

Cancer in Norway 2008

Cancer incidence, mortality,
survival and prevalence in Norway

Special issue:
*The Janus Serum Bank -
From sample collection to cancer research*



Cancer in Norway 2008

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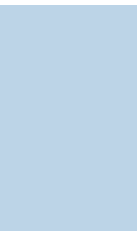
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Foreword

As with many cancer registries worldwide, the Cancer Registry of Norway publishes reports describing the patterns of cancer incidence, survival, mortality and prevalence in its catchment population. Cancer in Norway – first published in 1959 and annually since 1977 – describes the contemporary national and regional cancer profiles in terms of numbers of cases, rates and trends. It also serves to highlight some of the major breakthroughs as well as setbacks in cancer control, and by so doing, setting an agenda for future priorities. The Registry has established two areas of priority in recent editions of Cancer in Norway.

The first concerns timeliness with respect to the reporting of cancer incidence. This edition of Cancer in Norway provides statistics in tabular and graphical form on the 100+ cancer types diagnosed and registered in the population of Norway during the year 2008. A feature of the report since Cancer in Norway 2005, the cancer statistics provided are as up-to-date as possible, and we vow to continue to publish within this one-year time window, with a view to optimally serving the clinical and research communities. It should be noted that reporting is only sanctioned after a rigorous in-house evaluation of the quality of the data. That we have been able to report such timely data is a testament to the dedication and skill of the Cancer Registry staff in ensuring the necessary high levels of completeness and accuracy of the cancer incidence data.

The second cornerstone of Cancer in Norway is the Special Issue which has become a permanent feature of the report. A primary aim is to provide a detailed report on an area of national importance, and previous topics included regional cancer incidence predictions to 2020, and a comprehensive evaluation of data quality at the Registry. An equally important objective is to ensure, where applicable, that the subject areas become a standard aspect of documentation, analysis and/or reporting at the Registry. As an example, we have created two further sections in the first part of this report, on the basis of last year's Special Issue ("Long-term cancer survival 1965-2007"). The new section on survival aims to quantify the long-term survival of cancer patients in Norway, while the trends section, in presenting concomitant trends in incidence, mortality and survival from 1964 through to 2008, provides both a historical and contemporary portrait of our successes and failures in cancer prevention and cancer control.

It is with great pleasure that we announce that the Special Issue this year is dedicated to the Janus Biobank. With its full integration with the Cancer Registry of Norway, Janus can be considered a unique paradigm for population-based epidemiological cancer research. It is hoped that this highly readable account of the history, concepts and scientific activities of Janus biobank in cancer research, will ensure further national and international scientific interest in Janus and its unique opportunities for the epidemiological study of cancer based on biological specimens.

The Cancer Registry continues to develop high levels of competence in areas along the longitudinal line of epidemiological enquiry into cancer, a "cradle to grave" approach to the study of the distribution, determinants and the possibility of cure of cancer. We continue, in close collaboration with our partners, both in Norway and abroad, to develop biological thinking through causal research, to lead in screening evaluation and screening-based research, and to establish quality surveillance systems that enables the evaluation of cancer care and management. By ensuring such activities at the Registry cover the spectrum of cancer control, the Registry remains a fundamental component in combating cancer and ameliorating the cancer burden in Norway.

Oslo, December 2009



Frøydis Langmark
Director

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Data Sources and Methods

The population of Norway

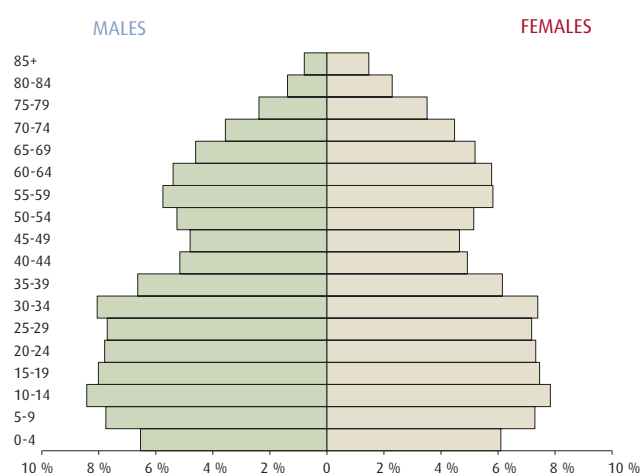
The Norwegian population is principally white Caucasian, with an immigrant population (from over 200 countries) comprising 10.6% of the total population of 4.8 million in 2008 (Table 1). Figure 1 illustrates the changing age structure of Norway, comparing population estimates in 1980 and 2008 with projections for 2030 (*Statistics Norway, 2008/2009*). The population of Norway has been increasing since records began, and this growth is expected to continue in the next few decades. The total number of inhabitants in Norway has increased by 12% during the last 25 years, largely as a result of rising life expectancy and more recently, increases in net immigration. By 2030, the size of the population is expected to increase a further 23% to about 5.8 million (*Statistics Norway, 2008*). The elderly will represent an increasingly large proportion of the population of Norway in the next quarter of a century. It is projected that by 2030 over one million inhabitants, or one-fifth of the population will be aged 65 or over.

Table 1: Number of inhabitants in Norway 31.12.2008

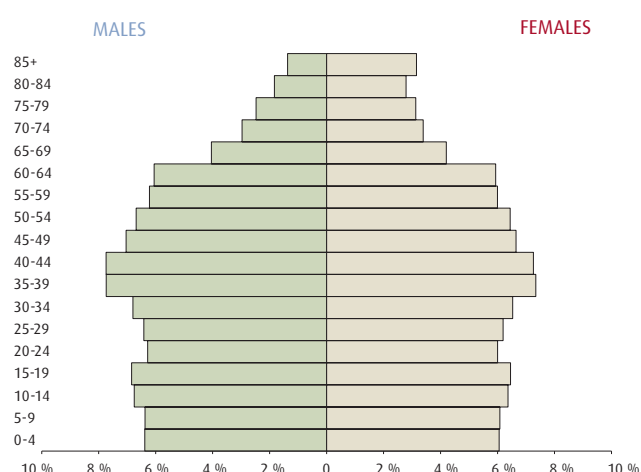
Age	Males	Females
0-4	152 844	145 616
5-9	152 680	146 257
10-14	161 690	153 129
15-19	163 961	155 253
20-24	150 394	144 342
25-29	153 607	148 977
30-34	162 783	157 058
35-39	185 253	176 590
40-44	185 346	174 486
45-49	168 529	159 900
50-54	160 046	154 913
55-59	148 909	144 216
60-64	145 011	142 650
65-69	96 896	101 073
70-74	71 075	81 531
75-79	59 325	75 281
80-84	43 921	67 053
85+	32 783	75 874
Total	2 395 053	2 404 199

Figure 1

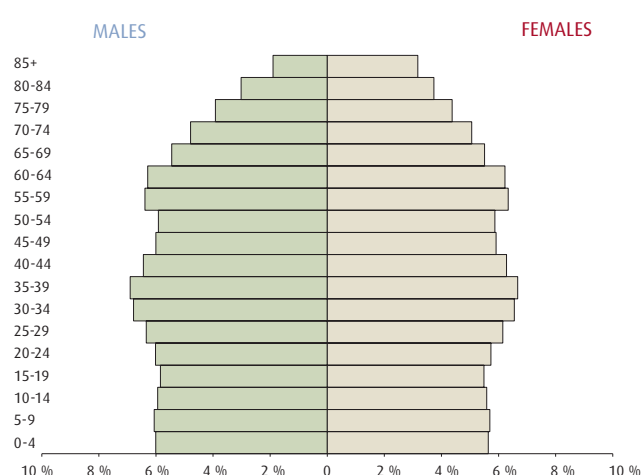
Age structure of the Norwegian population, 1980



Age structure of the Norwegian population, 2008



Age structure of the Norwegian population, 2030*



*Forecast, *Statistics Norway 2008*

Data sources and registration routines at the Cancer Registry of Norway

The Cancer Registry of Norway has, since 1952, systematically collected notifications on cancer for the Norwegian population, and the total number of registrations of cancer collected for a given year has, from the following year, 1953, been considered to be very close to complete. The reporting of neoplasms (and certain precancerous lesions) has been compulsory following a directive from the Ministry of Health and Social Affairs in 1951. A Health Registry Act came into force in 2002 that included statutory regulations for the Registry (*Regulations on the collection and processing of personal health data in the Cancer Registry of Norway*), strengthening the legal obligation to report new cases to the Registry and defining its main objectives as:

- To collect, and within the scope of the Regulations, process data relating to cancer cases and carry out studies in Norway in order to document the distribution of cancer and describe changes over time;
- To conduct, promote and provide a basis for research to develop knowledge of the causes of cancer, their diagnosis and natural course, and the effects of treatment via the follow-up of patients, with a view to improving the quality of preventive measures and medical assistance to combat cancer;
- To provide advice and information to public administrative bodies, special interest groups, and the general population, including measures that may help prevent the development of cancer.

Notifications and sources of information

The sources of information and the notification process are illustrated in Figure 2. Hospitals, laboratories, general practitioners and *Statistics Norway* provide the key information that enables the Registry to collect, code and store data on cancer patients in Norway. Information from clinical notifications, pathological notifications and death certificates are the main reporting sources, and these are processed and registered in the incidence registry. Since 1998, information from the Patient Administrative Data (PAD) system in the hospitals has proven an important additional source for identifying patients that were unregistered.

Clinical and pathological notifications

The Cancer Registry Regulations, as issued by the Ministry of Health and Social Affairs, require all hospitals, laboratories and general practitioners in Norway to report all new cases of cancer, irrespective of whether the patient is treated, admitted, or seen only as an out-

patient. The Registry also receives mandatory reports from individual physicians, and from pathology and cytology laboratories. There are two generic paper-based forms for the reporting of solid or non-solid tumours, respectively. Some specific sites (colorectum, melanoma of the skin, breast, ovary, prostate, malignant lymphoma and chronic lymphatic leukaemia) are reported on separate forms with extended information on case history and treatment. Notifications of pathological information are received from hospitals and individual laboratories. These notifications may provide either histological, cytological or autopsy information. The information is identified and linked by the personal identifier number system, established in Norway in 1964.

Death certificates

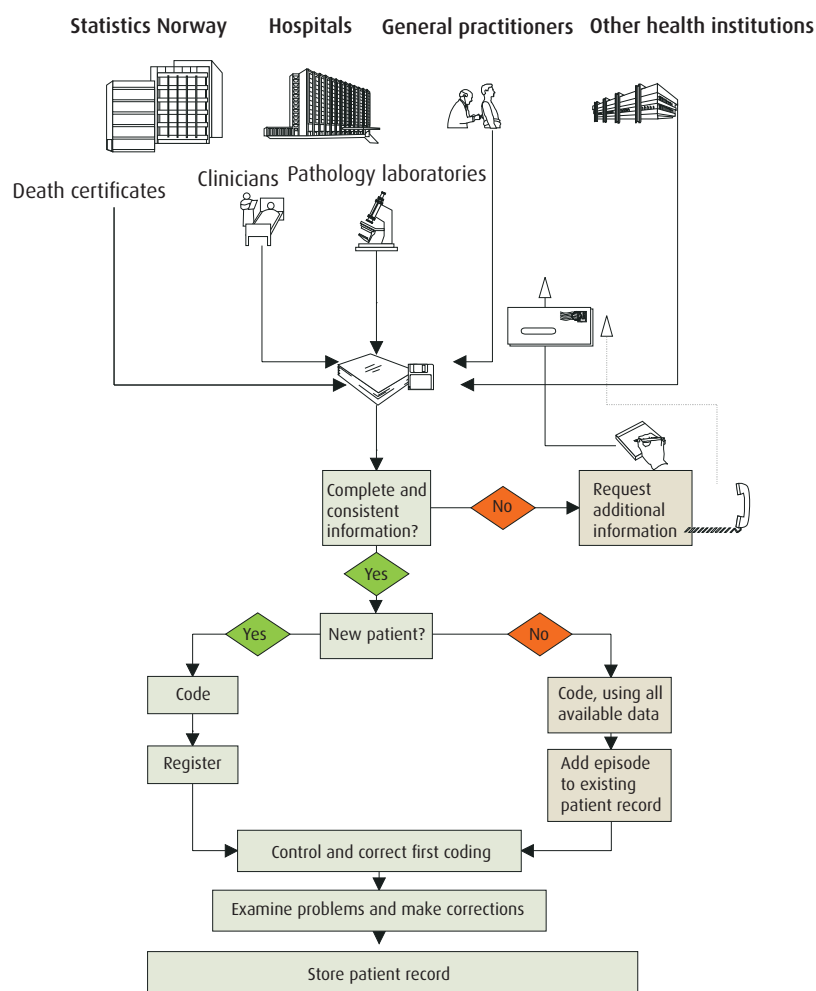
Records held in the Registry are supplemented with relevant information on vital status from the National Population Registry, and are regularly matched with the Cause of Death Register run by the National Statistics Bureau, *Statistics Norway*. The Registry receives and registers the death certificates in one or several batches in a given year. The automated procedure that matches registered patients to death certificates is an important aspect in maintaining quality control, facilitating a high level of completeness and ensuring validity of the Registry data items.

Death certificates are also a complementary source of information on new cancer cases; those inconsistently specified or unmatched to registry files are subject to further scrutiny. Cancer cases first identified from death certificates are traced back to the certifying hospital or physician. The Registry needs to ascertain from the registrar completing the certificate whether the patient had been investigated and diagnosed when alive, or whether the diagnosis was made following death. A reminder is sent to the physician or institution responsible for the treatment of the patient before death, as indicated on the death certificate. In many cases, a nursing home is the point of contact, and they refer the Registry to the treating physician or hospital where the cancer was diagnosed.

The Patient Administrative Database (PAD)

Since 2002, the Registry has received data files from the PAD system running in all Norwegian hospitals. These files contain information on all patients treated for malignant and premalignant conditions from 1998, and PAD has been a key source to the Registry in ascertaining information on unreported cases since that date.

Figure 2: Sources of information and the processes of cancer registration at the Registry



Data items registered in the Cancer Registry of Norway

There is obligatory reporting and registration at the Registry of the following:

- All definitely malignant neoplasms (e.g. carcinoma, sarcoma, malignant lymphoma, leukaemia and malignant teratoma).
- All precancerous disorders.
- All histologically benign tumours of the central nervous system and meninges.
- All histologically benign transitional cell papillomas of the urinary tract.
- All tumours of the endocrine glands within the central nervous system.

Dispatching of reminders

It is mandatory to report clinical information on new cases of cancer within two months of the diagnosis. Reminders are therefore sent to all hospitals and physicians failing to initially report new cases, or in cases where the received forms do not yield relevant information. About 40 000 reminders are sent annually, including, in some instances, repeat requests for information. There are two main sources of information used to send out reminders to the reporting institutions and physicians:

Reminders sent out on the basis of pathological information or death certificates

Pathology and cytology laboratories regularly send copies of pathology reports and autopsies to the Registry. Death certificates are received from the Deaths Registry at *Statistics Norway*. In those cases where the clinical form for the cancer case notified from these sources is missing, information on the hospital/ward/physician responsible for the diagnosis and treatment of the patient is used to send out the reminder.

Reminders sent out on the basis of PAD

The Registry augments existing sources of information with electronic patient forms received directly from each Norwegian Hospital. The PAD system database captures all C- and some D-diagnoses (D00.0- D48.9) (ICD-10) and these can be matched with the current information in the Registry database. Reminders are sent for those cases where no information about the specific diagnosis exists in the Registry.

Data quality at the Registry

Cancer in Norway 2006 included as a Special Issue an overview and comprehensive assessment of the data quality at the Cancer Registry of Norway. The report is available at www.cancerregistry.no. From this work several research articles have been published in the last year. Larsen et al (2009) have reported that the coding and classification systems, follow for the most part, 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. Overall under-reporting for the year 2005 as a result of early publication was estimated at approximately 2.2% at the date of publication (November 2006). An accompanying two-part review provided an update of the practical aspects and techniques for addressing the data quality at a cancer registry generally, including the documentation of comparability, validity and timeliness of registry data (Bray and Parkin,

2009), as well as methods for the evaluation of registry completeness (Parkin and Bray, 2009).

Two indicators of accuracy for the period are included in Table 2, namely the percentage morphologically verified (MV%), and the percentage of death certificate only registrations (%DCO). See the above references for further details. The rules developed jointly by the International Association of Cancer Registries (IACR) and the International Agency for Research on Cancer (IARC) for the registration and reporting of multiple neoplasms (IACR, 2004) have been implemented.

Completeness and timeliness of incidence

Table 3 shows the number of cancer cases diagnosed in 2007 as enumerated on 27 November 2008, and 27 November 2009. The number of cancer cases reported and appearing in CiN 2007 were 2.4% fewer than those available for registration a year later, with the differences varying by site. The largest apparent deficits of 7–8% were for cancers of the central nervous system and corpus uteri. By comparing the shortfall in incidence at the end of 2008 (when CiN 2007 was published), with the accumulation of late registrations one year later (at the time of extracting the incidence data for this report), we can estimate the expected number of cases missing for 2007. It is observed that the net effect of the accrual of registrations 12–24 months beyond the year of diagnosis (2007) further increased the number of new registrations for that year by slightly less than 650 cases.

In the last few years, prostate cancer incidence has been increasing, but the specific number of cases is somewhat unstable, being subject to year-on-year variations in the utilisation of PSA testing in Norway. The numbers of cancer of the corpus uteri are up 10% on last year, although a clear explanation, if warranted, is not apparent at the time of going to press. More easily explained is the deficit in 2008 in the incidence of certain cancers associated with poorer prognosis that partially relies on death certificates to initiate registrations, such as pancreatic cancer. The shortfall may reflect the backlog in the processing of death certificates; the fact that the current DCO proportion for this cancer is above 5% for registrations in 2008 would tend to support this explanation.

The incidence registry

The incidence registry contains the basic data items collected from clinicians and pathologists, as well as from administrative patient discharge and mortality sources. As of December 2009, the Incidence registry contained information from 1953 on 1 427 913 cancer cases and premalignant conditions in 1 156 213

persons. A total of 3 390 433 notifications have been received since 1969. For all cases registered since 1953, 86.6% are histologically verified and 1.3% of the diagnoses are based on death certificates alone. The incidence registry is updated continuously with information on both new cases, as well as cases diagnosed in previous years.

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 27 November 2009. The forthcoming tables and figures commonly represent either the latest year of complete incidence (2008) or the latest five-year period (2004-8), the latter grouping used where the stratified numbers are too small to warrant presentation for a single year.

The precancerous cases included are i) atypical epithelial lesions and benign papillomas of the transitional cell-lined urinary tract, together with invasive cancers at these sites, and ii) all neoplasms of the central nervous system (benign or malignant). The precancerous conditions, cervical carcinoma in situ, ovarian borderline tumours, and basal cell carcinoma of the skin are excluded. Codes are translated from ICD-7 to ICD-10 using a combination of topography and morphology. Population data, stratified by year, sex and age, are provided by *Statistics Norway*. The main cancer forms are tabulated according to their ICD-10 three digit categories. The “all sites” figure comprises all malignant neoplasms (ICD-10 C00-96) plus several benign or precancerous conditions. The number of leukaemias reported in 2007 has increased from 515

in November 2008 to 768 one year later. This is due to the inclusion from 2009 of all malignant cases according to ICD-O-3. These are mainly polycythemia vera (ICD-10 D45), myelodysplastic syndromes (ICD-10 D46), and other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue (ICD-10 D47). A commentary on the inclusion and exclusion criteria applied to several sites with respect to morphology is shown below.

Corresponding mortality data coded in ICD-10 were obtained from *Statistics Norway* and are presented in the same ICD-10 categories as incidence.

Follow-up data

To estimate long-term survival patterns and trends, registrations of cancer diagnoses 1965-2008 were matched to vital status using the information held at the Deaths Registry at *Statistics Norway*. The last follow-up date was set to 31 December 2008. A total of 23 common cancers were selected for analysis, and grouped according to their respective ICD-10 categories.

About 3.7% of the cases were excluded as they were either registered as DCO cases or cases diagnosed at autopsy, were cases for which a survival time could not be estimated (as event dates were missing), or had either erroneous event dates (survival time < 0) or zero survival time (survival time = 0). It has been shown that exclusion of patients with a prior cancer diagnosis – usually associated with an inferior prognosis – may give rise to artificially elevated estimates of survival (Brenner and Hakulinen, 2007), and hence,

ICD10-codes where specific morphologies are excluded or included

ICD10	Site	Comments
C38	Mediastinum, pleura	Excludes mesotheliomas of pleura
C44	Skin, non-melanoma	Excludes basal cell carcinoma
C56	Ovary	Excludes borderline tumors
C64	Kidney except renal pelvis	Excludes non-invasive papillary tumours
C65	Renal pelvis	Includes non-invasive papillary tumours
C66	Ureter	Includes non-invasive papillary tumours
C67	Bladder	Includes non-invasive papillary tumours
C68	Other and unspecified urinary organs	Includes non-invasive papillary tumours
C70	Meninges	Includes benign tumors (ICD-10 D42-43)
C71	Brain	Includes benign tumors (ICD-10 D42-43)
C72	Spinal cord, cranial nerves and other parts of central nervous system	Includes benign tumors (ICD-10 D42-43)
C75	Other endocrine glands and related structures	Includes benign tumors (ICD-10 D44.3-44.5)
C92	Myeloid leukaemia	Includes myelodysplastic syndrome (ICD-10 D45)
C95	Leukaemia of unspecified cell type	Includes polycythemia vera (ICD-10 D46)
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	Includes other and unspecified tumors in lymphatic or haematopoietic tissue (ICD-10 D47)

patients with previous cancer diagnoses were eligible for inclusion in each site-specific analysis.

To provide an estimate of “all sites” survival (ICD-10 codes defined as above), a restriction was made to first primary tumours and thus to cancer patients. While the inclusion of multiple primaries has been recommended for comparative purposes, the corresponding reduction in the overall survival estimates have been shown to be rather negligible; the effect of their inclusion has been shown to reduce 5-year survival in Norway (for diagnoses 1995-9) by less than a percentage point (Rosso et al, 2009). Nevertheless caution in interpretation is recommended; the respective impact of PSA-testing and mammographic screening on the most frequent cancers in men and women, prostate and breast, will certainly have lead to an artificial inflation of the overall survival estimates, particularly for prostate cancer.

Statistical methods used in this report

Four measures are used in this report to describe the burden and risk of disease: incidence, mortality, survival and prevalence.

Incidence and mortality

Incidence and mortality refer to the number of new cases and deaths occurring, respectively. The latter is the product of incidence and the fatality of a given cancer, the proportion of cancer patients that die. Both measures can be expressed as the absolute number of cases (or deaths), or as the incidence (or mortality) rate, taking into account the size of the population at risk. Rates are essential in the comparisons between groups, and within groups over time. The denominator is the underlying person-time at risk in which the cases or deaths in the numerator arose. Prevalence and survival (see below) are proportions rather than rates as there is no time dimension, although the term is frequently attached to both measures. Cancer incidence and mortality in Norway are presented in this report as both numbers and rates. Several types of rates are used in this report.

Age-specific rates

There are compelling grounds for adjusting for the effects of age when comparing cancer risk in populations. Age is a very strong determinant of cancer risk. The *crude rate*, a rate based on the frequency of cancer in the entire population, is calculated ignoring possible stratifications by age. Although the measure can be useful as an indicator of the extent of burden, its utility in comparing cancer risk is severely limited where there are differing age structures across groups,

or where demographic changes have impacted on the size and age structure of a population over time.

To obtain a more accurate picture of the true risk of cancer, rates are calculated for each age strata, usually grouped in five-year intervals. The age-specific rate for age class i , denoted as r_i is obtained by dividing the number of events in each age class d_i by the corresponding person-years of observation Y_i and multiplying by 100 000:

$$r_i = d_i / Y_i \times 100\,000$$

Rates are given separately for males and females, because of the often very different cancer patterns by sex. Age and sex-specific incidence and mortality rates are the foundation of epidemiological analysis of cancer frequency data.

Age-standardised rates

To facilitate comparisons however, a summary rate is required that absorbs the schedule of 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. The calculation of the ASR is an example of direct standardisation, whereby the observed age-specific rates are applied to a standard population. The populations in each age class 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. The *world* standard population, a commonly-used reference, is utilised in this report (Segi, 1960; Doll et al, 1966). Although the weights of the world standard fail to resemble those of the Norwegian population in 2008 (Figure 3), this observation is of relatively little importance, since it is the ratio of ASRs, an estimate of the age-adjusted relative risk between populations or within a population over time, that is the focus of interest. This characteristic has been shown to be rather insensitive to the choice of standard (Bray et al, 2002).

For weights w_i in the i th age class of the world standard and for A age classes with $i = 1, 2, \dots, A$, as before, r_i is the age-specific rate in the i th age class. The ASR is calculated as:

$$ASR = \frac{\sum_i r_i w_i}{\sum_i w_i} \times 100\,000$$

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 (Day, 1982). 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*.

The cumulative rate 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, assum-

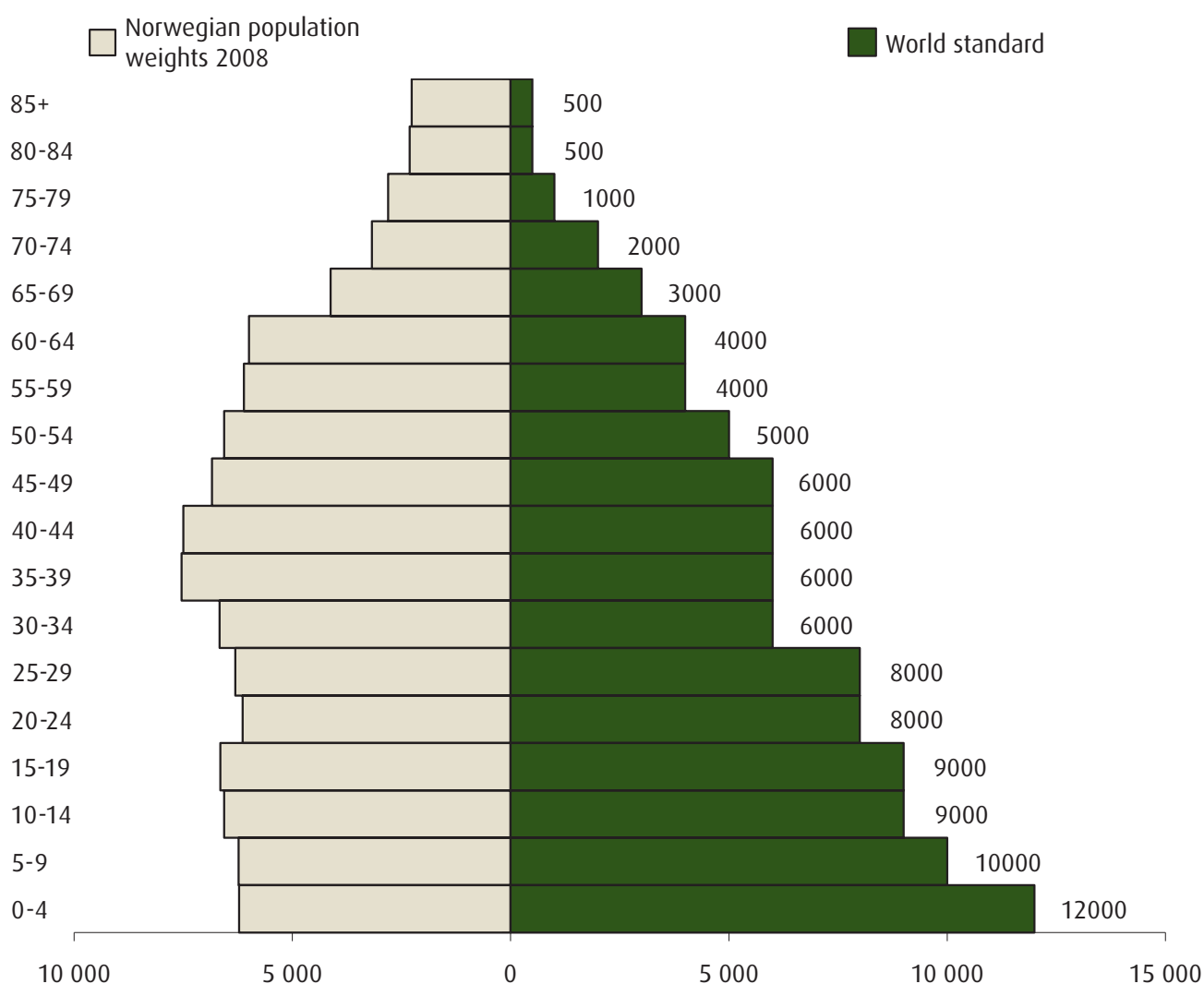
ing the age-specific rates are the same for all ages within the five-year age stratum:

$$5 \sum_i r_i$$

The cumulative rate has several advantages over age-standardised rates. Firstly, as a form of direct standardization, 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:

$$\text{cumulative risk} = 1 - \exp(-\text{cumulative rate})$$

Figure 3: Comparison of population weights



Prevalence

Prevalence is the proportion of a population that has the disease at a given point in time. It is a rather complex measure of cancer incidence, fatality, and other influences operating in affected individuals prior to death or *cure*. Although prevalence usefully describes the number of individuals requiring care for disease like hypertension and diabetes, many patients diagnosed with cancer in the past may now be considered cured, in that they no longer have an excess risk of death. Some residual disability may be present however, subsequent to a specific treatment intervention, for example.

Lifetime cancer prevalence can be defined as all persons living and ever diagnosed with cancer, and such a measure can easily be derived at the Cancer Registry of Norway given the very long-term registration of cases, and complete follow up of vital status over many years. Although such statistics are provided in this report, *partial* prevalence estimates are perhaps of more utility in quantifying resource requirements; the numbers of persons alive as of 31 December 2008, and whom were diagnosed with cancer within one year, one to four years, five to nine years, and 10 or more years, are therefore also incorporated into this report.

Survival

The survival time of a cancer patient is defined as the time that elapsed between a cancer diagnosis and subsequent death. The most basic measure of survival is observed survival, with the 5-year estimate representing the percentage of patients still alive 5 years after the date of diagnosis.

Relative Survival

Not all deaths among cancer patients are due to the primary cancer under study, and deaths resulting from other causes will lower the survival and 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 since diagnosis, the relative survival from the cancer, $R(t)$, is defined as follows:

$$R(t) = S_o(t)/S_e(t)$$

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 charac-

teristics of the patients to the general population. This requires the Norwegian population life tables, available up to 2008 from *Statistics Norway* by 1-year age group, sex, and 1-year calendar period. The methods for estimating expected survival depend on the length at which an individual is considered at risk (Dickman et al, 2004). The method of Hakulinen (1982) was used whereby the survival time of the matched individual is censored at the same survival time that the cancer patient is censored.

With traditional cohort-based analyses, the most up-to-date estimates of longer-term survival would have pertained to patients diagnosed in the distant past, with corresponding profiles of prognosis. In contrast, 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. Brenner and Hakulinen (2002) have concluded that period analysis should be used for routine purposes so as to advance the detection of progress in long-term cancer patient survival. Both clinicians and patients are primarily interested in up-to-date estimates of survival, and its incorporation into *Cancer in Norway* aims to reflect the most recent developments in cancer care.

For a one-year period window, information from the latest 0, 1, 2,..., n years are used in its estimation, as interval-specific survival probabilities are based on contributions from patients diagnosed 0, 1, 2,..., n years back in time. In this report, we have used a three-year period window (2006-8) to estimate relative survival up to 15 years, and the same approach to analyse trends, using a three-year moving period window from 1965 to 2008. To increase stability in the estimates, stage-specific survival is presented using a three-year period window.

A more thorough review of, and rationale for, the utilisation of these survival methods is given in last year's Special Issue on the topic (CiN 2007).

Conditional survival

The majority of cancer survivors wish to obtain information on their current prognosis, once they have survived a certain period of time after diagnosis. *Conditional survival* is a key indicator in this respect, estimating survival proportions on the pre-condition that patients have already survived a certain duration of time (Hankey and Steinhorn, 1982; Janssen-Heijnen et al, 2007). The point at which conditional 5-year relative survival reaches 100% is the point where there is no excess mortality among the cancer patients, and prog-

nosis is equivalent to that experienced in the general population. As with the 15-year relative survival analyses, a three-year period window (2006–2008) is used in this report, and we present estimates of sex-specific 5-year relative survival conditional on being alive 1 to 10 years after diagnosis. Estimates were not plotted where it was considered there were too few cancer survivors ($n < 20$), or where the conditional survival exceeded 100%.

Definitions*

Incidence

The number of new cases (of 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**.

Crude rate

As above, with rates estimated for the entire population ignoring possible stratifications, such as by age group.

Age-specific rate

A rate calculated on stratifying by age, often based on a five-year interval.

Age-standardised incidence rate

Age-standardised (or age-adjusted) incidence rates are summary rates which would have been observed, given the schedule of age-specific rates, in a population with the age composition of a given standard population. The World standard population (Doll et al, 1966) is used in this report.

Prevalence

Prevalence is the proportion of a population that has the disease at a given point in time.

Relative survival

The observed survival 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 investigation. Relative survival is thus a measure of the excess mortality experienced by the patients regardless of whether the 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 duration from diagnosis lengthens, the statistic becomes more informative to survivors than the conventional relative survival estimate. A 5-year conditional relative survival that reaches close to 100% x number of years after diagnosis indicates that from thereon in, there is little or no excess mortality among the patient group.

* Last's "A Dictionary of Epidemiology 4th Ed" was consulted.

** *Person-years* is a measurement that combines persons and time (in years) as the denominator in rates.

Table 2 Percentage distribution of MV (morphologically verified) and DCO (death certificate only) by primary site 2004-2008

ICD-10	Site	Cases	MV %	DCO %
C00-96	All sites	129573	89.1	1.4
C00-14	Mouth, pharynx	2206	97.6	0.1
C00	Lip	508	99.4	0.0
C01-02	Tongue	416	98.3	0.2
C03-06	Mouth, other	446	99.1	0.0
C07-08	Salivary glands	196	87.2	0.0
C09-14	Pharynx	640	98.0	0.2
C15-26	Digestive organs	26937	89.4	2.1
C15	Oesophagus	991	95.0	1.2
C16	Stomach	2656	95.3	1.0
C17	Small intestine	526	97.1	1.0
C18	Colon	11597	95.4	1.4
C19-21	Rectum, rectosigmoid, anus	6090	97.0	0.7
C22	Liver	681	75.6	4.1
C23-24	Gallbladder, bile ducts	693	65.9	5.6
C25	Pancreas	3254	58.4	5.4
C26	Other digestive organs	449	55.2	15.1
C30-34, C38	Respiratory organs	13219	78.5	1.8
C30-31	Nose, sinuses	232	98.7	0.4
C32	Larynx, epiglottis	587	97.6	0.9
C33-34	Lung, trachea	12298	77.3	1.8
C38	Mediastinum, pleura (non-mesothelioma)	102	59.8	7.8
C40-41	Bone	218	97.2	0.0
C43	Melanoma of the skin	5912	99.0	0.1
C44	Skin, non-melanoma	6926	98.7	0.1
C45	Mesothelioma	374	88.2	0.3
C46	Kaposi's sarcoma	50	96.0	2.0
C47	Autonomic nervous system	58	100.0	0.0
C48-49	Soft tissues	695	96.3	0.1
C50	Breast	13937	97.7	0.2
C51-58	Female genital organs	7773	95.3	0.8
C53	Cervix uteri	1419	98.7	0.1
C54	Corpus uteri	3383	99.0	0.2
C55	Uterus, other	38	76.3	7.9
C56	Ovary	2257	88.7	1.6
C51-52, C57	Other female genital	660	94.1	2.7
C58	Placenta	16	50.0	0.0
C60-63	Male genital organs	21606	96.1	1.1
C61	Prostate	19991	95.8	1.2
C62	Testis	1386	99.3	0.2
C60, C63	Other male genital	229	98.3	0.4
C64-68	Urinary organs	9736	93.5	1.1
C64	Kidney excl. renal pelvis	3000	86.8	2.4
C65	Renal pelvis	358	94.7	0.6
C66-68	Bladder, ureter, urethra	6378	96.5	0.5
C69	Eye	301	45.5	0.0
C70-72, D42-43	Central nervous system	4954	62.5	1.1
C73	Thyroid gland	1146	94.0	0.6
C37, C74-75	Other endocrine glands	859	67.8	1.7
C39, C76, C80	Other or unspecified	2247	54.3	9.9
C81-96	Lymphoid and haematopoietic tissue	10419	75.1	2.3
C81	Hodgkin lymphoma	576	99.1	0.0
C82-85, C96	Non-Hodgkin lymphoma	4027	96.9	0.3
C88	Malignant immunoproliferative diseases	218	67.0	1.4
C90	Multiple myeloma	1717	53.6	3.0
C91-95	Leukaemia	3881	58.9	4.6

Table 3 Registered cancer cases in Norway 2007 as extracted from the incidence registry 27th November 2008 and 27th November 2009

ICD10	Site	Cases diagnosed 2007 as of			
		27.11.2008	27.11.2009	Difference	%
C00-96	All sites	26196	26819	623	2.4
C00-14	Mouth, pharynx	444	446	2	0.5
C00	Lip	119	124	5	4.2
C01-02	Tongue	82	82	0	0.0
C03-06	Mouth, other	79	77	-2	-2.5
C07-08	Salivary glands	45	41	-4	-8.9
C09-14	Pharynx	119	122	3	2.5
C15-26	Digestive organs	5286	5485	199	3.8
C15	Oesophagus	186	188	2	1.1
C16	Stomach	545	550	5	0.9
C17	Small intestine	107	115	8	7.5
C18	Colon	2264	2360	96	4.2
C19-21	Rectum, rectosigmoid, anus	1111	1180	69	6.2
C22	Liver	145	147	2	1.4
C23-24	Gallbladder, bile ducts	135	143	8	5.9
C25	Pancreas	678	698	20	2.9
C26	Other digestive organs	115	104	-11	-9.6
C30-34, C38	Respiratory organs	2730	2770	40	1.5
C30-31	Nose, sinuses	60	61	1	1.7
C32	Larynx, epiglottis	93	95	2	2.2
C33-34	Lung, trachea	2550	2585	35	1.4
C38	Mediastinum, pleura (non-mesothelioma)	27	29	2	7.4
C40-41	Bone	45	44	-1	-2.2
C43	Melanoma of the skin	1192	1201	9	0.8
C44	Skin, non-melanoma	1418	1439	21	1.5
C45	Mesothelioma	74	76	2	2.7
C46	Kaposi's sarcoma	6	6	0	0.0
C47	Autonomic nervous system	10	11	1	10.0
C48-49	Soft tissues	152	155	3	2.0
C50	Breast	2780	2773	-7	-0.3
C51-58	Female genital organs	1453	1520	67	4.6
C53	Cervix uteri	261	266	5	1.9
C54	Corpus uteri	604	653	49	8.1
C55	Uterus, other	10	5	-5	-50.0
C56	Ovary	449	455	6	1.3
C51-52, C57	Other female genital	128	139	11	8.6
C58	Placenta	1	2	1	100.0
C60-63	Male genital organs	4724	4778	54	1.1
C61	Prostate	4391	4435	44	1.0
C62	Testis	295	302	7	2.4
C60, C63	Other male genital	38	41	3	7.9
C64-68	Urinary organs	1984	2043	59	3.0
C64	Kidney excl. renal pelvis	622	644	22	3.5
C65	Renal pelvis	75	76	1	1.3
C66-68	Bladder, ureter, urethra	1287	1323	36	2.8
C69	Eye	58	57	-1	-1.7
C70-72, D42-43	Central nervous system	994	1069	75	7.5
C73	Thyroid gland	218	229	11	5.0
C37, C74-75	Other endocrine glands	134	183	49	36.6
C39, C76, C80	Other or unspecified	455	442	-13	-2.9
C81-96	Lymphoid and haematopoietic tissue	2039	2092	53	2.6
C81	Hodgkin lymphoma	114	112	-2	-1.8
C82-85, C96	Non-Hodgkin lymphoma	797	802	5	0.6
C88	Malignant immunoproliferative diseases	40	42	2	5.0
C90	Multiple myeloma	320	342	22	6.9
C91-95	Leukaemia	768	794	26	3.4

Table 4 Number of new cases by primary site and sex - 2008

ICD-10	Site	Males	Females	Total
C00-96	All sites	14000	12121	26121
C00-14	Mouth, pharynx	262	189	451
C00	Lip	54	50	104
C01-02	Tongue	62	32	94
C03-06	Mouth, other	43	44	87
C07-08	Salivary glands	15	23	38
C09-14	Pharynx	88	40	128
C15-26	Digestive organs	2773	2556	5329
C15	Oesophagus	159	54	213
C16	Stomach	285	198	483
C17	Small intestine	62	50	112
C18	Colon	1142	1229	2371
C19-21	Rectum, rectosigmoid, anus	639	534	1173
C22	Liver	91	57	148
C23-24	Gallbladder, bile ducts	59	68	127
C25	Pancreas	304	307	611
C26	Other digestive organs	32	59	91
C30-34, C38	Respiratory organs	1567	1148	2715
C30-31	Nose, sinuses	23	14	37
C32	Larynx, epiglottis	112	22	134
C33-34	Lung, trachea	1422	1107	2529
C38	Mediastinum, pleura (non-mesothelioma)	10	5	15
C40-41	Bone	23	23	46
C43	Melanoma of the skin	669	616	1285
C44	Skin, non-melanoma	766	684	1450
C45	Mesothelioma	57	9	66
C46	Kaposi's sarcoma	5	2	7
C47	Autonomic nervous system	7	6	13
C48-49	Soft tissues	50	78	128
C50	Breast	21	2753	2774
C51-58	Female genital organs		1565	1565
C53	Cervix uteri		270	270
C54	Corpus uteri		716	716
C55	Uterus, other		8	8
C56	Ovary		457	457
C51-52, C57	Other female genital		114	114
C58	Placenta			
C60-63	Male genital organs	4515		4515
C61	Prostate	4168		4168
C62	Testis	296		296
C60, C63	Other male genital	51		51
C64-68	Urinary organs	1329	573	1902
C64	Kidney excl. renal pelvis	367	230	597
C65	Renal pelvis	55	32	87
C66-68	Bladder, ureter, urethra	907	311	1218
C69	Eye	33	27	60
C70-72, D42-43	Central nervous system	389	493	882
C73	Thyroid gland	60	169	229
C37, C74-75	Other endocrine glands	103	93	196
C39, C76, C80	Other or unspecified	177	199	376
C81-96	Lymphoid and haematopoietic tissue	1194	938	2132
C81	Hodgkin lymphoma	76	42	118
C82-85, C96	Non-Hodgkin lymphoma	476	361	837
C88	Malignant immunoproliferative diseases	22	12	34
C90	Multiple myeloma	200	151	351
C91-95	Leukaemia	420	372	792

Incidence

In 2008, 26 121 new cases of cancer were recorded in Norway, for which 14 000 occurred among men and 12 121 among women (Table 4). Cancers of the prostate, female breast, colon and lung are the most common cancers and comprise almost half of the total cancer burden. In men, prostate cancer continues to be the most frequent cancer in men (4168), followed by colorectal (1781) and lung cancer (1422). Breast cancer remains the most frequent neoplasm in women, with 2753 new cases in 2008, followed by colorectal and lung cancer, with 1763 and 1107 incident cases, respectively.

The vast majority of cancers in Norway – over 90% in men and 85% in women are diagnosed in persons aged over 50 (Figure 4). About half are diagnosed at ages 70 or greater, while 40% of all new cases occur between the ages 50 and 69, in men and women alike. A larger proportion of cancers are diagnosed in women than men at the ages of 25 to 49, while similar proportions – constituting slightly over 1% of the cancer burden – occur in children and young adults.

The relative impact of cancer at different ages varies considerably by cancer site. Figure 5 identifies the cancer forms that are the main contributors to the disease burden at different ages. Cancers of the central nervous system are most frequent in children and young female adults, while testicular cancer is by far the most common cancer diagnosed in young men. Prostate cancer is the most frequent cancer in men

aged over 50, while breast cancer is the most common cancer diagnosis in women from the ages 25 through to 69.

The age-standardised rates and sex ratios for selected cancer types in 1978-1982 and 2004-2008 are compared in Table 5. Men tend to have higher rates of incidence for most cancer types in both time periods, with the exceptions of melanoma of the skin and thyroid cancer. The highest male:female (M:F) ratios are observed for several head and neck cancers, although a number of the most frequent cancer forms – including cancers of the lung, bladder, stomach and rectum – are consistently more common among men. The declines in the M:F ratios for several neoplasms over the last 25 years may largely be the result of decreasing incidence trends in men and increasing incidence trends in women for a number of cancer types. For lung cancer, the reduction of the M:F ratios over the last two to three decades points to a differential in sex-specific trends with the rapidly increasing trends in lung cancer rates among women contrasting with the recent declines in the last decade among men.

Figure 6 depicts time trends in incidence for a number of common cancers. Of note are: 1) the continuing upsurge in prostate cancer incidence since 1990, largely the result of an increasing use of the Prostate Specific Antigen (PSA) test and subsequent biopsy to detect prostate cancer in Norway; 2) the continued increase in breast cancer in women, in part related to the gradual introduction of the mammographic screening programme; 3) the contrasting lung cancer trends in

Figure 4: Percentage distribution of cancer incidence by age, 2004-2008

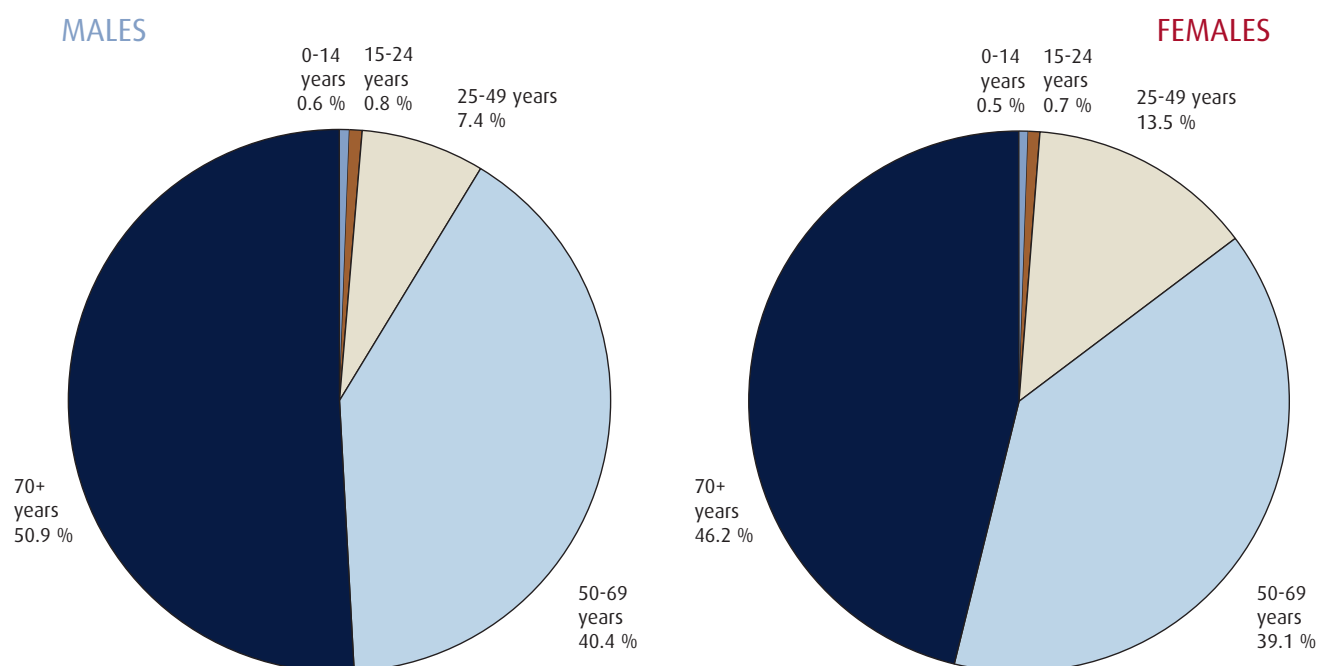
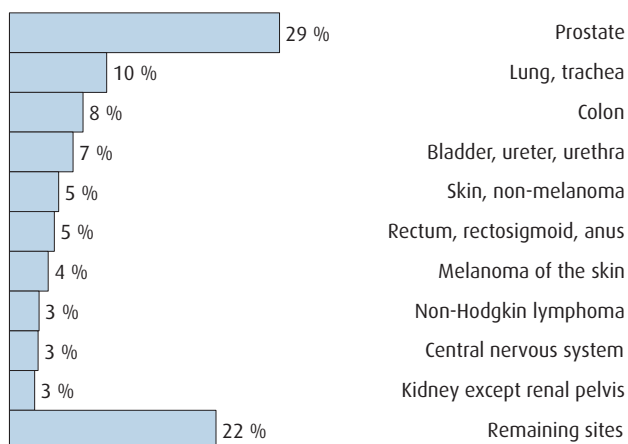
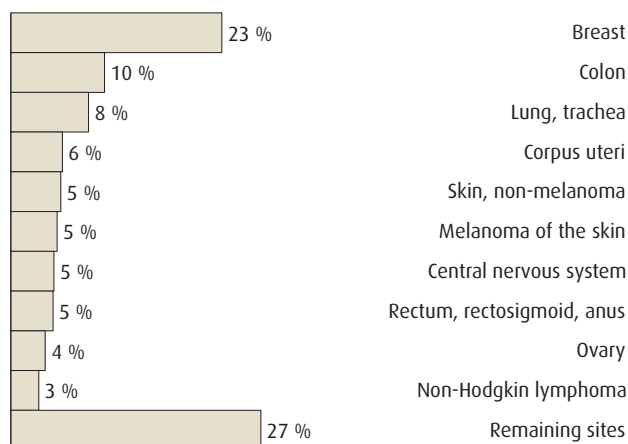


Figure 5: The most frequent incident cancers by age and sex, 2004–2008

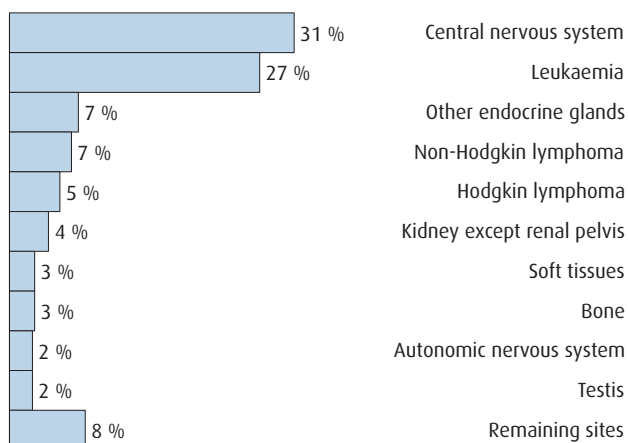
MALES all ages (68 679 cases)



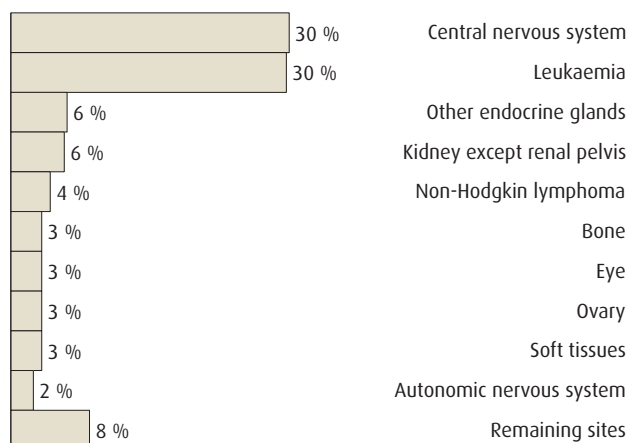
FEMALES all ages (60 894 cases)



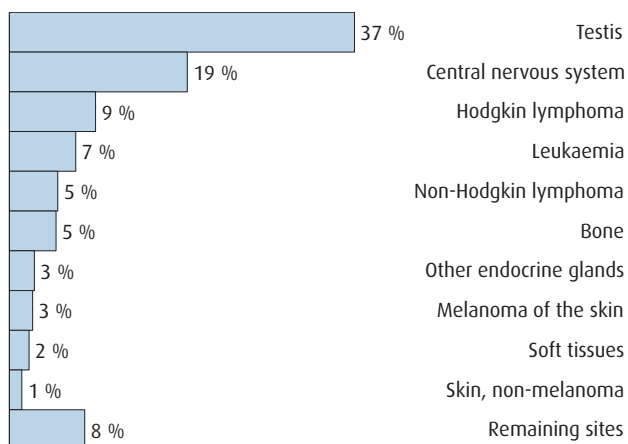
MALES 0–14 years (404 cases)



FEMALES 0–14 years (330 cases)



MALES 15–24 years (516 cases)



FEMALES 15–24 years (422 cases)

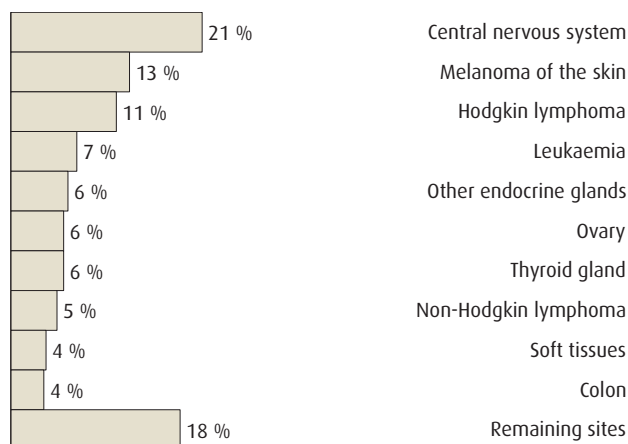
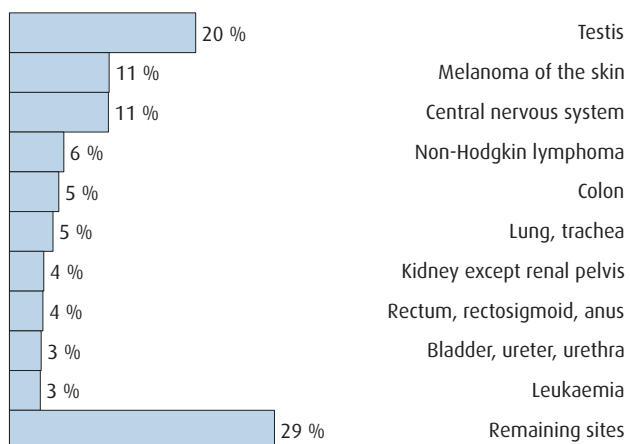
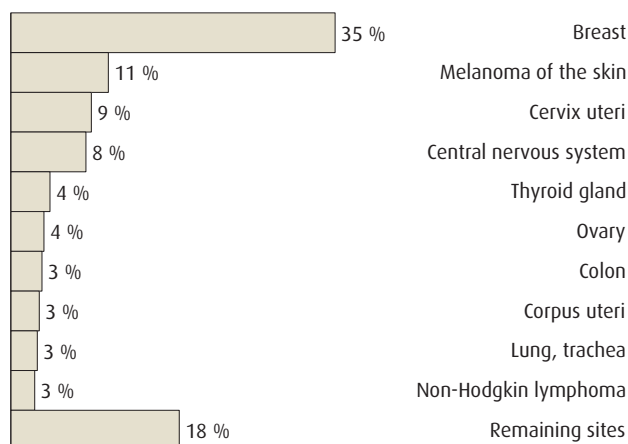


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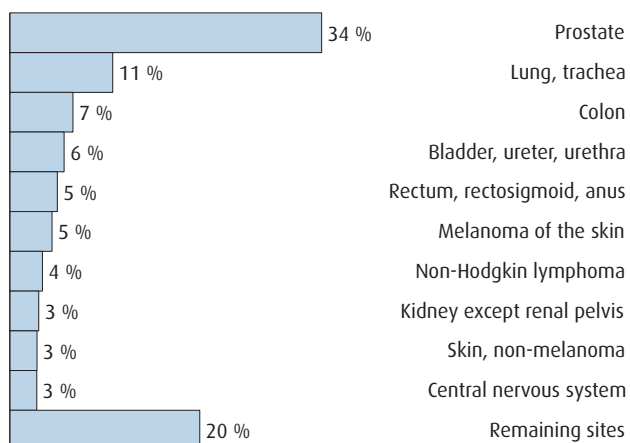
MALES 25-49 years (5051 cases)



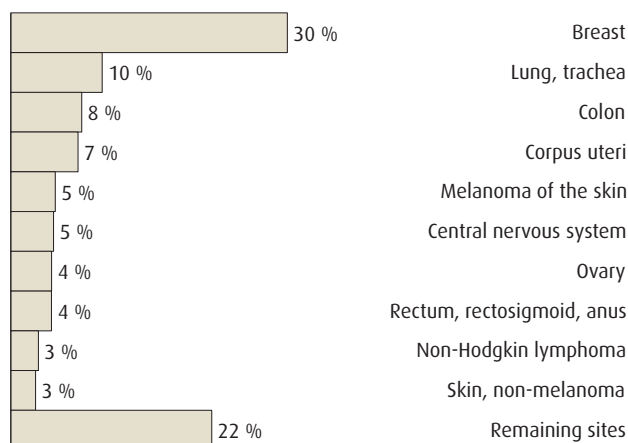
FEMALES 25-49 years (8207 cases)



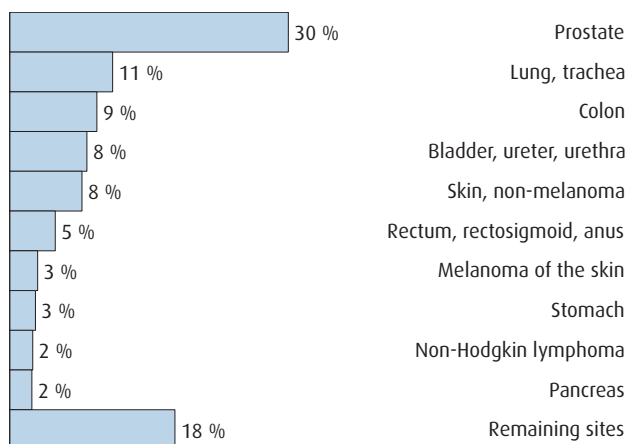
MALES 50-69 years (27 777 cases)



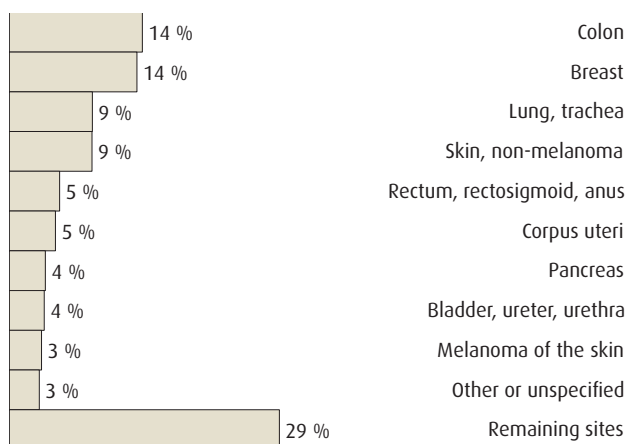
FEMALES 50-69 years (23 831 cases)



MALES 70+ years (34 931 cases)



FEMALES 70+ years (28 104 cases)



men and women, with a peak and recent decline observed in men against very rapid increases in women, observations, largely reflecting the respective phases of the smoking epidemic; 4) the continuing increases in colon cancer but stabilising rectal cancer trends in both sexes, probably reflecting changing lifestyle, particularly with respect to diet among recent generations; 5) the continuing declines in stomach cancer in both sexes, an unexpected success of primary prevention, and particularly the joint impact of refrigeration and control of *H Pylori* infection; and 6) the rapid increases in a number of cancers for which the underlying determinants remain enigmatic, amongst them testicular cancer in men and non-Hodgkin lymphoma in both sexes.

The incidence burden from cancer in Norway has been increasing in the last decade (Table 7), as it has been since the Registry began reporting in 1953. While this observation certainly reflects a genuine increase in risk of common cancers such breast cancer women, and colorectal and lung cancer in both sexes, an increasing ability to diagnose a number of cancer types with time will also have contributed.

Such trends are partially compensated by decreasing incidence trends of several common cancers including the aforementioned stomach cancer and cervical cancer in women, while melanoma of the skin can be seen to be stabilising in both sexes (Figure 6). More detailed trends of incidence, mortality and survival for 23 cancers are given in a later section of this report.

Even if rates were to remain stable over the next 15 years, incidence in terms of new cases would certainly increase as a result of the joint demographic effects of population growth and ageing (see the special issue of CiN 2005 for predictions of cancer in Norway up to 2020, by Health Region.)

The cumulative risk is shown in Table 6 and in Figure 7, is presented in descending order of magnitude for the most common 15 cancers in men and women, respectively. The cumulative risk of 12.4 for prostate cancer ranks highest in males and indicates that, in the absence of competing causes of death, approximately one in eight men will develop this cancer before the age of 75.). The corresponding risk of developing lung cancer is considerably lower in comparison, with about one in 25 men estimated to be diagnosed with the disease before the age of 75.

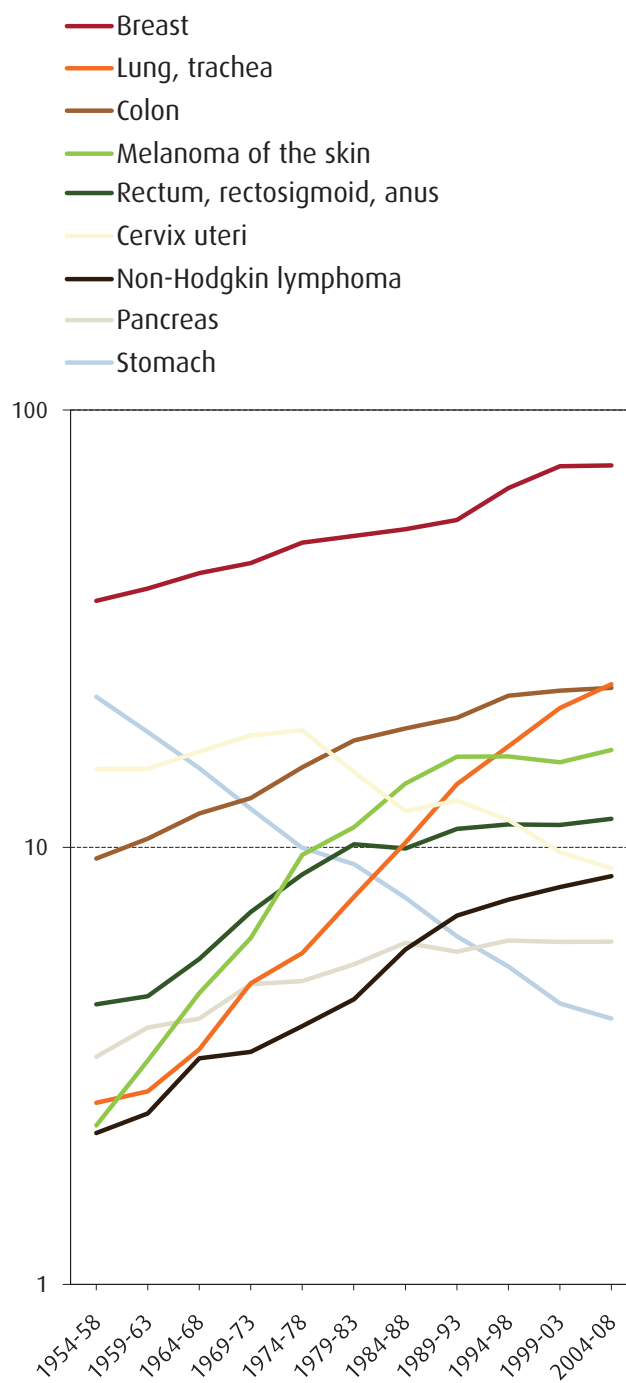
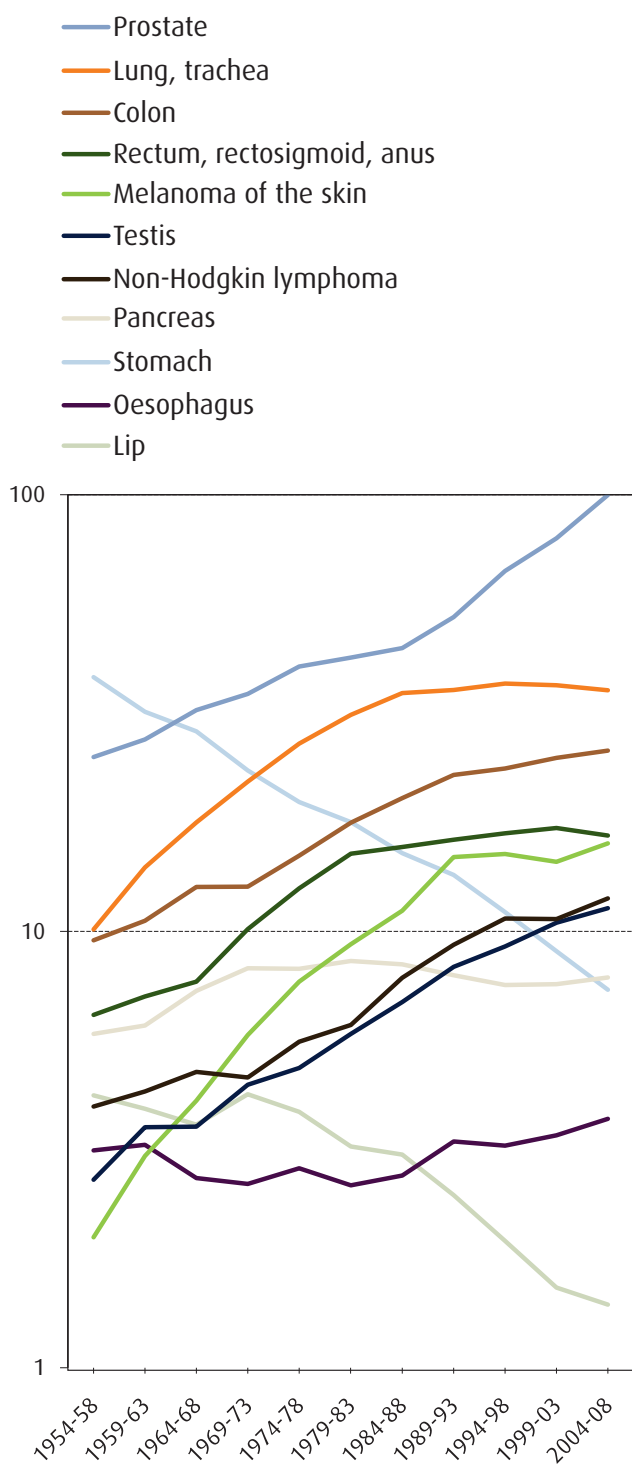
Table 5: Sex ratios (male:female) of age-adjusted rates (world) in 1978-82 and 2004-2008 by primary site, sorted in descending order in last period

ICD-10	Site	1978-1982			2004-2008		
		M	F	M/F ratio	M	F	M/F ratio
C32	Larynx, epiglottis	3.1	0.3	10.3	2.7	0.4	6.7
C15	Oesophagus	2.7	0.7	3.8	3.7	1.0	3.6
C66-68	Bladder, ureter, urethra	18.2	5.5	3.3	22.0	6.4	3.4
C09-14	Pharynx	1.6	0.5	3.2	2.7	0.9	2.9
C65	Renal pelvis	1.0	0.4	2.2	1.2	0.5	2.5
C22	Liver	1.8	1.0	1.8	2.2	1.1	2.1
C01-02	Tongue	1.0	0.4	2.7	1.5	0.7	2.1
C64	Kidney excl. renal pelvis	7.5	4.0	1.9	10.0	5.2	1.9
C16	Stomach	18.0	9.2	2.0	7.3	4.1	1.8
C00	Lip	3.4	0.4	7.9	1.4	0.9	1.6
C90	Multiple myeloma	4.7	3.0	1.5	4.7	3.0	1.5
C33-34	Lung, trachea	30.9	7.3	4.2	35.6	23.6	1.5
C81	Hodgkin lymphoma	2.6	1.6	1.6	2.7	1.8	1.5
C19-21	Rectum, rectosigmoid, anus	14.7	10.1	1.5	16.5	11.6	1.4
C91-95	Leukaemia	8.1	5.4	1.5	8.9	6.3	1.4
C82-85, C96	Non-Hodgkin lymphoma	6.2	4.5	1.4	12.0	8.7	1.4
C25	Pancreas	8.4	5.3	1.6	7.8	6.1	1.3
C18	Colon	17.1	17.4	1.0	25.9	23.2	1.1
C23-24	Gallbladder, bile ducts	1.1	1.6	0.7	1.6	1.4	1.1
C43	Melanoma of the skin	8.9	10.4	0.9	15.8	16.6	1.0
C73	Thyroid gland	1.6	5.1	0.3	1.9	5.1	0.4

Figure 6: Time trends in age-standardised incidence rates (world) in Norway for selected cancers (semi-log scale)

MALES

FEMALES



The cumulative risk of breast cancer ranks highest in women, with the figure of 8.1 indicating that about one in 12 Norwegian women develop this disease before the age of 75, in the absence of competing causes. As with men, colorectal and lung cancers rank second and third.

Tables 7-16 provide further information on the distribution of 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.

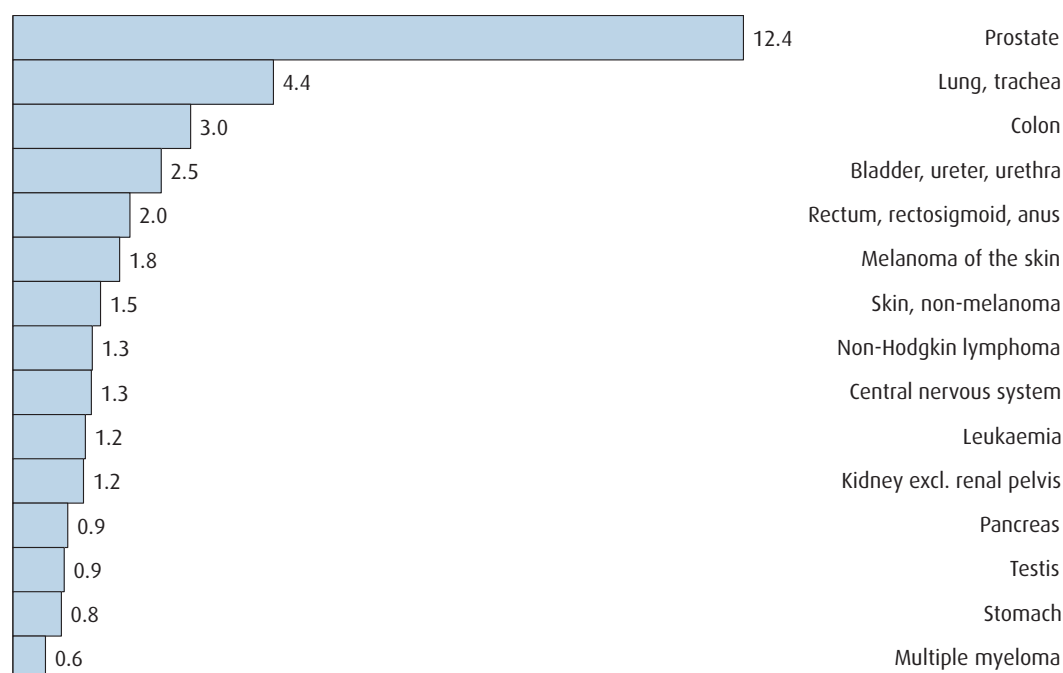
Further information

The descriptions in this report can be downloaded from the Cancer Registry of Norway website in various formats. The previous Special Issues on regional predictions, data quality and long-term survival in CiN 2005-7, respectively are also available online:

www.cancerregistry.no

Figure 7: Cumulative risk of developing cancer by the age of 75 for selected cancers by sex - 2004-2008

MALES



FEMALES

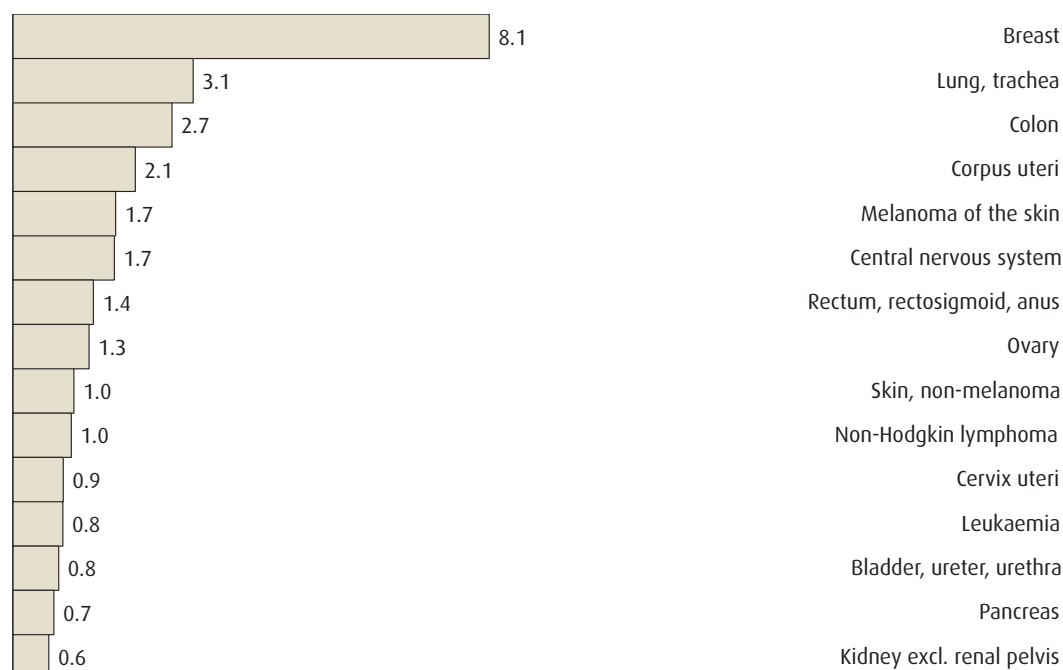


Table 6 Cumulative risk of developing cancer by the age of 75 by primary site and sex - 2004-2008

ICD-10	Site	Males	Females
C00-96	All sites	34.0	27.8
C00-14	Mouth, pharynx	0.9	0.5
C00	Lip	0.2	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	0.3	0.1
C15-26	Digestive organs	7.7	5.7
C15	Oesophagus	0.5	0.1
C16	Stomach	0.8	0.5
C17	Small intestine	0.2	0.1
C18	Colon	3.0	2.7
C19-21	Rectum, rectosigmoid, anus	2.0	1.4
C22	Liver	0.2	0.1
C23-24	Gallbladder, bile ducts	0.2	0.2
C25	Pancreas	0.9	0.7
C26	Other digestive organs	0.1	0.1
C30-34, C38	Respiratory organs	4.8	3.2
C30-31	Nose, sinuses	0.1	0.1
C32	Larynx, epiglottis	0.3	0.0
C33-34	Lung, trachea	4.4	3.1
C38	Mediastinum, pleura (non-mesothelioma)	0.0	0.0
C40-41	Bone	0.1	0.1
C43	Melanoma of the skin	1.8	1.7
C44	Skin, non-melanoma	1.5	1.0
C45	Mesothelioma	0.2	0.0
C46	Kaposi's sarcoma	0.0	0.0
C47	Autonomic nervous system	0.0	0.0
C48-49	Soft tissues	0.2	0.3
C50	Breast	0.0	8.1
C51-58	Female genital organs		4.5
C53	Cervix uteri		0.9
C54	Corpus uteri		2.1
C55	Uterus, other		0.0
C56	Ovary		1.3
C51-52, C57	Other female genital		0.3
C58	Placenta		0.0
C60-63	Male genital organs	13.2	
C61	Prostate	12.4	
C62	Testis	0.9	
C60, C63	Other male genital	0.1	
C64-68	Urinary organs	3.8	1.4
C64	Kidney excl. renal pelvis	1.2	0.6
C65	Renal pelvis	0.1	0.1
C66-68	Bladder, ureter, urethra	2.5	0.8
C69	Eye	0.1	0.1
C70-72, D42-43	Central nervous system	1.3	1.7
C73	Thyroid gland	0.2	0.5
C37, C74-75	Other endocrine glands	0.3	0.3
C39, C76, C80	Other or unspecified	0.5	0.4
C81-96	Lymphoid and haematopoietic tissue	3.4	2.4
C81	Hodgkin lymphoma	0.2	0.1
C82-85, C96	Non-Hodgkin lymphoma	1.3	1.0
C88	Malignant immunoproliferative diseases	0.1	0.0
C90	Multiple myeloma	0.6	0.4
C91-95	Leukaemia	1.2	0.8

Table 7a Number of new cases by primary site and year - 1999-2008

MALES

ICD10	Site	Year									
		1999	00	01	02	03	04	05	06	07	2008
C00-96	All sites	11418	11610	11743	11827	12718	13365	13271	13581	14462	14000
C00-14	Mouth, pharynx	255	279	242	258	253	257	247	286	282	262
C00	Lip	60	64	52	61	42	37	48	76	70	54
C01-02	Tongue	51	43	51	50	52	53	44	46	59	62
C03-06	Mouth, other	50	56	36	47	55	52	39	53	40	43
C07-08	Salivary glands	22	28	21	23	17	17	26	15	18	15
C09-14	Pharynx	72	88	82	77	87	98	90	96	95	88
C15-26	Digestive organs	2504	2552	2674	2635	2686	2797	2756	2717	2829	2773
C15	Oesophagus	134	103	122	123	138	149	134	147	133	159
C16	Stomach	372	367	372	336	345	349	303	301	334	285
C17	Small intestine	40	45	67	46	58	44	51	65	64	62
C18	Colon	899	987	1000	972	991	1072	1063	1076	1098	1142
C19-21	Rectum, rectosigmoid, anus	592	618	632	684	676	693	691	656	643	639
C22	Liver	87	71	80	83	76	80	74	87	94	91
C23-24	Gallbladder, bile ducts	61	54	70	52	55	67	80	55	59	59
C25	Pancreas	275	270	292	306	310	304	323	300	359	304
C26	Other digestive organs	44	37	39	33	37	39	37	30	45	32
C30-34, C38	Respiratory organs	1445	1454	1501	1521	1566	1549	1546	1603	1619	1567
C30-31	Nose, sinuses	24	26	23	28	17	25	24	18	28	23
C32	Larynx, epiglottis	114	111	120	115	93	99	101	116	77	112
C33-34	Lung, trachea	1289	1303	1342	1366	1439	1414	1411	1455	1494	1422
C38	Mediastinum, pleura (non-mesothelioma)	18	14	16	12	17	11	10	14	20	10
C40-41	Bone	21	20	22	28	21	28	25	25	22	23
C43	Melanoma of the skin	468	466	485	475	479	488	585	560	572	669
C44	Skin, non-melanoma	543	590	598	667	657	694	669	766	753	766
C45	Mesothelioma	55	51	61	51	66	72	72	49	63	57
C46	Kaposi's sarcoma	3	3	6	6	5	9	9	9	3	5
C47	Autonomic nervous system	7	7	4	5	7	3	6	6	6	7
C48-49	Soft tissues	46	51	50	56	48	51	47	60	65	50
C50	Breast	14	17	13	14	20	14	18	14	19	21
C60-63	Male genital organs	3324	3358	3210	3052	3725	4148	4001	4164	4778	4515
C61	Prostate	3048	3080	2908	2772	3415	3836	3691	3861	4435	4168
C62	Testis	249	250	271	239	257	267	260	261	302	296
C60, C63	Other male genital	27	28	31	41	53	45	50	42	41	51
C64-68	Urinary organs	1124	1127	1184	1245	1254	1414	1291	1334	1449	1329
C64	Kidney excl. renal pelvis	284	272	322	329	334	393	353	358	397	367
C65	Renal pelvis	34	38	36	37	32	51	28	47	54	55
C66-68	Bladder, ureter, urethra	806	817	826	879	888	970	910	929	998	907
C69	Eye	27	35	23	31	41	31	27	37	28	33
C70-72, D42-43	Central nervous system	350	347	377	377	422	392	454	410	479	389
C73	Thyroid gland	46	53	53	54	54	50	68	81	66	60
C37, C74-75	Other endocrine glands	64	68	60	81	85	66	81	79	99	103
C39, C76, C80	Other or unspecified	275	262	237	234	247	206	218	204	190	177
C81-96	Lymphoid and haematopoietic tissue	847	870	943	1037	1082	1096	1151	1177	1140	1194
C81	Hodgkin lymphoma	59	64	53	52	84	73	65	66	64	76
C82-85, C96	Non-Hodgkin lymphoma	330	386	354	341	379	409	423	467	421	476
C88	Malignant immunoproliferative diseases	20	15	28	29	34	26	27	26	28	22
C90	Multiple myeloma	155	151	182	164	166	179	217	181	183	200
C91-95	Leukaemia	283	254	326	451	419	409	419	437	444	420

Table 7b Number of new cases by primary site and year - 1999-2008

FEMALES

ICD10	Site	Year									
		1999	00	01	02	03	04	05	06	07	2008
C00-96	All sites	10357	10881	11003	11510	11576	11976	12109	12331	12357	12121
C00-14	Mouth, pharynx	133	127	141	133	129	132	183	204	164	189
C00	Lip	19	23	32	25	24	25	41	53	54	50
C01-02	Tongue	34	29	27	27	25	26	33	38	23	32
C03-06	Mouth, other	25	29	35	35	28	40	43	55	37	44
C07-08	Salivary glands	22	23	24	18	20	11	26	22	23	23
C09-14	Pharynx	33	23	23	28	32	30	40	36	27	40
C15-26	Digestive organs	2412	2563	2471	2548	2548	2566	2621	2666	2656	2556
C15	Oesophagus	46	56	52	48	56	54	61	45	55	54
C16	Stomach	234	240	210	258	223	217	237	216	216	198
C17	Small intestine	40	47	47	62	46	50	43	46	51	50
C18	Colon	1080	1155	1138	1136	1234	1185	1199	1271	1262	1229
C19-21	Rectum, rectosigmoid, anus	506	534	514	520	504	574	566	557	537	534
C22	Liver	62	52	48	46	41	41	60	44	53	57
C23-24	Gallbladder, bile ducts	84	89	62	80	83	64	80	77	84	68
C25	Pancreas	294	334	345	351	319	333	315	370	339	307
C26	Other digestive organs	66	56	55	47	42	48	60	40	59	59
C30-34, C38	Respiratory organs	794	827	844	861	937	978	989	1069	1151	1148
C30-31	Nose, sinuses	17	13	15	15	12	28	17	22	33	14
C32	Larynx, epiglottis	19	20	22	18	18	13	17	12	18	22
C33-34	Lung, trachea	747	786	799	824	905	925	949	1030	1091	1107
C38	Mediastinum, pleura (non-mesothelioma)	11	8	8	4	2	12	6	5	9	5
C40-41	Bone	28	22	21	21	19	15	17	18	22	23
C43	Melanoma of the skin	483	534	530	555	549	558	574	661	629	616
C44	Skin, non-melanoma	457	511	485	522	570	579	675	654	686	684
C45	Mesothelioma	9	10	5	8	11	10	9	20	13	9
C46	Kaposi's sarcoma	3	8	0	3	2	3	2	5	3	2
C47	Autonomic nervous system	2	3	5	4	3	7	4	8	5	6
C48-49	Soft tissues	65	75	68	64	69	88	84	82	90	78
C50	Breast	2422	2535	2637	2715	2741	2806	2815	2723	2754	2753
C51-58	Female genital organs	1377	1428	1498	1540	1492	1572	1565	1551	1520	1565
C53	Cervix uteri	287	286	302	312	296	269	305	309	266	270
C54	Corpus uteri	492	564	595	589	627	686	677	651	653	716
C55	Uterus, other	7	15	6	11	13	8	6	11	5	8
C56	Ovary	460	456	449	522	426	466	425	454	455	457
C51-52, C57	Other female genital	125	105	143	103	126	139	146	122	139	114
C58	Placenta	6	2	3	3	4	4	6	4	2	0
C64-68	Urinary organs	502	518	518	584	565	575	591	586	594	573
C64	Kidney excl. renal pelvis	184	181	188	213	202	210	237	208	247	230
C65	Renal pelvis	27	18	26	30	37	27	18	24	22	32
C66-68	Bladder, ureter, urethra	291	319	304	341	326	338	336	354	325	311
C69	Eye	31	20	28	34	34	37	24	28	29	27
C70-72, D42-43	Central nervous system	420	419	478	520	525	586	573	588	590	493
C73	Thyroid gland	121	147	130	144	133	171	164	154	163	169
C37, C74-75	Other endocrine glands	58	44	56	74	82	81	81	92	84	93
C39, C76, C80	Other or unspecified	296	325	287	308	304	283	270	248	252	199
C81-96	Lymphoid and haematopoietic tissue	744	765	801	872	863	929	868	974	952	938
C81	Hodgkin lymphoma	39	64	33	43	53	46	49	47	48	42
C82-85, C96	Non-Hodgkin lymphoma	332	323	333	342	335	369	335	385	381	361
C88	Malignant immunoproliferative diseases	9	11	16	20	15	21	19	23	14	12
C90	Multiple myeloma	157	123	174	162	151	152	151	144	159	151
C91-95	Leukaemia	207	244	245	305	309	341	314	375	350	372

Table 8a Age-adjusted (world) incidence rates per 100 000 person-years by primary site and year - 1999-2008

MALES

ICD10	Site	Year									
		1999	00	01	02	03	04	05	06	07	2008
C00-96	All sites	321.3	323.8	322.9	322.0	341.8	352.4	344.6	348.0	365.5	348.9
C00-14	Mouth, pharynx	7.9	8.5	7.2	7.8	7.7	7.6	7.0	7.7	7.7	7.0
C00	Lip	1.6	1.8	1.4	1.7	1.1	1.0	1.2	1.8	1.7	1.2
C01-02	Tongue	1.6	1.3	1.6	1.6	1.7	1.6	1.3	1.2	1.6	1.7
C03-06	Mouth, other	1.6	1.7	1.1	1.4	1.6	1.5	1.1	1.5	1.1	1.2
C07-08	Salivary glands	0.7	0.8	0.6	0.7	0.5	0.5	0.7	0.4	0.5	0.4
C09-14	Pharynx	2.4	2.9	2.5	2.4	2.7	2.9	2.6	2.8	2.7	2.5
C15-26	Digestive organs	67.4	67.0	69.7	68.5	68.7	70.2	68.1	65.9	67.8	65.7
C15	Oesophagus	3.7	2.8	3.2	3.5	3.8	4.0	3.5	3.9	3.3	3.9
C16	Stomach	9.5	9.3	9.1	8.6	8.5	8.2	7.1	7.0	7.8	6.6
C17	Small intestine	1.2	1.3	2.0	1.3	1.7	1.2	1.3	1.8	1.6	1.5
C18	Colon	24.1	25.8	25.5	24.8	24.7	26.5	26.1	25.2	25.6	26.3
C19-21	Rectum, rectosigmoid, anus	16.5	16.5	17.3	18.0	17.8	17.8	17.3	16.1	16.1	15.4
C22	Liver	2.4	1.9	2.0	2.3	2.1	1.8	2.1	2.3	2.4	2.5
C23-24	Gallbladder, bile ducts	1.5	1.4	1.9	1.3	1.4	1.7	2.0	1.3	1.4	1.4
C25	Pancreas	7.3	7.0	7.7	7.9	7.9	8.0	7.9	7.6	8.4	7.3
C26	Other digestive organs	1.2	1.0	0.9	0.8	0.8	1.1	0.8	0.7	1.0	0.7
C30-34, C38	Respiratory organs	41.1	39.8	40.6	41.2	41.7	39.8	38.8	40.5	39.4	37.9
C30-31	Nose, sinuses	0.8	0.8	0.6	0.9	0.5	0.7	0.7	0.4	0.8	0.6
C32	Larynx, epiglottis	3.3	3.3	3.1	3.3	2.8	2.7	2.7	3.2	2.0	2.8
C33-34	Lung, trachea	36.4	35.4	36.4	36.8	38.0	36.1	35.2	36.7	36.2	34.2
C38	Mediastinum, pleura (non-mesothelioma)	0.5	0.4	0.5	0.3	0.4	0.3	0.3	0.3	0.5	0.3
C40-41	Bone	0.8	0.9	0.9	1.2	0.8	1.1	0.9	1.1	0.7	1.0
C43	Melanoma of the skin	14.6	14.1	14.8	14.3	14.4	14.5	16.5	15.3	15.6	17.6
C44	Skin, non-melanoma	13.3	14.5	14.3	15.6	14.8	15.0	14.4	16.3	15.4	15.3
C45	Mesothelioma	1.7	1.3	1.6	1.4	1.7	1.8	1.8	1.2	1.5	1.4
C46	Kaposi's sarcoma	0.1	0.1	0.2	0.1	0.1	0.3	0.2	0.2	0.1	0.1
C47	Autonomic nervous system	0.4	0.3	0.2	0.3	0.4	0.1	0.4	0.2	0.3	0.3
C48-49	Soft tissues	1.6	1.7	1.6	1.8	1.4	1.6	1.4	1.9	1.9	1.6
C50	Breast	0.3	0.5	0.4	0.3	0.5	0.3	0.5	0.3	0.5	0.5
C60-63	Male genital organs	91.2	94.0	88.4	82.4	99.1	110.4	105.4	107.9	123.6	114.3
C61	Prostate	80.1	82.6	76.5	71.2	87.1	98.5	93.1	96.2	110.2	101.4
C62	Testis	10.3	10.5	11.1	10.0	10.4	11.0	10.9	10.7	12.3	11.6
C60, C63	Other male genital	0.7	0.8	0.9	1.2	1.5	1.0	1.4	1.0	1.1	1.3
C64-68	Urinary organs	30.1	29.8	31.1	32.5	32.4	35.2	31.9	32.3	34.8	32.0
C64	Kidney excl. renal pelvis	8.2	8.0	9.4	9.6	9.4	10.9	9.5	9.7	10.3	9.9
C65	Renal pelvis	0.9	0.9	0.9	0.9	0.7	1.3	0.8	1.1	1.3	1.4
C66-68	Bladder, ureter, urethra	21.0	20.9	20.8	22.0	22.2	23.0	21.6	21.4	23.2	20.8
C69	Eye	1.1	1.0	0.7	1.0	1.2	1.1	0.8	1.1	0.8	0.9
C70-72, D42-43	Central nervous system	12.6	12.0	12.9	13.4	15.0	12.9	15.0	13.2	15.6	12.2
C73	Thyroid gland	1.5	1.8	1.8	1.7	1.7	1.5	2.1	2.4	1.8	1.7
C37, C74-75	Other endocrine glands	2.3	2.6	2.2	2.6	3.0	2.3	2.4	2.7	3.1	3.4
C39, C76, C80	Other or unspecified	6.7	6.6	5.5	5.7	5.6	4.6	4.9	4.7	4.2	3.9
C81-96	Lymphoid and haematopoietic tissue	26.8	27.3	28.8	30.1	31.7	32.0	32.1	33.1	30.7	32.0
C81	Hodgkin lymphoma	2.5	2.7	2.1	2.2	3.4	3.0	2.7	2.5	2.3	2.8
C82-85, C96	Non-Hodgkin lymphoma	10.3	12.0	10.6	9.8	11.1	11.9	11.5	12.7	11.4	12.6
C88	Malignant immunoproliferative diseases	0.5	0.5	0.8	0.8	0.8	0.6	0.7	0.6	0.7	0.4
C90	Multiple myeloma	4.0	3.9	5.1	4.3	4.3	4.5	5.3	4.6	4.4	4.7
C91-95	Leukaemia	9.3	8.3	10.2	13.0	12.1	12.0	11.8	12.6	12.0	11.5

Table 8b Age-adjusted (world) incidence rates per 100 000 person-years by primary site and year - 1999-2008

FEMALES

ICD10	Site	Year									
		1999	00	01	02	03	04	05	06	07	2008
C00-96	All sites	263.9	271.8	276.3	285.7	282.8	290.6	289.0	293.3	287.9	281.1
C00-14	Mouth, pharynx	3.6	3.1	3.2	3.3	3.2	3.1	4.1	4.9	3.6	4.1
C00	Lip	0.5	0.5	0.7	0.6	0.5	0.5	0.7	1.2	1.0	0.9
C01-02	Tongue	0.9	0.7	0.5	0.7	0.6	0.7	0.7	0.9	0.5	0.8
C03-06	Mouth, other	0.6	0.7	0.6	0.9	0.7	0.9	0.9	1.2	0.7	0.8
C07-08	Salivary glands	0.7	0.6	0.7	0.5	0.6	0.2	0.7	0.5	0.6	0.6
C09-14	Pharynx	1.0	0.6	0.6	0.8	0.9	0.8	1.1	1.1	0.7	1.1
C15-26	Digestive organs	49.4	50.7	50.0	50.7	49.8	51.5	50.6	51.8	50.3	48.0
C15	Oesophagus	0.9	1.0	1.1	0.9	1.1	1.1	1.2	0.9	0.9	1.1
C16	Stomach	4.6	4.7	3.9	4.8	4.0	4.5	4.4	4.0	4.0	3.3
C17	Small intestine	1.1	1.3	1.1	1.5	1.0	1.2	1.0	1.1	1.1	1.2
C18	Colon	22.3	22.8	22.8	22.5	23.8	23.3	22.6	23.9	23.6	22.5
C19-21	Rectum, rectosigmoid, anus	11.0	11.6	11.3	11.5	10.9	12.0	11.8	12.0	11.4	10.8
C22	Liver	1.3	1.1	1.1	1.0	0.9	1.0	1.4	0.8	1.0	1.1
C23-24	Gallbladder, bile ducts	1.7	1.7	1.4	1.4	1.4	1.2	1.5	1.5	1.6	1.3
C25	Pancreas	5.5	5.9	6.4	6.4	6.3	6.3	5.6	6.9	5.8	5.8
C26	Other digestive organs	1.0	0.7	0.8	0.7	0.6	0.9	1.0	0.6	0.9	0.9
C30-34, C38	Respiratory organs	21.1	21.7	21.6	21.5	23.1	23.4	23.3	24.7	25.9	25.7
C30-31	Nose, sinuses	0.4	0.3	0.4	0.5	0.3	0.5	0.4	0.5	0.7	0.3
C32	Larynx, epiglottis	0.5	0.5	0.6	0.5	0.5	0.3	0.5	0.3	0.5	0.5
C33-34	Lung, trachea	19.9	20.8	20.5	20.6	22.4	22.5	22.3	23.9	24.6	24.8
C38	Mediastinum, pleura (non-mesothelioma)	0.2	0.2	0.2	0.0	0.0	0.2	0.1	0.1	0.1	0.1
C40-41	Bone	1.1	0.9	0.9	1.0	0.8	0.6	0.6	0.6	0.8	0.7
C43	Melanoma of the skin	14.9	15.6	15.6	16.3	15.8	15.8	16.0	18.7	16.6	16.4
C44	Skin, non-melanoma	7.8	8.4	8.6	8.5	9.2	9.6	10.2	10.3	10.4	10.7
C45	Mesothelioma	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.4	0.2	0.2
C46	Kaposi's sarcoma	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
C47	Autonomic nervous system	0.1	0.2	0.2	0.3	0.1	0.3	0.2	0.3	0.3	0.3
C48-49	Soft tissues	1.7	2.0	2.1	1.6	1.9	2.5	2.6	2.2	2.4	2.1
C50	Breast	68.9	73.1	75.7	77.3	77.1	77.4	76.6	73.7	73.2	72.8
C51-58	Female genital organs	39.2	39.1	40.8	41.7	39.8	41.1	40.7	39.3	38.7	39.2
C53	Cervix uteri	9.7	9.3	9.8	10.3	9.5	8.7	9.8	9.6	8.4	8.2
C54	Corpus uteri	13.4	14.8	15.0	15.1	16.1	17.0	16.5	15.5	15.9	17.4
C55	Uterus, other	0.1	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1
C56	Ovary	13.0	12.3	12.5	13.8	11.1	12.3	10.8	11.2	11.3	11.2
C51-52, C57	Other female genital	2.8	2.3	3.1	2.2	2.8	2.7	3.2	2.7	2.8	2.2
C58	Placenta	0.3	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.0
C64-68	Urinary organs	11.5	11.0	11.2	12.2	11.7	11.3	12.5	12.3	12.4	12.1
C64	Kidney excl. renal pelvis	4.7	4.2	4.2	4.7	4.8	4.8	5.5	5.0	5.7	5.2
C65	Renal pelvis	0.6	0.4	0.6	0.6	0.8	0.4	0.3	0.5	0.4	0.6
C66-68	Bladder, ureter, urethra	6.2	6.3	6.4	6.9	6.0	6.0	6.6	6.8	6.3	6.2
C69	Eye	0.9	0.4	0.7	1.0	0.8	1.0	0.8	0.8	0.8	0.7
C70-72, D42-43	Central nervous system	13.3	13.1	14.6	16.9	16.0	17.3	17.7	16.7	17.3	14.7
C73	Thyroid gland	3.8	5.1	4.3	4.6	4.3	5.4	5.1	4.9	5.1	5.1
C37, C74-75	Other endocrine glands	1.9	1.7	2.2	2.5	3.0	2.6	3.1	3.2	2.9	3.1
C39, C76, C80	Other or unspecified	5.3	5.6	4.5	5.1	4.6	4.8	4.4	4.1	4.0	3.3
C81-96	Lymphoid and haematopoietic tissue	19.2	19.7	20.0	21.0	21.3	22.7	20.3	24.1	23.2	21.8
C81	Hodgkin lymphoma	1.6	2.7	1.4	1.6	2.1	1.7	2.0	2.1	1.9	1.4
C82-85, C96	Non-Hodgkin lymphoma	8.4	8.0	8.3	8.1	7.9	9.0	7.8	9.1	9.2	8.3
C88	Malignant immunoproliferative diseases	0.2	0.2	0.3	0.4	0.3	0.4	0.3	0.5	0.3	0.2
C90	Multiple myeloma	3.2	2.5	3.5	3.3	2.8	3.1	3.2	2.7	3.2	3.0
C91-95	Leukaemia	5.9	6.4	6.5	7.5	8.3	8.4	7.0	9.7	8.7	8.8

Table 9a Average annual number of new cases by primary site and five-year age group - 2004-2008

ICD10	Site	0-4	5-9	10-14	15-19	20-24	25-29
C00-96	All sites	35	19	27	42	62	98
C00-14	Mouth, pharynx	0	0	0	0	1	1
C00	Lip	0	0	0	0	0	0
C01-02	Tongue	0	0	0	0	0	0
C03-06	Mouth, other	0	0	0	0	0	0
C07-08	Salivary glands	0	0	0	0	0	0
C09-14	Pharynx	0	0	0	0	0	0
C15-26	Digestive organs	1	1	0	1	2	3
C15	Oesophagus	0	0	0	0	0	0
C16	Stomach	0	0	0	0	0	0
C17	Small intestine	0	0	0	0	0	0
C18	Colon	0	0	0	0	1	2
C19-21	Rectum, rectosigmoid, anus	0	0	0	0	0	1
C22	Liver	1	1	0	0	0	0
C23-24	Gallbladder, bile ducts	0	0	0	0	0	0
C25	Pancreas	0	0	0	0	0	0
C26	Other digestive organs	0	0	0	0	0	0
C30-34, C38	Respiratory organs	0	0	0	1	0	1
C30-31	Nose, sinuses	0	0	0	0	0	0
C32	Larynx, epiglottis	0	0	0	0	0	0
C33-34	Lung, trachea	0	0	0	0	0	1
C38	Mediastinum, pleura (non-mesothelioma)	0	0	0	0	0	0
C40-41	Bone	0	1	1	3	2	1
C43	Melanoma of the skin	0	0	0	1	2	8
C44	Skin, non-melanoma	0	0	0	1	1	1
C45	Mesothelioma	0	0	0	0	0	0
C46	Kaposi's sarcoma	0	0	0	0	0	0
C47	Autonomic nervous system	2	0	0	0	0	0
C48-49	Soft tissues	1	0	1	1	1	1
C50	Breast	0	0	0	0	0	0
C60-63	Male genital organs	1	0	1	7	31	52
C61	Prostate	0	0	0	0	0	0
C62	Testis	1	0	1	7	31	51
C60, C63	Other male genital	0	0	0	0	0	1
C64-68	Urinary organs	2	1	0	0	2	2
C64	Kidney excl. renal pelvis	2	1	0	0	1	1
C65	Renal pelvis	0	0	0	0	0	0
C66-68	Bladder, ureter, urethra	0	0	0	0	1	1
C69	Eye	2	0	0	0	0	1
C70-72, D42-43	Central nervous system	9	7	9	11	9	11
C73	Thyroid gland	0	0	0	0	0	1
C37, C74-75	Other endocrine glands	2	1	2	2	1	1
C39, C76, C80	Other or unspecified	0	0	0	0	0	0
C81-96	Lymphoid and haematopoietic tissue	15	7	10	13	10	14
C81	Hodgkin lymphoma	0	1	3	5	5	7
C82-85, C96	Non-Hodgkin lymphoma	2	1	2	3	2	3
C88	Malignant immunoproliferative diseases	0	0	0	0	0	0
C90	Multiple myeloma	0	0	0	0	0	0
C91-95	Leukaemia	12	5	5	5	3	4

Age											
30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
140	170	237	365	650	1222	1794	1889	1997	2092	1730	1167
1	3	7	15	27	40	45	38	31	26	19	13
0	0	1	2	4	5	6	8	8	9	7	7
0	1	1	5	4	8	9	9	6	4	4	2
0	1	1	1	4	9	9	7	6	4	3	0
1	1	1	1	2	2	2	2	2	2	1	2
0	1	3	7	13	18	19	12	8	7	4	2
12	19	42	76	138	234	332	360	415	459	393	285
0	0	2	6	9	16	21	23	21	21	15	11
1	2	7	7	14	22	35	33	47	56	48	43
1	2	1	3	3	6	9	7	8	9	6	2
6	6	15	26	47	77	118	137	175	195	170	117
3	5	10	17	37	68	91	89	97	101	86	59
1	1	3	5	7	8	9	8	11	11	12	8
0	0	1	2	4	6	8	7	10	9	9	7
1	2	3	10	15	30	40	50	42	52	43	30
0	0	1	1	2	2	2	5	6	5	6	7
2	6	12	33	72	154	233	232	258	278	203	92
0	0	1	1	1	3	4	4	3	2	2	2
0	0	1	2	8	16	17	17	13	13	11	3
1	5	10	30	63	134	210	209	241	261	188	86
0	0	0	0	0	1	2	2	1	2	2	1
1	2	2	2	1	2	1	1	1	2	1	0
12	20	31	36	53	65	74	61	67	61	48	34
4	3	5	9	15	35	45	69	98	134	158	154
0	0	0	1	2	4	8	9	13	10	9	6
0	0	0	0	1	0	0	2	1	1	1	1
0	0	0	1	0	0	1	0	0	0	0	0
1	2	3	5	5	6	5	4	6	6	5	2
0	0	0	1	1	2	3	2	2	2	2	2
54	45	40	51	134	369	658	751	687	636	491	313
0	0	4	29	119	357	649	742	679	628	483	308
53	44	35	20	13	7	4	4	3	1	1	1
1	1	1	2	2	5	5	5	6	6	7	4
5	10	20	38	68	122	164	163	206	243	196	122
2	6	11	18	33	44	52	45	51	48	40	18
0	0	0	2	2	3	6	6	9	9	5	3
2	4	9	19	33	75	105	112	146	185	150	100
0	1	0	2	3	3	5	3	4	2	3	2
19	22	28	28	34	46	45	36	33	33	28	18
3	4	5	6	7	9	8	3	5	6	4	2
3	5	6	8	7	9	11	6	8	7	5	2
0	0	1	5	10	12	17	21	28	31	38	35
22	27	36	48	72	109	138	128	135	155	129	84
9	6	6	3	5	4	4	4	3	2	1	1
6	13	15	22	32	54	58	51	49	56	41	28
0	0	0	1	2	1	4	3	3	5	5	2
0	2	4	5	13	17	23	26	26	33	28	15
6	6	10	17	21	33	49	44	55	60	53	37

Table 9b Average annual number of new cases by primary site and five-year age group - 2004-2008

ICD10	Site	0-4	5-9	10-14	15-19	20-24	25-29
C00-96	All sites	30	19	17	34	51	92
C00-14	Mouth, pharynx	0	0	0	0	1	1
C00	Lip	0	0	0	0	0	0
C01-02	Tongue	0	0	0	0	0	0
C03-06	Mouth, other	0	0	0	0	0	1
C07-08	Salivary glands	0	0	0	0	0	0
C09-14	Pharynx	0	0	0	0	0	0
C15-26	Digestive organs	1	0	1	2	3	4
C15	Oesophagus	0	0	0	0	0	0
C16	Stomach	0	0	0	0	0	1
C17	Small intestine	0	0	0	0	0	0
C18	Colon	0	0	0	1	2	2
C19-21	Rectum, rectosigmoid, anus	0	0	0	0	1	1
C22	Liver	1	0	0	1	0	0
C23-24	Gallbladder, bile ducts	0	0	0	0	0	0
C25	Pancreas	0	0	0	0	0	0
C26	Other digestive organs	0	0	0	0	0	0
C30-34, C38	Respiratory organs	0	0	0	0	0	1
C30-31	Nose, sinuses	0	0	0	0	0	0
C32	Larynx, epiglottis	0	0	0	0	0	0
C33-34	Lung, trachea	0	0	0	0	0	1
C38	Mediastinum, pleura (non-mesothelioma)	0	0	0	0	0	0
C40-41	Bone	0	1	1	1	1	1
C43	Melanoma of the skin	0	0	0	2	8	14
C44	Skin, non-melanoma	0	0	0	1	1	1
C45	Mesothelioma	0	0	0	0	0	0
C46	Kaposi's sarcoma	0	0	0	0	0	0
C47	Autonomic nervous system	1	0	0	0	0	0
C48-49	Soft tissues	0	1	1	2	1	2
C50	Breast	0	0	0	0	2	9
C51-58	Female genital organs	1	1	1	2	7	19
C53	Cervix uteri	0	0	0	0	3	14
C54	Corpus uteri	0	0	0	0	0	1
C55	Uterus, other	0	0	0	0	0	0
C56	Ovary	1	1	1	2	3	3
C51-52, C57	Other female genital	0	0	0	0	0	1
C58	Placenta	0	0	0	0	1	1
C64-68	Urinary organs	3	1	0	0	1	2
C64	Kidney excl. renal pelvis	3	1	0	0	0	1
C65	Renal pelvis	0	0	0	0	0	0
C66-68	Bladder, ureter, urethra	0	0	0	0	0	0
C69	Eye	2	0	0	0	0	0
C70-72, D42-43	Central nervous system	7	7	6	9	9	12
C73	Thyroid gland	0	0	0	2	3	8
C37, C74-75	Other endocrine glands	2	1	1	2	4	5
C39, C76, C80	Other or unspecified	0	0	0	0	0	0
C81-96	Lymphoid and haematopoietic tissue	13	6	5	11	10	13
C81	Hodgkin lymphoma	0	0	1	5	5	6
C82-85, C96	Non-Hodgkin lymphoma	0	1	2	2	2	4
C88	Malignant immunoproliferative diseases	0	0	0	0	0	0
C90	Multiple myeloma	0	0	0	0	0	0
C91-95	Leukaemia	12	5	3	4	3	2

FEMALES

Age												
30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	
169	284	423	673	931	1191	1390	1254	1256	1442	1448	1475	
2	2	3	7	14	18	21	18	20	22	20	24	
0	0	0	1	3	3	4	4	6	8	6	9	
0	0	1	2	2	4	5	3	3	3	3	4	
0	0	1	1	2	4	5	5	6	5	7	8	
0	1	1	1	1	1	3	2	2	3	2	2	
0	0	0	2	5	6	5	5	3	3	2	2	
10	21	37	63	110	176	249	285	323	406	465	458	
0	0	1	1	3	5	6	5	6	9	7	11	
2	2	2	7	10	12	18	20	27	31	41	44	
1	1	1	1	3	6	6	7	7	7	5	4	
4	8	16	24	44	74	106	139	161	199	233	213	
2	6	10	19	33	46	67	63	63	77	86	79	
0	0	1	1	2	2	6	4	8	9	8	8	
0	1	1	3	3	6	6	8	8	13	15	10	
0	2	3	7	12	22	31	35	38	52	59	70	
0	0	1	1	1	3	3	4	5	7	10	17	
1	6	11	31	66	116	154	152	168	176	115	69	
0	0	0	1	2	3	2	2	2	3	3	4	
0	1	0	0	2	2	2	1	2	2	1	1	
1	5	11	29	62	111	149	148	163	169	109	63	
0	0	0	0	0	1	1	0	1	2	2	1	
1	1	0	1	1	2	2	1	1	1	1	1	
24	38	46	50	53	61	66	48	48	53	45	50	
2	3	8	9	18	30	35	45	68	90	126	218	
0	0	1	0	0	1	0	2	2	2	4	1	
0	0	0	0	0	0	0	0	0	0	1	1	
0	0	1	1	1	1	0	0	0	0	0	0	
1	3	2	5	7	9	10	10	9	9	6	7	
32	83	166	283	360	381	383	297	174	191	209	201	
40	54	65	90	148	181	199	162	157	162	146	123	
34	37	31	27	29	23	23	12	13	17	13	9	
2	7	14	27	65	90	101	90	89	77	62	53	
0	0	0	0	0	0	2	0	1	1	2	2	
3	7	17	30	43	56	64	47	43	51	47	36	
1	2	3	6	10	11	10	13	12	16	22	24	
1	0	0	0	0	0	0	0	0	0	0	0	
2	5	9	14	24	43	69	64	80	96	89	82	
1	3	5	8	11	19	30	24	30	38	28	22	
0	0	0	0	0	2	3	3	3	5	5	2	
1	2	4	6	12	22	36	37	46	53	57	57	
0	1	1	2	1	4	3	2	3	2	3	3	
20	26	30	46	50	58	61	50	53	49	41	34	
14	16	13	18	12	18	14	10	9	11	8	8	
6	6	6	9	6	8	10	5	5	4	5	2	
1	1	2	5	9	14	18	17	25	40	46	72	
13	18	22	39	52	72	95	85	111	129	119	122	
4	4	3	2	2	3	1	1	3	3	1	1	
4	7	9	19	28	33	42	39	43	51	43	38	
0	0	0	0	1	2	2	2	2	5	2	2	
0	1	3	5	7	12	19	12	22	27	24	20	
4	7	7	13	15	22	30	31	40	43	49	60	

Table 10a Age-specific incidence rates per 100 000 person-years by primary site and five-year age group - 2004-2008

ICD10	Site	0-4	5-9	10-14	15-19	20-24	25-29
C00-96	All sites	23.2	12.3	16.9	26.5	43.0	66.3
C00-14	Mouth, pharynx	0.0	0.0	0.2	0.0	0.6	0.5
C00	Lip	0.0	0.0	0.0	0.0	0.0	0.0
C01-02	Tongue	0.0	0.0	0.0	0.0	0.0	0.1
C03-06	Mouth, other	0.0	0.0	0.1	0.0	0.0	0.1
C07-08	Salivary glands	0.0	0.0	0.1	0.0	0.3	0.3
C09-14	Pharynx	0.0	0.0	0.0	0.0	0.3	0.0
C15-26	Digestive organs	0.7	0.5	0.2	0.6	1.1	2.3
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0
C16	Stomach	0.0	0.0	0.0	0.0	0.1	0.0
C17	Small intestine	0.0	0.0	0.0	0.0	0.0	0.1
C18	Colon	0.0	0.0	0.1	0.1	0.8	1.2
C19-21	Rectum, rectosigmoid, anus	0.0	0.0	0.0	0.0	0.1	0.8
C22	Liver	0.7	0.5	0.0	0.3	0.0	0.1
C23-24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.0
C25	Pancreas	0.0	0.0	0.0	0.1	0.0	0.0
C26	Other digestive organs	0.0	0.0	0.1	0.1	0.0	0.0
C30-34, C38	Respiratory organs	0.0	0.1	0.2	0.5	0.1	0.4
C30-31	Nose, sinuses	0.0	0.1	0.1	0.2	0.0	0.0
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0
C33-34	Lung, trachea	0.0	0.0	0.0	0.3	0.1	0.4
C38	Mediastinum, pleura (non-mesothelioma)	0.0	0.0	0.1	0.0	0.0	0.0
C40-41	Bone	0.0	0.5	0.9	1.8	1.7	0.8
C43	Melanoma of the skin	0.0	0.0	0.2	0.7	1.1	5.4
C44	Skin, non-melanoma	0.0	0.0	0.1	0.5	0.4	0.7
C45	Mesothelioma	0.0	0.0	0.0	0.0	0.0	0.0
C46	Kaposi's sarcoma	0.0	0.0	0.0	0.0	0.0	0.0
C47	Autonomic nervous system	1.2	0.0	0.1	0.0	0.1	0.1
C48-49	Soft tissues	0.8	0.1	0.5	0.8	0.7	0.8
C50	Breast	0.0	0.0	0.1	0.0	0.0	0.0
C60-63	Male genital organs	0.4	0.0	0.9	4.7	21.9	34.9
C61	Prostate	0.0	0.0	0.0	0.1	0.0	0.0
C62	Testis	0.4	0.0	0.9	4.4	21.9	34.5
C60, C63	Other male genital	0.0	0.0	0.0	0.1	0.0	0.4
C64-68	Urinary organs	1.6	0.9	0.0	0.3	1.1	1.5
C64	Kidney excl. renal pelvis	1.3	0.9	0.0	0.1	0.7	0.8
C65	Renal pelvis	0.0	0.0	0.0	0.0	0.0	0.0
C66-68	Bladder, ureter, urethra	0.3	0.0	0.0	0.1	0.4	0.7
C69	Eye	1.1	0.1	0.0	0.0	0.1	0.4
C70-72, D42-43	Central nervous system	5.9	4.5	5.6	6.7	6.4	7.5
C73	Thyroid gland	0.0	0.0	0.0	0.3	0.3	0.9
C37, C74-75	Other endocrine glands	1.6	0.8	1.5	1.3	0.5	0.7
C39, C76, C80	Other or unspecified	0.0	0.0	0.0	0.0	0.0	0.0
C81-96	Lymphoid and haematopoietic tissue	9.9	4.6	6.2	8.4	6.7	9.4
C81	Hodgkin lymphoma	0.0	0.8	2.0	3.0	3.5	4.6
C82-85, C96	Non-Hodgkin lymphoma	1.6	0.6	1.2	2.2	1.4	1.9
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0	0.0	0.0	0.0
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.3
C91-95	Leukaemia	8.3	3.2	3.0	3.3	1.8	2.6

Age												
30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	
84.0	92.8	134.5	222.7	417.1	811.3	1380.4	2127.4	2865.3	3483.5	3896.4	3841.4	
0.6	1.8	3.9	9.4	17.4	26.8	34.6	42.8	43.9	42.6	42.8	42.7	
0.0	0.0	0.6	1.2	2.7	3.1	4.6	8.7	12.1	15.7	15.3	22.5	
0.0	0.5	0.8	2.8	2.8	5.0	7.3	10.2	8.0	6.3	9.0	5.9	
0.0	0.3	0.5	0.6	2.7	6.0	6.7	8.1	8.9	6.7	6.3	1.3	
0.5	0.3	0.6	0.4	1.0	1.1	1.6	2.1	2.9	2.7	3.2	7.2	
0.1	0.5	1.5	4.4	8.2	11.7	14.5	13.6	12.0	11.3	9.0	5.8	
7.3	10.4	23.8	46.4	88.5	155.5	257.1	405.4	596.2	764.4	884.9	939.8	
0.0	0.1	1.0	3.9	5.6	10.6	16.1	25.7	30.1	34.3	32.9	37.7	
0.5	1.1	3.7	4.1	9.2	14.7	26.9	37.3	67.0	93.6	107.1	142.8	
0.6	0.9	0.8	1.7	2.2	3.9	6.5	8.3	10.9	15.3	13.1	7.8	
3.4	3.3	8.3	15.7	29.9	51.1	90.9	155.0	251.2	324.2	382.0	384.9	
1.8	2.8	5.6	10.5	24.0	44.9	70.4	100.7	138.6	168.5	194.0	194.8	
0.4	0.7	1.8	2.9	4.4	5.0	6.9	8.5	15.8	18.3	26.6	27.2	
0.2	0.2	0.8	1.1	2.3	3.8	6.4	7.9	14.6	14.7	20.7	22.8	
0.5	1.3	1.4	6.0	9.8	19.9	31.3	56.5	60.0	87.2	96.0	97.6	
0.0	0.0	0.3	0.5	1.0	1.6	1.8	5.6	8.0	8.3	12.6	24.3	
1.0	3.3	6.8	20.4	46.5	102.1	179.9	261.8	369.6	463.2	456.2	303.2	
0.0	0.2	0.6	0.6	0.9	1.7	3.0	4.0	3.7	3.7	5.0	6.6	
0.0	0.2	0.6	1.2	5.0	10.4	13.1	19.8	18.9	21.7	23.9	10.4	
0.8	2.8	5.6	18.6	40.3	89.1	162.1	236.3	345.3	433.9	423.3	281.8	
0.1	0.0	0.1	0.0	0.3	0.9	1.7	1.8	1.7	4.0	4.0	4.4	
0.7	1.1	0.9	1.1	0.9	1.4	1.1	0.9	1.4	2.7	1.4	1.4	
7.4	11.1	17.8	22.2	33.7	43.1	57.2	68.7	95.8	102.0	109.0	110.3	
2.2	1.5	2.6	5.4	9.4	23.2	34.7	77.5	140.3	223.1	355.9	504.2	
0.0	0.0	0.0	0.6	1.4	2.8	6.4	10.3	18.9	17.0	19.4	19.1	
0.2	0.1	0.2	0.0	0.4	0.3	0.0	1.9	0.9	1.3	1.8	3.9	
0.1	0.0	0.1	0.4	0.3	0.1	0.4	0.0	0.0	0.7	0.5	1.3	
0.7	1.3	1.7	2.8	3.0	3.7	3.8	4.3	9.2	9.3	11.3	5.9	
0.0	0.1	0.1	0.7	0.4	1.1	2.3	2.5	2.6	4.0	4.9	5.2	
32.3	24.8	22.5	31.1	85.8	245.3	504.2	844.7	986.2	1058.9	1104.5	1031.8	
0.0	0.1	2.0	17.7	76.3	237.4	497.1	833.9	974.4	1045.9	1087.0	1017.7	
31.9	24.1	19.7	12.0	8.5	4.5	3.3	4.7	3.7	2.3	1.8	2.0	
0.4	0.5	0.8	1.5	1.0	3.3	3.7	6.1	8.0	10.7	15.7	12.2	
2.7	5.3	11.1	23.3	43.8	81.1	126.8	182.9	295.8	403.9	440.3	401.7	
1.3	3.1	6.0	10.9	20.9	29.1	40.8	50.5	73.8	79.9	90.5	61.0	
0.0	0.2	0.2	1.0	1.5	2.1	5.0	6.9	12.6	15.3	11.7	10.3	
1.4	2.1	4.9	11.5	21.4	49.9	81.0	125.5	209.5	308.7	338.2	330.4	
0.1	0.5	0.2	1.3	1.7	2.0	3.8	3.7	5.2	4.0	5.8	6.7	
11.5	12.1	15.7	16.9	22.1	30.7	34.4	40.6	46.8	54.6	63.1	58.4	
1.9	2.0	2.7	3.4	4.8	6.1	6.4	3.9	7.2	9.7	9.5	7.0	
1.8	2.6	3.2	4.9	4.7	5.7	8.3	7.1	10.9	11.3	10.8	7.2	
0.1	0.1	0.8	3.2	6.3	8.1	13.1	24.2	39.9	51.9	84.6	115.9	
13.2	14.6	20.2	29.1	46.2	72.2	105.9	144.5	194.4	258.8	289.8	275.5	
5.4	3.3	3.4	1.9	2.9	2.4	3.2	4.8	3.7	4.0	2.3	3.9	
3.8	7.0	8.4	13.7	20.5	35.9	44.5	57.3	70.6	92.6	92.4	91.8	
0.0	0.0	0.1	0.4	1.0	0.9	2.9	3.1	4.6	7.6	11.7	8.1	
0.2	0.9	2.4	2.9	8.1	11.0	17.9	29.7	37.0	54.3	64.0	49.3	
3.7	3.5	6.0	10.3	13.6	22.0	37.3	49.6	78.5	100.2	119.4	122.4	

Table 10b Age-specific incidence rates per 100 000 person-years by primary site and five-year age group - 2004-2008

ICD10	Site	0-4	5-9	10-14	15-19	20-24	25-29
C00-96	All sites	21.1	12.9	11.1	22.6	36.7	63.4
C00-14	Mouth, pharynx	0.0	0.1	0.3	0.1	0.6	1.0
C00	Lip	0.0	0.0	0.0	0.0	0.0	0.1
C01-02	Tongue	0.0	0.0	0.0	0.0	0.1	0.1
C03-06	Mouth, other	0.0	0.0	0.0	0.0	0.0	0.4
C07-08	Salivary glands	0.0	0.0	0.3	0.1	0.3	0.3
C09-14	Pharynx	0.0	0.1	0.0	0.0	0.1	0.0
C15-26	Digestive organs	0.4	0.3	0.4	1.2	2.2	3.0
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0
C16	Stomach	0.0	0.0	0.0	0.0	0.1	0.8
C17	Small intestine	0.0	0.0	0.0	0.1	0.0	0.1
C18	Colon	0.0	0.1	0.1	0.7	1.4	1.4
C19-21	Rectum, rectosigmoid, anus	0.0	0.0	0.0	0.0	0.4	0.5
C22	Liver	0.4	0.1	0.1	0.4	0.1	0.0
C23-24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.1
C25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0
C26	Other digestive organs	0.0	0.0	0.1	0.0	0.0	0.0
C30-34, C38	Respiratory organs	0.0	0.1	0.1	0.0	0.1	1.0
C30-31	Nose, sinuses	0.0	0.1	0.0	0.0	0.0	0.1
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0
C33-34	Lung, trachea	0.0	0.0	0.1	0.0	0.1	0.8
C38	Mediastinum, pleura (non-mesothelioma)	0.0	0.0	0.0	0.0	0.0	0.0
C40-41	Bone	0.1	0.4	0.9	0.8	0.4	0.4
C43	Melanoma of the skin	0.0	0.0	0.1	1.6	6.1	9.6
C44	Skin, non-melanoma	0.1	0.1	0.1	0.7	1.0	0.8
C45	Mesothelioma	0.0	0.0	0.0	0.0	0.0	0.0
C46	Kaposi's sarcoma	0.0	0.0	0.0	0.0	0.0	0.1
C47	Autonomic nervous system	0.8	0.3	0.0	0.3	0.0	0.3
C48-49	Soft tissues	0.3	0.8	0.4	1.2	1.0	1.1
C50	Breast	0.0	0.0	0.0	0.0	1.3	5.9
C51-58	Female genital organs	0.7	0.4	0.4	1.5	4.8	13.0
C53	Cervix uteri	0.0	0.0	0.0	0.1	1.9	9.5
C54	Corpus uteri	0.0	0.0	0.0	0.0	0.0	0.7
C55	Uterus, other	0.0	0.0	0.0	0.0	0.0	0.0
C56	Ovary	0.7	0.4	0.4	1.2	2.2	1.8
C51-52, C57	Other female genital	0.0	0.0	0.0	0.0	0.1	0.4
C58	Placenta	0.0	0.0	0.0	0.1	0.6	0.6
C64-68	Urinary organs	2.0	0.5	0.1	0.0	0.6	1.1
C64	Kidney excl. renal pelvis	2.0	0.5	0.1	0.0	0.3	1.0
C65	Renal pelvis	0.0	0.0	0.0	0.0	0.0	0.0
C66-68	Bladder, ureter, urethra	0.0	0.0	0.0	0.0	0.3	0.1
C69	Eye	1.5	0.0	0.0	0.1	0.0	0.1
C70-72, D42-43	Central nervous system	5.0	4.5	3.9	5.8	6.4	8.0
C73	Thyroid gland	0.0	0.3	0.3	1.1	2.3	5.8
C37, C74-75	Other endocrine glands	1.1	0.9	0.7	1.1	2.6	3.2
C39, C76, C80	Other or unspecified	0.0	0.0	0.0	0.0	0.1	0.3
C81-96	Lymphoid and haematopoietic tissue	8.8	4.1	3.4	7.2	7.1	8.7
C81	Hodgkin lymphoma	0.0	0.3	0.4	3.3	3.3	4.4
C82-85, C96	Non-Hodgkin lymphoma	0.1	0.7	1.0	1.3	1.6	2.6
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0	0.0	0.0	0.0
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.0
C91-95	Leukaemia	8.7	3.1	2.0	2.5	2.1	1.7

FEMALES

Age											
30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
104.1	161.5	252.6	427.2	615.6	817.7	1081.5	1330.0	1552.8	1850.7	2052.7	2059.6
1.1	1.3	1.7	4.4	9.2	12.6	16.7	19.0	25.0	28.0	28.1	34.1
0.2	0.2	0.1	0.4	2.1	2.1	3.2	4.6	6.9	10.5	8.0	11.8
0.3	0.2	0.6	1.1	1.2	2.6	3.6	2.8	4.0	4.4	4.9	5.0
0.1	0.2	0.4	0.5	1.6	2.9	3.7	4.9	7.4	5.9	10.0	11.0
0.2	0.3	0.4	0.9	0.8	0.7	2.5	1.9	2.7	3.9	2.6	3.4
0.3	0.2	0.2	1.5	3.6	4.4	3.7	4.8	3.9	3.3	2.6	2.8
6.4	11.7	22.0	40.3	72.6	120.7	194.6	302.4	398.8	520.6	659.4	639.0
0.0	0.1	0.4	0.8	1.7	3.7	4.6	4.9	7.4	12.1	9.6	15.7
1.0	1.0	1.3	4.2	6.5	8.1	14.4	21.0	33.4	40.3	58.2	61.7
0.6	0.5	0.7	0.8	1.7	3.9	4.5	7.1	8.1	8.5	7.4	6.2
2.7	4.6	9.8	15.4	29.0	51.1	82.9	147.7	199.2	255.0	331.2	296.8
1.5	3.6	6.0	11.9	21.6	31.6	52.2	67.0	78.1	99.5	121.2	111.4
0.1	0.1	0.5	0.8	1.1	1.2	4.6	4.5	9.9	11.6	11.7	11.4
0.1	0.5	0.5	1.7	2.1	3.9	4.6	8.6	9.9	17.2	21.8	14.3
0.2	1.1	1.9	4.4	7.9	15.4	24.1	37.7	46.5	67.2	84.0	97.9
0.1	0.2	0.8	0.4	0.9	1.9	2.6	3.9	6.2	9.3	14.3	23.8
0.9	3.2	6.7	19.4	43.7	79.8	119.4	160.4	208.0	225.8	163.9	96.7
0.2	0.0	0.1	0.4	1.2	1.8	1.7	2.5	2.5	3.9	4.3	6.0
0.1	0.3	0.2	0.3	1.4	1.2	1.9	1.5	2.5	3.1	1.7	2.0
0.5	2.8	6.3	18.5	40.8	76.3	115.1	156.4	202.1	216.8	155.7	87.4
0.0	0.0	0.0	0.3	0.3	0.6	0.6	0.0	1.0	2.0	2.2	1.4
0.6	0.6	0.1	0.9	0.7	1.5	1.8	1.2	1.7	1.3	1.4	0.8
15.0	21.8	27.5	31.5	35.3	41.9	51.1	50.4	59.4	68.5	63.5	69.7
1.2	1.8	4.8	6.0	11.6	20.3	27.4	47.7	84.1	115.3	178.4	303.3
0.0	0.0	0.4	0.1	0.1	0.6	0.1	2.1	2.0	2.0	5.7	1.4
0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	1.2	2.0
0.0	0.1	0.4	0.6	0.4	0.5	0.1	0.0	0.0	0.0	0.3	0.0
0.7	1.6	1.3	3.2	4.7	5.9	7.4	10.6	11.4	11.3	9.1	9.2
19.8	47.4	99.4	179.5	237.9	261.1	298.6	316.1	214.5	244.5	296.1	281.2
24.4	30.5	38.6	57.2	97.5	124.0	155.1	171.2	194.5	207.9	205.9	171.1
20.9	20.8	18.4	17.3	18.9	15.8	18.0	13.1	16.1	21.8	18.7	11.9
1.0	4.2	8.2	16.9	43.1	61.7	78.1	95.2	109.6	98.6	88.2	73.7
0.0	0.0	0.0	0.1	0.3	0.3	1.2	0.0	0.7	1.3	2.3	2.5
1.6	4.0	10.0	18.8	28.4	38.5	49.5	49.3	52.7	66.1	65.9	49.6
0.6	1.2	1.9	4.1	6.7	7.7	8.3	13.5	15.3	20.2	30.8	33.4
0.4	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.0	3.0	5.5	8.9	15.7	29.7	53.3	68.2	98.7	123.3	126.7	114.7
0.5	1.7	3.2	5.2	7.4	13.2	23.5	25.7	37.6	49.3	39.3	31.2
0.1	0.2	0.0	0.1	0.3	1.6	1.9	3.0	3.7	6.5	7.3	3.4
0.4	1.0	2.3	3.6	8.0	14.9	27.9	39.6	57.4	67.6	80.1	80.1
0.2	0.6	0.6	1.4	0.5	2.8	2.6	2.5	4.2	2.8	3.9	4.0
12.2	14.7	17.8	29.1	33.3	39.7	47.9	53.3	65.3	63.3	57.7	47.4
8.4	8.9	8.0	11.6	7.9	12.1	10.8	10.6	11.4	14.4	10.7	11.2
3.7	3.6	3.7	5.6	3.8	5.6	7.6	5.4	6.7	5.2	6.7	2.8
0.6	0.5	1.2	3.0	6.1	9.6	14.0	18.6	30.6	50.7	64.8	101.1
7.9	10.3	13.1	24.5	34.5	49.2	73.2	90.1	136.7	165.2	168.9	169.9
2.6	2.0	1.8	1.3	1.3	2.1	1.1	1.5	3.9	3.6	2.0	2.0
2.5	3.9	5.3	11.9	18.3	22.7	32.6	40.9	53.3	65.8	61.1	52.7
0.0	0.0	0.1	0.3	0.5	1.1	1.6	1.9	2.5	6.4	2.2	3.4
0.1	0.3	1.5	2.9	4.7	8.0	15.2	12.7	27.7	34.5	34.1	28.4
2.7	4.1	4.4	8.1	9.7	15.4	22.7	33.2	49.2	55.0	69.5	83.4

Table 11a Average annual number of new cases by primary site and 5-year period 1954-2008

ICD10	Site	1954-58	1959-63	1964-68
C00-96	All sites	3735	4303	5097
C00-14	Mouth, pharynx	181	190	191
C00	Lip	96	97	97
C01-02	Tongue	16	21	21
C03-06	Mouth, other	21	25	27
C07-08	Salivary glands	11	12	12
C09-14	Pharynx	36	36	35
C15-26	Digestive organs	1612	1676	1820
C15	Oesophagus	72	82	76
C16	Stomach	872	806	794
C17	Small intestine	14	9	15
C18	Colon	216	266	348
C19-21	Rectum, rectosigmoid, anus	147	179	211
C22	Liver	16	22	32
C23-24	Gallbladder, bile ducts	14	20	25
C25	Pancreas	130	152	202
C26	Other digestive organs	131	138	118
C30-34, C38	Respiratory organs	276	404	554
C30-31	Nose, sinuses	20	19	21
C32	Larynx, epiglottis	26	40	59
C33-34	Lung, trachea	220	334	463
C38	Mediastinum, pleura (non-mesothelioma)	11	11	12
C40-41	Bone	17	13	19
C43	Melanoma of the skin	42	67	91
C44	Skin, non-melanoma	91	72	76
C45	Mesothelioma	0	1	1
C46	Kaposi's sarcoma	1	3	4
C47	Autonomic nervous system	17	16	17
C48-49	Soft tissues	20	23	29
C50	Breast	7	7	9
C60-63	Male genital organs	673	831	1042
C61	Prostate	606	746	953
C62	Testis	50	65	65
C60, C63	Other male genital	17	21	23
C64-68	Urinary organs	278	352	479
C64	Kidney excl. renal pelvis	83	114	145
C65	Renal pelvis	6	11	15
C66-68	Bladder, ureter, urethra	189	228	319
C69	Eye	17	18	20
C70-72, D42-43	Central nervous system	113	127	145
C73	Thyroid gland	17	24	29
C37, C74-75	Other endocrine glands	6	8	11
C39, C76, C80	Other or unspecified	47	72	109
C81-96	Lymphoid and haematopoietic tissue	320	398	450
C81	Hodgkin lymphoma	38	51	60
C82-85, C96	Non-Hodgkin lymphoma	85	103	132
C88	Malignant immunoproliferative diseases	0	0	1
C90	Multiple myeloma	58	77	86
C91-95	Leukaemia	139	167	172

Period							
1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-2003	2004-08
5904	7062	8048	8894	9918	10897	11863	13736
234	238	244	258	259	258	257	267
121	115	102	102	85	67	56	57
23	27	33	38	38	45	49	53
30	30	45	45	53	53	49	45
15	17	13	14	22	18	22	18
46	50	51	59	61	75	81	93
1906	2079	2285	2350	2449	2498	2610	2774
80	89	88	90	106	112	124	144
695	628	599	542	497	424	358	314
17	19	24	27	29	39	51	57
372	472	591	700	817	882	970	1090
298	390	495	527	567	594	640	664
45	53	57	67	62	56	79	85
27	37	37	51	50	56	58	64
244	258	284	297	284	280	291	318
130	132	109	49	36	55	38	37
721	928	1120	1277	1332	1415	1497	1577
23	25	22	22	23	21	24	24
70	81	98	110	103	104	111	101
613	804	980	1137	1193	1272	1348	1439
16	19	20	8	13	19	15	13
17	25	22	22	20	21	22	25
133	186	235	297	412	453	475	575
143	200	249	320	419	534	611	730
6	14	21	34	37	43	57	63
4	8	4	11	16	10	5	7
13	10	9	7	8	6	6	6
40	47	50	41	44	50	50	55
9	10	12	12	13	14	16	17
1242	1534	1742	1959	2363	2894	3334	4321
1132	1410	1592	1774	2143	2637	3045	3998
86	98	123	156	194	217	253	277
24	26	27	29	27	40	36	46
565	756	895	1005	1123	1145	1187	1363
159	196	225	251	274	277	308	374
23	30	33	32	35	40	35	47
383	529	636	723	814	829	843	943
22	20	27	23	27	28	31	31
155	179	204	240	257	292	375	425
37	39	49	44	47	46	52	65
25	27	39	42	42	57	72	86
135	169	204	258	287	294	251	199
498	592	638	696	764	838	956	1152
63	65	59	48	54	52	62	69
126	163	186	250	297	338	358	439
3	8	8	9	13	19	25	26
107	138	153	156	159	169	164	192
200	219	232	233	241	259	347	426

Table 11b Average annual number of new cases by primary site and 5-year period 1954-2008

ICD10	Site	1954-58	1959-63	1964-68
C00-96	All sites	3968	4386	5015
C00-14	Mouth, pharynx	64	60	74
C00	Lip	7	8	11
C01-02	Tongue	13	12	15
C03-06	Mouth, other	12	12	16
C07-08	Salivary glands	8	9	16
C09-14	Pharynx	24	20	16
C15-26	Digestive organs	1356	1418	1505
C15	Oesophagus	24	25	30
C16	Stomach	607	563	515
C17	Small intestine	10	9	12
C18	Colon	254	308	395
C19-21	Rectum, rectosigmoid, anus	115	132	175
C22	Liver	11	14	15
C23-24	Gallbladder, bile ducts	43	51	54
C25	Pancreas	89	112	136
C26	Other digestive organs	203	205	173
C30-34, C38	Respiratory organs	86	98	130
C30-31	Nose, sinuses	14	12	14
C32	Larynx, epiglottis	2	3	6
C33-34	Lung, trachea	65	77	104
C38	Mediastinum, pleura (non-mesothelioma)	5	6	7
C40-41	Bone	12	10	12
C43	Melanoma of the skin	51	74	108
C44	Skin, non-melanoma	60	45	43
C45	Mesothelioma	0	0	1
C46	Kaposi's sarcoma	1	0	2
C47	Autonomic nervous system	17	14	11
C48-49	Soft tissues	17	23	25
C50	Breast	868	999	1150
C51-58	Female genital organs	813	914	1038
C53	Cervix uteri	332	343	381
C54	Corpus uteri	159	199	239
C55	Uterus, other	22	22	15
C56	Ovary	236	276	335
C51-52, C57	Other female genital	62	70	64
C58	Placenta	2	2	4
C64-68	Urinary organs	180	205	240
C64	Kidney excl. renal pelvis	69	87	96
C65	Renal pelvis	6	5	8
C66-68	Bladder, ureter, urethra	105	113	136
C69	Eye	14	17	18
C70-72, D42-43	Central nervous system	100	115	128
C73	Thyroid gland	51	56	71
C37, C74-75	Other endocrine glands	8	5	9
C39, C76, C80	Other or unspecified	41	61	83
C81-96	Lymphoid and haematopoietic tissue	231	272	366
C81	Hodgkin lymphoma	28	33	46
C82-85, C96	Non-Hodgkin lymphoma	55	69	107
C88	Malignant immunoproliferative diseases	0	0	0
C90	Multiple myeloma	37	44	77
C91-95	Leukaemia	110	126	135

FEMALES

Period							
1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-2003	2004-08
5683	6687	7485	8178	9054	10022	11065	12179
77	81	95	113	111	133	133	174
9	13	18	23	30	29	25	45
18	17	18	27	21	23	28	30
17	16	24	30	29	38	30	44
14	11	15	12	15	19	21	21
19	23	20	21	16	23	28	35
1647	1863	2100	2189	2259	2432	2508	2613
29	34	31	36	38	46	52	54
455	412	410	366	320	283	233	217
17	19	25	28	32	33	48	48
454	593	730	837	923	1073	1149	1229
249	319	406	423	479	501	516	554
27	29	37	45	48	37	50	51
56	59	77	83	73	76	80	75
178	201	241	291	290	317	329	333
180	197	142	81	57	66	53	53
182	220	291	398	538	674	853	1067
14	13	12	16	15	16	14	23
7	8	12	11	14	21	19	16
156	191	262	367	503	630	812	1020
6	7	5	4	6	7	7	7
13	13	14	15	15	16	22	19
145	237	298	387	472	500	530	608
81	135	172	243	341	442	509	656
2	3	1	7	7	8	9	12
4	3	3	7	6	4	3	3
15	6	6	7	9	9	3	6
31	41	45	44	46	48	68	84
1278	1505	1635	1798	1938	2279	2610	2770
1180	1285	1295	1274	1380	1416	1467	1555
420	443	380	331	363	336	297	284
294	349	382	387	443	476	573	677
13	6	8	5	7	9	10	8
345	356	395	448	454	467	463	451
104	130	126	101	107	126	120	132
4	2	4	3	7	3	4	3
295	349	407	437	476	511	537	584
116	128	147	167	185	196	194	226
12	20	17	18	21	25	28	25
167	202	243	253	270	290	316	333
17	21	22	21	28	30	29	29
123	172	206	237	280	344	472	566
97	119	145	137	140	121	135	164
12	22	43	38	43	50	63	86
98	144	189	245	316	307	304	250
386	469	518	582	648	698	809	932
42	43	40	34	34	36	46	46
108	132	169	223	270	290	333	366
2	3	5	6	11	11	14	18
89	118	126	137	140	140	153	151
145	173	178	180	193	221	262	350

Table 12a Age-adjusted (world) incidence rates per 100 000 person-years by primary site and five-year period 1954-2008

ICD10	Site	1954-58	1959-63	1964-68
C00-96	All sites	167.5	175.7	191.4
C00-14	Mouth, pharynx	8.0	7.8	7.2
C00	Lip	4.2	3.9	3.6
C01-02	Tongue	0.7	0.8	0.8
C03-06	Mouth, other	0.9	1.0	1.0
C07-08	Salivary glands	0.5	0.5	0.5
C09-14	Pharynx	1.7	1.5	1.3
C15-26	Digestive organs	70.9	66.4	65.9
C15	Oesophagus	3.1	3.2	2.7
C16	Stomach	38.2	31.8	28.7
C17	Small intestine	0.6	0.4	0.6
C18	Colon	9.5	10.6	12.6
C19-21	Rectum, rectosigmoid, anus	6.4	7.1	7.7
C22	Liver	0.8	1.0	1.2
C23-24	Gallbladder, bile ducts	0.6	0.8	0.9
C25	Pancreas	5.8	6.1	7.3
C26	Other digestive organs	5.7	5.4	4.2
C30-34, C38	Respiratory organs	12.7	16.9	21.3
C30-31	Nose, sinuses	0.9	0.8	0.8
C32	Larynx, epiglottis	1.2	1.7	2.3
C33-34	Lung, trachea	10.1	14.0	17.8
C38	Mediastinum, pleura (non-mesothelioma)	0.5	0.5	0.5
C40-41	Bone	1.0	0.7	0.9
C43	Melanoma of the skin	2.0	3.1	4.1
C44	Skin, non-melanoma	3.9	2.8	2.6
C45	Mesothelioma	0.0	0.1	0.1
C46	Kaposi's sarcoma	0.1	0.1	0.1
C47	Autonomic nervous system	0.8	0.8	0.8
C48-49	Soft tissues	1.0	1.0	1.2
C50	Breast	0.3	0.3	0.3
C60-63	Male genital organs	28.5	31.9	36.5
C61	Prostate	25.1	27.5	32.1
C62	Testis	2.7	3.6	3.6
C60, C63	Other male genital	0.7	0.8	0.9
C64-68	Urinary organs	12.5	14.4	17.9
C64	Kidney excl. renal pelvis	3.9	4.8	5.6
C65	Renal pelvis	0.3	0.4	0.6
C66-68	Bladder, ureter, urethra	8.4	9.1	11.7
C69	Eye	0.9	0.8	0.9
C70-72, D42-43	Central nervous system	5.9	6.2	6.9
C73	Thyroid gland	0.8	1.0	1.2
C37, C74-75	Other endocrine glands	0.3	0.4	0.5
C39, C76, C80	Other or unspecified	2.1	3.0	4.1
C81-96	Lymphoid and haematopoietic tissue	15.8	18.0	18.8
C81	Hodgkin lymphoma	2.0	2.5	2.8
C82-85, C96	Non-Hodgkin lymphoma	4.1	4.6	5.4
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0
C90	Multiple myeloma	2.6	3.1	3.1
C91-95	Leukaemia	7.0	7.7	7.4

Period							
1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-2003	2004-08
207.7	232.4	251.9	266.8	288.0	309.5	326.4	351.9
8.2	8.1	8.0	8.5	8.4	8.2	7.8	7.4
4.2	3.9	3.2	3.1	2.5	2.0	1.5	1.4
0.8	1.0	1.1	1.3	1.3	1.4	1.6	1.5
1.0	1.0	1.5	1.5	1.7	1.7	1.5	1.3
0.6	0.6	0.4	0.5	0.7	0.6	0.7	0.5
1.6	1.7	1.7	2.1	2.2	2.5	2.6	2.7
64.5	65.9	68.4	67.7	68.7	67.8	68.3	67.5
2.6	2.9	2.6	2.8	3.3	3.2	3.4	3.7
23.4	19.8	17.8	15.1	13.5	11.1	9.0	7.3
0.6	0.6	0.8	0.9	0.9	1.1	1.5	1.5
12.7	14.9	17.7	20.2	22.8	23.6	25.0	25.9
10.1	12.5	15.1	15.6	16.2	16.8	17.2	16.6
1.6	1.8	1.8	2.1	1.9	1.6	2.2	2.2
0.9	1.1	1.1	1.4	1.4	1.5	1.5	1.6
8.2	8.2	8.5	8.4	7.9	7.5	7.6	7.8
4.4	4.0	3.1	1.3	0.9	1.4	0.9	0.9
26.0	31.2	36.0	39.7	40.0	41.4	40.9	39.3
0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.7
2.5	2.8	3.3	3.6	3.2	3.3	3.2	2.7
22.0	26.9	31.3	35.1	35.7	36.9	36.6	35.7
0.6	0.7	0.7	0.3	0.4	0.6	0.4	0.3
0.8	1.1	1.0	1.0	0.9	1.0	0.9	1.0
5.8	7.7	9.3	11.2	14.8	15.0	14.4	15.9
4.7	6.0	7.1	8.6	10.8	13.3	14.5	15.3
0.2	0.5	0.7	1.1	1.1	1.2	1.5	1.5
0.1	0.2	0.1	0.3	0.5	0.3	0.1	0.2
0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3
1.6	1.8	1.9	1.5	1.6	1.7	1.6	1.7
0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
40.3	46.1	49.0	52.4	61.5	77.3	91.0	112.3
35.0	40.4	42.4	44.6	52.4	66.9	79.5	99.9
4.4	4.9	5.8	6.9	8.3	9.2	10.5	11.3
0.8	0.9	0.8	0.9	0.8	1.1	1.0	1.2
19.8	24.9	28.0	29.7	32.1	31.8	31.2	33.2
5.9	6.9	7.6	8.1	8.3	8.3	8.9	10.0
0.8	1.0	1.0	1.0	1.0	1.2	0.9	1.2
13.1	17.0	19.3	20.7	22.7	22.3	21.4	22.0
1.0	0.8	1.1	0.9	1.0	1.0	1.0	1.0
7.0	7.8	8.5	9.6	9.9	10.7	13.2	13.8
1.5	1.5	1.7	1.5	1.7	1.6	1.7	1.9
1.2	1.2	1.8	1.8	1.7	2.2	2.6	2.8
4.7	5.5	6.2	7.4	7.8	7.7	6.0	4.5
19.4	21.1	22.2	23.2	24.9	26.6	28.9	32.0
2.8	2.7	2.4	1.9	2.2	2.3	2.6	2.7
4.9	5.7	6.4	8.4	9.7	10.8	10.8	12.0
0.1	0.2	0.3	0.2	0.4	0.5	0.7	0.6
3.6	4.4	4.6	4.6	4.5	4.5	4.3	4.7
8.0	8.0	8.4	8.1	8.0	8.5	10.6	12.0

Table 12b Age-adjusted (world) incidence rates per 100 000 person-years by primary site and five-year period 1954-2008

ICD10	Site	1954-58	1959-63	1964-68
C00-96	All sites	162.1	165.9	176.2
C00-14	Mouth, pharynx	2.5	2.2	2.3
C00	Lip	0.3	0.3	0.3
C01-02	Tongue	0.5	0.4	0.4
C03-06	Mouth, other	0.5	0.4	0.5
C07-08	Salivary glands	0.3	0.3	0.5
C09-14	Pharynx	0.9	0.7	0.5
C15-26	Digestive organs	49.7	47.1	45.1
C15	Oesophagus	0.9	0.8	0.9
C16	Stomach	22.1	18.4	15.2
C17	Small intestine	0.4	0.3	0.4
C18	Colon	9.4	10.5	11.9
C19-21	Rectum, rectosigmoid, anus	4.4	4.6	5.6
C22	Liver	0.4	0.6	0.5
C23-24	Gallbladder, bile ducts	1.6	1.7	1.6
C25	Pancreas	3.3	3.9	4.1
C26	Other digestive organs	7.2	6.5	5.0
C30-34, C38	Respiratory organs	3.4	3.5	4.3
C30-31	Nose, sinuses	0.6	0.4	0.4
C32	Larynx, epiglottis	0.1	0.1	0.2
C33-34	Lung, trachea	2.6	2.8	3.4
C38	Mediastinum, pleura (non-mesothelioma)	0.2	0.2	0.2
C40-41	Bone	0.7	0.6	0.6
C43	Melanoma of the skin	2.3	3.3	4.6
C44	Skin, non-melanoma	2.2	1.5	1.3
C45	Mesothelioma	0.0	0.0	0.0
C46	Kaposi's sarcoma	0.0	0.0	0.1
C47	Autonomic nervous system	0.8	0.6	0.5
C48-49	Soft tissues	0.7	1.0	1.0
C50	Breast	36.6	39.0	42.4
C51-58	Female genital organs	35.6	37.7	40.5
C53	Cervix uteri	15.1	15.1	16.5
C54	Corpus uteri	6.8	7.8	8.7
C55	Uterus, other	0.8	0.8	0.4
C56	Ovary	10.3	11.2	12.5
C51-52, C57	Other female genital	2.4	2.5	2.0
C58	Placenta	0.1	0.1	0.3
C64-68	Urinary organs	7.2	7.2	7.7
C64	Kidney excl. renal pelvis	2.9	3.2	3.3
C65	Renal pelvis	0.3	0.2	0.3
C66-68	Bladder, ureter, urethra	4.0	3.8	4.1
C69	Eye	0.6	0.7	0.7
C70-72, D42-43	Central nervous system	4.9	5.3	5.6
C73	Thyroid gland	2.1	2.3	2.8
C37, C74-75	Other endocrine glands	0.4	0.2	0.4
C39, C76, C80	Other or unspecified	1.7	2.2	2.7
C81-96	Lymphoid and haematopoietic tissue	10.6	11.3	13.4
C81	Hodgkin lymphoma	1.4	1.6	2.0
C82-85, C96	Non-Hodgkin lymphoma	2.4	2.7	3.8
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0
C90	Multiple myeloma	1.5	1.5	2.4
C91-95	Leukaemia	5.3	5.5	5.2

FEMALES

Period							
1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-2003	2004-08
187.9	208.2	218.6	224.9	241.5	260.1	276.1	288.4
2.3	2.2	2.6	2.9	2.9	3.4	3.3	4.0
0.3	0.3	0.5	0.5	0.7	0.6	0.5	0.9
0.5	0.4	0.5	0.7	0.6	0.6	0.7	0.7
0.5	0.4	0.6	0.7	0.7	1.0	0.7	0.9
0.5	0.3	0.5	0.4	0.5	0.5	0.6	0.5
0.6	0.6	0.6	0.6	0.5	0.7	0.8	0.9
45.4	46.8	49.0	47.8	48.0	50.0	50.1	50.4
0.7	0.8	0.7	0.8	0.8	0.9	1.0	1.0
12.2	10.0	9.2	7.7	6.3	5.3	4.4	4.1
0.5	0.6	0.7	0.7	0.8	0.8	1.2	1.1
13.0	15.2	17.6	18.7	19.8	22.2	22.8	23.2
7.1	8.7	10.2	9.9	11.0	11.3	11.3	11.6
0.8	0.8	1.0	1.0	1.1	0.8	1.1	1.1
1.5	1.4	1.7	1.6	1.5	1.5	1.5	1.4
4.9	4.9	5.4	6.0	5.8	6.1	6.1	6.1
4.6	4.5	2.8	1.3	0.9	1.0	0.7	0.9
5.7	6.6	8.5	11.1	14.9	18.2	21.8	24.6
0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5
0.2	0.2	0.3	0.3	0.4	0.6	0.5	0.4
4.9	5.7	7.7	10.3	14.0	17.0	20.8	23.6
0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1
0.6	0.5	0.6	0.6	0.6	0.7	0.9	0.7
6.2	9.6	11.1	14.0	16.1	16.1	15.6	16.7
2.1	3.3	3.7	4.8	6.4	7.9	8.5	10.2
0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.2
0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.0
0.7	0.3	0.3	0.3	0.4	0.4	0.2	0.3
1.2	1.4	1.5	1.4	1.5	1.4	1.9	2.4
44.7	49.8	51.5	53.4	56.0	66.3	74.4	74.7
44.3	46.5	44.2	40.5	42.8	41.4	40.1	39.8
18.0	18.5	14.9	12.1	12.8	11.5	9.7	8.9
10.1	11.5	12.5	11.9	13.3	13.4	14.9	16.5
0.3	0.1	0.2	0.1	0.1	0.2	0.2	0.1
12.7	12.7	13.3	13.9	13.8	13.4	12.5	11.4
2.9	3.5	3.2	2.4	2.5	2.8	2.6	2.7
0.2	0.1	0.2	0.1	0.3	0.1	0.1	0.2
8.4	9.5	10.1	10.2	10.9	11.1	11.5	12.1
3.6	3.9	4.1	4.3	4.6	4.7	4.5	5.2
0.3	0.5	0.4	0.4	0.4	0.5	0.6	0.5
4.5	5.1	5.7	5.6	5.9	5.9	6.4	6.4
0.7	0.7	0.8	0.8	0.9	1.0	0.8	0.8
5.3	7.0	8.0	8.8	9.7	11.4	14.8	16.7
3.8	4.7	5.2	5.0	4.9	4.0	4.4	5.1
0.6	0.9	1.9	1.7	1.7	1.9	2.2	3.0
2.8	3.7	4.4	5.1	6.3	6.0	5.0	4.1
13.0	14.5	15.0	16.1	17.2	18.6	20.2	22.4
1.7	1.7	1.6	1.3	1.4	1.5	1.9	1.8
3.6	4.0	4.8	6.2	7.2	7.6	8.1	8.7
0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.4
2.4	3.1	3.0	3.0	2.9	2.8	3.1	3.0
5.1	5.6	5.5	5.4	5.4	6.4	6.9	8.5

Table 13a Average annual number of new cases by primary site and county - 2004-2008

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud
C00-96	All sites	13736	817	1317	1296	645	601	780
C00-14	Mouth, pharynx	267	19	26	29	13	9	13
C00	Lip	57	4	5	4	4	2	2
C01-02	Tongue	53	3	6	6	3	2	2
C03-06	Mouth, other	45	4	4	4	2	2	3
C07-08	Salivary glands	18	2	2	1	1	1	0
C09-14	Pharynx	93	6	9	14	3	3	6
C15-26	Digestive organs	2774	169	267	251	127	124	144
C15	Oesophagus	144	8	15	15	6	7	9
C16	Stomach	314	17	23	30	12	14	16
C17	Small intestine	57	3	5	5	3	2	3
C18	Colon	1090	67	106	91	52	50	58
C19-21	Rectum, rectosigmoid, anus	664	46	65	55	31	27	36
C22	Liver	85	5	9	13	4	3	4
C23-24	Gallbladder, bile ducts	64	3	7	6	3	4	2
C25	Pancreas	318	17	33	34	16	15	14
C26	Other digestive organs	37	2	5	3	2	2	2
C30-34, C38	Respiratory organs	1577	97	144	138	76	62	84
C30-31	Nose, sinuses	24	1	2	2	1	1	1
C32	Larynx, epiglottis	101	6	9	9	5	4	5
C33-34	Lung, trachea	1439	89	131	126	69	56	77
C38	Mediastinum, pleura (non-mesothelioma)	13	0	2	1	0	0	1
C40-41	Bone	25	1	2	2	1	1	2
C43	Melanoma of the skin	575	35	68	59	26	25	40
C44	Skin, non-melanoma	730	49	65	67	34	24	62
C45	Mesothelioma	63	3	7	5	2	2	5
C46	Kaposi's sarcoma	7	0	0	2	0	0	0
C47	Autonomic nervous system	6	0	0	0	0	0	0
C48-49	Soft tissues	55	2	6	6	4	2	2
C50	Breast	17	1	2	2	0	0	1
C60-63	Male genital organs	4321	238	385	397	202	217	246
C61	Prostate	3998	218	353	357	192	202	232
C62	Testis	277	16	27	35	8	13	12
C60, C63	Other male genital	46	4	4	5	2	2	2
C64-68	Urinary organs	1363	91	133	124	67	55	69
C64	Kidney excl. renal pelvis	374	27	43	36	19	16	21
C65	Renal pelvis	47	3	4	4	3	2	2
C66-68	Bladder, ureter, urethra	943	61	86	84	45	37	46
C69	Eye	31	3	4	4	1	1	1
C70-72, D42-43	Central nervous system	425	23	41	46	17	15	22
C73	Thyroid gland	65	3	7	9	4	3	5
C37, C74-75	Other endocrine glands	86	5	9	6	5	3	3
C39, C76, C80	Other or unspecified	199	14	20	24	9	7	11
C81-96	Lymphoid and haematopoietic tissue	1152	64	130	126	56	50	69
C81	Hodgkin lymphoma	69	5	6	10	3	3	4
C82-85, C96	Non-Hodgkin lymphoma	439	21	50	51	24	21	19
C88	Malignant immunoproliferative diseases	26	2	4	2	1	1	1
C90	Multiple myeloma	192	9	22	19	10	8	12
C91-95	Leukaemia	426	28	49	45	17	16	32

Finmark	Troms	Nordland	Nord-Trøndelag	Sør-Trøndelag	Møre og Romsdal	Sogn og Fjordane	Hordaland	Rogaland	Vest-Agder	Aust-Agder	Telemark	Vestfold
177	426	770	398	762	815	375	1278	1125	494	356	556	746
3	9	18	7	15	13	7	21	22	10	7	11	14
1	1	4	1	4	2	2	4	8	3	2	2	3
1	2	5	1	2	2	1	5	3	1	3	2	3
1	1	3	2	2	3	2	4	4	2	0	1	2
0	0	1	0	1	1	1	1	2	1	0	2	2
1	4	6	3	6	5	2	7	6	2	2	4	4
39	93	161	77	165	171	73	294	219	92	58	106	145
3	5	8	3	7	8	4	13	11	6	3	7	7
10	14	20	10	20	24	10	33	24	7	3	11	16
1	1	4	2	7	4	1	6	5	1	1	2	2
12	33	69	34	59	65	28	114	90	39	22	40	61
10	21	36	15	39	39	20	79	52	21	16	24	33
1	4	4	2	6	4	2	7	6	4	3	2	3
1	2	3	2	5	2	2	7	5	3	2	3	4
3	11	16	8	19	22	6	33	23	9	7	14	18
0	1	1	1	2	4	1	2	3	1	2	2	1
30	61	89	43	91	95	41	150	115	68	46	61	86
1	1	2	0	2	1	0	3	2	1	0	1	1
1	5	6	2	5	6	1	8	7	5	4	5	5
28	55	80	40	84	87	39	138	104	61	41	56	79
0	1	1	0	1	1	0	1	1	0	0	1	1
1	1	1	1	1	1	1	2	2	1	0	2	2
3	13	13	16	37	25	10	51	59	21	14	23	36
5	14	28	18	35	28	15	64	69	42	25	39	46
1	1	2	0	4	2	1	8	5	2	1	3	7
0	0	0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	1	0	0	1	0	0	0	0	0
1	2	3	2	2	3	1	5	5	2	1	2	3
0	0	1	1	2	1	0	1	1	1	0	0	1
52	128	264	130	217	277	141	379	375	155	119	176	224
46	117	248	119	198	259	136	344	344	143	113	166	209
5	9	14	9	16	16	4	30	27	10	6	8	12
1	1	2	1	2	2	0	5	4	2	1	2	3
18	44	90	40	79	84	35	128	109	37	31	54	78
6	9	23	11	21	23	9	32	31	10	6	14	19
0	2	3	1	3	3	1	4	3	1	2	1	5
12	33	65	28	55	58	25	91	75	25	24	39	54
1	0	2	0	1	1	2	3	2	1	1	1	2
5	17	20	13	32	26	11	40	35	13	13	17	20
1	1	3	2	4	5	3	5	3	3	1	3	2
2	1	4	3	6	8	4	7	8	4	2	3	5
3	5	13	7	9	9	6	19	13	4	5	10	10
13	36	56	39	61	65	25	96	83	39	29	48	65
1	2	3	2	5	3	1	7	6	2	2	2	3
6	16	24	14	20	25	11	32	32	16	12	17	26
0	1	1	2	1	1	1	2	2	1	0	1	1
3	6	8	7	11	10	5	17	13	5	6	10	9
3	12	20	13	24	25	7	38	30	15	10	18	25

Table 13b Average annual number of new cases by primary site and county - 2004-2008

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud
C00-96	All sites	12179	745	1237	1385	563	513	710
C00-14	Mouth, pharynx	174	11	15	23	9	7	10
C00	Lip	45	3	5	3	2	1	2
C01-02	Tongue	30	1	3	5	2	1	2
C03-06	Mouth, other	44	3	3	6	4	2	3
C07-08	Salivary glands	21	1	2	2	1	1	2
C09-14	Pharynx	35	2	2	7	1	2	2
C15-26	Digestive organs	2613	167	244	270	118	110	144
C15	Oesophagus	54	2	7	8	3	3	3
C16	Stomach	217	10	15	21	9	8	14
C17	Small intestine	48	4	6	5	2	1	3
C18	Colon	1229	80	111	124	55	50	70
C19-21	Rectum, rectosigmoid, anus	554	38	57	57	25	26	29
C22	Liver	51	2	6	5	4	2	2
C23-24	Gallbladder, bile ducts	75	4	5	7	5	6	4
C25	Pancreas	333	23	30	39	13	13	17
C26	Other digestive organs	53	3	6	5	2	2	2
C30-34, C38	Respiratory organs	1067	63	111	132	50	40	59
C30-31	Nose, sinuses	23	1	2	4	1	1	1
C32	Larynx, epiglottis	16	1	1	3	1	1	1
C33-34	Lung, trachea	1020	61	107	123	48	38	57
C38	Mediastinum, pleura (non-mesothelioma)	7	0	1	2	0	0	0
C40-41	Bone	19	1	1	3	0	1	2
C43	Melanoma of the skin	608	43	64	67	24	23	41
C44	Skin, non-melanoma	656	49	52	63	28	19	60
C45	Mesothelioma	12	1	2	2	0	1	1
C46	Kaposi's sarcoma	3	0	0	0	0	0	0
C47	Autonomic nervous system	6	1	1	0	0	0	0
C48-49	Soft tissues	84	4	8	9	3	3	4
C50	Breast	2770	160	309	344	127	113	158
C51-58	Female genital organs	1555	87	161	175	82	90	87
C53	Cervix uteri	284	15	33	36	12	12	16
C54	Corpus uteri	677	35	73	76	39	42	34
C55	Uterus, other	8	1	1	1	1	0	0
C56	Ovary	451	29	45	50	23	28	28
C51-52, C57	Other female genital	132	7	10	12	7	7	8
C58	Placenta	3	0	0	0	0	0	0
C64-68	Urinary organs	584	40	56	65	26	21	32
C64	Kidney excl. renal pelvis	226	17	20	24	10	8	12
C65	Renal pelvis	25	2	3	3	1	1	2
C66-68	Bladder, ureter, urethra	333	21	33	39	15	12	18
C69	Eye	29	2	3	4	1	1	2
C70-72, D42-43	Central nervous system	566	31	56	59	24	24	31
C73	Thyroid gland	164	5	20	18	11	4	9
C37, C74-75	Other endocrine glands	86	6	9	10	3	3	4
C39, C76, C80	Other or unspecified	250	17	23	32	14	11	15
C81-96	Lymphoid and haematopoietic tissue	932	56	103	110	43	42	52
C81	Hodgkin lymphoma	46	1	5	6	3	1	3
C82-85, C96	Non-Hodgkin lymphoma	366	19	38	46	17	17	19
C88	Malignant immunoproliferative diseases	18	2	3	2	1	1	1
C90	Multiple myeloma	151	9	16	18	7	6	8
C91-95	Leukaemia	350	25	42	38	15	17	22

FEMALES

Finmark	Troms	Nordland	Nord-Trøndelag	Sør-Trøndelag	More og Romsdal	Sogn og Fjordane	Hordaland	Rogaland	Vest-Agder	Aust-Agder	Telemark	Vestfold
154	343	632	338	707	651	263	1117	936	443	289	486	666
2	7	10	3	10	9	4	13	12	8	4	7	10
0	1	1	0	2	2	2	4	7	4	2	1	2
1	1	2	0	2	2	1	2	1	0	1	2	2
0	2	4	1	3	2	1	3	1	1	1	1	3
0	1	1	1	1	2	1	1	1	0	0	1	2
0	2	2	1	2	2	0	3	2	2	1	1	1
32	82	140	71	157	164	70	273	200	79	61	92	139
1	2	2	1	3	1	1	4	4	2	1	2	3
5	10	12	6	15	14	8	25	17	5	4	9	11
0	1	4	1	5	4	1	3	2	2	1	2	2
11	38	66	38	69	82	32	139	92	38	26	45	64
6	13	29	13	33	29	17	59	46	14	14	16	32
1	2	4	0	3	3	1	4	4	2	1	2	2
2	2	2	3	5	5	2	6	5	3	3	4	2
6	10	16	9	20	22	8	31	25	10	9	12	20
0	2	4	1	3	4	1	3	5	2	2	2	4
20	34	65	29	62	52	18	82	71	48	29	42	57
1	1	2	0	1	1	0	2	1	1	0	1	1
0	1	1	0	1	0	0	1	1	1	0	0	1
18	32	63	28	60	50	18	78	69	46	29	41	55
0	0	0	0	0	0	0	1	0	0	0	0	0
0	0	0	1	1	1	0	3	1	1	1	0	2
4	10	15	16	36	29	9	59	64	22	15	26	39
3	9	20	19	35	21	13	56	68	40	24	42	33
0	0	0	1	1	1	0	1	1	0	1	1	1
0	0	1	0	0	1	0	0	0	0	0	0	0
0	0	1	0	0	1	0	1	0	0	0	0	0
2	4	6	5	7	4	3	4	6	3	2	3	5
33	78	136	74	152	151	60	242	215	95	53	105	164
22	45	84	39	86	70	32	139	122	55	35	66	76
4	11	20	8	14	11	5	27	23	8	6	11	11
10	17	34	17	38	29	15	62	53	27	14	30	32
0	1	0	0	1	0	0	1	1	0	0	0	0
7	12	23	10	24	22	7	40	33	16	12	19	24
1	4	7	4	10	8	4	9	12	4	4	6	8
0	1	0	0	0	0	0	0	1	0	0	0	0
8	20	41	16	40	33	11	46	39	23	17	22	29
4	8	17	9	16	12	5	17	15	10	4	9	10
0	1	1	1	2	1	1	1	1	1	1	1	2
4	11	23	7	22	19	5	27	23	13	11	12	18
0	0	1	1	2	2	1	2	3	1	1	1	1
8	16	32	21	40	32	13	56	36	20	12	22	33
2	6	12	4	10	11	3	18	8	5	1	8	7
1	1	6	3	7	7	1	7	4	2	2	2	7
3	8	16	8	13	9	7	24	17	8	5	11	12
12	22	44	27	49	53	17	90	67	33	25	36	51
1	1	3	1	3	2	1	5	4	2	1	1	2
7	7	20	10	19	21	5	34	31	13	11	14	20
0	0	1	1	1	2	0	2	1	0	0	0	0
1	6	7	4	5	11	4	14	10	5	4	7	9
2	8	14	11	21	17	7	35	22	12	8	14	20

Table 14a Age-adjusted (world) incidence rates per 100 000 person-years by county and primary site - 2004-2008

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud
C00-96	All sites	351.9	349.3	332.1	344.4	343.4	336.7	356.3
C00-14	Mouth, pharynx	7.4	8.4	6.9	8.3	8.2	6.1	6.6
C00	Lip	1.4	1.7	1.3	0.9	2.0	0.9	1.2
C01-02	Tongue	1.5	1.3	1.6	1.9	1.7	1.4	0.8
C03-06	Mouth, other	1.3	1.9	1.0	1.1	1.4	1.0	1.2
C07-08	Salivary glands	0.5	0.7	0.6	0.3	0.8	0.5	0.1
C09-14	Pharynx	2.7	2.7	2.5	4.1	2.3	2.2	3.2
C15-26	Digestive organs	67.5	69.5	64.0	63.8	63.7	65.8	62.6
C15	Oesophagus	3.7	3.3	3.7	3.9	2.7	3.7	4.4
C16	Stomach	7.3	6.8	5.4	7.3	5.5	6.6	7.1
C17	Small intestine	1.5	1.5	1.2	1.3	1.7	1.2	1.1
C18	Colon	25.9	27.2	25.1	22.7	24.1	26.1	25.0
C19-21	Rectum, rectosigmoid, anus	16.6	18.8	15.9	14.1	15.9	15.4	15.5
C22	Liver	2.2	2.3	2.2	3.5	2.4	1.3	1.9
C23-24	Gallbladder, bile ducts	1.6	1.1	1.7	1.5	1.9	2.1	0.7
C25	Pancreas	7.8	7.5	7.8	8.8	8.8	8.3	6.1
C26	Other digestive organs	0.9	1.0	1.0	0.7	0.6	1.2	0.8
C30-34, C38	Respiratory organs	39.3	40.3	34.3	35.8	39.1	31.9	37.5
C30-31	Nose, sinuses	0.7	0.6	0.6	0.6	0.6	0.6	0.5
C32	Larynx, epiglottis	2.7	2.7	2.2	2.6	2.9	2.4	2.1
C33-34	Lung, trachea	35.7	36.9	31.1	32.4	35.6	28.7	34.6
C38	Mediastinum, pleura (non-mesothelioma)	0.3	0.1	0.4	0.2	0.0	0.2	0.2
C40-41	Bone	1.0	0.4	0.8	0.9	1.2	0.6	1.2
C43	Melanoma of the skin	15.9	17.1	17.7	15.5	15.9	15.9	19.7
C44	Skin, non-melanoma	15.3	17.6	13.8	14.1	13.9	10.1	23.4
C45	Mesothelioma	1.5	1.0	1.8	1.1	1.3	1.0	2.3
C46	Kaposi's sarcoma	0.2	0.1	0.1	0.6	0.1	0.1	0.1
C47	Autonomic nervous system	0.3	0.4	0.2	0.1	0.0	0.2	0.1
C48-49	Soft tissues	1.7	1.8	1.8	1.6	2.4	1.2	1.4
C50	Breast	0.4	0.6	0.6	0.6	0.1	0.1	0.3
C60-63	Male genital organs	112.3	99.1	100.8	108.9	105.3	122.6	115.1
C61	Prostate	99.9	85.8	89.1	97.5	94.9	107.3	104.2
C62	Testis	11.3	11.8	10.6	10.0	8.9	14.4	9.9
C60, C63	Other male genital	1.2	1.5	1.1	1.4	1.4	1.0	0.9
C64-68	Urinary organs	33.2	38.0	31.8	32.2	33.2	28.4	29.6
C64	Kidney excl. renal pelvis	10.0	12.2	11.1	9.8	11.4	9.1	9.7
C65	Renal pelvis	1.2	1.5	1.1	1.0	1.2	1.0	1.0
C66-68	Bladder, ureter, urethra	22.0	24.3	19.6	21.4	20.6	18.3	18.8
C69	Eye	1.0	1.5	0.9	1.1	0.6	1.1	0.6
C70-72, D42-43	Central nervous system	13.8	12.5	12.8	14.3	11.7	10.8	12.5
C73	Thyroid gland	1.9	1.2	1.8	2.3	3.0	2.0	2.6
C37, C74-75	Other endocrine glands	2.8	2.6	2.6	1.9	4.9	2.5	2.0
C39, C76, C80	Other or unspecified	4.5	5.7	4.7	5.8	4.2	3.5	4.7
C81-96	Lymphoid and haematopoietic tissue	32.0	31.6	34.7	35.6	34.4	32.6	34.1
C81	Hodgkin lymphoma	2.7	3.0	2.2	3.1	3.7	3.6	3.3
C82-85, C96	Non-Hodgkin lymphoma	12.0	9.9	12.9	14.1	14.0	12.8	9.3
C88	Malignant immunoproliferative diseases	0.6	0.7	0.7	0.6	0.6	0.8	0.7
C90	Multiple myeloma	4.7	3.9	5.4	5.0	5.7	4.1	4.9
C91-95	Leukaemia	12.0	14.0	13.4	12.8	10.5	11.4	15.8

Finmark	Troms	Nordland	Nord-Trøndelag	Sør-Trøndelag	Møre og Romsdal	Sogn og Fjordane	Hordaland	Rogaland	Vest-Agder	Aust-Agder	Telemark	Vestfold
295.9	334.7	358.8	330.5	338.7	366.3	385.2	342.8	378.4	381.0	399.2	354.3	381.7
5.2	7.4	9.2	5.8	7.0	6.8	8.4	6.4	7.4	7.4	8.1	8.0	7.8
1.3	0.5	1.7	0.6	1.6	0.8	1.8	1.1	2.2	2.3	2.4	1.2	1.6
1.5	2.1	2.3	1.2	1.0	1.2	1.7	1.5	0.9	1.2	3.2	1.2	1.6
1.0	1.1	1.2	1.3	0.9	1.5	2.3	1.2	1.5	1.5	0.6	1.0	1.3
0.0	0.5	0.4	0.3	0.7	0.7	0.5	0.3	0.6	0.5	0.0	1.2	0.9
1.4	3.2	3.5	2.5	2.8	2.6	2.0	2.3	2.1	1.9	1.9	3.4	2.5
64.9	70.4	71.4	59.5	68.0	70.6	72.5	75.3	70.6	66.6	61.2	64.2	69.8
4.9	4.1	4.0	2.2	3.0	3.5	3.9	3.8	3.7	4.4	3.5	5.1	3.5
15.9	10.4	8.3	7.4	8.1	9.6	9.2	8.0	7.5	5.0	3.2	7.0	7.2
0.9	1.2	1.8	1.9	3.1	1.9	0.7	1.6	1.6	1.2	0.9	1.3	1.1
19.6	23.9	29.6	26.8	23.8	26.2	27.0	28.4	28.8	27.4	21.6	23.5	29.5
16.3	16.8	16.3	12.0	17.3	16.5	20.7	20.9	17.4	15.2	17.0	14.0	15.6
1.1	2.8	1.9	1.5	2.6	1.4	2.2	2.3	1.9	4.1	3.3	1.5	1.2
0.9	1.6	1.1	1.1	2.1	0.6	1.7	1.7	1.5	2.4	1.9	1.9	2.2
4.6	9.1	7.7	5.9	7.4	8.9	5.9	8.2	7.4	6.4	7.9	8.9	9.0
0.7	0.5	0.6	0.7	0.6	2.0	1.1	0.5	0.9	0.5	2.0	1.0	0.5
47.3	46.2	39.4	33.7	37.9	41.9	41.0	40.3	38.3	53.3	50.4	39.4	43.4
1.3	0.7	0.9	0.1	0.7	0.6	0.6	0.9	0.8	0.8	0.3	0.5	0.6
1.9	3.8	2.8	2.2	2.0	3.1	1.4	2.3	2.6	4.6	4.6	3.3	2.8
43.4	41.0	35.1	31.2	34.9	37.9	38.8	36.9	34.6	47.7	45.3	35.3	39.5
0.7	0.6	0.6	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4
2.1	0.8	0.9	0.5	0.8	1.1	1.2	1.0	1.1	1.0	0.6	1.6	1.6
6.8	11.2	7.3	14.5	18.1	12.7	10.6	14.7	21.1	17.1	16.7	16.5	20.2
6.9	9.5	10.5	11.4	12.7	9.1	11.9	14.2	20.2	26.0	23.5	19.7	20.3
0.9	1.2	0.9	0.4	1.6	0.9	1.1	2.2	1.7	1.3	1.3	1.6	3.6
0.0	0.1	0.2	0.0	0.2	0.0	0.1	0.3	0.0	0.0	0.5	0.2	0.2
1.1	0.3	0.1	0.0	0.8	0.1	1.0	0.7	0.1	0.0	0.0	0.0	0.0
1.3	1.9	1.6	2.0	1.4	1.3	1.4	1.4	2.1	2.1	2.0	1.8	1.5
0.7	0.2	0.2	0.5	0.7	0.6	0.1	0.5	0.3	0.9	0.4	0.1	0.7
86.2	100.9	124.8	109.2	99.9	127.5	141.3	103.6	127.5	123.4	134.8	111.0	115.2
70.8	88.7	111.6	94.2	87.8	113.5	132.6	90.4	113.9	110.6	123.7	100.3	103.2
14.3	11.1	12.4	13.9	11.0	13.2	8.3	12.0	12.3	11.4	10.7	9.5	10.6
1.1	1.0	0.9	1.1	1.0	0.8	0.4	1.3	1.4	1.4	0.5	1.2	1.4
30.8	31.3	39.4	30.2	33.1	36.3	34.6	32.5	35.2	26.8	33.4	34.8	37.3
11.1	6.6	11.4	9.1	9.6	11.5	9.8	9.2	10.8	8.5	6.8	9.8	9.8
0.4	1.2	1.1	1.0	1.5	1.2	0.9	1.1	1.0	0.7	1.5	0.9	2.4
19.4	23.6	26.9	20.1	22.0	23.6	23.8	22.2	23.4	17.5	25.2	24.1	25.1
0.8	0.7	1.6	0.4	0.6	0.3	2.4	1.0	0.8	1.2	1.4	0.4	1.4
8.7	16.4	12.0	15.3	17.8	15.6	14.7	13.3	14.6	13.2	19.2	14.2	13.2
1.0	0.8	1.5	2.1	2.2	3.1	3.2	1.4	1.1	2.1	1.6	2.0	1.2
4.0	1.2	2.9	3.5	2.8	4.7	4.8	2.1	3.2	3.7	3.2	2.3	2.9
5.0	3.4	5.5	4.6	3.0	2.9	5.8	4.3	3.8	2.7	5.3	4.9	4.3
22.2	30.9	29.5	36.8	29.9	30.7	29.3	27.5	29.3	31.9	35.5	31.8	37.1
1.2	2.1	2.0	3.4	3.0	2.3	2.3	2.5	2.6	2.7	2.7	2.0	2.5
11.3	14.1	12.9	13.0	9.7	12.2	12.6	8.9	11.3	12.5	14.8	11.5	14.9
0.3	0.5	0.5	1.9	0.6	0.5	0.7	0.4	0.5	0.4	0.3	0.4	0.4
4.1	4.6	3.5	5.3	4.7	3.9	4.7	4.5	4.4	3.8	5.9	6.5	4.9
5.3	9.6	10.5	13.2	11.9	11.8	9.1	11.2	10.4	12.6	11.8	11.4	14.3

Table 14b Age-adjusted (world) incidence rates per 100 000 person-years by county and primary site - 2004-2008

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud
C00-96	All sites	288.4	293.9	286.9	295.4	293.4	278.9	303.7
C00-14	Mouth, pharynx	4.0	3.8	3.3	5.2	3.6	3.7	3.6
C00	Lip	0.9	0.6	1.0	0.5	0.5	0.5	0.7
C01-02	Tongue	0.7	0.5	0.7	1.3	0.8	0.8	0.4
C03-06	Mouth, other	0.9	1.2	0.6	1.2	1.4	1.1	0.8
C07-08	Salivary glands	0.5	0.4	0.5	0.4	0.3	0.6	0.8
C09-14	Pharynx	0.9	1.0	0.5	1.8	0.4	0.8	0.9
C15-26	Digestive organs	50.4	53.6	48.6	46.6	47.3	48.6	51.0
C15	Oesophagus	1.0	0.8	1.3	1.4	1.4	0.9	1.1
C16	Stomach	4.1	2.8	3.0	3.7	3.0	3.5	4.4
C17	Small intestine	1.1	1.3	1.5	0.9	1.2	0.6	1.3
C18	Colon	23.2	25.4	21.5	21.0	21.2	22.0	24.7
C19-21	Rectum, rectosigmoid, anus	11.6	13.3	12.3	10.6	10.5	11.8	11.0
C22	Liver	1.1	0.7	1.1	1.1	2.0	1.1	0.9
C23-24	Gallbladder, bile ducts	1.4	1.5	1.1	1.1	1.6	2.4	1.0
C25	Pancreas	6.1	7.0	5.7	6.1	5.5	5.6	6.0
C26	Other digestive organs	0.9	0.9	1.0	0.8	0.8	0.7	0.6
C30-34, C38	Respiratory organs	24.6	24.4	24.4	26.4	25.7	21.5	24.2
C30-31	Nose, sinuses	0.5	0.5	0.7	0.6	0.2	0.5	0.3
C32	Larynx, epiglottis	0.4	0.2	0.3	0.8	0.4	0.4	0.6
C33-34	Lung, trachea	23.6	23.6	23.3	24.6	25.0	20.6	23.3
C38	Mediastinum, pleura (non-mesothelioma)	0.1	0.2	0.2	0.4	0.0	0.1	0.0
C40-41	Bone	0.7	0.7	0.4	0.7	0.3	0.5	1.1
C43	Melanoma of the skin	16.7	19.9	15.9	15.4	14.6	15.0	20.7
C44	Skin, non-melanoma	10.2	13.3	8.4	8.1	8.0	6.0	19.1
C45	Mesothelioma	0.2	0.2	0.3	0.3	0.0	0.2	0.4
C46	Kaposi's sarcoma	0.0	0.0	0.1	0.0	0.0	0.0	0.0
C47	Autonomic nervous system	0.3	0.6	0.3	0.1	0.0	0.0	0.2
C48-49	Soft tissues	2.4	2.2	2.1	2.2	2.1	1.7	1.9
C50	Breast	74.7	72.8	78.2	84.9	76.5	71.5	76.2
C51-58	Female genital organs	39.8	37.6	39.4	40.8	45.5	50.6	39.5
C53	Cervix uteri	8.9	8.6	9.3	9.6	8.8	8.8	10.0
C54	Corpus uteri	16.5	14.2	16.9	18.0	19.4	22.3	15.3
C55	Uterus, other	0.1	0.2	0.1	0.0	0.2	0.1	0.1
C56	Ovary	11.4	12.0	11.2	10.9	13.5	15.7	11.5
C51-52, C57	Other female genital	2.7	2.3	1.8	2.2	3.6	3.6	2.7
C58	Placenta	0.2	0.3	0.0	0.1	0.0	0.0	0.0
C64-68	Urinary organs	12.1	14.5	11.5	12.8	11.7	9.1	11.9
C64	Kidney excl. renal pelvis	5.2	7.0	4.8	5.1	4.9	3.8	5.0
C65	Renal pelvis	0.5	0.4	0.4	0.5	0.5	0.3	0.7
C66-68	Bladder, ureter, urethra	6.4	7.1	6.3	7.3	6.2	5.1	6.2
C69	Eye	0.8	0.9	0.9	1.1	1.1	0.5	0.8
C70-72, D42-43	Central nervous system	16.7	15.8	15.5	15.3	17.1	18.2	18.3
C73	Thyroid gland	5.1	2.3	5.8	4.9	7.9	3.4	5.4
C37, C74-75	Other endocrine glands	3.0	4.4	2.9	2.7	2.3	2.8	2.5
C39, C76, C80	Other or unspecified	4.1	4.9	4.0	4.6	4.9	3.6	4.5
C81-96	Lymphoid and haematopoietic tissue	22.4	22.2	25.0	23.4	25.0	22.0	22.5
C81	Hodgkin lymphoma	1.8	1.1	1.9	1.9	2.6	1.1	1.7
C82-85, C96	Non-Hodgkin lymphoma	8.7	7.0	8.9	9.9	9.0	8.5	8.2
C88	Malignant immunoproliferative diseases	0.4	0.5	0.7	0.4	0.6	0.6	0.3
C90	Multiple myeloma	3.0	3.1	3.3	3.6	2.9	3.2	3.1
C91-95	Leukaemia	8.5	10.5	10.1	7.7	9.9	8.6	9.2

FEMALES

Finmark	Troms	Nordland	Nord-Trøndelag	Sør-Trøndelag	More og Romsdal	Sogn og Fjordane	Hordaland	Rogaland	Vest-Agder	Aust-Agder	Telemark	Vestfold
265.3	260.7	290.7	272.5	290.1	283.0	263.1	277.9	288.8	302.0	292.9	295.6	314.9
3.0	5.0	4.9	3.2	4.1	3.7	3.9	3.2	3.6	5.7	3.8	4.0	4.0
0.5	1.0	0.2	0.0	0.4	0.9	1.9	0.8	2.0	2.7	1.9	0.5	0.6
0.9	0.7	1.3	0.3	0.5	0.8	0.2	0.5	0.5	0.4	0.4	1.0	0.8
0.3	1.3	1.7	1.1	1.0	0.7	0.6	0.7	0.3	0.9	0.2	0.7	1.2
0.7	0.5	0.6	0.9	0.9	0.7	1.3	0.2	0.3	0.4	0.3	0.4	0.8
0.5	1.6	1.0	1.0	1.2	0.6	0.0	0.9	0.5	1.5	1.0	1.4	0.5
44.3	49.9	51.7	44.6	51.2	56.4	58.4	55.0	50.1	45.6	54.1	45.0	52.6
0.6	1.7	0.5	0.9	1.2	0.3	1.1	0.6	1.1	1.1	1.1	1.0	1.0
7.0	6.9	4.4	3.0	4.2	4.5	7.1	4.7	4.4	3.3	3.2	4.9	3.6
0.3	0.8	1.8	0.9	1.6	1.8	1.2	0.9	0.5	1.0	1.1	0.9	1.0
15.5	22.8	23.9	22.5	22.3	27.1	23.9	27.7	22.5	21.3	23.1	21.7	23.1
9.3	8.1	12.0	9.8	12.1	11.3	15.1	12.9	12.5	9.5	13.9	7.8	12.9
0.7	1.5	1.5	0.0	1.0	0.9	1.6	1.1	0.7	1.2	1.2	0.9	1.2
2.1	1.4	1.0	1.6	1.5	1.7	2.2	0.9	1.4	1.9	2.6	1.9	1.0
8.5	5.5	5.6	5.2	6.5	7.1	5.9	5.7	6.2	5.1	6.6	5.5	7.5
0.4	1.2	1.1	0.7	0.9	1.6	0.3	0.5	0.7	1.4	1.2	0.4	1.2
32.7	23.8	28.0	23.2	24.9	21.7	19.5	21.0	23.4	32.2	31.2	24.3	25.1
0.5	0.9	0.7	0.4	0.2	0.6	0.2	0.4	0.2	0.8	0.2	0.3	0.5
0.4	1.0	0.3	0.1	0.5	0.1	0.0	0.4	0.4	0.5	0.4	0.1	0.4
31.8	22.0	26.9	22.6	23.9	20.9	19.3	20.0	22.8	30.8	30.6	23.7	24.2
0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.2	0.1	0.0	0.0	0.2	0.0
0.8	0.4	0.3	0.7	0.4	0.7	0.8	1.5	0.3	0.4	1.0	0.5	1.3
9.6	9.4	9.3	17.5	17.5	15.6	11.0	17.0	22.0	18.5	15.7	20.1	21.4
5.9	5.7	6.4	10.7	9.6	6.3	7.8	9.0	14.7	17.6	15.5	15.5	9.5
0.4	0.2	0.0	0.6	0.1	0.3	0.1	0.1	0.1	0.0	0.8	0.4	0.4
0.1	0.1	0.3	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
0.0	0.0	0.4	0.0	0.3	0.8	0.0	0.5	0.1	0.5	1.0	0.2	0.0
2.7	3.6	3.5	4.5	3.0	2.0	2.8	1.3	2.2	2.7	1.8	2.2	3.5
63.5	66.1	71.5	66.8	71.2	74.8	69.9	70.0	76.7	72.8	59.4	70.4	89.0
40.2	39.4	42.5	34.1	38.2	32.6	36.5	38.8	39.9	40.1	39.8	45.6	37.3
7.4	11.7	13.7	9.1	7.3	7.0	7.5	8.6	9.0	7.7	8.1	10.3	7.1
19.2	13.6	15.9	12.8	15.7	11.8	16.6	16.9	16.3	18.7	13.8	19.1	15.2
0.0	0.5	0.0	0.0	0.2	0.0	0.3	0.2	0.2	0.0	0.0	0.0	0.0
11.7	9.6	10.1	9.0	11.2	10.3	7.7	11.0	11.2	11.4	14.0	13.2	11.3
1.9	2.9	2.5	3.2	3.6	3.4	3.8	2.1	2.9	2.2	3.9	3.0	3.2
0.0	1.2	0.4	0.0	0.1	0.0	0.6	0.0	0.3	0.0	0.0	0.0	0.4
12.5	13.7	16.5	12.4	14.5	11.8	8.2	9.6	11.1	13.2	14.0	11.5	11.3
7.0	5.9	7.6	7.7	6.3	4.8	3.3	4.3	4.5	5.9	4.9	4.7	4.8
0.4	0.6	0.5	0.6	0.7	0.3	1.3	0.2	0.3	0.4	1.2	0.2	0.5
5.2	7.1	8.4	4.1	7.5	6.7	3.5	5.0	6.4	6.9	8.0	6.7	5.9
0.8	0.0	0.5	0.9	1.0	1.2	0.5	0.5	1.0	1.0	1.2	0.7	0.9
15.6	16.4	17.2	19.1	20.6	17.9	16.9	16.0	13.6	17.1	17.0	18.4	21.2
3.5	4.9	6.7	5.7	5.1	6.5	4.4	6.2	2.9	5.5	2.0	7.8	4.5
3.3	1.3	4.4	3.7	3.9	4.4	2.3	2.5	1.7	1.6	2.8	2.6	4.9
4.1	4.0	5.3	4.8	3.8	2.6	3.9	4.4	3.7	3.5	3.8	3.2	3.7
22.4	16.8	21.4	20.1	20.6	23.6	16.2	21.2	21.6	23.9	27.9	23.2	24.3
3.3	1.3	2.5	0.5	1.9	2.1	1.7	1.9	1.8	2.2	2.3	1.5	1.8
13.8	5.0	8.7	8.5	7.6	9.1	5.6	8.6	10.1	8.8	10.1	8.9	8.8
0.4	0.0	0.3	0.5	0.5	0.6	0.2	0.2	0.1	0.2	0.1	0.1	0.0
2.0	3.3	2.6	2.3	1.7	4.0	2.1	2.7	2.7	3.2	4.1	3.1	3.7
2.9	7.1	7.4	8.2	8.9	7.9	6.7	7.8	6.8	9.4	11.2	9.5	10.0

Table 15a Average annual number of new cases for selected primary sites, stage and period of diagnosis 1954-2008

MALES

ICD10	Site	Stage	Period										2004-08	% 2004-08
			1954-58	1959-63	1964-68	1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-2003		
C00-14	Mouth, pharynx	Total	210	190	191	234	238	244	258	259	258	257	267	100.0
		Localized	146	130	133	151	156	147	165	153	127	86	84	31.4
		Regional	50	46	43	55	65	86	82	91	91	105	124	46.6
		Distant	3	6	7	10	9	7	7	10	12	12	14	5.1
		Unknown	11	9	8	17	8	5	4	6	27	55	45	16.9
C15	Oesophagus	Total	86	82	76	80	89	88	90	106	112	124	144	100.0
		Localized	51	50	47	37	44	43	39	44	39	24	26	18.3
		Regional	11	11	9	16	19	20	23	25	21	29	36	24.9
		Distant	16	16	17	21	22	22	25	31	30	38	39	26.7
		Unknown	7	5	4	7	5	4	2	5	22	33	43	30.1
C16	Stomach	Total	1056	806	794	695	628	599	542	497	424	358	314	100.0
		Localized	299	218	216	166	179	183	176	176	110	58	55	17.6
		Regional	225	166	164	157	140	161	153	135	129	106	84	26.8
		Distant	404	356	340	312	270	223	190	162	138	129	99	31.4
		Unknown	128	67	74	60	39	32	22	23	47	66	76	24.2
C18	Colon	Total	257	266	348	372	472	591	700	817	882	970	1090	100.0
		Localized	106	107	139	133	151	170	211	283	197	166	169	15.5
		Regional	63	68	82	94	160	247	276	288	412	467	570	52.3
		Distant	69	78	112	126	145	153	190	214	234	252	232	21.3
		Unknown	19	14	15	20	16	21	23	32	39	84	119	10.9
C19-21	Rectum, rectosigmoid, anus	Total	174	179	211	298	390	495	527	567	594	640	664	100.0
		Localized	85	87	102	135	185	223	225	260	225	167	137	20.7
		Regional	38	44	59	80	115	170	200	192	229	259	282	42.4
		Distant	34	37	42	69	81	91	93	102	111	130	109	16.4
		Unknown	17	11	7	14	9	11	10	13	29	84	136	20.5
C22	Liver	Total	19	22	32	45	53	57	67	62	56	79	85	100.0
		Localized	9	10	17	20	25	30	35	38	25	27	26	30.3
		Regional	2	1	1	2	6	4	5	4	3	5	9	10.6
		Distant	6	9	13	18	20	15	19	10	12	19	18	21.1
		Unknown	2	2	1	5	2	8	8	10	16	29	32	38.0
C23-24	Gallbladder, bile ducts	Total	17	20	25	27	37	37	51	50	56	58	64	100.0
		Localized	9	7	9	8	11	12	20	18	10	12	8	11.9
		Regional	1	4	4	4	9	8	10	9	11	13	22	35.0
		Distant	5	8	11	12	16	14	15	15	16	16	17	26.3
		Unknown	1	1	1	2	1	4	5	8	18	17	17	26.9
C25	Pancreas	Total	151	152	202	244	258	284	297	284	280	291	318	100.0
		Localized	45	46	57	49	44	55	61	63	31	20	21	6.6
		Regional	13	17	26	32	34	37	38	26	35	48	72	22.6
		Distant	77	79	109	139	156	159	157	144	130	152	170	53.6
		Unknown	15	10	9	24	24	34	41	51	84	71	55	17.2
C33-34	Lung, trachea	Total	254	334	463	613	804	980	1137	1193	1272	1348	1439	100.0
		Localized	77	101	161	196	259	329	376	409	288	201	178	12.4
		Regional	51	71	94	116	145	171	244	218	299	348	421	29.2
		Distant	103	139	188	254	345	412	444	464	513	627	654	45.4
		Unknown	23	24	19	48	55	68	73	101	171	172	187	13.0
C43	Melanoma of the skin	Total	49	67	91	133	186	235	297	412	453	475	575	100.0
		Localized	27	43	60	90	152	192	255	350	364	273	208	36.3
		Regional	11	9	12	16	16	16	16	18	14	18	22	3.9
		Distant	7	13	16	17	14	18	17	26	24	35	28	4.9
		Unknown	4	1	3	10	3	9	9	18	52	149	316	55.0
C61	Prostate	Total	708	746	953	1132	1410	1592	1774	2143	2637	3045	3998	100.0
		Localized	417	445	641	727	951	1075	1172	1470	1407	1029	1626	40.7
		Regional	37	34	31	52	75	61	60	77	105	133	273	6.8
		Distant	185	200	218	245	293	358	486	436	407	384	354	8.9
		Unknown	69	67	63	108	90	97	57	160	717	1498	1745	43.6
C62	Testis	Total	61	65	65	86	98	123	156	194	217	253	277	100.0
		Localized	41	43	44	48	56	63	97	131	137	136	137	49.5
		Regional	2	3	4	11	20	34	35	35	36	38	46	16.5
		Distant	15	16	17	24	21	23	23	25	29	30	29	10.3
		Unknown	2	2	1	3	1	3	1	3	16	48	66	23.7
C64	Kidney except renal pelvis	Total	92	114	145	159	196	225	251	274	277	308	374	100.0
		Localized	49	59	76	68	80	94	110	138	124	121	152	40.7
		Regional	6	13	19	29	46	46	53	38	43	42	36	9.7
		Distant	31	37	45	58	67	78	78	78	70	73	83	22.3
		Unknown	5	5	4	4	4	8	10	20	40	72	102	27.3
C66-68	Bladder, ureter, urethra	Total	219	228	319	383	529	636	723	814	829	843	943	100.0
		Localized	165	187	269	302	435	537	627	725	622	438	443	47.0
		Regional	16	19	29	39	54	58	55	44	41	51	71	7.6
		Distant	24	14	16	22	29	29	28	28	30	35	34	3.6
		Unknown	14	8	5	19	12	12	13	16	136	319	395	41.9
C70-72, D42-43	Central nervous system	Total	131	127	145	155	179	204	240	257	292	375	425	100.0
		Non-malignant	32	39	37	47	52	63	72	92	123	170	210	49.4
		Malignant	100	88	108	108	127	141	168	165	169	205	215	50.6
C73	Thyroid gland	Total	20	24	29	37	39	49	44	47	46	52	65	100.0
		Localized	8	6	7	15	19	22	22	24	19	18	18	27.1
		Regional	7	12	14	13	14	19	14	13	15	20	29	44.3
		Distant	5	6	7	8	5	7	7	8	9	7	9	13.5
		Unknown	1	1	0	1	1	1	0	2	3	7	10	15.1

Table 15b Average annual number of new cases for selected primary sites, stage and period of diagnosis 1954-2008

FEMALES

ICD10	Site	Stage	Period											% 2004-08
			1954-58	1959-63	1964-68	1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-2003	2004-08	
C00-14	Mouth, pharynx	Total	74	60	74	77	81	95	113	111	133	133	174	100.0
		Localized	46	34	44	41	45	55	66	75	77	49	65	37.4
		Regional	21	19	27	27	28	34	40	30	37	45	66	37.7
		Distant	2	4	2	4	4	3	4	4	5	6	5	2.8
		Unknown	4	4	1	5	5	4	2	2	13	33	39	22.1
C15	Oesophagus	Total	29	25	30	29	34	31	36	38	46	52	54	100.0
		Localized	20	17	20	15	20	14	21	21	19	12	11	20.8
		Regional	3	4	3	5	7	7	9	6	8	9	12	21.6
		Distant	2	3	5	7	5	7	5	8	9	12	10	17.8
		Unknown	4	2	2	3	2	3	1	3	10	19	21	39.8
C16	Stomach	Total	729	563	515	455	412	410	366	320	283	233	217	100.0
		Localized	214	151	141	101	107	127	132	123	84	42	40	18.3
		Regional	128	97	93	89	91	108	94	77	73	60	54	24.7
		Distant	264	235	220	217	178	141	120	102	89	80	68	31.4
		Unknown	122	79	61	48	36	35	20	17	38	50	56	25.6
C18	Colon	Total	296	308	395	454	593	730	837	923	1073	1149	1229	100.0
		Localized	124	124	158	162	191	209	239	326	238	203	194	15.8
		Regional	64	75	94	130	204	300	354	340	508	560	648	52.7
		Distant	78	89	124	137	176	188	208	212	254	272	247	20.1
		Unknown	31	20	19	25	22	34	35	46	73	114	140	11.4
C19-21	Rectum, rectosigmoid, anus	Total	136	132	175	249	319	406	423	479	501	516	554	100.0
		Localized	66	62	83	116	148	186	187	240	197	148	121	21.9
		Regional	33	33	47	70	94	137	147	148	186	198	223	40.3
		Distant	25	28	38	54	68	72	75	77	86	91	86	15.5
		Unknown	11	8	8	9	9	11	14	14	31	79	123	22.3
C22	Liver	Total	12	14	15	27	29	37	45	48	37	50	51	100.0
		Localized	5	6	7	12	15	16	22	24	13	12	12	23.5
		Regional	1	0	1	1	1	1	3	3	2	6	7	13.3
		Distant	5	6	7	11	12	16	12	10	8	10	10	19.6
		Unknown	2	2	1	3	1	4	7	11	14	22	22	43.5
C23-24	Gallbladder, bile ducts	Total	48	51	54	56	59	77	83	73	76	80	75	100.0
		Localized	14	14	15	14	16	24	30	22	16	10	12	16.6
		Regional	7	10	8	9	10	15	17	13	13	15	19	24.9
		Distant	24	25	30	30	30	34	26	24	23	27	24	31.6
		Unknown	3	3	1	3	4	5	10	14	24	26	20	26.8
C25	Pancreas	Total	103	112	136	178	201	241	291	290	317	329	333	100.0
		Localized	33	32	44	42	42	48	71	74	35	26	30	9.0
		Regional	11	10	14	20	25	31	38	27	35	46	68	20.3
		Distant	50	60	69	95	116	129	139	122	138	155	158	47.5
		Unknown	10	10	8	21	19	32	42	67	109	101	77	23.2
C33-34	Lung, trachea	Total	77	77	104	156	191	262	367	503	630	812	1020	100.0
		Localized	21	20	33	50	55	75	112	152	138	120	151	14.8
		Regional	10	9	14	23	30	38	66	99	134	191	268	26.3
		Distant	35	41	52	71	92	125	163	205	260	392	469	45.9
		Unknown	11	7	6	11	14	24	26	47	99	110	133	13.0
C43	Melanoma of the skin	Total	57	74	108	145	237	298	387	472	500	530	608	100.0
		Localized	43	59	85	110	213	265	355	431	413	330	245	40.3
		Regional	7	7	6	11	9	13	11	12	10	14	15	2.5
		Distant	5	6	11	11	13	11	12	14	19	22	18	2.9
		Unknown	2	2	6	13	2	9	9	14	58	165	330	54.4
C50	Breast	Total	1030	999	1150	1278	1505	1635	1798	1938	2279	2610	2770	100.0
		I	442	456	551	617	790	902	883	938	1220	1339	1418	51.2
		II	394	354	368	408	433	476	621	712	824	1033	1146	41.4
		III	57	64	92	87	120	88	128	108	87	90	81	2.9
		IV	101	96	109	113	119	106	121	137	128	133	109	3.9
C53	Cervix uteri	Unknown	35	30	30	53	42	63	46	43	21	15	15	0.5
		Total	396	343	381	420	443	380	331	363	336	297	284	100.0
		I	151	142	179	220	247	219	182	216	203	176	150	52.8
		II	117	116	134	119	108	76	76	72	68	53	62	21.8
		III	84	52	42	55	60	53	45	40	34	34	25	8.9
C54	Corpus uteri	IV	32	24	21	21	24	22	23	30	26	26	30	10.4
		Unknown	13	8	5	6	5	9	4	5	5	8	17	6.1
		Total	187	199	239	294	349	382	387	443	476	573	677	100.0
		Localized	147	163	194	240	283	285	295	333	350	353	411	60.7
		Regional	12	10	14	16	32	51	44	48	49	67	74	10.9
C56	Ovary	Distant	20	20	30	33	31	36	41	56	61	74	87	12.9
		Unknown	8	6	2	6	3	11	7	6	17	80	105	15.5
		Total	284	276	335	345	356	395	448	454	467	463	451	100.0
		Localized	87	87	108	134	120	105	121	130	108	80	81	17.9
		Regional	25	18	16	24	23	41	25	17	13	14	12	2.6
C64	Kidney except renal pelvis	Distant	159	156	204	181	207	238	289	290	307	305	312	69.0
		Unknown	13	14	6	5	5	10	13	16	39	63	47	10.5
		Total	78	87	96	116	128	147	167	185	196	194	226	100.0
		Localized	47	49	53	59	63	68	76	101	94	73	94	41.7
		Regional	7	10	10	20	25	33	30	23	22	20	20	8.9
C66-68	Bladder, ureter, urethra	Distant	20	24	30	33	37	40	52	44	48	48	36	16.1
		Unknown	4	4	3	5	3	6	9	17	31	53	75	33.3
		Total	122	113	136	167	202	243	253	270	290	316	333	100.0
		Localized	75	72	92	106	144	185	211	226	194	145	149	44.9
		Regional	13	14	21	27	25	24	23	16	19	23	31	9.2
C70-72, D42-43	Central nervous system	Distant	20	18	18	22	21	21	12	17	16	25	19	5.8
		Unknown	14	10	6	12	11	13	7	11	61	123	133	40.1
		Total	116	115	128	123	172	206	237	280	344	472	566	100.0
		Non-malignant	44	50	61	52	72	88	115	154	201	314	396	70.0
		Malignant	72	65	68	71	100	117	122	127	143	158	170	30.0
C73	Thyroid gland	Total	60	56	71	97	119	145	137	140	121	135	164	100.0
		Localized	28	23	38	52	74	96	93	91	67	63	66	40.3
		Regional	20	19	23	29	30	32	32	33	38	40	50	30.6
		Distant	9	12	10	11	13	12	9	11	9	10	11	6.6
		Unknown	3	2	1	5	2	4	3	4	7	22	37	22.5

Table 16a Age-adjusted (world) incidence rates per 100 000 person-years for selected primary sites, stage and period of diagnosis 1954-2008

MALES

ICD10	Site	Stage	Period										
			1954-58	1959-63	1964-68	1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-03	2004-08
C00-14	Mouth, pharynx	Total	9.4	7.8	7.2	8.2	8.1	8.0	8.5	8.4	8.2	7.8	7.4
		Localized	6.5	5.3	5.1	5.3	5.4	4.8	5.3	4.8	3.9	2.5	2.3
		Regional	2.2	1.9	1.6	1.9	2.2	2.9	2.8	3.1	3.0	3.3	3.6
		Distant	0.1	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.4	0.4	0.4
		Unknown	0.5	0.4	0.3	0.6	0.2	0.1	0.1	0.2	0.8	1.6	1.1
C15	Oesophagus	Total	3.8	3.2	2.7	2.6	2.9	2.6	2.8	3.3	3.2	3.4	3.7
		Localized	2.2	1.9	1.6	1.2	1.4	1.2	1.1	1.3	1.1	0.6	0.7
		Regional	0.5	0.5	0.3	0.5	0.6	0.6	0.7	0.9	0.7	0.9	1.0
		Distant	0.7	0.6	0.6	0.7	0.7	0.7	0.8	1.0	0.9	1.1	1.0
		Unknown	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.6	0.8	1.0
C16	Stomach	Total	46.8	31.8	28.7	23.4	19.8	17.8	15.1	13.5	11.1	9.0	7.3
		Localized	12.8	8.3	7.6	5.5	5.5	5.2	4.7	4.5	2.7	1.4	1.2
		Regional	10.4	6.8	6.1	5.4	4.5	5.0	4.4	3.9	3.6	2.8	2.0
		Distant	18.2	14.2	12.5	10.6	8.7	6.7	5.5	4.5	3.8	3.3	2.4
		Unknown	5.4	2.4	2.5	1.9	1.1	0.9	0.6	0.6	1.0	1.4	1.7
C18	Colon	Total	11.4	10.6	12.6	12.7	14.9	17.7	20.2	22.8	23.6	25.0	25.9
		Localized	4.7	4.2	5.0	4.5	4.8	5.0	5.9	7.6	5.2	4.3	4.1
		Regional	2.8	2.8	3.1	3.2	5.1	7.5	8.2	8.2	11.1	12.0	13.4
		Distant	3.1	3.1	4.1	4.3	4.5	4.6	5.6	6.2	6.5	6.7	5.9
		Unknown	0.8	0.5	0.5	0.6	0.5	0.6	0.5	0.8	0.9	2.0	2.6
C19-21	Rectum, rectosigmoid, anus	Total	7.7	7.1	7.7	10.1	12.5	15.1	15.6	16.2	16.8	17.2	16.6
		Localized	3.8	3.4	3.7	4.5	5.9	6.7	6.5	7.2	6.3	4.5	3.5
		Regional	1.7	1.8	2.2	2.8	3.7	5.2	6.1	5.7	6.5	7.0	7.0
		Distant	1.5	1.4	1.5	2.3	2.6	2.8	2.7	3.0	3.2	3.7	2.8
		Unknown	0.7	0.5	0.3	0.5	0.3	0.3	0.3	0.4	0.8	2.1	3.2
C22	Liver	Total	0.9	1.0	1.2	1.6	1.8	1.8	2.1	1.9	1.6	2.2	2.2
		Localized	0.4	0.4	0.6	0.7	0.9	0.9	1.1	1.1	0.7	0.8	0.7
		Regional	0.1	0.0	0.0	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2
		Distant	0.3	0.4	0.5	0.7	0.7	0.5	0.6	0.3	0.3	0.5	0.5
		Unknown	0.1	0.1	0.0	0.2	0.1	0.2	0.2	0.3	0.4	0.7	0.8
C23-24	Gallbladder, bile ducts	Total	0.7	0.8	0.9	0.9	1.1	1.1	1.4	1.4	1.5	1.5	1.6
		Localized	0.4	0.3	0.3	0.3	0.3	0.3	0.6	0.4	0.3	0.3	0.2
		Regional	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.6
		Distant	0.2	0.3	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4
		Unknown	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.4	0.4	0.4
C25	Pancreas	Total	6.9	6.1	7.3	8.2	8.2	8.5	8.4	7.9	7.5	7.6	7.8
		Localized	2.0	1.8	2.0	1.6	1.3	1.5	1.6	1.6	0.8	0.5	0.4
		Regional	0.6	0.7	1.0	1.1	1.1	1.1	1.1	0.8	1.1	1.3	1.8
		Distant	3.6	3.2	4.0	4.7	5.1	4.9	4.6	4.2	3.7	4.2	4.4
		Unknown	0.6	0.4	0.3	0.8	0.7	0.9	1.1	1.3	2.0	1.6	1.2
C33-34	Lung, trachea	Total	11.8	14.0	17.8	22.0	26.9	31.3	35.1	35.7	36.9	36.6	35.7
		Localized	3.6	4.2	6.1	6.9	8.4	10.0	10.9	11.6	8.2	5.5	4.4
		Regional	2.4	3.0	3.7	4.3	5.2	5.9	7.9	6.9	8.8	9.4	10.5
		Distant	4.8	5.9	7.2	9.2	11.7	13.5	14.3	14.6	15.5	17.6	16.5
		Unknown	1.0	0.9	0.7	1.6	1.7	1.9	2.0	2.6	4.3	4.1	4.2
C43	Melanoma of the skin	Total	2.3	3.1	4.1	5.8	7.7	9.3	11.2	14.8	15.0	14.4	15.9
		Localized	1.3	2.0	2.7	3.9	6.3	7.7	9.6	12.6	12.2	8.4	6.0
		Regional	0.5	0.4	0.6	0.7	0.7	0.7	0.6	0.7	0.4	0.5	0.6
		Distant	0.3	0.6	0.7	0.7	0.5	0.7	0.6	0.9	0.7	1.1	0.7
		Unknown	0.2	0.1	0.1	0.5	0.1	0.3	0.3	0.6	1.6	4.4	8.6
C61	Prostate	Total	29.7	27.5	32.1	35.0	40.4	42.4	44.6	52.4	66.9	79.5	99.9
		Localized	17.4	16.3	21.6	22.4	27.2	28.4	29.1	35.5	36.1	28.8	42.7
		Regional	1.6	1.3	1.1	1.6	2.2	1.7	1.7	2.5	3.6	4.1	7.2
		Distant	7.8	7.4	7.4	7.7	8.5	9.7	12.3	10.8	9.8	8.9	7.7
		Unknown	2.9	2.5	2.0	3.3	2.5	2.6	1.4	3.6	17.4	37.8	42.3
C62	Testis	Total	3.3	3.6	3.6	4.4	4.9	5.8	6.9	8.3	9.2	10.5	11.3
		Localized	2.2	2.4	2.3	2.5	2.8	3.0	4.3	5.6	5.8	5.7	5.6
		Regional	0.1	0.2	0.2	0.6	1.0	1.6	1.6	1.5	1.5	1.6	1.9
		Distant	0.9	0.9	1.0	1.2	1.0	1.1	1.0	1.1	1.3	1.3	1.2
		Unknown	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.7	1.9	2.6
C64	Kidney except renal pelvis	Total	4.3	4.8	5.6	5.9	6.9	7.6	8.1	8.3	8.3	8.9	10.0
		Localized	2.3	2.5	2.9	2.5	2.9	3.3	3.7	4.3	3.9	3.7	4.2
		Regional	0.3	0.6	0.8	1.1	1.7	1.6	1.7	1.2	1.3	1.2	1.0
		Distant	1.5	1.5	1.7	2.1	2.3	2.5	2.5	2.3	2.1	2.1	2.2
		Unknown	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.5	1.1	2.0	2.7
C66-68	Bladder, ureter, urethra	Total	9.8	9.1	11.7	13.1	17.0	19.3	20.7	22.7	22.3	21.4	22.0
		Localized	7.4	7.5	9.9	10.4	14.0	16.4	18.0	20.2	17.1	11.4	10.5
		Regional	0.7	0.7	1.0	1.3	1.7	1.7	1.5	1.3	1.1	1.3	1.8
		Distant	1.1	0.6	0.6	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.8
		Unknown	0.6	0.3	0.2	0.6	0.4	0.4	0.4	0.4	3.4	7.8	8.9
C70-72, D42-43	Central nervous system	Total	7.0	6.2	6.9	7.0	7.8	8.5	9.6	9.9	10.7	13.2	13.8
		Non-malignant	1.7	1.9	1.7	2.1	2.1	2.4	2.7	3.2	4.5	5.7	6.6
		Malignant	5.3	4.4	5.2	5.0	5.7	6.1	7.0	6.7	6.3	7.4	7.1
C73	Thyroid gland	Total	0.9	1.0	1.2	1.5	1.5	1.7	1.5	1.7	1.6	1.7	1.9
		Localized	0.4	0.3	0.3	0.6	0.7	0.8	0.8	0.9	0.7	0.6	0.5
		Regional	0.3	0.5	0.6	0.5	0.5	0.7	0.5	0.5	0.5	0.7	0.9
		Distant	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.2
		Unknown	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3

Table 16b Age-adjusted (world) incidence rates per 100 000 person-years for selected primary sites, stage and period of diagnosis 1954-2008

FEMALES

ICD10	Site	Stage	Period										
			1954-58	1959-63	1964-68	1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-03	2004-08
C00-14	Mouth, pharynx	Total	2.9	2.2	2.3	2.3	2.2	2.6	2.9	2.9	3.4	3.3	4.0
		Localized	1.8	1.3	1.4	1.3	1.2	1.6	1.7	1.9	2.0	1.3	1.5
		Regional	0.8	0.6	0.8	0.8	0.8	0.9	1.0	0.8	0.9	1.1	1.6
		Distant	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		Unknown	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.8	0.8
C15	Oesophagus	Total	1.1	0.8	0.9	0.7	0.8	0.7	0.8	0.8	0.9	1.0	1.0
		Localized	0.7	0.5	0.6	0.4	0.4	0.3	0.4	0.4	0.4	0.2	0.2
		Regional	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.3
		Distant	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.3	0.2
		Unknown	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.3	0.3
C16	Stomach	Total	26.7	18.4	15.2	12.2	10.0	9.2	7.7	6.3	5.3	4.4	4.1
		Localized	7.5	4.7	4.0	2.5	2.5	2.7	2.5	2.2	1.4	0.8	0.7
		Regional	5.2	3.4	2.9	2.5	2.3	2.6	2.2	1.7	1.4	1.2	1.1
		Distant	10.1	8.0	6.7	6.1	4.5	3.3	2.7	2.1	2.0	1.7	1.4
		Unknown	3.9	2.3	1.5	1.1	0.7	0.6	0.3	0.3	0.5	0.7	0.8
C18	Colon	Total	11.1	10.5	11.9	13.0	15.2	17.6	18.7	19.8	22.2	22.8	23.2
		Localized	4.7	4.2	4.7	4.6	4.8	4.9	5.2	6.8	5.0	4.1	3.5
		Regional	2.5	2.7	2.9	3.8	5.4	7.5	8.1	7.5	10.7	11.2	12.3
		Distant	3.0	3.0	3.8	3.9	4.6	4.5	4.9	4.9	5.6	5.8	5.1
		Unknown	1.0	0.6	0.5	0.6	0.5	0.6	0.5	0.7	1.0	1.8	2.3
C19-21	Rectum, rectosigmoid, anus	Total	5.2	4.6	5.6	7.1	8.7	10.2	9.9	11.0	11.3	11.3	11.6
		Localized	2.5	2.2	2.7	3.3	4.0	4.7	4.4	5.4	4.3	3.4	2.6
		Regional	1.3	1.2	1.5	2.0	2.7	3.4	3.6	3.6	4.5	4.4	4.7
		Distant	1.0	0.9	1.2	1.6	1.9	1.8	1.8	1.8	1.9	2.1	1.9
		Unknown	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	1.4	2.4
C22	Liver	Total	0.5	0.6	0.5	0.8	0.8	1.0	1.0	1.1	0.8	1.1	1.1
		Localized	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.6	0.4	0.3	0.2
		Regional	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2
		Distant	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2
		Unknown	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.4	0.4
C23-24	Gallbladder, bile ducts	Total	1.8	1.7	1.6	1.5	1.4	1.7	1.6	1.5	1.5	1.5	1.4
		Localized	0.5	0.4	0.5	0.4	0.4	0.5	0.6	0.4	0.3	0.2	0.2
		Regional	0.3	0.3	0.2	0.2	0.3	0.4	0.4	0.3	0.3	0.3	0.4
		Distant	0.9	0.8	0.9	0.8	0.7	0.7	0.5	0.6	0.5	0.6	0.5
		Unknown	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.3
C25	Pancreas	Total	3.9	3.9	4.1	4.9	4.9	5.4	6.0	5.8	6.1	6.1	6.1
		Localized	1.2	1.0	1.3	1.1	1.0	1.0	1.3	1.3	0.7	0.4	0.4
		Regional	0.4	0.4	0.4	0.6	0.7	0.8	0.9	0.6	0.8	0.9	1.4
		Distant	1.9	2.2	2.1	2.7	2.9	3.1	3.1	2.8	3.0	3.2	3.2
		Unknown	0.4	0.3	0.2	0.6	0.4	0.6	0.7	1.0	1.6	1.5	1.1
C33-34	Lung, trachea	Total	3.1	2.8	3.4	4.9	5.7	7.7	10.3	14.0	17.0	20.8	23.6
		Localized	0.8	0.7	1.1	1.5	1.6	2.1	2.9	4.1	3.7	3.1	3.5
		Regional	0.4	0.3	0.5	0.8	0.9	1.2	2.1	2.9	3.7	5.0	6.4
		Distant	1.5	1.5	1.7	2.3	2.8	3.8	4.7	6.0	7.5	10.4	11.1
		Unknown	0.4	0.2	0.2	0.3	0.3	0.5	0.6	0.9	2.1	2.4	2.6
C43	Melanoma of the skin	Total	2.6	3.3	4.6	6.2	9.6	11.1	14.0	16.1	16.1	15.6	16.7
		Localized	1.9	2.6	3.7	4.8	8.8	10.1	13.0	15.0	13.6	10.1	6.9
		Regional	0.3	0.3	0.3	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.3
		Distant	0.2	0.2	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.4
		Unknown	0.1	0.1	0.2	0.5	0.1	0.3	0.2	0.4	1.8	4.6	9.1
C50	Breast	Total	43.9	39.0	42.4	44.7	49.8	51.5	53.4	56.0	66.3	74.4	74.7
		I	18.8	17.7	20.1	21.5	26.0	27.7	25.8	26.5	34.7	37.6	37.9
		II	17.3	14.4	14.3	15.0	15.3	16.1	19.6	21.9	25.6	30.9	32.0
		III	2.2	2.3	3.2	2.8	3.4	2.4	3.3	2.8	2.1	2.3	1.9
		IV	4.1	3.6	3.7	3.6	3.6	3.3	3.4	3.8	3.6	3.3	2.6
C53	Cervix uteri	Unknown	1.4	1.1	1.0	1.8	1.5	2.1	1.3	0.9	0.4	0.3	0.4
		Total	18.1	15.1	16.5	18.0	18.5	14.9	12.1	12.8	11.5	9.7	8.9
		I	7.0	6.7	8.4	10.4	11.5	9.4	7.3	8.1	7.5	6.3	5.2
		II	5.4	5.1	5.6	4.7	4.0	2.7	2.7	2.5	2.2	1.6	1.8
		III	3.8	2.1	1.6	2.0	2.1	1.7	1.4	1.2	1.0	0.9	0.6
C54	Corpus uteri	IV	1.4	1.0	0.8	0.7	0.8	0.6	0.6	0.9	0.7	0.7	0.8
		Unknown	0.6	0.3	0.2	0.2	0.1	0.4	0.1	0.1	0.1	0.2	0.5
		Total	8.1	7.8	8.7	10.1	11.5	12.5	11.9	13.3	13.4	14.9	16.5
		Localized	6.4	6.5	7.1	8.4	9.6	9.7	9.3	10.2	10.1	9.5	10.4
		Regional	0.5	0.4	0.5	0.5	0.9	1.5	1.2	1.4	1.3	1.7	1.7
C56	Ovary	Distant	0.8	0.8	1.0	1.0	0.9	1.0	1.2	1.5	1.7	1.9	2.0
		Unknown	0.3	0.2	0.0	0.2	0.1	0.3	0.2	0.1	0.3	1.9	2.3
		Total	12.6	11.2	12.5	12.7	12.7	13.3	13.9	13.8	13.4	12.5	11.4
		Localized	4.0	3.8	4.3	5.1	4.6	3.8	4.1	4.3	3.6	2.6	2.4
		Regional	1.1	0.7	0.6	0.9	0.8	1.4	0.8	0.5	0.3	0.3	0.3
C64	Kidney except renal pelvis	Distant	6.9	6.2	7.5	6.4	7.1	7.9	8.8	8.6	8.7	8.1	7.7
		Unknown	0.6	0.5	0.2	0.2	0.2	0.3	0.2	0.3	0.8	1.5	1.0
		Total	3.4	3.2	3.3	3.6	3.9	4.1	4.3	4.6	4.7	4.5	5.2
		Localized	2.0	1.8	1.9	1.8	2.0	2.0	2.0	2.6	2.6	1.9	2.4
		Regional	0.3	0.4	0.3	0.7	0.7	0.9	0.8	0.7	0.6	0.4	0.5
C66-68	Bladder, ureter, urethra	Distant	0.8	0.9	1.0	0.9	1.1	1.1	1.3	1.0	1.1	1.0	0.8
		Unknown	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	1.1	1.6
		Total	4.6	3.8	4.1	4.5	5.1	5.7	5.6	5.9	5.9	6.4	6.4
		Localized	2.8	2.4	2.8	2.9	3.6	4.3	4.7	5.0	4.1	3.2	3.0
		Regional	0.5	0.5	0.6	0.7	0.6	0.6	0.5	0.4	0.4	0.5	0.6
C70-72, D42-43	Central nervous system	Distant	0.8	0.6	0.5	0.6	0.6	0.5	0.3	0.3	0.4	0.5	0.4
		Unknown	0.5	0.3	0.2	0.3	0.3	0.3	0.1	0.2	1.0	2.2	2.4
		Total	5.8	5.3	5.6	5.3	7.0	8.0	8.8	9.7	11.4	14.8	16.7
		Non-malignant	2.1	2.2	2.5	2.1	2.9	3.2	3.9	4.9	6.3	9.5	11.4
		Malignant	3.7	3.1	3.1	3.2	4.2	4.8	4.8	4.8	5.1	5.3	5.4
C73	Thyroid gland	Total	2.5	2.3	2.8	3.8	4.7	5.2	5.0	4.9	4.0	4.4	5.1
		Localized	1.2	1.0	1.6	2.2	3.1	3.7	3.6	3.3	2.4	2.2	2.2
		Regional	0.9	0.8	0.9	1.1	1.2	1.2	1.1	1.2	1.2	1.3	1.6
		Distant	0.4	0.4	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.2	0.2
		Unknown	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.6	1.1

Table 17 Number of cancer deaths in Norway by primary site and sex - 2007

ICD-10	Site	Males	Females	Total
C00-96	All sites	5655	5012	10667
C00-14	Mouth, pharynx	93	54	147
C00	Lip	1		1
C01-02	Tongue	16	15	31
C03-06	Mouth, other	21	18	39
C07-08	Salivary glands	6	12	18
C09-14	Pharynx	49	9	58
C15-26	Digestive organs	1572	1537	3109
C15	Oesophagus	141	39	180
C16	Stomach	219	166	385
C17	Small intestine	29	24	53
C18	Colon	536	610	1146
C19-21	Rectum, rectosigmoid, anus	194	203	397
C22	Liver	78	66	144
C23-24	Gallbladder, bile ducts	40	40	80
C25	Pancreas	309	350	659
C26	Other digestive organs	26	39	65
C30-34, C38	Respiratory organs	1265	886	2151
C30-31	Nose, sinuses	3	1	4
C32	Larynx, epiglottis	29	5	34
C33-34	Lung, trachea	1224	876	2100
C38	Mediastinum, pleura (non-mesothelioma)	9	4	13
C40-41	Bone	12	17	29
C43	Melanoma of the skin	177	98	275
C44	Skin, non-melanoma	22	15	37
C45	Mesothelioma	51	17	68
C46	Kaposi's sarcoma	1	1	2
C47	Autonomic nervous system	1		1
C48-49	Soft tissues	25	42	67
C50	Breast	4	662	666
C51-58	Female genital organs		642	642
C53	Cervix uteri		84	84
C54	Corpus uteri		85	85
C55	Uterus, other		69	69
C56	Ovary		351	351
C51-52, C57	Other female genital		53	53
C58	Placenta			
C60-63	Male genital organs	1107		1107
C61	Prostate	1090		1090
C62	Testis	14		14
C60, C63	Other male genital	3		3
C64-68	Urinary organs	404	217	621
C64	Kidney excl. renal pelvis	158	90	248
C65	Renal pelvis	4	4	8
C66-68	Bladder, ureter, urethra	242	123	365
C69	Eye	2	2	4
C70-72, D42-43	Central nervous system	174	132	306
C73	Thyroid gland	16	21	37
C37, C74-75	Other endocrine glands	13	13	26
C39, C76, C80	Other or unspecified	188	240	428
C81-96	Lymphoid and haematopoietic tissue	528	416	944
C81	Hodgkin lymphoma	6	6	12
C82-85, C96	Non-Hodgkin lymphoma	170	143	313
C88	Malignant immunoproliferative diseases	6	5	11
C90	Multiple myeloma	121	101	222
C91-95	Leukaemia	225	161	386

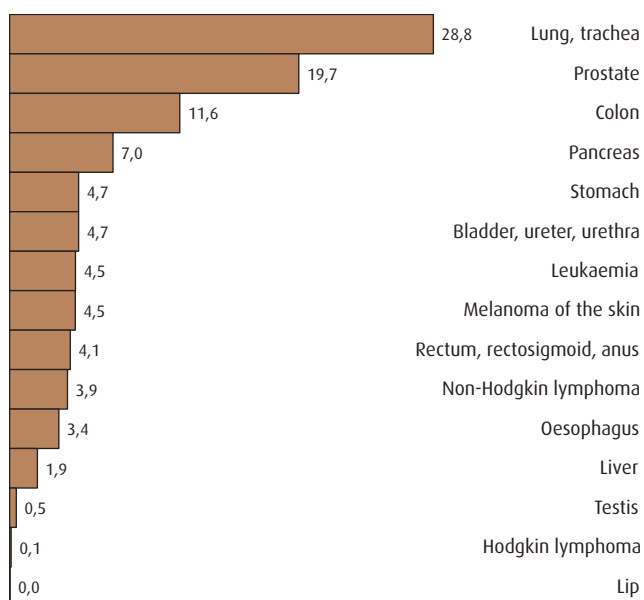
Mortality

There were 10 667 deaths from cancer in Norway in 2007, of which 5655 were among men and 5012 among women (Table 17). Cancers of the lung, colorectal, prostate and female breast account for about half of the total cancer mortality. As previously, lung mortality cancer ranked first in men in terms of cancer mortality numbers, responsible for 1224 deaths, followed by prostate cancer (1090 deaths) and colorectal cancer (730 deaths). For females, lung cancer mortality (876 deaths) has surpassed those from colorectal cancer (813 deaths), with breast cancer the third most frequent cause of cancer death (662 deaths). Figure 8 shows the distribution of age-standardised mortality rates for selected cancer site. There is at least a 100-fold variation in rates across these cancers, with lung cancer the leading cause of cancer death in both sexes. Given the very poor prognosis associated with pancreatic cancer, the disease ranks among the top 5 causes of cancer death among both men and women.

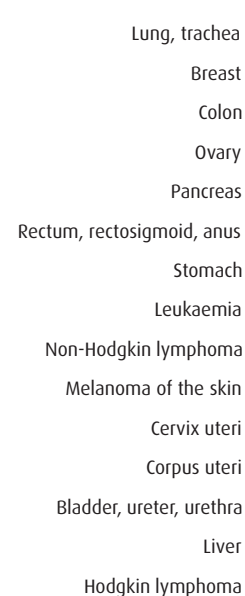
The *Trends* section in this report examines the mortality time trends in relation to those of incidence and survival for 23 cancers.

Figure 8: Age-standardised (world) mortality rates in Norway 2007 for selected cancers
(Source: Statistics Norway)

MALES



FEMALES



Survival

Long-term estimates of survival are becoming increasingly relevant as life expectancy amongst cancer patients increases and cancer care continues to advance (Brenner and Hakulinen, 2002). Given that cancer patients survive longer, there is a need to communicate information not only on prognosis at the time of diagnosis, but for a period of time thereafter, among those who survive their cancer diagnosis (Janssen-Heijnen et al, 2007). Figures 9-A to 9-X overleaf aims to depict these two aspects of cancer survival in Norway for all cancers combined and for 23 specific cancer types. Relative survival estimates are presented by sex and age, 1 to 15 years after diagnosis, with age strata determined cancer-specifically according to relevant biological and/or clinical criteria. Table 18 provides the 5-year relative survival estimates (with 95% confidence intervals) over the last four decades by stage, as well as for cancer site and sex. Table 19 gives the 1-, 5-, 10- and 15-year relative survival estimates for the follow-up period 2006-8 by cancer site and sex.

For some sites, these cumulative survival curves tend to level off a certain number of years after diagnosis, indicative that from this point forward, the cancer patient group has a similar mortality to the group without cancer, or in other words, statistical cure is reached (Lambert, 2007). This concept – involving attributes of survival observed among patients as a group – should be distinguished from clinical cure, as is determined on the basis of a lack of specific symptoms in the individual.

Estimates of 5-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 beyond their initial diagnosis. When conditional 5-year relative survival reaches beyond 90-95%, we commonly say that there is little or no excess mortality among the cancer patients, with mortality equivalent to that experienced in the general population, analogous to the notion of 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 captured in Figure 9-A. The levelling-off of the 5-year relative survival occurs some 8 to 10 years after diagnosis, while the attainment of 5-year conditional relative survival estimates of 90-95% is reached in patients alive 3-5 years after diagnosis. Cure appears to be attained more rapidly in women than men. As was

mentioned in the Trends section, the combined-cancer estimates are an aggregate of many different cancer forms with contrasting diagnostic and treatment capacities, and sex-specific survival estimates will be particularly influenced by PSA testing for prostate cancer and mammographic screening for breast cancer, respectively.

The cumulative 5-year relative survival described by cancer site, sex and age, and 5-year conditional relative survival by site and age (Figures 9-B to 9-X) are fairly self-explanatory and highlight the wide variations in patient survival according to these three variables. The 90 percentage point difference in 5-year survival among patients with testicular or pancreatic cancer strikingly illustrates the wide differential in prognosis according to the type of cancer diagnosed. Long-term survival following diagnoses of melanoma and cancers of the oral cavity, bladder, central nervous system and thyroid clearly varies in men and women, and contributing factors may be biological or anatomical, or may relate to sex-specific differences in stage at presentation, subsite or histological distribution, or 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 the likes of colon cancer relative to, for example, ovarian cancer or leukaemia. For certain cancers including breast and prostate cancer, long-term survival among patients diagnosed aged under 50 is actually lower than for patients diagnosed aged 50-59. This in part represents the diagnosis of more aggressive tumours in the younger age group, and possibly the impact of screening on the older group.

The Figures also illustrate a very positive aspect of cancer survival; cancer patients who are alive for a certain time after diagnosis begin to have very good prospects of surviving their cancer and becoming cured. In fact, for about two-thirds of the cancer types diagnosed in Norway, the 5-year conditional relative survival reaches 90% 2-5 years after diagnosis. This means that in general terms, 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; 5-year conditional survival from breast reaches 90% 2 years after diagnosis (Figure 9-L) and slowly increases to 95% 10 years from diagnosis. As is evident from the continual declines in long-term breast cancer survival by age however, the cancer represents a disease for which a proportion may be considered cured long-term, but for which there remains a group of survivors with a persistent excess mortality.

Table 18a Five-year relative survival (%) by primary site, stage and period of diagnosis 1969-2008

MALES

ICD10	Site	Stage	Relative survival (%)							
			1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-03	2004-08
C00-96	All sites	Total	27.9	32.8	36.1	38.9	42.8	48.0	54.2	63.5
C00-14	Mouth, pharynx	Total	59.6	64.4	60.6	58.2	55.4	57.0	57.1	59.4
		Localized	78.7	83.0	81.3	79.8	75.1	78.4	81.2	81.9
		Regional	20.6	25.5	27.7	24.4	28.4	32.8	39.9	47.3
		Distant	3.3	14.6	10.6	0.0	5.1	16.8	14.5	11.6
		Unknown	65.0	36.7	38.7	17.8	60.6	52.1	56.9	67.3
C15	Oesophagus	Total	2.5	3.4	2.7	4.3	5.2	5.1	8.6	8.4
		Localized	4.2	3.6	3.1	5.0	8.2	10.9	19.5	21.3
		Regional	0.4	5.7	3.5	9.7	5.2	5.3	9.6	10.8
		Distant	0.4	0.0	0.3	0.0	0.9	0.0	2.3	0.2
		Unknown	0.0	15.0	4.5	0.0	11.9	0.0	7.2	6.0
C16	Stomach	Total	10.7	14.4	15.9	16.4	17.7	17.1	17.8	20.0
		Localized	33.8	39.7	37.7	38.2	36.1	40.1	56.0	57.8
		Regional	12.2	16.3	19.7	20.1	20.0	19.0	20.7	21.8
		Distant	1.5	1.5	0.9	1.0	0.6	0.5	1.5	1.3
		Unknown	2.2	8.0	2.0	1.7	6.5	5.6	15.4	22.4
C18	Colon	Total	33.7	40.3	44.8	47.3	47.3	51.2	54.0	58.1
		Localized	64.6	69.5	72.8	77.6	77.3	83.8	89.5	86.3
		Regional	37.3	47.0	54.2	56.9	55.9	63.1	68.7	70.6
		Distant	4.5	5.1	5.6	4.0	4.1	4.4	6.1	9.6
		Unknown	6.5	26.9	17.4	11.0	10.4	15.0	49.6	62.5
C19-21	Rectum, rectosigmoid, anus	Total	29.3	36.1	41.6	45.6	46.7	52.7	57.0	61.3
		Localized	50.8	58.6	61.7	66.6	66.9	75.0	85.7	85.6
		Regional	20.2	25.2	38.5	41.9	45.6	53.3	63.4	69.6
		Distant	3.0	4.0	3.8	2.8	3.2	5.4	8.8	12.3
		Unknown	19.5	8.9	12.7	30.8	38.0	28.7	45.9	58.7
C22	Liver	Total	0.0	1.3	1.8	1.2	3.3	3.0	5.5	7.4
		Localized	0.0	3.4	2.1	2.8	4.2	7.3	14.6	17.1
		Regional	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
		Distant	0.0	0.0	0.8	0.0	0.0	0.1	0.0	1.2
		Unknown	0.0	0.0	0.0	0.0	4.5	0.6	2.3	3.1
C23-24	Gallbladder, bile ducts	Total	2.2	5.1	6.6	9.8	8.8	8.1	13.2	15.0
		Localized	3.6	9.2	11.7	17.5	14.5	27.4	24.2	34.8
		Regional	4.7	13.6	14.3	14.0	19.3	13.5	24.6	16.8
		Distant	0.6	0.0	0.7	1.5	0.5	1.7	1.2	3.2
		Unknown	0.0	0.0	0.0	5.2	5.6	0.0	9.1	8.5
C25	Pancreas	Total	1.0	1.0	0.9	1.1	1.6	1.7	2.3	4.6
		Localized	4.7	3.8	2.2	1.7	2.7	5.5	7.2	20.1
		Regional	2.7	2.4	3.7	2.9	4.8	6.3	6.0	8.1
		Distant	0.1	0.2	0.1	0.4	0.5	0.4	1.4	1.5
		Unknown	0.0	1.1	3.0	3.0	2.2	1.3	1.6	5.6
C33-34	Lung, trachea	Total	7.7	6.8	7.6	7.7	7.4	8.1	8.2	11.0
		Localized	18.9	16.4	16.9	19.0	15.2	22.3	32.1	44.1
		Regional	10.1	8.8	10.8	8.4	11.5	9.4	9.8	13.1
		Distant	0.6	0.6	0.8	0.5	0.7	0.6	0.6	1.2
		Unknown	2.9	2.3	4.0	2.5	3.1	7.0	6.5	13.3
C43	Melanoma of the skin	Total	54.8	62.7	70.9	70.9	76.9	79.1	78.4	76.8
		Localized	66.4	72.4	79.9	79.6	85.4	85.6	87.9	87.2
		Regional	33.7	30.6	34.4	27.3	37.9	33.1	38.6	44.4
		Distant	9.2	6.6	10.5	0.4	8.0	12.7	10.5	6.5
		Unknown	65.7	55.1	57.1	56.3	41.0	69.2	77.4	77.1
C61	Prostate	Total	48.7	53.4	54.9	56.7	58.0	66.4	77.5	85.2
		Localized	61.2	66.5	70.1	72.4	70.8	77.3	92.0	96.4
		Regional	40.9	37.8	37.5	42.3	57.9	71.6	78.6	81.8
		Distant	17.6	19.2	18.5	19.9	24.4	24.5	23.9	30.3
		Unknown	50.9	41.1	35.7	42.7	52.0	65.0	81.1	86.6
C62	Testis	Total	67.6	70.7	87.1	93.1	95.5	96.2	95.7	97.2
		Localized	85.3	88.0	96.0	98.3	98.5	100.0	98.5	99.2
		Regional	78.5	70.1	94.1	95.7	94.8	98.8	95.4	98.0
		Distant	21.7	27.3	51.4	74.0	80.9	75.3	82.8	84.0
		Unknown	75.9	24.5	87.1	44.7	98.3	86.3	97.0	98.1
C64	Kidney except renal pelvis	Total	33.3	36.2	36.6	41.5	42.5	48.1	53.0	61.3
		Localized	61.3	70.0	66.2	71.9	67.7	73.9	80.0	85.5
		Regional	32.7	43.7	44.7	47.4	50.0	52.7	56.1	52.9
		Distant	4.5	4.1	4.7	4.7	5.3	5.0	7.3	8.7
		Unknown	27.3	21.1	27.9	28.0	28.8	27.9	56.9	70.7
C66-68	Bladder, ureter, urethra	Total	55.1	61.0	66.2	68.2	71.2	70.8	72.3	74.1
		Localized	63.9	70.8	74.9	75.5	77.3	77.7	84.5	85.3
		Regional	14.5	21.0	25.5	25.1	27.3	21.9	31.0	25.5
		Distant	5.9	4.3	1.0	2.8	8.6	3.4	5.2	4.9
		Unknown	45.2	31.5	24.9	42.5	50.1	61.7	68.7	75.4
C70-72, D42-43	Central nervous system	Total	25.3	26.5	34.0	38.5	42.6	49.5	53.2	62.6
		Non-malignant	53.8	47.9	63.7	76.6	72.9	86.9	91.9	94.6
		Malignant	14.5	18.4	23.4	24.6	30.2	27.6	24.6	31.6
C73	Thyroid gland	Total	64.9	78.8	76.2	79.1	79.2	74.3	86.5	82.6
		Localized	96.3	89.5	94.5	90.1	93.1	99.5	98.7	98.0
		Regional	65.9	81.2	80.5	88.4	87.0	79.3	91.3	83.4
		Distant	13.2	31.1	14.3	16.7	16.7	19.7	34.1	28.2
		Unknown	0.0	22.0	6.2	133.7	52.3	22.0	86.5	94.9
C81	Hodgkin lymphoma	Total	44.2	49.4	63.2	66.8	82.9	85.1	89.2	90.0
C82-85, C96	Non-Hodgkin lymphoma	Total	28.4	34.5	43.4	43.8	47.1	51.7	54.7	65.8
C91-95	Leukaemia	Total	12.7	19.8	22.6	27.6	37.7	41.9	50.0	54.9

Table 18b Five-year relative survival (%) by primary site, stage and period of diagnosis 1969-2008

FEMALES

ICD10	Site	Stage	Relative survival (%)							
			1969-73	1974-78	1979-83	1984-88	1989-93	1994-98	1999-03	2004-08
C00-96	All sites	Total	40.7	44.9	48.2	50.1	53.8	56.8	61.2	66.7
C00-14	Mouth, pharynx	Total	55.8	57.6	60.7	56.6	64.0	63.1	60.3	70.2
		Localized	68.8	73.3	78.2	73.4	76.0	80.0	84.1	84.5
		Regional	35.2	39.9	36.3	35.8	44.6	37.8	40.1	55.3
		Distant	19.6	22.7	21.4	11.4	13.8	9.6	5.4	24.7
		Unknown	85.9	45.7	46.4	42.2	26.4	56.0	54.3	79.0
C15	Oesophagus	Total	3.5	5.7	8.7	8.4	6.4	9.8	7.7	12.4
		Localized	4.2	4.8	16.6	7.0	12.2	11.9	24.8	23.8
		Regional	4.1	11.8	7.9	11.4	4.0	11.7	2.7	9.6
		Distant	0.0	0.5	0.0	3.4	0.0	0.0	0.0	8.7
		Unknown	0.0	0.0	0.0	18.0	0.0	16.4	5.9	9.1
C16	Stomach	Total	9.5	12.7	16.2	19.2	21.7	20.5	22.3	21.9
		Localized	29.9	33.7	42.3	39.8	39.2	45.4	67.0	57.6
		Regional	13.5	17.7	17.8	19.8	25.9	24.1	28.6	25.5
		Distant	1.0	2.3	0.8	1.0	1.4	0.7	2.2	3.3
		Unknown	2.0	5.8	4.0	7.2	11.9	13.2	12.6	20.8
C18	Colon	Total	37.6	39.4	45.3	47.8	52.0	55.3	56.0	61.7
		Localized	64.1	71.0	73.6	77.8	81.0	88.2	87.8	91.0
		Regional	43.1	42.8	56.8	56.9	60.0	65.3	68.5	73.1
		Distant	4.2	4.6	4.0	4.0	4.5	6.4	8.1	10.7
		Unknown	17.8	21.0	18.8	9.3	20.6	24.3	49.0	65.7
C19-21	Rectum, rectosigmoid, anus	Total	33.3	43.1	45.8	48.5	53.6	57.5	60.6	66.4
		Localized	55.6	68.4	68.6	71.2	72.8	78.2	90.0	90.9
		Regional	21.1	30.9	39.1	44.0	51.9	57.8	64.5	71.9
		Distant	3.3	4.1	6.3	4.1	5.9	4.5	7.5	12.5
		Unknown	31.1	21.0	15.9	18.4	26.9	47.3	49.0	68.9
C22	Liver	Total	2.5	2.0	1.7	2.2	6.3	6.7	8.5	10.9
		Localized	6.5	1.9	6.3	4.2	11.4	11.2	21.0	25.3
		Regional	0.0	0.0	0.0	0.0	5.7	12.9	5.5	3.8
		Distant	0.5	0.0	0.0	0.0	0.3	2.2	0.0	0.0
		Unknown	0.0	0.0	0.0	0.0	2.4	4.0	6.6	9.5
C23-24	Gallbladder, bile ducts	Total	3.6	6.2	7.6	8.7	7.4	7.6	11.7	10.8
		Localized	14.8	20.7	23.7	17.1	18.8	26.0	30.5	20.1
		Regional	9.2	17.0	5.5	15.8	13.7	11.5	24.9	21.6
		Distant	0.4	0.0	0.0	0.0	0.0	0.0	1.2	0.0
		Unknown	0.0	0.0	22.0	4.1	2.7	1.7	11.2	5.3
C25	Pancreas	Total	1.2	1.0	1.0	1.6	1.9	2.3	2.3	3.1
		Localized	4.2	5.3	2.6	2.1	5.2	10.0	10.0	11.6
		Regional	4.2	1.2	3.7	5.9	5.8	5.9	3.3	4.6
		Distant	0.2	0.2	0.3	0.5	0.2	0.7	0.5	1.1
		Unknown	0.0	0.0	0.0	1.9	1.6	1.5	3.6	3.9
C33-34	Lung, trachea	Total	11.5	9.4	11.2	6.6	10.3	10.2	13.3	14.3
		Localized	28.1	27.2	27.3	20.9	22.2	30.6	50.2	52.2
		Regional	12.0	15.6	15.0	4.9	14.4	11.3	13.7	15.9
		Distant	1.8	0.7	1.4	0.2	1.6	0.9	2.4	1.8
		Unknown	15.3	3.4	11.5	8.1	5.1	4.5	14.3	16.9
C43	Melanoma of the skin	Total	78.0	79.5	84.0	86.6	88.6	89.4	89.1	88.8
		Localized	87.2	85.9	89.5	91.1	92.7	93.6	95.1	93.6
		Regional	37.5	35.4	40.4	51.0	35.5	54.6	54.6	55.1
		Distant	25.4	18.0	12.5	6.4	12.1	18.2	15.5	21.9
		Unknown	76.3	50.6	71.5	67.0	67.0	81.1	88.9	90.3
C50	Breast	Total	65.2	68.4	72.0	73.7	75.3	78.4	84.4	87.8
		I	84.7	85.0	86.4	86.8	88.1	89.9	93.3	95.2
		II	55.2	58.7	62.1	67.2	73.2	76.2	81.8	86.8
		III	38.9	47.6	51.6	48.7	54.5	59.2	65.0	68.4
		IV	11.8	14.6	14.0	14.5	17.9	17.7	17.3	17.8
C53	Cervix uteri	Total	68.1	70.9	69.6	67.8	67.6	72.0	73.5	77.5
		I	86.4	89.6	87.2	86.3	83.9	88.1	92.6	93.9
		II	60.9	65.3	62.4	58.5	58.4	59.0	61.0	71.4
		III	33.4	28.6	34.1	30.3	27.2	33.1	37.2	47.3
		IV	6.1	11.0	6.8	10.0	20.8	18.7	8.7	21.4
C54	Corpus uteri	Total	71.7	76.8	77.1	75.7	76.9	79.7	82.9	83.2
		Localized	82.2	83.9	87.1	86.3	86.6	88.5	94.5	92.1
		Regional	31.6	57.4	60.6	59.2	64.2	75.8	73.6	76.5
		Distant	14.8	25.2	18.4	24.2	28.6	37.3	34.7	43.4
		Unknown	56.8	43.1	42.1	27.6	27.4	36.5	73.3	84.1
C56	Ovary	Total	37.2	39.0	39.0	37.0	38.2	40.9	45.9	44.2
		Localized	72.1	72.3	79.9	82.3	81.0	87.2	90.7	91.1
		Regional	42.2	43.4	44.5	51.0	47.8	46.3	57.7	75.0
		Distant	13.8	15.7	19.7	16.6	18.4	22.5	29.4	28.1
		Unknown	22.8	24.8	49.7	24.6	17.8	24.8	58.7	52.4
C64	Kidney except renal pelvis	Total	40.7	40.2	41.4	44.3	51.1	50.4	52.8	66.9
		Localized	64.9	67.1	69.0	73.1	76.6	79.3	84.4	86.9
		Regional	54.6	38.9	50.8	48.2	48.4	51.7	44.3	46.3
		Distant	3.5	4.8	2.6	7.5	7.0	3.7	8.3	12.6
		Unknown	14.3	0.0	0.0	9.9	25.0	20.8	55.8	71.2
C66-68	Bladder, ureter, urethra	Total	44.3	48.8	53.6	60.1	62.3	59.7	62.5	66.2
		Localized	61.4	63.4	67.5	69.7	72.0	71.0	83.8	80.9
		Regional	13.3	15.9	13.9	15.1	13.9	25.7	27.1	19.8
		Distant	4.0	5.3	3.6	4.8	2.8	3.9	4.2	3.0
		Unknown	43.0	14.6	19.4	25.0	33.3	44.4	55.7	68.5
C70-72, D42-43	Central nervous system	Total	33.1	37.5	43.9	50.7	59.7	61.7	69.3	77.5
		Non-malignant	58.7	72.1	77.1	84.9	84.2	88.8	91.9	95.5
		Malignant	16.0	16.5	20.6	24.1	34.8	29.8	29.2	35.3
C73	Thyroid gland	Total	74.8	82.0	84.8	88.0	89.5	89.1	91.2	92.5
		Localized	86.0	95.3	94.4	95.9	97.3	98.7	101.6	101.0
		Regional	75.0	80.3	81.2	85.4	85.9	85.4	87.9	89.3
		Distant	21.1	10.1	16.0	7.3	17.2	34.8	33.5	39.0
		Unknown	83.6	66.0	88.1	78.7	95.9	46.2	89.3	90.4
C81	Hodgkin lymphoma	Total	55.3	44.4	66.8	69.9	75.3	85.6	89.3	84.7
C82-85, C96	Non-Hodgkin lymphoma	Total	31.2	41.7	45.3	49.2	54.0	54.2	59.4	65.2
C91-95	Leukaemia	Total	12.3	19.1	23.8	28.5	34.4	46.6	48.5	55.2

There is also a spectrum of cancers associated with particularly poor survival on diagnosis, and for which cure is not indicated, including cancers of the oesophagus, liver and pancreas.

Table 18 describes the stage-specific relative survival, 5 years after diagnosis for selected cancers in consecutive 5-year periods of follow-up 1969 to 2008. While the stage-specific count of cases by 5-year period of diagnosis in Tables 15a and b are not equivalent to the size of patient groups used in the survival calculations,

the underlying 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. Caution is generally required in interpreting cancer-specific incidence and survival according to stage, particularly given the time-varying proportion of staging recorded as unknown. A visual description of survival trends in colon, breast and prostate cancer by stage was given in the Special Issue included in *Cancer in Norway 2007*.

Table 19: 1-, 5-, 10-, and 15-year relative survival by cancer site and sex 2006-8

Cancer site	Sex	1-year	5-year	10-year	15-year
Mouth, pharynx	Males	81.9 (79.3, 84.3)	60.7 (57.0, 64.2)	51.0 (46.7, 55.2)	44.9 (40.0, 50.1)
	Females	85.6 (82.5, 88.3)	72.0 (67.2, 76.4)	64.8 (58.3, 71.2)	58.8 (50.7, 67.0)
Oesophagus	Males	37.8 (33.8, 41.8)	8.9 (6.4, 11.8)	7.2 (4.7, 10.6)	5.5 (2.7, 10.1)
	Females	36.0 (29.7, 42.3)	12.9 (8.4, 18.5)	10.3 (5.5, 17.1)	11.5 (5.3, 21.4)
Stomach	Males	46.6 (43.7, 49.5)	23.4 (20.6, 26.3)	20.9 (17.8, 24.4)	19.0 (15.3, 23.1)
	Females	44.2 (40.9, 47.5)	23.4 (20.3, 26.7)	20.9 (17.4, 24.7)	16.7 (12.9, 21.1)
Colon	Males	77.2 (75.8, 78.5)	59.5 (57.5, 61.4)	55.2 (52.6, 57.9)	56.5 (52.8, 60.3)
	Females	78.5 (77.2, 79.7)	62.6 (60.8, 64.3)	57.5 (55.2, 59.9)	55.5 (52.4, 58.6)
Rectum etc	Males	84.1 (82.5, 85.6)	61.8 (59.4, 64.2)	56.9 (53.7, 60.0)	55.5 (51.2, 60.0)
	Females	83.6 (81.8, 85.2)	66.3 (63.7, 68.8)	61.1 (57.8, 64.4)	59.1 (54.9, 63.4)
Liver	Males	27.3 (22.9, 31.8)	9.7 (6.0, 14.4)	9.8 (5.5, 15.8)	13.4 (7.5, 21.8)
	Females	32.9 (26.9, 39.1)	10.4 (6.5, 15.5)	11.6 (6.9, 17.9)	15.4 (9.2, 23.8)
Gallbladder	Males	44.1 (37.7, 50.3)	14.9 (10.2, 20.6)	16.1 (10.2, 23.6)	20.3 (12.0, 31.3)
	Females	37.6 (32.2, 43.1)	11.6 (7.7, 16.5)	11.0 (6.8, 16.7)	10.9 (6.1, 17.7)
Pancreas	Males	18.3 (16.4, 20.3)	5.7 (4.4, 7.3)	4.5 (2.8, 6.7)	3.0 (1.2, 6.3)
	Females	18.0 (16.0, 20.0)	3.1 (2.2, 4.3)	2.9 (1.9, 4.3)	1.9 (1.0, 3.5)
Lung, trachea	Males	35.2 (34.0, 36.4)	11.7 (10.7, 12.7)	8.6 (7.6, 9.7)	7.7 (6.5, 9.0)
	Females	40.4 (38.9, 41.9)	14.9 (13.7, 16.2)	11.4 (10.1, 12.8)	8.4 (7.0, 10.0)
Melanoma of the skin	Males	92.6 (91.2, 93.8)	77.8 (75.4, 80.1)	73.7 (70.7, 76.7)	72.6 (68.9, 76.2)
	Females	96.9 (95.9, 97.7)	90.7 (88.8, 92.4)	88.0 (85.5, 90.4)	86.8 (83.8, 89.8)
Breast	Females	97.5 (97.1, 97.8)	88.3 (87.5, 89.2)	81.2 (80.0, 82.4)	77.0 (75.3, 78.6)
Uterine cervix	Females	89.8 (87.9, 91.5)	77.3 (74.5, 79.9)	75.1 (71.9, 78.1)	73.8 (70.2, 77.2)
Uterine corpus	Females	92.6 (91.4, 93.7)	83.5 (81.5, 85.4)	81.8 (79.1, 84.4)	80.3 (76.7, 83.8)
Ovary	Females	75.8 (73.7, 77.8)	43.9 (41.4, 46.4)	37.6 (34.9, 40.3)	36.8 (33.7, 39.9)
Prostate	Males	97.8 (97.4, 98.2)	87.1 (86.1, 88.1)	76.0 (74.3, 77.8)	63.7 (60.5, 66.9)
Testis	Males	98.4 (97.5, 99.1)	97.2 (95.8, 98.2)	96.5 (94.8, 97.9)	95.9 (93.7, 97.7)
Kidney	Males	80.1 (77.7, 82.2)	62.8 (59.6, 65.9)	56.1 (51.7, 60.4)	51.3 (45.6, 57.3)
	Females	82.4 (79.6, 84.9)	69.6 (65.5, 73.6)	61.7 (56.1, 67.2)	55.3 (48.1, 62.7)
Bladder etc	Males	88.0 (86.7, 89.2)	74.9 (72.7, 77.0)	69.3 (66.2, 72.3)	67.6 (63.4, 71.8)
	Females	79.3 (76.8, 81.6)	65.6 (62.1, 69.0)	65.8 (61.2, 70.4)	61.7 (55.7, 68.0)
CNS	Males	77.0 (74.8, 78.9)	63.2 (60.5, 65.8)	60.8 (57.5, 64.0)	58.9 (54.8, 62.9)
	Females	85.5 (83.9, 87.0)	77.0 (74.8, 79.1)	76.7 (73.9, 79.4)	75.4 (71.6, 79.1)
Thyroid gland	Males	87.3 (82.6, 91.0)	79.0 (72.4, 84.7)	76.4 (68.0, 83.8)	78.7 (68.2, 88.2)
	Females	93.1 (90.6, 95.0)	94.6 (91.5, 97.1)	92.0 (87.6, 95.9)	93.2 (87.7, 98.2)
Hodgkin Lymphoma	Males	93.7 (89.9, 96.2)	89.4 (84.4, 93.2)	87.8 (81.9, 92.6)	86.5 (79.5, 92.3)
	Females	91.2 (86.2, 94.5)	86.2 (79.7, 91.3)	86.1 (78.7, 92.2)	85.2 (76.4, 92.4)
Non-Hodgkin Lymphoma	Males	77.6 (75.5, 79.5)	67.5 (64.6, 70.3)	61.7 (57.9, 65.5)	56.3 (51.4, 61.2)
	Females	80.8 (78.6, 82.8)	67.7 (64.5, 70.6)	60.7 (56.7, 64.6)	58.3 (53.2, 63.5)
Leukemia	Males	71.6 (68.9, 74.2)	55.9 (52.4, 59.3)	45.9 (41.8, 50.1)	46.3 (41.2, 51.6)
	Females	71.5 (68.3, 74.4)	56.3 (52.4, 60.2)	48.4 (43.7, 53.1)	44.7 (39.1, 50.5)

Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-A: All sites (ICD10 C00–96)

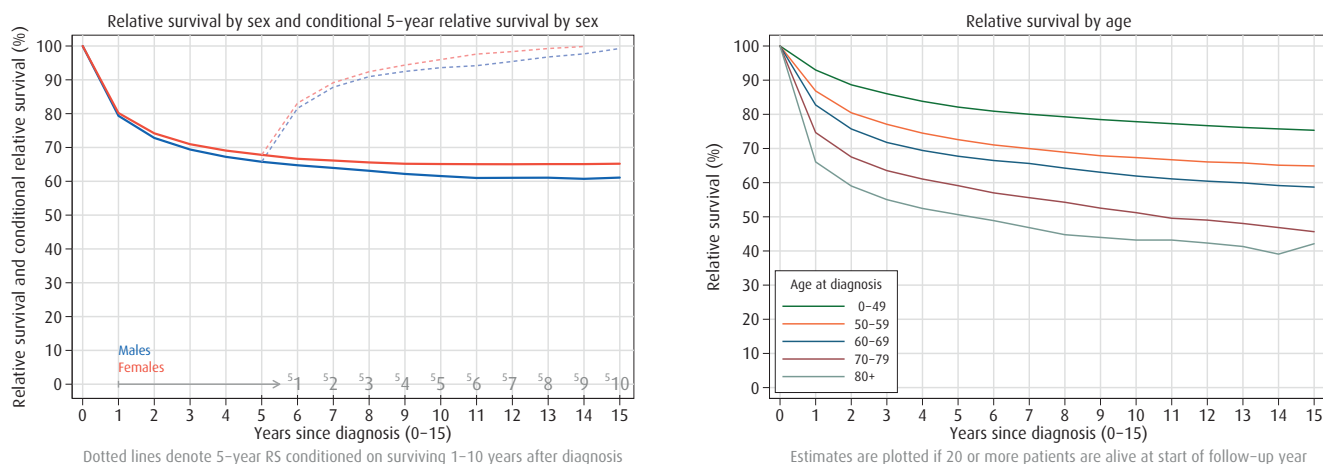


Figure 9-B: Mouth, pharynx (ICD-10 C00–14)

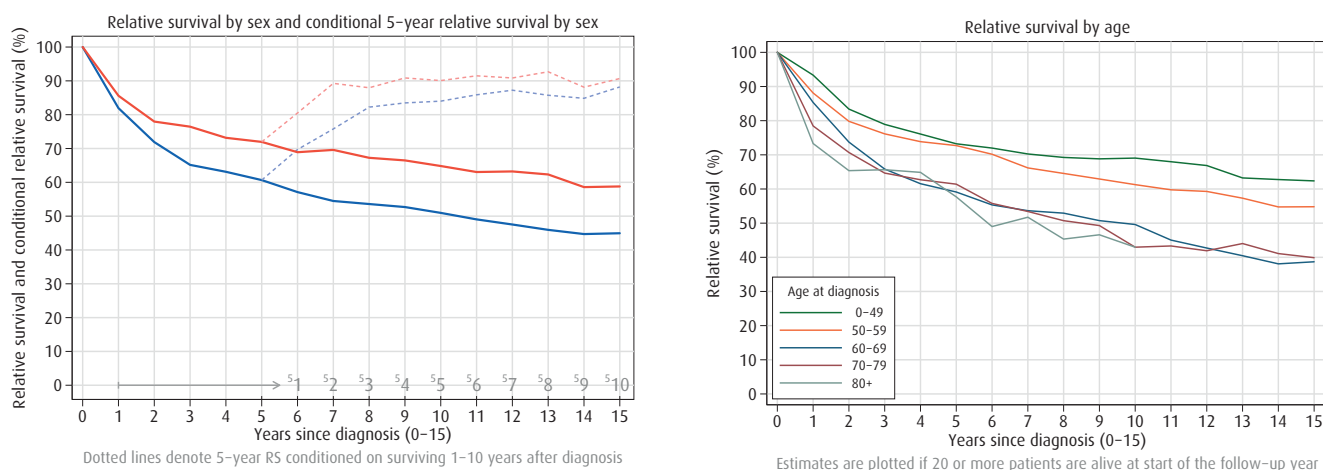
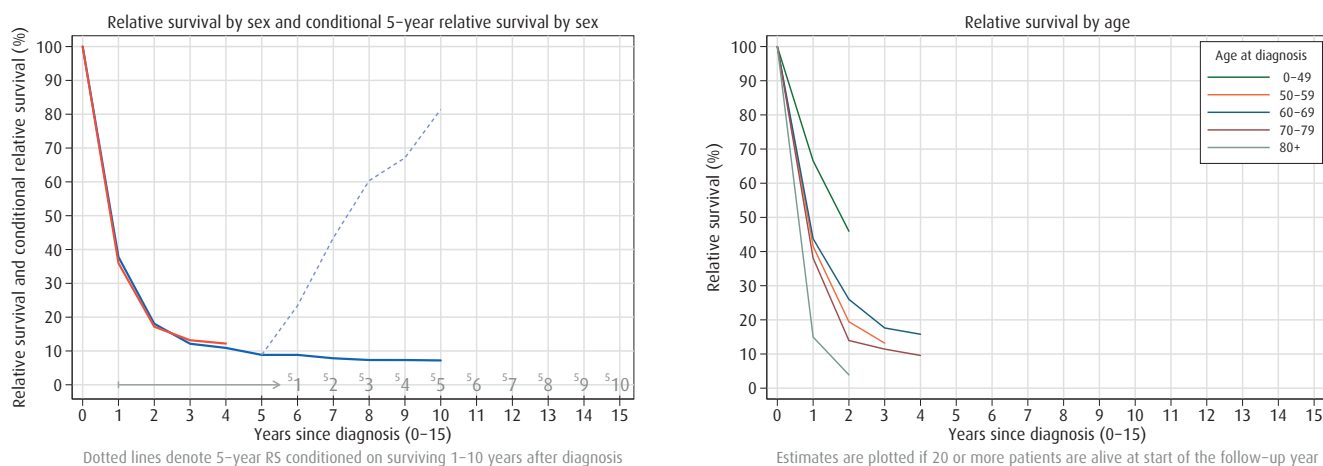


Figure 9-C: Oesophagus (ICD-10 C15)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-D: Stomach (ICD-10 C16)

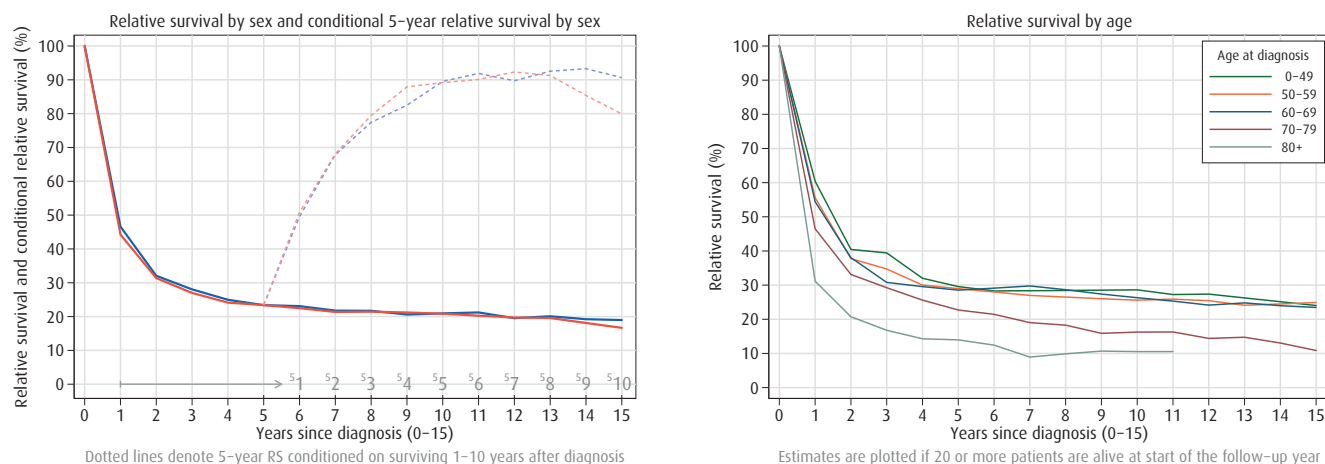


Figure 9-E: Colon (ICD-10 C18)

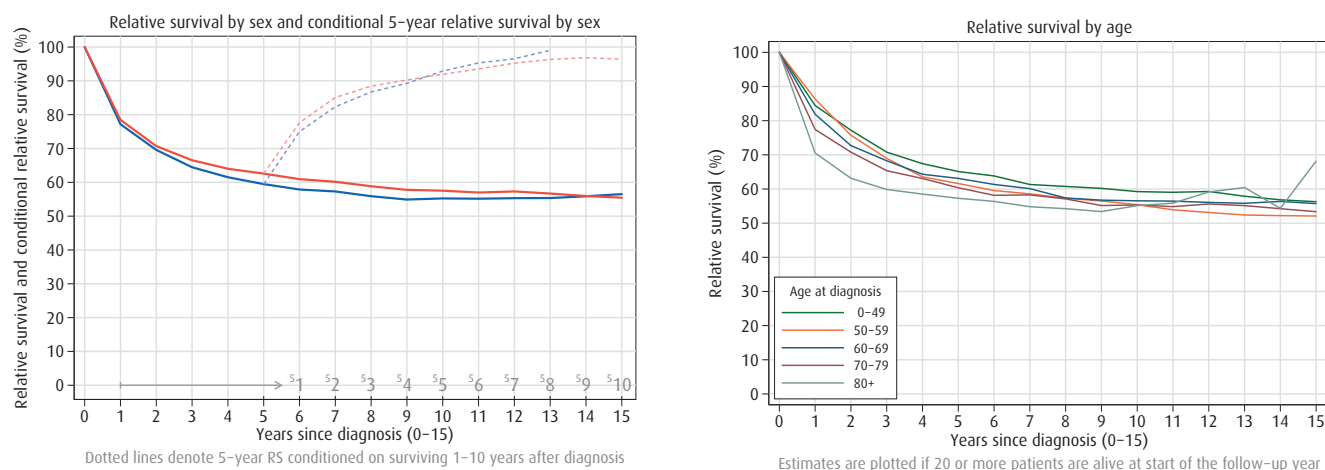
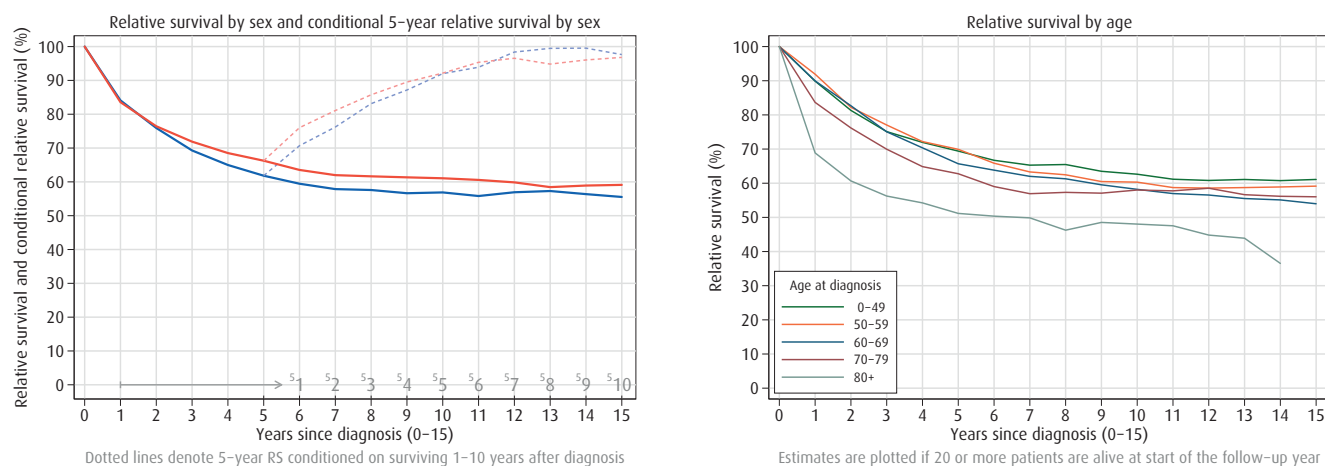


Figure 9-F: Rectum, rectosigmoid, anus (ICD-10 C19–21)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-G: Liver (ICD-10 C22)

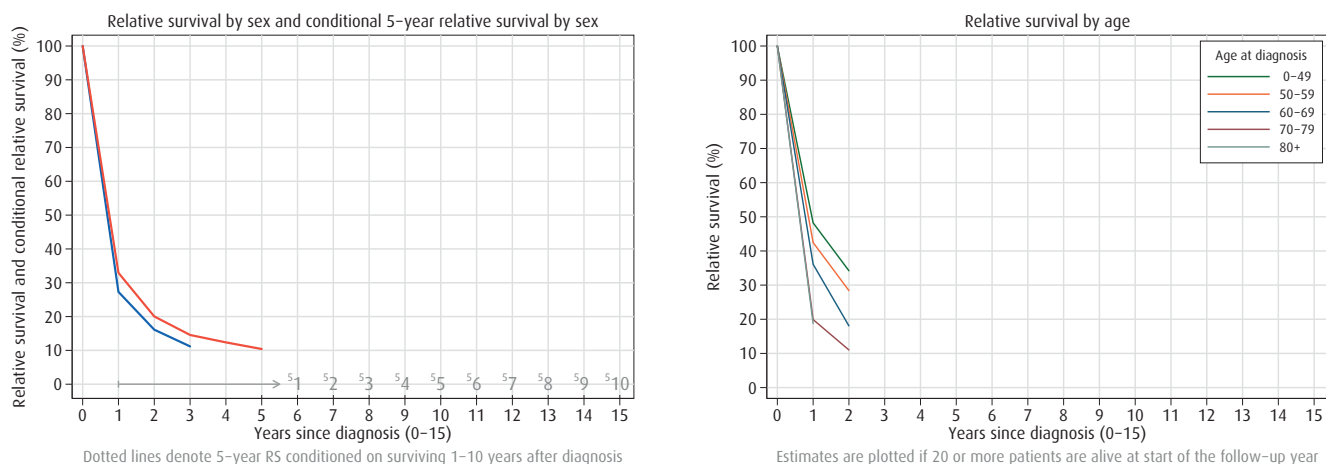


Figure 9-H: Gallbladder, bile ducts (ICD-10 C23–24)

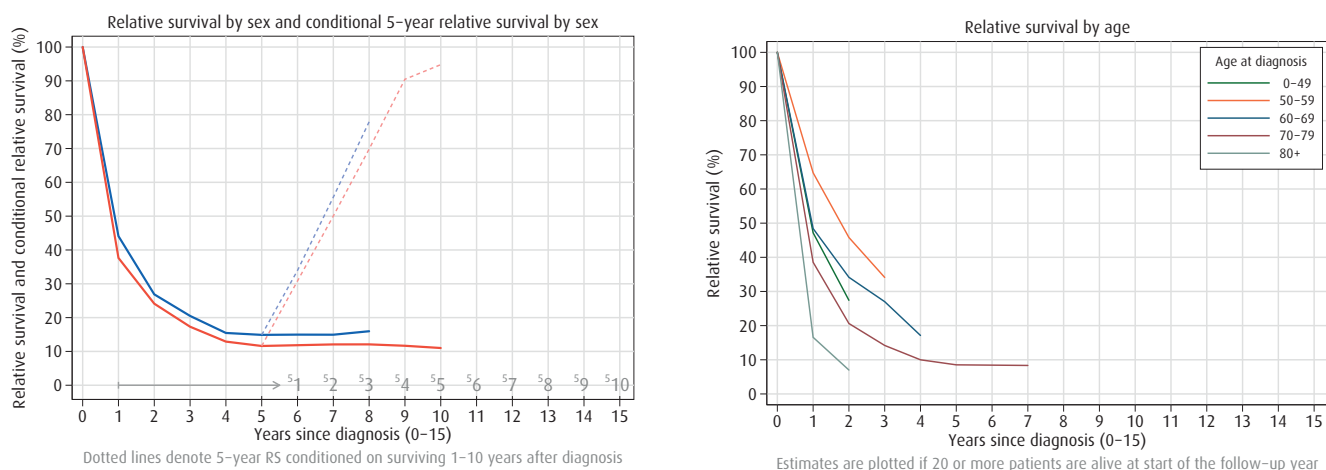
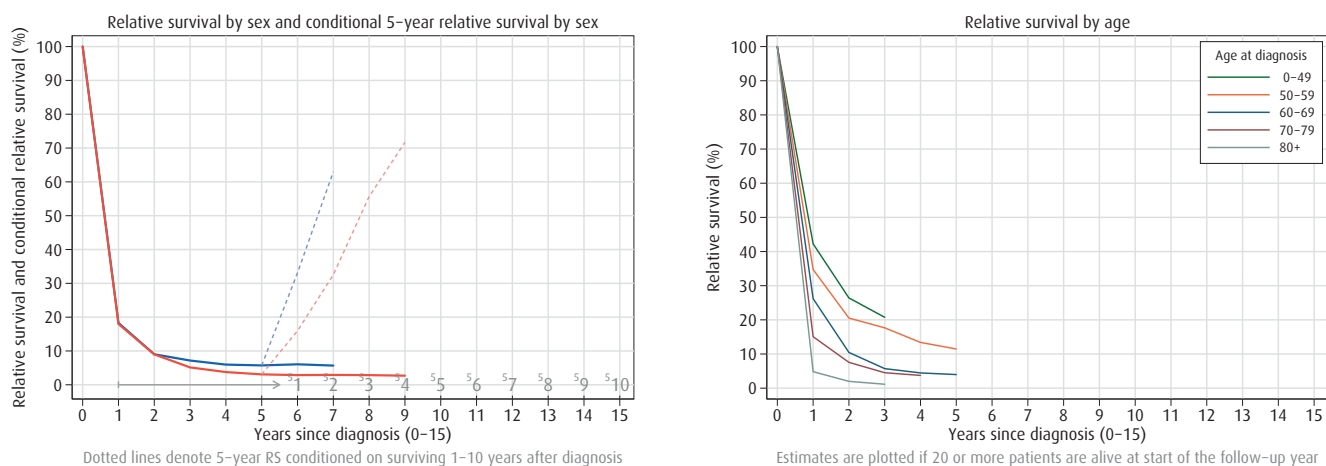


Figure 9-I: Pancreas (ICD-10 C25)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-J: Lung, trachea (ICD-10 C33–34)

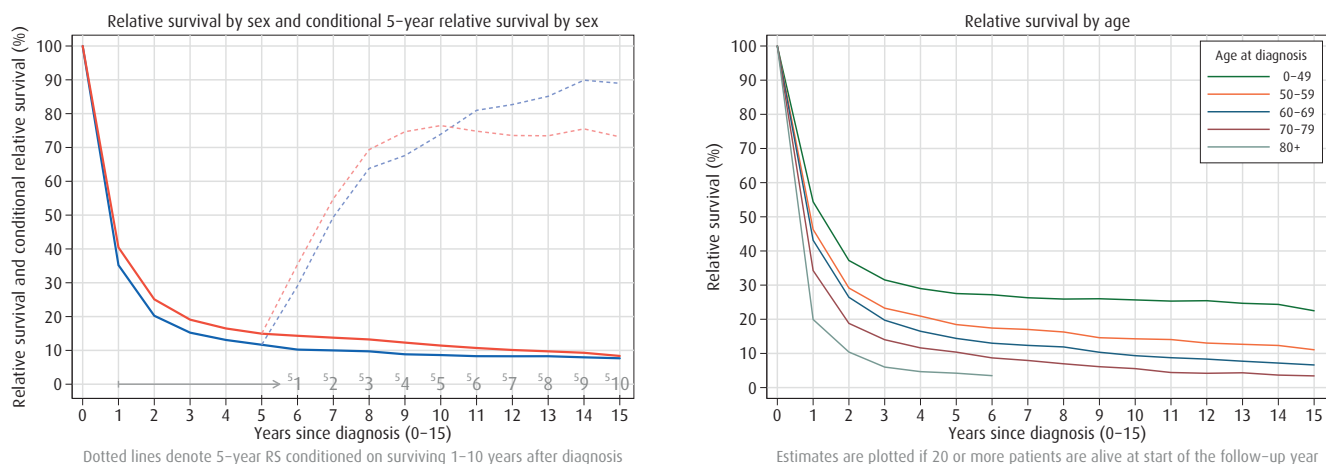


Figure 9-K: Melanoma of the skin (ICD-10 C43)

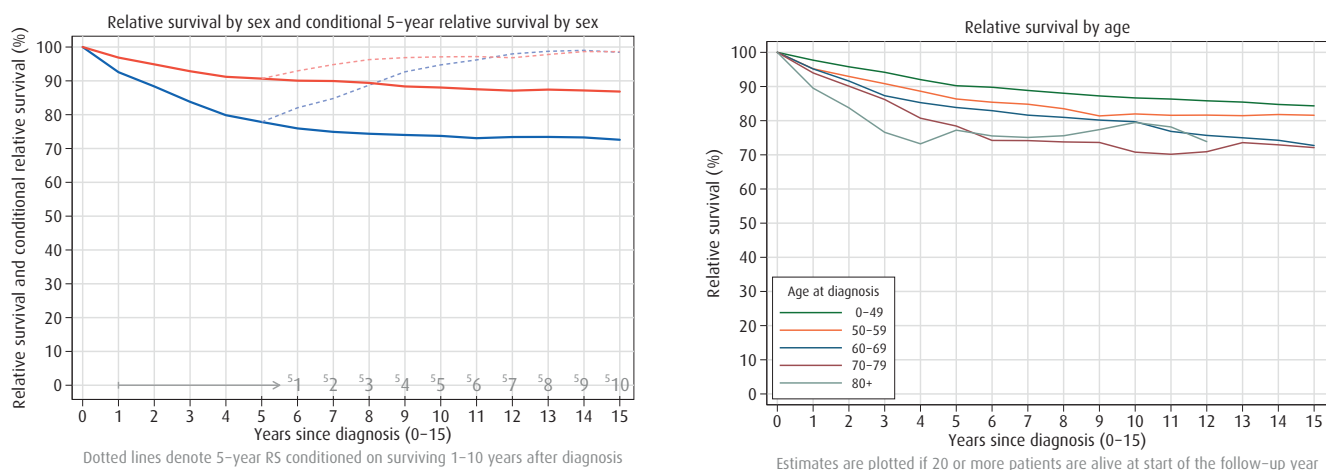
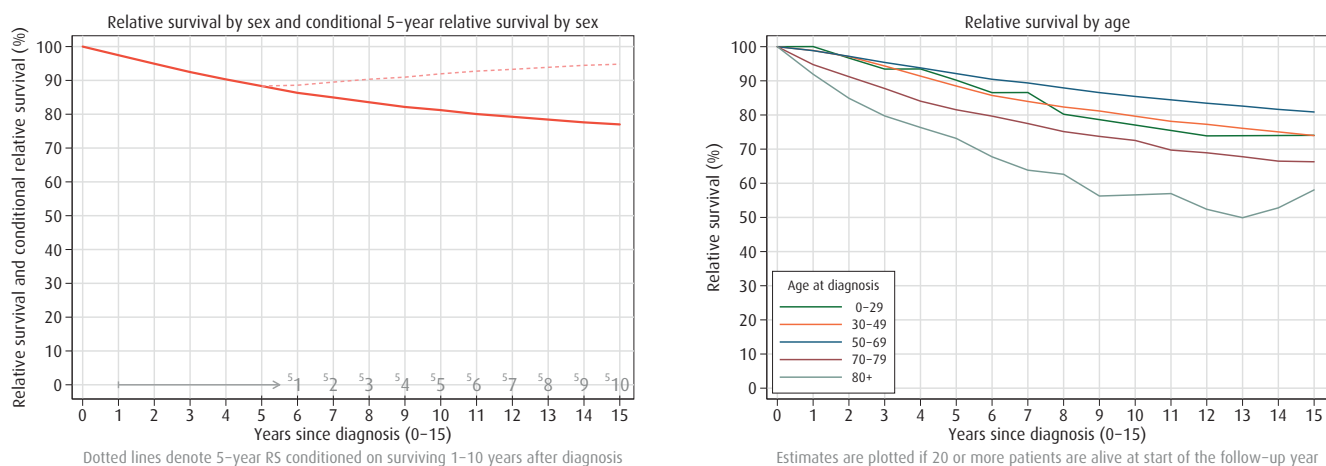


Figure 9-L: Breast, females (ICD-10 C50)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-M: Cervix uteri (ICD-10 C53)

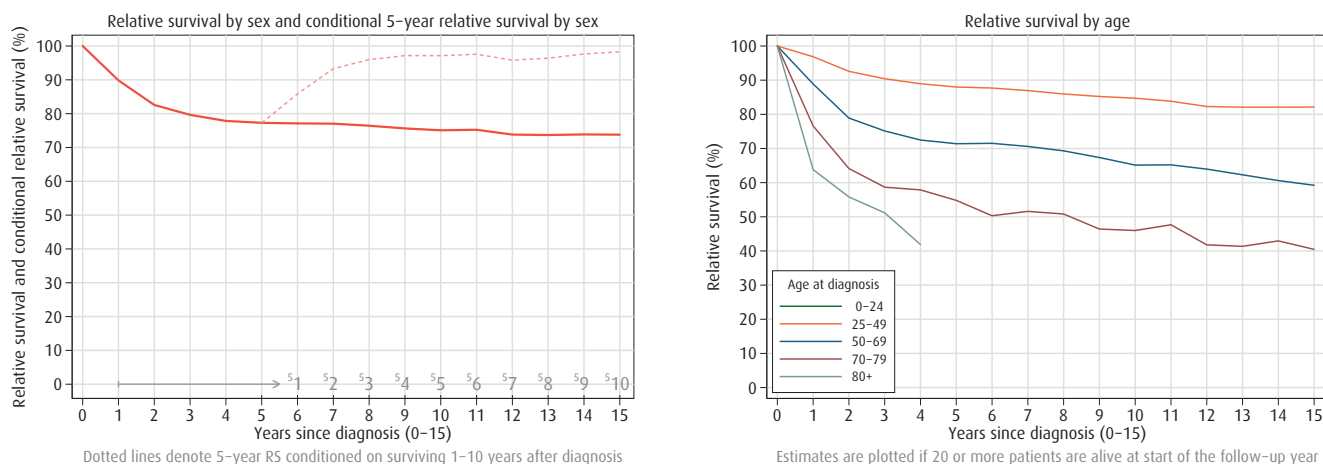


Figure 9-N: Corpus uteri (ICD-10 C54)

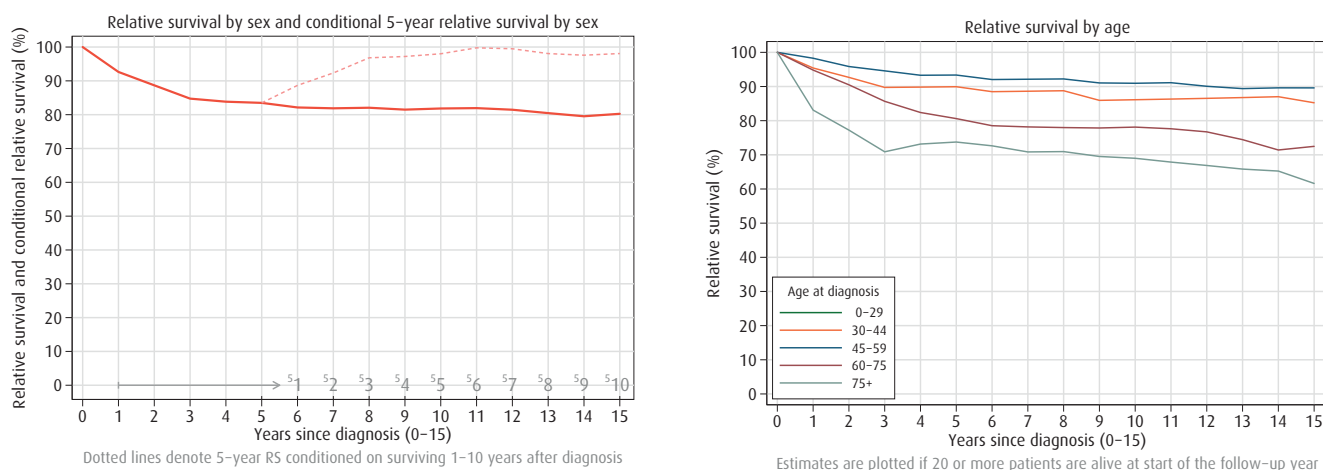
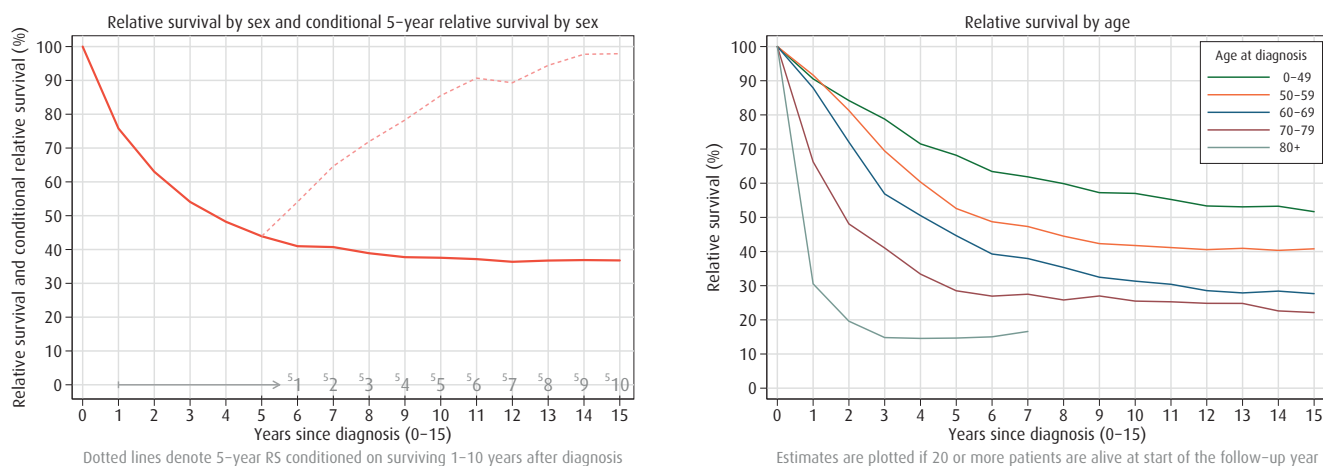


Figure 9-O: Ovary (ICD-10 C56)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-P: Prostate (ICD-10 C61)

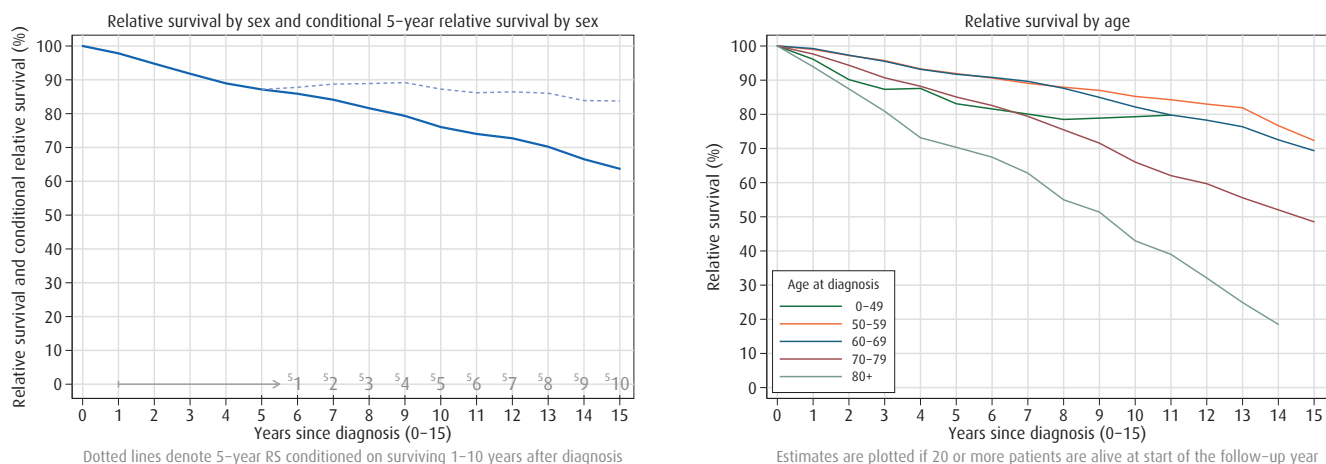


Figure 9-Q: Testis (ICD-10 C62)

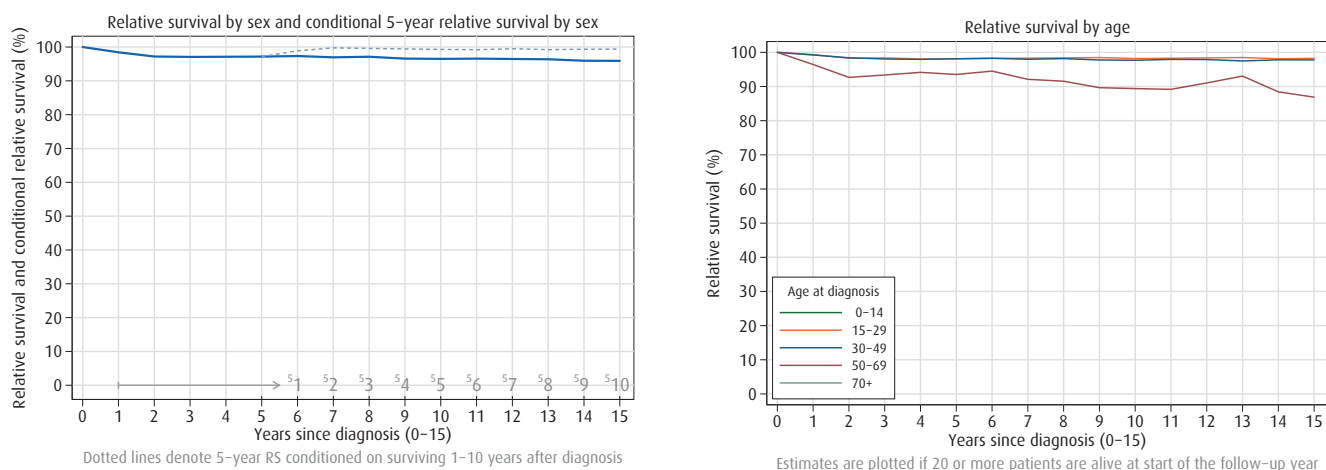
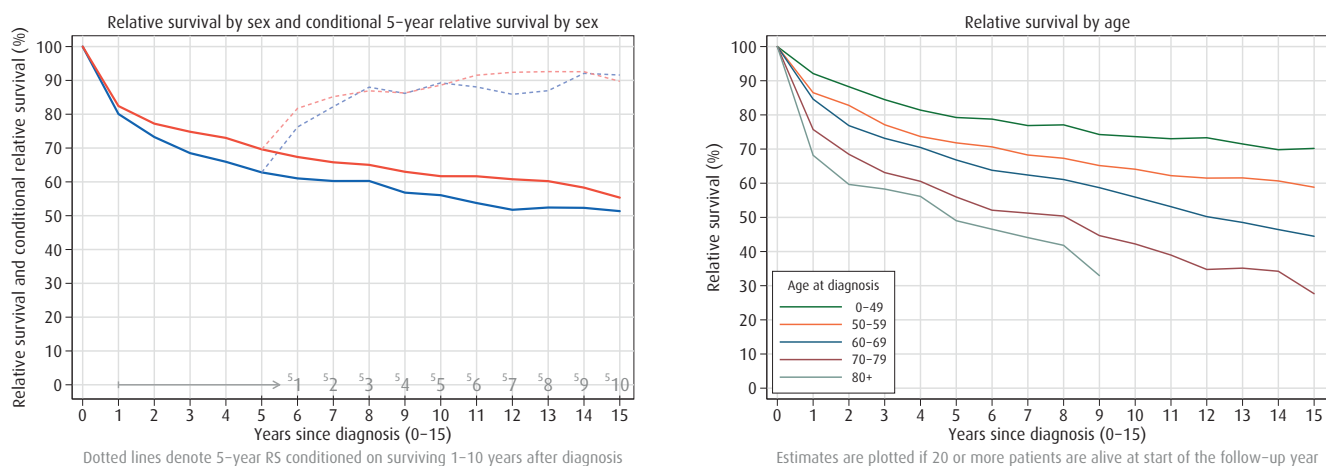


Figure 9-R: Kidney excluding renal pelvis (ICD-10 C64)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-S: Bladder, ureter, urethra (ICD-10 C66–68)

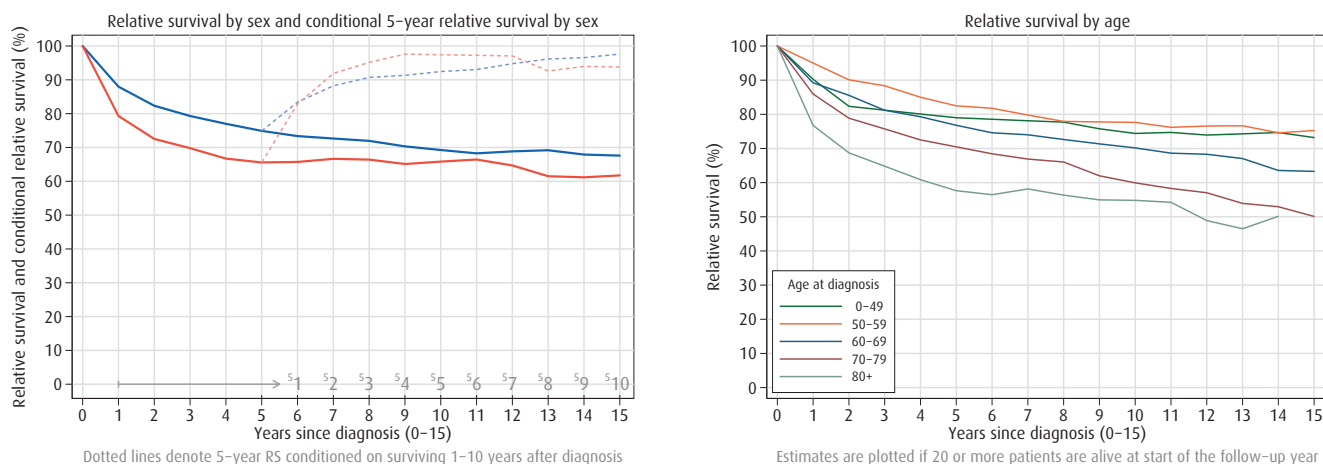


Figure 9-T: Central nervous system (ICD-10 C70–72, D42–43)

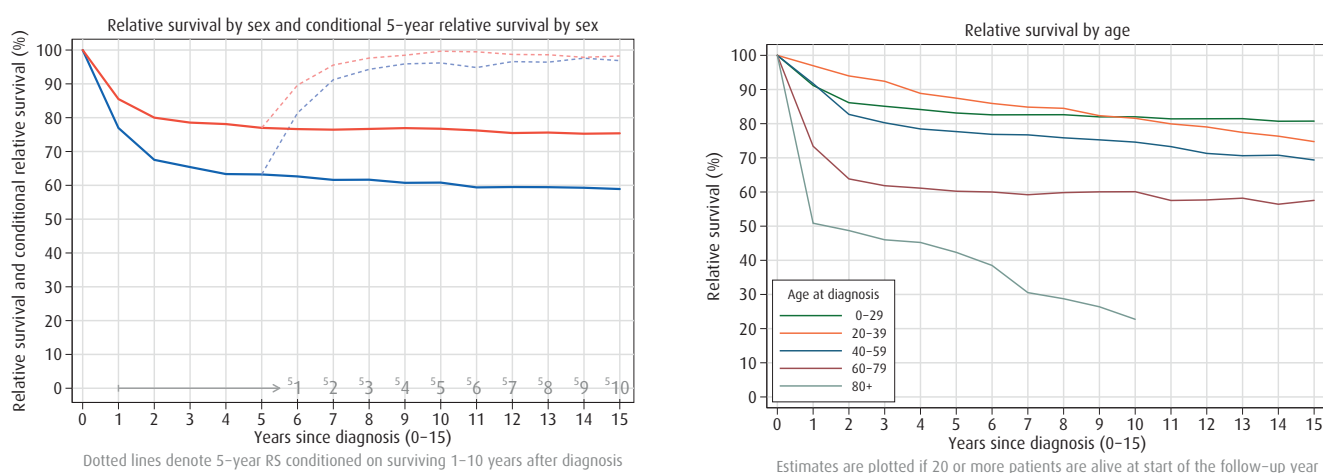
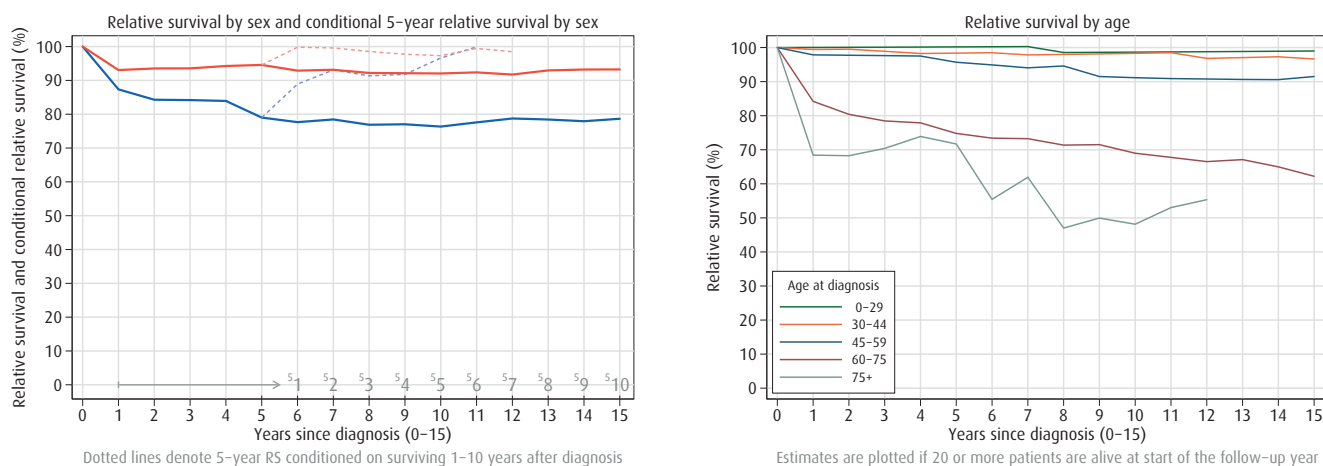


Figure 9-U: Thyroid gland (ICD-10 C73)



Relative survival (RS) up to 15 years after diagnosis by sex and age (2006–8)

Figure 9-V: Hodgkin lymphoma (ICD-10 C81)

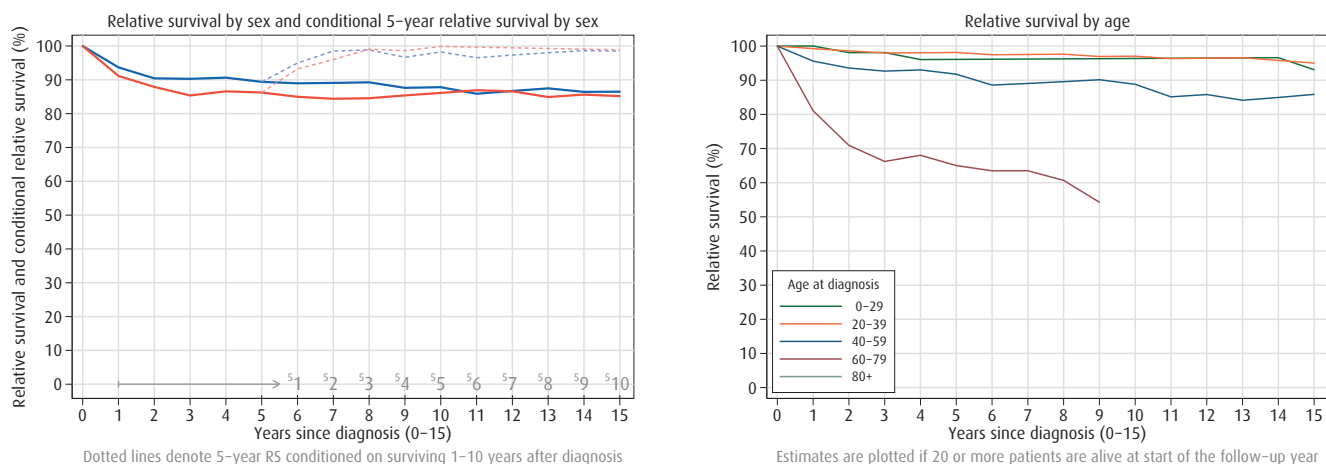


Figure 9-W: Non-Hodgkin lymphoma (ICD-10 C82–85, C96)

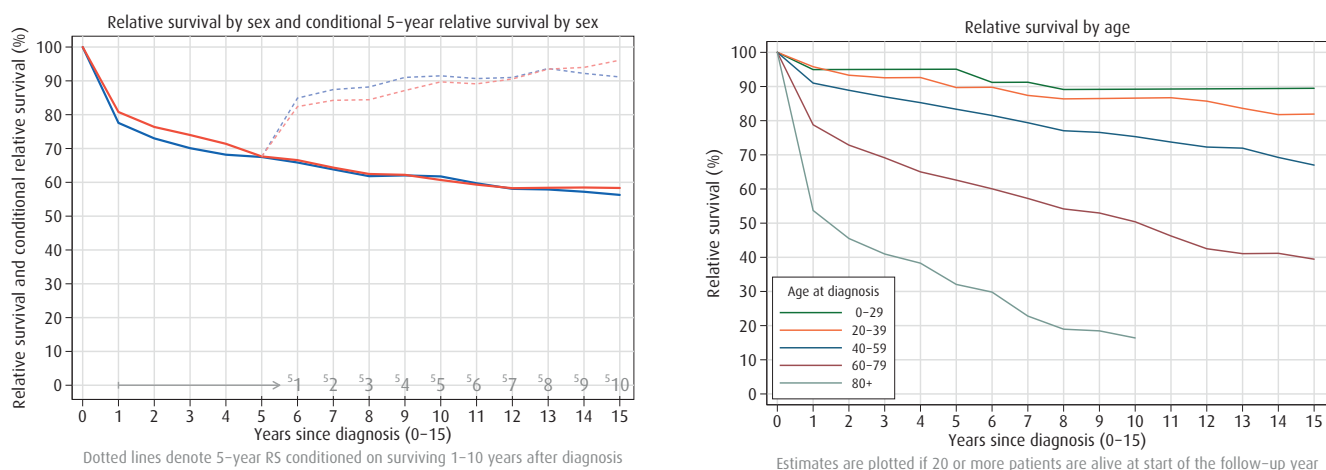
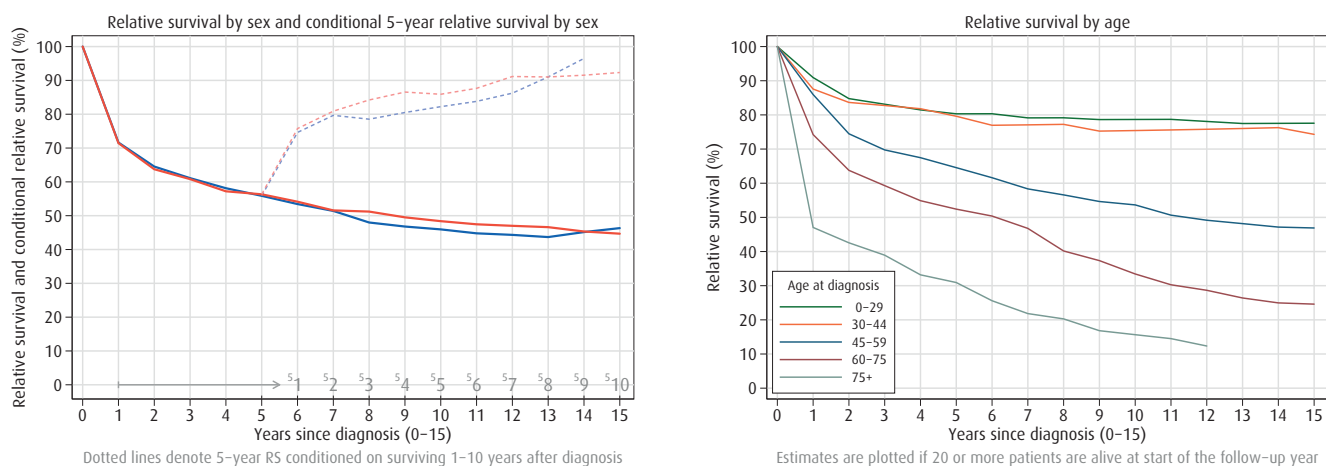


Figure 9-X: Leukaemia (ICD-10 C91–95)



Prevalence

As of 31 December 2008, over 190 000 persons were alive and previously diagnosed with cancer in Norway. The cancer prevalence in Table 20 provides the numbers of cancer survivors a given number of years after diagnosis (<1, 4-9, 5-9 and ≥10 years), and approximates the number of patients in Norway (of both sexes) potentially requiring some form of cancer care. Breast, colorectal and prostate cancer, commonly-diagnosed cancers with reasonable 5-year

patient survival, have the highest 10-year prevalence in Norway. The 8605 persons alive and diagnosed with melanoma of the skin 10 or more years after diagnosis ranks second only to breast cancer (13 674 persons), while the prevalence of melanoma is eleven times that of lung cancer (756 persons). Differences in prognosis - rather than incidence - may explain much of the site-specific variability in prevalence. Lung cancer in terms of new cases, for example, doubles that of melanoma in Norway, and the considerably higher melanoma prevalence reflects the vast differentials in survival between the two cancers.

Table 20 Prevalence of cancer 31.12.1998 and 31.12.2008, both sexes

ICD10	Site	Total no. of persons alive		Years after diagnosis			
		31.12.98	31.12.08	<1	1-4	5-9	10+
C00-96	All sites	134372	190865	19081	56754	43975	71055
C00-14	Mouth, pharynx	3091	3609	395	1076	785	1353
C00	Lip	1381	1262	99	333	221	609
C01-02	Tongue	404	604	88	184	157	175
C03-06	Mouth, other	551	623	76	203	133	211
C07-08	Salivary glands	375	466	36	110	112	208
C09-14	Pharynx	420	707	110	270	171	156
C15-26	Digestive organs	22140	29166	3782	9464	6687	9233
C15	Oesophagus	208	320	128	106	49	37
C16	Stomach	2301	1940	301	547	351	741
C17	Small intestine	365	671	93	244	183	151
C18	Colon	11840	16184	1910	5318	3821	5135
C19-21	Rectum, rectosigmoid, anus	7138	9512	1025	3084	2282	3121
C22	Liver	121	230	72	70	28	60
C23-24	Gallbladder, bile ducts	217	300	66	108	50	76
C25	Pancreas	373	577	254	197	70	56
C26	Other digestive organs	92	130	27	60	17	26
C30-34, C38	Respiratory organs	4206	6108	1588	2156	1119	1245
C30-31	Nose, sinuses	229	301	30	115	61	95
C32	Larynx, epiglottis	993	1078	120	303	284	371
C33-34	Lung, trachea	2946	4711	1442	1736	777	756
C38	Mediastinum, pleura (non-mesothelioma)	52	45	5	10	6	24
C40-41	Bone	445	635	44	123	118	350
C43	Melanoma of the skin	12066	16930	1243	3774	3308	8605
C44	Skin, non-melanoma	7423	11326	1349	4121	2791	3065
C45	Mesothelioma	57	88	45	32	4	7
C46	Kaposi's sarcoma	104	89	6	24	15	44
C47	Autonomic nervous system	229	244	10	33	27	174
C48-49	Soft tissues	880	1187	121	314	211	541
C50	Breast	24212	34890	2666	9583	8967	13674
C51-58	Female genital organs	17565	20158	1366	4222	3830	10740
C53	Cervix uteri	6746	6707	250	893	997	4567
C54	Corpus uteri	6379	8414	668	2119	1876	3751
C55	Uterus, other	46	45	3	11	12	19
C56	Ovary	3634	4095	376	933	758	2028
C51-52, C57	Other female genital	907	1091	101	328	251	411
C58	Placenta	122	142	0	14	15	113
C60-63	Male genital organs	17822	33596	4295	13573	8732	6996
C61	Prostate	13795	27570	3981	12458	7494	3637
C62	Testis	3771	5722	287	1039	1166	3230
C60, C63	Other male genital	297	410	49	128	93	140
C64-68	Urinary organs	11590	14887	1578	4730	3525	5054
C64	Kidney excl. renal pelvis	2856	4192	495	1437	956	1304
C65	Renal pelvis	419	522	74	141	122	185
C66-68	Bladder, ureter, urethra	8475	10411	1042	3253	2495	3621
C69	Eye	743	900	59	192	176	473
C70-72, D42-43	Central nervous system	4972	9149	731	2734	2233	3451
C73	Thyroid gland	3242	4124	208	739	681	2496
C37, C74-75	Other endocrine glands	1325	2239	183	569	502	985
C39, C76, C80	Other or unspecified	476	535	123	161	97	154
C81-96	Lymphoid and hematopoietic tissue	9044	14627	1726	4933	3265	4703
C81	Hodgkin lymphoma	1440	2057	106	404	427	1120
C82-85, C96	Non-Hodgkin lymphoma	3976	6287	698	2120	1449	2020
C88	Malignant immunoproliferative diseases	219	313	32	134	82	65
C90	Multiple myeloma	1064	1423	288	664	291	180
C91-95	Leukaemia	2354	4612	621	1644	1027	1320

Trends in Incidence, Mortality and Survival

There has been considerable deliberation as to the relative merits of incidence, mortality and survival in cancer research generally, and in time trend analyses specifically (Peto et al, 2000; Coleman, 2000; Doll and Peto, 1981; Boyle, 1989). Analysing trends in incidence may provide some insight into changes in the prevalence and distribution of risk factors, and to the impact of interventions 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, or to the introduction of more effective therapies and better disease management, where applicable.

The importance of determining artefacts and considering their contribution to observed cancer incidence and mortality trends have been comprehensively addressed by the papers by Saxén (1982) and Muir et al (1994), while many studies have investigated the accuracy of death certificates (e.g. Percy et al, 1981). Other than artefacts related to registration practices, many of the factors that affect incidence equally apply to mortality, given that both rely on the accuracy of the initial cancer diagnosis. As with incidence, survival estimates are susceptible to changes in diagnostic practices and disease classifications, as well as the spread of screening tools that detect cases earlier.

There is a general consensus that a combined description of trends in incidence, mortality and survival often serves to confirm and clarify 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 10-A to 10-X present annual age-standardised (world) incidence (1965-2008) and mortality (1965-2007) rates together with period-based (3-year window 1965-2008) 5-year relative survival probabilities for all cancers combined and for 23 specific cancer sites. The survival trends are plotted as crude rather than age-adjusted estimates for purposes of consistency; the age-specific

numbers were sparse for certain neoplasms for certain years, and thus standardised estimates could not be calculated. It should be noted that these summary measures will often fail to reflect true underlying age-calendar year interactions for specific cancers, such as differentials 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 “all sites” in Figure 10-A conveys a general picture of uniform increases in cancer incidence and survival in Norway over the last four decades, coupled with fairly constant mortality trend up until the early-1990s. The decline in mortality that follows is more evident in men than in women. The interpretation of these aggregated estimates is evidently a non-trivial exercise, in that they comprise many different cancer forms variable in terms of their capacity to be diagnosed as well as treated. In combination however, prostate, breast, lung and colorectal cancer represent half of the total incidence and mortality burden, specifically, 49.8% of the new cancers cases in Norway in 2008, and 50.6% of the deaths in 2007.

For men, close to one-third of all cancers diagnosed in 2008 were of the prostate. The marked increases in both incidence and 5-year relative survival from 1990 (Figure 10-O) reflects the availability of the PSA test and the upsurge in its use in the detection of the disease in a subsequent biopsy. Mortality has declined from around 1996 and both early diagnosis and improved and more active treatment may have had an impact.

Breast cancer among women comprises almost one-quarter of all female cancer cases, and as with prostate in men, the incidence and 5-year relative survival has increased in the last two decades, while mortality began declining around 1996 (Figure 10-M). The Norwegian mammographic programme began screening women aged 50-69 at the end of 1995 as a four-year pilot project in four of the 19 Norwegian counties, and gradually expanded to become national by 2005. The implementation of screening may explain much of the increase in incidence from the mid-1990s, and, partly as a consequence of advancing time of diagnosis, the increasing survival. The recent declines in mortality in Norway likely reflect a number of interventions acting in combination, amongst them improvements in breast cancer therapy and management from the 1990s, as well as the increasing screening coverage.

Trends in lung cancer incidence and mortality are quite similar and reflect the uniformly poor survival over time, whereas the varying trends by sex reflect the differing phases of the smoking epidemic in Norwegian men and women (Figure 10-J). Overall lung cancer

incidence and mortality rates among males began to plateau in the early-1990s and suggest a decline in the last five years, in contrast to the continuing increases in female rates. As these rates are for all ages however, they do not capture a possible recent plateau in trends among generations of women born around 1950. While five-year relative survival for lung cancer patients has not changed substantively, the observation of moderately increasing survival in the 1990s, more evident in women, is intriguing. It is not clear as to the degree to which these changes are real and might reflect genuine improving lung cancer management, earlier stage at presentation, less co-morbidity, or changes in other factors that contribute to improved life expectancy.

Both colon and rectal cancer incidence has been increasing for many decades, but the overall picture is one of stabilisation for colon cancer and possibly recent declines for rectal cancer (Figure 10-E and 10-F). Of particular note is the increasing survival and declining mortality following rectal cancer in Norway in both sexes. Among the likely determinants is the introduction of total mesorectal excision, increasing specialisation, and use of preoperative radiation.

In summarising the overall cancer survival developments, the increasing trends in both sexes likely reflect

artefact, for example, increasing diagnostic intensity and screening in the populations, but also reflect genuine but complex mechanisms that contribute to improved survival. For prostate and breast cancer these relate to both early diagnosis and the introduction and increasing use of curative treatment. The recent increments in rectal cancer survival in both sexes will also have partially contributed to the recently overall decline in cancer mortality.

The remaining cancer forms as a group contribute substantially to explaining the overall trends. Among specific sites, several are worthy of note. The constant declines in stomach cancer incidence and mortality, for example, is considered part of an unplanned success of primary prevention of the intestinal type, with survival only moderately increasing over time (Figure 10-D). In contrast, the uniform and presently-unexplained increases in testicular cancer incidence in the last decades (Figure 10-Q) are contrary to the rapid increases in survival (and concomitant declines in mortality) in the 1970s following the introduction of cisplatin therapy for advanced germ-cell tumours, and a correspondingly improved prognosis in these young- and middle-aged men.

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

Figure 10-A: All sites (ICD10 C00-96)

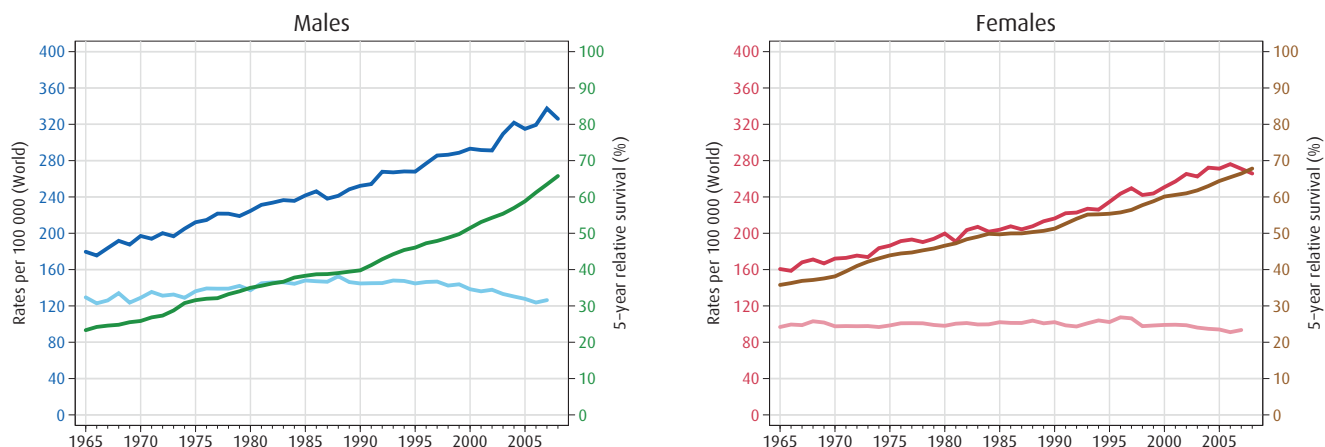


Figure 10-B: Mouth, pharynx (ICD-10 C00-14)

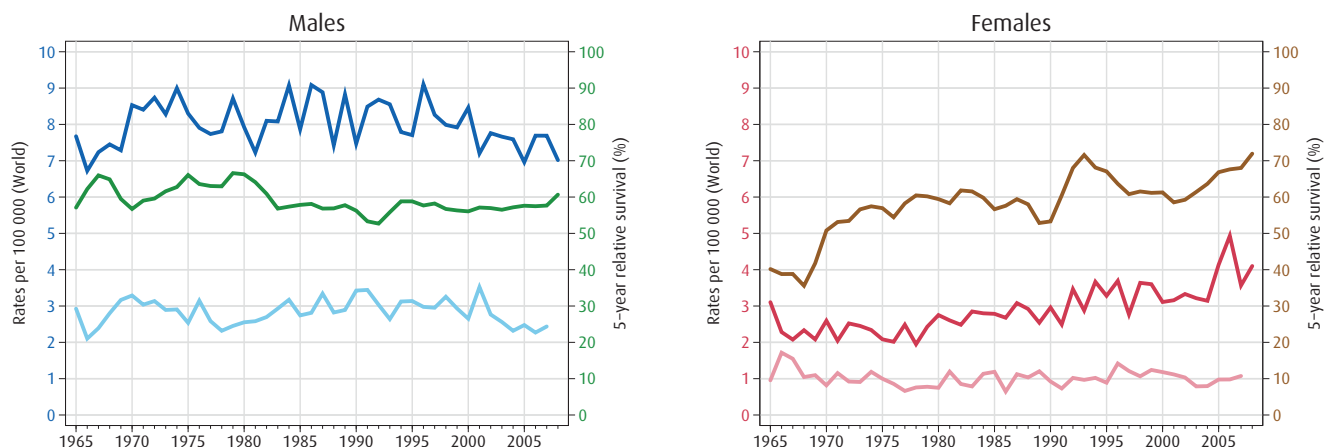
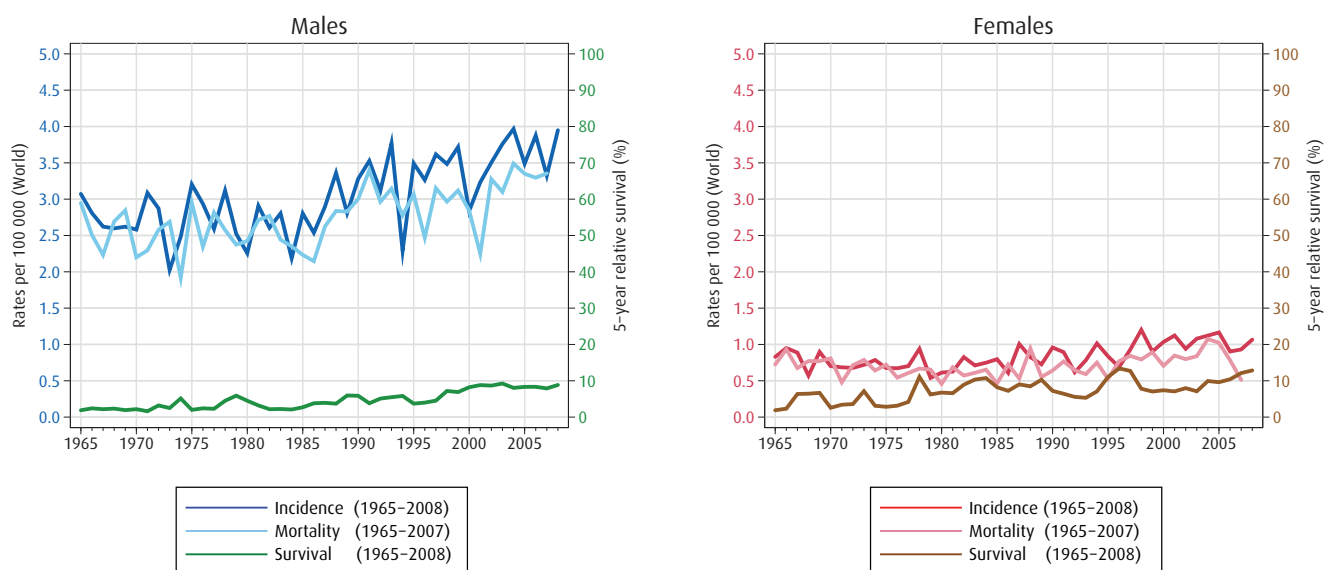


Figure 10-C: Oesophagus (ICD-10 C15)



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

Figure 10-D: Stomach (ICD-10 C16)

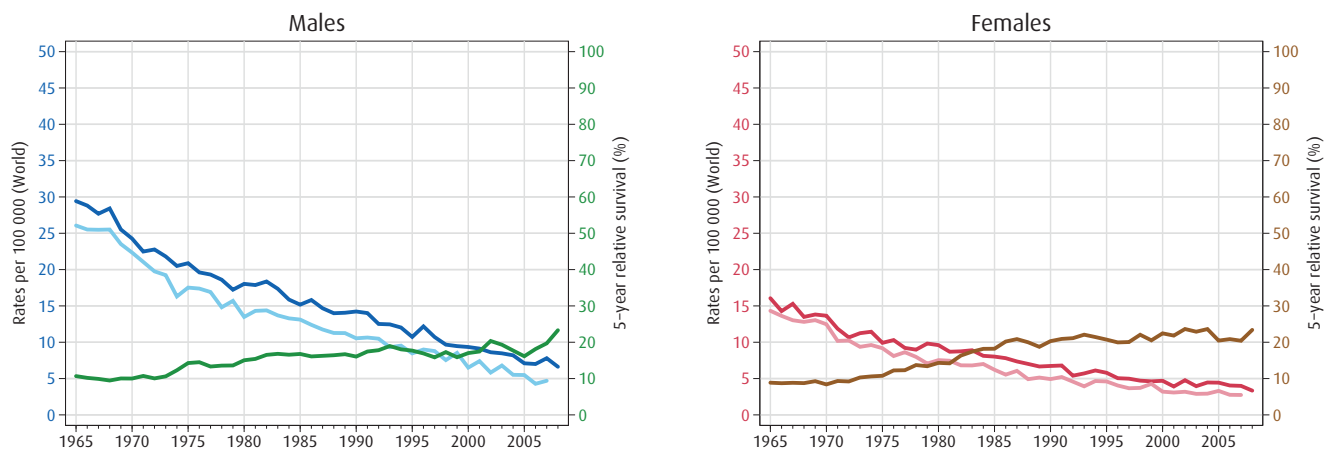


Figure 10-E: Colon (ICD-10 C18)

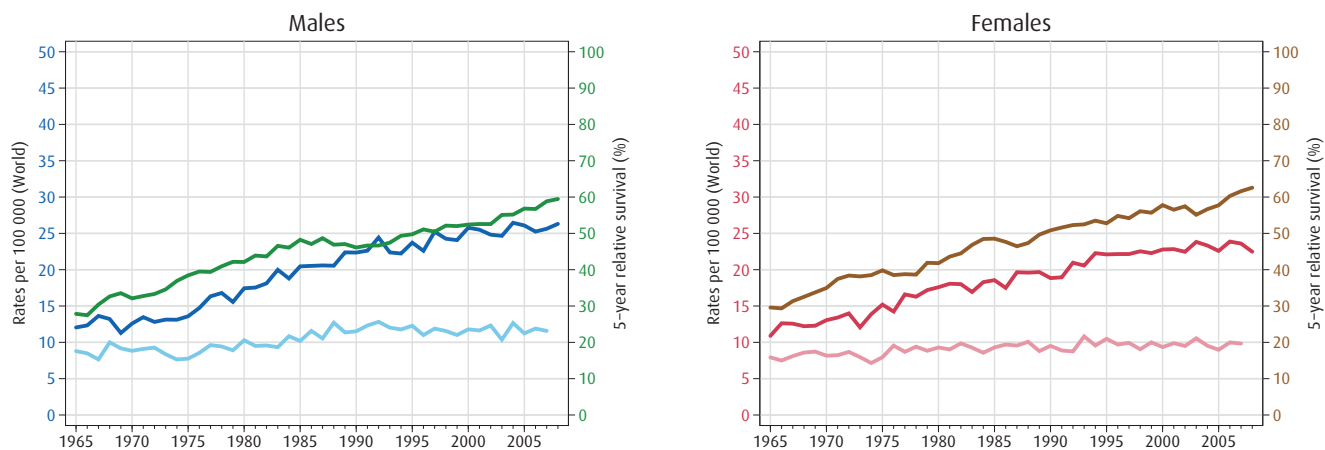
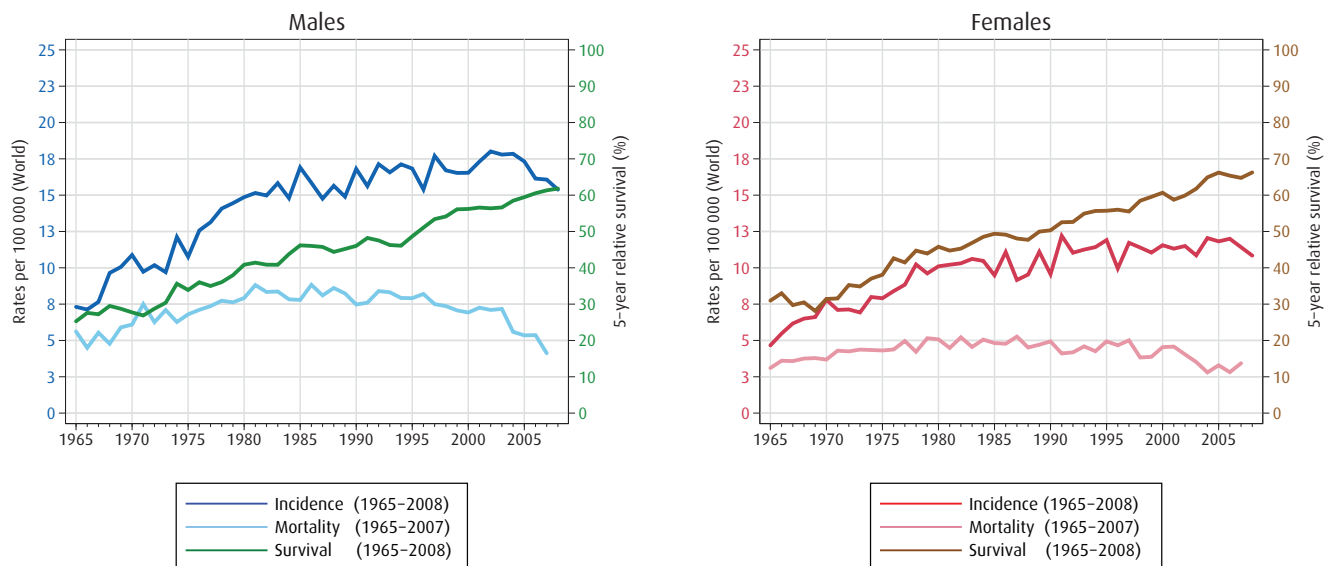


Figure 10-F: Rectum, rectosigmoid, anus (ICD-10 C19-21)



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

Figure 10-G: Liver (ICD-10 C22)

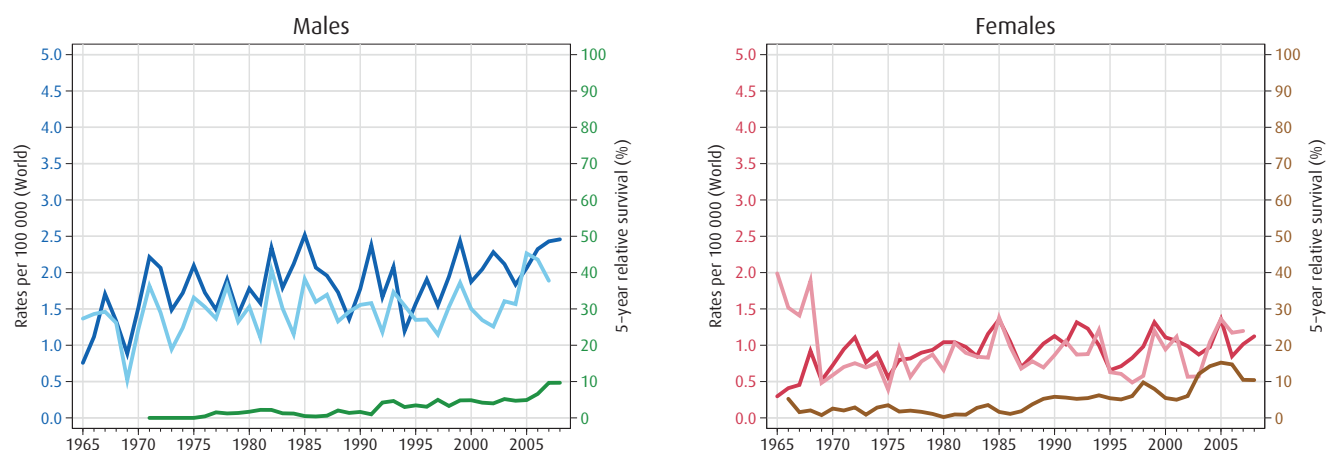


Figure 10-H: Gallbladder, bile ducts (ICD-10 C23-24)

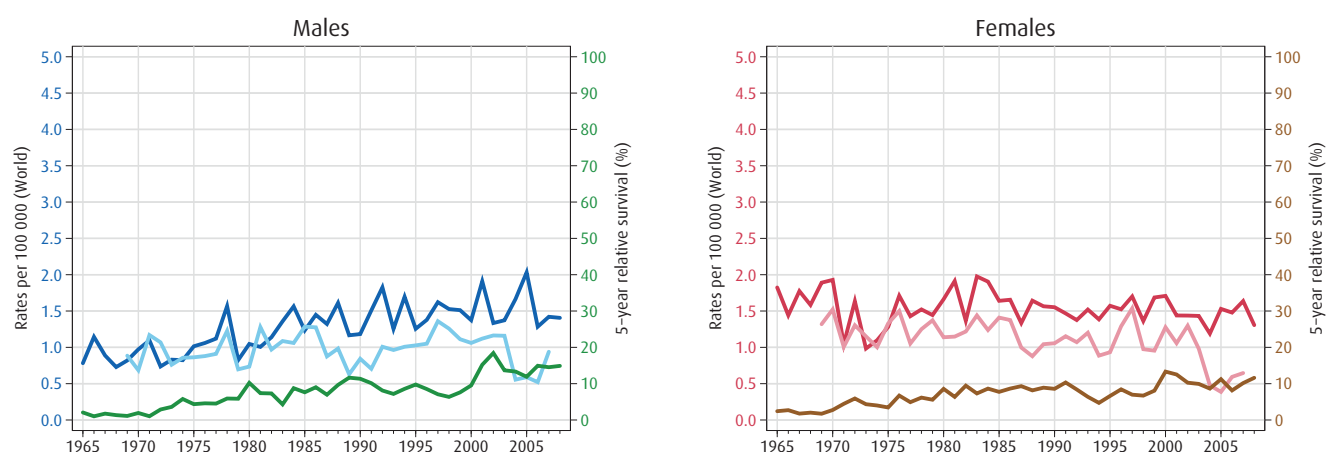
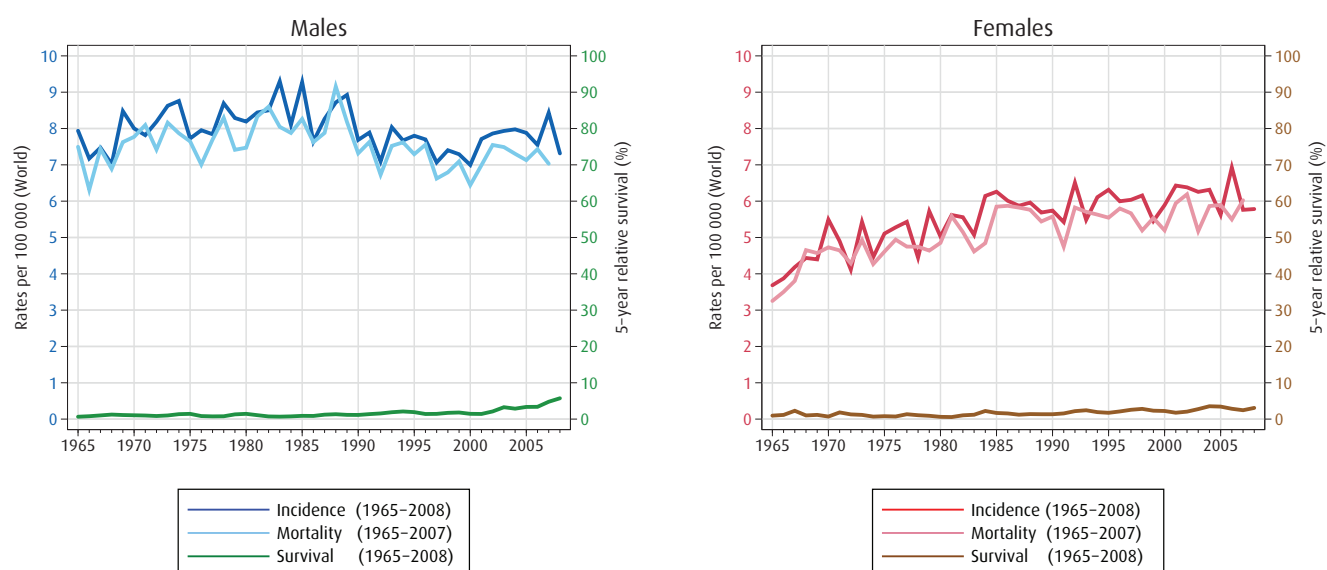


Figure 10-I: Pancreas (ICD-10 C25)



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

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

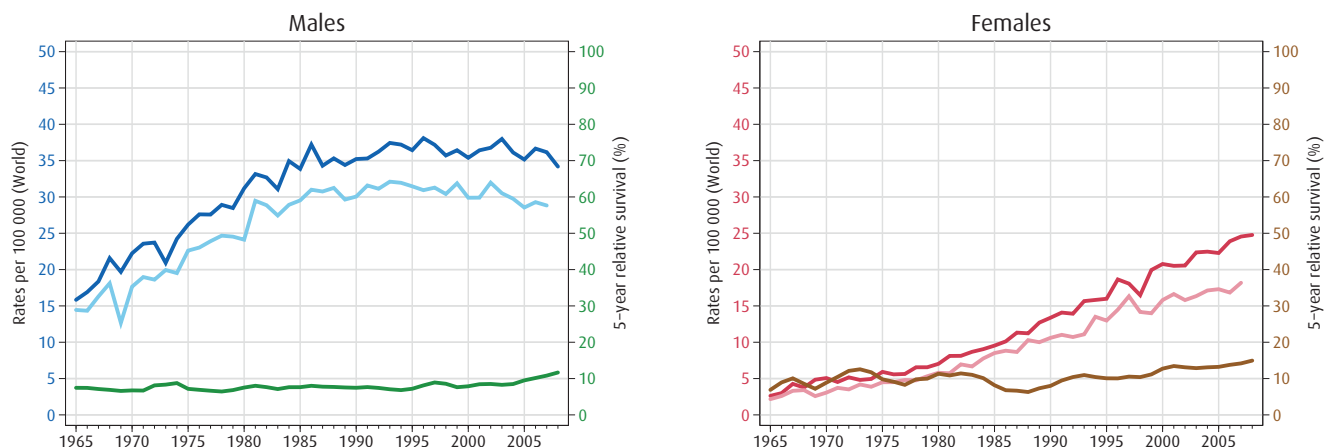


Figure 10-K: Melanoma of the skin (ICD-10 C43)

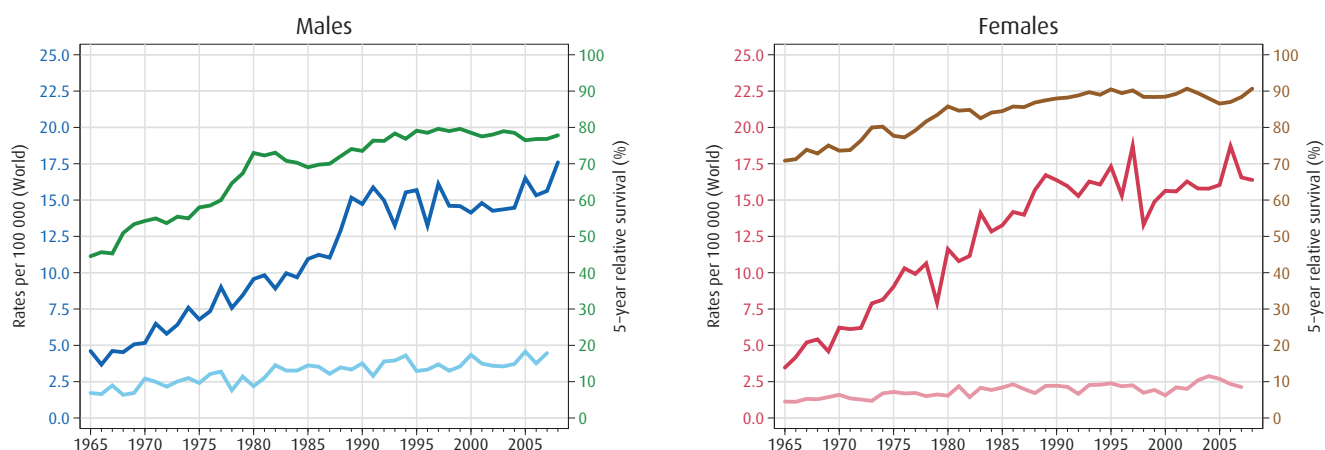
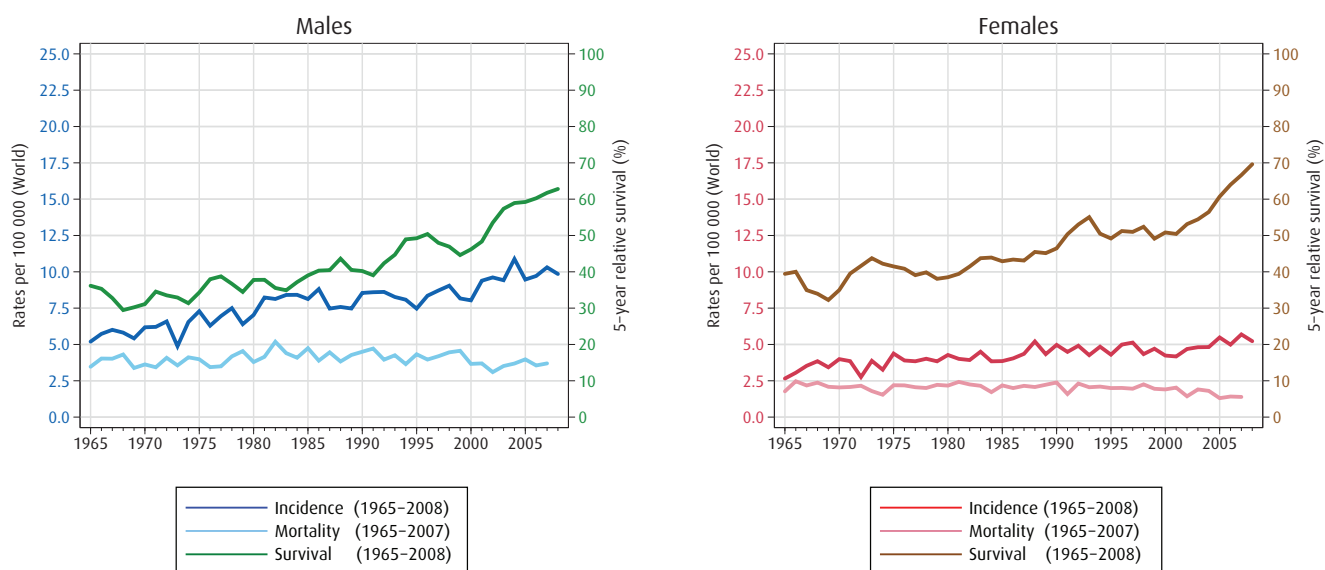


Figure 10-L: Kidney excluding renal pelvis (ICD-10 C64)



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

Figure 10-M: Breast (ICD-10 C50)

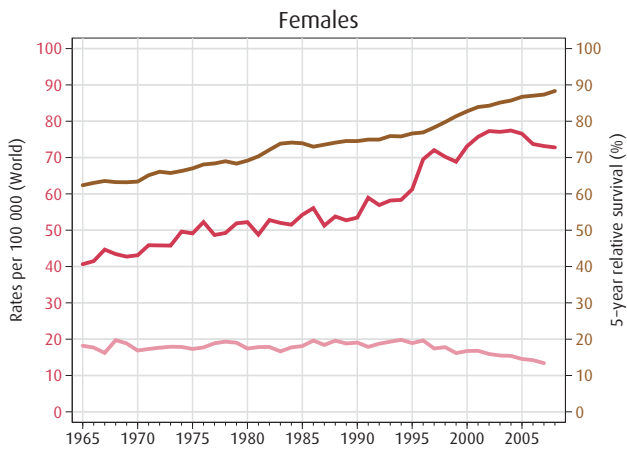


Figure 10-N: Cervix uteri (ICD-10 C53)

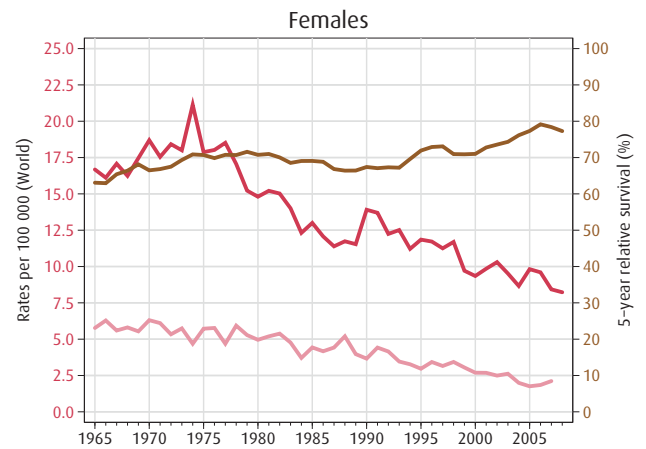


Figure 10-O: Prostate (ICD-10 C61)

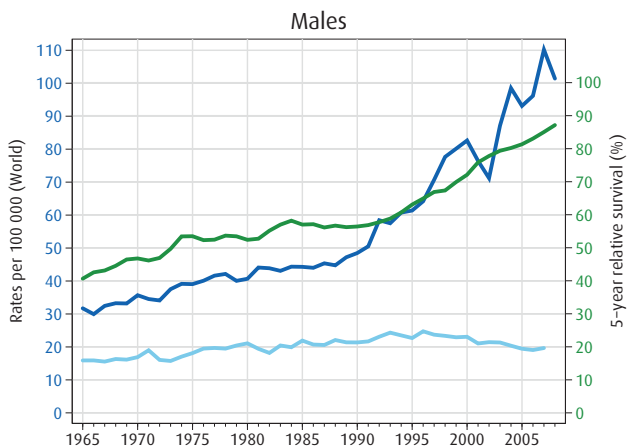


Figure 10-P: Corpus uteri (ICD-10 C54)

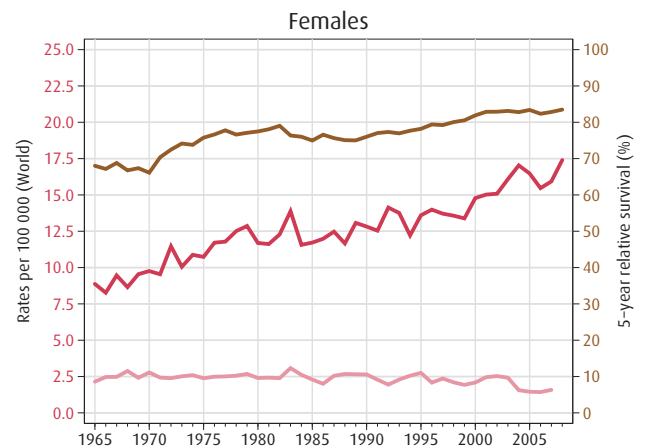


Figure 10-Q: Testis (ICD-10 C62)

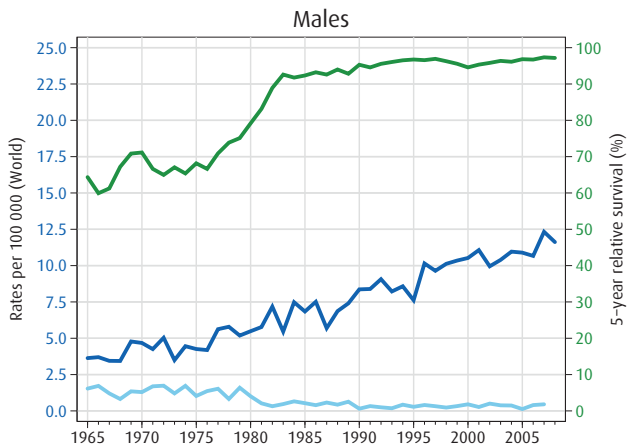
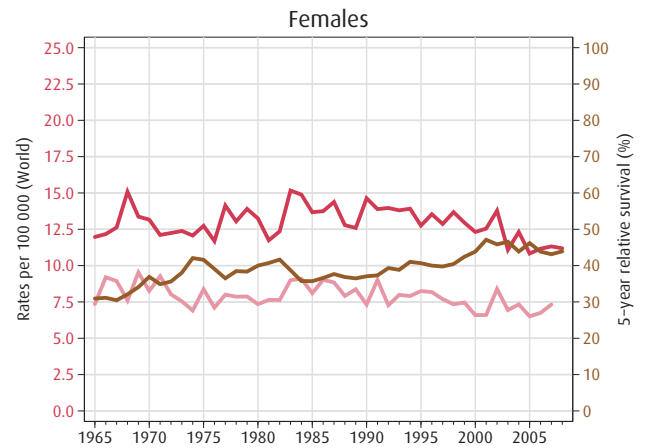


Figure 10-R: Ovary (ICD-10 C56)



— Incidence (1965–2008)
— Mortality (1965–2007)
— Survival (1965–2008)

— Incidence (1965–2008)
— Mortality (1965–2007)
— Survival (1965–2008)

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

Figure 10-S: Bladder, ureter, urethra (ICD-10 C66-68)

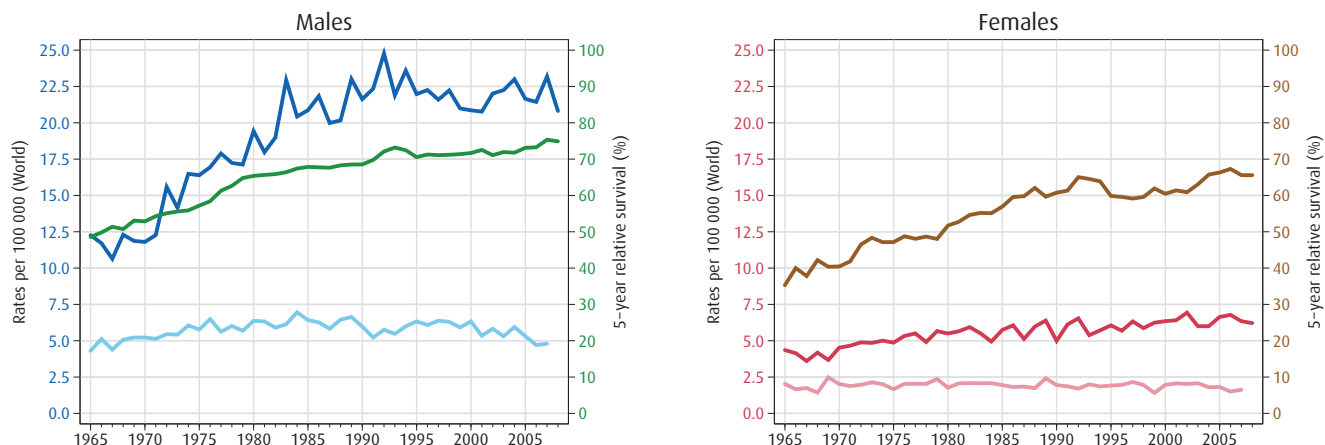


Figure 10-T: Central nervous system (ICD-10 C70-72, D42-43)

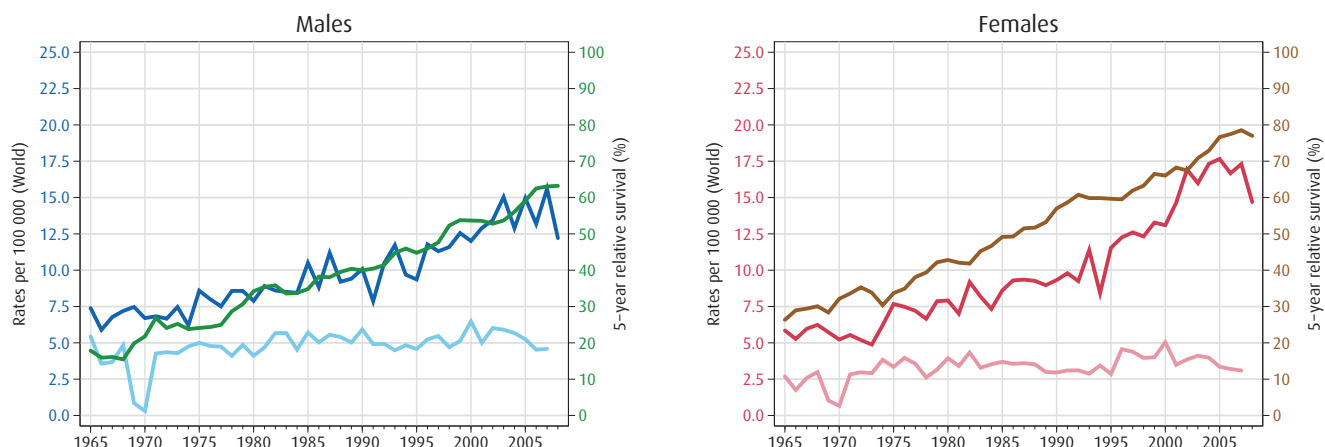
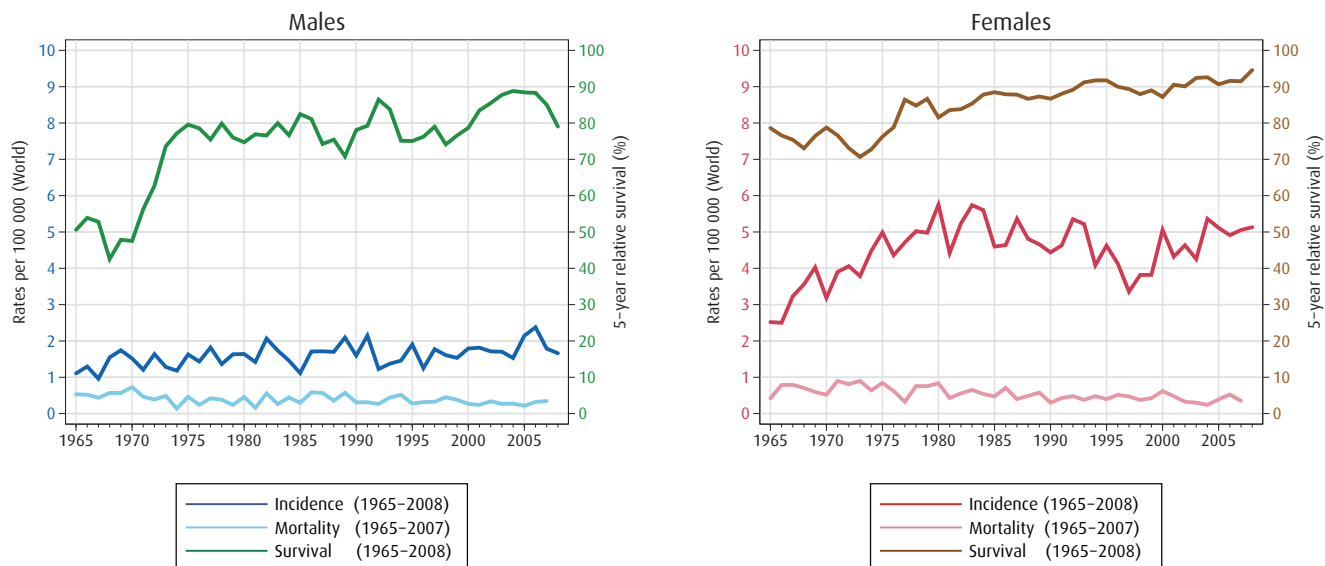


Figure 10-U: Thyroid gland (ICD-10 C73)



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

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

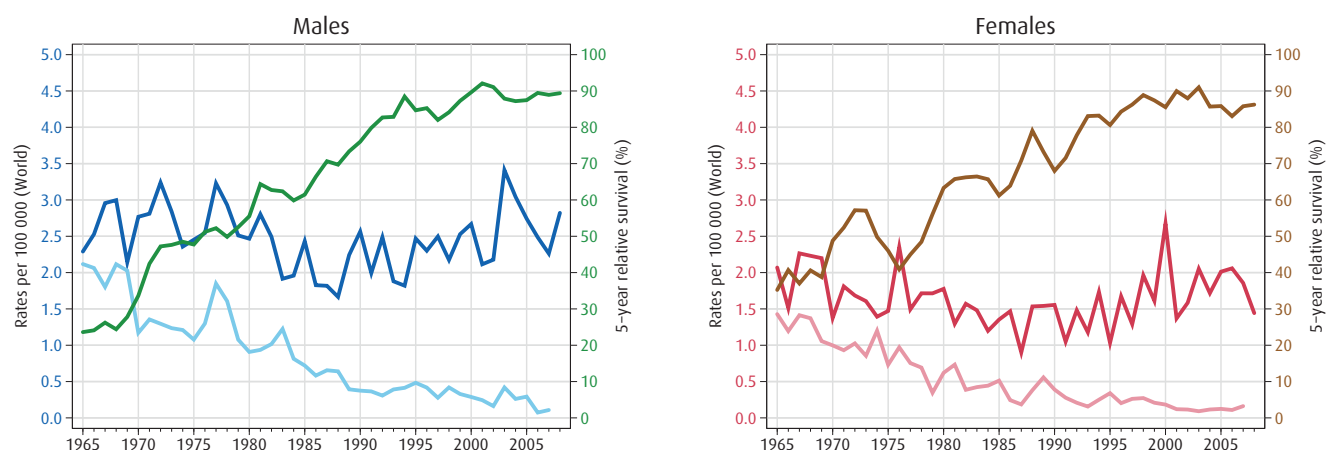


Figure 10-W: Non-Hodgkin lymphoma (ICD-10 C82-85, C96)

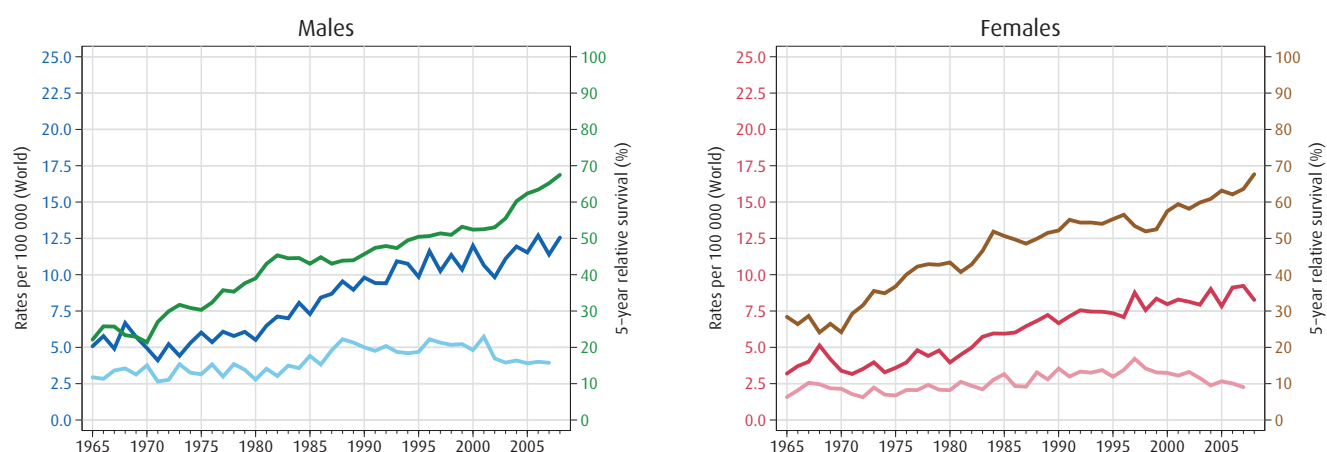
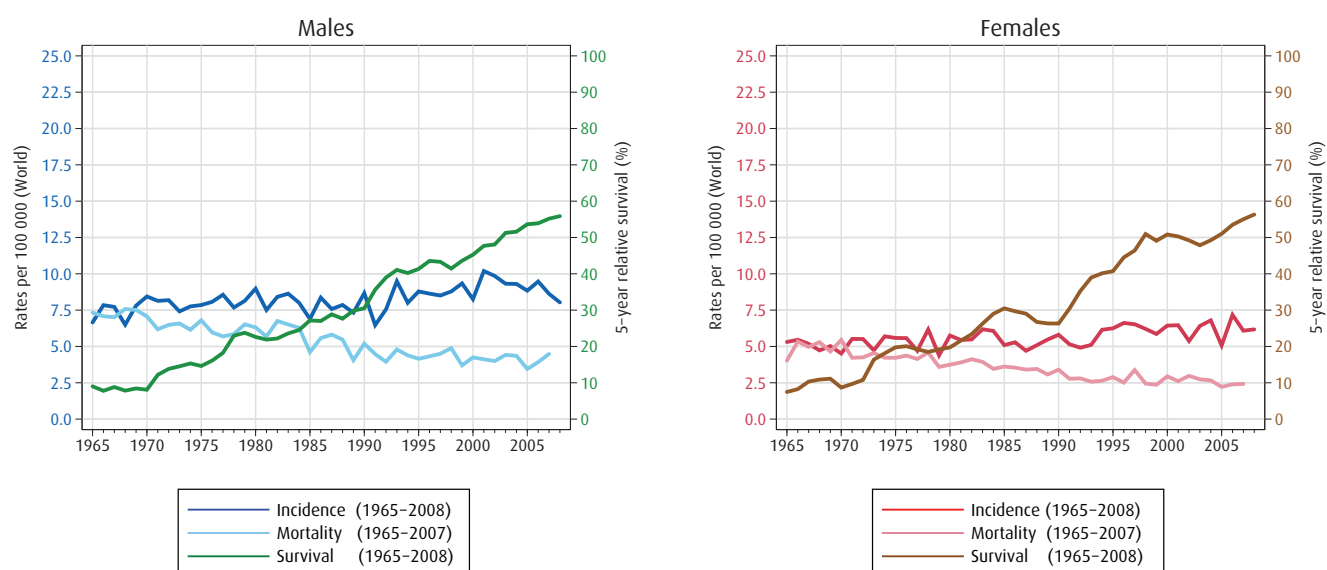


Figure 10-X: Leukaemia (ICD-10 C91-95)



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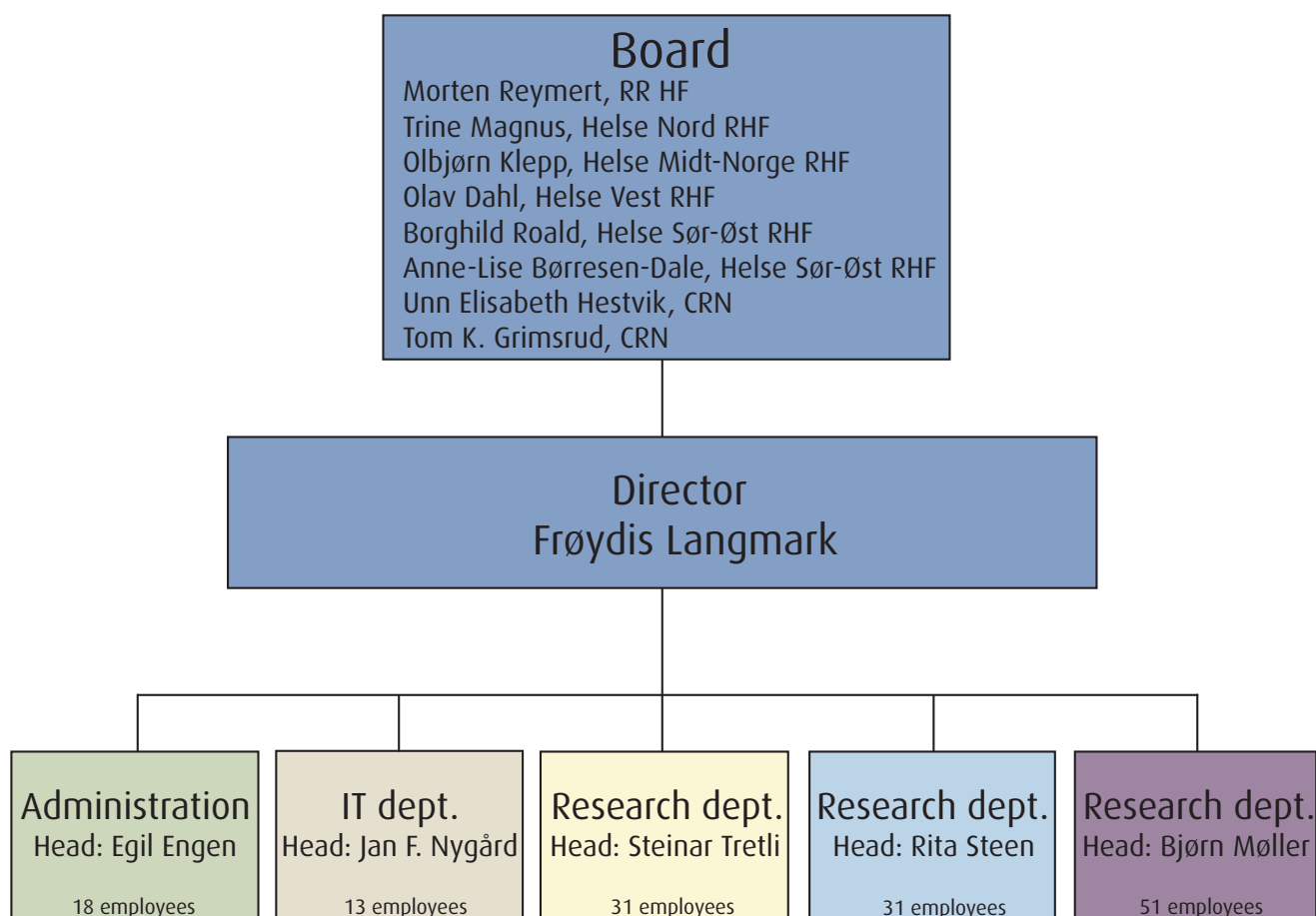
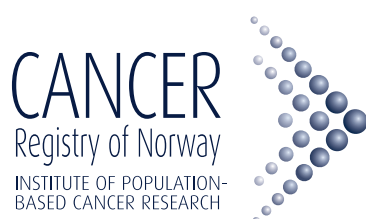
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Research activities at the Registry

Organisation and founding principles

The Cancer Registry of Norway is a national, population-based cancer research institute, which was founded and financed by the Cancer Society 1951-1979. Since then the institution has been governmental, with a board (except for the period 1994-2002) and a chapter in the National Budget plan. Since 2002 it has been allied to the Norwegian Radium Hospital and from 2009 to Oslo University Hospital Trust. This organisational platform signals the importance attached to close links with cancer research milieus and cancer clinics. It also increases the possibilities for Norway as a nation to move towards the Comprehensive Cancer Centre organisational model. As early as 1951, reporting of cancer and some precancers has been mandatory from all milieus that diagnose and treat cancer. From 2002 however, new regulations have strongly enforced the legal premises, substantially improving the Registry's capacity to perform clinical population-based research and evaluate the quality control of health care. Comparative advantages are compulsory reporting without patients' consent and the uniquely identifying personal number. As a result of these advantages, organ-specific treatment quality registries are increasingly part of the Registry's duties, in close collaboration with the clinical milieus.

Structure of the Cancer Registry of Norway 2009



Department of Etiological Research

Head: Steinar Tretli PhD

Department objectives

The principal goal of the Department of Etiological Research is to bring forth new knowledge on carcinogenesis and the causes of cancer. The focal points for research in recent years have been cancer risk and its relation to occupational and environmental factors, and to hormonal status and diet. In future studies, an increased emphasis will be put on testable biologically-founded hypotheses, using biological markers of exposures, and collaboration with researchers in the relevant fields. Specifically this will include utilization of the JANUS serum bank. In addition, a focus on the development of bio-statistical methods in cancer epidemiology will be important. The tradition of collaboration with the different research milieus in the other Nordic countries, as well as international collaboration will be continued and expanded. The high quality population-based registries in the Nordic countries make such partnerships especially valuable.

Current research priorities

Research on long-term effects of exposures during fetal life, childhood, youth and adult life ("life course epidemiology") will have high priority in the department. Several of our studies have already investigated the impact of early life on adult cancer risk, specifically for hormone-related cancers such as breast, prostate, and testicular cancer. Studies on cancer development related to life style and environmental and societal factors will also be emphasized. This life course epidemiology will often include the study of molecular, genetic, and hereditary aspects of cancer development, in for instance the study of gene-environment interactions.

Research on cancers associated with occupational and environmental exposures has a long tradition in the Department, and the identification and quantification of such risks will still be important. Studies on working populations may often be the only method to obtain knowledge of possible population effects of low-dose exposures. Occupation is also an important classification variable concerning the knowledge on differences in cancer risk by social class.

The understanding of the carcinogenic process has traditionally been based on three sources of information: experimental, clinical, and epidemiological research. Through modelling and simulation we will assess the importance of different mechanisms in the disease process.

Long time follow-up of cancer patients is an important research field. This will include the study of medical, social and economic consequences of a cancer diagnosis.

Recent important results

In 2008, the research activity at the department led to 47 scientific publications in national and international journals. The publications focused on gene-environment interactions, on risk factors such as occupational exposures, diet/body mass index, viral and bacterial infections, in addition to publications on epidemiological methods and life conditions after cancer. Some of the results are from international collaboration studies. In addition, one doctoral dissertation was defended in 2008.

Theses published in 2008

Weedon-Fekjær H. Modelling breast cancer incidence, progression and screening test sensitivity using screening data. Faculty of Medicine, University of Oslo, 2008.

Frostad A. Respiratory symptoms as risk factors for mortality from all causes and from respiratory and cardiovascular disease and for incidence of lung cancer: a 30-year follow-up of a community study in Oslo. University of Bergen, Cancer Registry of Norway, Oslo, 2008

Department of Screening-based Research

Head: Rita Steen MD PhD

Department objectives

The Screening Department administers two programmes for early detection of cancer and premalignant disease, the Breast Cancer Screening Programme and the Cervical Cancer Screening Programme. Since 1995, the Cervical Cancer Screening Programme has recommended women aged 25-69 years to undergo a PAP smear every third year, whereas all women aged 50-69 years are offered mammography screening every two years. The Cervical Cancer Screening Programme mails a personal letter to women whom have not had a PAP test in the last three years, with a recommendation to take a test. Invitation to mammography screening is mailed to eligible women, together with a pre-specified date of examination.

The Screening Department monitors the programmes' effectiveness and efficacy by examining early

quality indicators (e.g. coverage/attendance, detection rate, tumour stage for breast cancer, and stage of premalignant lesions of the cervix), as well as changes in rates of incidence and mortality of the cancers. The main objective of the Norwegian Breast Cancer Screening Programme is to reduce mortality by 30% among women invited to mammography screening. For the Cervical Cancer Screening Programme, the main objective is to achieve a reduction of 50% in the incidence and mortality rates of cervical cancer compared to the rates prior to the programme launch. The most important factor determining the success of these screening programmes is high coverage. In 2008, coverage was 75% in the Cervical Cancer Screening Programme, and the attendance rate was also 75% in the Breast Cancer Screening Programme, raising expectations that the programmes will accomplish these objectives.

Current Research Priorities

The current research priorities of the Cervical Cancer Screening Programme are:

- 1) Evaluation of the CIN (cervical intraepithelial neoplasia) register, a follow-up register with data on treatment, established in 1997.
- 2) Study of the impact of HPV-testing in triage after PAP smear screening on CIN 2+.
- 3) Studies of the efficacy and effectiveness of screening in women aged 25-69 years.
- 4) Study of the screening history of women diagnosed with cervical cancer before reaching the age of 25, including a re-examination of their PAP tests, pathological tissue and samples.
- 5) Study of the screening history of women aged over 70 years diagnosed with cervical cancer.
- 6) Investigate the need for a more individual-orientated approach to Cervical Cancer Screening Programme, dependent on vaccination status.
- 7) Long-term follow-up after HPV vaccination of women participating in the vaccine trials. Study of HPV prevalence among women 18-45 years, both in the general population and in those with premalignant disease and cervical cancer.

The current research priorities of the Breast Cancer Screening Programme are:

- 1) Further investigations of early (process) indicators and tumor characteristics in screening.
- 2) Study of the effectiveness of the programme in relation to breast cancer survival and mortality.
- 3) Study of overdiagnosis associated with the Breast Cancer Screening Programme.
- 4) Study of breast cancer screening in Norway and the U.S. (Vermont).

- 5) Study of hormone therapy and risk of breast cancer

For the Breast Cancer Screening Programme, one PhD student is currently investigating effects of mammography screening on breast cancer survival. Another PhD student is evaluating the Norwegian Breast Cancer Screening Program with regards to DCIS, overdiagnosis and implementation of new technology. Within the Cervical Cancer Screening Programme, one PhD student is undertaking a population-based follow-up study on women diagnosed with severe cervical dysplasia in Norway.

Registries at the Department of Screening-based Research

For administration of the screening programs several registries have been established. These registries are presented in the table below.

Name	Date of launch
Mammography Screening Registry	20.11.1995
Cervical Cytology Registry	01.11.1991
Cervical Intraepithelial Lesion Follow-up and Treatment Registry (CIN Registry)	01.01.1997
Cervical Histology Registry	01.01.2002

Department of Clinical- and Registry-based Research

Head: Bjørn Møller PhD

Department objectives

The Clinical Research department has a broad remit. One of its fundamental responsibilities is the continued collection, storage and quality control of data on all cases of cancer in Norway, as defined by the Statutory Regulations. This information is collected from clinicians, pathologists, administrative patient discharge files, and the Cause of Death Registry.

The Department provides relevant information on cancer patterns and changes in cancer over time in Norway, via various dissemination routes including scientific publications and reports such as the Cancer in Norway series. The Department has put an emphasis on activating and collaborating in good research projects at the national and international level, initiated in-house, or via external requests or invitations, and focusing on building strong ties with the clinical community in Norway.

The Department is organised into two sections, according to the key areas of ongoing activity:

1) Section for Registration. Management of the incidence register and development of the clinical registries. The section is divided into four organ-defined groups, which manages all the cancer types within the group. The clinical registries offer novel opportunities for population-based research into cancer care (see below).

2) Section for Research. Research using the incidence register, focusing on areas of particular public health importance alongside the application of appropriate methodologies

In addition, the department has a medical advisory group, with the responsibility for documentation of quality control, the revision of in-house coding procedures and guidance in medical coding.

Clinical registries

The Statutory Regulations for the Cancer Registry of Norway include the registration of treatment and follow-up of Norwegian cancer patients. Clinical registries – comprehensive registration schemes dedicated to specific cancers – have been established to include detailed information on diagnostic measures, therapy, and follow-up. By fostering strong collaborative links with the clinical community, the aims are to provide an empirical base for scientific studies concerning prognostic factors and treatment outcomes as well as evaluation of quality of cancer care.

The ongoing and expanding activities of these clinical registries is a major focus for the Registry, and several clinical registries are now established. Each clinical register is underpinned by a Reference Group, a panel of multi-disciplinary experts drawn from the clinical and research milieu in Norway, whose remit is to advise on the operations of the registry, and its strategic direction. These newly-established clinical registries will be integrated into the Registry's coding and registration activities. The table below indicates the status of these subregistries as of December 2009.

Theses published in 2008

Strand TE. A population-based study of lung cancer in Norway: Epidemiological aspects and evaluation of surgical treatment. Faculty of medicine, University of Oslo, 2008

Status of the clinical registries, December 2009

National clinical registry for	Clinical reference group established	Established with extended data*	Clinical parameters for electronical report specified	Electronical report form developed
Colorectal cancer	Yes	Yes	Yes	Yes
Malignt melanoma	Yes	Yes	Yes	2009
Breast cancer	Yes	2010	Yes	2010
Prostate cancer	Yes	Yes	Yes	2010
Lymphoma	Yes	Yes	Yes	2010
Lung cancer	Yes	Yes**	Yes	2010/2011
Childhood cancer	Yes	Yes***	Yes	2010/2011
Ovarian cancer	Yes	Yes****	Yes	>2010
Leukaemia	Yes	>2010	Yes	>2010
Central nervous system	Yes	>2010	Yes	>2010
Gallbladder, pancreas and liver cancer	Yes	>2010	Yes	>2010
Oesophagus and stomach cancer	Yes	>2010	Yes	>2010
Polyposis family	Yes	Yes	No	>2010

* Either by having a separate clinical report form and/or by having a database with extended information beyond the incidence registry. The delay compared to the timeline outlined in Cancer in Norway 2007 for some of the registries are due to lack of funding.

** Established for surgically treated patients, planned to be extended to all lung cancer patients.

*** Will be extended with treatment data when integrated with the incidence registry.

**** Planned to be extended to all gynecological cancer patients.

List of publications 2008

Registry staff and affiliated researchers collaborated on 80 research papers in 2008.

Aasbrenn M, Langmark F, Wisloff F. [Is registration of multiple myeloma in the Norwegian Cancer Registry good enough?]. *Tidsskr Nor Laegeforen* 2008; 128(23):2712-2714.

Arbyn M, Dillner J, Schenck U, Nieminen P, Weiderpass E, Da Silva JD et al. Methods for screening and diagnosis. In: Arbyn M, Anttila A, Jordan J, Ronco G, Schenck U, Segnan N et al., editors. *European guidelines for quality assurance in cervical cancer screening*. Brussels: European Community, Office for Official Publications, 2008.

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Bjornaas MA, Bekken AS, Ojlert A, Haldorsen T, Jacobsen D, Rostrup M et al. A 20-year prospective study of mortality and causes of death among hospitalized opioid addicts in Oslo. *BMC Psychiatry* 2008; 8(1):8.

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Chuang SC, Scelo G, Tonita JM, Tamaro S, Jonasson JG, Kliever EV et al. Risk of second primary cancer among patients with head and neck cancers: A pooled analysis of 13 cancer registries. *Int J Cancer* 2008; 123(10):2390-2396.

Dillner L, Pagliusi S, Bray F, Lorincz A, Kjaer SK, Anttila A et al. Strengthening prevention programs to eliminate cervical cancer in the Nordic countries. *Acta Obstet Gynecol Scand* 2008; 87(5):489-498.

Emaus A, Espetvedt S, Veierod MB, Ballard-Barbash R, Furburg AS, Ellison PT et al. 17-beta-estradiol in relation to age at menarche and adult obesity in premenopausal women. *Hum Reprod* 2008; 23(4):919-927.

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