number of new cases by primary site and origin, 2017–2021, **females**

ICD-10	Site	Norwegian born	Nordic countries	W Europe, North America and Oceania	Other European Countries	Middle East and Africa	Asia
C00–96	**All sites**	**14 980**	**272**	**251**	**340**	**158**	**256**
C00–14	**Mouth, pharynx**	**222**	**4**	**4**	**4**	**2**	**4**
C00	Lip	41	1	1	0	0	0
C02–06	Oral cavity	91	2	2	1	0	1
C07–08	Salivary glands	27	0	1	1	0	2
C09–10, C01, C14	Oropharynx	56	1	1	1	0	0
C11	Nasopharynx	3	0	0	0	1	0
C12–13	Hypopharynx	4	0	0	0	0	0
C15–26	**Digestive organs**	**3 055**	**48**	**40**	**47**	**23**	**37**
C15	Oesophagus	79	1	2	1	1	1
C16	Stomach	149	3	3	8	3	6
C17	Small intestine	90	2	1	1	1	0
C18	Colon	1 512	23	17	17	8	13
C19–20	Rectum, rectosigmoid	506	7	6	8	4	7
C21	Anus	62	2	1	0	0	0
C22	Liver	113	1	2	4	2	6
C23–24	Gallbladder, bile ducts	81	1	1	2	1	1
C25	Pancreas	403	7	7	5	3	3
C26	Other digestive organs	60	1	0	1	1	0
C30–34, C38	**Respiratory organs**	**1 587**	**24**	**21**	**23**	**6**	**14**
C30–31	Nose, sinuses	16	0	0	0	0	0
C32	Larynx, epiglottis	17	0	0	1	0	0
C33–34	Lung, trachea	1 551	23	20	22	6	14
C38	Heart, mediastinum and pleura	3	0	0	0	0	0
C40–41	**Bone**	**20**	**1**	**0**	**1**	**0**	**0**
C43	**Melanoma of the skin**	**1 083**	**18**	**14**	**11**	**2**	**1**
C44	**Skin, non-melanoma**	**1 173**	**18**	**18**	**6**	**3**	**3**
C45	**Mesothelioma**	**12**	**0**	**0**	**0**	**0**	**0**
C47	**Autonomic nervous system**	**4**	**0**	**0**	**0**	**0**	**0**
C48–49	**Soft tissues**	**46**	**1**	**0**	**2**	**1**	**0**
C50	**Breast**	**3 235**	**72**	**69**	**99**	**51**	**84**
C51–58	**Female genital organs**	**1 595**	**31**	**29**	**54**	**18**	**42**
C51–52, C57.7–9	Other female genital	115	2	1	1	1	2
C53	Cervix uteri	309	6	7	19	3	13
C54	Corpus uteri	699	15	13	20	7	16
C55	Uterus, other	8	0	0	0	0	0
C56, C57.0–4, C48.2	Ovary etc.	462	9	9	14	6	11
C58	Placenta	2	0	0	0	0	0
C64–68	**Urinary organs**	**689**	**12**	**10**	**14**	**5**	**8**
C64	Kidney (excl. renal pelvis)	265	4	4	8	3	4
C65–68	Urinary tract	424	8	6	7	3	3
C69	**Eye**	**37**	**0**	**0**	**1**	**1**	**1**
C70–72	**Central nervous system**	**475**	**10**	**10**	**18**	**10**	**12**
C73	**Thyroid gland**	**257**	**8**	**7**	**20**	**12**	**22**
C37, C74–75	**Other endocrine glands**	**74**	**1**	**1**	**4**	**4**	**3**
C39, C76, C80	**Other or unspecified**	**173**	**2**	**2**	**2**	**1**	**2**
C81–96	**Lymphoid/haematopoietic tissue**	**1 242**	**21**	**24**	**33**	**18**	**22**
C81	Hodgkin lymphoma	51	1	2	3	3	1
C82–86, C96	Non-Hodgkin lymphoma	413	8	7	11	5	11
C88	Immunoproliferative disease	32	1	0	0	0	0
C90	Multiple myeloma	202	2	3	4	1	2
C91–95	Leukaemia	544	10	12	15	9	7

Table 5.27: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and origin, 2017–2021, **males**

ICD-10	Site	Norwegian born	Nordic countries	W Europe, North America and Oceania	Other European Countries	Middle East and Africa	Asia
C00–96	**All sites**	**728.1**	**707.9**	**668.7**	**507.6**	**459.2**	**396.2**
C00–14	**Mouth, pharynx**	**16.3**	**18.6**	**18.2**	**11.6**	**13.4**	**12.7**
C00	Lip	2.2	0.8	3.1	2.8	0.6	0.0
C02–06	Oral cavity	4.6	8.0	5.5	2.0	0.9	5.2
C07–08	Salivary glands	1.4	1.2	1.8	0.6	4.2	1.2
C09–10, C01, C14	Oropharynx	7.0	6.5	6.9	3.9	1.0	3.7
C11	Nasopharynx	0.2	1.3	0.5	2.2	4.1	1.7
C12–13	Hypopharynx	0.9	0.8	0.3	0.1	2.6	1.0
C15–26	**Digestive organs**	**147.8**	**141.0**	**120.5**	**112.5**	**108.0**	**89.9**
C15	Oesophagus	9.4	13.5	8.3	5.9	4.3	0.3
C16	Stomach	9.9	5.1	14.0	18.5	19.6	7.0
C17	Small intestine	5.0	3.3	4.1	3.7	2.4	0.6
C18	Colon	58.4	42.0	38.2	41.5	33.8	24.5
C19–20	Rectum, rectosigmoid	31.1	38.1	23.1	18.0	10.3	12.9
C21	Anus	1.4	0.7	0.8	0.2	0.6	0.6
C22	Liver	8.4	7.8	7.6	8.9	20.3	21.5
C23–24	Gallbladder, bile ducts	3.0	6.9	4.3	4.8	0.4	2.6
C25	Pancreas	18.7	21.9	19.3	10.7	14.4	18.1
C26	Other digestive organs	2.4	1.7	0.8	0.3	1.9	1.9
C30–34, C38	**Respiratory organs**	**68.3**	**72.9**	**72.0**	**75.5**	**51.4**	**52.0**
C30–31	Nose, sinuses	1.0	1.6	0.6	0.5	0.4	0.4
C32	Larynx, epiglottis	3.3	2.6	3.3	4.6	3.8	3.2
C33–34	Lung, trachea	63.6	67.2	67.8	70.3	46.6	48.4
C38	Heart, mediastinum and pleura	0.5	1.5	0.2	0.1	0.7	0.0
C40–41	**Bone**	**1.2**	**1.6**	**1.4**	**1.6**	**1.0**	**1.0**
C43	**Melanoma of the skin**	**48.3**	**40.8**	**30.6**	**14.7**	**0.6**	**1.9**
C44	**Skin, non-melanoma**	**60.9**	**60.9**	**59.2**	**16.5**	**19.8**	**13.7**
C45	**Mesothelioma**	**2.6**	**4.5**	**4.2**	**0.0**	**0.2**	**0.6**
C47	**Autonomic nervous system**	**0.2**	**0.0**	**0.0**	**0.1**	**0.0**	**0.2**
C48–49	**Soft tissues**	**2.5**	**5.3**	**0.7**	**1.2**	**1.3**	**3.1**
C50	**Breast**	**1.1**	**0.8**	**1.6**	**0.9**	**1.8**	**0.0**
C60–63	**Male genital organs**	**204.5**	**196.7**	**183.3**	**109.8**	**116.4**	**99.7**
C61	Prostate	188.8	184.5	168.6	102.2	114.0	96.6
C62	Testis	13.1	8.5	11.0	4.6	2.4	1.5
C60, C63	Other male genital	2.6	3.7	3.6	3.0	0.0	1.6
C64–68	**Urinary organs**	**72.8**	**70.6**	**73.2**	**76.9**	**67.2**	**41.0**
C64	Kidney (excl. renal pelvis)	22.6	17.7	22.5	22.6	15.7	14.3
C65–68	Urinary tract	50.2	53.0	50.8	54.3	51.5	26.6
C69	**Eye**	**1.7**	**0.4**	**1.7**	**0.2**	**0.0**	**1.0**
C70–72	**Central nervous system**	**17.1**	**21.3**	**14.3**	**16.1**	**11.6**	**9.5**
C73	**Thyroid gland**	**5.1**	**5.9**	**5.7**	**3.1**	**6.3**	**5.4**
C37, C74–75	**Other endocrine glands**	**3.1**	**1.9**	**3.0**	**2.6**	**3.7**	**7.2**
C39, C76, C80	**Other or unspecified**	**6.3**	**4.9**	**6.9**	**9.2**	**2.6**	**7.0**
C81–96	**Lymphoid/haematopoietic tissue**	**68.2**	**60.0**	**72.3**	**55.0**	**53.6**	**50.4**
C81	Hodgkin lymphoma	3.2	2.1	2.9	2.8	2.9	2.7
C82–86, C96	Non-Hodgkin lymphoma	21.9	21.0	21.4	17.4	17.6	15.6
C88	Immunoproliferative disease	2.2	2.1	1.8	3.1	0.6	0.4
C90	Multiple myeloma	11.7	6.5	10.1	5.1	6.4	6.8
C91–95	Leukaemia	29.2	28.4	36.1	26.6	26.0	24.9

Table 5.28: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and origin, 2017–2021, **females**

ICD-10	Site	Norwegian born	Nordic countries	W Europe, North America and Oceania	Other European Countries	Middle East and Africa	Asia
C00–96	**All sites**	**573.2**	**522.7**	**488.6**	**428.5**	**358.2**	**349.8**
C00–14	**Mouth, pharynx**	**8.3**	**7.9**	**8.7**	**4.6**	**3.0**	**4.8**
C00	Lip	1.4	1.7	1.3	0.1	0.0	0.0
C02–06	Oral cavity	3.3	3.8	4.0	1.2	0.5	2.2
C07–08	Salivary glands	1.1	0.0	1.1	0.7	0.3	1.0
C09–10, C01, C14	Oropharynx	2.3	1.7	1.9	2.4	1.3	1.0
C11	Nasopharynx	0.1	0.7	0.3	0.1	1.0	0.3
C12–13	Hypopharynx	0.1	0.0	0.0	0.1	0.0	0.2
C15–26	**Digestive organs**	**110.8**	**91.0**	**82.1**	**75.9**	**63.1**	**75.9**
C15	Oesophagus	2.8	1.9	4.8	1.0	2.6	2.5
C16	Stomach	5.4	5.4	5.7	8.3	4.1	9.8
C17	Small intestine	3.4	3.8	3.1	1.2	2.9	0.4
C18	Colon	54.2	44.2	36.1	30.3	21.8	26.6
C19–20	Rectum, rectosigmoid	19.0	14.3	11.0	11.2	10.6	11.6
C21	Anus	2.4	3.8	2.3	0.1	0.0	0.2
C22	Liver	4.1	1.5	3.5	4.7	5.3	15.0
C23–24	Gallbladder, bile ducts	2.9	1.5	1.7	3.9	4.6	2.7
C25	Pancreas	14.4	13.4	13.0	13.5	9.9	6.5
C26	Other digestive organs	2.1	1.2	0.8	1.7	1.2	0.5
C30–34, C38	**Respiratory organs**	**57.2**	**45.4**	**42.9**	**44.1**	**22.6**	**28.2**
C30–31	Nose, sinuses	0.6	0.7	0.7	0.7	1.5	0.0
C32	Larynx, epiglottis	0.7	0.8	0.7	0.5	0.3	0.0
C33–34	Lung, trachea	55.8	43.9	41.5	42.9	19.5	28.0
C38	Heart, mediastinum and pleura	0.1	0.0	0.0	0.1	1.3	0.1
C40–41	**Bone**	**0.8**	**1.7**	**0.7**	**1.1**	**0.2**	**0.6**
C43	**Melanoma of the skin**	**43.9**	**35.6**	**24.6**	**10.9**	**4.1**	**1.2**
C44	**Skin, non-melanoma**	**40.0**	**34.6**	**38.1**	**14.5**	**13.5**	**7.7**
C45	**Mesothelioma**	**0.4**	**0.7**	**0.9**	**0.9**	**0.0**	**0.3**
C47	**Autonomic nervous system**	**0.2**	**0.0**	**0.0**	**0.0**	**0.3**	**0.0**
C48–49	**Soft tissues**	**1.8**	**3.0**	**0.3**	**1.8**	**2.8**	**0.6**
C50	**Breast**	**133.0**	**139.4**	**128.0**	**108.4**	**95.7**	**97.4**
C51–58	**Female genital organs**	**63.5**	**58.2**	**53.3**	**60.6**	**43.6**	**47.8**
C51–52, C57.7–9	Other female genital	4.3	3.0	2.1	2.4	1.0	3.7
C53	Cervix uteri	14.6	9.9	10.9	13.0	5.0	10.5
C54	Corpus uteri	26.5	28.4	24.0	28.1	22.2	18.4
C55	Uterus, other	0.3	0.0	0.0	0.0	2.6	0.0
C56, C57.0–4, C48.2	Ovary etc.	17.7	16.9	16.3	17.1	12.8	15.1
C58	Placenta	0.1	0.0	0.0	0.0	0.0	0.1
C64–68	**Urinary organs**	**25.2**	**23.2**	**21.4**	**21.2**	**15.5**	**10.8**
C64	Kidney (excl. renal pelvis)	10.1	7.4	8.3	11.3	6.1	5.8
C65–68	Urinary tract	15.1	15.8	13.1	9.9	9.4	5.1
C69	**Eye**	**1.5**	**1.0**	**0.7**	**0.4**	**2.4**	**0.5**
C70–72	**Central nervous system**	**19.5**	**19.0**	**19.6**	**16.4**	**18.8**	**11.5**
C73	**Thyroid gland**	**11.4**	**15.2**	**12.2**	**16.5**	**15.5**	**18.2**
C37, C74–75	**Other endocrine glands**	**3.2**	**2.1**	**2.2**	**4.3**	**7.3**	**2.8**
C39, C76, C80	**Other or unspecified**	**5.9**	**3.6**	**3.5**	**3.9**	**5.4**	**4.7**
C81–96	**Lymphoid/haematopoietic tissue**	**46.5**	**41.1**	**49.4**	**43.1**	**44.4**	**36.9**
C81	Hodgkin lymphoma	2.3	1.1	2.7	2.4	3.7	1.4
C82–86, C96	Non-Hodgkin lymphoma	15.4	17.0	14.3	14.5	16.5	19.6
C88	Immunoproliferative disease	1.1	1.9	0.4	0.7	0.6	0.4
C90	Multiple myeloma	7.3	2.8	6.0	6.7	2.8	2.5
C91–95	Leukaemia	20.4	18.2	26.0	18.8	20.8	12.9

Chapter 6 Prevalence

As of December 31st 2021, a total of 316 145 individuals were alive and previously diagnosed with cancer in Norway. The cancer prevalence in Table 6.1 provides the numbers of cancer survivors by time after a given diagnosis (< 1, 1–4, 5–9 and ≥ 10 years), and approximates the number of patients in Norway (of both sexes) potentially requiring some form of cancer care. The highest prevalence was seen for breast cancer (54 827), prostate cancer (59 077), melanoma of the skin (31 350) and colon cancer (25 508).

Differences in prognosis and median age at diagnosis (rather than incidence) explain much of the site-specific variability in prevalence. In terms of new incident cases, there are 43% more cases of lung cancer compared to melanoma of the skin in Norway in 2021, but the number of lung cancer survivors ten years after diagnosis is only 11% of surviving melanoma patients. This reflects the vast difference in prognosis for the two patient groups.

Table 6.2 shows the number of patients with distant metastases alive at specific time points. Only patients with metastasis confirmed histologically are included. The number is increasing over the years, probably caused by improvements in the diagnostic quality. This also means that patients with only small distant metastases may contribute to a better prognosis in a group with otherwise quite severe disease. We see that patients with metastatic disease now live longer, have more often diagnostic work-up and surgery for metastatic lesions, and are also given more chemotherapy than before. This patient group represents an increasing demand of personnel and costs in the health care system.

Table 6.1: Prevalence of cancers 31 December 2011 and 31 December 2021, both sexes

		Total no. of persons alive		Years after diagnosis			
ICD-10	**Site**	**31.12.2011**	**31.12.2021**	**<1**	**1–4**	**5–9**	**10+**
C00–96	**All sites**	**217 977**	**316 145**	**25 979**	**82 472**	**76 649**	**131 045**
C00–14	**Mouth, pharynx**	**4 012**	**6 209**	**656**	**1 911**	**1 528**	**2 114**
C00	Lip	1 098	1 181	98	310	281	492
C02–06	Oral cavity	1 275	1 906	197	593	462	654
C07–08	Salivary glands	517	757	71	187	173	326
C09–10, C01, C14	Oropharynx	934	2 110	256	739	562	553
C11	Nasopharynx	119	182	21	52	41	68
C12–13	Hypopharynx	89	123	24	53	21	25
C15–26	**Digestive organs**	**32 599**	**46 725**	**5 442**	**14 556**	**11 814**	**14 913**
C15	Oesophagus	421	964	239	380	217	128
C16	Stomach	1 969	2 112	279	620	462	751
C17	Small intestine	861	1 607	205	606	408	388
C18	Colon	17 938	25 508	2 728	8 009	6 608	8 163
C19–20	Rectum, rectosigmoid	10 035	13 596	1 225	3 921	3 543	4 907
C21	Anus	620	989	97	299	262	331
C22	Liver	322	856	208	340	167	141
C23–24	Gallbladder, bile ducts	358	548	111	193	108	136
C25	Pancreas	721	1 582	511	609	277	185
C26	Other digestive organs	141	190	54	54	36	46
C30–34, C38	**Respiratory organs**	**7 095**	**12 124**	**2 474**	**4 833**	**2 616**	**2 201**
C30–31	Nose, sinuses	310	380	39	107	88	146
C32	Larynx, epiglottis	1 115	1 124	109	292	271	452
C33–34	Lung, trachea	5 635	10 620	2 343	4 450	2 262	1 565
C38	Heart, mediastinum and pleura	72	77	8	18	8	43
C40–41	**Bone**	**704**	**915**	**52**	**153**	**152**	**558**
C43	**Melanoma of the skin**	**19 442**	**31 350**	**2 378**	**8 115**	**7 117**	**13 740**
C44	**Skin, non-melanoma**	**12 732**	**20 980**	**2 940**	**8 035**	**4 749**	**5 256**
C45	**Mesothelioma**	**118**	**143**	**56**	**65**	**15**	**7**
C47	**Autonomic nervous system**	**244**	**252**	**10**	**27**	**24**	**191**
C48–49	**Soft tissues**	**1 272**	**1 571**	**84**	**316**	**303**	**868**
C50	**Breast**	**38 250**	**54 827**	**3 919**	**12 882**	**12 617**	**25 409**
C51–58	**Female genital organs**	**21 347**	**25 396**	**1 576**	**5 240**	**5 035**	**13 545**
C51–52, C57.7–9	Other female genital	870	1 094	107	295	250	442
C53	Cervix uteri	6 847	7 762	318	1 247	1 283	4 914
C54	Corpus uteri	9 251	11 545	736	2 563	2 598	5 648
C55	Uterus, other	40	43	3	3	9	28
C56, C57.0–4, C48.2	Ovary etc.	4 542	5 199	444	1 211	964	2 580
C58	Placenta	143	151	0	8	13	130
C60–63	**Male genital organs**	**41 255**	**67 993**	**5 372**	**18 850**	**19 814**	**23 957**
C61	Prostate	34 637	59 077	5 028	17 630	18 238	18 181
C62	Testis	6 320	8 555	292	1 168	1 487	5 608
C60, C63	Other male genital	430	661	77	172	172	240
C64–68	**Urinary organs**	**16 613**	**25 053**	**2 508**	**7 726**	**6 717**	**8 102**
C64	Kidney (excl. renal pelvis)	5 089	8 789	837	2 682	2 482	2 788
C65–68	Urinary tract	11 633	16 501	1 703	5 147	4 300	5 351
C69	**Eye**	**952**	**1 240**	**81**	**277**	**252**	**630**
C70–72	**Central nervous system**	**11 589**	**14 838**	**831**	**2 506**	**3 061**	**8 440**
C73	**Thyroid gland**	**4 606**	**7 292**	**505**	**1 624**	**1 490**	**3 673**
C37, C74–75	**Other endocrine glands**	**3 329**	**4 401**	**145**	**657**	**981**	**2 618**
C39, C76, C80	**Other or unspecified**	**536**	**683**	**116**	**190**	**139**	**238**
C81–96	**Lymphoid/haematopoietic tissue**	**18 664**	**30 477**	**2 753**	**9 061**	**7 487**	**11 176**
C81	Hodgkin lymphoma	2 333	3 162	140	517	616	1 889
C82–86, C96	Non-Hodgkin lymphoma	7 235	11 474	986	3 122	2 882	4 484
C88	Immunoproliferative disease	480	829	92	306	230	201
C90	Multiple myeloma	1 710	3 037	444	1 389	718	486
C91–95	Leukaemia	6 999	12 191	1 119	3 822	3 088	4 162

Table 6.2: Prevalence of patients diagnosed with distant metastases during lifetime, by health region, both sexes

	Alive by					
Health region	**31.12.1996**	**31.12.2001**	**31.12.2006**	**31.12.2011**	**31.12.2016**	**31.12.2021**
South-Eastern	4 778	5 843	7 075	8 584	10 126	11 764
Western	1 615	2 119	2 520	2 957	3 653	4 264
Central	1 212	1 423	1 817	2 120	2 457	2 792
Northern	772	914	1 216	1 443	1 648	1 974
Norway	**8 377**	**10 299**	**12 628**	**15 104**	**17 884**	**20 794**

Chapter 7 Mortality

The mortality data is obtained from the Cause of Death Registry. Of note is that mortality data for 2021 was not complete when this report was published (June 2022), and we therefore report figures for 2020.

There were 10 981 deaths from cancer in Norway in 2020, of which 5916 were men, and 5065 women (Table 7.1) [1]. Cancer of the lung accounts for 20% of the cancer mortality, followed by cancer in the colon (11%), prostate (9%), pancreas (7%) and female breast (5%). Together these cancer sites account for 51% of the cancer mortality.

Among men, lung cancer caused 1162 deaths in 2020. Prostate cancer (954 deaths), colon cancer (534 deaths) and pancreatic cancer (393 deaths) represent the second, third and fourth most frequent causes of cancer death among men, respectively.

Lung cancer mortality also ranks highest among women (1006 deaths), followed by colon (625 deaths), breast (591 deaths) and pancreatic cancer (378 deaths). Figure 7.1 shows the distribution of age-standardised mortality rates for selected cancer sites. There is at least a 10-fold difference in rates across these cancers. Given the very poor prognosis for pancreatic cancer, it ranks among the top four causes of cancer death among both men and women, even though pancreatic cancer only is a moderately common cancer.

The trends section in this report examines the incidence, mortality, and survival for 23 selected cancer sites.

[1] We have not received complete data for mortality for 2021.

Figure 7.1: Age-standardised (Norwegian standard) mortality rates per 100 000 person-years for selected cancers, 2020

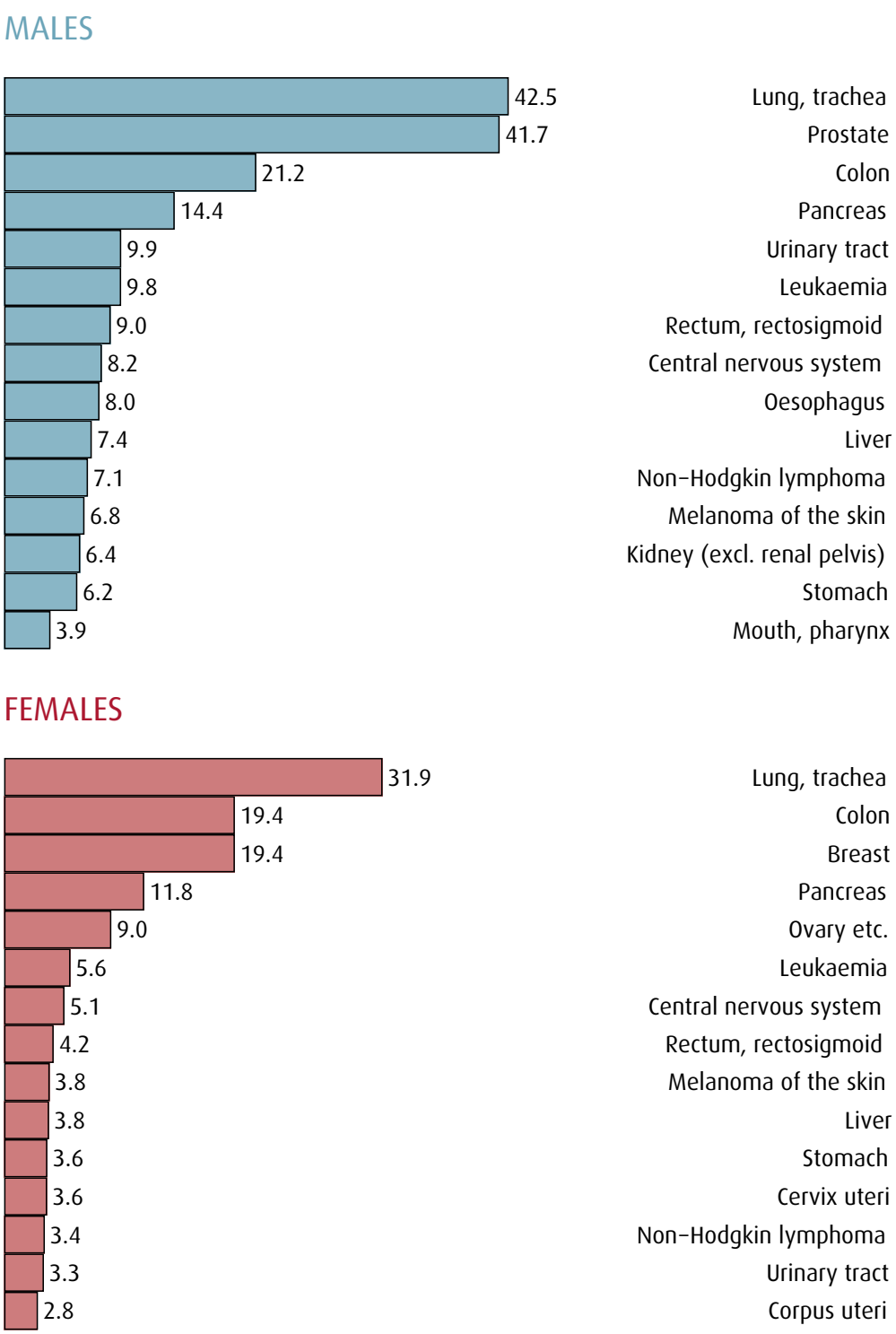

Table 7.1: Number of cancer deaths by primary site and sex, 2020

ICD-10	Site	Males	Females	Total
C00–96	**All sites**	**5 916**	**5 065**	**10 981**
C00–14	**Mouth, pharynx**	**105**	**48**	**153**
C00	Lip	4	1	5
C02–06	Oral cavity	34	30	64
C07–08	Salivary glands	16	4	20
C09–10, C01, C14	Oropharynx	33	9	42
C11	Nasopharynx	1	1	2
C12–13	Hypopharynx	17	3	20
C15–26	**Digestive organs**	**1 896**	**1 576**	**3 472**
C15	Oesophagus	217	78	295
C16	Stomach	163	114	277
C17	Small intestine	47	24	71
C18	Colon	534	625	1 159
C19–20	Rectum, rectosigmoid	235	130	365
C21	Anus	6	15	21
C22	Liver	203	120	323
C23–24	Gallbladder, bile ducts	43	46	89
C25	Pancreas	393	378	771
C26	Other digestive organs	55	46	101
C30–34, C38	**Respiratory organs**	**1 211**	**1 026**	**2 237**
C30–31	Nose, sinuses	13	8	21
C32	Larynx, epiglottis	33	8	41
C33–34	Lung, trachea	1 162	1 006	2 168
C38	Heart, mediastinum and pleura	3	4	7
C40–41	**Bone**	**13**	**11**	**24**
C43	**Melanoma of the skin**	**174**	**121**	**295**
C44	**Skin, non-melanoma**	**31**	**27**	**58**
C45	**Mesothelioma**	**56**	**12**	**68**
C47	**Autonomic nervous system**	**2**	**2**	**4**
C48–49	**Soft tissues**	**49**	**44**	**93**
C50	**Breast**	**10**	**591**	**601**
C51–58	**Female genital organs**		**589**	**589**
C51–52, C57.7–9	Other female genital		59	59
C53	Cervix uteri		106	106
C54	Corpus uteri		91	91
C55	Uterus, other		58	58
C56, C57.0–4, C48.2	Ovary etc.		275	275
C58	Placenta		0	0
C60–63	**Male genital organs**	**961**		**961**
C61	Prostate	954		954
C62	Testis	5		5
C60, C63	Other male genital	2		2
C64–68	**Urinary organs**	**407**	**188**	**595**
C64	Kidney (excl. renal pelvis)	166	80	246
C65–68	Urinary tract	241	108	349
C69	**Eye**	**4**	**1**	**5**
C70–72	**Central nervous system**	**223**	**154**	**377**
C73	**Thyroid gland**	**14**	**19**	**33**
C37, C74–75	**Other endocrine glands**	**8**	**8**	**16**
C39, C76, C80	**Other or unspecified**	**162**	**229**	**391**
C81–96	**Lymphoid/haematopoietic tissue**	**589**	**419**	**1 008**
C81	Hodgkin lymphoma	12	10	22
C82–86, C96	Non-Hodgkin lymphoma	182	111	293
C88	Immunoproliferative disease	9	7	16
C90	Multiple myeloma	136	108	244
C91–95	Leukaemia	250	183	433

Chapter 8 Survival

Long-term estimates of survival are becoming increasingly relevant as life expectancy amongst cancer patients increases and cancer care continues to advance[23]. Table 8.3 gives the 1-year, 5-year, 10-year and 15-year relative survival estimates (with 95% confidence intervals) for the follow-up period 2017–2021 by cancer site and sex. Less frequent cancer diagnoses and groups with low survival will have few cases left especially at 10 and 15 years after diagnosis, and the 95% confidence intervals should be taken into consideration in any interpretation of the relative survival estimates.

Given that cancer patients survive longer, there is a need to communicate information about prognosis not only at the time of diagnosis, but also later because prognosis tends to improve for those surviving the first year(s) after diagnosis[21].

Figures 8.1–A to 8.1–X depict these two aspects of cancer survival in Norway for all cancers combined and for 23 specific cancer sites. Relative survival estimates are presented by sex and age, 1 to 15 years after diagnosis, with age strata determined specifically according to relevant biological and/or clinical criteria.

For some sites, the cumulative survival curve tends to level off a certain number of years after diagnosis, indicating that from this point forward, the cancer patient group has similar mortality as the comparable group without cancer, or in other words, statistically, these patients appear to be "cured"[24]. This concept of "statistical cure" involves attributes of survival observed among patients as a group, and should be distinguished from clinical cure, which is determined on the basis of lack of specific symptoms in an individual.

Estimates of five-year relative survival conditional on being alive 1 to 10 years after diagnosis are included in the sex-specific figures, which better quantify the prognosis of cancer patients at time points beyond the initial diagnosis (Figure 8.1–A to 8.1–X, dashed lines). When conditional five-year relative survival is above 90–95% we usually say that there is little or no excess mortality — analogous to the notion of statistical cure that may be observed in the long-term relative survival estimates.

The overall profile of the sex- and age-specific survival of all cancer patients 1 to 15 years after diagnosis in Norway is presented in Figure 8.1–A. The combined cancer group is an aggregate of many different cancer types with different diagnostic and treatment possibilities, and survival estimates will particularly be influenced by PSA testing for prostate cancer and mammographic screening for female breast cancer.

The cumulative five-year relative survival described by cancer site, sex and age, and five-year conditional relative survival by site and age (Figures 8.1–B to 8.1–X) are fairly self-explanatory and highlight the wide variations in patient survival according to these three variables. The 84 percentage-point difference in five-year survival among patients with testicular cancer (Figure 8.1–Q) compared to patients with pancreatic cancer (Figure 8.1–I) strikingly illustrates the wide differences in prognosis according to cancer type. Moreover, long-term survival following diagnosis of melanoma of the skin and cancers of the oral cavity, central nervous system, colon and thyroid gland clearly varies between men and women. This may be due to biological or anatomical differences or be related to sex-specific differences in stage at presentation[1], subsite or histological type, as well as levels of co-morbidity.

The overall cancer survival tends to diminish with increasing age at diagnosis, yet the age-specific differences are rather narrow for for example colon cancer (Figure 8.1–E) relative to cervical cancer (Figure 8.1–M) or non-Hodgkin lymphoma (Figure 8.1–W). For certain cancers, including breast and corpus uteri cancer, long-term survival among patients diagnosed before the age of 50 are slightly lower than for patients diagnosed at the ages 50–59. This in part represents the diagnosis of more aggressive tumours in the younger age group, and, for breast cancer, the impact of screening in the older group.

The figures also illustrate a positive aspect of cancer survival; cancer patients who are alive a certain time after diagnosis show good prospects of surviving their cancer and being cured. In fact, for more than two-thirds of the cancer groups, the five-year conditional relative survival reaches 90% 2–5 years after diagnosis. In general terms, this means that survivors of these cancers will, within a few years of diagnosis, have mortality rates similar to that of the general population, and would be considered (statistically) cured. The extent to which survivors may

[1] For cancers of the central nervous system, this is particularly noticeable. Among men, 58.1% of these tumors are malignant. The corresponding proportion among women is 34.1%.

be considered cured does however vary; five-year conditional survival from breast cancer reaches 90% 1 year after diagnosis (Figure 8.1–L) and slowly increases to about 93% 10 years from diagnosis. As is evident from the continual decline in long-term breast cancer cumulative survival, there remains a persistent excess mortality for women with this disease.

Tables 8.1 and 8.2 provide the five-year relative survival estimates over the last four decades by cancer site and stage for males and females, respectively. While the stage-specific count of cases by five-year period of diagnosis in Tables 5.21 and 5.22 are not equivalent to the size of the patient groups used in the survival calculations, the numbers do provide a reasonable indication of the absolute number of patients involved in the survival analyses at different time periods and their relative distribution.

Table 8.1: Five-year relative survival by primary site, stage and period of diagnosis, 1982–2021, **males**

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16**	**2017–21***
C00–96	**All sites**	**Total**	**43.7**	**46.8**	**51.9**	**57.6**	**63.1**	**69.4**	**74.4**	**77.1**
C00–14	**Mouth, pharynx**	**Total**	**56.6**	**58.1**	**55.5**	**55.1**	**55.9**	**65.0**	**67.9**	**72.5**
		Localised	76.3	81.0	81.6	81.1	80.4	83.1	85.1	87.7
		Regional	25.9	27.4	27.3	33.4	39.2	50.4	61.8	65.2
		Distant	-	7.3	11.8	6.2	12.6	7.8	6.1	10.4
		Unknown	54.8	38.2	51.9	56.2	60.7	76.0	57.4	72.7
C15	**Oesophagus**	**Total**	**4.5**	**5.4**	**5.6**	**6.8**	**8.2**	**13.5**	**20.3**	**22.2**
		Localised	6.9	13.0	15.6	24.1	22.8	32.5	56.5	66.5
		Regional	5.7	4.8	3.8	8.0	11.5	14.4	24.4	32.2
		Distant	-	0.5	0.6	0.5	-	1.6	3.0	3.3
		Unknown	-	4.8	3.5	7.2	4.3	15.1	12.7	11.4
C16	**Stomach**	**Total**	**17.3**	**19.4**	**17.5**	**19.1**	**20.5**	**25.0**	**27.4**	**30.9**
		Localised	40.6	50.1	57.3	57.1	58.7	63.6	68.9	80.5
		Regional	18.8	20.5	16.8	21.0	22.2	24.8	33.4	38.5
		Distant	1.5	1.2	0.7	2.0	1.5	3.5	2.8	4.4
		Unknown	6.9	3.9	9.3	20.1	27.1	24.3	20.1	23.2
C18	**Colon**	**Total**	**48.6**	**47.5**	**53.0**	**56.0**	**58.0**	**60.6**	**65.5**	**69.7**
		Localised	78.7	76.9	87.5	96.2	88.8	92.3	95.0	97.1
		Regional	56.1	57.1	64.3	68.5	72.3	78.1	83.9	85.3
		Distant	5.1	4.2	4.2	6.7	7.9	12.8	14.3	16.0
		Unknown	33.2	25.9	33.2	54.3	56.4	44.7	23.5	47.1
C19–20	**Rectum, rectosigmoid**	**Total**	**44.0**	**47.6**	**51.7**	**57.7**	**61.0**	**66.3**	**71.1**	**71.9**
		Localised	67.2	72.0	81.9	85.2	88.6	91.9	97.8	97.5
		Regional	39.8	45.8	52.3	66.4	69.7	80.4	82.3	81.2
		Distant	2.4	4.1	3.5	10.3	11.7	15.7	21.6	25.0
		Unknown	29.4	34.3	27.9	50.4	57.6	47.8	40.8	55.3
C22	**Liver**	**Total**	**2.6**	**3.4**	**6.2**	**6.1**	**6.3**	**13.9**	**19.1**	**25.3**
		Localised	5.1	6.4	12.2	15.7	10.2	24.8	42.3	50.8
		Regional	-	-	-	-	1.7	5.3	6.1	12.0
		Distant	-	-	2.2	-	2.2	2.5	3.1	3.9
		Unknown	2.3	1.6	3.3	2.8	6.9	13.2	11.7	18.3
C23–24	**Gallbladder, bile ducts**	**Total**	**11.5**	**10.9**	**9.2**	**14.7**	**14.6**	**16.9**	**19.3**	**26.8**
		Localised	24.4	19.9	21.4	31.5	40.5	32.5	60.7	60.9
		Regional	19.1	14.0	11.9	21.8	14.7	21.9	18.9	30.2
		Distant	1.4	1.9	1.5	1.4	4.0	2.5	0.8	1.6
		Unknown	-	-	1.7	12.0	9.6	8.3	-	37.0
C25	**Pancreas**	**Total**	**1.2**	**1.7**	**2.5**	**2.5**	**4.8**	**5.9**	**10.9**	**14.7**
		Localised	3.2	3.2	8.6	8.6	20.0	24.4	51.8	56.2
		Regional	1.6	5.7	6.6	5.4	6.2	9.1	19.5	25.6
		Distant	0.3	1.0	0.8	1.4	2.1	2.1	1.8	2.6
		Unknown	2.6	0.6	1.6	2.3	4.1	8.1	8.5	16.5
C33–34	**Lung, trachea**	**Total**	**7.4**	**7.1**	**7.8**	**8.5**	**10.0**	**12.9**	**19.3**	**25.7**
		Localised	17.1	15.5	21.9	32.5	39.7	44.2	56.3	64.0
		Regional	7.7	8.7	7.8	9.0	11.3	15.3	23.4	31.9
		Distant	0.4	0.8	0.4	0.7	1.1	2.1	2.4	5.1
		Unknown	2.8	5.7	5.8	7.4	10.9	12.1	15.2	17.8
C43	**Melanoma of the skin**	**Total**	**68.0**	**69.8**	**75.0**	**75.8**	**76.2**	**79.2**	**86.9**	**90.3**
		Localised	76.7	77.9	81.0	85.7	83.4	87.5	92.8	95.2
		Regional	29.2	35.1	41.7	40.0	37.7	40.4	64.8	74.9
		Distant	2.0	7.9	14.8	11.5	11.9	11.7	25.2	41.4
		Unknown	67.1	39.8	67.8	73.0	81.2	74.0	63.1	59.8
C61	**Prostate**	**Total**	**57.2**	**59.8**	**68.4**	**80.2**	**85.9**	**92.4**	**95.1**	**95.5**
		Localised	73.6	74.9	80.3	96.2	96.8	101.7	103.3	102.4
		Regional	42.0	54.0	60.2	73.2	81.7	93.9	95.2	95.9
		Distant	21.6	24.9	24.5	26.4	31.1	37.2	39.9	45.1
		Unknown	53.3	64.7	71.9	83.5	88.6	95.3	99.1	98.3

Continued on next page

Table 8.1: Five-year relative survival by primary site, stage and period of diagnosis, 1982–2021, **males** (Continued)

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16**	**2017–21***
		Total	**92.6**	**94.5**	**96.0**	**96.4**	**97.1**	**97.8**	**99.0**	**98.8**
		Localised	98.2	98.0	99.4	99.1	100.0	99.1	99.8	100.1
C62	**Testis**	Regional	95.5	95.6	96.9	97.5	94.9	96.0	98.5	97.6
		Distant	68.0	77.1	74.7	75.7	84.0	90.3	88.9	87.5
		Unknown	-	-	91.7	101.5	97.4	99.9	-	-
		Total	**41.6**	**43.0**	**50.8**	**51.2**	**60.1**	**66.3**	**77.2**	**78.9**
		Localised	71.8	68.1	76.6	78.9	85.0	87.1	91.9	92.6
C64	**Kidney (excl. renal pelvis)**	Regional	44.1	50.9	53.4	52.3	55.6	57.9	64.9	70.2
		Distant	7.2	5.8	6.0	6.7	8.4	9.3	17.3	21.9
		Unknown	42.1	-	27.9	56.0	68.2	70.5	50.4	59.7
		Total	**64.3**	**67.1**	**71.2**	**69.3**	**72.3**	**74.5**	**78.6**	**80.3**
		Localised	71.7	73.7	77.7	80.5	84.8	84.2	85.5	87.2
C65–68	**Urinary tract**	Regional	22.9	29.3	24.9	26.4	27.6	29.7	31.8	36.0
		Distant	2.9	7.9	6.7	4.7	5.7	5.3	5.1	9.5
		Unknown	67.3	66.4	68.5	68.2	72.6	73.1	49.6	62.4
		Total	**34.3**	**36.9**	**45.5**	**51.9**	**60.4**	**60.2**	**61.3**	**57.0**
C70–72	**Central nervous system**	Non-malignant	72.4	71.6	80.4	90.3	93.1	92.1	95.4	96.7
		Malignant	16.6	22.4	21.5	19.4	22.5	24.4	29.2	28.0
		Total	**80.3**	**81.1**	**76.9**	**81.5**	**84.9**	**89.2**	**90.0**	**90.0**
		Localised	98.5	94.7	98.6	98.4	97.0	101.1	101.9	100.5
C73	**Thyroid gland**	Regional	80.1	88.7	89.4	81.2	89.2	93.2	87.0	88.9
		Distant	39.1	31.2	27.5	-	-	-	37.2	-
		Unknown	-	-	-	-	-	-	74.7	77.3
C81	**Hodgkin lymphoma**	**Total**	**62.5**	**73.1**	**75.6**	**80.5**	**79.3**	**79.5**	**84.4**	**91.2**
C82–86, C96	**Non-Hodgkin lymphoma**	**Total**	**42.2**	**41.9**	**46.2**	**47.9**	**59.0**	**66.3**	**73.4**	**77.9**
C91–95	**Leukaemia**	**Total**	**26.5**	**33.8**	**41.8**	**48.6**	**54.6**	**60.5**	**65.7**	**71.0**

* For 2017–21 the 5-year relative survival estimates are based on the period approach (observation window 2017–21).

- Not estimated due to too few patients (see Chapter 4).

Table 8.2: Five-year relative survival by primary site, stage and period of diagnosis, 1982–2021, **females**

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16**	**2017–21***
C00–96	**All sites**	**Total**	**53.4**	**56.4**	**59.1**	**62.8**	**66.3**	**69.5**	**73.6**	**76.3**
C00–14	**Mouth, pharynx**	**Total**	**56.6**	**64.7**	**61.0**	**59.5**	**67.6**	**72.9**	**74.0**	**76.7**
		Localised	70.7	81.0	82.2	84.6	82.1	88.4	88.7	91.1
		Regional	40.7	43.0	35.5	38.3	51.9	54.7	57.7	62.7
		Distant	-	-	-	5.6	-	-	-	-
		Unknown	-	-	53.5	59.2	81.5	87.0	84.8	83.5
C15	**Oesophagus**	**Total**	**8.2**	**9.2**	**12.0**	**8.0**	**9.7**	**18.0**	**27.9**	**29.8**
		Localised	12.3	17.6	27.4	24.8	23.5	40.1	48.1	61.7
		Regional	6.0	6.9	9.2	5.2	7.9	17.3	41.9	32.1
		Distant	-	-	-	-	2.8	-	11.7	11.3
		Unknown	-	15.1	8.1	7.1	7.7	13.9	18.7	25.9
C16	**Stomach**	**Total**	**21.6**	**22.3**	**22.5**	**24.5**	**24.2**	**25.8**	**29.9**	**31.2**
		Localised	51.4	52.8	63.5	72.5	64.9	65.6	75.2	81.7
		Regional	21.8	22.8	27.9	29.8	22.5	22.4	30.7	35.2
		Distant	1.1	0.7	1.7	3.2	4.3	2.7	5.6	7.7
		Unknown	14.1	11.1	9.3	20.6	35.2	30.5	32.1	26.8
C18	**Colon**	**Total**	**48.7**	**52.7**	**55.1**	**58.7**	**61.8**	**65.1**	**69.8**	**71.0**
		Localised	79.3	82.2	86.6	90.3	94.7	95.8	98.1	97.4
		Regional	55.9	62.0	64.8	71.6	74.3	81.0	84.5	85.4
		Distant	4.0	5.0	5.4	8.5	11.4	14.0	19.9	20.9
		Unknown	21.1	33.1	45.7	56.4	62.5	41.9	31.9	45.7
C19–20	**Rectum, rectosigmoid**	**Total**	**49.1**	**53.5**	**59.1**	**60.9**	**66.2**	**68.6**	**71.3**	**73.5**
		Localised	74.5	76.8	87.4	93.3	93.4	95.8	97.5	96.8
		Regional	44.8	52.1	59.9	64.8	72.5	79.8	81.1	84.5
		Distant	5.0	2.3	6.1	7.8	11.6	20.5	21.9	23.6
		Unknown	31.8	47.2	45.3	56.8	68.1	51.1	45.2	53.1
C22	**Liver**	**Total**	**7.4**	**8.7**	**9.7**	**8.2**	**14.3**	**19.0**	**26.6**	**24.8**
		Localised	11.8	15.9	13.5	18.8	25.6	38.3	49.3	45.9
		Regional	-	-	-	-	-	11.3	24.1	34.1
		Distant	2.2	2.3	3.1	-	4.2	4.2	10.3	5.4
		Unknown	-	4.7	13.0	6.7	14.8	12.3	16.6	18.2
C23–24	**Gallbladder, bile ducts**	**Total**	**12.7**	**9.8**	**9.9**	**12.7**	**12.6**	**16.9**	**20.5**	**24.9**
		Localised	29.1	17.6	28.3	43.8	29.4	37.8	42.0	69.8
		Regional	10.9	11.5	12.6	18.4	19.1	26.8	29.2	34.2
		Distant	-	-	-	2.4	1.1	2.0	3.2	1.1
		Unknown	6.4	9.1	6.1	9.1	8.8	18.4	-	22.1
C25	**Pancreas**	**Total**	**1.8**	**2.6**	**3.7**	**3.7**	**4.2**	**7.3**	**11.9**	**14.6**
		Localised	4.3	7.3	16.1	23.4	18.0	35.1	52.0	51.3
		Regional	3.1	3.7	7.0	3.2	6.1	8.6	14.7	20.2
		Distant	0.8	0.5	1.3	1.2	1.8	2.2	2.3	2.7
		Unknown	1.2	4.0	1.3	5.3	3.8	8.4	10.8	14.5
C33–34	**Lung, trachea**	**Total**	**6.4**	**9.1**	**11.0**	**10.8**	**13.8**	**17.9**	**26.2**	**32.8**
		Localised	18.1	23.3	32.1	41.9	49.7	55.0	67.1	73.3
		Regional	5.6	9.1	12.3	10.3	13.3	18.7	31.2	38.0
		Distant	0.4	1.2	1.0	1.1	2.0	2.6	4.1	7.0
		Unknown	5.7	7.3	5.3	13.5	18.4	17.8	21.2	27.6
C43	**Melanoma of the skin**	**Total**	**80.6**	**87.6**	**86.3**	**88.1**	**87.1**	**88.1**	**93.5**	**95.2**
		Localised	86.9	92.3	90.8	94.8	93.8	93.3	97.1	98.4
		Regional	42.0	43.7	51.4	52.1	59.5	54.0	71.4	78.3
		Distant	5.2	15.3	22.6	17.6	23.5	30.6	38.0	52.2
		Unknown	80.8	70.0	79.2	89.3	86.1	83.9	75.9	70.2

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Table 8.2: Five-year relative survival by primary site, stage and period of diagnosis, 1982–2021, **females** (Continued)

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16**	**2017–21***
C50	**Breast**	**Total**	**73.9**	**76.0**	**79.2**	**85.1**	**87.6**	**89.2**	**91.4**	**92.3**
		I	87.0	94.9	96.2	98.6	99.4	100.3	100.3	100.4
		II	67.9	74.0	75.4	85.6	89.2	92.2	95.4	96.2
		III	50.4	46.4	59.9	63.5	66.7	77.8	78.7	79.8
		IV	15.4	22.0	23.2	20.8	22.2	24.5	32.4	36.6
		Unknown	85.4	85.4	83.2	88.7	76.7	70.5	75.8	81.8
C53	**Cervix uteri**	**Total**	**70.5**	**69.2**	**73.4**	**75.1**	**77.8**	**78.7**	**80.2**	**82.6**
		I	85.8	85.2	91.6	91.3	93.9	94.3	95.3	95.7
		II	56.4	60.2	61.8	62.2	77.5	78.7	81.8	79.6
		III	31.1	19.7	33.9	44.2	49.4	45.1	53.7	55.3
		IV	6.1	-	22.3	12.3	18.9	20.4	22.0	20.7
		Unknown	74.2	73.2	74.9	77.6	76.7	77.8	80.3	82.4
C54	**Corpus uteri**	**Total**	**70.6**	**72.6**	**76.0**	**80.1**	**81.9**	**84.3**	**85.1**	**85.4**
		Localised	82.6	83.8	88.3	92.0	92.0	95.9	96.5	97.4
		Regional	55.0	64.0	67.7	73.3	75.3	68.2	64.7	68.2
		Distant	23.5	25.2	34.8	32.9	39.6	39.9	40.7	39.6
		Unknown	40.6	49.9	53.0	83.1	86.3	76.6	65.3	60.1
C56, C57.0–4, C48.2	**Ovary etc.**	**Total**	**33.3**	**35.2**	**36.6**	**41.8**	**42.6**	**45.1**	**48.6**	**51.1**
		Localised	76.3	80.5	83.1	94.1	85.0	89.9	97.4	100.1
		Regional	42.7	45.8	47.4	58.7	68.7	60.2	67.0	64.8
		Distant	15.0	16.7	19.4	26.2	29.1	31.5	35.6	38.0
		Unknown	39.1	29.1	36.6	54.5	60.6	49.2	48.6	37.1
C64	**Kidney (excl. renal pelvis)**	**Total**	**46.8**	**53.1**	**54.5**	**57.3**	**65.3**	**73.9**	**78.3**	**80.7**
		Localised	71.2	79.1	77.5	87.1	88.1	91.0	91.4	93.2
		Regional	50.3	51.7	52.2	48.5	50.7	49.0	65.1	72.3
		Distant	8.9	9.4	4.0	13.6	12.8	18.3	15.4	18.8
		Unknown	-	19.9	39.4	57.3	65.4	81.5	40.6	52.5
C65–68	**Urinary tract**	**Total**	**56.7**	**61.8**	**60.8**	**62.5**	**63.9**	**66.1**	**72.8**	**75.8**
		Localised	68.2	71.6	72.2	82.6	80.4	78.5	81.3	85.1
		Regional	15.5	19.6	21.9	27.4	21.3	23.4	31.6	40.2
		Distant	7.0	2.7	7.0	2.3	7.0	6.9	6.6	10.2
		Unknown	43.6	64.7	55.0	60.5	63.1	68.7	41.1	39.4
C70–72	**Central nervous system**	**Total**	**50.3**	**56.6**	**61.4**	**69.9**	**76.5**	**77.9**	**77.5**	**74.5**
		Non-malignant	83.6	82.5	88.1	91.7	94.4	95.9	97.3	96.9
		Malignant	20.4	26.7	25.3	26.7	27.6	28.9	29.9	28.9
C73	**Thyroid gland**	**Total**	**86.3**	**89.0**	**90.3**	**87.8**	**89.7**	**92.8**	**93.3**	**95.1**
		Localised	94.1	95.2	98.3	103.8	101.8	102.4	100.7	99.3
		Regional	80.4	86.1	87.7	85.0	87.5	91.2	91.6	92.9
		Distant	-	41.0	60.0	48.3	41.7	-	-	-
		Unknown	-	-	-	86.6	87.2	81.9	74.5	92.4
C81	**Hodgkin lymphoma**	**Total**	**65.4**	**71.3**	**75.4**	**85.2**	**82.4**	**81.3**	**89.1**	**88.8**
C82–86, C96	**Non-Hodgkin lymphoma**	**Total**	**48.1**	**55.5**	**49.6**	**56.1**	**65.0**	**74.0**	**77.5**	**80.0**
C91–95	**Leukaemia**	**Total**	**27.5**	**36.0**	**49.0**	**54.7**	**60.5**	**67.9**	**73.9**	**75.7**

* For 2017–21 the 5-year relative survival estimates are based on the period approach (observation window 2017–21).

- Not estimated due to too few patients (see Chapter 4).

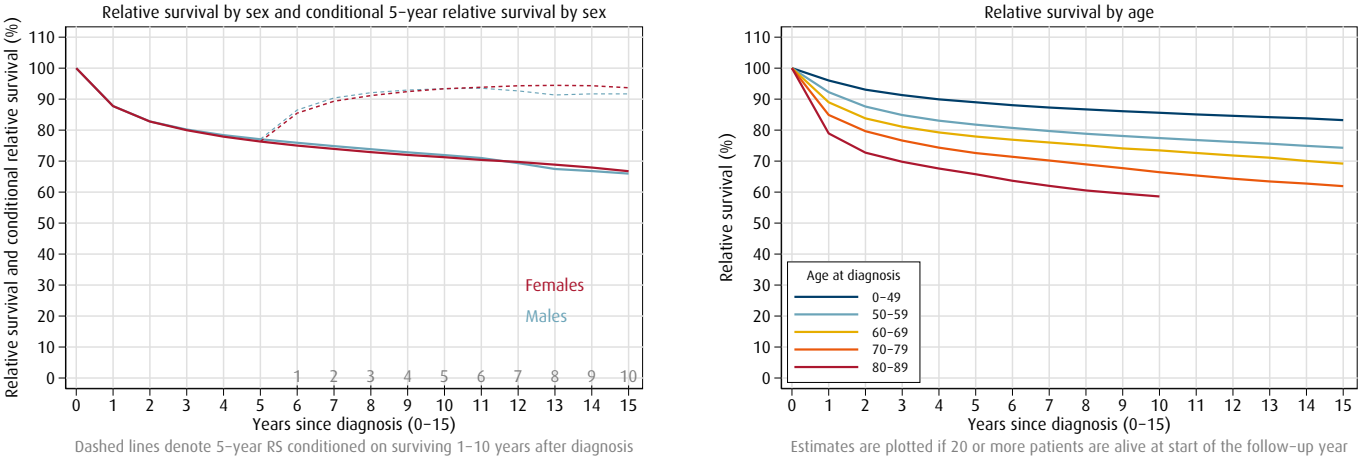
Table 8.3: 1-, 5-, 10-, and 15-year relative survival (%) with 95% confidence interval by primary site and sex. Period approach, 2017–2021

ICD-10	Site	Sex	1-year	5-year	10-year	15-year
C00–14	Mouth, pharynx	M	89.3 (87.8–90.8)	72.5 (69.9–75.2)	64.7 (60.5–69.2)	55.1 (43.8–69.3)
		F	90.5 (88.6–92.4)	76.7 (73.6–80.0)	65.8 (61.1–70.8)	52.7 (43.1–64.3)
C15	Oesophagus	M	51.7 (48.8–54.8)	22.2 (19.6–25.1)	17.7 (14.9–21.1)	17.1 (13.2–22.0)
		F	56.0 (51.1–61.4)	29.8 (25.0–35.5)	25.6 (20.3–32.5)	20.2 (11.9–34.2)
C16	Stomach	M	59.2 (56.5–62.1)	30.9 (28.2–34.0)	25.0 (21.5–29.2)	17.2 (11.8–25.3)
		F	56.0 (52.5–59.7)	31.2 (27.7–35.2)	31.6 (27.0–37.0)	36.1 (27.2–48.0)
C18	Colon	M	85.5 (84.6–86.5)	69.7 (68.1–71.3)	62.2 (59.1–65.5)	53.7 (45.8–63.1)
		F	84.8 (84.0–85.7)	71.0 (69.7–72.4)	68.9 (66.6–71.4)	68.7 (63.1–74.9)
C19–20	Rectum, rectosigmoid	M	89.2 (88.1–90.3)	71.9 (70.1–73.8)	66.9 (63.8–70.2)	65.9 (58.0–75.0)
		F	89.9 (88.6–91.1)	73.5 (71.4–75.6)	65.6 (62.3–69.1)	59.1 (52.6–66.5)
C22	Liver	M	50.5 (47.2–54.1)	25.3 (22.0–29.2)	16.4 (9.3–29.0)	12.2 (6.2–23.7)
		F	47.0 (42.7–51.8)	24.8 (20.9–29.4)	18.4 (14.4–23.5)	17.2 (11.7–25.2)
C23–24	Gallbladder, bile ducts	M	59.4 (54.2–65.1)	26.8 (22.1–32.5)	19.4 (13.6–27.6)	19.1 (12.3–29.6)
		F	57.6 (52.5–63.3)	24.9 (20.3–30.5)	21.0 (16.1–27.3)	13.7 (7.5–25.1)
C25	Pancreas	M	39.7 (37.6–42.0)	14.7 (13.1–16.6)	10.2 (7.8–13.3)	5.9 (1.2–29.5)
		F	41.2 (38.9–43.7)	14.6 (12.8–16.6)	11.2 (9.1–13.7)	7.7 (4.6–13.1)
C33–34	Lung, trachea	M	52.7 (51.6–53.9)	25.7 (24.6–26.9)	17.1 (15.8–18.5)	12.3 (10.6–14.3)
		F	59.5 (58.4–60.7)	32.8 (31.6–34.1)	23.0 (21.6–24.5)	16.6 (14.8–18.5)
C43	Melanoma of the skin	M	97.5 (96.9–98.0)	90.3 (89.0–91.6)	87.0 (84.2–89.9)	92.3 (87.0–98.0)
		F	98.5 (98.0–99.0)	95.2 (94.1–96.4)	93.2 (90.5–96.0)	90.2 (84.6–96.1)
C50	Breast	F	98.2 (97.9–98.4)	92.3 (91.7–92.9)	86.6 (85.5–87.8)	81.1 (78.3–84.0)
C53	Cervix uteri	F	93.6 (92.4–94.8)	82.6 (80.7–84.6)	78.3 (75.8–80.9)	75.9 (72.0–80.0)
C54	Corpus uteri	F	94.7 (93.9–95.5)	85.4 (83.9–87.0)	86.1 (83.5–88.8)	84.4 (78.0–91.4)
C56, C57.0–4, C48.2	Ovary etc.	F	84.5 (83.0–86.1)	51.1 (48.9–53.3)	38.7 (36.2–41.3)	35.2 (31.5–39.3)
C61	Prostate	M	99.5 (99.3–99.7)	95.5 (95.0–96.1)	91.6 (90.4–92.9)	82.9 (79.9–86.1)
C62	Testis	M	99.3 (98.8–99.8)	98.8 (98.0–99.6)	99.3 (98.3–100.3)	98.4 (97.0–99.9)
C64	Kidney (excl. renal pelvis)	M	90.7 (89.5–91.9)	78.9 (76.9–80.8)	70.4 (67.2–73.7)	61.0 (53.8–69.2)
		F	91.5 (89.9–93.1)	80.7 (78.2–83.4)	72.9 (68.8–77.2)	59.9 (51.9–69.1)
C65–68	Urinary tract	M	90.9 (90.1–91.8)	80.3 (78.7–81.9)	76.9 (73.8–80.2)	64.0 (55.2–74.3)
		F	86.7 (85.1–88.2)	75.8 (73.4–78.3)	66.7 (62.6–71.0)	56.4 (47.4–67.2)
C70–72	Central nervous system	M	76.7 (74.8–78.6)	57.0 (54.7–59.3)	53.7 (51.0–56.6)	48.6 (43.6–54.1)
		F	86.3 (85.0–87.7)	74.5 (72.6–76.4)	71.2 (68.8–73.8)	69.1 (65.5–73.0)
C73	Thyroid gland	M	94.8 (93.0–96.5)	90.0 (87.0–93.0)	84.4 (79.6–89.4)	81.7 (73.6–90.6)
		F	96.7 (95.7–97.7)	95.1 (93.5–96.8)	95.8 (92.8–98.9)	101.6 (95.9–107.6)
C81	Hodgkin lymphoma	M	95.5 (93.4–97.6)	91.2 (88.1–94.3)	86.5 (82.4–90.8)	83.1 (78.3–88.2)
		F	93.4 (90.2–96.6)	88.8 (84.4–93.3)	81.4 (75.6–87.6)	77.8 (70.6–85.8)
C82–86, C96	Non-Hodgkin lymphoma	M	88.1 (86.7–89.4)	77.9 (75.8–80.0)	66.9 (63.4–70.5)	60.2 (54.0–67.0)
		F	89.4 (88.0–90.8)	80.0 (77.8–82.2)	71.4 (68.4–74.6)	62.8 (55.0–71.8)
C91–95	Leukaemia	M	86.1 (84.9–87.4)	71.0 (69.1–73.0)	62.3 (59.3–65.5)	49.3 (43.3–56.2)
		F	87.3 (86.0–88.7)	75.7 (73.7–77.8)	66.4 (63.1–69.8)	56.7 (51.3–62.8)

- Not estimated due to too few patients (see Chapter 4).

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

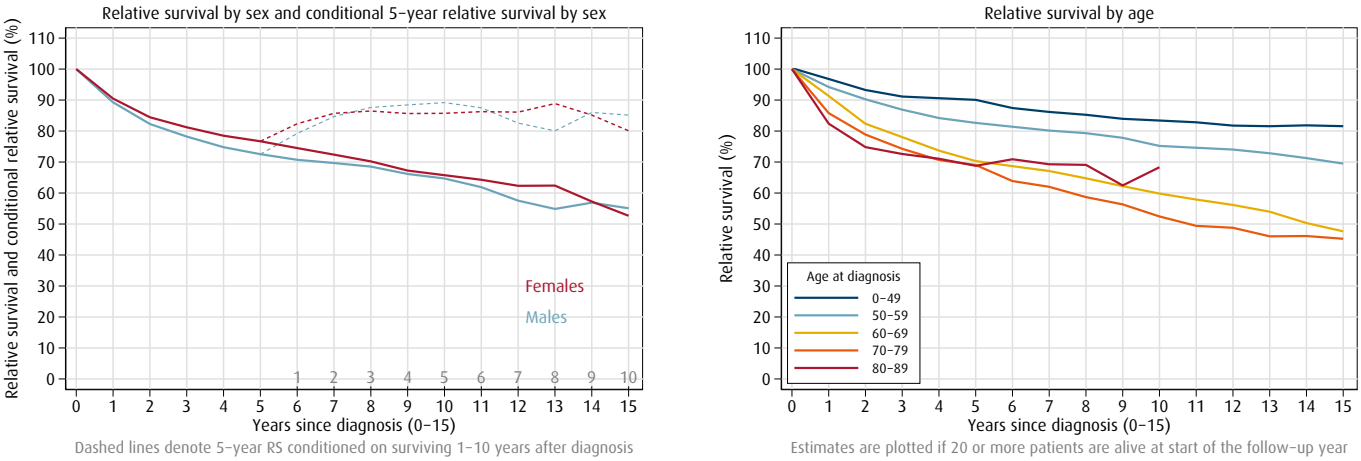
Figure 8.1–A: All sites (ICD-10 C00–96)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

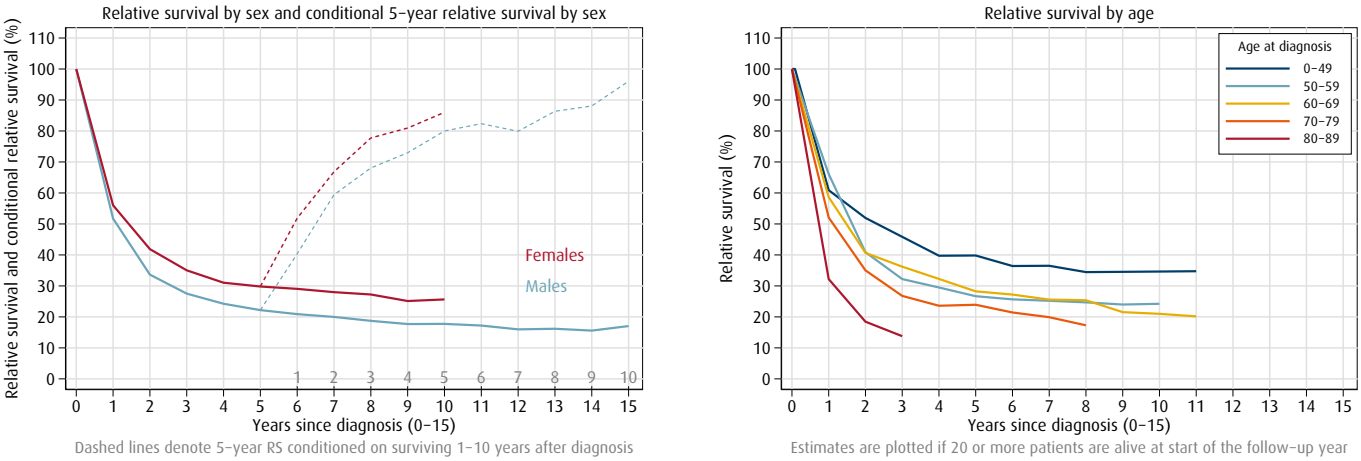
Figure 8.1–B: Mouth, pharynx (ICD-10 C00–14)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–C: Oesophagus (ICD-10 C15)

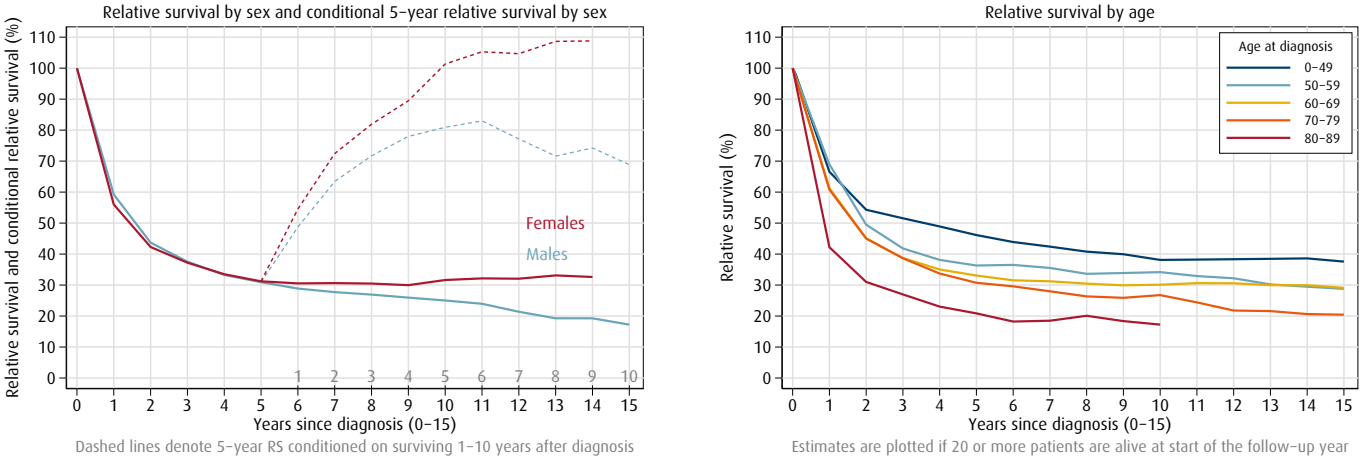


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

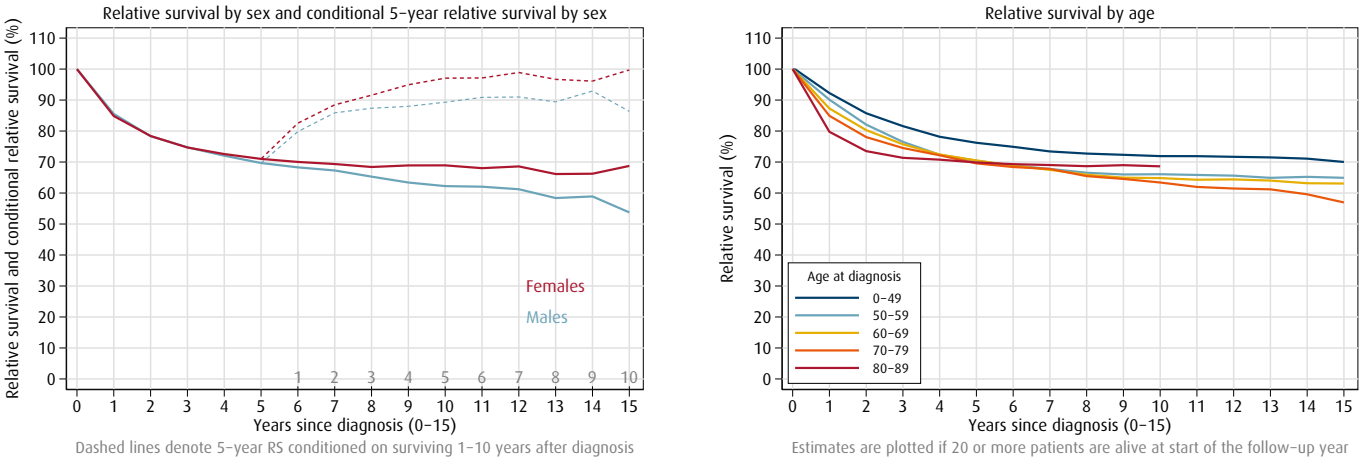
Figure 8.1–D: Stomach (ICD-10 C16)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

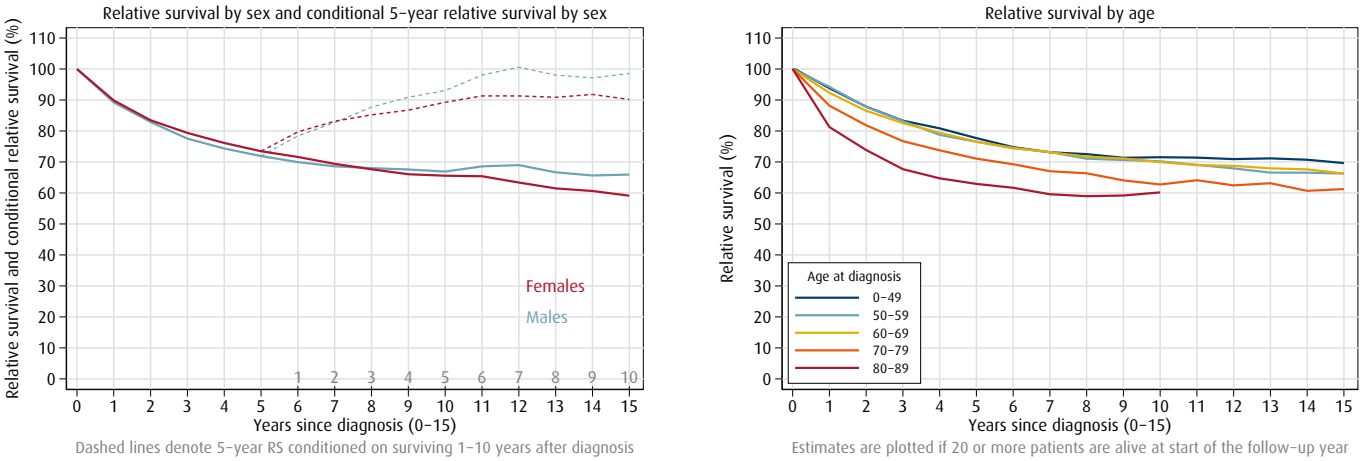
Figure 8.1–E: Colon (ICD-10 C18)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–F: Rectum, rectosigmoid (ICD-10 C19–20)

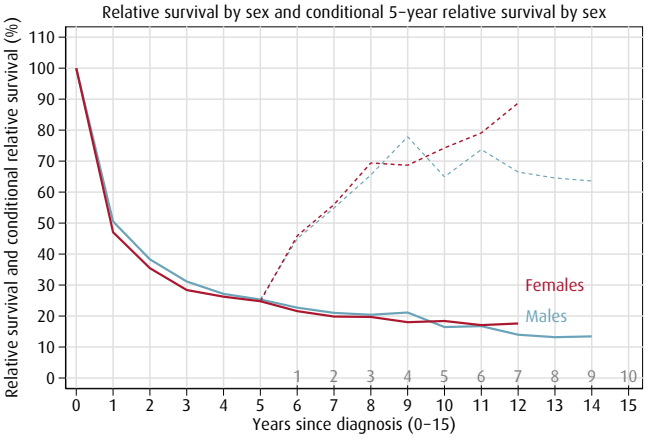


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

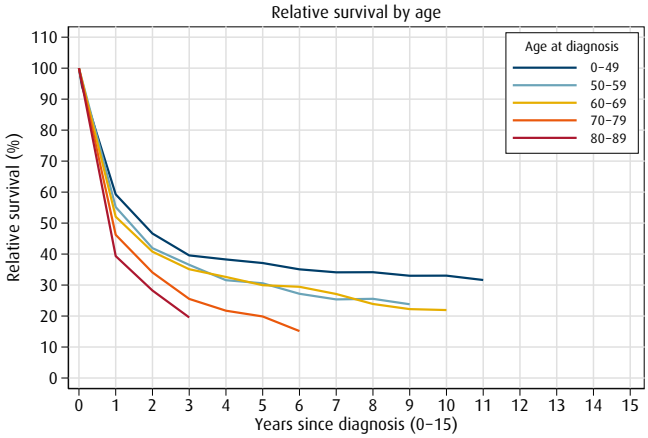
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

Figure 8.1–G: Liver (ICD-10 C22)

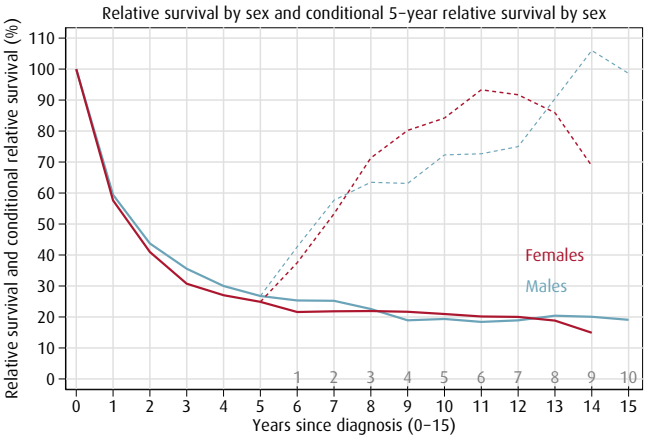


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

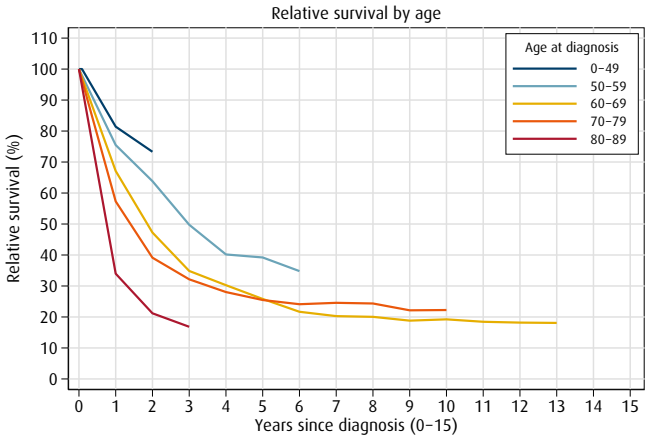


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–H: Gallbladder, bile ducts (ICD-10 C23–24)

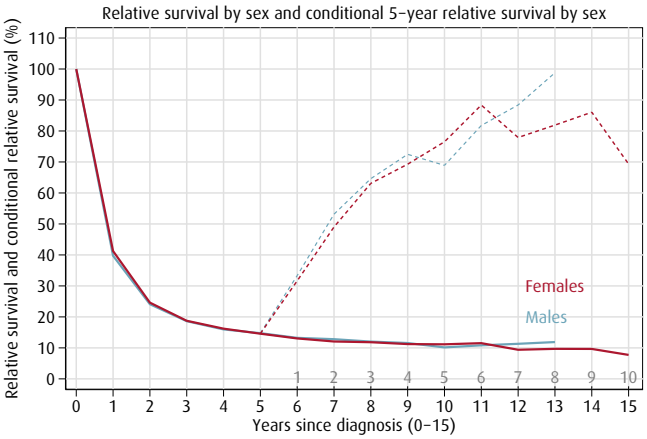


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

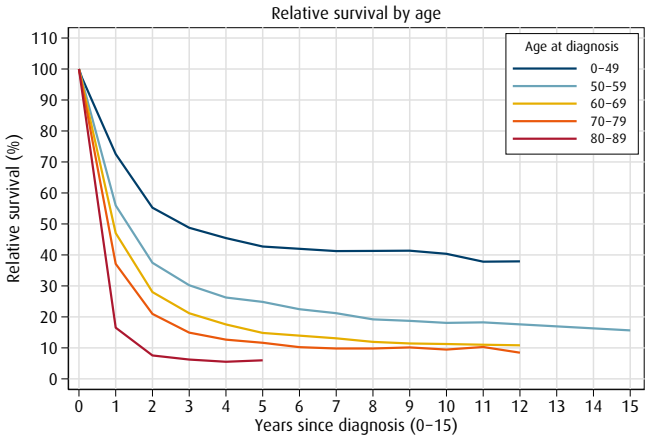


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–I: Pancreas (ICD-10 C25)



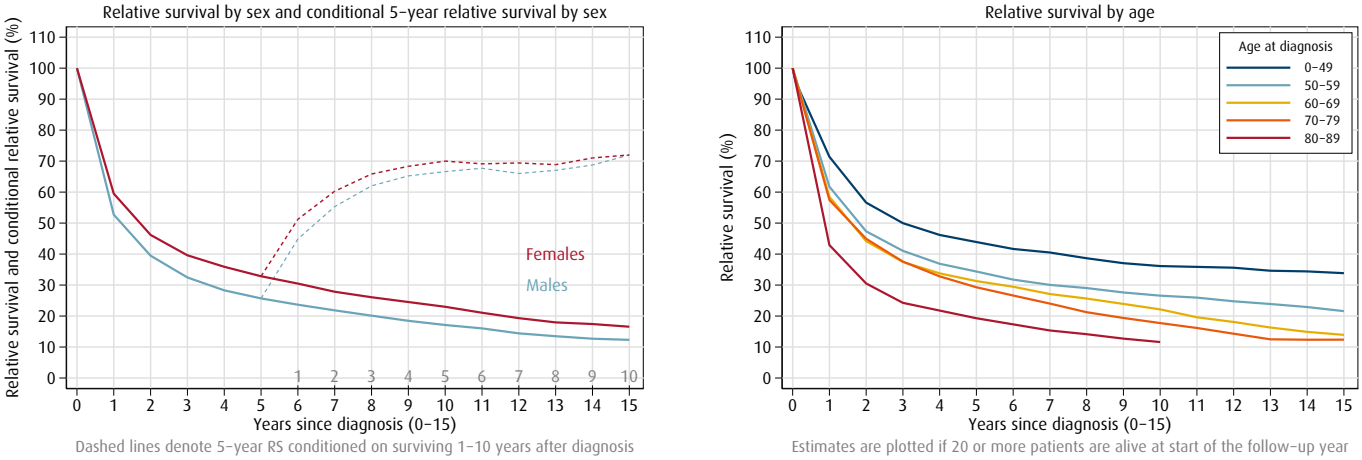
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

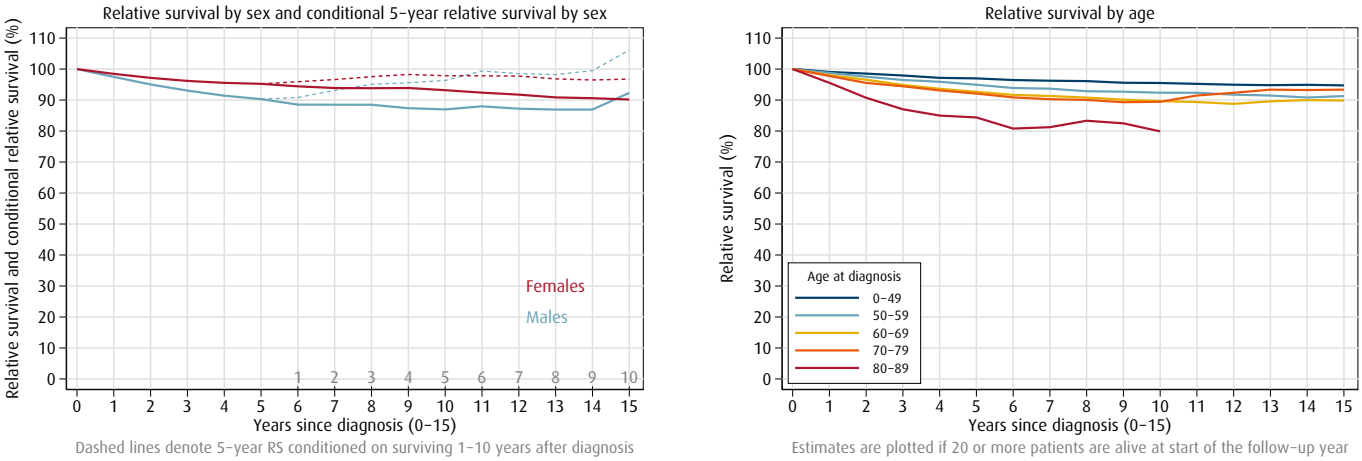
Figure 8.1–J: Lung, trachea (ICD-10 C33–34)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

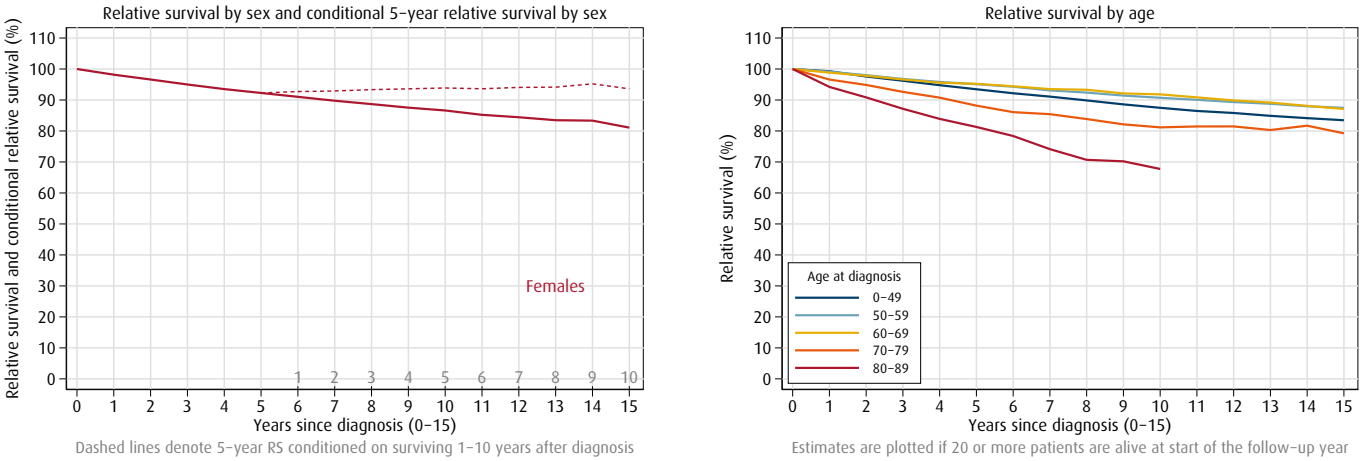
Figure 8.1–K: Melanoma of the skin (ICD-10 C43)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–L: Breast (ICD-10 C50)

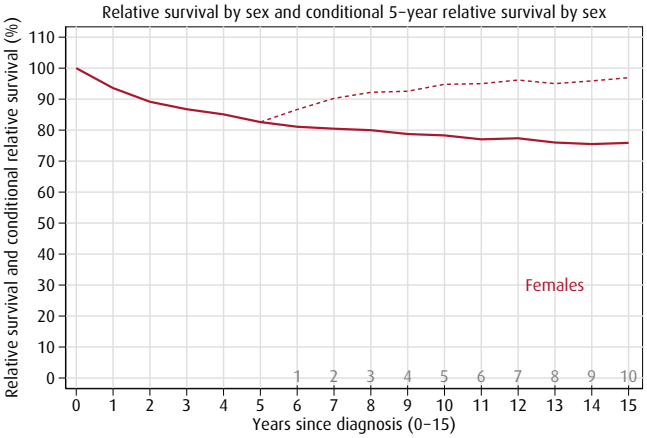


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

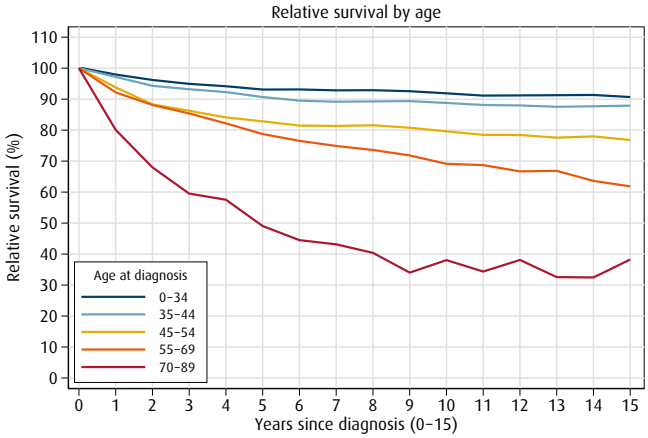
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

Figure 8.1–M: Cervix uteri (ICD-10 C53)

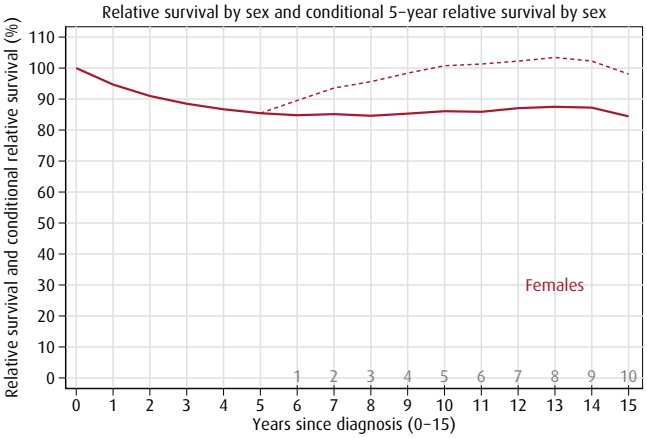


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

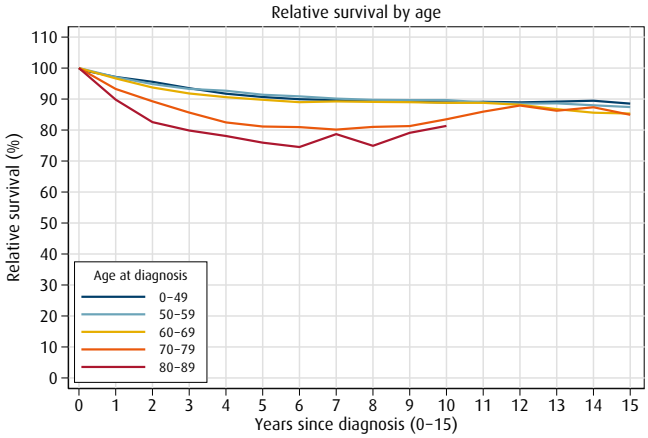


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–N: Corpus uteri (ICD-10 C54)

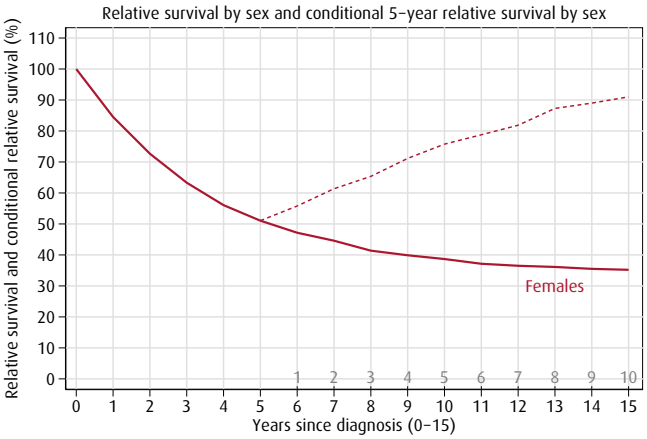


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

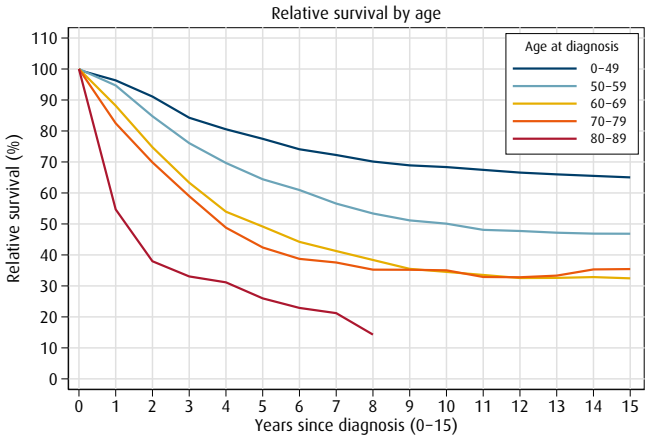


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–O: Ovary etc. (ICD-10 C56, C57.0–4, C48.2)



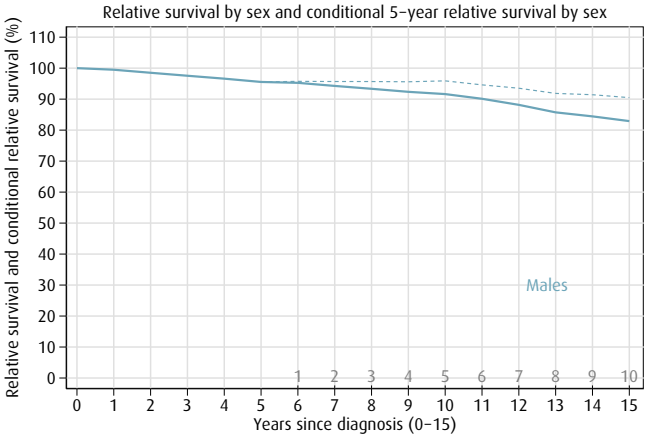
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



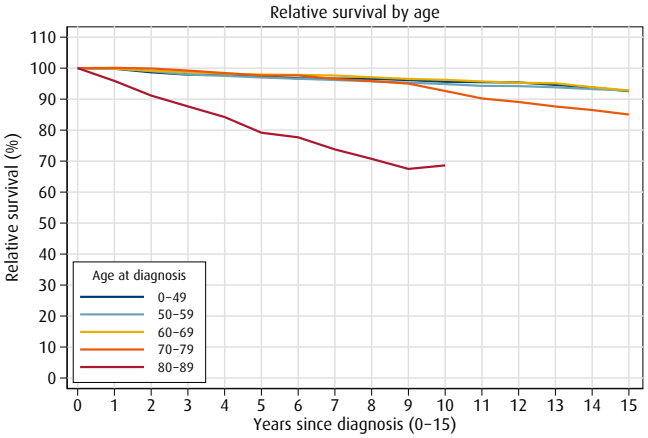
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

Figure 8.1–P: Prostate (ICD-10 C61)

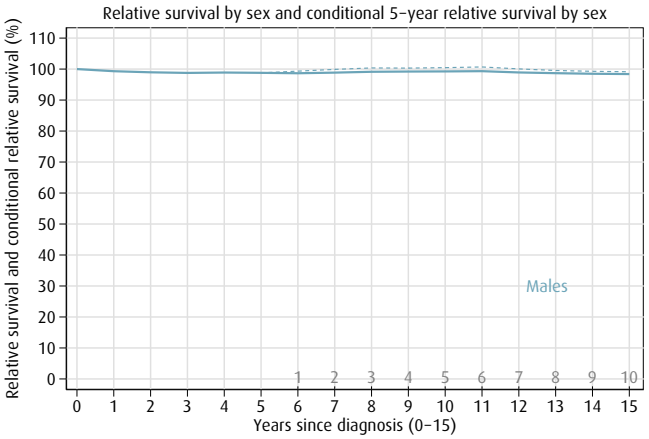


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

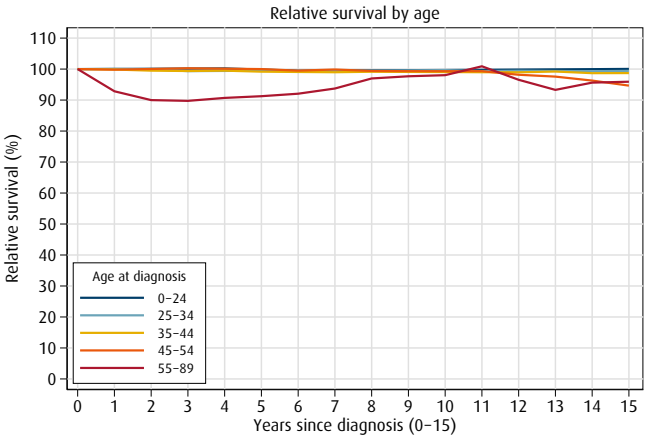


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–Q: Testis (ICD-10 C62)

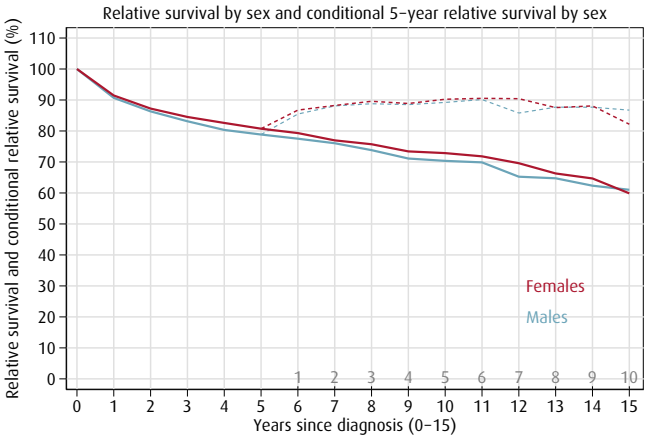


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

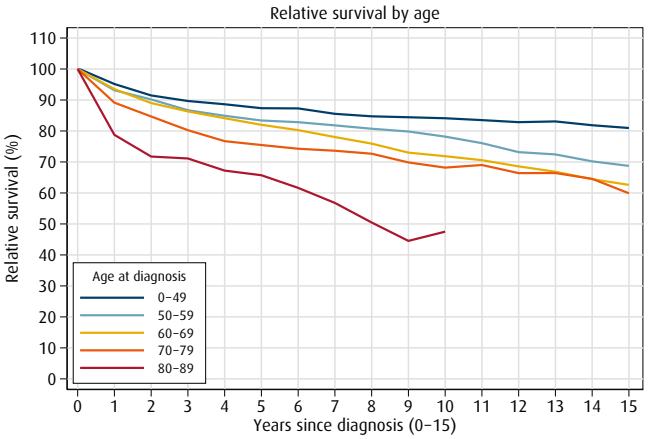


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–R: Kidney (excl. renal pelvis) (ICD-10 C64)



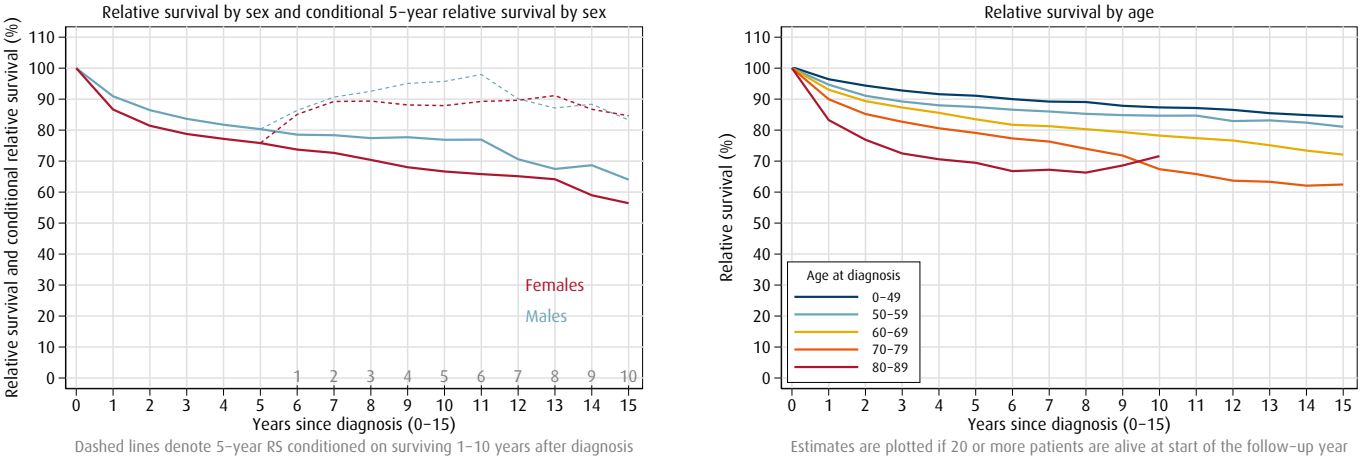
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

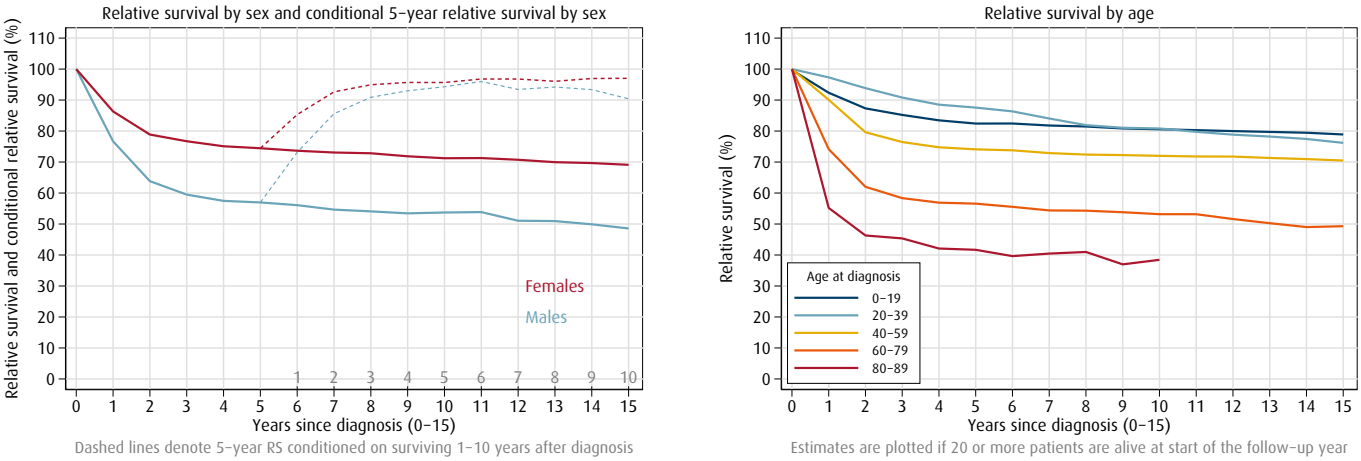
Figure 8.1–S: Urinary tract (ICD-10 C65–68)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

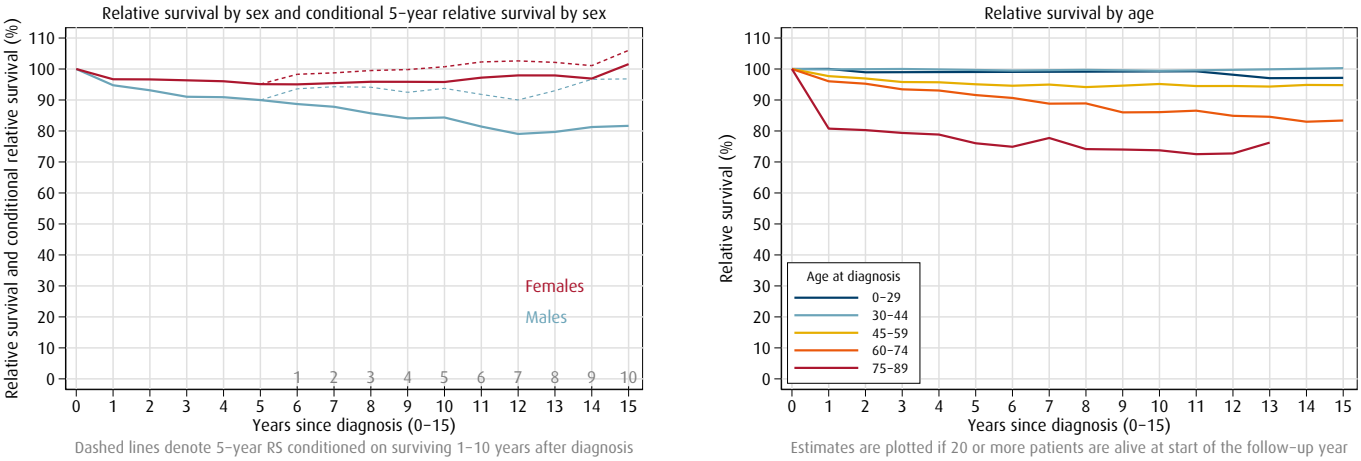
Figure 8.1–T: Central nervous system (ICD-10 C70–72)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–U: Thyroid gland (ICD-10 C73)

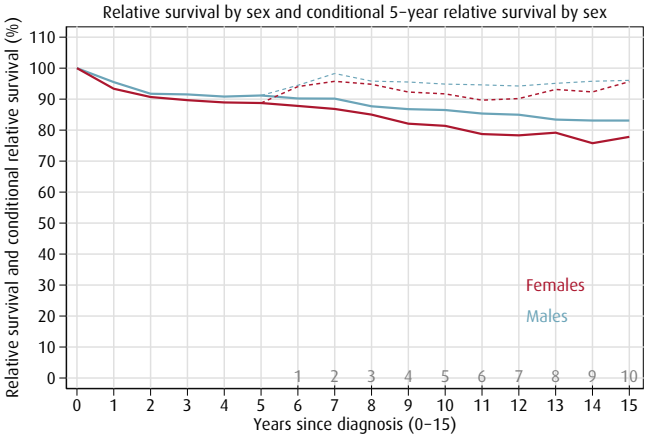


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

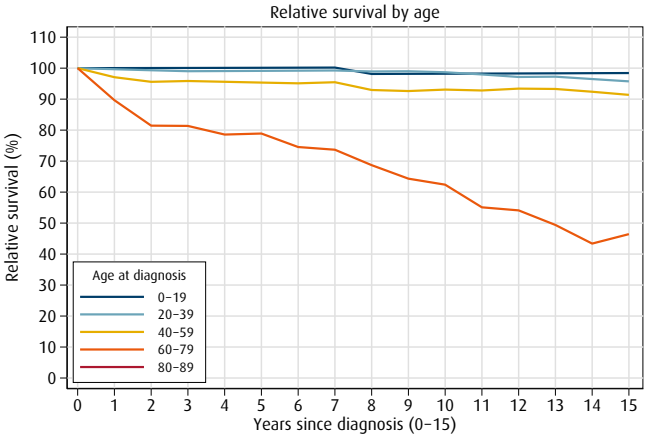
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2017–2021

Figure 8.1–V: Hodgkin lymphoma (ICD-10 C81)

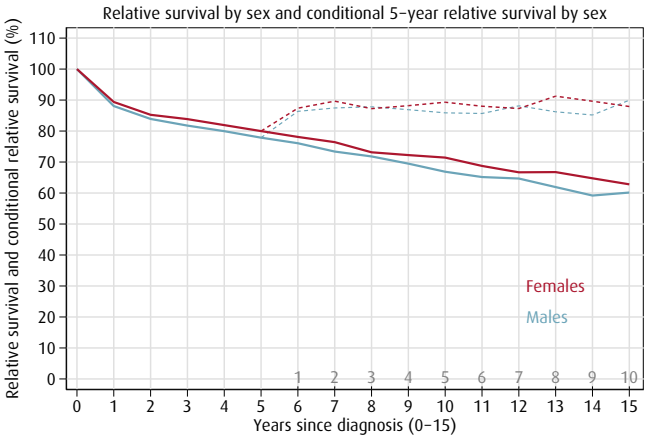


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

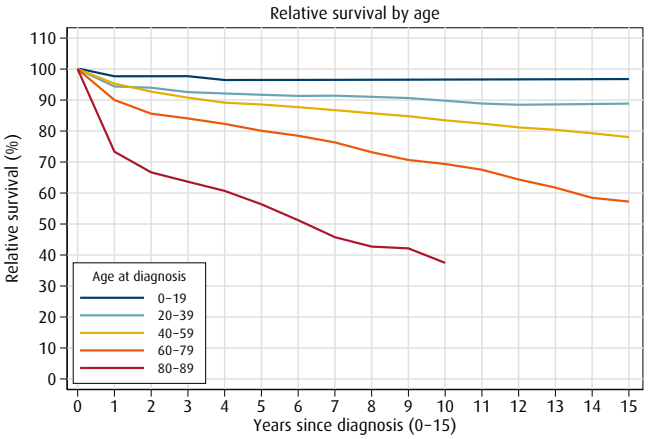


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–W: Non-Hodgkin lymphoma (ICD-10 C82–86, C96)

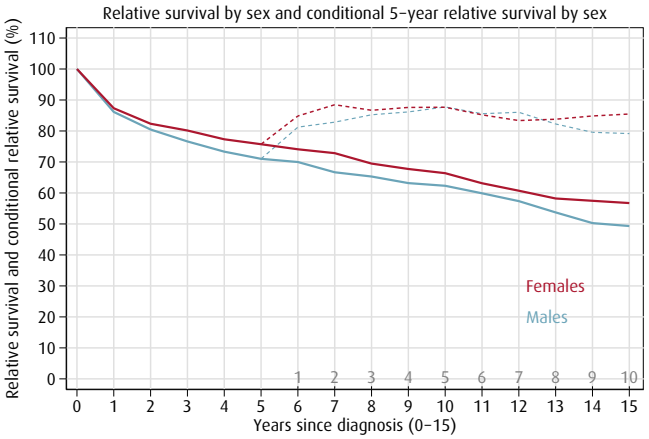


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

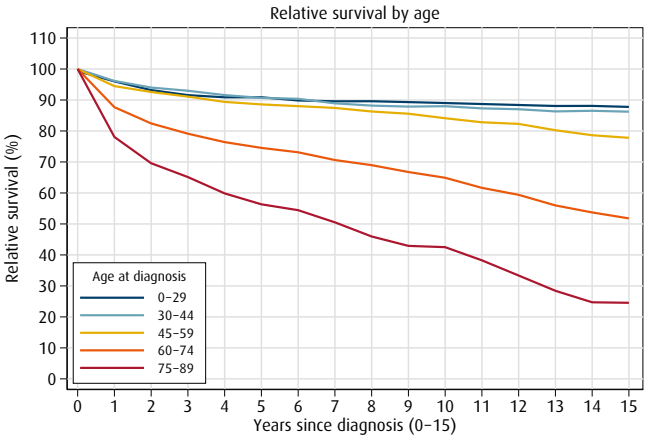


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–X: Leukaemia (ICD-10 C91–95)



Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Chapter 9 Trends in incidence, mortality and survival, Norway 1965–2021

There has been considerable discussion of the relative merits of analysing incidence, mortality and survival rates in cancer research, and specifically of analysing time trend in these disease measures[25–29]. Trend analyses may provide some insight into changes in the distribution of risk factors, and into the impact of interventions and screening aimed at prevention or early diagnosis. Mortality rates and survival proportions are both key measures of disease outcome, and may, of course, reflect the incidence rates or alert us to beneficial effects of screening, more effective therapies, or improved disease management.

The contribution of artefacts to the observed cancer incidence and mortality trends has been comprehensively addressed[30,31]. The accuracy of death certificates has also been discussed[32–34]. Apart from artefacts related to registration practices, many of the factors that affect incidence also apply to mortality, given that both rely on the frequency of the disease and the accuracy of the initial cancer diagnosis. As with incidence, survival estimates may be affected by changes in diagnostic methods and precision, as well as the extent of cancer screening that detect more cases in an earlier stage of the disease.

There is a general consensus that a combined description of trends in incidence, mortality and survival aids our understanding of the underlying biological, epidemiological and clinical processes. As each indicator is subject to unique or shared artefacts that tend to vary according to cancer type over time, their simultaneous assessment often enables the identification of systematic deviations in one or more of the three measures. Figures 9.1–A to 9.1–X present time trends during 1965–2021 for age-standardised incidence and mortality rates and five-year relative survival estimates (mortality through 2020, only). It should be noted that these summary measures will often fail to reflect true underlying age-calendar-year interactions for specific cancers, such as differences in survival and mortality trends by age with respect to calendar time, or the presence of strong birth cohort influences in incidence trends.

The trends for **all sites** in Figure 9.1–A show a persistent increase in cancer survival in Norway for both genders over the last five decades. The incidence rates have also increased, but for men the trend has levelled off and a decrease is seen for the last few years. The mortality rates were fairly stable until the late 1990s both for men and women. From 2000 onwards, it was a notable decline in the mortality rate in men, and a slight decline in women, still, both incidence and mortality were always lower in women than in men. The interpretation of these aggregated estimates is complex, in that they comprise many different cancer types, with rates differing between women and men, some of them sex-specific cancer types, which all may vary in terms of their capacity to be diagnosed as well as treated.

Among men, 27% of all cancers diagnosed in 2021 were **prostate cancers**. General screening for prostate cancer using the PSA test is not recommended in Norway. However, the doubling in incidence and the improved relative survival from 1990 to mid-2000s (Figure 9.1–O) probably reflects the availability and upsurge in the use of the PSA test for early detection of disease. During the last two decades, the incidence of prostate cancer has stabilised, and a marked decrease is seen in the last five to six years. Mortality declined from around 1996, and both early diagnosis and improved and more active treatment may have had an impact. These trends may also result from improved workup and diagnostics as suggested in Table 5.23 of the present report, demonstrating trends in age-standardised incidence rates according to stage of the cancer disease. Since 1992, there has been an eight-fold increase of cancer prostate with regional spreading (invading neighbouring tissue or metastasised to regional lymph nodes), while the rate of prostate cancer with distant metastases has decreased somewhat. Improved diagnostics may secure a more adequate treatment.

Breast cancer comprised more than 20% of all female cancer cases. There has been a monotonous increase in the incidence rate up to 2005 with a steeper increase in the mid-1990s followed by a slight but notable decline between 2005 and 2009 (Figure 9.1–M). The Norwegian Breast Cancer Screening Programme started as a four-year pilot project in four of the former nineteen Norwegian counties in 1996, and gradually expanded to become nationwide by 2005. The programme invites women aged 50–69 years to biennial mammography. The implementation of the screening programme explains

much of the increasing incidence trend from the mid 1990s to 2005. The figures for recent years indicate a new increase in incidence. The age-specific rates show that the rise primarily is limited to the age group 60–79 (not shown). The increase may thus be related to more sensitive diagnostic methods both within and outside the screening programme, combined with women continuing to have mammography after the age of 70. There was a drop in breast cancer incidence from 2019 to 2020, which is possibly explained by the fact that all screening activity in the Mammography programme ceased for a few months from mid-March 2020, when large parts of society in general closed down to limit infection of COVID-19 in the population. In 2021, the incidence rates increased to a level above that observed in 2019.

Breast cancer mortality was almost stable up to the mid-1990s when it began declining (Figure 9.1–M). This good news most likely reflect a combination of improved diagnostics, better treatment, and the implementation of the screening programme for breast cancer. Today, 92% of women with breast cancer survive their cancer for five years or more (5-year relative survival).

The trends in **lung cancer** incidence and mortality rates have followed each other closely. Since early 2000s, the distance between the rates has increased, reflecting improved survival for these patients. Although the survival for lung cancer is still poor compared to other cancers, it has increased by more 10 percentage-points during the last ten years, and 26% of men and 33% of women with lung cancer now survive their cancer for at least five years. The varying incidence trends by sex reflect the different phases of the smoking epidemic in Norwegian men and women (Figure 9.1–J). Overall, lung cancer incidence and mortality rates among males began to level off in the mid-1990s and have declined the past ten years. For women, we have observed signs of a stabilisation in the rate during recent years. However, the rate reached an all-time high level in 2018. Although it is too early to decide whether 2018 represents a turning point, it is interesting to note that the lung cancer rates seem to decline for all age groups below 80. The number of new lung cancer cases among women surpassed that of men in 2018 and 2019, while the rates still are lower due to a higher number of women attaining high age. The severity of this observation is illustrated by the fact that lung cancer has surpassed breast cancer as the most frequent cause of cancer death among women.

The incidence of **cancer in colon and rectum** has increased for many decades, but the rectal cancer rate levelled off in the 1990s and is now declining. For colon cancer, a levelling off has been seen in the incidence rate since around 2010, and among men we even spot a slight decline (Figure 9.1–E and 9.1–F). Of particular note is the increasing survival and declining mortality from rectal cancer in both sexes, and the mortality is now nearly half of what it used to be before 1995. The most important determinants are probably the national introduction of total mesorectal excision in the early 1990s, increased specialisation, and use of preoperative radiation. However, our colon cancer incidence and mortality rates are among the highest in the world and remain a serious health concern.

Some other specific sites are also worthy of note. The long-term decline in **stomach cancer** incidence and mortality is most likely caused by better hygiene and increased intake of fresh or frozen food, which have reduced the prevalence of *Helicobacter pylori* infections and reduced the use of potentially harmful methods of food preservation. The survival of stomach cancer has increased slowly from 10% to 30% five-year relative survival over the last 50 years (Figure 9.1–D).

In contrast, the incidence rate of **testicular cancer** increased gradually until 2007 (Figure 9.1–Q). An improvement in therapy started in the 1970s with the introduction of cisplatin for advanced germ cell tumours, leading to greatly improved prognosis for testicular cancer in young and middle-aged men. This cancer now has the highest five-year relative survival.

A remarkable increase in incidence rates has been seen during the last decades for **melanoma of the skin** in both sexes (Figure 9.1–K). The steep rise is suggested to result from sun exposure habits. However, we cannot exclude the possibility that increased awareness, both in the general population and among general practitioners, and sliding of the diagnostic criteria, may also have contributed to the increase. The moderate but steady increase in melanoma mortality until 2010 indicates that some of the increase in incidence is indeed caused by a higher risk of the disease.

The classification of diseases changes over time, and sometimes this appears clearly in the incidence trends. In 2002, polycythaemia vera (D45), myelodysplastic syndromes (D46) and other neoplasms of uncertain or unknown behaviour of lymphoid, hematopoietic and related tissue (D47) were included in the statistics for **leukaemia**, and this inclusion caused a sudden rise in the incidence in men. In 2020, a review was made of all registered cases of malignant and benign cases, and we then identified benign cases (D45, D46 and D47) that were registered before 2002, while they were previously not counted in the statistics. This is the explanation for the sharp increase in incidence from 1992 to 1993 (Figure 9.1–X). Moreover, due to international guidelines of conversions between ICD-O-3 and ICD-10 and stricter adherence to these in this report there are some cases

that have been reclassified from non-Hodgkin lymphoma to chronic lymphatic leukaemia. The treatment of leukaemia has improved, and a steep prolonged increase in the survival is observed since the early 1970s.

Cancer of the bladder and urinary tract is the fourth most frequent cancer in men but is less frequent in women. For men, the incidence rate increased gradually until the early 1990s, but has since then been less pronounced. For women, a slight increase has lasted until recent years. The incidence trends for both sexes are weak reflexions of the incidence rates of lung cancer, as the two cancer forms share a common important cause: tobacco smoking. The mortality rate has decreased since early 2000, reflecting the increase in survival (Figure 9.1–S).

Finally, among more uncommon cancer sites, there has been a notable increase in the rates for **liver and thyroid cancer** in both genders (Figures 9.1–G and 9.1–U). The rise of thyroid cancers during the last decade is also seen in the other Nordic countries, except in Iceland where the rates have been consistently higher than in Scandinavia since 1960. We do not know the exact reason for the Scandinavian increase, but similar trends have been observed internationally, possibly linked to changes in the diagnostic workup. There has been an increased use of ultrasound, CT and MRI for other indications, possibly resulting in incidental findings of tumours in the thyroid[35]. The increased rate of liver cancer was earlier suspected to be due to a rising proportion of immigrants from areas with higher risk of liver cancer. A study from 2018, revealed that this assumption was incorrect, and that there is an increase in liver cancer incidence also among Norwegian-born[36].

In summary, the overall trends in cancer survival reflect a complex pattern of factors operating together, such as screening programmes, unrecommended screening, and improved diagnostics, all associated with some degree of overdiagnosis (tumours that would have remained harmless throughout life), improved treatment, and improved general health (less comorbidity among cancer patients). For prostate and breast cancer, both early diagnosis and improvements in treatment are likely to have played a role. For rectal cancer, the improved survival is most likely caused by better treatment.

Note: For Figure 9.1–F, the mortality rate for rectosigmoid (C19–20) includes anal cancer.

Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–A: All sites (ICD-10 C00–96)

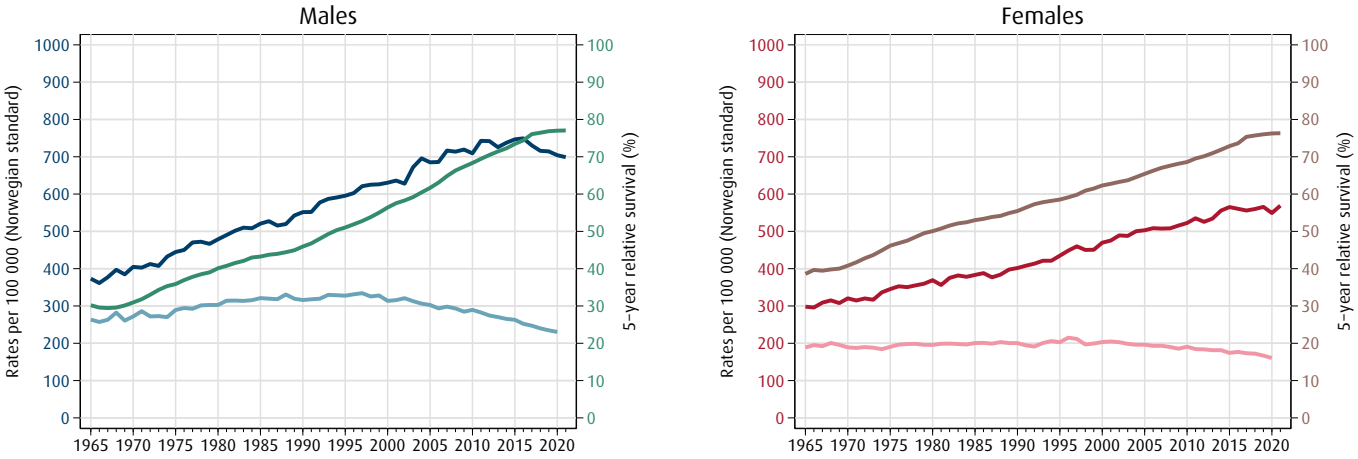


Figure 9.1–B: Mouth, pharynx (ICD-10 C00–14)

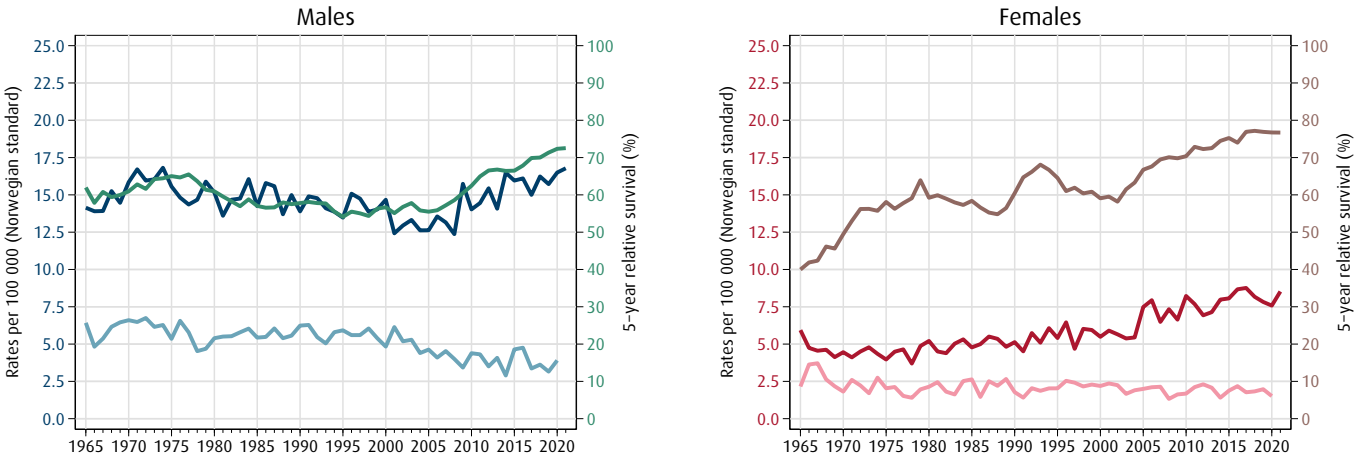


Figure 9.1–C: Oesophagus (ICD-10 C15)

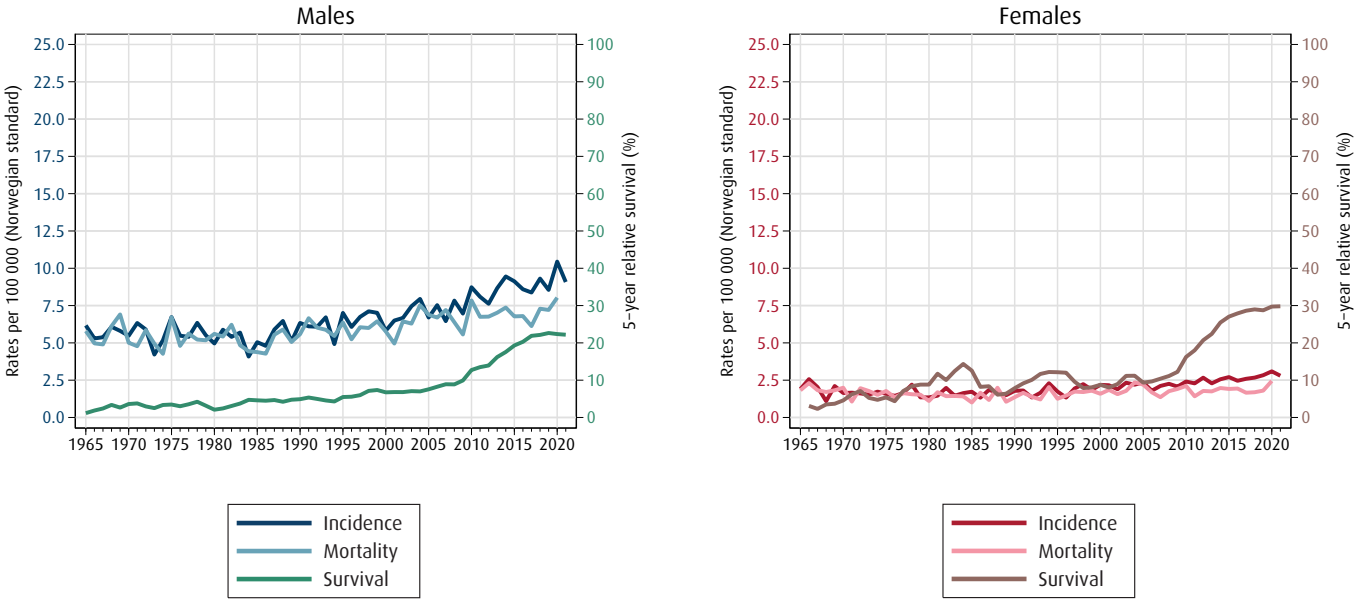


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–D: Stomach (ICD-10 C16)

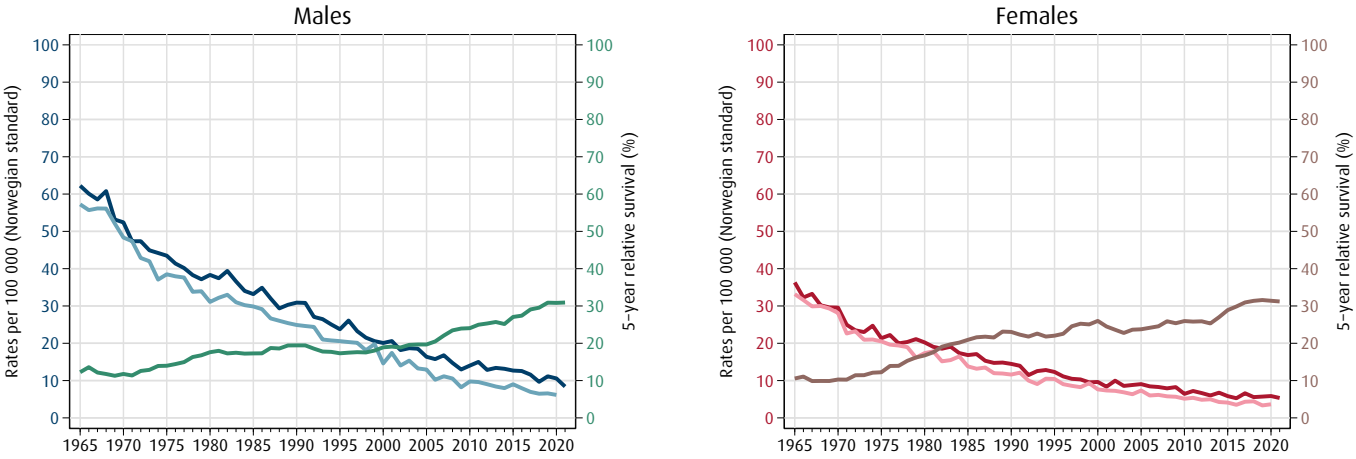


Figure 9.1–E: Colon (ICD-10 C18)

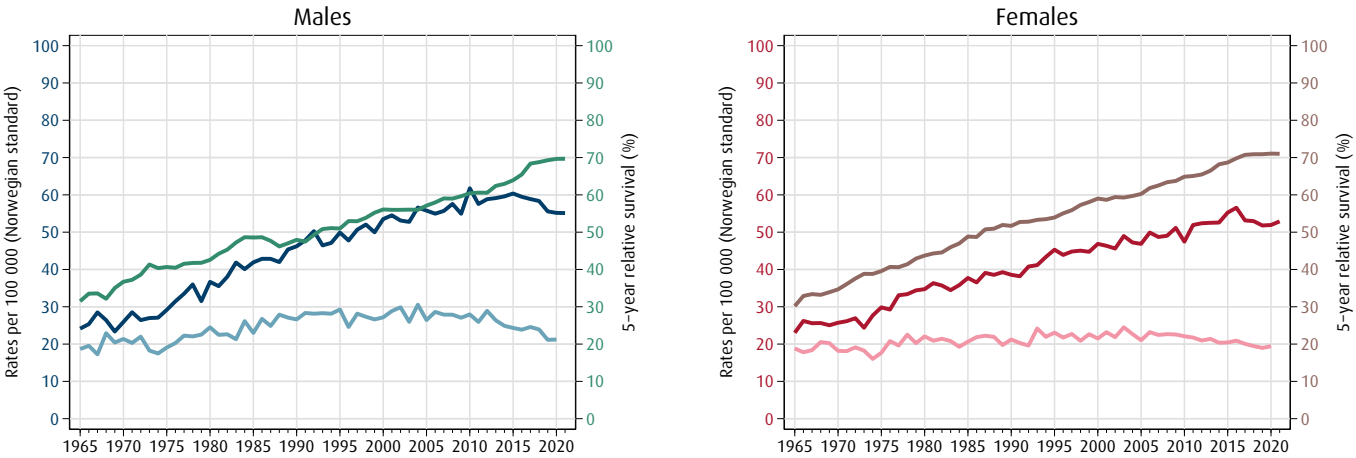


Figure 9.1–F: Rectum, rectosigmoid (ICD-10 C19–20)

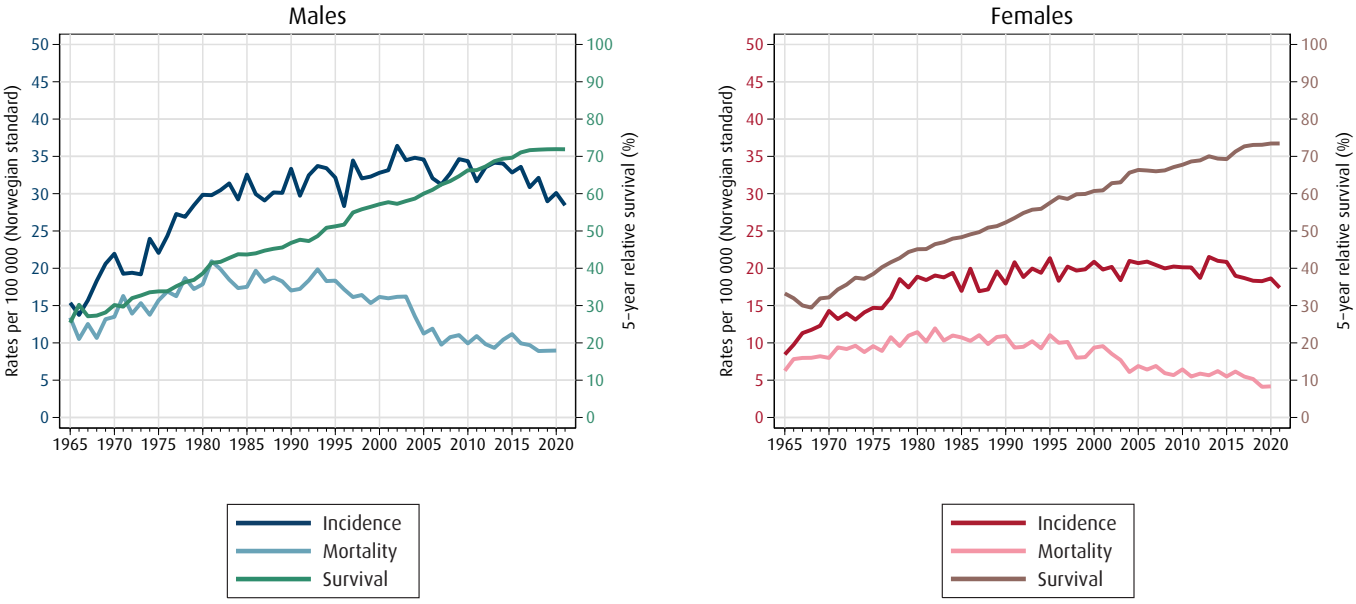


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–G: Liver (ICD-10 C22)

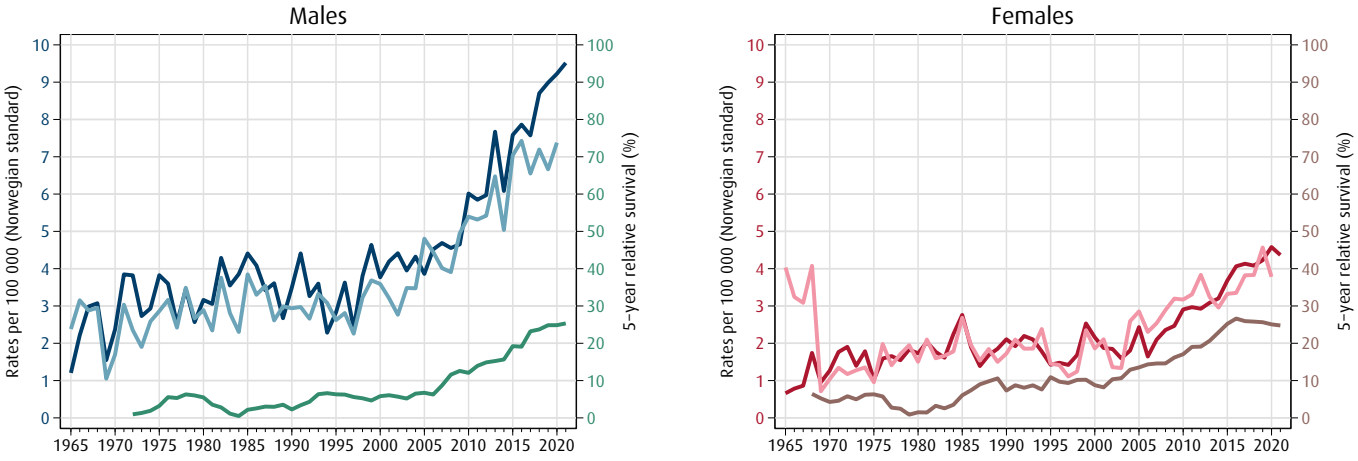


Figure 9.1–H: Gallbladder, bile ducts (ICD-10 C23–24)

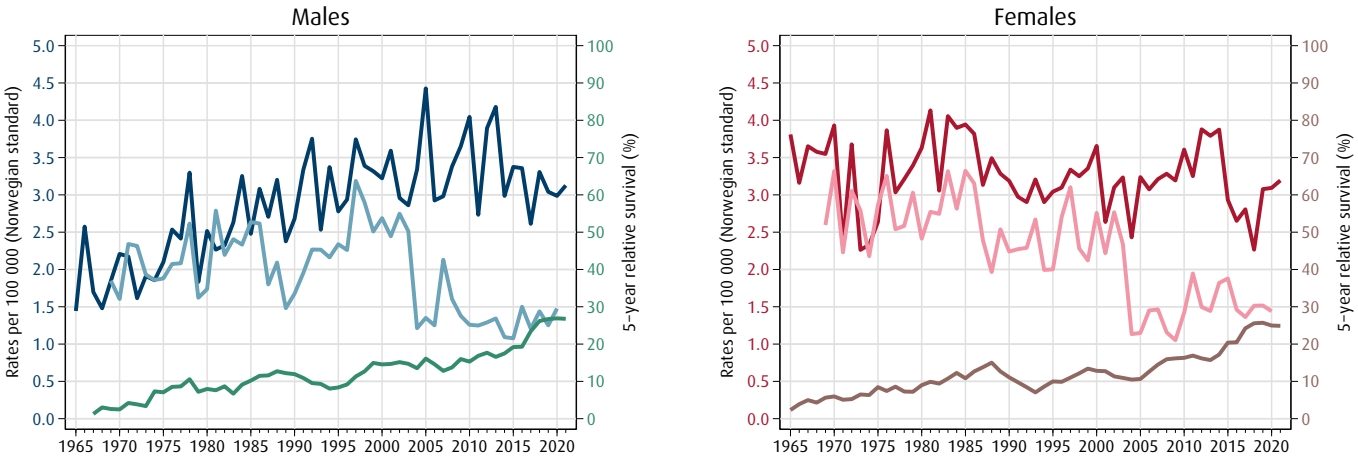


Figure 9.1–I: Pancreas (ICD-10 C25)

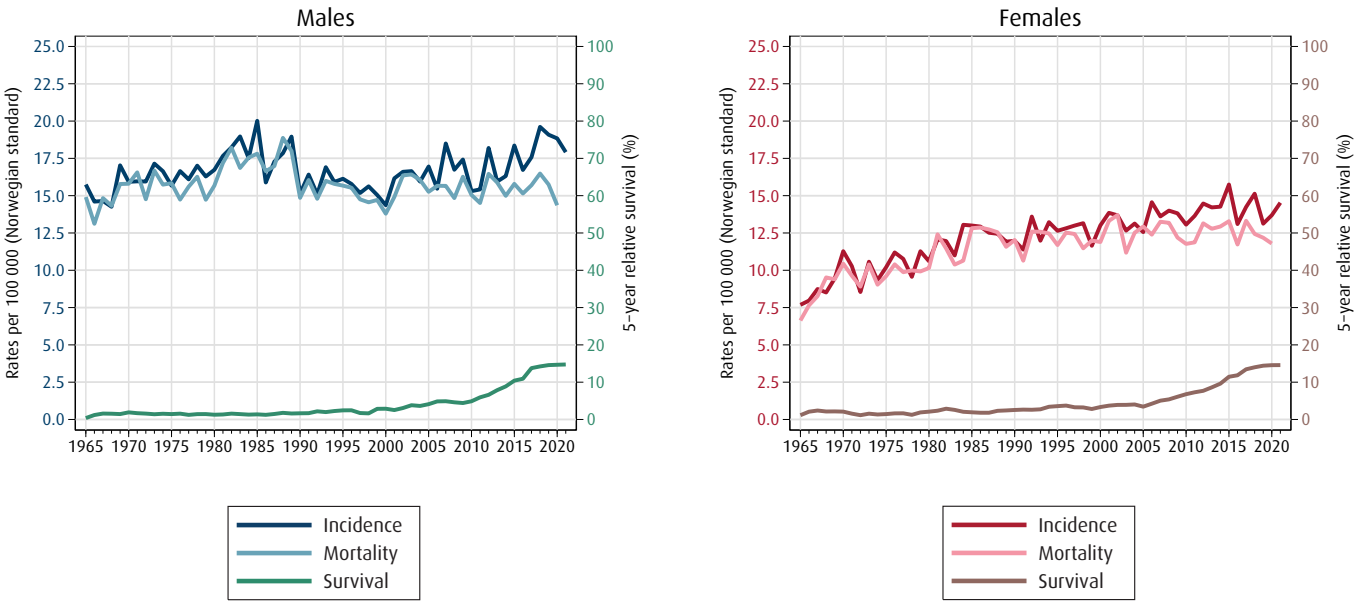


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–J: Lung, trachea (ICD-10 C33–34)

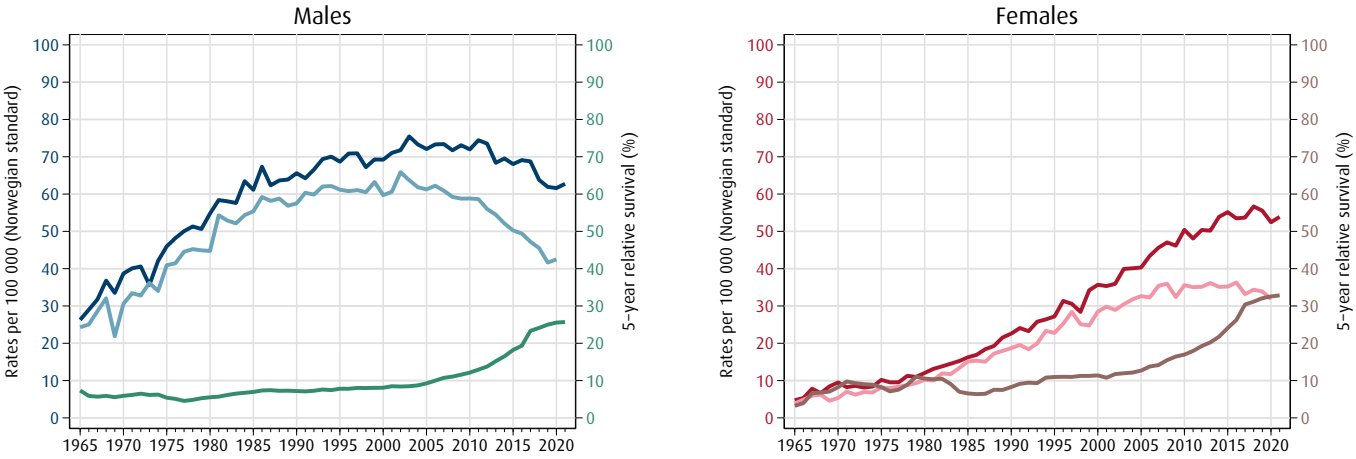


Figure 9.1–K: Melanoma of the skin (ICD-10 C43)

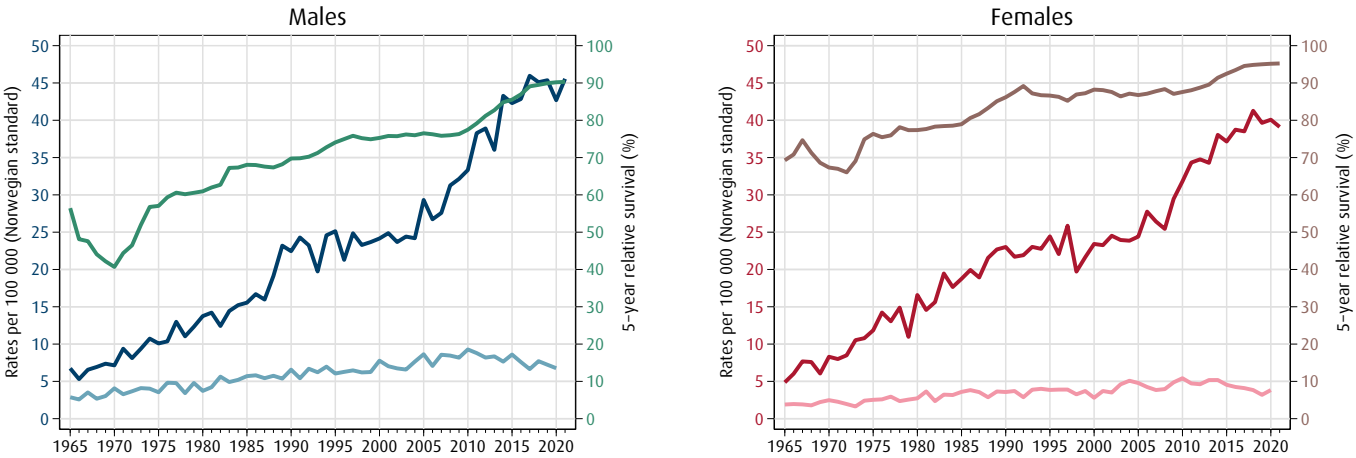


Figure 9.1–L: Kidney (excl. renal pelvis) (ICD-10 C64)

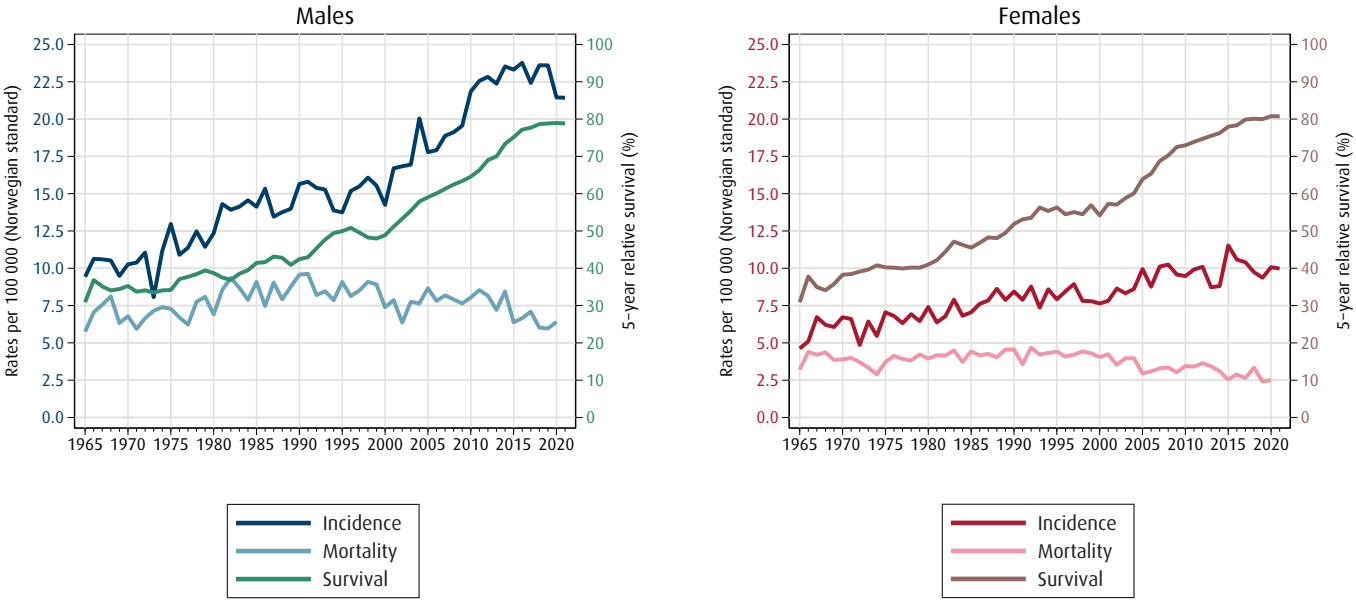


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–M: Breast (ICD-10 C50)

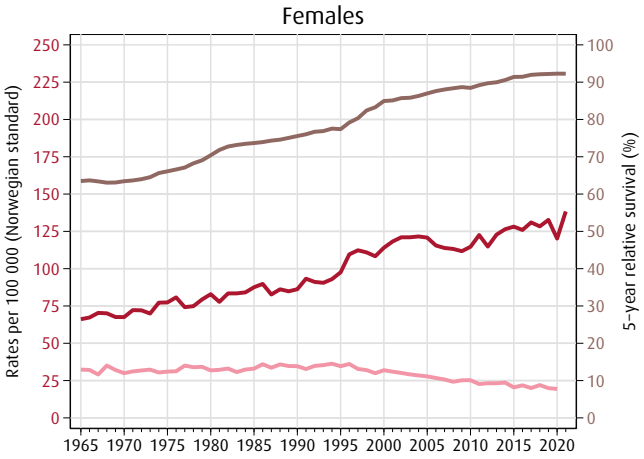


Figure 9.1–N: Cervix uteri (ICD-10 C53)

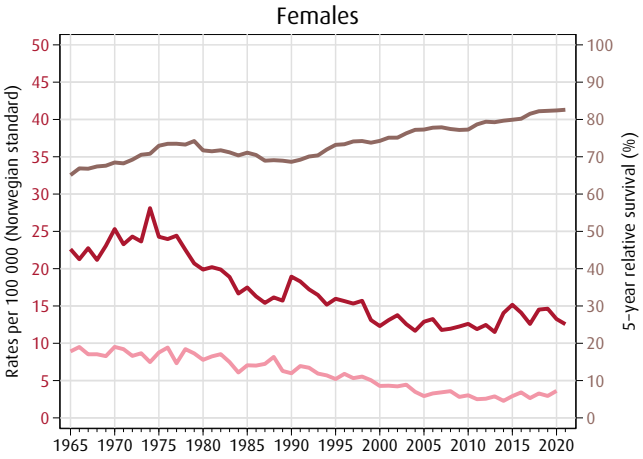


Figure 9.1–O: Prostate (ICD-10 C61)

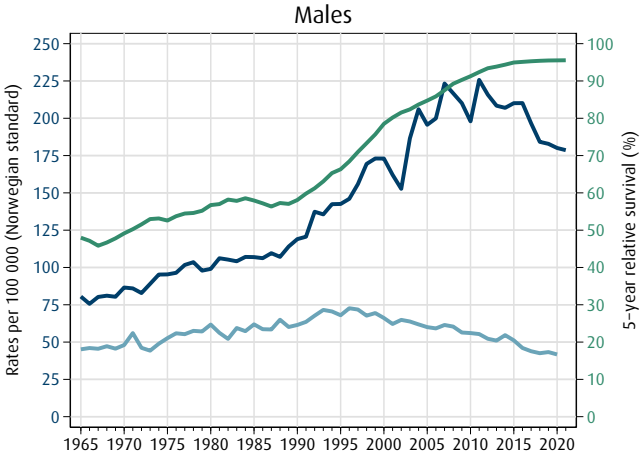


Figure 9.1–P: Corpus uteri (ICD-10 C54)

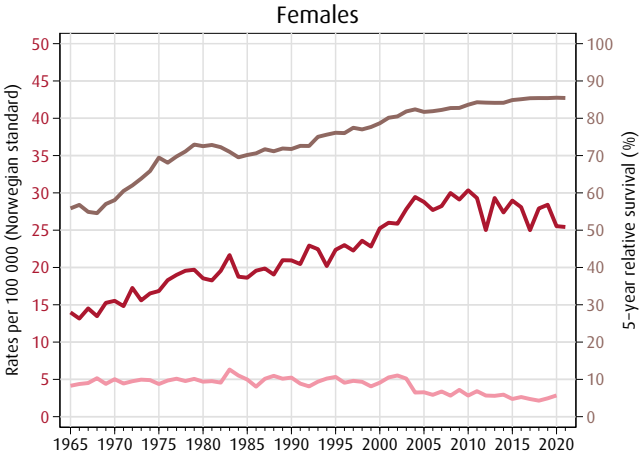


Figure 9.1–Q: Testis (ICD-10 C62)

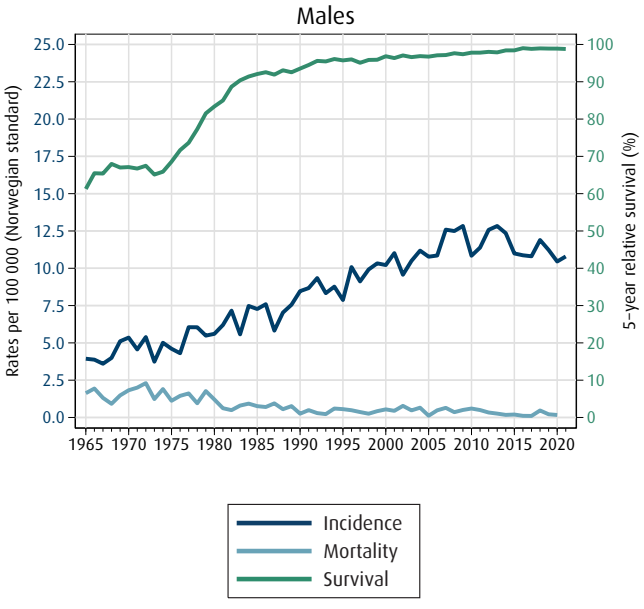


Figure 9.1–R: Ovary etc. (ICD-10 C56, C57.0–4, C48.2)

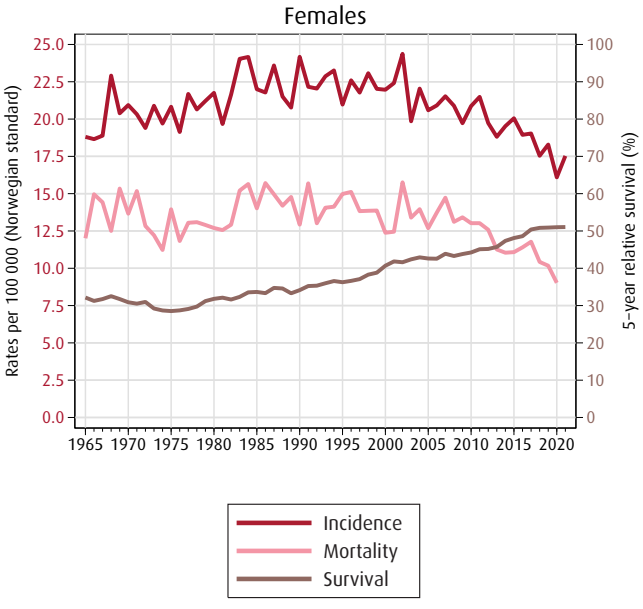


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–S: Urinary tract (ICD-10 C65–68)

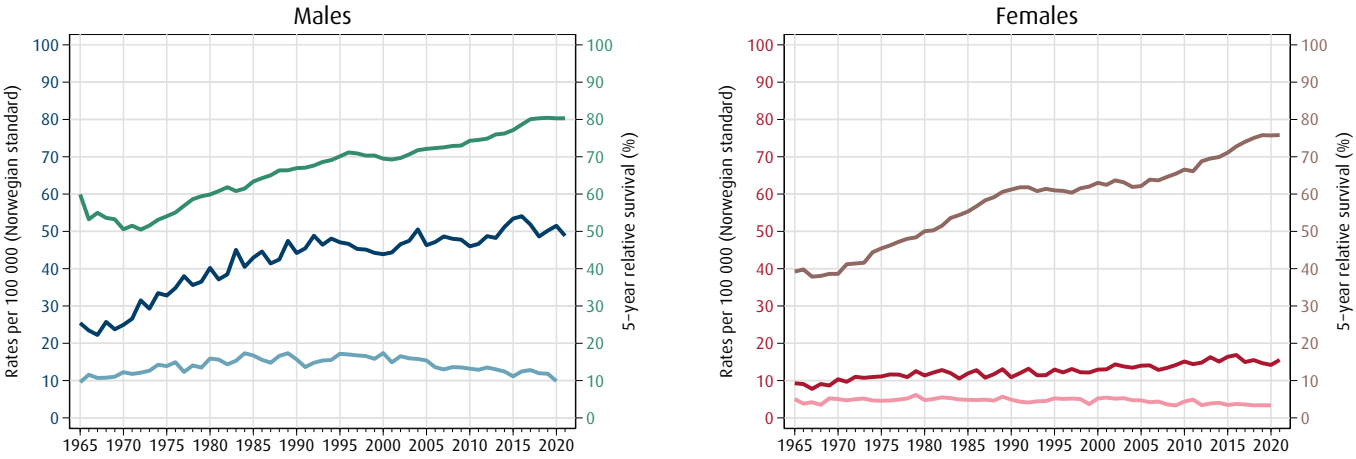


Figure 9.1–T: Central nervous system (ICD-10 C70–72)

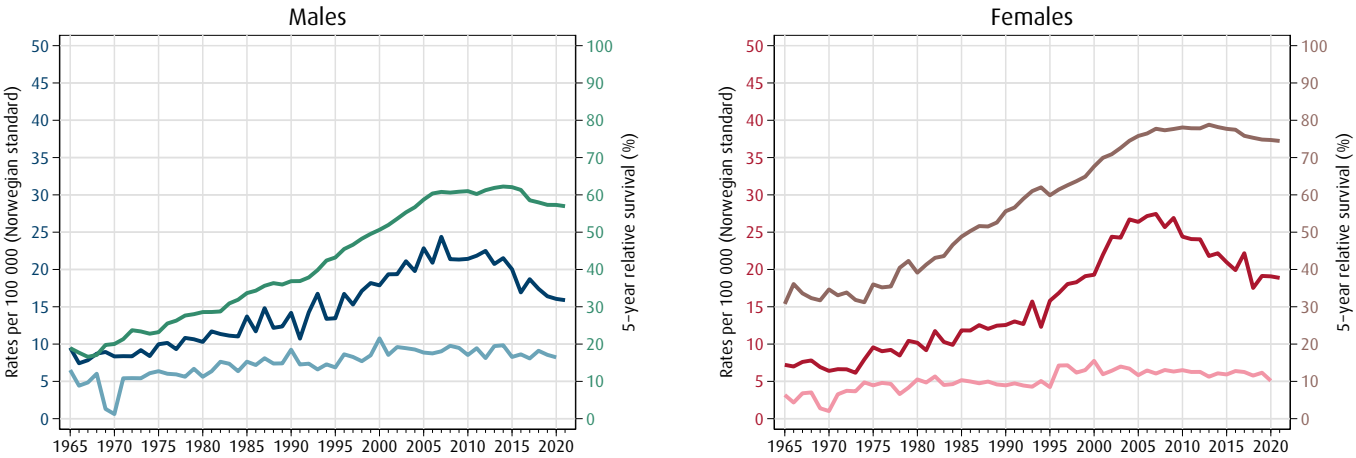


Figure 9.1–U: Thyroid gland (ICD-10 C73)

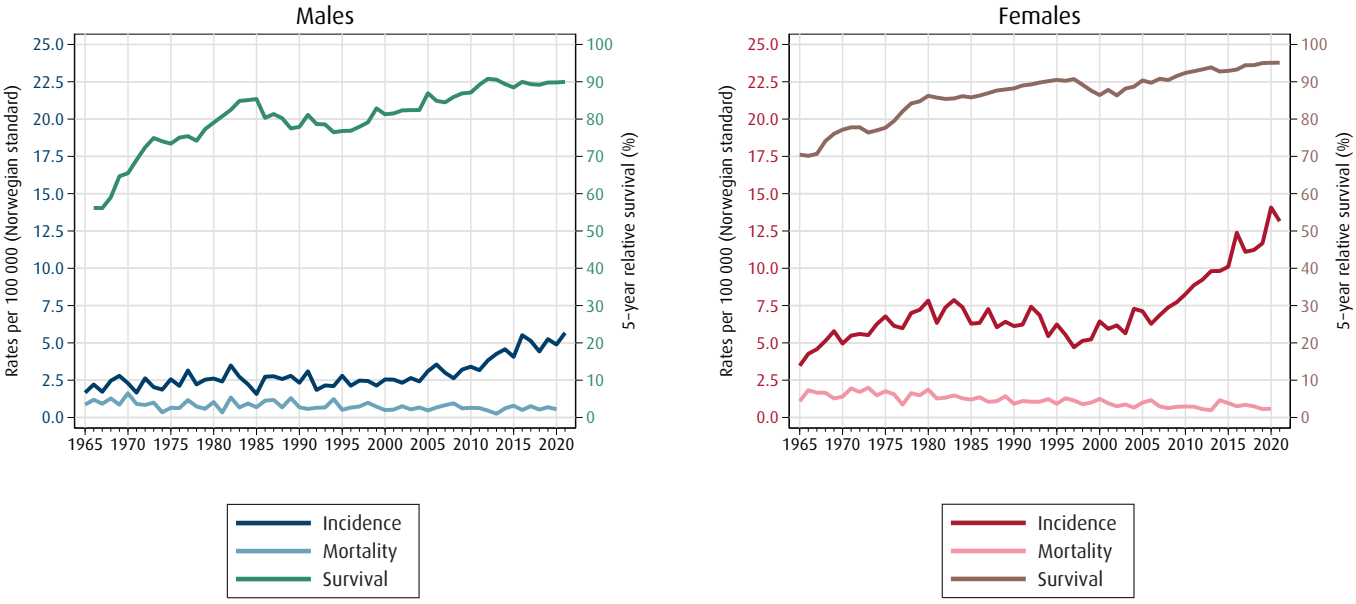


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–V: Hodgkin lymphoma (ICD-10 C81)

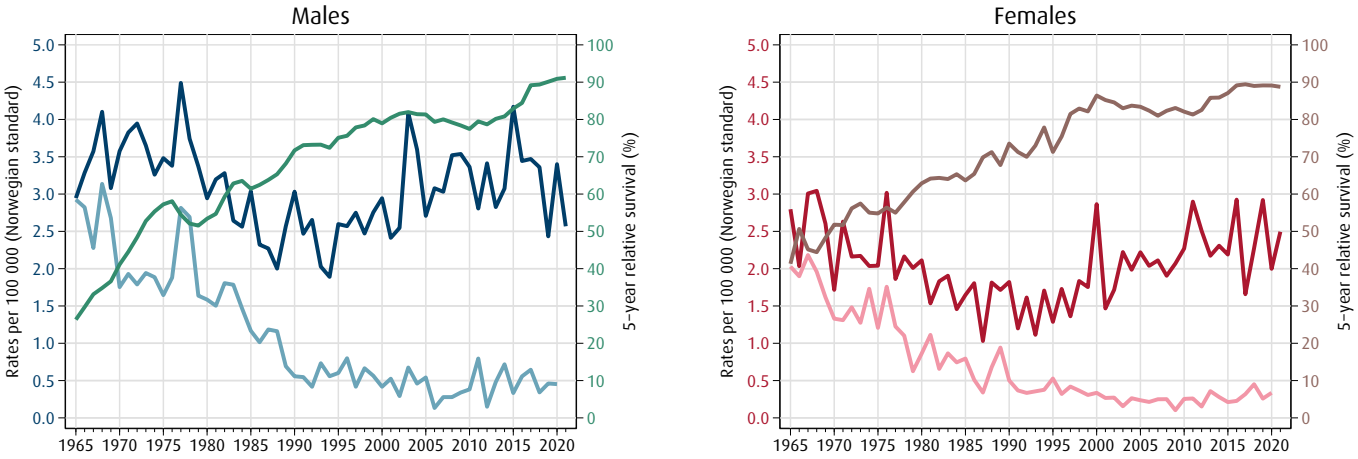


Figure 9.1–W: Non-Hodgkin lymphoma (ICD-10 C82–86, C96)

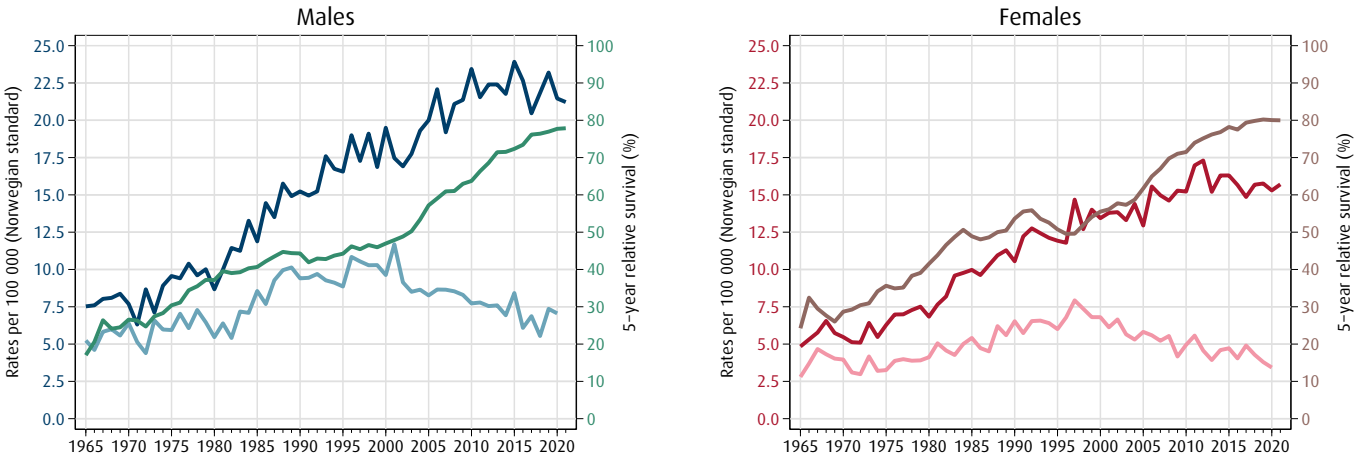
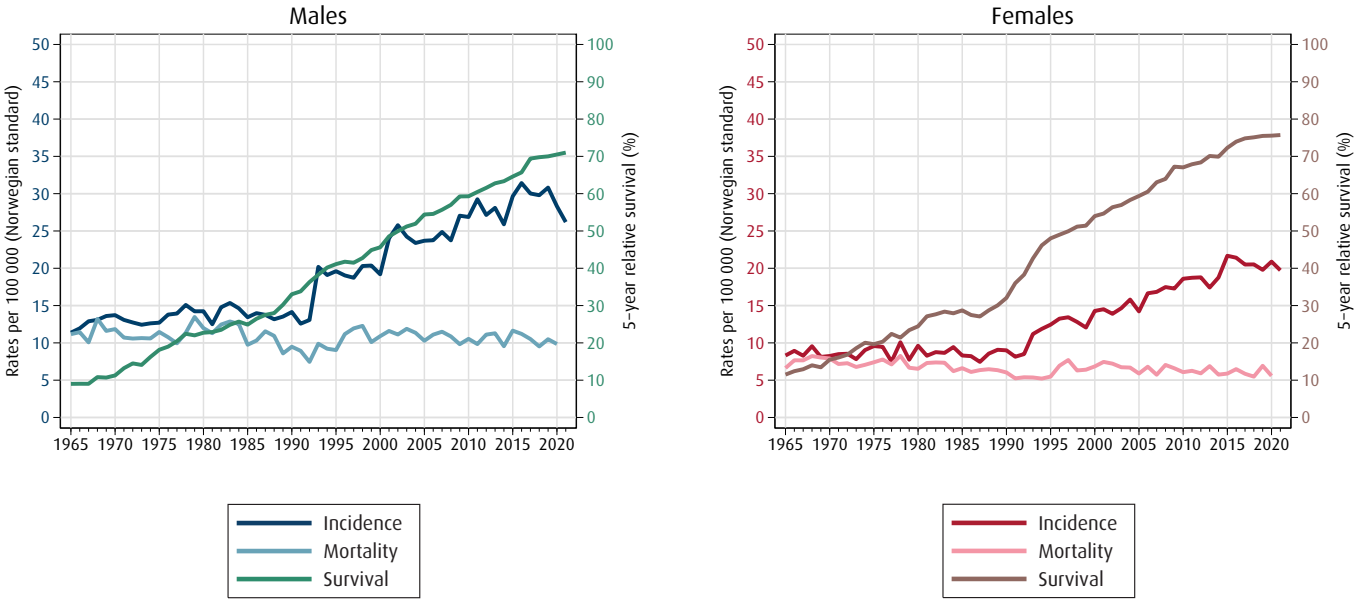


Figure 9.1–X: Leukaemia (ICD-10 C91–95)



Bibliography

[1] Last JM, Spasoff RA, Harris SS and Thuriaux MC. *A dictionary of epidemiology*. International Epidemiological Association, Inc., 2001 (cit. on p. 1).

[2] Statistics Norway. *Population. Table 05803: Population 1 January and population changes during the calendar year 1735–2021. Updated: 19. August 2021. Accessed: 23. August 2021*. URL: https://www.ssb.no/en/statbank/table/05803/ (cit. on p. 4).

[3] Statistics Norway. *National population projections. Table 12881: Population projections 1 January, by sex, age, immigration category and country background, in 15 alternatives 2020–2100. Updated: 3. June 2020. Accessed: 2. May 2022*. URL: https://www.ssb.no/en/statbank/table/12881 (cit. on p. 4).

[4] Statistics Norway. *Immigrants and Norwegian-born to immigrant parents. Table 1: Population by immigrant category and country background. Updated: 7. March 2022. Accessed: 2. May 2022*. URL: https://www.ssb.no/en/befolkning/innvandrere/statistikk/innvandrere-og-norskfodte-med-innvandrerforeldre (cit. on p. 4).

[5] Larsen IK, Småstuen M, Johannesen TB, Langmark F, Parkin DM, Bray F and Møller B. Data quality at the Cancer Registry of Norway: an overview of comparability, completeness, validity and timeliness. *European journal of cancer* 45.7 (2009), pp. 1218–1231 (cit. on pp. 5, 12).

[6] Møller B, Jerm MB, Larønningen S, Johannesen TB, Seglem AH, Larsen IK and Myklebust TÅ. The validity of cancer information on death certificates in Norway and the impact of death certificate initiated cases on cancer incidence and survival. *Cancer Epidemiol.* 75.Dec (2021), p. 102023 (cit. on p. 8).

[7] Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin L, Parkin DM, Whelan S et al. *International classification of diseases for oncology.* Ed. 3, 1st revision. World Health Organization, Geneva, 2013 (cit. on p. 11).

[8] Bray F and Parkin DM. Evaluation of data quality in the cancer registry: principles and methods. Part I: comparability, validity and timeliness. *European journal of cancer* 45.5 (2009), pp. 747–755 (cit. on p. 12).

[9] Parkin DM and Bray F. Evaluation of data quality in the cancer registry: principles and methods Part II. Completeness. *European journal of cancer* 45.5 (2009), pp. 756–764 (cit. on pp. 12, 17).

[10] *Cancer in Norway 2020, Technical Supplement: Statistical Methods*. 2021. URL: https://www.kreftregisteret.no/globalassets/cancer-in-norway/2020/cin-2020supmeth.pdf (cit. on pp. 14, 18, 19).

[11] Segi M. Cancer mortality for selected sites in 24 countries (1950–1957). *Sendai: Tohoku University School of Medicine* (1960) (cit. on p. 16).

[12] Doll R, Payne P and Waterhouse J. *Table 38. In: Cancer incidence in five continents: a technical report. International Union against Cancer*. Springer, Berlin, 1966, pp. 217–9 (cit. on p. 16).

[13] Day NE. Cancer Incidence in Five Continents. Cumulative rate and cumulative risk. *IARC scientific publications* 120 (1992), p. 862 (cit. on p. 17).

[14] Brenner H and Hakulinen T. Maximizing the benefits of model-based period analysis of cancer patient survival. *Cancer Epidemiology and Prevention Biomarkers* 16.8 (2007), pp. 1675–1681 (cit. on p. 18).

[15] Rosso S, De Angelis R, Ciccolallo L, Carrani E, Soerjomataram I, Grande E, Zigon G et al. Multiple tumours in survival estimates. *European Journal of Cancer* 45.6 (2009), pp. 1080–1094 (cit. on p. 18).

[16] Coviello E, Seppä K, Dickman PW and Pokhrel A. Estimating net survival using a life-table approach. *The Stata Journal, StataCorp LP* 15.1 (2015), pp. 173–185 (cit. on p. 18).

[17] Perme MP, Stare J and Estève J. On Estimation in Relative Survival. *Biometrics* 68.1 (2012), pp. 113–120 (cit. on p. 18).

[18] Brenner H, Arndt V, Gefeller O and Hakulinen T. An alternative approach to age adjustment of survival rates. 40.15 (2004), pp. 2317–2322 (cit. on p. 18).

[19] Rutherford MJ, Dickman PW, Coviello E and Lambert PC. Estimation of age-standardized net survival, even when age-specific data are sparse. *Cancer Epidemiology* 67 (2020), p. 101745 (cit. on p. 18).

[20] Hankey BF and Steinhorn SC. Long-term patient survival for some of the more frequently occurring cancers. *Cancer* 50.9 (1982), pp. 1904–1912 (cit. on p. 19).

[21] Janssen-Heijnen ML, Houterman S, Lemmens VE, Brenner H, Steyerberg EW and Coebergh JW. Prognosis for long-term survivors of cancer. *Annals of Oncology* 18.8 (2007), pp. 1408–1413 (cit. on pp. 19, 86).

[22] Gade FG. *Undersøkelser over kræftsygdommene i Norge, paa grundlag av den officielle mortalitetsstatistik 1902–1911 samt det av den norske komité for kræftforskning samlede materiale 1908–1912 [Investigations on cancer diseases in Norway, based on official mortality statistics 1902–1911 and material collected by the Norwegian Committee for cancer research 1908–1911]*. Dybwad, Kristiania (Oslo), 1916, pp. 1–102 (cit. on p. 27).
[23] Brenner H and Hakulinen T. Very-long-term survival rates of patients with cancer. *Journal of Clinical Oncology* 20.21 (2002), pp. 4405–4409 (cit. on p. 86).
[24] Lambert PC et al. Modeling of the cure fraction in survival studies. *Stata Journal* 7.3 (2007), p. 351 (cit. on p. 86).
[25] Boyle P. Relative value of incidence and mortality data in cancer research. In: *Cancer Mapping*. Springer, 1989, pp. 41–63 (cit. on p. 101).
[26] Coleman MP. Trends in breast cancer incidence, survival, and mortality. *Lancet (London, England)* 356.9229 (2000), pp. 590–1 (cit. on p. 101).
[27] Doll R and Peto R. The causes of cancer: quantitative estimates of avoidable risks of cancer in the United States today. *Journal of the National Cancer Institute* 66.6 (1981), pp. 1192–1308 (cit. on p. 101).
[28] Hakulinen T. Cancer survival corrected for heterogeneity in patient withdrawal. *Biometrics* (1982), pp. 933–942 (cit. on p. 101).
[29] Peto R, Boreham J, Clarke M, Davies C and Beral V. UK and USA breast cancer deaths down 25% in year 2000 at ages 20–69 years. *Lancet* 355.9217 (2000), p. 1822 (cit. on p. 101).
[30] Saxén EA. Trends: facts or fallacy. *Trends in cancer incidence. Causes and practical implications* (1982), pp. 5–16 (cit. on p. 101).
[31] Muir CS, Fraumeni Jr JF and Doll R. The interpretation of time trends. *Cancer surveys* 19 (1993), pp. 5–21 (cit. on p. 101).
[32] Percy C, Stanek 3rd E and Gloeckler L. Accuracy of cancer death certificates and its effect on cancer mortality statistics. *American Journal of Public Health* 71.3 (1981), pp. 242–250 (cit. on p. 101).
[33] Alfsen CG, Lyckander LG, Lindboe AW and Svaar H. Kvalitetssikring ved dødsfall i sykehus. *Tidsskr Nor Laegeforen* 130.5 (2010), p. 476 (cit. on p. 101).
[34] Bakken IJ, Ellingsen CL, Pedersen AG, Leistad L, Kinge JM, Ebbing M and Vollset SE. Comparison of data from the Cause of Death Registry and the Norwegian Patient Register. *Tidsskr Nor Laegeforen* 135.21 (2015), pp. 1949–53. ISSN: 0029-2001. DOI: 10.4045/tidsskr.14.0847 (cit. on p. 101).
[35] Vaccarella S, Franceschi S, Bray F, Wild CP, Plummer M and Maso LD. Worldwide Thyroid-Cancer Epidemic? The Increasing Impact of Overdiagnosis. *N Engl J Med* 375 (2016), pp. 614–617 (cit. on p. 103).
[36] Hjerkind KV, Larsen IK, Møller B and Ursin G. Kreftutvikling og befolkningssammensetning i Norge 1990–2016. *Tidsskriftet for den norske legeforening* Nov 22;138.19 (2018) (cit. on p. 103).

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