

Cancer in Norway 2017

Cancer incidence, mortality, survival
and prevalence in Norway



Cancer in Norway 2017

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General requests for cancer information, data or possible research collaboration are welcome, and should be sent to datautlevering@krefregisteret.no.

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Foreword

For the past few years, the annual increase in cancer cases in Norway has been relatively small. This is also true for 2017. Some increase from year to year is expected due to population growth and a slow increase in the number of elderly.

A challenge in interpreting trends from one year to the next is that when we publish the numbers already in October the following year, the final count is not complete. This is because one of our supplemental sources, the death certificates, are still not completely electronic, and thus the information is delayed. For a small proportion of cancer cases no pathology specimen can be obtained, and consequently we receive no pathology report. We do, however, routinely receive administrative data from the Norwegian Patient Registry or a clinical report from the physician who diagnosed and treated the patient. But in some cases we do not receive the latter, and for those cases we use the death certificate information to trace back and request the missing clinical reports. This death certificate delay usually results in a slight increase in our cancer counts after publication of Cancer in Norway, in particular when we publish the numbers as early as October. We therefore include the current updated counts for the previous years in our annual report. In describing trends, we compare rates over a longer (five-year) period.

Good news in this report are the longer time trends we see for lung cancer. For men, rates have been declining for some of years. The challenge has been the oldest age group, but we now see that men over 80 have had stable rates for about 7 years. Among women, the good news is that rates for women under 60 seem to be continuously declining. Even among 60–69 year olds, the rates seem to be flattening out. The only group that is still increasing is women above age 70. There are still a vast number of middle aged/older women in Norway with a heavy smoking history, and we therefore know that the number of lung cancer cases will remain substantial in the older groups for years to come. The stabilizing rates among the 60-year olds and continuous decline in younger women are, however, promising. Combined with very low smoking rates among young people, a further decrease of lung cancer rates is expected in the years to come.

A remaining concern is lung cancer rates among immigrants who come from countries with a high smoking prevalence and bring this habit with them. We are pleased to announce that our regulations were changed this year, so the Cancer Registry of Norway can now obtain information on country of birth. We plan to start reporting rates by country or region of birth next year.

Another concern is the increase in breast cancer rates in women above 70. We suspect this is caused by women having mammography examination at private clinics after the end of the organized screening program (which targets the age group 50–69). However, the Cancer Registry does not receive mammography reports from private clinics, and we therefore cannot be certain that this is the explanation.

Other good news in this report is the increasing survival, especially in advanced cancer stages for several cancers. Although survival remains low for many cancer types with distant metastases, we have seen substantial changes over time. Even for lung cancer, where survival remains very low for advanced cases, there are improvements.

To better understand why survival is improving, we would need information on all aspects of cancer treatment. Our eight national clinical registries collect such information. Sadly, we miss an important part: medical treatment provided in the hospitals. This is only sporadically reported to the Cancer Registry, and is not reported to the National Prescription Database either. Our regulations do allow us to have this information. Why do we not get it? Because there is no national in-

frastructure to extract this information from the hospital systems. Let us build it!

When survival improves, the number of individuals living with cancer increases. In 2017, roughly 273 000 men and women, more than 5% of our population, had a cancer diagnosis. Many of these individuals suffer from side effects of therapy or develop late effects many years after completing the treatment. Such effects can substantially reduce quality of life. Our regulations do not enable us to systematically obtain information directly from patients, and we therefore can only assess the prevalence of such complaints in separate research studies. We currently run or plan research projects on this issue for three major cancer types, prostate, breast and colorectal cancer. We hope our regulations will be altered in the future to enable us to obtain this information systematically and routinely.

Thank you to all physicians and staff in the clinics across Norway who have reported cancer diagnosis and treatment details to the registry. Thank you also to our coders and supporting staff for meticulous coding of each cancer. Finally thank you to the statisticians and editorial team for providing the tables and writing this report.

Oslo, October 2018

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 by age strata, often with five-year intervals.

Age-standardisation A procedure for adjusting rates, e.g. incidence rates, designed to minimize the effects of differences in age composition when comparing rates for different populations. Referred to as age-standardised (or age-adjusted) rates. For this report, we use 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 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 may be directly or indirectly attributable to the disease under investigation. A key advantage is that it does not require cause-of-death information.

Conditional relative survival The probability of surviving an additional number of years given that the person has already survived X years. As the 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 thereon, 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 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. Cancer trends should be interpreted by examining rates over the past several years. This is because there is some random variation in the incidence rates from one year to another.

Further, the numbers for 2017 might be slightly under-reported due to delayed notification of cancer cases. The present report is published before the complete numbers for 2017 was received from the Cause of Death Registry. Thus, the possible under-reporting might be slightly higher for cancers with the highest percentage of cases registered based on a death certificate only (DCO).

The report is available online at:
<https://www.kreftregisteret.no/>

Incidence

A total of 33 564 new cancer cases were reported in 2017: 54.0% were among men and 46.0% were among women. Cancer in prostate, lung, colon and bladder (including the urinary tract) were the most common cancer sites in men, whereas breast, colon, lung cancer and melanoma of the skin were the most common cancer sites in women. The relative impact of cancers, however, varies considerably by age. Among children (0–14 years of age), leukaemia and cancer in the central nervous system are the most common. These represents more than 50% of all cancer cases in boys and girls. In men aged 15–49 years, testicular cancer is the most common cancer, whereas prostate cancer is the most common cancer in middle aged and older men (50+). Among young women (15–24 years of age), cancer in the central nervous system and melanoma of the skin are the most common cancer types, whereas breast cancer is the most common cancer type among women aged 25–69 years old. Colon cancer is slightly more common than breast cancer among the oldest women (70+).

The incidence rate for all sites combined has increased by 0.9% in men and 5.5% in women when comparing the last five-year period (2013–2017) with the previous one (2008–2012).

For the most common cancers in men, the largest incidence increase in rates was observed for melanoma of the skin, non-melanoma skin cancer and urinary tract. On the positive side, the rates for lung and prostate cancer were reduced.

For the most common cancers in women, the strongest increase in incidence rate occurred for melanoma of the skin, non-melanoma skin cancer, urinary tract, breast and lung cancer. A reduction in rates was seen for cancer in ovary and corpus uteri.

A notably decrease is observed for cancer of the central nervous system in both men and women, but this might be due to some under-reporting.

The probability of being diagnosed with a cancer before the age of 75 is 36% in men, and 30% in women.

Prevalence

At the end of 2017 a total of 273 741 Norwegians were alive after having had at least one cancer diagnosis at an earlier point in time.

Mortality

There were 10 994 deaths from cancer in Norway in 2016¹. Cancer of the lung accounts for 21% of the cancer mortality, followed by colorectal cancer (15%), prostate cancer (9%) and female breast cancer (6%). Together these cancer sites account for 50% of the cancer mortality.

¹The mortality data from the Cause of Death Registry for 2017 was not complete when this report was published, and therefore the figures reports for 2016.

Survival

There has been a slight increase in the five-year relative survival for most cancers when comparing the five-year period (2013–2017) with the previous one:

Prostate cancer: Increased from 92.8% to 93.9%.

Breast cancer: Increased from 89.1% to 90.4%.

Lung cancer (M): Increased from 13.8% to 17.8%.

Lung cancer (F): Increased from 19.5% to 24.4%.

Colon cancer (M): Increased from 60.0% to 64.1%.

Colon cancer (F): Increased from 63.8% to 67.9%.

Rectum cancer (M): Increased from 66.5% to 69.4%.

Rectum cancer (F): Increased from 67.3% to 68.9%.

Table 2.1: Summary of cancer statistics for selected cancers

ICD-10	Site	Sex	Incidence cases, 2017 ¹	Incidence rate, 2013–17 ²	Change in rate (%) from 2008–12 to 2013–17 ³	Mortality rate, 2016 ⁴	Five-year relative survival (%)	
							2008–12	2013–17
C00–96	All sites	M	18 121	731.4	0.9	251.2	70.0	73.2
		F	15 443	549.9	5.5	176.3	69.6	72.6
C18	Colon	M	1 458	59.4	2.3	23.9	60.0	64.1
		F	1 549	53.8	6.6	20.9	63.8	67.9
C19–20	Rectum, rectosigmoid	M	795	33.0	-1.1	9.9	66.5	69.4
		F	530	20.1	1.1	6.1	67.3	68.9
C33–34	Lung, trachea	M	1 705	68.3	-6.5	49.3	13.8	17.8
		F	1 509	53.1	9.2	36.2	19.5	24.4
C43	Melanoma of the skin	M	1 167	41.9	20.3	7.5	80.7	85.0
		F	1 055	37.2	19.2	4.3	88.9	90.5
C44	Skin, non-melanoma	M	1 263	48.8	15.3	...	...	...
		F	1 043	31.0	19.1	...	...	...
C50	Breast	F	3 589	127.1	9.7	21.7	89.1	90.4
C53	Cervix uteri	F	316	13.3	8.5	3.4	79.8	81.4
C54	Corpus uteri	F	702	27.6	-3.7	2.6	83.1	84.0
C56, C57.0–4, C48.1–2	Ovary etc.	F	520	19.0	-5.3	11.4	44.6	48.6
C61	Prostate	M	4 983	204.3	-4.1	45.7	92.8	93.9
C62	Testis	M	289	11.5	-3.9	0.1	98.2	98.8
C65–68	Urinary tract	M	1 302	52.2	10.0	12.5	73.9	78.2
		F	443	16.1	11.7	3.7	68.3	70.4
C70–72	Central nervous system	M	460	19.1	-11.9	8.6	61.6	62.0
		F	566	20.7	-16.9	6.3	76.8	75.9
C73	Thyroid gland	M	131	4.7	43.4	0.5	88.2	88.6
		F	288	10.6	27.3	0.8	93.0	93.4
C82–86, C96	Non-Hodgkin lymphoma	M	519	22.8	-0.6	6.1	69.4	73.3
		F	408	15.8	-3.8	4.0	73.8	76.5
C91–95	Leukaemia	M	654	26.7	2.4	11.2	61.4	62.7
		F	516	18.5	4.6	6.5	65.9	69.2

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 the previous to the current five-year period.

⁴ Age-standardised (Norwegian std.) mortality rates per 100 000 person-years. The mortality rates are presented for 2016 as complete numbers for 2017 is not yet received from the Cause of Death Registry.

... Not estimated in this report.

Chapter 3 Data and data sources

3.1 The population of Norway

By January 1st 2018 the total number of inhabitants in Norway was 5 295 619 (Source: Statistics Norway www.ssb.no/befolkning). Table 3.1 shows the age structure by sex for the Norwegian mid-year population in 2017. When the first census in Norway took place in 1769, the number of inhabitants was 739 180. The population has increased remarkably since then, and the growth is expected to continue the next few decades. The total number of inhabitants in Norway has increased by 57% from 1953 to 2017, largely because of rising life expectancy and, more recently, due to increases in net immigration. By 2040, the size of the population is expected to reach 6 million, and by 2060 it is estimated that it will reach 6.5 million¹ [2].

The elderly will represent an increasing proportion of the population of Norway over the next decades. Recent updates from Statistics Norway estimate that the pro-

portion of persons 70 years or older will increase from 12%, in 2018, to 18% in 2040^[2].

The immigrant population

The immigrant population is heterogeneous with respect to length of stay, country of birth and reason for immigration. The immigrant population (first-generation) constitutes of persons from 222 countries and comprises 14.1% of the total population. An additional 3.2% of the Norwegian population are second-generation immigrants (born in Norway with two foreign born parents). Today, immigrants from Poland are the largest immigrant group with about 98 200 persons. Immigrants from Lithuania (38 400) and Sweden (35 800) are the second and third largest immigrant groups, when classifying immigrants by country of birth. In total, 44% of the first-generation immigrants are member countries of the EU/EEA, 8% are from other European countries, 30% from Asia (incl. Turkey), 13% from Africa, and 4% from America^[3].

Table 3.1: Norwegian mid-year population 2017 by five-year age group and sex

Age group	Males	Females	Total
0-4	154 887	146 649	301 536
5-9	165 973	157 269	323 242
10-14	160 377	153 168	313 545
15-19	167 068	156 422	323 490
20-24	177 269	165 567	342 836
25-29	188 316	181 441	369 757
30-34	183 162	173 475	356 637
35-39	179 196	168 372	347 568
40-44	184 550	174 152	358 702
45-49	194 751	184 946	379 697
50-54	182 427	172 606	355 033
55-59	163 486	157 121	320 607
60-64	149 839	148 859	298 698
65-69	136 403	136 396	272 799
70-74	116 674	122 392	239 066
75-79	70 171	81 724	151 895
80-84	44 773	60 402	105 175
85+	39 432	77 259	116 691

¹ Considered the scenario of medium national growth

3.2 The Cancer Registry of Norway

The Cancer Registry of Norway (CRN) has, since 1952, systematically collected notifications on cancer occurrence for the Norwegian population. The registration is considered to be close to complete from 1953, and a comprehensive study on data quality estimates the completeness to be 98.8% for the registration period 2001–2005^[4]. The reporting of neoplasms has been mandatory since the implementation of a directive from the Ministry of Health and Social Affairs in January 1952. The Regulations for the collection and processing of data in the CRN (CRN Regulations) came into force in 2002.

Main objectives

The main objectives of the Cancer Registry of Norway 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.

Data items registered

The following are mandatory to report to the CRN:

- All malignant neoplasms and precancerous disorders.

- All benign tumours of the central nervous system and meninges.

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 mortality sources. As of October 8th 2018, the incidence registry contained information registered since 1953 on 1 930 758 cancer cases (including premalignant and some benign conditions) in 1 535 912 persons. The incidence registry is updated continuously with information on both new cases and cases diagnosed previous years. A total of 4 957 531 notifications have been registered since 1969 (single notifications were not registered earlier).

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 base for scientific studies concerning prognostic factors and treatment outcomes, as well as, for evaluation of the quality of cancer care.

Several clinical registries are now established, and the ongoing and expanding activities of these clinical registries are a major focus for CRN. Each clinical registry has a reference group — a panel 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 and registration activities. Table 3.2 shows the status of the clinical registries as of October 2018.

Table 3.2: Status of the clinical registries, October 2018

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
Malignant melanoma	Yes	Yes	Yes	Yes	2013
Oesophagus and stomach cancer	Yes	Yes	Yes	Yes	***
Sarcoma	Yes	No	Yes	No	***
Central nervous system	Yes	No	No	No	***
Urinary tract	Yes	No	Yes	No	***
Hematological cancer	Yes	No	No	No	***
Pancreatic cancer	Yes	No	No	No	***

* Either by having a separate clinical report form and/or by having a database with extended information beyond the incidence registry.

** Established for ovarian cancer, will be extended to include all gynecological cancers.

*** It has been applied for funding.

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 Norwegian Patient Registry (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.

Clinical and pathological notifications

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. Even though the amount of electronical pathology reports have increased over the past two years, more than half of the pathology departments still send paper copies. A major focus for the future is to receive electronical and structured pathology reports to the CRN.

Death certificates

The CRN receives monthly updates on patients' vital status from the National Population Registry. In addition, 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.

The Norwegian Patient Registry

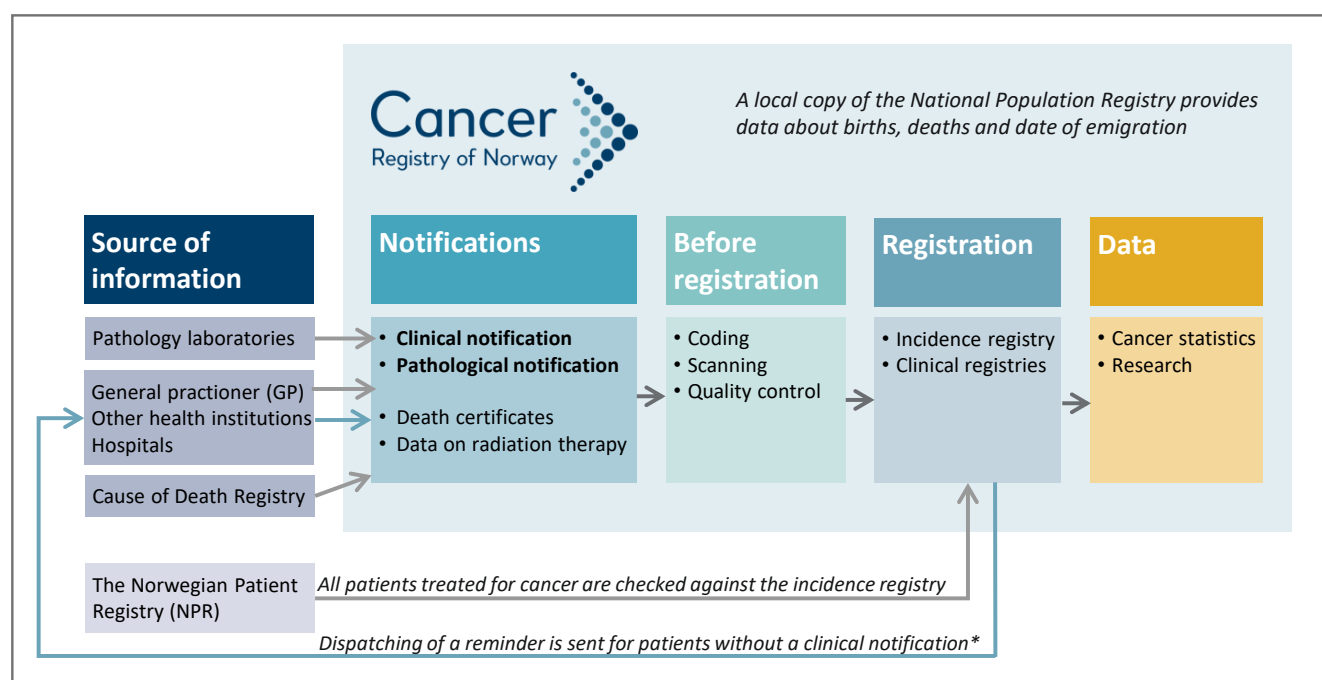
Since 2002, the CRN has received data from the Patient Administrative Data System (PAS) used in all Norwegian hospitals. Information was first sent directly from the hospitals, and from 2010 it has been provided by the NPR. The data contain information regarding patients who have been treated for premalignant 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).

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. The procedure for cancer registration and the dispatching of reminders are illustrated in Figure 3.1.

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



*Dispatching of reminders for clinical notifications are sent for cases that are only notified from the NPR, pathology laboratories, Cause of death registry or radiation therapy data.

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 on October 8th 2018. The tables and figures in general represent either the latest year of complete incidence (2017) or the latest five-year period (2013–2017). 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 topo-

graphy and morphology. The main cancer types are tabulated according to their ICD-10 categories.

Table 3.3 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 3.3. 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 3.3: Description of ICD-10 codes

ICD-10	Site	Comments
C00–96	All sites	Includes the following D-diagnoses: D32–33, D35.2–35.4, D42–43, D44.3–44.5 and D45–47. Excludes all basal cell carcinomas
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 (C48.1–2) are excluded, as these are included in ovary etc. (C56, C57.0–4, C48.1–2)
C50	Breast	Excludes Pagets disease
C56, C57.0–4, C48.1–2	Ovary etc.	Excludes borderline tumours. Includes the following sites: Neoplasms in peritoneum (C48.1–2), fallopian tube (C57.0), broad ligament (C57.1), round ligament (C57.2), parametrium (C57.3) and uterine adnexa, unspecified (C57.4)
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 (D35.2–35.4, D44.3–44.5)
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

In general, 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). Multifocal tumours are counted only once. This is also the case for the systemic cancers like lymphomas, leukaemias, kaposi's sarcomas and mesotheliomas.

The rules of multiple primary neoplasms states that only one tumour is recognized as arising in an organ or pair of organs or tissue. This means that for 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 many years later in the same organ will thus 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). The recommendations for counting multiple primary neoplasms were outlined by the IARC/WHO/ENCR/IACR Working group in 2004, available at:

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

The rules are followed with the following exceptions:

For metachronous cases within the same histological group, i.e. cancer cases not considered to be histological different, 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 that was registered first is reported. This differs from the IARC rules where the numerically highest ICD-O morphology code is included, even if it occurs at a later point of time or if it has a less severe metastasis status at the same point of time. Non-specific groups are considered as separate morphology groups. We thus might report a slightly higher number of cases than if the IARC rules had been followed strictly (as described in Table 25, page 26, World health Organization International Classification of Diseases for

Oncology, third edition, first revision, 2013)^[5]. Furthermore, we do consider the groups of topographies as one organ according to Table 24, page 25^[5], but in case of synchronous cancers we do not create a new topography code as described in Table 24^[5].

Extent of disease

In the present report, we have classified stage as follows:

Localised stage: All cases with a verified localised stage.

Regional stage: All cases with a clinical or pathological verified regional stage.

Distant stage: All cases with a clinical or pathological verified distant stage.

Unknown: All cases reported with unknown stage, or cases with insufficient information to set the stage.

For some cases, the Cancer Registry of Norway 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, then 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.

3.5 Data quality

A comprehensive assessment of the data quality in the CRN was conducted in 2007^[4]. Larsen & al. reported that the coding and classification systems in general follow 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^[6]. Methods for the evaluation of registry completeness were also assessed the same year^[7].

Two indicators of accuracy are shown in Table 3.4, namely the percentage of cases morphologically verified (MV%), and the percentage of death certificate only registrations (DCO%).

3.6 Completeness and timeliness

Table 3.5 shows the number of cancer cases diagnosed in 2016 as extracted on October 16th 2017 (for CIN 2016), and on October 8th 2018².

Of note is:

- The number of cancer cases diagnosed in 2016 reported and appearing in this issue (CIN 2017) are 1123 (3.4%) more than those reported in the previous Cancer in Norway (CIN 2016). A large proportion of the discrepancy is probably explained by the fact that CIN 2016 was published before we had received the complete numbers from the Cause of Death Registry, and it might especially affect cancers that have high mortality rates and/or have a high percentage of cases registered based on a death certificate only (DCO-cases) such as liver, pancreas, and lung cancers (see Table 3.4).
- During 2018 we have also received previously unreported CNS cases (C70–72) from the Norwegian Radiumhospital, and this might explain the differences of 10.8% for this site.
- For women, unspecified cancers of peritoneum (C48.2) is in the current issue included in the category ovary etc. (C56, C57.0–4, C48.2). This results in a notably decrease of cases with cancer in soft tissues etc. (C48–49) (-17.4%), and an increase of cases with ovarian cancer (6.6%).

²Data for lung cancer was extracted on October 5th 2018

Table 3.4: Percentage distribution of morphologically verified (MV) and death certificate only (DCO) cases by primary site, 2013–2017

ICD-10	Site	Cases	MV (%)	DCO (%)
C00–96	All sites	164 491	92.8	1.5
C00–14	Mouth, pharynx	3 066	99.0	0.4
C00	Lip	593	100.0	0.0
C01–02	Tongue	717	99.7	0.1
C03–06	Mouth, other	517	98.5	0.4
C07–08	Salivary glands	335	98.2	0.3
C09–14	Pharynx	904	98.3	0.8
C15–26	Digestive organs	33 659	90.3	1.9
C15	Oesophagus	1 428	94.7	1.1
C16	Stomach	2 354	95.2	1.6
C17	Small intestine	894	94.7	1.8
C18	Colon	14 736	94.7	1.5
C19–20	Rectum, rectosigmoid	6 834	97.8	0.3
C21	Anus	463	93.1	0.6
C22	Liver	1 364	67.3	4.1
C23–24	Gallbladder, bile ducts	849	77.0	5.3
C25	Pancreas	3 999	67.9	3.4
C26	Other digestive organs	738	82.5	13.3
C30–34, C38	Respiratory organs	16 467	87.0	3.1
C30–31	Nose, sinuses	215	98.6	0.9
C32	Larynx, epiglottis	560	97.9	0.5
C33–34	Lung, trachea	15 609	86.5	3.2
C38	Heart, mediastinum and pleura	83	68.7	13.3
C40–41	Bone	275	95.6	1.8
C43	Melanoma of the skin	10 175	99.8	0.1
C44	Skin, non-melanoma	10 004	99.7	0.1
C45	Mesothelioma	400	94.8	0.3
C47	Autonomic nervous system	53	96.2	1.9
C48–49	Soft tissues etc.	597	97.3	0.8
C50	Breast	17 079	99.3	0.4
C51–58	Female genital organs	8 722	97.5	0.9
C51–52, C57.7–9	Other female genital	600	95.2	3.0
C53	Cervix uteri	1 717	99.3	0.3
C54	Corpus uteri	3 772	99.2	0.3
C55	Uterus, other	49	69.4	26.5
C56, C57.0–4, C48.1–2	Ovary etc.	2 573	95.1	1.1
C58	Placenta	11	81.8	0.0
C60–63	Male genital organs	27 081	96.1	1.0
C61	Prostate	25 237	95.8	1.1
C62	Testis	1 527	99.8	0.0
C60, C63	Other male genital	317	98.7	0.9
C64–68	Urinary organs	12 678	96.3	1.0
C64	Kidney (excl. renal pelvis)	4 243	93.1	1.8
C65–68	Urinary tract	8 435	98.0	0.6
C69	Eye	407	57.7	0.0
C70–72	Central nervous system	5 173	67.8	2.3
C73	Thyroid gland	1 973	99.0	0.6
C37, C74–75	Other endocrine glands	1 048	54.2	1.3
C39, C76, C80	Other or unspecified	1 566	56.4	26.2
C81–96	Lymphoid/haematopoietic tissue	14 068	90.5	1.3
C81	Hodgkin lymphoma	746	99.7	0.1
C82–86, C96	Non-Hodgkin lymphoma	4 994	97.4	0.7
C88	Immunoproliferative disease	328	96.0	0.9
C90	Multiple myeloma	2 184	89.8	1.3
C91–95	Leukaemia	5 816	83.4	2.0

Table 3.5: Registered cancer cases in Norway 2016, as obtained from the incidence registry October 16th 2017 and October 8th 2018

ICD-10	Site	Cases diagnosed 2016 as of			
		16.10.2017	8.10.2018	Difference	%
C00-96	All sites	32 827	33 956	1 129	3.4
C00-14	Mouth, pharynx	637	647	10	1.6
C00	Lip	111	117	6	5.4
C01-02	Tongue	160	159	-1	-0.6
C03-06	Mouth, other	107	107	0	0.0
C07-08	Salivary glands	72	72	0	0.0
C09-14	Pharynx	187	192	5	2.7
C15-26	Digestive organs	6 603	6 896	293	4.4
C15	Oesophagus	282	286	4	1.4
C16	Stomach	442	458	16	3.6
C17	Small intestine	180	190	10	5.6
C18	Colon	3 003	3 095	92	3.1
C19-20	Rectum, rectosigmoid	1 340	1 374	34	2.5
C21	Anus	102	115	13	12.7
C22	Liver	259	302	43	16.6
C23-24	Gallbladder, bile ducts	148	159	11	7.4
C25	Pancreas	713	777	64	9.0
C26	Other digestive organs	134	140	6	4.5
C30-34, C38	Respiratory organs	3 248	3 395	147	4.5
C30-31	Nose, sinuses	41	39	-2	-4.9
C32	Larynx, epiglottis	104	107	3	2.9
C33-34	Lung, trachea	3 080	3 226	146	4.7
C38	Heart, mediastinum and pleura	23	23	0	0.0
C40-41	Bone	58	59	1	1.7
C43	Melanoma of the skin	2 114	2 130	16	0.8
C44	Skin, non-melanoma	2 082	2 128	46	2.2
C45	Mesothelioma	75	75	0	0.0
C47	Autonomic nervous system	3	3	0	0.0
C48-49*	Soft tissues etc.	138	114	-24	-17.4
C50	Breast	3 402	3 417	15	0.4
C51-58	Female genital organs	1 746	1 815	69	4.0
C51-52, C57.7-9	Other female genital	124	125	1	0.8
C53	Cervix uteri	342	370	28	8.2
C54	Corpus uteri	774	786	12	1.6
C55	Uterus, other	15	10	-5	-33.3
C56, C57.0-4, C48.1-2*	Ovary etc.	488	520	32	6.6
C58	Placenta	3	4	1	33.3
C60-63	Male genital organs	5 488	5 632	144	2.6
C61	Prostate	5 118	5 256	138	2.7
C62	Testis	285	290	5	1.8
C60, C63	Other male genital	85	86	1	1.2
C64-68	Urinary organs	2 631	2 698	67	2.5
C64	Kidney (excl. renal pelvis)	872	897	25	2.9
C65-68	Urinary tract	1 759	1 801	42	2.4
C69	Eye	70	70	0	0.0
C70-72	Central nervous system	840	931	91	10.8
C73	Thyroid gland	444	465	21	4.7
C37, C74-75	Other endocrine glands	131	187	56	42.7
C39, C76, C80	Other or unspecified	302	331	29	9.6
C81-96	Lymphoid/haematopoietic tissue	2 815	2 963	148	5.3
C81	Hodgkin lymphoma	167	169	2	1.2
C82-86, C96	Non-Hodgkin lymphoma	1 016	1 046	30	3.0
C88	Immunoproliferative disease	42	54	12	28.6
C90	Multiple myeloma	429	452	23	5.4
C91-95	Leukaemia	1 161	1 242	81	7.0

* ICD-10 group C48.1-2 has been moved from "Soft tissues etc." to "Ovary etc." for females since Cancer in Norway 2016.

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. Age- and sex-specific incidence and mortality rates are the basis of epidemiological analysis of cancer frequency data.

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:

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

where w_i is a weight given a reference population.

The World Standard Population^[8;9] has been used as reference population in several previous report of Cancer in Norway. Since Cancer in Norway 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 2017 with the two different standards.

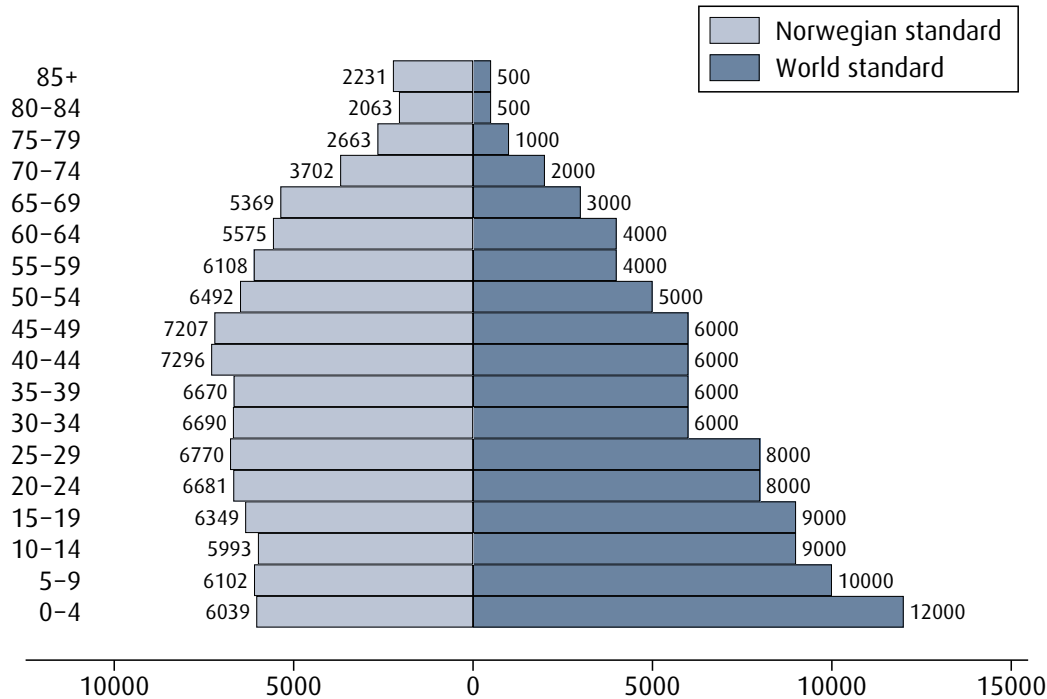
Of notice is that, in general, the ASRs with Norwegian standard gives twice as high rates as the ASRs with World standard. This is because the World standard has lower weights for the oldest age groups. Cancers that have

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://www.kreftregisteret.no/Registrene/Kreftstatistikk>

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^[10]. The age span over which the risk is accumulated must be specified, and in this report, the range 0–74 years is used and provides an approximation of the risk of developing cancer. If before the age of 75 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. Firstly, as a form of direct standardisation, the problem of choosing an arbitrary

reference population is eliminated. Secondly, 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:

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

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 disabil-

ities 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 2017 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 elapse between a cancer diagnosis and subsequent death, emigration or end of follow-up.

Follow-up data

To estimate long-term survival patterns and trends, vital statistics of patients diagnosed with cancer during 1965–2017 were obtained from the National Population Registry and Statistics Norway through December 31st 2017.

The 23 most common cancers, grouped according to their respective ICD-10 categories, were selected for analysis. About 3% of the cases were excluded as they were either registered as DCO cases (Death Certificate Only), 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 give rise to artificially elevated estimates of survival^[11]. 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; the effect of their inclusion has been shown to reduce five-year survival in Norway (for diagnoses 1995–2009) by less than a percentage point^[12].

Results should be interpreted with caution. Survival of prostate cancer and breast cancer in women has been affected by the impact of PSA testing and mammographic screening, respectively.

Relative survival (Net survival)

The most basic measure of survival is five-year survival, which represents the percentage of patients still alive 5 years after the date of diagnosis.

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, and is defined 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 $t(\text{year})$ 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 while the calculation of expected survival $S_E(t)$ is based on matching the major demographic characteristics of the patients to the general population. This requires the Norwegian population life tables from Statistics Norway by 1-year age group, sex, and 1-year calendar period.

Expected survival is calculated using the Ederer II method^[13], and the relative survival estimates are age-standardised applying the age distribution of the patients diagnosed during the most recent 5-year period. For patient cohorts with complete 5-year follow-up the cohort method is used.

With traditional cohort-based analyses, the most up-to-date estimates of long-term survival would have pertained to patients diagnosed in the distant past, with corresponding profiles of prognosis. Period-based analyses consider the survival experience in recent years, and the survival that would have been observed in a hypothetical cohort of patients who experienced the same interval-specific survival as the patients who were actually at risk during a specific calendar period^[14].

In this report, we have used a five-year period window (2013–2017) to estimate relative survival up to 15 years. Patients diagnosed in 2012–2017 contribute with (part of) their survival experience the first year of follow up, patients diagnosed in 2011–2016 contribute to the

second year of follow-up, patients diagnosed in 2010–2015 contribute to the third year of follow-up etc. Thus, the period approach consists of the pieces of survival experience observed in the period 2013–2017 for all patients who have been diagnosed up to 15 years ago.

The period-approach was also used to estimate five-year relative survival for the most recent period (2013–2017), where full five-year follow-up is not observed. When analyzing time trends in five-year, relative survival rolling five-year cohorts was used to obtain smoother curves. This means that estimates for e.g. 2013 is based on patients diagnosed in 2009–2013. Estimates were obtained using the cohort method when follow-up was complete. Estimates for the last year 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 (2013–2016) were obtained using a combination of the cohort and period approach, ensuring that only a minimum of survival experience from patients diagnosed in the past was used.

Estimates were not presented if there was < 50 patients diagnosed or < 5 patients still alive at start of any subsequent year of follow-up.

Detailed description of the methods are found in supplement:

<https://www.kreftregisteret.no/globalassets/cancer-in-norway/2017/cin-2017supmeth.pdf>

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^[15;16].

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

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

Chapter 5 Incidence

5.1 New cancer cases

In 2017, there were 33 564 new cases of cancer (in 32 740 individuals) recorded in Norway, of which 18 121 cases were diagnosed in men and 15 443 in women (Table 5.1). Cancers of the prostate, female breast, lung and colon were the most common cancers and accounted for 48% of the new cancer cases in 2017.

In men, prostate cancer continued to be the leading site for cancer incidence, with 4983 cases; followed by lung (1705 cases) and colon cancer (1458 cases). Breast cancer remained the most frequent cancer site in women, with 3589 new cases; followed by colon cancer (1549 cases) and lung cancer (1509 cases).

When this report was made (October 2018) we had not received complete mortality data for 2017 from the Cause of Death Registry. For some cancers, especially for those with poor survival, the incidence numbers for 2017 might thus be under-reported.

When comparing the rates in the most recent five-year period (2013–2017) with the previous one (2008–2012) (Tables 5.15 and 5.16) we observe that:

- There has been an overall increase in rates for all cancers combined by 0.9% for men and 5.5% for women.
- The rate of prostate cancer appears to decline slightly (-4.1%)
- The rate for breast cancer has increased by 9.7%.
- The rate of lung cancer for women is 9.2% higher in the last five-year period compared to the previous one. The rate of lung cancer in men has declined by 6.5%.
- The rates of colon cancer have increased by 2.3% in men, and 6.6% in women, while the rates for rectum cancer have been stable in both men and women.
- The rates of melanoma of the skin have increased by about 20% in both men and women.
- Among more uncommon cancer sites, there has been a notable increase in the rates for liver and thyroid cancer in both genders.

Table 5.1: Number and age-standardised rates of new cases by primary site and sex, 2017

ICD-10	Site	Cases			Age-standardised rates			
		Males	Females	Total	Norwegian std.		World std.	
					Males	Females	Males	Females
C00-96	All sites	18 121	15 443	33 564	712.2	543.0	364.8	311.3
C00-14	Mouth, pharynx	392	253	645	15.0	8.7	8.7	4.6
C00	Lip	63	57	120	2.5	1.9	1.2	0.8
C01-02	Tongue	112	49	161	4.2	1.7	2.5	0.9
C03-06	Mouth, other	50	53	103	1.9	1.8	1.0	0.9
C07-08	Salivary glands	29	40	69	1.1	1.4	0.7	0.9
C09-14	Pharynx	138	54	192	5.3	1.9	3.2	1.1
C15-26	Digestive organs	3 630	3 160	6 790	144.1	107.7	70.3	53.3
C15	Oesophagus	213	72	285	8.3	2.5	4.2	1.3
C16	Stomach	278	192	470	11.2	6.5	5.2	3.3
C17	Small intestine	114	102	216	4.5	3.6	2.4	1.9
C18	Colon	1 458	1 549	3 007	58.9	52.4	27.3	24.8
C19-20	Rectum, rectosigmoid	795	530	1 325	30.7	18.4	16.0	10.2
C21	Anus	35	53	88	1.3	1.9	0.8	1.0
C22	Liver	175	107	282	6.9	3.7	3.5	1.9
C23-24	Gallbladder, bile ducts	64	80	144	2.6	2.7	1.2	1.2
C25	Pancreas	422	386	808	16.8	13.1	8.2	6.3
C26	Other digestive organs	76	89	165	3.0	3.0	1.5	1.5
C30-34, C38	Respiratory organs	1 817	1 539	3 356	71.3	53.0	34.2	27.6
C30-31	Nose, sinuses	26	10	36	1.0	0.4	0.6	0.2
C32	Larynx, epiglottis	71	16	87	2.8	0.6	1.3	0.3
C33-34	Lung, trachea	1 705	1 509	3 214	66.9	52.0	31.9	27.0
C38	Heart, mediastinum and pleura	15	4	19	0.6	0.1	0.3	0.1
C40-41	Bone	29	29	58	1.1	1.1	0.8	1.0
C43	Melanoma of the skin	1 167	1 055	2 222	45.7	38.2	24.8	24.4
C44	Skin, non-melanoma	1 263	1 043	2 306	54.9	34.1	20.3	14.0
C45	Mesothelioma	73	14	87	2.9	0.5	1.2	0.3
C47	Autonomic nervous system	9	3	12	0.3	0.1	0.5	0.2
C48-49	Soft tissues etc.	72	44	116	2.7	1.6	1.9	1.2
C50	Breast	34	3 589	3 623	1.3	131.0	0.6	82.7
C51-58	Female genital organs		1 677	1 677		60.0		37.1
C51-52, C57.7-9	Other female genital		128	128		4.4		2.4
C53	Cervix uteri		316	316		12.0		9.7
C54	Corpus uteri		702	702		24.7		14.0
C55	Uterus, other		10	10		0.4		0.2
C56, C57.0-4, C48.1-2	Ovary etc.		520	520		18.5		10.8
C58	Placenta		1	1		0.0		0.0
C60-63	Male genital organs	5 337		5 337	204.2		109.2	
C61	Prostate	4 983		4 983	190.7		98.0	
C62	Testis	289		289	10.8		10.0	
C60, C63	Other male genital	65		65	2.7		1.2	
C64-68	Urinary organs	1 884	730	2 614	74.5	25.3	36.6	13.5
C64	Kidney (excl. renal pelvis)	582	287	869	22.2	10.2	12.8	6.1
C65-68	Urinary tract	1 302	443	1 745	52.4	15.1	23.8	7.4
C69	Eye	41	38	79	1.5	1.4	1.1	0.9
C70-72	Central nervous system	460	566	1 026	17.6	20.6	12.3	14.4
C73	Thyroid gland	131	288	419	4.9	10.8	3.4	8.2
C37, C74-75	Other endocrine glands	76	80	156	2.9	3.0	2.2	2.3
C39, C76, C80	Other or unspecified	128	152	280	5.4	4.9	2.2	2.0
C81-96	Lymphoid/haematopoietic tissue	1 578	1 183	2 761	61.8	40.9	34.6	23.6
C81	Hodgkin lymphoma	95	44	139	3.5	1.6	3.0	1.3
C82-86, C96	Non-Hodgkin lymphoma	519	408	927	20.3	14.1	11.1	7.7
C88	Immunoproliferative disease	36	30	66	1.4	1.0	0.7	0.4
C90	Multiple myeloma	274	185	459	10.9	6.3	5.3	3.2
C91-95	Leukaemia	654	516	1 170	25.8	17.9	14.6	11.0

5.2 Incidence by age

The vast majority of cancers in Norway, over 90% in men and 85% in women, are diagnosed among people aged 50 years or more (Figure 5.1). In men, 50% of all new cases occur in men 70 years old or more, while 42% of the cases are diagnosed in men aged 50 to 69 years. In women, 46% of all cases are diagnosed at age 70 years or older, and 40% are diagnosed in the age group 50 to 69 years. In the age group 25 to 49 years, a larger proportion of the cancers are diagnosed in women (13%) than men (7%). 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 69 years, and this has been quite stable over the last decades. However, there is some variation between the sites. Testis cancer has the lowest median age at diagnosis (36 years). Non-melanoma skin cancer, on the other hand, has the highest median age (79 years). Among the most common cancers, we

observe that breast and prostate have 4 and 5 years, respectively, lower median age at diagnosis in the latest period 2013–2017 compared to the mid 1980s. For lung cancers and melanoma of the skin, the median age at diagnosis has increased. Changes in median age at diagnosis may be influenced by changes in the age distribution of the population, and 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 on these topics.

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) were tumours in the central nervous system and leukaemia. For young women (15–24 years), tumours in the central nervous system and melanoma of the skin were the most common types, while testicular cancer was by far the most common cancer in young men (15–24 years). Prostate cancer was the most frequent cancer in men above 50, while breast cancer was the lead in women aged 25 through 69. Colon cancer was slightly more common than breast cancer in women above 70.

Figure 5.1: Percentage distribution of cancer incidence by age, 2013–2017

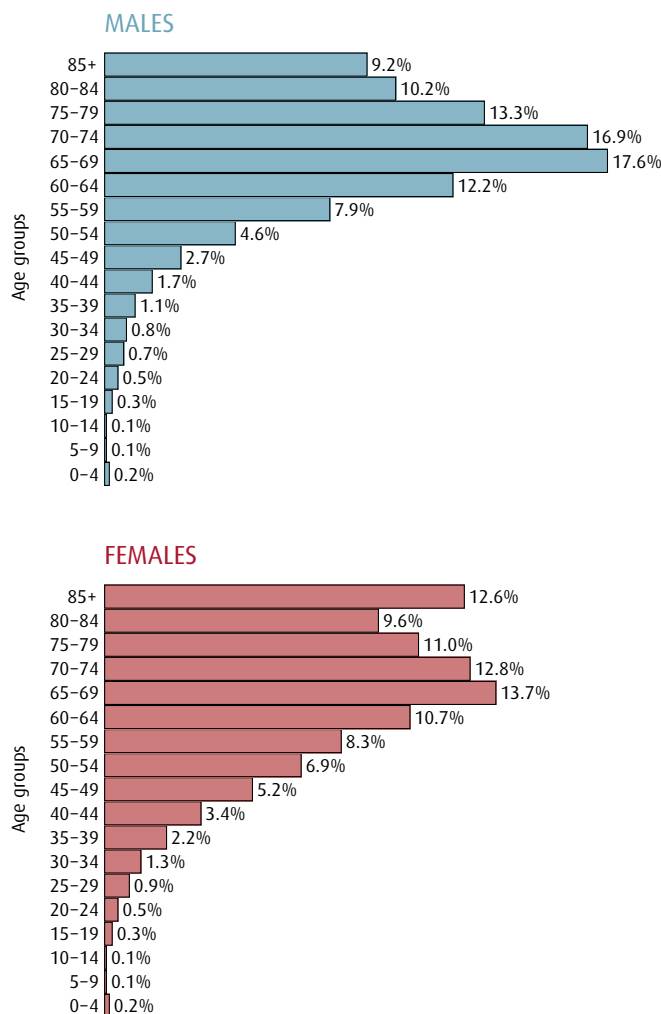


Table 5.2: Median age at diagnosis at different time periods by primary site

ICD-10	Site	Median age in			
		1983-87	1993-97	2003-07	2013-17
C00-96	All sites	69.0	70.0	69.0	69.0
C00-14	Mouth, pharynx	67.0	67.0	65.0	67.0
C00	Lip	70.0	71.0	72.0	74.0
C01-02	Tongue	66.0	65.0	63.0	64.0
C03-06	Mouth, other	67.0	67.0	66.0	69.0
C07-08	Salivary glands	66.0	69.0	65.0	66.0
C09-14	Pharynx	63.0	64.0	61.0	63.0
C15-26	Digestive organs	72.0	73.0	73.0	72.0
C15	Oesophagus	70.0	71.0	71.0	70.0
C16	Stomach	73.0	74.0	75.0	72.0
C17	Small intestine	70.0	70.5	68.0	69.0
C18	Colon	72.0	73.0	74.0	73.0
C19-20	Rectum, rectosigmoid	71.0	72.0	71.0	69.0
C21	Anus	67.0	68.0	65.0	66.0
C22	Liver	71.0	72.0	71.0	70.0
C23-24	Gallbladder, bile ducts	73.0	74.0	74.0	72.0
C25	Pancreas	73.0	74.0	74.0	72.0
C26	Other digestive organs	79.0	79.0	78.0	73.0
C30-34, C38	Respiratory organs	68.0	69.0	70.0	71.0
C30-31	Nose, sinuses	67.5	70.0	67.0	67.0
C32	Larynx, epiglottis	66.0	67.0	66.0	69.0
C33-34	Lung, trachea	68.0	69.0	70.0	71.0
C38	Heart, mediastinum and pleura	66.5	72.0	73.0	72.0
C40-41	Bone	35.5	40.0	47.0	50.0
C43	Melanoma of the skin	56.0	58.0	61.0	65.0
C44	Skin, non-melanoma	75.0	76.0	79.0	79.0
C45	Mesothelioma	67.0	69.0	73.0	73.0
C47	Autonomic nervous system	26.0	38.0	40.0	41.0
C48-49	Soft tissues etc.	64.0	65.0	61.0	62.0
C50	Breast	66.0	63.0	60.0	62.0
C51-58	Female genital organs	62.0	63.0	64.0	65.0
C51-52, C57.7-9	Other female genital	73.0	73.0	74.0	72.0
C53	Cervix uteri	53.0	48.0	48.0	45.0
C54	Corpus uteri	64.0	66.0	66.0	68.0
C55	Uterus, other	81.0	78.0	78.5	74.0
C56, C57.0-4, C48.1-2	Ovary etc.	64.0	65.0	65.0	66.0
C58	Placenta	27.0	28.0	30.5	35.0
C60-63	Male genital organs	73.0	73.0	70.0	68.0
C61	Prostate	74.0	74.0	71.0	69.0
C62	Testis	31.0	32.0	34.0	36.0
C60, C63	Other male genital	67.0	70.0	69.0	70.0
C64-68	Urinary organs	70.0	72.0	72.0	71.0
C64	Kidney (excl. renal pelvis)	68.0	70.0	69.0	67.0
C65-68	Urinary tract	71.0	73.0	74.0	73.0
C69	Eye	64.0	63.0	64.0	65.0
C70-72	Central nervous system	58.0	57.0	59.0	60.0
C73	Thyroid gland	55.0	53.0	54.0	54.0
C37, C74-75	Other endocrine glands	43.0	50.0	53.0	55.0
C39, C76, C80	Other or unspecified	73.0	74.0	78.0	78.0
C81-96	Lymphoid/haematopoietic tissue	68.0	69.0	68.0	69.0
C81	Hodgkin lymphoma	42.0	32.0	37.0	43.0
C82-86, C96	Non-Hodgkin lymphoma	66.0	67.0	66.0	69.0
C88	Immunoproliferative disease	72.0	72.0	74.0	73.0
C90	Multiple myeloma	72.0	74.0	73.0	71.0
C91-95	Leukaemia	69.0	69.0	70.0	69.0

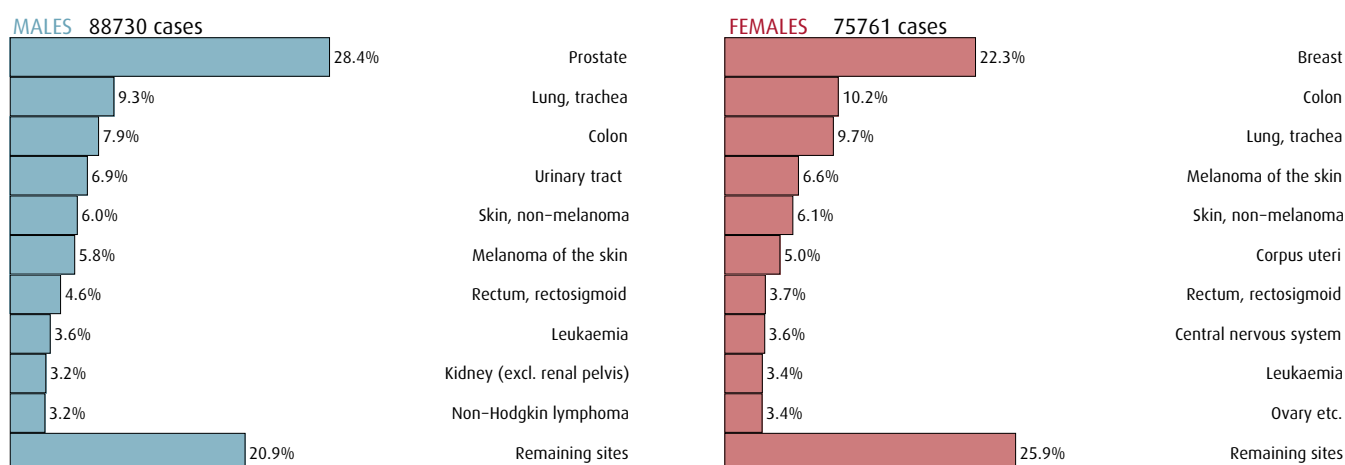
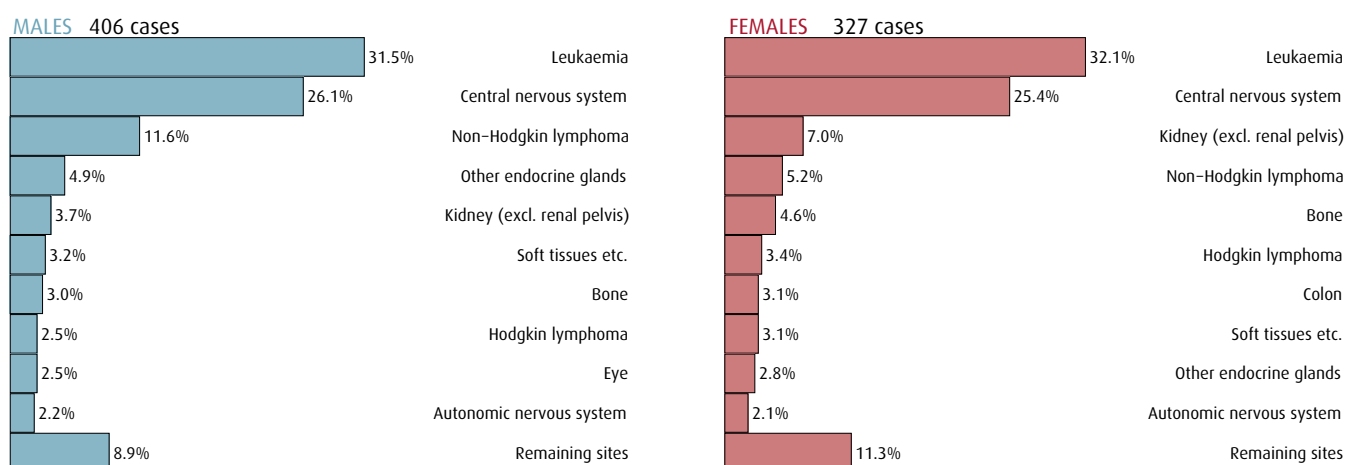
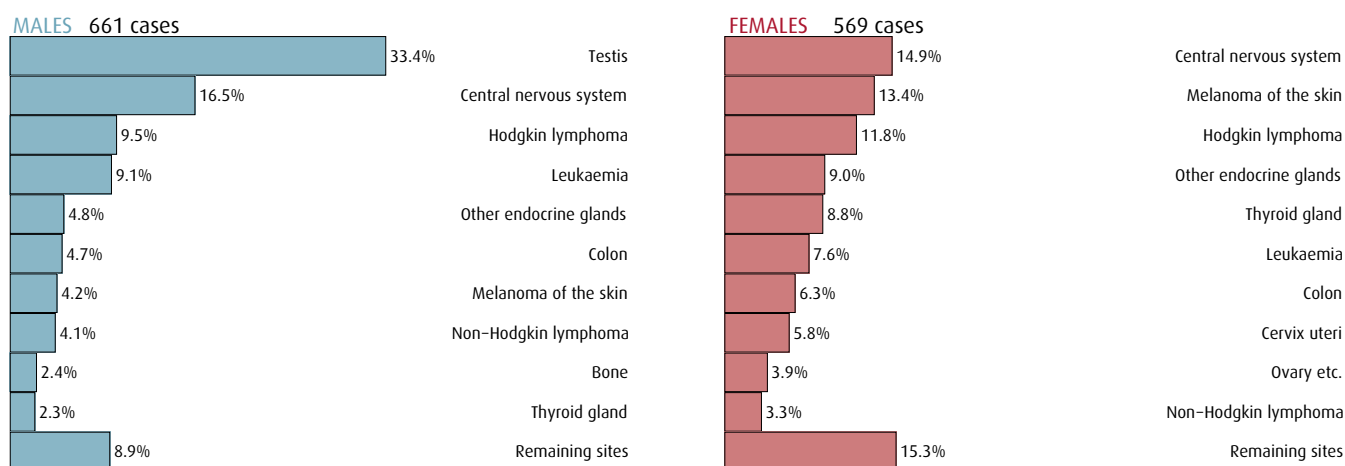
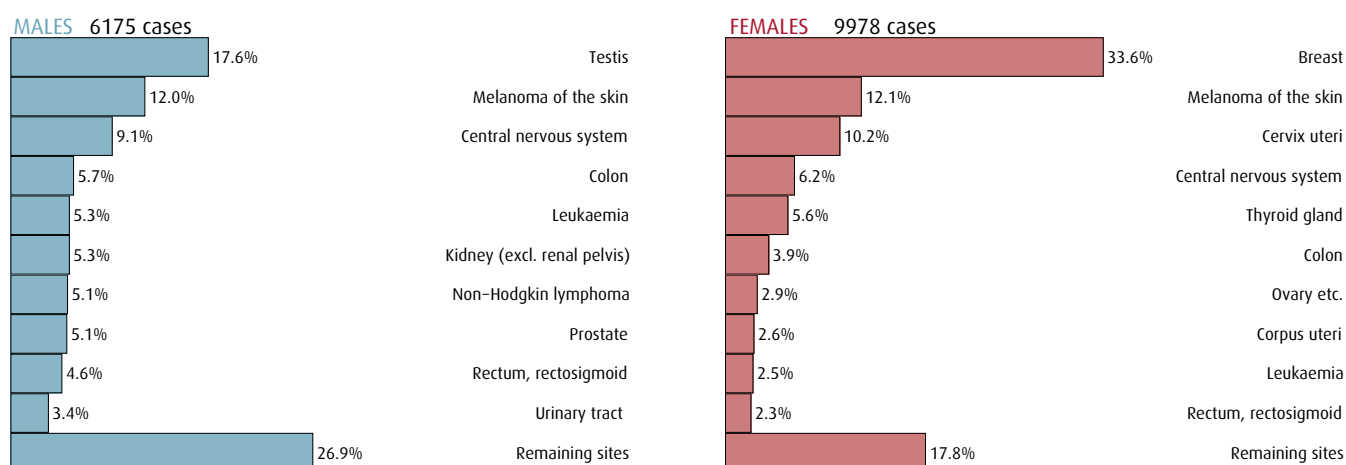
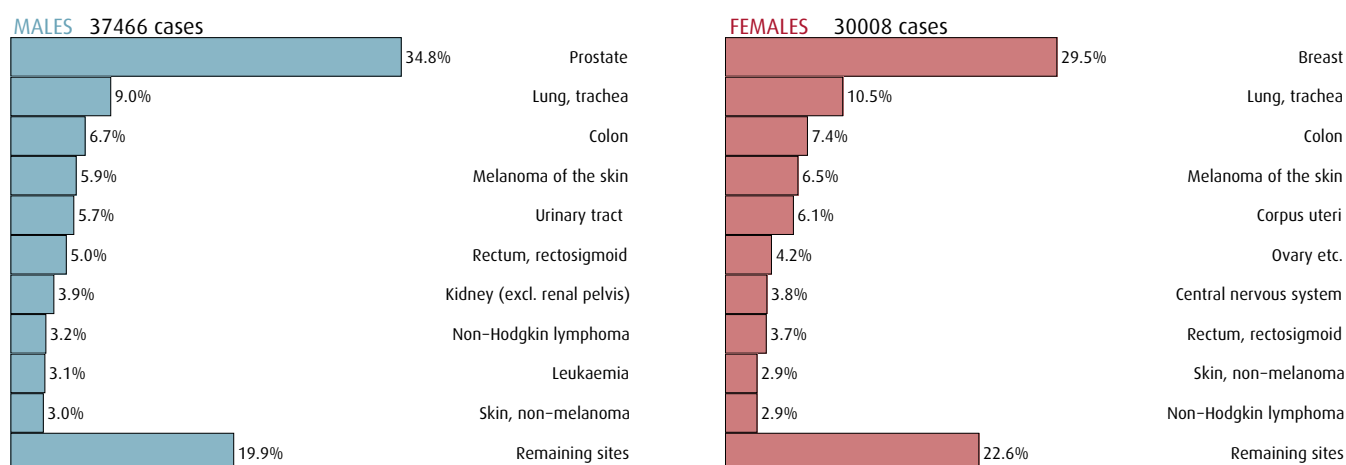
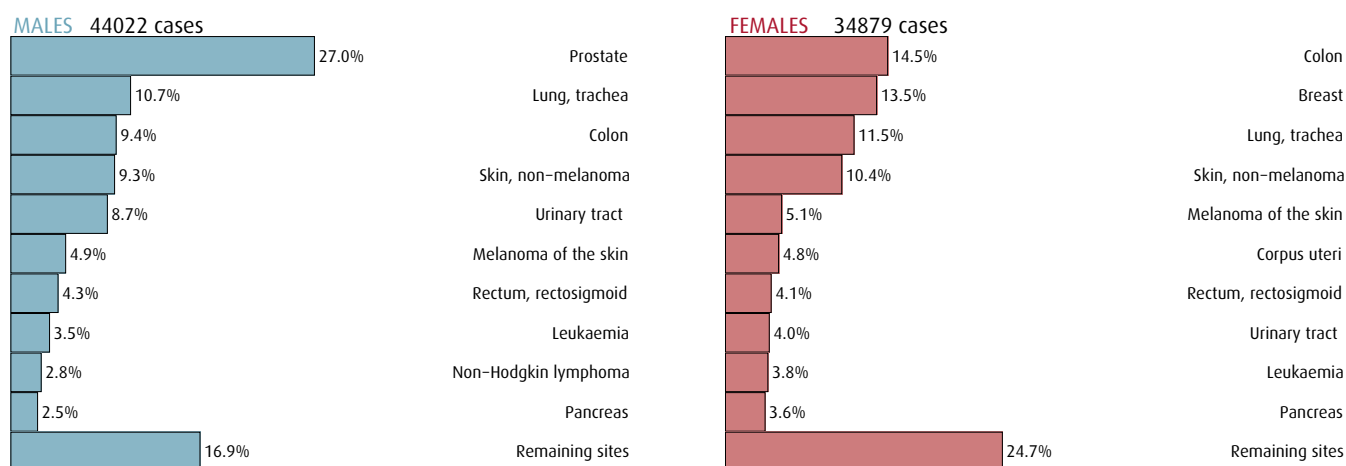
Figure 5.2: The most frequent types of cancer by age and sex, 2013–2017**Figure 5.2-A: All ages****Figure 5.2-B: 0–14 years****Figure 5.2-C: 15–24 years**

Figure 5.2: The most frequent types of cancer by age and sex, 2013–2017**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 1983–1987 and 2013–2017 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 the gallbladder, central nervous system, anus and thyroidea. The highest M:F ratios were observed for mesothelioma, several sites of the head and neck, and for cancers in the urinary tract.

Some cancers, including cancer of the head and neck, urinary tract, kidney, liver, stomach, rectum and leukaemia, are consistently more common in men. The decline in the M:F ratios 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 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 1.3 compared to 3.8 in the mid 1980s.

Table 5.3: Sex ratio (male:female) of age-adjusted rates (Norwegian standard) in 1983–1987 and 2013–2017 for selected cancers, sorted in descending order in last period

ICD-10	Site	1983–87			2013–17		
		M	F	M:F ratio	M	F	M:F ratio
C00–96	All sites	517.0	382.0	1.4	731.4	549.9	1.3
C45	Mesothelioma	1.7	0.3	6.2	2.8	0.5	6.3
C32	Larynx, epiglottis	6.1	0.5	11.4	3.7	0.7	5.1
C15	Oesophagus	5.1	1.6	3.2	8.8	2.5	3.5
C65–68	Urinary tract	43.0	11.6	3.7	52.2	16.1	3.3
C09–14	Pharynx	3.3	1.1	3.1	5.3	1.7	3.1
C38	Heart, mediastinum and pleura	0.6	0.2	3.1	0.5	0.2	2.6
C64	Kidney (excl. renal pelvis)	14.4	7.5	1.9	22.9	10.0	2.3
C22	Liver	3.9	2.0	1.9	7.2	3.5	2.1
C16	Stomach	34.1	17.1	2.0	12.5	6.1	2.1
C01–02	Tongue	2.2	1.3	1.7	3.6	1.9	1.9
C88	Immunoproliferative disease	0.5	0.2	2.1	1.6	1.0	1.7
C30–31	Nose, sinuses	1.3	0.7	1.9	1.1	0.6	1.7
C19–20	Rectum, rectosigmoid	30.4	18.4	1.7	33.0	20.1	1.6
C00	Lip	6.3	1.0	6.4	2.8	1.8	1.6
C44	Skin, non-melanoma	20.9	11.0	1.9	48.8	31.0	1.6
C17	Small intestine	1.7	1.2	1.3	4.2	2.7	1.5
C90	Multiple myeloma	9.5	6.0	1.6	10.2	6.8	1.5
C81	Hodgkin lymphoma	2.6	1.6	1.6	3.5	2.3	1.5
C82–86, C96	Non-Hodgkin lymphoma	13.0	9.9	1.3	22.8	15.8	1.5
C03–06	Mouth, other	2.7	1.2	2.3	2.3	1.6	1.4
C91–95	Leukaemia	14.2	8.4	1.7	26.7	18.5	1.4
C48–49	Soft tissues etc.	2.4	2.2	1.1	2.7	1.9	1.4
C07–08	Salivary glands	0.7	0.6	1.2	1.5	1.1	1.3
C33–34	Lung, trachea	62.4	16.3	3.8	68.3	53.1	1.3
C39, C76, C80	Other or unspecified	14.8	10.6	1.4	6.5	5.5	1.2
C25	Pancreas	18.0	12.5	1.4	16.7	14.0	1.2
C43	Melanoma of the skin	15.6	19.0	0.8	41.9	37.2	1.1
C47	Autonomic nervous system	0.4	0.3	1.4	0.2	0.2	1.1
C40–41	Bone	1.1	0.6	1.7	1.1	1.0	1.1
C18	Colon	41.9	36.8	1.1	59.4	53.8	1.1
C69	Eye	1.4	1.0	1.4	1.7	1.5	1.1
C23–24	Gallbladder, bile ducts	2.8	3.8	0.8	3.3	3.2	1.0
C37, C74–75	Other endocrine glands	2.2	2.1	1.1	4.0	4.1	1.0
C26	Other digestive organs	4.0	4.2	1.0	2.7	2.9	0.9
C70–72	Central nervous system	12.5	11.3	1.1	19.1	20.7	0.9
C21	Anus	0.8	1.2	0.7	1.1	2.4	0.5
C73	Thyroid gland	2.4	7.0	0.3	4.7	10.6	0.4

5.4 Incidence trends

Figure 5.3: Time trends in age-standardised (Norwegian standard) incidence rates for selected cancers, 1958–2017

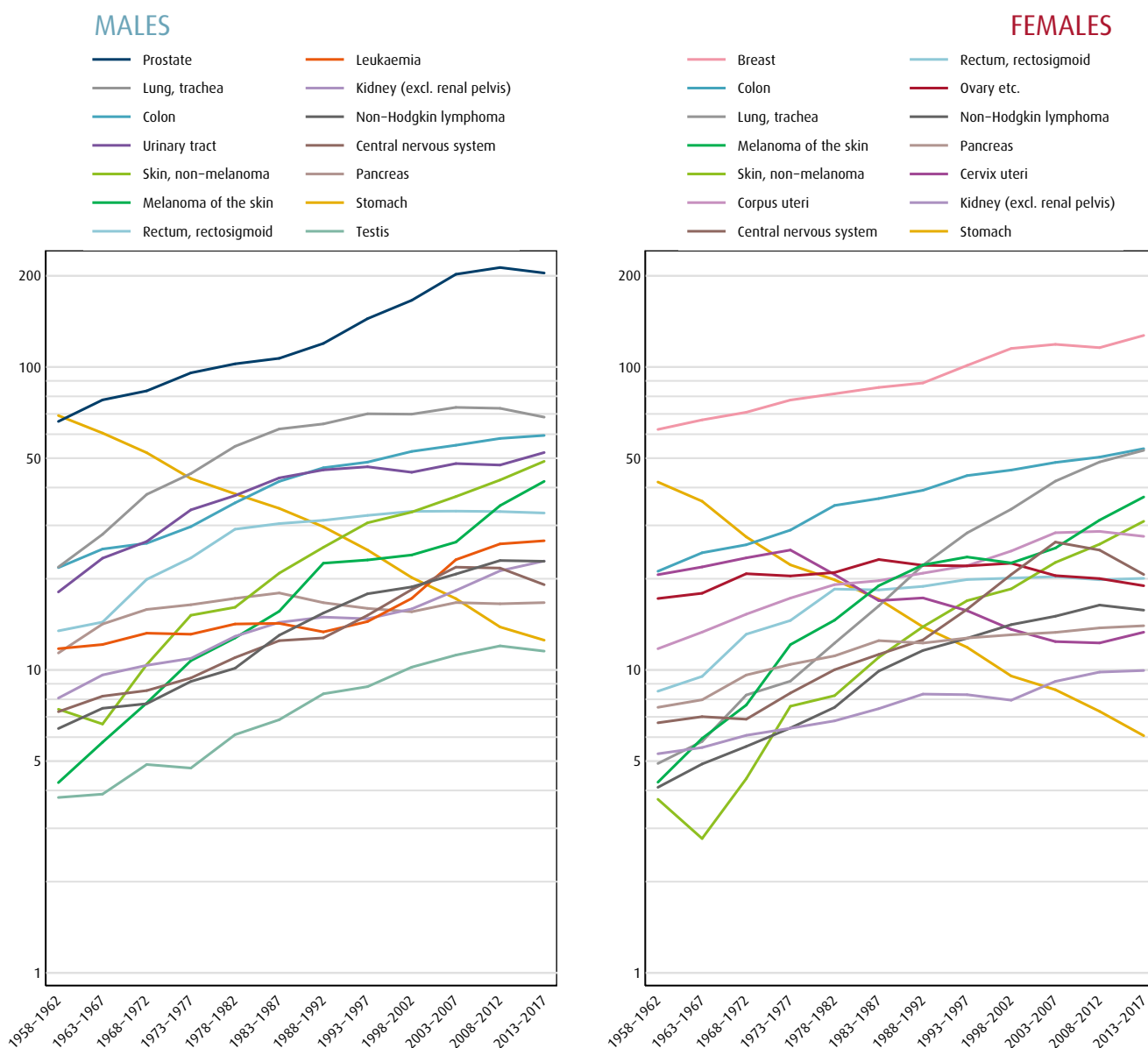


Figure 5.3 depicts time trends in incidence over six decades for a number of selected cancers. Of note are: The incidence trends have increased in Norway for most cancer types since the first observation period. The upward trends have been most pronounced for lung cancer and skin cancer (both melanoma and non-melanoma), and slightly less for non-Hodgkin lymphoma, tumours of the central nervous system, colon cancer, rectum cancer, prostate cancer, and testicular cancer.

For most cancers, it is very difficult to give a proper explanation of the incidence trends over time, even for cancers with known risk factors. Below we have given a short description of the trends for some of the sites, and listed some known factors that might or most possibly have influenced the trends.

Stomach cancer is one of the few that demonstrates 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^[17]. The monotonous drop in incidence over six decades reflects improvement in hygiene and environmental exposures. 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 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. 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 rates are now stable around 200 new cases per 100 000 person years.

Breast cancer has been the most common cancer in women since the establishment of the Cancer Registry of Norway, and the incidence has doubled since the beginning of registration. There has been a monotonous increase in incidence rates up to 2005 with a steeper increase in the mid-1990s followed by a notable decline between 2005 and 2009, as seen in Table 5.8. 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 screening. 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 that there is again an increase in incidence. The age-specific rates (not shown) indicate that the increase is primarily limited to the age group 70–80 years.

Lung cancer in women, has almost had a tenfold increase in incidence since the beginning of the 1950s. The last few years we have observed signs of a levelling off in the rates (details are shown in Table 5.8). It is however too early to conclude whether a maximum has been reached due to delayed reporting of death certificates. Additionally, the last five-year periode has higher incid-

ence than the previous one. It is worth noting that the incidence in women recently reached the level of another increasing cancer type, that of the colon. In men, the incidence has been levelling off over the last two decades, and a slightly overall decline is now observed (Table 5.7).

Colon and rectum cancer are often referred to as colorectum cancer and discussed together. They share most risk factors, and there is a strong evidence that high consumption of red and processed meat, alcoholic drinks and increased body fat increases the risk for these cancers. However, the protective effect of physical activity has only been proven for colon cancer. The incidence trends for these cancers is also slightly different — colon cancer has increased steadily throughout the period of registration, while the incidence of rectal cancer has flattened off, and been relatively stable over the last three decades.

Melanoma of the skin is another cancer of great concern. From being an uncommon cancer in 1953, it now ranks among the leading ones in men and women alike. After levelling off during the 1990s, the rate has had a remarkable increase the last two decades (Table 5.7 and 5.8), most probably caused by new suntanning habits among those who enter the highest age bands.

Cervical cancer has had a downward incidence trend since the beginning of the 1970s. This is probably a result of identification and treatment of premalignant conditions as part of an organised screening program. 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, it is of concern that we have observed a slight increase in the incidence in the last five-year period.

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 (<http://www-dep.iarc.fr/nordcan.htm>) provides access to online predictions of incidence and mortality in the Nordic countries. More 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. One in three Norwegians will develop a cancer before the age of 75. The risk of prostate cancer is the highest one in men, as one in eight will have a diagnosis by the age of 75. The cumulative risk of breast cancer is the highest one in women, with 8.8%, indicating that one in eleven Norwegian women will diagnosed the disease before turning 75. As among men, lung and colon cancers rank second and third.

5.6 Incidence tables

Tables 5.5–5.24 provide further information on cancer incidence in Norway. The number of incident cases and rates are tabulated according to year of diagnosis, age group, county of residence, and stage.

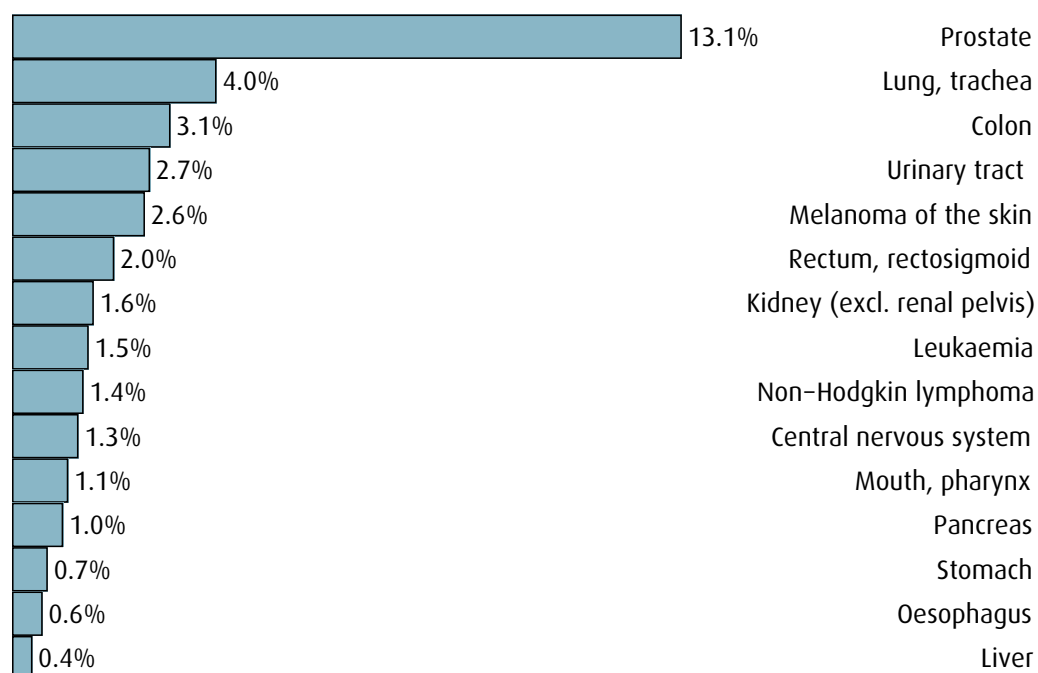
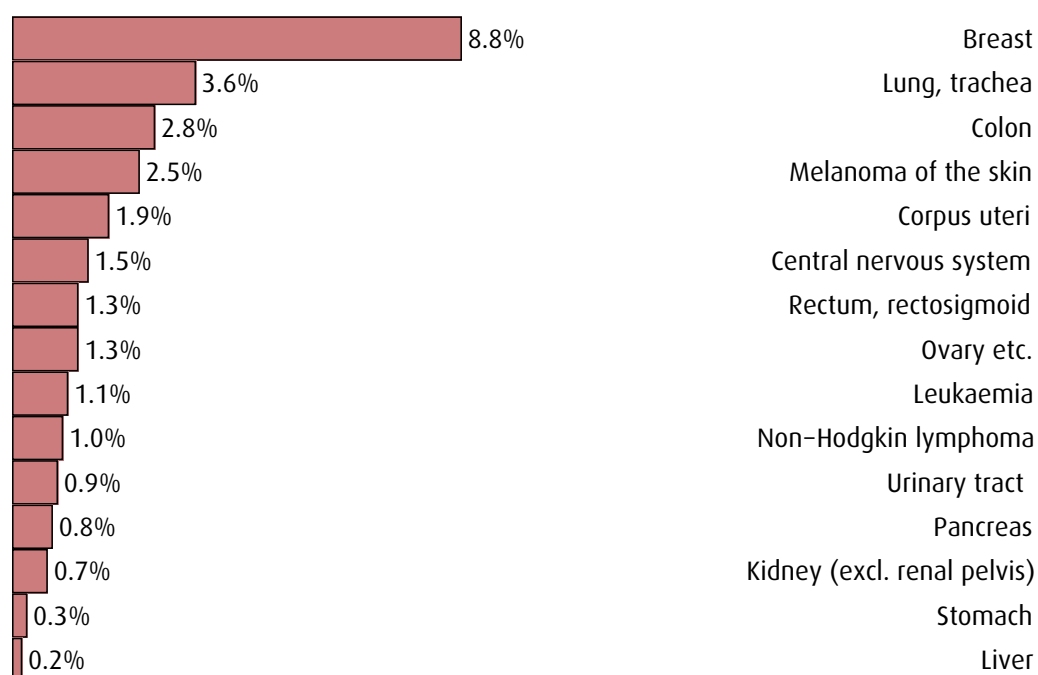
Figure 5.4: Cumulative risk of developing cancer (%) by the age of 75 for selected cancers, 2013–2017**MALES****FEMALES**

Table 5.4: Cumulative risk of developing cancer (%) by age of 75 by primary site and sex, 2013–2017

ICD-10	Site	Males	Females
C00–96	All sites	35.9	30.0
C00–14	Mouth, pharynx	1.1	0.5
C00	Lip	0.1	0.1
C01–02	Tongue	0.3	0.1
C03–06	Mouth, other	0.2	0.1
C07–08	Salivary glands	0.1	0.1
C09–14	Pharynx	0.4	0.1
C15–26	Digestive organs	8.2	6.1
C15	Oesophagus	0.6	0.2
C16	Stomach	0.7	0.3
C17	Small intestine	0.3	0.2
C18	Colon	3.1	2.8
C19–20	Rectum, rectosigmoid	2.0	1.3
C21	Anus	0.1	0.2
C22	Liver	0.4	0.2
C23–24	Gallbladder, bile ducts	0.2	0.2
C25	Pancreas	1.0	0.8
C26	Other digestive organs	0.1	0.2
C30–34, C38	Respiratory organs	4.3	3.7
C30–31	Nose, sinuses	0.1	0.0
C32	Larynx, epiglottis	0.2	0.1
C33–34	Lung, trachea	4.0	3.6
C38	Heart, mediastinum and pleura	0.0	0.0
C40–41	Bone	0.1	0.1
C43	Melanoma of the skin	2.6	2.5
C44	Skin, non-melanoma	1.6	1.2
C45	Mesothelioma	0.1	0.0
C47	Autonomic nervous system	0.0	0.0
C48–49	Soft tissues etc.	0.2	0.1
C50	Breast	0.1	8.8
C51–58	Female genital organs		4.5
C51–52, C57.7–9	Other female genital		0.2
C53	Cervix uteri		1.0
C54	Corpus uteri		1.9
C55	Uterus, other		0.0
C56, C57.0–4, C48.1–2	Ovary etc.		1.3
C58	Placenta		0.0
C60–63	Male genital organs	14.0	
C61	Prostate	13.1	
C62	Testis	0.8	
C60, C63	Other male genital	0.1	
C64–68	Urinary organs	4.2	1.6
C64	Kidney (excl. renal pelvis)	1.6	0.7
C65–68	Urinary tract	2.7	0.9
C69	Eye	0.1	0.1
C70–72	Central nervous system	1.3	1.5
C73	Thyroid gland	0.3	0.8
C37, C74–75	Other endocrine glands	0.3	0.3
C39, C76, C80	Other or unspecified	0.3	0.2
C81–96	Lymphoid/haematopoietic tissue	3.8	2.7
C81	Hodgkin lymphoma	0.3	0.2
C82–86, C96	Non-Hodgkin lymphoma	1.4	1.0
C88	Immunoproliferative disease	0.1	0.1
C90	Multiple myeloma	0.6	0.4
C91–95	Leukaemia	1.5	1.1

Table 5.5: Number of new cases by primary site and year, 2008–2017, **males**

ICD-10	Site	Year									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
C00–96	All sites	14 781	15 146	15 280	16 399	16 766	16 796	17 431	18 020	18 362	18 121
C00–14	Mouth, pharynx	269	343	314	327	361	335	406	403	406	392
C00	Lip	53	82	77	80	70	63	77	69	65	63
C01–02	Tongue	63	74	60	70	70	82	84	86	93	112
C03–06	Mouth, other	43	65	53	38	57	58	62	59	60	50
C07–08	Salivary glands	18	23	28	18	30	28	45	36	43	29
C09–14	Pharynx	92	99	96	121	134	104	138	153	145	138
C15–26	Digestive organs	2 937	2 953	3 232	3 139	3 328	3 441	3 489	3 631	3 702	3 630
C15	Oesophagus	161	149	187	181	175	200	224	222	215	213
C16	Stomach	299	264	300	324	285	305	307	294	306	278
C17	Small intestine	65	82	73	88	104	89	96	102	116	114
C18	Colon	1 173	1 123	1 299	1 230	1 301	1 338	1 366	1 427	1 449	1 458
C19–20	Rectum, rectosigmoid	675	730	744	698	752	803	814	788	843	795
C21	Anus	21	20	33	21	24	16	28	22	34	35
C22	Liver	98	98	127	130	137	177	146	186	191	175
C23–24	Gallbladder, bile ducts	66	74	87	60	86	96	74	80	82	64
C25	Pancreas	341	360	319	336	403	361	377	441	401	422
C26	Other digestive organs	38	53	63	71	61	56	57	69	65	76
C30–34, C38	Respiratory organs	1 625	1 660	1 682	1 768	1 785	1 718	1 782	1 747	1 824	1 817
C30–31	Nose, sinuses	25	23	19	22	32	34	30	15	24	26
C32	Larynx, epiglottis	113	90	106	100	98	105	114	87	84	71
C33–34	Lung, trachea	1 481	1 539	1 547	1 636	1 645	1 571	1 628	1 638	1 700	1 705
C38	Heart, mediastinum and pleura	6	8	10	10	10	8	10	7	16	15
C40–41	Bone	23	37	27	29	33	18	29	34	31	29
C43	Melanoma of the skin	671	703	747	873	895	848	1 036	1 034	1 072	1 167
C44	Skin, non-melanoma	776	854	821	865	893	912	1 012	1 061	1 113	1 263
C45	Mesothelioma	64	69	79	64	66	78	58	67	61	73
C47	Autonomic nervous system	8	7	6	5	5	6	7	4	2	9
C48–49	Soft tissues etc.	49	71	52	67	82	79	63	67	56	72
C50	Breast	21	15	13	27	28	35	24	24	31	34
C60–63	Male genital organs	4 786	4 751	4 572	5 312	5 282	5 258	5 336	5 518	5 632	5 337
C61	Prostate	4 436	4 389	4 259	4 987	4 918	4 878	4 954	5 166	5 256	4 983
C62	Testis	300	314	267	286	321	332	324	292	290	289
C60, C63	Other male genital	50	48	46	39	43	48	58	60	86	65
C64–68	Urinary organs	1 386	1 410	1 444	1 528	1 606	1 630	1 766	1 844	1 911	1 884
C64	Kidney (excl. renal pelvis)	414	427	486	520	532	537	580	579	601	582
C65–68	Urinary tract	972	983	958	1 008	1 074	1 093	1 186	1 265	1 310	1 302
C69	Eye	40	26	38	26	29	34	49	44	40	41
C70–72	Central nervous system	481	482	491	513	537	509	533	498	422	460
C73	Thyroid gland	60	73	80	76	92	106	115	104	141	131
C37, C74–75	Other endocrine glands	135	148	110	126	146	117	127	92	98	76
C39, C76, C80	Other or unspecified	170	170	145	165	123	148	156	153	148	128
C81–96	Lymphoid/haematopoietic tissue	1 280	1 374	1 427	1 489	1 475	1 524	1 443	1 694	1 672	1 578
C81	Hodgkin lymphoma	80	83	82	69	89	73	81	110	93	95
C82–86, C96	Non-Hodgkin lymphoma	468	487	553	505	526	548	538	606	599	519
C88	Immunoproliferative disease	34	28	34	36	52	36	39	45	38	36
C90	Multiple myeloma	207	220	207	243	209	235	204	256	258	274
C91–95	Leukaemia	491	556	551	636	599	632	581	677	684	654

Table 5.6: Number of new cases by primary site and year, 2008–2017, **females**

ICD-10	Site	Year									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
C00–96	All sites	12 722	13 061	13 349	13 898	13 797	14 227	15 019	15 478	15 594	15 443
C00–14	Mouth, pharynx	188	167	208	198	185	191	214	225	241	253
C00	Lip	49	35	54	46	41	49	45	53	52	57
C01–02	Tongue	33	34	33	38	47	45	49	51	66	49
C03–06	Mouth, other	40	44	43	41	31	42	47	39	47	53
C07–08	Salivary glands	25	17	32	29	17	18	27	40	29	40
C09–14	Pharynx	41	37	46	44	49	37	46	42	47	54
C15–26	Digestive organs	2 746	2 852	2 740	2 880	2 946	3 035	3 132	3 245	3 194	3 160
C15	Oesophagus	59	54	65	60	72	63	71	77	71	72
C16	Stomach	213	223	175	199	182	165	189	166	152	192
C17	Small intestine	52	76	63	66	61	49	76	76	74	102
C18	Colon	1 281	1 357	1 268	1 395	1 423	1 462	1 471	1 570	1 646	1 549
C19–20	Rectum, rectosigmoid	518	518	527	528	500	580	575	575	531	530
C21	Anus	42	50	54	40	49	61	68	65	81	53
C22	Liver	64	65	77	81	81	81	87	103	111	107
C23–24	Gallbladder, bile ducts	83	85	91	87	104	104	110	82	77	80
C25	Pancreas	371	363	349	365	393	392	396	447	376	386
C26	Other digestive organs	63	61	71	59	81	78	89	84	75	89
C30–34, C38	Respiratory organs	1 200	1 200	1 320	1 280	1 362	1 383	1 508	1 578	1 571	1 539
C30–31	Nose, sinuses	16	12	20	20	18	20	19	22	15	10
C32	Larynx, epiglottis	23	20	19	16	19	21	20	19	23	16
C33–34	Lung, trachea	1 157	1 160	1 273	1 236	1 321	1 337	1 464	1 531	1 526	1 509
C38	Heart, mediastinum and pleura	4	8	8	8	4	5	5	6	7	4
C40–41	Bone	24	28	25	23	15	25	28	24	28	29
C43	Melanoma of the skin	623	729	796	878	890	898	1 008	999	1 058	1 055
C44	Skin, non-melanoma	679	744	708	782	780	811	929	845	1 015	1 043
C45	Mesothelioma	10	12	14	13	16	11	11	13	14	14
C47	Autonomic nervous system	7	5	5	1	0	6	8	7	1	3
C48–49	Soft tissues etc.	61	72	63	59	55	53	50	55	58	44
C50	Breast	2 744	2 736	2 848	3 088	2 945	3 201	3 328	3 427	3 386	3 589
C51–58	Female genital organs	1 613	1 618	1 697	1 699	1 571	1 634	1 752	1 843	1 815	1 677
C51–52, C57.7–9	Other female genital	90	111	116	105	107	102	126	119	125	128
C53	Cervix uteri	293	298	311	296	312	288	356	387	370	316
C54	Corpus uteri	718	715	758	748	650	766	734	784	786	702
C55	Uterus, other	8	11	6	5	5	8	13	8	10	10
C56, C57.0–4, C48.1–2	Ovary etc.	504	481	503	540	493	468	521	543	520	520
C58	Placenta	0	2	3	5	4	2	2	2	4	1
C64–68	Urinary organs	602	607	640	653	667	680	660	786	787	730
C64	Kidney (excl. renal pelvis)	257	238	242	260	258	231	237	313	296	287
C65–68	Urinary tract	345	369	398	393	409	449	423	473	491	443
C69	Eye	31	38	31	34	31	45	45	41	30	38
C70–72	Central nervous system	618	660	606	607	605	557	572	547	509	566
C73	Thyroid gland	175	186	204	219	228	248	250	266	324	288
C37, C74–75	Other endocrine glands	164	132	123	141	118	141	116	112	89	80
C39, C76, C80	Other or unspecified	191	200	183	168	156	170	171	157	183	152
C81–96	Lymphoid/haematopoietic tissue	1 046	1 075	1 138	1 175	1 227	1 138	1 237	1 308	1 291	1 183
C81	Hodgkin lymphoma	45	50	57	73	64	57	63	54	76	44
C82–86, C96	Non-Hodgkin lymphoma	372	397	407	451	460	418	452	459	447	408
C88	Immunoproliferative disease	17	28	27	27	33	33	36	19	16	30
C90	Multiple myeloma	164	164	181	144	184	179	192	207	194	185
C91–95	Leukaemia	448	436	466	480	486	451	494	569	558	516

Table 5.7: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and year, 2008–2017, **males**

ICD-10	Site	Year									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
C00–96	All sites	712.9	718.9	708.7	742.5	741.2	724.3	736.0	743.5	740.6	712.2
C00–14	Mouth, pharynx	12.4	15.7	14.1	14.5	15.4	14.0	16.6	16.1	16.0	15.0
C00	Lip	2.6	4.0	3.7	3.7	3.2	2.8	3.3	2.9	2.7	2.5
C01–02	Tongue	2.9	3.3	2.6	3.0	3.0	3.4	3.3	3.3	3.6	4.2
C03–06	Mouth, other	2.0	3.1	2.4	1.8	2.4	2.4	2.5	2.3	2.4	1.9
C07–08	Salivary glands	0.8	1.1	1.3	0.8	1.3	1.2	1.9	1.5	1.8	1.1
C09–14	Pharynx	4.1	4.3	4.1	5.0	5.5	4.2	5.5	6.0	5.5	5.3
C15–26	Digestive organs	143.4	142.5	151.7	144.0	149.0	149.9	149.0	151.4	150.0	144.1
C15	Oesophagus	7.8	7.0	8.7	8.1	7.6	8.7	9.4	9.0	8.6	8.3
C16	Stomach	14.7	13.0	14.0	14.9	12.8	13.3	13.2	12.6	12.4	11.2
C17	Small intestine	3.1	3.7	3.3	3.9	4.5	3.8	4.0	4.1	4.6	4.5
C18	Colon	57.5	55.0	61.8	57.4	58.8	59.2	59.5	60.1	59.4	58.9
C19–20	Rectum, rectosigmoid	32.8	34.6	34.2	31.6	33.5	34.2	34.1	32.4	33.5	30.7
C21	Anus	1.0	0.9	1.5	0.9	1.1	0.7	1.2	0.9	1.4	1.3
C22	Liver	4.6	4.7	6.0	5.8	5.9	7.6	6.0	7.6	7.7	6.9
C23–24	Gallbladder, bile ducts	3.3	3.7	4.0	2.7	3.9	4.2	3.1	3.3	3.2	2.6
C25	Pancreas	16.7	17.4	15.2	15.4	18.0	15.8	16.0	18.3	16.4	16.8
C26	Other digestive organs	1.9	2.6	3.0	3.4	2.8	2.4	2.5	2.9	2.7	3.0
C30–34, C38	Respiratory organs	78.5	78.9	78.3	80.5	79.8	74.6	76.1	72.4	74.0	71.3
C30–31	Nose, sinuses	1.3	1.1	0.8	1.0	1.4	1.4	1.3	0.6	1.0	1.0
C32	Larynx, epiglottis	5.3	4.2	4.9	4.4	4.3	4.5	4.8	3.5	3.3	2.8
C33–34	Lung, trachea	71.7	73.3	72.1	74.7	73.6	68.3	69.6	67.9	69.0	66.9
C38	Heart, mediastinum and pleura	0.3	0.4	0.4	0.5	0.5	0.3	0.4	0.3	0.7	0.6
C40–41	Bone	1.0	1.6	1.1	1.2	1.3	0.7	1.1	1.4	1.2	1.1
C43	Melanoma of the skin	31.1	32.1	33.3	38.3	38.8	35.9	43.1	41.9	42.5	45.7
C44	Skin, non-melanoma	40.8	43.9	41.4	42.8	43.1	43.4	47.0	48.2	50.1	54.9
C45	Mesothelioma	3.2	3.2	3.9	3.0	3.0	3.5	2.5	2.9	2.5	2.9
C47	Autonomic nervous system	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.3
C48–49	Soft tissues etc.	2.2	3.4	2.3	2.8	3.5	3.3	2.6	2.8	2.2	2.7
C50	Breast	1.0	0.7	0.6	1.2	1.3	1.5	1.0	1.1	1.3	1.3
C60–63	Male genital organs	231.2	224.6	210.8	238.2	229.9	223.2	221.3	222.6	222.1	204.2
C61	Prostate	216.4	209.5	197.8	225.1	215.5	208.2	206.5	209.2	207.7	190.7
C62	Testis	12.5	12.8	10.8	11.4	12.5	12.8	12.3	11.0	10.9	10.8
C60, C63	Other male genital	2.3	2.3	2.1	1.7	1.8	2.1	2.5	2.4	3.5	2.7
C64–68	Urinary organs	67.1	67.3	67.7	69.6	71.6	70.8	75.2	77.1	77.8	74.5
C64	Kidney (excl. renal pelvis)	19.2	19.7	21.7	22.8	22.6	22.3	23.5	23.2	23.4	22.2
C65–68	Urinary tract	47.9	47.7	46.0	46.8	49.0	48.5	51.7	53.9	54.4	52.4
C69	Eye	1.9	1.2	1.7	1.2	1.2	1.4	2.0	1.8	1.6	1.5
C70–72	Central nervous system	21.4	21.3	21.5	21.7	22.5	20.6	21.4	19.7	16.4	17.6
C73	Thyroid gland	2.6	3.2	3.4	3.2	3.8	4.3	4.6	4.0	5.5	4.9
C37, C74–75	Other endocrine glands	6.0	6.4	4.7	5.3	6.0	4.8	5.0	3.6	3.8	2.9
C39, C76, C80	Other or unspecified	8.8	8.6	7.1	7.9	5.8	7.0	7.0	6.8	6.5	5.4
C81–96	Lymphoid/haematopoietic tissue	60.1	63.9	65.0	66.8	65.1	65.2	60.2	69.7	67.0	61.8
C81	Hodgkin lymphoma	3.5	3.5	3.5	2.8	3.6	2.9	3.2	4.2	3.5	3.5
C82–86, C96	Non-Hodgkin lymphoma	21.7	22.6	25.0	22.4	23.0	23.1	22.4	24.8	23.7	20.3
C88	Immunoproliferative disease	1.7	1.3	1.6	1.7	2.3	1.5	1.6	1.9	1.6	1.4
C90	Multiple myeloma	9.9	10.4	9.6	11.0	9.5	10.5	8.5	10.8	10.4	10.9
C91–95	Leukaemia	23.2	25.9	25.3	28.9	26.6	27.2	24.5	28.1	27.8	25.8

Table 5.8: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and year, 2008–2017, **females**

ICD-10	Site	Year									
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
C00–96	All sites	508.6	515.2	521.7	534.5	524.2	532.3	553.9	562.3	556.7	543.0
C00–14	Mouth, pharynx	7.4	6.6	8.2	7.7	6.9	7.1	7.9	8.1	8.6	8.7
C00	Lip	1.9	1.3	2.0	1.7	1.4	1.8	1.6	1.8	1.8	1.9
C01–02	Tongue	1.3	1.4	1.3	1.4	1.8	1.7	1.8	1.9	2.4	1.7
C03–06	Mouth, other	1.5	1.7	1.7	1.6	1.1	1.6	1.7	1.4	1.6	1.8
C07–08	Salivary glands	1.0	0.7	1.3	1.2	0.6	0.7	1.0	1.5	1.0	1.4
C09–14	Pharynx	1.7	1.5	1.9	1.8	1.9	1.5	1.8	1.6	1.7	1.9
C15–26	Digestive organs	105.0	108.5	103.1	107.4	108.7	110.3	112.3	114.3	110.7	107.7
C15	Oesophagus	2.3	2.1	2.4	2.3	2.7	2.3	2.6	2.7	2.4	2.5
C16	Stomach	7.9	8.3	6.4	7.2	6.7	6.0	6.8	5.8	5.3	6.5
C17	Small intestine	2.2	3.0	2.5	2.5	2.3	1.8	2.7	2.8	2.6	3.6
C18	Colon	49.1	51.1	47.5	51.9	52.5	52.5	52.4	54.9	56.5	52.4
C19–20	Rectum, rectosigmoid	20.1	20.2	20.1	20.1	18.7	21.5	21.0	20.7	18.8	18.4
C21	Anus	1.7	2.1	2.1	1.5	1.9	2.3	2.6	2.4	3.0	1.9
C22	Liver	2.4	2.5	2.9	2.9	2.9	3.0	3.1	3.6	3.9	3.7
C23–24	Gallbladder, bile ducts	3.2	3.2	3.5	3.2	3.9	3.8	3.9	2.9	2.7	2.7
C25	Pancreas	14.0	13.8	13.0	13.5	14.4	14.2	14.2	15.6	12.9	13.1
C26	Other digestive organs	2.2	2.3	2.6	2.2	2.9	2.8	3.0	3.0	2.7	3.0
C30–34, C38	Respiratory organs	49.1	47.7	52.4	49.8	52.1	52.0	55.6	56.9	55.3	53.0
C30–31	Nose, sinuses	0.6	0.5	0.8	0.8	0.7	0.7	0.7	0.8	0.5	0.4
C32	Larynx, epiglottis	0.9	0.8	0.8	0.6	0.7	0.8	0.7	0.7	0.8	0.6
C33–34	Lung, trachea	47.4	46.1	50.5	48.1	50.5	50.3	54.0	55.2	53.7	52.0
C38	Heart, mediastinum and pleura	0.2	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.1
C40–41	Bone	1.0	1.1	1.0	0.9	0.6	0.9	1.1	0.9	1.1	1.1
C43	Melanoma of the skin	25.4	29.5	31.8	34.3	34.7	34.3	37.9	37.1	38.6	38.2
C44	Skin, non-melanoma	24.7	26.2	24.9	27.0	27.1	27.6	31.4	28.3	33.3	34.1
C45	Mesothelioma	0.4	0.5	0.5	0.5	0.6	0.4	0.4	0.5	0.5	0.5
C47	Autonomic nervous system	0.3	0.2	0.2	0.0	0.0	0.2	0.3	0.3	0.0	0.1
C48–49	Soft tissues etc.	2.5	2.9	2.4	2.3	2.1	2.0	1.9	2.0	2.1	1.6
C50	Breast	113.8	112.2	115.0	123.0	115.1	123.5	126.6	128.4	125.7	131.0
C51–58	Female genital organs	65.9	65.4	67.9	66.6	60.8	62.5	65.8	68.5	65.9	60.0
C51–52, C57.7–9	Other female genital	3.3	4.3	4.3	3.9	4.0	3.6	4.4	4.3	4.4	4.4
C53	Cervix uteri	11.9	12.3	12.7	12.0	12.5	11.4	14.0	15.0	14.2	12.0
C54	Corpus uteri	29.9	29.1	30.3	29.2	25.0	29.2	27.3	28.9	28.0	24.7
C55	Uterus, other	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.3	0.4
C56, C57.0–4, C48.1–2	Ovary etc.	20.5	19.3	20.2	21.1	19.0	17.9	19.6	20.1	18.8	18.5
C58	Placenta	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.0
C64–68	Urinary organs	23.6	23.7	24.5	24.6	24.7	24.9	24.1	28.1	27.5	25.3
C64	Kidney (excl. renal pelvis)	10.2	9.6	9.5	10.0	9.9	8.7	8.8	11.4	10.5	10.2
C65–68	Urinary tract	13.4	14.1	15.1	14.5	14.8	16.3	15.3	16.7	17.0	15.1
C69	Eye	1.3	1.5	1.3	1.3	1.2	1.7	1.7	1.6	1.1	1.4
C70–72	Central nervous system	25.6	26.8	24.3	24.0	23.8	21.4	21.8	20.5	18.8	20.6
C73	Thyroid gland	7.3	7.7	8.3	8.8	9.2	9.8	9.7	10.1	12.3	10.8
C37, C74–75	Other endocrine glands	6.9	5.5	5.1	5.7	4.7	5.6	4.5	4.3	3.3	3.0
C39, C76, C80	Other or unspecified	7.0	7.1	6.5	5.6	5.4	5.8	5.7	5.3	6.0	4.9
C81–96	Lymphoid/haematopoietic tissue	41.3	42.1	44.2	45.0	46.5	42.2	45.2	47.2	45.8	40.9
C81	Hodgkin lymphoma	1.9	2.1	2.4	3.0	2.6	2.3	2.4	2.1	2.9	1.6
C82–86, C96	Non-Hodgkin lymphoma	15.1	15.8	15.9	17.4	17.6	15.6	16.6	16.6	15.8	14.1
C88	Immunoproliferative disease	0.7	1.0	1.1	1.1	1.2	1.2	1.3	0.7	0.6	1.0
C90	Multiple myeloma	6.3	6.4	6.9	5.4	6.9	6.5	6.9	7.3	6.8	6.3
C91–95	Leukaemia	17.3	16.8	18.0	18.2	18.2	16.6	18.0	20.5	19.8	17.9

Table 5.9: Average annual number of new cases by primary site and five-year age group, 2013–2017, **males**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	All sites	36	23	22	46	86	116	150
C00–14	Mouth, pharynx	0	0	0	0	2	1	3
C00	Lip	0	0	0	0	0	0	0
C01–02	Tongue	0	0	0	0	0	0	1
C03–06	Mouth, other	0	0	0	0	0	0	1
C07–08	Salivary glands	0	0	0	0	0	0	1
C09–14	Pharynx	0	0	0	0	0	0	0
C15–26	Digestive organs	0	0	1	2	6	8	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	1
C18	Colon	0	0	0	2	5	4	6
C19–20	Rectum, rectosigmoid	0	0	0	0	0	2	6
C21	Anus	0	0	0	0	0	0	0
C22	Liver	0	0	0	0	0	0	1
C23–24	Gallbladder, bile ducts	0	0	0	0	0	0	0
C25	Pancreas	0	0	0	0	0	0	1
C26	Other digestive organs	0	0	0	0	0	0	0
C30–34, C38	Respiratory organs	1	0	0	1	0	1	1
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	0	1
C38	Heart, mediastinum and pleura	0	0	0	0	0	0	0
C40–41	Bone	0	1	1	2	2	1	2
C43	Melanoma of the skin	0	0	1	1	5	11	12
C44	Skin, non-melanoma	1	0	0	1	1	1	3
C45	Mesothelioma	0	0	0	0	0	0	0
C47	Autonomic nervous system	1	0	0	0	0	0	0
C48–49	Soft tissues etc.	1	1	1	1	1	1	1
C50	Breast	0	0	0	0	0	0	0
C60–63	Male genital organs	1	0	0	9	36	43	53
C61	Prostate	0	0	0	0	0	0	0
C62	Testis	0	0	0	9	36	43	53
C60, C63	Other male genital	0	0	0	0	0	0	0
C64–68	Urinary organs	3	1	0	1	1	4	6
C64	Kidney (excl. renal pelvis)	2	1	0	0	0	3	5
C65–68	Urinary tract	0	0	0	0	1	1	2
C69	Eye	1	1	0	0	0	0	0
C70–72	Central nervous system	7	7	7	11	10	16	17
C73	Thyroid gland	0	0	0	1	2	4	4
C37, C74–75	Other endocrine glands	3	0	1	3	4	2	4
C39, C76, C80	Other or unspecified	0	0	0	0	0	0	0
C81–96	Lymphoid/haematopoietic tissue	17	12	8	14	16	22	25
C81	Hodgkin lymphoma	0	1	1	4	8	11	6
C82–86, C96	Non-Hodgkin lymphoma	3	4	2	2	4	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	7	5	8	4	7	10

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
195	297	477	809	1 396	2 162	3 126	3 003	2 354	1 815	1 632
3	9	20	36	47	58	73	53	37	26	21
0	1	2	2	4	7	10	11	13	10	8
1	2	6	11	12	16	17	10	8	4	3
0	1	2	4	6	8	14	9	5	4	3
1	3	2	3	3	4	4	4	4	4	4
1	2	9	16	23	23	28	17	8	5	3
29	52	92	167	286	430	581	603	508	425	370
1	2	7	12	19	26	44	37	26	22	18
2	4	6	14	26	32	44	51	43	36	37
2	3	5	5	10	14	18	16	12	10	8
11	20	29	52	92	149	208	244	217	197	174
8	15	26	46	74	113	143	128	110	81	57
0	1	2	2	3	4	6	3	4	0	3
2	2	5	11	22	26	26	24	22	20	14
1	1	1	4	8	9	14	15	11	7	8
2	3	10	19	29	51	68	74	54	45	44
1	1	2	3	4	7	10	11	10	8	8
3	12	24	56	112	213	347	359	273	215	159
0	1	1	2	3	4	4	3	2	2	2
0	1	2	3	6	16	17	17	14	9	6
2	9	20	51	102	193	325	337	256	202	148
0	1	0	0	1	0	1	2	0	2	2
2	1	2	2	2	2	3	2	1	1	1
23	47	56	78	102	112	150	153	112	90	80
5	7	12	18	29	60	115	156	184	199	280
0	0	0	2	3	5	11	15	15	10	7
0	0	0	1	0	0	1	1	0	0	0
1	3	5	5	7	8	7	10	5	4	5
0	1	0	2	2	3	6	5	5	3	3
52	49	88	193	473	803	1 196	1 007	680	407	326
1	9	52	170	457	792	1 185	996	669	398	318
50	39	33	16	12	5	3	3	1	1	1
1	2	3	6	5	6	8	9	9	8	7
14	31	53	92	139	203	284	316	264	214	183
10	19	29	52	64	82	94	90	63	37	25
4	12	24	40	75	120	189	226	201	177	158
2	2	2	4	4	5	6	5	3	2	3
18	25	36	41	45	52	57	50	36	29	19
8	8	11	13	12	12	15	10	9	6	4
4	6	7	9	12	11	12	9	7	5	3
0	2	2	6	7	13	21	20	21	21	34
31	42	65	84	114	172	241	231	196	157	134
6	7	9	6	7	7	6	5	4	1	1
10	17	24	36	41	66	96	83	69	52	40
0	1	1	1	3	4	7	7	6	6	3
2	4	10	9	20	29	40	41	35	28	27
12	14	22	32	43	66	91	94	83	69	64

Table 5.10: Average annual number of new cases by primary site and five-year age group, 2013–2017, **females**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	All sites	31	16	19	43	71	138	204
C00–14	Mouth, pharynx	0	0	1	1	1	2	3
C00	Lip	0	0	0	0	0	0	0
C01–02	Tongue	0	0	0	0	0	1	0
C03–06	Mouth, other	0	0	0	0	0	0	1
C07–08	Salivary glands	0	0	0	0	0	1	2
C09–14	Pharynx	0	0	0	0	0	0	0
C15–26	Digestive organs	0	0	2	3	5	10	13
C15	Oesophagus	0	0	0	0	0	0	0
C16	Stomach	0	0	0	0	0	0	1
C17	Small intestine	0	0	0	0	0	0	1
C18	Colon	0	0	2	3	4	6	6
C19–20	Rectum, rectosigmoid	0	0	0	0	0	1	4
C21	Anus	0	0	0	0	0	0	0
C22	Liver	0	0	0	0	1	0	0
C23–24	Gallbladder, bile ducts	0	0	0	0	0	0	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	0	0	0	0	0	2	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	0	0	0	0	0	1	2
C38	Heart, mediastinum and pleura	0	0	0	0	0	0	0
C40–41	Bone	0	2	1	1	2	1	2
C43	Melanoma of the skin	0	0	1	4	11	20	24
C44	Skin, non-melanoma	0	1	0	1	2	1	2
C45	Mesothelioma	0	0	0	0	0	0	0
C47	Autonomic nervous system	1	0	0	0	0	0	0
C48–49	Soft tissues etc.	1	0	1	1	1	2	1
C50	Breast	0	0	0	0	2	19	44
C51–58	Female genital organs	0	0	1	3	9	34	46
C51–52, C57.7–9	Other female genital	0	0	0	0	0	0	1
C53	Cervix uteri	0	0	0	0	6	27	37
C54	Corpus uteri	0	0	0	0	0	2	3
C55	Uterus, other	0	0	0	0	0	0	0
C56, C57.0–4, C48.1–2	Ovary etc.	0	0	0	3	2	5	5
C58	Placenta	0	0	0	0	0	0	1
C64–68	Urinary organs	5	0	0	0	2	2	3
C64	Kidney (excl. renal pelvis)	4	0	0	0	0	1	2
C65–68	Urinary tract	0	0	0	0	1	2	1
C69	Eye	1	0	0	0	0	0	2
C70–72	Central nervous system	6	6	5	8	9	13	17
C73	Thyroid gland	0	0	1	3	7	11	18
C37, C74–75	Other endocrine glands	1	0	1	4	7	6	7
C39, C76, C80	Other or unspecified	0	0	0	0	0	0	1
C81–96	Lymphoid/haematopoietic tissue	14	5	7	13	13	15	17
C81	Hodgkin lymphoma	0	0	2	6	7	5	5
C82–86, C96	Non-Hodgkin lymphoma	2	1	0	2	2	3	6
C88	Immunoproliferative disease	0	0	0	0	0	0	0
C90	Multiple myeloma	0	0	0	0	0	0	0
C91–95	Leukaemia	12	4	5	5	4	7	6

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
340	520	795	1 046	1 260	1 619	2 076	1 939	1 673	1 459	1 905
4	6	9	15	23	28	27	26	24	22	33
0	1	1	1	3	6	7	6	7	8	11
1	1	3	4	6	7	8	6	5	5	6
0	1	1	2	4	4	5	6	6	5	9
2	1	2	4	2	3	3	3	3	2	4
0	2	3	3	8	8	5	5	4	2	2
33	46	85	138	187	279	421	481	452	442	553
0	1	2	3	4	6	11	13	12	7	12
3	4	6	10	9	15	20	23	20	25	36
2	2	4	4	6	8	12	11	8	10	9
13	18	35	56	77	119	190	237	239	245	289
9	12	20	35	44	64	79	86	70	60	73
2	3	5	5	7	6	12	9	5	6	5
1	2	3	4	7	9	13	17	14	11	15
1	0	1	4	5	8	15	13	13	14	17
2	4	6	15	23	36	59	61	61	53	76
0	1	3	2	4	9	11	11	11	11	20
3	9	27	59	113	184	292	300	228	164	130
0	0	1	1	1	2	1	3	1	3	3
0	0	1	2	3	2	4	2	3	1	1
2	9	25	56	109	179	286	295	223	160	124
0	0	0	0	0	1	1	0	1	0	2
1	2	2	1	1	2	3	2	2	1	2
44	68	86	84	93	101	112	111	79	69	94
2	7	13	16	33	46	79	107	131	153	335
0	0	0	1	1	1	3	2	2	2	1
0	1	0	0	0	1	0	0	0	0	0
2	3	4	4	4	5	5	6	3	5	3
99	191	319	412	401	458	500	290	242	178	233
69	78	103	133	168	208	241	221	167	125	139
2	4	6	7	9	12	13	12	12	13	29
49	45	46	24	22	21	21	18	9	9	9
8	15	25	57	78	109	123	119	93	66	56
0	0	1	1	1	0	1	1	1	1	3
9	13	25	45	58	66	82	71	52	37	41
1	0	0	0	0	0	0	0	0	0	0
8	13	21	34	54	76	108	113	104	84	102
5	10	13	18	19	30	44	45	31	24	25
2	4	8	16	35	46	64	67	72	60	77
1	2	2	3	3	4	9	5	4	2	2
20	31	43	49	52	60	64	58	41	36	32
27	26	30	28	22	22	27	24	13	8	9
8	8	10	10	10	8	9	8	5	4	3
1	1	1	5	8	9	13	15	23	27	64
18	26	39	55	87	128	163	171	153	137	170
5	3	3	2	2	3	4	3	3	4	2
5	9	12	23	35	50	65	69	55	47	51
0	0	1	1	1	4	4	4	6	4	3
1	2	5	8	15	21	26	25	30	25	32
7	12	18	21	34	50	64	70	59	57	82

Table 5.11: Age-specific incidence rates per 100 000 person-years by primary site and five-year age group, 2013–2017, **males**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	All sites	22.6	14.3	14.2	27.6	48.6	64.2	83.7
C00–14	Mouth, pharynx	0.1	0.0	0.1	0.0	0.9	0.3	1.5
C00	Lip	0.0	0.0	0.0	0.0	0.1	0.0	0.2
C01–02	Tongue	0.0	0.0	0.0	0.0	0.2	0.1	0.4
C03–06	Mouth, other	0.0	0.0	0.0	0.0	0.2	0.0	0.3
C07–08	Salivary glands	0.0	0.0	0.1	0.0	0.1	0.2	0.3
C09–14	Pharynx	0.1	0.0	0.0	0.0	0.2	0.0	0.1
C15–26	Digestive organs	0.3	0.1	0.5	1.4	3.2	4.4	9.4
C15	Oesophagus	0.0	0.0	0.0	0.0	0.1	0.1	0.4
C16	Stomach	0.0	0.0	0.0	0.1	0.1	0.3	0.8
C17	Small intestine	0.0	0.0	0.0	0.0	0.1	0.1	0.7
C18	Colon	0.0	0.0	0.3	1.0	2.6	2.0	3.2
C19–20	Rectum, rectosigmoid	0.0	0.0	0.0	0.0	0.1	1.3	3.1
C21	Anus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C22	Liver	0.3	0.1	0.1	0.1	0.1	0.2	0.6
C23–24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C25	Pancreas	0.0	0.0	0.1	0.2	0.0	0.2	0.3
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.1	0.1
C30–34, C38	Respiratory organs	0.5	0.0	0.1	0.5	0.2	0.4	0.7
C30–31	Nose, sinuses	0.0	0.0	0.1	0.1	0.1	0.1	0.0
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C33–34	Lung, trachea	0.5	0.0	0.0	0.1	0.0	0.2	0.4
C38	Heart, mediastinum and pleura	0.0	0.0	0.0	0.2	0.1	0.1	0.1
C40–41	Bone	0.1	0.5	0.9	1.0	0.9	0.8	1.3
C43	Melanoma of the skin	0.1	0.1	0.4	0.6	2.6	5.9	6.5
C44	Skin, non-melanoma	0.4	0.2	0.1	0.6	0.7	0.8	1.6
C45	Mesothelioma	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C47	Autonomic nervous system	0.9	0.1	0.1	0.1	0.1	0.2	0.1
C48–49	Soft tissues etc.	0.6	0.4	0.6	0.5	0.8	0.8	0.8
C50	Breast	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C60–63	Male genital organs	0.4	0.1	0.3	5.2	20.2	23.9	29.5
C61	Prostate	0.0	0.0	0.0	0.1	0.0	0.0	0.0
C62	Testis	0.3	0.0	0.3	5.1	20.2	23.9	29.4
C60, C63	Other male genital	0.1	0.1	0.0	0.0	0.0	0.0	0.1
C64–68	Urinary organs	1.8	0.4	0.1	0.4	0.6	2.0	3.5
C64	Kidney (excl. renal pelvis)	1.5	0.4	0.0	0.1	0.1	1.4	2.6
C65–68	Urinary tract	0.3	0.0	0.1	0.2	0.5	0.6	0.9
C69	Eye	0.4	0.6	0.3	0.1	0.0	0.1	0.2
C70–72	Central nervous system	4.4	4.2	4.7	6.8	5.9	9.0	9.6
C73	Thyroid gland	0.0	0.0	0.1	0.6	1.1	2.4	2.5
C37, C74–75	Other endocrine glands	1.8	0.2	0.5	1.5	2.2	1.1	2.5
C39, C76, C80	Other or unspecified	0.1	0.0	0.0	0.1	0.1	0.0	0.1
C81–96	Lymphoid/haematopoietic tissue	10.7	7.3	5.3	8.2	9.2	12.2	14.1
C81	Hodgkin lymphoma	0.0	0.6	0.6	2.6	4.6	6.2	3.1
C82–86, C96	Non-Hodgkin lymphoma	1.8	2.6	1.5	1.1	2.0	2.1	4.6
C88	Immunoproliferative disease	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.7
C91–95	Leukaemia	8.9	4.1	3.2	4.5	2.5	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+
109.6	156.3	248.3	461.8	868.8	1 478.2	2 283.4	3 001.6	3 637.9	4 110.7	4 297.9
1.7	4.8	10.3	20.5	29.3	39.6	53.6	52.6	57.8	58.9	54.8
0.0	0.4	0.9	1.3	2.5	4.8	7.2	11.0	19.5	21.7	21.1
0.4	1.2	3.1	6.2	7.3	11.1	12.4	10.4	12.4	8.2	8.4
0.2	0.7	0.8	2.1	3.7	5.5	10.4	9.4	8.0	9.1	7.9
0.4	1.4	0.8	1.9	1.6	2.5	3.1	4.4	5.6	9.1	10.5
0.6	1.2	4.6	9.1	14.1	15.9	20.6	17.4	12.4	10.9	6.8
16.4	27.4	48.1	95.5	178.2	294.1	424.5	602.4	784.3	963.1	974.7
0.6	1.2	3.4	6.7	11.6	17.9	32.4	37.2	39.9	48.9	47.9
1.1	2.1	3.3	8.0	16.4	21.7	31.8	50.8	66.8	81.5	98.5
1.1	1.6	2.5	2.9	6.0	9.3	13.3	15.8	19.2	22.2	20.0
6.0	10.7	15.3	29.6	57.2	101.9	151.9	243.5	335.0	445.3	457.1
4.6	7.7	13.6	26.1	45.9	77.2	104.2	128.4	170.0	182.6	150.6
0.2	0.3	0.8	1.1	1.9	2.7	4.2	2.8	5.6	0.9	7.4
0.9	1.1	2.4	6.2	13.4	17.8	19.1	24.2	33.4	45.8	35.8
0.3	0.5	0.6	2.2	5.1	6.3	10.2	15.4	16.7	15.4	21.1
1.0	1.8	5.1	10.8	18.3	34.7	49.8	73.6	83.1	101.9	115.8
0.6	0.5	0.9	1.9	2.4	4.5	7.5	10.8	14.8	18.6	20.5
1.7	6.3	12.7	32.1	69.6	145.7	253.6	358.9	421.5	487.0	418.1
0.2	0.6	0.7	1.0	1.9	2.6	3.2	3.0	2.5	4.5	6.3
0.0	0.5	1.1	1.7	3.7	10.8	12.7	17.2	22.3	21.3	14.7
1.3	4.7	10.6	29.2	63.5	132.1	237.1	336.9	396.2	456.6	390.7
0.1	0.4	0.2	0.1	0.5	0.3	0.6	1.8	0.6	4.5	6.3
0.9	0.4	0.9	1.0	1.1	1.5	2.2	2.2	1.9	2.7	3.2
12.8	24.7	29.2	44.4	63.3	76.3	109.6	152.5	173.7	204.8	211.7
2.9	3.6	6.1	10.4	18.2	41.3	83.7	155.5	283.7	451.7	736.7
0.0	0.0	0.2	0.9	1.7	3.4	8.2	14.6	22.9	22.2	19.0
0.0	0.2	0.0	0.3	0.0	0.3	0.6	0.6	0.0	0.0	0.0
0.7	1.6	2.7	2.9	4.6	5.2	5.0	9.8	8.0	8.2	13.2
0.1	0.6	0.2	0.9	1.2	2.1	4.1	4.8	7.1	6.8	8.4
29.1	26.0	45.9	109.9	294.6	548.9	873.9	1 006.6	1 050.1	922.8	858.3
0.7	4.7	27.2	97.1	284.5	541.4	865.4	995.4	1 034.0	902.0	836.2
27.9	20.4	17.4	9.4	7.2	3.7	2.5	2.6	1.9	2.3	3.2
0.6	0.8	1.4	3.4	2.9	3.8	6.0	8.6	14.2	18.6	19.0
7.6	16.1	27.8	52.7	86.5	138.5	207.1	316.1	407.6	484.3	481.8
5.6	10.0	15.1	29.8	39.6	56.2	69.0	90.2	96.7	83.8	65.8
2.0	6.1	12.7	22.9	46.9	82.3	138.2	225.9	310.9	400.5	416.0
1.0	1.2	0.9	2.4	2.6	3.6	4.5	5.2	4.6	5.4	6.8
10.0	13.3	18.5	23.5	28.3	35.5	41.6	49.8	55.3	64.8	51.1
4.7	4.2	5.6	7.2	7.2	8.2	11.0	10.2	13.3	14.5	10.0
2.4	2.9	3.7	5.4	7.3	7.5	8.8	9.4	11.1	10.9	6.8
0.1	0.8	1.1	3.3	4.2	8.6	15.3	19.8	31.8	48.0	89.5
17.3	22.1	34.1	48.2	70.8	117.8	176.2	230.7	303.2	354.7	353.9
3.5	3.5	4.7	3.5	4.2	4.8	4.7	5.0	5.6	1.8	3.7
5.8	8.9	12.4	20.5	25.5	45.3	70.3	83.4	106.6	118.7	104.8
0.0	0.3	0.6	0.3	1.9	2.7	5.3	7.2	9.3	14.0	6.8
1.1	1.9	5.0	5.4	12.3	19.7	29.5	41.0	53.5	64.3	70.0
6.9	7.5	11.4	18.4	26.9	45.4	66.5	94.2	128.2	155.8	168.5

Table 5.12: Age-specific incidence rates per 100 000 person-years by primary site and five-year age group, 2013–2017, **females**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	All sites	20.7	10.1	12.4	27.3	42.6	78.8	120.6
C00–14	Mouth, pharynx	0.3	0.0	0.4	0.5	0.5	1.0	1.8
C00	Lip	0.1	0.0	0.0	0.0	0.0	0.0	0.0
C01–02	Tongue	0.0	0.0	0.0	0.1	0.1	0.3	0.2
C03–06	Mouth, other	0.0	0.0	0.1	0.1	0.1	0.1	0.4
C07–08	Salivary glands	0.0	0.0	0.3	0.1	0.1	0.3	1.2
C09–14	Pharynx	0.1	0.0	0.0	0.1	0.1	0.2	0.0
C15–26	Digestive organs	0.3	0.3	1.2	2.2	3.2	5.7	7.8
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C16	Stomach	0.0	0.0	0.0	0.0	0.1	0.2	0.6
C17	Small intestine	0.0	0.0	0.0	0.0	0.1	0.1	0.5
C18	Colon	0.0	0.1	1.2	2.0	2.4	3.7	3.7
C19–20	Rectum, rectosigmoid	0.0	0.0	0.0	0.0	0.0	0.8	2.3
C21	Anus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C22	Liver	0.3	0.1	0.0	0.0	0.4	0.1	0.1
C23–24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C25	Pancreas	0.0	0.0	0.0	0.1	0.2	0.6	0.5
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.2	0.0
C30–34, C38	Respiratory organs	0.3	0.1	0.0	0.3	0.2	1.0	1.8
C30–31	Nose, sinuses	0.0	0.0	0.0	0.1	0.0	0.2	0.2
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C33–34	Lung, trachea	0.3	0.1	0.0	0.1	0.2	0.8	1.4
C38	Heart, mediastinum and pleura	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C40–41	Bone	0.3	1.0	0.7	0.8	1.0	0.5	1.2
C43	Melanoma of the skin	0.0	0.1	0.7	2.8	6.5	11.2	14.5
C44	Skin, non-melanoma	0.1	0.4	0.0	0.8	1.0	0.8	1.2
C45	Mesothelioma	0.0	0.0	0.0	0.1	0.0	0.0	0.0
C47	Autonomic nervous system	0.8	0.1	0.0	0.0	0.0	0.1	0.2
C48–49	Soft tissues etc.	0.5	0.3	0.5	0.6	0.6	1.0	0.8
C50	Breast	0.0	0.0	0.0	0.1	1.1	10.8	25.8
C51–58	Female genital organs	0.1	0.1	0.4	1.9	5.3	19.7	27.5
C51–52, C57.7–9	Other female genital	0.0	0.0	0.1	0.0	0.1	0.2	0.5
C53	Cervix uteri	0.0	0.0	0.1	0.1	3.8	15.7	21.9
C54	Corpus uteri	0.0	0.0	0.0	0.1	0.1	0.9	1.5
C55	Uterus, other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C56, C57.0–4, C48.1–2	Ovary etc.	0.1	0.1	0.1	1.6	1.1	2.7	3.2
C58	Placenta	0.0	0.0	0.0	0.0	0.1	0.1	0.4
C64–68	Urinary organs	3.1	0.1	0.0	0.1	1.1	1.3	1.8
C64	Kidney (excl. renal pelvis)	2.9	0.1	0.0	0.1	0.2	0.3	1.2
C65–68	Urinary tract	0.1	0.0	0.0	0.0	0.8	0.9	0.6
C69	Eye	0.7	0.0	0.0	0.1	0.1	0.0	0.9
C70–72	Central nervous system	4.3	3.6	3.0	4.8	5.7	7.2	10.0
C73	Thyroid gland	0.0	0.1	0.4	1.6	4.5	6.3	10.7
C37, C74–75	Other endocrine glands	0.4	0.3	0.5	2.3	4.0	3.4	4.0
C39, C76, C80	Other or unspecified	0.0	0.1	0.0	0.1	0.1	0.0	0.5
C81–96	Lymphoid/haematopoietic tissue	9.6	3.4	4.6	8.1	7.8	8.7	10.2
C81	Hodgkin lymphoma	0.1	0.0	1.3	4.1	4.2	2.9	3.0
C82–86, C96	Non-Hodgkin lymphoma	1.5	0.5	0.3	1.0	1.3	1.5	3.6
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	0.2
C91–95	Leukaemia	8.0	2.8	3.0	3.0	2.3	4.2	3.4

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
203.9	289.7	439.3	630.9	811.4	1 121.3	1 508.9	1 817.5	2 165.4	2 376.2	2 462.8
2.2	3.3	5.1	8.9	14.7	19.7	19.9	24.2	31.6	36.5	42.1
0.1	0.4	0.4	0.8	1.8	4.3	4.9	6.0	8.8	13.0	14.0
0.5	0.4	1.8	2.4	3.7	4.7	5.5	5.2	6.2	7.8	8.3
0.2	0.8	0.4	1.4	2.7	2.8	3.9	5.4	7.8	8.1	11.4
1.1	0.4	0.9	2.2	1.0	2.1	1.9	2.6	4.1	3.6	5.4
0.2	1.2	1.5	2.1	5.4	5.8	3.6	4.9	4.7	3.9	3.1
19.7	25.9	46.8	83.1	120.6	193.3	306.3	450.7	585.2	720.6	715.4
0.0	0.3	0.9	1.8	2.8	4.2	7.7	12.2	15.0	12.1	16.0
2.0	2.2	3.3	6.3	5.8	10.2	14.7	21.4	25.4	40.7	46.5
1.0	1.3	2.0	2.3	3.7	5.3	8.7	9.9	10.1	15.6	12.2
7.9	9.8	19.2	33.5	49.8	82.5	138.0	222.5	308.8	398.7	374.1
5.4	6.9	11.2	21.3	28.6	44.0	57.4	80.6	90.3	98.1	94.4
1.0	1.6	2.8	3.0	4.6	4.4	8.6	8.6	7.0	10.4	6.2
0.4	0.9	1.4	2.2	4.6	6.2	9.7	15.9	18.6	18.6	19.9
0.5	0.2	0.8	2.3	3.2	5.3	10.6	11.8	16.6	23.1	22.2
1.3	2.0	3.5	8.9	15.1	25.1	43.0	57.6	78.9	86.0	98.3
0.2	0.6	1.8	1.4	2.3	6.1	7.9	10.1	14.5	17.3	25.6
1.7	5.2	14.8	35.8	73.0	127.1	212.0	281.6	295.6	266.8	168.1
0.2	0.2	0.3	0.6	0.6	1.5	0.7	2.4	1.6	4.6	3.9
0.2	0.1	0.4	1.0	1.8	1.5	2.8	2.2	4.4	1.6	1.6
1.2	4.9	14.0	34.0	70.3	123.7	207.7	276.7	288.9	260.0	160.6
0.0	0.0	0.0	0.2	0.3	0.4	0.7	0.2	0.8	0.7	2.1
0.8	1.0	1.1	0.4	0.8	1.5	2.0	1.5	2.3	2.0	2.1
26.4	37.9	47.7	50.8	60.1	70.2	81.6	104.2	102.5	112.1	122.0
1.3	4.0	7.1	9.8	21.0	31.6	57.3	100.3	169.8	249.2	433.1
0.1	0.0	0.1	0.4	0.5	0.8	1.9	2.1	2.1	3.3	1.3
0.1	0.7	0.0	0.0	0.0	0.4	0.3	0.4	0.0	0.0	0.3
1.2	1.6	2.3	2.7	2.6	3.3	3.8	5.6	4.4	7.8	4.1
59.4	106.6	176.0	248.7	258.4	316.9	363.3	271.5	313.2	289.3	300.7
41.5	43.4	56.9	80.0	108.0	144.0	174.9	207.0	216.1	203.3	179.7
1.4	2.3	3.2	4.1	5.9	8.2	9.7	11.1	15.3	20.5	37.0
29.2	25.1	25.5	14.2	14.3	14.5	15.1	16.5	11.9	14.0	12.2
4.8	8.3	13.8	34.3	50.3	75.3	89.7	111.9	120.4	107.5	72.9
0.1	0.1	0.3	0.5	0.4	0.3	0.7	1.1	0.8	1.6	4.1
5.5	7.4	14.0	26.9	37.1	45.7	59.6	66.4	67.8	59.6	53.5
0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.6	7.5	11.7	20.6	34.9	52.4	78.2	105.7	134.1	136.8	132.4
3.2	5.4	7.3	11.0	12.2	20.8	32.0	42.6	40.6	38.4	32.6
1.3	2.1	4.4	9.6	22.7	31.6	46.2	63.2	93.4	98.4	99.8
0.8	0.9	1.3	1.9	1.8	2.5	6.8	4.5	4.7	3.9	2.1
12.2	17.4	23.8	29.7	33.7	41.4	46.8	54.0	53.3	59.0	41.1
16.0	14.7	16.7	16.6	13.9	15.1	19.3	22.7	16.8	13.0	12.2
4.6	4.7	5.5	5.8	6.3	5.8	6.5	7.7	6.2	5.9	4.4
0.5	0.3	0.8	2.8	4.9	6.2	9.6	13.7	29.5	44.0	82.2
10.7	14.6	21.5	33.0	56.1	88.9	118.3	160.1	198.0	222.8	219.5
3.1	1.6	1.9	1.0	1.4	2.4	2.6	2.6	3.6	6.2	2.1
3.1	4.9	6.4	13.6	22.3	34.9	47.5	64.9	70.9	76.9	66.2
0.0	0.0	0.6	0.6	0.6	2.8	2.6	3.4	8.0	5.9	3.6
0.5	1.2	2.7	5.1	9.8	14.3	19.2	23.4	38.6	41.4	41.6
4.0	6.9	10.1	12.8	22.0	34.6	46.4	65.8	76.9	92.5	106.0

Table 5.13: Average annual number of new cases by primary site and five-year period, 1958–2017, **males**

ICD-10	Site	1958–62	1963–67	1968–72	1973–77	1978–82
C00–96	All sites	4 188	4 887	5 778	6 775	7 814
C00–14	Mouth, pharynx	187	190	227	239	241
C00	Lip	96	97	117	115	108
C01–02	Tongue	20	22	22	27	30
C03–06	Mouth, other	24	23	32	30	41
C07–08	Salivary glands	11	13	15	16	14
C09–14	Pharynx	36	35	41	52	49
C15–26	Digestive organs	1 667	1 778	1 902	2 016	2 243
C15	Oesophagus	81	75	82	81	89
C16	Stomach	825	787	726	638	602
C17	Small intestine	9	14	17	18	21
C18	Colon	261	329	368	442	563
C19–20	Rectum, rectosigmoid	161	189	287	352	467
C21	Anus	5	7	5	8	9
C22	Liver	22	28	44	51	56
C23–24	Gallbladder, bile ducts	22	24	26	32	38
C25	Pancreas	147	197	232	254	279
C26	Other digestive organs	135	129	114	140	119
C30–34, C38	Respiratory organs	376	509	715	870	1 087
C30–31	Nose, sinuses	20	19	24	24	22
C32	Larynx, epiglottis	36	58	67	80	92
C33–34	Lung, trachea	307	424	609	746	954
C38	Heart, mediastinum and pleura	13	9	15	19	19
C40–41	Bone	11	17	18	23	22
C43	Melanoma of the skin	61	88	123	178	221
C44	Skin, non-melanoma	81	71	124	197	230
C45	Mesothelioma	1	2	5	13	20
C47	Autonomic nervous system	18	16	13	11	8
C48–49	Soft tissues etc.	25	32	41	52	55
C50	Breast	7	8	9	11	11
C60–63	Male genital organs	790	1 001	1 185	1 463	1 711
C61	Prostate	709	912	1 079	1 351	1 562
C62	Testis	62	65	85	88	122
C60, C63	Other male genital	19	24	21	24	27
C64–68	Urinary organs	335	451	554	707	835
C64	Kidney (excl. renal pelvis)	110	137	163	179	219
C65–68	Urinary tract	225	314	391	528	616
C69	Eye	18	18	22	22	24
C70–72	Central nervous system	122	142	152	173	202
C73	Thyroid gland	23	26	38	37	47
C37, C74–75	Other endocrine glands	7	9	23	26	37
C39, C76, C80	Other or unspecified	70	95	131	168	192
C81–96	Lymphoid/haematopoietic tissue	388	435	496	569	628
C81	Hodgkin lymphoma	48	55	63	63	64
C82–86, C96	Non-Hodgkin lymphoma	94	111	122	150	171
C88	Immunoproliferative disease	0	0	3	7	9
C90	Multiple myeloma	75	85	101	133	152
C91–95	Leukaemia	170	184	207	216	232

1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
8 742	9 600	10 642	11 560	13 534	15 674	17 746
258	252	257	257	262	323	388
103	87	70	58	52	72	67
38	37	42	49	50	67	91
46	48	56	45	48	51	58
14	20	18	23	19	23	36
58	60	71	82	94	108	136
2 363	2 418	2 484	2 581	2 770	3 118	3 579
86	105	110	122	140	171	215
560	504	438	367	328	294	298
28	27	36	49	57	82	103
693	795	857	959	1 064	1 225	1 408
512	544	573	611	653	720	809
13	13	19	16	21	24	27
66	60	56	78	85	118	175
48	52	54	59	65	75	79
297	288	283	283	322	352	400
58	30	59	38	36	57	65
1 245	1 306	1 410	1 458	1 582	1 704	1 778
22	23	20	24	22	24	26
109	103	108	110	98	101	92
1 104	1 169	1 269	1 309	1 449	1 570	1 648
10	10	14	15	14	9	11
23	20	22	22	24	30	28
278	407	439	469	541	778	1 031
317	411	512	579	690	842	1 072
29	38	46	58	67	68	67
8	7	5	6	6	6	6
43	44	50	52	58	64	67
11	13	13	16	16	21	30
1 916	2 248	2 745	3 232	4 169	4 941	5 416
1 742	2 037	2 505	2 962	3 864	4 598	5 047
147	187	204	240	262	298	305
26	25	36	29	44	45	63
976	1 052	1 094	1 124	1 296	1 475	1 807
250	263	270	302	369	476	576
726	789	824	823	927	999	1 231
25	25	29	28	33	32	42
236	241	297	377	465	501	484
44	47	45	49	64	76	119
42	43	60	71	104	133	102
241	288	297	259	209	155	147
686	739	835	924	1 177	1 409	1 582
49	53	52	57	74	81	90
229	281	332	358	423	508	562
8	9	20	23	34	37	39
155	158	166	164	187	217	245
244	238	264	322	460	567	646

Table 5.14: Average annual number of new cases by primary site and five-year period, 1958–2017, **females**

ICD-10	Site	1958–62	1963–67	1968–72	1973–77	1978–82
C00–96	All sites	4 321	4 832	5 575	6 401	7 260
C00–14	Mouth, pharynx	62	70	76	82	90
C00	Lip	8	8	11	13	16
C01–02	Tongue	12	15	17	18	15
C03–06	Mouth, other	13	14	17	15	24
C07–08	Salivary glands	8	14	14	10	16
C09–14	Pharynx	21	19	17	24	18
C15–26	Digestive organs	1 403	1 502	1 631	1 782	2 074
C15	Oesophagus	25	32	27	31	33
C16	Stomach	563	538	468	415	407
C17	Small intestine	7	11	16	19	23
C18	Colon	297	381	452	546	715
C19–20	Rectum, rectosigmoid	122	152	229	274	376
C21	Anus	8	11	11	16	20
C22	Liver	13	13	27	29	37
C23–24	Gallbladder, bile ducts	52	51	60	55	74
C25	Pancreas	111	129	169	202	231
C26	Other digestive organs	207	183	172	195	159
C30–34, C38	Respiratory organs	95	124	174	207	277
C30–31	Nose, sinuses	14	13	13	13	14
C32	Larynx, epiglottis	3	6	7	7	11
C33–34	Lung, trachea	74	97	148	178	247
C38	Heart, mediastinum and pleura	5	8	5	9	5
C40–41	Bone	10	10	13	13	14
C43	Melanoma of the skin	68	98	133	218	277
C44	Skin, non-melanoma	51	38	70	131	159
C45	Mesothelioma	1	1	2	3	2
C47	Autonomic nervous system	14	9	17	8	5
C48–49	Soft tissues etc.	20	26	33	43	44
C50	Breast	968	1 114	1 252	1 437	1 575
C51–58	Female genital organs	904	992	1 147	1 248	1 267
C51–52, C57.7–9	Other female genital	66	57	62	77	82
C53	Cervix uteri	345	375	409	444	389
C54	Corpus uteri	191	232	281	331	373
C55	Uterus, other	22	17	13	7	8
C56, C57.0–4, C48.1–2	Ovary etc.	277	308	378	387	412
C58	Placenta	3	4	4	1	3
C64–68	Urinary organs	204	230	282	341	389
C64	Kidney (excl. renal pelvis)	82	93	113	125	141
C65–68	Urinary tract	122	137	169	216	248
C69	Eye	17	17	17	21	22
C70–72	Central nervous system	114	124	128	162	197
C73	Thyroid gland	54	65	95	113	139
C37, C74–75	Other endocrine glands	6	6	14	20	37
C39, C76, C80	Other or unspecified	58	74	101	128	182
C81–96	Lymphoid/haematopoietic tissue	272	332	391	446	510
C81	Hodgkin lymphoma	35	40	45	43	40
C82–86, C96	Non-Hodgkin lymphoma	65	81	101	122	154
C88	Immunoproliferative disease	0	0	1	4	5
C90	Multiple myeloma	41	70	87	112	127
C91–95	Leukaemia	130	140	157	166	185

1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
8 025	8 796	9 789	10 795	12 152	13 365	15 152
109	111	126	133	158	189	225
21	29	29	25	36	45	51
27	24	22	29	29	37	52
27	29	37	31	39	40	46
13	14	18	21	21	24	31
22	16	21	27	33	43	45
2 175	2 216	2 404	2 498	2 622	2 833	3 153
35	37	43	51	54	62	71
379	326	292	240	222	198	173
27	31	29	50	47	64	75
809	899	1 046	1 124	1 233	1 345	1 540
402	430	463	481	501	518	558
24	32	36	35	48	47	66
44	45	38	50	48	74	98
84	74	75	80	78	90	91
280	290	310	331	342	368	399
91	51	72	56	49	67	83
371	506	656	799	1 029	1 272	1 516
15	15	16	16	21	17	17
11	12	21	20	16	19	20
341	475	613	756	985	1 229	1 473
4	4	7	7	7	6	5
14	15	18	20	19	23	27
376	463	507	511	598	783	1 004
237	326	415	480	615	739	929
5	8	9	10	13	13	13
6	8	8	4	5	4	5
48	45	43	53	63	62	52
1 736	1 875	2 170	2 531	2 754	2 872	3 386
1 288	1 342	1 391	1 467	1 561	1 640	1 744
83	85	99	92	106	106	120
338	357	338	307	292	302	343
394	427	465	551	666	718	754
5	6	9	10	8	7	10
466	461	477	504	485	504	514
3	7	3	3	4	3	2
419	467	486	506	568	634	729
161	187	192	191	224	251	273
258	280	293	316	345	383	456
20	25	30	29	31	33	40
228	264	344	463	620	619	550
143	136	127	132	156	202	275
44	44	52	69	113	136	108
236	303	311	302	264	180	167
570	639	690	788	962	1 132	1 231
35	37	33	45	50	58	59
211	255	286	329	364	417	437
6	8	13	15	21	26	27
133	140	141	151	156	167	191
186	200	217	248	372	463	518

Table 5.15: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and five-year period, 1958–2017, **males**

ICD-10	Site	1958–62	1963–67	1968–72	1973–77	1978–82
C00–96	All sites	337.9	365.4	400.5	441.7	482.4
C00–14	Mouth, pharynx	15.3	14.4	15.7	15.5	14.8
C00	Lip	8.1	7.7	8.4	7.5	6.8
C01–02	Tongue	1.5	1.6	1.5	1.8	1.7
C03–06	Mouth, other	2.0	1.9	2.1	2.0	2.6
C07–08	Salivary glands	0.8	0.8	1.0	1.0	0.9
C09–14	Pharynx	2.8	2.3	2.7	3.3	2.8
C15–26	Digestive organs	138.7	135.5	134.9	134.7	141.9
C15	Oesophagus	7.0	5.6	5.9	5.4	5.6
C16	Stomach	69.1	60.5	52.1	42.8	38.1
C17	Small intestine	0.7	1.0	1.2	1.1	1.3
C18	Colon	21.8	25.1	26.2	29.7	35.6
C19–20	Rectum, rectosigmoid	13.5	14.4	19.9	23.4	29.1
C21	Anus	0.4	0.5	0.4	0.5	0.6
C22	Liver	1.6	1.9	2.9	3.1	3.3
C23–24	Gallbladder, bile ducts	1.7	1.7	1.9	2.2	2.4
C25	Pancreas	11.4	14.2	15.8	16.4	17.2
C26	Other digestive organs	11.6	10.6	8.6	10.0	8.5
C30–34, C38	Respiratory organs	26.9	34.0	44.7	51.9	62.5
C30–31	Nose, sinuses	1.6	1.5	1.5	1.5	1.3
C32	Larynx, epiglottis	2.6	3.9	4.3	4.8	5.3
C33–34	Lung, trachea	21.9	28.0	38.0	44.5	54.7
C38	Heart, mediastinum and pleura	0.9	0.6	1.0	1.1	1.2
C40–41	Bone	0.6	1.0	0.9	1.2	1.1
C43	Melanoma of the skin	4.2	5.8	7.8	10.7	12.8
C44	Skin, non-melanoma	7.4	6.6	10.4	15.2	16.1
C45	Mesothelioma	0.1	0.2	0.3	0.8	1.2
C47	Autonomic nervous system	1.1	1.0	0.7	0.6	0.4
C48–49	Soft tissues etc.	1.9	2.1	2.8	3.3	3.3
C50	Breast	0.7	0.6	0.6	0.7	0.8
C60–63	Male genital organs	71.6	83.8	89.9	102.1	110.3
C61	Prostate	66.1	77.9	83.4	95.7	102.4
C62	Testis	3.8	3.9	4.9	4.7	6.1
C60, C63	Other male genital	1.7	2.0	1.6	1.7	1.7
C64–68	Urinary organs	26.2	33.0	36.9	44.7	50.5
C64	Kidney (excl. renal pelvis)	8.1	9.6	10.4	10.9	12.9
C65–68	Urinary tract	18.1	23.4	26.5	33.8	37.6
C69	Eye	1.3	1.1	1.3	1.3	1.4
C70–72	Central nervous system	7.3	8.2	8.5	9.4	11.0
C73	Thyroid gland	1.7	1.7	2.4	2.4	2.7
C37, C74–75	Other endocrine glands	0.4	0.5	1.3	1.4	2.0
C39, C76, C80	Other or unspecified	5.4	6.8	9.5	10.9	12.2
C81–96	Lymphoid/haematopoietic tissue	27.2	29.1	31.8	35.1	37.6
C81	Hodgkin lymphoma	3.1	3.4	3.7	3.6	3.3
C82–86, C96	Non-Hodgkin lymphoma	6.4	7.5	7.7	9.2	10.1
C88	Immunoproliferative disease	0.0	0.0	0.2	0.5	0.6
C90	Multiple myeloma	5.9	6.1	7.0	8.7	9.4
C91–95	Leukaemia	11.8	12.1	13.2	13.1	14.2

1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
517.0	549.6	595.4	625.6	691.5	725.2	731.4
15.3	14.5	14.3	13.6	13.0	14.4	15.5
6.3	5.1	4.0	3.2	2.8	3.4	2.8
2.2	2.1	2.3	2.5	2.5	3.0	3.6
2.7	2.8	3.1	2.4	2.3	2.3	2.3
0.7	1.1	1.0	1.2	1.0	1.1	1.5
3.3	3.4	3.9	4.2	4.5	4.6	5.3
142.7	140.8	140.8	141.6	143.1	146.1	148.9
5.1	6.0	6.3	6.6	7.2	7.8	8.8
34.1	29.7	24.9	20.2	17.2	13.9	12.5
1.7	1.5	2.0	2.7	2.8	3.7	4.2
41.9	46.5	48.5	52.6	55.2	58.1	59.4
30.4	31.2	32.4	33.4	33.4	33.3	33.0
0.8	0.7	1.1	0.8	1.0	1.1	1.1
3.9	3.5	3.0	4.2	4.3	5.4	7.2
2.8	3.1	3.1	3.3	3.3	3.5	3.3
18.0	16.7	16.0	15.6	16.7	16.5	16.7
4.0	2.0	3.7	2.2	2.0	2.7	2.7
70.4	72.6	78.0	77.7	80.2	79.2	73.6
1.3	1.3	1.1	1.2	1.1	1.1	1.1
6.1	5.8	6.0	5.8	4.9	4.6	3.7
62.4	64.9	70.1	69.9	73.6	73.1	68.3
0.6	0.6	0.8	0.8	0.7	0.4	0.5
1.1	1.0	1.0	1.0	1.1	1.3	1.1
15.6	22.5	23.1	24.0	26.4	34.9	41.9
20.9	25.4	30.6	33.2	37.4	42.4	48.8
1.7	2.1	2.6	3.1	3.5	3.2	2.8
0.4	0.4	0.2	0.3	0.3	0.3	0.2
2.4	2.3	2.7	2.6	2.7	2.8	2.7
0.7	0.8	0.7	0.9	0.8	0.9	1.2
115.2	129.5	155.2	177.9	215.8	227.0	218.5
106.8	119.6	144.4	166.0	202.4	213.0	204.3
6.8	8.3	8.8	10.2	11.2	12.0	11.5
1.6	1.5	2.0	1.6	2.2	2.0	2.7
57.4	60.7	61.6	60.8	66.3	68.7	75.1
14.4	14.9	14.8	15.9	18.3	21.2	22.9
43.0	45.7	46.8	44.9	48.0	47.5	52.2
1.4	1.3	1.5	1.4	1.6	1.4	1.7
12.5	12.8	15.1	18.4	21.8	21.7	19.1
2.4	2.5	2.3	2.4	2.9	3.3	4.7
2.2	2.2	3.0	3.5	4.8	5.7	4.0
14.8	17.1	17.3	14.3	11.2	7.6	6.5
39.8	41.1	45.2	48.8	58.4	64.2	64.8
2.6	2.5	2.4	2.6	3.3	3.4	3.5
13.0	15.4	17.8	18.8	20.7	23.0	22.8
0.5	0.5	1.1	1.3	1.7	1.7	1.6
9.5	9.2	9.4	8.9	9.5	10.1	10.2
14.2	13.4	14.4	17.2	23.1	26.1	26.7

Table 5.16: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and five-year period, 1958–2017, **females**

ICD-10	Site	1958–62	1963–67	1968–72	1973–77	1978–82
C00–96	All sites	288.0	297.4	316.6	342.5	365.3
C00–14	Mouth, pharynx	4.4	4.6	4.4	4.5	4.5
C00	Lip	0.6	0.6	0.7	0.7	0.8
C01–02	Tongue	0.9	1.0	1.0	1.0	0.7
C03–06	Mouth, other	1.0	1.0	1.0	0.8	1.2
C07–08	Salivary glands	0.6	0.8	0.8	0.6	0.8
C09–14	Pharynx	1.4	1.1	1.0	1.3	0.9
C15–26	Digestive organs	101.8	98.3	94.9	95.0	101.5
C15	Oesophagus	1.8	2.3	1.6	1.6	1.7
C16	Stomach	41.7	36.0	27.5	22.2	19.8
C17	Small intestine	0.5	0.6	0.9	1.0	1.1
C18	Colon	21.2	24.4	25.9	29.0	34.9
C19–20	Rectum, rectosigmoid	8.5	9.5	13.1	14.6	18.5
C21	Anus	0.5	0.8	0.6	0.8	1.0
C22	Liver	0.9	0.8	1.5	1.5	1.8
C23–24	Gallbladder, bile ducts	3.5	3.3	3.4	2.8	3.5
C25	Pancreas	7.5	8.0	9.6	10.4	11.1
C26	Other digestive organs	15.7	12.7	10.7	11.1	8.1
C30–34, C38	Respiratory organs	6.5	7.5	9.7	10.7	13.7
C30–31	Nose, sinuses	1.0	0.9	0.8	0.7	0.6
C32	Larynx, epiglottis	0.2	0.3	0.4	0.4	0.5
C33–34	Lung, trachea	4.9	5.8	8.3	9.2	12.3
C38	Heart, mediastinum and pleura	0.3	0.5	0.3	0.4	0.2
C40–41	Bone	0.5	0.5	0.7	0.7	0.7
C43	Melanoma of the skin	4.3	5.9	7.7	12.1	14.6
C44	Skin, non-melanoma	3.7	2.8	4.4	7.6	8.2
C45	Mesothelioma	0.1	0.1	0.1	0.1	0.1
C47	Autonomic nervous system	0.9	0.5	0.9	0.4	0.3
C48–49	Soft tissues etc.	1.3	1.6	1.9	2.3	2.2
C50	Breast	62.2	66.9	70.9	77.8	81.6
C51–58	Female genital organs	56.0	58.0	64.1	67.1	65.5
C51–52, C57.7–9	Other female genital	4.6	3.5	3.6	4.0	4.1
C53	Cervix uteri	20.6	21.9	23.4	24.9	20.7
C54	Corpus uteri	11.7	13.3	15.3	17.3	19.1
C55	Uterus, other	1.6	1.2	0.9	0.4	0.5
C56, C57.0–4, C48.1–2	Ovary etc.	17.2	17.9	20.8	20.4	21.0
C58	Placenta	0.2	0.2	0.2	0.1	0.1
C64–68	Urinary organs	13.9	14.2	15.9	17.7	18.8
C64	Kidney (excl. renal pelvis)	5.3	5.5	6.1	6.4	6.8
C65–68	Urinary tract	8.6	8.6	9.8	11.2	12.0
C69	Eye	1.1	0.9	1.0	1.1	1.1
C70–72	Central nervous system	6.7	7.0	6.9	8.4	10.0
C73	Thyroid gland	3.5	4.0	5.4	6.1	7.2
C37, C74–75	Other endocrine glands	0.4	0.3	0.7	1.0	1.9
C39, C76, C80	Other or unspecified	3.9	4.5	5.9	6.8	8.8
C81–96	Lymphoid/haematopoietic tissue	17.0	19.6	21.5	23.2	24.7
C81	Hodgkin lymphoma	2.1	2.3	2.4	2.2	1.9
C82–86, C96	Non-Hodgkin lymphoma	4.1	4.9	5.6	6.4	7.5
C88	Immunoproliferative disease	0.0	0.0	0.1	0.2	0.3
C90	Multiple myeloma	2.8	4.2	4.8	5.7	6.1
C91–95	Leukaemia	8.0	8.1	8.6	8.7	8.9

1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
382.0	401.6	434.7	464.5	501.5	521.0	549.9
5.1	5.1	5.6	5.8	6.6	7.4	8.1
1.0	1.3	1.2	1.1	1.4	1.7	1.8
1.3	1.1	1.0	1.2	1.2	1.4	1.9
1.2	1.3	1.6	1.3	1.6	1.5	1.6
0.6	0.6	0.8	0.9	0.9	0.9	1.1
1.1	0.8	1.0	1.3	1.4	1.8	1.7
98.7	96.1	100.6	101.5	103.4	106.6	111.0
1.6	1.6	1.8	2.1	2.1	2.4	2.5
17.1	13.9	11.9	9.5	8.6	7.3	6.1
1.2	1.4	1.3	2.2	2.0	2.5	2.7
36.8	39.2	43.8	45.7	48.4	50.4	53.8
18.4	18.9	19.9	20.1	20.3	19.9	20.1
1.2	1.5	1.6	1.5	1.9	1.8	2.4
2.0	2.0	1.6	2.0	1.9	2.7	3.5
3.8	3.2	3.1	3.2	3.0	3.4	3.2
12.5	12.3	12.7	13.1	13.3	13.8	14.0
4.2	2.2	2.9	2.1	1.8	2.4	2.9
17.7	23.6	30.3	35.8	43.8	50.3	54.6
0.7	0.6	0.7	0.7	0.9	0.7	0.6
0.5	0.6	1.0	0.9	0.7	0.8	0.7
16.3	22.2	28.3	33.9	42.0	48.6	53.1
0.2	0.2	0.3	0.3	0.3	0.2	0.2
0.6	0.7	0.8	0.9	0.8	0.9	1.0
19.0	22.2	23.6	22.5	25.3	31.2	37.2
11.0	13.9	16.9	18.5	22.6	26.0	31.0
0.3	0.3	0.4	0.5	0.5	0.5	0.5
0.3	0.4	0.3	0.2	0.2	0.1	0.2
2.2	2.1	1.9	2.3	2.7	2.4	1.9
85.6	88.6	101.2	115.1	118.8	115.8	127.1
64.1	64.5	64.5	65.0	65.9	65.3	64.6
3.9	3.7	4.2	3.7	4.2	4.0	4.2
16.9	17.3	15.7	13.6	12.4	12.3	13.3
19.7	20.9	22.1	24.7	28.4	28.7	27.6
0.3	0.3	0.4	0.4	0.3	0.3	0.3
23.2	22.1	22.1	22.5	20.5	20.0	19.0
0.2	0.3	0.1	0.1	0.2	0.1	0.1
19.1	20.5	20.5	20.9	22.8	24.2	26.0
7.5	8.3	8.3	7.9	9.2	9.8	10.0
11.6	12.2	12.2	13.0	13.6	14.4	16.1
1.0	1.1	1.4	1.2	1.3	1.3	1.5
11.3	12.6	15.9	20.7	26.4	24.9	20.7
7.0	6.5	5.8	5.8	6.6	8.3	10.6
2.1	2.1	2.4	3.1	4.9	5.6	4.1
10.6	13.0	12.8	11.7	9.8	6.3	5.5
26.2	28.2	29.8	33.0	39.1	43.9	44.3
1.6	1.6	1.4	1.9	2.1	2.4	2.3
9.9	11.6	12.7	14.1	15.0	16.4	15.8
0.2	0.3	0.6	0.6	0.8	1.0	1.0
6.0	6.0	5.8	6.2	6.2	6.4	6.8
8.4	8.7	9.2	10.2	15.0	17.7	18.5

Table 5.17: Average annual number of new cases by primary site and county, 2013–2017, **males**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	All sites	17 746	1 165	1 908	1 603	756	697	982	976
C00–14	Mouth, pharynx	388	24	44	39	15	16	22	23
C00	Lip	67	4	6	5	4	4	3	3
C01–02	Tongue	91	5	13	10	3	3	4	5
C03–06	Mouth, other	58	3	7	6	2	2	4	5
C07–08	Salivary glands	36	3	4	4	1	2	2	2
C09–14	Pharynx	136	9	14	14	5	5	8	8
C15–26	Digestive organs	3 579	224	384	322	164	140	196	183
C15	Oesophagus	215	13	23	17	11	13	11	10
C16	Stomach	298	17	26	24	12	10	17	12
C17	Small intestine	103	7	13	8	5	3	4	5
C18	Colon	1 408	94	158	119	61	54	74	73
C19–20	Rectum, rectosigmoid	809	48	86	70	38	34	47	42
C21	Anus	27	3	3	3	1	1	1	2
C22	Liver	175	10	19	23	9	5	10	9
C23–24	Gallbladder, bile ducts	79	6	8	9	5	4	3	3
C25	Pancreas	400	21	42	40	20	14	24	22
C26	Other digestive organs	65	4	6	9	4	3	4	5
C30–34, C38	Respiratory organs	1 778	114	157	146	82	70	94	94
C30–31	Nose, sinuses	26	1	2	4	1	1	1	1
C32	Larynx, epiglottis	92	5	8	10	4	4	5	4
C33–34	Lung, trachea	1 648	107	146	133	76	65	88	88
C38	Heart, mediastinum and pleura	11	1	2	1	1	1	0	1
C40–41	Bone	28	2	2	3	2	2	1	2
C43	Melanoma of the skin	1 031	63	125	101	40	37	65	76
C44	Skin, non-melanoma	1 072	72	108	79	39	29	68	66
C45	Mesothelioma	67	3	7	7	3	2	4	5
C47	Autonomic nervous system	6	1	0	1	0	0	1	1
C48–49	Soft tissues etc.	67	3	6	7	3	3	4	4
C50	Breast	30	2	4	4	1	1	0	1
C60–63	Male genital organs	5 416	408	609	469	227	228	285	284
C61	Prostate	5 047	383	574	425	214	216	272	263
C62	Testis	305	20	28	39	11	10	10	17
C60, C63	Other male genital	63	5	7	5	2	2	3	4
C64–68	Urinary organs	1 807	110	197	156	82	67	102	109
C64	Kidney (excl. renal pelvis)	576	36	61	51	25	22	33	34
C65–68	Urinary tract	1 231	74	136	105	57	44	69	74
C69	Eye	42	5	3	4	2	1	2	2
C70–72	Central nervous system	484	27	49	55	17	19	30	25
C73	Thyroid gland	119	5	10	17	5	3	5	5
C37, C74–75	Other endocrine glands	102	6	13	10	3	4	4	5
C39, C76, C80	Other or unspecified	147	9	15	13	4	7	11	6
C81–96	Lymphoid/haematopoietic tissue	1 582	88	174	171	67	68	85	86
C81	Hodgkin lymphoma	90	5	8	11	5	4	4	4
C82–86, C96	Non-Hodgkin lymphoma	562	33	60	56	23	25	27	29
C88	Immunoproliferative disease	39	1	6	4	1	1	2	4
C90	Multiple myeloma	245	13	29	28	13	12	11	13
C91–95	Leukaemia	646	37	70	71	25	26	40	36

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
667	434	625	1 529	1 758	417	1 019	990	521	865	590	244
17	10	12	31	38	7	22	21	10	21	13	6
3	2	2	7	7	2	5	3	2	4	2	1
5	2	4	8	8	2	5	5	2	4	3	2
2	2	1	5	6	1	3	3	1	4	2	1
2	1	1	2	4	0	2	2	2	2	1	0
6	3	4	9	14	2	7	9	3	7	7	2
123	80	112	288	371	94	205	207	110	199	123	51
9	5	8	19	20	5	11	10	6	14	8	4
10	6	10	22	33	11	19	20	11	18	14	7
3	2	3	9	13	3	4	8	4	5	3	1
47	30	42	114	151	36	86	84	43	84	41	15
28	18	22	68	88	21	48	45	24	43	28	12
2	1	0	2	3	1	1	1	1	1	0	0
5	3	5	15	14	4	8	10	5	8	9	2
3	2	2	6	7	1	5	5	2	2	4	1
16	11	17	29	39	11	20	21	12	21	13	9
1	2	2	4	6	1	3	2	1	4	2	0
68	49	71	162	182	46	102	93	52	99	62	33
1	0	1	3	3	1	1	1	1	2	1	1
3	2	3	9	10	2	7	4	3	5	4	1
64	47	67	149	169	43	93	88	48	91	57	31
1	0	1	1	1	0	1	0	0	0	0	0
1	0	0	2	4	1	1	3	1	1	1	1
39	28	37	93	108	19	35	66	27	33	30	7
54	36	62	94	126	27	44	50	25	48	32	11
3	1	5	6	10	1	3	3	1	3	1	0
1	0	0	0	0	0	0	0	0	0	0	0
2	2	3	5	4	1	4	4	2	4	4	1
2	1	2	3	3	0	1	1	1	2	1	0
197	135	189	486	506	123	346	301	161	220	172	72
186	126	175	450	466	115	327	278	151	201	160	65
8	8	12	32	31	7	16	19	8	14	10	5
3	1	1	5	9	0	3	3	2	4	2	1
68	38	58	131	162	42	120	98	57	110	75	26
23	12	22	42	50	15	33	36	20	29	20	9
45	25	36	89	112	27	87	62	37	81	54	17
2	0	1	5	2	1	1	3	1	2	2	1
19	9	15	50	48	10	20	30	12	26	16	7
5	2	3	9	13	3	7	8	3	6	7	2
4	2	3	12	13	4	2	6	2	5	3	1
5	5	5	9	14	3	9	8	4	10	6	4
57	34	46	143	151	36	95	88	53	75	42	22
2	2	3	6	10	1	6	5	3	5	3	2
19	13	16	51	49	13	41	31	19	30	19	8
1	1	1	2	4	1	3	3	1	1	1	0
11	4	5	21	25	9	13	13	5	13	4	4
23	14	21	64	63	13	32	36	26	26	16	8

Table 5.18: Average annual number of new cases by primary site and county, 2013–2017, **females**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	All sites	15 152	961	1 659	1 610	633	618	851	822
C00–14	Mouth, pharynx	225	13	25	27	10	11	10	14
C00	Lip	51	3	3	4	3	2	2	3
C01–02	Tongue	52	3	5	6	3	2	3	4
C03–06	Mouth, other	46	2	6	7	2	3	2	3
C07–08	Salivary glands	31	1	5	3	1	2	1	1
C09–14	Pharynx	45	3	6	6	1	3	2	3
C15–26	Digestive organs	3 153	202	332	308	136	130	168	165
C15	Oesophagus	71	3	7	9	3	5	5	5
C16	Stomach	173	10	15	16	7	7	9	10
C17	Small intestine	75	5	7	7	4	3	4	3
C18	Colon	1 540	104	158	139	62	62	86	77
C19–20	Rectum, rectosigmoid	558	35	62	57	23	25	28	32
C21	Anus	66	3	9	9	3	3	4	3
C22	Liver	98	5	10	11	8	3	3	6
C23–24	Gallbladder, bile ducts	91	4	11	11	5	5	5	4
C25	Pancreas	399	27	45	39	17	15	20	21
C26	Other digestive organs	83	7	8	10	4	3	5	4
C30–34, C38	Respiratory organs	1 516	109	160	144	69	60	82	90
C30–31	Nose, sinuses	17	1	2	2	1	1	2	2
C32	Larynx, epiglottis	20	2	2	2	1	1	1	1
C33–34	Lung, trachea	1 473	106	156	140	67	58	79	87
C38	Heart, mediastinum and pleura	5	0	1	0	0	0	0	0
C40–41	Bone	27	2	3	3	1	1	1	1
C43	Melanoma of the skin	1 004	59	122	101	38	34	57	68
C44	Skin, non-melanoma	929	66	91	80	31	27	67	48
C45	Mesothelioma	13	1	2	1	1	1	1	1
C47	Autonomic nervous system	5	0	1	0	0	0	0	0
C48–49	Soft tissues etc.	52	3	4	7	3	2	4	3
C50	Breast	3 386	208	401	405	132	133	188	172
C51–58	Female genital organs	1 744	115	191	195	79	87	102	89
C51–52, C57.7–9	Other female genital	120	5	12	13	6	5	8	7
C53	Cervix uteri	343	26	36	49	15	16	16	19
C54	Corpus uteri	754	52	79	76	37	39	51	35
C55	Uterus, other	10	1	1	0	0	0	1	0
C56, C57.0–4, C48.1–2	Ovary etc.	514	31	63	56	21	26	26	27
C58	Placenta	2	0	0	0	0	0	0	0
C64–68	Urinary organs	729	46	70	71	34	32	40	41
C64	Kidney (excl. renal pelvis)	273	20	30	24	11	11	15	14
C65–68	Urinary tract	456	27	40	47	23	21	25	27
C69	Eye	40	2	3	5	2	1	2	2
C70–72	Central nervous system	550	32	60	55	20	26	29	35
C73	Thyroid gland	275	15	25	44	9	9	10	14
C37, C74–75	Other endocrine glands	108	5	14	13	5	4	7	8
C39, C76, C80	Other or unspecified	167	11	14	16	8	8	11	7
C81–96	Lymphoid/haematopoietic tissue	1 231	73	140	134	54	52	73	65
C81	Hodgkin lymphoma	59	3	6	8	3	2	4	2
C82–86, C96	Non-Hodgkin lymphoma	437	30	47	41	21	16	24	22
C88	Immunoproliferative disease	27	0	3	4	1	1	1	1
C90	Multiple myeloma	191	10	24	20	11	9	11	11
C91–95	Leukaemia	518	30	60	61	18	23	33	28

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
561	358	546	1 233	1 497	326	765	857	406	750	497	201
9	4	6	17	22	4	12	11	6	11	8	4
2	1	2	5	6	2	2	3	1	2	2	0
2	1	1	4	4	1	3	2	2	4	2	1
2	1	1	3	5	0	3	2	0	1	1	1
2	0	1	2	4	0	2	0	1	2	2	1
2	0	1	3	3	1	2	3	2	3	2	1
108	66	114	243	321	86	188	186	87	166	110	39
2	1	2	4	5	1	3	4	1	5	2	1
6	3	7	13	20	6	12	11	4	10	6	3
3	2	4	5	7	2	4	7	3	3	1	1
51	35	58	122	167	44	99	83	43	81	51	16
21	8	19	44	57	14	34	35	14	29	18	5
2	1	1	5	6	1	3	2	1	3	3	1
2	3	2	6	9	2	5	8	4	6	5	2
3	1	3	9	8	2	3	6	3	4	2	1
16	9	15	29	35	11	21	25	10	19	18	8
3	3	3	6	6	2	3	5	3	4	4	1
51	42	63	120	137	32	75	83	41	83	46	29
1	0	0	2	1	1	0	1	0	1	1	0
0	0	1	2	2	0	2	1	0	1	1	0
50	41	62	116	134	30	73	81	40	80	45	28
0	0	0	0	1	1	0	0	0	0	0	0
1	1	1	2	3	1	2	1	1	2	1	0
42	26	37	98	109	20	32	70	25	32	27	7
38	32	60	85	116	22	37	34	16	42	27	10
0	0	1	0	1	0	0	1	0	1	1	0
0	0	0	0	1	0	1	0	0	0	0	0
2	1	2	3	5	1	2	4	2	2	2	0
125	79	109	272	321	68	187	197	94	154	99	41
68	41	54	141	165	31	78	96	42	87	59	25
4	3	4	9	13	2	5	7	3	9	4	2
11	8	8	25	35	6	16	19	5	16	12	5
30	18	26	58	71	13	31	44	24	36	25	10
1	1	0	1	1	0	0	0	0	1	1	0
23	12	15	48	45	10	26	26	9	25	17	7
0	0	0	0	0	0	0	0	0	0	0	0
24	14	23	57	64	13	42	40	22	46	36	13
9	7	9	20	23	6	15	18	9	17	12	5
15	7	14	37	41	8	27	23	13	29	24	9
1	1	1	4	5	1	1	3	1	2	2	1
19	12	18	53	58	11	21	25	14	33	21	7
14	4	9	15	28	6	14	21	5	16	13	5
3	3	4	7	14	4	2	4	3	4	2	1
8	5	4	14	17	3	9	7	4	11	6	4
45	27	41	101	112	25	64	72	42	59	37	15
2	2	2	5	6	1	5	3	1	2	3	0
14	9	16	33	40	8	25	30	14	25	14	7
1	0	1	3	4	1	1	2	1	2	0	0
8	5	4	12	16	5	10	8	8	11	5	3
20	11	18	49	47	10	23	29	17	19	15	6

Table 5.19: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and county, 2013–2017, **males**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	All sites	731.4	796.2	730.7	685.2	678.4	660.5	726.4	797.5
C00–14	Mouth, pharynx	15.5	15.9	16.0	16.1	13.0	14.5	15.8	17.6
C00	Lip	2.8	2.8	2.4	2.6	3.3	3.6	2.3	2.1
C01–02	Tongue	3.6	3.4	4.7	4.0	2.3	3.0	3.1	3.7
C03–06	Mouth, other	2.3	2.0	2.6	2.4	2.1	1.7	2.9	4.2
C07–08	Salivary glands	1.5	1.9	1.4	1.6	1.2	1.5	1.7	1.2
C09–14	Pharynx	5.3	5.7	4.9	5.6	4.1	4.7	5.9	6.3
C15–26	Digestive organs	148.9	153.6	147.5	141.3	146.3	133.3	145.6	151.0
C15	Oesophagus	8.8	9.2	8.9	7.3	9.5	12.2	7.6	8.2
C16	Stomach	12.5	11.9	10.0	10.3	10.8	9.3	12.9	10.1
C17	Small intestine	4.2	4.3	4.5	3.6	4.4	2.7	2.8	4.1
C18	Colon	59.4	65.4	62.1	53.4	54.2	52.0	56.0	60.8
C19–20	Rectum, rectosigmoid	33.0	32.4	32.0	30.0	33.5	32.0	34.3	33.9
C21	Anus	1.1	1.9	1.2	1.4	1.0	0.7	0.7	1.4
C22	Liver	7.2	6.9	7.5	9.5	8.0	4.9	7.5	7.5
C23–24	Gallbladder, bile ducts	3.3	4.2	3.0	4.0	4.3	3.4	2.3	2.5
C25	Pancreas	16.7	14.4	15.8	17.9	17.4	13.4	18.1	18.0
C26	Other digestive organs	2.7	3.0	2.5	3.8	3.2	2.6	3.3	4.4
C30–34, C38	Respiratory organs	73.6	78.2	61.4	64.8	71.6	65.1	69.5	75.8
C30–31	Nose, sinuses	1.1	0.8	0.6	1.4	1.1	0.6	0.8	1.2
C32	Larynx, epiglottis	3.7	3.3	3.0	4.3	3.6	3.7	4.1	3.1
C33–34	Lung, trachea	68.3	73.4	57.1	58.9	66.4	60.3	64.4	70.8
C38	Heart, mediastinum and pleura	0.5	0.8	0.6	0.2	0.5	0.6	0.2	0.7
C40–41	Bone	1.1	1.1	0.7	0.9	1.4	1.7	0.6	1.5
C43	Melanoma of the skin	41.9	43.5	47.2	41.5	36.9	36.1	47.2	61.2
C44	Skin, non-melanoma	48.8	54.4	47.1	40.1	36.8	29.4	55.6	59.8
C45	Mesothelioma	2.8	2.4	2.5	3.1	2.6	1.7	3.3	3.6
C47	Autonomic nervous system	0.2	0.4	0.1	0.2	0.0	0.0	0.7	0.5
C48–49	Soft tissues etc.	2.7	2.1	2.2	2.6	3.5	3.0	3.2	3.2
C50	Breast	1.2	1.5	1.4	1.5	1.1	0.6	0.3	0.9
C60–63	Male genital organs	218.5	272.7	229.8	197.6	201.0	213.1	206.1	228.1
C61	Prostate	204.3	254.7	217.1	185.1	186.4	200.4	196.3	211.0
C62	Testis	11.5	14.6	9.8	9.9	12.4	11.0	7.5	14.2
C60, C63	Other male genital	2.7	3.4	2.9	2.5	2.2	1.7	2.2	3.0
C64–68	Urinary organs	75.1	75.5	76.0	68.3	74.1	62.7	76.7	88.5
C64	Kidney (excl. renal pelvis)	22.9	24.3	22.3	20.4	22.7	21.1	23.6	27.5
C65–68	Urinary tract	52.2	51.2	53.7	47.9	51.4	41.7	53.1	61.0
C69	Eye	1.7	3.2	1.2	1.5	1.5	1.3	1.3	2.0
C70–72	Central nervous system	19.1	18.4	17.5	19.5	16.6	19.0	21.9	19.8
C73	Thyroid gland	4.7	3.4	3.6	6.3	4.5	3.1	3.8	3.6
C37, C74–75	Other endocrine glands	4.0	3.8	4.6	3.6	2.4	3.3	3.1	4.3
C39, C76, C80	Other or unspecified	6.5	6.8	6.2	5.7	4.1	6.6	8.8	5.5
C81–96	Lymphoid/haematopoietic tissue	64.8	59.3	65.8	70.6	61.0	65.9	63.0	70.4
C81	Hodgkin lymphoma	3.5	3.4	2.8	3.5	5.5	4.2	3.2	3.2
C82–86, C96	Non-Hodgkin lymphoma	22.8	21.9	22.3	22.8	20.7	24.0	20.3	23.9
C88	Immunoproliferative disease	1.6	0.4	2.3	1.8	0.5	1.0	1.3	3.2
C90	Multiple myeloma	10.2	8.8	11.4	12.7	11.8	11.6	8.7	10.7
C91–95	Leukaemia	26.7	24.8	27.0	29.8	22.5	25.1	29.4	29.3

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
727.2	757.9	769.5	802.2	767.2	707.7	743.6	696.4	713.8	664.8	736.8	650.7
17.9	16.7	14.3	15.6	16.2	11.5	15.7	14.7	13.2	15.7	16.3	14.6
3.0	3.0	2.2	4.2	3.1	3.0	3.4	2.3	2.2	3.4	2.0	2.1
4.8	3.7	4.5	3.7	3.4	2.6	3.5	3.2	2.9	3.1	3.2	4.3
1.8	3.6	1.7	2.3	2.3	1.4	2.0	1.8	1.4	2.6	2.2	1.5
1.9	1.9	0.9	1.0	1.7	0.7	1.9	1.6	2.5	1.6	0.9	0.5
6.4	4.5	5.0	4.4	5.6	3.7	4.8	5.8	4.1	5.0	8.1	6.2
134.6	139.7	139.4	154.9	163.7	159.9	151.9	148.0	151.9	151.4	156.7	137.1
9.5	7.6	9.5	9.6	8.6	9.1	8.2	7.3	8.1	10.5	9.2	9.6
10.9	10.4	12.5	12.2	14.7	19.0	14.1	13.9	15.0	13.8	18.0	16.8
3.0	4.1	4.3	5.1	5.4	4.6	3.2	5.7	5.5	3.8	4.1	4.4
52.4	53.1	53.7	62.5	67.1	61.6	64.1	62.0	60.1	63.5	53.8	40.3
29.2	30.6	26.9	35.5	37.9	35.0	35.1	31.5	33.2	31.9	34.7	30.9
1.7	1.2	0.4	1.2	1.3	1.4	0.6	0.9	1.2	0.6	0.5	0.9
5.7	5.1	5.9	7.7	6.1	7.0	6.1	6.8	7.6	6.2	11.9	6.0
3.4	4.2	2.0	3.0	2.9	2.4	3.7	3.7	3.4	1.9	5.0	2.4
17.3	19.3	21.1	15.8	17.3	17.7	14.8	14.9	16.4	16.2	16.3	24.6
1.5	4.2	3.0	2.3	2.4	2.2	2.0	1.3	1.4	3.0	3.3	1.1
73.7	86.8	87.0	87.5	80.0	76.5	74.6	66.3	69.8	75.4	77.8	84.4
0.8	0.0	0.7	1.8	1.2	1.1	1.0	0.4	1.7	1.5	1.6	2.0
3.4	3.0	3.1	4.6	4.2	3.9	5.3	2.6	3.5	4.0	4.3	2.8
68.9	83.8	82.1	80.6	74.3	71.6	67.7	63.1	64.6	69.6	71.4	78.5
0.6	0.0	1.1	0.6	0.4	0.0	0.6	0.2	0.0	0.3	0.5	1.1
1.2	0.3	0.2	0.8	1.7	1.5	0.7	2.1	0.9	1.1	1.1	1.7
42.6	51.3	45.0	47.7	46.8	31.7	25.5	45.0	38.0	25.1	35.7	18.3
63.1	69.2	83.6	56.8	60.2	47.0	35.0	39.6	36.0	39.6	42.4	30.7
3.4	2.7	6.5	3.2	4.4	1.0	2.2	2.1	1.2	2.4	1.2	0.5
0.8	0.0	0.2	0.2	0.1	0.0	0.3	0.1	0.0	0.1	0.2	0.0
2.6	4.2	2.9	2.6	1.8	1.6	2.9	2.3	3.2	3.0	5.3	2.4
1.9	1.6	2.9	1.3	1.5	0.7	1.0	1.0	0.8	1.2	0.7	0.5
208.4	225.9	224.9	247.5	216.6	205.5	247.0	206.9	214.5	166.7	207.6	190.3
195.2	210.7	210.0	232.0	200.8	191.1	232.7	193.2	199.3	151.0	193.0	174.0
10.3	13.6	13.3	13.0	11.6	13.7	12.1	11.5	11.7	12.4	12.4	13.3
2.9	1.6	1.6	2.5	4.1	0.7	2.3	2.3	3.4	3.3	2.2	3.0
74.2	66.7	72.5	70.2	71.2	71.6	87.8	69.2	78.0	86.0	96.9	72.4
24.0	20.9	26.1	20.8	21.1	26.2	23.8	24.7	26.7	22.8	24.5	22.4
50.1	45.8	46.3	49.4	50.2	45.5	64.0	44.5	51.3	63.2	72.5	50.0
2.3	0.7	1.7	2.3	0.9	1.6	0.8	2.0	1.8	1.8	2.8	2.2
21.5	15.6	17.1	23.4	19.7	17.1	14.5	20.1	17.5	20.0	19.8	17.6
5.6	3.9	4.0	4.3	5.3	5.0	5.3	5.0	4.2	4.9	8.8	6.8
4.5	3.7	3.9	5.3	5.2	7.3	1.5	4.3	3.2	4.3	3.6	2.4
5.9	9.6	7.2	5.1	6.6	6.0	6.6	6.6	5.6	8.1	7.7	11.6
63.0	59.3	56.2	73.6	65.2	62.1	70.5	61.0	73.9	58.1	52.1	57.3
2.9	4.0	3.3	2.6	3.8	2.3	4.7	2.9	3.7	4.0	3.5	4.7
21.4	22.2	20.1	25.6	20.9	21.8	29.7	21.9	25.4	22.7	23.0	20.0
1.3	1.3	0.7	1.0	1.9	2.0	2.4	2.1	2.0	1.1	1.0	1.6
11.5	7.7	6.3	11.1	11.0	14.1	9.5	9.1	6.1	9.8	5.5	9.7
25.8	24.1	25.7	33.2	27.6	21.8	24.3	24.9	36.6	20.5	19.2	21.2

Table 5.20: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and county, 2013–2017, **females**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	All sites	549.9	574.7	549.7	553.6	511.1	531.5	552.1	577.3
C00–14	Mouth, pharynx	8.1	7.5	8.4	9.4	8.4	9.1	6.6	9.8
C00	Lip	1.8	1.9	1.1	1.4	2.2	1.7	1.5	1.8
C01–02	Tongue	1.9	1.5	1.7	2.1	2.7	1.2	1.8	3.0
C03–06	Mouth, other	1.6	1.2	2.0	2.4	1.7	2.4	1.4	1.9
C07–08	Salivary glands	1.1	0.9	1.6	1.2	1.0	1.5	0.8	0.8
C09–14	Pharynx	1.7	1.9	1.9	2.3	1.0	2.2	1.1	2.3
C15–26	Digestive organs	111.0	116.1	109.3	106.5	102.9	105.2	106.1	111.1
C15	Oesophagus	2.5	2.0	2.3	3.1	2.3	4.0	2.9	3.5
C16	Stomach	6.1	5.4	4.8	5.3	5.3	5.1	6.0	6.5
C17	Small intestine	2.7	3.1	2.4	2.5	3.3	2.5	2.3	1.9
C18	Colon	53.8	59.6	52.1	48.0	46.1	49.1	53.8	51.7
C19–20	Rectum, rectosigmoid	20.1	20.2	20.4	19.5	18.4	20.9	17.8	22.0
C21	Anus	2.4	1.9	2.8	3.3	2.6	2.5	2.5	2.0
C22	Liver	3.5	2.5	3.2	3.9	5.9	2.6	2.1	3.8
C23–24	Gallbladder, bile ducts	3.2	2.2	3.7	3.7	3.9	4.3	2.8	2.7
C25	Pancreas	14.0	15.4	14.9	13.6	12.1	11.8	12.7	14.0
C26	Other digestive organs	2.9	3.8	2.6	3.6	3.0	2.4	3.2	2.9
C30–34, C38	Respiratory organs	54.6	63.3	53.4	51.7	53.6	49.4	52.1	61.2
C30–31	Nose, sinuses	0.6	0.4	0.7	0.5	0.5	0.8	1.0	1.1
C32	Larynx, epiglottis	0.7	1.4	0.6	0.8	0.8	0.7	0.4	0.5
C33–34	Lung, trachea	53.1	61.5	51.8	50.2	52.3	47.4	50.8	59.4
C38	Heart, mediastinum and pleura	0.2	0.0	0.3	0.2	0.0	0.4	0.0	0.1
C40–41	Bone	1.0	1.2	0.9	1.1	1.1	0.7	0.6	0.8
C43	Melanoma of the skin	37.2	36.4	40.4	33.8	33.0	31.7	37.8	49.5
C44	Skin, non-melanoma	31.0	35.9	29.3	26.2	21.2	19.5	39.9	30.4
C45	Mesothelioma	0.5	0.3	0.5	0.5	0.7	1.1	0.5	0.5
C47	Autonomic nervous system	0.2	0.2	0.3	0.1	0.0	0.0	0.3	0.1
C48–49	Soft tissues etc.	1.9	1.7	1.5	2.2	2.4	1.9	3.0	1.9
C50	Breast	127.1	129.1	133.1	141.9	112.6	121.5	125.6	125.7
C51–58	Female genital organs	64.6	71.1	63.6	66.2	67.3	78.1	67.0	63.8
C51–52, C57.7–9	Other female genital	4.2	2.9	3.9	4.4	4.4	4.2	4.9	4.8
C53	Cervix uteri	13.3	17.9	12.2	14.7	14.9	17.4	11.3	15.4
C54	Corpus uteri	27.6	31.0	26.3	27.2	30.7	32.8	32.8	24.4
C55	Uterus, other	0.3	0.5	0.3	0.1	0.1	0.3	0.4	0.1
C56, C57.0–4, C48.1–2	Ovary etc.	19.0	18.8	21.1	19.8	17.2	23.1	17.4	19.2
C58	Placenta	0.1	0.0	0.0	0.1	0.0	0.2	0.3	0.0
C64–68	Urinary organs	26.0	27.0	23.2	24.8	25.7	25.7	25.7	28.4
C64	Kidney (excl. renal pelvis)	10.0	11.6	10.1	8.2	8.6	9.0	9.9	10.1
C65–68	Urinary tract	16.1	15.4	13.1	16.6	17.1	16.7	15.9	18.3
C69	Eye	1.5	1.4	1.1	1.7	1.5	1.0	1.3	1.6
C70–72	Central nervous system	20.7	20.1	20.0	18.6	17.4	24.2	20.0	26.1
C73	Thyroid gland	10.6	10.3	8.5	13.9	9.0	9.0	7.2	10.7
C37, C74–75	Other endocrine glands	4.1	3.7	4.9	4.0	4.7	4.1	4.6	6.3
C39, C76, C80	Other or unspecified	5.5	5.9	4.4	5.1	6.0	6.2	6.4	4.9
C81–96	Lymphoid/haematopoietic tissue	44.3	43.5	46.7	46.0	43.5	43.2	47.4	44.5
C81	Hodgkin lymphoma	2.3	2.2	2.0	2.7	3.1	1.9	3.0	1.7
C82–86, C96	Non-Hodgkin lymphoma	15.8	17.6	15.5	14.4	17.0	13.7	15.9	15.1
C88	Immunoproliferative disease	1.0	0.2	1.1	1.3	0.8	0.8	0.8	0.7
C90	Multiple myeloma	6.8	5.6	7.8	7.1	8.2	7.4	6.7	7.6
C91–95	Leukaemia	18.5	18.0	20.3	20.5	14.5	19.4	21.0	19.3

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
543.5	570.7	577.1	570.2	569.7	516.3	513.8	538.0	517.9	529.2	569.6	510.7
9.0	5.8	6.2	8.0	8.3	6.1	7.9	6.8	8.1	7.8	9.2	9.1
1.9	1.8	2.2	2.5	2.3	2.8	1.5	2.0	1.5	1.4	1.7	0.9
2.3	1.5	1.1	2.0	1.7	1.7	1.8	1.1	2.1	2.7	2.0	2.6
1.5	1.3	1.6	1.3	1.7	0.5	1.9	1.1	0.4	0.8	1.6	1.5
1.6	0.6	0.7	0.9	1.5	0.0	1.5	0.3	1.9	1.1	1.8	1.5
1.6	0.6	0.7	1.4	1.2	1.1	1.2	2.2	2.2	1.8	2.1	2.6
99.0	103.3	117.0	111.8	118.5	125.4	118.0	113.3	104.7	111.0	121.3	97.0
2.0	2.1	1.9	1.7	2.0	1.9	2.3	2.6	1.4	3.6	2.7	2.0
5.0	4.8	7.5	6.0	7.0	10.3	7.5	6.7	4.8	6.5	6.4	8.1
2.4	2.8	4.3	2.3	2.7	3.5	2.8	4.3	4.3	2.2	0.9	3.5
45.9	53.8	59.0	55.6	61.2	63.6	61.4	50.1	51.2	53.5	56.6	40.3
19.1	13.1	19.8	20.4	21.4	21.1	22.2	22.0	16.8	20.5	20.2	12.1
2.5	2.3	1.5	2.6	2.5	1.3	2.0	1.5	1.8	2.7	3.2	2.6
2.3	4.4	1.8	2.8	3.5	2.4	2.9	4.8	5.4	3.8	5.2	4.3
2.5	1.2	3.0	4.3	3.0	2.6	1.9	3.5	4.0	2.9	2.6	1.5
14.5	14.3	15.0	13.6	12.9	16.2	13.0	15.0	11.5	12.6	19.8	20.3
2.6	4.3	3.1	2.6	2.3	2.4	1.9	2.7	3.3	2.6	3.8	2.4
48.2	66.2	67.1	56.5	52.4	49.8	50.0	51.4	50.9	56.3	51.3	72.7
0.7	0.4	0.4	0.7	0.2	1.1	0.3	0.5	0.5	0.7	0.9	0.5
0.4	0.3	0.7	1.0	0.7	0.8	1.1	0.6	0.5	0.6	0.7	1.0
46.9	65.2	65.8	54.8	51.0	47.2	48.3	50.2	50.0	54.7	49.7	70.8
0.2	0.3	0.2	0.1	0.4	0.8	0.2	0.1	0.0	0.3	0.0	0.5
0.8	0.9	1.3	1.1	1.0	1.2	1.3	0.9	0.8	1.6	1.5	0.0
42.5	43.4	40.5	45.1	42.2	34.9	22.0	45.1	34.5	24.1	31.7	18.1
33.0	46.8	59.0	38.0	39.7	30.2	21.7	20.2	18.4	26.3	29.8	25.6
0.4	0.0	0.6	0.2	0.4	0.0	0.1	0.7	0.0	0.7	0.7	0.0
0.5	0.0	0.0	0.2	0.3	0.3	0.4	0.3	0.3	0.0	0.0	0.0
2.2	1.4	2.2	1.3	1.9	1.6	1.5	2.8	2.7	1.5	2.5	1.2
126.7	129.9	119.9	126.6	127.9	115.4	133.5	127.3	126.1	115.3	117.6	105.3
70.0	66.9	58.3	66.0	64.4	51.3	54.3	61.0	55.8	63.8	69.2	63.3
4.1	4.1	4.3	4.1	4.9	3.0	3.3	4.1	4.3	5.5	4.3	4.5
12.6	14.1	9.3	11.2	14.0	11.4	12.4	12.3	8.4	13.9	14.9	14.8
29.4	27.9	28.2	27.5	27.7	20.8	20.7	27.9	30.1	25.1	29.4	25.0
0.7	1.7	0.0	0.5	0.3	0.5	0.1	0.3	0.2	0.4	0.7	0.5
22.8	19.0	16.5	22.7	17.5	15.6	17.7	16.2	12.0	18.6	19.9	18.4
0.3	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.7	0.4	0.0	0.0
22.3	22.5	23.8	26.5	23.6	19.8	27.7	25.0	27.9	30.9	40.6	33.7
8.7	11.1	9.6	9.4	8.7	9.6	10.1	11.0	12.0	11.9	13.5	11.6
13.6	11.4	14.1	17.2	15.0	10.2	17.6	13.9	15.9	19.0	27.1	22.1
0.9	1.6	1.1	1.7	1.9	0.8	0.9	2.0	1.1	1.8	2.4	2.3
19.9	19.9	19.3	24.7	22.9	18.8	15.0	16.2	19.0	25.0	25.5	17.7
15.1	7.2	9.4	6.6	11.1	10.4	10.6	13.6	7.1	12.8	15.7	12.3
3.1	5.3	4.4	3.4	5.7	7.6	1.5	2.7	4.5	2.8	2.6	3.8
6.9	7.1	4.2	6.1	5.7	3.7	5.3	3.9	4.7	6.8	6.3	9.7
43.2	42.5	42.9	46.4	41.9	39.0	42.1	45.1	51.3	40.8	41.7	38.9
2.4	3.4	1.9	2.2	2.2	1.0	3.5	1.7	1.3	1.5	3.1	1.1
13.4	13.9	16.9	15.3	15.2	12.7	16.7	18.4	17.4	17.4	16.1	16.7
0.9	0.3	0.9	1.2	1.3	1.0	0.4	1.5	1.5	1.1	0.2	0.0
7.5	8.5	4.2	5.3	5.9	8.7	6.5	5.1	9.8	7.4	5.0	6.5
19.0	16.4	19.0	22.4	17.3	15.6	14.9	18.3	21.3	13.4	17.2	14.7

Table 5.21: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1958–2017, **males**

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C00–14	Mouth, pharynx	Total	187	190	227	239
		Localised	126	138	143	158
		Regional	46	41	52	66
		Distant	5	6	11	8
		Unknown	10	5	20	7
C15	Oesophagus	Total	81	75	82	81
		Localised	50	46	40	40
		Regional	11	10	14	16
		Distant	14	17	20	21
		Unknown	6	2	8	4
C16	Stomach	Total	825	787	726	638
		Localised	226	217	175	171
		Regional	167	165	162	140
		Distant	362	338	323	283
		Unknown	70	68	66	43
C18	Colon	Total	261	329	368	442
		Localised	104	133	132	152
		Regional	68	78	89	138
		Distant	75	103	127	137
		Unknown	14	15	19	15
C19–20	Rectum, rectosigmoid	Total	161	189	287	352
		Localised	78	91	133	169
		Regional	39	52	77	99
		Distant	32	41	64	76
		Unknown	12	5	14	9
C22	Liver	Total	22	28	44	51
		Localised	10	15	19	24
		Regional	0	1	1	5
		Distant	10	11	18	20
		Unknown	2	0	5	2
C23–24	Gallbladder, bile ducts	Total	22	24	26	32
		Localised	8	9	8	9
		Regional	4	4	4	8
		Distant	8	10	12	14
		Unknown	1	1	2	1
C25	Pancreas	Total	147	197	232	254
		Localised	43	58	49	48
		Regional	17	25	29	33
		Distant	76	104	131	153
		Unknown	11	8	23	21
C33–34	Lung, trachea	Total	307	424	609	746
		Localised	91	147	196	239
		Regional	64	89	114	138
		Distant	129	170	255	315
		Unknown	24	17	44	54
C43	Melanoma of the skin	Total	61	88	123	178
		Localised	39	57	80	144
		Regional	9	13	15	16
		Distant	12	15	16	16
		Unknown	2	2	12	3
C61	Prostate	Total	709	912	1 079	1 351
		Localised	423	609	677	908
		Regional	32	32	45	76
		Distant	186	218	239	286
		Unknown	68	53	119	81

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17	2013-17 (%)
241	258	252	257	257	262	323	388	100.0
149	153	136	118	85	83	123	137	35.2
78	87	85	90	100	127	152	197	50.7
8	6	9	13	13	12	13	14	3.7
6	12	22	36	59	40	35	40	10.4
89	86	105	110	122	140	171	215	100.0
42	32	29	20	20	27	27	30	14.0
20	24	24	22	26	41	49	56	25.9
22	23	33	28	36	43	52	52	24.4
5	7	18	40	40	29	43	77	35.8
602	560	504	438	367	328	294	298	100.0
181	155	133	77	55	60	62	46	15.3
161	157	136	135	104	100	85	85	28.7
227	199	166	140	131	115	96	89	29.8
33	50	69	85	77	52	51	78	26.2
563	693	795	857	959	1 064	1 225	1 408	100.0
155	201	267	186	159	191	175	267	18.9
234	284	275	393	467	543	651	713	50.7
154	180	217	226	251	265	339	330	23.5
20	28	37	52	82	65	60	97	6.9
467	512	544	573	611	653	720	809	100.0
207	205	229	189	151	160	135	201	24.9
162	195	185	223	244	294	376	380	46.9
87	89	101	106	126	131	151	145	18.0
11	23	28	54	90	68	58	83	10.2
56	66	60	56	78	85	118	175	100.0
27	32	27	18	26	27	43	46	26.5
4	5	4	2	5	10	13	19	10.6
17	18	10	11	19	20	29	38	21.7
7	11	19	24	28	28	33	72	41.1
38	48	52	54	59	65	75	79	100.0
12	17	16	9	10	11	13	11	13.9
9	10	10	10	13	23	30	38	48.0
15	16	15	17	14	19	22	17	21.7
3	6	11	18	21	13	9	13	16.4
279	297	288	283	283	322	352	400	100.0
49	58	57	23	18	24	30	28	7.0
35	42	26	35	43	77	75	87	21.7
160	155	152	134	141	172	196	192	48.0
35	42	53	91	82	48	50	93	23.3
954	1 104	1 169	1 269	1 309	1 449	1 570	1 648	100.0
319	330	334	249	190	186	263	276	16.8
163	235	225	277	326	438	439	472	28.7
408	430	463	495	599	672	728	660	40.0
63	109	147	248	193	153	140	240	14.5
221	278	407	439	469	541	778	1 031	100.0
181	233	346	357	273	282	593	870	84.3
16	16	18	14	18	23	43	81	7.8
16	18	25	24	31	32	31	38	3.7
8	11	18	44	147	204	111	43	4.2
1 562	1 742	2 037	2 505	2 962	3 864	4 598	5 047	100.0
1 055	1 096	1 246	1 033	913	1 766	2 170	2 278	45.1
65	61	68	106	130	300	1 089	1 327	26.3
337	465	463	397	395	423	406	339	6.7
105	121	259	970	1 525	1 375	933	1 104	21.9

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Table 5.21: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1958–2017, **males** (Continued)

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C62	Testis	Total	62	65	85	88
		Localised	43	42	51	48
		Regional	3	3	9	18
		Distant	15	17	21	22
		Unknown	2	1	3	1
C64	Kidney (excl. renal pelvis)	Total	110	137	163	179
		Localised	58	74	73	72
		Regional	11	19	26	42
		Distant	36	40	59	61
		Unknown	5	4	5	4
C65–68	Urinary tract	Total	225	314	391	528
		Localised	183	265	301	417
		Regional	19	25	47	64
		Distant	15	19	25	35
		Unknown	8	5	18	12
C70–72	Central nervous system	Total	122	142	152	173
		Non-malignant	36	37	46	47
		Malignant	85	105	106	126
C73	Thyroid gland	Total	23	26	38	37
		Localised	6	5	14	18
		Regional	11	14	14	14
		Distant	5	7	9	5
		Unknown	1	0	1	1

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17	2013-17 (%)
122	147	187	204	240	262	298	305	100.0
64	87	125	138	127	149	230	255	83.5
32	36	33	34	37	45	37	32	10.4
23	23	26	23	31	28	27	18	5.8
3	2	3	8	46	41	3	1	0.3
219	250	263	270	302	369	476	576	100.0
87	112	123	127	112	167	298	400	69.5
48	51	41	42	41	40	43	53	9.2
78	75	82	68	74	87	88	75	13.0
6	11	17	32	75	75	46	48	8.3
616	726	789	824	823	927	999	1 231	100.0
510	586	655	591	411	505	778	1 085	88.1
61	63	53	45	49	82	75	74	6.0
33	32	32	28	41	41	43	42	3.4
12	45	50	160	322	299	103	30	2.5
202	236	241	297	377	465	501	484	100.0
64	73	81	137	184	257	269	234	48.3
138	163	161	161	193	209	232	250	51.7
47	44	47	45	49	64	76	119	100.0
22	20	25	20	17	21	31	47	39.7
17	16	14	13	19	27	35	47	39.5
7	7	7	9	7	8	6	7	6.0
1	1	2	3	7	8	5	18	14.7

Table 5.22: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1958–2017, **females**

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C00–14	Mouth, pharynx	Total	62	70	76	82
		Localised	35	39	42	44
		Regional	19	27	25	28
		Distant	3	3	4	4
		Unknown	4	1	4	5
C15	Oesophagus	Total	25	32	27	31
		Localised	15	22	15	17
		Regional	4	4	3	7
		Distant	3	5	6	5
		Unknown	2	2	3	2
C16	Stomach	Total	563	538	468	415
		Localised	150	157	104	103
		Regional	96	98	89	89
		Distant	234	223	218	188
		Unknown	83	60	57	34
C18	Colon	Total	297	381	452	546
		Localised	119	152	168	184
		Regional	75	91	123	175
		Distant	79	119	137	166
		Unknown	24	18	24	21
C19–20	Rectum, rectosigmoid	Total	122	152	229	274
		Localised	54	72	106	128
		Regional	31	39	61	79
		Distant	28	34	52	59
		Unknown	9	7	9	8
C22	Liver	Total	13	13	27	29
		Localised	5	6	13	15
		Regional	0	1	1	1
		Distant	5	7	11	12
		Unknown	2	0	3	1
C23–24	Gallbladder, bile ducts	Total	52	51	60	55
		Localised	13	15	14	15
		Regional	10	7	9	10
		Distant	26	28	34	27
		Unknown	3	1	3	3
C25	Pancreas	Total	111	129	169	202
		Localised	32	43	40	43
		Regional	10	13	20	26
		Distant	58	66	90	113
		Unknown	11	6	20	19
C33–34	Lung, trachea	Total	74	97	148	178
		Localised	18	32	49	51
		Regional	10	12	21	27
		Distant	39	47	67	87
		Unknown	8	5	11	13
C43	Melanoma of the skin	Total	68	98	133	218
		Localised	55	79	96	194
		Regional	6	6	10	9
		Distant	5	10	11	13
		Unknown	2	3	16	3

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17	2013-17 (%)
90	109	111	126	133	158	189	225	100.0
54	57	68	66	47	59	85	104	46.4
30	41	31	36	44	61	75	90	40.1
3	4	4	5	6	5	5	5	2.0
4	6	9	20	36	33	23	26	11.5
33	35	37	43	51	54	62	71	100.0
16	16	12	9	10	12	16	12	16.9
6	9	8	6	8	15	14	14	19.8
8	5	9	8	11	12	14	13	17.8
3	5	9	20	21	16	18	32	45.5
407	379	326	292	240	222	198	173	100.0
119	115	95	59	41	44	42	27	15.4
107	94	82	74	62	58	44	39	22.6
145	126	106	92	79	81	69	48	27.5
35	45	43	67	58	39	43	60	34.5
715	809	899	1 046	1 124	1 233	1 345	1 540	100.0
195	225	309	232	197	226	205	265	17.2
296	351	328	482	552	637	736	815	53.0
189	198	214	246	262	295	329	335	21.8
35	36	49	86	114	75	75	124	8.1
376	402	430	463	481	501	518	558	100.0
168	165	193	152	132	126	111	147	26.4
125	142	131	174	189	220	253	252	45.2
71	73	72	81	87	95	103	93	16.7
12	23	33	55	73	60	51	65	11.6
37	44	45	38	50	48	74	98	100.0
16	19	18	9	11	14	26	24	24.9
1	3	2	2	6	8	9	12	12.5
16	12	10	7	11	10	19	19	19.4
4	9	14	20	22	17	21	42	43.1
74	84	74	75	80	78	90	91	100.0
22	26	20	16	9	16	11	12	13.0
12	21	13	12	16	19	29	34	37.5
34	27	24	23	27	27	36	28	30.7
6	10	16	25	29	16	14	17	18.8
231	280	290	310	331	342	368	399	100.0
48	61	70	27	27	35	39	36	9.1
30	36	28	33	44	72	78	85	21.2
124	139	129	132	150	167	186	178	44.5
30	44	64	118	110	68	66	101	25.2
247	341	475	613	756	985	1 229	1 473	100.0
73	88	119	113	109	147	244	286	19.4
34	62	93	124	175	266	314	383	26.0
118	154	201	246	359	466	562	585	39.7
22	37	62	130	113	106	110	219	14.9
277	376	463	507	511	598	783	1 004	100.0
247	340	423	423	324	325	630	895	89.1
12	14	11	12	11	17	27	52	5.2
11	12	12	19	20	21	18	21	2.1
7	10	17	54	156	235	108	36	3.6

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Table 5.22: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1958–2017, **females** (Continued)

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C50	Breast	Total	968	1 114	1 252	1 437
		I	432	532	594	741
		II	356	360	396	428
		III	55	93	85	107
		IV	96	101	118	112
		Unknown	29	28	59	48
C53	Cervix uteri ¹	Total	345	375	409	444
		I	143	166	210	250
		II	121	134	122	108
		III	52	46	50	59
		IV	22	23	20	24
		Unknown	7	5	7	4
C54	Corpus uteri	Total	191	232	281	331
		Localised	156	190	227	272
		Regional	10	13	15	26
		Distant	18	27	34	31
		Unknown	7	1	6	3
C56, C57.0–4, C48.1–2	Ovary etc.	Total	277	308	378	387
		Localised	88	101	128	122
		Regional	22	15	25	23
		Distant	153	186	213	235
		Unknown	15	6	12	8
C64	Kidney (excl. renal pelvis)	Total	82	93	113	125
		Localised	46	52	58	63
		Regional	9	9	17	24
		Distant	23	28	34	34
		Unknown	4	3	4	4
C65–68	Urinary tract	Total	122	137	169	216
		Localised	76	90	110	146
		Regional	16	20	25	31
		Distant	20	20	24	27
		Unknown	10	7	11	11
C70–72	Central nervous system	Total	114	124	128	162
		Non-malignant	50	59	57	64
		Malignant	63	65	71	98
C73	Thyroid gland	Total	54	65	95	113
		Localised	20	32	51	69
		Regional	19	23	29	29
		Distant	12	10	10	12
		Unknown	3	1	5	3

¹ The Cancer in Norway reports from 2015 to 2018 contained an error in staging of cervical cancer, and the numbers given in this table are incorrect. For more details see: <https://www.kreftregisteret.no/Generelt/Rapporter/Cancer-in-Norway/erratum-for-cancer-in-norway/>

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17	2013-17 (%)
1 575	1 736	1 875	2 170	2 531	2 754	2 872	3 386	100.0
859	686	309	528	786	1 091	1 162	1 407	41.5
448	587	700	813	989	1 147	993	1 187	35.0
89	115	113	123	156	169	336	393	11.6
109	114	126	134	126	123	108	117	3.4
71	234	628	572	475	224	274	282	8.3
389	338	357	338	307	292	302	343	100.0
218	191	204	209	182	164	178	220	64.1
84	68	73	61	58	57	66	36	10.4
53	52	47	36	35	29	23	30	8.7
22	23	27	27	26	29	31	40	11.6
11	4	6	4	6	13	3	18	5.2
373	394	427	465	551	666	718	754	100.0
280	293	311	327	326	413	530	560	74.2
49	49	47	45	64	78	54	49	6.5
34	40	53	59	72	88	97	89	11.8
11	12	16	33	89	86	36	56	7.4
412	466	461	477	504	485	504	514	100.0
99	123	131	114	85	87	98	104	20.3
41	32	18	16	13	13	18	15	3.0
259	294	295	308	341	340	351	362	70.4
13	16	17	39	65	45	36	33	6.4
141	161	187	192	191	224	251	273	100.0
64	71	98	97	69	105	161	192	70.2
31	33	25	22	18	24	20	20	7.3
42	48	48	45	53	39	41	28	10.3
5	9	17	28	51	55	30	33	12.2
248	258	280	293	316	345	383	456	100.0
180	191	217	180	137	178	278	375	82.3
33	29	21	24	24	37	35	34	7.5
23	16	20	18	27	25	23	21	4.7
13	21	23	71	128	105	47	25	5.5
197	228	264	344	463	620	619	550	100.0
89	111	142	209	315	455	447	378	68.7
109	117	122	135	148	165	172	172	31.3
139	143	136	127	132	156	202	275	100.0
90	97	90	72	60	70	115	144	52.4
32	32	31	37	39	51	64	81	29.3
13	10	10	10	10	10	7	9	3.3
4	3	5	8	22	26	17	41	15.0

Table 5.23: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1958–2017, **males**

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C00–14	Mouth, pharynx	Total	15.3	14.4	15.7	15.5
		Localised	10.4	10.6	9.8	10.3
		Regional	3.5	2.9	3.6	4.2
		Distant	0.5	0.4	0.7	0.5
		Unknown	1.0	0.4	1.5	0.4
C15	Oesophagus	Total	7.0	5.6	5.9	5.4
		Localised	4.5	3.6	2.9	2.8
		Regional	0.8	0.7	0.9	1.0
		Distant	1.0	1.1	1.4	1.3
		Unknown	0.7	0.3	0.6	0.3
C16	Stomach	Total	69.1	60.5	52.1	42.8
		Localised	19.8	18.1	13.4	12.1
		Regional	12.2	11.6	10.7	9.0
		Distant	29.2	24.4	21.8	18.1
		Unknown	7.9	6.3	6.2	3.6
C18	Colon	Total	21.8	25.1	26.2	29.7
		Localised	8.9	10.4	9.7	10.3
		Regional	5.2	5.5	5.9	9.0
		Distant	6.2	7.6	8.8	9.2
		Unknown	1.5	1.5	1.7	1.2
C19–20	Rectum, rectosigmoid	Total	13.5	14.4	19.9	23.4
		Localised	6.7	7.1	9.4	11.4
		Regional	3.1	3.8	5.1	6.3
		Distant	2.4	3.0	4.3	4.9
		Unknown	1.2	0.6	1.2	0.8
C22	Liver	Total	1.6	1.9	2.9	3.1
		Localised	0.8	1.0	1.4	1.5
		Regional	0.0	0.1	0.1	0.3
		Distant	0.7	0.7	1.1	1.2
		Unknown	0.1	0.0	0.4	0.1
C23–24	Gallbladder, bile ducts	Total	1.7	1.7	1.9	2.2
		Localised	0.6	0.6	0.6	0.6
		Regional	0.3	0.3	0.3	0.5
		Distant	0.7	0.8	0.8	1.0
		Unknown	0.1	0.1	0.2	0.1
C25	Pancreas	Total	11.4	14.2	15.8	16.4
		Localised	3.4	4.3	3.4	3.2
		Regional	1.3	1.9	1.9	2.1
		Distant	5.7	7.3	8.9	9.7
		Unknown	0.9	0.7	1.6	1.4
C33–34	Lung, trachea	Total	21.9	28.0	38.0	44.5
		Localised	6.5	9.9	12.3	14.4
		Regional	4.4	5.7	6.8	7.9
		Distant	9.0	11.2	15.9	18.7
		Unknown	2.0	1.2	2.9	3.5
C43	Melanoma of the skin	Total	4.2	5.8	7.8	10.7
		Localised	2.7	3.9	5.1	8.5
		Regional	0.6	0.8	0.9	1.0
		Distant	0.8	1.0	1.1	1.0
		Unknown	0.1	0.1	0.8	0.2

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
14.8	15.3	14.5	14.3	13.6	13.0	14.4	15.5
9.2	9.1	7.8	6.6	4.6	4.2	5.6	5.5
4.7	5.1	4.8	5.0	5.2	6.2	6.6	7.7
0.5	0.4	0.5	0.7	0.7	0.6	0.6	0.6
0.4	0.7	1.3	2.1	3.2	2.0	1.6	1.7
5.6	5.1	6.0	6.3	6.6	7.2	7.8	8.8
2.8	2.0	1.8	1.2	1.1	1.4	1.3	1.2
1.1	1.3	1.3	1.2	1.4	2.1	2.2	2.2
1.2	1.3	1.8	1.5	1.9	2.2	2.3	2.1
0.4	0.5	1.1	2.3	2.2	1.6	2.0	3.2
38.1	34.1	29.7	24.9	20.2	17.2	13.9	12.5
12.3	10.2	8.2	4.4	3.0	3.3	3.0	1.9
9.6	9.0	7.5	7.5	5.6	5.1	3.9	3.5
13.8	11.5	9.6	7.7	7.0	5.9	4.5	3.7
2.4	3.5	4.4	5.3	4.5	2.9	2.5	3.4
35.6	41.9	46.5	48.5	52.6	55.2	58.1	59.4
10.1	12.3	15.4	10.4	8.7	9.9	8.2	11.1
14.5	16.9	16.0	22.2	25.5	28.2	30.9	30.0
9.5	10.7	12.6	12.5	13.6	13.6	15.9	13.7
1.5	2.0	2.5	3.4	4.8	3.6	3.1	4.6
29.1	30.4	31.2	32.4	33.4	33.4	33.3	33.0
13.5	12.4	13.1	10.6	8.2	8.3	6.3	8.1
9.5	11.2	10.5	12.3	13.2	14.9	17.3	15.4
5.2	5.3	5.7	6.0	6.9	6.6	6.9	5.9
0.9	1.6	1.9	3.4	5.1	3.6	2.8	3.5
3.3	3.9	3.5	3.0	4.2	4.3	5.4	7.2
1.6	1.8	1.6	1.0	1.4	1.4	2.0	1.9
0.3	0.3	0.2	0.1	0.2	0.5	0.6	0.7
1.0	1.1	0.6	0.6	1.0	1.0	1.3	1.5
0.5	0.6	1.1	1.3	1.5	1.4	1.6	3.0
2.4	2.8	3.1	3.1	3.3	3.3	3.5	3.3
0.8	1.0	1.0	0.5	0.6	0.6	0.7	0.5
0.5	0.5	0.6	0.6	0.7	1.1	1.4	1.5
1.0	0.9	0.8	0.9	0.8	1.0	1.0	0.7
0.2	0.4	0.7	1.1	1.3	0.7	0.5	0.6
17.2	18.0	16.7	16.0	15.6	16.7	16.5	16.7
3.3	3.8	3.4	1.4	1.0	1.3	1.4	1.2
2.1	2.4	1.4	1.9	2.3	4.0	3.5	3.5
9.5	9.0	8.6	7.3	7.6	8.8	9.1	7.8
2.3	2.8	3.2	5.4	4.7	2.6	2.5	4.2
54.7	62.4	64.9	70.1	69.9	73.6	73.1	68.3
18.4	18.7	18.5	13.6	10.1	9.4	12.3	11.3
9.1	13.1	12.3	15.0	17.2	22.2	20.4	19.1
23.2	24.1	25.7	27.3	31.8	34.0	33.6	27.2
4.0	6.5	8.4	14.3	10.8	8.0	6.8	10.8
12.8	15.6	22.5	23.1	24.0	26.4	34.9	41.9
10.5	13.0	19.1	18.6	13.9	13.7	26.5	35.3
0.9	1.0	1.0	0.8	0.9	1.1	2.0	3.3
0.9	1.0	1.4	1.3	1.6	1.6	1.4	1.5
0.4	0.6	1.0	2.4	7.5	10.0	5.0	1.8

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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, 1958–2017, **males** (Continued)

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C61	Prostate	Total	66.1	77.9	83.4	95.7
		Localised	39.2	51.9	51.9	63.1
		Regional	3.2	2.9	3.6	5.3
		Distant	16.9	18.0	17.8	20.5
		Unknown	6.7	5.0	10.1	6.8
C62	Testis	Total	3.8	3.9	4.9	4.7
		Localised	2.6	2.5	2.9	2.6
		Regional	0.2	0.2	0.5	1.0
		Distant	0.9	1.0	1.2	1.2
		Unknown	0.1	0.1	0.2	0.0
C64	Kidney (excl. renal pelvis)	Total	8.1	9.6	10.4	10.9
		Localised	4.2	5.3	4.8	4.5
		Regional	0.8	1.3	1.6	2.5
		Distant	2.7	2.8	3.6	3.7
		Unknown	0.4	0.3	0.3	0.3
C65–68	Urinary tract	Total	18.1	23.4	26.5	33.8
		Localised	14.6	19.6	20.2	26.5
		Regional	1.5	2.0	3.2	4.0
		Distant	1.2	1.4	1.8	2.4
		Unknown	0.8	0.4	1.4	0.9
C70–72	Central nervous system	Total	7.3	8.2	8.5	9.4
		Non-malignant	2.2	2.2	2.7	2.6
		Malignant	5.1	6.0	5.9	6.8
C73	Thyroid gland	Total	1.7	1.7	2.4	2.4
		Localised	0.5	0.3	0.9	1.1
		Regional	0.7	0.9	0.8	0.9
		Distant	0.4	0.5	0.6	0.3
		Unknown	0.0	0.0	0.1	0.0

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
102.4	106.8	119.6	144.4	166.0	202.4	213.0	204.3
68.3	66.6	72.8	58.6	50.5	91.1	98.2	89.8
4.1	3.7	3.9	6.3	7.3	15.8	50.9	53.7
22.3	28.7	27.1	22.9	22.3	22.6	20.0	14.8
7.8	7.8	15.9	56.7	85.9	72.9	43.9	46.0
6.1	6.8	8.3	8.8	10.2	11.2	12.0	11.5
3.3	4.1	5.6	5.9	5.4	6.3	9.3	9.6
1.6	1.6	1.5	1.5	1.6	1.9	1.5	1.2
1.1	1.1	1.1	1.0	1.3	1.2	1.1	0.7
0.1	0.1	0.1	0.4	2.0	1.8	0.1	0.0
12.9	14.4	14.9	14.8	15.9	18.3	21.2	22.9
5.2	6.5	6.9	6.9	5.7	8.2	13.1	15.6
2.8	2.9	2.3	2.3	2.2	1.9	2.0	2.1
4.5	4.3	4.7	3.7	3.9	4.4	4.0	3.0
0.4	0.7	1.0	1.9	4.1	3.8	2.2	2.1
37.6	43.0	45.7	46.8	44.9	48.0	47.5	52.2
31.0	34.8	37.9	33.4	22.2	26.0	36.9	45.9
3.7	3.5	3.0	2.5	2.6	4.2	3.5	3.1
2.0	1.8	1.8	1.6	2.2	2.1	2.1	1.8
0.9	2.8	3.0	9.4	17.9	15.8	5.0	1.4
11.0	12.5	12.8	15.1	18.4	21.8	21.7	19.1
3.6	4.0	4.3	6.9	9.0	12.0	11.6	9.2
7.4	8.5	8.4	8.2	9.5	9.9	10.1	9.9
2.7	2.4	2.5	2.3	2.4	2.9	3.3	4.7
1.2	1.1	1.3	1.0	0.8	0.9	1.3	1.8
0.9	0.8	0.7	0.7	0.9	1.2	1.5	1.9
0.5	0.4	0.4	0.5	0.4	0.4	0.3	0.3
0.1	0.0	0.1	0.2	0.3	0.4	0.2	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, 1958–2017, **females**

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C00–14	Mouth, pharynx	Total	4.4	4.6	4.4	4.5
		Localised	2.4	2.6	2.4	2.4
		Regional	1.4	1.8	1.5	1.5
		Distant	0.2	0.1	0.2	0.2
		Unknown	0.3	0.1	0.3	0.3
C15	Oesophagus	Total	1.8	2.3	1.6	1.6
		Localised	1.1	1.5	0.8	0.9
		Regional	0.3	0.2	0.2	0.4
		Distant	0.3	0.3	0.4	0.3
		Unknown	0.2	0.2	0.2	0.1
C16	Stomach	Total	41.7	36.0	27.5	22.2
		Localised	11.4	11.0	6.3	5.8
		Regional	6.2	5.8	4.9	4.5
		Distant	16.4	14.3	12.3	9.9
		Unknown	7.7	4.9	4.0	2.0
C18	Colon	Total	21.2	24.4	25.9	29.0
		Localised	8.5	10.0	9.8	9.8
		Regional	5.0	5.5	6.7	9.1
		Distant	5.5	7.4	7.8	8.7
		Unknown	2.2	1.5	1.7	1.4
C19–20	Rectum, rectosigmoid	Total	8.5	9.5	13.1	14.6
		Localised	3.8	4.5	6.2	6.8
		Regional	2.1	2.4	3.4	4.1
		Distant	1.9	2.1	2.9	3.1
		Unknown	0.7	0.5	0.6	0.5
C22	Liver	Total	0.9	0.8	1.5	1.5
		Localised	0.3	0.3	0.7	0.8
		Regional	0.0	0.0	0.0	0.1
		Distant	0.4	0.4	0.7	0.6
		Unknown	0.1	0.0	0.1	0.1
C23–24	Gallbladder, bile ducts	Total	3.5	3.3	3.4	2.8
		Localised	0.9	1.0	0.8	0.8
		Regional	0.7	0.4	0.5	0.5
		Distant	1.7	1.8	1.9	1.4
		Unknown	0.2	0.1	0.2	0.1
C25	Pancreas	Total	7.5	8.0	9.6	10.4
		Localised	2.3	2.7	2.3	2.3
		Regional	0.6	0.7	1.1	1.3
		Distant	3.8	4.1	5.0	5.8
		Unknown	0.8	0.4	1.3	1.0
C33–34	Lung, trachea	Total	4.9	5.8	8.3	9.2
		Localised	1.2	2.0	2.7	2.6
		Regional	0.6	0.7	1.2	1.4
		Distant	2.5	2.8	3.7	4.5
		Unknown	0.6	0.3	0.7	0.7
C43	Melanoma of the skin	Total	4.3	5.9	7.7	12.1
		Localised	3.5	4.8	5.6	10.8
		Regional	0.4	0.4	0.6	0.5
		Distant	0.3	0.6	0.6	0.7
		Unknown	0.1	0.2	0.9	0.2

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
4.5	5.1	5.1	5.6	5.8	6.6	7.4	8.1
2.7	2.7	3.1	2.9	2.1	2.5	3.3	3.8
1.5	2.0	1.4	1.6	1.9	2.6	3.0	3.3
0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2
0.2	0.3	0.4	0.8	1.5	1.3	0.9	0.9
1.7	1.6	1.6	1.8	2.1	2.1	2.4	2.5
0.8	0.7	0.5	0.4	0.4	0.5	0.6	0.4
0.3	0.5	0.3	0.3	0.4	0.6	0.6	0.5
0.4	0.2	0.4	0.3	0.5	0.5	0.5	0.4
0.2	0.2	0.4	0.8	0.8	0.6	0.7	1.1
19.8	17.1	13.9	11.9	9.5	8.6	7.3	6.1
5.9	5.2	4.1	2.4	1.6	1.7	1.5	0.9
5.0	4.2	3.6	3.0	2.5	2.3	1.6	1.4
7.0	5.7	4.4	3.9	3.3	3.2	2.6	1.7
1.9	2.1	1.8	2.6	2.1	1.4	1.5	2.0
34.9	36.8	39.2	43.8	45.7	48.4	50.4	53.8
9.5	10.2	13.4	9.7	8.0	8.8	7.8	9.4
14.3	15.9	14.2	20.2	22.5	25.1	27.7	28.5
9.2	9.1	9.5	10.5	10.8	11.8	12.5	11.9
1.9	1.7	2.1	3.4	4.4	2.8	2.4	4.0
18.5	18.4	18.9	19.9	20.1	20.3	19.9	20.1
8.4	7.6	8.4	6.5	5.6	5.1	4.3	5.3
6.0	6.4	5.9	7.7	8.0	9.0	9.8	9.1
3.5	3.3	3.2	3.5	3.6	3.9	3.9	3.4
0.7	1.1	1.4	2.2	2.9	2.3	1.8	2.2
1.8	2.0	2.0	1.6	2.0	1.9	2.7	3.5
0.8	0.9	0.8	0.4	0.5	0.5	1.0	0.9
0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4
0.8	0.6	0.5	0.3	0.5	0.4	0.7	0.7
0.2	0.4	0.6	0.8	0.9	0.7	0.7	1.4
3.5	3.8	3.2	3.1	3.2	3.0	3.4	3.2
1.1	1.2	0.9	0.6	0.3	0.6	0.4	0.4
0.5	1.0	0.5	0.5	0.7	0.8	1.1	1.2
1.6	1.2	1.0	1.0	1.1	1.1	1.4	1.0
0.3	0.4	0.7	1.0	1.1	0.6	0.5	0.5
11.1	12.5	12.3	12.7	13.1	13.3	13.8	14.0
2.3	2.7	2.9	1.1	1.0	1.3	1.4	1.3
1.4	1.6	1.2	1.5	1.8	2.9	3.0	3.0
5.9	6.2	5.6	5.6	6.2	6.7	7.1	6.3
1.5	1.9	2.6	4.5	4.1	2.5	2.3	3.4
12.3	16.3	22.2	28.3	33.9	42.0	48.6	53.1
3.5	4.1	5.4	5.3	4.9	6.3	9.8	10.4
1.7	3.1	4.4	5.8	8.0	11.4	12.5	14.0
6.0	7.4	9.7	11.7	16.3	20.0	22.3	21.2
1.1	1.7	2.7	5.5	4.7	4.3	4.1	7.6
14.6	19.0	22.2	23.6	22.5	25.3	31.2	37.2
13.1	17.2	20.4	19.7	14.4	13.8	25.2	33.4
0.6	0.6	0.5	0.6	0.5	0.6	1.0	1.9
0.6	0.6	0.5	0.9	0.9	0.9	0.7	0.7
0.3	0.5	0.8	2.5	6.8	9.9	4.3	1.2

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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, 1958–2017, **females** (Continued)

ICD-10	Site	Stage	1958–62	1963–67	1968–72	1973–77
C50	Breast	Total	62.2	66.9	70.9	77.8
		I	27.7	31.9	33.8	40.0
		II	22.0	21.0	21.9	23.1
		III	3.9	5.8	4.9	5.7
		IV	6.5	6.3	6.7	6.0
		Unknown	2.1	1.9	3.6	2.9
C53	Cervix uteri ¹	Total	20.6	21.9	23.4	24.9
		I	8.4	9.7	12.4	14.4
		II	7.2	7.8	6.8	5.8
		III	3.2	2.7	2.8	3.2
		IV	1.4	1.3	1.1	1.3
		Unknown	0.5	0.3	0.4	0.2
C54	Corpus uteri	Total	11.7	13.3	15.3	17.3
		Localised	9.5	10.9	12.3	14.2
		Regional	0.7	0.8	0.8	1.3
		Distant	1.1	1.6	1.9	1.6
		Unknown	0.5	0.1	0.3	0.1
C56, C57.0–4, C48.1–2	Ovary etc.	Total	17.2	17.9	20.8	20.4
		Localised	5.4	5.8	7.0	6.6
		Regional	1.3	0.9	1.4	1.2
		Distant	9.5	10.8	11.6	12.3
		Unknown	1.0	0.4	0.8	0.4
C64	Kidney (excl. renal pelvis)	Total	5.3	5.5	6.1	6.4
		Localised	3.0	3.2	3.2	3.3
		Regional	0.6	0.5	0.9	1.2
		Distant	1.5	1.6	1.8	1.7
		Unknown	0.3	0.2	0.2	0.2
C65–68	Urinary tract	Total	8.6	8.6	9.8	11.2
		Localised	5.3	5.6	6.3	7.6
		Regional	1.2	1.3	1.4	1.6
		Distant	1.4	1.2	1.4	1.4
		Unknown	0.8	0.5	0.7	0.7
C70–72	Central nervous system	Total	6.7	7.0	6.9	8.4
		Non-malignant	3.1	3.4	3.1	3.4
		Malignant	3.6	3.6	3.7	5.0
C73	Thyroid gland	Total	3.5	4.0	5.4	6.1
		Localised	1.3	2.0	2.9	3.8
		Regional	1.2	1.4	1.6	1.5
		Distant	0.8	0.6	0.6	0.6
		Unknown	0.2	0.0	0.3	0.2

¹ The Cancer in Norway reports from 2015 to 2018 contained an error in staging of cervical cancer, and the numbers given in this table are incorrect. For more details see: <https://www.kreftregisteret.no/Generelt/Rapporter/Cancer-in-Norway/erratum-for-cancer-in-norway/>

1978-82	1983-87	1988-92	1993-97	1998-02	2003-07	2008-12	2013-17
81.6	85.6	88.6	101.2	115.1	118.8	115.8	127.1
44.3	33.5	14.7	25.4	37.8	49.3	48.2	53.7
23.2	29.3	33.6	38.2	45.2	49.4	40.1	44.5
4.5	5.6	5.2	5.3	6.7	6.8	13.4	14.7
5.6	5.5	5.9	6.2	5.4	5.0	4.2	4.3
4.0	11.7	29.2	26.1	20.0	8.2	9.8	9.9
20.7	16.9	17.3	15.7	13.6	12.4	12.3	13.3
11.9	9.6	9.8	9.7	8.2	7.0	7.3	8.6
4.4	3.5	3.6	2.9	2.6	2.4	2.7	1.4
2.7	2.5	2.3	1.7	1.5	1.2	0.9	1.2
1.1	1.1	1.3	1.2	1.1	1.2	1.2	1.5
0.6	0.2	0.3	0.2	0.3	0.5	0.1	0.7
19.1	19.7	20.9	22.1	24.7	28.4	28.7	27.6
14.6	14.9	15.5	15.7	14.9	17.8	21.3	20.6
2.4	2.3	2.2	2.1	2.8	3.3	2.2	1.8
1.6	1.9	2.4	2.8	3.2	3.7	3.8	3.2
0.6	0.6	0.7	1.5	3.8	3.6	1.4	2.0
21.0	23.2	22.1	22.1	22.5	20.5	20.0	19.0
5.1	6.3	6.4	5.4	3.9	3.8	4.0	4.0
2.1	1.7	0.9	0.7	0.6	0.5	0.7	0.6
13.1	14.5	14.1	14.3	15.2	14.3	14.1	13.3
0.7	0.7	0.7	1.6	2.8	1.8	1.3	1.1
6.8	7.5	8.3	8.3	7.9	9.2	9.8	10.0
3.1	3.3	4.4	4.3	3.0	4.4	6.4	7.1
1.4	1.6	1.2	1.0	0.7	1.0	0.8	0.7
2.0	2.2	2.1	1.9	2.2	1.6	1.5	1.0
0.2	0.4	0.7	1.1	2.0	2.2	1.1	1.1
12.0	11.6	12.2	12.2	13.0	13.6	14.4	16.1
8.7	8.7	9.5	7.6	5.8	7.1	10.4	13.3
1.6	1.3	0.9	1.0	1.0	1.5	1.3	1.2
1.1	0.7	0.8	0.8	1.1	1.0	0.9	0.7
0.6	1.0	1.0	2.8	5.1	4.0	1.7	0.8
10.0	11.3	12.6	15.9	20.7	26.4	24.9	20.7
4.5	5.5	6.8	9.6	14.1	19.4	18.0	14.2
5.5	5.8	5.8	6.3	6.5	7.0	6.9	6.4
7.2	7.0	6.5	5.8	5.8	6.6	8.3	10.6
4.7	4.9	4.4	3.3	2.7	3.0	4.8	5.6
1.6	1.5	1.4	1.6	1.7	2.2	2.6	3.1
0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.3
0.2	0.2	0.2	0.3	0.9	1.1	0.7	1.6

Chapter 6 Prevalence

As of December 31st 2017, a total of 273 741 individuals were alive and previously diagnosed with cancer in Norway. The cancer prevalence in Table 6.1 provides the numbers of cancer survivors at a given number of years after 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 prostate cancer (49 722), breast cancer (47 568), melanoma of the skin (25 936), and colon cancer (22 294).

Differences in prognosis, rather than incidence, and median age at diagnosis explain much of the site-specific variability in prevalence. In terms of new cases, there are

almost twice as many lung cancers as melanoma of the skin in Norway, but the number of lung cancer survivors ten years after the diagnosis is less than 10% 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. Patients with metastatic disease now live longer and have more often diagnostic work-up, 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 December 31st 2007 and December 31st 2017, both sexes

ICD-10	Site	Total no. of persons alive		Years after diagnosis			
		31.12.2007	31.12.2017	<1	1-4	5-9	10+
C00-96	All sites	186 092	273 741	24 112	76 455	65 791	107 383
C00-14	Mouth, pharynx	3 475	5 266	591	1 618	1 322	1 735
C00	Lip	1 218	1 420	119	384	352	565
C01-02	Tongue	575	1 081	150	374	267	290
C03-06	Mouth, other	602	798	92	251	192	263
C07-08	Salivary glands	452	667	68	185	133	281
C09-14	Pharynx	669	1 377	177	467	391	342
C15-26	Digestive organs	28 628	40 582	5 003	13 475	9 520	12 584
C15	Oesophagus	294	725	209	309	129	78
C16	Stomach	1 983	2 018	299	602	396	721
C17	Small intestine	636	1 249	177	445	328	299
C18	Colon	15 790	22 294	2 545	7 432	5 334	6 983
C19-20	Rectum, rectosigmoid	8 835	12 142	1 219	3 870	2 953	4 100
C21	Anus	544	800	74	273	180	273
C22	Liver	220	569	126	244	102	97
C23-24	Gallbladder, bile ducts	306	493	98	184	100	111
C25	Pancreas	596	1 097	369	444	164	120
C26	Other digestive organs	119	204	66	65	27	46
C30-34, C38	Respiratory organs	5 980	9 627	2 140	3 792	1 877	1 818
C30-31	Nose, sinuses	291	351	32	105	81	133
C32	Larynx, epiglottis	1 059	1 077	75	306	265	431
C33-34	Lung, trachea	4 595	8 189	2 039	3 396	1 532	1 222
C38	Heart, mediastinum and pleura	66	70	11	12	9	38
C40-41	Bone	617	835	54	145	152	484
C43	Melanoma of the skin	16 465	25 936	2 158	6 797	5 425	11 556
C44	Skin, non-melanoma	10 700	16 340	2 187	5 768	3 901	4 484
C45	Mesothelioma	100	130	60	49	12	9
C47	Autonomic nervous system	234	246	10	22	27	187
C48-49	Soft tissues etc.	1 144	1 492	105	316	317	754
C50	Breast	33 562	47 568	3 506	11 915	10 784	21 363
C51-58	Female genital organs	19 864	23 455	1 489	5 129	4 523	12 314
C51-52, C57.7-9	Other female genital	786	982	100	267	216	399
C53	Cervix uteri	6 769	7 297	307	1 174	1 089	4 727
C54	Corpus uteri	8 193	10 530	669	2 537	2 432	4 892
C55	Uterus, other	44	47	5	11	7	24
C56, C57.0-4, C48.1-2	Ovary etc.	4 251	4 815	442	1 206	839	2 328
C58	Placenta	133	148	1	9	14	124
C60-63	Male genital organs	31 639	57 775	5 169	18 813	17 237	16 556
C61	Prostate	25 910	49 722	4 857	17 510	15 765	11 590
C62	Testis	5 448	7 695	287	1 203	1 410	4 795
C60, C63	Other male genital	363	579	56	190	125	208
C64-68	Urinary organs	14 553	21 463	2 294	7 172	5 250	6 747
C64	Kidney (excl. renal pelvis)	4 073	7 213	755	2 462	1 903	2 093
C65-68	Urinary tract	10 547	14 429	1 575	4 789	3 391	4 674
C69	Eye	899	1 118	77	263	215	563
C70-72	Central nervous system	9 551	13 786	872	2 706	3 288	6 920
C73	Thyroid gland	4 053	6 009	392	1 323	1 120	3 174
C37, C74-75	Other endocrine glands	2 568	4 035	144	786	1 091	2 014
C39, C76, C80	Other or unspecified	500	595	87	184	109	215
C81-96	Lymphoid/haematopoietic tissue	14 528	24 638	2 304	7 631	6 183	8 520
C81	Hodgkin lymphoma	2 036	2 868	131	536	547	1 654
C82-86, C96	Non-Hodgkin lymphoma	6 031	9 989	803	2 969	2 615	3 602
C88	Immunoproliferative disease	359	633	61	225	196	151
C90	Multiple myeloma	1 406	2 245	375	998	536	336
C91-95	Leukaemia	4 775	9 093	960	2 975	2 343	2 815

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

Health region	Alive by					
	31.12.1992	31.12.1997	31.12.2002	31.12.2007	31.12.2012	31.12.2017
South East	4 050	4 974	6 008	7 429	8 832	10 133
West	1 473	1 652	2 157	2 574	3 059	3 688
Middle	1 023	1 248	1 461	1 854	2 144	2 456
North	655	821	1 007	1 241	1 476	1 613
Total	7 201	8 695	10 633	13 098	15 511	17 890

The current table includes patients with distant metastasis unlike the previous report (CIN 2016) that also included patients with local recurrence.

Chapter 7 Mortality

The mortality data is obtained from the Cause of Death Registry. Of note is that mortality data for 2017 was not complete when this report was published (October 2018), and we therefore report figures for 2016.

There were 10 994 deaths from cancer in Norway in 2016, of which 5816 were men, and 5178 women (Table 7.1). Cancers of the lung, colon, rectum, prostate and female breast account for half of the total cancer deaths.

Among men, lung cancer caused 1191 deaths in 2016. Prostate cancer (957 deaths), colon cancer (543 deaths) and pancreas cancer (364 deaths) represent the second, third and fourth most frequent causes of cancer death among men, respectively.

Lung cancer mortality also ranks highest among women (1043 deaths). Colon cancer (635 deaths), breast cancer (623 deaths), and pancreas cancer (346 deaths) represent the second, third and fourth most frequent causes of cancer death among women, respectively. Figure 7.1 shows the distribution of age-standardised mortality rates for selected cancer sites. There is at least a 100-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 mortality, incidence and survival for 23 selected cancer sites.

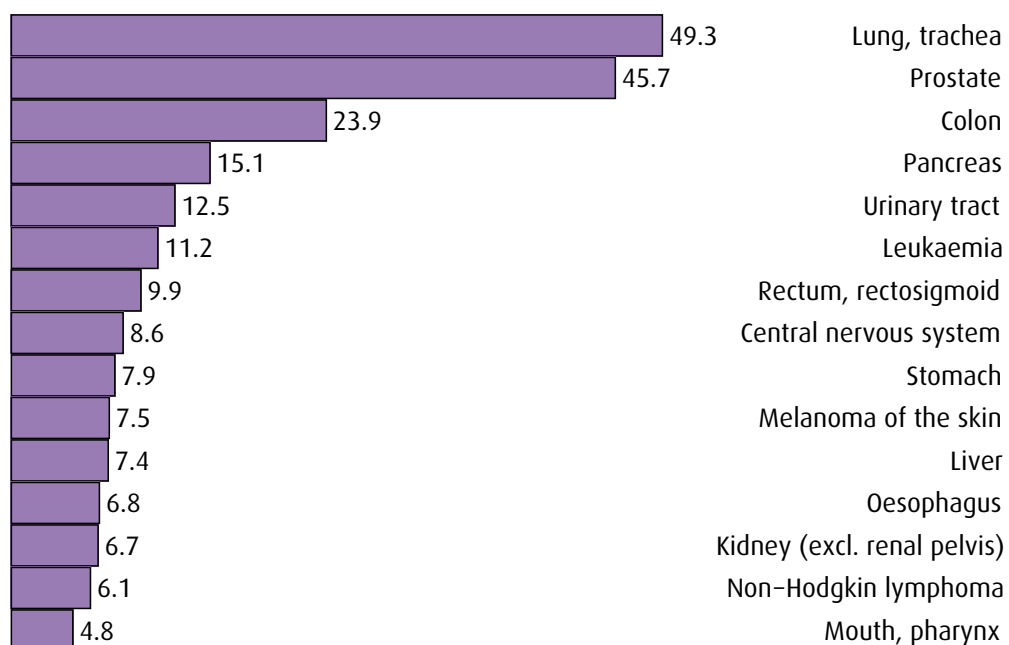
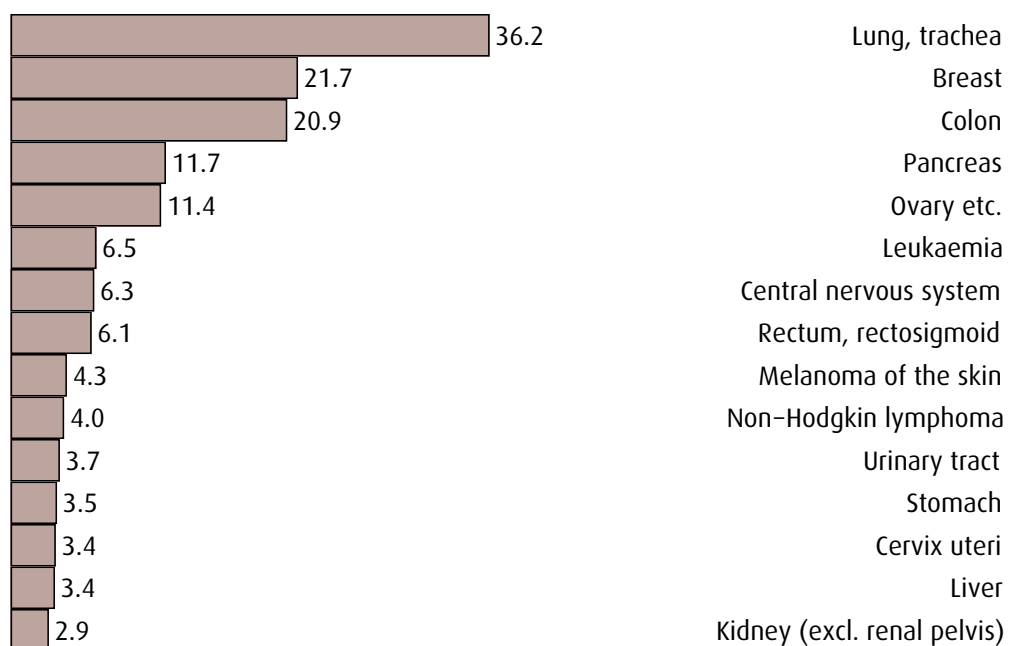
Figure 7.1: Age-standardised (Norwegian standard) mortality rates per 100 000 person-years for selected cancers, 2016**MALES****FEMALES**

Table 7.1: Number of cancer deaths by primary site and sex, 2016

ICD-10	Site	Males	Females	Total
C00–96	All sites	5 816	5 178	10 994
C00–14	Mouth, pharynx	120	64	184
C00	Lip	1	1	2
C01–02	Tongue	30	24	54
C03–06	Mouth, other	22	19	41
C07–08	Salivary glands	8	5	13
C09–14	Pharynx	59	15	74
C15–26	Digestive organs	1 789	1 549	3 338
C15	Oesophagus	167	58	225
C16	Stomach	190	105	295
C17	Small intestine	35	21	56
C18	Colon	543	635	1 178
C19–20	Rectum, rectosigmoid	237	182	419
C21	Anus	3	10	13
C22	Liver	182	97	279
C23–24	Gallbladder, bile ducts	37	43	80
C25	Pancreas	364	346	710
C26	Other digestive organs	31	52	83
C30–34, C38	Respiratory organs	1 222	1 056	2 278
C30–31	Nose, sinuses	5	4	9
C32	Larynx, epiglottis	22	7	29
C33–34	Lung, trachea	1 191	1 043	2 234
C38	Heart, mediastinum and pleura	4	2	6
C40–41	Bone	14	13	27
C43	Melanoma of the skin	181	125	306
C44	Skin, non-melanoma	21	25	46
C45	Mesothelioma	60	10	70
C47	Autonomic nervous system	0	0	0
C48–49	Soft tissues etc.	43	28	71
C50	Breast	6	623	629
C51–58	Female genital organs		614	614
C51–52, C57.7–9	Other female genital		45	45
C53	Cervix uteri		95	95
C54	Corpus uteri		77	77
C55	Uterus, other		74	74
C56, C57.0–4, C48.1–2	Ovary etc.		323	323
C58	Placenta		0	0
C60–63	Male genital organs	967		967
C61	Prostate	957		957
C62	Testis	3		3
C60, C63	Other male genital	7		7
C64–68	Urinary organs	427	201	628
C64	Kidney (excl. renal pelvis)	158	87	245
C65–68	Urinary tract	269	114	383
C69	Eye	2	1	3
C70–72	Central nervous system	217	176	393
C73	Thyroid gland	12	23	35
C37, C74–75	Other endocrine glands	12	16	28
C39, C76, C80	Other or unspecified	169	240	409
C81–96	Lymphoid/haematopoietic tissue	554	414	968
C81	Hodgkin lymphoma	12	7	19
C82–86, C96	Non-Hodgkin lymphoma	145	121	266
C88	Immunoproliferative disease	15	3	18
C90	Multiple myeloma	129	89	218
C91–95	Leukaemia	253	194	447

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^[14]. 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 2013–2017 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^[16].

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 the group without cancer, or in other words, statistically, these patients appear to be “cured”^[18]. 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. As mentioned in Chapter 9, the combined cancer group is an aggregate of

many different cancer types with different diagnostic and treatment possibilities. Survival estimates will be particularly 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 90 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. Long-term survival following diagnosis of melanoma and cancers of the oral cavity, central nervous system 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, 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 colon cancer (Figure 8.1–E) relative to, for example, cervix 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 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 cumu-

lative 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, 1978–2017, **males**

ICD-10	Site	Stage	Relative survival (%)							
			1978–82	1983–87	1988–92	1993–97	1998–02	2003–07	2008–12	2013–17*
C00–96	All sites	Total	41.3	43.8	48.0	52.8	58.4	64.5	70.0	73.2
		Total	58.2	56.9	57.2	54.7	56.2	56.0	66.7	67.7
C00–14	Mouth, pharynx	Localised	79.3	76.9	82.7	80.2	81.4	79.1	84.3	85.2
		Regional	23.8	25.5	27.8	28.4	36.9	40.1	56.5	60.3
		Distant	-	-	-	12.7	7.5	13.9	7.6	5.8
		Unknown	-	61.9	35.1	51.4	58.8	67.3	68.7	63.3
		Total	3.1	4.5	4.9	6.4	7.1	8.9	14.4	20.3
C15	Oesophagus	Localised	4.3	8.0	11.9	19.1	23.2	25.4	34.5	54.3
		Regional	4.2	3.4	4.9	4.8	7.5	11.0	16.4	25.1
		Distant	0.0	0.7	0.0	0.7	0.5	0.0	1.4	4.8
		Unknown	-	-	2.1	4.4	7.5	5.7	17.2	13.5
C16	Stomach	Total	17.0	18.1	18.6	17.9	18.7	21.9	24.9	26.7
		Localised	37.9	44.0	48.3	63.6	55.0	60.8	58.5	68.3
		Regional	20.2	19.4	19.7	17.4	20.2	23.5	26.5	33.7
		Distant	1.3	1.9	0.4	0.7	2.2	1.3	3.6	2.8
		Unknown	3.8	6.3	6.9	8.5	21.1	29.5	20.5	17.8
C18	Colon	Total	45.1	46.8	48.5	51.9	55.4	58.8	60.0	64.1
		Localised	73.5	76.0	77.6	88.4	90.8	88.2	91.7	94.5
		Regional	54.4	54.5	56.9	64.1	69.2	73.7	78.2	81.6
		Distant	5.2	4.9	4.3	4.9	6.7	9.3	12.5	13.8
		Unknown	16.2	33.1	28.7	32.1	57.7	54.7	33.5	21.9
C19–20	Rectum, rectosigmoid	Total	41.8	44.3	47.1	54.6	57.1	62.3	66.5	69.4
		Localised	62.6	66.3	72.4	84.7	86.6	88.5	91.5	95.1
		Regional	38.2	43.0	42.6	58.9	65.1	72.5	81.0	82.6
		Distant	3.9	2.3	3.6	4.6	10.4	12.4	15.9	18.3
		Unknown	22.2	28.8	35.3	30.4	55.6	54.6	45.1	39.8
C22	Liver	Total	3.1	3.2	5.1	7.3	6.5	10.2	16.3	17.1
		Localised	4.7	6.0	9.1	15.8	15.0	20.5	28.6	44.6
		Regional	-	-	-	-	-	-	5.7	-
		Distant	2.7	0.0	-	-	1.4	4.0	1.4	-
		Unknown	-	-	3.6	2.7	2.8	9.0	17.3	7.0
C23–24	Gallbladder, bile ducts	Total	9.4	12.9	10.3	11.8	16.5	14.1	18.0	20.7
		Localised	15.4	26.9	16.7	-	-	35.6	37.8	53.4
		Regional	-	-	-	17.1	20.7	13.6	24.3	24.5
		Distant	2.4	1.7	1.7	1.5	1.9	4.9	1.4	-
		Unknown	-	-	0.0	5.4	11.4	10.6	-	-
C25	Pancreas	Total	1.8	1.8	2.3	1.8	3.2	5.1	6.8	9.7
		Localised	3.2	5.5	3.3	7.6	9.4	19.5	34.0	47.1
		Regional	3.7	2.4	7.6	4.9	4.8	7.9	8.4	15.0
		Distant	0.5	0.3	1.4	0.5	1.9	2.2	2.1	2.3
		Unknown	5.9	3.6	1.5	1.3	3.2	2.9	10.6	10.8
C33–34	Lung, trachea	Total	6.7	7.5	7.4	8.4	8.8	11.0	13.8	17.8
		Localised	14.9	17.7	15.9	26.5	33.9	42.0	46.4	56.6
		Regional	6.2	7.9	9.8	8.4	9.4	12.5	15.7	21.6
		Distant	0.8	0.4	0.8	0.4	0.8	1.4	1.9	2.0
		Unknown	3.5	4.2	5.8	5.9	8.8	13.1	10.4	11.3
C43	Melanoma of the skin	Total	61.9	67.0	69.6	76.5	75.0	75.1	80.7	85.0
		Localised	70.5	74.8	77.2	82.6	86.2	83.8	88.2	90.6
		Regional	21.8	28.9	37.3	31.1	41.4	42.1	41.2	60.9
		Distant	7.0	1.9	8.6	16.2	9.3	10.1	14.4	22.7
		Unknown	-	52.9	43.2	73.8	72.7	77.7	73.8	57.4
C61	Prostate	Total	57.3	55.8	60.4	70.5	81.1	86.8	92.8	93.9
		Localised	72.9	72.1	73.5	83.6	96.5	97.0	101.6	101.8
		Regional	40.3	42.4	55.1	66.6	75.8	84.2	94.0	94.3
		Distant	19.6	21.6	24.6	24.1	26.3	31.6	37.0	36.8
		Unknown	40.7	54.9	66.3	74.1	84.3	89.0	95.7	97.7

Continued on next page

Table 8.1: Five-year relative survival by primary site, stage and period of diagnosis, 1978–2017, **males** (Continued)

ICD-10	Site	Stage	Relative survival (%)							
			1978–82	1983–87	1988–92	1993–97	1998–02	2003–07	2008–12	2013–17*
C62	Testis	Total	88.6	91.7	95.7	95.2	97.1	97.1	98.2	98.8
		Localised	97.4	97.8	98.7	99.1	99.2	99.8	99.3	99.6
		Regional	92.6	92.8	98.1	96.3	95.8	96.3	97.2	98.7
		Distant	54.2	70.8	77.0	70.9	83.4	82.0	90.7	89.0
		Unknown	-	-	-	-	100.2	98.4	-	-
C64	Kidney (excl. renal pelvis)	Total	37.6	42.8	46.4	50.8	54.0	61.7	69.0	74.7
		Localised	66.4	71.2	71.5	75.5	82.9	85.0	88.4	90.1
		Regional	48.1	44.8	54.7	56.1	50.0	56.5	59.7	65.1
		Distant	3.5	6.9	6.5	6.7	6.7	10.6	10.3	10.8
		Unknown	-	-	32.7	34.7	61.1	72.3	61.7	48.9
C65–68	Urinary tract	Total	60.9	64.8	67.1	69.3	69.1	72.0	73.9	78.2
		Localised	69.3	72.5	73.3	75.9	81.8	83.8	82.5	84.9
		Regional	27.4	21.3	29.8	28.1	23.7	28.6	28.7	32.9
		Distant	0.0	7.2	3.3	6.8	5.2	5.2	5.4	5.5
		Unknown	35.8	65.0	64.0	67.2	67.6	73.3	69.7	48.5
C70–72	Central nervous system	Total	29.6	37.8	39.0	47.9	54.4	61.1	61.6	62.0
		Non-malignant	57.9	75.8	74.0	81.7	91.9	92.0	93.1	96.3
		Malignant	17.8	21.7	23.8	22.3	20.9	24.9	26.9	28.7
C73	Thyroid gland	Total	80.0	76.2	74.3	76.1	79.9	81.5	88.2	88.6
		Localised	94.5	91.3	89.1	103.0	93.9	100.2	101.9	100.1
		Regional	81.8	81.9	81.1	85.7	85.9	85.1	89.3	87.2
		Distant	-	-	-	-	-	-	-	-
		Unknown	-	-	-	-	-	-	-	75.4
C81	Hodgkin lymphoma	Total	62.9	66.3	74.9	82.7	86.2	85.1	82.7	86.2
C82–86, C96	Non-Hodgkin lymphoma	Total	39.5	43.4	44.5	47.4	51.4	62.1	69.4	73.3
C91–95	Leukaemia	Total	24.0	28.2	37.6	41.1	50.0	55.4	61.4	62.7

* For 2013–17 the 5-year relative survival estimates are based on the period approach (observation window 2013–17)

- 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, 1978–2017, **females**

ICD-10	Site	Stage	Relative survival (%)							
			1978–82	1983–87	1988–92	1993–97	1998–02	2003–07	2008–12	2013–17*
C00–96	All sites	Total	51.4	53.6	57.0	59.4	62.6	66.4	69.6	72.6
		Total	56.0	54.1	64.6	61.6	55.7	67.3	71.1	74.1
C00–14	Mouth, pharynx	Localised	73.4	70.6	77.5	81.7	80.4	82.0	87.1	89.1
		Regional	29.2	36.3	46.7	32.2	40.3	48.9	54.0	57.5
		Distant	-	-	-	-	-	-	-	-
		Unknown	-	-	-	59.0	53.5	83.0	77.6	79.9
		Total	9.8	7.6	9.9	8.5	9.3	9.2	18.0	23.8
C15	Oesophagus	Localised	14.6	12.5	17.1	-	-	24.4	37.5	46.2
		Regional	-	-	-	-	-	8.5	19.4	28.4
		Distant	-	-	-	-	0.0	2.0	2.5	-
		Unknown	-	-	-	6.1	9.3	7.6	11.4	13.3
C16	Stomach	Total	17.5	20.5	21.5	24.3	22.6	23.7	24.2	26.4
		Localised	42.6	47.9	45.8	68.8	66.1	59.7	58.5	68.2
		Regional	17.8	22.2	25.1	29.2	26.3	24.6	24.4	29.0
		Distant	1.0	0.6	1.7	1.7	3.4	4.3	2.6	2.3
		Unknown	7.4	15.0	11.6	14.1	17.2	32.5	29.6	29.0
C18	Colon	Total	43.1	49.7	51.6	54.6	57.8	61.2	63.8	67.9
		Localised	68.8	79.8	78.0	88.7	89.1	92.7	95.9	97.4
		Regional	53.2	59.2	59.6	66.0	71.0	73.6	79.8	83.0
		Distant	4.5	3.7	4.7	5.8	8.5	12.6	13.9	17.3
		Unknown	20.4	23.0	32.2	44.2	55.7	58.0	33.4	21.9
C19–20	Rectum, rectosigmoid	Total	45.2	48.9	53.2	57.5	61.7	64.4	67.3	68.9
		Localised	67.4	74.1	75.6	89.3	92.4	93.7	95.3	98.7
		Regional	38.7	46.3	50.6	59.6	67.2	71.9	78.3	78.0
		Distant	6.6	3.7	4.0	5.1	9.3	10.6	21.0	20.6
		Unknown	-	26.3	46.6	42.1	58.4	64.0	45.4	38.7
C22	Liver	Total	2.9	7.7	7.1	8.5	10.3	13.5	17.8	23.3
		Localised	6.9	11.6	11.8	-	22.0	28.2	32.2	40.4
		Regional	-	-	-	-	-	-	-	15.1
		Distant	0.0	-	-	-	-	-	2.3	-
		Unknown	-	-	6.1	9.2	7.3	12.2	13.9	20.1
C23–24	Gallbladder, bile ducts	Total	9.8	12.8	8.0	10.2	11.3	13.1	15.8	19.9
		Localised	20.6	26.2	18.4	35.1	-	24.9	39.1	39.6
		Regional	8.2	12.0	7.6	14.1	20.4	21.2	23.9	29.4
		Distant	1.7	0.0	0.0	0.0	2.2	0.0	2.3	-
		Unknown	-	-	8.8	3.6	11.3	12.0	-	-
C25	Pancreas	Total	2.7	1.6	2.3	3.3	3.7	4.6	7.3	9.0
		Localised	4.6	3.0	7.0	13.0	24.1	17.4	34.0	49.9
		Regional	8.5	3.2	2.8	6.2	2.7	6.1	8.8	12.1
		Distant	1.3	0.7	0.3	0.9	1.2	1.8	2.2	1.7
		Unknown	1.3	0.9	3.2	2.4	5.1	5.7	6.1	-
C33–34	Lung, trachea	Total	10.6	7.1	9.9	11.4	12.6	14.7	19.5	24.4
		Localised	22.3	21.0	23.6	38.1	47.0	51.6	57.5	67.0
		Regional	12.5	5.8	12.5	12.0	12.0	15.9	20.6	27.3
		Distant	1.8	0.3	1.6	1.1	1.2	1.9	3.1	3.6
		Unknown	11.2	6.4	7.0	6.3	18.3	18.2	15.9	18.2
C43	Melanoma of the skin	Total	80.4	83.0	88.7	86.1	87.8	87.7	88.9	90.5
		Localised	86.1	88.2	92.8	91.2	94.1	94.2	93.5	93.9
		Regional	45.2	45.2	39.1	53.2	57.6	48.8	56.9	65.0
		Distant	11.4	3.6	22.2	18.9	17.5	24.6	23.6	39.4
		Unknown	-	-	74.8	81.4	87.4	87.4	82.4	70.2

Continued on next page

Table 8.2: Five-year relative survival by primary site, stage and period of diagnosis, 1978–2017, **females** (Continued)

ICD-10	Site	Stage	Relative survival (%)							
			1978–82	1983–87	1988–92	1993–97	1998–02	2003–07	2008–12	2013–17*
C50	Breast	Total	73.4	74.1	76.1	79.8	85.1	87.3	89.1	90.4
		I	87.1	88.5	94.1	95.7	98.4	99.3	100.4	100.2
		II	64.6	69.2	74.4	79.5	85.7	88.7	93.7	94.5
		III	49.7	49.6	49.2	56.1	62.5	67.2	77.1	78.3
		IV	15.7	16.0	22.1	16.2	18.3	21.8	25.3	27.7
		Unknown	76.0	84.2	85.4	85.7	88.5	79.0	69.8	75.2
C53	Cervix uteri ¹	Total	72.3	69.2	69.8	73.9	74.9	77.8	79.8	81.4
		I	86.9	84.6	83.4	87.6	90.3	93.5	91.1	91.2
		II	61.7	53.8	61.3	59.3	64.9	76.6	79.1	79.2
		III	34.6	29.2	29.7	44.5	39.6	50.4	56.8	61.7
		IV	4.0	8.8	37.9	22.2	13.7	18.8	32.7	45.8
		Unknown	-	-	-	-	-	66.5	-	-
C54	Corpus uteri	Total	72.1	71.4	72.4	77.5	79.9	81.5	83.1	84.0
		Localised	82.0	83.2	84.1	89.3	91.3	92.7	94.3	95.4
		Regional	61.7	55.6	62.2	72.9	71.9	74.9	66.0	59.4
		Distant	23.6	20.5	27.6	35.2	33.3	38.9	38.2	39.5
		Unknown	44.2	42.6	50.0	50.7	84.7	81.8	73.5	63.2
C56, C57.0–4, C48.1–2 Ovary etc.		Total	32.4	35.5	36.4	38.1	42.5	43.3	44.6	48.6
		Localised	74.6	79.8	78.9	85.7	89.2	86.6	87.7	94.1
		Regional	40.2	45.2	50.0	52.2	58.9	71.1	62.2	63.7
		Distant	15.8	16.6	17.9	21.2	28.1	30.9	32.1	36.3
		Unknown	33.6	42.2	36.3	41.3	63.1	57.2	47.9	41.5
C64	Kidney (excl. renal pelvis)	Total	43.6	46.1	52.1	53.5	55.6	66.9	72.3	76.6
		Localised	70.0	74.7	75.7	79.3	85.1	87.9	88.7	90.5
		Regional	51.2	47.6	47.2	52.4	49.3	53.2	47.9	53.4
		Distant	3.0	7.5	9.4	2.8	14.1	10.6	14.8	13.4
		Unknown	-	-	27.2	47.8	58.8	71.0	76.1	45.9
C65–68	Urinary tract	Total	50.6	57.8	60.8	59.3	61.7	62.0	68.3	70.4
		Localised	64.4	69.9	69.7	72.0	83.0	78.8	79.4	79.1
		Regional	12.7	14.2	19.3	22.6	30.5	21.1	21.9	28.7
		Distant	2.0	7.9	5.2	4.4	4.2	6.7	8.5	-
		Unknown	-	44.1	59.7	53.4	58.9	61.6	67.9	40.9
C70–72	Central nervous system	Total	42.7	51.6	57.9	62.0	70.0	76.8	76.8	75.9
		Non-malignant	75.1	83.1	84.1	88.0	91.2	93.8	95.8	96.8
		Malignant	16.7	21.6	26.9	24.3	25.3	28.5	27.3	29.0
C73	Thyroid gland	Total	84.4	86.9	89.3	90.3	86.1	90.6	93.0	93.4
		Localised	93.9	93.6	96.5	100.1	104.4	102.3	100.9	100.3
		Regional	78.1	84.8	87.5	86.3	80.8	89.3	92.1	91.9
		Distant	52.1	-	-	-	-	-	-	-
		Unknown	-	-	-	-	82.1	86.6	82.6	79.0
C81	Hodgkin lymphoma	Total	67.0	71.8	72.8	80.4	85.3	81.4	85.2	86.7
C82–86, C96	Non-Hodgkin lymphoma	Total	45.6	47.0	56.1	49.5	56.8	67.0	73.8	76.5
C91–95	Leukaemia	Total	27.4	27.3	38.1	46.4	52.7	60.7	65.9	69.2

* For 2013–17 the 5-year relative survival estimates are based on the period approach (observation window 2013–17)

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

¹ The Cancer in Norway reports from 2015 to 2018 contained an error in staging of cervical cancer, and the numbers given in this table are incorrect. For more details see: <https://www.kreftregisteret.no/Generelt/Rapporter/Cancer-in-Norway/erratum-for-cancer-in-norway/>

Table 8.3: 1-, 5-, 10-, and 15-year relative survival (%) with 95% confidence interval by primary site and sex. Period approach, 2013–2017

ICD-10	Site	Sex	1-year	5-year	10-year	15-year
C00–14	Mouth, pharynx	M	85.3 (83.5–87.0)	67.7 (64.9–70.3)	57.8 (53.7–61.6)	50.0 (43.5–56.1)
		F	88.6 (86.3–90.6)	74.1 (70.1–77.7)	66.4 (60.6–71.5)	52.9 (42.5–62.3)
C15	Oesophagus	M	50.2 (47.2–53.2)	20.3 (17.6–23.2)	15.9 (12.4–19.7)	13.0 (8.3–18.7)
		F	49.7 (44.3–54.9)	23.8 (19.0–29.0)	12.8 (8.5–18.0)	-
C16	Stomach	M	53.6 (51.0–56.1)	26.7 (24.2–29.4)	22.5 (19.3–25.7)	19.2 (15.2–23.6)
		F	50.3 (46.9–53.6)	26.4 (23.1–29.7)	24.5 (20.7–28.6)	22.3 (16.5–28.5)
C18	Colon	M	82.2 (81.2–83.2)	64.1 (62.5–65.6)	57.5 (55.0–59.9)	53.5 (48.7–58.0)
		F	82.9 (81.9–83.8)	67.9 (66.4–69.3)	63.2 (60.9–65.4)	60.4 (55.3–65.1)
C19–20	Rectum, rectosigmoid	M	89.0 (87.9–90.1)	69.4 (67.5–71.3)	61.3 (58.4–64.1)	56.9 (52.3–61.3)
		F	88.7 (87.3–89.9)	68.9 (66.7–71.0)	63.8 (60.8–66.6)	59.8 (55.3–64.0)
C22	Liver	M	39.0 (35.4–42.6)	17.1 (14.2–20.2)	14.8 (11.4–18.8)	-
		F	49.9 (45.2–54.5)	23.3 (18.6–28.3)	20.8 (15.3–26.8)	-
C23–24	Gallbladder, bile ducts	M	61.9 (56.6–66.8)	20.7 (16.2–25.7)	20.7 (15.3–26.6)	18.8 (10.9–28.4)
		F	47.3 (42.6–51.8)	19.9 (15.9–24.3)	18.9 (13.5–25.1)	-
C25	Pancreas	M	31.0 (28.9–33.1)	9.7 (8.1–11.3)	7.4 (5.7–9.4)	-
		F	28.7 (26.7–30.7)	9.0 (7.6–10.6)	7.3 (5.8–8.9)	-
C33–34	Lung, trachea	M	43.4 (42.3–44.5)	17.8 (16.8–18.8)	10.7 (9.7–11.8)	7.1 (5.9–8.3)
		F	51.0 (49.8–52.2)	24.4 (23.3–25.6)	16.3 (15.0–17.7)	12.8 (10.8–14.8)
C43	Melanoma of the skin	M	96.1 (95.3–96.8)	85.0 (83.3–86.6)	79.5 (76.3–82.2)	73.9 (67.8–78.9)
		F	97.6 (96.9–98.1)	90.5 (89.1–91.8)	87.5 (85.1–89.6)	86.1 (81.9–89.4)
C50	Breast	F	98.0 (97.7–98.3)	90.4 (89.7–91.1)	82.9 (81.9–83.9)	77.4 (75.9–78.8)
C53	Cervix uteri	F	93.1 (91.7–94.2)	81.4 (79.3–83.2)	76.5 (74.2–78.7)	72.9 (70.3–75.2)
C54	Corpus uteri	F	94.5 (93.5–95.3)	84.0 (82.3–85.6)	82.3 (79.8–84.6)	81.2 (76.4–85.1)
C56, C57.0–4, C48.1–2	Ovary etc.	F	82.7 (81.2–84.2)	48.6 (46.5–50.7)	36.1 (33.9–38.4)	31.8 (29.4–34.3)
C61	Prostate	M	99.3 (99.0–99.5)	93.9 (93.3–94.5)	86.6 (85.5–87.6)	75.7 (73.7–77.5)
C62	Testis	M	99.3 (98.6–99.7)	98.8 (97.7–99.4)	99.1 (97.2–99.7)	98.3 (95.8–99.3)
C64	Kidney (excl. renal pelvis)	M	87.9 (86.5–89.2)	74.7 (72.5–76.7)	63.5 (60.3–66.6)	55.4 (50.4–60.0)
		F	88.4 (86.4–90.1)	76.6 (73.6–79.4)	69.6 (65.6–73.2)	59.1 (53.4–64.3)
C65–68	Urinary tract	M	89.9 (89.0–90.8)	78.2 (76.4–79.8)	67.6 (64.6–70.3)	60.2 (54.6–65.3)
		F	82.8 (81.1–84.5)	70.4 (67.7–72.9)	65.0 (60.6–69.1)	52.2 (45.5–58.5)
C70–72	Central nervous system	M	78.7 (77.0–80.3)	62.0 (59.8–64.0)	59.8 (57.2–62.3)	53.3 (50.0–56.6)
		F	85.9 (84.4–87.2)	75.9 (74.0–77.7)	72.7 (70.5–74.8)	70.4 (67.5–73.2)
C73	Thyroid gland	M	93.1 (90.4–95.1)	88.6 (84.0–92.0)	84.7 (76.3–90.2)	81.4 (66.8–90.1)
		F	95.6 (94.2–96.6)	93.4 (91.3–95.0)	92.4 (89.0–94.8)	88.7 (82.4–92.8)
C81	Hodgkin lymphoma	M	94.7 (92.0–96.5)	86.2 (82.1–89.4)	84.0 (78.8–88.0)	78.6 (72.1–83.8)
		F	95.2 (91.8–97.2)	86.7 (82.2–90.1)	81.9 (76.2–86.4)	80.1 (72.9–85.6)
C82–86, C96	Non-Hodgkin lymphoma	M	84.8 (83.3–86.1)	73.3 (71.1–75.3)	63.6 (60.4–66.6)	57.3 (51.5–62.7)
		F	86.5 (84.9–88.0)	76.5 (74.1–78.7)	65.7 (62.5–68.8)	57.3 (51.4–62.8)
C91–95	Leukaemia	M	81.7 (80.2–83.2)	62.7 (60.7–64.7)	50.9 (48.3–53.5)	40.3 (36.2–44.4)
		F	81.6 (79.9–83.2)	69.2 (66.9–71.3)	56.4 (53.4–59.3)	43.2 (38.7–47.7)

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

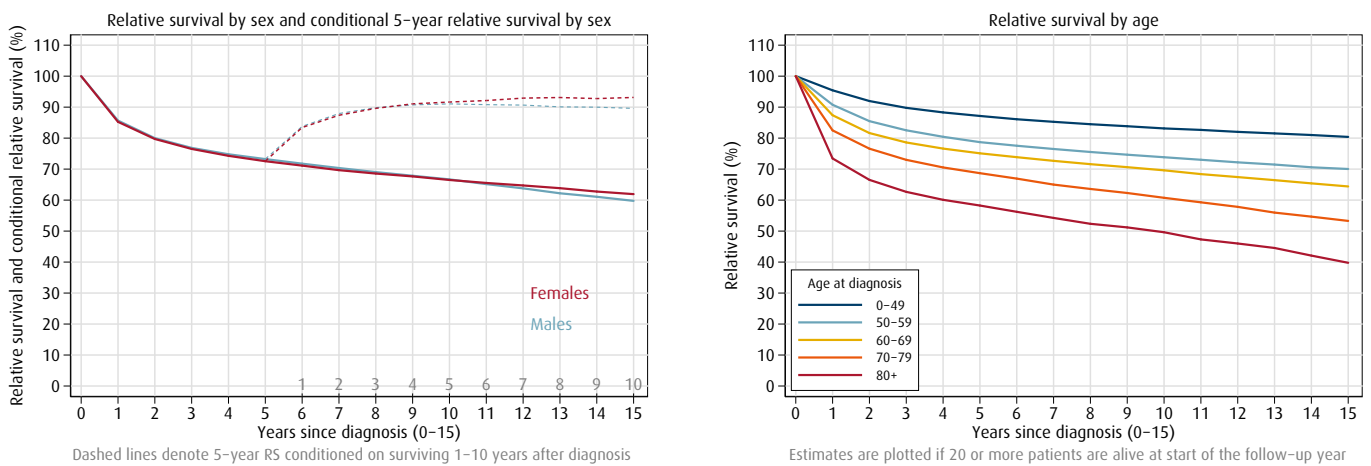
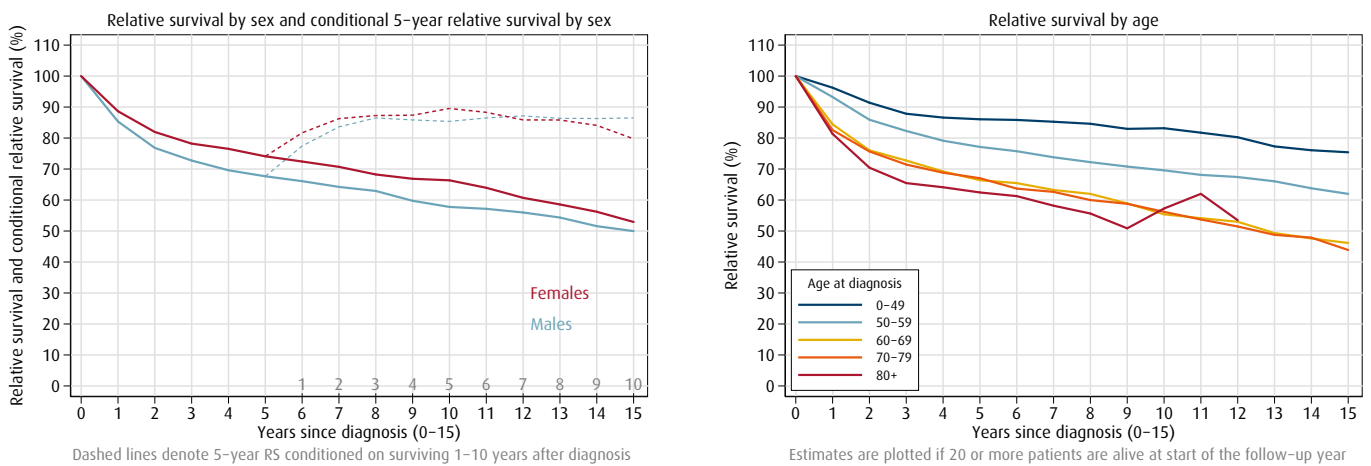
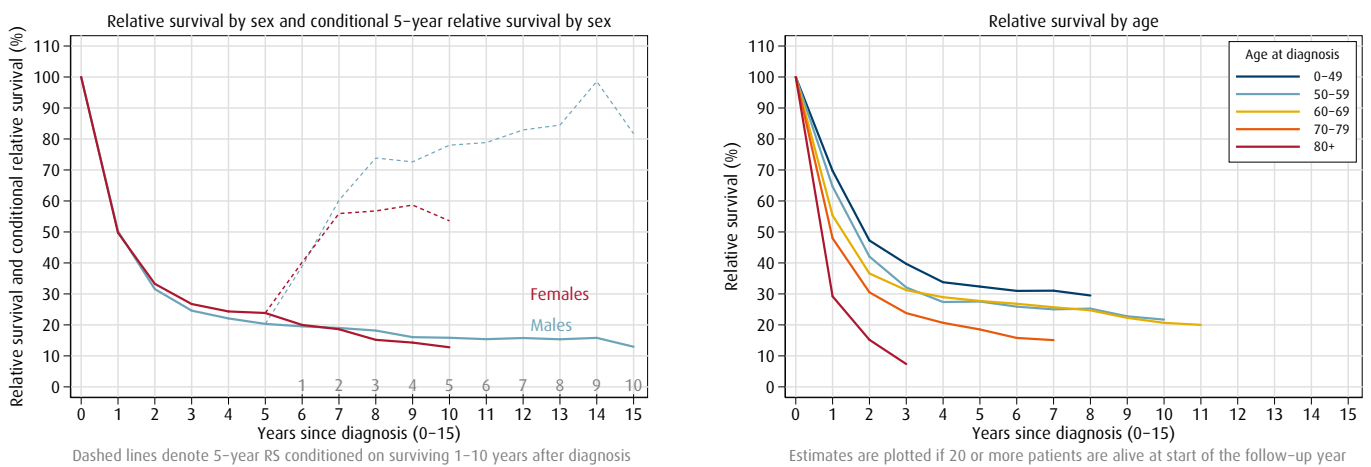
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-A: All sites (ICD-10 C00–96)****Figure 8.1-B: Mouth, pharynx (ICD-10 C00–14)****Figure 8.1-C: Oesophagus (ICD-10 C15)**

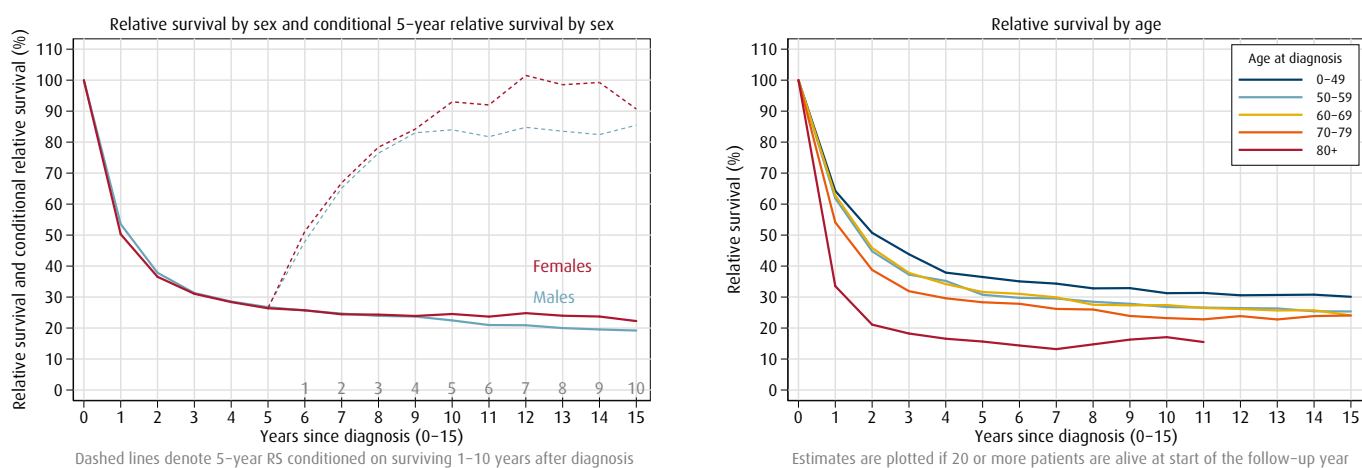
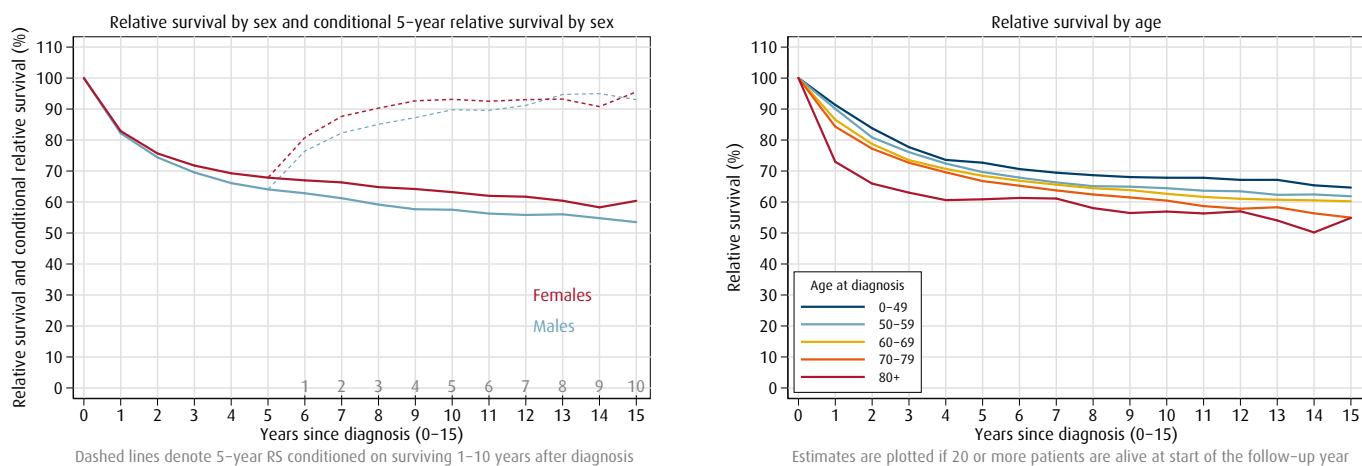
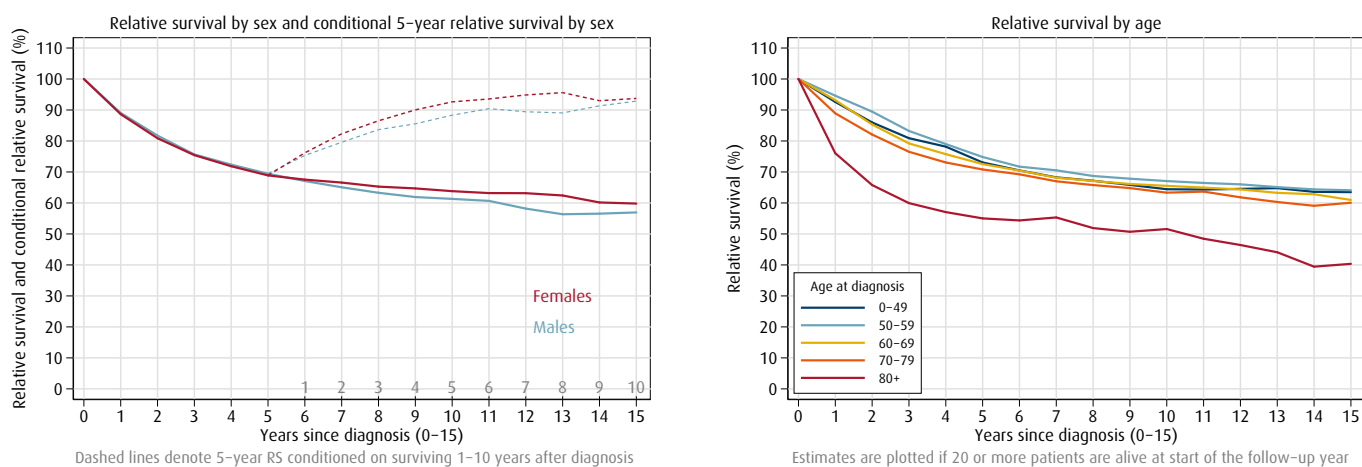
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-D: Stomach (ICD-10 C16)****Figure 8.1-E: Colon (ICD-10 C18)****Figure 8.1-F: Rectum, rectosigmoid (ICD-10 C19–20)**

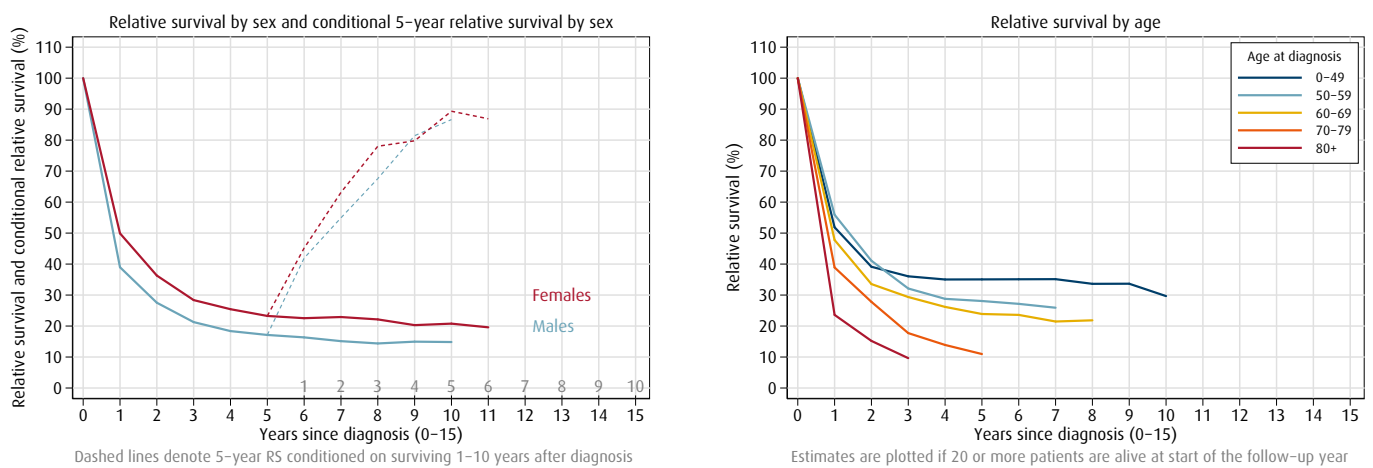
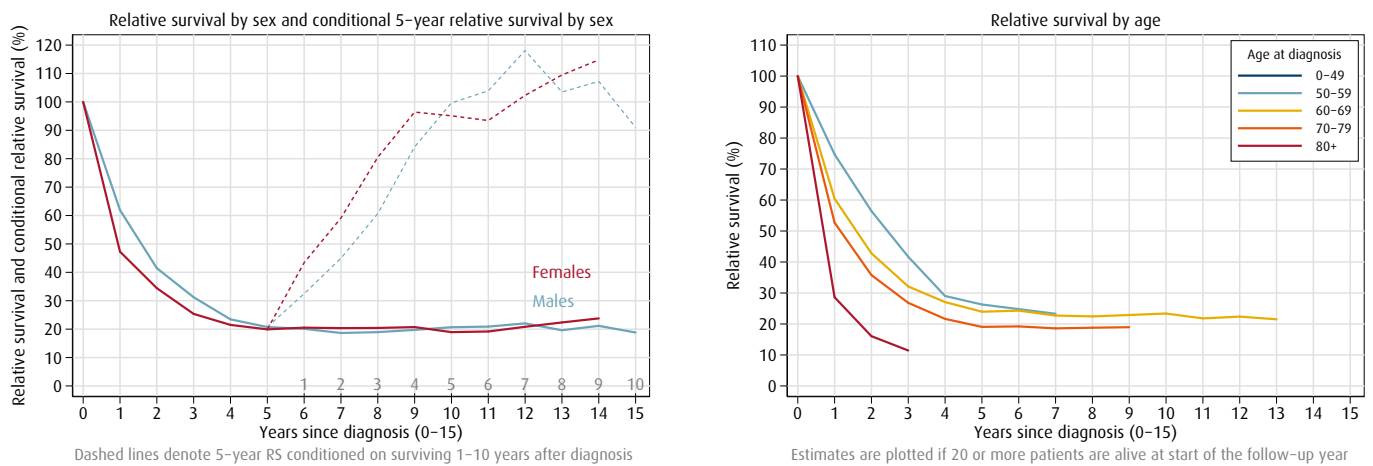
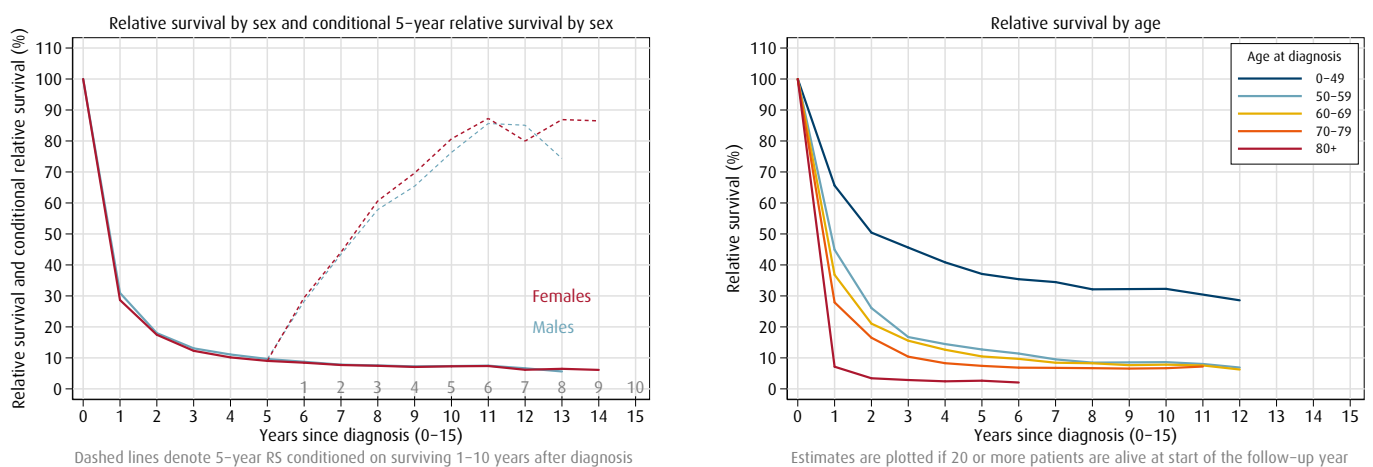
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-G: Liver (ICD-10 C22)****Figure 8.1-H: Gallbladder, bile ducts (ICD-10 C23-24)****Figure 8.1-I: Pancreas (ICD-10 C25)**

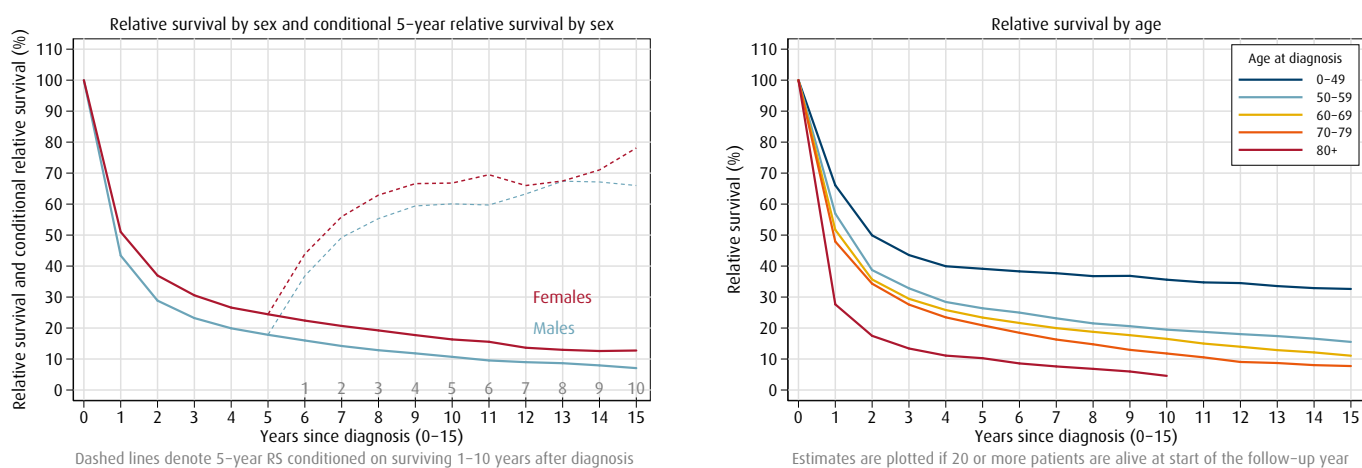
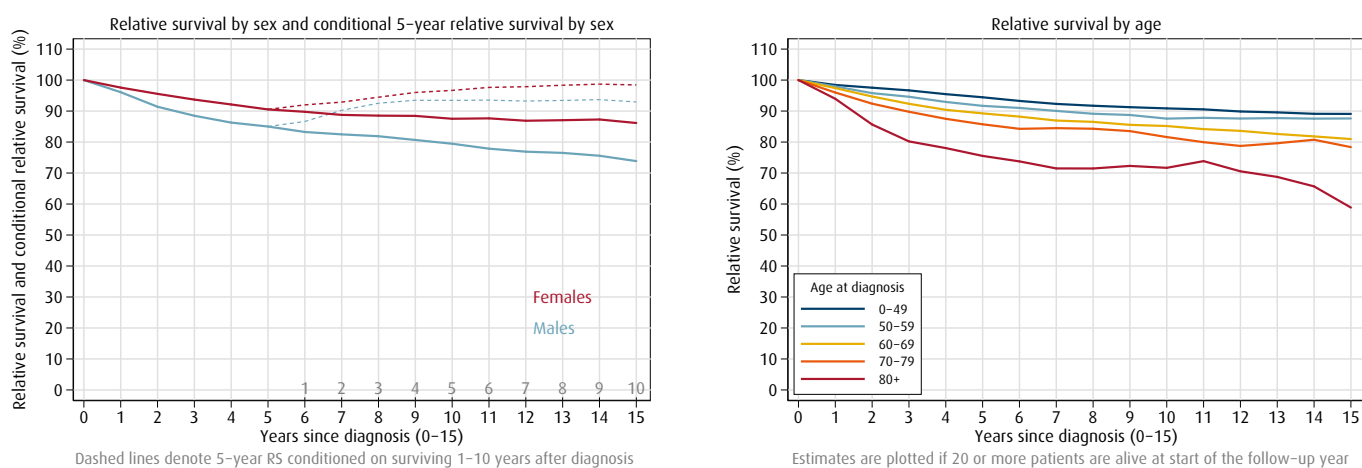
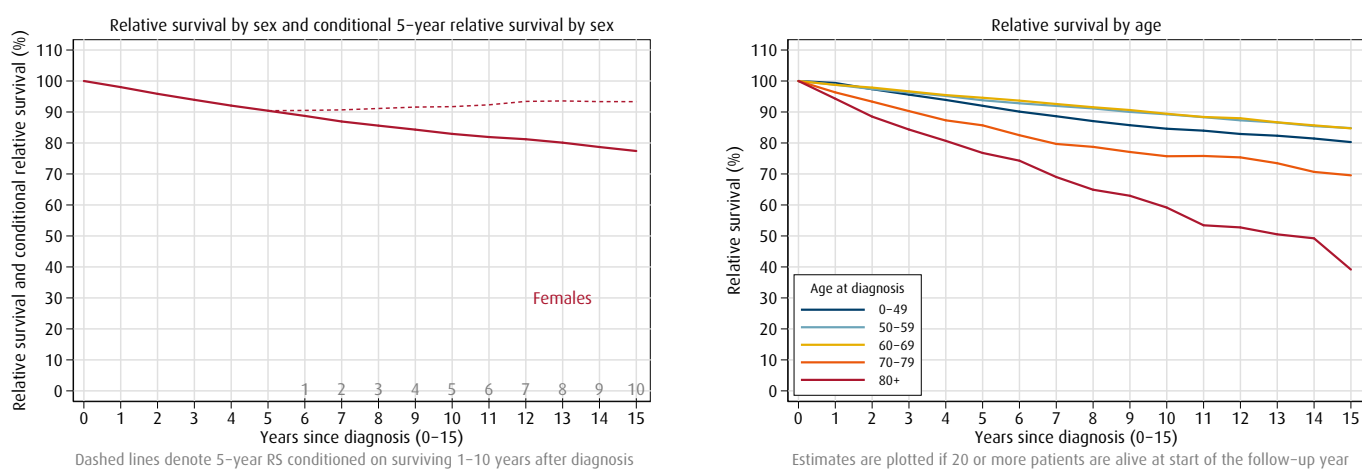
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-J: Lung, trachea (ICD-10 C33–34)****Figure 8.1-K: Melanoma of the skin (ICD-10 C43)****Figure 8.1-L: Breast (ICD-10 C50)**

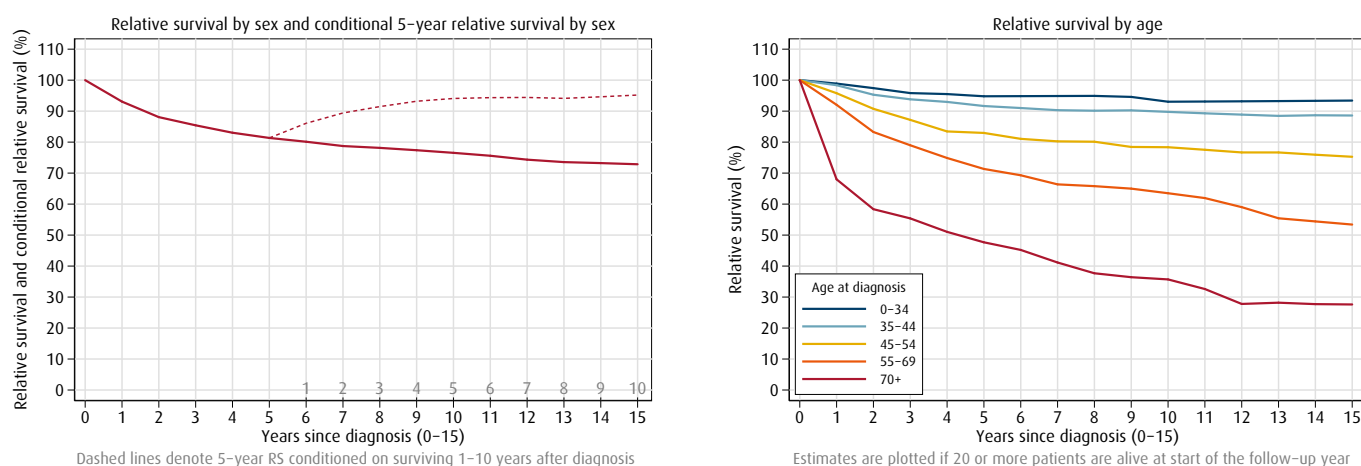
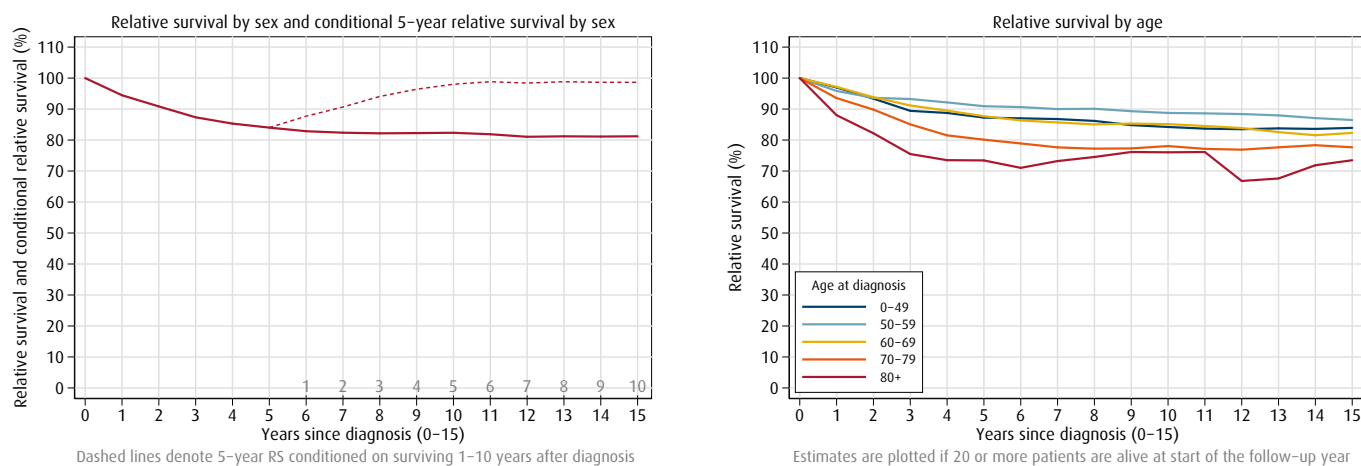
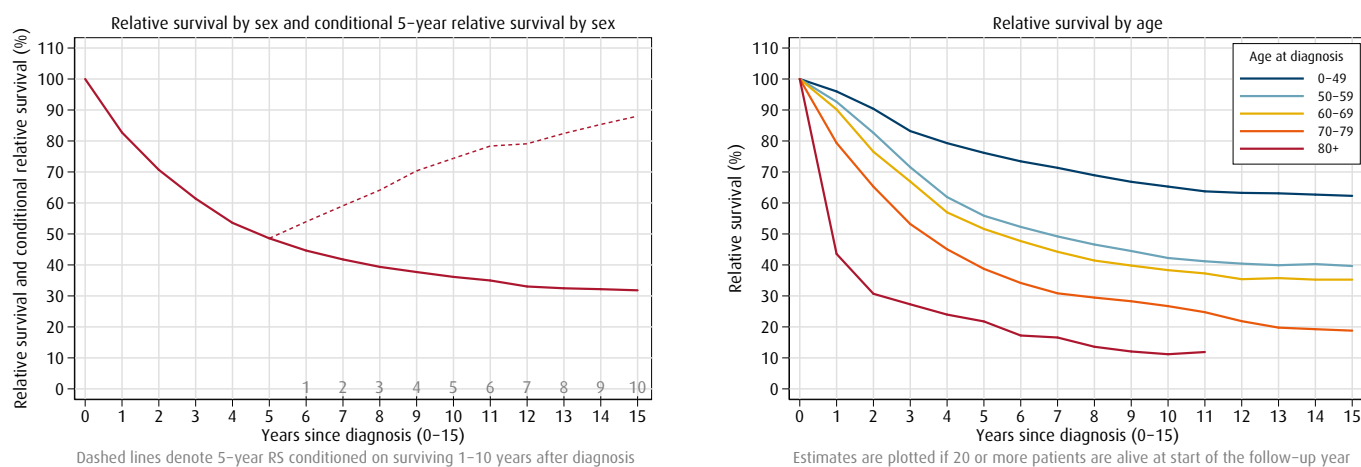
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-M: Cervix uteri (ICD-10 C53)****Figure 8.1-N: Corpus uteri (ICD-10 C54)****Figure 8.1-O: Ovary etc. (ICD-10 C56, C57.0–4, C48.1–2)**

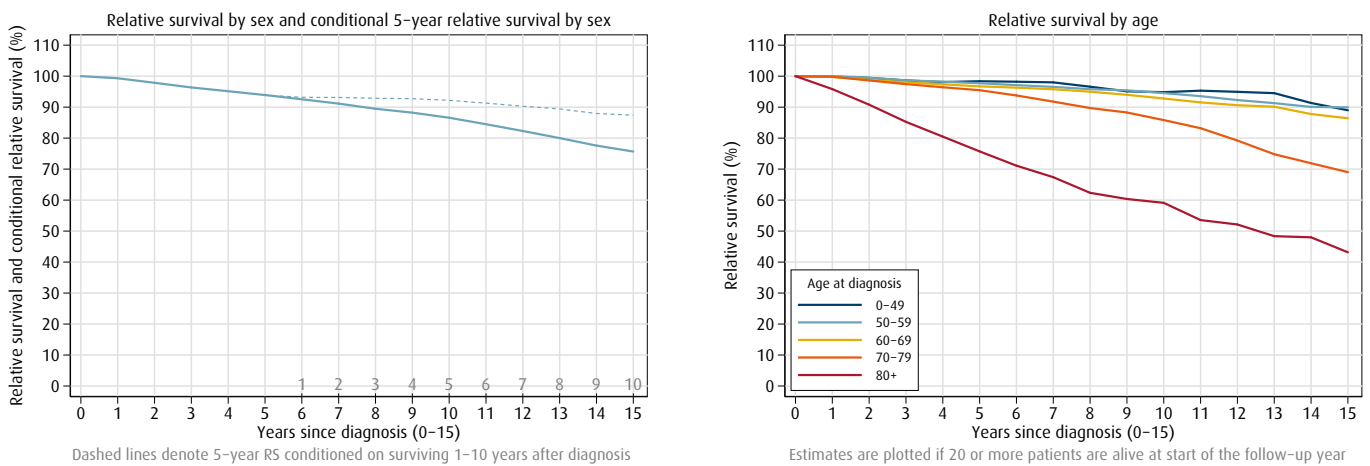
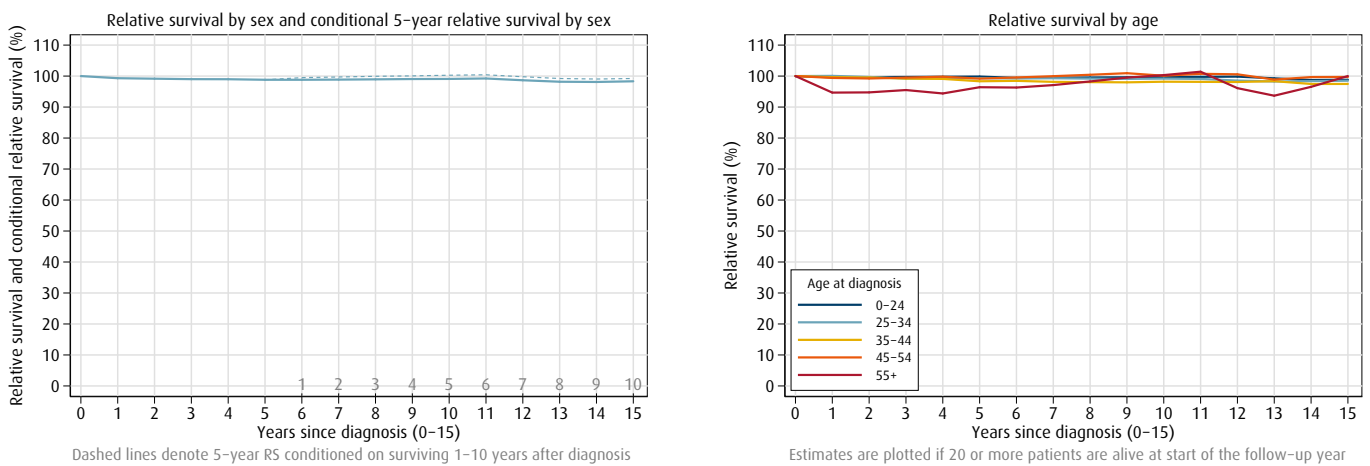
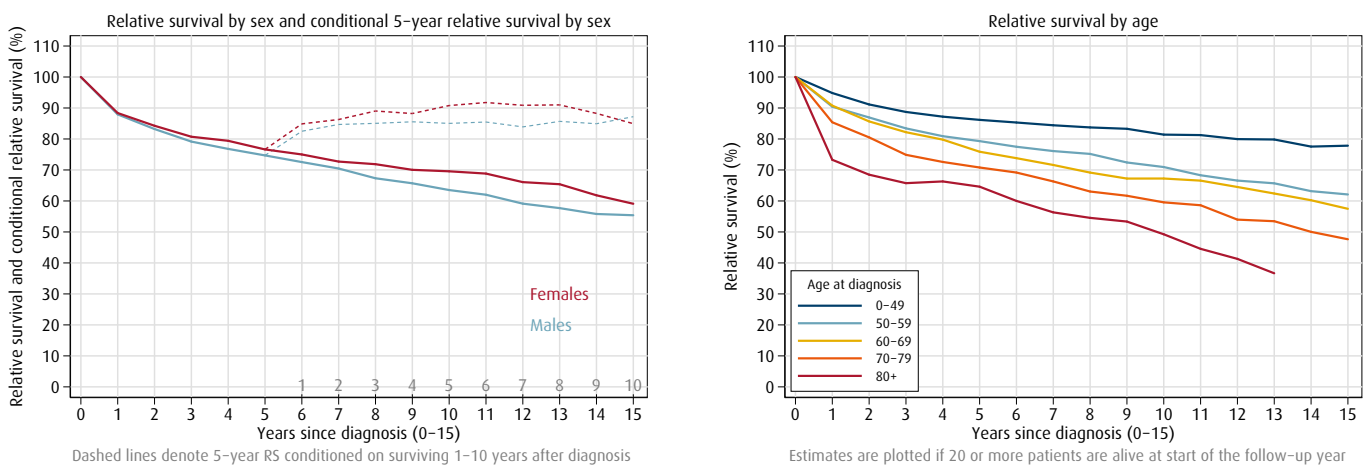
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-P: Prostate (ICD-10 C61)****Figure 8.1-Q: Testis (ICD-10 C62)****Figure 8.1-R: Kidney (excl. renal pelvis) (ICD-10 C64)**

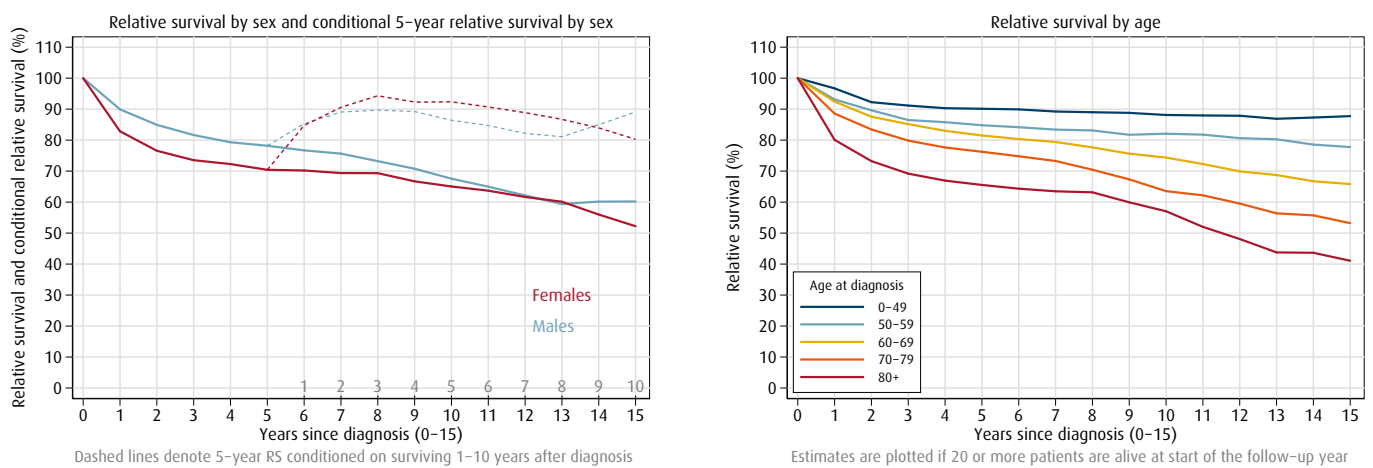
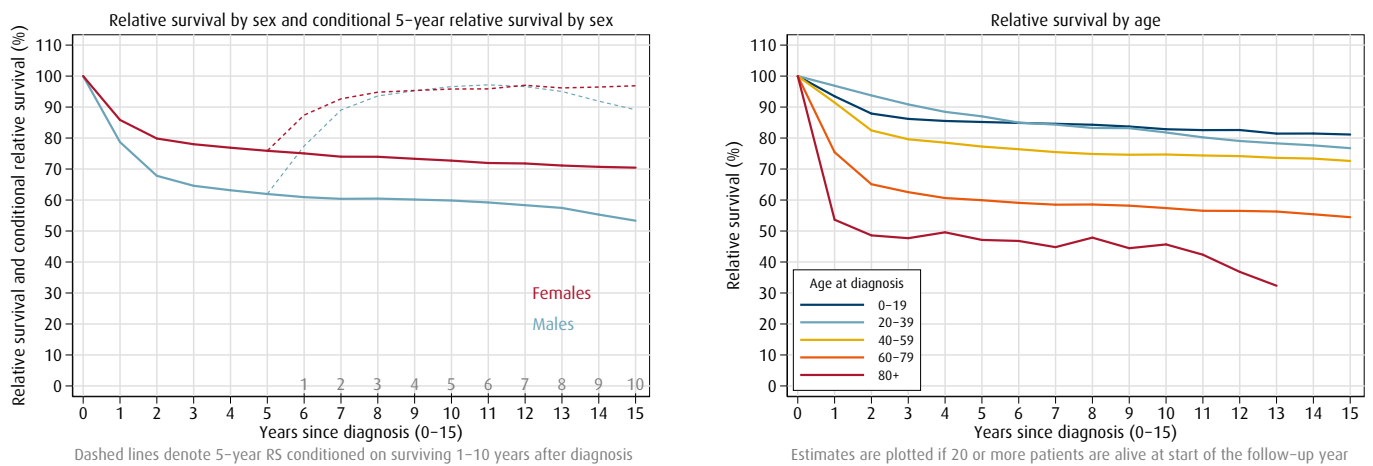
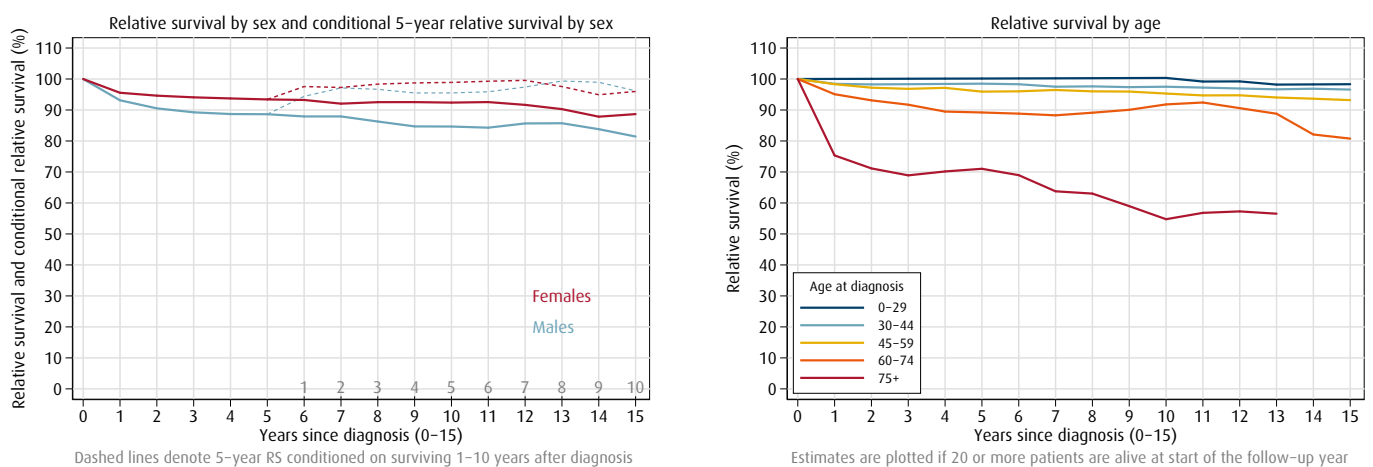
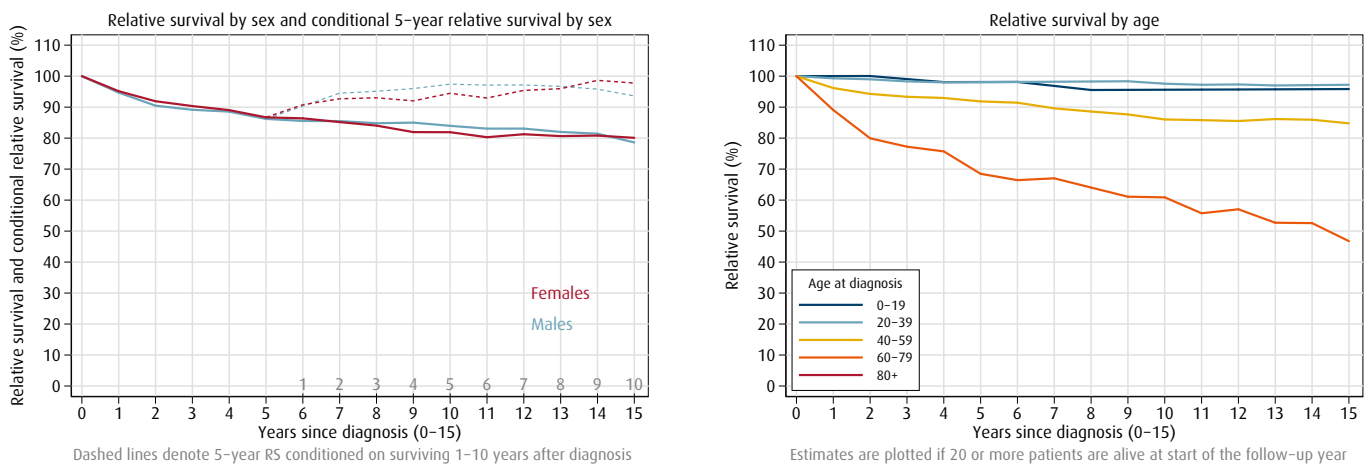
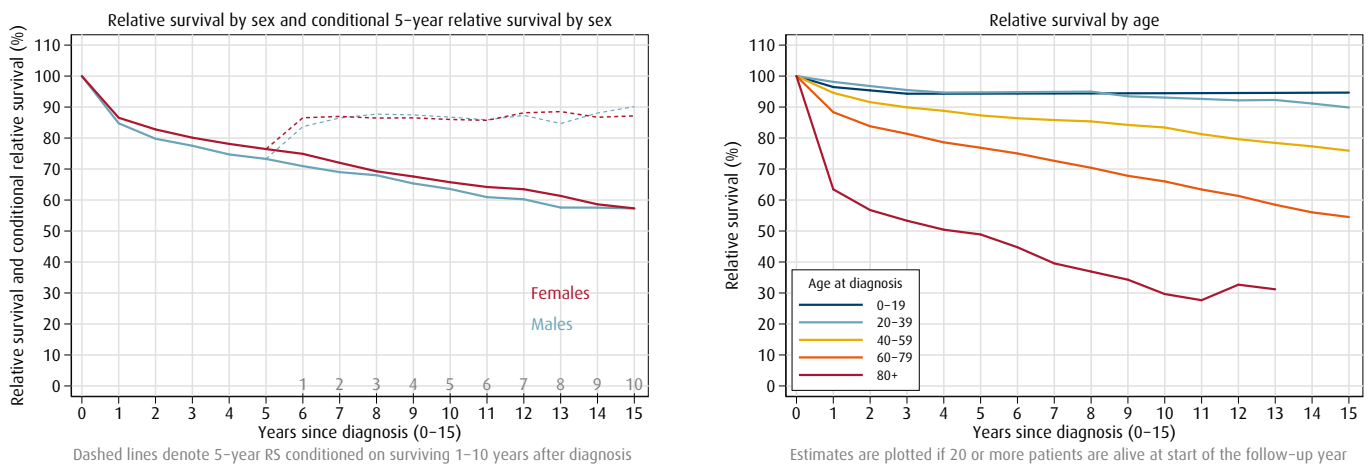
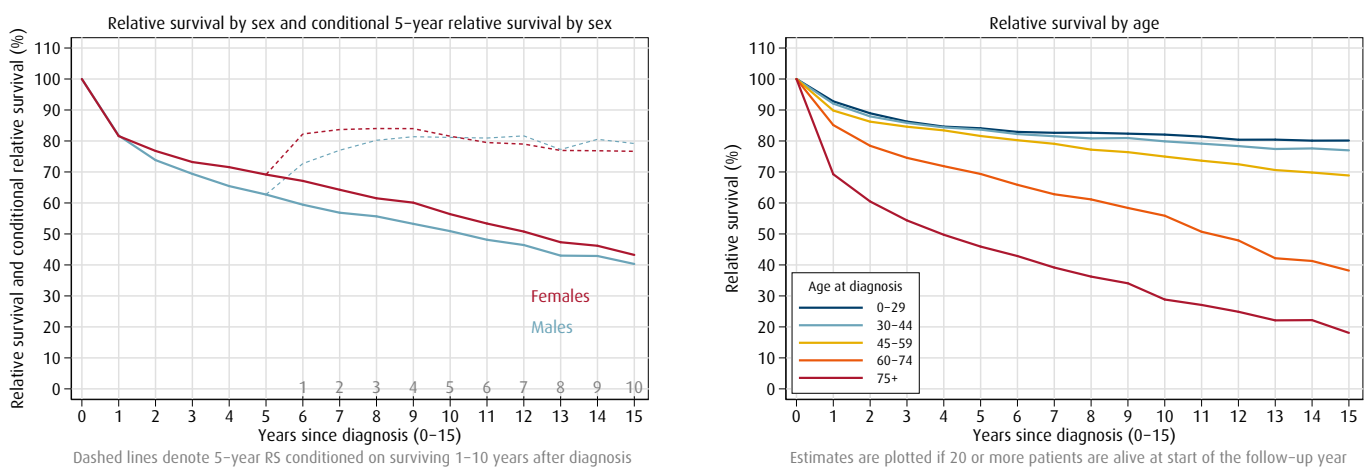
Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-S: Urinary tract (renal pelvis, ureters, urinary bladder, and urethra) (ICD-10 C65–68)****Figure 8.1-T: Central nervous system (ICD-10 C70–72)****Figure 8.1-U: Thyroid gland (ICD-10 C73)**

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2013–2017**Figure 8.1-V: Hodgkin lymphoma (ICD-10 C81)****Figure 8.1-W: Non-Hodgkin lymphoma (ICD-10 C82–86, C96)****Figure 8.1-X: Leukaemia (ICD-10 C91–95)**

Chapter 9 Trends in incidence, mortality and survival, Norway 1965–2017

There has been considerable discussion as to the relative merits of incidence, mortality and survival analysis in cancer research generally, and in time trend analysis specifically^[19–23]. Analysing trends in incidence may provide some insight into changes in the incidence and distribution of risk factors, and the impact of interventions and screening aimed at prevention and early diagnosis. Mortality rates and survival proportions are both key measures of disease outcome, and may alert us to the beneficial effects of screening, more effective therapies or better disease management.

The contribution of artefacts to the observed cancer incidence and mortality trends have been comprehensively addressed^[24;25]. The accuracy of death certificates has also been discussed^[26;27]. Apart from artefacts related to registration practices, many of the factors that affect incidence also apply to mortality, given that both rely on the accuracy of the initial cancer diagnosis. As with incidence, survival estimates may be affected by changes in diagnostic methods and disease classifications, as well as the extent of cancer screening that detect 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. Figure 9.1–A to 9.1–X present time trends during 1965–2017 for age-standardised incidence and mortality rates and five-year relative survival estimates. 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 incidence and survival in Norway over the last four to five decades, combined with a fairly stable mortality until the early 1990s. From 2000 and onwards there has been a notably decline in the mortality rate in men, but only a slight decline in women. The

interpretation of these aggregated estimates is complex, in that they comprise many different cancer types, which vary in terms of their capacity to be diagnosed as well as treated. Important contributions to the downward trend in men came from declines in mortality from lung cancer, prostate cancer and stomach cancer.

Among men, nearly 30% of all cancers diagnosed in 2017 were **prostate cancers**. General screening for prostate cancer using the PSA test is not recommended in Norway. However, the proportion of cases where PSA testing has led to further examination is still increasing and it is the main cause for performing a biopsy. The increase in both incidence and five-year relative survival from 1990 (Figure 9.1–O) probably reflects the availability of the PSA test and the upsurge in its use and in the early detection of disease. Mortality has declined from around 1996 and both early diagnosis and improved and more active treatment may have had an impact.

Breast cancer comprises more than 20% of all female cancer cases. There has been a monotonous increase in incidence rates up to 2005 with a steeper increase in the mid-1990s followed by a 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 19 Norwegian counties in 1996, and gradually expanded to become nationwide by 2005. The programme invites women aged 50–69 years to biennial screening. 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 that there is again an increase in incidence, this may be related to better diagnostic methods currently used in the program. The age-specific rates (not shown) indicate however that the increase is primarily limited to the age group 70–79 years. The reason for this is unclear, but it may be related to women continuing to have mammography after the age of 70. The breast cancer mortality was almost stable up to the mid 1990s when it began declining (Figure 9.1–M). These good news most likely reflect improved diagnostics, better treatment, and the implementation of the screening programme for breast cancer. The five-year relative survival is 90% for all staged combined.

Trends in **lung cancer** incidence and mortality has followed each other closely. Since early 2000s the distance between the rates has increased, reflecting improved survival for these patients. The varying 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 early 1990s and declined the past five years. For women, we observe for the first time a decline in the rates. It is however too early to conclude whether this is a real decrease or due to delayed mortality data from the Cause of Death Registry. The age-specific rates are clearer. They show a stabilization in the rates for women under 60 years. During the last two decades lung cancer has surpassed breast cancer as the most frequent cause of cancer death among women.

Both **colon and rectal cancer** incidence have been increasing for many decades, but the rectal cancer rates have levelled off since the 1990s (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 nearly half of what it used to be. The most important determinants are probably the national introduction of total mesorectal excision in the early 1990s, increasing specialisation, and use of preoperative radiation. However, our colon cancer incidence and mortality rates are among the highest in the world, and remain a 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. The survival of stomach cancer has increased moderately over time (Figure 9.1–D).

In contrast, the incidence rate of **testicular cancer** increased gradually during the last decades (Figure 9.1–Q). An improvement in survival started in the 1970s with the introduction of cisplatin therapy 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 years for **melanoma of the skin** in both

genders. The increase in incidence rates for melanoma is probably explained by sun tanning, more frequent check-ups at the general practitioners' offices or in pharmacies. However, the moderate but steady increase in melanoma mortality indicates that some of the increase in incidence is caused by a higher risk of the disease (and not a result of more frequent check-ups/screening).

The classification of diseases changes over time, and sometimes this appears clearly on the incidence trends. In 2002, polycythaemia vera (D45), myelodysplastic syndromes (D46) and other neoplasms of uncertain or unknown behavior of lymphoid, hematopoietic and related tissue (D47) were included in the statistics for **leukemia**, and this inclusion caused a notably increase in the incidence (Figure 9.1–X). The treatment of leukemia has improved, and a steep increase in the survival is observed since the early 1990s.

Finally, among more uncommon cancer sites, there has been a notable increase in the rates for **liver and thyroid cancer** in both genders. 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 this increase, but it may be due to changes in the diagnostic workup with an increased use of ultrasound, CT or MRI for other indications, resulting in incidental findings of tumours in the thyroid.

We have earlier suspected that the increased rate of **liver cancer** was due to immigration from areas with higher incidence of this disease. A recent study revealed that this assumption was wrong, and that there has been a clear increase also among the Norwegian native population^[28].

In summary, the overall trends in cancer survival probably reflect both artefacts, such as screening and improved diagnostics, and improved treatment. 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: The mortality rates used in the trends figures have some deviations from the incidence and survival estimates: Anal cancer is included in the mortality rates for rectum and rectosigmoid (C19–20).

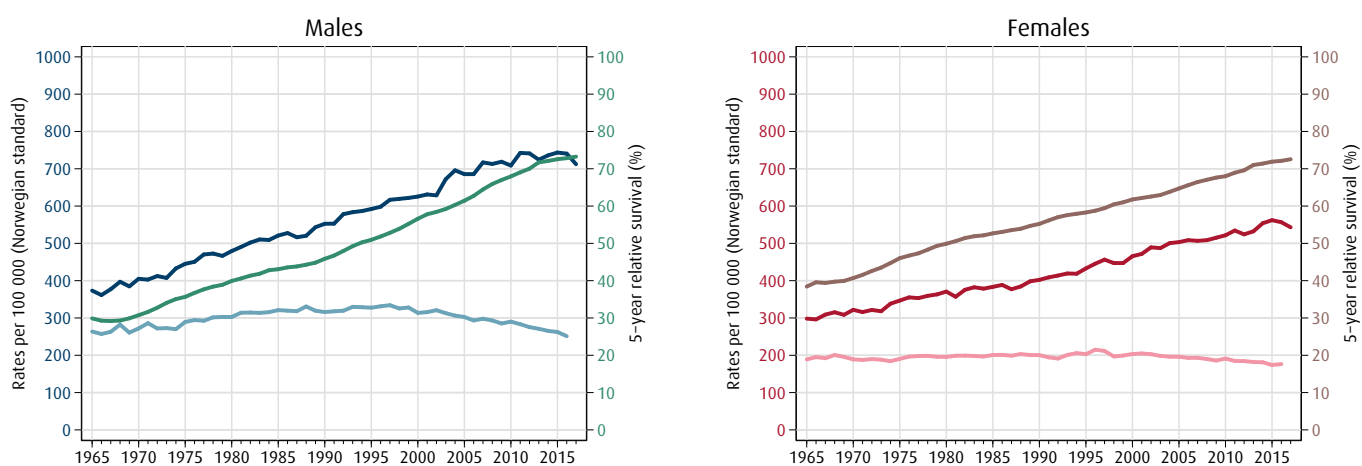
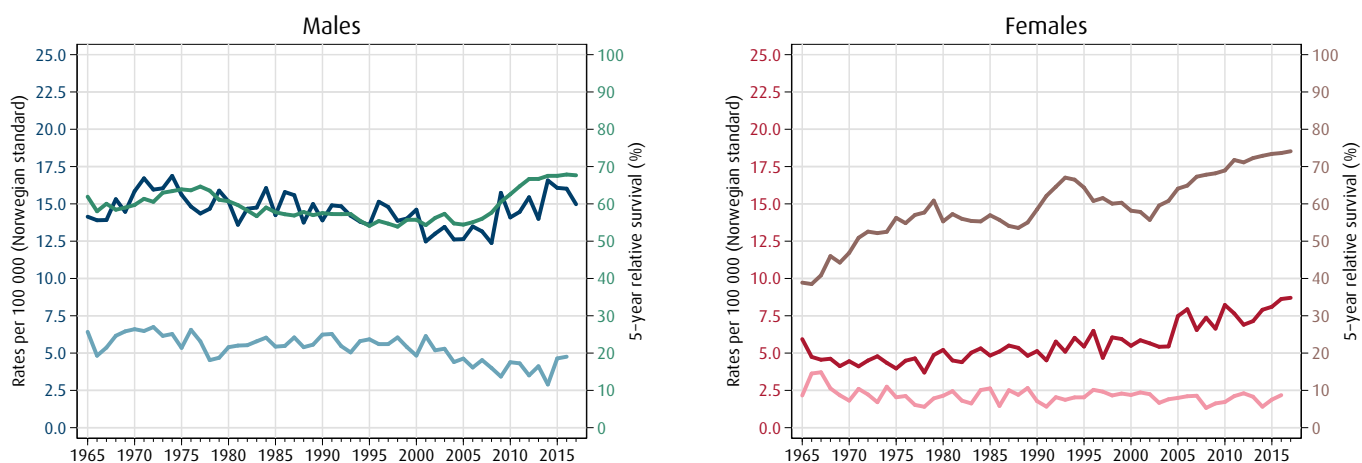
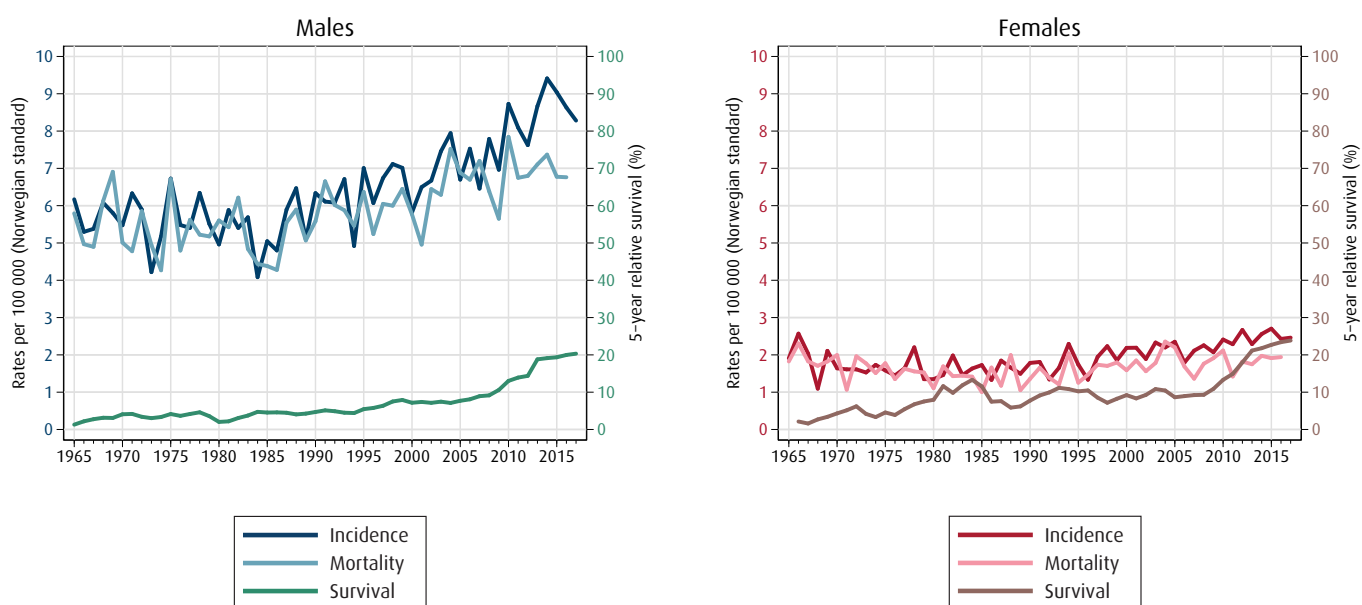
Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions**Figure 9.1-A: All sites (ICD-10 C00-96)****Figure 9.1-B: Mouth, pharynx (ICD-10 C00-14)****Figure 9.1-C: Oesophagus (ICD-10 C15)**

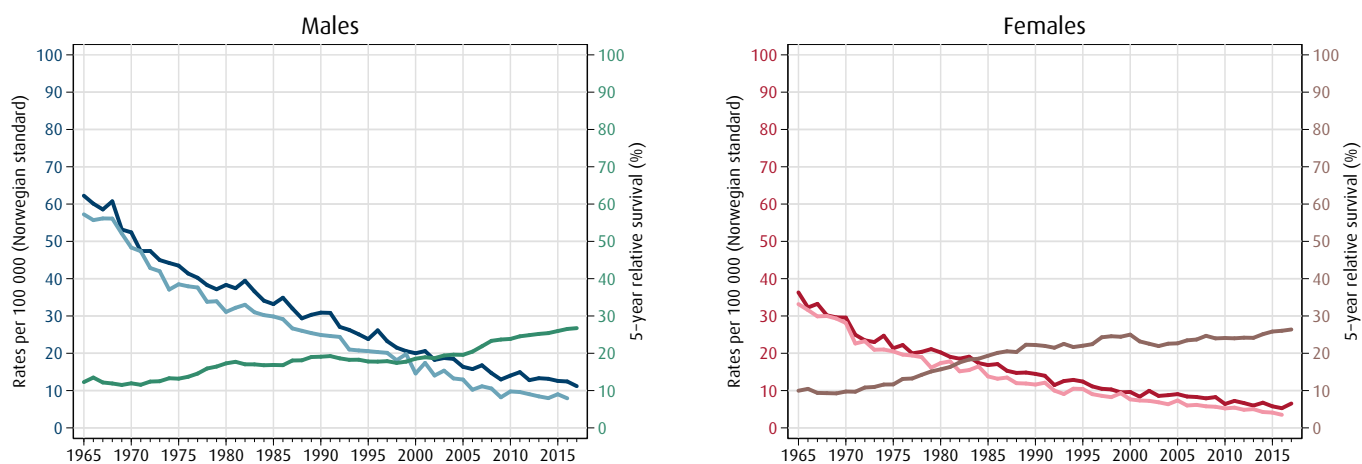
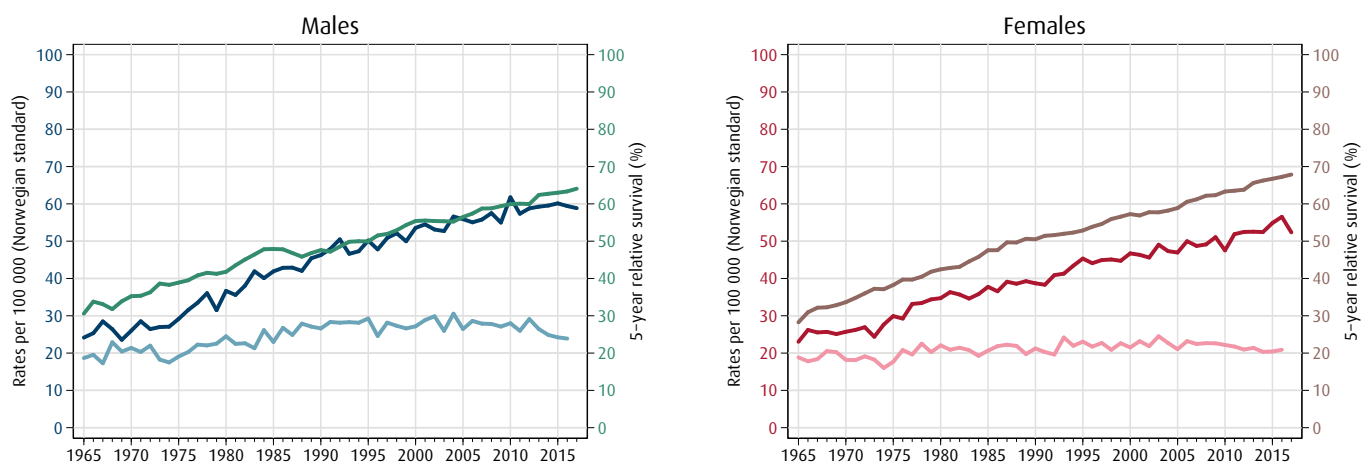
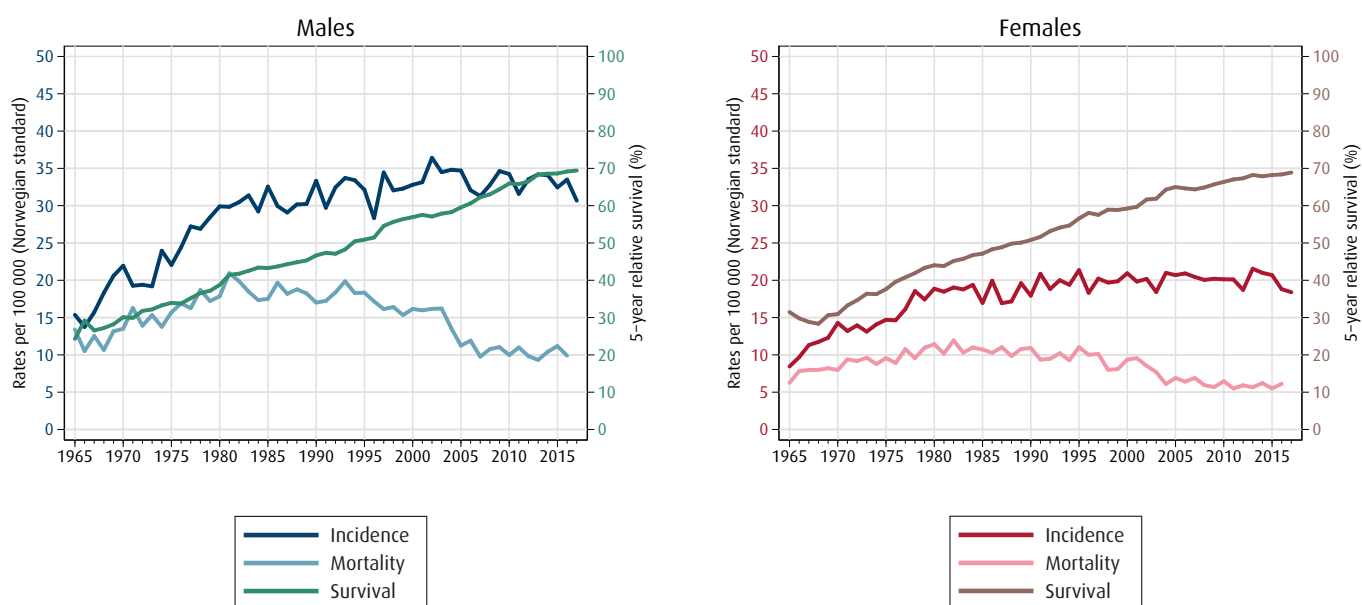
Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions**Figure 9.1-D: Stomach (ICD-10 C16)****Figure 9.1-E: Colon (ICD-10 C18)****Figure 9.1-F: Rectum, rectosigmoid (ICD-10 C19-20)**

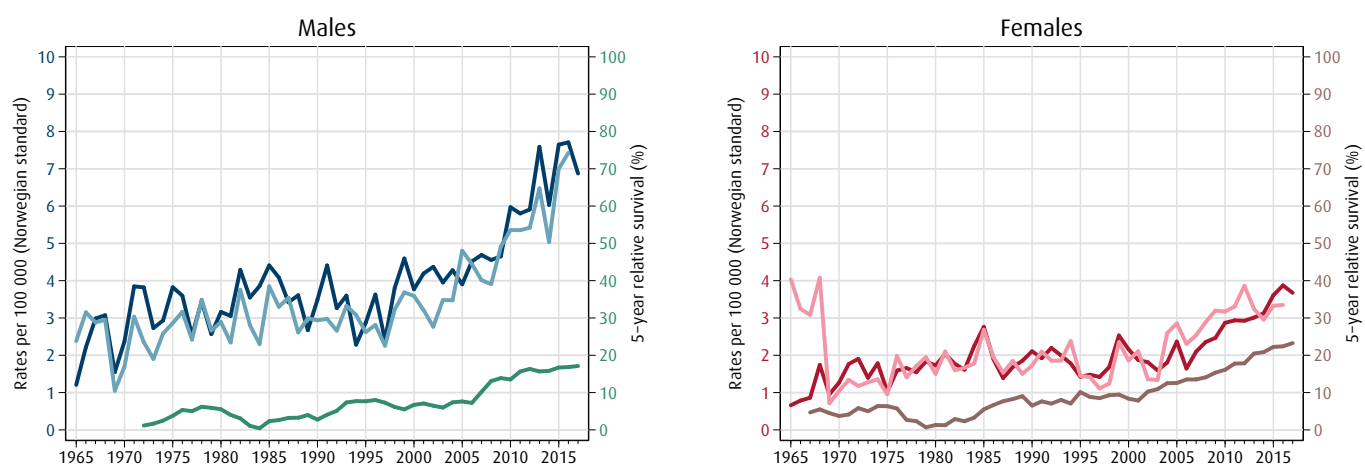
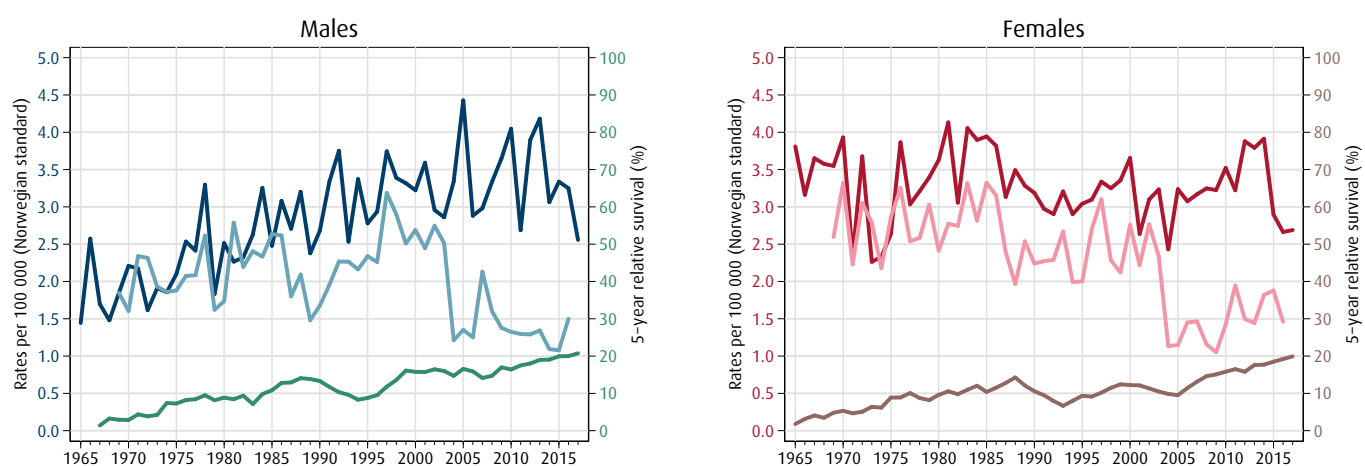
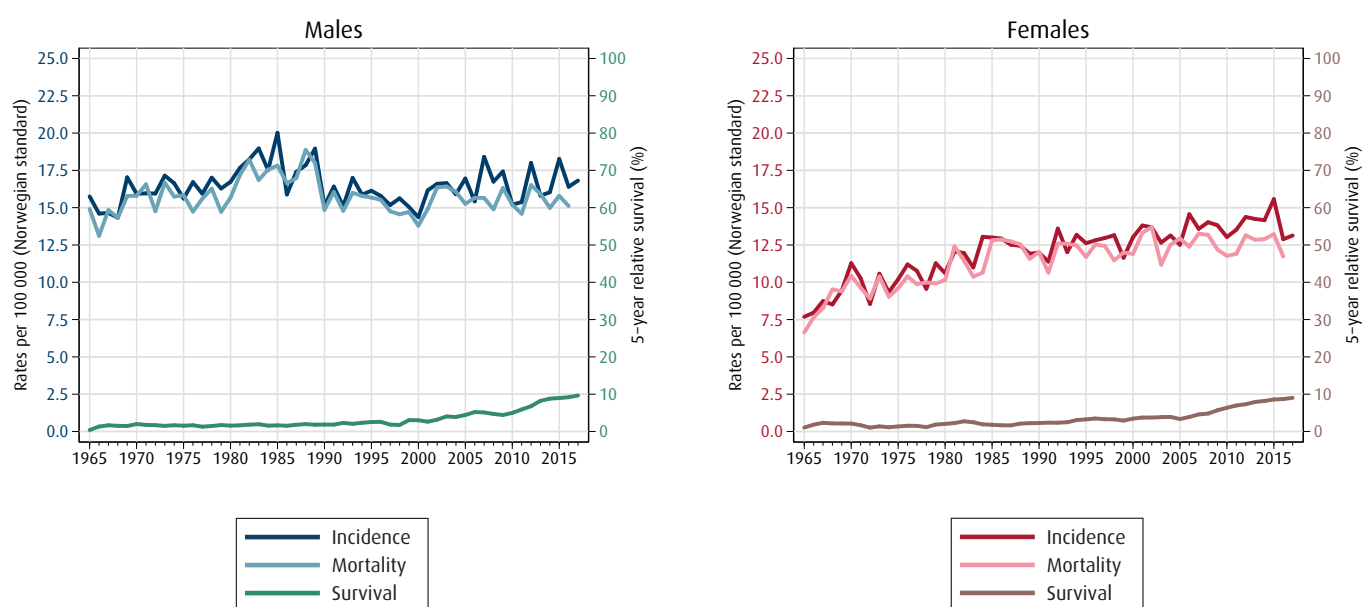
Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions**Figure 9.1-G: Liver (ICD-10 C22)****Figure 9.1-H: Gallbladder, bile ducts (ICD-10 C23-24)****Figure 9.1-I: Pancreas (ICD-10 C25)**

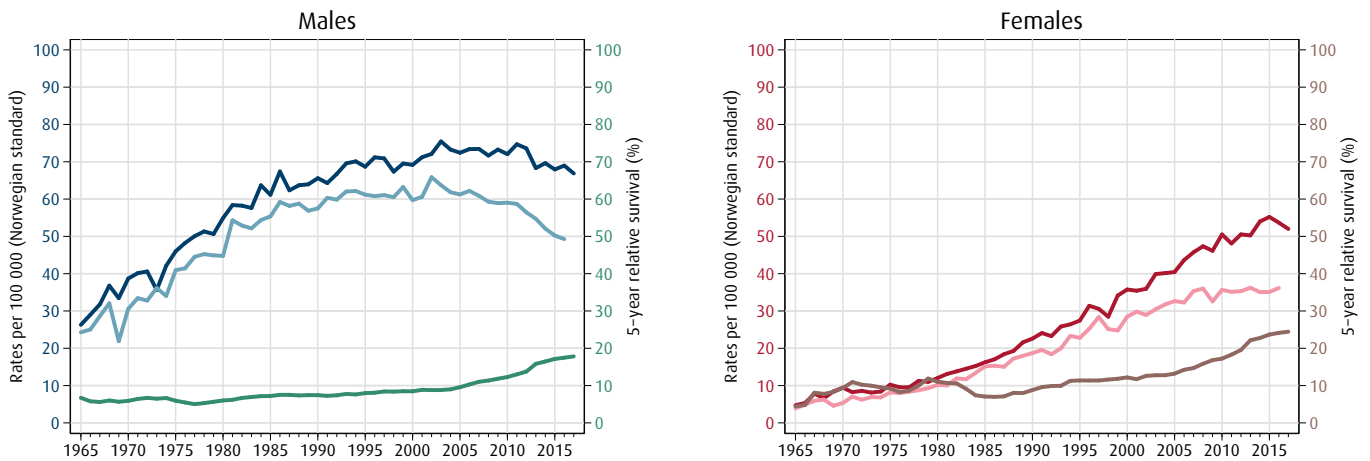
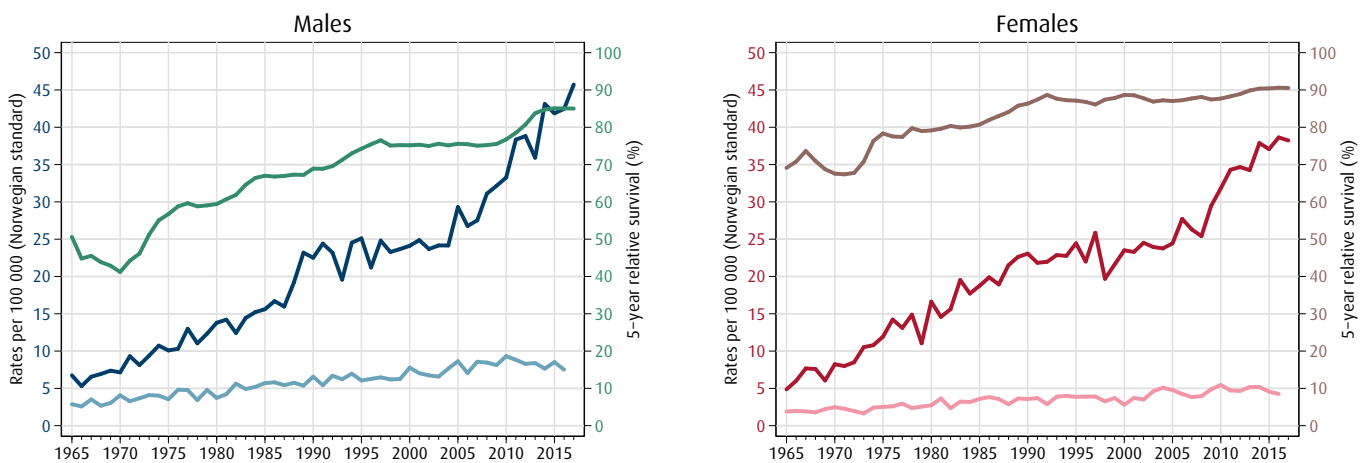
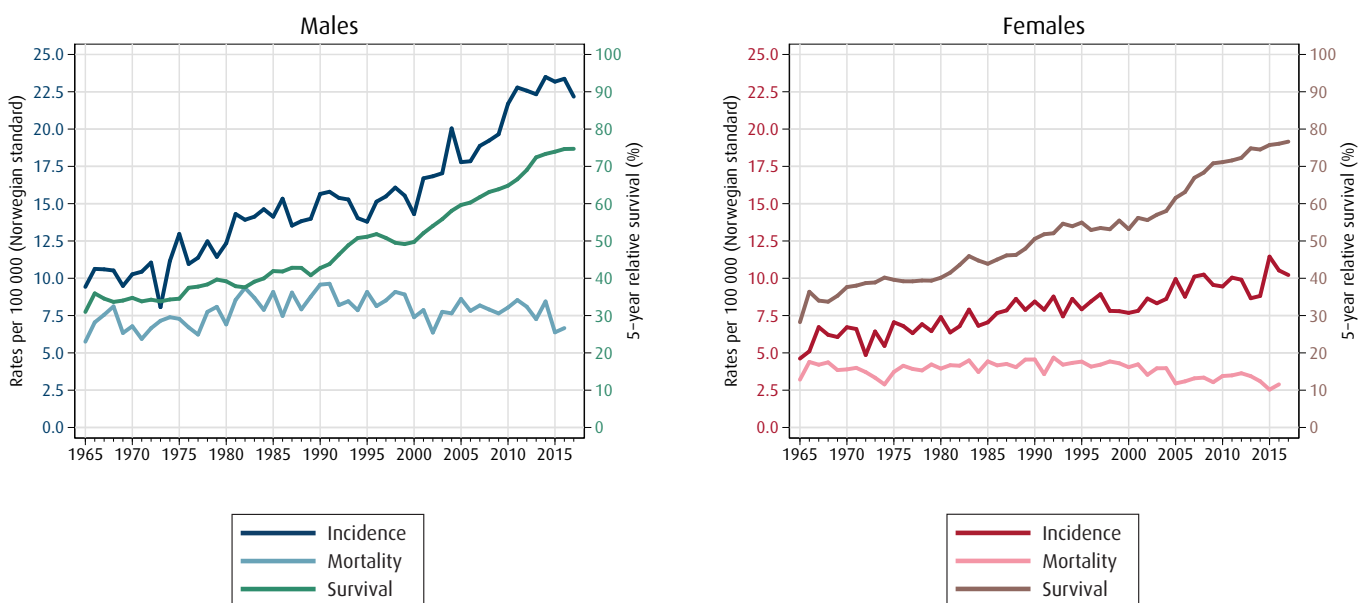
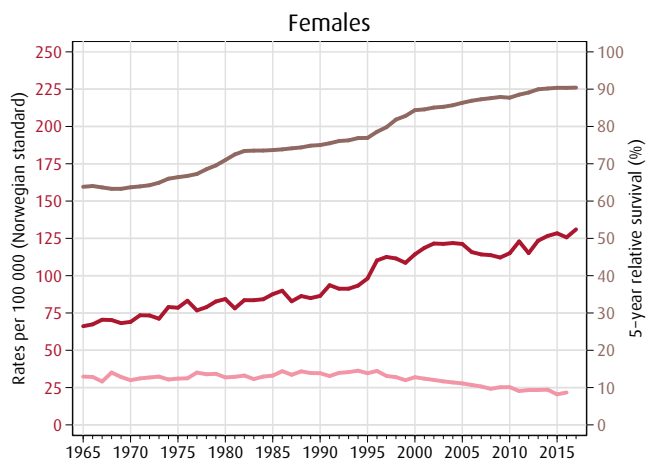
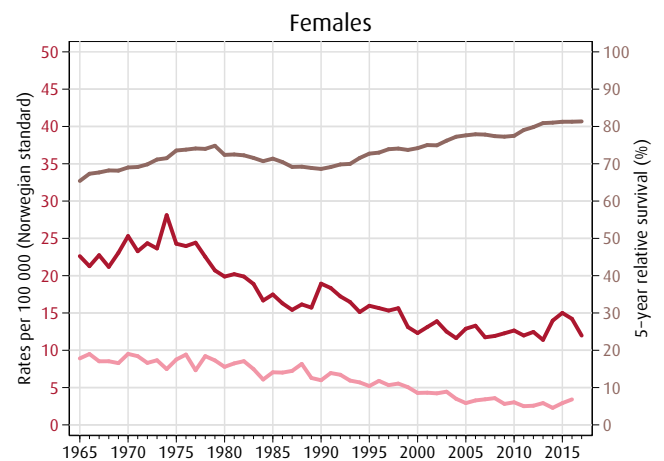
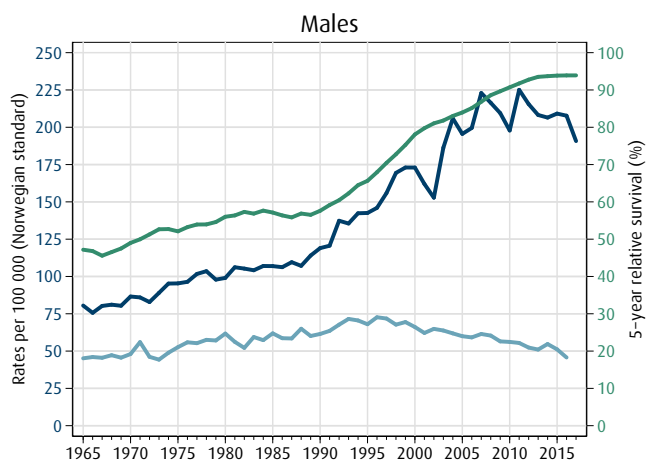
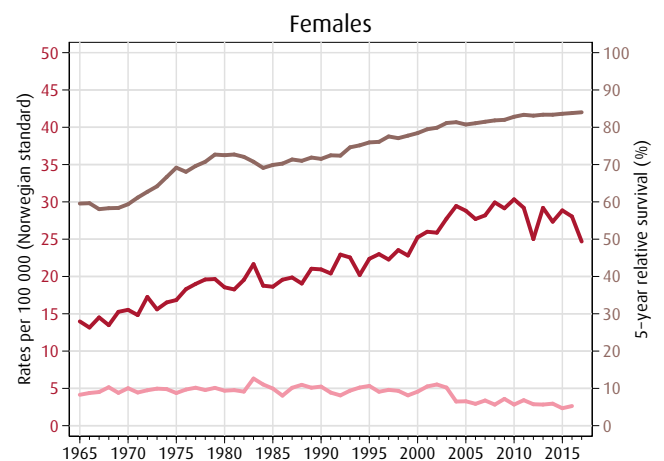
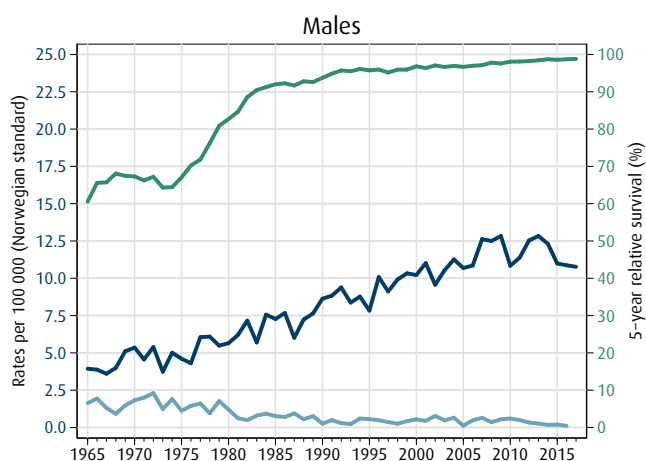
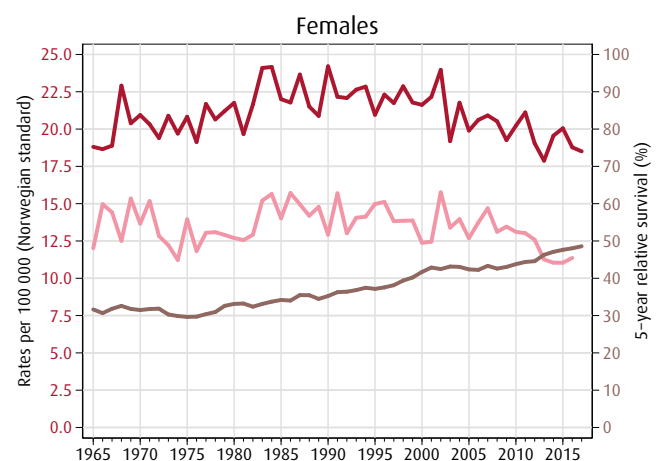
Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions**Figure 9.1-J: Lung, trachea (ICD-10 C33-34)****Figure 9.1-K: Melanoma of the skin (ICD-10 C43)****Figure 9.1-L: Kidney (excl. renal pelvis) (ICD-10 C64)**

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, C48.1-2)**

Incidence
Mortality
Survival

Incidence
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Survival

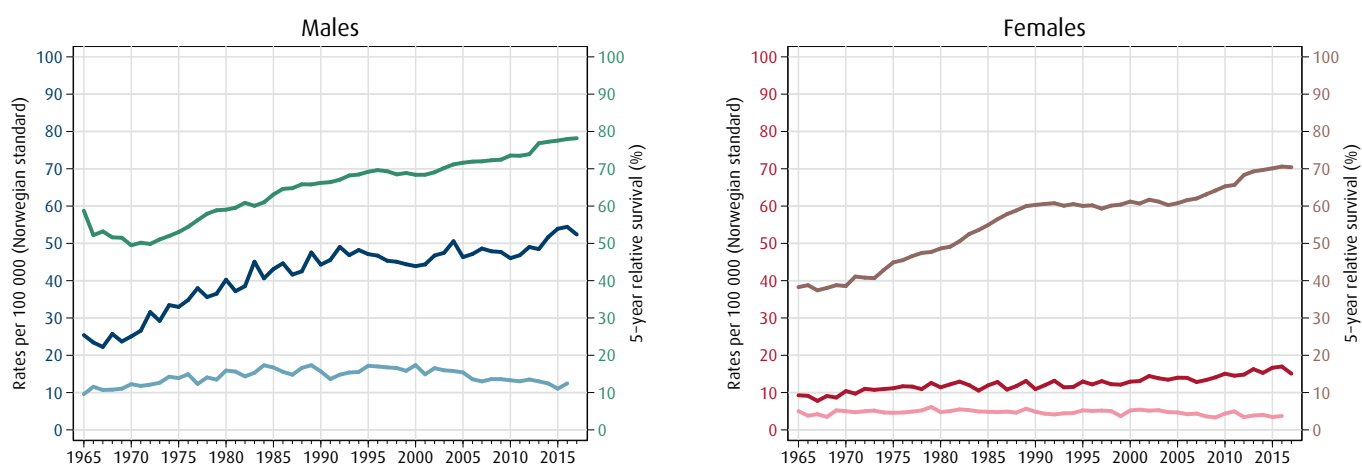
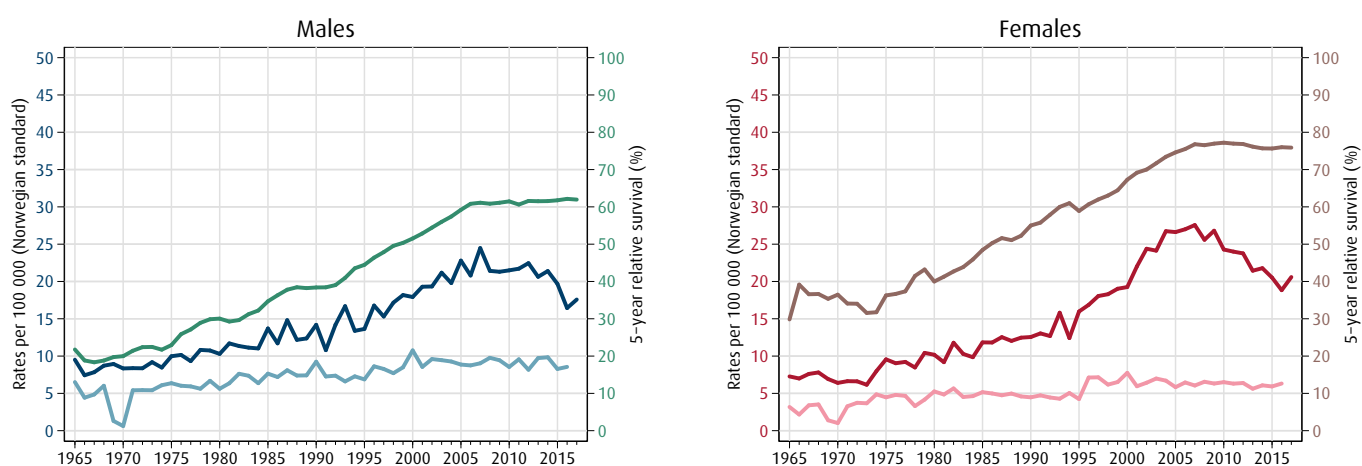
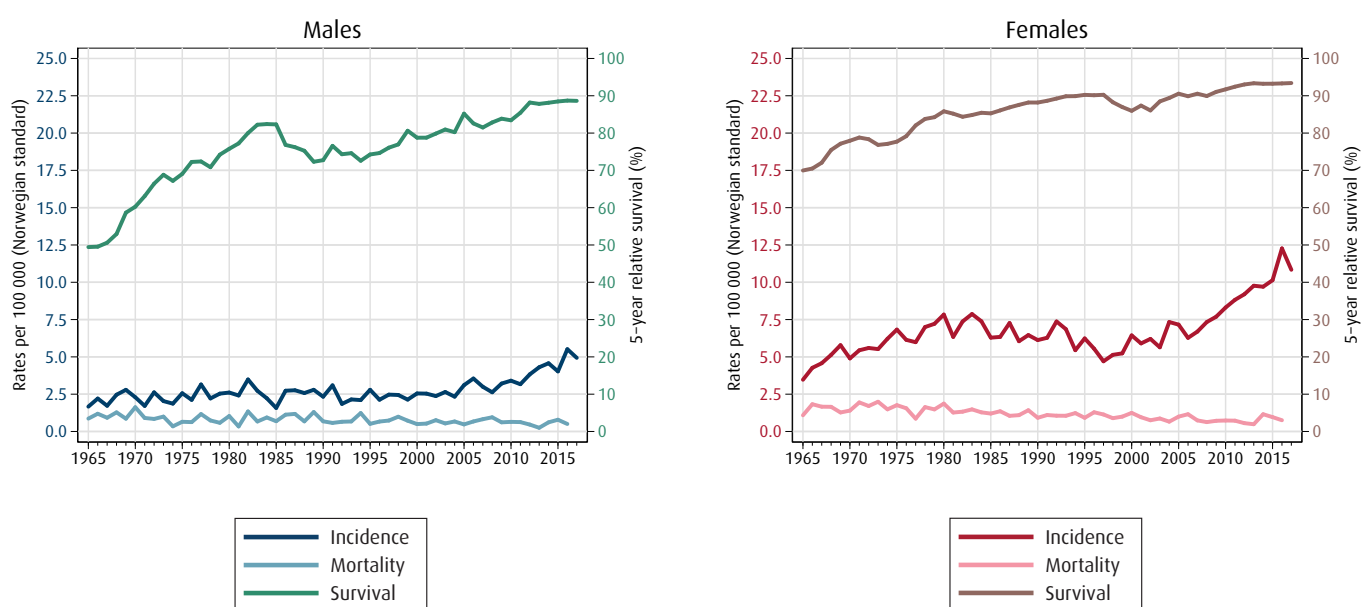
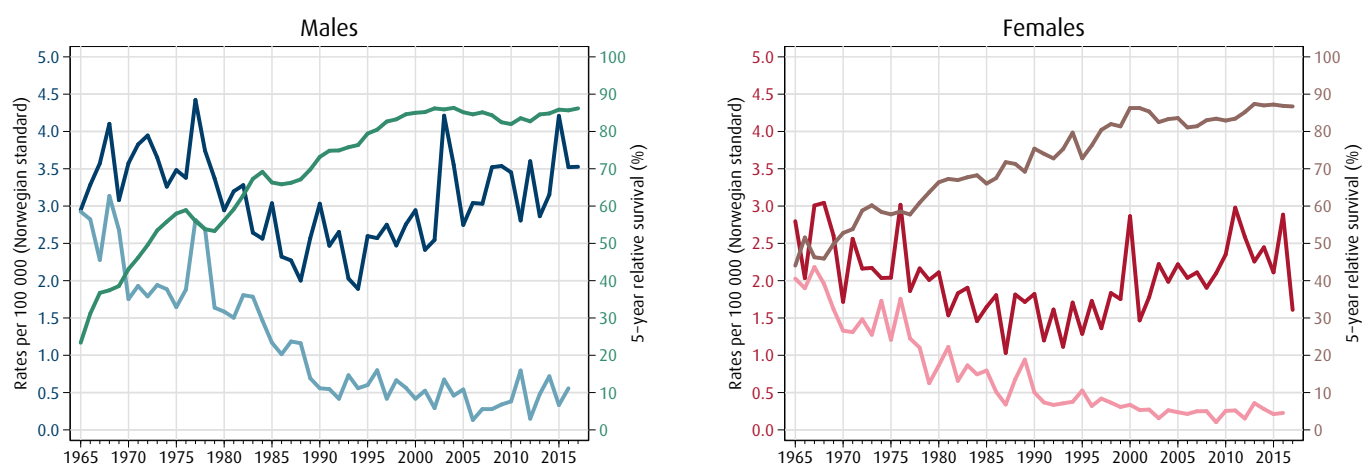
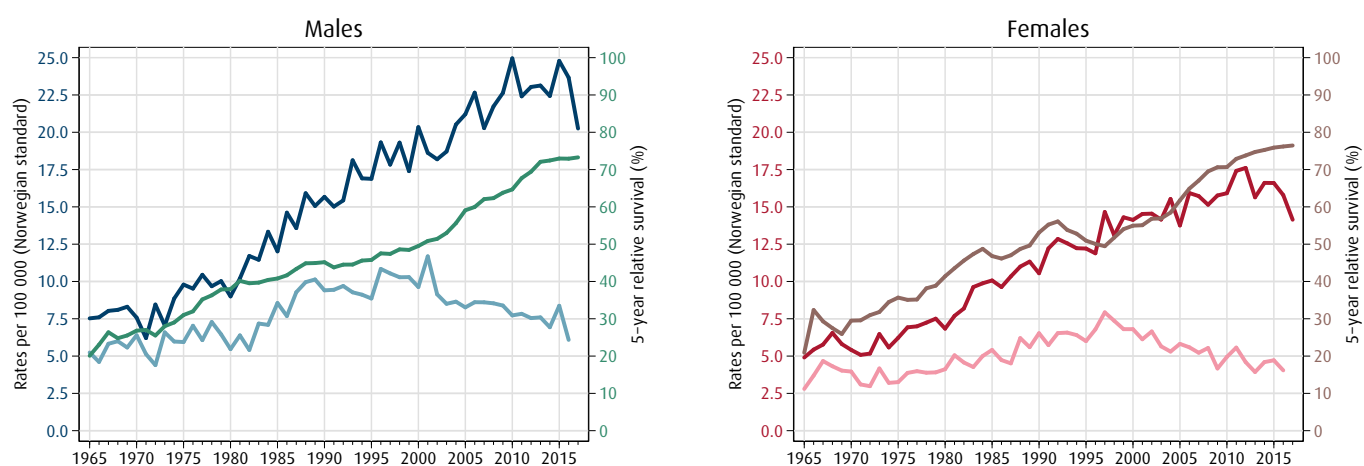
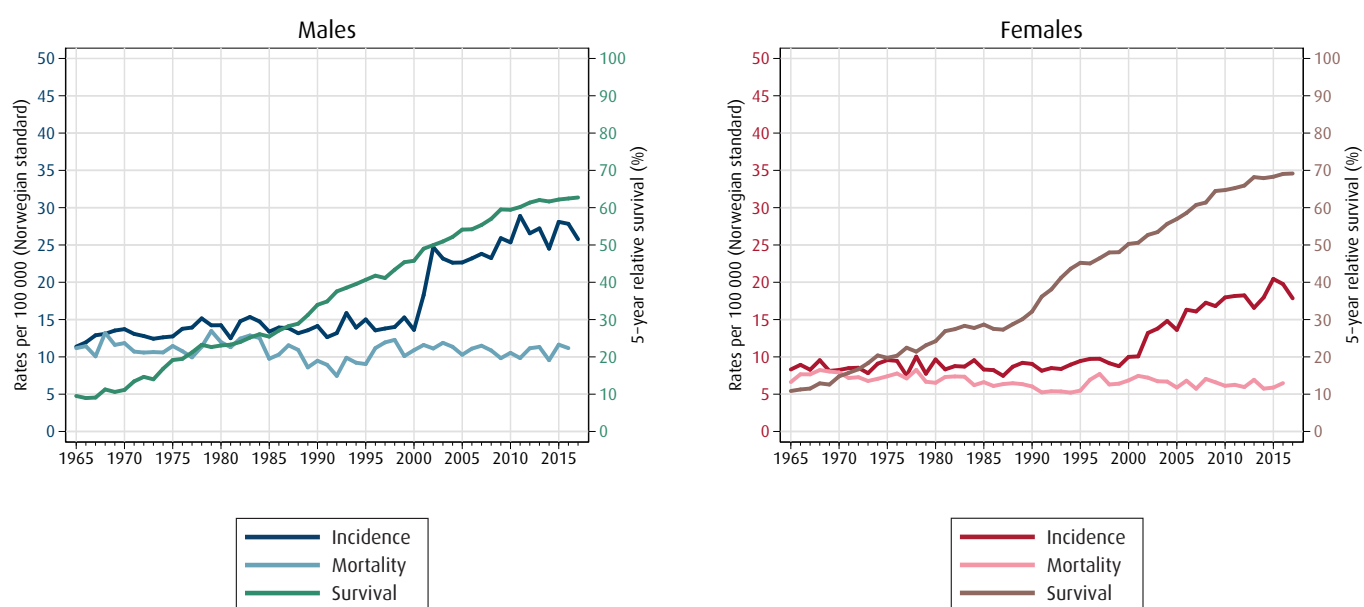
Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions**Figure 9.1-S: Urinary tract (renal pelvis, ureters, urinary bladder, and urethra) (ICD-10 C65-68)****Figure 9.1-T: Central nervous system (ICD-10 C70-72)****Figure 9.1-U: Thyroid gland (ICD-10 C73)**

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)**

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