

Cancer in Norway 2005

Cancer incidence, mortality,
survival and prevalence in Norway

Special issue:
*Predictions of cancer incidence
by Health Region 2010–2020*



Cancer in Norway 2005

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Request for cancer information, data or possible research collaboration are welcome, and should be sent to datautlevering@kreftregisteret.no in the first instance.



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Foreword

This year's Cancer in Norway (CiN) represents a turning point in the history of the Cancer Registry of Norway. As a disease registry, we are dependent on timely reports on each patient from the clinical community to enable us to deliver incidence data within one year of the end of the diagnosis year. That we are able to deliver such data for 2005 during 2006 is a consequence of having a legal framework for cancer registration in place in Norway, and underscores the proficiency of each hospital in fulfilling their obligations to report cancers. Ultimately, the timeliness of this report is a product of the dedication of our own staff in interpreting, coding and registering new cancer cases.

We have observed slightly fewer cases in 2005 compared with 2004, possibly representing some degree of underreporting from clinicians. We believe the shortfall is sufficiently minor to warrant publication however, and, as is our remit, we present high quality and timely incidence data in this report.

Cancer in Norway 2005 represents a major transformation of the contents of the annual report. Specific developments include:

- A conversion of the incidence data from ICD-7 to ICD-10
- A more detailed exposition of the registration processes and the quality of the incidence data
- Individual sections on the main indicators: incidence, mortality, prevalence and survival
- Additional results on our website
- The incorporation of a *Special Issue* – a regular in future CiN reports integrating a research topic of national importance. The first topic providing a detailed breakdown of regional cancer incidence predictions up to 2020.

Cancer in Norway 2005 provides a more coherent link to the core research activities of the Registry, namely research on the causes of cancer, screening-based research, and clinical and registry-based research, the latter being expanded through the organ-specific special registries now being founded at the Registry. The competency within the registry, and the assured links with external milieus, provide us with considerable grounds for confidence going forward into 2007, building on the high quality cancer research activities of the Registry.

Future CiN reports will include more detailed analyses of cancer incidence and survival data that better demonstrate the geographical and temporal variations in Norway. There will also be translations into Norwegian where appropriate, available online as part of the launch of the new website in Spring 2007.

We look forward to continuing and increasing our collaborative links with the regional cancer centres and the clinical community as a whole, as well as expanding our research activities in liaison with cancer researchers, both in Norway and abroad.



Oslo, December 2006
Frøydís Langmark
Director

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Data Sources and Methods

The population of Norway

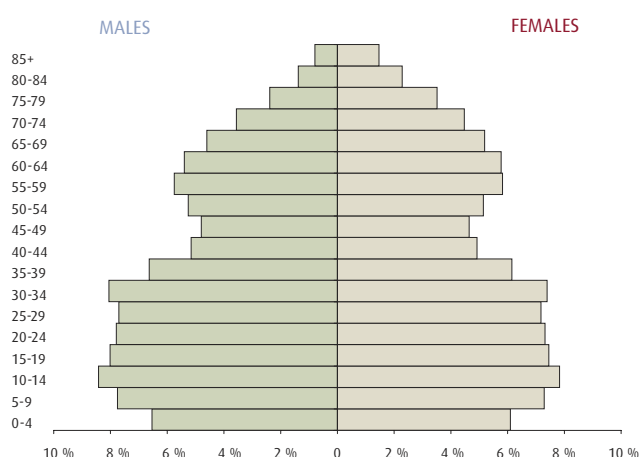
The Norwegian population is principally white Caucasian, with an immigrant population (from over 200 countries) comprising around 8% of total population of 4.6 million in 2005 (Table 1). Figure 1 illustrates the changing population size and age structure of Norway, comparing population estimates in 1980 and 2005 with projections for 2030 (Statistics Norway, 2006). The population of Norway has been increasing since records began, and this growth is expected to continue in the next 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 17% to about 5.4 million (Statistics Norway, 2004). The elderly will represent an increasingly large proportion of the population of Norway in the next quarter of a century, predominantly as a result of lengthening life expectancy. 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 31.12.2005

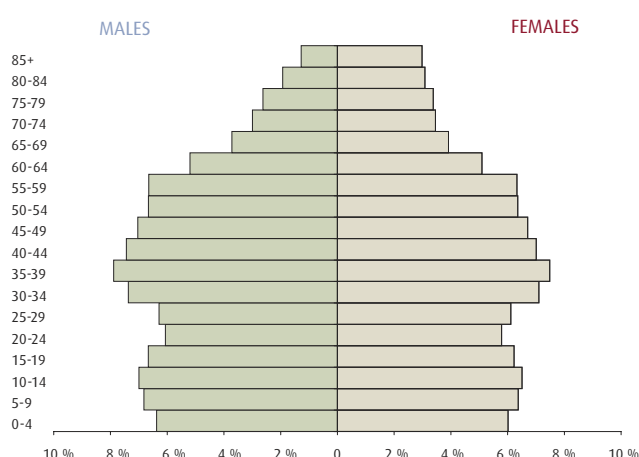
Age	Males	Females
0-4	146 674	140 709
5-9	157 023	149 085
10-14	161 087	152 233
15-19	153 434	145 741
20-24	139 588	135 420
25-29	144 790	143 021
30-34	169 674	166 205
35-39	181 573	175 082
40-44	171 271	163 999
45-49	162 013	156 895
50-54	153 370	148 775
55-59	153 055	148 111
60-64	119 651	119 271
65-69	85 663	91 638
70-74	68 928	80 858
75-79	60 397	79 109
80-84	44 401	72 249
85+	29 389	69 837
Total	2 301 981	2 338 238

Figure 1

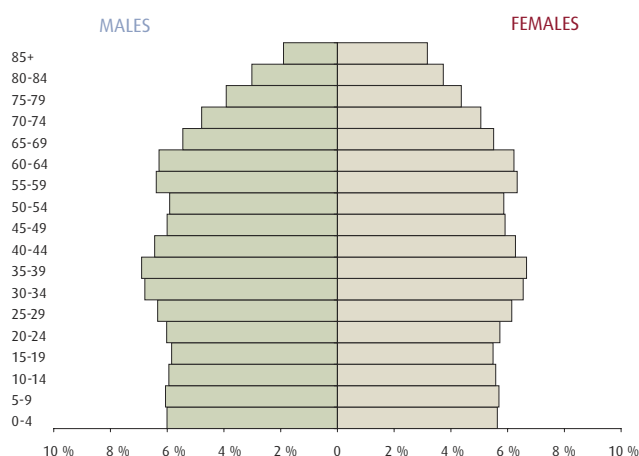
Age structure of the Norwegian population, 1980



Age structure of the Norwegian population, 2005



Age structure of the Norwegian population, 2030*



*Forecasted, Statistics Norway

The Cancer Registry of Norway

The Cancer Registry of Norway is population-based and covers the whole of Norway. It has systematically collected notifications on cancer since its inception in 1952, and is considered complete from 1953. The reporting of cancer (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 Cancer Registry of Norway, strengthening the legal obligation to report new cases for cancer registration, and defining its main objectives as to:

1. Collect and, within the scope of the Regulations, process data relating to cases of cancer, and carry out studies in Norway in order to document the distribution of cancer in the country and describe changes over time;
2. Conduct, promote and provide a basis for research to develop knowledge of the causes, diagnosis, natural course, and effects of treatment of cancer in order to improve the quality of preventive measures and medical assistance to combat cancer, including the follow-up of individual patients and groups of patients;
3. Provide advice and information to public administrative bodies and the population at large on measures that may prevent the development of cancer.

The Registry is therefore focussed on three main lines of activity: i) the complete registration and follow-up of all cancer cases in Norway, ii) research on the aetiological, screening and clinical aspects of cancer in Norway, building on existing collaborations at the national and international level, and iii) the provision of cancer information to a broad range of interest groups that includes the general public, journalists and politicians, in addition to professionals within the clinical and research community.

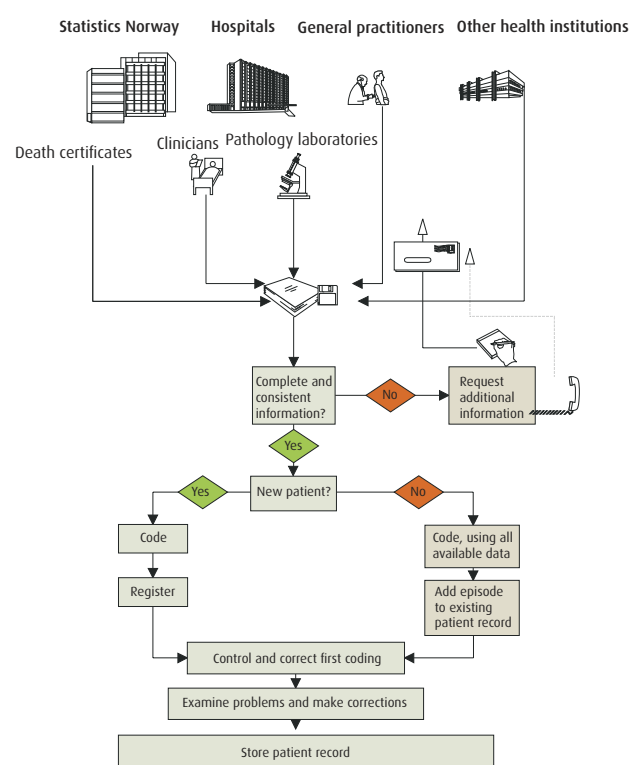
As well as personal characteristics of the patient, the following variables are included in the registering of each tumour: diagnosis (modified ICD-7 – see *Classification and Coding*); date of diagnosis; histopathology laboratory and identification number for the tissue specimen; treatment institution: hospital, department, outpatient facility; organ of disease origin, type and metastasis; diagnostic method; treatment: surgery, chemotherapy, radiotherapy, hormonal therapy, and other treatment; date and causes of death.

Notifications and sources of information

All hospitals and oncological centres are required by the regulations to report all new cases of cancer, irrespective of whether the patient is treated, admit-

ted, or seen only as an outpatient. The Registry also receives mandatory reports from individual physicians, and from pathology and cytology laboratories. The Registry has received over 100 000 notifications in each of the last two years pertaining to diagnoses made in 2005. The Registry sends out 40 000 reminders each year to the reporting institution or physician requesting additional information or clarifications. The sources of information and the Registry process - from the initial submission of cancer information through to the storage of the patient record - are illustrated in Figure 2. If the Registry has received a notification from a pathological laboratory, but no clinical form, the hospital clinician is contacted and asked to notify the Registry about the patient. In instances of conflicting information from clinicians and pathologists, the reports are investigated further.

Figure 2: Sources of information and the registration process



Death certificate matching

The records held in the Registry are regularly matched with the Cause of Death Register run by the National Statistics Bureau, *Statistics Norway*. The automated procedure that matches registered patients to death certificates is important to maintain quality control, facilitating a high level of completeness and validity of the Registry data (see *Data Quality*). Dates of death are matched monthly, and causes of death annually, via

the national 11-digit personal identification number, which provides a reliable means of tracking patients and keeping potential duplication of registered cases down to a minimum.

Death certificates are also a complementary source of information on new cancer cases: death certificates specifying cancer inconsistent or unmatched to registry files are subject to further scrutiny within the Registry. Cancer cases first identified from death certificates are traced back to the certifying hospital or physician. The Registry then asks the doctor who completed the certificate to state whether the patient had been investigated and diagnosed when alive, or whether the diagnosis was made after death.

The regular processing of death certificates also ensures active follow-up of each and every patient with regards their vital status e.g. whether they are alive, dead or have emigrated. This information is essential in analysing the survival of cancer patients (see *Survival*).

Classification and coding

Topography and morphology

Up to and including 1992, the topographical codes of the cancer site were coded according to a slightly modified version of ICD-7 (International Classification of Diseases, 7th edition, 1957). Since 1993, the basis for coding has been ICD-O-2 (International Classification of Diseases for Oncology, 2nd edition, 1992), with the topography axis standardised with the C section of ICD-10 (International Classification of Diseases, 10th edition, 1990).

The Registry has since its first report in the late-1950s (Pedersen and Magnus, 1958) utilised ICD-7 to provide a description of the cancer-specific burden in Norway. *Cancer in Norway 2005* however, marks the first annual report for which the figures and tabulations use the ICD-10 nomenclature, following a tentative conversion of the registry data from ICD-7.

Solid tumours are tabulated according to organ of origin, stated or presumed to be primary, of specified sites (C00-C75). Non-solid tumours - stated or presumed to be primary, of the lymphoid, haematopoietic and related tissue (C81-C96) - are presented according to disease category irrespective of the organ of origin. The use of ICD-10 to code incidence data now corresponds with the system used by Statistics Norway to code deaths from cancer (see *Mortality*).

The tabulations in this report are for all new malignant neoplasms (ICD-10 C00-C96) and exclude basal cell carcinomas of the skin. The tables are classified according to three- or four-character ICD-10 codes within the following groups:

C00-C14	Lip, oral cavity and pharynx
C15-C26	Digestive organs
C30-C38	Respiratory and intrathoracic organs
C40-C41	Bone and articular cartilage
C43-C44	Skin
C45-C49	Mesothelial and soft tissue
C50	Breast
C51-C58	Female genital organs
C60-C63	Male genital organs
C64-C68	Urinary tract
C69-C72	Eye, brain and other parts of central nervous system
C73-C75	Thyroid and other endocrine glands
C76-C80	Malignant neoplasms of ill-defined, secondary and unspecified sites
C81-C96	Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue

From 1970-92, tumour morphology was coded within the Registry according to MoTNaC (Manual of Tumour Nomenclature and Coding, 1968). Since 1993, ICD-O morphology codes have been used. Carcinoma *in situ* of the uterine cervix (D06), borderline tumours of the ovary (D27) and basal cell carcinomas (ICD-O 80903-80933) are classified separately. Atypical epithelial lesions and benign papillomas of the transitional cell lined urinary tract are however included with the invasive cancers. Precancerous lesions of other sites are omitted. All neoplasms of the central nervous system, whether malignant or non-malignant, are included in the incidence tables under C72, malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system.

Staging

Most solid tumours are classified as either localised, with regional spread, with distant spread, or of unknown stage. Tumours of the uterine cervix are staged I-IV – according to the FIGO (International Federation of Gynecology and Obstetrics) staging system (Pecorelli *et al*, 1999). Breast tumour stages I-IV refer to localized tumour, lymph node metastases, direct tumour extension to the chest wall or skin, and distant metastases, respectively. Stage-specific survival by period of diagnosis and sex are examined in the *Survival* section.

Data quality

One of the central aims of the Registry – and of this report – is the provision of timely and relevant information on cancer incidence, mortality, survival and prevalence in Norway. The broad remit of the institution is however in some accordance with the expanded view of cancer registries proposed by Armstrong (1992), whereby involvement in cancer control extends beyond routine surveillance and aetiological research to a more active role in implementing, evaluating and planning specific cancer control programmes, such as screening programmes and the quality of cancer care. The value of the Registry and its ability to carry out such activities relies heavily on the quality of the data, and the quality control procedures in place (Brewster, 1995; Storm, 1996).

There are three main aspects that help to characterise the quality of the information in the Registry (Parkin *et al*, 1994). Firstly, there must be *comparability* between populations groups (registries, geographical areas etc), and within those groups over time. A basic requirement to ensure comparability is the standardisation of practices concerning the classification and coding of new cases, and consistency in basic definitions of incidence, such as rules for the coding of multiple primaries, whereby one must decide whether two or more cancers in the same individual represent a new case of cancer, or an extension, recurrence, or metastasis of the first tumour. Comparability also necessitates the data are accurate in terms of their *completeness* and *validity*. *Completeness* is the extent to which all of the incident cancers occurring in the Norwegian population are included in the Registry database. Incidence rates and survival proportions will be close to their true value if maximum completeness in case-finding procedures can be achieved. Finally, *validity* refers to the proportion of cases in the Registry with a given characteristic that truly have that attribute, and depends on the precision of source documents and the level of expertise in abstracting, coding, and recording (Parkin *et al*, 1994).

Data completeness

To date, there has been no comprehensive evaluation of the completeness of the Registry. A pilot study (as part of the 1978 annual report) indicated that overall completeness in the Registry in two counties in 1976 (accounting for 12% of the total Norwegian population) was 97.6% for solid tumours, but was less complete for leukaemia and multiple myeloma, possibly as a result of failure to diagnose some cases at the pathological laboratories (Lund, 1981).

Several ad-hoc reports by Registry workers have examined the completeness of specific cancer sites. A study of the quality of head and neck cancer registrations 1953-91 indicated that virtually all new cases were reported when compared against hospital-based registries (Mork *et al*, 1995); for prostate cancer, the deficiency in reporting was reported to be less than 1%. A report on the quality of histologically-verified ovarian cancers diagnosed 1987-96 in one region in Mid-Norway (14% of the total Norwegian population) estimated organ-specific completeness at 95.3% (Tingulstad *et al*, 2002).

On average, the Registry receives four reports per case. From 1998, it has received data files from the patient administrative systems of all Norwegian hospitals, containing information on all patients being treated for malignant and premalignant conditions. This has probably contributed to an improvement in the completeness of the registration of non-solid tumours, non-malignant brain tumours as well as some solid tumour sites.

All pathology laboratories send copies of the laboratory reports (biopsy, cytology and autopsy) to the Registry, obviating the need to fill in Registry forms, reducing potential delays in waiting for the diagnosis year to be considered complete. For haematological cancers diagnosed without pathologists however, a tendency of underreporting is observed, as noted previously (Lund, 1981).

Data validity

As with the evaluation of completeness, the accuracy of registry data in Norway has been reviewed for certain sites. Helseth *et al* examined almost 9000 cancers of the central nervous system diagnosed 1955-84, drawing a random sample of 300 cases to examine potential errors in the coding (Helseth *et al*, 1988). Over 9% of cases were reported to be erroneous, although only 0.3% of the series contained errors on restricting the analysis to the main histological groupings. A re-evaluation of a random sample of 300 cases from a corrected series of head and neck cancers diagnosed 1953-1991 indicated discrepancies between the pathologists' classification and the Registry's coding in 1.4% of all cases, and further, that the proportion without histological verification fell from 5.7% in the first decade to 2.1% during the last 9-year period (Mork *et al*, 1995).

A study examining a 1% sample of prostate cancer cases diagnosed 1957-86 indicated 6% of the patient files had an error in one of the fields in the record, irrespective of their perceived importance (Harvei *et al*, 1996). Tingulstad *et al* evaluated the accuracy of ovarian cancers diagnosed in a single region 1987-96

revealing that, of 591 cases identified with a histological diagnosis at the Registry, accuracy was about 92%. Coding errors were found in 2% of these cases, while in a further 6% it was not possible to reproduce the original diagnosis of ovarian cancer at re-evaluation (Tingulstad *et al*, 2002).

Selected data quality indicators 2001-2005

Three routinely derivable indicators of data quality are displayed in Table 3 according to tumour site, and serve to confirm the general quality of the Registry. The proportion of cases histologically verified (%HV) is mainly a measure of the validity of Registry data, although percentages very close to 100% may serve to indicate an over-reliance on pathological laboratories, and a possible under-reporting of registered cases (Parkin *et al*, 1994).

A high proportion of cancers for which no other information than a death certificate mentioning cancer can be obtained - death certificate only registration or DCOs - tend to be indicative of inadequate case-finding procedures. Its value as a measure of completeness has been questioned however, given it is strongly dependent on both the case fatality rate and the misclassification rates of cancer deaths among unregistered patients (Brenner, 1995).

Finally, the mortality/incidence ratio (M:I ratio) - with the mortality data obtained from an independent source - is another estimator of the completeness of registration. The M:I ratio will equal 1-survival probability for a steady state of constant incidence and survival (Parkin *et al*, 1994). Thus changes in the M:I

ratio should be consistent with known changes in survival rates, and values close to unity are reasonable for cancers associated with very poor survival. In general, M:I ratios should be less than one unless incidence is declining rapidly relative to mortality (Brewster, 1995).

Timeliness of registry data

Figure 3 shows the timeline from the end of the year of diagnosis until publication of *Cancer in Norway* less than one year later. It illustrates the time-consuming procedures required to make the Registry both practically complete and of sufficient quality to permit publication. The registry has become more timely of recent, with the median time from date of diagnosis to registration of a new case shortened from around 527 days in 2005 to 262 days in 2006.

As a result of some delays in notification from hospitals and other sources however, there will be some increases in the number of registered cases for 2005 some years after publication of this report (Table 2).

The shortfall in incidence in 2005 is, at the time of going to press (early December 2006), estimated to be around 300 cases. The Deaths Registry has not yet accounted for all deaths in Norway in 2005, having processed 93% of the total number of death certificates. The Registry will therefore likely accrue most of the missing incident cases during 2007, and this will be met by a reduction in the DCO proportion - currently estimated to be 2.9% - to a figure close to the present 2004 DCO estimate of 0.8%. The discrepancy thus represents a trade-off between timeliness of publication

Table 2: Stability of data over time

	Incidence year														
Publ.year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
1991	18 541														
1992	18 612	19 059													
1993	18 586	19 158	18 950												
1994	18 565	19 169	19 341	19 284											
1995	18 594	19 219	19 459	19 568	19 863										
1996	18 630	19 299	19 560	19 777	20 185	20 780									
1997	18 510	19 199	19 432	19 642	19 986	20 655	20 981								
1998	18 546	19 257	19 445	19 673	20 034	20 539	21 280	21199							
1999	18 593	19 312	19 516	19 750	20 136	20 671	21 427	21449	21 200						
2000	18 611	19 330	19 535	19 770	20 187	20 716	21 438	21466	21 414	22 185					
2001	18 633	19 353	19 561	19 781	20 230	20 749	21 425	21530	21 533	22 402	22 468				
2002	18 648	19 375	19 591	19 815	20 231	20 738	21 374	21502	21 544	22 304	22 481	22 694			
2003	18 650	19 384	19 595	19 823	20 236	20 739	21 376	21504	21 541	22 307	22 495	22 779	23 307		
2004	18 651	19 389	19 598	19 827	20 246	20 760	21 391	21528	21 582	22 337	22 520	22 815	23 613	24 434	
2005	18 696	19 439	19 643	19 866	20 287	20 829	21 433	21577	21 639	22 400	22 585	22 900	23 873	24 822	24 229
Max	18 696	19 439	19 643	19 866	20 287	20 829	21 438	21577	21 639	22 402	22 585	22 900	23 873	24 822	
Min	18 510	19 059	18 950	19 284	19 863	20 539	20 981	21199	21 200	22 185	22 468	22 694	23 307	24 434	
Average	18 604	19 282	19 479	19 715	20 147	20 718	21 347	21469	21 493	22 323	22 510	22 797	23 598	24 628	
Max - min	186	380	693	582	424	290	457	378	439	217	117	206	566	388	
Max variation, %	1,0%	2,0%	3,7%	3,0%	2,1%	1,4%	2,2%	1,8%	2,1%	1,0%	0,5%	0,9%	2,4%	1,6%	

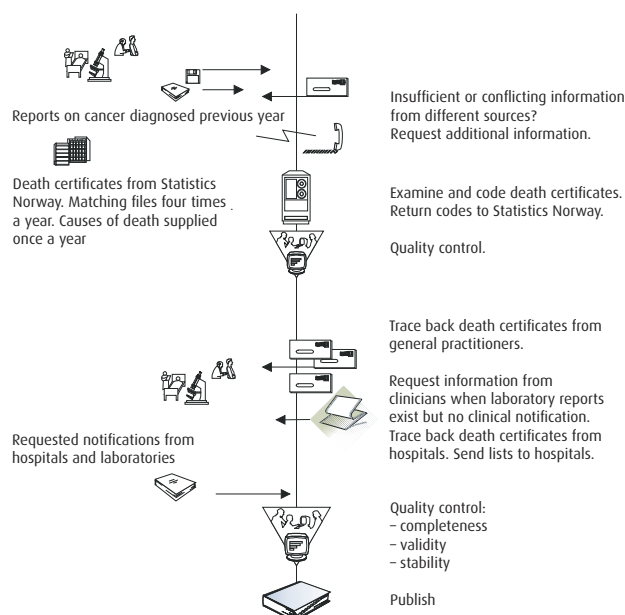
The table shows the total number of registrations annually (italicised diagonals) and the updated numbers for each year following publication.

Table 3: Percentage distribution of histological verification (HV), death certificates only (DCO) 2001-2005, and M:I ratio 2000-04

ICD10	Site	Cases	HV %	DCO %	M:I ratio
C00-96	All sites	118406	88.0	1.3	0.44
C00-14	Mouth, pharynx	1940	96.8	0.2	0.38
C00	Lip	360	99.7	0.0	0.08
C01-02	Tongue	390	97.7	0.0	0.39
C03-06	Mouth, other	405	99.5	0.2	0.51
C07-08	Salivary glands	196	87.8	0.0	0.33
C09-14	Pharynx	589	95.4	0.5	0.49
C15-26	Digestive organs	26095	88.3	1.7	0.60
C15	Oesophagus	936	94.1	1.6	0.85
C16	Stomach	2819	95.0	0.9	0.81
C17	Small intestine	508	95.1	0.2	0.44
C18	Colon	10933	94.7	1.0	0.50
C19-21	Rectum, rectosigmoid, anus	6031	97.1	0.5	0.43
C22	Liver	623	73.7	4.7	0.88
C23-24	Gallbladder, bile ducts	673	67.9	2.4	0.73
C25	Pancreas	3116	53.7	4.9	0.98
C26	Other digestive organs	456	45.2	15.4	0.44
C30-34, C38	Respiratory organs	12044	78.0	2.1	0.81
C30-31	Nose, sinuses	199	98.5	0.5	0.39
C32	Larynx, epiglottis	606	97.5	0.3	0.36
C33-34	Lung, trachea	11160	76.8	2.2	0.84
C38	Mediastinum, pleura	104	60.6	7.7	0.89
C40-41	Bone	215	96.3	0.9	0.49
C43	Melanoma of the skin	5239	99.0	0.2	0.22
C44	Skin, non-melanoma	6069	99.0	0.1	0.03
C45	Mesothelioma	356	89.3	0.3	0.66
C46	Kaposi's sarcoma	45	93.3	0.0	0.02
C47	Autonomic nervous system	48	93.8	0.0	0.23
C48-49	Soft tissues	624	94.7	0.5	0.56
C50	Breast	13686	97.0	0.3	0.27
C51-58	Female genital organs	7628	95.8	0.8	0.40
C53	Cervix uteri	1463	99.5	0.1	0.33
C54	Corpus uteri	3158	98.7	0.3	0.19
C55	Uterus, other	56	73.2	10.7	1.96
C56	Ovary	2270	90.4	1.2	0.68
C51-52, C57	Other female genital	661	95.0	2.0	0.42
C58	Placenta	20	45.0	0.0	0.05
C60-63	Male genital organs	17997	93.3	1.2	0.30
C61	Prostate	16508	92.8	1.3	0.32
C62	Testis	1272	99.1	0.2	0.05
C60, C63	Other male genital	217	97.7	0.9	0.16
C64-68	Urinary organs	9330	90.4	1.0	0.35
C64-65	Kidney	3078	82.4	1.6	0.43
C66-68	Bladder, ureter, urethra	6252	94.3	0.7	0.31
C69	Eye	305	50.2	0.3	0.23
C70-72	Central nervous system	4348	64.0	1.4	0.33
C73	Thyroid gland	995	92.8	0.2	0.17
C37, C74-75	Other endocrine glands	115	81.7	1.7	0.73
C39, C76, C80	Other or unspecified	2636	53.0	7.2	1.10
C81-96	Lymphoid and haematopoietic tissue	8666	73.2	1.5	0.51
C81	Hodgkin lymphoma	560	98.4	0.0	0.14
C82-85, C96	Non-Hodgkin lymphoma	3659	96.8	0.4	0.45
C88	Malignant immunoproliferative diseases	210	52.4	4.8	0.37
C90	Multiple myeloma	1640	45.3	2.2	0.69
C91-95	Leukaemia	2597	53.8	2.6	0.59

and completeness of data. For the Registry, rapid dissemination of accurate and close-to-complete data outweigh concerns regarding the accrual of additional cases over several years, given they represent a minor proportion of the total annual incidence.

Figure 3: Quality checks undertaken by the Registry before a registration is made



Future work on data quality

The validation and consistency checks within the Registry, the basic indicators in Table 3, and the conclusions of several research papers indicate the data are of high quality, and that the statistics generated in this report are reasonably undistorted by variations in the efficacy of registration procedures. It is however imperative that a comprehensive internal evaluation and documentation of the quality of the registry data is undertaken to confirm such high standards are met in general, thereby justifying the use of specific datasets in epidemiological and clinical studies.

The next annual report, *Cancer in Norway 2006*, will include as a special issue a detailed evaluation of the comparability, completeness and validity of the Registry data for each of the cancer sites listed in Table 3. This will include an examination of the Registry's adherence to international standards as well as an assessment of the accuracy of each of the collected variables, and the variability by tumour site. Given the lack of reliability of the DCO index as a measure of completeness, the report will also use analytic methods to quantify the level of completeness of the Registry data by tumour site and by health region (Bullard *et al*, 2000).

A recent U.S. study estimated longer times to availability – the time between diagnosis and registration – for both prostate cancers and melanoma (Smith-Gagen *et al*, 2005). An analysis of reporting and processing in Norway will aim to ascertain and describe factors related to delays in the availability of cancer cases to the Registry.

The main database

The main cancer database contains the basic data items collected from clinicians and pathologists, as well as from administrative patient discharge and mortality sources. As of December 2006, the Registry database contained information from 1953 on 1 053 326 cancer cases and premalignant conditions in 1 284 743 persons. A total of 3 056 291 notifications have been received since then. For all cases registered since 1953, 86.4% are histologically verified and 1.3% of the diagnoses are based on death certificates alone. The database is updated continuously with information on both new cases, as well as cases diagnosed in previous years.

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 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 rate 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, with rates of epithelial cancers increasing approximately as a fifth power of age (Armitage and Doll, 1954). 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.

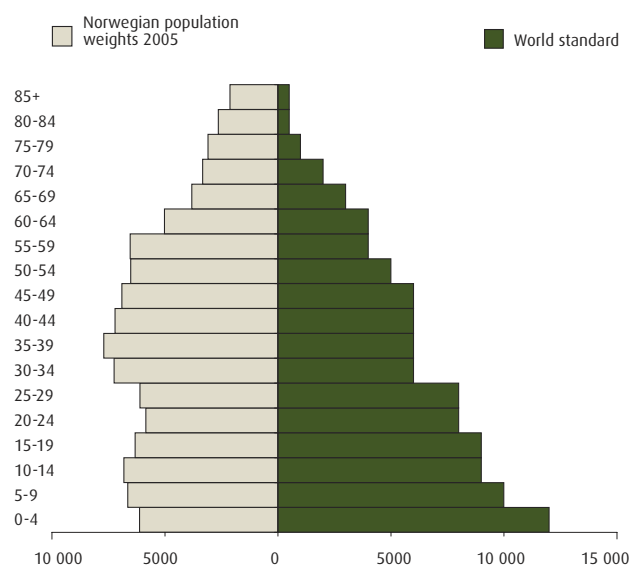
Age-standardised rates

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 2005 (Figure 4), 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 $i = 1, 2, \dots, A$, r_i , as before, is the age-specific rate in the i th age class. The ASR is calculated as:

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

Figure 4: Comparison of population weights



Survival

The study of cancer survival using registry data allows a population-based perspective, important for monitoring and evaluating the effectiveness of cancer care in Norway. The survival time of a cancer patient is defined as the time that elapsed between diagnosis and death. Computation of survival depends upon follow-up of diagnosed cancer patients, and the calculation of the numbers surviving after different intervals of time. In order to estimate *cause-specific* (or *corrected*) survival, we require accurate data on cause of death. Such information is generally based on the coding of death certificates, a source that is generally not considered to be sufficiently reliable.

A common alternative to corrected survival – and as used in this report – is to compute *relative survival* and compare the observed mortality (or *hazard*) rate in patients with the expected rate in the population from which they arise (Ederer *et al.*, 1961). Relative survival is defined as the observed survival among cancer patients divided by the expected survival for a comparable group from the general population with respect to the main factors affecting survival, commonly sex, age, and calendar year.

To calculate observed survival the *actuarial* method was used, the period of observation was thus partitioned into a series of time intervals and the conditional (interval-specific) survival proportions for five consecutive 1-year intervals estimated. Cumulative survival $S(t)$ up to time t was estimated as the product of the interval-specific survival proportions for all intervals up to and including the specified interval. The cor-

responding expected survival probabilities were calculated using the *Ederer II* method (Estève *et al*, 1994), from the published annual probabilities of death in Norway. The appropriate probability was obtained on stratification by sex, the age of the patient, and the year of registration, obtained from population life tables.

The cohort-based approach to survival analysis was used here, whereby patients diagnosed from the beginning of 1996 to the end of 2000 were followed up with regards their vital status for at least five years. Trends in cancer survival for cancer patients diagnosed in five-year periods from the late-1950s up to the late-1990s are also provided in this report. DCO registrations were excluded from the analyses.

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 persons 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 2005, 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.

Definitions*

Incidence

The number of new cases of cancer 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.

Relative survival

The ratio of the observed survival to the expected survival for a group of patients. The expected survival is based on the mortality in a comparable group of people in the total population. This group has the same age and sex distribution as the patient group in the same time period.

Prevalence

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

* 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 4 Number of new cases by primary site and sex - 2005

ICD10	Site	Males	Females	Total
C00-96	All sites	12706	11522	24228
C00-14	Mouth, pharynx	235	180	415
C00	Lip	41	36	77
C01-02	Tongue	45	32	77
C03-06	Mouth, other	39	42	81
C07-08	Salivary glands	23	25	48
C09-14	Pharynx	87	45	132
C15-26	Digestive organs	2674	2529	5203
C15	Oesophagus	137	61	198
C16	Stomach	287	228	515
C17	Small intestine	48	41	89
C18	Colon	1052	1168	2220
C19-21	Rectum, rectosigmoid, anus	675	553	1228
C22	Liver	72	59	131
C23-24	Gallbladder, bile ducts	72	68	140
C25	Pancreas	289	286	575
C26	Other digestive organs	42	65	107
C30-34, C38	Respiratory organs	1474	947	2421
C30-31	Nose, sinuses	21	17	38
C32	Larynx, epiglottis	93	16	109
C33-34	Lung, trachea	1347	905	2252
C38	Mediastinum, pleura	13	9	22
C40-41	Bone	28	15	43
C43	Melanoma of the skin	572	564	1136
C44	Skin, non-melanoma	662	680	1342
C45	Mesothelioma	67	7	74
C46	Kaposi's sarcoma	8	2	10
C47	Autonomic nervous system	5	4	9
C48-49	Soft tissues	50	74	124
C50	Breast	18	2780	2798
C51-58	Female genital organs		1547	1547
C53	Cervix uteri		292	292
C54	Corpus uteri		666	666
C55	Uterus, other		11	11
C56	Ovary		420	420
C51-52, C57	Other female genital		152	152
C58	Placenta		6	6
C60-63	Male genital organs	3928		3928
C61	Prostate	3631		3631
C62	Testis	249		249
C60, C63	Other male genital	48		48
C64-68	Urinary organs	1301	578	1879
C64-65	Kidney	373	243	616
C66-68	Bladder, ureter, urethra	928	335	1263
C69	Eye	24	23	47
C70-72	Central nervous system	380	425	805
C73	Thyroid gland	65	161	226
C37, C74-75	Other endocrine glands	5	14	19
C39, C76, C80	Other or unspecified	232	272	504
C81-96	Lymphoid and haematopoietic tissue	978	720	1698
C81	Hodgkin lymphoma	63	50	113
C82-85, C96	Non-Hodgkin lymphoma	435	342	777
C88	Malignant immunoproliferative diseases	19	13	32
C90	Multiple myeloma	196	134	330
C91-95	Leukaemia	265	181	446

Incidence

There were 24 228 incident cases of cancer in Norway in 2005, 12 706 among men and 11 522 among women (Table 4). Registrations of the four most common forms of cancer – prostate, female breast, colon and lung – account for over half of the total cancer burden (12 111 new cases). Prostate cancer is the most frequent cancer in men (3631), followed by colorectal (1727) and lung cancer (1347). Breast cancer dominates in women: there were 2780 new cases in 2005, with colorectal and lung cancer ranking second and third, with 1721 and 905 incident cases, respectively.

While cancer affects all ages, its frequency increases rapidly with age, with the vast majority in Norway – about four-fifths – occurring in men and women aged over 55 (Figure 5). Separating these into broad age classes, the highest proportion of cancers occur in persons aged 55-74: almost half of all cancers diagnosed in men, and 40% of those diagnosed in women occur in this age class. An additional one-third of cancer affects men and women aged 75 or over, while one in five female cancers are diagnosed in women aged 30 to 54, a higher proportion than seen in men.

The relative contribution of different types of cancer varies considerably according to the age group under study. Figure 6 identifies the main cancers that contribute to the disease burden in children (aged 0-14), adolescents and young adults (15-29), the middle-aged

and the elderly (30-54, 55-74 and age 75 or over).

Table 5 compares the ratios of age-standardised rates of selected cancer types common to both sexes in 1978-1982 and 2001-2005. An excess incidence of most cancer types in men is clearly evident in both time periods. The primary exceptions are thyroid cancer and melanoma of the skin. The male:female (M:F) ratios are highest for several cancers affecting the head and neck, although a number of very common cancers – lung, bladder, stomach and rectum – are consistently more frequent among men. That the M:F ratios have been declining for certain neoplasms in the last 25 years is indicative of either decreasing trends among men, increasing trends among women, or a combination of both. For lung cancer, the halving of the M:F ratios during the last 25 years points to more rapidly increasing trends in female rates relative to those in men.

The time trends of selected cancers in Figure 7 provide more detail regarding the changing evolution of cancer risk in Norwegian men and women. Of note are: 1) the unprecedented rise in prostate cancer incidence since 1990, largely as a result of the rapidly increasing use of the Prostate Specific Antigen (PSA) test since it became commercially available in 1989; 2) the continued increases in both breast cancer and lung cancer among women, and colorectal cancer in both sexes; 3) the continuing declines in stomach cancer in both sexes; and 4) the rapid increases in a number of cancers for which the underlying causes (and pro-

Figure 5: Percentage distribution of cancer incidence by age, 2001-2005

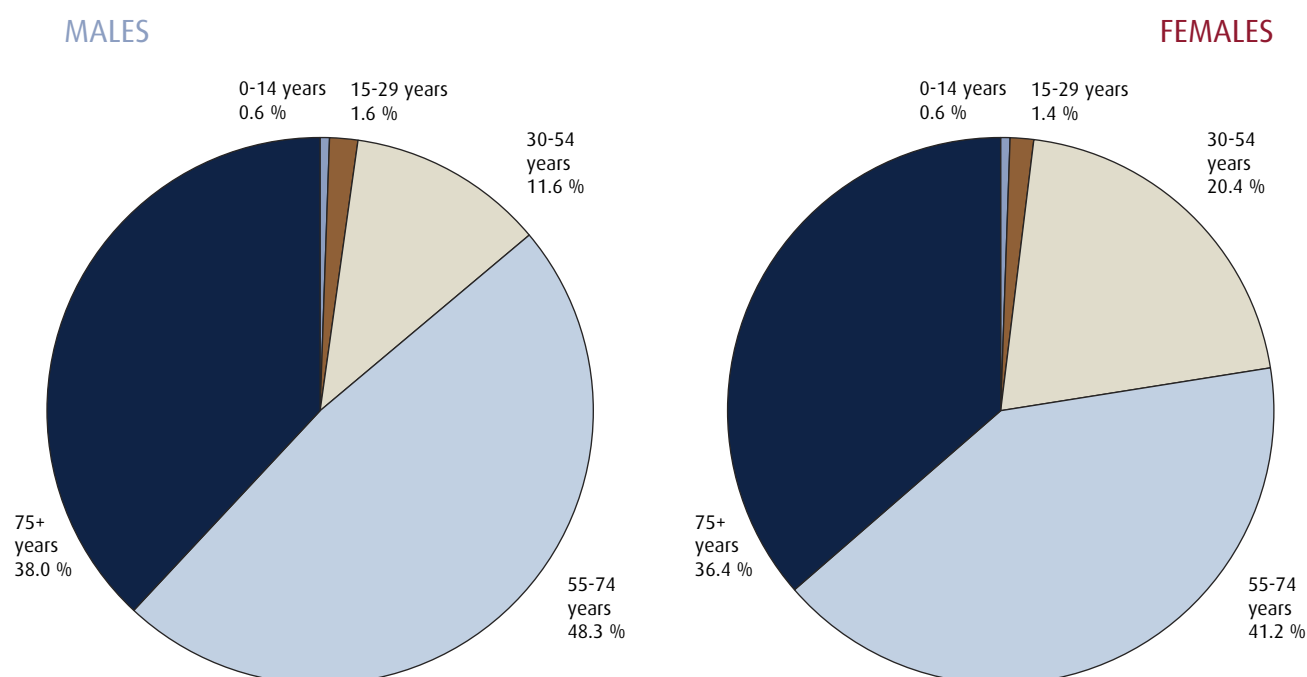
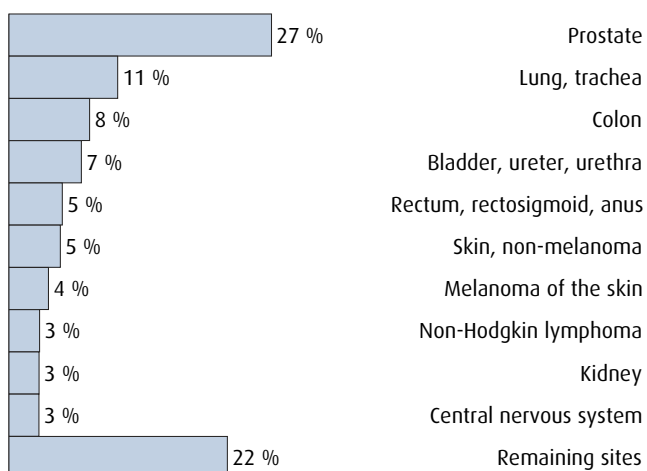
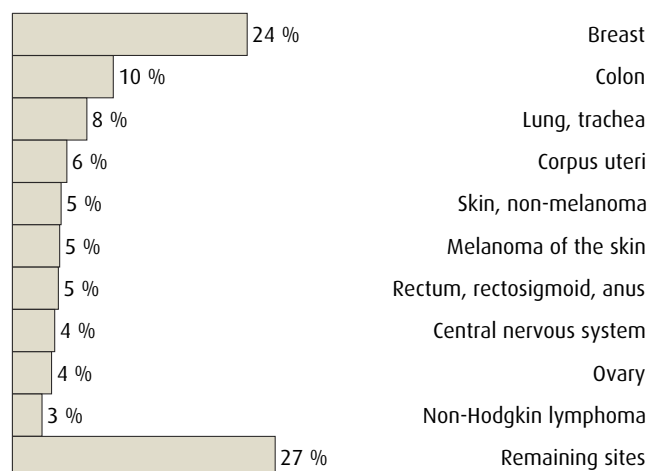


Figure 6: The most frequent incident cancers by age and sex, 2001–2005

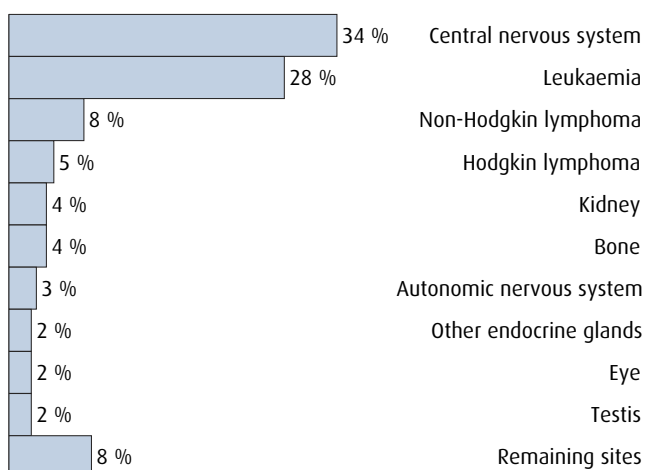
MALES all ages (61 559 cases)



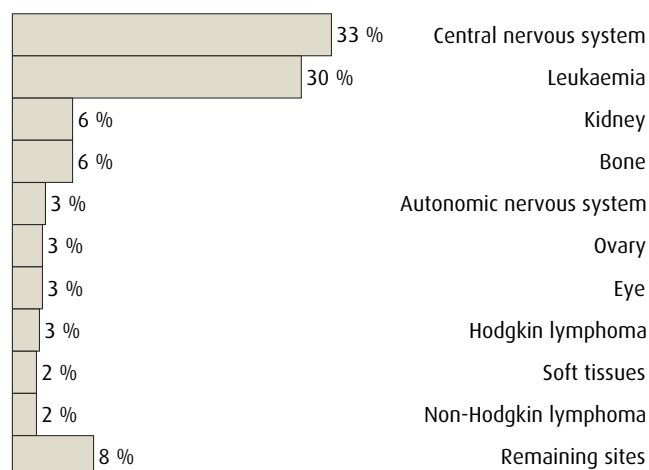
FEMALES all ages (56 850 cases)



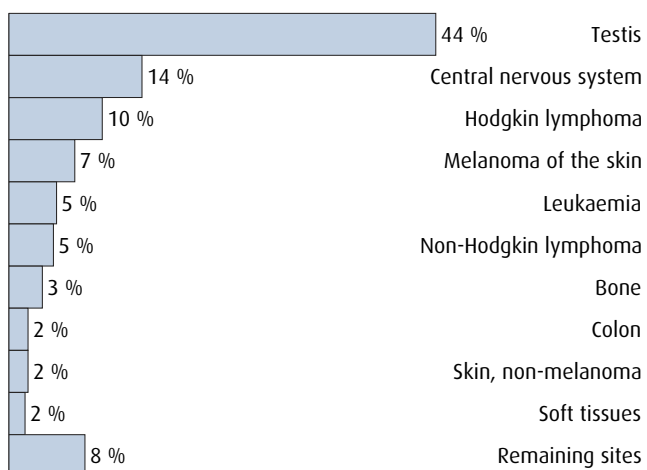
MALES 0–14 years (390 cases)



FEMALES 0–14 years (325 cases)



MALES 15–29 years (961 cases)



FEMALES 15–29 years (790 cases)

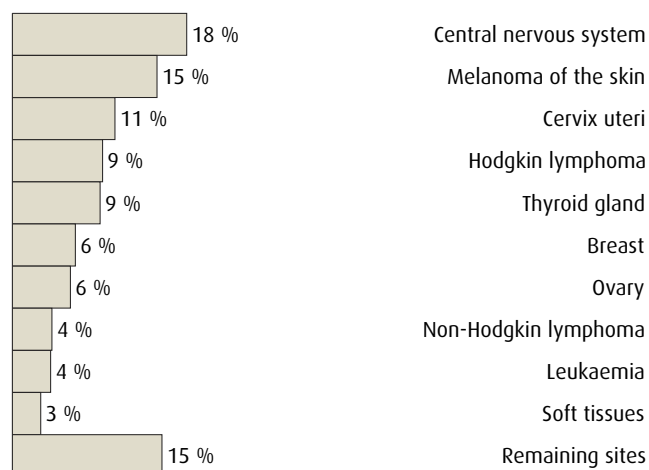
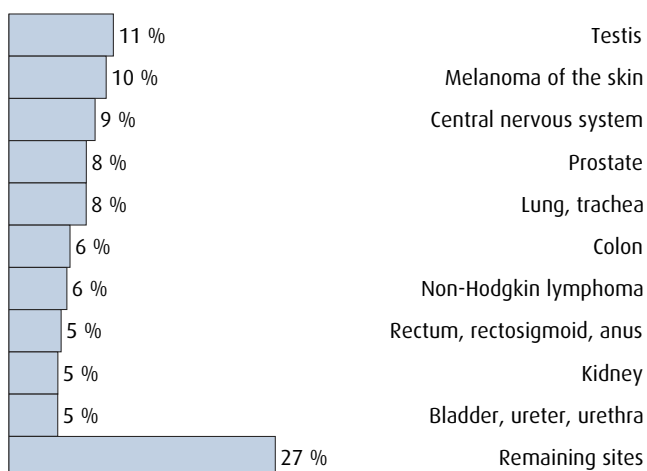
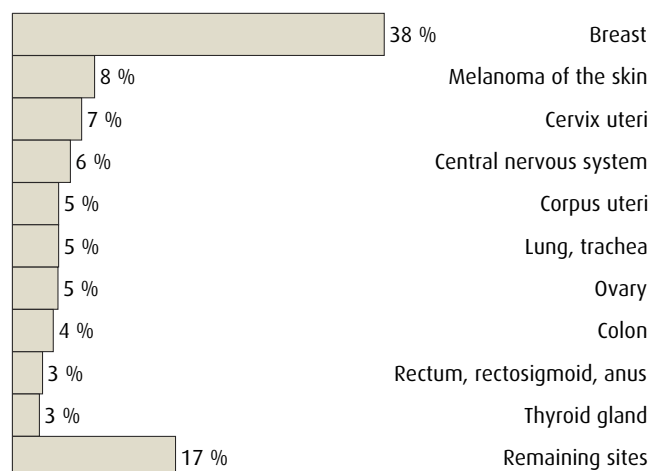


Figure 6 cont.

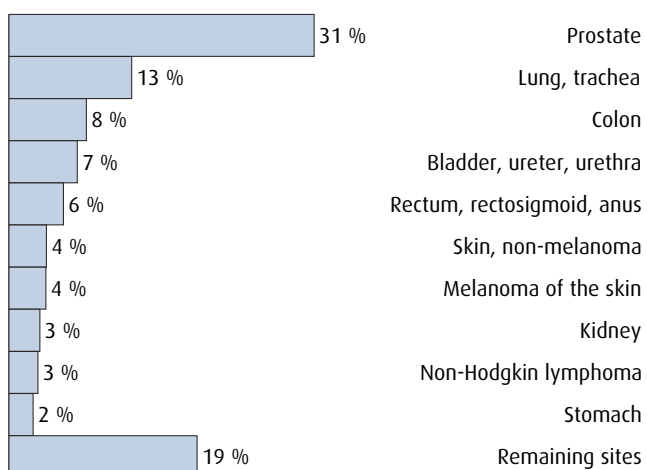
MALES 30–54 years (7120 cases)



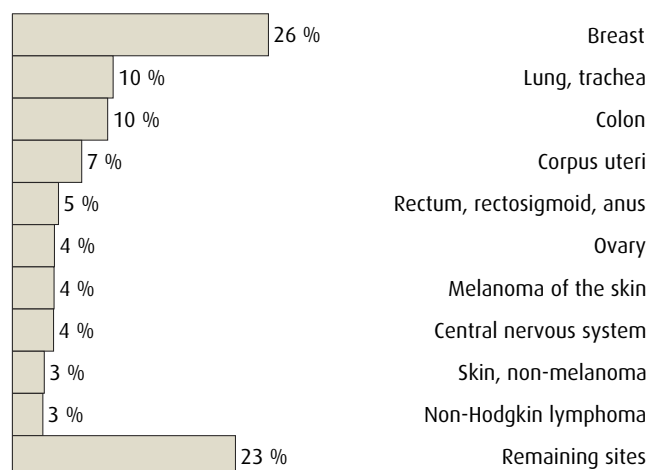
FEMALES 30–54 years (11 621 cases)



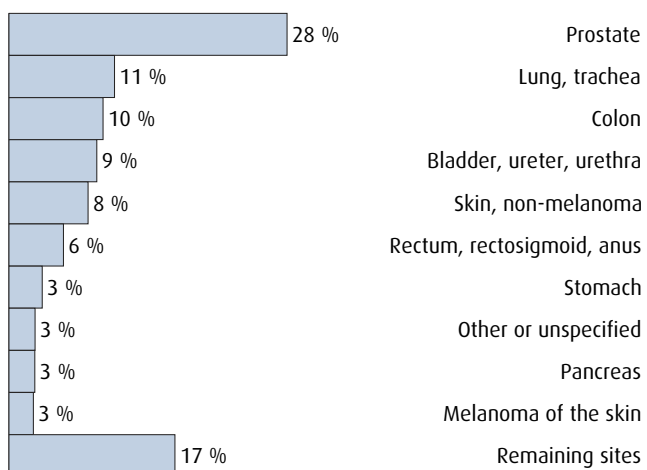
MALES 55–74 years (29 732 cases)



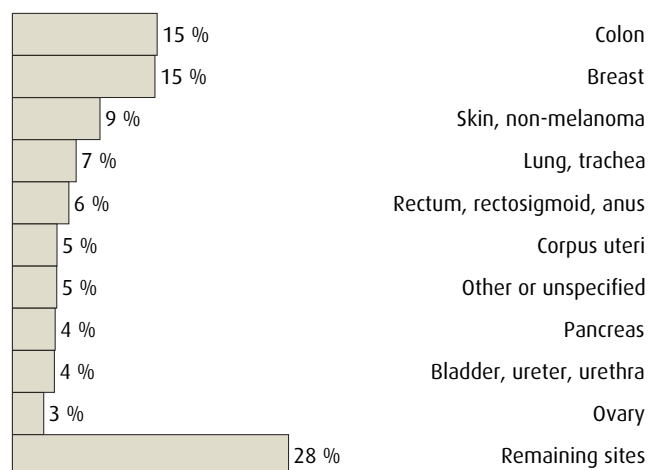
FEMALES 55–74 years (23 421 cases)



MALES 75+ years (23 356 cases)



FEMALES 75+ years (20 693 cases)



spects for primary prevention) remain enigmatic: testicular cancer in men and non-Hodgkin lymphoma in both sexes.

The burden of cancer in Norway - the total number of new cases - has been increasing in the last decade (Table 6 and 7) and as far back as the Registry began reporting in 1953. This observation in part reflects real increases in the risk of several common cancers including colorectal and lung, but it also pertains to an increasing ability to diagnose the disease over time (remarkably so for prostate cancer). The increases are partially compensated by decreasing incidence trends of several cancer types, notably stomach cancer (in both sexes) and, in the near future, lung cancer in men.

A larger proportion of the increasing burden can be attributed to the global phenomenon of population growth and ageing, as was described for Norway in Figure 1. The special issue in the back of this report provides a detailed assessment of the predicted cancer burden and rates – partitioned into changes due to demographic effects and changing risk – for 49 cancer types in the five regions of Norway up to the year 2020.

Tables 8-21 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 and county of residence.

Incidence on www.cancerregistry.no

In keeping with previous Cancer in Norway reports, further graphical descriptions for 23 cancer sites are available on our website. Graphical descriptions of age-specific incidence rates for the year 2005, time trends of age-adjusted incidence rates 1956-2005, and maps depicting the geographical variation by region 2001-2005 can be downloaded from our website by following the link:

www.cancerregistry.no/cin

Future work on incidence

While valuable information can be gleaned about temporal risk patterns from such an analysis of age-standardised rates, summary rates may hide important interactions between age and calendar time, indicative, for example, of the presence of strong birth cohort effects. Graphical descriptions of age-specific patterns according to both calendar period and birth cohort are an integral part of temporal analyses, and will be incorporated into future reports.

Table 5 Sex ratios (Male:Female) of age-standardised rates (world) in 1978-82 and 2001-2005 by primary site, sorted in descending order in last period

ICD10	Site	1978-82			2001-05		
		M	F	M:F ratio	M	F	M:F ratio
C32	Larynx, epiglottis	3.1	0.3	10.3	2.9	0.4	6.5
C66-68	Bladder, ureter, urethra	18.6	5.7	3.3	22.4	6.6	3.4
C15	Oesophagus	2.7	0.7	3.8	3.6	1.1	3.3
C09-14	Pharynx	1.7	0.5	3.3	2.6	0.9	3.0
C01-02	Tongue	1.0	0.4	2.6	1.6	0.6	2.4
C00	Lip	3.4	0.4	7.9	1.2	0.5	2.2
C22	Liver	1.8	1.0	1.8	2.1	1.0	2.0
C64-65	Kidney	8.3	4.4	1.9	10.6	5.3	2.0
C16	Stomach	18.0	9.2	2.0	8.2	4.3	1.9
C33-34	Lung, trachea	30.9	7.3	4.3	35.9	21.3	1.7
C91-95	Leukaemia	8.1	5.4	1.5	9.2	5.9	1.6
C81	Hodgkin lymphoma	2.6	1.6	1.6	2.7	1.8	1.6
C19-21	Rectum, rectosigmoid, anus	14.7	10.1	1.5	17.6	11.5	1.5
C90	Multiple myeloma	4.6	3.0	1.5	4.5	3.1	1.5
C82-85, C96	Non-Hodgkin lymphoma	6.2	4.5	1.4	11.2	8.3	1.4
C25	Pancreas	8.4	5.3	1.6	7.6	6.1	1.3
C23-24	Gallbladder, bile ducts	1.1	1.6	0.7	1.7	1.4	1.2
C18	Colon	17.1	17.4	1.0	25.4	22.9	1.1
C43	Melanoma of the skin	8.9	10.4	0.9	14.8	15.8	0.9
C73	Thyroid gland	1.6	5.1	0.3	1.7	4.6	0.4

Figure 7: Time trends in age-standardised incidence rates (world) in Norway for selected cancers (semi-log scale)

MALES

FEMALES

- Stomach
- Prostate
- Lung, trachea
- Colon
- Rectum, rectosigmoid, anus
- Pancreas
- Non-Hodgkin lymphoma
- Lip
- Oesophagus
- Testis
- Melanoma of the skin

- Breast
- Stomach
- Cervix uteri
- Colon
- Rectum, rectosigmoid, anus
- Pancreas
- Lung, trachea
- Melanoma of the skin
- Non-Hodgkin lymphoma

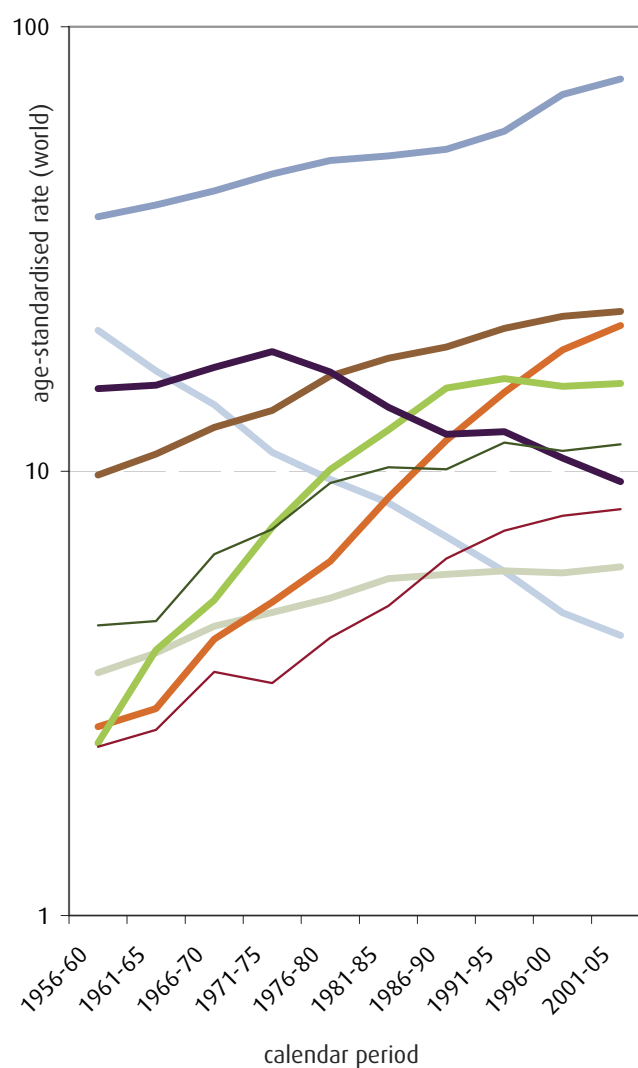
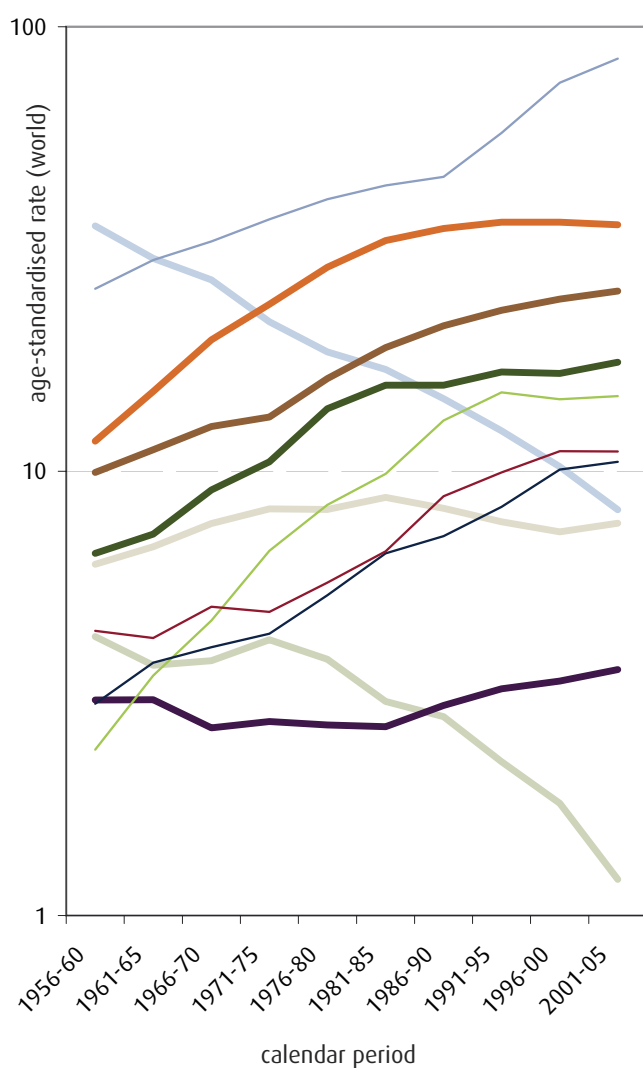


Table 6 Number of new cases by primary site and year - 1996-2005

MALES

ICD10	Site	Year									
		1996	97	98	99	00	01	02	03	04	2005
C00-96	All sites	10774	11124	11336	11357	11547	11656	11586	12493	13116	12706
C00-14	Mouth, pharynx	274	268	256	252	275	240	254	245	254	235
C00	Lip	76	72	52	58	62	51	59	38	35	41
C01-02	Tongue	39	53	49	51	41	51	50	52	54	45
C03-06	Mouth, other	67	44	42	50	57	36	46	52	50	39
C07-08	Salivary glands	15	22	22	22	28	21	22	17	16	23
C09-14	Pharynx	77	77	91	71	87	81	77	86	99	87
C15-26	Digestive organs	2430	2560	2539	2507	2554	2665	2630	2692	2787	2674
C15	Oesophagus	107	121	126	134	102	121	123	136	148	137
C16	Stomach	464	404	387	370	366	369	332	345	348	287
C17	Small intestine	29	42	44	39	45	65	47	57	44	48
C18	Colon	847	914	940	901	987	1001	968	992	1068	1052
C19-21	Rectum, rectosigmoid, anus	535	641	604	595	621	633	687	679	689	675
C22	Liver	69	46	69	86	71	79	83	75	82	72
C23-24	Gallbladder, bile ducts	51	62	59	61	54	69	53	56	69	72
C25	Pancreas	282	274	272	276	271	289	305	311	294	289
C26	Other digestive organs	46	56	38	45	37	39	32	41	45	42
C30-34, C38	Respiratory organs	1447	1427	1368	1428	1449	1494	1503	1562	1511	1474
C30-31	Nose, sinuses	19	21	25	24	27	23	28	17	25	21
C32	Larynx, epiglottis	119	99	88	112	111	120	115	93	98	93
C33-34	Lung, trachea	1293	1286	1241	1274	1296	1335	1348	1434	1378	1347
C38	Mediastinum, pleura	16	21	14	18	15	16	12	18	10	13
C40-41	Bone	23	24	18	21	20	22	28	21	26	28
C43	Melanoma of the skin	402	480	450	466	467	487	472	480	482	572
C44	Skin, non-melanoma	505	582	546	535	580	589	655	646	692	662
C45	Mesothelioma	52	37	52	56	51	61	52	64	69	67
C46	Kaposi's sarcoma	8	9	6	3	3	5	6	7	9	8
C47	Autonomic nervous system	8	3	7	6	7	4	5	7	2	5
C48-49	Soft tissues	42	48	51	44	51	50	56	50	54	50
C50	Breast	13	11	21	14	17	13	14	20	14	18
C60-63	Male genital organs	2809	2974	3252	3308	3345	3194	3034	3704	4137	3928
C61	Prostate	2534	2712	2984	3033	3069	2897	2757	3396	3827	3631
C62	Testis	237	220	234	248	248	266	237	255	265	249
C60, C63	Other male genital	38	42	34	27	28	31	40	53	45	48
C64-68	Urinary organs	1169	1176	1212	1158	1157	1191	1265	1265	1438	1301
C64-65	Kidney	325	327	339	321	313	358	366	364	440	373
C66-68	Bladder, ureter, urethra	844	849	873	837	844	833	899	901	998	928
C69	Eye	38	24	26	27	35	23	31	39	31	24
C70-72	Central nervous system	324	300	322	347	339	379	369	410	358	380
C73	Thyroid gland	41	50	45	45	52	52	53	52	49	65
C37, C74-75	Other endocrine glands	12	11	8	15	19	10	12	18	11	5
C39, C76, C80	Other or unspecified	323	300	285	276	262	237	231	251	217	232
C81-96	Lymphoid and haematopoietic tissue	854	840	872	849	864	940	916	960	975	978
C81	Hodgkin lymphoma	56	59	52	61	63	55	54	87	75	63
C82-85, C96	Non-Hodgkin lymphoma	360	332	371	330	386	356	343	386	418	435
C88	Malignant immunoproliferative diseases	19	25	17	20	13	27	29	31	22	19
C90	Multiple myeloma	159	176	168	155	148	181	165	163	168	196
C91-95	Leukaemia	260	248	264	283	254	321	325	293	292	265

Table 7 Number of new cases by primary site and year - 1996-2005

FEMALES

ICD10	Site	Year									
		1996	97	98	99	00	01	02	03	04	2005
C00-96	All sites	10055	10309	10241	10282	10852	10929	11313	11379	11706	11522
C00-14	Mouth, pharynx	148	113	136	133	128	138	135	126	133	180
C00	Lip	30	30	28	19	23	29	28	21	22	36
C01-02	Tongue	28	19	24	34	29	27	27	25	27	32
C03-06	Mouth, other	39	41	35	25	29	35	34	29	42	42
C07-08	Salivary glands	25	11	20	22	23	24	18	19	11	25
C09-14	Pharynx	26	12	29	33	24	23	28	32	31	45
C15-26	Digestive organs	2362	2432	2485	2410	2564	2469	2542	2549	2558	2529
C15	Oesophagus	32	48	50	45	56	51	48	56	55	61
C16	Stomach	276	259	262	233	240	210	256	223	221	228
C17	Small intestine	28	29	51	40	48	47	60	49	50	41
C18	Colon	1042	1089	1109	1079	1157	1136	1136	1230	1182	1168
C19-21	Rectum, rectosigmoid, anus	480	503	506	508	533	516	521	505	573	553
C22	Liver	36	33	41	62	52	48	43	42	40	59
C23-24	Gallbladder, bile ducts	77	82	82	83	89	62	80	82	62	68
C25	Pancreas	312	323	329	294	333	344	351	318	329	286
C26	Other digestive organs	79	66	55	66	56	55	47	44	46	65
C30-34, C38	Respiratory organs	722	701	673	790	830	840	853	925	960	947
C30-31	Nose, sinuses	16	13	19	17	13	15	15	10	28	17
C32	Larynx, epiglottis	23	19	21	19	19	22	18	18	13	16
C33-34	Lung, trachea	676	663	628	742	789	795	816	895	907	905
C38	Mediastinum, pleura	7	6	5	12	9	8	4	2	12	9
C40-41	Bone	24	17	9	28	22	21	20	19	15	15
C43	Melanoma of the skin	479	565	443	481	532	529	554	546	553	564
C44	Skin, non-melanoma	439	456	457	454	506	484	519	571	571	680
C45	Mesothelioma	7	4	10	10	10	5	8	11	12	7
C46	Kaposi's sarcoma	4	7	2	3	8	0	3	2	3	2
C47	Autonomic nervous system	10	10	8	2	3	5	4	3	9	4
C48-49	Soft tissues	47	42	50	63	75	68	64	71	87	74
C50	Breast	2352	2403	2416	2409	2527	2622	2696	2723	2786	2780
C51-58	Female genital organs	1421	1398	1487	1372	1426	1497	1528	1491	1565	1547
C53	Cervix uteri	333	332	345	284	285	301	306	296	268	292
C54	Corpus uteri	485	465	521	489	565	593	589	627	683	666
C55	Uterus, other	6	8	11	8	15	6	11	15	13	11
C56	Ovary	469	461	475	459	455	452	514	423	461	420
C51-52, C57	Other female genital	125	128	132	126	105	142	105	126	136	152
C58	Placenta	3	4	3	6	1	3	3	4	4	6
C64-68	Urinary organs	521	576	512	526	533	535	602	574	581	578
C64-65	Kidney	233	230	209	213	199	215	245	239	235	243
C66-68	Bladder, ureter, urethra	288	346	303	313	334	320	357	335	346	335
C69	Eye	28	29	30	29	20	28	34	34	38	23
C70-72	Central nervous system	358	369	384	405	411	464	514	511	538	425
C73	Thyroid gland	122	101	113	120	146	129	139	131	164	161
C37, C74-75	Other endocrine glands	5	9	16	11	15	9	14	11	11	14
C39, C76, C80	Other or unspecified	326	315	298	296	326	286	313	306	291	272
C81-96	Lymphoid and haematopoietic tissue	680	762	712	740	770	800	771	775	831	720
C81	Hodgkin lymphoma	39	31	43	40	64	33	43	54	46	50
C82-85, C96	Non-Hodgkin lymphoma	270	331	303	332	331	335	342	335	367	342
C88	Malignant immunoproliferative diseases	5	12	13	8	9	16	19	13	21	13
C90	Multiple myeloma	139	155	139	157	122	173	162	150	148	134
C91-95	Leukaemia	227	233	214	203	244	243	205	223	249	181

Table 8 Age-adjusted (world) incidence rates per 100 000 person-years by primary site and year - 1996-2005

MALES

ICD10	Site	Year									
		1996	97	98	99	00	01	02	03	04	2005
C00-96	All sites	307.2	317.7	317.5	319.2	321.8	320.2	315.4	335.6	345.8	329.2
C00-14	Mouth, pharynx	9.0	8.2	8.0	7.8	8.3	7.2	7.7	7.4	7.5	6.6
C00	Lip	2.3	1.9	1.5	1.6	1.7	1.4	1.7	1.0	0.9	1.1
C01-02	Tongue	1.2	1.7	1.6	1.6	1.2	1.6	1.6	1.7	1.6	1.3
C03-06	Mouth, other	2.2	1.4	1.3	1.6	1.7	1.1	1.3	1.5	1.5	1.1
C07-08	Salivary glands	0.5	0.7	0.7	0.7	0.8	0.6	0.6	0.5	0.5	0.6
C09-14	Pharynx	2.8	2.5	2.9	2.4	2.9	2.5	2.4	2.6	3.0	2.5
C15-26	Digestive organs	66.2	70.0	66.9	67.4	67.1	69.5	68.3	68.9	69.9	66.1
C15	Oesophagus	3.2	3.6	3.5	3.7	2.8	3.2	3.5	3.7	3.9	3.5
C16	Stomach	12.2	10.7	9.6	9.4	9.3	9.0	8.5	8.5	8.2	6.7
C17	Small intestine	0.8	1.2	1.3	1.1	1.3	1.9	1.3	1.7	1.2	1.2
C18	Colon	22.6	25.1	24.2	24.1	25.8	25.5	24.7	24.7	26.3	25.9
C19-21	Rectum, rectosigmoid, anus	15.4	17.7	16.6	16.6	16.6	17.4	18.1	17.9	17.7	16.9
C22	Liver	1.9	1.5	1.9	2.4	1.9	2.0	2.3	2.1	1.9	2.0
C23-24	Gallbladder, bile ducts	1.4	1.6	1.5	1.5	1.4	1.9	1.4	1.4	1.7	2.0
C25	Pancreas	7.7	7.1	7.4	7.3	7.0	7.6	7.8	8.0	7.7	7.0
C26	Other digestive organs	1.1	1.3	0.9	1.2	1.0	0.9	0.7	1.0	1.2	0.9
C30-34, C38	Respiratory organs	42.6	41.6	39.2	40.6	39.7	40.4	40.8	41.4	39.0	37.0
C30-31	Nose, sinuses	0.6	0.6	0.8	0.8	0.8	0.6	0.9	0.5	0.7	0.6
C32	Larynx, epiglottis	3.8	3.2	2.5	3.2	3.3	3.1	3.3	2.8	2.7	2.5
C33-34	Lung, trachea	37.8	37.0	35.5	36.1	35.2	36.2	36.3	37.8	35.3	33.7
C38	Mediastinum, pleura	0.4	0.7	0.4	0.5	0.4	0.5	0.3	0.4	0.2	0.3
C40-41	Bone	1.1	1.2	0.9	0.8	0.9	0.9	1.2	0.8	1.0	1.0
C43	Melanoma of the skin	13.2	16.1	14.6	14.5	14.2	14.9	14.2	14.4	14.3	16.1
C44	Skin, non-melanoma	12.5	14.5	13.4	13.2	14.4	14.1	15.3	14.7	15.0	14.4
C45	Mesothelioma	1.5	1.2	1.3	1.7	1.3	1.6	1.4	1.7	1.8	1.6
C46	Kaposi's sarcoma	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2
C47	Autonomic nervous system	0.4	0.2	0.3	0.3	0.3	0.2	0.3	0.4	0.1	0.3
C48-49	Soft tissues	1.5	1.4	1.7	1.5	1.7	1.6	1.8	1.5	1.7	1.5
C50	Breast	0.4	0.4	0.5	0.3	0.5	0.4	0.3	0.5	0.3	0.5
C60-63	Male genital organs	75.2	81.2	88.5	90.8	93.6	88.0	82.0	98.6	110.1	103.5
C61	Prostate	64.1	70.5	77.5	79.9	82.3	76.2	71.0	86.7	98.2	91.7
C62	Testis	10.0	9.5	10.1	10.3	10.5	10.9	9.9	10.3	10.9	10.5
C60, C63	Other male genital	1.1	1.2	0.9	0.7	0.8	0.9	1.2	1.5	1.0	1.3
C64-68	Urinary organs	32.3	32.7	33.3	31.0	30.7	31.2	33.1	32.7	35.9	32.0
C64-65	Kidney	9.7	9.9	10.2	9.2	9.1	10.3	10.5	10.1	12.1	10.1
C66-68	Bladder, ureter, urethra	22.6	22.8	23.1	21.8	21.7	20.9	22.6	22.6	23.8	21.9
C69	Eye	1.3	0.8	1.0	1.1	1.0	0.7	1.0	1.1	1.1	0.7
C70-72	Central nervous system	11.8	11.2	11.5	12.4	11.7	13.0	13.2	14.6	11.8	12.5
C73	Thyroid gland	1.2	1.8	1.6	1.5	1.8	1.8	1.7	1.6	1.5	2.0
C37, C74-75	Other endocrine glands	0.5	0.5	0.3	0.5	0.8	0.4	0.4	0.7	0.5	0.2
C39, C76, C80	Other or unspecified	8.4	7.8	7.2	6.7	6.6	5.5	5.6	5.8	5.0	5.3
C81-96	Lymphoid and haematopoietic tissue	27.6	26.7	27.3	26.9	27.2	28.8	27.0	28.7	29.2	27.6
C81	Hodgkin lymphoma	2.4	2.5	2.2	2.6	2.6	2.2	2.2	3.5	3.1	2.7
C82-85, C96	Non-Hodgkin lymphoma	11.7	10.2	11.6	10.3	12.0	10.7	9.9	11.3	12.1	11.9
C88	Malignant immunoproliferative diseases	0.5	0.7	0.4	0.5	0.4	0.8	0.8	0.7	0.5	0.4
C90	Multiple myeloma	4.4	4.8	4.4	4.0	3.9	5.0	4.3	4.2	4.3	4.8
C91-95	Leukaemia	8.6	8.5	8.7	9.4	8.3	10.1	9.8	9.0	9.2	7.8

Table 9 Age-adjusted (world) incidence rates per 100 000 person-years by primary site and year - 1996-2005

FEMALES

ICD10	Site	Year									
		1996	97	98	99	00	01	02	03	04	2005
C00-96	All sites	262.3	269.1	259.1	261.4	270.7	274.0	280.2	277.2	283.9	274.8
C00-14	Mouth, pharynx	3.6	2.8	3.6	3.6	3.1	3.0	3.4	3.2	3.1	4.1
C00	Lip	0.6	0.5	0.7	0.5	0.5	0.5	0.6	0.4	0.5	0.7
C01-02	Tongue	0.7	0.5	0.7	0.9	0.7	0.5	0.7	0.6	0.7	0.7
C03-06	Mouth, other	1.0	1.0	0.9	0.6	0.7	0.6	0.9	0.7	0.9	0.9
C07-08	Salivary glands	0.6	0.3	0.5	0.7	0.6	0.7	0.5	0.5	0.2	0.6
C09-14	Pharynx	0.7	0.4	0.9	1.0	0.7	0.6	0.8	0.9	0.8	1.2
C15-26	Digestive organs	47.7	49.8	50.1	49.3	50.7	50.0	50.5	49.9	51.2	48.9
C15	Oesophagus	0.7	0.9	1.2	0.9	1.0	1.1	0.9	1.1	1.1	1.2
C16	Stomach	5.1	4.9	4.7	4.6	4.7	3.9	4.7	4.0	4.5	4.2
C17	Small intestine	0.6	0.7	1.2	1.1	1.3	1.1	1.4	1.1	1.2	0.9
C18	Colon	22.0	22.1	22.4	22.2	22.8	22.8	22.5	23.8	23.2	22.1
C19-21	Rectum, rectosigmoid, anus	10.0	11.7	11.4	11.1	11.5	11.4	11.5	10.9	12.0	11.6
C22	Liver	0.7	0.8	1.0	1.3	1.1	1.1	0.9	0.9	0.9	1.4
C23-24	Gallbladder, bile ducts	1.5	1.7	1.4	1.7	1.7	1.4	1.4	1.4	1.1	1.3
C25	Pancreas	6.0	6.0	6.1	5.5	5.9	6.4	6.4	6.3	6.3	5.2
C26	Other digestive organs	1.1	0.8	0.8	1.0	0.7	0.8	0.7	0.6	0.8	1.1
C30-34, C38	Respiratory organs	19.9	19.0	17.5	21.0	21.8	21.5	21.4	22.9	23.1	22.2
C30-31	Nose, sinuses	0.4	0.3	0.5	0.4	0.3	0.4	0.5	0.2	0.5	0.4
C32	Larynx, epiglottis	0.7	0.6	0.5	0.5	0.4	0.6	0.5	0.5	0.3	0.5
C33-34	Lung, trachea	18.6	18.0	16.4	19.8	20.9	20.4	20.4	22.1	22.1	21.3
C38	Mediastinum, pleura	0.2	0.1	0.1	0.3	0.2	0.2	0.0	0.0	0.2	0.1
C40-41	Bone	1.2	0.6	0.4	1.1	0.9	0.9	0.9	0.8	0.6	0.6
C43	Melanoma of the skin	15.2	18.6	13.3	14.8	15.6	15.6	16.2	15.7	15.6	15.7
C44	Skin, non-melanoma	7.8	8.3	7.8	7.8	8.3	8.6	8.5	9.2	9.4	10.3
C45	Mesothelioma	0.2	0.1	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.1
C46	Kaposi's sarcoma	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
C47	Autonomic nervous system	0.4	0.4	0.3	0.1	0.2	0.2	0.3	0.1	0.5	0.2
C48-49	Soft tissues	1.5	1.2	1.3	1.6	2.0	2.1	1.6	2.0	2.4	2.3
C50	Breast	69.1	71.7	69.9	68.6	72.9	75.4	76.8	76.7	77.2	75.7
C51-58	Female genital organs	42.0	41.0	42.2	39.1	39.1	40.7	41.3	39.7	41.0	40.0
C53	Cervix uteri	11.6	11.3	11.7	9.7	9.3	9.8	10.1	9.5	8.6	9.4
C54	Corpus uteri	14.0	13.8	13.5	13.3	14.8	14.9	15.1	16.1	17.0	16.2
C55	Uterus, other	0.2	0.2	0.2	0.1	0.3	0.1	0.2	0.2	0.3	0.2
C56	Ovary	13.4	12.7	13.7	12.9	12.3	12.6	13.6	11.0	12.2	10.7
C51-52, C57	Other female genital	2.7	2.8	3.0	2.8	2.3	3.1	2.3	2.8	2.7	3.3
C58	Placenta	0.1	0.2	0.1	0.3	0.0	0.1	0.1	0.1	0.2	0.3
C64-68	Urinary organs	11.7	12.5	10.8	12.2	11.3	11.6	12.6	11.8	11.4	12.2
C64-65	Kidney	5.7	5.6	4.7	5.3	4.7	4.9	5.3	5.6	5.2	5.5
C66-68	Bladder, ureter, urethra	6.0	6.9	6.1	6.9	6.6	6.7	7.2	6.1	6.2	6.7
C69	Eye	0.9	0.8	0.9	0.8	0.4	0.7	1.0	0.8	1.0	0.8
C70-72	Central nervous system	12.1	12.2	12.1	12.7	12.8	14.2	16.7	15.6	15.8	13.5
C73	Thyroid gland	4.1	3.2	3.7	3.8	5.0	4.3	4.5	4.2	5.2	5.0
C37, C74-75	Other endocrine glands	0.2	0.3	0.7	0.3	0.5	0.4	0.4	0.3	0.3	0.7
C39, C76, C80	Other or unspecified	6.1	6.4	5.4	5.3	5.6	4.6	5.2	4.7	5.0	4.8
C81-96	Lymphoid and haematopoietic tissue	18.3	20.1	18.7	19.1	20.0	20.0	18.8	19.4	20.9	17.6
C81	Hodgkin lymphoma	1.7	1.3	2.0	1.6	2.7	1.4	1.6	2.1	1.7	2.0
C82-85, C96	Non-Hodgkin lymphoma	7.2	8.8	7.5	8.3	8.2	8.4	8.2	7.9	8.9	8.0
C88	Malignant immunoproliferative diseases	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.2
C90	Multiple myeloma	2.7	3.3	2.8	3.2	2.4	3.5	3.3	2.8	3.1	2.9
C91-95	Leukaemia	6.6	6.5	6.2	5.8	6.5	6.4	5.3	6.4	6.7	4.5

Table 10 Number of new cases by primary site and five-year age group - 2005

MALES

ICD10	Site	Age																	
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
C00-96	All sites	31	18	18	33	61	100	131	131	207	341	556	1150	1497	1710	1901	1976	1675	1170
C00-14	Mouth, pharynx	0	0	0	0	1	0	0	3	11	11	20	37	31	39	27	26	13	16
C00	Lip	0	0	0	0	0	0	0	0	2	2	2	3	6	4	6	6	2	8
C01-02	Tongue	0	0	0	0	0	0	0	1	2	5	3	5	6	9	5	4	3	2
C03-06	Mouth, other	0	0	0	0	0	0	0	1	2	0	5	12	3	5	3	5	2	1
C07-08	Salivary glands	0	0	0	0	1	0	0	0	1	2	0	3	1	4	3	4	1	3
C09-14	Pharynx	0	0	0	0	0	0	0	1	4	2	10	14	15	17	10	7	5	2
C15-26	Digestive organs	0	3	0	1	2	1	13	19	44	66	114	233	315	346	400	442	387	288
C15	Oesophagus	0	0	0	0	0	0	0	0	2	9	8	23	14	19	16	20	16	10
C16	Stomach	0	0	0	0	0	0	1	2	5	7	9	21	27	27	47	48	45	48
C17	Small intestine	0	0	0	0	0	0	1	3	2	3	4	3	4	1	9	7	7	4
C18	Colon	0	0	0	0	2	0	7	5	19	20	42	82	129	130	171	182	155	108
C19-21	Rectum, rectosigmoid, anus	0	0	0	0	0	1	0	5	12	19	32	60	85	93	95	111	89	73
C22	Liver	0	3	0	1	0	0	1	1	2	2	3	10	10	9	6	10	6	8
C23-24	Gallbladder, bile ducts	0	0	0	0	0	0	1	1	1	2	5	4	9	17	10	8	8	6
C25	Pancreas	0	0	0	0	0	0	2	2	1	4	10	26	34	47	40	50	53	20
C26	Other digestive organs	0	0	0	0	0	0	0	0	0	0	1	4	3	3	6	6	8	11
C30-34, C38	Respiratory organs	0	0	1	0	0	1	1	2	10	38	56	141	207	204	241	276	192	104
C30-31	Nose, sinuses	0	0	1	0	0	0	0	0	1	1	2	3	2	2	3	0	2	4
C32	Larynx, epiglottis	0	0	0	0	0	0	0	0	1	0	5	16	16	16	12	14	9	4
C33-34	Lung, trachea	0	0	0	0	0	1	1	2	8	37	47	121	188	184	225	258	180	95
C38	Mediastinum, pleura	0	0	0	0	0	0	0	0	0	0	2	1	1	2	1	4	1	1
C40-41	Bone	0	1	0	3	4	0	0	2	2	1	2	5	1	1	1	3	1	1
C43	Melanoma of the skin	0	0	0	2	0	11	14	18	18	40	47	67	65	68	69	67	49	37
C44	Skin, non-melanoma	0	0	0	0	1	3	4	2	4	9	18	41	37	63	89	131	130	130
C45	Mesothelioma	0	0	0	0	0	0	0	0	0	0	4	0	8	6	21	11	9	8
C46	Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	0	2	1
C47	Autonomic nervous system	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
C48-49	Soft tissues	0	1	0	1	1	0	1	2	1	7	5	5	3	3	10	2	6	2
C50	Breast	0	0	1	0	0	0	0	0	0	0	3	3	2	2	2	0	1	4
C60-63	Male genital organs	1	0	2	7	31	52	56	34	32	47	112	331	502	675	655	583	495	313
C61	Prostate	0	0	0	0	0	0	0	0	3	30	94	319	496	669	645	578	489	308
C62	Testis	1	0	2	6	31	50	55	33	28	15	16	5	2	1	2	0	1	1
C60, C63	Other male genital	0	0	0	1	0	2	1	1	1	2	2	7	4	5	8	5	5	4
C64-68	Urinary organs	2	3	0	0	2	1	5	9	19	39	62	121	158	126	199	230	186	139
C64-65	Kidney	1	3	0	0	1	1	4	4	6	17	31	43	65	32	52	49	43	21
C66-68	Bladder, ureter, urethra	1	0	0	0	1	0	1	5	13	22	31	78	93	94	147	181	143	118
C69	Eye	0	0	0	0	0	1	0	0	1	2	4	5	2	2	3	0	1	3
C70-72	Central nervous system	11	5	7	4	10	11	14	17	30	26	27	44	33	39	27	28	33	14
C73	Thyroid gland	0	0	0	1	0	2	5	1	5	8	10	12	4	5	5	4	3	0
C37, C74-75	Other endocrine glands	0	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	0	0
C39, C76, C80	Other or unspecified	0	0	0	0	0	0	0	0	2	9	8	18	18	28	27	37	45	40
C81-96	Lymphoid and haematopoietic tissue	14	5	7	14	9	17	18	22	28	36	62	87	110	98	125	135	121	70
C81	Hodgkin lymphoma	0	2	5	7	5	7	9	6	3	1	3	3	3	5	1	2	1	0
C82-85, C96	Non-Hodgkin lymphoma	1	1	0	2	2	6	4	11	12	26	32	47	56	43	56	55	53	28
C88	Malignant immunoproliferative diseases	0	0	0	0	0	0	0	0	0	0	2	0	4	2	1	2	6	2
C90	Multiple myeloma	0	0	0	0	0	0	2	2	4	5	9	18	21	28	24	35	31	17
C91-95	Leukaemia	13	2	2	5	2	4	3	3	9	4	16	19	26	20	43	41	30	23

Table 11 - Number of new cases by primary site and five-year age group - 2005

FEMALES

ICD10	Site	Age																	
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
C00-96	All sites	36	20	9	24	53	76	165	283	398	650	850	1163	1239	1154	1162	1428	1391	1421
C00-14	Mouth, pharynx	0	0	1	1	0	0	1	1	5	7	14	22	21	19	17	26	21	24
C00	Lip	0	0	0	0	0	0	1	0	0	0	4	3	1	3	2	12	6	4
C01-02	Tongue	0	0	0	0	0	0	0	0	0	1	2	4	3	5	3	5	3	6
C03-06	Mouth, other	0	0	0	0	0	0	0	0	2	2	1	8	7	2	3	3	7	7
C07-08	Salivary glands	0	0	1	1	0	0	0	1	1	0	1	2	3	3	3	3	2	4
C09-14	Pharynx	0	0	0	0	0	0	0	0	2	4	6	5	7	6	6	3	3	3
C15-26	Digestive organs	0	0	0	1	3	3	10	25	50	64	103	166	221	256	312	406	458	451
C15	Oesophagus	0	0	0	0	0	0	0	1	0	1	3	3	7	7	7	10	9	13
C16	Stomach	0	0	0	0	0	0	2	4	4	6	10	13	20	16	32	25	51	45
C17	Small intestine	0	0	0	0	0	0	0	2	1	1	2	2	6	3	7	10	0	7
C18	Colon	0	0	0	1	2	2	4	8	23	27	40	66	90	119	156	208	219	203
C19-21	Rectum, rectosigmoid, anus	0	0	0	0	0	1	3	8	10	20	34	54	52	59	65	71	87	89
C22	Liver	0	0	0	0	1	0	0	0	4	1	2	5	10	6	6	10	7	7
C23-24	Gallbladder, bile ducts	0	0	0	0	0	0	0	0	1	1	3	3	7	10	6	14	17	6
C25	Pancreas	0	0	0	0	0	0	1	2	4	5	9	17	25	30	28	51	53	61
C26	Other digestive organs	0	0	0	0	0	0	0	0	3	2	0	3	4	6	5	7	15	20
C30-34, C38	Respiratory organs	0	0	0	0	1	1	2	2	14	27	69	104	125	129	148	167	97	61
C30-31	Nose, sinuses	0	0	0	0	0	0	0	0	0	0	3	3	3	2	1	1	1	3
C32	Larynx, epiglottis	0	0	0	0	0	0	0	0	1	1	1	1	4	4	1	1	2	0
C33-34	Lung, trachea	0	0	0	0	1	1	2	2	13	25	65	100	118	123	146	163	91	55
C38	Mediastinum, pleura	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	3	3
C40-41	Bone	0	0	2	0	2	2	0	2	0	3	0	1	1	0	0	1	1	0
C43	Melanoma of the skin	0	0	1	2	8	9	24	29	46	55	34	58	64	43	58	48	41	44
C44	Skin, non-melanoma	0	0	0	2	2	1	1	4	11	9	18	27	29	43	62	92	130	249
C45	Mesothelioma	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0	3	0
C46	Kaposi's sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
C47	Autonomic nervous system	1	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0
C48-49	Soft tissues	1	1	0	3	3	2	2	0	3	3	9	11	7	4	12	4	2	7
C50	Breast	0	0	0	0	1	9	34	96	157	281	337	400	364	305	172	200	234	190
C51-58	Female genital organs	0	1	0	2	13	19	50	70	52	87	140	181	184	154	149	164	154	127
C53	Cervix uteri	0	0	0	0	6	14	41	48	24	20	27	22	21	16	16	19	14	4
C54	Corpus uteri	0	0	0	0	0	1	2	9	8	36	62	83	89	82	87	85	60	62
C55	Uterus, other	0	0	0	0	0	1	0	0	0	0	1	0	2	0	0	1	5	1
C56	Ovary	0	1	0	2	4	3	5	9	15	24	37	62	60	37	35	39	52	35
C51-52, C57	Other female genital	0	0	0	0	0	0	1	3	5	6	13	14	12	19	11	20	23	25
C58	Placenta	0	0	0	0	3	0	1	1	0	1	0	0	0	0	0	0	0	0
C64-68	Urinary organs	3	1	0	0	0	2	2	4	6	16	17	56	59	61	91	104	84	72
C64-65	Kidney	3	1	0	0	0	2	2	2	4	9	7	24	22	29	36	54	30	18
C66-68	Bladder, ureter, urethra	0	0	0	0	0	0	0	2	2	7	10	32	37	32	55	50	54	54
C69	Eye	4	0	0	0	0	1	0	1	1	1	0	1	3	1	4	5	1	0
C70-72	Central nervous system	13	8	4	8	7	5	15	14	26	35	35	43	56	42	30	42	20	22
C73	Thyroid gland	0	2	0	2	4	9	14	15	8	16	10	19	14	11	6	11	8	12
C37, C74-75	Other endocrine glands	3	1	0	0	0	1	0	0	2	0	1	1	3	1	1	0	0	0
C39, C76, C80	Other or unspecified	0	0	0	0	1	0	3	1	3	7	10	18	23	20	19	51	43	73
C81-96	Lymphoid and haematopoietic tissue	11	6	1	3	8	11	7	19	13	38	52	54	65	64	80	106	93	89
C81	Hodgkin lymphoma	1	1	1	2	6	6	2	7	5	5	1	3	0	3	3	4	0	0
C82-85, C96	Non-Hodgkin lymphoma	0	1	0	0	1	3	2	6	7	23	35	32	30	34	34	57	42	35
C88	Malignant immunoproliferative diseases	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	2	3	3
C90	Multiple myeloma	0	0	0	0	0	0	0	0	0	3	9	10	20	10	29	17	18	18
C91-95	Leukaemia	10	4	0	1	1	2	3	6	1	7	7	8	15	13	14	26	30	33

Table 12 - Age-specific incidence rates per 100 000 person-years by primary site and five-year age group - 2005

MALES

ICD10	Site	Age																	
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
C00-96	All sites	21.1	11.5	11.2	21.5	43.7	69.1	77.2	72.1	120.9	210.5	362.5	751.4	1251.1	1996.2	2758.0	3271.7	3772.4	3981.1
C00-14	Mouth, pharynx	0.0	0.0	0.0	0.0	0.7	0.0	0.0	1.7	6.4	6.8	13.0	24.2	25.9	45.5	39.2	43.0	29.3	54.4
C00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.3	2.0	5.0	4.7	8.7	9.9	4.5	27.2
C01-02	Tongue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	3.1	2.0	3.3	5.0	10.5	7.3	6.6	6.8	6.8
C03-06	Mouth, other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	0.0	3.3	7.8	2.5	5.8	4.4	8.3	4.5	3.4
C07-08	Salivary glands	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.6	1.2	0.0	2.0	0.8	4.7	4.4	6.6	2.3	10.2
C09-14	Pharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.3	1.2	6.5	9.1	12.5	19.8	14.5	11.6	11.3	6.8
C15-26	Digestive organs	0.0	1.9	0.0	0.7	1.4	0.7	7.7	10.5	25.7	40.7	74.3	152.2	263.3	403.9	580.3	731.8	871.6	980.0
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	5.6	5.2	15.0	11.7	22.2	23.2	33.1	36.0	34.0
C16	Stomach	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	2.9	4.3	5.9	13.7	22.6	31.5	68.2	79.5	101.3	163.3
C17	Small intestine	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.7	1.2	1.9	2.6	2.0	3.3	1.2	13.1	11.6	15.8	13.6
C18	Colon	0.0	0.0	0.0	0.0	1.4	0.0	4.1	2.8	11.1	12.3	27.4	53.6	107.8	151.8	248.1	301.3	349.1	367.5
C19-21	Rectum, rectosigmoid, anus	0.0	0.0	0.0	0.0	0.0	0.7	0.0	2.8	7.0	11.7	20.9	39.2	71.0	108.6	137.8	183.8	200.4	248.4
C22	Liver	0.0	1.9	0.0	0.7	0.0	0.0	0.6	0.6	1.2	1.2	2.0	6.5	8.4	10.5	8.7	16.6	13.5	27.2
C23-24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.6	1.2	3.3	2.6	7.5	19.8	14.5	13.2	18.0	20.4
C25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.1	0.6	2.5	6.5	17.0	28.4	54.9	58.0	82.8	119.4	68.1
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.6	2.5	3.5	8.7	9.9	18.0	37.4
C30-34, C38	Respiratory organs	0.0	0.0	0.6	0.0	0.0	0.7	0.6	1.1	5.8	23.5	36.5	92.1	173.0	238.1	349.6	457.0	432.4	353.9
C30-31	Nose, sinuses	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.3	2.0	1.7	2.3	4.4	0.0	4.5	13.6
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	3.3	10.5	13.4	18.7	17.4	23.2	20.3	13.6
C33-34	Lung, trachea	0.0	0.0	0.0	0.0	0.0	0.7	0.6	1.1	4.7	22.8	30.6	79.1	157.1	214.8	326.4	427.2	405.4	323.3
C38	Mediastinum, pleura	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.7	0.8	2.3	1.5	6.6	2.3	3.4
C40-41	Bone	0.0	0.6	0.0	2.0	2.9	0.0	0.0	1.1	1.2	0.6	1.3	3.3	0.8	1.2	1.5	5.0	2.3	3.4
C43	Melanoma of the skin	0.0	0.0	0.0	1.3	0.0	7.6	8.3	9.9	10.5	24.7	30.6	43.8	54.3	79.4	100.1	110.9	110.4	125.9
C44	Skin, non-melanoma	0.0	0.0	0.0	0.0	0.7	2.1	2.4	1.1	2.3	5.6	11.7	26.8	30.9	73.5	129.1	216.9	292.8	442.3
C45	Mesothelioma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	6.7	7.0	30.5	18.2	20.3	27.2
C46	Kaposi's sarcoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	4.7	0.0	0.0	4.5	3.4
C47	Autonomic nervous system	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.3	0.0
C48-49	Soft tissues	0.0	0.6	0.0	0.7	0.7	0.0	0.6	1.1	0.6	4.3	3.3	3.3	2.5	3.5	14.5	3.3	13.5	6.8
C50	Breast	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	1.7	2.3	2.9	0.0	2.3	13.6
C60-63	Male genital organs	0.7	0.0	1.2	4.6	22.2	35.9	33.0	18.7	18.7	29.0	73.0	216.3	419.6	788.0	950.3	965.3	1114.8	1065.0
C61	Prostate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	18.5	61.3	208.4	414.5	781.0	935.8	957.0	1101.3	1048.0
C62	Testis	0.7	0.0	1.2	3.9	22.2	34.5	32.4	18.2	16.3	9.3	10.4	3.3	1.7	1.2	2.9	0.0	2.3	3.4
C60, C63	Other male genital	0.0	0.0	0.0	0.7	0.0	1.4	0.6	0.6	0.6	1.2	1.3	4.6	3.3	5.8	11.6	8.3	11.3	13.6
C64-68	Urinary organs	1.4	1.9	0.0	0.0	1.4	0.7	2.9	5.0	11.1	24.1	40.4	79.1	132.1	147.1	288.7	380.8	418.9	473.0
C64-65	Kidney	0.7	1.9	0.0	0.0	0.7	0.7	2.4	2.2	3.5	10.5	20.2	28.1	54.3	37.4	75.4	81.1	96.8	71.5
C66-68	Bladder, ureter, urethra	0.7	0.0	0.0	0.0	0.7	0.0	0.6	2.8	7.6	13.6	20.2	51.0	77.7	109.7	213.3	299.7	322.1	401.5
C69	Eye	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.6	1.2	2.6	3.3	1.7	2.3	4.4	0.0	2.3	10.2
C70-72	Central nervous system	7.5	3.2	4.3	2.6	7.2	7.6	8.3	9.4	17.5	16.0	17.6	28.7	27.6	45.5	39.2	46.4	74.3	47.6
C73	Thyroid gland	0.0	0.0	0.0	0.7	0.0	1.4	2.9	0.6	2.9	4.9	6.5	7.8	3.3	5.8	7.3	6.6	6.8	0.0
C37, C74-75	Other endocrine glands	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.7	0.0	0.8	1.2	0.0	0.0	0.0	0.0
C39, C76, C80	Other or unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	5.6	5.2	11.8	15.0	32.7	39.2	61.3	101.3	136.1
C81-96	Lymphoid and haematopoietic tissue	9.5	3.2	4.3	9.1	6.4	11.7	10.6	12.1	16.3	22.2	40.4	56.8	91.9	114.4	181.3	223.5	272.5	238.2
C81	Hodgkin lymphoma	0.0	1.3	3.1	4.6	3.6	4.8	5.3	3.3	1.8	0.6	2.0	2.0	2.5	5.8	1.5	3.3	2.3	0.0
C82-85, C96	Non-Hodgkin lymphoma	0.7	0.6	0.0	1.3	1.4	4.1	2.4	6.1	7.0	16.0	20.9	30.7	46.8	50.2	81.2	91.1	119.4	95.3
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	3.3	2.3	1.5	3.3	13.5	6.8
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.1	2.3	3.1	5.9	11.8	17.6	32.7	34.8	57.9	69.8	57.8
C91-95	Leukaemia	8.9	1.3	1.2	3.3	1.4	2.8	1.8	1.7	5.3	2.5	10.4	12.4	21.7	23.3	62.4	67.9	67.6	78.3

Table 13 Age-specific incidence rates per 100 000 person-years by primary site and five-year age group - 2005

FEMALES

ICD10	Site	Age																	
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
C00-96	All sites	25.6	13.4	5.9	16.5	39.1	53.1	99.3	161.6	242.7	414.3	571.3	785.2	1038.8	1259.3	1437.1	1805.1	1925.3	2034.7
C00-14	Mouth, pharynx	0.0	0.0	0.7	0.7	0.0	0.0	0.6	0.6	3.0	4.5	9.4	14.9	17.6	20.7	21.0	32.9	29.1	34.4
C00	Lip	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	2.7	2.0	0.8	3.3	2.5	15.2	8.3	5.7
C01-02	Tongue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	2.7	2.5	5.5	3.7	6.3	4.2	8.6
C03-06	Mouth, other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.3	0.7	5.4	5.9	2.2	3.7	3.8	9.7	10.0
C07-08	Salivary glands	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.6	0.6	0.0	0.7	1.4	2.5	3.3	3.7	3.8	2.8	5.7
C09-14	Pharynx	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.5	4.0	3.4	5.9	6.5	7.4	3.8	4.2	4.3
C15-26	Digestive organs	0.0	0.0	0.0	0.7	2.2	2.1	6.0	14.3	30.5	40.8	69.2	112.1	185.3	279.4	385.9	513.2	633.9	645.8
C15	Oesophagus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	2.0	2.0	5.9	7.6	8.7	12.6	12.5	18.6
C16	Stomach	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.3	2.4	3.8	6.7	8.8	16.8	17.5	39.6	31.6	70.6	64.4
C17	Small intestine	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.6	0.6	1.3	1.4	5.0	3.3	8.7	12.6	0.0	10.0
C18	Colon	0.0	0.0	0.0	0.7	1.5	1.4	2.4	4.6	14.0	17.2	26.9	44.6	75.5	129.9	192.9	262.9	303.1	290.7
C19-21	Rectum, rectosigmoid, anus	0.0	0.0	0.0	0.0	0.0	0.7	1.8	4.6	6.1	12.7	22.9	36.5	43.6	64.4	80.4	89.7	120.4	127.4
C22	Liver	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	2.4	0.6	1.3	3.4	8.4	6.5	7.4	12.6	9.7	10.0
C23-24	Gallbladder, bile ducts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	2.0	2.0	5.9	10.9	7.4	17.7	23.5	8.6
C25	Pancreas	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	2.4	3.2	6.0	11.5	21.0	32.7	34.6	64.5	73.4	87.3
C26	Other digestive organs	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.3	0.0	2.0	3.4	6.5	6.2	8.8	20.8	28.6
C30-34, C38	Respiratory organs	0.0	0.0	0.0	0.0	0.7	0.7	1.2	1.1	8.5	17.2	46.4	70.2	104.8	140.8	183.0	211.1	134.3	87.3
C30-31	Nose, sinuses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.5	2.2	1.2	1.3	1.4	4.3
C32	Larynx, epiglottis	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.7	0.7	3.4	4.4	1.2	1.3	2.8	0.0
C33-34	Lung, trachea	0.0	0.0	0.0	0.0	0.7	0.7	1.2	1.1	7.9	15.9	43.7	67.5	98.9	134.2	180.6	206.0	126.0	78.8
C38	Mediastinum, pleura	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	2.5	4.2	4.3
C40-41	Bone	0.0	0.0	1.3	0.0	1.5	1.4	0.0	1.1	0.0	1.9	0.0	0.7	0.8	0.0	0.0	1.3	1.4	0.0
C43	Melanoma of the skin	0.0	0.0	0.7	1.4	5.9	6.3	14.4	16.6	28.0	35.1	22.9	39.2	53.7	46.9	71.7	60.7	56.7	63.0
C44	Skin, non-melanoma	0.0	0.0	0.0	1.4	1.5	0.7	0.6	2.3	6.7	5.7	12.1	18.2	24.3	46.9	76.7	116.3	179.9	356.5
C45	Mesothelioma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0	1.1	1.2	0.0	4.2	0.0
C46	Kaposi's sarcoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.4	0.0
C47	Autonomic nervous system	0.7	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C48-49	Soft tissues	0.7	0.7	0.0	2.1	2.2	1.4	1.2	0.0	1.8	1.9	6.0	7.4	5.9	4.4	14.8	5.1	2.8	10.0
C50	Breast	0.0	0.0	0.0	0.0	0.7	6.3	20.5	54.8	95.7	179.1	226.5	270.1	305.2	332.8	212.7	252.8	323.9	272.1
C51-58	Female genital organs	0.0	0.7	0.0	1.4	9.6	13.3	30.1	40.0	31.7	55.5	94.1	122.2	154.3	168.1	184.3	207.3	213.2	181.9
C53	Cervix uteri	0.0	0.0	0.0	0.0	4.4	9.8	24.7	27.4	14.6	12.7	18.1	14.9	17.6	17.5	19.8	24.0	19.4	5.7
C54	Corpus uteri	0.0	0.0	0.0	0.0	0.0	0.7	1.2	5.1	4.9	22.9	41.7	56.0	74.6	89.5	107.6	107.4	83.0	88.8
C55	Uterus, other	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.0	1.7	0.0	0.0	1.3	6.9	1.4
C56	Ovary	0.0	0.7	0.0	1.4	3.0	2.1	3.0	5.1	9.1	15.3	24.9	41.9	50.3	40.4	43.3	49.3	72.0	50.1
C51-52, C57	Other female genital	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.7	3.0	3.8	8.7	9.5	10.1	20.7	13.6	25.3	31.8	35.8
C58	Placenta	0.0	0.0	0.0	0.0	2.2	0.0	0.6	0.6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C64-68	Urinary organs	2.1	0.7	0.0	0.0	0.0	1.4	1.2	2.3	3.7	10.2	11.4	37.8	49.5	66.6	112.5	131.5	116.3	103.1
C64-65	Kidney	2.1	0.7	0.0	0.0	0.0	1.4	1.2	1.1	2.4	5.7	4.7	16.2	18.4	31.6	44.5	68.3	41.5	25.8
C66-68	Bladder, ureter, urethra	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.2	4.5	6.7	21.6	31.0	34.9	68.0	63.2	74.7	77.3
C69	Eye	2.8	0.0	0.0	0.0	0.0	0.7	0.0	0.6	0.6	0.6	0.0	0.7	2.5	1.1	4.9	6.3	1.4	0.0
C70-72	Central nervous system	9.2	5.4	2.6	5.5	5.2	3.5	9.0	8.0	15.9	22.3	23.5	29.0	47.0	45.8	37.1	53.1	27.7	31.5
C73	Thyroid gland	0.0	1.3	0.0	1.4	3.0	6.3	8.4	8.6	4.9	10.2	6.7	12.8	11.7	12.0	7.4	13.9	11.1	17.2
C37, C74-75	Other endocrine glands	2.1	0.7	0.0	0.0	0.0	0.7	0.0	0.0	1.2	0.0	0.7	0.7	2.5	1.1	1.2	0.0	0.0	0.0
C39, C76, C80	Other or unspecified	0.0	0.0	0.0	0.0	0.7	0.0	1.8	0.6	1.8	4.5	6.7	12.2	19.3	21.8	23.5	64.5	59.5	104.5
C81-96	Lymphoid and haematopoietic tissue	7.8	4.0	0.7	2.1	5.9	7.7	4.2	10.9	7.9	24.2	35.0	36.5	54.5	69.8	98.9	134.0	128.7	127.4
C81	Hodgkin lymphoma	0.7	0.7	0.7	1.4	4.4	4.2	1.2	4.0	3.0	3.2	0.7	2.0	0.0	3.3	3.7	5.1	0.0	0.0
C82-85, C96	Non-Hodgkin lymphoma	0.0	0.7	0.0	0.0	0.7	2.1	1.2	3.4	4.3	14.7	23.5	21.6	25.2	37.1	42.0	72.1	58.1	50.1
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	4.4	0.0	2.5	4.2	4.3
C90	Multiple myeloma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	6.0	6.8	16.8	10.9	35.9	21.5	24.9	25.8
C91-95	Leukaemia	7.1	2.7	0.0	0.7	0.7	1.4	1.8	3.4	0.6	4.5	4.7	5.4	12.6	14.2	17.3	32.9	41.5	47.3

Table 14 Average annual number of new cases by primary site and 5-year period 1956-2005

MALES

ICD10	Site	Period									
		1956-60	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-05
C00-96	All sites	3976	4613	5421	6304	7427	8470	9190	10264	11228	12311
C00-14	Mouth, pharynx	189	187	203	245	239	248	256	256	265	246
C00	Lip	101	93	103	121	116	98	94	75	64	45
C01-02	Tongue	18	21	21	25	29	36	36	41	47	50
C03-06	Mouth, other	22	22	32	29	34	46	46	55	52	45
C07-08	Salivary glands	12	13	14	14	14	14	15	21	22	20
C09-14	Pharynx	35	39	32	56	45	54	64	64	81	86
C15-26	Digestive organs	1642	1725	1864	1952	2151	2363	2371	2466	2518	2690
C15	Oesophagus	74	80	77	84	87	87	98	107	118	133
C16	Stomach	851	794	769	662	603	588	529	459	398	336
C17	Small intestine	10	11	18	15	19	31	25	32	40	52
C18	Colon	236	291	357	402	521	648	740	840	918	1016
C19-21	Rectum, rectosigmoid, anus	155	189	257	317	438	522	538	585	599	673
C22	Liver	19	23	36	55	50	66	59	61	68	78
C23-24	Gallbladder, bile ducts	17	22	27	28	39	43	49	54	57	64
C25	Pancreas	143	176	218	250	264	299	292	281	275	298
C26	Other digestive organs	137	140	106	140	131	78	42	47	44	40
C30-34, C38	Respiratory organs	327	451	633	788	1009	1192	1293	1364	1424	1509
C30-31	Nose, sinuses	20	22	21	22	24	22	24	20	23	23
C32	Larynx, epiglottis	32	46	67	70	90	104	106	102	106	104
C33-34	Lung, trachea	263	373	532	679	876	1052	1156	1223	1278	1368
C38	Mediastinum, pleura	12	11	13	17	20	15	7	19	17	14
C40-41	Bone	13	16	18	22	20	24	21	22	21	25
C43	Melanoma of the skin	51	76	103	157	206	254	351	434	453	499
C44	Skin, non-melanoma	84	73	90	171	222	270	354	465	550	649
C45	Mesothelioma	0	3	3	8	19	25	39	34	50	63
C46	Kaposi's sarcoma	2	4	4	6	6	8	12	15	6	7
C47	Autonomic nervous system	20	14	16	11	9	8	8	7	6	5
C48-49	Soft tissues	21	24	34	43	52	45	43	46	47	52
C50	Breast	7	8	9	9	10	13	13	13	15	16
C60-63	Male genital organs	728	932	1109	1336	1611	1868	2049	2574	3138	3599
C61	Prostate	654	840	1012	1227	1477	1694	1859	2343	2866	3302
C62	Testis	55	68	75	85	107	142	164	197	237	254
C60, C63	Other male genital	18	24	22	24	27	31	26	33	34	43
C64-68	Urinary organs	310	415	531	666	808	975	1054	1154	1174	1292
C64-65	Kidney	103	132	168	198	226	282	290	313	325	380
C66-68	Bladder, ureter, urethra	207	283	362	468	581	693	764	842	849	912
C69	Eye	20	18	23	18	26	25	24	26	30	30
C70-72	Central nervous system	120	136	145	161	188	219	245	254	326	379
C73	Thyroid gland	20	23	35	35	43	45	50	45	47	54
C37, C74-75	Other endocrine glands	4	7	5	8	9	12	13	15	13	11
C39, C76, C80	Other or unspecified	54	85	125	146	182	222	270	290	289	234
C81-96	Lymphoid and haematopoietic tissue	362	416	472	523	615	654	726	784	856	954
C81	Hodgkin lymphoma	44	52	60	63	67	56	50	50	58	67
C82-85, C96	Non-Hodgkin lymphoma	97	107	138	136	166	210	277	311	356	388
C88	Malignant immunoproliferative diseases	0	0	2	6	7	10	8	16	19	26
C90	Multiple myeloma	72	83	90	117	149	152	162	160	161	175
C91-95	Leukaemia	150	175	184	201	225	227	228	247	262	299

Table 15 Average annual number of new cases by primary site and 5-year period 1956-2005

FEMALES

ICD10	Site	Period									
		1956-60	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-05
C00-96	All sites	4139	4576	5308	6010	6991	7721	8432	9322	10348	11370
C00-14	Mouth, pharynx	60	67	74	78	88	101	112	122	132	142
C00	Lip	8	9	10	10	16	19	27	29	26	27
C01-02	Tongue	10	13	17	16	18	23	24	23	27	28
C03-06	Mouth, other	11	13	17	17	20	24	28	35	34	36
C07-08	Salivary glands	8	14	14	12	13	14	13	17	20	19
C09-14	Pharynx	23	19	17	22	21	20	20	19	25	32
C15-26	Digestive organs	1384	1436	1579	1691	1987	2143	2206	2339	2451	2529
C15	Oesophagus	23	29	30	30	31	35	37	42	46	54
C16	Stomach	595	538	501	423	411	390	352	305	254	228
C17	Small intestine	10	11	13	19	19	27	28	31	39	49
C18	Colon	273	337	427	495	656	771	872	984	1095	1170
C19-21	Rectum, rectosigmoid, anus	127	138	214	266	360	419	441	499	506	534
C22	Liver	11	14	19	30	34	44	41	44	45	46
C23-24	Gallbladder, bile ducts	47	52	61	49	70	83	78	71	83	71
C25	Pancreas	97	119	156	183	218	265	287	303	318	326
C26	Other digestive organs	202	198	158	195	188	109	70	58	64	51
C30-34, C38	Respiratory organs	89	108	156	195	241	331	454	587	743	905
C30-31	Nose, sinuses	13	13	12	14	13	12	16	16	16	17
C32	Larynx, epiglottis	2	4	6	7	10	11	11	18	20	17
C33-34	Lung, trachea	70	84	131	165	212	303	423	546	700	864
C38	Mediastinum, pleura	4	7	6	8	6	5	4	6	8	7
C40-41	Bone	9	11	12	13	13	14	15	17	20	18
C43	Melanoma of the skin	55	88	120	178	259	336	431	484	500	549
C44	Skin, non-melanoma	53	47	49	106	146	206	274	381	462	565
C45	Mesothelioma	0	1	1	2	3	4	6	9	8	9
C46	Kaposi's sarcoma	0	1	2	4	3	5	6	6	5	2
C47	Autonomic nervous system	17	11	14	10	7	5	9	7	7	5
C48-49	Soft tissues	17	26	27	35	42	45	45	47	55	73
C50	Breast	917	1039	1191	1363	1536	1676	1812	2008	2421	2721
C51-58	Female genital organs	865	952	1101	1219	1295	1284	1301	1384	1421	1526
C53	Cervix uteri	341	358	396	436	410	365	336	353	316	293
C54	Corpus uteri	174	216	260	310	370	383	408	455	505	632
C55	Uterus, other	23	21	14	9	7	6	6	8	10	11
C56	Ovary	259	286	358	338	375	414	439	454	464	454
C51-52, C57	Other female genital	66	69	69	122	131	113	108	111	123	132
C58	Placenta	3	2	4	3	3	4	5	5	3	4
C64-68	Urinary organs	198	224	272	325	379	417	466	497	534	574
C64-65	Kidney	80	93	120	132	153	167	203	211	217	235
C66-68	Bladder, ureter, urethra	118	131	152	193	226	250	264	286	317	339
C69	Eye	15	18	17	18	23	21	23	30	27	31
C70-72	Central nervous system	106	120	130	139	184	212	252	284	385	490
C73	Thyroid gland	53	58	85	107	129	142	135	139	120	145
C37, C74-75	Other endocrine glands	6	5	4	3	8	12	15	14	11	12
C39, C76, C80	Other or unspecified	47	70	97	103	163	221	270	312	312	294
C81-96	Lymphoid and haematopoietic tissue	248	297	376	420	488	545	599	656	733	779
C81	Hodgkin lymphoma	31	37	45	41	45	37	37	31	43	45
C82-85, C96	Non-Hodgkin lymphoma	63	76	117	110	144	195	238	281	313	344
C88	Malignant immunoproliferative diseases	0	0	0	4	3	6	7	12	9	16
C90	Multiple myeloma	37	58	77	106	125	128	137	138	142	153
C91-95	Leukaemia	116	126	136	158	171	179	181	194	224	220

Table 16 Age-adjusted (world) incidence rates per 100 000 person-years by primary site and five-year period 1956-2005

MALES

ICD10	Site	Period									
		1956-60	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-05
C00-96	All sites	171.3	181.8	197.9	215.5	239.2	259.3	272.0	294.4	316.7	329.3
C00-14	Mouth, pharynx	8.0	7.4	7.4	8.6	8.0	8.1	8.4	8.3	8.3	7.3
C00	Lip	4.2	3.7	3.7	4.2	3.8	3.0	2.8	2.2	1.8	1.2
C01-02	Tongue	0.8	0.9	0.8	0.9	1.0	1.2	1.3	1.4	1.5	1.6
C03-06	Mouth, other	0.9	0.8	1.2	1.0	1.2	1.5	1.5	1.8	1.7	1.3
C07-08	Salivary glands	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.7	0.6
C09-14	Pharynx	1.5	1.6	1.2	2.0	1.5	1.9	2.2	2.3	2.7	2.6
C15-26	Digestive organs	69.1	65.9	65.5	64.3	66.7	69.3	67.6	68.4	67.5	68.5
C15	Oesophagus	3.1	3.1	2.6	2.7	2.7	2.7	3.0	3.2	3.4	3.6
C16	Stomach	35.6	30.1	26.9	21.7	18.6	16.9	14.6	12.3	10.2	8.2
C17	Small intestine	0.5	0.4	0.7	0.5	0.7	1.0	0.8	1.0	1.1	1.5
C18	Colon	9.9	11.2	12.6	13.2	16.2	19.0	21.3	23.0	24.4	25.4
C19-21	Rectum, rectosigmoid, anus	6.5	7.2	9.1	10.5	13.8	15.6	15.6	16.7	16.6	17.6
C22	Liver	0.8	0.9	1.3	1.9	1.6	2.1	1.8	1.8	1.9	2.1
C23-24	Gallbladder, bile ducts	0.7	0.9	0.9	0.9	1.1	1.3	1.3	1.5	1.5	1.7
C25	Pancreas	6.2	6.8	7.6	8.2	8.2	8.7	8.2	7.7	7.3	7.6
C26	Other digestive organs	5.7	5.3	3.7	4.6	3.9	2.0	1.1	1.2	1.1	0.9
C30-34, C38	Respiratory organs	14.5	18.2	23.6	27.6	33.3	37.7	39.5	40.8	40.7	39.7
C30-31	Nose, sinuses	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.7	0.7
C32	Larynx, epiglottis	1.4	1.8	2.6	2.5	3.1	3.5	3.4	3.3	3.2	2.9
C33-34	Lung, trachea	11.7	15.1	19.7	23.7	28.8	33.0	35.2	36.3	36.3	35.9
C38	Mediastinum, pleura	0.6	0.4	0.5	0.7	0.7	0.5	0.2	0.6	0.5	0.3
C40-41	Bone	0.8	0.8	0.8	1.0	0.9	1.1	0.9	0.9	1.0	1.0
C43	Melanoma of the skin	2.4	3.5	4.6	6.6	8.4	9.9	13.0	15.0	14.5	14.8
C44	Skin, non-melanoma	3.5	2.7	3.1	5.4	6.5	7.5	9.6	11.7	13.6	14.7
C45	Mesothelioma	0.0	0.1	0.1	0.3	0.6	0.8	1.2	1.0	1.4	1.6
C46	Kaposi's sarcoma	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.2	0.2
C47	Autonomic nervous system	1.0	0.7	0.7	0.5	0.5	0.5	0.4	0.3	0.3	0.2
C48-49	Soft tissues	1.0	1.0	1.4	1.7	2.0	1.7	1.5	1.6	1.6	1.6
C50	Breast	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
C60-63	Male genital organs	29.5	34.5	37.7	42.0	47.1	51.4	53.9	67.0	85.9	96.4
C61	Prostate	25.7	29.9	32.9	36.9	40.9	43.9	45.9	57.7	74.9	84.8
C62	Testis	3.0	3.7	4.0	4.3	5.3	6.5	7.1	8.3	10.1	10.5
C60, C63	Other male genital	0.7	0.9	0.8	0.8	0.9	1.0	0.8	0.9	0.9	1.2
C64-68	Urinary organs	13.5	16.3	19.2	22.8	25.9	29.9	30.6	32.7	32.0	33.0
C64-65	Kidney	4.6	5.4	6.3	7.1	7.7	9.4	9.0	9.4	9.6	10.6
C66-68	Bladder, ureter, urethra	8.9	10.9	12.9	15.7	18.2	20.5	21.6	23.3	22.4	22.4
C69	Eye	0.9	0.8	1.0	0.7	1.0	1.0	0.9	0.9	1.0	0.9
C70-72	Central nervous system	6.1	6.6	6.8	7.1	8.1	9.0	9.7	9.7	11.7	13.0
C73	Thyroid gland	0.9	1.0	1.4	1.4	1.6	1.6	1.8	1.6	1.6	1.7
C37, C74-75	Other endocrine glands	0.2	0.4	0.3	0.4	0.5	0.6	0.6	0.7	0.5	0.4
C39, C76, C80	Other or unspecified	2.4	3.4	4.5	4.9	5.8	6.6	7.5	7.8	7.3	5.4
C81-96	Lymphoid and haematopoietic tissue	17.2	18.1	19.2	19.6	21.7	22.2	24.2	25.1	27.1	28.2
C81	Hodgkin lymphoma	2.2	2.6	2.7	2.7	2.7	2.3	2.0	2.1	2.5	2.7
C82-85, C96	Non-Hodgkin lymphoma	4.5	4.5	5.6	5.0	5.8	7.2	9.2	10.2	11.2	11.2
C88	Malignant immunoproliferative diseases	0.0	0.0	0.1	0.2	0.2	0.3	0.2	0.5	0.5	0.6
C90	Multiple myeloma	3.1	3.2	3.2	3.8	4.7	4.5	4.7	4.4	4.3	4.5
C91-95	Leukaemia	7.3	7.8	7.7	7.9	8.3	7.9	8.0	8.0	8.7	9.2

Table 17 Age-adjusted (world) incidence rates per 100 000 person-years by primary site and five-year period 1956-2005

FEMALES

ICD10	Site	Period									
		1956-60	1961-65	1966-70	1971-75	1976-80	1981-85	1986-90	1991-95	1996-00	2001-05
C00-96	All sites	163.5	168.1	180.9	194.4	211.4	219.1	228.1	245.8	264.5	278.0
C00-14	Mouth, pharynx	2.3	2.3	2.3	2.3	2.3	2.7	2.9	3.2	3.4	3.4
C00	Lip	0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.6	0.5
C01-02	Tongue	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.6
C03-06	Mouth, other	0.4	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.8	0.8
C07-08	Salivary glands	0.3	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5
C09-14	Pharynx	0.9	0.7	0.6	0.7	0.5	0.6	0.6	0.5	0.7	0.9
C15-26	Digestive organs	48.8	45.8	45.4	45.2	48.4	48.6	47.3	49.5	49.5	50.1
C15	Oesophagus	0.8	0.9	0.8	0.7	0.7	0.7	0.8	0.8	0.9	1.1
C16	Stomach	20.7	16.8	14.1	11.0	9.6	8.5	7.1	5.9	4.8	4.3
C17	Small intestine	0.4	0.4	0.4	0.6	0.5	0.7	0.7	0.8	1.0	1.1
C18	Colon	9.8	10.9	12.5	13.7	16.4	18.0	19.0	20.9	22.3	22.9
C19-21	Rectum, rectosigmoid, anus	4.6	4.6	6.5	7.4	9.4	10.2	10.1	11.6	11.1	11.5
C22	Liver	0.4	0.6	0.6	0.9	0.9	1.1	1.0	1.0	1.0	1.0
C23-24	Gallbladder, bile ducts	1.6	1.7	1.7	1.2	1.6	1.8	1.6	1.5	1.6	1.4
C25	Pancreas	3.5	3.9	4.5	4.8	5.2	5.7	5.9	6.0	5.9	6.1
C26	Other digestive organs	6.9	6.1	4.3	4.8	4.1	1.9	1.1	1.0	0.9	0.8
C30-34, C38	Respiratory organs	3.4	3.8	5.0	6.0	7.1	9.4	12.6	16.1	19.8	22.2
C30-31	Nose, sinuses	0.5	0.4	0.4	0.5	0.3	0.3	0.4	0.4	0.4	0.4
C32	Larynx, epiglottis	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.5	0.5	0.4
C33-34	Lung, trachea	2.7	2.9	4.2	5.1	6.3	8.7	11.7	15.0	18.7	21.3
C38	Mediastinum, pleura	0.2	0.3	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.1
C40-41	Bone	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.7
C43	Melanoma of the skin	2.4	4.0	5.1	7.5	10.1	12.4	15.4	16.2	15.5	15.8
C44	Skin, non-melanoma	1.9	1.5	1.4	2.7	3.4	4.3	5.1	7.1	8.0	9.2
C45	Mesothelioma	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2
C46	Kaposi's sarcoma	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
C47	Autonomic nervous system	0.8	0.5	0.7	0.4	0.3	0.3	0.4	0.3	0.3	0.3
C48-49	Soft tissues	0.7	1.1	1.1	1.3	1.5	1.5	1.4	1.5	1.5	2.1
C50	Breast	37.4	39.7	42.7	46.7	50.0	51.3	53.0	58.2	70.4	76.3
C51-58	Female genital organs	37.1	38.2	42.3	45.1	45.7	42.8	40.8	41.9	40.7	40.5
C53	Cervix uteri	15.3	15.6	17.1	18.6	16.7	13.9	12.1	12.3	10.7	9.5
C54	Corpus uteri	7.2	8.2	9.1	10.5	12.1	12.2	12.4	13.3	13.9	15.8
C55	Uterus, other	0.8	0.7	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.2
C56	Ovary	11.1	11.2	13.3	12.2	13.1	13.5	13.4	13.5	13.0	12.0
C51-52, C57	Other female genital	2.5	2.3	2.1	3.3	3.4	2.8	2.6	2.5	2.7	2.8
C58	Placenta	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
C64-68	Urinary organs	7.5	7.6	8.3	9.2	9.9	10.1	10.9	11.2	11.7	11.9
C64-65	Kidney	3.2	3.4	3.9	4.0	4.4	4.4	5.1	5.0	5.2	5.3
C66-68	Bladder, ureter, urethra	4.3	4.2	4.4	5.2	5.5	5.7	5.8	6.1	6.5	6.6
C69	Eye	0.7	0.8	0.7	0.7	0.7	0.9	0.8	1.0	0.8	0.9
C70-72	Central nervous system	5.1	5.4	5.7	5.9	7.4	8.0	9.2	9.8	12.4	15.2
C73	Thyroid gland	2.2	2.4	3.3	4.2	5.0	5.1	4.8	4.8	4.0	4.6
C37, C74-75	Other endocrine glands	0.3	0.2	0.2	0.2	0.4	0.6	0.7	0.6	0.4	0.4
C39, C76, C80	Other or unspecified	1.8	2.5	3.0	2.8	4.1	4.8	5.6	6.2	5.8	4.8
C81-96	Lymphoid and haematopoietic tissue	10.7	11.9	13.2	13.5	14.7	15.6	16.4	17.3	19.2	19.3
C81	Hodgkin lymphoma	1.5	1.7	1.9	1.6	1.8	1.4	1.4	1.3	1.9	1.8
C82-85, C96	Non-Hodgkin lymphoma	2.6	2.8	4.1	3.5	4.4	5.4	6.7	7.4	8.0	8.3
C88	Malignant immunoproliferative diseases	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.3	0.2	0.3
C90	Multiple myeloma	1.4	2.0	2.2	2.9	3.1	3.0	2.9	2.8	2.9	3.1
C91-95	Leukaemia	5.2	5.3	5.0	5.4	5.3	5.7	5.3	5.5	6.3	5.9

Table 18 Average annual number of new cases by primary site and county - 2001-2005

MALES

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold	Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trønd- elag	Nord-Trønd- elag	Nordland	Troms	Finmark
C00-96	All sites	12311	729	1132	1209	632	555	663	679	482	315	451	1012	1153	330	705	691	366	659	382	167
C00-14	Mouth, pharynx	246	19	24	31	9	11	14	12	9	7	8	19	17	7	12	12	7	14	9	3
C00	Lip	45	4	4	2	2	2	3	3	1	2	2	4	2	2	2	4	2	1	1	0
C01-02	Tongue	50	4	5	7	2	3	3	2	2	2	1	3	5	1	2	1	1	4	2	1
C03-06	Mouth, other	45	4	4	5	2	2	3	3	2	1	1	4	3	2	2	2	1	3	1	0
C07-08	Salivary glands	20	1	3	2	1	1	0	1	0	0	1	2	1	1	2	1	1	1	1	0
C09-14	Pharynx	86	6	9	16	2	3	5	4	3	2	3	6	6	1	4	4	3	6	3	1
C15-26	Digestive organs	2690	170	237	252	135	117	144	136	98	56	89	220	267	74	159	170	80	156	88	41
C15	Oesophagus	133	7	12	15	7	8	9	8	5	3	5	10	12	3	6	6	2	7	4	2
C16	Stomach	336	25	24	24	17	15	14	15	11	5	9	28	35	11	21	24	12	24	15	9
C17	Small intestine	52	3	6	4	4	2	2	1	2	1	1	5	5	1	3	5	1	3	1	0
C18	Colon	1016	65	96	92	53	41	58	54	35	18	35	81	98	28	63	63	31	62	31	13
C19-21	Rectum, rectosigmoid, anus	673	40	61	61	30	28	38	34	25	14	23	61	72	20	39	44	19	36	18	10
C22	Liver	78	4	6	14	3	4	4	2	3	3	3	6	7	1	3	5	2	4	3	1
C23-24	Gallbladder, bile ducts	64	4	4	6	3	2	2	6	3	2	3	5	7	2	3	4	2	3	1	1
C25	Pancreas	298	20	26	32	15	15	16	15	12	8	9	22	29	6	16	17	10	15	11	4
C26	Other digestive organs	40	2	3	4	3	2	2	1	2	2	1	3	3	1	7	1	1	1	2	1
C30-34, C38	Respiratory organs	1509	102	137	141	68	57	75	89	60	45	61	119	138	33	78	86	44	90	56	31
C30-31	Nose, sinuses	23	2	2	3	1	1	1	1	1	1	1	2	2	1	1	1	0	1	1	1
C32	Larynx, epiglottis	104	8	11	10	3	5	6	6	3	4	3	7	8	2	7	4	3	6	5	2
C33-34	Lung, trachea	1368	91	123	127	64	50	67	82	55	39	56	109	126	30	70	81	39	81	49	28
C38	Mediastinum, pleura	14	1	1	2	0	1	1	0	0	0	0	1	1	0	0	1	1	2	0	0
C40-41	Bone	25	1	3	2	2	1	1	1	1	0	1	2	3	0	1	1	1	1	0	0
C43	Melanoma of the skin	499	35	58	55	23	19	28	34	20	13	20	49	40	8	22	33	16	12	9	2
C44	Skin, non-melanoma	649	42	58	67	36	26	49	40	31	21	37	64	58	13	26	31	14	22	10	4
C45	Mesothelioma	63	4	8	7	3	3	6	6	3	1	3	3	6	1	3	3	1	1	1	0
C46	Kaposi's sarcoma	7	1	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
C47	Autonomic nervous system	5	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
C48-49	Soft tissues	52	3	5	5	3	3	3	3	2	1	3	2	5	2	1	4	1	4	1	1
C50	Breast	16	1	1	2	1	0	1	0	1	1	0	0	1	0	1	2	0	0	1	0
C60-63	Male genital organs	3599	171	313	347	200	190	185	199	138	101	133	304	352	118	221	180	113	188	108	40
C61	Prostate	3302	154	280	314	187	174	174	186	127	96	122	278	322	114	199	162	102	177	99	36
C62	Testis	254	15	29	28	10	13	9	10	10	5	10	23	25	4	19	16	9	9	8	4
C60, C63	Other male genital	43	3	5	6	3	2	2	3	2	0	1	3	4	0	2	2	2	2	1	1
C64-68	Urinary organs	1292	85	115	122	70	56	61	66	51	28	44	103	119	30	84	80	36	78	46	18
C64-65	Kidney	380	28	36	38	20	17	18	19	13	8	13	31	31	6	22	26	11	25	12	5
C66-68	Bladder, ureter, urethra	912	57	79	84	50	39	44	47	37	20	30	72	88	24	62	54	25	53	33	13
C69	Eye	30	1	2	4	1	3	2	2	0	0	1	1	2	1	2	1	0	2	2	0
C70-72	Central nervous system	379	21	43	40	17	15	21	19	15	8	13	30	39	10	20	21	12	17	14	4
C73	Thyroid gland	54	3	6	5	2	2	2	2	2	1	1	3	6	3	5	3	2	4	2	2
C37, C74-75	Other endocrine glands	11	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	0	2	1	0
C39, C76, C80	Other or unspecified	234	16	21	26	10	10	15	13	11	6	6	16	24	6	9	9	7	17	7	4
C81-96	Lymphoid and haematopoietic tissue	954	53	100	99	50	42	53	55	41	24	30	76	73	22	59	53	31	50	28	14
C81	Hodgkin lymphoma	67	6	8	7	4	3	4	3	2	1	1	5	5	2	6	3	2	3	1	0
C82-85, C96	Non-Hodgkin lymphoma	388	20	39	43	22	16	19	21	16	10	14	32	29	10	24	22	12	21	12	7
C88	Malignant immunoproliferative diseases	26	1	4	2	1	2	1	1	1	1	0	2	3	1	1	1	1	1	1	1
C90	Multiple myeloma	175	7	18	15	8	10	9	9	11	5	5	12	15	3	11	10	8	12	3	3
C91-95	Leukaemia	299	19	31	32	16	10	21	21	12	7	10	24	20	6	17	17	9	12	10	4

Table 19 Average annual number of new cases by primary site and county - 2001-2005

FEMALES

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold	Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøn- delag	Nord-Trøn- delag	Nordland	Troms	Finmark
C00-96	All sites	11370	686	1118	1338	532	485	656	587	445	261	417	893	1044	249	598	648	304	637	334	139
C00-14	Mouth, pharynx	142	9	13	17	6	6	8	8	4	2	7	10	11	3	9	7	3	12	6	1
C00	Lip	27	2	3	1	0	1	1	1	1	1	2	3	1	1	3	2	0	1	2	0
C01-02	Tongue	28	1	3	3	2	2	1	2	1	0	0	1	3	1	2	1	1	2	1	1
C03-06	Mouth, other	36	2	3	5	2	2	2	2	1	0	1	3	4	0	2	2	1	4	2	0
C07-08	Salivary glands	19	1	2	2	1	1	2	1	1	1	1	1	1	0	1	0	0	2	1	0
C09-14	Pharynx	32	2	2	6	1	1	1	2	1	0	2	2	2	0	1	2	1	3	1	0
C15-26	Digestive organs	2529	155	221	290	112	111	131	122	91	54	87	199	274	62	148	151	72	142	77	29
C15	Oesophagus	54	3	7	8	2	3	5	3	2	1	2	4	4	1	2	2	1	3	2	1
C16	Stomach	228	12	16	26	9	11	10	10	10	4	6	20	27	6	13	12	7	14	11	4
C17	Small intestine	49	3	5	6	4	1	3	1	2	1	3	2	4	1	4	5	1	2	1	0
C18	Colon	1170	71	94	131	49	49	62	59	43	24	43	92	133	31	76	68	36	65	33	12
C19-21	Rectum, rectosigmoid, anus	534	34	51	59	25	25	31	24	18	13	13	47	61	11	26	29	15	30	15	5
C22	Liver	46	3	5	5	3	2	2	1	2	1	2	4	4	1	2	4	1	3	3	1
C23-24	Gallbladder, bile ducts	71	4	7	8	4	5	3	2	3	2	4	5	7	2	3	5	1	4	1	1
C25	Pancreas	326	21	30	42	15	15	13	18	11	8	11	22	30	8	16	22	9	19	10	5
C26	Other digestive organs	51	3	6	5	2	1	3	3	2	1	3	3	4	1	4	4	2	2	1	1
C30-34, C38	Respiratory organs	905	55	93	115	37	34	46	55	36	25	41	65	68	16	40	55	25	55	29	14
C30-31	Nose, sinuses	17	2	2	3	0	1	1	1	0	1	1	1	2	1	1	1	1	1	1	0
C32	Larynx, epiglottis	17	1	2	2	1	1	1	2	0	1	1	0	1	0	1	1	0	2	1	0
C33-34	Lung, trachea	864	51	89	110	36	33	44	52	35	24	40	63	65	15	38	53	24	52	28	13
C38	Mediastinum, pleura	7	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
C40-41	Bone	18	1	1	2	0	0	1	1	1	1	0	2	2	1	0	2	1	1	1	0
C43	Melanoma of the skin	549	44	60	64	22	18	37	36	22	10	20	57	46	10	29	31	15	17	10	1
C44	Skin, non-melanoma	565	45	48	63	27	18	45	35	31	15	33	61	42	8	22	30	14	15	9	3
C45	Mesothelioma	9	0	2	2	0	0	0	1	1	0	0	1	0	0	1	0	0	0	0	0
C46	Kaposi's sarcoma	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
C47	Autonomic nervous system	5	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0
C48-49	Soft tissues	73	3	10	8	3	2	4	4	2	2	2	6	4	2	5	7	3	3	2	1
C50	Breast	2721	156	300	339	124	114	179	136	107	54	93	201	246	54	147	149	70	142	79	32
C51-58	Female genital organs	1526	85	149	164	85	81	81	74	63	38	52	121	149	34	67	80	35	97	48	22
C53	Cervix uteri	293	16	31	35	15	13	17	15	11	7	12	23	24	5	11	13	6	21	11	6
C54	Corpus uteri	632	34	60	70	35	38	32	30	25	14	20	46	65	15	31	32	16	41	19	7
C55	Uterus, other	11	1	0	1	0	0	1	1	1	0	0	2	1	1	0	0	0	0	0	0
C56	Ovary	454	27	46	41	28	25	23	22	20	13	15	37	47	9	21	24	10	27	14	6
C51-52, C57	Other female genital	132	7	12	16	7	5	7	6	6	5	5	11	11	4	5	10	4	7	4	2
C58	Placenta	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
C64-68	Urinary organs	574	32	49	66	31	23	31	29	19	16	20	41	47	15	34	36	18	42	16	10
C64-65	Kidney	235	13	20	24	13	10	11	12	8	5	8	16	18	7	14	16	9	19	7	5
C66-68	Bladder, ureter, urethra	339	19	29	42	18	13	19	17	11	10	12	25	30	8	20	20	9	23	9	4
C69	Eye	31	1	3	2	1	1	2	2	1	2	1	3	2	1	3	2	1	2	1	0
C70-72	Central nervous system	490	27	50	50	22	23	22	27	22	14	20	38	41	13	24	33	12	31	14	7
C73	Thyroid gland	145	7	14	18	9	4	7	7	6	2	3	7	17	4	10	9	3	12	6	3
C37, C74-75	Other endocrine glands	12	0	1	1	1	0	1	1	0	0	0	1	1	0	0	0	0	1	1	0
C39, C76, C80	Other or unspecified	294	17	26	39	16	14	18	12	12	7	9	22	27	8	13	16	7	18	8	4
C81-96	Lymphoid and haematopoietic tissue	779	50	78	98	35	36	41	38	26	19	27	57	63	19	45	39	25	46	26	10
C81	Hodgkin lymphoma	45	2	5	7	2	2	3	2	1	1	1	3	4	1	1	2	2	3	1	1
C82-85, C96	Non-Hodgkin lymphoma	344	22	32	40	13	17	17	16	11	8	14	26	31	9	19	20	13	19	12	6
C88	Malignant immunoproliferative diseases	16	0	3	2	1	1	1	1	0	0	0	1	1	1	1	1	0	1	1	0
C90	Multiple myeloma	153	10	13	20	7	8	7	7	5	4	6	11	11	4	12	7	3	12	5	1
C91-95	Leukaemia	220	15	25	29	11	9	14	12	8	6	6	16	16	4	11	10	7	11	8	3

Table 20 Age-adjusted (world) incidence rates per 100 000 person-years by county and primary site - 2001-2005

MALES

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold	Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøn- delag	Nord-Trøn- delag	Nordland	Troms	Finmark
C00-96	All sites	329.3	329.2	311.3	328.3	335.1	316.5	315.3	366.9	316.7	371.7	364.8	363.3	326.3	340.5	329.8	319.9	310.9	313.2	317.7	290.6
C00-14	Mouth, pharynx	7.3	9.6	6.7	9.4	6.2	6.9	7.3	7.4	6.5	9.7	6.9	7.5	5.7	7.2	6.5	5.7	6.9	7.7	7.9	6.8
C00	Lip	1.2	2.0	1.0	0.6	1.2	1.0	1.6	1.3	0.8	2.6	1.5	1.7	0.5	1.9	1.1	1.7	1.2	0.6	1.1	0.8
C01-02	Tongue	1.6	2.1	1.3	2.2	1.8	2.1	1.4	1.4	2.0	2.4	0.9	1.4	1.7	1.1	1.0	0.5	0.8	2.1	1.9	2.2
C03-06	Mouth, other	1.3	1.9	1.3	1.4	1.1	1.1	1.4	1.6	1.3	1.5	1.3	1.2	1.2	2.6	1.1	1.0	1.2	1.4	1.0	0.6
C07-08	Salivary glands	0.6	0.6	0.7	0.4	0.9	0.6	0.2	0.8	0.3	0.2	0.8	0.8	0.4	0.5	1.0	0.5	0.6	0.5	0.8	1.1
C09-14	Pharynx	2.6	3.0	2.4	4.9	1.2	2.1	2.8	2.3	2.1	3.0	2.4	2.5	1.9	1.0	2.3	2.1	3.1	3.1	3.2	2.1
C15-26	Digestive organs	68.5	73.4	62.4	66.5	67.4	63.2	66.2	69.5	59.7	62.4	67.8	76.9	72.4	72.2	68.4	72.8	65.0	70.5	70.5	70.6
C15	Oesophagus	3.6	3.4	3.3	4.2	3.4	4.5	4.0	4.3	3.6	4.2	4.1	3.6	3.7	3.3	2.6	2.7	1.8	3.7	3.6	4.2
C16	Stomach	8.2	10.2	6.3	6.3	7.3	7.5	6.5	7.4	6.3	4.8	6.5	9.2	8.5	9.7	8.3	10.3	9.1	10.3	12.4	14.2
C17	Small intestine	1.5	1.4	1.5	1.1	2.5	1.3	1.2	0.9	1.8	1.5	1.0	1.8	1.6	1.0	1.4	2.4	1.2	1.4	1.3	0.6
C18	Colon	25.4	27.9	24.9	24.1	26.1	21.9	26.2	26.1	20.3	19.4	25.7	28.1	25.9	27.1	26.7	26.1	24.5	27.7	24.3	22.7
C19-21	Rectum, rectosigmoid, anus	17.6	17.4	16.2	16.4	16.1	16.0	17.6	18.3	15.2	15.6	17.7	21.8	20.2	20.3	16.8	19.6	16.6	16.4	15.3	17.5
C22	Liver	2.1	1.8	1.6	3.9	1.2	1.9	1.9	1.1	1.8	3.7	2.3	2.1	2.2	1.1	1.1	2.3	1.8	1.7	2.9	1.2
C23-24	Gallbladder, bile ducts	1.7	2.1	1.1	1.4	1.5	0.9	0.8	3.4	2.1	2.3	2.7	2.0	1.8	2.4	1.1	1.7	1.1	1.4	1.1	1.8
C25	Pancreas	7.6	8.5	6.8	8.2	8.2	8.2	7.3	7.6	7.9	9.4	6.9	7.6	7.8	6.5	7.0	7.1	8.2	7.2	8.7	6.5
C26	Other digestive organs	0.9	0.8	0.6	1.0	1.1	1.0	0.8	0.4	0.8	1.6	0.9	0.8	0.8	0.9	3.4	0.5	0.6	0.7	1.0	1.9
C30-34, C38	Respiratory organs	39.7	44.8	36.1	38.4	35.6	31.4	35.4	47.8	39.3	52.3	49.4	42.6	39.2	35.3	35.9	38.2	35.9	41.3	44.2	53.2
C30-31	Nose, sinuses	0.7	0.8	0.4	0.8	0.4	0.9	0.5	0.5	1.1	0.7	0.6	0.9	0.7	0.7	0.7	0.6	0.5	0.6	0.7	0.8
C32	Larynx, epiglottis	2.9	3.5	2.9	2.8	1.5	2.8	2.7	3.5	2.2	5.0	3.1	2.5	2.6	2.6	3.5	1.5	2.7	3.0	4.7	3.5
C33-34	Lung, trachea	35.9	39.8	32.4	34.5	33.4	27.4	31.9	43.6	35.7	46.2	45.2	39.1	35.6	31.7	31.6	35.7	31.9	37.1	38.6	48.2
C38	Mediastinum, pleura	0.3	0.6	0.4	0.3	0.2	0.3	0.3	0.2	0.3	0.4	0.5	0.2	0.2	0.3	0.2	0.3	0.8	0.6	0.2	0.7
C40-41	Bone	1.0	0.7	1.1	1.0	1.6	1.9	1.2	1.1	0.5	0.7	0.7	1.0	1.3	0.3	0.9	0.8	0.7	1.1	0.4	1.5
C43	Melanoma of the skin	14.8	18.3	16.8	14.8	14.0	12.9	15.9	20.6	14.7	17.1	17.7	18.5	12.8	9.3	12.6	17.3	16.8	6.9	8.7	4.2
C44	Skin, non-melanoma	14.7	16.3	14.1	14.1	15.7	11.7	20.0	20.5	17.0	21.2	26.9	20.2	13.6	11.0	9.3	11.6	9.6	9.0	7.2	7.0
C45	Mesothelioma	1.6	1.9	2.1	1.7	1.8	1.5	2.7	2.8	1.8	1.0	2.4	1.2	1.8	0.5	1.2	1.2	0.9	0.5	1.2	0.2
C46	Kaposi's sarcoma	0.2	0.3	0.0	0.7	0.2	0.2	0.2	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.1	0.1	0.0	0.2	0.3	0.0
C47	Autonomic nervous system	0.2	0.0	0.3	0.1	0.2	0.0	0.4	0.2	0.0	0.7	0.0	0.1	0.5	0.7	0.1	0.3	0.0	0.1	0.5	0.9
C48-49	Soft tissues	1.6	1.6	1.5	1.5	2.1	2.4	1.7	2.2	1.7	1.0	2.2	0.8	1.6	1.6	0.9	1.6	0.9	2.3	1.9	1.5
C50	Breast	0.4	0.6	0.3	0.6	0.3	0.2	0.5	0.2	0.2	1.2	0.4	0.1	0.4	0.2	0.8	0.8	0.3	0.2	0.6	0.3
C60-63	Male genital organs	96.4	76.2	88.3	96.7	103.5	107.9	86.6	107.0	89.9	118.2	110.3	108.0	99.9	119.8	104.6	87.2	95.1	87.2	89.6	67.8
C61	Prostate	84.8	63.6	75.6	86.8	90.7	91.9	78.3	96.7	77.6	109.2	98.2	96.1	88.2	111.2	88.5	74.8	80.1	78.7	78.9	56.2
C62	Testis	10.5	11.1	11.5	8.2	11.1	14.8	7.2	9.0	11.2	8.6	11.5	10.9	10.5	8.1	15.2	11.4	13.7	7.2	9.9	10.6
C60, C63	Other male genital	1.2	1.5	1.3	1.7	1.7	1.2	1.1	1.4	1.0	0.4	0.6	0.9	1.2	0.5	0.8	1.1	1.3	1.3	0.7	1.0
C64-68	Urinary organs	33.0	37.1	29.7	31.3	35.2	30.7	27.5	33.3	33.9	31.0	33.7	35.5	31.8	30.4	38.0	36.5	28.4	36.1	36.0	30.5
C64-65	Kidney	10.6	13.2	9.9	10.4	11.1	10.5	8.5	11.0	10.2	11.0	11.9	11.4	9.2	6.3	10.9	13.1	9.2	12.9	10.5	9.1
C66-68	Bladder, ureter, urethra	22.4	23.9	19.8	20.9	24.1	20.3	18.9	22.3	23.8	20.0	21.8	24.1	22.6	24.1	27.2	23.4	19.1	23.2	25.5	21.5
C69	Eye	0.9	0.7	0.5	1.2	0.7	1.7	1.0	1.3	0.4	1.0	0.6	0.5	0.8	1.7	0.9	0.9	0.5	2.0	1.9	0.7
C70-72	Central nervous system	13.0	11.6	14.2	13.7	12.1	11.5	11.5	13.1	13.6	14.1	12.7	13.4	14.2	14.6	12.1	13.5	13.9	11.0	13.6	9.3
C73	Thyroid gland	1.7	1.5	1.8	1.6	1.5	1.6	1.6	0.9	1.6	2.1	1.0	1.3	1.9	3.3	2.7	1.6	1.9	1.9	1.9	2.6
C37, C74-75	Other endocrine glands	0.4	0.6	0.5	0.3	0.5	0.2	0.1	0.4	0.0	0.5	0.4	0.4	0.3	0.5	0.7	0.2	0.5	1.3	0.5	0.0
C39, C76, C80	Other or unspecified	5.4	6.4	5.3	6.0	5.0	4.5	6.1	6.2	5.9	5.7	4.2	5.3	5.8	5.5	3.4	3.2	4.7	6.9	5.9	6.8
C81-96	Lymphoid and haematopoietic tissue	28.2	27.8	29.8	28.8	31.6	26.1	29.4	32.4	29.9	31.2	27.5	29.8	22.2	26.4	30.6	26.6	28.7	26.9	25.0	26.7
C81	Hodgkin lymphoma	2.7	4.0	3.2	2.3	4.3	3.0	3.0	2.8	2.5	2.0	1.6	2.7	2.1	3.0	4.2	2.0	2.5	2.6	2.0	1.2
C82-85, C96	Non-Hodgkin lymphoma	11.2	9.8	11.5	12.2	13.0	10.1	9.7	11.7	11.1	14.2	12.5	12.6	8.3	11.1	11.6	10.6	10.2	11.3	10.8	13.1
C88	Malignant immunoproliferative diseases	0.6	0.4	1.0	0.4	0.3	1.1	0.4	0.8	0.5	1.0	0.2	0.6	0.8	1.5	0.6	0.5	0.9	0.4	0.4	0.9
C90	Multiple myeloma	4.5	3.4	4.9	4.0	4.1	5.5	3.8	4.6	7.1	5.9	4.1	4.3	4.3	3.2	4.7	4.5	6.2	5.5	2.8	4.3
C91-95	Leukaemia	9.2	10.2	9.3	9.9	9.8	6.5	12.5	12.6	8.7	8.1	9.0	9.7	6.7	7.6	9.4	8.9	8.9	7.1	9.0	7.2

Table 21 Age-adjusted (world) incidence rates per 100 000 person-years by county and primary site - 2001-2005

FEMALES

ICD10	Site	Norway	Østfold	Akershus	Oslo	Hedmark	Oppland	Buskerud	Vestfold	Telemark	Aust-Agder	Vest-Agder	Rogaland	Hordaland	Sogn og Fjordane	Møre og Romsdal	Sør-Trøn- delag	Nord-Trøn- delag	Nordland	Troms	Finmark
C00-96	All sites	278.0	285.8	278.9	288.0	283.0	268.4	292.2	286.8	279.8	278.7	292.1	286.6	267.7	252.4	262.4	273.8	251.5	294.1	266.2	238.9
C00-14	Mouth, pharynx	3.4	3.5	3.2	4.0	3.0	2.6	3.7	3.6	3.1	2.5	5.0	3.0	2.9	2.9	3.3	3.1	2.4	5.3	4.2	2.1
C00	Lip	0.5	0.6	0.6	0.3	0.1	0.3	0.3	0.3	0.7	0.6	1.4	0.8	0.4	0.9	0.9	0.6	0.1	0.4	1.2	0.7
C01-02	Tongue	0.6	0.5	0.7	0.7	1.0	0.7	0.5	0.6	0.6	0.4	0.2	0.4	0.6	0.8	0.9	0.7	0.5	1.0	0.9	0.9
C03-06	Mouth, other	0.8	0.8	0.7	0.8	0.8	1.0	1.0	0.9	0.7	0.0	0.5	0.6	1.1	0.5	0.9	0.8	0.7	1.5	0.8	0.0
C07-08	Salivary glands	0.5	0.4	0.5	0.6	0.4	0.2	1.4	0.8	0.5	1.2	1.1	0.4	0.2	0.7	0.3	0.2	0.2	0.8	0.4	0.0
C09-14	Pharynx	0.9	1.2	0.7	1.6	0.8	0.4	0.5	1.0	0.6	0.3	1.9	0.8	0.6	0.0	0.3	0.9	0.8	1.5	1.0	0.4
C15-26	Digestive organs	50.1	50.5	47.3	49.7	47.8	49.0	49.5	47.8	46.2	46.4	51.6	51.5	56.9	49.6	51.4	50.7	47.9	52.2	50.7	42.6
C15	Oesophagus	1.1	0.9	1.7	1.5	0.9	1.2	1.7	1.1	0.6	0.5	1.3	1.0	0.6	1.3	0.6	0.6	1.1	0.9	1.2	1.7
C16	Stomach	4.3	3.4	3.4	4.5	3.7	4.3	3.1	3.1	5.3	3.3	3.3	5.1	5.6	4.7	3.9	3.5	4.1	4.6	7.2	6.2
C17	Small intestine	1.1	1.2	1.2	1.0	1.9	0.5	1.4	0.5	0.9	0.9	2.6	0.7	1.1	1.1	1.5	2.0	0.6	0.8	0.8	0.7
C18	Colon	22.9	23.2	19.6	21.9	19.6	21.4	24.0	22.7	22.5	20.9	23.9	23.9	27.1	23.7	25.9	23.6	23.2	23.2	21.3	16.5
C19-21	Rectum, rectosigmoid, anus	11.5	12.2	11.7	10.8	11.9	11.4	12.3	10.6	9.3	11.4	9.5	12.8	13.8	10.0	10.7	10.4	11.5	12.2	10.7	8.9
C22	Liver	1.0	0.7	1.1	0.9	2.1	1.0	0.8	0.7	0.7	0.8	1.1	1.1	0.9	1.7	0.7	1.1	0.3	1.5	1.7	0.8
C23-24	Gallbladder, bile ducts	1.4	1.6	1.5	1.6	1.1	2.2	0.8	0.8	1.4	2.1	2.4	1.2	1.4	1.2	1.0	1.4	0.2	1.3	1.2	0.6
C25	Pancreas	6.1	6.3	6.2	6.7	6.2	6.5	4.9	7.1	5.0	6.0	6.2	4.9	6.1	5.3	5.3	7.1	5.7	7.0	6.0	6.0
C26	Other digestive organs	0.8	0.8	1.0	0.8	0.6	0.5	0.6	1.1	0.5	0.5	1.2	0.7	0.4	0.5	1.9	1.0	1.2	0.7	0.6	1.3
C30-34, C38	Respiratory organs	22.2	22.3	22.8	24.6	19.3	18.6	19.4	26.4	22.3	28.1	29.5	21.9	18.5	16.6	17.7	24.4	21.8	25.1	22.2	24.7
C30-31	Nose, sinuses	0.4	0.6	0.5	0.5	0.0	0.5	0.4	0.6	0.3	0.6	0.4	0.3	0.3	0.4	0.3	0.2	0.5	0.4	0.5	0.4
C32	Larynx, epiglottis	0.4	0.4	0.6	0.4	0.5	0.4	0.3	0.7	0.2	0.6	0.8	0.2	0.5	0.4	0.3	0.5	0.1	0.5	0.8	0.7
C33-34	Lung, trachea	21.3	21.0	21.6	23.6	18.8	17.5	18.6	25.0	21.7	26.9	28.2	21.4	17.6	15.8	17.1	23.5	20.9	24.1	20.8	23.6
C38	Mediastinum, pleura	0.1	0.2	0.1	0.2	0.0	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.0
C40-41	Bone	0.7	1.0	0.3	0.7	0.0	0.0	0.9	1.2	1.5	2.1	0.3	0.7	1.0	1.6	0.1	1.0	0.9	0.7	0.9	0.6
C43	Melanoma of the skin	15.8	20.4	16.9	14.8	13.4	11.6	19.2	21.1	17.0	14.2	17.6	21.7	13.1	10.7	15.7	16.5	16.4	10.2	9.5	2.4
C44	Skin, non-melanoma	9.2	13.0	9.1	8.7	8.2	5.7	12.7	10.6	11.5	9.0	15.3	13.8	7.5	5.1	6.5	8.6	8.6	5.1	6.0	5.4
C45	Mesothelioma	0.2	0.2	0.3	0.3	0.0	0.0	0.2	0.2	0.5	0.6	0.0	0.2	0.1	0.0	0.2	0.0	0.0	0.2	0.2	0.0
C46	Kaposi's sarcoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0
C47	Autonomic nervous system	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.4	0.0	0.2	0.3	0.5	0.1	0.9	0.2	0.1	0.9	0.0	0.0
C48-49	Soft tissues	2.1	1.9	2.6	2.2	1.8	1.9	2.0	2.2	2.1	2.1	1.8	2.2	1.4	1.4	2.3	3.0	3.1	1.9	2.3	1.1
C50	Breast	76.3	76.0	81.8	85.0	76.7	73.6	89.8	76.2	76.7	64.0	74.5	73.7	72.4	64.2	75.9	73.8	68.5	74.8	69.6	61.4
C51-58	Female genital organs	40.5	38.8	38.7	38.7	49.8	48.3	38.8	38.7	42.8	45.7	39.4	41.9	43.0	40.5	32.2	36.8	30.0	48.9	41.5	40.1
C53	Cervix uteri	9.5	9.5	9.0	9.5	11.8	10.8	10.4	9.7	10.1	10.4	12.0	9.2	8.7	6.9	7.3	7.2	6.3	13.5	11.0	10.4
C54	Corpus uteri	15.8	14.9	15.1	15.9	19.1	20.9	14.9	14.4	14.8	13.9	13.9	15.0	18.3	16.1	13.4	14.4	11.9	19.3	15.6	14.7
C55	Uterus, other	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.1	0.2	0.5	0.2	0.9	0.2	0.1	0.0	0.3	0.2	0.1
C56	Ovary	12.0	12.1	11.7	10.0	15.2	14.1	10.6	11.4	14.5	17.2	10.6	13.5	13.1	12.2	9.8	11.5	9.4	12.4	11.2	11.2
C51-52, C57	Other female genital	2.8	2.2	2.6	3.0	3.7	2.4	2.5	2.5	3.0	4.1	2.7	3.2	2.7	3.8	1.5	3.6	2.4	3.0	2.9	3.7
C58	Placenta	0.2	0.0	0.2	0.1	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.7	0.0	0.6	0.0	0.0	0.0	0.4	0.6	0.0
C64-68	Urinary organs	11.9	13.5	10.4	11.9	14.8	10.9	12.2	11.0	10.2	12.3	11.4	11.4	10.1	11.1	12.8	12.7	11.8	16.2	10.9	14.3
C64-65	Kidney	5.3	6.5	5.0	4.7	7.1	4.4	4.7	5.1	4.4	4.7	5.1	4.8	4.4	4.9	5.0	6.3	6.2	7.9	4.8	8.3
C66-68	Bladder, ureter, urethra	6.6	7.0	5.4	7.2	7.7	6.6	7.5	5.9	5.8	7.7	6.2	6.6	5.7	6.2	7.7	6.4	5.6	8.3	6.1	6.0
C69	Eye	0.9	0.5	1.0	0.7	1.1	0.5	1.2	0.9	0.5	1.8	1.2	0.8	0.7	1.0	1.6	0.8	0.8	0.5	0.5	0.6
C70-72	Central nervous system	15.2	14.2	15.0	14.6	15.6	15.0	12.7	17.9	19.1	19.2	18.4	15.6	12.6	18.8	13.0	16.7	11.9	17.0	15.9	14.2
C73	Thyroid gland	4.6	2.9	4.0	5.1	6.6	3.3	4.3	4.7	4.9	2.4	3.5	2.5	5.6	5.8	6.5	4.9	3.0	7.2	5.4	5.2
C37, C74-75	Other endocrine glands	0.4	0.2	0.1	0.4	0.5	0.3	0.7	0.9	0.7	0.7	0.0	0.5	0.5	0.7	0.3	0.2	0.2	0.7	0.5	0.5
C39, C76, C80	Other or unspecified	4.8	4.8	4.9	5.6	5.9	5.2	5.8	4.4	4.4	5.4	3.3	5.2	4.4	4.8	3.5	4.3	4.0	5.7	3.9	5.2
C81-96	Lymphoid and haematopoietic tissue	19.3	21.8	20.1	21.0	18.4	21.8	19.1	18.9	16.0	22.2	19.2	19.6	16.4	17.5	18.4	16.1	20.1	21.5	22.1	18.6
C81	Hodgkin lymphoma	1.8	2.1	1.9	2.3	2.1	2.6	1.6	1.3	1.2	3.5	1.1	1.5	1.5	1.3	1.0	1.1	2.6	2.1	1.8	1.2
C82-85, C96	Non-Hodgkin lymphoma	8.3	9.1	7.9	8.5	6.6	9.3	7.6	7.2	7.7	7.3	9.0	8.6	7.8	8.9	7.6	8.3	9.8	8.5	9.6	12.1
C88	Malignant immunoproliferative diseases	0.3	0.1	0.6	0.5	0.7	0.3	0.2	0.5	0.0	0.5	0.0	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.5	0.4
C90	Multiple myeloma	3.1	3.5	2.9	3.9	3.1	3.5	2.7	2.9	2.0	3.2	4.2	3.3	2.1	3.3	3.8	2.4	1.5	5.0	2.9	1.1
C91-95	Leukaemia	5.9	6.9	6.8	5.8	5.9	6.0	6.9	7.1	5.1	7.8	4.8	5.8	4.8	3.7	5.7	4.2	5.9	5.7	7.4	3.8

Table 22 Number of cancer deaths in Norway by primary site and sex - 2004

ICD10	Site	Males	Females	Total
C00-96	All sites	5589	4900	10489
C00-14	Mouth, pharynx	88	50	138
C00	Lip	1	1	2
C01-02	Tongue	21	11	32
C03-06	Mouth, other	21	19	40
C07-08	Salivary glands	7	3	10
C09-14	Pharynx	38	16	54
C15-26	Digestive organs	1606	1467	3073
C15	Oesophagus	137	59	196
C16	Stomach	244	164	408
C17	Small intestine	20	24	44
C18	Colon	562	608	1170
C19-21	Rectum, rectosigmoid, anus	244	172	416
C22	Liver	65	70	135
C23-24	Gallbladder, bile ducts	23	31	54
C25	Pancreas	297	325	622
C26	Other digestive organs	14	14	28
C30-34, C38	Respiratory organs	1227	758	1985
C30-31	Nose, sinuses	11	4	15
C32	Larynx, epiglottis	37	9	46
C33-34	Lung, trachea	1174	740	1914
C38	Mediastinum, pleura	5	5	10
C40-41	Bone	13	12	25
C43	Melanoma of the skin	143	123	266
C44	Skin, non-melanoma	12	15	27
C45	Mesothelioma	40	10	50
C46	Kaposi's sarcoma			
C47	Autonomic nervous system	1		1
C48-49	Soft tissues	24	39	63
C50	Breast	3	694	697
C51-58	Female genital organs		599	599
C53	Cervix uteri		81	81
C54	Corpus uteri		81	81
C55	Uterus, other		50	50
C56	Ovary		330	330
C51-52, C57	Other female genital		57	57
C58	Placenta			
C60-63	Male genital organs	1091		1091
C61	Prostate	1074		1074
C62	Testis	13		13
C60, C63	Other male genital	4		4
C64-68	Urinary organs	434	235	669
C64-65	Kidney	153	107	260
C66-68	Bladder, ureter, urethra	281	128	409
C69	Eye	2	3	5
C70-72	Central nervous system	177	134	311
C73	Thyroid gland	11	18	29
C37, C74-75	Other endocrine glands	6	10	16
C39, C76, C80	Other or unspecified	220	309	529
C81-96	Lymphoid and haematopoietic tissue	491	424	915
C81	Hodgkin lymphoma	9	8	17
C82-85, C96	Non-Hodgkin lymphoma	170	141	311
C88	Malignant immunoproliferative diseases	9	8	17
C90	Multiple myeloma	129	123	252
C91-95	Leukaemia	174	144	318

Mortality

There were 10 489 cancer deaths in Norway 2004, of which 5589 were in men and 4900 in women (Table 22). Taken together, lung, colorectal, prostate and female breast cancer are responsible for almost 5300 deaths, about of half of the total mortality burden. In terms of numbers of cancer deaths, lung cancer ranks first in men, responsible for 1174 deaths in 2004, but closely followed by prostate cancer (1074). Colorectal cancer ranks third, with 806 deaths in 2005. In women, colorectal cancer (780 deaths), lung cancer (740) and breast cancer (694) are the most frequent causes of cancer death. Figure 8 shows the distribution of age-standardised mortality rates by cancer site sorted in descending order: rates of lung cancer are highest in both men and women, with breast cancer mortality rates in women almost equal to those lung cancer in women.

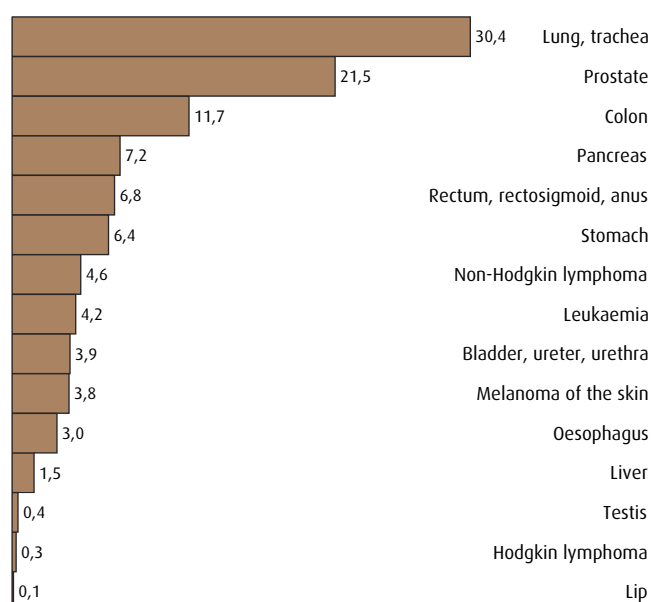
Figure 9 shows the temporal evolution of the sex-specific mortality rates for selected cancers in Norway. In

men, there have been steady increases in the mortality rates of the three most frequent causes of cancer death - lung, prostate and colorectal cancer - since the 1970s. There is some evidence however that recent mortality trends are more favorable for these three cancers, with trends having either reached a plateau, or beginning to decline. In women, lung cancer has been rising rapidly in the last decades relative to other cancer mortality rates, while colorectal and breast cancer mortality have been increasing slowly. During the 1990s however, breast cancer mortality rates have been observed to be decreasing.

As observed for incidence, there is a steady long-term decline in stomach cancer mortality in Norway. There have also been some notable declines in the mortality rates of several tumours beginning in the 1970s, particularly among younger populations, including testicular cancer in men and leukaemia. Advances in cancer care, including the development of new treatment regimens as well as a multidisciplinary approach to cancer care, have likely contributed to the observed time trends.

Figure 8: Age-standardised (world) mortality rates in Norway 2004 for selected cancers
(Source: Statistics Norway)

MALES



FEMALES

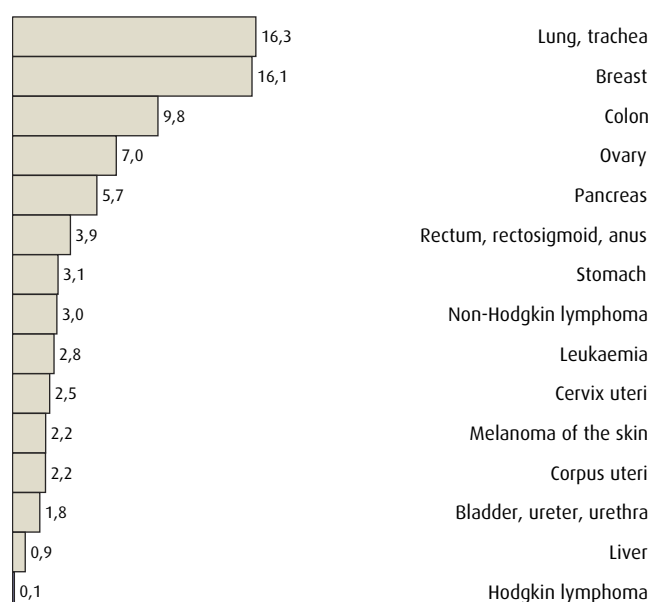
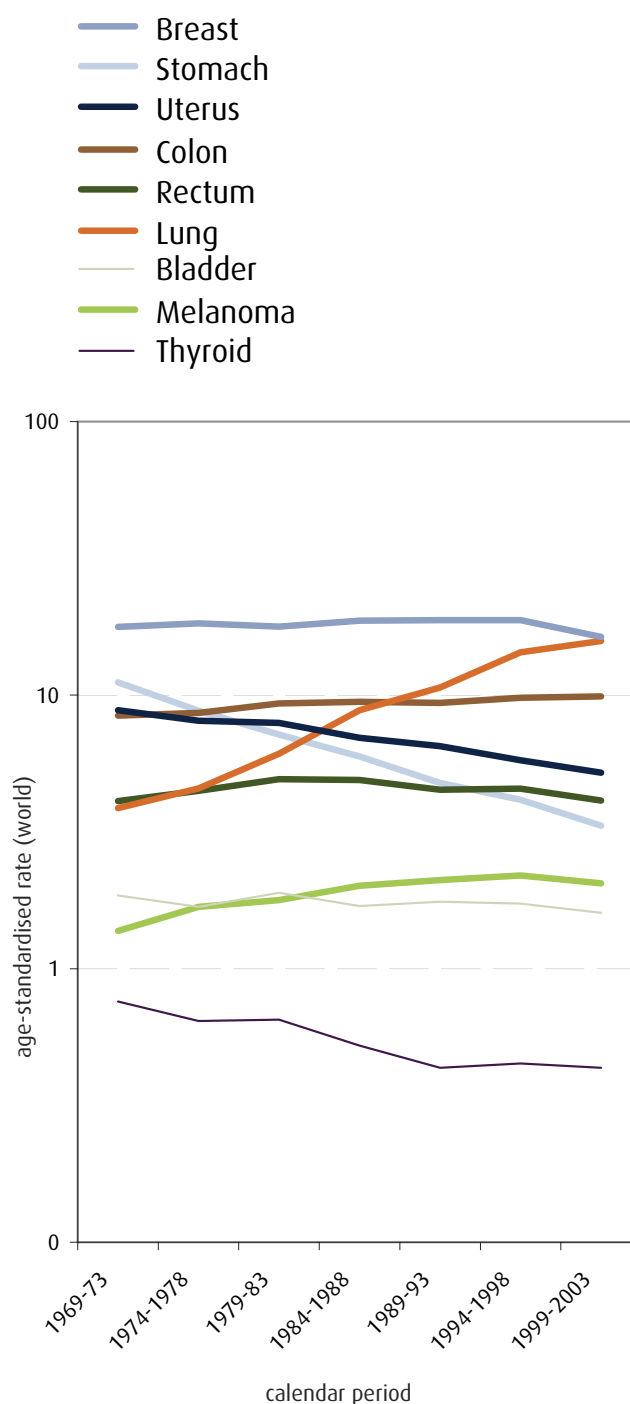
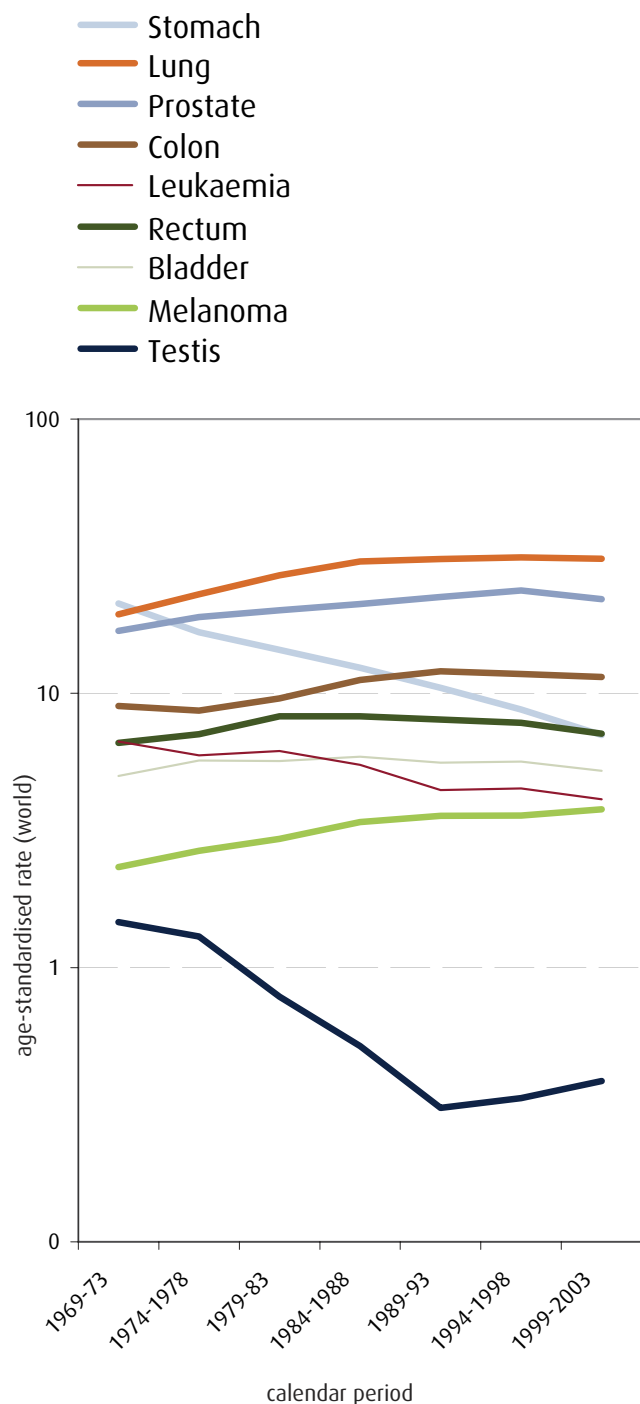


Figure 9: Time trends in age-standardised (world) mortality rates in Norway for selected cancers (semi-log scale)
(Source: WHO)

MALES

FEMALES



Survival

The estimated five-year survival probabilities in Norway illustrate the considerable variability in prognosis following the diagnosis of specific cancer types (Figure 10). Testicular cancer, for example, the most frequent cancer among young men, has an excellent overall prognosis, with five-year survival estimated at over 95% for patients diagnosed 1996-2000. Survival is generally higher where early diagnosis and treatment can materially influence prognosis, as is the case for certain common cancers including cancers of the breast and colorectum.

Survival of cancer patients in Norway has increased steadily from the 1950s for a number of specific primary sites, predominantly as a result of advances in therapy and cancer care during this time (Figure 10). In the period of diagnosis 1996-2000, five-year survival following a cancer diagnosis was estimated at 56% and 62% for men and women respectively, a differential partly reflecting a higher incidence of cancers associated with better prognosis among women, relative to men. Survival probabilities in men have doubled from 29% for those diagnosed with cancer in 1955-59, and by 50% in women from 41% in the late-1950s.

Patients diagnosed with cancers of liver, lung and pancreas have among the poorest chances of surviving their illness. Five-year relative survival for pancreatic cancer is only 2-3%, and as with several other poor-prognosis cancers, survival has not altered appreciably in the last few decades (Figure 11).

Table 23-24 shows five-year relative survival probabilities according to five-year period of diagnosis by primary site, sex and stage. Caution should be applied to the interpretation of stage-specific survival, particularly where the proportions of patient with stage unknown is high. Survival estimates based on fewer than 50 diagnoses in the latest period are not shown.

Survival on www.cancerregistry.no

In keeping with previous Cancer in Norway reports, more detailed results for 24 cancer types are available on our website. Graphical descriptions of relative survival trends for cases diagnosed 1955-2000 and five-year survival probabilities by stage can be downloaded from our website following the link:

www.cancerregistry.no/cin

Future work on survival

Future publications from the Registry will provide more detailed and insightful analyses of the survival of Norwegian cancer patients than afforded in this report. An analysis of long-term survival of cancer patients in Norway using the period analysis approach will be introduced to derive more up-to-date estimates (Brenner *et al*, 2004). Systematic analyses of time trends in cancer survival will account for differences in the age distribution of patients over time via age-standardisation (Brenner and Hakulinen, 2005). To monitor trends in survival of curable disease, the cure fraction - the proportion of patients statistically cured of disease - will be estimated for each primary site, where applicable (Lambert *et al*, 2006).

Figure 10: Five-year relative survival probabilities in Norway for selected cancers, diagnoses 1996-2000

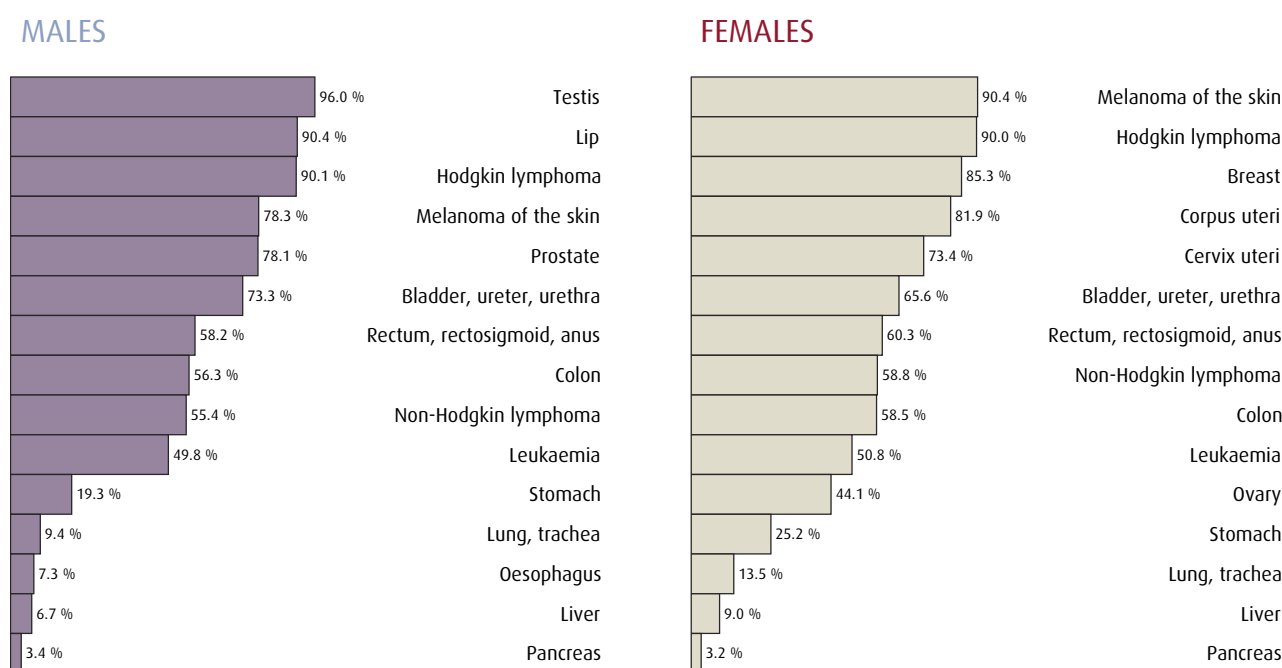


Table 23 Five-year relative survival in percent by selected primary sites, stage and period of diagnosis - 1956-2000

MALES

ICD10	Site	Stage	n 1996-2000	Relative survival (%)								
				1956-1960	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000
C00-96	All sites	Total	54498	28.9	27.8	31.2	35.6	39.9	42.6	45.0	50.0	55.6
C00	Lip	Total	320	89.2	89.6	92.1	96.3	90.6	90.8	90.5	89.5	90.4
		Localized	239	93.2	90.7	93.9	99.3	93.5	92.9	93.8	93.9	95.2
		Unknown	59	76.9	61.4	95.9	61.4	91.6	76.6	73.1	86.7	82.1
C15	Oesophagus	Total	579	2.4	2.1	3.7	4.0	2.5	4.6	4.8	5.4	7.3
		Localized	143	3.3	3.1	5.4	5.1	2.7	6.2	7.6	9.5	17.8
		Regional	125	2.7	0.0	0.0	2.9	4.2	7.5	5.0	5.7	7.6
		Distant	159	0.0	1.4	0.0	0.0	1.2	0.0	0.8	0.0	0.0
		Unknown	152	0.0	0.0	11.1	20.6	0.0	0.0	13.1	0.0	5.6
C16	Stomach	Total	1963	12.1	11.3	12.7	14.0	18.6	18.0	20.1	18.5	19.3
		Localized	390	30.0	28.1	35.5	40.0	44.9	38.9	41.1	39.5	53.6
		Regional	580	12.3	12.0	13.0	13.7	21.4	19.9	21.5	18.7	20.2
		Distant	672	1.2	2.1	1.4	1.8	1.3	1.7	0.8	0.5	2.0
		Unknown	321	4.8	0.9	6.7	7.5	3.9	3.8	4.6	6.9	14.2
C18	Colon	Total	4505	33.8	31.1	37.0	39.9	43.6	49.2	48.8	50.5	56.3
		Localized	874	55.7	52.3	63.1	72.5	72.7	77.8	79.9	80.4	91.5
		Regional	2200	34.2	35.6	41.1	42.8	51.4	57.6	58.3	61.4	69.8
		Distant	1166	4.9	3.8	5.3	6.0	7.1	4.6	4.2	4.4	6.6
		Unknown	265	11.0	3.3	18.6	14.3	17.7	16.6	11.8	15.2	51.2
C19-21	Rectum, rectosigmoid, anus	Total	2984	27.7	28.3	31.1	35.5	41.1	44.8	48.0	51.7	58.2
		Localized	969	48.1	49.0	52.5	58.9	61.5	66.6	68.9	74.8	82.2
		Regional	1161	14.2	13.7	21.2	24.4	36.7	39.3	47.1	50.2	65.2
		Distant	568	1.9	3.2	2.4	4.1	4.4	2.8	2.8	4.0	9.8
		Unknown	286	11.4	5.4	18.5	8.5	29.4	21.9	42.8	25.2	47.5
C22	Liver	Total	311	0.0	0.0	0.0	3.6	5.1	2.2	2.5	7.0	6.7
		Localized	113	0.0	0.0	0.0	8.0	7.4	3.4	4.2	9.8	16.6
		Distant	69	0.0	0.0	0.0	0.0	4.4	0.0	0.0	2.5	0.0
		Unknown	107	0.0	0.0	0.0	0.0	0.0	4.0	0.0	3.5	1.3
C25	Pancreas	Total	1310	3.1	1.8	2.0	1.6	1.6	1.5	1.9	2.5	3.4
		Localized	101	4.4	2.0	6.0	3.4	3.5	2.7	3.7	3.9	9.5
		Regional	168	2.0	1.3	2.8	1.6	2.3	3.2	4.4	6.6	7.3
		Distant	647	0.5	1.7	0.2	1.1	0.5	0.3	1.0	1.2	1.8
		Unknown	394	15.3	3.3	0.0	1.4	4.4	3.7	0.0	2.2	2.7
C33-34	Lung, trachea	Total	6201	7.0	8.1	8.2	7.9	8.4	8.5	8.6	8.9	9.4
		Localized	1173	17.7	16.0	18.4	18.6	17.8	19.3	17.2	18.5	30.6
		Regional	1577	5.4	10.0	9.7	7.9	9.9	9.3	12.0	10.6	9.7
		Distant	2646	0.0	0.5	0.7	0.9	1.1	0.9	0.8	0.6	0.7
		Unknown	805	3.5	3.7	2.1	1.9	5.8	1.8	3.0	8.9	7.2
C43	Melanoma of the skin	Total	2254	47.9	49.2	49.9	62.9	70.2	72.4	75.4	79.6	78.3
		Localized	1517	60.5	65.5	62.5	73.0	79.3	82.0	83.5	87.1	86.7
		Regional	69	36.8	18.0	29.4	36.1	30.2	27.4	37.8	31.1	36.8
		Distant	129	10.1	17.5	6.3	12.1	11.3	0.0	9.4	10.6	8.3
		Unknown	539	40.4	64.4	60.2	55.2	44.8	63.6	41.6	55.8	76.1
C61	Prostate	Total	13983	43.2	44.7	48.0	52.1	56.2	57.7	58.1	65.9	78.1
		Localized	5350	55.4	55.8	59.4	65.7	70.8	73.5	71.5	76.9	93.4
		Regional	543	27.8	31.0	37.2	37.4	39.9	38.8	57.7	70.6	78.1
		Distant	1998	19.8	18.6	19.1	17.5	19.9	20.5	25.6	23.4	24.7
		Unknown	6092	38.3	44.9	47.7	42.1	39.1	45.1	49.0	57.5	80.5
C62	Testis	Total	1183	60.2	62.1	67.7	66.9	82.0	93.0	94.6	95.8	96.0
		Localized	676	76.2	81.8	83.2	87.9	94.7	98.1	98.4	99.3	98.6
		Regional	177	72.9	64.0	77.4	74.2	84.4	95.9	96.2	96.2	98.3
		Distant	160	9.4	15.8	21.0	22.4	43.9	75.2	75.5	75.9	81.0
		Unknown	170	90.2	60.7	72.4	38.6	91.3	53.3	86.2	87.1	97.2
C66-68	Bladder, ureter, urethra	Total	4067	53.3	52.2	57.0	61.8	65.7	69.1	70.5	73.7	73.3
		Localized	2416	62.7	58.8	65.4	71.8	74.3	77.0	76.9	78.8	83.1
		Regional	197	9.8	10.2	13.6	19.2	27.3	23.7	26.8	26.0	23.7
		Distant	158	4.8	4.1	0.0	7.7	1.0	3.1	9.3	5.9	4.3
		Unknown	1296	31.0	34.8	46.7	43.6	33.7	38.5	58.0	58.6	70.7
C81	Hodgkin lymphoma	Total	288	23.4	23.1	42.1	56.5	54.4	67.7	76.2	84.2	90.1
C82-85, C96	Non-Hodgkin lymphoma	Total	1747	25.2	24.3	29.9	33.6	41.5	44.3	48.7	50.1	55.4
C91-95	Leukaemia	Total	1248	9.0	10.1	12.1	20.5	25.2	28.5	36.7	43.6	49.8

Table 24 Five-year relative survival in percent by selected primary sites, stage and period of diagnosis - 1956-2000

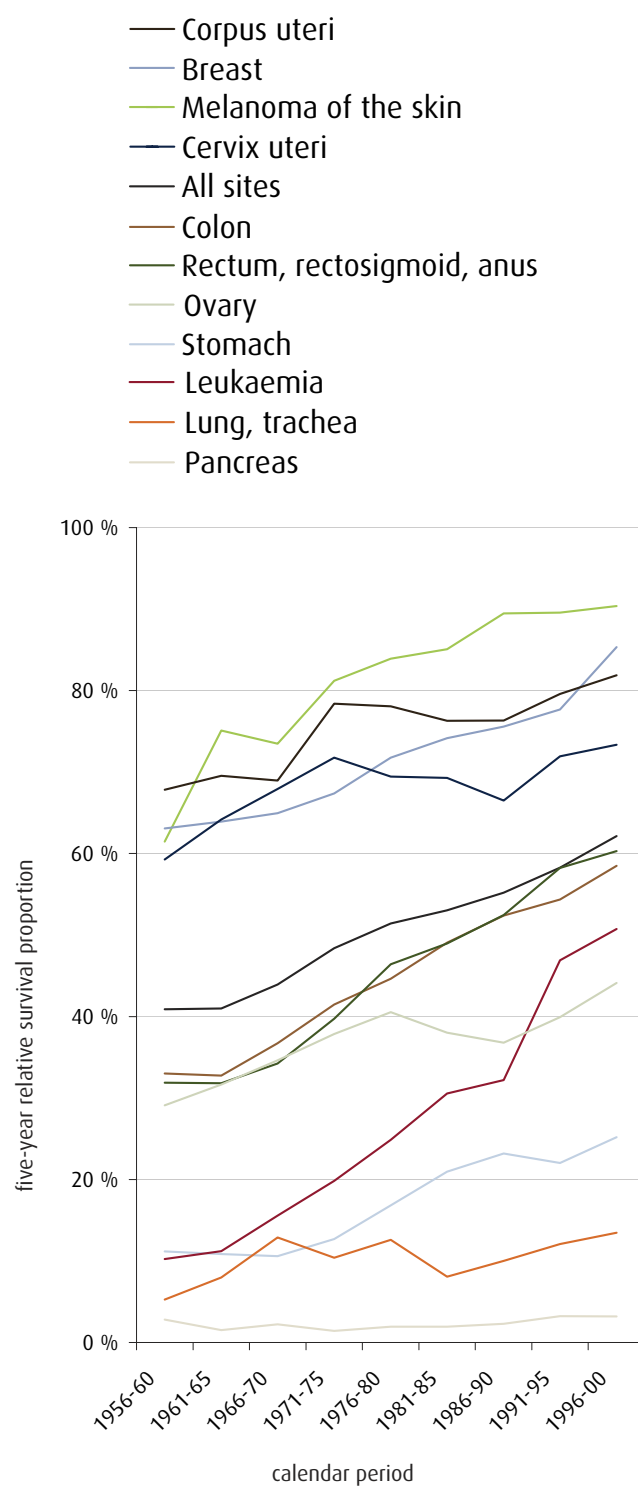
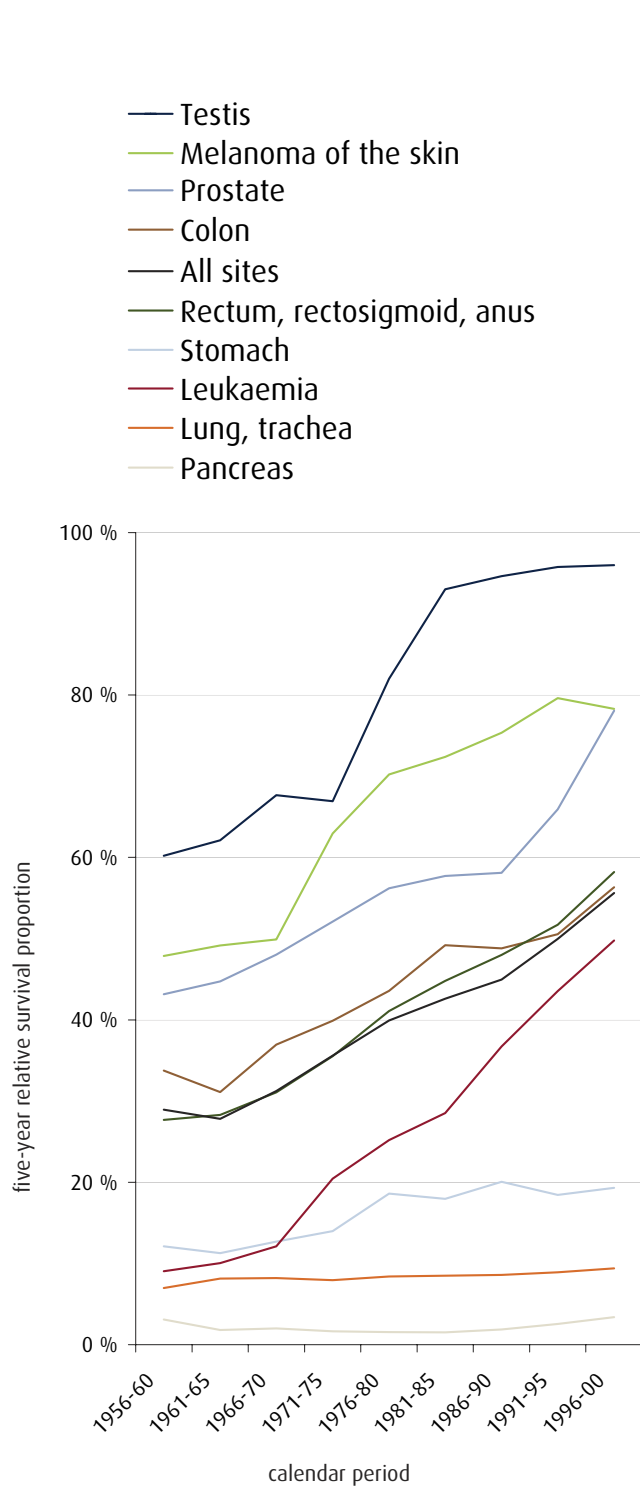
FEMALES

				Relative survival (%)								
ICD10	Site	Stage	n 1996-2000	1956-1960	1961-1965	1966-1970	1971-1975	1976-1980	1981-1985	1986-1990	1991-1995	1996-2000
C00-96	All sites	Total	50446	40.9	41.0	43.9	48.4	51.4	53.0	55.2	58.3	62.2
C16	Stomach	Total	1241	11.2	10.9	10.6	12.7	16.8	21.0	23.2	22.0	25.2
		Localized	280	26.6	27.2	31.3	32.8	40.4	48.6	41.4	42.9	62.4
		Regional	314	13.3	10.7	14.0	16.5	18.8	17.2	26.0	24.9	32.0
		Distant	394	1.7	1.8	1.0	2.9	1.5	1.0	1.0	1.5	3.2
		Unknown	253	5.3	4.6	4.0	5.1	6.8	9.2	13.5	18.3	11.9
C18	Colon	Total	5385	33.0	32.7	36.7	41.5	44.6	49.1	52.4	54.4	58.5
		Localized	1069	53.2	54.9	62.5	72.1	72.6	79.5	82.0	85.0	88.9
		Regional	2673	37.6	34.6	40.1	44.7	55.5	56.3	62.2	62.2	71.0
		Distant	1230	2.4	4.1	4.7	5.8	4.3	4.3	4.4	6.0	9.0
		Unknown	413	7.4	7.6	20.8	25.4	25.0	12.1	22.7	25.0	45.5
C19-21	Rectum, rectosigmoid, anus	Total	2509	31.9	31.8	34.2	39.7	46.4	49.0	52.5	58.2	60.3
		Localized	841	47.3	53.7	57.9	65.6	69.5	72.0	74.6	75.9	88.5
		Regional	935	28.9	17.8	21.3	25.2	39.8	42.4	50.8	59.7	62.8
		Distant	456	2.1	0.9	5.0	4.1	7.2	4.7	4.7	5.4	7.6
		Unknown	277	27.1	17.2	28.0	14.2	25.5	22.4	24.9	36.4	51.1
C22	Liver	Total	198	0.0	3.6	5.6	7.0	1.6	5.6	6.7	10.9	9.0
		Localized	58	0.0	4.2	9.9	14.2	3.3	9.1	10.2	14.6	22.6
		Unknown	75	0.0	28.9	0.0	0.0	0.0	6.1	0.0	7.0	3.7
C25	Pancreas	Total	1502	2.8	1.5	2.2	1.4	1.9	1.9	2.3	3.2	3.2
		Localized	123	4.6	2.1	5.7	4.6	3.7	3.1	5.3	7.4	12.0
		Regional	182	5.8	4.1	1.6	1.0	5.3	5.9	4.9	5.5	4.1
		Distant	692	1.5	0.8	0.9	0.5	0.8	0.7	0.4	1.0	0.9
		Unknown	505	0.0	0.0	0.0	0.0	0.0	0.8	1.7	1.9	4.2
C33-34	Lung, trachea	Total	3360	5.3	8.0	12.9	10.4	12.6	8.1	10.0	12.1	13.5
		Localized	554	16.5	23.1	27.9	26.7	30.3	22.4	22.8	27.1	45.9
		Regional	776	9.5	4.3	14.6	10.3	15.6	6.7	11.5	13.9	12.8
		Distant	1488	0.0	0.6	2.8	1.2	1.2	0.3	1.2	1.5	1.7
		Unknown	542	0.0	5.1	11.2	5.8	11.5	8.7	5.7	5.3	13.7
C43	Melanoma of the skin	Total	2496	61.5	75.1	73.5	81.2	83.9	85.1	89.5	89.6	90.4
		Localized	1734	72.2	82.4	84.2	88.0	89.0	90.6	93.1	93.4	96.3
		Regional	56	29.8	45.2	32.7	41.0	38.9	43.5	45.8	48.3	60.3
		Distant	108	18.1	18.8	22.7	21.1	18.6	5.8	15.6	17.6	17.7
		Unknown	598	56.5	58.4	78.4	49.1	67.0	63.8	70.1	71.5	88.0
C50	Breast	Total	12047	63.1	63.9	64.9	67.4	71.8	74.2	75.6	77.7	85.3
		I	6547	83.7	84.1	85.1	85.2	87.2	87.2	89.3	89.9	94.1
		II	4418	55.0	55.3	55.1	57.6	61.3	66.2	74.0	75.4	83.6
		III	416	30.1	40.1	37.5	48.8	50.6	50.7	53.8	60.2	60.9
		IV	603	10.5	14.7	12.1	13.1	14.8	14.3	18.3	19.1	16.9
		Unknown	63	68.8	55.7	72.9	75.1	77.0	88.7	53.5	60.4	100.4
C53	Cervix uteri	Total	1573	59.3	64.2	67.9	71.8	69.4	69.3	66.5	71.9	73.4
		I	922	75.1	85.0	86.9	89.4	87.6	87.1	85.6	85.7	91.8
		II	336	58.9	63.0	59.0	67.7	61.9	60.6	56.4	61.5	59.6
		III	166	34.7	29.9	30.7	32.5	30.9	34.0	22.7	34.4	38.3
		IV	123	12.1	6.7	9.2	11.1	7.1	5.2	20.5	22.0	8.5
C54	Corpus uteri	Total	2513	67.8	69.6	69.0	78.4	78.1	76.3	76.3	79.6	81.9
		Localized	1679	77.5	77.8	80.0	85.9	87.2	86.7	86.2	88.7	92.6
		Regional	290	23.1	28.6	28.7	55.2	61.0	58.1	64.9	69.5	74.9
		Distant	334	15.9	20.1	21.4	22.7	20.2	25.6	26.6	34.5	36.7
		Unknown	210	51.4	46.5	69.6	52.4	40.2	37.5	33.7	41.6	76.0
C56	Ovary	Total	2286	29.1	31.7	34.6	37.9	40.5	38.0	36.8	39.9	44.1
		Localized	454	59.9	66.4	74.6	67.9	81.4	80.3	82.8	84.2	91.4
		Regional	65	30.1	28.9	48.2	35.1	45.2	49.7	49.2	47.8	63.8
		Distant	1528	9.7	11.3	13.5	13.9	21.2	17.3	16.9	20.9	26.6
		Unknown	239	20.0	31.7	23.4	16.0	53.0	38.2	17.0	26.8	58.3
C66-68	Bladder, ureter, urethra	Total	1475	35.1	39.3	46.7	50.6	54.7	58.5	64.2	63.5	65.6
		Localized	773	50.7	54.9	59.7	66.2	69.9	70.2	72.3	71.2	82.8
		Regional	85	2.6	11.4	12.0	15.9	10.9	13.5	17.1	22.5	30.0
		Distant	101	3.1	4.2	8.8	4.7	4.9	5.5	5.8	7.1	3.7
		Unknown	516	8.9	23.1	46.6	30.7	19.1	19.3	53.7	28.4	57.6
C81	Hodgkin lymphoma	Total	215	34.0	40.2	48.2	48.2	63.4	63.1	77.4	80.1	90.0
C82-85, C96	Non-Hodgkin lymphoma	Total	1537	32.0	29.1	31.0	39.6	44.5	49.5	55.6	54.4	58.8
C91-95	Leukaemia	Total	1060	10.2	11.2	15.6	19.8	24.9	30.6	32.2	46.9	50.8

Figure 11: Time trends in five-year relative survival in Norway for selected cancers, diagnoses 1956-2000

MALES

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Prevalence

By the end of December 2005, almost 168 000 persons were alive after having had a prior cancer diagnosis in Norway. The more useful prevalence measures in Table 24 are those that approximate the number of patients still requiring some form of cancer care i.e. persons alive with cancer a given number of years after diagnosis (<1, 4-9, 5-9 and ≥10 years). A comparison of such prevalence measures with incidence is a good pointer to long-term prognosis of specific cancers, given they depend on both incidence and subsequent survival.

Common neoplasms associated with reasonable prognosis – breast, colorectal and prostate cancer - have the highest 10-year prevalence in Norway, a measure that serves as a weak surrogate for the number of patients that may be considered “cured” of cancer. The number of persons alive and diagnosed with melanoma of the skin 10 or more years after diagnosis ranks second only to breast cancer, and is seven times higher than that of lung cancer. Differences in prognosis - considerably poorer survival associated with lung cancer - rather than incidence explains much of the differential: the annual number of new cases of lung cancer is twice that of melanoma in Norway.

Table 24 Prevalence of cancer 31.12.1995 and 31.12.2005, both sexes

ICD10	Site	Total no. of persons alive		Years after diagnosis			
		31.12.95	31.12.05	<1	1-4	5-9	10+
C00-96	All sites	112338	167861	18474	51112	39169	59106
C00-14	Mouth, pharynx	2900	3264	359	895	742	1268
C00	Lip	1384	1147	76	212	240	619
C01-02	Tongue	360	531	67	185	130	149
C03-06	Mouth, other	509	581	70	181	134	196
C07-08	Salivary glands	352	443	44	107	89	203
C09-14	Pharynx	352	595	106	219	156	114
C15-26	Digestive organs	19855	26702	3630	8616	6218	8238
C15	Oesophagus	171	273	112	88	39	34
C16	Stomach	2359	1961	286	511	392	772
C17	Small intestine	305	536	66	227	109	134
C18	Colon	10534	14692	1811	4745	3607	4529
C19-21	Rectum, rectosigmoid, anus	6470	8883	1073	2915	2091	2804
C22	Liver	98	173	51	48	25	49
C23-24	Gallbladder, bile ducts	205	284	77	91	53	63
C25	Pancreas	340	448	198	134	57	59
C26	Other digestive organs	79	127	30	56	19	22
C30-36, C38	Respiratory organs	3884	5207	1324	1755	1010	1118
C30-31	Nose, sinuses	219	267	31	81	71	84
C32	Larynx, epiglottis	968	1037	98	321	275	343
C33-34	Lung, trachea	2668	3882	1189	1358	662	673
C38	Mediastinum, pleura	56	44	9	9	5	21
C40-41	Bone	407	566	39	116	113	298
C43	Melanoma of the skin	10586	15172	1080	3289	3195	7608
C44	Skin, non-melanoma	6327	9916	1278	3543	2548	2547
C45	Mesothelioma	52	90	42	36	3	9
C46	Kaposi's sarcoma	106	89	10	20	22	37
C47	Autonomic nervous system	217	232	8	27	34	163
C48-49	Soft tissues	819	1074	106	263	192	513
C50	Breast	21646	31548	2703	9259	8048	11538
C51-58	Female genital organs	16637	19314	1354	4111	3565	10284
C53	Cervix uteri	6642	6722	276	897	997	4552
C54	Corpus uteri	5955	7755	621	1985	1627	3522
C55	Uterus, other	42	50	6	17	10	17
C56	Ovary	3074	3763	341	974	734	1714
C51-52, C57	Other female genital	1120	1218	129	297	248	544
C58	Placenta	113	141	6	12	16	107
C60-63	Male genital organs	14918	26940	3678	10669	7361	5232
C61	Prostate	11557	21588	3391	9580	6191	2426
C62	Testis	3188	5060	244	975	1094	2747
C60, C63	Other male genital	272	365	45	119	90	111
C64-68	Urinary organs	10843	13950	1521	4400	3272	4757
C64-65	Kidney	2983	4125	487	1364	898	1376
C66-68	Bladder, ureter, urethra	8098	10078	1064	3115	2437	3462
C69	Eye	692	842	46	205	161	430
C70-72	Central nervous system	4044	7394	657	2258	1664	2815
C73	Thyroid gland	3055	3806	206	634	599	2367
C37, C74-75	Other endocrine glands	202	249	13	52	54	130
C39, C76, C80	Other or unspecified	443	543	161	167	85	130
C81-96	Lymphoid and haematopoietic tissue	7837	11871	1348	3884	2767	3872
C81	Hodgkin lymphoma	1279	1862	108	376	414	964
C82-85, C96	Non-Hodgkin lymphoma	3469	5375	652	1750	1284	1689
C88	Malignant immunoproliferative diseases	183	253	25	122	50	56
C90	Multiple myeloma	1001	1228	250	590	259	129
C91-95	Leukaemia	1948	3216	321	1068	773	1054

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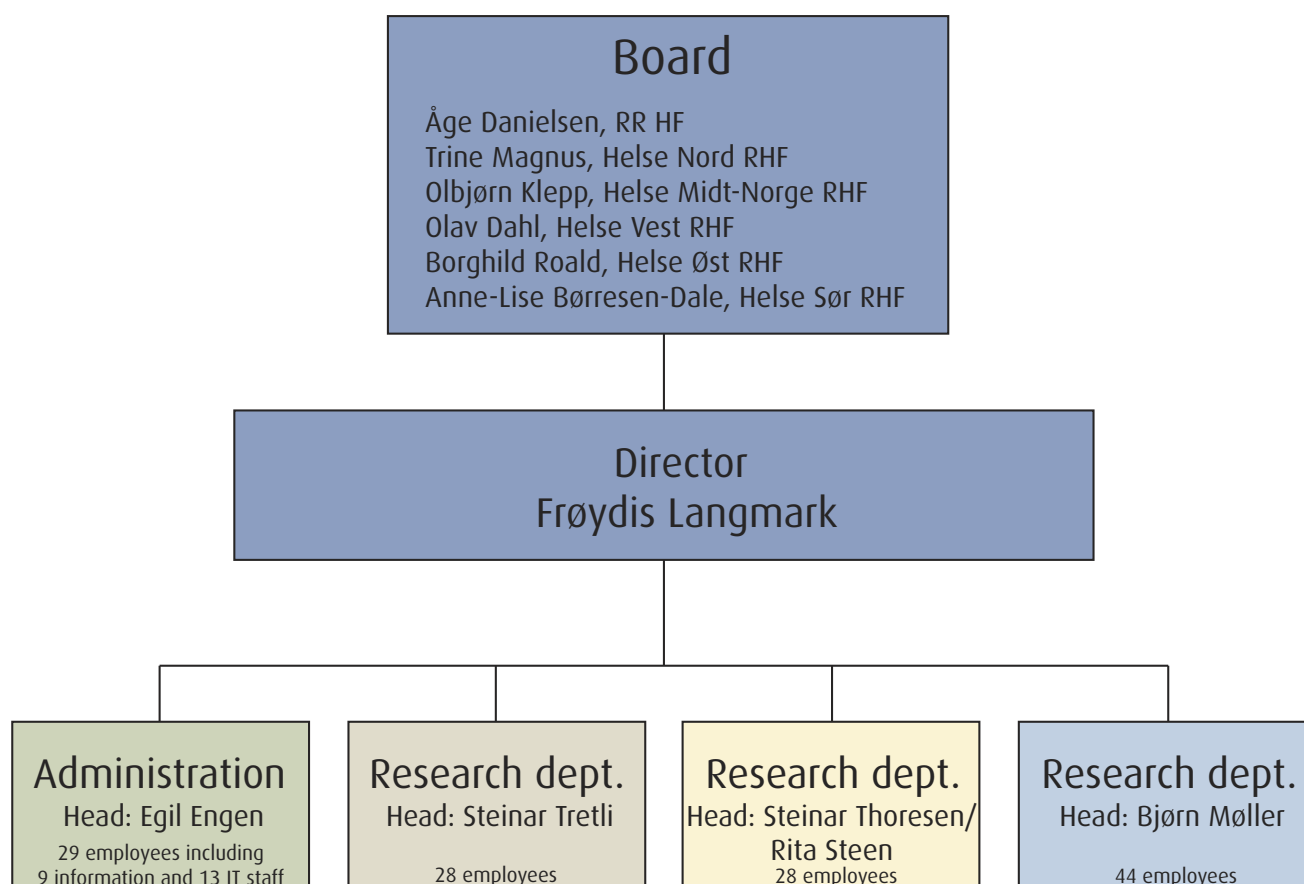
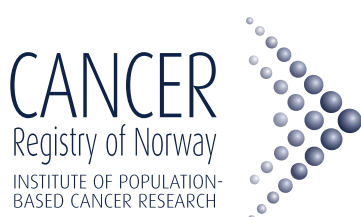
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Research activities at the Registry

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 2005 to the merged Rikshospitalet-Radium-hospitalet Health Trust (RR HF). 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 Cancer 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 Cancer Registry's duties, in close collaboration with the clinical milieus.

Structure of the Cancer Registry of Norway



Department of Etiological Research

Head: Prof Steinar Tretli PhD

Department objectives

The principal goal of the Department of Etiological Research is to provide new insights into 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 utilisation of the JANUS serum bank. The tradition of collaboration with 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

Life course research

A focus on the total life course implies research on long-term effects of lifestyle factors and other exposures during early life in utero, childhood, youth and adult life. The department will give priority to research that increases the understanding of what early life conditions means in relation to exposure and later risk of cancer. Several studies have focused on the importance of early life on adult cancer risk, specifically for hormone-related cancers such as breast, prostate, and testicular cancer.

Occupational and environmental cancer studies

Research on cancers associated with occupational and environmental exposures has long traditions in the department, and the identification and quantification of such risks will still be in focus. 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.

Modelling and simulation studies

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. Ongoing projects are studying the growth rates of tumours and the variation of these rates in breast cancer patients. This research is rooted in the mammography-screening database.

Recent important results

In 2005, the research activity at the department led to over 50 scientific publications in international and national journals. The publications focused on factors like organochlorine, nickel, *Helicobacter pylori*, vitamin D, alcohol, physical activity, pregnancy, inheritance, and life conditions after cancer. Some of the results are from international collaboration studies. In addition, four doctoral dissertations were published in 2005.

Theses published in 2005

Svensson KE. Epidemiological studies of colorectal cancer – early life conditions and later risk. University of Oslo 2005.

Roessink J. 50-Hz magnetic fields, light at night and risk of breast cancer. University of Oslo 2005.

Hernes E. Advanced prostate cancer: selected aspects of human pathology, clinical oncology and epidemiology. University of Oslo 2005.

Aschim EL. Factors contributing to testicular dysgenesis. University of Oslo 2005.

Department of Screening-based Research

Head: Prof Steinar Ø. Thoresen MD PhD

Acting Head: Dr 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 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 had no PAP test in the last three years, with a recommendation to get tested. 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, and tumour stage), as well as changes in rates of incidence and mortality. 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 2005, coverage was 79% in the Cervical Cancer Screening Programme, and the attendance rate was 76% 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) Long-term follow-up after HPV vaccination of participating women. Study of HPV prevalence among women 18-45 years, both in the general population and in those with cervical cancer.
- 4) Study of the impact of changing the screening interval and screening age range.
- 5) Studies of the efficacy and effectiveness of screening in women aged 25-69 years.
- 6) 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.
- 7) Study of the screening history of women aged over 70 years diagnosed with cervical cancer.
- 8) Investigate the need for a more individual-orientated approach to Cervical Cancer Screening Programme, dependent on vaccination status.

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

- 1) Further investigation of early (process) indicators, as well as studies on radiological performance.
- 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) Descriptive analyses aimed at profiling non-attenders.
- 5) Investigate in a pilot project whether expansion of the programme to cover age groups outside of 50-69 years is feasible and warranted. This project is in co-operation with the Norwegian Cancer Society.

For the Breast Cancer Screening Programme, two recent doctoral theses have been published in 2005. A

study of early indicators in mammography screening concluded that there were promising signs of a future mortality reduction (Hofvind, 2005). One full-time PhD student is currently investigating effects of mammography screening on breast cancer survival and mortality. As for the Cervical Cancer Screening Programme, two doctoral theses have been published, the latest in 2005, concluding that the screening programme increased coverage, and consequently reduced the cervical cancer incidence by 23% in 2000-2002. Further, the mailing of a personal letter to women provided a cost-effective solution in an environment where opportunistic screening is substantial (Nygård, 2005).

Theses published in 2005

Hofvind SSH. The Norwegian Breast Cancer Screening Programme: Selected process indicators and their utilization in epidemiological research. University of Oslo, 2005.

Nygård J. Effectiveness of cervical cancer screening. An epidemiological study based on register data from a population based, co-ordinated cervical screening program. University of Oslo, 2005.

Department of Clinical- and Registry-based Research

Head: Dr 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 incident cases of cancer in Norway, as defined by the Statutory Regulations. This information - from clinicians, pathologists, administrative patient discharge files, and the cause of death registry - is held in the main database. Two important aims of the Department are i) to provide a comprehensive evaluation of the quality of the main database; ii) to seek optimum utilisation of the data via collaborations with the clinical and research community. The Department provides routine 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.

Both the Registry and the Department have expanded recently: three sections have been created identifying three key areas of ongoing activity: 1) management of the Registry, with an emphasis on the documentation of quality control and the revision of in-house coding procedures; 2) research using the main database, focussing on areas of particular public health importance alongside the application of appropriate methodologies; 3) building on strong ties with the clinical milieu in Norway, the continued technical development of the Registry infrastructure, and the launch of several clinical registries linked to the main database. These Registries offer novel opportunities for population-based research into cancer care (see below).

Special registries

The Statutory Regulations for the Cancer Registry of Norway include the registration of treatment and follow-up of Norwegian cancer patients. By establishing special registries – comprehensive registration schemes dedicated to specific cancers – the Registry supplements the cancer registry record with 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 regarding prognostic factors and treatment outcomes
- 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. The table below indicates the status of the special registries as of December 2006. All newly-established clinical registries will be integrated with the Registry's main database.

Theses published in 2005

Bray FI. Temporal studies of cancer occurrence and applications of the age-period-cohort method to trends in Europe. London School of Hygiene and Tropical Medicine, University of London, 2005.

Status of the special registries, December 2006.

Registry	Name	Date of launch or anticipated date
Integrated Clinical Registries	Norwegian Prostate Cancer Registry	01.01.2004
	Colorectal Cancer Registry	01.01.2007
	Norwegian Breast Cancer Registry	01.01.2008
	Norwegian Malignant Melanoma Registry	01.01.2008
	Norwegian Lymphoma Registry	01.01.2009
"Standalone" Clinical Registries	Lung Cancer Registry	1993-2002
	Ovarian Cancer Registry	01.01.2002
	Rectal Cancer Registry*	01.01.1993-31.12.2006
Other	Nordic Solid Tumours in children (NOPHO)	01.01.1982
	Polyposis Families Registry	1974 / 1994**
Screening Registries***	Mammography Screening Registry	01.01.1996
	Cervical Screening Registry	01.01.1992
	Colorectal Screening Registry (NORCCAP)	1999-2001

* From 01.01.2007 Registry will be expanded to include colon cancer, and integrated with the main database.

** Housed in the Clinical Research Department since 1994.

*** Housed in the Screening Department.

List of publications 2005

Registry staff and affiliated researchers collaborated on 81 research papers in 2005, 71 of which were published in international journals.

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