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INSTITUTE OF POPULATION-BASED CANCER RESEARCH

Cancer in Norway 2016

Cancer incidence, mortality, survival and prevalence in Norway

Special issue:
The Norwegian Breast Cancer Screening Program 1996–2016
Celebrating 20 years of organised mammographic screening

Cancer in Norway 2016

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Foreword

Because we have an aging population, the number of cancer cases increases every year. A total of 32 827 new cancer cases were diagnosed and reported in 2016. The changes are small compared with the previous year. In addition, we know that for most cancers there are some fluctuations in the rates from one year to another. Thus, to understand changes in the trends we need to compare the rates, not only from one year to another, but from the latest five-year period (2012–2016) to the previous one (2007–2011). This comparison shows a particularly large increase for melanoma of the skin, with more than a 20% increase since the previous five-year period among both men and women. Thyroid cancer is another cancer where we see a remarkable increase in incidence over time. Compared to the previous five-year period, there is a 30% rise in women, and more than 40% in men. This increase may be mostly due to increased use of ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI) for other indications, and better cytological and/or histological diagnostics. We hope there is no opportunistic screening ongoing.

A few weeks ago, the Norwegian government announced that they will allocate funding over the National Budget to initiate a national screening program for colorectal cancer. We think this was a wise decision. Norwegian women have among the highest incidence rates of colorectal cancer worldwide, and we still see that the incidence rate for women is increasing more than for men. In 2016, the number of new colon cancer cases surpassed 3000. Adding the number of rectal cancer cases, more than 4300 persons were diagnosed with colorectal cancer last year.

This is the second year we complete the Cancer in Norway report already in October the following year. A challenge with this early reporting is that the numbers of some cancer types may be underestimated. The reason is that we have not yet received all the death certificates for 2016. Thus the rate of some fatal cancers, commonly first notified from death certificates, such as lung and pancreatic cancers, may be too low. This will likely remain a challenge as long as the Cause of Death Registry has not become fully electronic. Despite the fact that some lung cancers may be missing, we still feel confident that there is a continued decline in the overall age-standardised lung cancer rate for men. By contrast, the incidence rate for lung cancer has increased by 9% in women.

We are sometimes asked to comment on overdiagnosis in our report. We prefer to abstain from this, as the term is misleading and could imply that the cancer diagnoses were false. Pathologists often point out that a better term is overtreatment. Specifically, the issue is possible overtreatment of slow-growing cancers. But although there are cancers that grow slowly or remain dormant for shorter or longer time periods, presently it is not possible to predict which cancers will remain dormant, and which will change to an aggressive behaviour. Pathologists and molecular biologists would very much like to be able to predict such growth trajectories in order to improve diagnostic stratification. But we are not quite there yet. In the meantime, cancer patients will continue to receive the recommended treatment. For a large group of patients, this will be more treatment than necessary. For others, this treatment will not be sufficient to cure the disease, and these patients may die from their disease. Of the two options, over- or undertreatment, the choice seems obvious. However, a goal must be better diagnostic stratification, more targeted and just-sufficient treatment.

This year's special issue is part of the celebration of the 20th anniversary of the Norwegian Breast Cancer Screening Program. A large thank you to Solveig Hofvind and her staff. The program has come a long way over the past two decades.

Thank you to everyone who has contributed to this report, first of all thank you to everyone at the hospitals across the country, who have reported cancers to the Cancer Registry. Second, thank you to our staff for their coding of cancers and assistance with development of cancer statistics. Finally thanks to the editorial team for writing and editing this report.

Oslo, October 2017

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 2016 might be slightly under-reported due to delayed notification of cancer cases. The present report is published before the complete numbers for 2016 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 32 827 new cancer cases were reported in 2016: 54.1% were among men and 45.9% 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 malignant melanoma were the most common cancer sites in women. The relative impact of cancers, however, varies considerably by age.

The incidence rate for all sites combinded has increased by 1.1% in men and 4.4% in women when comparing the last five-year periode (2012–2016) with the previous one.

For the most common cancers in men, the largest incidence increase in rates was observed for malignant melanoma, kidney, non-melanoma skin cancer and urinary tract. On the positive side, the rate for lung cancer has been reduced by 6%.

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

Of note is that the incidence rate for thyroidea cancer in men and women has increased markedly in the last decade, and is probably due to increased use of ultrasound, CT or MRI and better cytological and histologtical diagnostics.

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 2016 a total of 262 884 Norwegians were alive after having had at least one cancer diagnosis at an earlier point in time.

Mortality

There were 10 944 deaths from cancer in Norway in 2015[1]. Cancer of the lung, colon, rectum, protate and female breast cancer account for 50% of the cancer mortality.

Survival

There has been a slight increase in the five-year relative survival for most cancers when comparing the five-year periode (2012–2016) with the previous one:

Prostate cancer: Increased from 91.7% to 93.6%.
Breast cancer: Increased from 88.6% to 89.7%.

Lung cancer (M): Increased from 13.0% to 16.0%.
Lung cancer (W): Increased from 18.3% to 22.0%.

Colon cancer (M): Increased from 60.0% to 62.0%.
Colon cancer (W): Increased from 63.6% to 67.3%.

Rectum cancer (M): Increased from 65.7% to 68.5%.
Rectum cancer (W): Increased from 66.4% to 67.2%.

[1] The mortality data from the Cause of Death Registry for 2016 was not complete when this report was published, and we therefore reports figures for 2015.

Table 2.1: Summary of cancer statistics for selected cancers

ICD-10	Site	Sex	Incidence number, 2016[1]	Incidence rate, 2012–16[2]	Change in rate (%) from 2007–11 to 2012–16[3]	Mortality rate, 2015[4]	Survival (%), 2007–11[5]	Survival (%), 2012–16[6]
C00–96	All sites	M	17 763	728.7	1.2	261.9	69.0	72.2
		F	15 064	540.6	4.5	173.6	69.0	71.6
C18	Colon	M	1 415	59.0	2.7	24.1	60.0	62.0
		F	1 588	53.3	7.3	20.4	63.6	67.3
C19–20	Rectum, rectosigmoid	M	823	33.3	1.2	11.2	65.7	68.5
		F	517	20.0	-0.9	5.5	66.4	67.2
C33–34	Lung, trachea	M	1 615	68.6	-6.1	50.1	13.0	16.0
		F	1 465	52.1	9.4	35.0	18.3	22.0
C43	Melanoma of the skin	M	1 066	40.4	23.9	8.5	78.6	83.7
		F	1 048	36.4	23.2	4.6	88.4	90.1
C44	Skin, non-melanoma	M	1 085	46.1	11.2	...	...	...
		F	997	29.4	15.7	...	...	...
C50	Breast	F	3 371	123.8	7.0	20.5	88.6	89.7
C53	Cervix uteri	F	342	13.2	8.9	2.9	79.0	80.5
C54	Corpus uteri	F	774	27.6	-5.9	2.3	83.3	84.0
C56, C57.0–4	Ovary etc.	F	488	17.9	-7.4	...	...	...
C61	Prostate	M	5 118	207.2	-3.2	51.1	91.7	93.6
C62	Testis	M	285	11.8	-1.5	0.2	98.1	98.6
C65–68	Urinary tract	M	1 271	51.4	8.4	11.0	73.4	76.7
		F	488	16.1	15.0	3.5	65.7	69.3
C70–72	Central nervous system	M	380	19.0	-13.8	8.2	60.4	61.3
		F	460	20.3	-20.2	5.9	77.0	76.4
C73	Thyroid gland	M	137	4.4	42.8	0.8	85.9	89.6
		F	307	10.1	29.7	1.0	92.6	94.2
C82–86, C96	Non-Hodgkin lymphoma	M	587	23.3	3.9	8.4	67.5	72.6
		F	429	16.3	2.2	4.7	73.2	77.1
C91–95	Leukaemia	M	648	26.1	2.7	11.6	60.0	61.8
		F	513	17.9	4.3	5.9	64.7	67.2

[1] Number of new cases, 2016.
[2] Age-standardised incidence rates per 100 000 person-years, 2012–16.
[3] Percent change in age-standardised incidence rate from the previous five-year period to the current five-year period, 2007–11 to 2012–16.
[4] Age-standardised mortality rates per 100 000 person-years, 2015. The mortality rates are presented for 2015, as complete numbers for 2016 is not yet received from the Cause of Death Registry.
[5] Five-year relative survival (%), 2007–11.
[6] Five-year relative survival (%), 2012–16.
... Not estimated in this report.

Chapter 3 Data and data sources

3.1 The population of Norway

By January 1st 2017 the total number of inhabitants in Norway was 5 258 317 (Source: Statistics Norway www.ssb.no/befolkning). Table 3.1 shows the age structure by sex for the Norwegian mid-year population in 2016. 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 46% from 1960 to 2016, largely because of rising life expectancy and, more recently, due to increases in net immigration. By 2031, the size of the population is expected to reach 6 million, and by 2060 it will reach 7 million[1] (Source: Statistics Norway www.ssb.no/folkfram). The elderly will represent an increasingly large proportion of the population of Norway over the next decades. Long-term projections estimate that 19% of the population will be 70 years or older in 2060 [2].

The immigrant population

The immigrant population is heterogeneous in relation to length of stay, country of birth and reason for immigration. The immigrant population (first-generation) constitutes of persons from 221 countries and comprises 13.8% of the total population, and an aditional 3% 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 97 000 persons. Immigrants from Lithuania (37 600) and Sweden (36 300) are the second and third largest immigrant groups, when classifying immigrants by country of birth. In total, about 50% of the first-generation immigrants are from EU/EEA, US, Canada, Australia and New Zealand, 30% from Asia (incl. Turkey), and 12% from Africa (Source: Statistics Norway www.ssb.no/befolkning).

Table 3.1: Norwegian mid-year population 2016 by five-year age group and sex

Age group	Males	Females	Total
0–4	156 289	148 156	304 445
5–9	165 245	156 751	321 996
10–14	158 023	151 370	309 393
15–19	168 161	157 762	325 923
20–24	177 189	165 879	343 068
25–29	185 706	179 517	365 223
30–34	181 423	171 090	352 513
35–39	177 984	166 350	344 334
40–44	188 708	177 806	366 514
45–49	193 992	183 504	377 496
50–54	178 785	168 948	347 733
55–59	162 161	156 247	318 408
60–64	147 766	146 385	294 151
65–69	138 038	138 303	276 341
70–74	107 679	113 818	221 497
75–79	67 280	79 342	146 622
80–84	43 989	60 445	104 434
85+	38 708	77 362	116 070

[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 has from 1953 been considered to be close to complete, and a comprehensive study on data quality estimates the completeness to be 98.8% for the registration period 2001–05 [3]. 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 CRN Regulations came into force in 2002 (Regulations for the collection and processing of data in the CRN).

Main objectives

The main objectives of the Cancer Registry of Norway can be summarized as follows:

- 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 general public about preventive measures.
- Perform epidemiological research of high international standard.

Data items registered

The following must be reported 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 the basic data items collected from clinicians and pathologists, as well as, data from the Norwegian Patient Registry (NPR) and mortality sources. As of October 16th 2017, the incidence registry contained information registered since 1953 on 1 862 411 cancer cases (including premalignant and some benign conditions) in 1 483 365 persons. The incidence registry is updated continuously with information on both new cases and cases diagnosed previous years. A total of 4 750 154 notifications have been registered since 1969 (earlier notifications were not registered).

The clinical registries

Clinical registries, i.e. comprehensive registration schemes dedicated to specific cancers, have been established to provide more 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 2017.

Table 3.2: Status of the clinical registries, October 2017

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	Yes	No	***
Urinary tract	Yes	No	Yes	No	
Hematological cancer	Yes	No	Yes	No	***
Testicular cancer	Yes	No	Yes	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, but the establishment of new clinical registries in the South-Eastern health region is currently stopped in order to evaluate the ongoing registries and to discuss a better model of 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 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. The amount of electronical pathology reports have increased over the past two years, but 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.

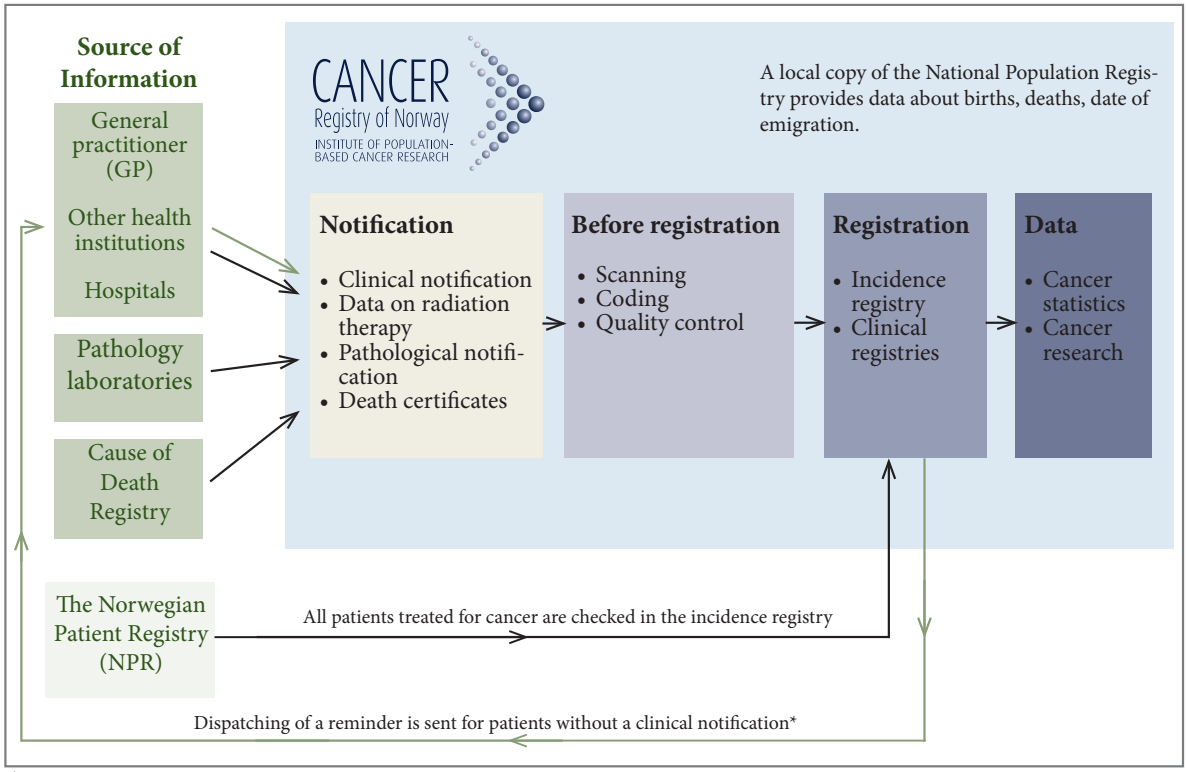
The Norwegian Patient Registry

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, but from 2010 it has been provided by the Norwegian Patient Registry (NPR). The data contain information about 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 for a cancer case notified from one of the other sources, a reminder is sent via the KREMT-portal to the hospital/ward/physician reponsible 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 only notified from the NPR or cases only notified by a pathology notification/death certificate on 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 16th 2017. The tables and figures in general represent either the latest year of complete incidence (2016) or the latest five-year period (2012–2016). Population data, stratified by year, sex and age, are provided by Statistics Norway.

Registered codes from ICD-7, ICD-O-2 and ICD-O-3 are converted to ICD-10 using a combination of topography and morphology. The main cancer types are tabulated according to their ICD-10 three-digit 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)
C50	Breast	Excludes pagets disease
C56, C57.0–4	Ovary etc.	Excludes borderline tumours. Includes the following sites: Neoplasms in fallopian tube (C57.0), broad ligament (C57.1), round ligament (C57.2), parametrium (C57.3) and uterine adnexa, unspecified (C57.4)
C64	Kidney except 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 recurrene 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 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 cancers. 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. 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, we report the case with the first date of diagnosis as is. For synchronous cases we report the case with the most severe metastasis status. If the metastasis status is equal, we report the case that was registered first. This differs with respect to the IARC rules where the numerically highest ICD-O morphology code is used 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 slighly 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) [4]. Furthermore, we do consider the groups of topographies as one organ according to table 24, page 25 [4], but in case of syncronous cancers we do not create a new topography code as described in table 24 [4].

Metastases and changes in coding practice

The coding and registration of stage has varied over time. 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. For patients diagnosed between 1953 and 2008, the guidelines for coding was to consider these patients as having unknown metastatic status (unknown stage). A detailed investigation

of data for these patients, including survival analyses, showed that most of them probably had a localised disease. This lead to a change in the guidelines for coding for all patients diagnosed after January 1st 2009. Cancer cases without clinical notification and with no pathological information about metastasis were from this date coded as a localised stage. However, this practice might have led to misclassification of stage for some patients who were not properly examined/diagnosed due to e.g. poor health or severe comorbidity. The guidelines for coding were therefore changed again in 2017, and all cases in the Cancer Registry for the entire period from 1953 to 2017 were updated with the correct stage according to the following rules: 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.

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.

3.5 Data quality

A comprehensive assessment of the data quality in the CRN was conducted in 2007 [3]. 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 [5]. Methods for the evaluation of registry completeness were also assessed the same year [6].

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 2015 as extracted on September 30st 2016 (for CiN 2015), and on October 16th 2017. The number of cancer cases diagnosed in 2015 reported and appearing in this issue (CiN 2016) are 581 (1.8%) more than those reported in the previous Cancer in Norway (CiN 2015).

Of note is:

- Cancers that to a lesser extent are verified by a pathology report might be under-reported in the present report. The main reason for this is most likely the transition from paper to electronic forms and thus new routines for reporting from the health institutions. This has lead to a lower degree of spontaneous reporting, especially for sites not yet covered by clinical registries. To ensure reporting, the Cancer Registry routinely issues reminders for missing clinical information. However, due to upgrades of the electronic reporting system, reminders were not available for the health institutions in the period December 2016–June 2017. The result is a lower degree of reporting of clinical notifications than for previous years. We are also aware that we are missing most pathology data from Haugesund Hospital for the period July–December 2016 (estimated to be 0.4% of all cases).
- The present report is published before the mortality data for 2016 was complete.

Table 3.4: Percentage distribution of morphologically verified (MV) and death certificate only (DCO) cases by primary site, 2012–2016

ICD-10	Site	Cases	MV (%)	DCO (%)
C00–96	**All sites**	**159 748**	**93.0**	**1.3**
C00–14	**Mouth, pharynx**	**2 951**	**99.2**	**0.3**
C00	Lip	577	100.0	0.0
C01–02	Tongue	673	99.4	0.1
C03–06	Mouth, other	501	99.2	0.2
C07–08	Salivary glands	311	98.4	0.6
C09–14	Pharynx	889	98.8	0.7
C15–26	**Digestive organs**	**32 790**	**90.6**	**1.8**
C15	Oesophagus	1 381	94.6	0.9
C16	Stomach	2 332	95.9	1.5
C17	Small intestine	830	95.4	1.6
C18	Colon	14 337	94.9	1.3
C19–20	Rectum, rectosigmoid	6 722	97.6	0.3
C21	Anus	419	96.7	0.7
C22	Liver	1 255	68.7	3.6
C23–24	Gallbladder, bile ducts	885	78.0	4.2
C25	Pancreas	3 918	68.3	3.0
C26	Other digestive organs	711	81.4	13.4
C30–34, C38	**Respiratory organs**	**16 036**	**87.8**	**2.2**
C30–31	Nose, sinuses	231	99.1	0.9
C32	Larynx, epiglottis	587	98.1	0.3
C33–34	Lung, trachea	15 139	87.3	2.3
C38	Heart, mediastinum and pleura	79	72.2	10.1
C40–41	**Bone**	**263**	**97.0**	**1.5**
C43	**Melanoma of the skin**	**9 704**	**99.9**	**0.1**
C44	**Skin, non-melanoma**	**9 319**	**99.7**	**0.1**
C45	**Mesothelioma**	**393**	**93.6**	**0.5**
C47	**Autonomic nervous system**	**46**	**95.7**	**2.2**
C48–49	**Soft tissues**	**757**	**98.3**	**0.4**
C50	**Breast**	**16 411**	**99.2**	**0.4**
C51–58	**Female genital organs**	**8 422**	**97.6**	**0.9**
C51–52, C57.7–9	Other female genital	584	95.4	2.6
C53	Cervix uteri	1 681	99.3	0.4
C54	Corpus uteri	3 708	99.1	0.4
C55	Uterus, other	50	70.0	26.0
C56, C57.0–4	Ovary etc.	2 387	95.3	1.0
C58	Placenta	12	83.3	0.0
C60–63	**Male genital organs**	**26 792**	**96.5**	**1.0**
C61	Prostate	24 947	96.3	1.0
C62	Testis	1 552	99.7	0.1
C60, C63	Other male genital	293	99.3	0.3
C64–68	**Urinary organs**	**12 280**	**96.4**	**1.0**
C64	Kidney (excl. renal pelvis)	4 130	93.2	1.7
C65–68	Urinary tract	8 150	97.9	0.6
C69	**Eye**	**386**	**55.2**	**0.0**
C70–72	**Central nervous system**	**5 035**	**66.4**	**2.2**
C73	**Thyroid gland**	**1 851**	**99.0**	**0.5**
C37, C74–75	**Other endocrine glands**	**1 069**	**48.3**	**1.2**
C39, C76, C80	**Other or unspecified**	**1 536**	**58.7**	**23.0**
C81–96	**Lymphoid/haematopoietic tissue**	**13 707**	**91.3**	**1.2**
C81	Hodgkin lymphoma	756	99.5	0.3
C82–86, C96	Non-Hodgkin lymphoma	5 029	98.1	0.7
C88	Immunoproliferative disease	327	94.2	1.5
C90	Multiple myeloma	2 053	88.9	1.3
C91–95	Leukaemia	5 542	84.7	1.7

Table 3.5: Registered cancer cases in Norway 2015, as obtained from the incidence registry September 30th 2016 and October 16th 2017

		Cases diagnosed 2015 as of			
ICD-10	**Site**	**30.09.2016**	**16.10.2017**	**Difference**	**%**
C00–96	**All sites**	**32 592**	**33 173**	**581**	**1.8**
C00–14	**Mouth, pharynx**	**628**	**626**	**-2**	**-0.3**
C00	Lip	122	122	0	0.0
C01–02	Tongue	137	136	-1	-0.7
C03–06	Mouth, other	99	98	-1	-1.0
C07–08	Salivary glands	76	76	0	0.0
C09–14	Pharynx	194	194	0	0.0
C15–26	**Digestive organs**	**6 638**	**6 838**	**200**	**3.0**
C15	Oesophagus	288	294	6	2.1
C16	Stomach	447	460	13	2.9
C17	Small intestine	169	175	6	3.6
C18	Colon	2 935	2 985	50	1.7
C19–20	Rectum, rectosigmoid	1 333	1 358	25	1.9
C21	Anus	73	79	6	8.2
C22	Liver	268	287	19	7.1
C23–24	Gallbladder, bile ducts	155	163	8	5.2
C25	Pancreas	825	882	57	6.9
C26	Other digestive organs	145	155	10	6.9
C30–34, C38	**Respiratory organs**	**3 191**	**3 282**	**91**	**2.9**
C30–31	Nose, sinuses	39	37	-2	-5.1
C32	Larynx, epiglottis	107	107	0	0.0
C33–34	Lung, trachea	3 035	3 125	90	3.0
C38	Heart, mediastinum and pleura	10	13	3	30.0
C40–41	**Bone**	**54**	**57**	**3**	**5.6**
C43	**Melanoma of the skin**	**2 001**	**2 023**	**22**	**1.1**
C44	**Skin, non-melanoma**	**1 884**	**1 904**	**20**	**1.1**
C45	**Mesothelioma**	**78**	**79**	**1**	**1.3**
C47	**Autonomic nervous system**	**11**	**11**	**0**	**0.0**
C48–49	**Soft tissues**	**135**	**138**	**3**	**2.2**
C50	**Breast**	**3 439**	**3 446**	**7**	**0.2**
C51–58	**Female genital organs**	**1 786**	**1 815**	**29**	**1.6**
C51–52, C57.7–9	Other female genital	124	123	-1	-0.8
C53	Cervix uteri	370	384	14	3.8
C54	Corpus uteri	779	784	5	0.6
C55	Uterus, other	8	9	1	12.5
C56, C57.0–4	Ovary etc.	504	514	10	2.0
C58	Placenta	1	1	0	0.0
C60–63	**Male genital organs**	**5 410**	**5 465**	**55**	**1.0**
C61	Prostate	5 061	5 116	55	1.1
C62	Testis	291	290	-1	-0.3
C60, C63	Other male genital	58	59	1	1.7
C64–68	**Urinary organs**	**2 605**	**2 628**	**23**	**0.9**
C64	Kidney (excl. renal pelvis)	874	887	13	1.5
C65–68	Urinary tract	1 731	1 741	10	0.6
C69	**Eye**	**82**	**83**	**1**	**1.2**
C70–72	**Central nervous system**	**937**	**986**	**49**	**5.2**
C73	**Thyroid gland**	**363**	**371**	**8**	**2.2**
C37, C74–75	**Other endocrine glands**	**180**	**183**	**3**	**1.7**
C39, C76, C80	**Other or unspecified**	**325**	**315**	**-10**	**-3.1**
C81–96	**Lymphoid/haematopoietic tissue**	**2 845**	**2 923**	**78**	**2.7**
C81	Hodgkin lymphoma	163	164	1	0.6
C82–86, C96	Non-Hodgkin lymphoma	1 053	1 075	22	2.1
C88	Immunoproliferative disease	53	60	7	13.2
C90	Multiple myeloma	437	449	12	2.7
C91–95	Leukaemia	1 139	1 175	36	3.2

Chapter 4 Statistical methods

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

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, it's 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. Many possible sets of weights, w_i, can be used.

For weight w_i in the ith age group of the standard, r_i is the age-specific rate in the ith age group. The ASR is calculated as:

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

The World Standard Population [7–9] has been used 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 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.

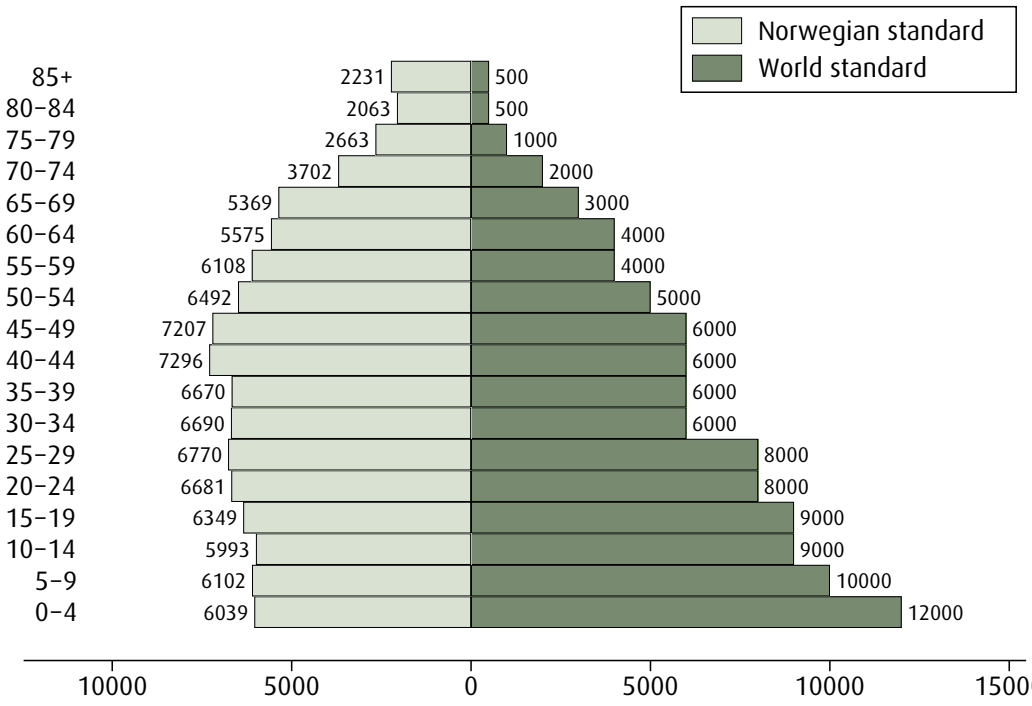
The main advantage of using the Norwegian standard as the reference population is that we are getting age-standardised rates that resemble the crude rates for the Norwegian population. The main disadvantage is that the rates are not comparable with national rates from other countries. Table 5.1 shows the ASR in 2016 with 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 (CR). 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:

$$\mathrm{CR} = 5 \sum_i r_i$$

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:

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

4.2 Prevalence

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

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

is likely that the number of prevalent cancer cases also represents a useful measure.

Cancer prevalence can be defined as the number of persons alive having ever been diagnosed with cancer. Such a measure can easily be derived from the CRN data, given the registration of cases and complete follow up over many years. We provide additional estimates that may be useful for quantifying care burden. Therefore, this report shows the numbers of persons alive on December 31st 2016 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 or end of follow-up.

Follow-up data

To estimate long-term survival patterns and trends, vital statistics of patients diagnosed with cancer during 1965–2016 were obtained from the National Population Registry and Statistics Norway through December 31st 2016.

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 $t(year)$ 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 (2012–2016) to estimate relative survival up to 15 years. Patients diagnosed in 2011–2016 contribute with (part of) their survival experience the first year of follow up, patients diagnosed in 2010–2015 contribute to the

second year of follow-up, patients diagnosed in 2009–2014 contribute to the third year of follow-up etc. Thus, the period approach consists of the pieces of survival experience observed in the period 2012–2016 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 (2012–2016), 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. 2012 is based on patients diagnosed in 2008–2012. 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/2016/cin2016supmeth.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 2016, there were 32 827 new cases of cancer (in 32 068 individuals) recorded in Norway, of which 17 763 cases occurred among men and 15 064 cases were diagnosed in women (Table 5.1). Cancers of the prostate, female breast, lung and colon were the most common cancers and accounted for 45% of the new cancer cases in 2016.

In men, prostate cancer continued to be the leading site for cancer incidence, with 5118 cases; followed by lung, 1615 cases; and colon cancer, 1415 cases. Breast cancer remained the most frequent cancer site in women, with 3371 new cases; followed by colon and lung cancer, with 1588 and 1465 incident cases, respectively.

When this report was made (October 2017) we had not received complete mortality data for 2016 from the Cause of Death Registry. For some cancers, especially those with poor survival, the incidence numbers for 2016 might thus be under-reported.

When comparing the rates in the most recent five-year period (2012–2016) with the previous one (2007–2011) (Tables 5.15 and 5.16) we observe that:

- There has been an overall increase in rates for all cancers combined by about 1% for men and 4% for women.
- The rate of prostate cancer appears to decline slightly, while the rate for breast cancer has increased by 7%.
- The rates of melanoma of the skin have increased by more than 20% in both men and women.
- The rates of colon cancer have increased by 3% in men, and 7% in women, while the rates for rectum cancer have stabilised in both men and women.
- The rate of lung cancer for women is 9% higher in the last five-year period compared to the previous one, and is a matter of great concern. The rate of lung cancer in men has declined by 6%.
- 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, 2016

		Cases			Age-standardised rates			
					Norwegian std.		World std.	
ICD-10	Site	Males	Females	Total	Males	Females	Males	Females
C00–96	**All sites**	**17 763**	**15 064**	**32 827**	**714.4**	**538.4**	**366.8**	**309.9**
C00–14	**Mouth, pharynx**	**400**	**237**	**637**	**15.8**	**8.5**	**8.7**	**4.8**
C00	Lip	60	51	111	2.5	1.8	1.1	0.8
C01–02	Tongue	94	66	160	3.6	2.4	2.2	1.4
C03–06	Mouth, other	60	47	107	2.4	1.6	1.3	0.9
C07–08	Salivary glands	43	29	72	1.8	1.0	0.9	0.6
C09–14	Pharynx	143	44	187	5.4	1.6	3.3	1.1
C15–26	**Digestive organs**	**3 575**	**3 028**	**6 603**	**144.4**	**105.1**	**71.5**	**52.6**
C15	Oesophagus	213	69	282	8.5	2.4	4.4	1.1
C16	Stomach	298	144	442	12.1	5.0	6.0	2.4
C17	Small intestine	113	67	180	4.5	2.4	2.4	1.3
C18	Colon	1 415	1 588	3 003	58.0	54.6	27.5	26.4
C19–20	Rectum, rectosigmoid	823	517	1 340	32.6	18.3	17.2	9.8
C21	Anus	30	72	102	1.2	2.6	0.6	1.6
C22	Liver	163	96	259	6.5	3.4	3.4	1.8
C23–24	Gallbladder, bile ducts	78	70	148	3.1	2.4	1.5	1.2
C25	Pancreas	377	336	713	15.3	11.5	7.3	5.6
C26	Other digestive organs	65	69	134	2.6	2.5	1.3	1.3
C30–34, C38	**Respiratory organs**	**1 735**	**1 513**	**3 248**	**70.1**	**53.3**	**33.3**	**27.6**
C30–31	Nose, sinuses	24	17	41	1.0	0.6	0.5	0.3
C32	Larynx, epiglottis	81	23	104	3.2	0.8	1.6	0.5
C33–34	Lung, trachea	1 615	1 465	3 080	65.3	51.6	30.9	26.6
C38	Heart, mediastinum and pleura	15	8	23	0.7	0.3	0.3	0.2
C40–41	**Bone**	**31**	**27**	**58**	**1.2**	**1.0**	**1.1**	**0.8**
C43	**Melanoma of the skin**	**1 066**	**1 048**	**2 114**	**42.2**	**38.3**	**23.4**	**24.5**
C44	**Skin, non-melanoma**	**1 085**	**997**	**2 082**	**48.8**	**32.7**	**17.9**	**12.8**
C45	**Mesothelioma**	**61**	**14**	**75**	**2.5**	**0.5**	**1.1**	**0.2**
C47	**Autonomic nervous system**	**2**	**1**	**3**	**0.1**	**0.0**	**0.1**	**0.0**
C48–49	**Soft tissues**	**55**	**83**	**138**	**2.2**	**3.0**	**1.3**	**2.1**
C50	**Breast**	**31**	**3 371**	**3 402**	**1.3**	**125.1**	**0.7**	**80.3**
C51–58	**Female genital organs**		**1 746**	**1 746**		**63.4**		**38.8**
C51–52, C57.7–9	Other female genital		124	124		4.4		2.4
C53	Cervix uteri		342	342		13.2		10.3
C54	Corpus uteri		774	774		27.6		15.1
C55	Uterus, other		15	15		0.5		0.2
C56, C57.0–4	Ovary etc.		488	488		17.7		10.7
C58	Placenta		3	3		0.1		0.1
C60–63	**Male genital organs**	**5 488**		**5 488**	**215.6**		**115.3**	
C61	Prostate	5 118		5 118	201.5		103.6	
C62	Testis	285		285	10.7		9.9	
C60, C63	Other male genital	85		85	3.5		1.8	
C64–68	**Urinary organs**	**1 860**	**771**	**2 631**	**75.7**	**27.0**	**36.5**	**14.2**
C64	Kidney (excl. renal pelvis)	589	283	872	22.9	10.1	13.3	5.9
C65–68	Urinary tract	1 271	488	1 759	52.8	16.9	23.2	8.3
C69	**Eye**	**40**	**30**	**70**	**1.6**	**1.1**	**0.9**	**0.7**
C70–72	**Central nervous system**	**380**	**460**	**840**	**14.8**	**17.0**	**10.1**	**11.8**
C73	**Thyroid gland**	**137**	**307**	**444**	**5.3**	**11.6**	**3.4**	**8.6**
C37, C74–75	**Other endocrine glands**	**73**	**58**	**131**	**2.8**	**2.2**	**2.1**	**1.7**
C39, C76, C80	**Other or unspecified**	**141**	**161**	**302**	**6.1**	**5.4**	**2.6**	**2.3**
C81–96	**Lymphoid/haematopoietic tissue**	**1 603**	**1 212**	**2 815**	**63.9**	**43.1**	**36.7**	**26.0**
C81	Hodgkin lymphoma	91	76	167	3.4	2.9	2.8	2.6
C82–86, C96	Non-Hodgkin lymphoma	587	429	1 016	23.3	15.1	13.2	8.4
C88	Immunoproliferative disease	31	11	42	1.3	0.4	0.6	0.2
C90	Multiple myeloma	246	183	429	9.9	6.4	5.0	3.4
C91–95	Leukaemia	648	513	1 161	26.1	18.3	15.1	11.4

5.2 Incidence by age

The vast majority of cancers in Norway, over 90% in men and 85% in women, are diagnosed among peple aged 50 years or more (Figure 5.1). In men, nearly half are diagnosed at age 70 years or more, while 43% of all new cases occur between the ages 50 and 69. In women, 45% are diagnosed at age 70 or more, and 40% are diagnosed between the age of 50 and 69 years. Among the 25 to 49-year-old, a larger proportion of the cancers are diagnosed in women than men. In children and young adults under 25, slightly over 1% of all cancers occurs, with equal frequencies in males and females.

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. There is however 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 prostate and breast have 3–5 years lower median age at diagnosis in the latest period 2012–2016 compared to the early 1980s. For lung cancers and melanoma of the skin, however, 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 the age-specific incidence rates at different periods. It might thus 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 Hodgkin lymphoma were the most common types, while testicular cancer was by far the most common one diagnosed in young men (15–24). 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 the most common cancer in women above 70.

Figure 5.1: Percentage distribution of cancer incidence by age, 2012–2016

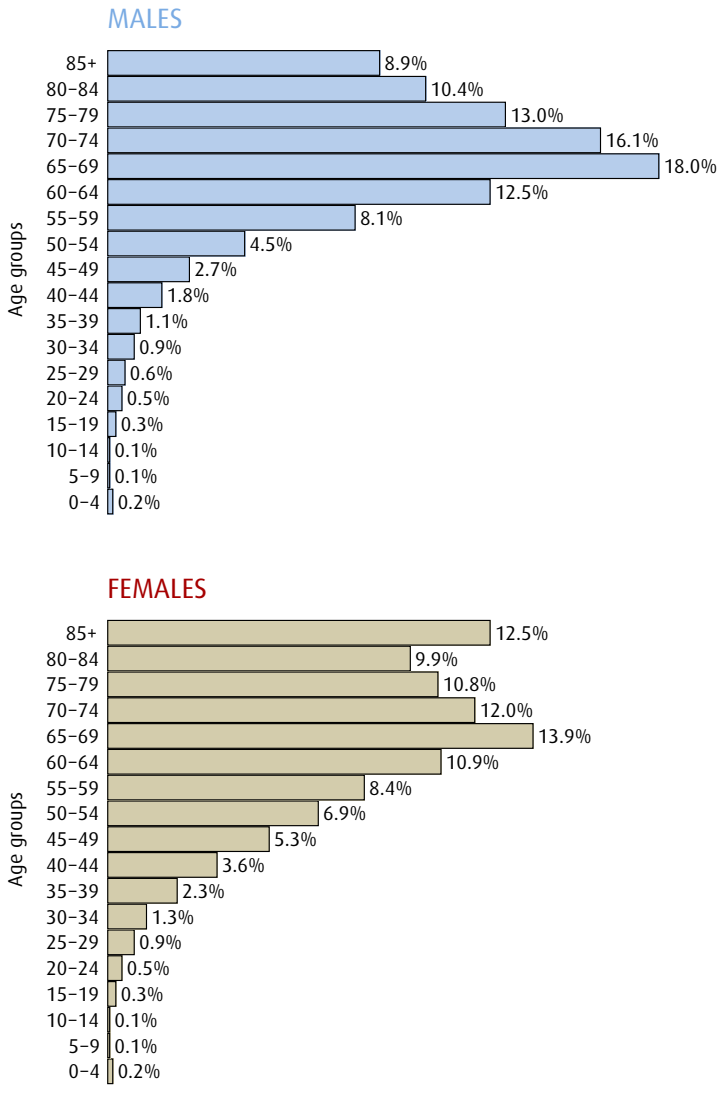


Table 5.2: Median age at diagnosis at different time periods by primary site

		Median age in			
ICD-10	**Site**	**1982–86**	**1992–96**	**2002–06**	**2012–16**
C00–96	**All sites**	**69.0**	**70.0**	**69.0**	**69.0**
C00–14	**Mouth, pharynx**	**67.0**	**67.0**	**65.0**	**66.0**
C00	Lip	69.0	70.0	71.0	74.0
C01–02	Tongue	67.0	66.0	63.0	64.0
C03–06	Mouth, other	68.0	67.0	65.0	68.0
C07–08	Salivary glands	66.0	68.0	66.0	67.0
C09–14	Pharynx	64.0	64.0	61.0	62.0
C15–26	**Digestive organs**	**72.0**	**73.0**	**73.0**	**72.0**
C15	Oesophagus	70.0	71.0	70.0	69.0
C16	Stomach	73.0	74.0	75.0	72.0
C17	Small intestine	69.0	71.0	68.0	68.0
C18	Colon	72.0	73.0	74.0	73.0
C19–20	Rectum, rectosigmoid	71.0	72.0	72.0	69.0
C21	Anus	67.0	68.0	67.0	66.0
C22	Liver	70.0	72.0	72.0	69.0
C23–24	Gallbladder, bile ducts	73.0	73.5	75.0	72.0
C25	Pancreas	72.0	74.0	74.0	72.0
C26	Other digestive organs	79.0	79.0	79.0	74.0
C30–34, C38	**Respiratory organs**	**67.0**	**69.0**	**70.0**	**71.0**
C30–31	Nose, sinuses	68.5	69.0	67.0	67.0
C32	Larynx, epiglottis	66.0	67.0	67.0	68.0
C33–34	Lung, trachea	68.0	69.0	70.0	71.0
C38	Heart, mediastinum and pleura	67.0	72.0	75.0	72.0
C40–41	**Bone**	**40.0**	**40.0**	**42.0**	**50.0**
C43	**Melanoma of the skin**	**56.0**	**58.0**	**61.0**	**65.0**
C44	**Skin, non-melanoma**	**75.0**	**76.0**	**78.0**	**79.0**
C45	**Mesothelioma**	**67.0**	**70.5**	**72.0**	**73.0**
C47	**Autonomic nervous system**	**42.5**	**39.0**	**37.0**	**41.0**
C48–49	**Soft tissues**	**64.0**	**65.0**	**63.0**	**64.0**
C50	**Breast**	**65.0**	**64.0**	**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	49.0	48.0	45.0
C54	Corpus uteri	64.0	66.0	67.0	68.0
C55	Uterus, other	80.0	78.5	78.0	81.5
C56, C57.0–4	Ovary etc.	64.0	65.0	64.0	65.0
C58	Placenta	27.0	28.0	31.0	31.0
C60–63	**Male genital organs**	**73.0**	**73.0**	**71.0**	**68.0**
C61	Prostate	74.0	74.0	72.0	69.0
C62	Testis	31.0	32.0	34.0	36.0
C60, C63	Other male genital	68.0	71.0	69.0	69.0
C64–68	**Urinary organs**	**70.0**	**72.0**	**73.0**	**71.0**
C64	Kidney (excl. renal pelvis)	68.0	70.0	69.0	66.0
C65–68	Urinary tract	71.0	73.0	74.0	73.0
C69	**Eye**	**61.0**	**63.0**	**64.0**	**65.0**
C70–72	**Central nervous system**	**58.0**	**58.0**	**58.0**	**60.0**
C73	**Thyroid gland**	**57.0**	**53.0**	**54.0**	**54.0**
C37, C74–75	**Other endocrine glands**	**44.0**	**48.0**	**52.0**	**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**	**69.0**	**68.0**
C81	Hodgkin lymphoma	45.0	32.5	36.0	41.0
C82–86, C96	Non-Hodgkin lymphoma	66.0	67.0	67.0	68.0
C88	Immunoproliferative disease	71.5	71.0	74.0	72.0
C90	Multiple myeloma	72.0	74.0	73.0	71.0
C91–95	Leukaemia	69.0	70.0	71.0	69.0

Figure 5.2: The most frequent types of cancer by age and sex, 2012–2016

Figure 5.2–A: All ages

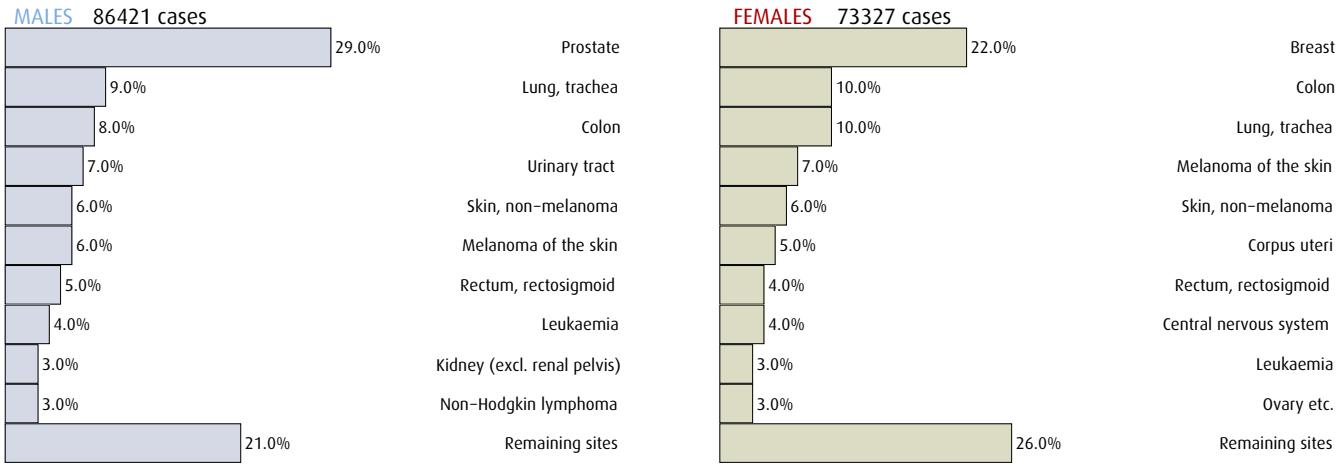


Figure 5.2–B: 0–14 years

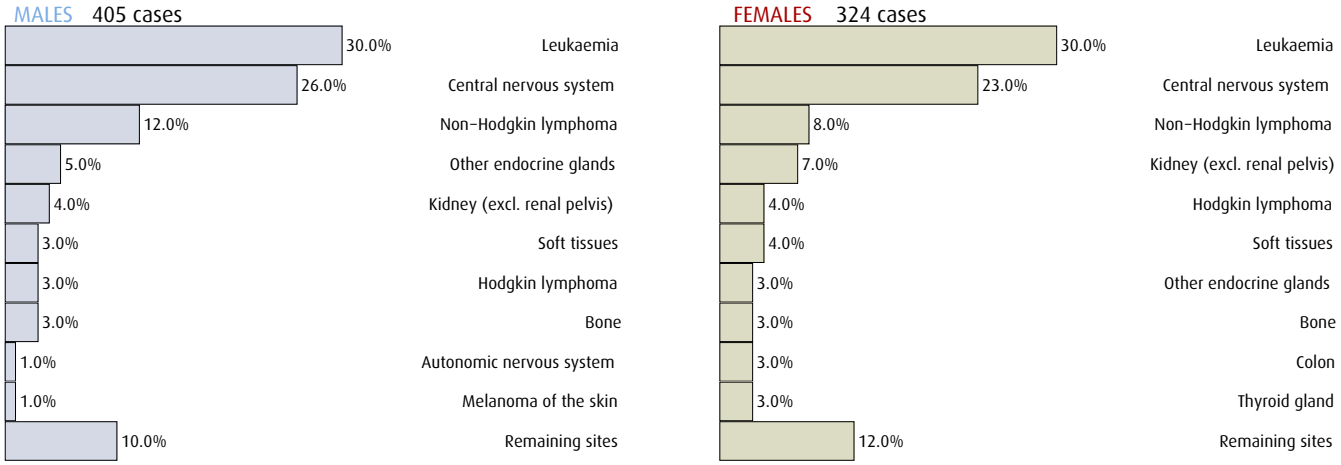


Figure 5.2–C: 15–24 years

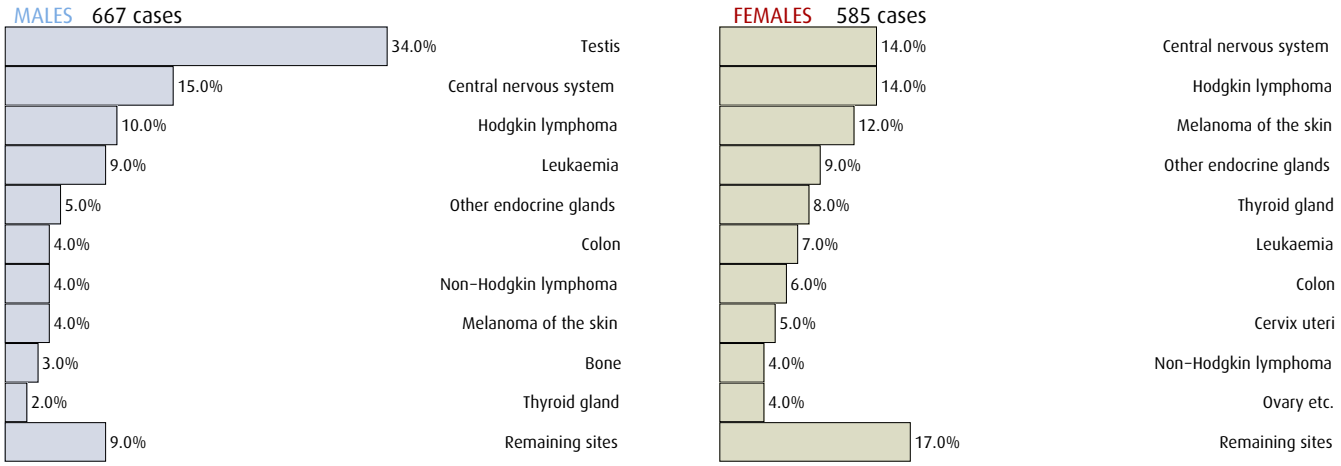


Figure 5.2: The most frequent types of cancer by age and sex, 2012–2016

Figure 5.2–D: 25–49 years

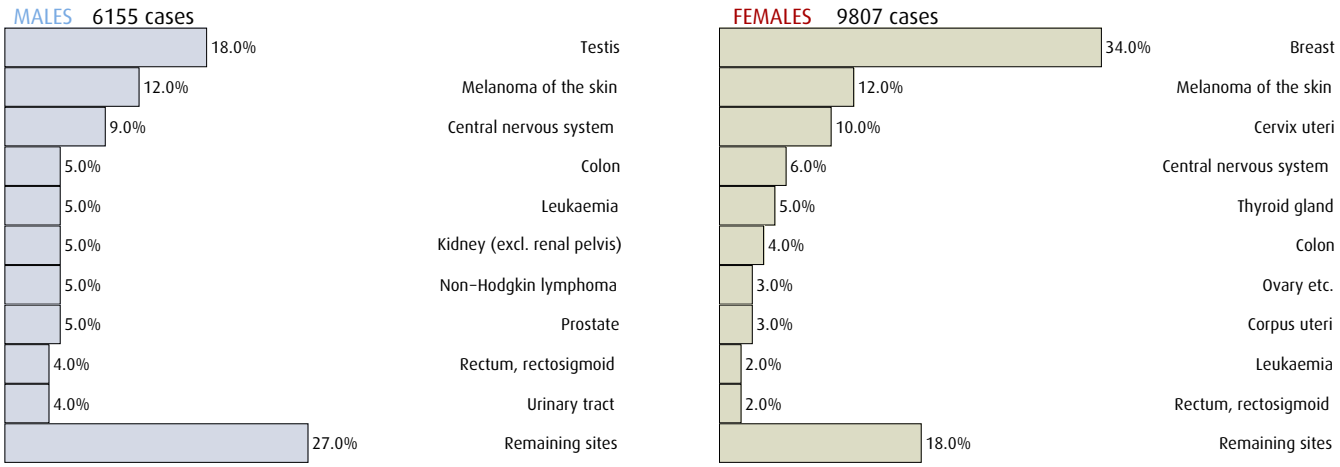


Figure 5.2–E: 50–69 years

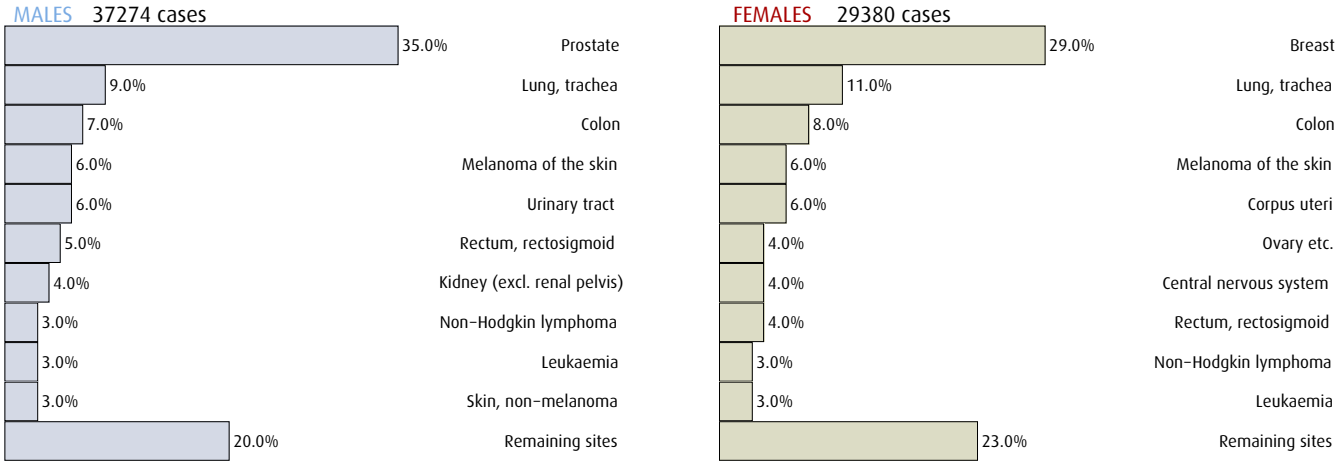
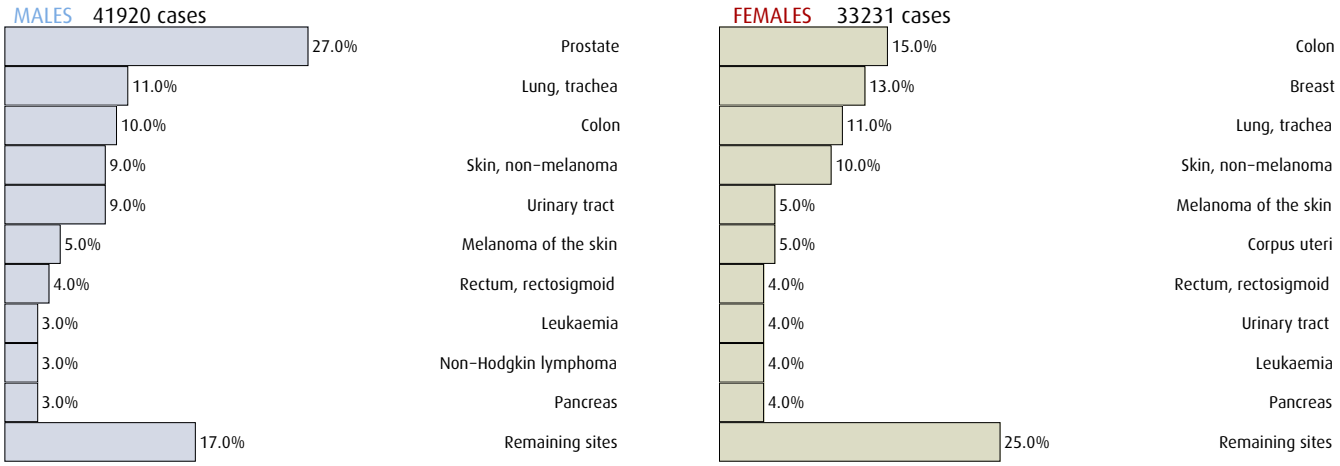


Figure 5.2–F: 70+ years



5.3 Male to female ratios

The age-standardised rates and male to female ratio (M:F) for selected cancer types in 1982–1986 and 2012–2016 are displayed in Table 5.3. Men tend to have higher incidence rates for most cancer types in both time periods, except for melanoma of the skin, cancer of the gallbladder, anus, thyroidea, central nervous system and soft tissue. The highest M:F ratios were observed for mesothelioma, several cancers of the head and neck, and for cancers in the urinary tract.

Some cancers, including cancer of the urinary tract, kidney, liver, stomach, rectum and leukaemia, are consistently more common among men. The decline in the M:F ratios for several neoplasms over the last 25 years is largely a result of a more rapid increase in the incidence rates among women. For lung cancer, the increase in womaen has been accompanied by a levelling off and a slight decline in the rate among men, and the M:F ratio is now at 1.3 against 4.0 in the early 1980s.

Table 5.3: Sex ratio (male:female) of age-adjusted rates (Norwegian standard) in 1982–1986 and 2012–2016 for selected cancers, sorted in descending order in last period

		1982–86			2012–16		
ICD-10	**Site**	**M**	**F**	**M:F ratio**	**M**	**F**	**M:F ratio**
C00–96	**All sites**	**513.1**	**380.7**	**1.3**	**728.7**	**540.6**	**1.3**
C45	Mesothelioma	1.5	0.2	6.6	2.8	0.5	6.0
C32	Larynx, epiglottis	6.0	0.5	11.8	4.0	0.8	5.3
C15	Oesophagus	5.0	1.6	3.1	8.7	2.5	3.5
C09–14	Pharynx	3.2	1.0	3.3	5.3	1.7	3.2
C65–68	Urinary tract	42.3	11.9	3.5	51.4	16.1	3.2
C38	Heart, mediastinum and pleura	0.7	0.2	4.0	0.5	0.2	2.3
C64	Kidney (excl. renal pelvis)	14.4	7.2	2.0	22.8	9.8	2.3
C16	Stomach	35.6	17.8	2.0	12.8	6.0	2.1
C22	Liver	4.0	2.1	2.0	6.7	3.2	2.1
C88	Immunoproliferative disease	0.6	0.3	2.1	1.7	0.9	1.9
C17	Small intestine	1.8	1.2	1.5	4.2	2.4	1.7
C19–20	Rectum, rectosigmoid	30.7	18.8	1.6	33.3	20.0	1.7
C00	Lip	6.2	1.0	6.0	2.9	1.7	1.7
C01–02	Tongue	2.0	1.2	1.8	3.3	1.9	1.7
C30–31	Nose, sinuses	1.3	0.7	1.8	1.1	0.7	1.6
C07–08	Salivary glands	0.8	0.6	1.3	1.5	1.0	1.6
C03–06	Mouth, other	2.7	1.1	2.4	2.4	1.5	1.6
C44	Skin, non-melanoma	20.0	10.7	1.9	46.1	29.4	1.6
C91–95	Leukaemia	14.4	8.7	1.7	26.1	17.9	1.5
C82–86, C96	Non-Hodgkin lymphoma	12.6	9.4	1.3	23.3	16.3	1.4
C90	Multiple myeloma	9.3	6.1	1.5	9.6	6.7	1.4
C81	Hodgkin lymphoma	2.8	1.7	1.6	3.4	2.5	1.4
C33–34	Lung, trachea	61.5	15.4	4.0	68.6	52.1	1.3
C40–41	Bone	1.2	0.7	1.8	1.1	0.9	1.3
C39, C76, C80	Other or unspecified	14.2	10.3	1.4	6.5	5.5	1.2
C25	Pancreas	18.1	12.4	1.5	16.7	14.0	1.2
C69	Eye	1.4	1.1	1.3	1.6	1.5	1.1
C47	Autonomic nervous system	0.4	0.3	1.4	0.2	0.2	1.1
C43	Melanoma of the skin	14.8	18.2	0.8	40.4	36.4	1.1
C37, C74–75	Other endocrine glands	2.2	2.3	1.0	4.3	4.1	1.1
C18	Colon	40.9	36.1	1.1	59.0	53.3	1.1
C23–24	Gallbladder, bile ducts	2.8	3.8	0.7	3.5	3.4	1.0
C48–49	Soft tissues	2.5	2.2	1.1	2.8	3.1	0.9
C70–72	Central nervous system	11.7	11.1	1.1	19.0	20.3	0.9
C26	Other digestive organs	4.8	4.9	1.0	2.7	2.8	0.9
C73	Thyroid gland	2.5	7.0	0.4	4.4	10.1	0.4
C21	Anus	0.8	1.2	0.6	1.0	2.3	0.4

5.4 Incidence trends

Figure 5.3: Time trends in age-standardised incidence rates (Norway) for selected cancers, 1957–2016

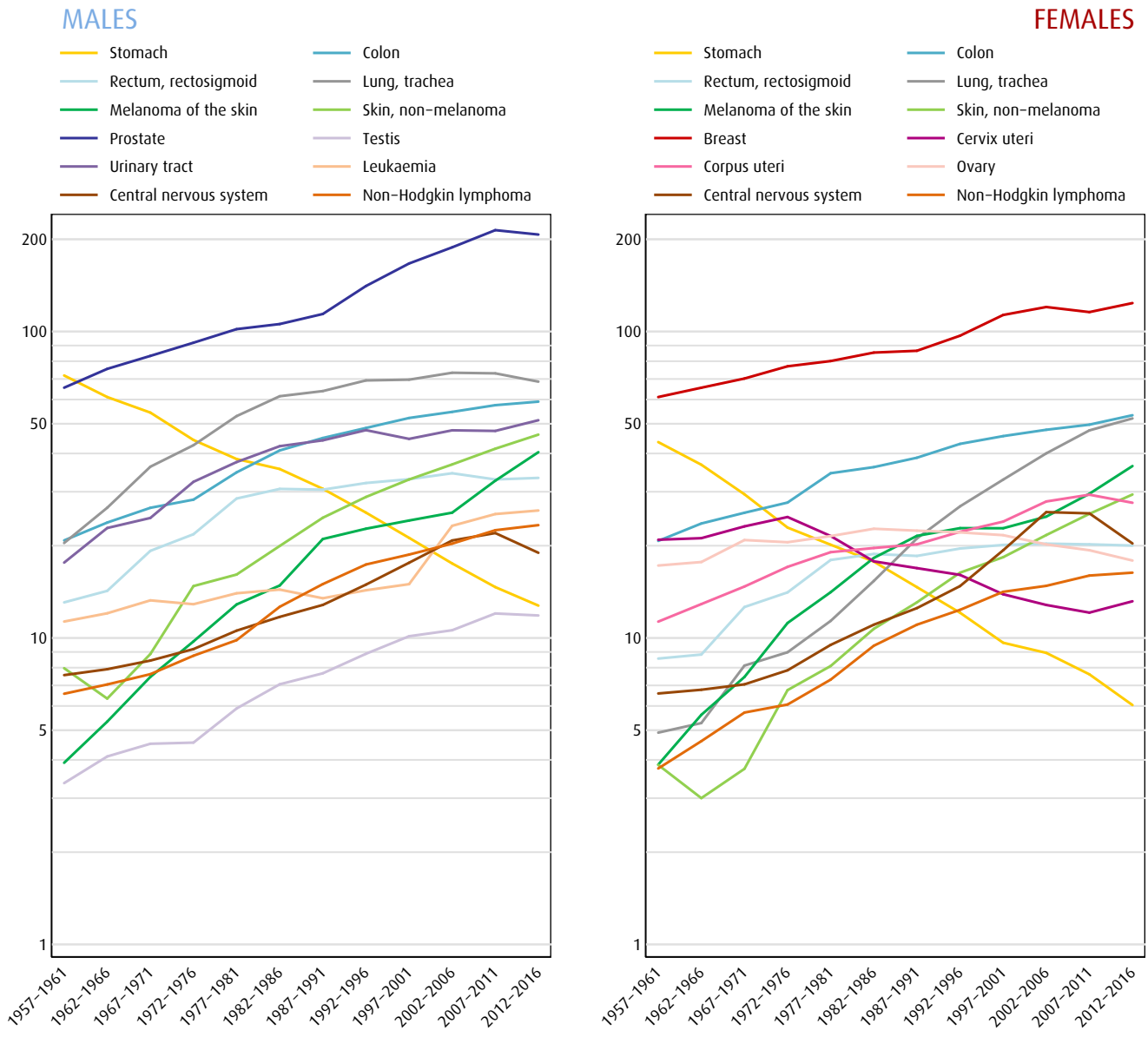


Figure 5.3 depicts time trends in incidence over six decades for a number of selected cancers. Of note are:

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.

Stomach cancer is one of the few that demonstrates a sharp and consistent decline. In the first observation period, stomach cancer was clearly the most common cancer in men and women combined, 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 also demonstrates a vast potential for prevention, although the causes of stomach cancer were unknown, and the waning the rates has been a chance phenomenon rather than an intended one.

The age-standardised incidence rate of prostate cancer has tripled since registration started in the early 1950s. A dramatic upsurge came from around 1990 with changes in diagnostic practice with wild screening and testing by

general practitioners. 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 incidence of breast cancer has doubled since the beginning of registration. The trend was monotonousy upward until 2005, with a somewhat steeper rise in the late 1990s after implementation of the Norwegian Breast Cancer Screening Program. During the last decade, the rate seems to have levelled off, although there is certain variation from year to year, as seen in Table 5.8. Some of the increase might be ascribed to better diagnostic tool used in the program, in local breast cancer studies, or that women continue to have mammography after the age of 70. It might also reflect random variations.

In women, the incidence of lung cancer has increased almost tenfold since the beginning of the 1950s. In men, the incidence of lung cancer has been levelling off in the last two decades, and an overall decline is now indisputable. This pattern is however not yet observed for women, where the overall trend is still increasing and the incidence recently reached the level of another increasing cancer type, that of the colon.

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

The downward trend in cervical cancer is 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. Still, we do not expect this primary prevention to affect the incidence rate for another 15 to 20 years.

For some common cancers, the explanation for the increase in incidence rate is unknown or incompletely understood. Colon cancer has been associated with an affluent western lifestyle, such as diet, smoking, obesity and lack of exercise. For testicular cancer and non-Hodgkin lymphoma, 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 seven will have a diagnosis by the age of 75. The cumulative risk of breast cancer is the highest one in women, with 8.6%, indicating that one in 12 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, 2012–2016

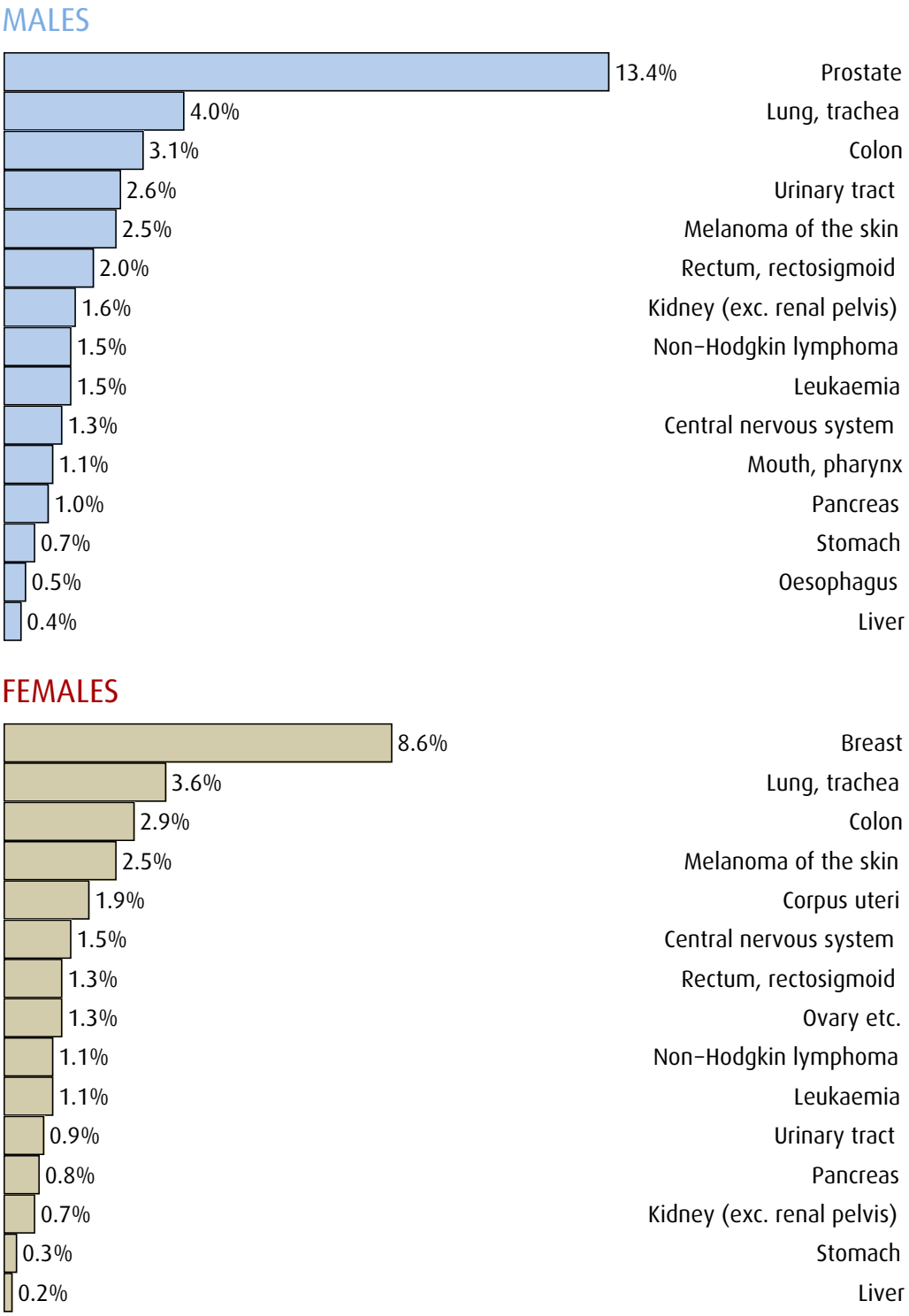


Table 5.4: Cumulative risk of developing cancer (%) by age of 75 by primary site and sex, 2012–2016

ICD-10	Site	Males	Females
C00–96	**All sites**	**36.0**	**29.6**
C00–14	**Mouth, pharynx**	**1.1**	**0.5**
C00	Lip	0.1	0.1
C01–02	Tongue	0.2	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	0.5	0.1
C16	Stomach	0.7	0.3
C17	Small intestine	0.3	0.2
C18	Colon	3.1	2.9
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	0.1
C30–34, C38	**Respiratory organs**	**4.4**	**3.7**
C30–31	Nose, sinuses	0.1	0.0
C32	Larynx, epiglottis	0.3	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**	**2.5**	**2.5**
C44	**Skin, non-melanoma**	**1.6**	**1.1**
C45	**Mesothelioma**	**0.2**	**0.0**
C47	**Autonomic nervous system**	**0.0**	**0.0**
C48–49	**Soft tissues**	**0.2**	**0.2**
C50	**Breast**	**0.1**	**8.6**
C51–58	**Female genital organs**		**4.3**
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	Ovary etc.		1.3
C58	Placenta		0.0
C60–63	**Male genital organs**	**14.3**	
C61	Prostate	13.4	
C62	Testis	0.9	
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	2.6	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**	**2.8**
C81	Hodgkin lymphoma	0.3	0.2
C82–86, C96	Non-Hodgkin lymphoma	1.5	1.1
C88	Immunoproliferative disease	0.1	0.1
C90	Multiple myeloma	0.5	0.4
C91–95	Leukaemia	1.5	1.1

Table 5.5: Number of new cases by primary site and year, 2007–2016, **males**

		Year									
ICD-10	**Site**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
C00–96	**All sites**	**14 550**	**14 774**	**15 134**	**15 270**	**16 385**	**16 738**	**16 757**	**17 331**	**17 832**	**17 763**
C00–14	**Mouth, pharynx**	**277**	**269**	**343**	**313**	**327**	**361**	**334**	**405**	**402**	**400**
C00	Lip	66	53	82	77	80	70	62	77	69	60
C01–02	Tongue	57	63	74	60	70	70	82	84	86	94
C03–06	Mouth, other	40	43	65	52	38	57	57	62	59	60
C07–08	Salivary glands	18	18	23	28	18	30	28	44	36	43
C09–14	Pharynx	96	92	99	96	121	134	105	138	152	143
C15–26	**Digestive organs**	**2 854**	**2 937**	**2 953**	**3 228**	**3 138**	**3 328**	**3 435**	**3 484**	**3 611**	**3 575**
C15	Oesophagus	131	161	149	187	181	175	200	224	219	213
C16	Stomach	336	299	264	299	325	285	302	307	291	298
C17	Small intestine	67	65	82	71	88	104	88	96	101	113
C18	Colon	1 106	1 173	1 123	1 298	1 230	1 300	1 336	1 365	1 420	1 415
C19–20	Rectum, rectosigmoid	635	676	730	744	698	753	802	812	786	823
C21	Anus	18	20	20	33	20	24	15	27	22	30
C22	Liver	98	98	98	127	130	137	176	146	185	163
C23–24	Gallbladder, bile ducts	59	66	74	87	59	87	97	74	80	78
C25	Pancreas	366	341	360	319	336	402	363	376	438	377
C26	Other digestive organs	38	38	53	63	71	61	56	57	69	65
C30–34, C38	**Respiratory organs**	**1 626**	**1 625**	**1 660**	**1 682**	**1 768**	**1 785**	**1 716**	**1 773**	**1 728**	**1 735**
C30–31	Nose, sinuses	27	25	23	19	22	32	34	30	15	24
C32	Larynx, epiglottis	78	113	90	106	100	98	104	115	87	81
C33–34	Lung, trachea	1 501	1 481	1 539	1 547	1 636	1 644	1 570	1 618	1 619	1 615
C38	Heart, mediastinum and pleura	20	6	8	10	10	11	8	10	7	15
C40–41	**Bone**	**21**	**23**	**37**	**27**	**29**	**33**	**18**	**29**	**34**	**31**
C43	**Melanoma of the skin**	**581**	**671**	**703**	**747**	**872**	**894**	**848**	**1 032**	**1 029**	**1 066**
C44	**Skin, non-melanoma**	**727**	**775**	**852**	**823**	**862**	**891**	**914**	**1 012**	**1 058**	**1 085**
C45	**Mesothelioma**	**63**	**64**	**69**	**79**	**64**	**65**	**78**	**58**	**66**	**61**
C47	**Autonomic nervous system**	**7**	**8**	**7**	**6**	**5**	**5**	**6**	**7**	**4**	**2**
C48–49	**Soft tissues**	**67**	**49**	**71**	**52**	**67**	**82**	**79**	**63**	**65**	**55**
C50	**Breast**	**19**	**21**	**15**	**13**	**27**	**28**	**35**	**24**	**24**	**31**
C60–63	**Male genital organs**	**4 784**	**4 786**	**4 746**	**4 569**	**5 309**	**5 275**	**5 247**	**5 317**	**5 465**	**5 488**
C61	Prostate	4 443	4 436	4 384	4 256	4 984	4 911	4 866	4 936	5 116	5 118
C62	Testis	297	300	314	267	286	321	333	323	290	285
C60, C63	Other male genital	44	50	48	46	39	43	48	58	59	85
C64–68	**Urinary organs**	**1 375**	**1 386**	**1 409**	**1 445**	**1 529**	**1 605**	**1 632**	**1 774**	**1 844**	**1 860**
C64	Kidney (excl. renal pelvis)	397	414	426	487	519	532	537	580	576	589
C65–68	Urinary tract	978	972	983	958	1 010	1 073	1 095	1 194	1 268	1 271
C69	**Eye**	**29**	**40**	**26**	**38**	**26**	**29**	**34**	**49**	**42**	**40**
C70–72	**Central nervous system**	**529**	**480**	**482**	**489**	**512**	**527**	**499**	**494**	**462**	**380**
C73	**Thyroid gland**	**67**	**60**	**73**	**80**	**76**	**92**	**106**	**113**	**104**	**137**
C37, C74–75	**Other endocrine glands**	**141**	**135**	**148**	**109**	**126**	**144**	**116**	**125**	**86**	**73**
C39, C76, C80	**Other or unspecified**	**176**	**170**	**170**	**146**	**165**	**123**	**147**	**156**	**152**	**141**
C81–96	**Lymphoid/haematopoietic tissue**	**1 207**	**1 275**	**1 370**	**1 424**	**1 483**	**1 471**	**1 513**	**1 416**	**1 655**	**1 603**
C81	Hodgkin lymphoma	71	80	83	82	69	88	73	80	110	91
C82–86, C96	Non-Hodgkin lymphoma	429	468	487	553	506	526	551	534	609	587
C88	Immunoproliferative disease	36	34	28	34	34	52	36	39	43	31
C90	Multiple myeloma	186	207	219	206	241	206	227	194	249	246
C91–95	Leukaemia	485	486	553	549	633	599	626	569	644	648

Table 5.6: Number of new cases by primary site and year, 2007–2016, **females**

		Year									
ICD-10	**Site**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
C00–96	**All sites**	**12 523**	**12 711**	**13 049**	**13 348**	**13 878**	**13 768**	**14 199**	**14 955**	**15 341**	**15 064**
C00–14	**Mouth, pharynx**	**159**	**188**	**167**	**208**	**199**	**184**	**191**	**213**	**224**	**237**
C00	Lip	46	49	35	54	46	41	49	45	53	51
C01–02	Tongue	24	33	34	33	38	47	45	49	50	66
C03–06	Mouth, other	36	40	44	43	41	31	42	47	39	47
C07–08	Salivary glands	23	25	17	32	29	17	18	26	40	29
C09–14	Pharynx	30	41	37	46	45	48	37	46	42	44
C15–26	**Digestive organs**	**2 690**	**2 746**	**2 851**	**2 743**	**2 878**	**2 947**	**3 030**	**3 125**	**3 227**	**3 028**
C15	Oesophagus	56	59	54	65	60	72	63	71	75	69
C16	Stomach	216	213	223	175	199	182	165	189	169	144
C17	Small intestine	55	52	76	62	65	61	49	77	74	67
C18	Colon	1 264	1 281	1 357	1 270	1 394	1 422	1 457	1 469	1 565	1 588
C19–20	Rectum, rectosigmoid	504	518	519	529	530	501	582	574	572	517
C21	Anus	42	42	49	53	38	48	59	65	57	72
C22	Liver	54	65	65	77	81	82	81	87	102	96
C23–24	Gallbladder, bile ducts	83	82	84	92	87	104	103	109	83	70
C25	Pancreas	361	371	363	349	365	394	392	396	444	336
C26	Other digestive organs	55	63	61	71	59	81	79	88	86	69
C30–34, C38	**Respiratory organs**	**1 162**	**1 200**	**1 200**	**1 320**	**1 280**	**1 362**	**1 379**	**1 491**	**1 554**	**1 513**
C30–31	Nose, sinuses	33	16	12	20	20	18	20	19	22	17
C32	Larynx, epiglottis	17	23	20	19	16	19	21	19	20	23
C33–34	Lung, trachea	1 104	1 157	1 160	1 273	1 236	1 321	1 333	1 448	1 506	1 465
C38	Heart, mediastinum and pleura	8	4	8	8	8	4	5	5	6	8
C40–41	**Bone**	**22**	**23**	**28**	**25**	**23**	**14**	**25**	**29**	**23**	**27**
C43	**Melanoma of the skin**	**643**	**623**	**729**	**795**	**878**	**889**	**898**	**1 006**	**994**	**1 048**
C44	**Skin, non-melanoma**	**670**	**677**	**744**	**708**	**782**	**777**	**810**	**929**	**846**	**997**
C45	**Mesothelioma**	**14**	**10**	**12**	**14**	**13**	**16**	**11**	**11**	**13**	**14**
C47	**Autonomic nervous system**	**4**	**7**	**5**	**5**	**1**	**0**	**6**	**8**	**7**	**1**
C48–49	**Soft tissues**	**95**	**81**	**101**	**90**	**83**	**81**	**90**	**86**	**73**	**83**
C50	**Breast**	**2 729**	**2 745**	**2 736**	**2 849**	**3 086**	**2 945**	**3 199**	**3 332**	**3 422**	**3 371**
C51–58	**Female genital organs**	**1 530**	**1 593**	**1 588**	**1 669**	**1 669**	**1 546**	**1 601**	**1 714**	**1 814**	**1 746**
C51–52, C57.7–9	Other female genital	100	90	111	115	104	108	103	126	123	124
C53	Cervix uteri	278	293	297	311	294	314	288	353	384	342
C54	Corpus uteri	673	718	715	758	748	650	766	734	784	774
C55	Uterus, other	3	8	11	6	5	5	8	13	9	15
C56, C57.0–4	Ovary etc.	475	484	452	476	513	465	434	486	513	488
C58	Placenta	1	0	2	3	5	4	2	2	1	3
C64–68	**Urinary organs**	**577**	**602**	**607**	**640**	**652**	**667**	**682**	**661**	**784**	**771**
C64	Kidney (excl. renal pelvis)	253	257	238	242	260	256	230	236	311	283
C65–68	Urinary tract	324	345	369	398	392	411	452	425	473	488
C69	**Eye**	**29**	**31**	**38**	**31**	**34**	**31**	**45**	**45**	**41**	**30**
C70–72	**Central nervous system**	**659**	**614**	**658**	**606**	**600**	**589**	**544**	**556**	**524**	**460**
C73	**Thyroid gland**	**160**	**175**	**184**	**205**	**220**	**228**	**248**	**249**	**267**	**307**
C37, C74–75	**Other endocrine glands**	**127**	**163**	**133**	**123**	**141**	**117**	**141**	**112**	**97**	**58**
C39, C76, C80	**Other or unspecified**	**233**	**191**	**200**	**183**	**168**	**156**	**168**	**169**	**163**	**161**
C81–96	**Lymphoid/haematopoietic tissue**	**1 020**	**1 042**	**1 068**	**1 134**	**1 171**	**1 219**	**1 131**	**1 219**	**1 268**	**1 212**
C81	Hodgkin lymphoma	50	45	50	57	73	64	57	63	54	76
C82–86, C96	Non-Hodgkin lymphoma	384	372	397	407	449	458	415	454	466	429
C88	Immunoproliferative disease	19	17	28	27	26	33	33	32	17	11
C90	Multiple myeloma	170	164	163	181	141	181	177	190	200	183
C91–95	Leukaemia	397	444	430	462	482	483	449	480	531	513

Table 5.7: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and year, 2007–2016, **males**

		Year									
ICD-10	**Site**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
C00–96	**All sites**	**716.6**	**712.6**	**718.3**	**708.3**	**741.9**	**740.0**	**722.7**	**731.8**	**735.7**	**714.4**
C00–14	**Mouth, pharynx**	**13.2**	**12.4**	**15.7**	**14.1**	**14.5**	**15.4**	**14.0**	**16.5**	**16.0**	**15.8**
C00	Lip	3.4	2.6	4.0	3.7	3.7	3.2	2.7	3.3	2.9	2.5
C01–02	Tongue	2.7	2.9	3.3	2.6	3.0	3.0	3.4	3.3	3.3	3.6
C03–06	Mouth, other	1.9	2.0	3.1	2.4	1.8	2.4	2.4	2.5	2.3	2.4
C07–08	Salivary glands	0.8	0.8	1.1	1.3	0.8	1.3	1.2	1.9	1.5	1.8
C09–14	Pharynx	4.4	4.1	4.3	4.1	5.0	5.5	4.2	5.5	5.9	5.4
C15–26	**Digestive organs**	**142.5**	**143.4**	**142.5**	**151.5**	**144.0**	**149.0**	**149.7**	**148.8**	**150.6**	**144.4**
C15	Oesophagus	6.4	7.8	7.0	8.7	8.1	7.6	8.7	9.4	8.9	8.5
C16	Stomach	16.8	14.7	13.0	14.0	15.0	12.8	13.2	13.2	12.5	12.1
C17	Small intestine	3.2	3.1	3.7	3.2	3.9	4.5	3.8	4.0	4.1	4.5
C18	Colon	55.8	57.5	55.0	61.7	57.4	58.7	59.2	59.5	59.9	58.0
C19–20	Rectum, rectosigmoid	31.3	32.8	34.6	34.2	31.6	33.6	34.2	34.0	32.4	32.6
C21	Anus	0.9	1.0	0.9	1.5	0.8	1.1	0.7	1.1	0.9	1.2
C22	Liver	4.7	4.6	4.7	6.0	5.8	5.9	7.5	6.0	7.6	6.5
C23–24	Gallbladder, bile ducts	3.0	3.3	3.7	4.0	2.6	4.0	4.2	3.1	3.3	3.1
C25	Pancreas	18.4	16.7	17.4	15.2	15.4	18.0	15.9	16.0	18.1	15.3
C26	Other digestive organs	2.1	1.9	2.6	3.0	3.4	2.8	2.4	2.5	2.9	2.6
C30–34, C38	**Respiratory organs**	**79.4**	**78.5**	**78.9**	**78.3**	**80.5**	**79.8**	**74.5**	**75.7**	**71.5**	**70.1**
C30–31	Nose, sinuses	1.3	1.3	1.1	0.8	1.0	1.4	1.4	1.3	0.6	1.0
C32	Larynx, epiglottis	3.7	5.3	4.2	4.9	4.4	4.3	4.4	4.8	3.5	3.2
C33–34	Lung, trachea	73.4	71.7	73.3	72.1	74.7	73.6	68.3	69.2	67.1	65.3
C38	Heart, mediastinum and pleura	1.0	0.3	0.4	0.4	0.5	0.5	0.3	0.4	0.3	0.7
C40–41	**Bone**	**0.9**	**1.0**	**1.6**	**1.1**	**1.2**	**1.3**	**0.7**	**1.1**	**1.4**	**1.2**
C43	**Melanoma of the skin**	**27.5**	**31.1**	**32.1**	**33.3**	**38.3**	**38.8**	**35.9**	**42.9**	**41.7**	**42.2**
C44	**Skin, non-melanoma**	**38.4**	**40.8**	**43.8**	**41.5**	**42.7**	**43.0**	**43.5**	**47.0**	**48.0**	**48.8**
C45	**Mesothelioma**	**3.1**	**3.2**	**3.2**	**3.9**	**3.0**	**3.0**	**3.5**	**2.5**	**2.8**	**2.5**
C47	**Autonomic nervous system**	**0.3**	**0.3**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**0.2**	**0.1**
C48–49	**Soft tissues**	**3.1**	**2.2**	**3.4**	**2.3**	**2.8**	**3.5**	**3.3**	**2.6**	**2.7**	**2.2**
C50	**Breast**	**0.9**	**1.0**	**0.7**	**0.6**	**1.2**	**1.3**	**1.5**	**1.0**	**1.1**	**1.3**
C60–63	**Male genital organs**	**237.6**	**231.2**	**224.4**	**210.6**	**238.1**	**229.6**	**222.7**	**220.4**	**220.3**	**215.6**
C61	Prostate	222.9	216.4	209.3	197.7	225.0	215.2	207.7	205.6	207.0	201.5
C62	Testis	12.6	12.5	12.8	10.8	11.4	12.5	12.9	12.3	10.9	10.7
C60, C63	Other male genital	2.1	2.3	2.3	2.1	1.7	1.8	2.1	2.5	2.4	3.5
C64–68	**Urinary organs**	**67.5**	**67.1**	**67.3**	**67.8**	**69.7**	**71.5**	**70.9**	**75.6**	**77.1**	**75.7**
C64	Kidney (excl. renal pelvis)	18.9	19.2	19.6	21.7	22.7	22.6	22.3	23.5	23.0	22.9
C65–68	Urinary tract	48.6	47.9	47.7	46.0	46.9	49.0	48.6	52.0	54.0	52.8
C69	**Eye**	**1.3**	**1.9**	**1.2**	**1.7**	**1.2**	**1.2**	**1.4**	**2.0**	**1.7**	**1.6**
C70–72	**Central nervous system**	**24.3**	**21.4**	**21.3**	**21.4**	**21.7**	**22.0**	**20.2**	**19.9**	**18.3**	**14.8**
C73	**Thyroid gland**	**3.0**	**2.6**	**3.2**	**3.4**	**3.2**	**3.8**	**4.3**	**4.5**	**4.0**	**5.3**
C37, C74–75	**Other endocrine glands**	**6.3**	**6.0**	**6.4**	**4.6**	**5.3**	**5.9**	**4.7**	**5.0**	**3.3**	**2.8**
C39, C76, C80	**Other or unspecified**	**9.2**	**8.8**	**8.6**	**7.1**	**7.9**	**5.8**	**6.9**	**7.0**	**6.8**	**6.1**
C81–96	**Lymphoid/haematopoietic tissue**	**58.1**	**59.9**	**63.7**	**64.9**	**66.5**	**64.9**	**64.7**	**59.1**	**68.2**	**63.9**
C81	Hodgkin lymphoma	3.0	3.5	3.5	3.5	2.8	3.6	2.9	3.1	4.2	3.4
C82–86, C96	Non-Hodgkin lymphoma	20.4	21.7	22.6	25.0	22.5	23.0	23.3	22.3	24.9	23.3
C88	Immunoproliferative disease	1.8	1.7	1.3	1.6	1.6	2.3	1.5	1.6	1.8	1.3
C90	Multiple myeloma	9.2	9.9	10.4	9.6	10.9	9.4	10.1	8.1	10.5	9.9
C91–95	Leukaemia	23.7	23.0	25.8	25.3	28.8	26.6	27.0	24.0	26.8	26.1

Table 5.8: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and year, 2007–2016, **females**

		Year									
ICD-10	**Site**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
C00–96	**All sites**	**506.6**	**508.1**	**514.7**	**521.6**	**533.7**	**523.0**	**531.2**	**551.5**	**557.2**	**538.4**
C00–14	**Mouth, pharynx**	**6.5**	**7.4**	**6.6**	**8.2**	**7.7**	**6.9**	**7.1**	**7.9**	**8.1**	**8.5**
C00	Lip	1.8	1.9	1.3	2.0	1.7	1.4	1.8	1.6	1.8	1.8
C01–02	Tongue	1.0	1.3	1.4	1.3	1.4	1.8	1.7	1.8	1.8	2.4
C03–06	Mouth, other	1.5	1.5	1.7	1.7	1.6	1.1	1.6	1.7	1.4	1.6
C07–08	Salivary glands	1.0	1.0	0.7	1.3	1.2	0.6	0.7	1.0	1.5	1.0
C09–14	Pharynx	1.3	1.7	1.5	1.9	1.8	1.9	1.5	1.8	1.6	1.6
C15–26	**Digestive organs**	**104.3**	**105.1**	**108.4**	**103.2**	**107.4**	**108.8**	**110.1**	**112.0**	**113.6**	**105.1**
C15	Oesophagus	2.1	2.3	2.1	2.4	2.3	2.7	2.3	2.6	2.6	2.4
C16	Stomach	8.3	7.9	8.3	6.4	7.2	6.7	6.0	6.8	5.9	5.0
C17	Small intestine	2.2	2.2	3.0	2.4	2.5	2.3	1.8	2.8	2.7	2.4
C18	Colon	48.7	49.1	51.1	47.6	51.9	52.4	52.4	52.4	54.7	54.6
C19–20	Rectum, rectosigmoid	20.5	20.1	20.2	20.2	20.2	18.7	21.6	21.0	20.6	18.3
C21	Anus	1.7	1.7	2.1	2.1	1.5	1.8	2.2	2.4	2.1	2.6
C22	Liver	2.1	2.4	2.5	2.9	2.9	3.0	3.0	3.1	3.6	3.4
C23–24	Gallbladder, bile ducts	3.2	3.2	3.2	3.6	3.2	3.9	3.8	3.9	2.9	2.4
C25	Pancreas	13.6	14.0	13.8	13.0	13.5	14.4	14.2	14.2	15.5	11.5
C26	Other digestive organs	2.0	2.2	2.3	2.6	2.2	2.9	2.8	3.0	3.0	2.5
C30–34, C38	**Respiratory organs**	**48.0**	**49.1**	**47.7**	**52.4**	**49.8**	**52.1**	**51.9**	**55.0**	**56.1**	**53.3**
C30–31	Nose, sinuses	1.3	0.6	0.5	0.8	0.8	0.7	0.7	0.7	0.8	0.6
C32	Larynx, epiglottis	0.7	0.9	0.8	0.8	0.6	0.7	0.8	0.7	0.7	0.8
C33–34	Lung, trachea	45.7	47.4	46.1	50.5	48.1	50.5	50.1	53.4	54.3	51.6
C38	Heart, mediastinum and pleura	0.3	0.2	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.3
C40–41	**Bone**	**0.9**	**1.0**	**1.1**	**1.0**	**0.9**	**0.5**	**0.9**	**1.1**	**0.9**	**1.0**
C43	**Melanoma of the skin**	**26.3**	**25.4**	**29.5**	**31.8**	**34.3**	**34.6**	**34.3**	**37.8**	**36.9**	**38.3**
C44	**Skin, non-melanoma**	**24.3**	**24.6**	**26.2**	**24.9**	**27.0**	**27.0**	**27.5**	**31.4**	**28.3**	**32.7**
C45	**Mesothelioma**	**0.5**	**0.4**	**0.5**	**0.5**	**0.5**	**0.6**	**0.4**	**0.4**	**0.5**	**0.5**
C47	**Autonomic nervous system**	**0.2**	**0.3**	**0.2**	**0.2**	**0.0**	**0.0**	**0.2**	**0.3**	**0.3**	**0.0**
C48–49	**Soft tissues**	**4.0**	**3.3**	**4.0**	**3.6**	**3.2**	**3.2**	**3.4**	**3.3**	**2.7**	**3.0**
C50	**Breast**	**114.2**	**113.8**	**112.2**	**115.1**	**122.9**	**115.1**	**123.4**	**126.8**	**128.2**	**125.1**
C51–58	**Female genital organs**	**63.6**	**65.1**	**64.2**	**66.7**	**65.4**	**59.8**	**61.2**	**64.4**	**67.4**	**63.4**
C51–52, C57.7–9	Other female genital	3.8	3.3	4.3	4.2	3.9	4.0	3.7	4.4	4.4	4.4
C53	Cervix uteri	11.7	11.9	12.2	12.7	11.9	12.5	11.4	13.9	14.9	13.2
C54	Corpus uteri	28.2	29.9	29.1	30.3	29.2	25.0	29.2	27.3	28.9	27.6
C55	Uterus, other	0.1	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.5
C56, C57.0–4	Ovary etc.	19.7	19.7	18.1	19.1	20.0	17.9	16.6	18.2	19.0	17.7
C58	Placenta	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.1
C64–68	**Urinary organs**	**22.9**	**23.6**	**23.7**	**24.5**	**24.5**	**24.7**	**25.0**	**24.1**	**28.0**	**27.0**
C64	Kidney (excl. renal pelvis)	10.1	10.2	9.6	9.5	10.0	9.8	8.6	8.8	11.4	10.1
C65–68	Urinary tract	12.8	13.4	14.1	15.1	14.5	14.9	16.4	15.3	16.7	16.9
C69	**Eye**	**1.2**	**1.3**	**1.5**	**1.3**	**1.3**	**1.2**	**1.7**	**1.7**	**1.6**	**1.1**
C70–72	**Central nervous system**	**27.5**	**25.4**	**26.7**	**24.3**	**23.7**	**23.1**	**20.9**	**21.1**	**19.6**	**17.0**
C73	**Thyroid gland**	**6.7**	**7.3**	**7.6**	**8.4**	**8.9**	**9.2**	**9.8**	**9.7**	**10.2**	**11.6**
C37, C74–75	**Other endocrine glands**	**5.4**	**6.9**	**5.6**	**5.1**	**5.7**	**4.6**	**5.6**	**4.3**	**3.7**	**2.2**
C39, C76, C80	**Other or unspecified**	**8.4**	**7.0**	**7.1**	**6.5**	**5.6**	**5.4**	**5.7**	**5.7**	**5.5**	**5.4**
C81–96	**Lymphoid/haematopoietic tissue**	**41.4**	**41.1**	**41.8**	**44.0**	**44.8**	**46.2**	**41.9**	**44.5**	**45.7**	**43.1**
C81	Hodgkin lymphoma	2.1	1.9	2.1	2.4	3.0	2.6	2.3	2.4	2.1	2.9
C82–86, C96	Non-Hodgkin lymphoma	15.7	15.1	15.8	15.9	17.4	17.5	15.5	16.7	16.8	15.1
C88	Immunoproliferative disease	0.7	0.7	1.0	1.1	1.0	1.2	1.2	1.2	0.6	0.4
C90	Multiple myeloma	6.8	6.3	6.4	6.9	5.3	6.7	6.4	6.8	7.1	6.4
C91–95	Leukaemia	16.0	17.1	16.6	17.8	18.2	18.1	16.5	17.4	19.1	18.3

Table 5.9: Average annual number of new cases by primary site and five-year age group, 2012–2016, **males**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**35**	**22**	**24**	**46**	**87**	**110**	**152**
C00–14	**Mouth, pharynx**	**0**	**0**	**0**	**0**	**1**	**0**	**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**	**1**	**0**	**1**	**2**	**6**	**7**	**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	1	5	3	5
C19–20	Rectum, rectosigmoid	0	0	0	0	0	2	6
C21	Anus	0	0	0	0	0	0	0
C22	Liver	1	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	1	0
C26	Other digestive organs	0	0	0	0	0	0	1
C30–34, C38	**Respiratory organs**	**0**	**0**	**0**	**1**	**0**	**0**	**2**
C30–31	Nose, sinuses	0	0	0	0	0	0	0
C32	Larynx, epiglottis	0	0	0	0	0	0	0
C33–34	Lung, trachea	0	0	0	0	0	0	1
C38	Heart, mediastinum and pleura	0	0	0	0	0	0	0
C40–41	**Bone**	**0**	**0**	**2**	**2**	**2**	**1**	**2**
C43	**Melanoma of the skin**	**0**	**0**	**1**	**1**	**4**	**9**	**14**
C44	**Skin, non-melanoma**	**0**	**0**	**0**	**1**	**1**	**2**	**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**	**1**	**1**	**1**	**1**	**1**	**1**	**2**
C50	**Breast**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
C60–63	**Male genital organs**	**1**	**0**	**1**	**10**	**36**	**43**	**53**
C61	Prostate	0	0	0	0	0	0	0
C62	Testis	1	0	1	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)	3	1	0	0	0	3	4
C65–68	Urinary tract	0	0	0	1	1	1	1
C69	**Eye**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
C70–72	**Central nervous system**	**8**	**7**	**7**	**10**	**10**	**15**	**17**
C73	**Thyroid gland**	**0**	**0**	**0**	**1**	**1**	**4**	**6**
C37, C74–75	**Other endocrine glands**	**3**	**1**	**1**	**3**	**5**	**2**	**5**
C39, C76, C80	**Other or unspecified**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
C81–96	**Lymphoid/haematopoietic tissue**	**17**	**11**	**9**	**13**	**18**	**21**	**24**
C81	Hodgkin lymphoma	0	1	1	5	8	11	5
C82–86, C96	Non-Hodgkin lymphoma	3	4	3	2	3	3	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	6	5	6	6	7	9

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
194	**304**	**472**	**777**	**1 396**	**2 167**	**3 116**	**2 788**	**2 255**	**1 803**	**1 539**
3	**9**	**18**	**36**	**49**	**57**	**71**	**49**	**36**	**27**	**21**
0	1	2	2	5	6	9	11	11	11	9
1	2	6	10	11	13	17	9	7	4	3
1	1	1	4	6	10	14	9	4	4	3
1	2	1	3	3	3	5	4	4	4	4
1	2	8	16	24	25	25	16	10	4	2
28	**52**	**89**	**157**	**283**	**423**	**585**	**558**	**500**	**433**	**345**
1	3	7	11	19	28	42	31	26	21	17
3	4	8	14	27	31	46	47	43	37	35
2	3	4	5	10	14	18	15	11	10	7
10	19	28	47	89	146	216	229	211	200	158
8	13	24	43	73	111	141	121	111	82	60
0	0	1	2	2	3	6	2	3	1	3
2	2	6	11	20	24	21	20	21	19	11
1	1	1	4	9	10	16	15	10	8	8
2	5	8	18	29	49	69	69	55	48	38
0	1	2	3	4	7	10	9	9	8	7
4	**12**	**25**	**57**	**118**	**216**	**344**	**334**	**268**	**212**	**153**
1	1	1	2	3	3	6	3	2	2	3
0	1	3	3	7	17	20	17	14	9	6
3	9	21	52	107	196	317	312	252	199	143
0	1	0	0	1	0	1	2	1	1	2
1	**1**	**2**	**2**	**3**	**2**	**4**	**2**	**1**	**0**	**1**
21	**50**	**53**	**73**	**91**	**109**	**148**	**137**	**102**	**86**	**73**
6	**8**	**12**	**16**	**27**	**59**	**109**	**135**	**170**	**191**	**249**
0	**0**	**0**	**2**	**3**	**6**	**11**	**15**	**12**	**9**	**7**
0	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
2	**2**	**5**	**6**	**6**	**8**	**8**	**9**	**5**	**5**	**5**
0	**1**	**0**	**2**	**2**	**3**	**6**	**5**	**3**	**3**	**4**
55	**49**	**89**	**190**	**483**	**816**	**1 213**	**948**	**648**	**406**	**319**
1	8	53	167	466	805	1 202	937	639	398	312
53	39	33	17	12	5	4	2	1	1	1
1	1	3	6	5	6	7	8	8	7	6
13	**31**	**53**	**87**	**137**	**202**	**279**	**292**	**253**	**206**	**175**
9	18	29	50	66	80	96	86	62	34	23
4	12	24	37	71	122	183	207	192	171	152
1	**2**	**2**	**3**	**4**	**6**	**5**	**5**	**3**	**3**	**2**
20	**26**	**34**	**39**	**44**	**54**	**55**	**46**	**35**	**29**	**18**
8	**8**	**10**	**10**	**11**	**12**	**14**	**9**	**8**	**5**	**4**
5	**7**	**7**	**10**	**13**	**11**	**13**	**9**	**7**	**5**	**3**
0	**2**	**3**	**6**	**6**	**11**	**21**	**20**	**18**	**21**	**32**
27	**44**	**67**	**81**	**116**	**170**	**229**	**212**	**184**	**160**	**129**
7	7	9	6	6	7	6	4	3	1	2
10	18	23	35	44	66	95	81	69	54	40
0	1	1	1	4	4	7	7	6	7	2
2	4	9	10	17	28	33	35	31	31	25
9	14	24	30	45	65	88	85	75	68	60

Table 5.10: Average annual number of new cases by primary site and five-year age group, 2012–2016, **females**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**30**	**15**	**20**	**43**	**74**	**132**	**196**
C00–14	**Mouth, pharynx**	**0**	**0**	**1**	**1**	**1**	**2**	**2**
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	0
C07–08	Salivary glands	0	0	0	0	0	0	2
C09–14	Pharynx	0	0	0	0	0	0	0
C15–26	**Digestive organs**	**1**	**0**	**2**	**3**	**5**	**10**	**15**
C15	Oesophagus	0	0	0	0	0	0	0
C16	Stomach	0	0	0	0	0	0	0
C17	Small intestine	0	0	0	0	0	0	1
C18	Colon	0	0	2	3	4	7	8
C19–20	Rectum, rectosigmoid	0	0	0	0	0	1	4
C21	Anus	0	0	0	0	0	0	0
C22	Liver	1	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	0	1
C26	Other digestive organs	0	0	0	0	0	1	0
C30–34, C38	**Respiratory organs**	**0**	**0**	**0**	**0**	**1**	**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	1	1	2
C38	Heart, mediastinum and pleura	0	0	0	0	0	0	0
C40–41	**Bone**	**0**	**1**	**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**	**1**	**2**	**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**	**1**	**0**	**1**	**1**	**1**	**2**	**2**
C50	**Breast**	**0**	**0**	**0**	**0**	**2**	**17**	**40**
C51–58	**Female genital organs**	**0**	**0**	**1**	**3**	**9**	**30**	**46**
C51–52, C57.7–9	Other female genital	0	0	0	0	0	0	1
C53	Cervix uteri	0	0	0	0	6	23	36
C54	Corpus uteri	0	0	0	0	0	1	3
C55	Uterus, other	0	0	0	0	0	0	0
C56, C57.0–4	Ovary etc.	0	0	0	2	2	4	5
C58	Placenta	0	0	0	0	0	1	0
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	1	1
C69	**Eye**	**1**	**0**	**0**	**0**	**0**	**0**	**1**
C70–72	**Central nervous system**	**5**	**5**	**5**	**7**	**10**	**12**	**16**
C73	**Thyroid gland**	**0**	**0**	**1**	**3**	**7**	**12**	**15**
C37, C74–75	**Other endocrine glands**	**1**	**0**	**1**	**3**	**7**	**6**	**7**
C39, C76, C80	**Other or unspecified**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
C81–96	**Lymphoid/haematopoietic tissue**	**14**	**5**	**8**	**15**	**14**	**16**	**17**
C81	Hodgkin lymphoma	0	0	2	8	8	6	4
C82–86, C96	Non-Hodgkin lymphoma	2	1	2	2	3	4	6
C88	Immunoproliferative disease	0	0	0	0	0	0	0
C90	Multiple myeloma	0	0	0	0	0	0	0
C91–95	Leukaemia	11	4	4	5	4	6	7

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
333	**525**	**777**	**1 007**	**1 236**	**1 592**	**2 041**	**1 764**	**1 584**	**1 459**	**1 840**
4	**6**	**10**	**14**	**21**	**28**	**27**	**20**	**22**	**21**	**30**
1	1	1	1	3	6	6	5	5	8	11
1	1	4	4	5	7	8	5	5	5	5
0	1	1	2	4	4	5	5	5	4	9
2	1	2	3	1	2	2	2	3	2	3
1	2	3	4	8	8	6	4	4	1	2
29	**43**	**81**	**135**	**188**	**277**	**421**	**442**	**441**	**443**	**535**
0	1	2	2	4	6	12	11	11	8	13
4	3	6	10	9	14	22	21	21	25	35
1	2	3	3	5	7	10	9	7	9	8
11	16	33	58	80	120	188	223	234	240	273
8	11	21	32	45	62	81	75	70	65	75
1	3	5	5	7	6	10	7	5	6	4
1	1	2	4	6	8	12	15	12	12	15
1	1	1	4	6	9	15	13	13	14	16
2	4	6	13	23	37	61	58	57	53	77
0	1	2	3	4	8	10	8	12	11	20
4	**10**	**30**	**59**	**114**	**180**	**283**	**275**	**209**	**166**	**124**
0	0	1	1	2	2	1	3	2	3	3
1	1	1	2	3	2	4	2	3	1	1
3	9	28	55	109	176	278	270	203	161	117
0	0	0	0	0	1	1	0	0	0	2
1	**2**	**2**	**0**	**1**	**2**	**3**	**2**	**1**	**2**	**1**
45	**69**	**84**	**77**	**87**	**99**	**111**	**102**	**74**	**68**	**91**
2	**8**	**11**	**16**	**30**	**43**	**74**	**95**	**125**	**144**	**317**
0	**0**	**0**	**1**	**0**	**2**	**2**	**1**	**3**	**2**	**1**
0	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
2	**4**	**5**	**5**	**8**	**11**	**11**	**11**	**7**	**7**	**5**
99	**192**	**313**	**393**	**386**	**451**	**480**	**253**	**221**	**177**	**230**
65	**82**	**102**	**129**	**167**	**195**	**237**	**196**	**158**	**125**	**139**
2	4	6	6	10	11	14	10	12	13	27
48	49	45	23	22	20	20	14	10	8	11
6	14	26	55	79	103	127	112	91	67	56
0	0	1	1	0	0	1	1	1	2	3
9	15	25	45	56	61	74	58	45	34	41
0	0	0	0	0	0	0	0	0	0	0
7	**14**	**20**	**31**	**53**	**73**	**106**	**108**	**97**	**90**	**103**
5	10	11	18	18	30	42	43	31	25	23
2	4	9	14	35	43	64	65	66	65	80
1	**2**	**2**	**3**	**4**	**3**	**10**	**4**	**3**	**3**	**1**
20	**33**	**39**	**47**	**52**	**61**	**66**	**53**	**36**	**35**	**34**
24	**24**	**29**	**26**	**20**	**23**	**24**	**22**	**13**	**7**	**8**
7	**8**	**10**	**8**	**9**	**8**	**9**	**7**	**6**	**3**	**3**
1	**1**	**2**	**5**	**8**	**9**	**12**	**14**	**25**	**25**	**59**
21	**26**	**37**	**57**	**89**	**126**	**164**	**159**	**143**	**141**	**158**
6	3	4	1	2	4	4	3	2	4	1
6	8	12	26	37	51	65	67	54	50	50
0	0	1	0	1	4	4	3	4	4	2
1	3	4	8	16	21	26	22	29	26	30
8	11	16	22	32	47	65	63	53	58	75

Table 5.11: Age-specific incidence rates per 100 000 person-years by primary site and five-year age group, 2012–2016, **males**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**22.1**	**14.0**	**15.0**	**27.6**	**49.7**	**62.2**	**86.0**
C00–14	**Mouth, pharynx**	**0.1**	**0.2**	**0.3**	**0.0**	**0.7**	**0.2**	**1.5**
C00	Lip	0.0	0.0	0.0	0.0	0.1	0.0	0.1
C01–02	Tongue	0.0	0.0	0.0	0.0	0.1	0.1	0.5
C03–06	Mouth, other	0.0	0.0	0.1	0.0	0.2	0.0	0.3
C07–08	Salivary glands	0.0	0.0	0.1	0.0	0.1	0.1	0.5
C09–14	Pharynx	0.1	0.2	0.0	0.0	0.1	0.0	0.1
C15–26	**Digestive organs**	**0.4**	**0.1**	**0.4**	**1.2**	**3.3**	**4.2**	**9.4**
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.1	0.6
C16	Stomach	0.0	0.0	0.0	0.1	0.1	0.5	0.6
C17	Small intestine	0.0	0.0	0.0	0.1	0.0	0.1	0.5
C18	Colon	0.0	0.0	0.1	0.6	2.9	1.9	3.0
C19–20	Rectum, rectosigmoid	0.0	0.0	0.0	0.0	0.2	1.1	3.5
C21	Anus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C22	Liver	0.4	0.1	0.1	0.1	0.1	0.1	0.7
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	0.3	0.1
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.0	0.5
C30–34, C38	**Respiratory organs**	**0.3**	**0.0**	**0.0**	**0.6**	**0.2**	**0.2**	**1.0**
C30–31	Nose, sinuses	0.0	0.0	0.0	0.1	0.1	0.0	0.1
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C33–34	Lung, trachea	0.3	0.0	0.0	0.2	0.0	0.2	0.7
C38	Heart, mediastinum and pleura	0.0	0.0	0.0	0.2	0.1	0.0	0.1
C40–41	**Bone**	**0.1**	**0.1**	**1.3**	**1.2**	**1.1**	**0.8**	**0.9**
C43	**Melanoma of the skin**	**0.1**	**0.1**	**0.5**	**0.5**	**2.5**	**5.2**	**7.8**
C44	**Skin, non-melanoma**	**0.1**	**0.2**	**0.1**	**0.8**	**0.6**	**1.1**	**1.8**
C45	**Mesothelioma**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
C47	**Autonomic nervous system**	**0.5**	**0.2**	**0.0**	**0.2**	**0.1**	**0.2**	**0.2**
C48–49	**Soft tissues**	**0.8**	**0.4**	**0.6**	**0.4**	**0.8**	**0.6**	**0.9**
C50	**Breast**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
C60–63	**Male genital organs**	**0.5**	**0.1**	**0.5**	**5.8**	**20.6**	**24.1**	**30.1**
C61	Prostate	0.0	0.0	0.0	0.2	0.0	0.0	0.0
C62	Testis	0.4	0.0	0.4	5.6	20.6	24.1	30.0
C60, C63	Other male genital	0.1	0.1	0.1	0.0	0.0	0.0	0.1
C64–68	**Urinary organs**	**1.9**	**0.4**	**0.1**	**0.6**	**0.6**	**2.2**	**3.2**
C64	Kidney (excl. renal pelvis)	1.6	0.4	0.0	0.1	0.0	1.5	2.4
C65–68	Urinary tract	0.3	0.0	0.1	0.5	0.6	0.7	0.8
C69	**Eye**	**0.1**	**0.4**	**0.3**	**0.1**	**0.0**	**0.1**	**0.2**
C70–72	**Central nervous system**	**4.8**	**4.1**	**4.4**	**5.7**	**5.6**	**8.3**	**9.5**
C73	**Thyroid gland**	**0.0**	**0.0**	**0.1**	**0.8**	**0.8**	**2.0**	**3.2**
C37, C74–75	**Other endocrine glands**	**1.6**	**0.5**	**0.6**	**1.5**	**2.6**	**0.9**	**2.7**
C39, C76, C80	**Other or unspecified**	**0.3**	**0.0**	**0.0**	**0.2**	**0.1**	**0.1**	**0.1**
C81–96	**Lymphoid/haematopoietic tissue**	**10.5**	**7.0**	**5.7**	**7.9**	**10.0**	**11.9**	**13.4**
C81	Hodgkin lymphoma	0.0	0.7	0.9	2.9	4.6	6.0	3.1
C82–86, C96	Non-Hodgkin lymphoma	1.6	2.7	1.8	1.2	1.9	1.8	4.5
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	0.3
C91–95	Leukaemia	8.8	3.5	3.0	3.8	3.5	4.1	5.3

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
109.0	**158.5**	**248.5**	**451.4**	**877.8**	**1 492.4**	**2 306.2**	**3 000.0**	**3 616.9**	**4 095.6**	**4 126.3**
1.8	**4.5**	**9.5**	**20.7**	**30.9**	**39.1**	**52.6**	**53.2**	**57.4**	**60.9**	**55.8**
0.1	0.4	1.2	1.4	2.9	4.3	6.8	11.6	18.0	25.0	23.1
0.6	1.0	3.0	6.0	7.2	8.7	12.3	9.5	10.9	8.6	8.0
0.3	0.6	0.7	2.1	4.0	6.9	10.7	9.7	7.1	9.1	7.5
0.3	1.1	0.6	1.6	1.9	2.2	4.0	4.7	6.1	9.5	10.7
0.4	1.3	4.0	9.5	15.0	17.1	18.8	17.6	15.4	8.6	6.4
15.5	**27.1**	**47.1**	**91.4**	**177.9**	**291.5**	**432.9**	**600.3**	**802.3**	**984.7**	**925.1**
0.4	1.8	3.5	6.4	11.8	19.0	31.1	33.4	41.7	47.7	45.0
1.5	2.2	4.3	8.1	16.7	21.4	33.8	51.0	69.0	83.2	94.4
0.9	1.8	2.1	2.7	6.5	9.9	13.5	15.7	17.0	23.2	19.3
5.5	10.0	15.0	27.1	56.1	100.4	160.0	246.0	338.4	454.0	423.1
4.6	7.0	12.5	25.0	45.7	76.5	104.5	130.7	177.4	185.9	159.8
0.0	0.2	0.7	0.9	1.5	2.3	4.3	2.2	5.1	1.4	7.5
1.0	1.0	3.2	6.4	12.7	16.8	15.8	21.5	33.7	44.1	30.6
0.4	0.4	0.5	2.2	5.5	6.9	11.7	16.6	16.7	17.7	22.5
0.9	2.4	4.2	10.6	18.5	33.5	50.9	74.0	88.5	109.5	103.0
0.2	0.3	1.1	2.0	2.8	4.8	7.3	9.3	14.8	18.2	19.8
2.0	**6.3**	**13.4**	**33.3**	**74.2**	**148.9**	**254.3**	**359.4**	**429.5**	**482.1**	**411.3**
0.3	0.5	0.6	1.4	1.9	2.2	4.1	3.0	2.9	5.0	7.0
0.1	0.6	1.5	1.6	4.4	11.4	15.0	18.7	22.1	20.9	15.0
1.6	4.7	11.2	30.1	67.3	135.1	234.5	335.8	403.6	453.0	383.5
0.0	0.4	0.1	0.1	0.6	0.1	0.7	1.9	1.0	3.2	5.9
0.8	**0.5**	**0.9**	**1.0**	**1.6**	**1.2**	**3.0**	**2.6**	**2.2**	**0.9**	**2.7**
12.0	**25.8**	**28.1**	**42.7**	**57.4**	**75.3**	**109.7**	**147.9**	**163.6**	**194.5**	**195.2**
3.1	**4.1**	**6.5**	**9.5**	**17.1**	**40.9**	**80.7**	**145.7**	**273.3**	**434.9**	**666.6**
0.0	**0.0**	**0.2**	**0.9**	**1.8**	**4.3**	**8.3**	**15.9**	**19.9**	**21.4**	**18.2**
0.0	**0.1**	**0.0**	**0.2**	**0.0**	**0.3**	**0.6**	**0.4**	**0.0**	**0.0**	**0.0**
1.1	**1.1**	**2.8**	**3.3**	**3.8**	**5.8**	**5.6**	**9.9**	**8.3**	**10.5**	**13.9**
0.1	**0.7**	**0.1**	**1.0**	**1.3**	**1.9**	**4.1**	**5.0**	**5.1**	**6.4**	**10.2**
30.7	**25.5**	**46.8**	**110.3**	**303.8**	**562.2**	**898.1**	**1 019.8**	**1 038.7**	**923.4**	**854.9**
0.3	4.4	28.0	97.2	293.2	554.4	889.7	1 008.8	1 024.9	904.7	836.1
29.7	20.4	17.3	9.9	7.5	3.3	3.1	2.4	1.6	2.3	3.8
0.7	0.7	1.5	3.3	3.0	4.4	5.3	8.6	12.2	16.4	15.0
7.4	**16.0**	**27.8**	**50.3**	**86.2**	**139.3**	**206.4**	**314.7**	**406.4**	**467.6**	**468.7**
5.2	9.6	15.1	28.8	41.6	55.2	71.1	92.1	99.1	78.2	60.6
2.2	6.5	12.8	21.5	44.5	84.0	135.3	222.6	307.3	389.4	408.1
0.7	**1.1**	**1.3**	**1.9**	**2.5**	**3.9**	**4.0**	**5.2**	**4.8**	**5.9**	**6.4**
11.1	**13.8**	**17.9**	**22.6**	**27.8**	**36.9**	**40.7**	**49.9**	**56.5**	**66.8**	**47.2**
4.4	**4.0**	**5.1**	**5.8**	**6.8**	**8.0**	**10.5**	**10.1**	**12.8**	**12.3**	**10.2**
2.6	**3.6**	**3.9**	**5.6**	**8.1**	**7.9**	**9.9**	**9.9**	**11.5**	**11.8**	**8.0**
0.2	**1.3**	**1.7**	**3.5**	**4.0**	**7.9**	**15.4**	**21.7**	**28.6**	**48.6**	**86.9**
15.3	**22.9**	**35.3**	**47.3**	**72.7**	**117.2**	**169.5**	**228.4**	**295.8**	**363.1**	**344.8**
3.7	3.4	5.0	3.3	3.9	4.8	4.3	4.3	5.5	1.8	4.3
5.7	9.5	12.2	20.3	27.4	45.6	70.3	87.6	110.4	121.8	106.7
0.0	0.4	0.6	0.3	2.4	2.6	5.3	7.7	9.6	15.9	6.4
0.9	2.1	4.7	5.7	10.9	19.1	24.3	37.5	50.0	69.5	66.5
4.9	7.5	12.8	17.7	28.1	45.0	65.3	91.3	120.3	154.0	160.9

Table 5.12: Age-specific incidence rates per 100 000 person-years by primary site and five-year age group, 2012–2016, **females**

ICD-10	Site	0–4	5–9	10–14	15–19	20–24	25–29	30–34
C00–96	**All sites**	**19.9**	**9.6**	**13.4**	**27.3**	**44.5**	**77.2**	**117.7**
C00–14	**Mouth, pharynx**	**0.3**	**0.0**	**0.4**	**0.5**	**0.6**	**0.9**	**1.3**
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	0.2	0.5	0.2
C03–06	Mouth, other	0.0	0.0	0.1	0.1	0.1	0.1	0.1
C07–08	Salivary glands	0.0	0.0	0.3	0.1	0.1	0.2	1.0
C09–14	Pharynx	0.1	0.0	0.0	0.1	0.1	0.1	0.0
C15–26	**Digestive organs**	**0.4**	**0.3**	**1.1**	**2.2**	**3.3**	**5.8**	**9.0**
C15	Oesophagus	0.0	0.0	0.0	0.0	0.1	0.0	0.1
C16	Stomach	0.0	0.0	0.0	0.0	0.1	0.1	0.1
C17	Small intestine	0.0	0.0	0.0	0.0	0.1	0.1	0.5
C18	Colon	0.0	0.1	1.1	1.9	2.3	4.1	4.8
C19–20	Rectum, rectosigmoid	0.0	0.0	0.0	0.0	0.0	0.8	2.2
C21	Anus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C22	Liver	0.4	0.1	0.0	0.1	0.4	0.0	0.2
C23–24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.0	0.2
C25	Pancreas	0.0	0.0	0.0	0.1	0.2	0.2	0.8
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.4	0.0
C30–34, C38	**Respiratory organs**	**0.1**	**0.1**	**0.0**	**0.3**	**0.4**	**0.9**	**1.7**
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	0.1	0.1	0.0	0.1	0.4	0.7	1.3
C38	Heart, mediastinum and pleura	0.0	0.0	0.0	0.0	0.0	0.0	0.1
C40–41	**Bone**	**0.3**	**0.5**	**0.4**	**0.8**	**1.1**	**0.7**	**1.2**
C43	**Melanoma of the skin**	**0.1**	**0.1**	**0.8**	**2.4**	**6.5**	**11.5**	**14.4**
C44	**Skin, non-melanoma**	**0.1**	**0.4**	**0.0**	**0.9**	**0.8**	**1.1**	**1.3**
C45	**Mesothelioma**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**
C47	**Autonomic nervous system**	**0.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**
C48–49	**Soft tissues**	**0.9**	**0.3**	**0.5**	**0.5**	**0.8**	**1.2**	**1.0**
C50	**Breast**	**0.0**	**0.0**	**0.0**	**0.1**	**1.4**	**9.9**	**23.8**
C51–58	**Female genital organs**	**0.1**	**0.1**	**0.4**	**1.8**	**5.3**	**17.5**	**27.4**
C51–52, C57.7–9	Other female genital	0.0	0.0	0.1	0.0	0.1	0.2	0.7
C53	Cervix uteri	0.0	0.0	0.0	0.1	3.6	13.6	21.9
C54	Corpus uteri	0.0	0.0	0.0	0.1	0.1	0.7	1.8
C55	Uterus, other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C56, C57.0–4	Ovary etc.	0.1	0.1	0.3	1.5	1.2	2.6	2.8
C58	Placenta	0.0	0.0	0.0	0.0	0.2	0.4	0.2
C64–68	**Urinary organs**	**3.1**	**0.3**	**0.0**	**0.1**	**1.0**	**0.9**	**1.7**
C64	Kidney (excl. renal pelvis)	2.9	0.3	0.0	0.1	0.2	0.5	1.1
C65–68	Urinary tract	0.1	0.0	0.0	0.0	0.7	0.5	0.6
C69	**Eye**	**0.7**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.8**
C70–72	**Central nervous system**	**3.5**	**3.3**	**3.0**	**4.4**	**5.9**	**6.9**	**9.6**
C73	**Thyroid gland**	**0.0**	**0.3**	**0.9**	**1.6**	**4.3**	**6.9**	**9.3**
C37, C74–75	**Other endocrine glands**	**0.7**	**0.3**	**0.5**	**2.2**	**4.1**	**3.6**	**4.1**
C39, C76, C80	**Other or unspecified**	**0.0**	**0.1**	**0.0**	**0.1**	**0.2**	**0.1**	**0.4**
C81–96	**Lymphoid/haematopoietic tissue**	**9.0**	**3.5**	**5.3**	**9.2**	**8.7**	**9.2**	**10.5**
C81	Hodgkin lymphoma	0.1	0.0	1.6	4.9	4.8	3.3	2.6
C82–86, C96	Non-Hodgkin lymphoma	1.6	0.7	1.1	1.1	1.6	2.1	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	0.1	0.0	0.0	0.1
C91–95	Leukaemia	7.3	2.9	2.7	3.0	2.3	3.8	4.1

35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	75–79	80–84	85+
199.4	**289.8**	**435.3**	**618.0**	**801.3**	**1 114.8**	**1 499.0**	**1 761.5**	**2 101.9**	**2 349.4**	**2 376.4**
2.3	**3.3**	**5.6**	**8.5**	**13.6**	**19.9**	**19.5**	**20.4**	**28.9**	**34.1**	**39.0**
0.4	0.3	0.6	0.7	2.1	4.2	4.3	5.2	6.6	12.9	14.2
0.4	0.4	2.2	2.3	3.4	5.0	5.6	5.0	6.9	8.1	6.7
0.2	0.8	0.3	1.2	2.3	3.1	3.7	5.0	6.4	7.1	11.1
1.0	0.4	0.9	1.8	0.6	1.7	1.6	1.6	4.2	3.9	4.4
0.4	1.3	1.6	2.3	5.2	5.9	4.4	3.6	4.8	2.3	2.6
17.4	**23.5**	**45.3**	**83.0**	**122.1**	**194.2**	**309.6**	**441.0**	**585.0**	**713.5**	**691.0**
0.0	0.4	0.9	1.5	2.6	4.1	8.7	11.0	15.1	12.9	16.5
2.2	1.7	3.1	6.4	5.6	10.1	15.9	21.0	27.6	40.3	45.5
0.6	0.9	1.9	2.1	3.1	5.0	7.5	9.2	9.0	14.2	10.3
6.6	8.8	18.5	35.7	51.9	84.3	138.4	222.9	310.0	386.5	352.4
4.6	6.3	11.5	19.5	29.4	43.7	59.4	74.9	92.4	104.7	96.4
0.7	1.8	2.7	3.1	4.7	3.9	7.3	7.4	6.6	10.3	5.7
0.5	0.7	1.2	2.5	3.6	5.7	8.8	14.8	15.9	19.6	18.9
0.7	0.3	0.8	2.6	3.8	6.0	11.3	13.2	17.5	21.9	20.9
1.3	2.0	3.3	7.7	15.2	25.8	44.7	58.3	75.4	85.0	99.2
0.2	0.7	1.3	2.0	2.3	5.6	7.6	8.4	15.4	18.0	25.3
2.3	**5.7**	**16.8**	**36.0**	**74.2**	**126.0**	**208.2**	**275.0**	**276.8**	**267.0**	**159.6**
0.2	0.2	0.4	0.6	1.0	1.4	0.6	2.8	2.7	5.5	3.9
0.4	0.3	0.6	1.1	1.9	1.1	2.9	2.0	4.2	1.9	1.8
1.7	5.2	15.8	34.0	70.9	122.9	203.9	270.0	269.4	259.3	151.4
0.0	0.0	0.0	0.2	0.3	0.6	0.7	0.2	0.5	0.3	2.6
0.5	**1.0**	**1.1**	**0.1**	**0.4**	**1.4**	**1.9**	**1.8**	**1.6**	**2.6**	**1.3**
26.9	**38.3**	**47.3**	**47.4**	**56.3**	**69.2**	**81.5**	**101.5**	**98.5**	**109.5**	**117.5**
1.4	**4.3**	**6.1**	**9.8**	**19.2**	**29.8**	**54.4**	**95.3**	**165.4**	**232.2**	**409.2**
0.1	**0.0**	**0.1**	**0.5**	**0.3**	**1.3**	**1.8**	**1.4**	**3.5**	**2.6**	**1.8**
0.1	**0.6**	**0.0**	**0.0**	**0.0**	**0.4**	**0.3**	**0.4**	**0.0**	**0.0**	**0.3**
1.0	**2.0**	**2.6**	**3.2**	**4.9**	**7.7**	**8.1**	**10.6**	**9.6**	**11.0**	**6.5**
59.4	**106.1**	**175.4**	**241.2**	**250.3**	**315.9**	**352.5**	**252.3**	**293.6**	**285.1**	**297.1**
39.2	**45.5**	**57.3**	**79.3**	**108.1**	**136.8**	**174.1**	**195.7**	**210.2**	**201.0**	**179.0**
1.1	2.1	3.4	3.6	6.2	7.7	10.4	10.4	16.2	20.6	35.1
28.7	27.2	25.0	14.0	14.4	14.1	15.0	14.4	13.0	13.5	13.7
3.6	7.6	14.8	33.8	51.3	71.8	93.6	111.7	121.0	108.5	72.6
0.0	0.1	0.3	0.4	0.1	0.3	0.7	1.2	0.8	2.9	4.4
5.6	8.3	13.8	27.5	36.0	42.8	54.4	58.1	59.2	55.4	53.2
0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4.2	**7.7**	**11.3**	**19.1**	**34.1**	**51.0**	**77.9**	**107.5**	**129.3**	**144.9**	**133.0**
2.8	5.5	6.4	10.8	11.5	20.9	30.7	42.9	41.4	39.6	30.2
1.4	2.2	4.9	8.3	22.6	30.1	47.2	64.5	87.9	105.3	102.8
0.7	**1.0**	**0.9**	**1.8**	**2.3**	**2.4**	**7.3**	**4.4**	**3.7**	**4.2**	**1.8**
12.2	**18.1**	**22.0**	**28.7**	**33.5**	**42.4**	**48.2**	**52.9**	**48.3**	**56.7**	**43.4**
14.3	**13.5**	**16.3**	**16.2**	**13.2**	**16.0**	**17.6**	**22.0**	**16.7**	**11.6**	**10.8**
4.4	**4.5**	**5.6**	**4.9**	**6.1**	**5.7**	**6.5**	**6.6**	**8.2**	**5.5**	**4.4**
0.7	**0.4**	**0.9**	**3.1**	**5.1**	**6.4**	**9.1**	**14.4**	**33.4**	**40.3**	**76.5**
12.4	**14.1**	**20.8**	**35.2**	**57.7**	**88.3**	**120.6**	**158.4**	**189.2**	**227.7**	**204.1**
3.5	1.8	2.0	0.9	1.6	2.7	3.1	2.6	3.2	6.1	1.5
3.7	4.6	6.9	15.7	23.9	35.4	47.7	67.3	71.1	79.9	64.3
0.0	0.0	0.6	0.2	0.8	2.7	3.2	3.4	5.6	7.1	3.1
0.6	1.4	2.1	5.2	10.5	14.8	19.1	21.8	38.8	41.2	38.7
4.6	6.3	9.2	13.3	21.0	32.8	47.5	63.3	70.6	93.4	96.4

Table 5.13: Average annual number of new cases by primary site and five-year period, 1957–2016, **males**

ICD-10	Site	1957–61	1962–66	1967–71	1972–76	1977–81
C00–96	**All sites**	**4 092**	**4 716**	**5 596**	**6 512**	**7 628**
C00–14	**Mouth, pharynx**	**187**	**188**	**214**	**244**	**234**
C00	Lip	97	94	112	118	111
C01–02	Tongue	20	22	21	28	27
C03–06	Mouth, other	23	22	31	30	38
C07–08	Salivary glands	12	13	14	14	14
C09–14	Pharynx	34	38	35	55	45
C15–26	**Digestive organs**	**1 659**	**1 740**	**1 892**	**1 976**	**2 193**
C15	Oesophagus	77	78	80	82	89
C16	Stomach	843	786	745	650	601
C17	Small intestine	10	13	18	18	19
C18	Colon	246	306	369	416	541
C19–20	Rectum, rectosigmoid	153	186	271	328	449
C21	Anus	5	7	5	7	9
C22	Liver	22	23	41	54	49
C23–24	Gallbladder, bile ducts	21	22	27	29	38
C25	Pancreas	148	185	226	251	271
C26	Other digestive organs	134	135	109	142	127
C30–34, C38	**Respiratory organs**	**350**	**477**	**675**	**826**	**1 052**
C30–31	Nose, sinuses	19	21	21	23	25
C32	Larynx, epiglottis	34	50	67	74	93
C33–34	Lung, trachea	284	396	574	710	915
C38	Heart, mediastinum and pleura	13	10	13	19	19
C40–41	**Bone**	**12**	**17**	**18**	**22**	**21**
C43	**Melanoma of the skin**	**56**	**80**	**117**	**161**	**220**
C44	**Skin, non-melanoma**	**83**	**68**	**106**	**184**	**225**
C45	**Mesothelioma**	**1**	**2**	**4**	**9**	**21**
C47	**Autonomic nervous system**	**19**	**15**	**14**	**12**	**8**
C48–49	**Soft tissues**	**24**	**29**	**38**	**53**	**57**
C50	**Breast**	**7**	**8**	**9**	**10**	**11**
C60–63	**Male genital organs**	**764**	**961**	**1 157**	**1 387**	**1 666**
C61	Prostate	689	871	1 057	1 281	1 524
C62	Testis	55	68	78	84	115
C60, C63	Other male genital	19	23	23	21	27
C64–68	**Urinary organs**	**321**	**431**	**516**	**676**	**818**
C64	Kidney (excl. renal pelvis)	106	128	158	177	210
C65–68	Urinary tract	215	302	358	499	607
C69	**Eye**	**20**	**17**	**24**	**18**	**27**
C70–72	**Central nervous system**	**125**	**135**	**150**	**168**	**195**
C73	**Thyroid gland**	**20**	**26**	**35**	**36**	**44**
C37, C74–75	**Other endocrine glands**	**7**	**10**	**21**	**25**	**32**
C39, C76, C80	**Other or unspecified**	**63**	**88**	**127**	**160**	**185**
C81–96	**Lymphoid/haematopoietic tissue**	**375**	**424**	**480**	**546**	**621**
C81	Hodgkin lymphoma	47	53	61	61	68
C82–86, C96	Non-Hodgkin lymphoma	94	107	117	142	166
C88	Immunoproliferative disease	0	0	2	7	8
C90	Multiple myeloma	73	83	95	126	151
C91–95	Leukaemia	162	180	205	210	229

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
8 619	**9 301**	**10 469**	**11 430**	**12 974**	**15 223**	**17 284**
253	**251**	**257**	**260**	**258**	**306**	**380**
101	91	72	61	51	72	68
36	36	43	49	49	65	83
45	47	56	45	48	48	59
15	18	18	23	20	21	36
56	60	68	82	89	101	134
2 373	**2 385**	**2 463**	**2 567**	**2 725**	**3 022**	**3 487**
84	103	107	121	138	162	206
579	518	449	381	327	305	297
30	26	32	48	53	75	100
674	760	850	948	1 038	1 186	1 367
513	527	563	601	661	697	795
12	11	19	17	19	22	24
68	60	59	70	81	110	161
47	49	53	61	63	69	83
297	294	281	276	310	344	391
68	36	51	43	35	53	62
1 223	**1 285**	**1 394**	**1 440**	**1 560**	**1 672**	**1 747**
21	24	21	23	22	23	27
107	105	105	107	105	97	97
1 084	1 147	1 253	1 295	1 421	1 541	1 613
12	8	15	16	13	11	10
24	**20**	**21**	**21**	**25**	**27**	**29**
263	**380**	**427**	**470**	**520**	**715**	**974**
301	**393**	**481**	**568**	**671**	**808**	**992**
27	**37**	**44**	**56**	**65**	**68**	**66**
8	**8**	**6**	**6**	**5**	**7**	**5**
45	**43**	**48**	**50**	**56**	**61**	**69**
12	**13**	**13**	**15**	**15**	**19**	**28**
1 890	**2 116**	**2 676**	**3 220**	**3 817**	**4 839**	**5 358**
1 711	1 921	2 439	2 952	3 527	4 501	4 989
151	170	204	238	248	293	310
29	25	33	30	42	45	59
959	**1 011**	**1 104**	**1 103**	**1 260**	**1 429**	**1 743**
249	254	268	293	356	449	563
710	757	836	810	904	980	1 180
25	**23**	**29**	**27**	**34**	**32**	**39**
220	**242**	**289**	**358**	**440**	**498**	**472**
46	**50**	**42**	**49**	**60**	**71**	**110**
43	**42**	**55**	**68**	**94**	**132**	**109**
229	**279**	**299**	**272**	**220**	**165**	**144**
678	**723**	**822**	**880**	**1 148**	**1 352**	**1 532**
52	51	52	58	71	77	88
218	272	324	355	408	489	561
10	8	18	22	33	33	40
152	154	166	166	182	212	224
245	238	262	279	454	541	617

Table 5.14: Average annual number of new cases by primary site and five-year period, 1957–2016, **females**

ICD-10	Site	1957–61	1962–66	1967–71	1972–76	1977–81
C00–96	**All sites**	**4 233**	**4 670**	**5 457**	**6 210**	**7 098**
C00–14	**Mouth, pharynx**	**60**	**69**	**72**	**80**	**90**
C00	Lip	8	8	11	11	16
C01–02	Tongue	11	14	17	17	17
C03–06	Mouth, other	11	13	16	16	23
C07–08	Salivary glands	8	14	13	12	15
C09–14	Pharynx	22	20	15	24	19
C15–26	**Digestive organs**	**1 391**	**1 467**	**1 610**	**1 728**	**2 035**
C15	Oesophagus	23	32	28	31	31
C16	Stomach	580	532	492	419	407
C17	Small intestine	8	11	15	18	21
C18	Colon	286	359	438	513	692
C19–20	Rectum, rectosigmoid	120	140	216	261	361
C21	Anus	6	10	13	13	20
C22	Liver	12	13	23	30	36
C23–24	Gallbladder, bile ducts	49	52	59	56	73
C25	Pancreas	105	124	167	189	224
C26	Other digestive organs	202	195	159	199	171
C30–34, C38	**Respiratory organs**	**93**	**111**	**167**	**202**	**257**
C30–31	Nose, sinuses	13	12	14	13	13
C32	Larynx, epiglottis	2	5	6	7	11
C33–34	Lung, trachea	73	87	143	173	227
C38	Heart, mediastinum and pleura	4	7	5	9	6
C40–41	**Bone**	**10**	**9**	**14**	**13**	**14**
C43	**Melanoma of the skin**	**60**	**93**	**128**	**200**	**264**
C44	**Skin, non-melanoma**	**53**	**40**	**59**	**115**	**153**
C45	**Mesothelioma**	**0**	**1**	**2**	**2**	**2**
C47	**Autonomic nervous system**	**16**	**9**	**16**	**9**	**5**
C48–49	**Soft tissues**	**18**	**27**	**29**	**43**	**43**
C50	**Breast**	**941**	**1 072**	**1 230**	**1 408**	**1 535**
C51–58	**Female genital organs**	**893**	**963**	**1 125**	**1 238**	**1 279**
C51–52, C57.7–9	Other female genital	64	61	60	75	81
C53	Cervix uteri	348	361	403	440	399
C54	Corpus uteri	181	221	268	326	370
C55	Uterus, other	24	17	15	7	8
C56, C57.0–4	Ovary etc.	273	300	375	386	417
C58	Placenta	3	3	4	2	3
C64–68	**Urinary organs**	**200**	**226**	**273**	**327**	**377**
C64	Kidney (excl. renal pelvis)	78	90	117	118	138
C65–68	Urinary tract	123	135	156	209	240
C69	**Eye**	**15**	**16**	**18**	**20**	**21**
C70–72	**Central nervous system**	**111**	**119**	**131**	**151**	**186**
C73	**Thyroid gland**	**53**	**61**	**90**	**110**	**132**
C37, C74–75	**Other endocrine glands**	**6**	**7**	**13**	**16**	**33**
C39, C76, C80	**Other or unspecified**	**54**	**70**	**99**	**111**	**176**
C81–96	**Lymphoid/haematopoietic tissue**	**259**	**312**	**382**	**437**	**496**
C81	Hodgkin lymphoma	33	37	47	43	40
C82–86, C96	Non-Hodgkin lymphoma	59	76	101	114	146
C88	Immunoproliferative disease	0	0	1	4	4
C90	Multiple myeloma	40	64	79	108	128
C91–95	Leukaemia	127	135	155	168	177

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
7 922	**8 551**	**9 563**	**10 559**	**11 947**	**13 102**	**14 665**
103	**108**	**131**	**128**	**152**	**184**	**210**
21	27	29	26	32	46	48
24	22	24	27	30	32	51
25	29	36	32	38	41	41
13	12	20	20	19	25	26
20	18	21	24	33	40	43
2 168	**2 204**	**2 362**	**2 476**	**2 593**	**2 782**	**3 071**
34	39	40	51	53	59	70
387	341	296	242	230	205	170
27	31	29	43	49	62	66
785	884	1 018	1 116	1 207	1 313	1 500
405	422	455	477	499	520	549
25	28	36	35	45	45	60
44	42	42	47	46	68	90
82	75	73	80	78	86	94
274	281	311	326	340	362	392
104	61	63	60	47	62	81
350	**480**	**623**	**767**	**969**	**1 232**	**1 460**
15	14	17	15	18	20	19
11	11	20	20	16	19	20
320	450	580	725	928	1 186	1 415
4	5	7	7	6	7	6
14	**14**	**18**	**19**	**18**	**24**	**24**
359	**442**	**490**	**513**	**581**	**734**	**967**
226	**304**	**396**	**469**	**584**	**716**	**872**
5	**7**	**10**	**9**	**12**	**13**	**13**
6	**9**	**7**	**5**	**5**	**4**	**4**
47	**46**	**46**	**60**	**78**	**90**	**83**
1 714	**1 818**	**2 083**	**2 471**	**2 748**	**2 829**	**3 254**
1 287	**1 317**	**1 390**	**1 426**	**1 540**	**1 610**	**1 684**
82	85	95	96	101	104	117
352	345	344	310	300	295	336
390	411	467	526	649	722	742
5	6	8	9	9	7	10
454	464	472	482	477	480	477
3	6	4	4	4	2	2
418	**447**	**482**	**499**	**566**	**616**	**713**
156	181	191	189	216	250	263
263	266	291	309	350	366	450
21	**25**	**30**	**28**	**32**	**33**	**38**
223	**260**	**318**	**434**	**596**	**627**	**535**
142	**135**	**136**	**124**	**153**	**189**	**260**
46	**39**	**49**	**65**	**106**	**137**	**105**
224	**285**	**317**	**303**	**279**	**195**	**163**
566	**611**	**674**	**763**	**935**	**1 087**	**1 210**
38	34	34	42	48	55	63
199	243	277	327	356	402	444
6	8	12	13	21	23	25
133	134	141	150	153	164	186
190	193	209	230	357	443	491

Table 5.15: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and five-year period, 1957–2016, **males**

ICD-10	Site	1957–61	1962–66	1967–71	1972–76	1977–81
C00–96	**All sites**	**336.5**	**357.8**	**393.7**	**429.2**	**476.2**
C00–14	**Mouth, pharynx**	**15.5**	**14.5**	**15.2**	**15.8**	**14.6**
C00	Lip	8.4	7.6	8.3	7.7	7.2
C01–02	Tongue	1.6	1.6	1.5	1.9	1.6
C03–06	Mouth, other	1.9	1.9	2.1	2.0	2.4
C07–08	Salivary glands	0.8	0.8	1.0	0.9	0.9
C09–14	Pharynx	2.8	2.6	2.3	3.4	2.6
C15–26	**Digestive organs**	**140.5**	**134.8**	**136.0**	**133.7**	**139.9**
C15	Oesophagus	6.8	6.1	5.8	5.5	5.6
C16	Stomach	71.9	61.1	54.4	44.3	38.4
C17	Small intestine	0.8	0.9	1.2	1.1	1.2
C18	Colon	20.8	23.8	26.6	28.3	34.7
C19–20	Rectum, rectosigmoid	13.1	14.2	19.2	21.8	28.5
C21	Anus	0.4	0.5	0.4	0.5	0.5
C22	Liver	1.6	1.6	2.8	3.4	2.9
C23–24	Gallbladder, bile ducts	1.7	1.6	1.9	2.0	2.5
C25	Pancreas	11.6	13.6	15.6	16.4	16.8
C26	Other digestive organs	11.9	11.3	8.1	10.4	8.8
C30–34, C38	**Respiratory organs**	**25.4**	**32.4**	**42.7**	**49.5**	**60.9**
C30–31	Nose, sinuses	1.6	1.6	1.3	1.4	1.4
C32	Larynx, epiglottis	2.5	3.4	4.3	4.4	5.4
C33–34	Lung, trachea	20.4	26.6	36.2	42.6	53.0
C38	Heart, mediastinum and pleura	0.9	0.7	0.8	1.1	1.1
C40–41	**Bone**	**0.7**	**1.0**	**0.9**	**1.2**	**1.1**
C43	**Melanoma of the skin**	**3.9**	**5.3**	**7.5**	**9.7**	**12.9**
C44	**Skin, non-melanoma**	**8.0**	**6.3**	**8.9**	**14.8**	**16.1**
C45	**Mesothelioma**	**0.0**	**0.2**	**0.3**	**0.5**	**1.2**
C47	**Autonomic nervous system**	**1.3**	**0.9**	**0.8**	**0.6**	**0.4**
C48–49	**Soft tissues**	**1.9**	**1.9**	**2.6**	**3.4**	**3.4**
C50	**Breast**	**0.6**	**0.7**	**0.6**	**0.6**	**0.7**
C60–63	**Male genital organs**	**70.6**	**81.6**	**89.6**	**98.0**	**109.5**
C61	Prostate	65.6	75.5	83.3	91.9	101.8
C62	Testis	3.4	4.1	4.5	4.6	5.9
C60, C63	Other male genital	1.7	2.0	1.8	1.5	1.7
C64–68	**Urinary organs**	**25.4**	**32.0**	**34.9**	**43.2**	**49.9**
C64	Kidney (excl. renal pelvis)	7.8	9.2	10.2	10.8	12.4
C65–68	Urinary tract	17.6	22.8	24.6	32.3	37.5
C69	**Eye**	**1.4**	**1.1**	**1.4**	**1.0**	**1.6**
C70–72	**Central nervous system**	**7.6**	**7.9**	**8.4**	**9.2**	**10.6**
C73	**Thyroid gland**	**1.5**	**1.8**	**2.2**	**2.2**	**2.6**
C37, C74–75	**Other endocrine glands**	**0.4**	**0.6**	**1.2**	**1.3**	**1.7**
C39, C76, C80	**Other or unspecified**	**4.9**	**6.4**	**9.3**	**10.7**	**11.7**
C81–96	**Lymphoid/haematopoietic tissue**	**26.8**	**28.4**	**31.4**	**33.8**	**37.4**
C81	Hodgkin lymphoma	3.1	3.3	3.6	3.5	3.5
C82–86, C96	Non-Hodgkin lymphoma	6.6	7.1	7.6	8.8	9.8
C88	Immunoproliferative disease	0.0	0.0	0.2	0.4	0.5
C90	Multiple myeloma	5.8	6.0	6.7	8.2	9.5
C91–95	Leukaemia	11.3	12.0	13.3	12.9	14.0

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
513.1	**536.5**	**588.0**	**623.3**	**673.8**	**719.8**	**728.7**
15.0	**14.6**	**14.3**	**14.0**	**13.0**	**14.0**	**15.6**
6.2	5.4	4.0	3.4	2.8	3.5	2.9
2.0	2.0	2.3	2.6	2.4	2.9	3.3
2.7	2.8	3.1	2.4	2.4	2.2	2.4
0.8	1.0	1.0	1.3	1.0	1.0	1.5
3.2	3.4	3.9	4.2	4.4	4.4	5.3
144.4	**139.9**	**140.5**	**141.7**	**143.2**	**144.8**	**148.5**
5.0	5.9	6.1	6.6	7.3	7.6	8.7
35.6	30.7	25.7	21.2	17.5	14.7	12.8
1.8	1.5	1.7	2.6	2.6	3.4	4.2
40.9	44.9	48.4	52.2	54.7	57.5	59.0
30.7	30.5	32.0	33.0	34.5	32.9	33.3
0.8	0.6	1.1	0.9	0.9	1.0	1.0
4.0	3.5	3.1	3.8	4.2	5.2	6.7
2.8	2.8	3.1	3.5	3.3	3.3	3.5
18.1	17.1	16.0	15.3	16.3	16.6	16.7
4.8	2.3	3.2	2.6	1.9	2.6	2.7
69.5	**71.7**	**77.1**	**77.3**	**80.5**	**79.1**	**74.2**
1.3	1.3	1.2	1.1	1.1	1.1	1.1
6.0	6.0	5.9	5.7	5.4	4.5	4.0
61.5	63.9	69.3	69.7	73.4	73.0	68.6
0.7	0.5	0.8	0.8	0.6	0.5	0.5
1.2	**1.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.1**
14.8	**21.0**	**22.7**	**24.2**	**25.6**	**32.6**	**40.4**
20.0	**24.7**	**28.8**	**32.9**	**36.8**	**41.5**	**46.1**
1.5	**2.1**	**2.5**	**3.0**	**3.4**	**3.3**	**2.8**
0.4	**0.4**	**0.3**	**0.3**	**0.2**	**0.3**	**0.2**
2.5	**2.3**	**2.6**	**2.6**	**2.7**	**2.8**	**2.8**
0.8	**0.8**	**0.7**	**0.9**	**0.8**	**0.9**	**1.2**
114.6	**123.3**	**151.5**	**178.5**	**201.1**	**228.3**	**221.6**
105.8	114.1	140.8	166.7	188.3	214.2	207.2
7.1	7.7	8.9	10.1	10.6	12.0	11.8
1.7	1.5	1.8	1.6	2.2	2.1	2.5
56.6	**58.7**	**62.4**	**60.3**	**65.5**	**67.9**	**74.2**
14.4	14.5	14.7	15.6	17.9	20.5	22.8
42.3	44.1	47.7	44.6	47.6	47.4	51.4
1.4	**1.2**	**1.6**	**1.4**	**1.7**	**1.4**	**1.6**
11.7	**12.8**	**14.9**	**17.6**	**20.8**	**22.0**	**19.0**
2.5	**2.7**	**2.2**	**2.4**	**2.8**	**3.1**	**4.4**
2.2	**2.2**	**2.8**	**3.3**	**4.4**	**5.7**	**4.3**
14.2	**16.7**	**17.5**	**15.2**	**12.0**	**8.3**	**6.5**
39.6	**40.5**	**44.6**	**46.8**	**57.9**	**62.7**	**64.2**
2.8	2.5	2.4	2.7	3.2	3.3	3.4
12.6	15.0	17.4	18.7	20.3	22.5	23.3
0.6	0.5	1.0	1.2	1.7	1.6	1.7
9.3	9.1	9.5	9.2	9.5	10.0	9.6
14.4	13.5	14.3	15.0	23.2	25.4	26.1

Table 5.16: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and five-year period, 1957–2016, **females**

ICD-10	Site	1957–61	1962–66	1967–71	1972–76	1977–81
C00–96	**All sites**	**286.6**	**293.0**	**314.1**	**336.4**	**361.6**
C00–14	**Mouth, pharynx**	**4.4**	**4.5**	**4.3**	**4.4**	**4.6**
C00	Lip	0.6	0.6	0.7	0.6	0.8
C01–02	Tongue	0.8	1.0	1.0	0.9	0.9
C03–06	Mouth, other	0.9	0.9	1.0	0.9	1.2
C07–08	Salivary glands	0.6	0.8	0.8	0.7	0.7
C09–14	Pharynx	1.5	1.2	0.9	1.3	0.9
C15–26	**Digestive organs**	**102.8**	**98.6**	**95.4**	**93.9**	**101.3**
C15	Oesophagus	1.7	2.3	1.7	1.6	1.6
C16	Stomach	43.6	36.8	29.4	22.9	20.2
C17	Small intestine	0.5	0.7	0.8	1.0	1.0
C18	Colon	20.7	23.6	25.6	27.7	34.5
C19–20	Rectum, rectosigmoid	8.6	8.8	12.6	14.1	18.0
C21	Anus	0.5	0.6	0.7	0.7	1.0
C22	Liver	0.9	0.8	1.3	1.5	1.8
C23–24	Gallbladder, bile ducts	3.4	3.4	3.4	3.0	3.5
C25	Pancreas	7.3	7.8	9.7	10.0	10.9
C26	Other digestive organs	15.8	13.8	10.0	11.5	8.9
C30–34, C38	**Respiratory organs**	**6.4**	**6.9**	**9.6**	**10.5**	**12.8**
C30–31	Nose, sinuses	1.0	0.8	0.9	0.7	0.6
C32	Larynx, epiglottis	0.1	0.3	0.3	0.4	0.6
C33–34	Lung, trachea	4.9	5.3	8.1	9.0	11.4
C38	Heart, mediastinum and pleura	0.3	0.4	0.3	0.5	0.3
C40–41	**Bone**	**0.5**	**0.5**	**0.7**	**0.7**	**0.6**
C43	**Melanoma of the skin**	**3.9**	**5.6**	**7.5**	**11.2**	**14.1**
C44	**Skin, non-melanoma**	**3.9**	**3.0**	**3.7**	**6.8**	**8.1**
C45	**Mesothelioma**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**
C47	**Autonomic nervous system**	**1.0**	**0.5**	**0.8**	**0.5**	**0.3**
C48–49	**Soft tissues**	**1.1**	**1.7**	**1.6**	**2.4**	**2.2**
C50	**Breast**	**61.1**	**65.6**	**70.2**	**77.0**	**80.1**
C51–58	**Female genital organs**	**56.0**	**57.0**	**63.5**	**67.0**	**66.8**
C51–52, C57.7–9	Other female genital	4.5	3.9	3.5	4.0	4.1
C53	Cervix uteri	20.9	21.2	23.1	24.8	21.5
C54	Corpus uteri	11.3	12.9	14.7	17.1	19.1
C55	Uterus, other	1.8	1.2	1.0	0.4	0.5
C56, C57.0–4	Ovary etc.	17.2	17.7	20.9	20.5	21.5
C58	Placenta	0.2	0.2	0.2	0.1	0.1
C64–68	**Urinary organs**	**13.8**	**14.2**	**15.6**	**17.2**	**18.5**
C64	Kidney (excl. renal pelvis)	5.1	5.4	6.5	6.1	6.7
C65–68	Urinary tract	8.8	8.8	9.1	11.1	11.8
C69	**Eye**	**0.9**	**0.9**	**1.0**	**1.1**	**1.1**
C70–72	**Central nervous system**	**6.6**	**6.8**	**7.1**	**7.8**	**9.5**
C73	**Thyroid gland**	**3.5**	**3.9**	**5.2**	**6.0**	**6.9**
C37, C74–75	**Other endocrine glands**	**0.4**	**0.4**	**0.7**	**0.9**	**1.7**
C39, C76, C80	**Other or unspecified**	**3.7**	**4.3**	**5.9**	**6.0**	**8.7**
C81–96	**Lymphoid/haematopoietic tissue**	**16.5**	**18.6**	**21.3**	**23.0**	**24.3**
C81	Hodgkin lymphoma	2.0	2.2	2.6	2.3	1.9
C82–86, C96	Non-Hodgkin lymphoma	3.8	4.6	5.7	6.1	7.3
C88	Immunoproliferative disease	0.0	0.0	0.0	0.2	0.2
C90	Multiple myeloma	2.7	3.9	4.5	5.6	6.2
C91–95	Leukaemia	8.0	7.9	8.5	8.9	8.6

1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
380.7	**393.4**	**426.2**	**457.8**	**497.8**	**517.2**	**540.6**
4.9	**5.0**	**5.8**	**5.6**	**6.4**	**7.3**	**7.7**
1.0	1.2	1.3	1.1	1.3	1.7	1.7
1.2	1.0	1.1	1.2	1.3	1.3	1.9
1.1	1.3	1.6	1.4	1.6	1.6	1.5
0.6	0.6	0.9	0.9	0.8	1.0	1.0
1.0	0.9	1.0	1.1	1.4	1.7	1.7
99.8	**96.2**	**99.5**	**101.2**	**103.0**	**105.6**	**109.9**
1.6	1.7	1.7	2.1	2.1	2.2	2.5
17.8	14.7	12.1	9.6	8.9	7.6	6.0
1.2	1.4	1.3	1.9	2.1	2.5	2.4
36.1	38.7	43.0	45.6	47.8	49.7	53.3
18.8	18.5	19.6	20.1	20.3	20.2	20.0
1.2	1.4	1.6	1.6	1.9	1.8	2.3
2.1	1.8	1.8	1.9	1.8	2.5	3.2
3.8	3.2	3.0	3.3	3.0	3.3	3.4
12.4	12.0	12.9	12.9	13.3	13.6	14.0
4.9	2.7	2.6	2.3	1.7	2.2	2.8
16.7	**22.5**	**28.9**	**34.7**	**41.7**	**49.4**	**53.7**
0.7	0.6	0.7	0.6	0.7	0.8	0.7
0.5	0.5	0.9	0.9	0.7	0.8	0.8
15.4	21.1	26.9	32.9	40.0	47.6	52.1
0.2	0.2	0.3	0.3	0.2	0.3	0.2
0.7	**0.7**	**0.8**	**0.8**	**0.8**	**1.0**	**0.9**
18.2	**21.5**	**22.8**	**22.8**	**24.9**	**29.6**	**36.4**
10.7	**13.1**	**16.3**	**18.3**	**21.7**	**25.4**	**29.4**
0.2	**0.3**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**
0.3	**0.4**	**0.3**	**0.2**	**0.2**	**0.2**	**0.2**
2.2	**2.2**	**2.1**	**2.6**	**3.4**	**3.6**	**3.1**
85.4	**86.5**	**96.9**	**113.3**	**120.2**	**115.7**	**123.8**
64.4	**63.8**	**64.9**	**63.9**	**65.5**	**65.0**	**63.3**
3.9	3.8	4.0	3.8	4.0	3.9	4.2
17.8	16.9	16.1	13.9	12.8	12.1	13.2
19.7	20.2	22.2	24.0	27.9	29.3	27.6
0.3	0.3	0.4	0.4	0.3	0.2	0.3
22.7	22.4	22.1	21.7	20.2	19.3	17.9
0.1	0.2	0.2	0.2	0.2	0.1	0.1
19.2	**19.8**	**20.5**	**20.7**	**22.8**	**23.9**	**25.8**
7.2	8.1	8.2	8.0	8.9	9.9	9.8
11.9	11.7	12.3	12.7	13.9	14.0	16.1
1.1	**1.1**	**1.3**	**1.2**	**1.3**	**1.3**	**1.5**
11.1	**12.5**	**14.8**	**19.3**	**25.7**	**25.5**	**20.3**
7.0	**6.4**	**6.3**	**5.5**	**6.5**	**7.8**	**10.1**
2.3	**1.9**	**2.3**	**3.0**	**4.6**	**5.7**	**4.1**
10.3	**12.3**	**13.1**	**12.0**	**10.5**	**6.9**	**5.5**
26.3	**27.2**	**29.2**	**32.3**	**38.1**	**42.7**	**44.3**
1.7	1.5	1.5	1.9	2.1	2.3	2.5
9.4	11.0	12.4	14.2	14.8	16.0	16.3
0.3	0.3	0.5	0.5	0.8	0.9	0.9
6.1	5.8	5.8	6.2	6.1	6.3	6.7
8.7	8.5	9.0	9.6	14.3	17.2	17.9

Table 5.17: Average annual number of new cases by primary site and county, 2012–2016, **males**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	**All sites**	**17 284**	**1 122**	**1 867**	**1 536**	**736**	**687**	**979**	**971**
C00–14	**Mouth, pharynx**	**380**	**23**	**40**	**40**	**15**	**16**	**23**	**23**
C00	Lip	68	4	6	4	3	4	4	3
C01–02	Tongue	83	5	11	9	3	2	5	5
C03–06	Mouth, other	59	3	7	6	3	3	4	5
C07–08	Salivary glands	36	3	3	4	2	1	2	2
C09–14	Pharynx	134	9	13	16	5	5	9	8
C15–26	**Digestive organs**	**3 487**	**217**	**375**	**313**	**152**	**140**	**191**	**183**
C15	Oesophagus	206	14	22	15	9	12	10	12
C16	Stomach	297	17	25	25	11	10	16	12
C17	Small intestine	100	6	12	7	4	3	4	5
C18	Colon	1 367	89	151	117	57	55	76	72
C19–20	Rectum, rectosigmoid	795	47	89	68	35	33	46	44
C21	Anus	24	2	3	3	1	0	1	1
C22	Liver	161	9	18	22	9	5	9	9
C23–24	Gallbladder, bile ducts	83	6	9	10	5	5	4	3
C25	Pancreas	391	21	40	39	16	14	22	20
C26	Other digestive organs	62	4	7	7	3	2	4	5
C30–34, C38	**Respiratory organs**	**1 747**	**111**	**153**	**132**	**80**	**75**	**91**	**100**
C30–31	Nose, sinuses	27	0	2	3	2	1	2	2
C32	Larynx, epiglottis	97	6	8	9	4	5	6	4
C33–34	Lung, trachea	1 613	105	142	120	73	69	83	94
C38	Heart, mediastinum and pleura	10	1	1	0	1	0	0	1
C40–41	**Bone**	**29**	**3**	**2**	**3**	**2**	**2**	**0**	**2**
C43	**Melanoma of the skin**	**974**	**58**	**121**	**95**	**40**	**34**	**61**	**76**
C44	**Skin, non-melanoma**	**992**	**65**	**99**	**76**	**34**	**30**	**65**	**63**
C45	**Mesothelioma**	**66**	**3**	**6**	**6**	**3**	**2**	**5**	**5**
C47	**Autonomic nervous system**	**5**	**0**	**1**	**0**	**0**	**0**	**1**	**0**
C48–49	**Soft tissues**	**69**	**3**	**6**	**7**	**3**	**4**	**4**	**4**
C50	**Breast**	**28**	**2**	**3**	**3**	**1**	**1**	**0**	**1**
C60–63	**Male genital organs**	**5 358**	**400**	**605**	**460**	**229**	**219**	**297**	**288**
C61	Prostate	4 989	375	571	414	216	207	281	269
C62	Testis	310	20	28	41	11	11	13	15
C60, C63	Other male genital	59	4	6	5	2	1	3	4
C64–68	**Urinary organs**	**1 743**	**106**	**190**	**151**	**77**	**66**	**101**	**103**
C64	Kidney (excl. renal pelvis)	563	33	61	54	23	23	36	32
C65–68	Urinary tract	1 180	73	130	97	54	43	65	71
C69	**Eye**	**39**	**5**	**3**	**3**	**2**	**1**	**2**	**2**
C70–72	**Central nervous system**	**472**	**26**	**51**	**48**	**18**	**18**	**28**	**25**
C73	**Thyroid gland**	**110**	**5**	**11**	**15**	**4**	**3**	**6**	**4**
C37, C74–75	**Other endocrine glands**	**109**	**6**	**13**	**11**	**3**	**4**	**4**	**5**
C39, C76, C80	**Other or unspecified**	**144**	**9**	**12**	**12**	**4**	**8**	**12**	**7**
C81–96	**Lymphoid/haematopoietic tissue**	**1 532**	**81**	**174**	**160**	**68**	**66**	**86**	**80**
C81	Hodgkin lymphoma	88	5	9	11	5	4	4	3
C82–86, C96	Non-Hodgkin lymphoma	561	33	60	55	24	26	27	27
C88	Immunoproliferative disease	40	1	7	4	1	1	3	4
C90	Multiple myeloma	224	8	25	24	13	11	12	11
C91–95	Leukaemia	617	34	72	66	25	24	40	35

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
653	**431**	**603**	**1 459**	**1 711**	**410**	**997**	**965**	**507**	**848**	**562**	**240**
18	**8**	**12**	**29**	**38**	**7**	**20**	**22**	**8**	**20**	**13**	**4**
3	2	2	8	7	2	5	3	1	4	1	0
4	1	3	7	9	1	4	5	2	4	3	2
2	2	1	5	7	1	2	3	1	3	2	1
2	0	1	1	4	1	3	2	2	2	1	0
7	3	5	8	12	2	6	9	3	7	6	2
124	**76**	**111**	**275**	**351**	**91**	**202**	**201**	**108**	**202**	**121**	**53**
9	3	6	17	20	5	11	10	6	14	8	4
11	7	10	23	34	10	19	18	10	19	12	7
3	2	4	11	12	2	4	8	4	4	3	2
46	30	40	109	139	34	82	84	45	84	42	16
26	16	26	64	81	22	48	42	25	41	30	11
1	0	0	2	3	0	1	2	1	1	1	1
6	2	4	13	12	4	8	9	5	8	8	2
3	3	2	5	6	1	4	6	3	3	4	1
17	12	15	28	39	10	22	21	11	24	13	7
2	2	2	4	5	1	3	2	1	4	2	1
67	**48**	**69**	**164**	**176**	**44**	**101**	**89**	**55**	**98**	**59**	**35**
1	0	0	3	3	1	1	1	1	2	1	1
3	2	2	11	9	2	8	4	3	6	4	1
63	47	65	149	163	41	91	83	50	90	54	32
1	0	1	1	1	0	1	0	0	0	0	1
1	**0**	**0**	**2**	**4**	**1**	**1**	**3**	**1**	**1**	**1**	**1**
38	**26**	**35**	**91**	**99**	**17**	**34**	**60**	**26**	**31**	**26**	**6**
48	**38**	**58**	**85**	**113**	**24**	**42**	**45**	**26**	**44**	**28**	**10**
3	**1**	**3**	**7**	**10**	**1**	**3**	**2**	**1**	**2**	**1**	**0**
1	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2	**3**	**3**	**5**	**5**	**1**	**4**	**5**	**3**	**3**	**3**	**0**
2	**1**	**2**	**4**	**3**	**1**	**1**	**1**	**0**	**1**	**1**	**0**
195	**138**	**179**	**458**	**514**	**123**	**351**	**301**	**154**	**212**	**168**	**69**
183	129	165	423	474	115	333	277	144	192	158	63
9	7	13	31	31	8	16	21	8	14	9	5
3	1	1	4	8	0	2	3	2	5	1	1
64	**37**	**57**	**121**	**164**	**42**	**113**	**97**	**54**	**108**	**68**	**24**
22	13	22	38	48	16	33	37	18	28	18	8
42	25	35	83	116	26	80	60	36	80	50	16
2	**1**	**1**	**4**	**2**	**1**	**1**	**3**	**1**	**3**	**2**	**1**
19	**10**	**14**	**48**	**45**	**10**	**20**	**29**	**14**	**25**	**15**	**7**
5	**1**	**4**	**7**	**11**	**3**	**7**	**6**	**3**	**7**	**7**	**3**
5	**3**	**4**	**10**	**15**	**5**	**2**	**7**	**3**	**6**	**3**	**1**
5	**4**	**4**	**8**	**15**	**3**	**9**	**9**	**4**	**10**	**5**	**4**
55	**36**	**47**	**142**	**145**	**37**	**85**	**85**	**46**	**76**	**42**	**20**
2	1	3	7	8	2	6	5	2	5	3	2
19	15	17	52	48	13	37	33	19	31	18	7
1	1	1	3	5	1	3	3	0	2	1	0
9	5	5	21	24	8	10	12	4	13	5	4
24	14	22	60	60	13	30	33	19	26	15	7

Table 5.18: Average annual number of new cases by primary site and county, 2012–2016, **females**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	**All sites**	**14 665**	**922**	**1 605**	**1 566**	**616**	**597**	**844**	**799**
C00–14	**Mouth, pharynx**	**210**	**11**	**24**	**27**	**10**	**9**	**9**	**13**
C00	Lip	48	3	4	3	3	3	2	3
C01–02	Tongue	51	3	6	8	3	2	1	4
C03–06	Mouth, other	41	2	6	6	2	2	2	2
C07–08	Salivary glands	26	1	4	3	2	1	1	1
C09–14	Pharynx	43	3	5	7	1	2	2	3
C15–26	**Digestive organs**	**3 071**	**195**	**333**	**288**	**132**	**125**	**169**	**155**
C15	Oesophagus	70	3	7	9	4	5	4	6
C16	Stomach	170	9	14	15	7	6	9	9
C17	Small intestine	66	5	7	6	4	2	3	2
C18	Colon	1 500	97	159	133	57	57	90	73
C19–20	Rectum, rectosigmoid	549	36	63	50	24	27	29	30
C21	Anus	60	3	8	7	3	3	4	2
C22	Liver	90	4	9	10	6	2	3	5
C23–24	Gallbladder, bile ducts	94	4	13	10	5	6	6	4
C25	Pancreas	392	27	46	38	17	14	18	21
C26	Other digestive organs	81	7	8	11	4	3	3	4
C30–34, C38	**Respiratory organs**	**1 460**	**111**	**157**	**138**	**70**	**59**	**75**	**87**
C30–31	Nose, sinuses	19	1	2	2	1	1	2	2
C32	Larynx, epiglottis	20	2	1	2	1	1	1	1
C33–34	Lung, trachea	1 415	107	152	134	68	57	73	83
C38	Heart, mediastinum and pleura	6	1	1	0	0	0	0	0
C40–41	**Bone**	**24**	**1**	**2**	**3**	**1**	**1**	**1**	**1**
C43	**Melanoma of the skin**	**967**	**58**	**119**	**105**	**36**	**35**	**54**	**70**
C44	**Skin, non-melanoma**	**872**	**59**	**82**	**73**	**30**	**24**	**69**	**45**
C45	**Mesothelioma**	**13**	**1**	**2**	**1**	**0**	**1**	**1**	**1**
C47	**Autonomic nervous system**	**4**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
C48–49	**Soft tissues**	**83**	**4**	**9**	**10**	**4**	**4**	**5**	**4**
C50	**Breast**	**3 254**	**199**	**373**	**397**	**129**	**128**	**182**	**167**
C51–58	**Female genital organs**	**1 684**	**111**	**186**	**195**	**73**	**81**	**102**	**85**
C51–52, C57.7–9	Other female genital	117	5	11	13	5	5	9	8
C53	Cervix uteri	336	24	37	50	15	13	17	19
C54	Corpus uteri	742	51	78	77	36	38	49	34
C55	Uterus, other	10	1	2	0	1	1	1	0
C56, C57.0–4	Ovary etc.	477	30	60	53	16	24	26	25
C58	Placenta	2	0	0	0	0	0	0	0
C64–68	**Urinary organs**	**713**	**43**	**70**	**67**	**32**	**35**	**41**	**40**
C64	Kidney (excl. renal pelvis)	263	17	31	23	10	13	16	13
C65–68	Urinary tract	450	27	39	45	22	22	25	27
C69	**Eye**	**38**	**2**	**3**	**4**	**2**	**1**	**2**	**3**
C70–72	**Central nervous system**	**535**	**29**	**57**	**51**	**21**	**23**	**33**	**36**
C73	**Thyroid gland**	**260**	**11**	**23**	**44**	**8**	**8**	**10**	**13**
C37, C74–75	**Other endocrine glands**	**105**	**4**	**13**	**13**	**4**	**4**	**7**	**7**
C39, C76, C80	**Other or unspecified**	**163**	**11**	**14**	**17**	**8**	**8**	**10**	**8**
C81–96	**Lymphoid/haematopoietic tissue**	**1 210**	**72**	**137**	**132**	**56**	**52**	**73**	**63**
C81	Hodgkin lymphoma	63	4	6	9	3	1	5	2
C82–86, C96	Non-Hodgkin lymphoma	444	28	46	45	23	17	24	21
C88	Immunoproliferative disease	25	1	4	3	1	1	2	1
C90	Multiple myeloma	186	9	24	19	11	9	13	11
C91–95	Leukaemia	491	29	57	56	18	24	30	28

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
544	**351**	**532**	**1 196**	**1 441**	**320**	**743**	**826**	**389**	**722**	**458**	**193**
9	**5**	**5**	**18**	**18**	**4**	**11**	**10**	**5**	**12**	**7**	**3**
1	1	2	6	5	2	2	3	1	2	1	0
3	1	1	4	4	1	2	2	1	4	2	1
2	1	1	2	4	1	3	2	1	1	1	1
1	1	0	2	3	0	2	0	1	2	1	1
2	1	1	3	3	1	2	3	1	3	2	1
106	**64**	**108**	**241**	**312**	**82**	**185**	**182**	**86**	**163**	**106**	**40**
3	1	1	4	6	1	3	4	1	5	2	1
5	3	5	14	20	7	13	12	5	10	7	4
2	2	3	4	6	2	4	6	3	3	1	2
50	34	56	121	161	42	97	82	43	81	50	16
19	8	19	43	56	14	32	34	14	30	16	5
2	1	2	5	6	1	3	3	2	3	2	2
3	3	1	6	9	1	5	7	4	5	5	2
3	1	3	9	8	2	3	6	3	5	2	1
15	9	15	30	34	10	22	24	9	19	19	7
4	3	3	5	6	2	3	4	3	3	3	1
52	**39**	**61**	**116**	**135**	**28**	**70**	**80**	**36**	**77**	**41**	**27**
1	0	1	2	1	0	1	1	0	1	1	0
1	0	1	2	2	0	1	1	0	0	1	0
50	38	60	112	132	27	68	78	36	75	40	26
0	0	0	0	1	1	0	0	0	1	0	0
1	**1**	**1**	**2**	**2**	**0**	**2**	**1**	**1**	**2**	**1**	**0**
39	**23**	**35**	**93**	**103**	**19**	**32**	**62**	**25**	**29**	**22**	**6**
38	**34**	**59**	**80**	**105**	**21**	**35**	**33**	**17**	**36**	**22**	**8**
0	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**1**	**0**
0	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
3	**2**	**3**	**6**	**6**	**1**	**4**	**6**	**3**	**4**	**4**	**1**
119	**78**	**107**	**269**	**307**	**66**	**176**	**187**	**92**	**150**	**90**	**40**
67	**40**	**51**	**133**	**162**	**30**	**77**	**94**	**42**	**80**	**53**	**22**
5	3	4	8	13	2	5	6	3	8	4	1
12	8	7	21	34	6	16	19	7	15	11	5
28	17	25	59	69	14	33	42	23	35	24	9
1	0	0	1	1	0	0	0	0	1	1	0
22	12	15	44	45	8	23	26	9	21	14	6
0	0	0	0	0	0	0	0	0	0	0	0
24	**13**	**23**	**51**	**64**	**15**	**41**	**41**	**20**	**45**	**33**	**13**
9	6	9	17	22	6	14	17	8	17	12	5
14	7	14	34	43	9	27	25	12	28	22	8
0	**1**	**1**	**4**	**5**	**0**	**2**	**3**	**0**	**2**	**2**	**1**
18	**12**	**18**	**48**	**56**	**13**	**21**	**26**	**15**	**31**	**20**	**7**
13	**4**	**10**	**14**	**24**	**5**	**14**	**20**	**3**	**15**	**14**	**4**
2	**3**	**4**	**7**	**15**	**4**	**3**	**5**	**3**	**4**	**2**	**1**
7	**4**	**5**	**13**	**15**	**4**	**8**	**7**	**4**	**11**	**5**	**5**
45	**27**	**40**	**102**	**109**	**27**	**62**	**68**	**36**	**58**	**34**	**16**
3	2	1	5	6	1	5	3	1	2	2	1
15	8	17	35	40	9	25	29	14	27	14	7
0	0	1	2	3	1	1	2	1	1	0	0
8	6	4	11	14	6	10	9	7	9	5	2
20	11	17	49	45	11	21	25	12	20	13	6

Table 5.19: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and county, 2012–2016, **males**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	**All sites**	**728.7**	**784.0**	**735.7**	**672.2**	**670.5**	**661.8**	**739.3**	**812.4**
C00–14	**Mouth, pharynx**	**15.6**	**16.1**	**14.8**	**17.0**	**13.9**	**14.9**	**16.6**	**18.9**
C00	Lip	2.9	3.1	2.5	2.2	2.9	3.9	3.0	2.5
C01–02	Tongue	3.3	3.2	4.0	3.7	2.3	2.1	3.3	3.6
C03–06	Mouth, other	2.4	2.0	2.5	2.7	2.3	3.3	2.7	4.4
C07–08	Salivary glands	1.5	2.0	1.2	1.8	1.6	1.3	1.5	1.6
C09–14	Pharynx	5.3	5.9	4.7	6.6	4.8	4.2	6.2	6.8
C15–26	**Digestive organs**	**148.5**	**151.8**	**147.9**	**140.6**	**137.4**	**134.8**	**145.3**	**154.1**
C15	Oesophagus	8.7	9.7	8.4	6.9	8.6	11.9	7.2	9.5
C16	Stomach	12.8	12.1	9.4	11.1	10.2	9.6	12.5	10.4
C17	Small intestine	4.2	4.1	4.6	2.9	3.8	3.1	2.9	4.4
C18	Colon	59.0	63.0	61.0	53.5	51.7	53.8	58.1	61.4
C19–20	Rectum, rectosigmoid	33.3	32.8	34.4	29.9	32.0	31.2	34.4	36.5
C21	Anus	1.0	1.6	1.1	1.5	0.7	0.4	0.7	1.0
C22	Liver	6.7	6.3	7.0	9.4	8.4	4.6	6.8	7.2
C23–24	Gallbladder, bile ducts	3.5	4.3	3.7	4.6	4.2	4.4	2.7	2.8
C25	Pancreas	16.7	14.9	15.5	17.7	14.7	13.3	17.1	16.8
C26	Other digestive organs	2.7	3.0	2.8	3.3	3.0	2.5	2.9	4.1
C30–34, C38	**Respiratory organs**	**74.2**	**78.3**	**62.0**	**60.2**	**71.2**	**70.5**	**68.1**	**83.3**
C30–31	Nose, sinuses	1.1	0.3	0.8	1.1	1.4	0.7	1.1	1.7
C32	Larynx, epiglottis	4.0	3.8	3.3	4.3	3.6	4.3	4.7	3.2
C33–34	Lung, trachea	68.6	73.5	57.3	54.7	65.6	65.0	62.1	77.8
C38	Heart, mediastinum and pleura	0.5	0.7	0.6	0.1	0.5	0.4	0.2	0.5
C40–41	**Bone**	**1.1**	**1.8**	**0.9**	**0.9**	**1.4**	**2.0**	**0.4**	**1.3**
C43	**Melanoma of the skin**	**40.4**	**40.7**	**46.9**	**39.5**	**37.6**	**33.2**	**44.7**	**63.2**
C44	**Skin, non-melanoma**	**46.1**	**49.7**	**44.3**	**39.1**	**32.7**	**30.5**	**54.8**	**57.4**
C45	**Mesothelioma**	**2.8**	**2.2**	**2.5**	**3.1**	**2.8**	**2.2**	**3.6**	**4.1**
C47	**Autonomic nervous system**	**0.2**	**0.0**	**0.2**	**0.1**	**0.2**	**0.0**	**0.9**	**0.2**
C48–49	**Soft tissues**	**2.8**	**1.9**	**2.3**	**2.9**	**3.5**	**3.4**	**3.2**	**3.5**
C50	**Breast**	**1.2**	**1.7**	**1.3**	**1.3**	**1.0**	**1.0**	**0.1**	**1.1**
C60–63	**Male genital organs**	**221.6**	**273.6**	**234.9**	**197.9**	**206.2**	**208.6**	**219.4**	**237.0**
C61	Prostate	207.2	256.1	222.6	185.3	191.8	195.2	207.8	221.0
C62	Testis	11.8	14.5	9.6	10.4	12.6	12.0	9.4	13.0
C60, C63	Other male genital	2.5	3.0	2.7	2.2	1.9	1.4	2.2	3.0
C64–68	**Urinary organs**	**74.2**	**75.0**	**75.9**	**67.5**	**69.7**	**63.1**	**77.4**	**86.4**
C64	Kidney (excl. renal pelvis)	22.8	22.7	23.0	21.8	20.4	21.8	26.3	26.4
C65–68	Urinary tract	51.4	52.3	53.0	45.7	49.2	41.3	51.1	59.9
C69	**Eye**	**1.6**	**3.1**	**1.1**	**1.4**	**1.4**	**1.2**	**1.5**	**1.6**
C70–72	**Central nervous system**	**19.0**	**18.2**	**18.6**	**17.5**	**17.5**	**18.1**	**20.3**	**20.3**
C73	**Thyroid gland**	**4.4**	**3.6**	**3.7**	**5.3**	**4.0**	**2.9**	**4.4**	**3.3**
C37, C74–75	**Other endocrine glands**	**4.3**	**3.9**	**4.8**	**4.2**	**2.6**	**3.4**	**3.1**	**4.3**
C39, C76, C80	**Other or unspecified**	**6.5**	**6.6**	**5.3**	**5.7**	**4.0**	**7.4**	**9.9**	**6.0**
C81–96	**Lymphoid/haematopoietic tissue**	**64.2**	**55.9**	**68.2**	**68.2**	**63.4**	**64.9**	**65.5**	**66.4**
C81	Hodgkin lymphoma	3.4	3.6	3.2	3.5	5.4	4.4	3.0	2.6
C82–86, C96	Non-Hodgkin lymphoma	23.3	22.6	23.2	23.2	22.2	25.0	20.7	22.0
C88	Immunoproliferative disease	1.7	0.5	2.8	1.8	0.7	0.8	2.2	2.9
C90	Multiple myeloma	9.6	5.7	10.0	11.2	12.0	11.0	9.5	9.9
C91–95	Leukaemia	26.1	23.4	29.0	28.4	23.2	23.6	30.1	29.1

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
725.7	**773.3**	**757.1**	**787.3**	**764.8**	**709.7**	**743.1**	**696.5**	**708.8**	**663.2**	**719.5**	**655.9**
18.9	**13.4**	**14.9**	**15.3**	**16.2**	**12.5**	**15.0**	**15.8**	**11.5**	**15.2**	**16.0**	**11.3**
3.8	3.2	2.8	4.5	3.1	2.8	3.5	2.7	1.7	3.3	1.8	0.5
3.8	1.4	3.9	3.5	3.7	2.3	3.0	3.6	2.4	3.0	3.8	5.0
1.6	3.3	1.5	2.5	2.9	2.5	1.3	2.1	0.8	1.9	2.0	2.0
2.3	0.9	0.7	0.8	1.6	1.1	2.5	1.7	2.2	1.9	1.0	0.0
7.3	4.6	6.0	4.1	4.9	3.8	4.6	5.7	4.3	5.0	7.5	3.8
138.8	**137.8**	**140.6**	**151.9**	**159.1**	**157.1**	**152.7**	**147.8**	**152.5**	**156.3**	**158.1**	**146.5**
10.0	5.2	8.4	8.7	9.2	8.9	8.0	6.9	7.8	10.9	9.4	10.5
12.9	11.9	12.4	12.8	15.7	17.8	14.6	13.4	13.3	15.0	16.3	18.8
3.0	2.8	5.7	5.8	5.3	3.7	3.2	6.0	5.2	3.2	3.4	6.0
52.2	55.2	52.2	61.5	63.3	58.9	62.1	63.2	64.1	64.7	56.1	45.9
28.8	29.0	31.5	34.6	36.2	38.4	35.9	29.7	34.4	31.3	38.0	30.7
1.6	0.9	0.5	0.9	1.1	0.7	0.6	1.3	0.8	0.6	0.7	1.4
6.2	4.2	5.4	7.1	5.5	6.4	5.7	6.3	6.3	6.4	9.9	6.6
3.1	4.3	3.1	2.7	2.7	2.1	3.5	4.5	4.0	2.0	5.5	2.4
19.2	21.2	18.5	15.8	17.7	17.8	16.8	15.0	15.2	18.7	16.6	21.4
1.9	3.0	3.0	2.0	2.3	2.5	2.3	1.5	1.4	3.5	2.3	2.7
74.5	**86.5**	**87.4**	**90.7**	**79.3**	**74.6**	**75.8**	**65.5**	**76.1**	**76.0**	**76.5**	**92.5**
1.3	0.0	0.5	1.7	1.2	1.1	1.0	0.5	2.0	1.9	1.6	2.5
3.1	2.8	2.8	5.7	4.0	3.3	6.0	3.1	4.1	4.2	4.4	3.4
69.6	83.7	83.1	82.8	73.8	70.2	67.9	61.7	70.0	69.6	70.0	84.3
0.6	0.0	1.0	0.5	0.3	0.0	0.8	0.2	0.0	0.4	0.5	2.2
1.2	**0.7**	**0.4**	**0.7**	**1.7**	**1.0**	**0.7**	**1.9**	**1.2**	**1.1**	**1.1**	**1.6**
41.7	**47.5**	**43.0**	**47.9**	**43.7**	**28.9**	**25.1**	**41.6**	**36.9**	**24.8**	**31.8**	**15.1**
56.9	**73.2**	**79.3**	**51.9**	**55.2**	**42.6**	**33.9**	**36.9**	**37.3**	**36.5**	**38.4**	**31.1**
3.0	**2.7**	**4.6**	**3.8**	**4.6**	**1.1**	**2.3**	**1.7**	**1.0**	**1.7**	**1.2**	**1.1**
0.8	**0.0**	**0.2**	**0.2**	**0.1**	**0.0**	**0.3**	**0.0**	**0.0**	**0.3**	**0.2**	**0.0**
2.6	**4.8**	**3.5**	**2.6**	**2.3**	**2.1**	**2.7**	**3.1**	**3.5**	**2.4**	**4.2**	**1.7**
2.4	**1.3**	**2.4**	**1.8**	**1.5**	**1.1**	**0.7**	**1.0**	**0.3**	**0.8**	**0.9**	**0.5**
211.3	**238.5**	**217.8**	**240.2**	**225.5**	**211.8**	**256.6**	**212.5**	**210.0**	**163.5**	**207.9**	**190.0**
196.7	224.0	201.7	225.6	209.9	196.6	242.3	197.4	194.6	147.0	195.2	172.8
11.1	12.9	14.4	12.7	11.8	14.8	12.7	13.1	11.9	12.4	11.1	13.5
3.5	1.7	1.7	2.0	3.8	0.3	1.6	2.0	3.5	4.2	1.6	3.7
71.1	**68.4**	**72.1**	**67.4**	**73.8**	**72.6**	**84.1**	**70.6**	**76.8**	**85.1**	**90.8**	**68.9**
24.3	21.8	26.4	19.6	20.8	26.7	24.3	25.7	25.2	21.6	22.6	20.4
46.8	46.6	45.7	47.8	53.0	45.9	59.8	44.9	51.6	63.5	68.2	48.5
2.1	**1.3**	**1.3**	**2.3**	**0.9**	**1.7**	**0.7**	**1.8**	**1.6**	**2.2**	**2.2**	**1.7**
21.9	**17.2**	**16.3**	**22.7**	**19.1**	**18.2**	**15.0**	**20.1**	**20.1**	**19.8**	**19.0**	**18.8**
5.3	**1.7**	**4.2**	**3.7**	**4.7**	**4.7**	**5.1**	**4.2**	**4.2**	**5.1**	**8.5**	**7.8**
5.1	**5.2**	**4.3**	**4.5**	**6.2**	**9.1**	**1.4**	**4.8**	**4.5**	**4.7**	**3.6**	**2.9**
6.4	**8.7**	**6.0**	**4.9**	**7.0**	**6.2**	**6.5**	**6.7**	**6.7**	**8.2**	**7.0**	**11.8**
61.6	**64.4**	**58.7**	**75.0**	**63.9**	**64.5**	**64.4**	**60.5**	**64.6**	**59.4**	**52.1**	**52.7**
2.4	2.4	3.3	2.9	3.2	3.4	4.7	2.9	3.4	3.8	4.0	4.7
21.6	26.9	20.9	26.8	21.1	23.1	27.3	23.4	26.9	24.1	21.9	17.8
1.2	1.3	0.8	1.5	2.4	1.7	2.3	1.9	0.6	1.3	1.2	1.0
9.7	8.5	6.6	11.5	10.8	13.5	7.3	8.7	6.0	10.2	6.4	9.6
26.6	25.3	27.1	32.3	26.4	22.9	22.7	23.7	27.8	20.1	18.7	19.5

Table 5.20: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years by primary site and county, 2012–2016, **females**

ICD-10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold
C00–96	**All sites**	**540.6**	**560.3**	**544.5**	**546.6**	**501.0**	**518.2**	**557.1**	**571.8**
C00–14	**Mouth, pharynx**	**7.7**	**6.9**	**8.1**	**9.6**	**8.5**	**7.6**	**5.6**	**9.4**
C00	Lip	1.7	1.8	1.4	1.2	2.1	2.1	1.4	2.2
C01–02	Tongue	1.9	1.7	2.0	2.8	2.3	1.3	0.9	2.9
C03–06	Mouth, other	1.5	1.3	2.0	2.0	1.7	1.5	1.6	1.7
C07–08	Salivary glands	1.0	0.6	1.3	1.0	1.5	1.2	0.4	0.6
C09–14	Pharynx	1.7	1.6	1.6	2.6	1.0	1.6	1.3	2.0
C15–26	**Digestive organs**	**109.9**	**113.8**	**112.5**	**100.9**	**100.7**	**102.2**	**108.8**	**106.5**
C15	Oesophagus	2.5	2.1	2.4	3.2	2.7	3.9	2.2	4.0
C16	Stomach	6.0	5.1	4.6	5.1	5.0	4.9	5.7	5.8
C17	Small intestine	2.4	2.7	2.2	2.1	3.4	2.2	2.0	1.6
C18	Colon	53.3	56.4	53.8	46.2	43.5	45.7	57.2	49.8
C19–20	Rectum, rectosigmoid	20.0	21.4	21.2	17.5	19.0	22.3	19.2	20.8
C21	Anus	2.3	1.6	2.8	2.6	2.3	2.4	2.7	1.4
C22	Liver	3.2	2.5	3.0	3.4	4.9	2.2	2.3	3.3
C23–24	Gallbladder, bile ducts	3.4	2.6	4.2	3.5	4.0	4.8	3.7	2.8
C25	Pancreas	14.0	15.4	15.5	13.5	12.6	11.4	11.6	14.1
C26	Other digestive organs	2.8	4.0	2.7	3.7	3.2	2.5	2.2	3.0
C30–34, C38	**Respiratory organs**	**53.7**	**66.2**	**53.5**	**50.7**	**55.2**	**49.5**	**49.1**	**61.0**
C30–31	Nose, sinuses	0.7	0.5	0.8	0.5	0.5	1.0	1.1	1.2
C32	Larynx, epiglottis	0.8	1.4	0.5	0.8	1.0	0.5	0.4	1.0
C33–34	Lung, trachea	52.1	63.9	52.0	49.2	53.6	47.6	47.6	58.6
C38	Heart, mediastinum and pleura	0.2	0.4	0.2	0.2	0.1	0.4	0.0	0.1
C40–41	**Bone**	**0.9**	**0.8**	**0.8**	**1.0**	**0.7**	**0.6**	**0.4**	**1.1**
C43	**Melanoma of the skin**	**36.4**	**36.3**	**40.3**	**35.7**	**31.4**	**32.4**	**36.9**	**52.0**
C44	**Skin, non-melanoma**	**29.4**	**32.7**	**27.3**	**23.7**	**20.5**	**17.9**	**42.0**	**29.2**
C45	**Mesothelioma**	**0.5**	**0.5**	**0.7**	**0.5**	**0.3**	**0.6**	**0.8**	**0.4**
C47	**Autonomic nervous system**	**0.2**	**0.2**	**0.3**	**0.0**	**0.0**	**0.0**	**0.3**	**0.2**
C48–49	**Soft tissues**	**3.1**	**2.6**	**3.0**	**3.6**	**3.0**	**3.6**	**3.6**	**3.4**
C50	**Breast**	**123.8**	**125.4**	**126.3**	**141.7**	**110.5**	**117.3**	**123.5**	**123.1**
C51–58	**Female genital organs**	**63.3**	**69.7**	**63.6**	**66.9**	**62.6**	**73.1**	**68.5**	**62.6**
C51–52, C57.7–9	Other female genital	4.2	3.2	3.6	4.5	4.2	4.3	5.8	5.3
C53	Cervix uteri	13.2	16.4	12.4	15.1	15.0	14.3	12.5	15.4
C54	Corpus uteri	27.6	30.7	26.7	28.1	29.4	32.0	32.6	23.8
C55	Uterus, other	0.3	0.5	0.5	0.1	0.5	0.4	0.4	0.2
C56, C57.0–4	Ovary etc.	17.9	19.0	20.4	19.1	13.6	21.9	17.1	17.7
C58	Placenta	0.1	0.0	0.0	0.1	0.0	0.2	0.1	0.2
C64–68	**Urinary organs**	**25.8**	**25.8**	**23.7**	**23.7**	**24.6**	**28.8**	**26.6**	**28.0**
C64	Kidney (excl. renal pelvis)	9.8	10.1	10.4	8.0	7.7	11.3	10.5	9.5
C65–68	Urinary tract	16.1	15.7	13.3	15.7	17.0	17.5	16.1	18.6
C69	**Eye**	**1.5**	**1.4**	**1.0**	**1.6**	**1.9**	**0.7**	**1.4**	**1.9**
C70–72	**Central nervous system**	**20.3**	**18.6**	**19.7**	**17.4**	**18.1**	**21.9**	**22.9**	**26.9**
C73	**Thyroid gland**	**10.1**	**7.4**	**7.8**	**14.6**	**7.9**	**8.2**	**7.4**	**10.0**
C37, C74–75	**Other endocrine glands**	**4.1**	**2.6**	**4.5**	**4.0**	**4.3**	**3.8**	**5.0**	**6.1**
C39, C76, C80	**Other or unspecified**	**5.5**	**6.1**	**4.8**	**5.5**	**6.0**	**6.2**	**6.2**	**5.6**
C81–96	**Lymphoid/haematopoietic tissue**	**44.3**	**43.4**	**46.7**	**45.5**	**44.9**	**43.9**	**48.2**	**44.5**
C81	Hodgkin lymphoma	2.5	2.4	2.3	2.9	2.7	1.1	3.4	1.9
C82–86, C96	Non-Hodgkin lymphoma	16.3	17.0	15.7	15.6	18.3	14.5	15.9	14.8
C88	Immunoproliferative disease	0.9	0.8	1.2	1.1	1.1	0.6	1.0	0.6
C90	Multiple myeloma	6.7	5.4	8.0	6.7	8.5	7.1	8.1	7.4
C91–95	Leukaemia	17.9	17.8	19.5	19.1	14.3	20.5	19.8	19.8

Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøndelag	Nord-Trøndelag	Nordland	Troms	Finnmark
532.0	**569.1**	**569.9**	**563.6**	**557.8**	**511.1**	**505.2**	**527.0**	**503.4**	**514.3**	**532.3**	**498.3**
8.4	**7.2**	**5.8**	**8.3**	**6.9**	**6.8**	**7.3**	**6.4**	**6.3**	**8.2**	**8.5**	**7.7**
1.3	1.8	2.3	2.9	1.8	2.8	1.3	1.7	0.7	1.4	1.1	0.5
2.5	1.2	1.1	1.9	1.7	1.8	1.6	1.3	1.5	2.7	1.8	2.1
1.9	1.6	1.1	1.1	1.3	0.8	1.5	1.0	0.8	0.8	1.6	1.5
0.9	1.0	0.5	0.8	1.1	0.3	1.4	0.2	1.6	1.4	1.7	1.5
1.8	1.6	0.7	1.5	1.1	1.1	1.5	2.1	1.7	1.9	2.4	2.1
97.8	**102.2**	**113.2**	**113.1**	**117.1**	**122.6**	**118.1**	**112.9**	**105.2**	**110.4**	**119.1**	**100.1**
2.4	2.1	1.1	2.0	2.1	2.3	1.9	2.6	1.8	3.3	2.3	2.6
4.5	4.1	4.8	6.5	7.4	10.7	8.2	7.1	5.9	7.0	7.5	9.7
2.2	2.5	3.7	1.8	2.3	2.8	2.5	3.8	3.8	2.0	0.9	4.0
46.0	54.5	58.3	56.3	60.2	62.1	61.4	50.6	51.6	54.1	56.0	40.3
17.9	13.2	20.0	20.5	21.6	20.9	21.4	21.6	17.3	20.9	18.6	13.3
2.0	2.0	1.9	2.3	2.3	1.3	2.1	1.7	2.0	2.4	2.8	4.1
2.5	4.2	1.3	2.7	3.4	1.6	3.2	4.4	4.4	3.4	5.4	4.9
2.3	1.0	3.6	4.4	3.0	2.9	2.1	3.6	4.1	3.2	2.3	1.5
14.7	14.3	15.4	14.0	12.7	14.4	13.7	14.9	10.9	12.4	20.5	18.3
3.3	4.2	3.1	2.5	2.3	3.7	1.7	2.7	3.4	1.8	2.7	1.5
49.2	**63.3**	**66.2**	**56.0**	**52.8**	**45.1**	**46.6**	**51.1**	**45.4**	**53.2**	**47.0**	**68.3**
0.7	0.7	0.6	0.7	0.3	0.7	0.6	0.7	0.5	0.6	0.9	0.5
0.6	0.3	0.9	1.1	0.8	0.8	1.0	0.9	0.2	0.2	0.7	1.0
47.7	61.9	64.4	54.1	51.4	42.8	45.0	49.4	44.7	52.1	45.4	66.3
0.2	0.4	0.2	0.1	0.3	0.8	0.0	0.1	0.0	0.4	0.0	0.5
0.6	**1.7**	**1.1**	**1.0**	**0.8**	**0.8**	**1.5**	**0.7**	**1.0**	**1.3**	**1.0**	**0.0**
40.6	**38.1**	**38.8**	**43.7**	**40.9**	**33.3**	**22.0**	**40.6**	**34.5**	**22.1**	**27.0**	**17.4**
32.7	**50.7**	**58.5**	**35.9**	**36.6**	**29.4**	**21.0**	**19.6**	**19.5**	**23.0**	**24.7**	**20.3**
0.3	**0.0**	**0.6**	**0.2**	**0.5**	**0.5**	**0.2**	**0.4**	**0.0**	**0.6**	**1.2**	**0.0**
0.3	**0.0**	**0.0**	**0.2**	**0.3**	**0.3**	**0.5**	**0.1**	**0.3**	**0.0**	**0.0**	**0.0**
2.8	**3.1**	**3.0**	**2.7**	**2.2**	**1.9**	**2.8**	**3.9**	**4.0**	**3.3**	**4.7**	**2.2**
121.5	**130.7**	**119.1**	**127.5**	**123.6**	**111.6**	**126.7**	**122.1**	**124.4**	**112.7**	**107.7**	**104.8**
69.1	**66.9**	**55.8**	**63.1**	**64.4**	**50.4**	**54.8**	**60.6**	**56.5**	**59.1**	**62.9**	**56.3**
4.3	4.3	3.7	3.5	5.0	3.4	3.2	3.6	3.4	5.6	4.1	3.0
14.4	14.5	8.7	9.4	13.9	10.9	12.5	12.7	10.6	12.5	13.8	15.0
27.9	27.7	27.6	28.8	27.5	23.3	22.4	27.2	29.1	25.1	28.2	23.7
0.5	0.7	0.0	0.4	0.2	0.2	0.1	0.3	0.4	0.4	0.7	0.0
22.0	19.8	15.7	21.0	17.7	12.6	16.5	16.5	12.3	15.1	16.1	14.6
0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.7	0.4	0.0	0.0
22.6	**21.5**	**24.5**	**24.3**	**24.3**	**21.7**	**27.5**	**25.9**	**25.7**	**31.0**	**38.1**	**32.9**
9.4	9.7	10.3	8.2	8.6	9.7	10.0	10.5	10.5	12.0	13.4	12.0
13.2	11.8	14.3	16.1	15.7	12.0	17.5	15.4	15.3	19.0	24.6	20.9
0.4	**1.7**	**1.1**	**1.8**	**2.0**	**0.7**	**1.1**	**2.0**	**0.5**	**1.8**	**1.8**	**1.9**
18.2	**19.4**	**19.4**	**22.5**	**22.4**	**21.3**	**15.5**	**17.1**	**20.2**	**24.0**	**24.1**	**19.6**
14.5	**7.7**	**11.2**	**6.2**	**9.9**	**9.8**	**10.5**	**13.5**	**5.0**	**12.5**	**17.6**	**11.4**
3.0	**5.1**	**4.3**	**3.4**	**5.9**	**6.9**	**2.2**	**3.1**	**4.9**	**3.2**	**2.7**	**3.8**
6.4	**5.8**	**4.5**	**5.6**	**5.4**	**4.6**	**4.8**	**3.8**	**5.1**	**6.6**	**5.2**	**11.4**
43.7	**44.0**	**42.8**	**48.1**	**41.9**	**43.4**	**42.1**	**43.0**	**45.0**	**41.3**	**39.1**	**40.4**
3.5	4.1	1.5	2.3	2.5	1.0	4.1	2.0	1.6	1.6	2.4	1.6
13.7	12.4	18.3	16.7	15.7	15.0	17.1	18.4	17.9	19.0	15.9	18.4
0.2	0.3	0.9	1.1	1.2	1.0	0.5	1.4	0.8	0.8	0.5	0.0
7.3	8.9	4.4	5.0	5.4	9.2	6.6	5.6	9.2	5.9	5.3	6.1
18.9	18.3	17.8	23.0	16.9	17.3	13.8	15.7	15.5	13.9	15.0	14.3

Table 5.21: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1957–2016, **males**

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C00–14	Mouth, pharynx	**Total**	**187**	**188**	**214**	**244**
		Localised	128	134	137	161
		Regional	45	44	46	66
		Distant	4	6	10	10
		Unknown	10	5	21	6
C15	Oesophagus	**Total**	**77**	**78**	**80**	**82**
		Localised	49	46	42	38
		Regional	10	10	13	17
		Distant	13	18	18	22
		Unknown	5	4	8	4
C16	Stomach	**Total**	**843**	**786**	**745**	**650**
		Localised	238	220	185	165
		Regional	172	173	150	145
		Distant	360	342	328	296
		Unknown	74	51	84	43
C18	Colon	**Total**	**246**	**306**	**369**	**416**
		Localised	99	125	138	150
		Regional	67	72	87	119
		Distant	67	97	125	132
		Unknown	14	13	19	15
C19–20	Rectum, rectosigmoid	**Total**	**153**	**186**	**271**	**328**
		Localised	75	90	126	155
		Regional	38	50	71	89
		Distant	28	41	60	75
		Unknown	12	6	14	8
C22	Liver	**Total**	**22**	**23**	**41**	**54**
		Localised	11	11	20	25
		Regional	0	1	1	5
		Distant	8	10	16	21
		Unknown	2	0	4	3
C23–24	Gallbladder, bile ducts	**Total**	**21**	**22**	**27**	**29**
		Localised	8	8	9	8
		Regional	3	4	3	7
		Distant	8	9	12	13
		Unknown	1	1	2	1
C25	Pancreas	**Total**	**148**	**185**	**226**	**251**
		Localised	44	54	53	49
		Regional	17	21	29	34
		Distant	75	101	125	147
		Unknown	12	9	19	22
C33–34	Lung, trachea	**Total**	**284**	**396**	**574**	**710**
		Localised	85	136	187	225
		Regional	57	84	109	132
		Distant	121	154	242	303
		Unknown	21	22	37	50
C43	Melanoma of the skin	**Total**	**56**	**80**	**117**	**161**
		Localised	35	53	74	127
		Regional	8	11	15	16
		Distant	10	15	16	15
		Unknown	2	1	12	3
C61	Prostate	**Total**	**689**	**871**	**1 057**	**1 281**
		Localised	407	581	663	864
		Regional	31	31	40	73
		Distant	183	210	235	268
		Unknown	69	49	118	76

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	%2012–16
234	**253**	**251**	**257**	**260**	**258**	**306**	**380**	***100.0***
148	152	142	118	94	82	114	137	*36.0*
72	88	81	91	99	122	143	189	*49.8*
8	5	10	12	12	12	12	16	*4.3*
7	9	19	35	55	42	36	38	*9.9*
89	**84**	**103**	**107**	**121**	**138**	**162**	**206**	***100.0***
44	36	28	22	19	28	28	30	*14.5*
18	21	24	25	24	37	47	56	*27.1*
21	22	34	25	35	44	49	52	*25.3*
5	5	18	34	42	28	38	68	*33.2*
601	**579**	**518**	**449**	**381**	**327**	**305**	**297**	***100.0***
178	168	138	90	58	59	62	53	*17.7*
154	160	143	130	111	102	86	87	*29.4*
233	205	175	141	133	116	105	87	*29.4*
36	45	62	88	80	50	52	70	*23.5*
541	**674**	**760**	**850**	**948**	**1 038**	**1 186**	**1 367**	***100.0***
153	200	235	219	163	187	175	254	*18.5*
216	275	280	359	460	524	631	688	*50.4*
152	174	210	221	248	262	320	338	*24.7*
20	25	35	50	78	64	59	87	*6.4*
449	**513**	**527**	**563**	**601**	**661**	**697**	**795**	***100.0***
203	218	209	200	163	167	129	189	*23.8*
153	184	195	211	238	282	363	382	*48.0*
83	91	98	104	121	131	148	147	*18.4*
11	20	25	48	80	80	56	78	*9.8*
49	**68**	**60**	**59**	**70**	**81**	**110**	**161**	***100.0***
25	33	27	20	22	25	42	49	*30.6*
4	6	3	3	5	8	12	19	*11.6*
15	19	12	11	17	20	29	35	*21.9*
5	10	17	26	27	29	28	58	*35.8*
38	**47**	**49**	**53**	**61**	**63**	**69**	**83**	***100.0***
11	16	16	11	10	11	13	11	*13.0*
9	10	9	10	13	22	25	40	*48.3*
16	16	14	15	16	18	20	21	*25.2*
2	5	10	16	22	13	11	11	*13.5*
271	**297**	**294**	**281**	**276**	**310**	**344**	**391**	***100.0***
44	59	56	33	17	24	28	29	*7.4*
35	41	26	34	39	72	76	83	*21.1*
161	155	160	130	136	164	190	201	*51.4*
31	42	51	84	85	50	50	79	*20.1*
915	**1 084**	**1 147**	**1 253**	**1 295**	**1 421**	**1 541**	**1 613**	***100.0***
299	341	325	276	196	188	231	275	*17.1*
162	219	227	258	325	413	437	466	*28.9*
390	431	456	479	571	670	723	674	*41.8*
64	93	139	240	202	150	149	198	*12.3*
220	**263**	**380**	**427**	**470**	**520**	**715**	**974**	***100.0***
181	216	325	357	293	288	499	827	*84.9*
16	19	16	15	16	22	35	73	*7.5*
16	18	23	23	29	33	30	34	*3.5*
7	10	15	31	132	177	151	40	*4.1*
1 524	**1 711**	**1 921**	**2 439**	**2 952**	**3 527**	**4 501**	**4 989**	***100.0***
1 024	1 098	1 201	1 122	920	1 568	2 061	2 462	*49.3*
65	63	60	104	120	249	895	1 320	*26.5*
331	438	482	388	402	418	418	347	*7.0*
104	111	177	824	1 511	1 292	1 127	860	*17.2*

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Table 5.21: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1957–2016, **males** (Continued)

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C62	Testis	**Total**	**55**	**68**	**78**	**84**
		Localised	37	44	50	45
		Regional	3	4	7	17
		Distant	13	19	18	20
		Unknown	2	1	3	1
C64	Kidney (excl. renal pelvis)	**Total**	**106**	**128**	**158**	**177**
		Localised	55	69	74	75
		Regional	10	17	23	39
		Distant	36	39	56	60
		Unknown	5	3	5	3
C65–68	Urinary tract	**Total**	**215**	**302**	**358**	**499**
		Localised	171	256	282	397
		Regional	17	24	37	61
		Distant	19	18	20	32
		Unknown	8	5	19	10
C70–72	Central nervous system	**Total**	**125**	**135**	**150**	**168**
		Non-malignant	33	36	44	47
		Malignant	92	100	106	121
C73	Thyroid gland	**Total**	**20**	**26**	**35**	**36**
		Localised	6	5	13	17
		Regional	10	13	13	14
		Distant	3	8	8	5
		Unknown	1	0	1	0

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	%2012–16
115	**151**	**170**	**204**	**238**	**248**	**293**	**310**	***100.0***
62	83	114	141	132	140	209	259	*83.6*
26	41	29	35	37	45	37	30	*9.7*
24	24	24	22	31	25	29	20	*6.3*
2	2	3	6	38	37	18	1	*0.4*
210	**249**	**254**	**268**	**293**	**356**	**449**	**563**	***100.0***
81	110	115	133	109	163	255	397	*70.5*
50	50	44	39	43	39	44	51	*9.0*
75	79	81	66	75	84	89	75	*13.4*
5	10	15	31	66	70	61	40	*7.1*
607	**710**	**757**	**836**	**810**	**904**	**980**	**1 180**	***100.0***
497	580	622	635	425	498	690	989	*83.8*
61	63	55	45	46	78	76	75	*6.4*
37	29	33	28	37	41	44	40	*3.4*
13	39	46	128	302	288	170	75	*6.4*
195	**220**	**242**	**289**	**358**	**440**	**498**	**472**	***100.0***
60	69	74	129	171	241	269	229	*48.4*
135	151	169	161	187	199	229	244	*51.6*
44	**46**	**50**	**42**	**49**	**60**	**71**	**110**	***100.0***
21	20	27	19	19	19	25	52	*46.9*
16	17	14	12	17	26	33	44	*39.9*
7	8	8	8	7	7	7	6	*5.8*
0	1	1	3	6	7	5	8	*7.4*

Table 5.22: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1957–2016, **females**

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C00–14	Mouth, pharynx	**Total**	**60**	**69**	**72**	**80**
		Localised	34	41	40	42
		Regional	19	23	26	29
		Distant	3	3	3	4
		Unknown	4	2	3	5
C15	Oesophagus	**Total**	**23**	**32**	**28**	**31**
		Localised	14	21	17	15
		Regional	4	3	3	7
		Distant	3	4	6	6
		Unknown	2	3	3	3
C16	Stomach	**Total**	**580**	**532**	**492**	**419**
		Localised	159	156	110	103
		Regional	97	98	85	89
		Distant	240	218	233	193
		Unknown	85	60	64	34
C18	Colon	**Total**	**286**	**359**	**438**	**513**
		Localised	111	148	166	180
		Regional	72	84	117	154
		Distant	80	108	132	158
		Unknown	22	19	23	20
C19–20	Rectum, rectosigmoid	**Total**	**120**	**140**	**216**	**261**
		Localised	57	67	97	122
		Regional	29	37	58	76
		Distant	27	29	52	56
		Unknown	8	7	10	8
C22	Liver	**Total**	**12**	**13**	**23**	**30**
		Localised	5	6	10	16
		Regional	0	1	1	1
		Distant	5	6	10	11
		Unknown	2	1	2	1
C23–24	Gallbladder, bile ducts	**Total**	**49**	**52**	**59**	**56**
		Localised	14	15	15	16
		Regional	7	8	8	11
		Distant	25	27	35	26
		Unknown	3	2	2	3
C25	Pancreas	**Total**	**105**	**124**	**167**	**189**
		Localised	31	41	42	43
		Regional	9	12	19	24
		Distant	54	63	89	103
		Unknown	10	8	18	19
C33–34	Lung, trachea	**Total**	**73**	**87**	**143**	**173**
		Localised	17	28	46	51
		Regional	10	10	20	27
		Distant	38	43	65	84
		Unknown	9	5	11	11
C43	Melanoma of the skin	**Total**	**60**	**93**	**128**	**200**
		Localised	48	76	92	177
		Regional	6	7	8	9
		Distant	5	8	13	11
		Unknown	1	3	16	3

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	%2012–16
90	**103**	**108**	**131**	**128**	**152**	**184**	**210**	***100.0***
54	55	66	70	49	55	82	96	*45.9*
29	40	32	36	40	60	71	85	*40.7*
3	3	4	4	6	5	5	4	*2.1*
4	5	6	20	33	33	26	24	*11.3*
31	**34**	**39**	**40**	**51**	**53**	**59**	**70**	***100.0***
17	16	13	10	9	13	15	14	*19.4*
5	8	8	6	8	14	15	14	*19.4*
7	5	9	6	11	12	13	15	*21.7*
2	4	9	17	23	15	17	28	*39.4*
407	**387**	**341**	**296**	**242**	**230**	**205**	**170**	***100.0***
117	119	101	66	41	42	46	29	*16.8*
104	97	87	72	62	65	45	40	*23.3*
150	127	113	95	78	82	72	49	*29.1*
36	45	41	63	60	41	42	52	*30.7*
692	**785**	**884**	**1 018**	**1 116**	**1 207**	**1 313**	**1 500**	***100.0***
193	223	273	271	201	222	199	262	*17.5*
277	338	346	430	547	613	722	798	*53.2*
190	190	219	236	259	290	317	335	*22.3*
32	35	45	81	109	83	74	106	*7.1*
361	**405**	**422**	**455**	**477**	**499**	**520**	**549**	***100.0***
164	170	184	163	135	132	108	145	*26.4*
116	141	136	160	183	211	258	248	*45.2*
71	73	72	78	88	91	105	95	*17.3*
11	21	30	53	70	65	50	61	*11.1*
36	**44**	**42**	**42**	**47**	**46**	**68**	**90**	***100.0***
17	18	18	12	10	13	23	28	*30.8*
1	3	2	2	5	6	9	10	*11.4*
14	14	10	8	11	8	17	19	*21.2*
4	8	12	20	21	19	19	33	*36.6*
73	**82**	**75**	**73**	**80**	**78**	**86**	**94**	***100.0***
22	24	23	16	10	14	14	12	*12.6*
10	21	14	12	14	18	25	36	*38.0*
36	29	23	22	28	26	33	32	*33.7*
5	9	15	23	27	19	14	15	*15.8*
224	**274**	**281**	**311**	**326**	**340**	**362**	**392**	***100.0***
44	59	67	40	24	30	41	38	*9.8*
30	35	28	32	40	67	76	86	*22.0*
124	137	133	129	144	168	181	177	*45.1*
25	43	53	110	117	74	64	91	*23.2*
227	**320**	**450**	**580**	**725**	**928**	**1 186**	**1 415**	***100.0***
68	81	115	121	99	138	219	286	*20.2*
31	59	84	118	167	246	302	372	*26.3*
108	148	197	224	336	448	549	582	*41.1*
20	33	54	117	123	96	116	176	*12.4*
264	**359**	**442**	**490**	**513**	**581**	**734**	**967**	***100.0***
237	320	407	428	331	341	538	867	*89.6*
9	16	12	10	11	17	26	46	*4.7*
13	13	11	17	22	20	16	20	*2.1*
6	11	12	35	149	202	153	34	*3.5*

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Table 5.22: Average annual number of new cases for selected cancers by stage and period of diagnosis, 1957–2016, **females** (Continued)

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C50	Breast	**Total**	**941**	**1 072**	**1 230**	**1 408**
		I	414	506	590	714
		II	356	348	387	428
		III	49	93	78	108
		IV	93	97	120	112
		Unknown	29	27	54	47
C53	Cervix uteri [1]	**Total**	**348**	**361**	**403**	**440**
		I	~~151~~	~~150~~	~~206~~	~~242~~
		II	~~116~~	~~135~~	~~124~~	~~112~~
		III	~~50~~	~~48~~	~~47~~	~~59~~
		IV	~~25~~	~~22~~	~~19~~	~~24~~
		Unknown	~~7~~	~~6~~	~~7~~	~~3~~
C54	Corpus uteri	**Total**	**181**	**221**	**268**	**326**
		Localised	145	184	212	271
		Regional	9	13	15	24
		Distant	19	23	36	29
		Unknown	8	2	6	3
C56, C57.0–4	Ovary etc.	**Total**	**273**	**300**	**375**	**386**
		Localised	87	100	123	139
		Regional	23	15	22	22
		Distant	150	177	218	219
		Unknown	12	9	12	7
C64	Kidney (excl. renal pelvis)	**Total**	**78**	**90**	**117**	**118**
		Localised	43	52	62	60
		Regional	9	9	16	23
		Distant	22	27	35	31
		Unknown	4	2	4	4
C65–68	Urinary tract	**Total**	**123**	**135**	**156**	**209**
		Localised	77	87	101	141
		Regional	14	22	22	30
		Distant	21	20	22	28
		Unknown	11	7	11	11
C70–72	Central nervous system	**Total**	**111**	**119**	**131**	**151**
		Non-malignant	46	56	57	60
		Malignant	66	62	73	90
C73	Thyroid gland	**Total**	**53**	**61**	**90**	**110**
		Localised	21	29	48	66
		Regional	17	22	27	28
		Distant	12	8	10	14
		Unknown	3	1	4	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/

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16	%2012–16
1 535	**1 714**	**1 818**	**2 083**	**2 471**	**2 748**	**2 829**	**3 254**	***100.0***
827	799	314	457	729	1 059	1 155	1 341	*41.2*
436	545	689	781	948	1 139	1 016	1 133	*34.8*
95	108	113	121	142	176	297	387	*11.9*
111	112	124	132	126	127	109	109	*3.4*
66	151	578	593	527	247	253	284	*8.7*
399	**352**	**345**	**344**	**310**	**300**	**295**	**336**	***100.0***
~~225~~	~~203~~	~~194~~	~~215~~	~~180~~	~~174~~	~~169~~	~~226~~	~~*67.3*~~
~~86~~	~~71~~	~~71~~	~~61~~	~~63~~	~~56~~	~~65~~	~~47~~	~~*13.9*~~
~~55~~	~~53~~	~~46~~	~~36~~	~~36~~	~~31~~	~~24~~	~~24~~	~~*7.3*~~
~~23~~	~~22~~	~~28~~	~~27~~	~~25~~	~~27~~	~~31~~	~~34~~	~~*10.0*~~
~~10~~	~~3~~	~~5~~	~~5~~	~~6~~	~~11~~	~~6~~	~~5~~	~~*1.5*~~
370	**390**	**411**	**467**	**526**	**649**	**722**	**742**	***100.0***
285	293	300	328	329	400	522	544	*73.4*
45	46	47	47	58	78	58	46	*6.2*
32	39	50	60	69	84	97	91	*12.2*
8	12	13	33	69	87	46	60	*8.1*
417	**454**	**464**	**472**	**482**	**477**	**480**	**477**	***100.0***
106	119	130	119	93	85	96	101	*21.1*
39	35	21	17	14	13	17	14	*3.0*
262	283	295	304	318	328	327	333	*69.8*
11	17	17	32	56	50	40	29	*6.2*
138	**156**	**181**	**191**	**189**	**216**	**250**	**263**	***100.0***
63	69	92	100	72	100	144	188	*71.4*
28	34	26	22	20	23	21	19	*7.2*
43	46	48	44	50	41	44	29	*11.2*
4	7	15	25	48	51	41	27	*10.3*
240	**263**	**266**	**291**	**309**	**350**	**366**	**450**	***100.0***
171	196	204	195	139	180	243	355	*79.0*
33	30	22	22	24	37	35	35	*7.7*
22	17	20	18	26	25	25	20	*4.5*
14	20	21	56	121	109	63	40	*8.8*
186	**223**	**260**	**318**	**434**	**596**	**627**	**535**	***100.0***
82	103	134	188	290	432	458	369	*69.0*
104	121	126	130	144	164	170	166	*31.0*
132	**142**	**135**	**136**	**124**	**153**	**189**	**260**	***100.0***
84	96	89	82	56	71	101	159	*61.0*
31	33	32	36	39	47	61	79	*30.3*
13	10	9	11	11	10	7	8	*3.2*
4	3	4	7	19	25	20	14	*5.5*

Table 5.23: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1957–2016, **males**

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C00–14	Mouth, pharynx	**Total**	**15.5**	**14.5**	**15.2**	**15.8**
		Localised	10.6	10.5	9.7	10.4
		Regional	3.5	3.2	3.3	4.3
		Distant	0.4	0.5	0.7	0.6
		Unknown	1.0	0.3	1.5	0.4
C15	Oesophagus	**Total**	**6.8**	**6.1**	**5.8**	**5.5**
		Localised	4.5	3.8	3.1	2.7
		Regional	0.7	0.7	0.9	1.1
		Distant	1.0	1.2	1.3	1.4
		Unknown	0.6	0.4	0.6	0.3
C16	Stomach	**Total**	**71.9**	**61.1**	**54.4**	**44.3**
		Localised	21.3	18.3	14.4	12.0
		Regional	13.0	12.3	9.9	9.3
		Distant	29.2	25.3	22.5	19.2
		Unknown	8.3	5.2	7.6	3.8
C18	Colon	**Total**	**20.8**	**23.8**	**26.6**	**28.3**
		Localised	8.5	9.9	10.2	10.3
		Regional	5.2	5.1	6.0	7.8
		Distant	5.6	7.4	8.7	8.9
		Unknown	1.5	1.4	1.7	1.3
C19–20	Rectum, rectosigmoid	**Total**	**13.1**	**14.2**	**19.2**	**21.8**
		Localised	6.7	6.9	9.2	10.5
		Regional	2.9	3.7	4.7	5.7
		Distant	2.3	3.0	4.1	4.9
		Unknown	1.2	0.7	1.3	0.7
C22	Liver	**Total**	**1.6**	**1.6**	**2.8**	**3.4**
		Localised	0.9	0.8	1.4	1.5
		Regional	0.0	0.1	0.1	0.4
		Distant	0.6	0.7	1.0	1.3
		Unknown	0.1	0.0	0.3	0.2
C23–24	Gallbladder, bile ducts	**Total**	**1.7**	**1.6**	**1.9**	**2.0**
		Localised	0.6	0.6	0.6	0.5
		Regional	0.3	0.3	0.2	0.5
		Distant	0.6	0.8	0.8	0.9
		Unknown	0.1	0.0	0.2	0.1
C25	Pancreas	**Total**	**11.6**	**13.6**	**15.6**	**16.4**
		Localised	3.5	4.1	3.7	3.3
		Regional	1.3	1.6	1.9	2.2
		Distant	5.8	7.2	8.6	9.5
		Unknown	1.0	0.7	1.4	1.5
C33–34	Lung, trachea	**Total**	**20.4**	**26.6**	**36.2**	**42.6**
		Localised	6.3	9.2	11.8	13.6
		Regional	3.9	5.4	6.6	7.6
		Distant	8.6	10.3	15.2	18.1
		Unknown	1.6	1.6	2.6	3.2
C43	Melanoma of the skin	**Total**	**3.9**	**5.3**	**7.5**	**9.7**
		Localised	2.5	3.6	4.7	7.6
		Regional	0.5	0.7	0.9	1.0
		Distant	0.7	0.9	1.1	1.0
		Unknown	0.1	0.0	0.8	0.2
C61	Prostate	**Total**	**65.6**	**75.5**	**83.3**	**91.9**
		Localised	38.7	50.3	51.8	60.9
		Regional	3.1	2.9	3.2	5.4
		Distant	16.8	17.6	18.0	19.2
		Unknown	6.9	4.7	10.3	6.4

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
14.6	**15.0**	**14.6**	**14.3**	**14.0**	**13.0**	**14.0**	**15.6**
9.3	9.0	8.3	6.5	5.1	4.2	5.3	5.7
4.3	5.1	4.6	5.1	5.2	6.0	6.4	7.6
0.5	0.3	0.5	0.7	0.6	0.6	0.6	0.7
0.5	0.6	1.2	2.1	3.0	2.2	1.7	1.6
5.6	**5.0**	**5.9**	**6.1**	**6.6**	**7.3**	**7.6**	**8.7**
2.9	2.2	1.7	1.3	1.1	1.5	1.3	1.3
1.0	1.2	1.3	1.4	1.3	1.9	2.2	2.3
1.3	1.2	1.9	1.4	1.9	2.3	2.3	2.2
0.4	0.3	1.1	2.0	2.3	1.6	1.8	2.9
38.4	**35.6**	**30.7**	**25.7**	**21.2**	**17.5**	**14.7**	**12.8**
12.1	11.2	8.6	5.2	3.2	3.3	3.1	2.3
9.4	9.2	7.9	7.2	6.0	5.3	4.0	3.7
14.3	12.0	10.1	7.8	7.3	6.1	5.0	3.7
2.6	3.2	4.0	5.6	4.8	2.9	2.6	3.1
34.7	**40.9**	**44.9**	**48.4**	**52.2**	**54.7**	**57.5**	**59.0**
10.0	12.3	13.7	12.4	8.9	9.9	8.4	10.8
13.6	16.3	16.5	20.5	25.2	27.5	30.7	29.6
9.5	10.4	12.4	12.3	13.5	13.6	15.3	14.4
1.6	1.9	2.4	3.3	4.6	3.6	3.1	4.2
28.5	**30.7**	**30.5**	**32.0**	**33.0**	**34.5**	**32.9**	**33.3**
13.4	13.3	12.1	11.3	8.9	8.8	6.1	7.8
9.2	10.5	11.1	11.7	12.9	14.5	17.1	15.9
5.1	5.4	5.6	5.8	6.6	6.8	6.9	6.1
0.9	1.4	1.7	3.2	4.6	4.3	2.8	3.4
2.9	**4.0**	**3.5**	**3.1**	**3.8**	**4.2**	**5.2**	**6.7**
1.5	2.0	1.6	1.1	1.2	1.3	2.0	2.0
0.2	0.4	0.2	0.1	0.3	0.4	0.5	0.8
0.9	1.1	0.7	0.6	0.9	1.0	1.3	1.5
0.3	0.6	1.0	1.4	1.5	1.5	1.3	2.5
2.5	**2.8**	**2.8**	**3.1**	**3.5**	**3.3**	**3.3**	**3.5**
0.8	1.0	1.0	0.7	0.5	0.6	0.6	0.5
0.5	0.5	0.5	0.6	0.7	1.1	1.2	1.6
1.1	0.9	0.7	0.8	0.9	1.0	0.9	0.9
0.1	0.3	0.6	1.0	1.3	0.7	0.6	0.5
16.8	**18.1**	**17.1**	**16.0**	**15.3**	**16.3**	**16.6**	**16.7**
2.9	3.9	3.4	2.0	0.9	1.3	1.3	1.2
2.1	2.4	1.5	1.8	2.1	3.7	3.6	3.5
9.7	9.0	9.1	7.1	7.4	8.5	9.0	8.4
2.0	2.8	3.1	5.0	4.8	2.7	2.6	3.6
53.0	**61.5**	**63.9**	**69.3**	**69.7**	**73.4**	**73.0**	**68.6**
17.4	19.4	18.1	15.1	10.5	9.6	11.0	11.6
9.1	12.2	12.4	14.0	17.2	21.2	20.7	19.5
22.3	24.4	25.3	26.4	30.5	34.5	34.0	28.5
4.1	5.5	8.1	13.7	11.4	8.0	7.4	9.1
12.9	**14.8**	**21.0**	**22.7**	**24.2**	**25.6**	**32.6**	**40.4**
10.6	12.1	17.9	18.9	15.0	14.2	22.6	34.2
0.9	1.1	0.9	0.8	0.8	1.1	1.6	3.1
0.9	1.0	1.3	1.3	1.6	1.6	1.4	1.4
0.4	0.6	0.9	1.7	6.8	8.8	6.9	1.7
101.8	**105.8**	**114.1**	**140.8**	**166.7**	**188.3**	**214.2**	**207.2**
67.4	67.3	70.9	63.9	51.2	82.5	96.0	99.7
4.2	3.8	3.5	6.2	6.9	13.3	42.9	55.0
22.3	27.4	28.4	22.4	22.8	22.6	21.0	15.6
7.9	7.4	11.2	48.3	85.9	69.8	54.3	37.0

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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, 1957–2016, **males** (Continued)

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C62	Testis	**Total**	**3.4**	**4.1**	**4.5**	**4.6**
		Localised	2.2	2.6	2.9	2.4
		Regional	0.2	0.3	0.4	0.9
		Distant	0.8	1.1	1.0	1.1
		Unknown	0.1	0.1	0.2	0.1
C64	Kidney (excl. renal pelvis)	**Total**	**7.8**	**9.2**	**10.2**	**10.8**
		Localised	4.0	5.0	5.0	4.7
		Regional	0.7	1.1	1.4	2.3
		Distant	2.6	2.7	3.5	3.6
		Unknown	0.4	0.3	0.3	0.3
C65–68	Urinary tract	**Total**	**17.6**	**22.8**	**24.6**	**32.3**
		Localised	13.9	19.3	19.1	25.5
		Regional	1.3	1.8	2.7	3.9
		Distant	1.6	1.3	1.4	2.2
		Unknown	0.8	0.4	1.4	0.8
C70–72	Central nervous system	**Total**	**7.6**	**7.9**	**8.4**	**9.2**
		Non-malignant	2.1	2.2	2.6	2.6
		Malignant	5.5	5.8	5.8	6.6
C73	Thyroid gland	**Total**	**1.5**	**1.8**	**2.2**	**2.2**
		Localised	0.4	0.4	0.8	1.1
		Regional	0.7	0.8	0.7	0.8
		Distant	0.2	0.6	0.6	0.3
		Unknown	0.0	0.0	0.1	0.0

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
5.9	**7.1**	**7.7**	**8.9**	**10.1**	**10.6**	**12.0**	**11.8**
3.2	3.9	5.2	6.1	5.6	6.0	8.6	9.9
1.3	1.9	1.3	1.5	1.6	1.9	1.5	1.2
1.2	1.1	1.1	1.0	1.4	1.1	1.2	0.7
0.1	0.1	0.1	0.3	1.6	1.6	0.7	0.1
12.4	**14.4**	**14.5**	**14.7**	**15.6**	**17.9**	**20.5**	**22.8**
4.8	6.3	6.5	7.2	5.7	8.1	11.5	15.8
2.9	2.9	2.5	2.2	2.3	1.9	2.0	2.1
4.3	4.5	4.6	3.6	3.9	4.3	4.2	3.1
0.4	0.6	0.9	1.7	3.7	3.6	2.8	1.9
37.5	**42.3**	**44.1**	**47.7**	**44.6**	**47.6**	**47.4**	**51.4**
30.5	34.5	36.3	36.0	23.2	26.0	33.3	43.0
3.7	3.5	3.1	2.6	2.5	4.0	3.6	3.2
2.3	1.6	2.0	1.6	2.1	2.1	2.2	1.8
1.0	2.6	2.8	7.5	16.9	15.4	8.4	3.3
10.6	**11.7**	**12.8**	**14.9**	**17.6**	**20.8**	**22.0**	**19.0**
3.4	3.8	4.0	6.6	8.4	11.3	11.8	9.2
7.2	7.9	8.8	8.3	9.2	9.5	10.2	9.8
2.6	**2.5**	**2.7**	**2.2**	**2.4**	**2.8**	**3.1**	**4.4**
1.2	1.1	1.4	1.0	0.9	0.9	1.1	2.0
0.9	0.9	0.8	0.6	0.8	1.2	1.5	1.8
0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.3
0.0	0.1	0.1	0.2	0.3	0.4	0.2	0.3

Table 5.24: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1957–2016, **females**

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C00–14	Mouth, pharynx	**Total**	**4.4**	**4.5**	**4.3**	**4.4**
		Localised	2.4	2.6	2.4	2.3
		Regional	1.5	1.6	1.6	1.6
		Distant	0.2	0.2	0.2	0.2
		Unknown	0.3	0.1	0.2	0.3
C15	Oesophagus	**Total**	**1.7**	**2.3**	**1.7**	**1.6**
		Localised	1.1	1.5	1.0	0.8
		Regional	0.2	0.2	0.2	0.4
		Distant	0.2	0.3	0.3	0.3
		Unknown	0.1	0.3	0.2	0.1
C16	Stomach	**Total**	**43.6**	**36.8**	**29.4**	**22.9**
		Localised	12.4	11.2	6.9	5.9
		Regional	6.4	5.9	4.7	4.6
		Distant	16.9	14.4	13.4	10.4
		Unknown	7.9	5.3	4.5	2.1
C18	Colon	**Total**	**20.7**	**23.6**	**25.6**	**27.7**
		Localised	8.1	9.9	9.9	9.8
		Regional	4.9	5.2	6.5	8.0
		Distant	5.7	6.8	7.6	8.5
		Unknown	2.0	1.7	1.7	1.4
C19–20	Rectum, rectosigmoid	**Total**	**8.6**	**8.8**	**12.6**	**14.1**
		Localised	4.1	4.2	5.8	6.6
		Regional	2.0	2.2	3.2	4.0
		Distant	1.8	1.8	3.0	2.9
		Unknown	0.6	0.5	0.7	0.5
C22	Liver	**Total**	**0.9**	**0.8**	**1.3**	**1.5**
		Localised	0.4	0.3	0.5	0.8
		Regional	0.0	0.0	0.0	0.1
		Distant	0.4	0.4	0.6	0.6
		Unknown	0.1	0.0	0.1	0.0
C23–24	Gallbladder, bile ducts	**Total**	**3.4**	**3.4**	**3.4**	**3.0**
		Localised	0.9	1.0	0.8	0.9
		Regional	0.5	0.5	0.5	0.6
		Distant	1.7	1.8	2.0	1.3
		Unknown	0.2	0.1	0.1	0.2
C25	Pancreas	**Total**	**7.3**	**7.8**	**9.7**	**10.0**
		Localised	2.2	2.6	2.4	2.3
		Regional	0.6	0.7	1.0	1.2
		Distant	3.7	4.0	5.0	5.4
		Unknown	0.7	0.5	1.2	1.1
C33–34	Lung, trachea	**Total**	**4.9**	**5.3**	**8.1**	**9.0**
		Localised	1.1	1.7	2.7	2.6
		Regional	0.7	0.6	1.1	1.4
		Distant	2.5	2.6	3.7	4.4
		Unknown	0.6	0.3	0.7	0.6
C43	Melanoma of the skin	**Total**	**3.9**	**5.6**	**7.5**	**11.2**
		Localised	3.1	4.5	5.3	9.9
		Regional	0.4	0.4	0.5	0.5
		Distant	0.3	0.5	0.7	0.6
		Unknown	0.1	0.2	0.9	0.2

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
4.6	**4.9**	**5.0**	**5.8**	**5.6**	**6.4**	**7.3**	**7.7**
2.8	2.6	3.0	3.1	2.1	2.3	3.2	3.5
1.4	1.9	1.5	1.6	1.8	2.6	2.9	3.2
0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2
0.2	0.3	0.3	0.9	1.4	1.3	1.0	0.8
1.6	**1.6**	**1.7**	**1.7**	**2.1**	**2.1**	**2.2**	**2.5**
0.9	0.8	0.6	0.4	0.4	0.5	0.6	0.5
0.3	0.4	0.4	0.3	0.4	0.6	0.6	0.5
0.3	0.2	0.4	0.3	0.5	0.5	0.5	0.5
0.1	0.2	0.3	0.7	0.9	0.5	0.6	1.0
20.2	**17.8**	**14.7**	**12.1**	**9.6**	**8.9**	**7.6**	**6.0**
6.0	5.5	4.4	2.7	1.6	1.6	1.7	1.0
5.0	4.3	3.8	3.0	2.5	2.5	1.7	1.4
7.3	5.8	4.8	3.9	3.3	3.3	2.7	1.8
2.0	2.2	1.7	2.5	2.2	1.5	1.5	1.8
34.5	**36.1**	**38.7**	**43.0**	**45.6**	**47.8**	**49.7**	**53.3**
9.6	10.3	11.9	11.4	8.2	8.7	7.6	9.4
13.6	15.4	15.1	18.2	22.4	24.3	27.5	28.4
9.4	8.8	9.8	10.2	10.8	11.7	12.2	12.1
1.8	1.7	1.9	3.2	4.2	3.1	2.4	3.4
18.0	**18.8**	**18.5**	**19.6**	**20.1**	**20.3**	**20.2**	**20.0**
8.3	7.9	8.1	7.1	5.8	5.4	4.3	5.3
5.6	6.5	6.0	7.0	7.8	8.6	10.1	9.1
3.5	3.3	3.1	3.4	3.7	3.8	4.1	3.5
0.6	1.0	1.3	2.2	2.8	2.5	1.8	2.1
1.8	**2.1**	**1.8**	**1.8**	**1.9**	**1.8**	**2.5**	**3.2**
0.8	0.8	0.8	0.5	0.4	0.5	0.9	1.0
0.1	0.2	0.1	0.1	0.2	0.2	0.4	0.4
0.7	0.7	0.4	0.3	0.5	0.3	0.7	0.7
0.2	0.4	0.5	0.8	0.8	0.8	0.7	1.1
3.5	**3.8**	**3.2**	**3.0**	**3.3**	**3.0**	**3.3**	**3.4**
1.1	1.1	1.0	0.7	0.4	0.5	0.5	0.4
0.5	1.0	0.6	0.5	0.6	0.8	1.0	1.3
1.7	1.3	1.0	0.9	1.2	1.0	1.3	1.1
0.2	0.4	0.6	0.9	1.0	0.7	0.5	0.5
10.9	**12.4**	**12.0**	**12.9**	**12.9**	**13.3**	**13.6**	**14.0**
2.1	2.7	2.8	1.6	0.9	1.1	1.5	1.4
1.5	1.6	1.3	1.4	1.7	2.7	3.0	3.1
6.0	6.2	5.7	5.6	5.9	6.8	7.0	6.4
1.3	1.9	2.2	4.3	4.3	2.7	2.2	3.1
11.4	**15.4**	**21.1**	**26.9**	**32.9**	**40.0**	**47.6**	**52.1**
3.3	3.7	5.3	5.6	4.5	6.0	8.9	10.6
1.6	2.9	4.0	5.6	7.7	10.6	12.2	13.8
5.4	7.2	9.5	10.7	15.5	19.5	22.1	21.5
1.0	1.5	2.4	5.0	5.2	3.9	4.4	6.1
14.1	**18.2**	**21.5**	**22.8**	**22.8**	**24.9**	**29.6**	**36.4**
12.7	16.3	20.0	19.9	14.9	14.7	21.8	32.8
0.5	0.7	0.5	0.5	0.4	0.7	1.0	1.7
0.7	0.7	0.5	0.8	0.9	0.9	0.7	0.7
0.3	0.5	0.6	1.7	6.6	8.6	6.1	1.2

Continued on next page

Table 5.24: Age-standardised (Norwegian standard) incidence rates per 100 000 person-years for selected cancers by stage and period of diagnosis, 1957–2016, **females** (Continued)

ICD-10	Site	Stage	1957–61	1962–66	1967–71	1972–76
C50	Breast	**Total**	**61.1**	**65.6**	**70.2**	**77.0**
		I	26.8	30.9	33.9	39.0
		II	22.2	20.6	21.6	23.3
		III	3.5	6.1	4.5	5.9
		IV	6.5	6.2	6.9	6.0
		Unknown	2.2	1.9	3.4	2.9
C53	Cervix uteri [1]	**Total**	**20.9**	**21.2**	**23.1**	**24.8**
		I	~~8.9~~	~~8.7~~	~~12.1~~	~~14.2~~
		II	~~6.9~~	~~7.9~~	~~7.0~~	~~6.1~~
		III	~~3.1~~	~~2.9~~	~~2.6~~	~~3.2~~
		IV	~~1.5~~	~~1.3~~	~~1.1~~	~~1.3~~
		Unknown	~~0.4~~	~~0.4~~	~~0.4~~	~~0.2~~
C54	Corpus uteri	**Total**	**11.3**	**12.9**	**14.7**	**17.1**
		Localised	9.0	10.7	11.6	14.2
		Regional	0.6	0.8	0.8	1.2
		Distant	1.2	1.4	2.0	1.5
		Unknown	0.5	0.1	0.3	0.2
C56, C57.0–4	Ovary etc.	**Total**	**17.2**	**17.7**	**20.9**	**20.5**
		Localised	5.4	5.9	6.8	7.5
		Regional	1.5	0.9	1.2	1.2
		Distant	9.5	10.4	12.0	11.5
		Unknown	0.9	0.6	0.8	0.4
C64	Kidney (excl. renal pelvis)	**Total**	**5.1**	**5.4**	**6.5**	**6.1**
		Localised	2.9	3.1	3.5	3.2
		Regional	0.6	0.5	0.9	1.1
		Distant	1.4	1.6	1.9	1.6
		Unknown	0.2	0.1	0.2	0.2
C65–68	Urinary tract	**Total**	**8.8**	**8.8**	**9.1**	**11.1**
		Localised	5.4	5.6	5.9	7.4
		Regional	1.0	1.4	1.2	1.5
		Distant	1.5	1.2	1.3	1.5
		Unknown	0.8	0.5	0.8	0.6
C70–72	Central nervous system	**Total**	**6.6**	**6.8**	**7.1**	**7.8**
		Non-malignant	2.8	3.3	3.2	3.2
		Malignant	3.8	3.5	3.9	4.6
C73	Thyroid gland	**Total**	**3.5**	**3.9**	**5.2**	**6.0**
		Localised	1.4	1.8	2.8	3.7
		Regional	1.1	1.4	1.6	1.5
		Distant	0.8	0.5	0.6	0.7
		Unknown	0.2	0.1	0.3	0.1

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/

1977–81	1982–86	1987–91	1992–96	1997–01	2002–06	2007–11	2012–16
80.1	**85.4**	**86.5**	**96.9**	**113.3**	**120.2**	**115.7**	**123.8**
43.1	39.4	15.1	21.9	35.2	48.7	48.8	52.0
22.7	27.5	33.3	36.8	43.5	49.7	41.6	43.1
4.9	5.2	5.3	5.2	6.1	7.2	12.0	14.6
5.6	5.5	5.8	6.2	5.5	5.3	4.3	4.1
3.8	7.8	27.1	26.8	22.9	9.3	9.1	10.0
21.5	**17.8**	**16.9**	**16.1**	**13.9**	**12.8**	**12.1**	**13.2**
~~12.4~~	~~10.3~~	~~9.5~~	~~10.0~~	~~8.1~~	~~7.5~~	~~7.0~~	~~9.0~~
~~4.5~~	~~3.7~~	~~3.6~~	~~2.9~~	~~2.8~~	~~2.4~~	~~2.7~~	~~1.8~~
~~2.9~~	~~2.6~~	~~2.3~~	~~1.7~~	~~1.6~~	~~1.3~~	~~1.0~~	~~0.9~~
~~1.2~~	~~1.0~~	~~1.4~~	~~1.2~~	~~1.1~~	~~1.2~~	~~1.2~~	~~1.3~~
~~0.5~~	~~0.2~~	~~0.2~~	~~0.2~~	~~0.3~~	~~0.5~~	~~0.2~~	~~0.2~~
19.1	**19.7**	**20.2**	**22.2**	**24.0**	**27.9**	**29.3**	**27.6**
14.8	15.0	15.0	15.8	15.3	17.4	21.3	20.4
2.2	2.3	2.3	2.2	2.6	3.3	2.4	1.7
1.6	1.8	2.3	2.8	3.1	3.6	3.9	3.4
0.4	0.6	0.6	1.5	3.0	3.6	1.8	2.2
21.5	**22.7**	**22.4**	**22.1**	**21.7**	**20.2**	**19.3**	**17.9**
5.5	6.1	6.4	5.7	4.3	3.8	3.9	3.9
2.0	1.8	1.1	0.8	0.6	0.5	0.7	0.5
13.4	14.0	14.2	14.3	14.3	13.9	13.2	12.5
0.6	0.8	0.8	1.4	2.4	2.0	1.5	1.0
6.7	**7.2**	**8.1**	**8.2**	**8.0**	**8.9**	**9.9**	**9.8**
3.1	3.3	4.1	4.4	3.2	4.3	5.8	7.1
1.3	1.5	1.2	0.9	0.8	0.9	0.8	0.7
2.1	2.1	2.2	1.9	2.1	1.6	1.7	1.1
0.2	0.3	0.6	1.0	1.9	2.0	1.6	0.9
11.8	**11.9**	**11.7**	**12.3**	**12.7**	**13.9**	**14.0**	**16.1**
8.4	8.9	9.0	8.3	5.8	7.3	9.3	12.7
1.6	1.3	1.0	0.9	1.0	1.4	1.4	1.2
1.1	0.8	0.8	0.8	1.1	1.0	1.0	0.7
0.7	0.9	0.9	2.3	4.8	4.2	2.3	1.4
9.5	**11.1**	**12.5**	**14.8**	**19.3**	**25.7**	**25.5**	**20.3**
4.3	5.1	6.5	8.7	12.9	18.7	18.6	14.1
5.2	6.0	6.0	6.0	6.4	7.0	6.9	6.3
6.9	**7.0**	**6.4**	**6.3**	**5.5**	**6.5**	**7.8**	**10.1**
4.5	4.8	4.4	3.9	2.6	3.0	4.2	6.2
1.6	1.5	1.5	1.6	1.7	2.0	2.5	3.0
0.6	0.5	0.4	0.5	0.4	0.4	0.3	0.3
0.2	0.2	0.2	0.3	0.8	1.1	0.8	0.5

Chapter 6 Prevalence

As of December 31st 2016, a total of 262 884 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 prevalences were seen for prostate cancer (47 088), breast cancer (45 725), melanoma of the skin (24 594), and colon cancer (21 532).

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 malignant melanomas 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 metastases or local recurrence, 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 2006 and December 31st 2016, both sexes

		Total no. of persons alive		Years after diagnosis			
ICD-10	**Site**	**31.12.2006**	**31.12.2016**	**1**	**1–4**	**5–9**	**10+**
C00–96	**All sites**	**178 718**	**262 884**	**23 855**	**73 820**	**63 293**	**101 916**
C00–14	**Mouth, pharynx**	**3 429**	**4 992**	**550**	**1 576**	**1 206**	**1 660**
C00	Lip	1 202	1 389	108	382	358	541
C01–02	Tongue	554	1 001	139	353	227	282
C03–06	Mouth, other	610	774	94	242	171	267
C07–08	Salivary glands	448	630	69	168	127	266
C09–14	Pharynx	645	1 272	163	464	337	308
C15–26	**Digestive organs**	**27 896**	**39 117**	**5 029**	**12 771**	**9 179**	**12 138**
C15	Oesophagus	289	647	188	276	116	67
C16	Stomach	1 994	1 987	307	568	403	709
C17	Small intestine	585	1 153	159	415	299	280
C18	Colon	15 322	21 532	2 591	7 036	5 145	6 760
C19–20	Rectum, rectosigmoid	8 663	11 789	1 218	3 728	2 892	3 951
C21	Anus	537	762	96	226	173	267
C22	Liver	221	529	134	222	88	85
C23–24	Gallbladder, bile ducts	297	469	95	178	92	104
C25	Pancreas	555	1 021	346	420	144	111
C26	Other digestive organs	116	191	64	60	20	47
C30–34, C38	**Respiratory organs**	**5 711**	**8 979**	**2 041**	**3 461**	**1 751**	**1 726**
C30–31	Nose, sinuses	268	351	37	106	92	116
C32	Larynx, epiglottis	1 074	1 108	97	319	263	429
C33–34	Lung, trachea	4 338	7 507	1 916	3 049	1 392	1 150
C38	Heart, mediastinum and pleura	59	66	11	8	11	36
C40–41	**Bone**	**597**	**807**	**52**	**138**	**149**	**468**
C43	**Melanoma of the skin**	**15 882**	**24 594**	**2 044**	**6 443**	**4 964**	**11 143**
C44	**Skin, non-melanoma**	**10 224**	**15 425**	**1 981**	**5 421**	**3 745**	**4 278**
C45	**Mesothelioma**	**98**	**126**	**57**	**51**	**8**	**10**
C47	**Autonomic nervous system**	**231**	**245**	**2**	**28**	**29**	**186**
C48–49	**Soft tissues**	**1 171**	**1 599**	**126**	**408**	**329**	**736**
C50	**Breast**	**32 424**	**45 725**	**3 307**	**11 477**	**10 529**	**20 412**
C51–58	**Female genital organs**	**19 615**	**22 991**	**1 563**	**4 844**	**4 471**	**12 113**
C51–52, C57.7–9	Other female genital	778	960	102	265	206	387
C53	Cervix uteri	6 769	7 173	318	1 110	1 041	4 704
C54	Corpus uteri	7 989	10 347	738	2 403	2 474	4 732
C55	Uterus, other	42	50	8	9	6	27
C56, C57.0–4	Ovary etc.	4 202	4 657	419	1 123	805	2 310
C58	Placenta	141	154	3	9	11	131
C60–63	**Male genital organs**	**29 209**	**54 914**	**5 265**	**18 464**	**16 409**	**14 776**
C61	Prostate	23 704	47 088	4 930	17 167	14 969	10 022
C62	Testis	5 219	7 483	284	1 230	1 385	4 584
C60, C63	Other male genital	355	552	81	150	124	197
C64–68	**Urinary organs**	**14 055**	**20 531**	**2 344**	**6 789**	**4 994**	**6 404**
C64	Kidney (excl. renal pelvis)	3 853	6 816	784	2 333	1 753	1 946
C65–68	Urinary tract	10 268	13 877	1 592	4 527	3 282	4 476
C69	**Eye**	**885**	**1 086**	**66**	**265**	**204**	**551**
C70–72	**Central nervous system**	**8 878**	**13 165**	**701**	**2 745**	**3 289**	**6 430**
C73	**Thyroid gland**	**3 932**	**5 718**	**411**	**1 188**	**1 027**	**3 092**
C37, C74–75	**Other endocrine glands**	**2 362**	**3 900**	**121**	**841**	**1 094**	**1 844**
C39, C76, C80	**Other or unspecified**	**504**	**598**	**109**	**167**	**112**	**210**
C81–96	**Lymphoid/haematopoietic tissue**	**13 717**	**23 378**	**2 402**	**7 223**	**5 823**	**7 930**
C81	Hodgkin lymphoma	1 961	2 799	159	520	526	1 594
C82–86, C96	Non-Hodgkin lymphoma	5 712	9 672	917	2 902	2 482	3 371
C88	Immunoproliferative disease	338	597	41	238	184	134
C90	Multiple myeloma	1 323	2 045	364	881	502	298
C91–95	Leukaemia	4 454	8 461	953	2 761	2 182	2 565

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

	Alive by					
Health region	**31.12.1991**	**31.12.1996**	**31.12.2001**	**31.12.2006**	**31.12.2011**	**31.12.2016**
South East	4 219	5 248	6 534	8 222	10 342	12 219
West	1 616	1 793	2 376	2 886	3 516	4 338
Middle	1 143	1 348	1 588	2 044	2 444	2 857
North	734	846	1 008	1 373	1 666	1 937
Total	**7 712**	**9 235**	**11 506**	**14 525**	**17 968**	**21 351**

Chapter 7 Mortality

The mortality data is obtained from the Cause of Death Registry. Of note is that mortality data for 2016 was not complete when this report was published (October 2017), and we therefore report figures for 2015.

There were 10 944 deaths from cancer in Norway in 2015, of which 5915 were men, and 5029 women (Table 7.1). Cancers of the lung, colon, rectum, prostate and female breast account for half of the total cancer deaths.

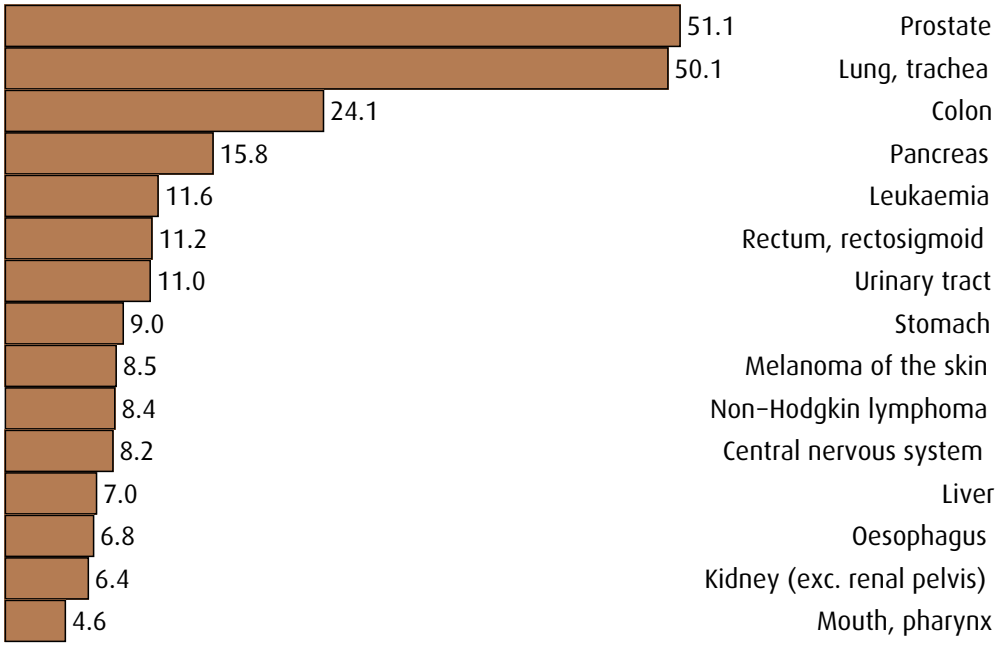
Among men, lung cancer caused 1191 deaths in 2015. Prostate cancer (1045 deaths), colon cancer (547 deaths) and pancreas cancer (376 deaths) represent the second, third and fourth most frequent causes of cancer death among men, respectively.

Lung cancer mortality also ranks highest among women (984 deaths). Colon cancer (605 deaths), breast cancer (585 deaths), and pancreas cancer (385 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, 2015

MALES



FEMALES

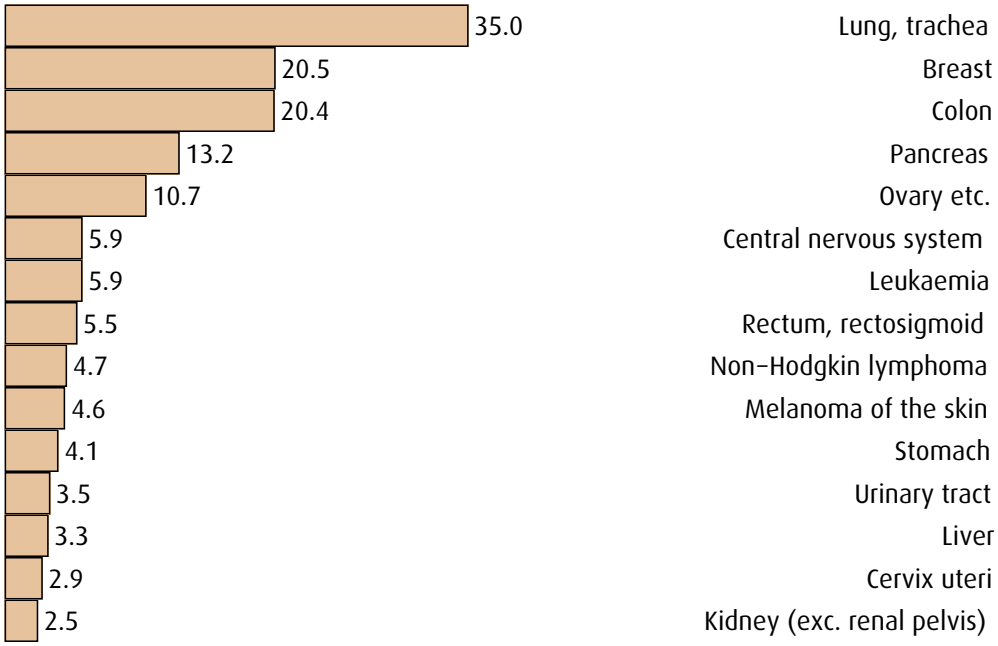


Table 7.1: Number of cancer deaths by primary site and sex, 2015

ICD-10	Site	Males	Females	Total
C00–96	**All sites**	**5 915**	**5 029**	**10 944**
C00–14	**Mouth, pharynx**	**112**	**54**	**166**
C00	Lip	3	1	4
C01–02	Tongue	24	16	40
C03–06	Mouth, other	24	19	43
C07–08	Salivary glands	14	8	22
C09–14	Pharynx	47	10	57
C15–26	**Digestive organs**	**1 794**	**1 552**	**3 346**
C15	Oesophagus	160	56	216
C16	Stomach	204	121	325
C17	Small intestine	23	22	45
C18	Colon	547	605	1 152
C19–20	Rectum, rectosigmoid	258	164	422
C21	Anus	6	10	16
C22	Liver	166	96	262
C23–24	Gallbladder, bile ducts	24	55	79
C25	Pancreas	376	385	761
C26	Other digestive organs	30	38	68
C30–34, C38	**Respiratory organs**	**1 241**	**1 002**	**2 243**
C30–31	Nose, sinuses	8	2	10
C32	Larynx, epiglottis	34	10	44
C33–34	Lung, trachea	1 191	984	2 175
C38	Heart, mediastinum and pleura	8	6	14
C40–41	**Bone**	**11**	**8**	**19**
C43	**Melanoma of the skin**	**201**	**129**	**330**
C44	**Skin, non-melanoma**	**23**	**26**	**49**
C45	**Mesothelioma**	**47**	**10**	**57**
C47	**Autonomic nervous system**	**0**	**0**	**0**
C48–49	**Soft tissues**	**32**	**43**	**75**
C50	**Breast**	**6**	**585**	**591**
C51–58	**Female genital organs**	**0**	**563**	**563**
C51–52, C57.7–9	Other female genital	0	45	45
C53	Cervix uteri	0	79	79
C54	Corpus uteri	0	67	67
C55	Uterus, other	0	72	72
C56, C57.0–4	Ovary etc.	0	299	299
C58	Placenta	0	1	1
C60–63	**Male genital organs**	**1 061**	**0**	**1 061**
C61	Prostate	1 045	0	1 045
C62	Testis	5	0	5
C60, C63	Other male genital	11	0	11
C64–68	**Urinary organs**	**382**	**181**	**563**
C64	Kidney (excl. renal pelvis)	146	76	222
C65–68	Urinary tract	236	105	341
C69	**Eye**	**0**	**3**	**3**
C70–72	**Central nervous system**	**203**	**165**	**368**
C73	**Thyroid gland**	**19**	**29**	**48**
C37, C74–75	**Other endocrine glands**	**7**	**8**	**15**
C39, C76, C80	**Other or unspecified**	**181**	**214**	**395**
C81–96	**Lymphoid/haematopoietic tissue**	**595**	**457**	**1 052**
C81	Hodgkin lymphoma	8	6	14
C82–86, C96	Non-Hodgkin lymphoma	189	141	330
C88	Immunoproliferative disease	11	4	15
C90	Multiple myeloma	132	130	262
C91–95	Leukaemia	255	176	431

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 2012–2016 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 curves tend to level off a certain number of years after diagnosis, indicating that from this point forward, the cancer patient group has similar mortality to 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, as is determined on the basis of a 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, and 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 differential in prognosis according to type of cancer. 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 may relate 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 under the age of 50 are slightly lower than for patients diagnosed at the age 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 provides the five-year relative survival estimates over the last four decades by stage and cancer site 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, 1977–2016, **males**

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1977–81**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16***
C00–96	**All sites**	**Total**	**40.7**	**43.6**	**46.7**	**51.9**	**57.8**	**62.7**	**69.0**	**72.2**
C00–14	**Mouth, pharynx**	**Total**	**59.6**	**57.4**	**57.2**	**55.5**	**54.4**	**55.2**	**65.0**	**67.2**
		Localised	79.8	77.7	80.6	81.8	78.9	79.0	83.2	84.9
		Regional	24.0	26.6	27.4	28.1	34.5	39.8	52.0	60.0
		Distant	-	-	-	13.4	5.6	13.5	9.8	7.2
		Unknown	-	-	35.5	53.3	56.1	60.3	74.4	55.9
C15	**Oesophagus**	**Total**	**2.1**	**4.7**	**5.0**	**5.8**	**7.3**	**8.5**	**13.9**	**18.8**
		Localised	2.7	7.2	11.7	15.4	26.4	22.5	32.7	46.9
		Regional	2.2	6.9	4.3	4.1	7.2	12.1	14.8	23.4
		Distant	0.8	0.0	0.5	0.8	0.6	0.0	1.6	3.9
		Unknown	-	-	3.6	3.5	7.9	4.9	16.7	14.7
C16	**Stomach**	**Total**	**17.8**	**16.9**	**19.3**	**17.7**	**19.0**	**20.3**	**24.5**	**25.6**
		Localised	41.7	39.2	50.5	58.3	56.1	57.0	60.4	65.2
		Regional	20.3	18.9	20.2	17.2	20.9	21.7	24.7	31.4
		Distant	1.4	1.5	0.8	0.6	2.0	1.5	3.7	2.8
		Unknown	2.3	6.3	4.6	9.7	19.8	27.5	24.6	16.0
C18	**Colon**	**Total**	**43.5**	**47.9**	**47.2**	**51.5**	**55.5**	**57.4**	**60.0**	**62.0**
		Localised	70.3	77.8	76.3	85.2	93.3	87.6	90.3	90.5
		Regional	53.4	55.3	56.4	62.7	68.6	72.0	77.6	79.9
		Distant	6.0	4.6	4.4	4.1	6.8	8.1	12.4	13.8
		Unknown	12.8	32.3	26.6	31.2	55.5	56.0	44.6	22.8
C19–20	**Rectum, rectosigmoid**	**Total**	**41.2**	**43.7**	**47.3**	**51.1**	**57.4**	**60.5**	**65.7**	**68.5**
		Localised	61.0	66.5	71.8	80.7	85.1	86.9	90.7	94.6
		Regional	37.6	39.3	45.6	52.4	65.5	69.6	79.9	81.6
		Distant	3.5	2.7	3.9	3.5	10.3	11.6	16.0	17.8
		Unknown	26.8	28.3	33.3	28.0	50.5	58.0	47.2	39.1
C22	**Liver**	**Total**	**4.2**	**2.7**	**4.2**	**8.0**	**7.1**	**7.3**	**15.7**	**16.2**
		Localised	5.9	5.0	7.8	16.1	19.9	12.6	27.9	38.2
		Regional	-	-	-	-	-	-	6.3	-
		Distant	3.3	0.0	-	-	0.0	2.8	2.4	-
		Unknown	-	-	2.2	3.9	2.6	7.4	14.6	9.6
C23–24	**Gallbladder, bile ducts**	**Total**	**8.4**	**12.8**	**11.2**	**9.5**	**15.7**	**15.8**	**17.5**	**19.6**
		Localised	11.4	26.7	16.9	20.1	-	44.4	29.2	51.0
		Regional	-	-	-	-	22.6	14.5	25.4	24.6
		Distant	2.6	1.5	1.6	1.9	1.9	3.8	2.5	-
		Unknown	-	-	-	1.3	14.9	10.8	-	-
C25	**Pancreas**	**Total**	**1.6**	**1.5**	**1.8**	**2.5**	**2.6**	**5.2**	**5.8**	**8.0**
		Localised	2.7	3.3	3.5	9.5	8.8	20.5	24.4	40.6
		Regional	3.7	1.6	5.9	6.1	5.4	6.5	9.1	11.4
		Distant	0.5	0.3	1.0	0.9	1.3	2.6	2.0	2.2
		Unknown	5.1	4.6	0.5	1.8	2.3	4.2	8.6	12.2
C33–34	**Lung, trachea**	**Total**	**6.1**	**7.5**	**7.3**	**8.1**	**8.9**	**10.3**	**13.0**	**16.0**
		Localised	13.8	17.4	16.1	22.5	33.7	41.1	44.6	53.3
		Regional	5.9	8.0	9.4	8.4	9.3	11.8	15.4	19.4
		Distant	0.7	0.5	0.8	0.5	0.7	1.1	1.9	1.8
		Unknown	4.0	3.0	5.6	5.8	8.0	11.2	12.2	8.9
C43	**Melanoma of the skin**	**Total**	**61.0**	**66.9**	**69.0**	**75.6**	**75.4**	**75.5**	**78.6**	**83.7**
		Localised	69.4	75.3	76.9	81.9	85.9	83.6	87.1	89.9
		Regional	20.2	30.0	35.0	37.0	40.0	38.2	38.9	53.1
		Distant	8.8	1.7	8.2	15.0	10.3	8.4	12.0	16.1
		Unknown	-	-	36.8	67.8	71.6	79.5	73.0	55.2
C61	**Prostate**	**Total**	**56.5**	**56.4**	**59.1**	**68.0**	**79.8**	**85.1**	**91.7**	**93.6**
		Localised	71.7	72.9	73.5	79.8	95.4	96.2	100.8	101.6
		Regional	40.3	41.4	54.7	63.5	74.1	82.1	93.1	94.0
		Distant	19.2	20.7	24.6	24.1	25.8	30.0	36.5	36.8
		Unknown	40.4	52.3	65.0	71.3	83.2	87.5	94.4	97.7

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Table 8.1: Five-year relative survival by primary site, stage and period of diagnosis, 1977–2016, **males** (Continued)

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1977–81**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16***
C62	**Testis**	**Total**	**84.9**	**92.4**	**94.9**	**96.0**	**96.4**	**97.0**	**98.1**	**98.6**
		Localised	96.6	98.0	98.3	99.2	99.2	99.8	99.3	99.4
		Regional	89.0	95.6	96.3	96.8	97.8	95.0	97.0	97.9
		Distant	47.3	67.0	77.0	74.8	77.4	82.6	90.2	89.8
		Unknown	-	-	-	-	100.5	97.7	100.0	-
C64	**Kidney (excl. renal pelvis)**	**Total**	**37.8**	**41.7**	**43.7**	**52.0**	**52.1**	**60.3**	**66.6**	**73.7**
		Localised	68.0	71.4	69.5	76.9	79.8	85.0	86.8	89.6
		Regional	48.4	44.2	50.7	53.0	53.9	54.3	58.6	63.7
		Distant	4.1	6.8	6.0	6.2	7.1	8.8	9.3	10.5
		Unknown	-	-	50.9	33.4	56.9	68.8	70.0	43.7
C65–68	**Urinary tract**	**Total**	**59.5**	**64.6**	**66.5**	**69.7**	**68.5**	**71.8**	**73.4**	**76.7**
		Localised	68.6	72.2	72.8	76.1	79.3	84.3	82.6	83.6
		Regional	27.4	22.6	28.6	24.7	26.7	27.9	30.1	31.3
		Distant	0.0	3.9	7.7	7.0	4.8	5.4	5.1	-
		Unknown	31.1	62.9	66.9	67.2	67.3	71.9	72.7	77.0
C70–72	**Central nervous system**	**Total**	**29.2**	**36.0**	**38.0**	**46.4**	**52.9**	**60.8**	**60.4**	**61.3**
		Non-malignan	56.7	74.2	73.3	80.9	90.5	92.5	91.9	94.8
		Malignant	18.1	19.6	24.3	22.1	20.7	23.8	25.6	27.2
C73	**Thyroid gland**	**Total**	**77.8**	**77.4**	**76.8**	**75.0**	**79.3**	**83.1**	**85.9**	**89.6**
		Localised	94.0	96.4	90.9	99.4	98.0	97.2	100.0	102.7
		Regional	80.5	79.6	85.6	88.1	80.1	89.6	90.5	88.4
		Distant	-	-	-	-	-	-	-	-
		Unknown	-	-	-	-	-	-	-	-
C81	**Hodgkin lymphoma**	**Total**	**59.1**	**66.4**	**75.1**	**81.1**	**86.2**	**84.8**	**84.5**	**85.8**
C82–86, C96	**Non-Hodgkin lymphoma**	**Total**	**40.0**	**41.5**	**43.5**	**47.5**	**50.7**	**59.9**	**67.5**	**72.6**
C91–95	**Leukaemia**	**Total**	**23.3**	**27.2**	**35.1**	**42.0**	**49.2**	**54.3**	**60.0**	**61.8**

* For 2012–16 the 5-year relative survival estimates are based on the period approach (observation window 2012–16)

- 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, 1977–2016, **females**

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1977–81**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16***
C00–96	**All sites**	**Total**	**50.7**	**53.1**	**56.2**	**58.9**	**62.2**	**65.6**	**69.0**	**71.6**
C00–14	**Mouth, pharynx**	**Total**	**57.7**	**56.4**	**62.6**	**61.1**	**58.2**	**65.5**	**72.2**	**73.7**
		Localised	73.9	71.5	77.5	80.6	84.1	79.2	86.7	88.1
		Regional	31.4	39.0	40.9	36.1	38.1	49.8	54.4	58.2
		Distant	-	-	-	-	-	-	-	-
		Unknown	-	-	-	51.4	54.9	79.4	83.6	74.6
C15	**Oesophagus**	**Total**	**11.4**	**7.3**	**9.2**	**10.4**	**8.4**	**8.7**	**14.4**	**18.7**
		Localised	16.1	10.6	15.1	-	-	20.1	33.8	41.8
		Regional	-	-	-	-	-	8.1	13.4	23.5
		Distant	-	-	-	-	0.0	2.0	0.0	-
		Unknown	-	-	-	7.3	7.6	8.7	10.6	8.8
C16	**Stomach**	**Total**	**16.3**	**20.2**	**21.7**	**22.1**	**23.2**	**23.6**	**24.1**	**25.5**
		Localised	40.2	46.6	48.4	60.5	68.7	60.9	60.1	62.2
		Regional	16.1	21.0	22.5	27.9	29.8	24.2	22.2	24.9
		Distant	0.8	0.8	1.2	1.8	3.1	3.6	3.4	2.7
		Unknown	9.1	14.0	12.4	7.9	17.8	33.0	27.2	33.2
C18	**Colon**	**Total**	**42.9**	**47.7**	**51.5**	**53.9**	**56.9**	**60.6**	**63.6**	**67.3**
		Localised	67.5	76.9	80.2	85.4	88.0	93.1	95.2	96.8
		Regional	54.4	55.5	60.9	63.9	69.9	72.9	79.5	82.8
		Distant	4.4	3.9	4.5	5.5	8.3	11.3	13.4	16.0
		Unknown	23.8	20.0	30.4	41.9	53.7	60.0	40.4	20.5
C19–20	**Rectum, rectosigmoid**	**Total**	**43.3**	**48.1**	**51.3**	**57.6**	**59.3**	**64.2**	**66.4**	**67.2**
		Localised	65.6	72.9	73.8	86.4	93.0	90.9	95.7	96.1
		Regional	36.1	44.1	49.7	59.3	63.9	71.5	77.2	77.6
		Distant	6.2	4.3	2.0	5.3	7.1	11.3	18.4	20.6
		Unknown	-	28.4	42.6	42.5	53.6	63.5	47.9	36.4
C22	**Liver**	**Total**	**1.2**	**6.5**	**7.5**	**8.6**	**7.6**	**13.5**	**17.2**	**22.6**
		Localised	2.6	11.1	13.0	12.2	-	26.1	31.7	42.0
		Regional	-	-	-	-	-	-	-	5.6
		Distant	0.0	2.2	-	-	-	-	3.4	-
		Unknown	-	-	-	10.7	5.4	13.0	11.6	19.8
C23–24	**Gallbladder, bile ducts**	**Total**	**10.6**	**11.8**	**9.6**	**9.4**	**12.5**	**11.8**	**16.5**	**18.5**
		Localised	22.8	28.0	16.8	30.1	-	23.3	38.1	39.7
		Regional	10.5	10.6	13.4	12.4	17.6	20.3	26.4	30.1
		Distant	1.5	0.0	0.0	0.0	1.9	0.0	1.4	1.3
		Unknown	-	-	8.5	6.4	10.7	8.6	-	-
C25	**Pancreas**	**Total**	**2.3**	**1.7**	**2.4**	**3.5**	**3.7**	**3.9**	**6.9**	**8.5**
		Localised	2.8	4.0	6.3	13.0	21.0	17.2	29.6	43.0
		Regional	8.2	2.7	3.3	6.1	2.8	4.9	8.0	11.3
		Distant	1.1	0.7	0.3	1.0	0.9	1.6	2.3	2.1
		Unknown	0.0	0.9	3.4	2.5	5.6	5.1	8.1	3.5
C33–34	**Lung, trachea**	**Total**	**10.8**	**7.0**	**9.6**	**11.4**	**11.8**	**14.3**	**18.3**	**22.0**
		Localised	23.4	20.3	25.1	33.5	45.3	51.8	55.8	63.2
		Regional	13.5	6.4	9.9	12.8	11.9	14.7	19.9	24.7
		Distant	1.6	0.5	1.2	1.2	1.3	1.9	2.5	3.0
		Unknown	8.9	6.7	7.1	5.7	14.6	19.0	18.4	15.2
C43	**Melanoma of the skin**	**Total**	**79.9**	**82.2**	**87.6**	**86.9**	**88.7**	**87.3**	**88.4**	**90.1**
		Localised	85.6	88.1	91.8	91.1	94.8	93.8	93.3	93.5
		Regional	-	43.9	43.1	52.4	56.7	53.9	56.2	62.7
		Distant	11.0	5.2	17.2	20.3	19.4	22.2	30.7	34.8
		Unknown	-	76.0	67.7	80.7	89.3	86.4	83.8	69.2

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Table 8.2: Five-year relative survival by primary site, stage and period of diagnosis, 1977–2016, **females** (Continued)

			Relative survival (%)							
ICD-10	**Site**	**Stage**	**1977–81**	**1982–86**	**1987–91**	**1992–96**	**1997–01**	**2002–06**	**2007–11**	**2012–16***
C50	**Breast**	**Total**	**72.5**	**73.8**	**75.4**	**78.6**	**84.6**	**87.0**	**88.6**	**89.7**
		I	86.8	86.9	94.3	96.0	97.9	99.1	100.4	100.3
		II	63.3	67.9	73.8	77.6	85.0	88.5	92.1	93.4
		III	48.8	50.1	46.6	56.7	61.5	65.5	75.6	77.6
		IV	15.4	14.9	20.6	18.5	17.7	19.9	25.9	28.5
		Unknown	75.6	84.9	84.9	84.9	88.5	81.1	70.4	72.9
C53	**Cervix uteri** [1]	**Total**	**72.4**	**70.3**	**69.0**	**72.8**	**74.9**	**77.8**	**79.0**	**80.5**
		I	~~87.2~~	~~85.8~~	~~83.8~~	~~84.9~~	~~91.0~~	~~93.3~~	~~91.4~~	~~90.1~~
		II	~~60.7~~	~~55.7~~	~~59.7~~	~~59.6~~	~~61.1~~	~~77.3~~	~~77.1~~	~~78.6~~
		III	~~37.6~~	~~30.4~~	~~27.3~~	~~42.6~~	~~40.4~~	~~50.6~~	~~53.0~~	~~60.2~~
		IV	~~4.6~~	~~10.5~~	~~31.0~~	~~26.7~~	~~14.9~~	~~19.9~~	~~27.6~~	~~34.8~~
		Unknown	-	-	-	-	-	~~62.7~~	-	-
C54	**Corpus uteri**	**Total**	**72.6**	**70.3**	**72.5**	**76.1**	**79.5**	**81.1**	**83.3**	**84.0**
		Localised	82.5	82.0	83.7	88.1	91.5	91.6	94.7	95.7
		Regional	61.1	53.7	63.4	70.0	72.5	73.9	67.7	61.0
		Distant	17.7	23.5	25.3	35.5	32.2	38.3	39.7	38.1
		Unknown	-	42.7	56.2	51.3	80.0	83.9	75.5	65.8
C56, C57.0–57.4	**Ovary etc.**	**Total**	**34.7**	**34.3**	**36.7**	**38.1**	**43.5**	**43.2**	**45.5**	**48.7**
		Localised	76.8	77.5	80.4	83.9	91.5	82.9	89.0	93.7
		Regional	41.5	45.1	48.4	50.4	58.8	72.4	62.6	63.9
		Distant	17.2	15.5	17.8	20.6	27.9	30.0	32.0	35.3
		Unknown	-	35.8	31.0	40.6	60.0	61.2	52.0	46.4
C64	**Kidney (excl. renal pelvis)**	**Total**	**41.4**	**44.8**	**51.7**	**52.9**	**56.2**	**63.1**	**71.6**	**74.8**
		Localised	71.8	70.0	78.0	76.6	86.4	86.7	89.0	90.0
		Regional	45.7	49.3	49.1	51.6	48.5	48.9	47.7	51.3
		Distant	2.4	7.2	8.6	2.8	12.8	11.1	16.4	11.4
		Unknown	-	-	18.5	41.3	56.6	63.6	80.6	51.6
C65–68	**Urinary tract**	**Total**	**49.0**	**56.3**	**60.2**	**60.2**	**60.4**	**61.6**	**65.7**	**69.3**
		Localised	63.6	67.7	70.1	71.5	80.8	78.2	77.2	77.7
		Regional	12.0	15.3	17.8	21.0	27.2	21.0	22.7	27.5
		Distant	2.0	7.3	2.3	7.0	3.4	7.0	7.2	5.3
		Unknown	22.4	43.0	59.9	52.5	57.2	60.0	69.1	69.0
C70–72	**Central nervous system**	**Total**	**41.5**	**50.3**	**56.1**	**60.9**	**69.3**	**75.7**	**77.0**	**76.4**
		Non-malignan	73.2	84.0	82.7	87.9	90.9	93.6	95.2	96.3
		Malignant	16.6	21.3	28.2	24.6	26.4	27.4	27.9	29.6
C73	**Thyroid gland**	**Total**	**85.8**	**86.3**	**88.6**	**90.4**	**87.3**	**90.0**	**92.6**	**94.2**
		Localised	94.2	94.2	95.3	98.6	104.1	102.6	101.1	101.6
		Regional	83.4	80.3	87.3	87.9	82.7	87.9	90.6	92.7
		Distant	46.4	-	-	-	-	-	-	-
		Unknown	-	-	-	-	84.4	87.2	82.4	70.9
C81	**Hodgkin lymphoma**	**Total**	**70.6**	**68.2**	**75.6**	**78.8**	**86.7**	**82.3**	**84.9**	**87.9**
C82–86, C96	**Non-Hodgkin lymphoma**	**Total**	**43.9**	**46.5**	**55.2**	**50.2**	**55.4**	**65.1**	**73.2**	**77.1**
C91–95	**Leukaemia**	**Total**	**26.8**	**27.4**	**36.0**	**45.0**	**50.4**	**58.2**	**64.7**	**67.2**

* For 2012–16 the 5-year relative survival estimates are based on the period approach (observation window 2012–16)

- 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/

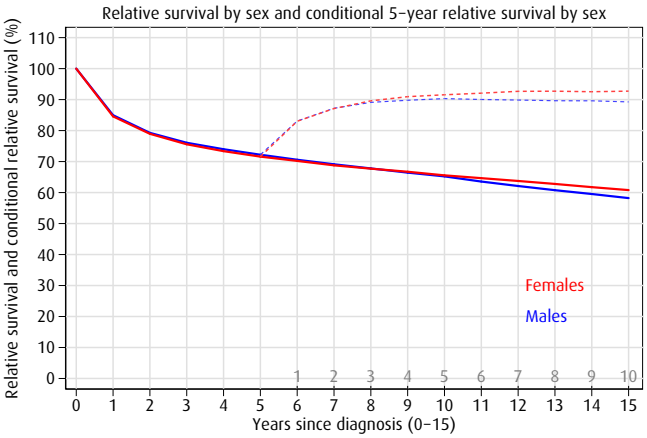
Table 8.3: 1-, 5-, 10-, and 15-year relative survival proportion (95% confidence interval) by primary site and sex, period approach follow-up, 2012–2016

ICD-10	Site	Sex	1-year	5-year	10-year	15-year
C00–14	Mouth, pharynx	M	84.7 (82.8–86.3)	67.2 (64.3–69.8)	55.3 (51.2–59.2)	48.7 (42.4–54.7)
		F	87.9 (85.4–90.0)	73.7 (69.8–77.2)	64.1 (58.6–69.0)	53.4 (43.9–62.0)
C15	Oesophagus	M	46.9 (43.8–49.9)	18.8 (16.1–21.7)	14.6 (11.4–18.1)	11.6 (7.4–16.8)
		F	45.5 (40.4–50.5)	18.7 (14.2–23.7)	-	-
C16	Stomach	M	53.1 (50.6–55.6)	25.6 (23.1–28.1)	21.8 (18.9–24.9)	20.3 (16.3–24.6)
		F	50.1 (46.7–53.4)	25.5 (22.3–28.8)	22.9 (19.3–26.7)	21.8 (16.4–27.8)
C18	Colon	M	80.7 (79.6–81.7)	62.0 (60.3–63.5)	56.6 (54.2–59.0)	51.4 (46.8–55.7)
		F	82.1 (81.1–83.0)	67.3 (65.8–68.8)	62.6 (60.2–64.9)	58.4 (53.3–63.1)
C19–20	Rectum, rectosigmoid	M	88.5 (87.4–89.6)	68.5 (66.5–70.4)	60.0 (57.0–62.8)	58.4 (53.1–63.2)
		F	87.4 (85.9–88.7)	67.2 (64.9–69.3)	63.8 (60.7–66.7)	58.3 (53.7–62.7)
C22	Liver	M	39.8 (36.0–43.5)	16.2 (13.3–19.4)	-	-
		F	47.4 (42.6–52.0)	22.6 (17.8–27.8)	19.8 (14.3–26.1)	-
C23–24	Gallbladder, bile ducts	M	57.0 (51.6–62.0)	19.6 (15.2–24.4)	19.8 (14.4–25.8)	18.7 (10.6–28.8)
		F	45.0 (40.4–49.4)	18.5 (14.7–22.7)	17.7 (13.1–22.9)	-
C25	Pancreas	M	28.3 (26.3–30.3)	8.0 (6.6–9.6)	5.7 (4.3–7.3)	-
		F	27.1 (25.2–29.1)	8.5 (7.1–10.0)	7.0 (5.5–8.6)	-
C33–34	Lung, trachea	M	41.2 (40.1–42.3)	16.0 (15.1–16.9)	9.7 (8.8–10.7)	6.8 (5.7–8.2)
		F	49.1 (47.9–50.3)	22.0 (20.9–23.1)	15.0 (13.8–16.3)	11.3 (9.7–13.1)
C43	Melanoma of the skin	M	95.8 (94.9–96.5)	83.7 (81.9–85.3)	78.3 (75.1–81.1)	70.0 (64.1–75.1)
		F	97.8 (97.2–98.3)	90.1 (88.6–91.4)	87.2 (84.8–89.3)	86.0 (81.8–89.3)
C50	Breast	F	98.0 (97.7–98.3)	89.7 (89.0–90.4)	82.0 (80.9–83.0)	76.6 (75.2–78.0)
C53	Cervix uteri	F	92.7 (91.3–93.9)	80.5 (78.4–82.4)	75.8 (73.5–78.0)	71.4 (68.9–73.8)
C54	Corpus uteri	F	93.7 (92.8–94.6)	84.0 (82.3–85.5)	80.6 (78.0–82.9)	78.7 (74.1–82.5)
C56, C57.0–57.4	Ovary etc.	F	80.4 (78.8–82.0)	48.7 (46.5–50.9)	37.2 (34.9–39.5)	33.1 (30.5–35.7)
C61	Prostate	M	99.2 (99.0–99.4)	93.6 (92.9–94.2)	85.2 (84.0–86.2)	74.6 (72.6–76.5)
C62	Testis	M	99.1 (98.4–99.5)	98.6 (97.4–99.2)	98.6 (96.9–99.4)	98.2 (95.8–99.3)
C64	Kidney (excl. renal pelvis)	M	87.7 (86.3–89.0)	73.7 (71.5–75.8)	62.5 (59.2–65.6)	55.3 (50.2–60.0)
		F	87.1 (84.9–88.9)	74.8 (71.7–77.6)	68.0 (64.1–71.7)	58.8 (52.9–64.2)
C65–68	Urinary tract	M	89.4 (88.4–90.3)	76.7 (74.9–78.5)	66.8 (63.9–69.6)	59.6 (53.3–65.3)
		F	83.4 (81.6–85.1)	69.3 (66.6–71.9)	66.5 (61.8–70.8)	50.9 (43.9–57.4)
C70–72	Central nervous system	M	78.7 (77.0–80.3)	61.3 (59.2–63.4)	58.2 (55.6–60.8)	51.5 (48.2–54.7)
		F	86.3 (84.9–87.6)	76.4 (74.5–78.2)	72.7 (70.4–74.8)	69.1 (66.2–71.9)
C73	Thyroid gland	M	93.1 (90.2–95.2)	89.6 (84.8–93.0)	86.5 (77.4–92.1)	87.4 (68.5–95.4)
		F	95.8 (94.3–96.9)	94.2 (92.0–95.8)	91.3 (87.7–93.9)	86.5 (80.8–90.7)
C81	Hodgkin lymphoma	M	93.5 (90.7–95.5)	85.8 (81.8–89.0)	85.0 (80.2–88.7)	80.7 (74.4–85.5)
		F	96.7 (93.7–98.3)	87.9 (83.5–91.1)	85.7 (80.1–89.8)	83.9 (76.7–89.1)
C82–86, C96	Non-Hodgkin lymphoma	M	84.5 (82.9–85.8)	72.6 (70.4–74.7)	61.9 (58.5–65.1)	55.3 (48.6–61.4)
		F	86.8 (85.2–88.2)	77.1 (74.8–79.3)	66.6 (63.4–69.7)	58.1 (52.2–63.5)
C91–95	Leukaemia	M	80.9 (79.3–82.4)	61.8 (59.8–63.8)	48.7 (46.1–51.2)	39.3 (35.3–43.4)
		F	80.6 (78.8–82.3)	67.2 (64.9–69.5)	54.2 (51.2–57.2)	44.6 (39.1–49.9)

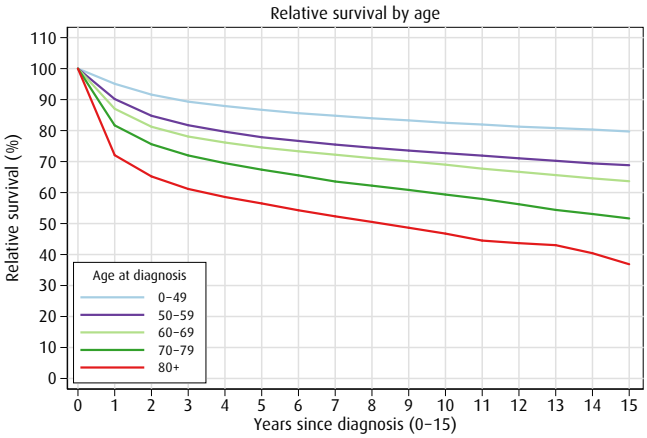
- Not estimated due to too few patients (see Chapter 4).

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

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

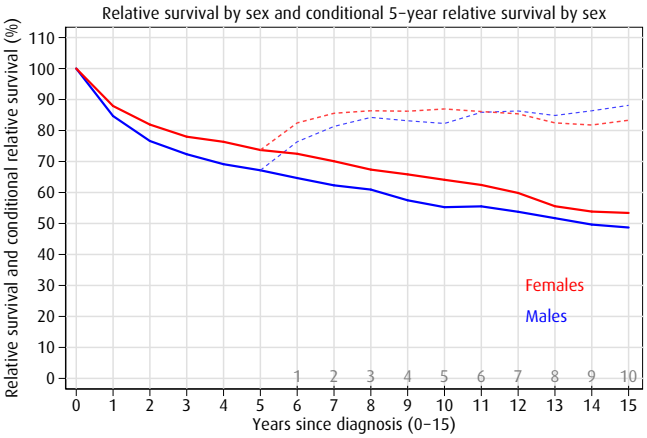


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

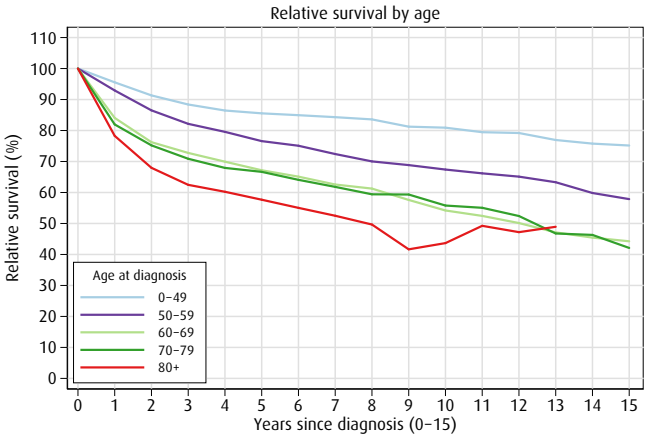


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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

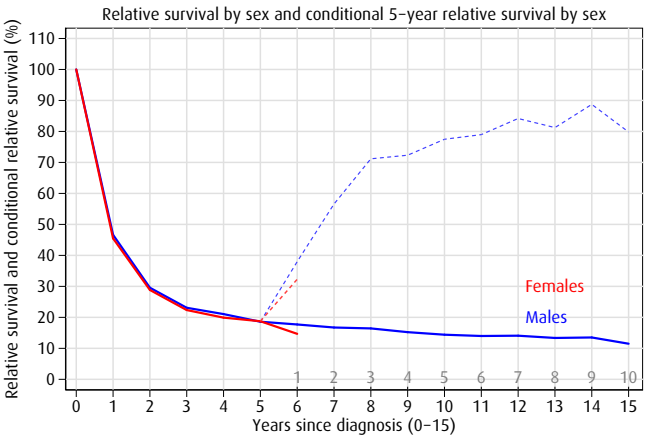


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

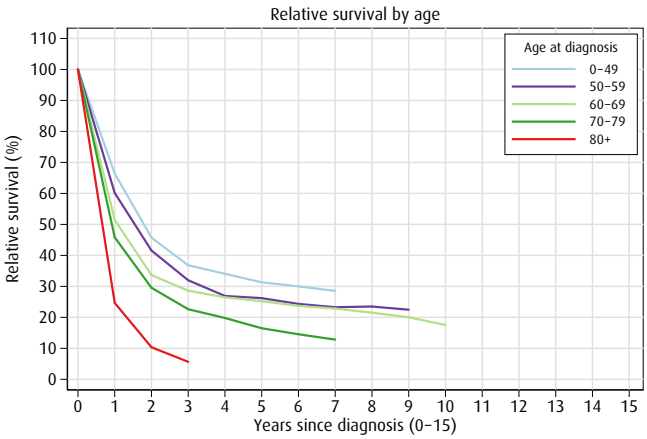


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–C: Oesophagus (ICD-10 C15)



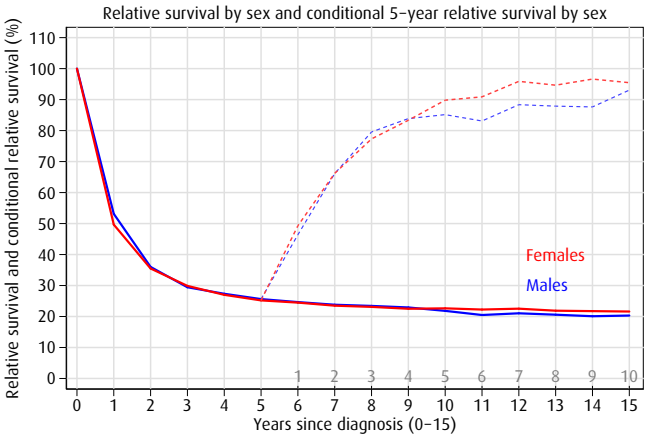
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



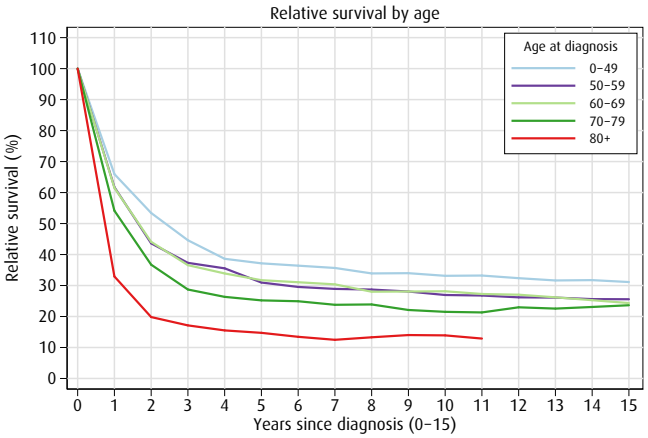
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

Figure 8.1–D: Stomach (ICD-10 C16)

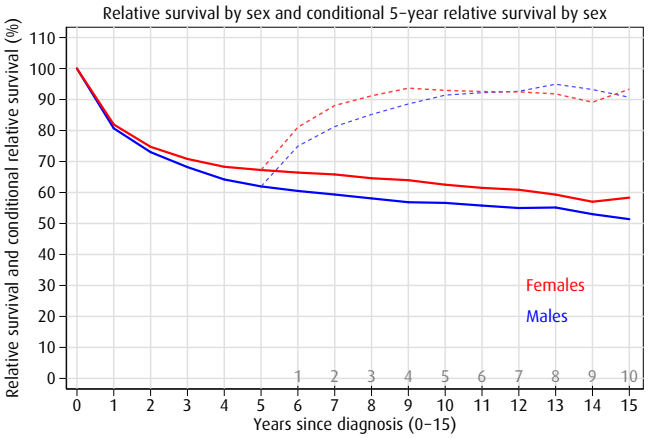


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

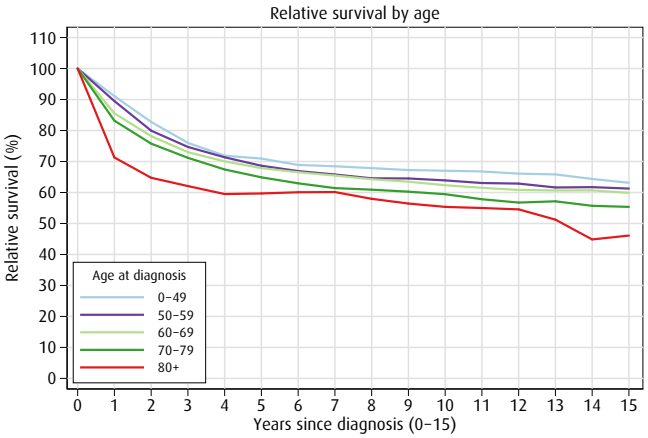


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–E: Colon (ICD-10 C18)

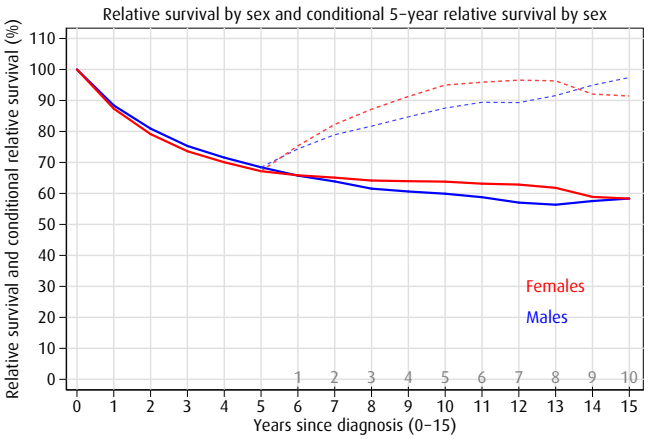


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

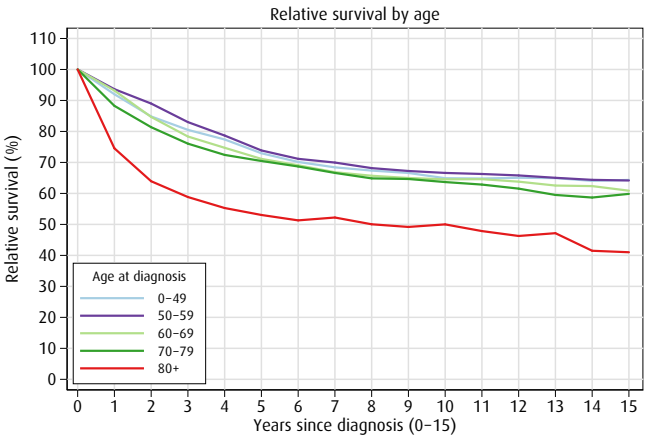


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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



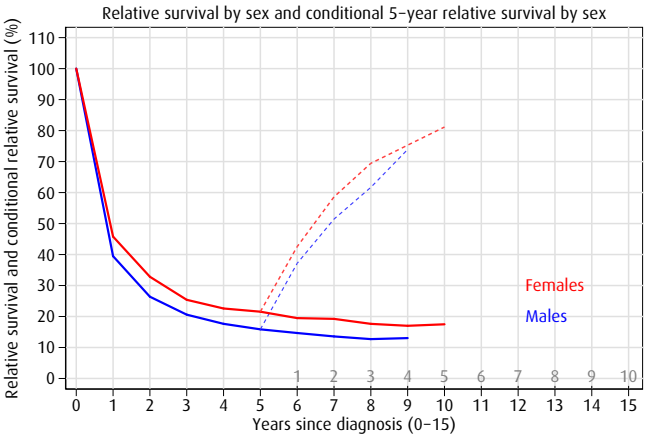
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



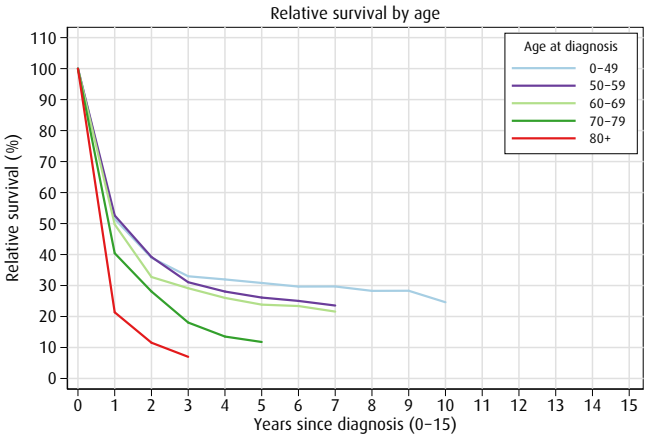
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

Figure 8.1–G: Liver (ICD-10 C22)

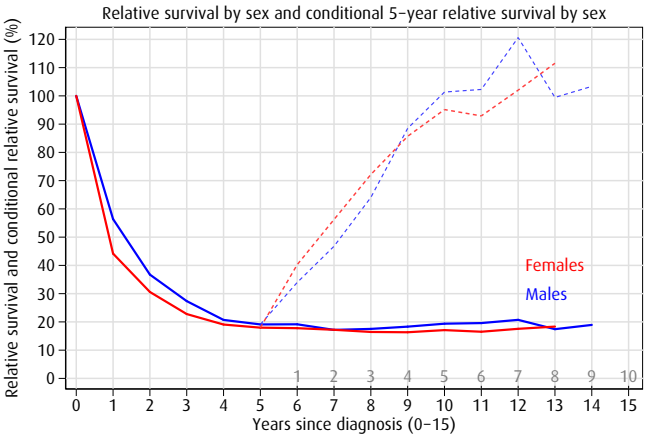


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

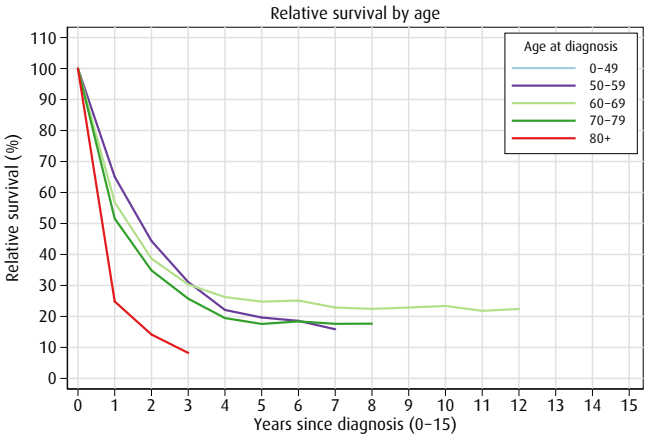


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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

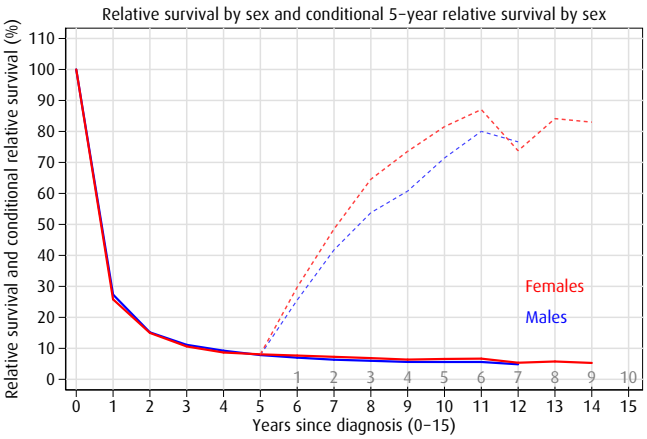


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

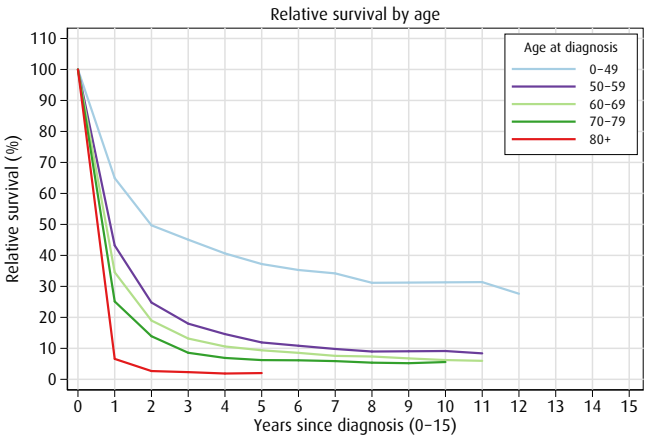


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–I: Pancreas (ICD-10 C25)



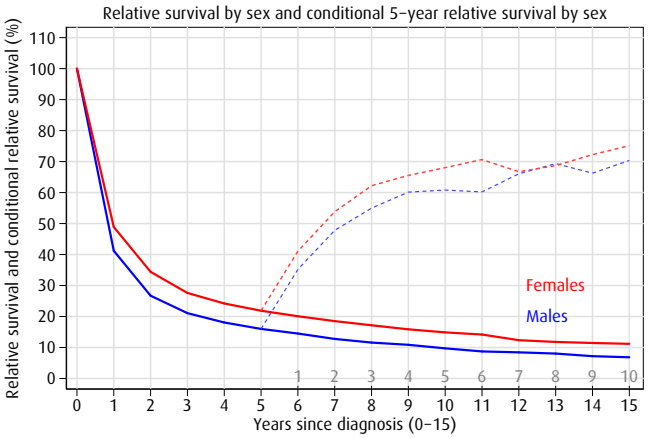
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



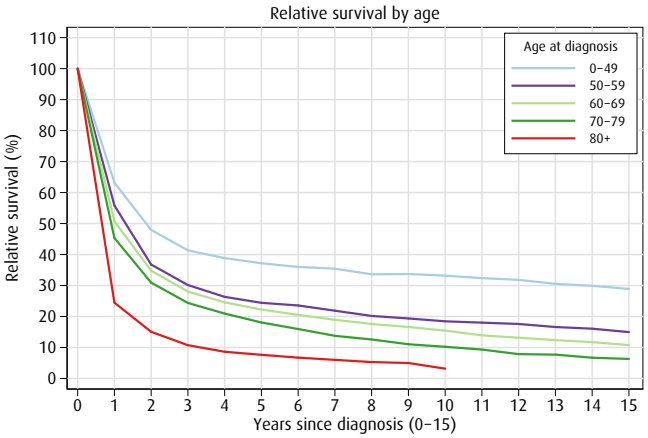
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

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

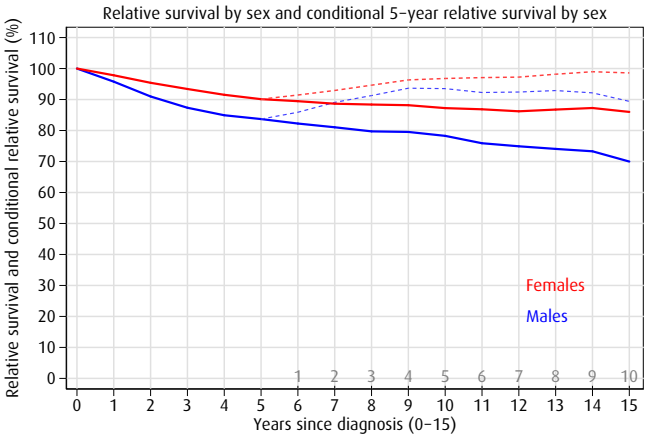


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

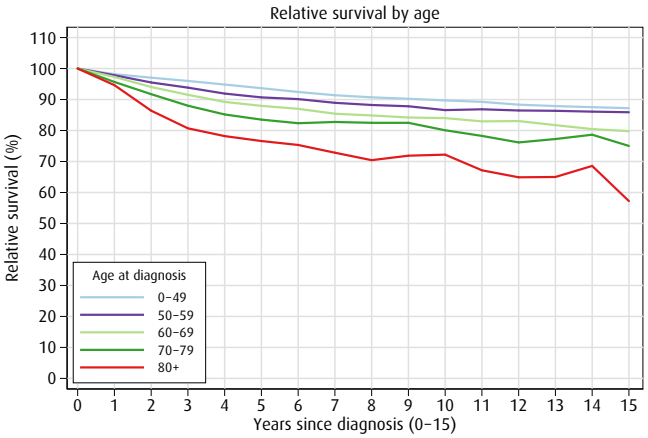


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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

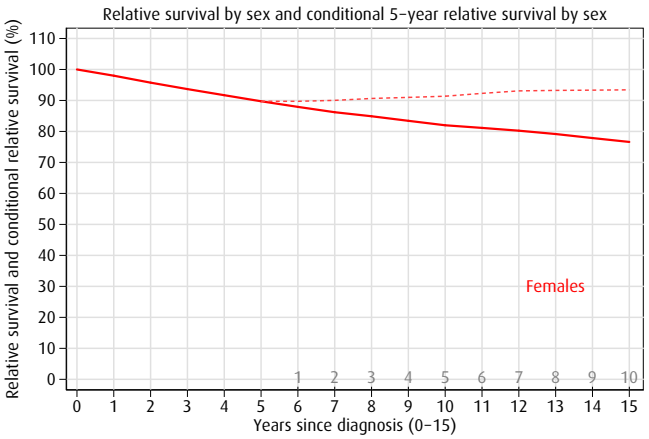


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

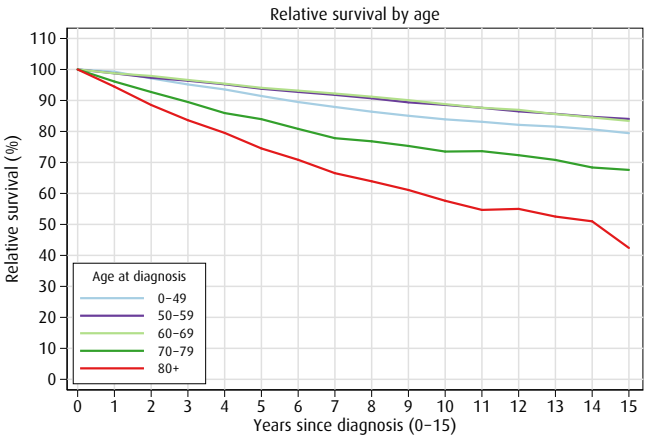


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–L: Breast (ICD-10 C50)



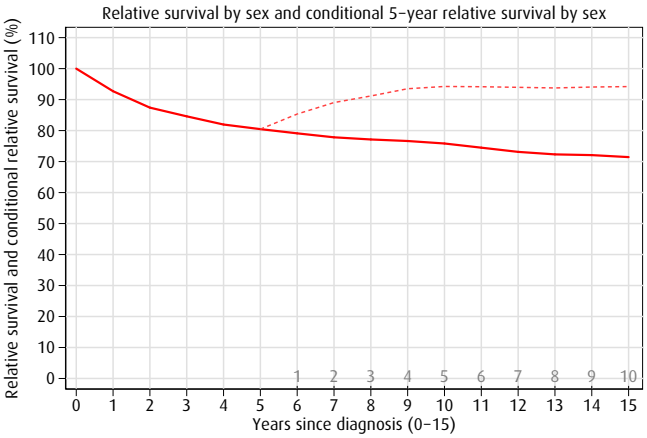
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



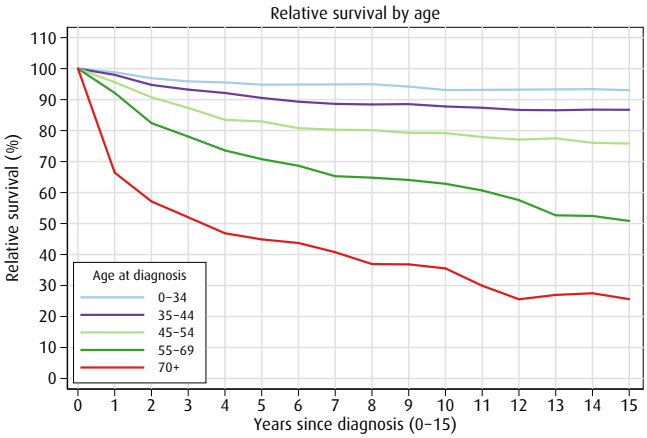
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

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

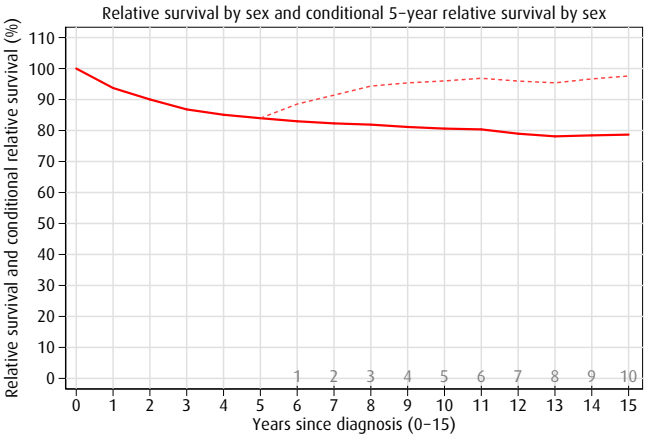


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

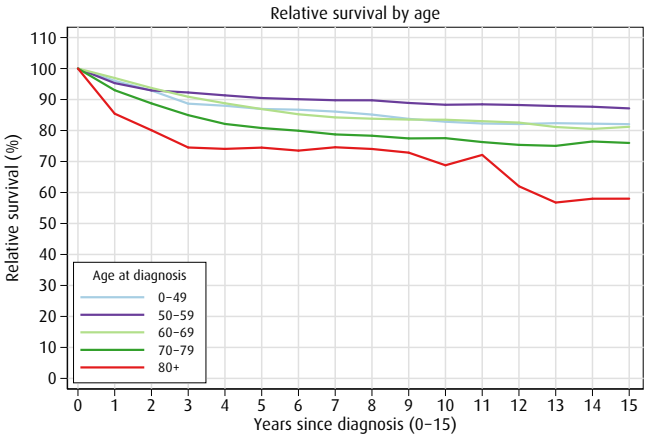


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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

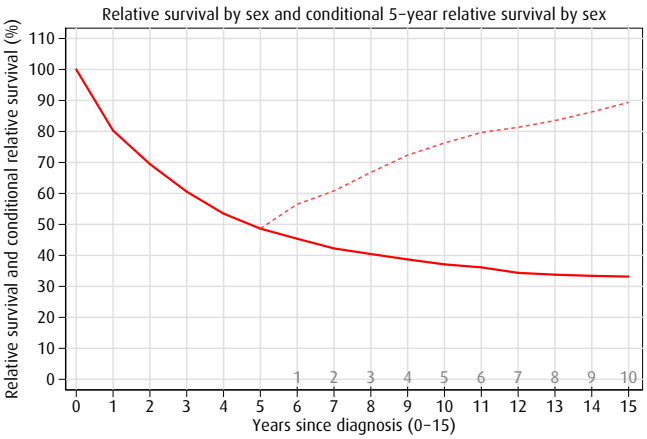


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

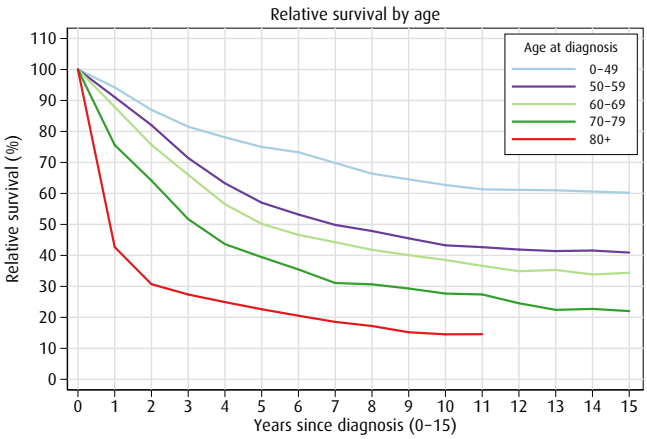


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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



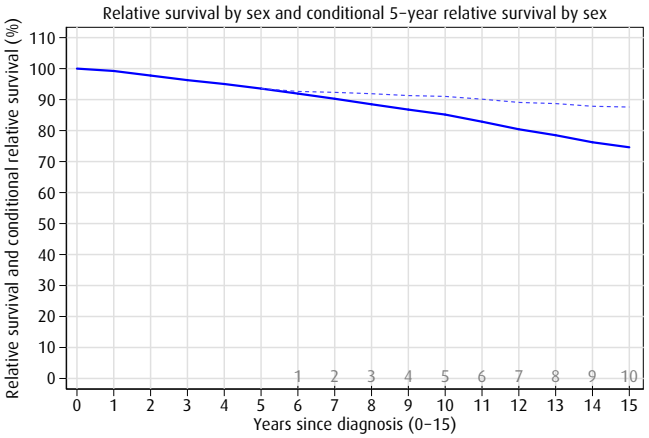
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



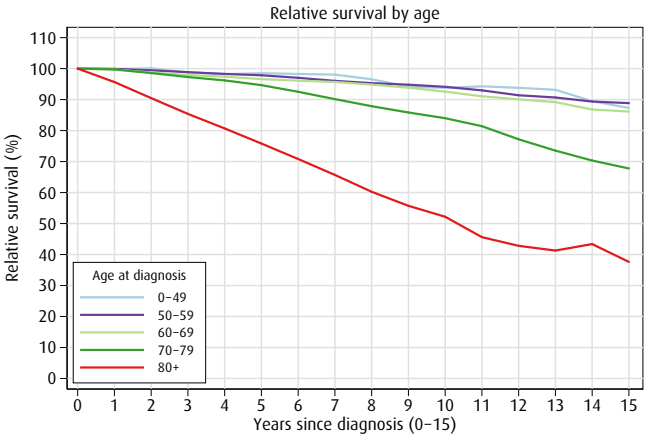
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

Figure 8.1–P: Prostate (ICD-10 C61)

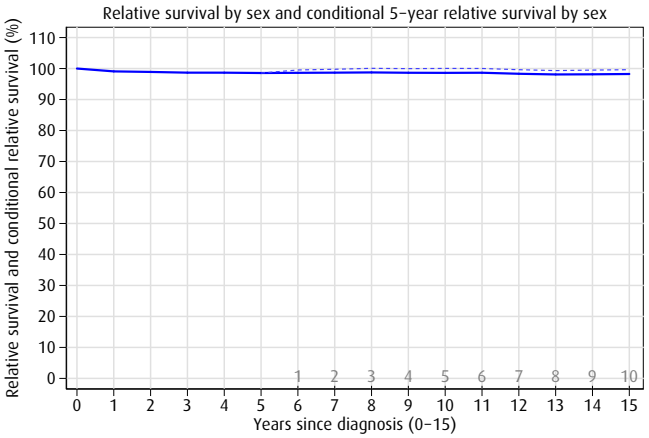


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

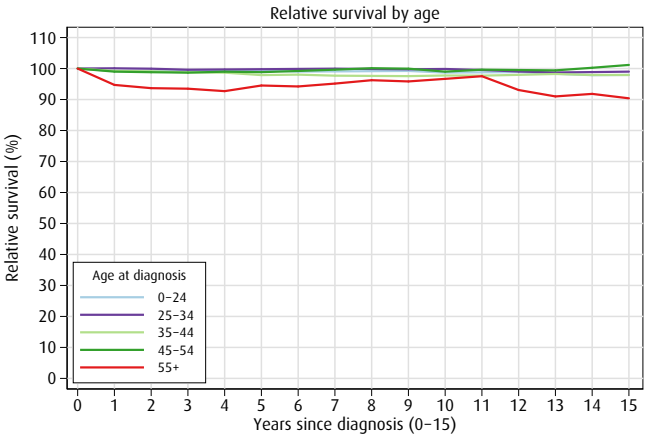


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1–Q: Testis (ICD-10 C62)

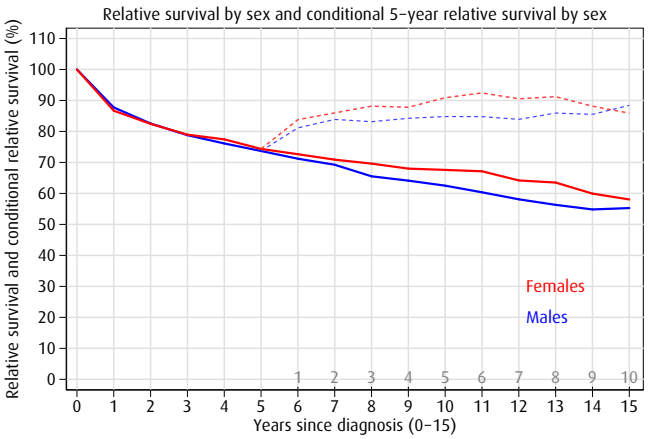


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

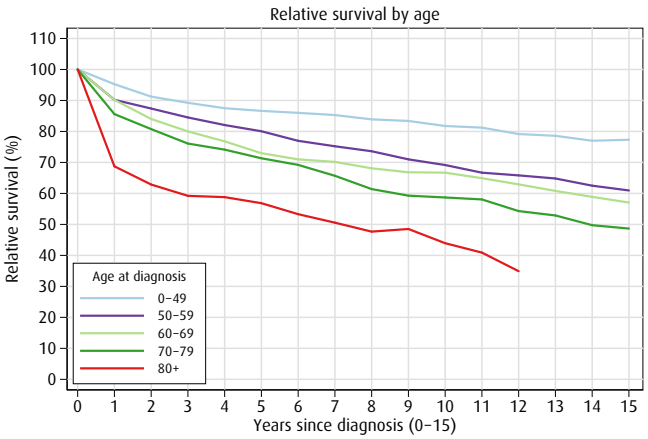


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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



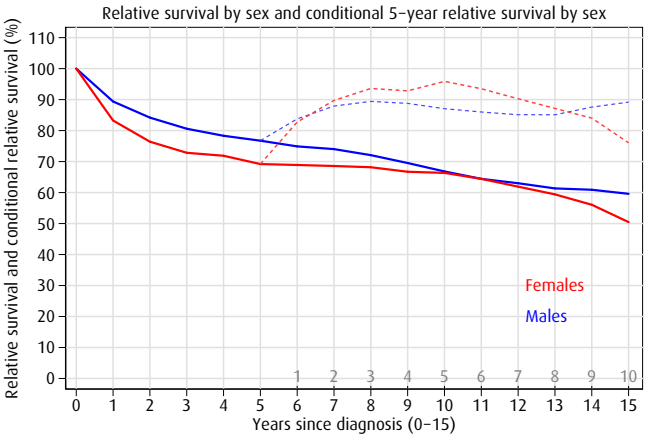
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



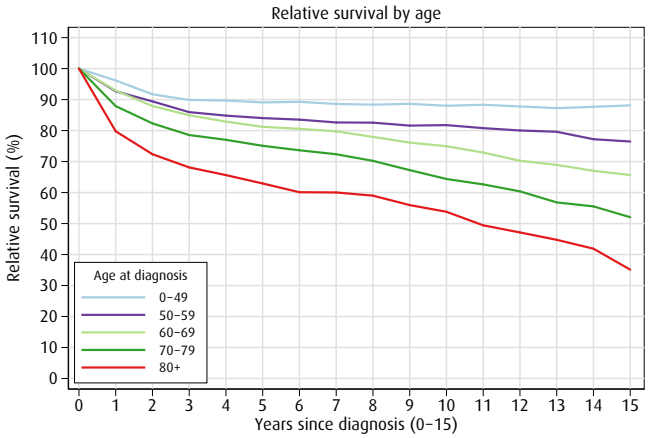
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

Figure 8.1–S: Urinary tract (renal pelvis, ureters, urinary bladder,and urethra) (ICD-10 C65–68)

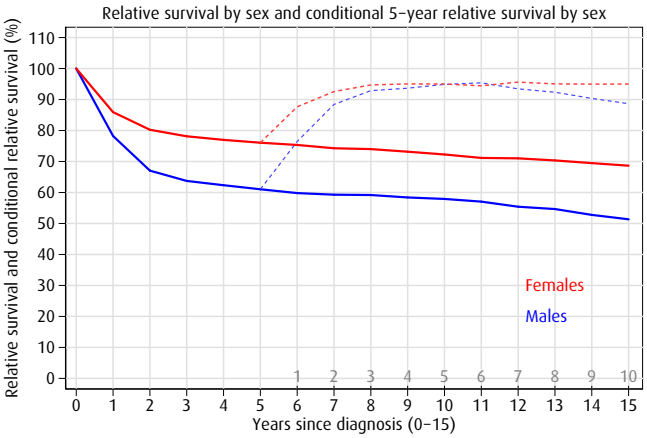


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

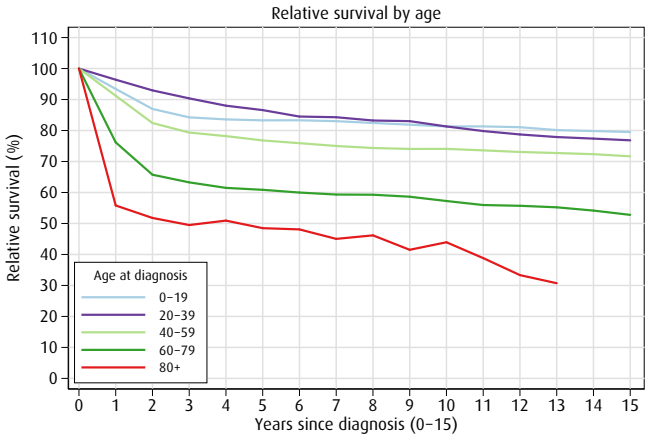


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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

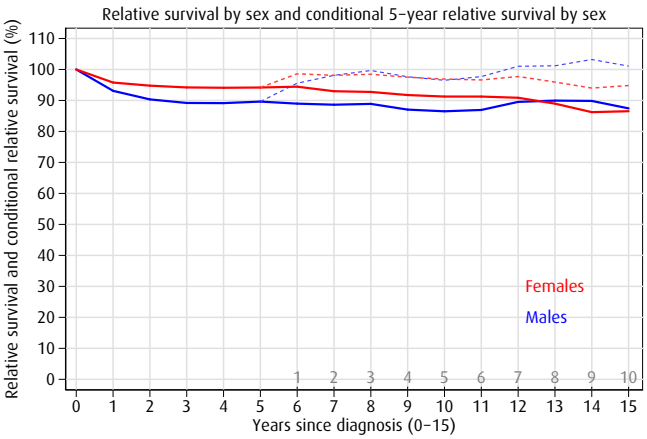


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

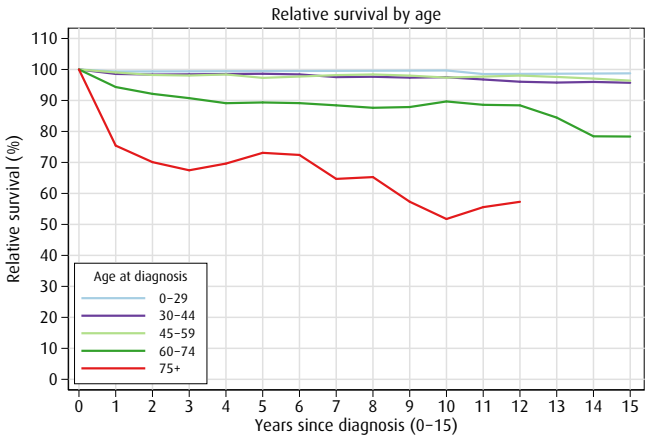


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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



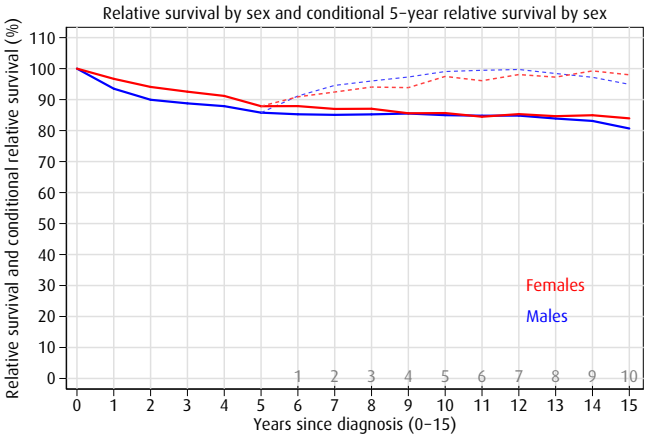
Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis



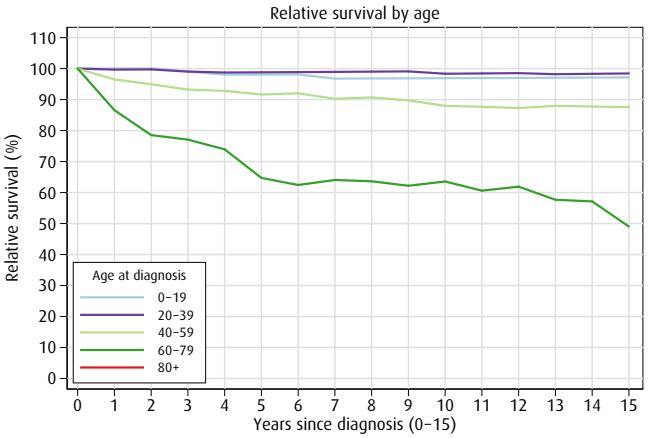
Estimates are plotted if 20 or more patients are alive at start of the follow-up year

Figure 8.1: Relative survival (RS) up to 15 years after diagnosis by sex and age, 2012–2016

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

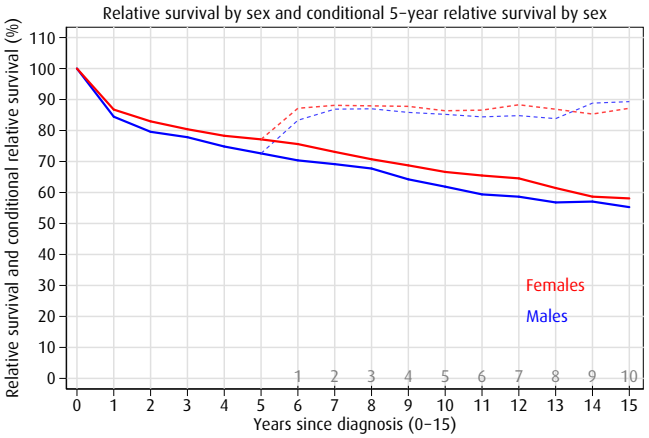


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

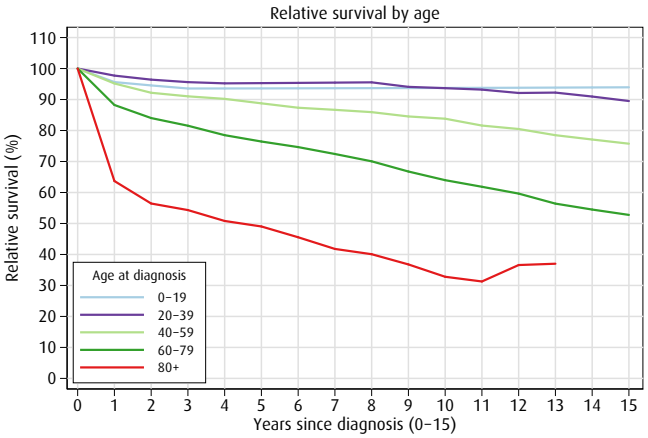


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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

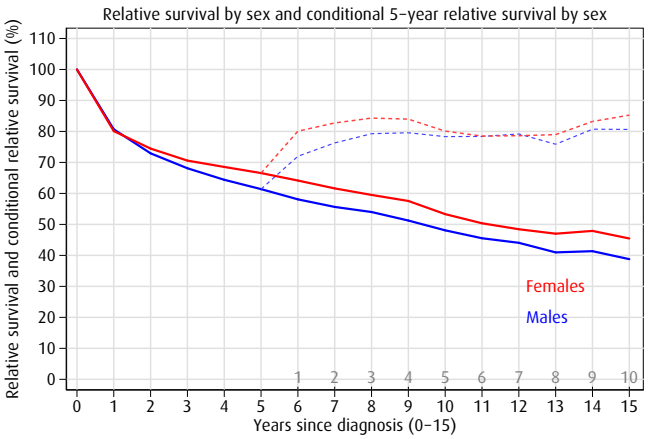


Dashed lines denote 5-year RS conditioned on surviving 1–10 years after diagnosis

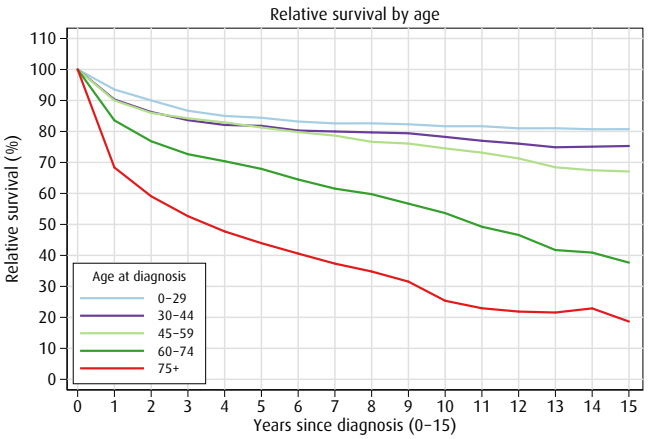


Estimates are plotted if 20 or more patients are alive at start of the follow-up year

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



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



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

Chapter 9 Trends in incidence, mortality and survival, Norway 1965–2016

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 [8;19–22]. 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 [23;24]. Others have investigated the accuracy of death certificates [25;26]. 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 1965–2016 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 is 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. The decline in mortality that follows is more rapid in men than in women. The interpretation of these aggregated estimates is complex, in that they comprise many different cancer types variable in terms of their capacity to be diagnosed as well as treated. Important contributions to the downward trend in men came from lung cancer, prostate cancer and stomach cancer.

Among men, nearly 30% of all cancers diagnosed in 2016 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 10-O) probably reflects the availability of the PSA test and the upsurge in its use and in the early detection of disease. However, 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.

During the last decade, there have been some fluctuations in the breast cancer rates, but no clear picture emerges when we examine the trends in age-specific rates. The fluctuations probably represent a combination of better diagnostic methods being used in the programme or locally in studies, or that women continue to have mammography after the age of 70, but it might also reflects random fluctuations. The breast cancer mortality was almost stable from 1995 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 systematic screening programme for breast cancer.

Trends in lung cancer incidence and mortality follow each other closely, reflecting the poor survival over time. 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 three years. This is in contrast to the continuing increase in women. It is worth noting that the age-standardised lung cancer rates conceal a stabilisation in younger women (< 60 years). During the last two decades lung cancer has surpassed breast cancer as the most frequent cause of cancer death among women, and the incidence is now surpassing that of colon cancer. The lung cancer trends reflect the historical changes in smoking habits. In fact, the first strong evidence of the close relationship between smoking and lung cancer came 60 years ago, in the early 1950s. The trends year by year seemed to stabilise after 2010 for women, but the rates in 2014 and 2015 suggest a slight increase.

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 Nordic countries, 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 malignant melanoma in both genders. The increase in incidence rates for malignant 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 disease.

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 suspect that the increased rate of liver cancer is due to immigration from areas with higher incidence of this disease.

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, and cases of topography ICD-10 D45–47 are not included in the mortality rates.

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)

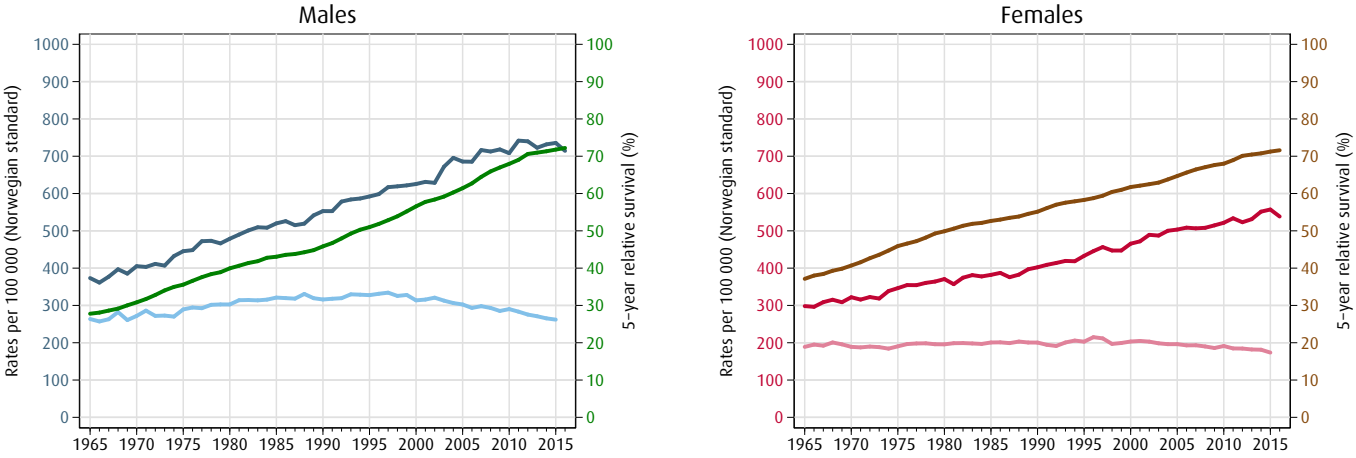


Figure 9.1–B: Mouth, pharynx (ICD-10 C00–14)

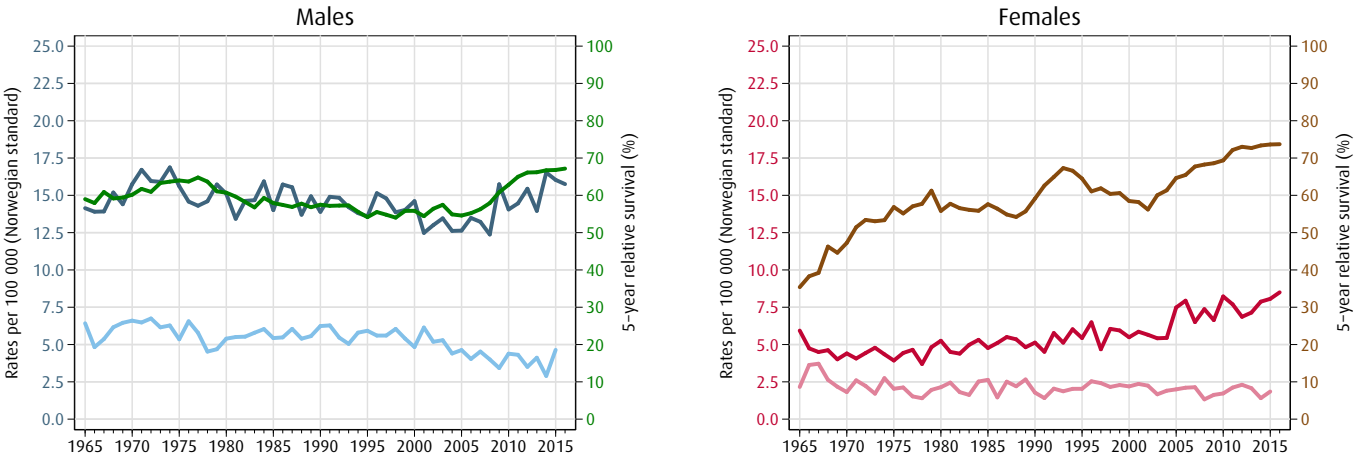


Figure 9.1–C: Oesophagus (ICD-10 C15)

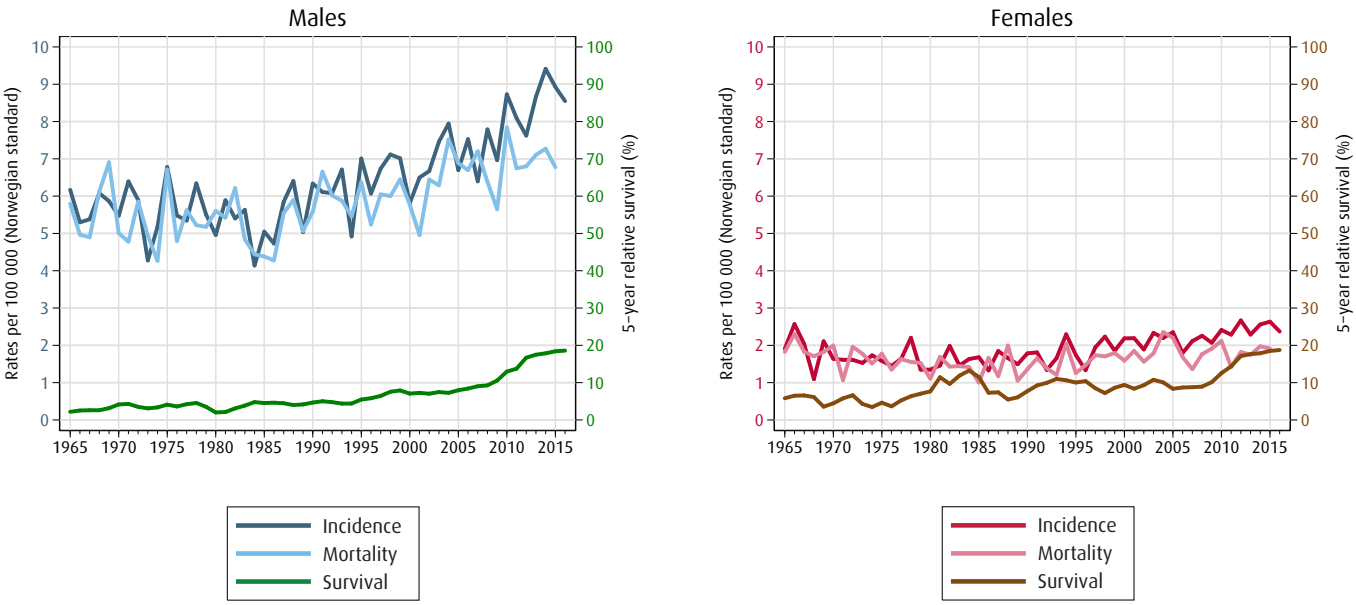


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–D: Stomach (ICD-10 C16)

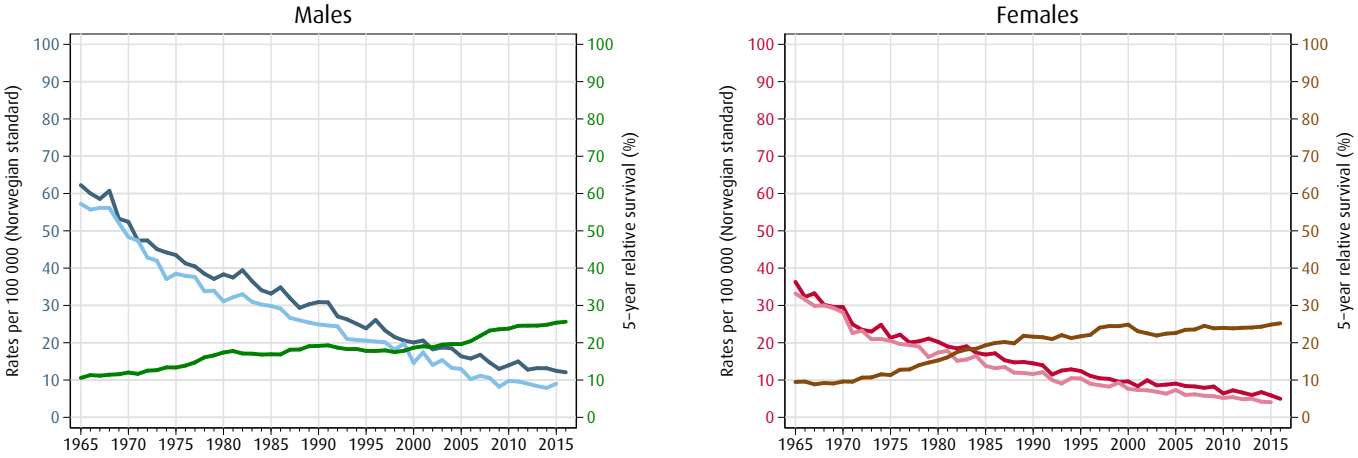


Figure 9.1–E: Colon (ICD-10 C18)

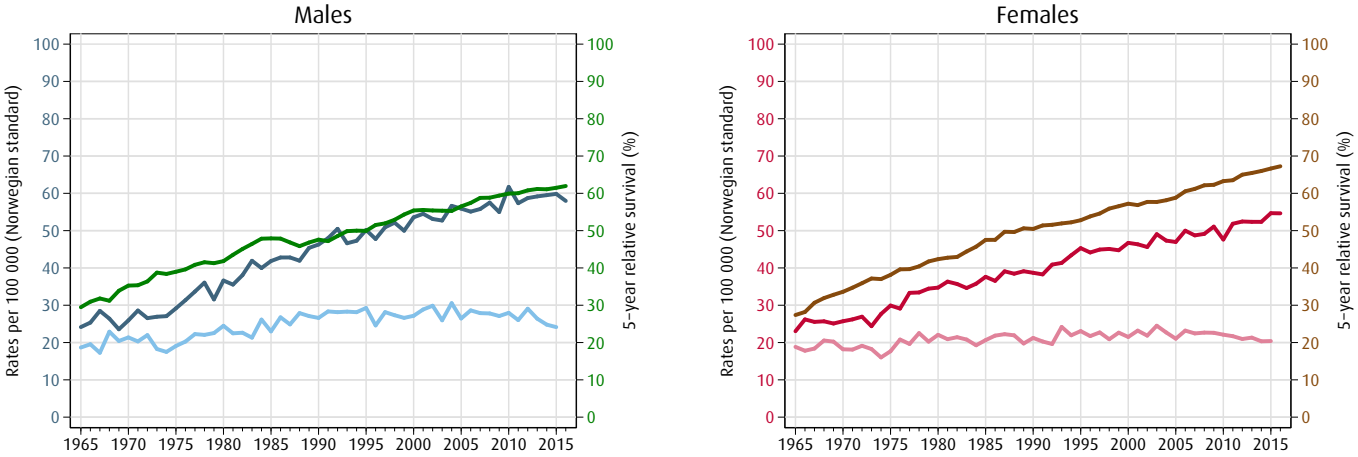


Figure 9.1–F: Rectum, rectosigmoid (ICD-10 C19–20)

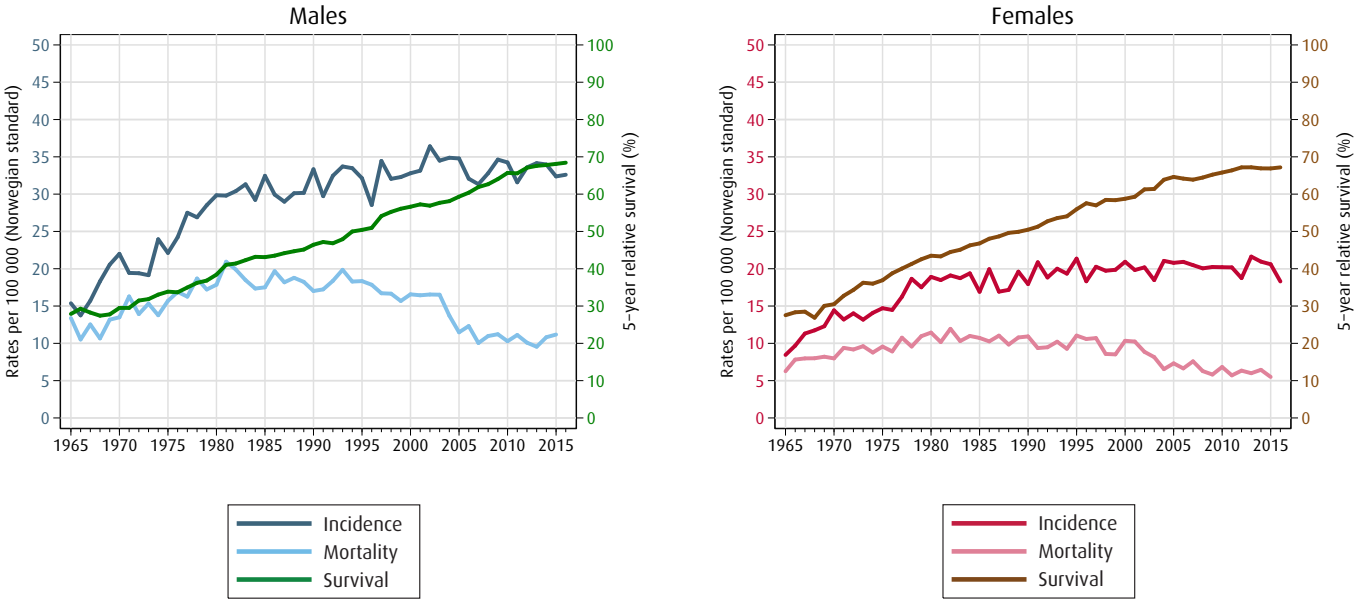


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–G: Liver (ICD-10 C22)

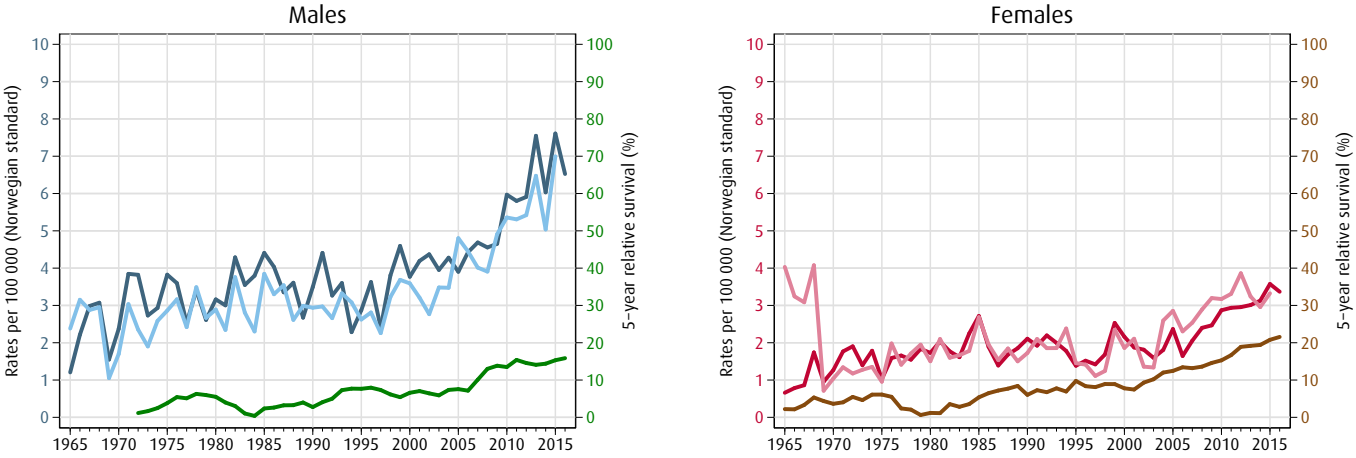


Figure 9.1–H: Gallbladder, bile ducts (ICD-10 C23–24)

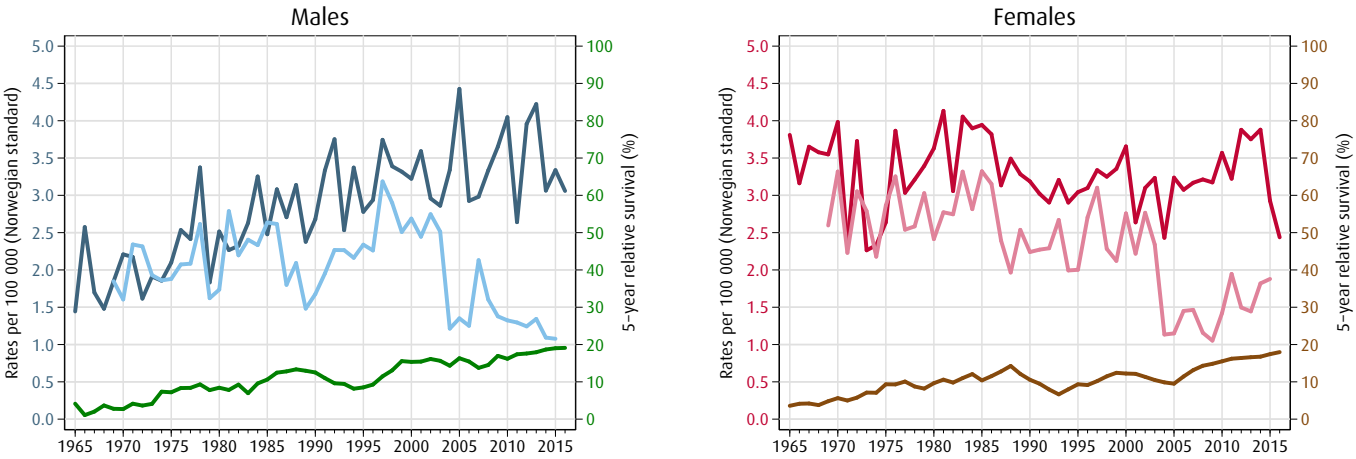


Figure 9.1–I: Pancreas (ICD-10 C25)

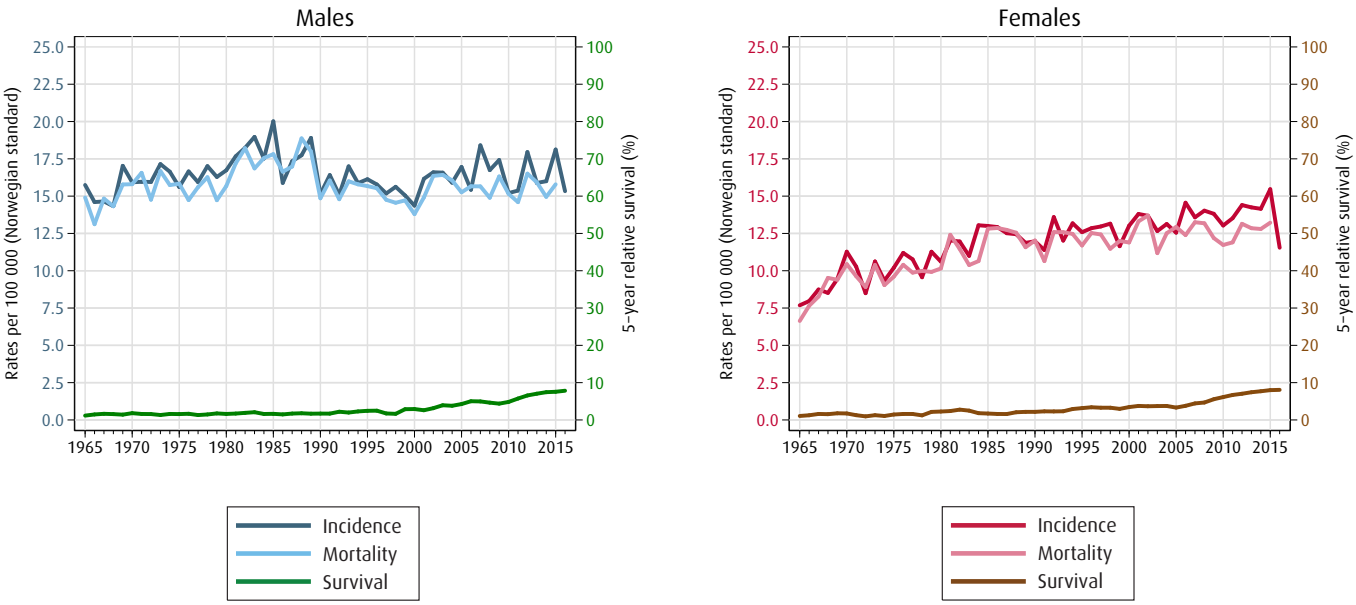


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

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

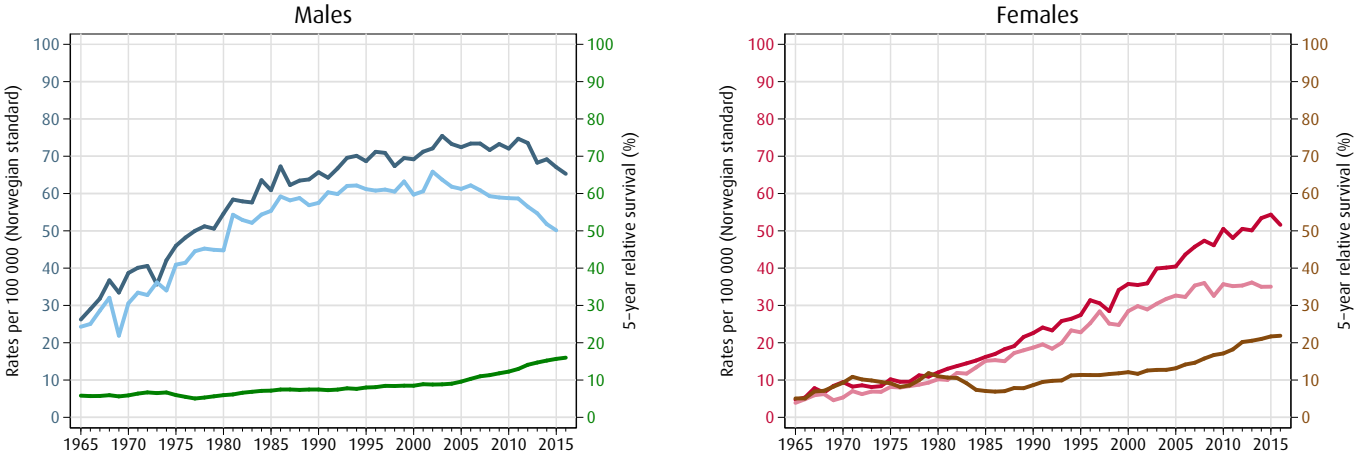


Figure 9.1–K: Melanoma of the skin (ICD-10 C43)

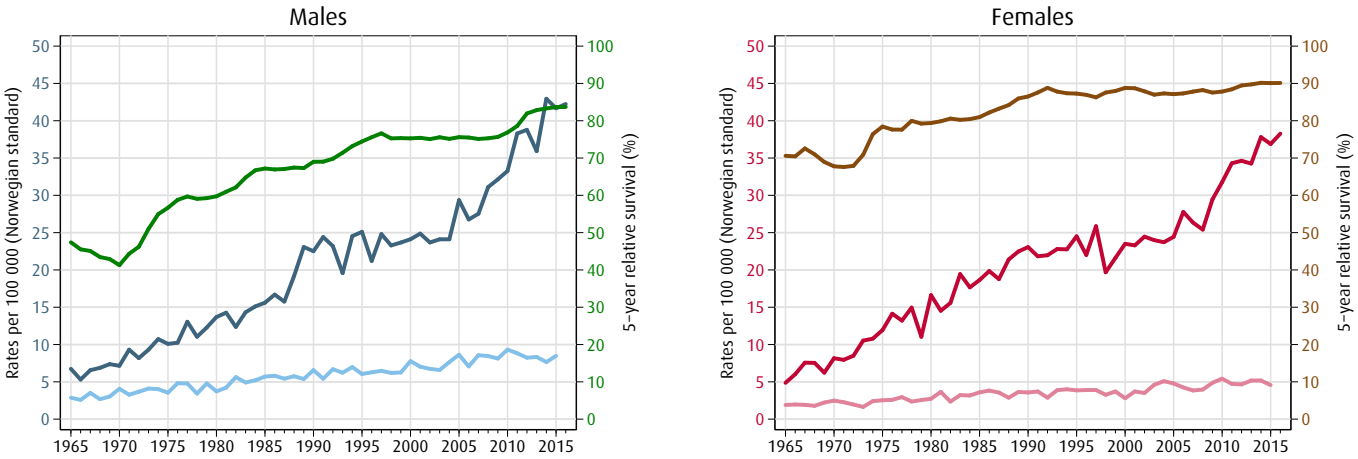


Figure 9.1–L: Kidney excluding renal pelvis (ICD-10 C64)

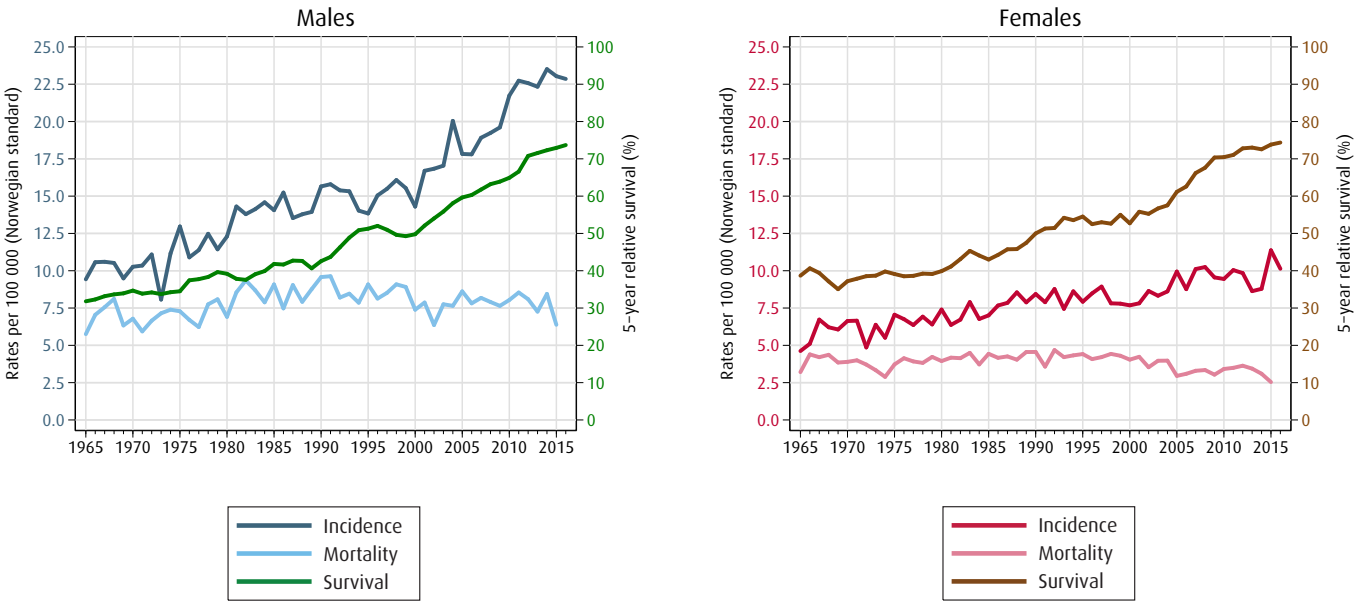


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–M: Breast (ICD-10 C50)

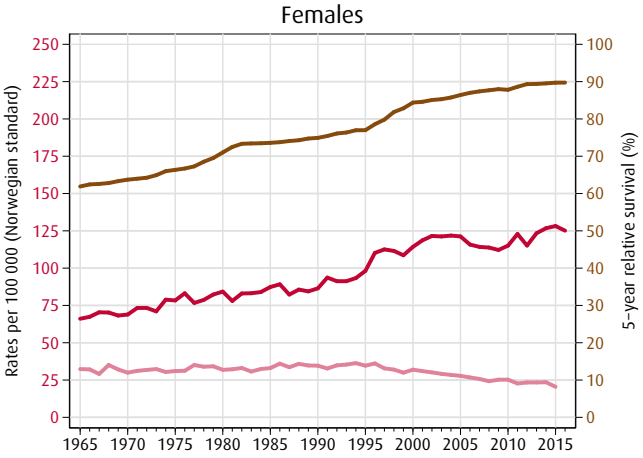


Figure 9.1–N: Cervix uteri (ICD-10 C53)

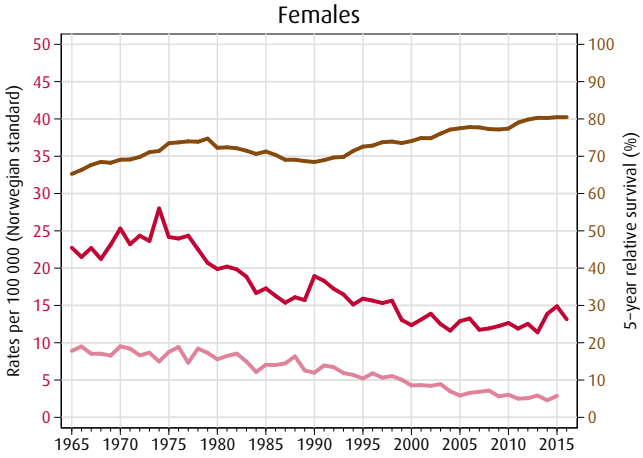


Figure 9.1–O: Prostate (ICD-10 C61)

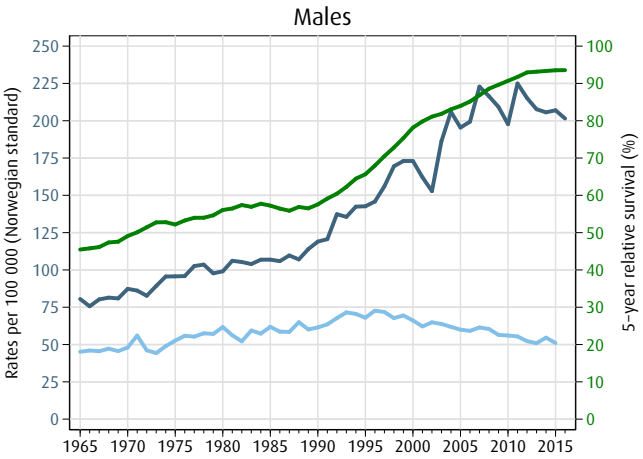


Figure 9.1–P: Corpus uteri (ICD-10 C54)

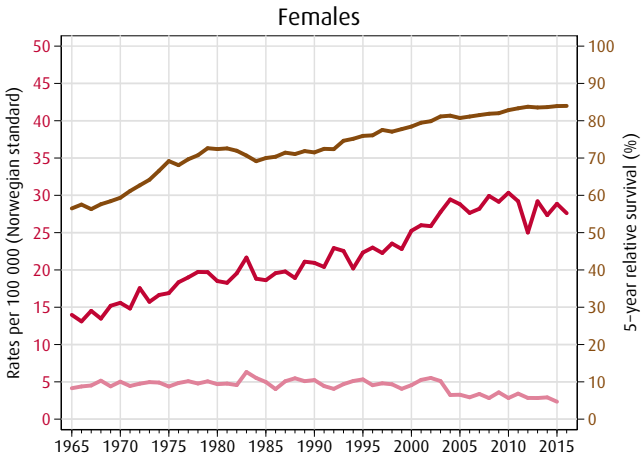


Figure 9.1–Q: Testis (ICD-10 C62)

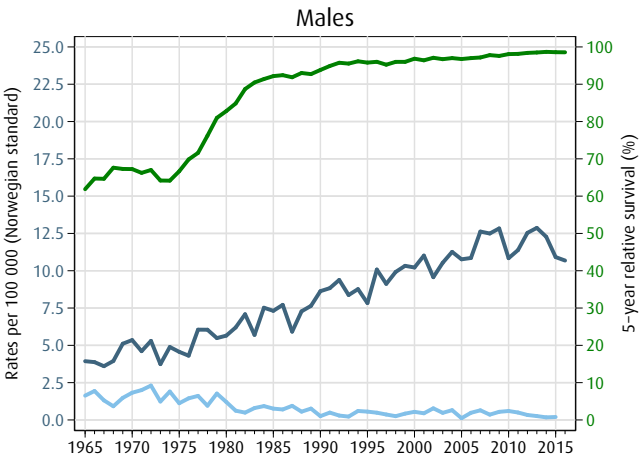
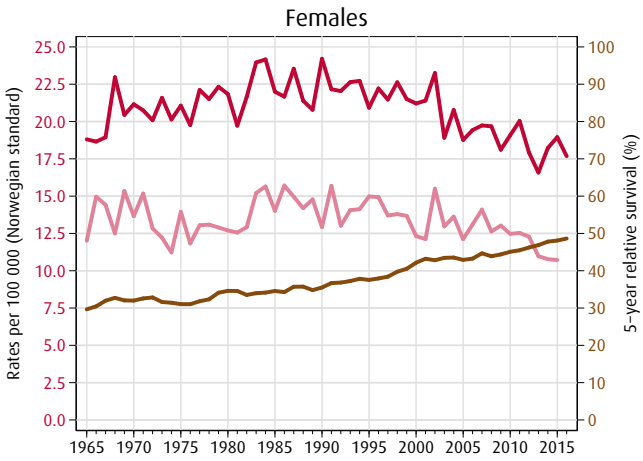
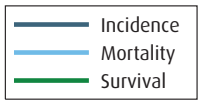


Figure 9.1–R: Ovary (ICD-10 C56, C57.0–4)





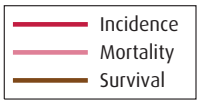


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

Figure 9.1–S: Urinary tract (renal pelvis, ureters, urinary bladder,and urethra) (ICD-10 C65–68)

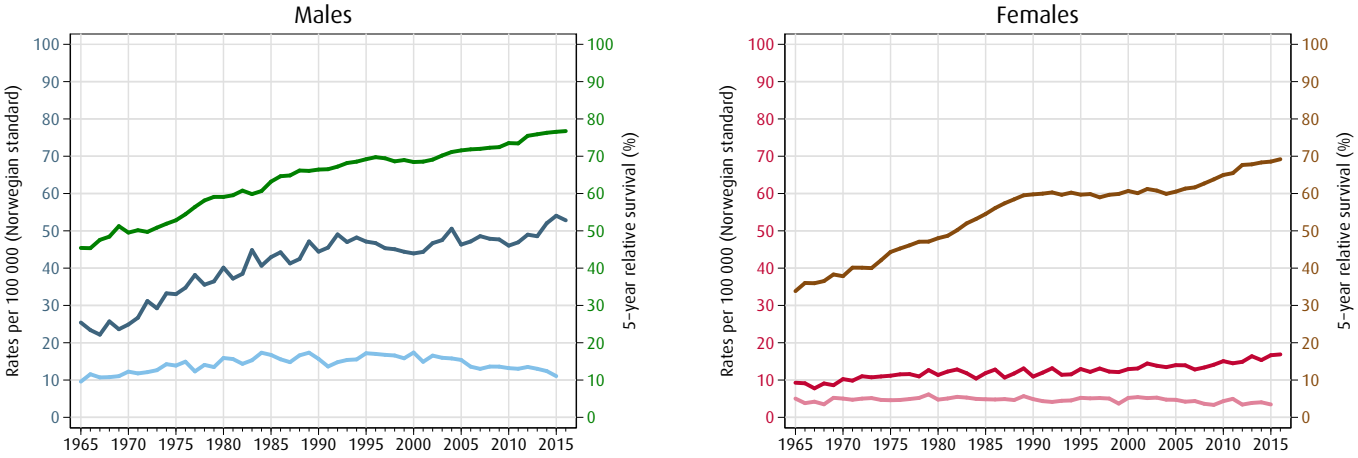


Figure 9.1–T: Central nervous system (ICD-10 C70–72)

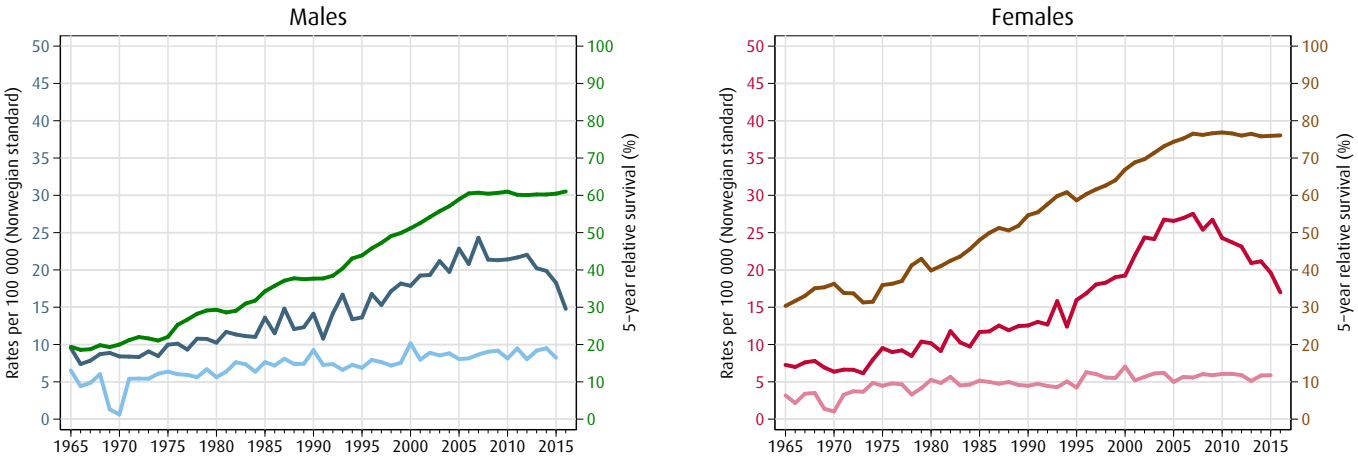


Figure 9.1–U: Thyroid gland (ICD-10 C73)

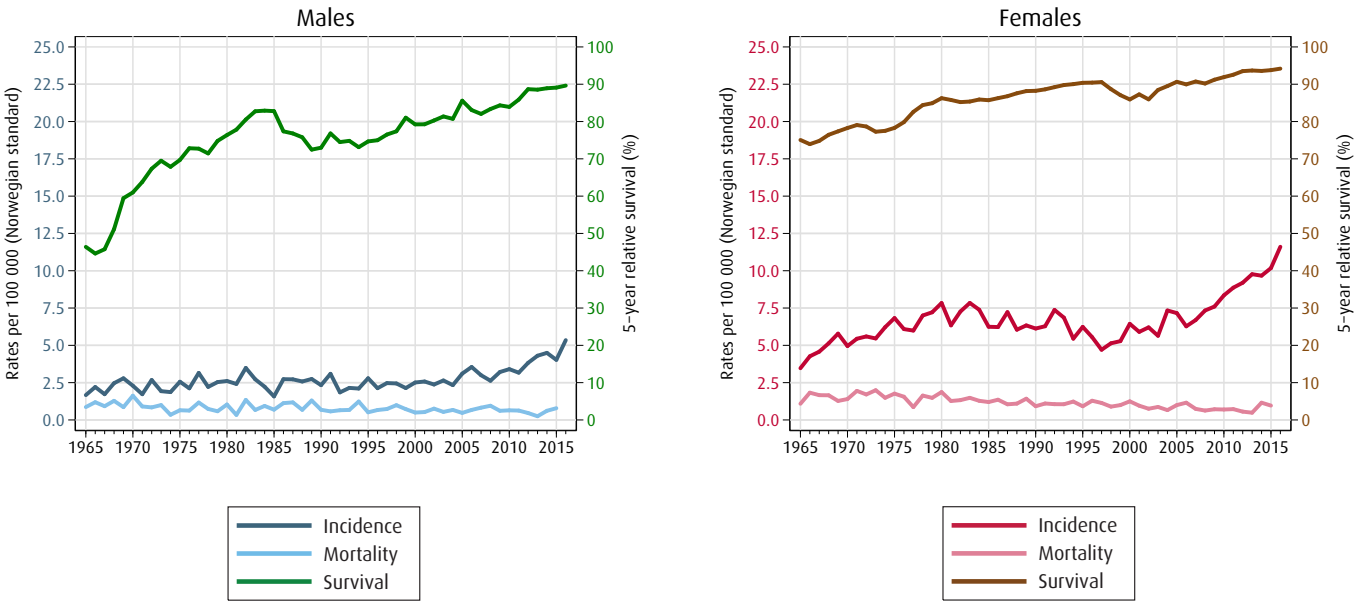


Figure 9.1: Trends in incidence and mortality rates and 5-year relative survival proportions

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

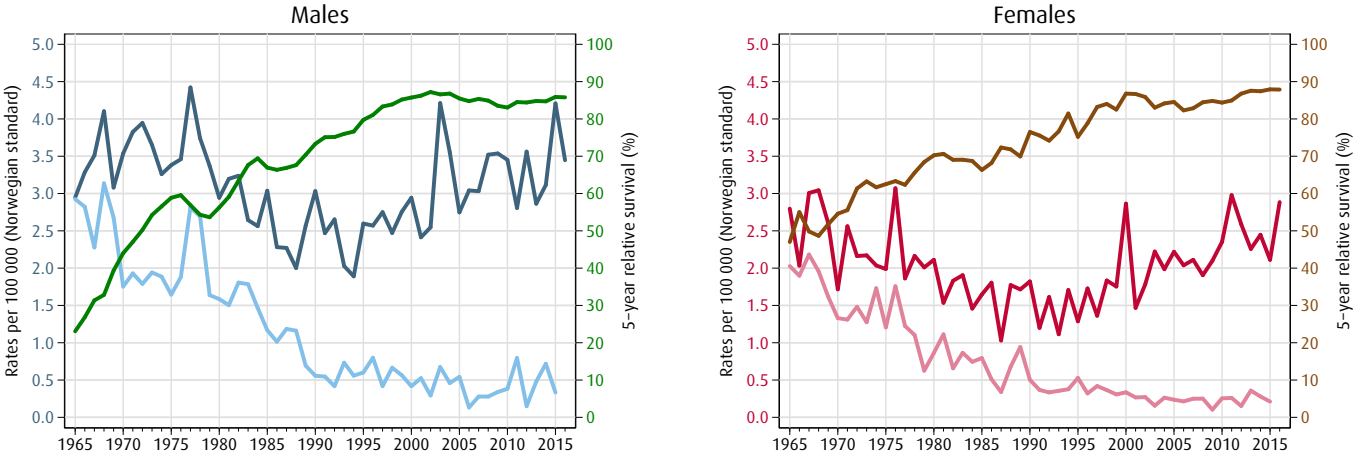


Figure 9.1–W: Non-Hodgkin lymphoma (ICD-10 C82–86, C96)

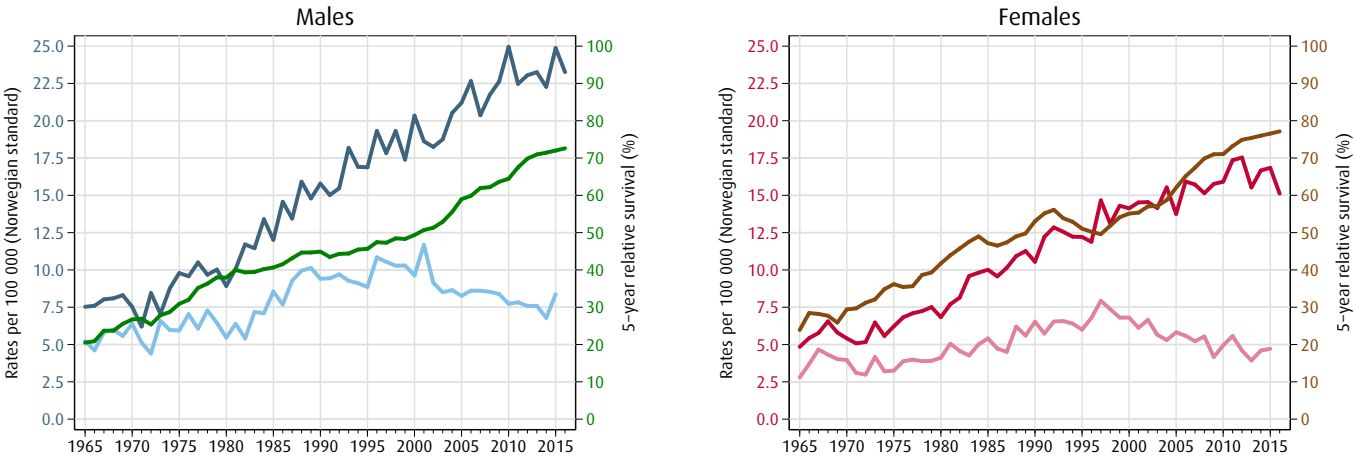
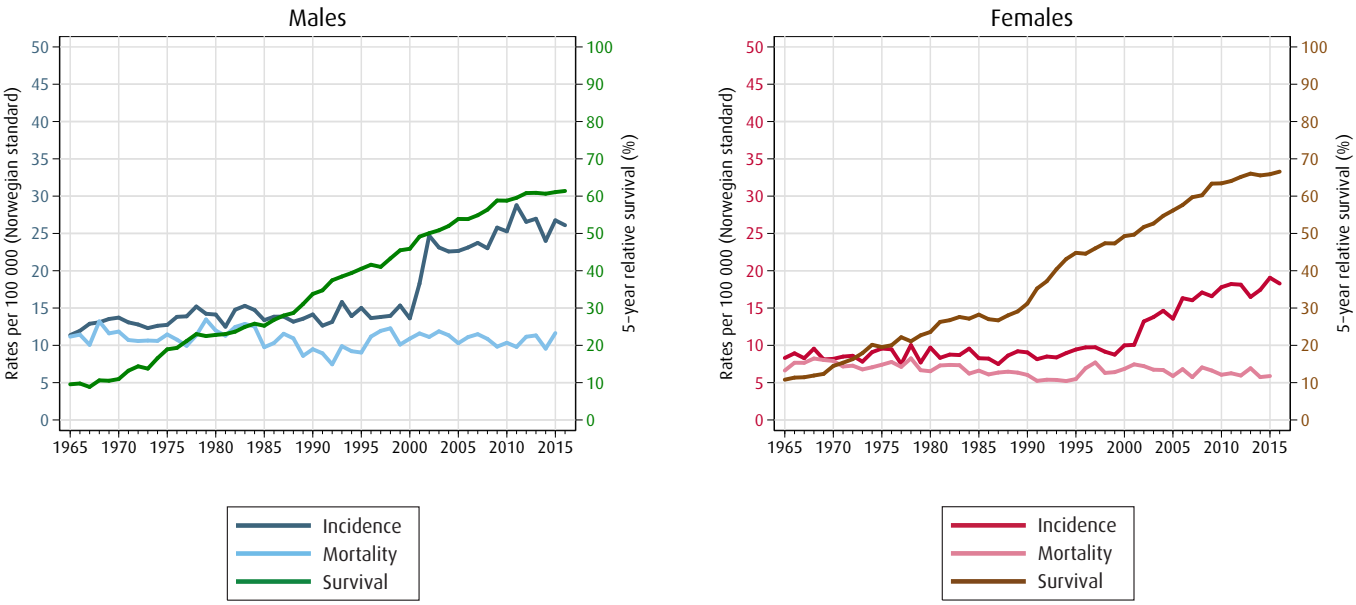


Figure 9.1–X: Leukaemia (ICD-10 C91–95)



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