national STATISTICS

Series MB1 no. 31

Cancer statistics
registrations

Registrations of cancer diagnosed in 2000, England

London: Office for National Statistics

ISBN **1 85774 562 0**
ISSN **0143-4829**

Contact points

For enquiries about this publication, contact
the Editors: **Helen Booth**
Nicola Cooper
Dr Mike Quinn
Tel: 01329 813759
E-mail: **helen.booth@ons.gov.uk**

For general enquiries, contact the National Statistics
Public Enquiry Service on **0845 601 3034**
(minicom: 01633 812399)
E-mail: **info@statistics.gov.uk**
Fax: 01633 652747
Letters: Customer Enquiry Centre, ONS,
Government Buildings, Cardiff Road, Newport, NP10 8XG

You can also find National Statistics on the internet
at **www.statistics.gov.uk**

About the Office for National Statistics

The Office for National Statistics (ONS) is the government agency responsible for compiling, analysing and disseminating many of the United Kingdom's economic, social and demographic statistics, including the retail prices index, trade figures and labour market data, as well as the periodic census of the population and health statistics. The Director of ONS is also the National Statistician and the Registrar General for England and Wales, and the agency administers the statutory registration of births, marriages and deaths there.

A National Statistics publication

Official statistics bearing the National Statistics logo are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

Contents

List of tables

* These large tables are available on the National Statistics website: www.statistics.gov.uk

Introduction

Cancer statistics - registrations 2000 presents data for England on those patients who were diagnosed with cancer during 2000 and whose registrations were received at the Office for National Statistics (ONS) by the end of July 2003.

At the beginning of April 1996, the Office of Population Censuses and Surveys (OPCS) merged with the Central Statistical Office (CSO) to form the ONS. ONS is responsible for the full range of functions previously carried out by CSO and OPCS, including labour market statistics and registration of births, marriages and deaths. Whilst ONS is responsible for assembling and disseminating UK statistics, no functions held by Scottish or Northern Irish Departments have been transferred to ONS. Previous volumes in this series up to no.27 (1994)[1] have presented data for England and Wales. This volume, as did nos. 28 (1995–1997)[2] 29 (1998)[3] and 30 (1999)[4] covers only England, because all matters relating to health in Wales have been devolved to the National Assembly of Wales (NAW). Cancer registration in Wales is carried out by the Welsh Cancer Intelligence and Surveillance Unit (WCISU) under a service level agreement with the NAW, the terms of which are closely similar to those in the national standards for cancer registration in England. The WCISU is a member of the UK Association of Cancer Registries (UKACR - see below) and voluntarily adheres to all the UKACR's agreed standards and guidelines.

Comparable statistics for England and Wales for 1971 to 1994 have been published in the *Cancer statistics - registrations* (Series MB1) reports. A CD-ROM[5] is also available from ONS containing anonymised records of new cases diagnosed from 1971 to 1992 and deaths from cancer from 1971 to 1997, in England and Wales (see page 69). For years prior to 1971, statistics have been published in the *Registrar General's Statistical Review of England and Wales, Supplements on Cancer*.

In February 2000 ONS published the book *Cancer Trends in England and Wales 1950-1999*[6]. This brought together for the first time the long term trends in cancer incidence, mortality, prevalence and survival for all the major cancers (which together make up almost 90% of the total cases in both males and females) accompanied by brief notes on aetiology and risk factors. New analyses, based on data for the whole population, highlight the wide variations in cancer incidence and mortality with socio-economic deprivation. The book paints the broad picture of the cancer burden and illustrates the baselines against which progress in cancer control will be measured.

Background

Marked changes in the incidence of, and mortality from, cancer have occurred since the beginning of this century. Currently, about one person in three in England develops a cancer sometime in their life, and cancer now causes about one in four deaths. Around 320,000 new cases of cancer are registered every year, and there are about 135,000 deaths from cancer.

It has been estimated that the treatment of cancer accounts for 6 per cent of all NHS hospital expenditure, amounting to over £1 billion a year.[7] Support for research into cancer in the late 1990s was over £260 million each year; total government expenditure amounted to around £25 million, while spending by charities totalled around £125 million and that by the pharmaceutical industry over £110 million.[8]

Key people involved in cancer prevention and control include scientists investigating the mechanisms which cause cells to become malignant; those carrying out clinical trials to evaluate new treatments; clinicians treating individual patients; public health physicians implementing screening programmes and educating the public; and epidemiologists attempting to characterise high- and low-risk populations, identify causal factors and provide clues to carcinogenic mechanisms.

Evaluation of this work in any coherent way requires a population-based cancer surveillance system which can monitor variations in incidence and survival over time, between places and between different groups in the population. The NHS Cancer Plan[9] published in 2000 recognised the key role of the cancer registries.

Cancer registration system

Questions seeking information for the purposes of cancer registration in England and Wales were first asked in the 1920s; a national scheme has been in existence since 1945 - initially centred on the Radium Commission, but from 1947 onwards at the General Register Office, and at its successors, OPCS and, since April 1996, ONS. Complete geographic national coverage was achieved in 1962. Cancer registration is now conducted by nine independent regional registries in England which collect, on a voluntary basis, data on cancers incident in residents of their areas, and submit a standard data set on these registrations to ONS. In England, each of the regional health authority (RHA) areas which existed in

1994 was covered by its own cancer registry - except that all four Thames RHAs were covered by one registry. As a result of subsequent changes to administrative boundaries in the NHS, together with mergers of some regional cancer registries, by 2001 when the health regions were abolished, the only registry whose area was fully coterminous with a health region boundary was the West Midlands Cancer Intelligence Unit based in Birmingham. A map showing the areas covered by the nine cancer registries is given in Appendix 2. As noted above, the NAW is now responsible for cancer registration in Wales. A fuller description of the scheme is given below.

Under similar arrangements there is a system of cancer registration in Scotland, co-ordinated by the Information and Statistics Division (ISD) of the NHS in Scotland Common Services Agency in Edinburgh. The Scottish Cancer Registry is a full member of the UKACR. ONS and the regional registries in England maintain close contacts with the Welsh Cancer Intelligence and Surveillance Unit, the Scottish Cancer Registry and the Northern Ireland Cancer Registry, and co-operate in several areas, including answering Parliamentary Questions relating to Great Britain or the UK; supplying information for projects such as the preparation of a cancer atlas, and for the examination of clusters of disease by the Small Area Health Statistics Unit at the Imperial College School of Medicine at St Mary's; and assisting the charity Cancer Research UK with information for its UK-based 'CancerStats'. The book *Cancer Trends in England and Wales 1950-1999*[6] also contains some key cancer statistics on the major sites for the UK, and each of the 20 site specific chapters contains a summary table with information for all the regions of England and for Wales, Scotland and Northern Ireland.

Acknowledgements

It is with gratitude that ONS acknowledges the work of the regional cancer registries over the years that the national scheme has been in operation, and their close co-operation with the national registry. The full addresses, telephone and fax numbers of the registries in England, and the registries in Wales, Scotland and Northern Ireland, are given in Appendix 2. The current directors of the registries in England are:

Northern & Yorkshire	Professor R Haward (Medical Director) Professor D Forman (Director of Information and Research)
Trent	Dr J Botha
East Anglian	Dr J Rashbass (General Director) Dr C H Brown (Medical Director)
Thames	Professor H Møller
South & West	Dr J Verne (Acting Director)
Oxford	Dr M Roche
West Midlands	Dr G Lawrence
Merseyside & Cheshire	Dr E M I Williams
North Western	Post vacant

Outline of contents

Notes on the change of coverage to England are given above. The cancer site codes and descriptions reflect the adoption by the NHS in 1995 of the 10th Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD10).[10] **Table 1** contains the numbers of newly diagnosed cases of cancer by site to the 3rd digit of the ICD10 code, sex and five year age group . **Table 2** presents population estimates by sex and five year age group for 2000, based on the 1991 census. **Table 3** gives the rates of cancer incidence per 100,000 population by sex and five year age group corresponding to the numbers of cases in Table 1. **Table 4** gives the numbers of cancer registrations and **Table 5** the rates per 100,000 population by sex and government office for the region (GOR). **Table 6** gives the standardised registration ratios by GOR by site and sex (England as base). **Table 7 and 8** present the numbers and rates per 100,000 population respectively, of newly diagnosed cases of cancer, by site to the 4th digit of the ICD10 code, sex and age group. These very large tables are not included in this volume, but are available on the National Statistics website: **www.statistics.gov.uk. Table 9** contains cancer mortality to incidence ratios by site, sex and GOR. **Table 10** gives the directly age standardised rates per 100,000 population, using the European standard population, of new cancer cases for England for the 10 year period 1991-2000 by site and sex. Data have been aggregated by cancer sub-site where necessary to give consistent time series across the change in coding in 1995 from ICD9[11] to ICD10.

The commentary which follows begins with a brief history of the scheme, covering the four reviews of the system published in 1970, 1980, 1990 and 2001; the role of ONS; and the setting up of the National Steering Committee on Cancer Registration (subsequently the Advisory Committee). Also described is the establishment of the United Kingdom Association of Cancer Registries. The next sections give the overall results for all cancer sites in 2000, estimates of the cumulative (lifetime) risk of cancer, and figures of the incidence of the 20 or so most common cancers in the UK. Following these are the detailed tables described above. Finally, appendices contain guidance notes and definitions and a discussion of some factors relevant to the interpretation of cancer registration data, and information on the cancer registries.

References

1. ONS. *Cancer statistics - registrations, England and Wales, 1994*. Series MB1 no.27. London: The Stationery Office, 2000.
2. ONS. *Cancer statistics - registrations, England, 1995-1997*. Series MB1 no.28. London: The Stationery Office, 2001.
3. ONS. *Cancer statistics - registrations, England, 1998*. Series MB1 no. 29. London: Office for National Statistics, 2001.

4. ONS. Cancer Statistics - registrations, England, 1999. Series MB1 no. 30. London: Office for National Statistics, 2002.
5. Quinn MJ, Babb PJ, Jones J, Baker A, Ault C. *Cancer 1971-1997*. Registrations of cancer cases and deaths in England and Wales by sex, age, year, health region and type of cancer (CD-ROM). London: Office for National Statistics, 1999.
6. Quinn MJ, Babb P, Brock A, Kirby L, Jones J. *Cancer Trends in England and Wales 1950-1999*. Studies in Medical and Population Subjects No.66. London: The Stationery Office, 2001.
7. *A policy framework for commissioning cancer services*. A report by the Expert Advisory Group on cancer to the Chief Medical Officers of England and Wales. London: Department of Health and Welsh Office, 1995.
8. NHS Executive. *Expenditure on cancer research 1995/96*. Leeds: NHS Executive, 1996.
9. Department of Health. *The NHS Cancer Plan*. London: Department of Health, 2000.
10. World Health Organisation. *International Statistical Classification of Diseases and Related Health Problems - Tenth Revision.* Geneva: WHO, 1992.
11. World Health Organisation. *International Classification of Diseases - Ninth Revision*. Geneva: WHO, 1977.

Cancer registration in England and Wales

This chapter presents a brief history of the cancer registration system in England and Wales and an outline of the role of the Office for National Statistics (ONS).

Background and early history

Cancer registration is the process of maintaining a systematic collection of data on the occurrence and characteristics of malignant neoplasms and certain non-malignant tumours. The procedure is widely established throughout the world and generally follows guidelines established by bodies such as the International Union Against Cancer (UICC), the International Agency for Research on Cancer (IARC), the International Association of Cancer Registries (IACR), and the World Health Organisation (WHO)[1,2].

The great and increasing suffering due to cancer was of concern to the Ministry of Health in the early 1920s and with the introduction of radium treatment, a system was initiated in parts of England and Wales to follow the outcome of treated patients. Both the Radium Commission of 1929 and the Cancer Act of 1939 (never implemented because of the war) incorporated the principle that statistical information about cancer patients was essential for planning and operating cancer care services. In 1945, the Radium Commission was designated as the Statistical Bureau to which the data should be sent for final analysis. This work was taken over by the General Register Office in 1947; and the Cancer Act was repealed in 1948 when the National Health Service Act came into force. From that time the General Register Office, its successors OPCS and, more recently, ONS, have collected and processed data forwarded under voluntary arrangements. Since January 1993, it has been mandatory for the NHS, including trusts, to provide the core items listed in the cancer registration minimum data set to the regional cancer registries; and for the registries to send these data to ONS (see page 6).

The 1960s

In February 1963 a conference was held at the Ministry of Health for the purposes of paving the way for 100 per cent registration of cancer patients and for seeking means of improving the cancer registration scheme. A Working Party agreed on the regional and national objectives of the cancer registration scheme. At the **regional** level, the objectives were to improve the service to the cancer patient through good record keeping and efficient follow-up; and to provide information for local research into the value of treatment and for epidemiological studies, for the planning and assessment of the cancer service, and for the production of national statistics. At the **national** level, the objectives were to produce national statistical analyses likely to assist in the management of the disease and the understanding of it; to cooperate with other Government Departments and outside bodies in any survey aimed at furthering knowledge of the disease; and to participate, by supplying statistical data as required, in the work of international cancer organisations established to carry out research into the cause and course of cancer.

The Working Party spent a considerable amount of time determining what information should be obtained for analysis at the national level, but it was agreed that the information requested should be kept to a minimum - with the intention of obtaining a more complete record and a greater degree of accuracy. The Working Party's report also discussed and agreed recommendations on desirable national and regional tabulations; the elimination of duplicate activity (in data processing); duplicate registrations; dissemination of information; and the unique difficulties of the (then) Metropolitan Regional Hospital Board areas which are now covered by the Thames registry and the office of South and West Cancer Intelligence Service in Winchester (formerly the Wessex registry).

Advisory Committee Report 1970

Following discussions in 1969 between the Department of Health and Social Security (DHSS) and the Registrar General, an Advisory Committee on Cancer Registration was set up. It was requested simply 'to consider and advise on matters of policy and method relating to the national cancer registration scheme', and its members included several eminent epidemiologists in addition to representatives from the DHSS, the registries and (the then) OPCS.

The Committee reviewed the existing scheme, in which each case of cancer was registered first of all on a registration form and the data subsequently transferred onto an abstract card. These were to be updated and resubmitted to OPCS after five, ten and fifteen years. Each registry received, through the machinery of the general system of vital registration and statistics, details of any death in its area where cancer was mentioned on the death certificate (this is known as the 'green card' system after the colour of the paper onto which the death certificate information was copied). Much difficulty had been caused at OPCS by the late submission of abstract cards, and - even worse - of follow-up cards. The quality of data varied considerably among the regions and even the best fell 'rather short' of 100 per cent accuracy in all particulars. The Committee felt that some of the data collected (for example on treatment) were of doubtful value and placed an unnecessary workload on the registries.

There was, however, unanimous agreement that some form of national cancer registration scheme was necessary in order not only to establish national incidence rates and monitor them for purposes of logistic planning and general epidemiological research, but also to permit prospective studies of cancer in selected groups of the population. In addition, information at the international level for comparison with experience in other countries made a valuable contribution to the understanding of the disease.

Revised scheme

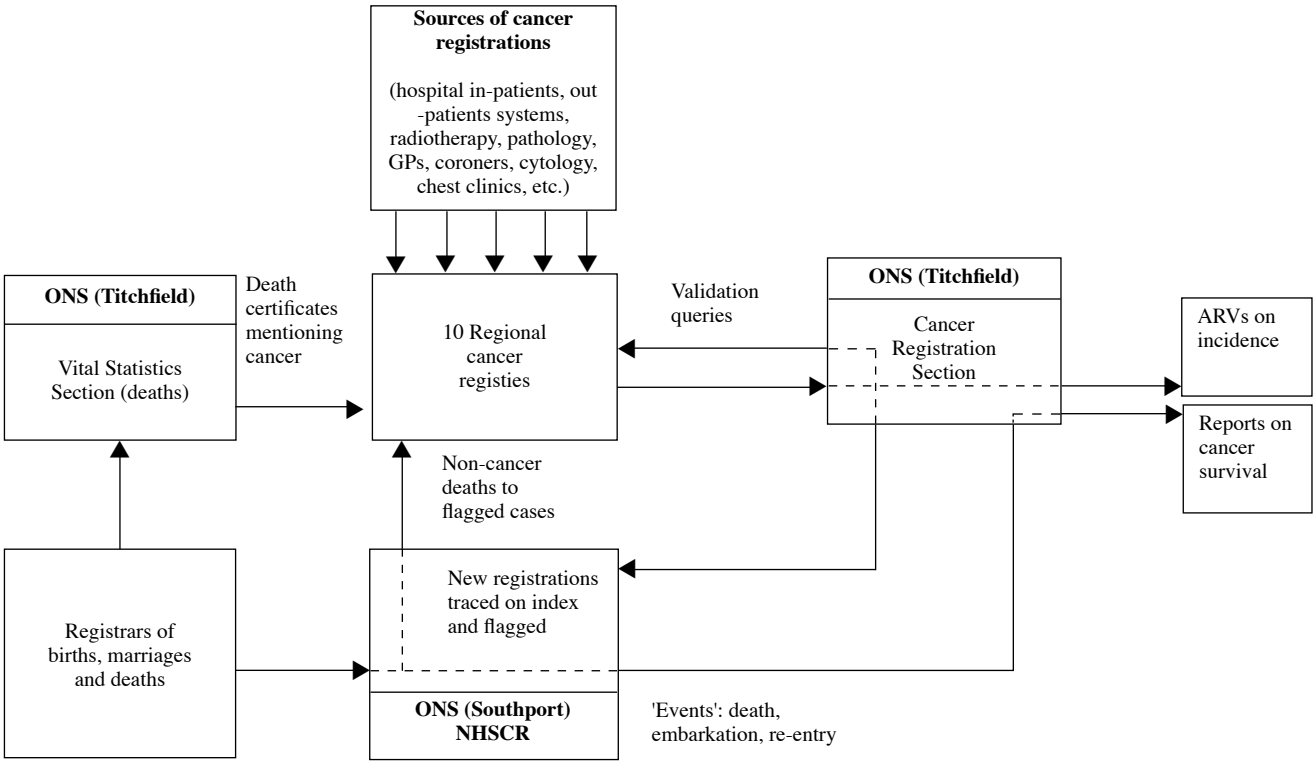
A revised scheme was proposed[3], covering the definition of cases to be registered; the documentation (a revised and shortened abstract card); a nominal index for use by research workers; national tabulations (to be produced by OPCS); and death notifications (green cards). Probably the most important change suggested was that the system of five, ten and fifteen year follow-up abstract cards should be stopped. Instead, cancer registrations would be 'flagged' in the records maintained by the National Health Service Central Register (NHSCR) - another part of OPCS - in Southport, in the same way that deaths were. As non-cancer deaths of persons flagged as cancer-registered could be notified routinely to the registries, this, together with the green cards, would relieve them of the expensive and laborious task of tracing patients clerically (for example by using hospital records or writing to GPs). This revised scheme was introduced in 1971, backdated to cover all registrations whose anniversary date fell on or after 1 January 1971. The essential features of the system (illustrated in Figure A) have now remained unchanged for over 30 years.

Advisory Committee Report 1980

The revised scheme was reviewed some ten years later when the Advisory Committee was reconvened. Its report[4] presented a large amount of national statistics on cancer incidence, survival, prevalence and mortality. It also highlighted the growing demands for information for clinical research; planning, organising and evaluating services for the prevention and treatment of cancer; epidemiological research; and education of the public.

Many of the Committee's comments on areas where problems were being experienced are still relevant today. The Committee re-emphasised the great value of recording the NHS number, and stressed that personal identification data were essential - for the elimination of duplicate notifications, to enable follow-up and calculation of survival rates, and to enable registrations data to be linked (with suitable safeguards) to other data about the same person. They found a substantial degree of variation among the regions in the excess of registrations over deaths; although difficult to interpret, this suggested an equivalent variation in the degree of ascertainment. The report discussed the three main methods of collection: peripatetic staff, hospital staff and the Hospital Activity Analysis (HAA) system. HAA data were often considered to be insufficiently reliable, but the Committee noted that the three registries which used HAA as their primary source were not those which had low numbers of registrations compared with deaths. The use of information from pathology departments, to increase not only the accuracy but also the completeness of ascertainment, was encouraged. As well as being complete, the data needed to be up to date

Figure A The cancer registration system of England and Wales



and here the Committee found grave shortcomings since the inception of the revised scheme.

While the average cost of registering one patient with cancer was only a very small fraction of the total cost of the management of the patient's illness, it was noted that (in England) the regional registries were funded by the regional health authorities, with no direct financial input from the DHSS or OPCS. It was possible that registration might not be given the necessary resources at regional level where priorities were decided autonomously.

The Committee concluded that cancer registration covering the whole of England and Wales should continue and be improved in several areas for the following reasons: preventative action was usually based on information from epidemiological studies (using the national register linked to the NHSCR); changes in incidence needed to be monitored because of public, political and medical concern, and improvements in treatment were making mortality data increasingly unreliable as an index of trends; changes in survival needed to be monitored; and reliable and up-to-date data on incidence were essential for the planning and operating of services for cancer detection and treatment.

Medical Advisory Committee review 1990

In 1989 a Working Group of the Registrar General's Medical Advisory Committee (MAC) was set up to review the operation of the cancer registration system, particularly the regional and national data collection methods, the quality and timeliness of the statistics produced, the uses made of the regional and national registers, and the growing tendency to treat cancers in out-patient departments or privately. It was also asked to consider the implications of changes in demand for information and developments in information technology, and the priorities and level of resources required to maintain adequate registers. The potential implications of the recommendations of the White Paper *Working for Patients*[5] were also considered.

The Working Group[6] noted that in addition to the traditional uses of cancer registration (monitoring of time trends and geographical variation in incidence), the system had become vital in several other areas. These included the management of the substantial resources required for the preventative, curative and laboratory services for cancer; the planning and evaluation of services, particularly the screening programmes for breast and cervical cancer; the planning and evaluation of clinical management and treatment based on accurate and unbiased survival data and clinical trials; research into causes of cancer, involving case-control studies and the flagging of cohorts at the NHSCR; and information for health education and health promotion for both professionals and the public. Future uses of cancer registration (especially if linked with other databases) were identified, including evaluating programmes of care, quality assurance, and relating costs to clinical outcome.

The seventeen recommendations made by the Working Group for improvements to the system fell into several categories, relating to the organisation of the system; the collection, processing, quality, timeliness and completeness of the data; and the safeguarding of the necessary data release in view of the impending NHS changes and the growing use of the private sector.

One of the six recommendations in the 'organisational' area was that a Steering Committee should be established to oversee national cancer registration, with representation from the registries, OPCS, regional and district health authorities, the UK Co-ordinating Committee of Cancer Research, the Health and Safety Executive and the private health sector. This Steering Committee, which was chaired by Dr J Metters, the Deputy Chief Medical Officer at the Department of Health, held its first meeting in June 1991 and met subsequently at approximately six monthly intervals. This committee was re-formed as the Advisory Committee on Cancer Registration; it was chaired by Dr S Atkinson of the NHS Executive.

Three recommendations involved both the registries and OPCS: an expanded national core data set; co-operation with the private health sector; and the establishment of guidelines for the handling and release of data. These have been discussed at several consultative meetings with the registries. Work on three other recommendations, relating to the provision of timely estimates of incidence at the national and regional level, quality control checks and the provision of up-to-date anonymous and summary data, was carried forward at ONS which in 1995 completed the redevelopment of its longstanding computer system to a new database environment (see below).

The role of ONS in cancer registration

The Office for National Statistics was formed by the merger of OPCS and the Central Statistical Office (CSO) in 1996. The Director of ONS, Mr Len Cook, is also the Registrar General for England and Wales. The National Cancer Intelligence Centre (NCIC) at ONS includes part of the Health and Care Division in London which co-ordinates all the work on cancer registration and carries out a wide range of secondary analysis and research; part of the Administrative Sources and Geography Division in Titchfield which conducts the primary data processing of registry data; and a section at the NHSCR in Southport which flags the cancer registrations on the central register. Much of the secondary analysis and research, which is carried out by a statistician and three researchers, supported by a medical epidemiologist and the Deputy Chief Medical Statistician who is also Professor of Epidemiology and Vital Statistics at the London School of Hygiene and Tropical Medicine (LSHTM), is done in collaboration with academic and external researchers, for example at the LSHTM, the Cancer Screening Evaluation Unit at the Institute for Cancer Research, and the Small Area Health Statistics Unit at Imperial College.

Most registries collect a large amount of information about the patient, the tumour and the treatment. The registries carefully collate all the data for any one patient to avoid duplication of records. This is not a quick process, as information is often not made available to the registry until the main course of treatment is finished. A sub-set of the data, as defined in the cancer registration minimum data set[7] is sent to the national registry at the ONS office in Titchfield, near Southampton. The data items are:

Core	Optional
Record type (new registration, amendment, deletion)	Country of birth
Identity number (unique)	Ethnic origin*
Patient's name	Patient's occupation
Patient's previous surname	Patient's employment status
Patient's address	Patient's industry
Postcode	Head of household's occupation
employment	Head of household's status
Sex	Head of household's industry
NHS number	Registration from screening*
Marital status	
Date of birth	
Date of death (if dead)	
Incidence date	
Site of primary growth	
Type of growth	
Behaviour of growth	
Multiple tumour indicator	
Basis of diagnosis*	
Death certificate only indicator*	
Side (laterality)*	
Treatment(s) (indicators)*	
Stage†	
Grade†	

* From incidence year 1993

† From incidence year 1993; phased introduction - initially only for breast and cervix.

The data are loaded onto the new person-based database (see below) and validated. The extensive checks include the compatibility of the cancer site and the associated histology; these checks are closely based on those promulgated by IARC[1]. Once all the expected records for any one incidence year have been received and validated at ONS, detailed tables are published on the numbers and rates of all types of cancer by age and sex, and by region of residence[8].

All the work on processing in Titchfield and flagging at the NHSCR in Southport has, since 1993, been paid for by the Department of Health (DH). A service level agreement (SLA) has been negotiated between DH and ONS. Work on the key targets and outputs established in the relevant ONS divisional business plans and the SLA is monitored continuously. ONS makes formal six-monthly progress reports to DH.

Redevelopment of the ONS cancer registration computer system

Beginning in 1990, over 20 of the major computer processing systems at the (then) OPCS - including births, deaths, cancer registrations, the Longitudinal Study (1% linked sample from the censuses), marriages and divorces - were redeveloped onto a modern database environment. The two main objectives of the redevelopment of the cancer registration computer system were to have an effective and efficient processing system; and a person-based database (rather than annual files of tumours). To meet the timetable for introducing the new system, it was necessary to convert the 21 annual tumour files (1971 to 1991 inclusive) to a person-based database before the new system began operation. From among the 4.5 million records, those which were either duplicates or were true multiple primary records for the same person were linked together by a probability matching process[9] based on those successfully operated by the Oxford Record Linkage Study, Statistics Canada, and the Information and Statistics Division (ISD) of the Scottish Health Service[10,11,12]. Information on linked registrations was sent to the cancer registries for the deletion or amendment of records as appropriate. The essential structure of the cancer registration system in England and Wales, shown in Figure A above has remained unchanged; but the identification, and the sending to the regional cancer registries, of the death certificates mentioning cancer and the non-cancer deaths to flagged cases, is now done by the new system in Titchfield. In addition, all validation errors are now returned to the appropriate registry for resolution.

In parallel with the work on the redevelopment of the system at ONS, a very large amount of data enhancement work was completed. This included 13,000 new registrations, amendments and cancellations; amendments to about 40,000 records from the probability matching exercise; 15,000 updates of date of death; 25,000 date of birth and date of death discrepancies; 7,000 no trace indicators added to the database; and smaller numbers of trace and event rejects, multiple primary cancer queries from registries, mis-traced Welsh records, "dead" now known to be alive, sex discrepancies, partial or invalid postcodes, and embarks. In addition, 36,000 queries from NHSCR about possible multiple primary cancers were dealt with.

The backlog of over 600,000 records which had built up in the registries during the time that the person-based database was being constructed was successfully processed by the NCIC in Titchfield. Priority for the processing of amendments resulting from validation errors was given to data for incidence years 1990 and 1991. At the same time, the NCIC worked steadily through the remaining problems - some left over from the old computer system, and some new ones. These included amendments to the way the system handled the notifications to the registries of death certificates containing a mention of cancer; corrections to records with duplicate identity numbers; re-numbering of some records for one regional registry; and

improvements to postcodes. In addition, the revalidation - to the higher standards embedded in the new system - of all the data which had previously been processed on the old computer system has been carried out, queries sent to the regional registries and records amended. The new NHS numbers for flagged cases, together with any dates of death, were sent from the NHSCR to Titchfield, and passed to the cancer registries. This information has enabled both ONS and the registries to amend records for the "immortals" - cases registered alive but whose death was not previously linked to the cancer registration.

The backlog of records which had been processed in Titchfield was sent to the NHSCR in Southport once the testing of the module of their new computer system which deals with the flagging of cancer cases had been completed. It was known that about 65,000 of these were for people who had died before 1991 when the computerised index was assembled, and so they would not be on the database at NHSCR. These records were therefore stripped off the Titchfield database and sent separately to Southport on paper. Of the remaining records, which were sent on electronic media, it was expected that about 300,000 would match automatically on the system. It was planned to do the batch runs in order, ie the earliest registrations first, to facilitate the determination of true multiple cancers and duplicates. The flagging of the stockpiled registrations for incidence years 1971 to 1990 was completed in January 1997; and the resulting trace and event (death, embark, re-entry) data were sent to Titchfield and added to the database. All flagging for records up to incidence year 2001 which have been received at ONS and have passed the validation checks has been completed and work is in progress on cases diagnosed in 2002 and 2003. At the same time, ONS is attempting to keep earlier incidence years up to date by processing and flagging any "late" registrations received from the cancer registries.

Proposed extension to the cancer registration minimum data set

A conflict exists between the number of data items collected and data quality. This has been recognised by the three reviews of the national system described above[3,4,6]. The minimum data set has been revised in the context of the wider National Cancer Data Set and includes the stage of disease for all cancers, and details of treatment. This will require the information on stage to be made explicit by clinicians. Although the private sector is not covered by the minimum data set, members of the Independent Healthcare Association have generally been very co-operative; however, the growth of private pathology laboratories is a concern.

Processing problems

There have been three main problems with the cancer registration process. First, the timeliness of national data based on the full set of individual records depends on the speed of the slowest registry in completing its submissions to ONS. In the past, there has always been (at least) one registry which, for a variety of excellent reasons at the time, has lagged considerably behind the others. The most timely complete results were those for 1982 and 1983 which were published in 1985 and 1986 and were therefore only two years out of date. With the co-operation of the registries, however, it was possible to produce provisional results for 1990 to 1993 well in advance of the corresponding reference volumes.

Second, the database is "live" or "dynamic" in the sense that records may be modified or deleted if new information is obtained. The information from "trace back" of a death certificate may result in a case being registered many years after the true incidence date. This, together with the general timeliness problem, meant that any attempts in the past to bring forward the publication of national results has artefactually reduced the numbers of cases reported in the OPCS and ONS reference volumes. For several incidence years in the mid-1980s, there are now around 10% more cases on the national register than when the reference volumes were published (see Figure 1B in Appendix 1). Recently, however, several registries have redeveloped their computer systems (as has ONS) and their timeliness has improved dramatically. The availability of complete information for incidence years up to 1996 from half of the registries enabled ONS to produce in 1999 reliable provisional results for 1994 to 1996 for the 20 or so major cancer sites[13]. Less than a year later, similar provisional results up to 1997 were published[14].

Third, cancer registration is not statutory, and ONS has no organisational, managerial or financial control over the regional registries. In 1994, the registries passed from regional control to lead purchasers. Local needs for up to date information have in some areas resulted in considerable improvements in timeliness. On the other hand, although safeguards, and quality and timeliness standards, for national data were included in the national core contract[15,16], the requirements of lead purchasers who hold the registries' budgets sometimes took priority over the supply of data to ONS. In short, there was a power vacuum which, together with chronic underfunding of registries over a long period, means that it had been difficult to obtain timely, accurate and comparable data at the national level.

Advisory Committee on Cancer Registration review 1999/2000

In recent years, and particularly since the publication in 1995 of the Calman-Hine report on cancer services[17], the role of cancer registries has been extended. Cancer registries have contributed to studies on the variations in the outcomes for cancer patients across the UK and in the investigations into the underlying causes of these variations. Cancer registries were also increasingly being asked to provide data to support the planning and monitoring of cancer service delivery, including the national breast and cervical screening programmes. For these purposes, more extensive data sets are needed and the timeliness of information is of great importance. For the

purposes of clinical governance, data on the patterns of care and outcomes for specified sub-groups of patients, for example defined by extent of disease or "stage", are needed.

This expansion of the traditional role of cancer registries led to renewed interest in them, but drew attention to the variable quality of the service that individual registries provided. Concerns were expressed about their capacity to provide up to date, complete and accurate data.

Despite the changes implemented following the three national reviews described above, these concerns had persisted, and in April 1999 the Advisory Committee on Cancer Registration, on behalf of the Department of Health, commissioned Professor Charles Gillis, then Director of the West of Scotland Cancer Surveillance Unit, to undertake a further review of cancer registration in England.

The review[18] found that due to the history of the cancer registries, which had grown up more or less autonomously since before the second world war, there were considerable variations among them in terms of organisational structures; type of host institution (hospital, health authority, academic); title; data collection process (predominantly manual or electronic); range of tumours registered; data items collected; IT systems; research activity; and significant variations in completeness, accuracy and timeliness of data submission to ONS. The budgets per head of population served and the cost per case registered appeared to vary considerably, although those for the majority of registries clustered closely around the average.

The timeliness of data acquisition by some of the registries had been poor, with the knock on effect that they were, in turn, slow in submitting data to ONS for national collation. For example, it was only in August 1997 that provisional figures were published for cancers diagnosed in 1992 - so at first sight national cancer registration data looked five years out of date - and confirmed registrations for 1991 were only published in December 1997. But as noted above, the timeliness of several registries improved dramatically during the late 1990s following redevelopment of their computer systems, and the provisional results up to incidence year 1996 were only two years out of date (and two years behind the available mortality data).

The issue of timeliness was addressed through the allocation by the Department of Health of £500,000 from the Public Health Development Fund, with the aim of ensuring a measurable improvement in the timeliness and quality of national cancer incidence and survival data. The target was that through this investment, all cancer registries would submit complete data up to and including 1997, to the quality standard in the national core contract, to ONS by the end of September 2000.

The review noted that data quality varied between registries. The editors of *Cancer Incidence in Five Continents Volume VII*[19] assess the quality of data submitted by individual cancer registries. It was a matter of concern that not all cancer registries in England provided data acceptable to the editors of this standard work.

Most cancer registries collect far more data than required for the national minimum data set. The review found tensions regarding the priority given to local and national need for data. In some cases, national priorities were unduly neglected. Some cancer registries had not complied with the requirement to submit data to ONS within the timescales specified in the national core contract. Data on variables relating to stage of disease and treatment were variably collected. Registries generally only collected information on treatment given within six months of diagnosis, as specified in the core contract, and so surgical, radiotherapy and chemotherapy treatments given later in the course of a patient's illness would have been excluded.

The review concluded that the credibility of the data for comparisons of the risks of cancer over time, and of outcomes within some cancer registry areas was well established. But the reliability of inter-regional comparisons was doubtful and the requirement for data of a uniform high standard in all parts of England, for the purposes of public health and clinical governance was certainly not being met.

The review made a number of key recommendations for how cancer registries should be strengthened, so that they would be able to contribute fully to the cancer modernisation agenda by providing robust data to support the planning and monitoring of cancer service delivery and identify the scope for NHS intervention in relation to deprivation and cancer. The Department of Health has published an action[20] plan to improve the organisation and effectiveness of the cancer registries in England. An additional £2 million of funding was allocated to cancer registration in each of the three financial years 2001/2 to 2003/4, a National Co-ordinator for Cancer Registration was appointed, and a National Cancer Registry Advisory Group was established.

References

1. Parkin DM, Chen VW, Ferlay J, Galceran J, Storm HH, Whelan SL. *Comparability and Quality Control in Cancer Registration*. IARC Technical Report No. 19. Lyons: International Agency for Research on Cancer, 1994.
2. Jensen OM, Parkin DM, Maclennan R, Muir CS, Skeet RG (eds). *Cancer Registration: Principles and Methods*. IARC Scientific Publications No.95. Lyons: International Agency for Research on Cancer, 1991.

3. Office of Population Censuses and Surveys. *Report of the Advisory Committee on Cancer Registration.* London: OPCS, 1970.
4. Office of Population Censuses and Surveys. *Report of the Advisory Committee on Cancer Registration, 1980*: Cancer registration in the 1980s. Series MB1 no.6. London: HMSO, 1981.
5. Department of Health. *Working for Patients. The Health Service. Caring for the 1990s*. CM 555. London: HMSO, 1989.
6. Office of Population Censuses and Surveys. *A Review of the National Cancer Registration System in England and Wales*. Series MB1 no.17. London: HMSO, 1990.
7. NHS Management Executive. *Minimum data set for the National Cancer Registration System.* EL(92)95. London: Department of Health, 1992.
8. Office for National Statistics. *Cancer statistics, - registrations, England 1998*. Series MB1 no.29. London: The Stationery Office, 2001.
9. Quinn MJ, Charlton JRH. Person-based follow-up of cancer cases: linkage using fuzzy matching. Proc Int Conf IASS/IAOS Satellite Meeting on Longitudinal Studies, Jerusalem, 1997.
10. Gill LE, Simmons HM. *An algorithm for fixed-length proper name compression: Oxford Name Compression Algorithm* (ONCA). University of Oxford, Unit of Clinical Epidemiology, 1992.
11. Newcombe HB. *Handbook of Record Linkage - Methods for Health and Statistical Studies, Administration and Business*. Oxford: Oxford Medical Publications, Oxford University Press, 1988.
12. Kendrick S, Clarke J. The Scottish Record Linkage System. Health Bulletin (Edinburgh) **51** No.2, March 1993.
13. Quinn MJ, Babb PJ, Jones J, Brock A. Report: Registrations of cancer diagnosed in 1993-1996, England and Wales. *Health Statistics Quarterly* 1999; **4**: 59-70.
14. Quinn MJ, Babb PJ, Kirby EA, Brock A. Report: Registrations of cancer diagnosed in 1994-1997, England and Wales. *Health Statistics Quarterly* 2000; **7**: 71-82.
15. NHS Executive. *Core contract for purchasing Cancer Registration. EL(96)7*. London: NHS Executive, 1996.
16. Winyard G. EL(96)7: *Core contract for purchasing cancer registration* (letter). Leeds: NHS Executive, 1998.
17. Department of Health and Welsh Office. *A policy framework for commissioning cancer services. A report by the Expert Advisory Group on Cancer to the Chief Medical Officers of England and Wales*. London: Department of Health, 1995. (Calman-Hine report.)
18. Cancer Registration in England: A way forward. [The "Gillis" Report.] Department of Health 2001: http://www.doh.gov.uk/cancer
19. Parkin DM, Whelan SL, Ferlay J, Raymond L, Young J. *Cancer Incidence in Five Continents, Volume VII*. IARC Scientific Publications No.143. Lyons: International Agency for Research on Cancer, 1997.
20. Action Programme for Cancer Registration. Department of Health 2001: http://www.doh.gov.uk/cancer

The United Kingdom Association of Cancer Registries

In the early 1990s, the cancer registration system in the UK was subject to rapid change. With the development of information technology, the pace of change in registration practice quickened, and increasing demands for accurate and timely information were made on the cancer registration system. Changes in the organisation of the health service and in the methods of health care delivery contributed to an increased interest from various authorities and scientists. There were new uses which could and should be made of registration data, such as medical audit and quality assurance of health care, as well as the routine uses which have been made of these data in the past, such as estimation of incidence and evaluation of survival and mortality.

There was widespread awareness both of the need to improve the quality and completeness of cancer registration data, and of the opportunities to do so through the use of information technology. Together with the increased interest from external bodies in using the data, this led to the creation of several groups bringing together cancer registry staff and personnel from OPCS (as it then was) to discuss and resolve matters of common interest.

The longest standing of these was the *Cancer Registries' Consultative Group* (CRCG) which concerns itself essentially with issues of data collection, including coding and data quality. It now has representation from all cancer registries in the UK and Ireland, and its members are for the most part registry managers and others closely involved in the day-to-day business of data collection. *The Cancer Surveillance Group* (CSG) was set up in 1989 to meet a perceived need for a forum bringing together those with an interest in the use of cancer data. It has a loose, open and informal membership and structure. Its members include epidemiologists and statisticians, as well as other registry staff. The *Cancer Registries' Information Technology Group* (CRITG) brings together technical experts from the various registries. Education and training was another area of activity thought to be of such importance that it could justify the establishment of another group. There was, however, no forum which brought together registry directors on a regular basis. There was a danger, therefore, with so many different perspectives and forums in which different points of view could be expressed, that the cancer registries might fail to speak with a united voice when, for example, making representations or giving advice to government. With no coherent framework of organisation, there would be a strong possibility of duplication of effort and inadequate communication between the various groups.

It was therefore proposed that a United Kingdom Association of Cancer Registries be established. Following preliminary meetings at which almost all of the UK registries were represented, the Association was brought into being on 2nd April 1992 in Cardiff.

The Association has a federal structure. All affiliated population-based cancer registries in the United Kingdom, ONS, the Information and Statistics Division of the NHS in Scotland and the Northern Ireland Cancer Registry are full members with their representative, usually the director, having a vote on the Executive Committee. Associate (non-voting) members currently (March 2002) comprise the National Registry of Ireland, the Childhood Cancer Research Group in Oxford, the CRC Paediatric and Familial Cancer Research Group in Manchester, the Northern Region Children and Young Persons Malignant Disease Registry in Newcastle, the West Midlands Regional Children's Tumour Registry in Birmingham, the Yorkshire Specialist Register of Cancer in Children and Young People in Leeds, and the charities Cancer Research UK and Marie Curie Cancer Care . Since the formation of the UKACR, a Quality Assurance group was set up to standardise the methodology for, and report on, various registry performance indicators included in the national core contract[1,2] such as timeliness and the percentage of registrations made solely from a death certificate. A Training Group and a Coding and Classification Group were established to oversee and co-ordinate the implementation of developments in those particular aspects of cancer registries' work. And a Clinical Effectiveness Group took forward issues relating to the registries' expanding role in clinical audit and performance monitoring on cancer. The Chairs of the various sub-groups, are invited, as appropriate, to attend Executive Committee meetings as observers.

The current (2003) officers are: Chair - Dr D Forman, Director of Information and Research at the Northern and Yorkshire Cancer Registry and Information Service; Vice Chair - Dr J Botha, Director of the Trent Cancer Registry; and Treasurer - Mr P Needham, Deputy Director of the Trent Cancer Registry. It was agreed that ONS was the most appropriate body to provide secretariat facilities; Dr M J Quinn (Director of the NCIC) was nominated by ONS to be the Association's Executive Secretary.

The UKACR provides:

- a focus for national initiatives in cancer registration;
- a coherent voice for representation of cancer registries in the United Kingdom;

- a channel for liaison between registries and for agreeing policy on matters connected with cancer registration;
- a framework to facilitate the operation of special interest groups and regional registries;
  and
- a means of stimulating the development of cancer registration, of information procedures and practices, and of research based on cancer registry data.

The UKACR represents the views of its members to government and other bodies operating at national level on issues concerned with data quality, the definition of information requirements, and the development of health information systems where these have implications for cancer registration, in particular where matters of overall policy are concerned. The Association was represented on the re-formed National Advisory Committee on Cancer Registration and currently on the Cancer Registration Advisory Group (CRAG). The establishment of such close links is very important given the intimate ties many regional registries have with NHS information systems, and the potential importance of cancer registration to NHS functions such as medical audit and contracting.

The UKACR has, through consensus, examined and improved coding and classification issues; agreed the complex interface document for transmission of data to and from ONS; developed performance indicators; produced a training manual and cancer-specific training packs for registry staff; developed guidelines for the release of data, including for the rapidly expanding field of genetic counselling; developed guidelines for standardisation of reported results; and established a forum for sharing the latest epidemiological research. Consensus may be slower to achieve than coercion, but may in practice be stronger and more valuable as there is often a better chance that an agreed procedure will actually be followed. Even near consensus requires those disagreeing to continually justify their minority position.

References

1. NHS Executive. *Core contract for purchasing Cancer Registration*. EL(96)7. London: NHS Executive, 1996.
2. Winyard G. EL(96)7: *Core contract for purchasing cancer registration* (letter). Leeds: NHS Executive, 1998.

Cancer registrations, 2000

Interpretation

Care is required in the interpretation of cancer registration statistics, particularly when addressing either trends over time or differences between regions.

Registration of cases of cancer is a dynamic process in the sense that the data files both in the cancer registries and at ONS are always open. Cancer records may be amended - for example, the site code may be modified should later, more accurate, information become available. The date of death is added for cases registered when the person was alive. Records may be cancelled, although this is relatively unusual. Also, complete new 'late' registrations may be made after either the cancer registry, or ONS, or both, have published what were thought at the time to be virtually complete results for a particular year.

Consequently, the figures for registrations published by a cancer registry in its reference volume may be different from those in the corresponding annual reference volume published by ONS in the series MB1, which will generally have been produced at a different (usually later) time. In addition, both sets of published figures will differ again from the numbers of registrations currently on the databases. Further differences between cancer registry and ONS figures may arise if records which have been rejected by the validation process at ONS have not been corrected by the registry concerned before the corresponding ARV tables are produced.

In the section on 'Validity' in Appendix 1, it is noted that the cancer registries probably differ in their levels of completeness of registration. It may be difficult to interpret any apparent trends in cancer registrations because the registries are continually striving to increase their levels of ascertainment of cases. Any particularly large increases from year to year in the numbers of registrations for an individual registry are most likely to have arisen because of this.

Other aspects of the cancer registration system which are relevant to the interpretation of the data include: geographic coverage; methods of data collection; ascertainment (or completeness of registration); completeness of recording of data items; validity; accuracy; late registrations, deletions and amendments; duplicate and multiple registrations; registrations from information on death certificates; clinical and pathological definitions and diagnoses; changes in coding systems; completeness of flagging at NHSCR; changes in definition of resident population; and error. These are discussed in detail in Appendix 1.

ONS has been advised both by expert epidemiologists and by members of the former Steering Committee on Cancer Registration, that non-melanoma skin cancer (ICD10 C44) is greatly under-registered. Registration varies widely depending on a registry's degree of access to out-patient records and general practitioners. This under-registration of non-melanoma skin cancer is not just a problem for the cancer registries in England. *Cancer Incidence in Five Continents Volume VI*[1] reported that cancer registries in the United States, Australia, and parts of Europe, also collected a very limited information on these skin cancers. In the commentary which follows, the figures for 'all malignancies' **exclude non-melanoma skin cancer** (nmsc).

Cancer registrations in England, 2000

In 2000 there were totals of around 149,000 registrations of cases of cancer for males and 170,000 for females. In the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD10), malignant neoplasms are coded C00-C97 and benign, in situ, uncertain and unspecified neoplasms are coded D00-D48. In 2000, of the total registrations about 11,300 for males and 35,000 for females were non-malignant. Around two thirds of the non-malignant neoplasms for females were carcinoma in situ of the cervix (ICD10 D06).

Cancer is predominantly a disease of the elderly. The overall crude rates of cancer registrations (excluding nmsc), 468 per 100,000 population for males and 445 per 100,000 population for females, conceal wide differences between the sexes and across the age groups, as illustrated in Figure B. The numbers on which this Figure is based are given in Table 3. Following the small decrease in rates after early childhood, rates increased continuously across the age range for both males and females. A falling off in the rates for the very elderly (85 years and over) may indicate under-registration; this does not seem to have occurred. Rates of cancer rose more quickly with age in females than in males; this is reflected in the age distribution described below. In the 40–44 age group, the rate in females was double that for males. Subsequently, the overall rates rose more rapidly for males and were broadly similar to those for females in the 55–59 age group. After this, the rates rose much more rapidly for males - they were almost 50 per cent higher than those for females in the 65–69 age group and almost double in those aged 80–84.

The age distribution of malignant neoplasms is shown in Figure C. The numbers on which this Figure is based are given in Table 1.

Of the total of 223,609 registrations, only 1,109 (0.5 per cent) occurred in children aged under 15; of these, 362 (33 per cent) were leukaemias (ICD10 C91-C95). The percentages of cancers in the five-year age-groups tended to rise earlier in females than in males, owing largely to the influence of the incidence of cancers of the breast (ICD10 C50) and of the cervix (ICD10 C53). Cancers in those aged under 45 amounted to 5-6 per cent of the total for males and just under 9 per cent for females. The peaks in the age distributions occurred in the 70–79 age groups for males, and the 75–79 age group for females.

The standardised registration ratios by GOR are illustrated in Figure D. The numbers on which this figure is based are given in Table 6. These SRRs should be interpreted with caution because it is difficult to separate the effect of variation in levels of ascertainment from genuine differences in incidence.

Figure B All malignant neoplasms (excluding C44): incidence rates by age group, 2000

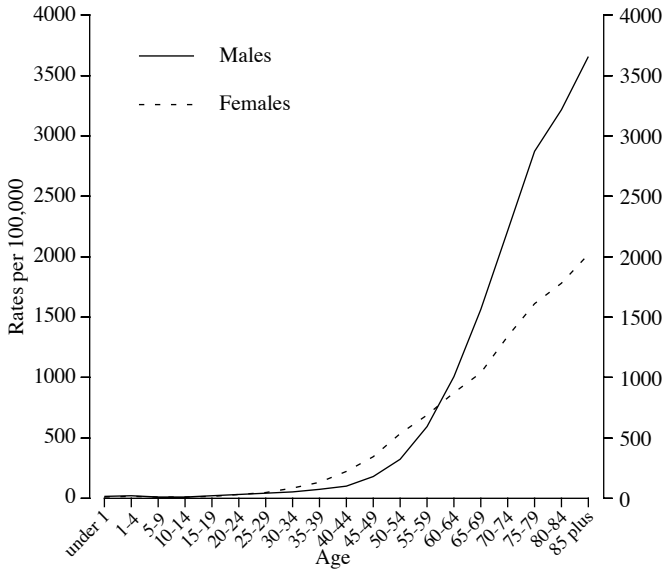


Table A The three most common cancers, 2000

	ICD10	Site description	Number of registrations	% of total malignancies
(a)	Males			
1	C61	Prostate	23,109	20.7
2	C34	Lung	19,005	17.0
3	C18-C20	Colorectal	15,281	13.7
		Total	57,395	51.5
		All malignancies*	111,543	100
(b)	Females			
1	C50	Breast	33,829	30.2
2	C18-C20	Colorectal	12,954	11.6
3	C34	Lung	12,019	10.7
		Total	58,802	52.5
		All malignancies*	112,066	100

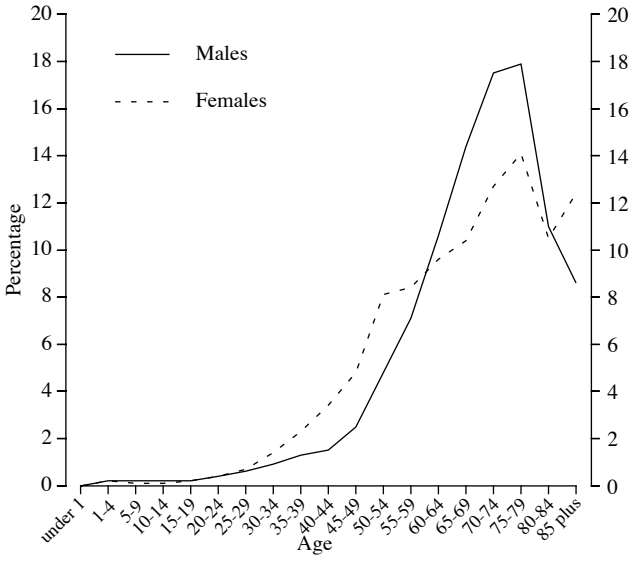
* Excluding non-melanoma skin cancer (ICD10 C44)

Major cancer sites

In the ICD 10th Revision, there are 88 3-digit site codes relating to malignant neoplasms; of these, four relate to males only and eight to females only. For both males and females just **three** of the sites (different ones for each sex) constituted just over half of the total registrations in 2000, as shown in Table A.

The numbers of registrations for the major sites are illustrated in Figure E (and given in Table 1). The numbers of registrations for the 17 sites (counting lip and mouth, colorectal, non-Hodgkin's lymphoma and leukaemia each as one) for males represent 88 per cent of the total; those for the 19 sites for females represent 88 per cent.

Figure C All malignant neoplasms (excluding nmsc): frequency distribution by age group, 2000

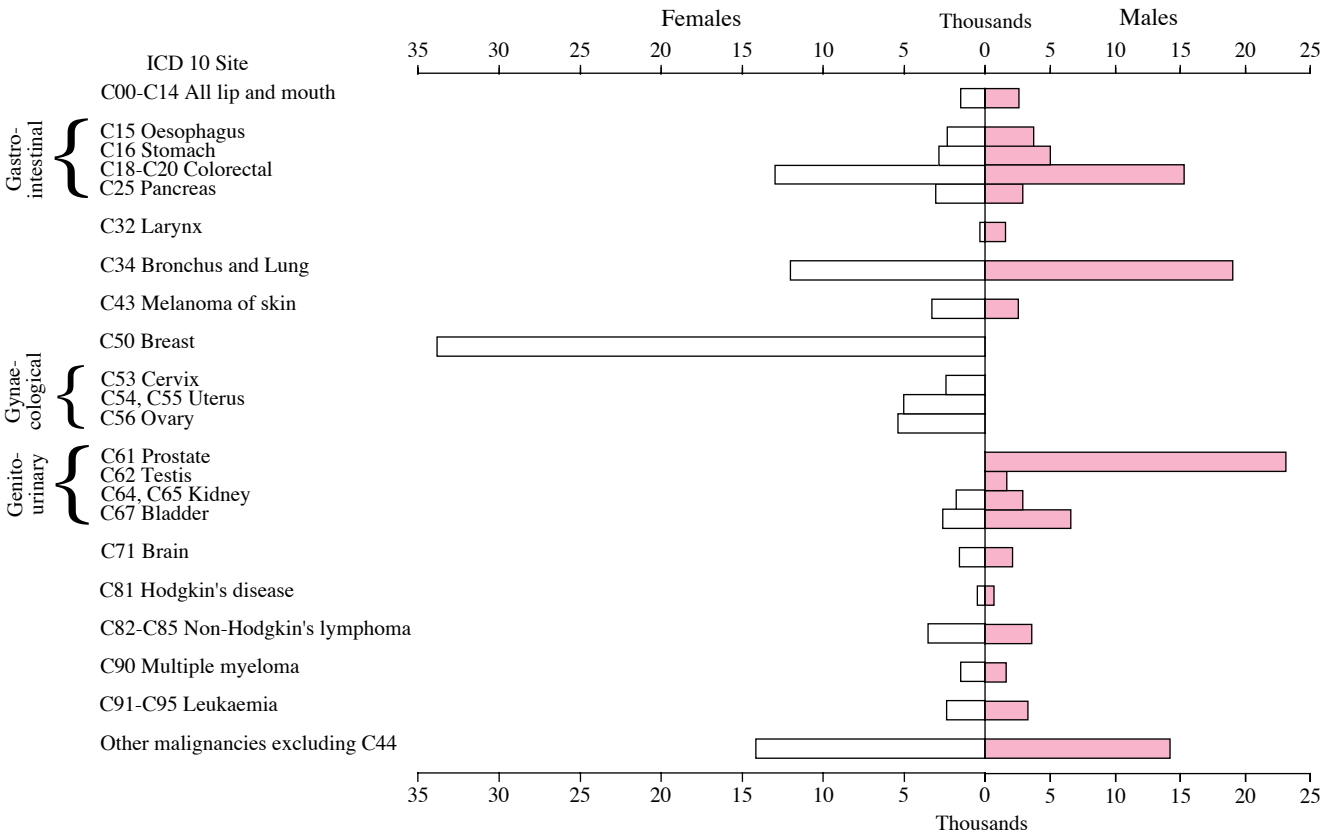


Reference

1. Parkin DM, Muir CS, Whelan SL, Gao Y-T, Ferlay J, Powell J. *Cancer Incidence in Five Continents. Volume VI*. IARC Scientific Publications No. 120. Lyons: International Agency for Research on Cancer, 1993.

Figure D All malignant neoplasms (excluding C44): standardised registration ratios by GOR, 2000

Figure E Registrations - major sites, 2000



Cumulative risk of cancer

The cumulative risk of a person being registered with a malignant neoplasm (ICD-10 sites C00-C97 excluding C44) can be estimated[1], for males and females separately, by applying sex- and age-specific cancer registration rates to the person years at risk derived from the numbers of survivors from a cohort based on an England life table. Such a cohort is hypothetical, not a birth cohort, being entirely dependent on the age-specific death rates prevailing in the year for which it was constructed.

For example, for males aged 65 there would be 76,558 person years at risk in 2000. The cancer registration rate for all malignant neoplasms (excluding ICD-10 C44) in 2000 for this age-group was 1,342 per 100,000. Thus one would expect there to be

$$76{,}558 \times 1{,}342 \div 100{,}000 = 1{,}028 \text{ registrations}$$

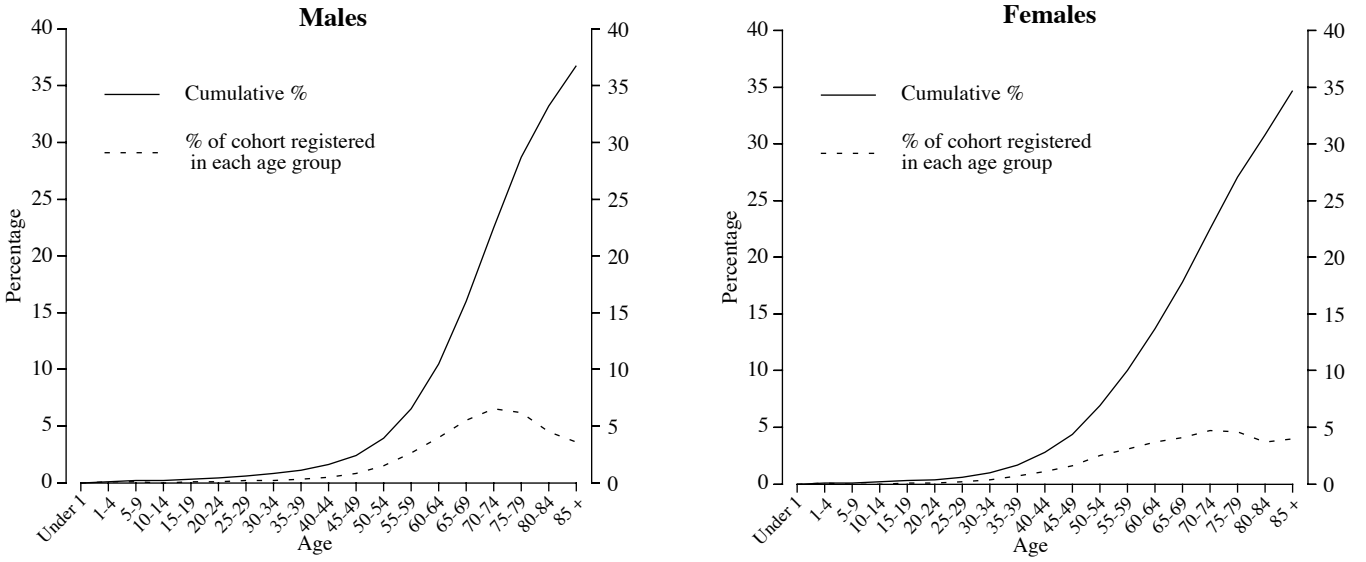
or 1.0 per cent of the original cohort.

The detailed calculations are carried out for each single year of age. The percentages for five year age groups, and the cumulative percentages of risk are illustrated in Figure F. It can be seen that 37 per cent of the cohort of males and 36 per cent of the female cohort would eventually be registered with some form of malignancy. However, registrations would not be equally spread across age-groups. Only 7 per cent of the cohort of males (one sixth of the total) and 10 per cent of the cohort of females (just over one quarter of the total) would be registered at ages below 60.

Reference

1. Schouten LJ, Straatman H, Kiemeney LALM & Verbeek ALM. Cancer incidence: life table risk versus cumulative risk. *Journal of Epidemiology and Community Health* 1994; **48**: 596-600.

Figure F Cumulative risk of cancer registration (excluding nmsc)



Cancer incidence in the UK, 1998–2000

Table B gives the three-year averages for registrations of newly diagnosed cases and directly age standardised rates (using the European standard population) during 1998-2000, for selected cancers for the UK and its four constituent countries. The table has been assembled with assistance from the cancer registries in Wales, Scotland and Northern Ireland.

In 1998-2000, there was a three-year average of around 132,000 registrations for males and 136,000 for females in the UK. The overall registration rates were just over 400 and 340 per 100,000 population for males and females, respectively.

The incidence of breast cancer in females was higher than lung cancer for males and females combined in the UK as a whole, and in each of England, Wales and Northern Ireland. In Scotland however, the incidence of breast cancer was only four-fifths of total lung cancer incidence.

The incidence of prostate cancer was higher than that of lung cancer in males in the UK as a whole, as well as in England and in Wales. In Scotland however, the incidence of lung cancer was almost 40% higher than that of prostate cancer. Colorectal cancer was the third most common cancer among males.

For females, breast cancer had the highest incidence of all cancers in the UK as a whole, and in all the constituent countries. This was followed by colorectal and lung cancer, respectively, with the exception of Scotland where the incidence of lung cancer was almost 30% higher than that of colorectal cancer.

The incidence of lung cancer was markedly higher in Scotland for both males and females compared with England, Wales and Northern Ireland. The incidence of cancers of the lip, mouth & pharynx, oesophagus and larynx was also much higher in Scotland.

Table B Registrations and directly age standardised[1] registration rates per 100,000 population of newly diagnosed cases of cancer: selected sites by sex and country, United Kingdom, 1998-2000[2]

ICD10	Site description	Sex	United Kingdom		England		Wales		Scotland [3]		N Ireland	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
C00-C97 x C44	**All malignancies excluding nmsc3**	**M**	**132,142**	**401.4**	**109,382**	**395.3**	**7,530**	**430.4**	**12,147**	**445.8**	**3,084**	**394.3**
		F	**135,631**	**343.3**	**111,598**	**338.3**	**7,434**	**356.6**	**13,187**	**378.6**	**3,413**	**353.7**
C00-C14	Lip, mouth & pharynx	M	3,210	10.5	2,490	9.7	199	12.6	437	16.9	85	11.1
		F	1,800	4.7	1,434	4.5	105	5.1	212	6.3	49	5.1
C15	Oesophagus	M	4,366	13.4	3,567	13.0	243	14.1	465	17.1	90	11.8
		F	2,871	6.0	2,326	5.7	173	6.8	309	7.6	62	5.5
C16	Stomach	M	6,242	18.7	5,127	18.2	405	22.4	550	19.9	160	20.6
		F	3,577	7.3	2,855	6.9	235	8.8	386	9.2	101	9.0
C18-C20	Colorectal	M	18,583	56.2	15,211	54.8	1,104	62.8	1,804	65.8	465	59.7
		F	16,352	36.3	13,417	35.5	904	37.6	1,592	40.6	439	41.7
C25	Pancreas	M	3,355	10.2	2,812	10.2	193	11.1	283	10.4	67	8.7
		F	3,592	7.7	2,986	7.6	207	8.2	330	8.2	69	6.3
C32	Larynx	M	1,847	5.9	1,435	5.5	109	6.5	247	9.5	55	7.3
C34	Lung	M	24,029	71.9	19,705	70.1	1,225	68.4	2,566	93.0	534	68.0
		F	15,194	36.0	12,165	34.5	760	34.2	1,925	51.7	345	34.2
C43	Melanoma of skin	M	2,744	8.9	2,293	8.8	116	7.2	265	10.1	70	9.1
		F	3,610	10.3	3,002	10.3	138	7.5	354	11.3	116	12.5
C50	Breast	F	40,299	113.9	33,661	114.0	2,078	110.9	3,615	116.6	945	107.0
C53	Cervix	F	3,146	9.3	2,555	9.0	174	10.5	328	11.1	88	10.3
C54	Uterus	F	5,348	14.6	4,482	14.6	310	16.0	432	13.5	124	13.8
C56	Ovary	F	6,717	18.4	5,509	18.1	415	21.5	608	18.6	184	20.9
C61	Prostate	M	25,070	73.3	21,183	73.7	1,482	80.5	1,904	67.7	501	63.0
C62	Testis	M	1,964	6.6	1,624	6.5	80	5.8	203	8.0	57	6.9
C64	Kidney	M	3,319	10.5	2,717	10.2	198	11.9	326	12.3	79	10.2
		F	2,085	5.3	1,676	5.1	127	6.2	224	6.2	58	5.9
C67	Bladder	M	8,572	25.5	7,206	25.5	628	35.2	580	21.0	157	20.1
		F	3,482	7.4	2,900	7.3	252	10.5	264	6.5	66	5.7
C71	Brain	M	2,432	8.0	2,022	8.0	147	9.3	203	7.9	60	7.7
		F	1,847	5.3	1,526	5.3	111	6.3	162	5.1	48	5.3
C81-C96	Lymphomas and leukaemias	M	11,345	35.7	9,488	35.6	608	36.6	954	36.1	295	37.5
		F	9,701	24.3	8,003	24.0	520	25.0	916	25.9	262	26.5
C81-C85	Lymphomas	M	5,526	17.7	4,659	17.8	259	16.0	459	17.4	149	19.1
		F	4,920	12.9	4,028	12.7	248	12.7	488	14.3	156	16.4
C81	Hodgkin's disease	M	816	2.8	690	2.8	40	2.8	65	2.6	21	2.6
		F	615	2.0	509	2.0	32	2.1	58	2.1	16	1.8
C82-C85	Non-Hodgkin's lymphoma	M	4,710	14.9	3,969	14.9	219	13.3	395	14.9	127	16.4
		F	4,305	11.0	3,520	10.7	216	10.6	429	12.3	140	14.6
C90	Multiple myeloma	M	1,887	5.7	1,601	5.8	90	5.1	146	5.4	49	6.3
		F	1,743	3.9	1,460	3.9	85	3.5	153	3.9	45	4.2
C91-C95	All leukaemias	M	3,800	11.9	3,125	11.7	246	14.7	334	12.7	96	11.9
		F	2,945	7.2	2,445	7.2	180	8.5	261	7.3	59	5.7

1 Using the European standard population
2 Three year averages
3 nmsc: non-melanoma skin cancer

Table 1 Registrations of newly diagnosed cases of cancer: site, sex and age, 2000

This table is spread over 2 pages.
Altogether there are 5 spreads (10 pages).

ICD (10th Revision) number	Site description		All ages	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
	All registrations	**M**	**149,125**	**45**	**269**	**195**	**210**	**327**	**558**	**835**	**1,308**	**1,885**
		F	**170,206**	**39**	**195**	**149**	**170**	**604**	**4,045**	**6,614**	**7,014**	**6,319**
C00-C97	**All cancers**	**M**	**137,788**	**39**	**255**	**171**	**173**	**286**	**492**	**735**	**1,168**	**1,680**
		F	**135,204**	**32**	**183**	**129**	**139**	**236**	**439**	**915**	**1,793**	**2,970**
C00-C97 xC44	**All cancers excluding nmsc**	**M**	**111,543**	**38**	**255**	**168**	**168**	**273**	**463**	**674**	**996**	**1,400**
		F	**112,066**	**32**	**182**	**129**	**137**	**223**	**418**	**830**	**1,596**	**2,596**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	**2,594**	-	2	4	2	5	14	7	18	43
		F	**1,496**	-	3	4	3	5	8	15	25	32
C00	Malignant neoplasm of lip	M	**161**	-	1	-	-	-	-	-	-	4
		F	**95**	-	-	-	-	-	-	-	-	-
C01	Malignant neoplasm of base of tongue	M	**146**	-	-	-	-	-	-	1	-	3
		F	**58**	-	-	-	-	-	-	1	1	1
C02	Malignant neoplasm of other and unspecified parts of tongue	M	**448**	-	-	-	1	-	4	2	6	10
		F	**301**	-	-	-	-	-	-	6	8	5
C03	Malignant neoplasm of gum	M	**122**	-	-	-	-	-	-	-	1	-
		F	**101**	-	-	-	-	-	1	-	-	-
C04	Malignant neoplasm of floor of mouth	M	**232**	-	-	-	-	-	-	-	-	5
		F	**91**	-	-	-	-	-	-	-	1	1
C05	Malignant neoplasm of palate	M	**128**	-	-	1	-	-	1	-	1	4
		F	**100**	-	1	1	-	-	-	2	1	5
C06	Malignant neoplasm of other and unspecified parts of mouth	M	**175**	-	-	-	1	-	1	-	1	3
		F	**171**	-	-	-	-	-	-	-	-	4
C07	Malignant neoplasm of parotid gland	M	**171**	-	-	2	-	-	2	2	6	4
		F	**128**	-	-	1	1	3	2	2	8	4
C08	Malignant neoplasm of other and unspecified major salivary glands	M	**60**	-	-	-	-	-	1	1	-	-
		F	**63**	-	-	-	1	-	-	-	2	4
C09	Malignant neoplasm of tonsil	M	**337**	-	-	-	-	-	1	-	1	3
		F	**127**	-	1	-	-	-	-	1	2	2
C10	Malignant neoplasm of oropharynx	M	**90**	-	-	-	-	-	-	-	-	2
		F	**29**	-	-	-	-	-	-	-	1	-
C11	Malignant neoplasm of nasopharynx	M	**114**	-	1	1	-	5	4	1	2	2
		F	**76**	-	1	1	1	1	5	3	1	4
C12	Malignant neoplasm of pyriform sinus	M	**195**	-	-	-	-	-	-	-	-	1
		F	**45**	-	-	-	-	-	-	-	-	-
C13	Malignant neoplasm of hypopharynx	M	**75**	-	-	-	-	-	-	-	-	1
		F	**47**	-	-	-	-	-	-	-	-	1
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	**140**	-	-	-	-	-	-	-	-	1
		F	**64**	-	-	1	-	1	-	-	-	1
C15	Malignant neoplasm of oesophagus	M	**3,700**	-	-	-	-	-	-	-	5	15
		F	**2,333**	-	-	-	-	-	-	1	3	2
C16	Malignant neoplasm of stomach	M	**4,999**	1	-	-	1	-	3	6	17	30
		F	**2,866**	-	-	-	-	-	1	6	13	21
C17	Malignant neoplasm of small intestine	M	**330**	-	-	-	1	-	-	2	5	7
		F	**280**	-	-	-	-	-	-	1	3	5
C18-C20	Malignant neoplasm of colon and rectum	M	**15,281**	-	1	-	1	3	11	13	56	96
		F	**12,954**	-	-	-	2	7	17	17	42	94
C18	Malignant neoplasm of colon	M	**8,998**	-	1	-	1	3	8	9	39	58
		F	**8,875**	-	-	-	2	4	14	11	24	55
C19	Malignant neoplasm of rectosigmoid junction	M	**1,216**	-	-	-	-	-	2	-	3	6
		F	**892**	-	-	-	-	-	-	2	4	10

England
Registered by July 2003

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
2,410	**3,862**	**7,331**	**10,689**	**15,740**	**21,165**	**25,551**	**26,571**	**16,881**	**13,293**	**M**	**All registrations**	
6,400	**7,472**	**12,256**	**12,517**	**14,154**	**15,503**	**18,952**	**21,455**	**16,564**	**19,784**	**F**		
2,181	**3,513**	**6,724**	**9,841**	**14,596**	**19,630**	**23,771**	**24,559**	**15,614**	**12,360**	**M**	**All cancers**	**C00-C97**
4,377	**6,167**	**10,424**	**11,032**	**12,565**	**13,994**	**17,218**	**19,483**	**15,022**	**18,086**	**F**		
1,721	**2,766**	**5,408**	**7,927**	**11,873**	**16,107**	**19,537**	**19,921**	**12,298**	**9,550**	**M**	**All cancers excluding nmsc**	**C00-C97**
3,818	**5,369**	**9,094**	**9,433**	**10,747**	**11,691**	**14,247**	**15,836**	**11,811**	**13,877**	**F**		**xC44**
108	202	355	362	330	338	285	263	147	109	M	Malignant neoplasm of lip, mouth	C00-C14
63	74	127	137	151	169	168	202	125	185	F	and pharynx	
4	9	11	9	17	17	28	31	19	11	M	Malignant neoplasm of lip	C00
4	4	10	7	7	8	13	14	11	17	F		
6	8	27	26	12	26	16	11	7	3	M	Malignant neoplasm of base of	C01
2	4	10	8	5	8	5	8	1	4	F	tongue	
15	42	61	59	54	57	49	42	28	18	M	Malignant neoplasm of other and	C02
13	11	18	26	35	36	26	49	25	43	F	unspecified parts of tongue	
3	11	14	6	13	15	18	19	13	9	M	Malignant neoplasm of gum	C03
4	2	4	8	6	12	20	18	11	15	F		
8	11	40	50	33	39	21	13	6	6	M	Malignant neoplasm of floor of	C04
1	8	7	11	7	13	16	12	8	6	F	mouth	
4	5	23	15	19	17	11	15	4	8	M	Malignant neoplasm of palate	C05
4	3	11	6	15	15	11	11	7	7	F		
6	10	24	22	26	20	22	22	8	9	M	Malignant neoplasm of other and	C06
5	9	14	10	13	20	20	26	23	27	F	unspecified parts of mouth	
5	8	9	10	25	19	23	25	17	14	M	Malignant neoplasm of parotid gland	C07
4	8	15	13	5	9	11	19	1	22	F		
3	1	6	9	9	5	7	6	6	6	M	Malignant neoplasm of other and	C08
6	5	2	7	5	6	7	9	5	4	F	unspecified major salivary glands	
35	56	51	57	46	30	23	25	6	3	M	Malignant neoplasm of tonsil	C09
11	10	15	23	17	11	11	11	5	7	F		
5	7	15	20	9	10	7	10	3	2	M	Malignant neoplasm of oropharynx	C10
-	1	6	5	3	3	3	2	2	3	F		
9	10	17	15	15	12	7	9	4	-	M	Malignant neoplasm of nasopharynx	C11
8	3	8	5	6	10	6	2	5	6	F		
4	11	26	32	25	34	23	16	13	10	M	Malignant neoplasm of pyriform	C12
-	2	2	2	11	4	7	5	8	4	F	sinus	
-	5	10	10	10	12	12	7	7	1	M	Malignant neoplasm of hypopharynx	C13
1	3	1	1	4	7	7	7	9	6	F		
1	8	21	22	17	25	18	12	6	9	M	Malignant neoplasm of other and	C14
-	1	4	5	12	7	5	9	4	14	F	ill-defined sites in the lip, oral cavity and pharynx	
43	121	255	329	428	501	635	652	405	311	M	Malignant neoplasm of oesophagus	C15
12	26	88	117	164	215	339	455	394	517	F		
60	104	198	310	476	716	929	922	687	539	M	Malignant neoplasm of stomach	C16
24	44	74	122	160	277	388	546	474	716	F		
11	14	24	26	40	46	45	48	36	25	M	Malignant neoplasm of small	C17
4	15	16	20	21	24	43	57	40	31	F	intestine	
170	307	742	1,159	1,736	2,294	2,787	2,908	1,734	1,263	M	Malignant neoplasm of colon	C18-C20
162	272	562	741	1,033	1,547	1,871	2,392	1,884	2,311	F	and rectum	
97	177	389	603	930	1,283	1,655	1,823	1,107	815	M	Malignant neoplasm of colon	C18
118	164	337	482	690	1,092	1,270	1,646	1,334	1,632	F		
18	20	64	102	155	197	223	226	118	82	M	Malignant neoplasm of rectosigmoid	C19
9	23	49	58	85	114	152	158	108	120	F	junction	

Table 1 Registrations - *continued*

ICD (10th Revision) number	Site description		All ages	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
C20	Malignant neoplasm of rectum	M	**5,067**	-	-	-	-	-	1	4	14	32
		F	**3,187**	-	-	-	-	3	3	4	14	29
C21	Malignant neoplasm of anus and anal canal	M	**257**	-	-	-	-	-	-	-	3	4
		F	**410**	-	-	-	-	-	-	-	2	3
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	**1,309**	2	3	1	1	3	4	4	7	22
		F	**860**	1	3	-	2	2	1	4	3	5
C23	Malignant neoplasm of gallbladder	M	**123**	-	-	-	-	-	-	-	-	-
		F	**283**	-	-	-	-	-	-	-	-	1
C24	Malignant neoplasm of other and unspecified parts of biliary tract	M	**300**	-	-	-	-	-	-	-	-	4
		F	**342**	-	-	-	-	-	-	-	3	2
C25	Malignant neoplasm of pancreas	M	**2,881**	-	-	-	-	-	-	1	7	18
		F	**3,043**	-	-	-	1	-	-	2	2	15
C26	Malignant neoplasm of other and ill-defined digestive organs	M	**263**	-	-	-	-	-	-	1	-	4
		F	**283**	-	-	-	-	-	-	-	-	1
C30	Malignant neoplasm of nasal cavity and middle ear	M	**122**	-	-	-	-	-	1	3	1	2
		F	**93**	-	-	-	-	-	-	1	2	4
C31	Malignant neoplasm of accessory sinuses	M	**77**	-	1	1	-	-	-	1	-	3
		F	**60**	-	1	-	-	1	-	-	-	1
C32	Malignant neoplasm of larynx	M	**1,578**	-	-	-	1	1	-	1	7	6
		F	**325**	-	-	-	-	-	1	-	2	3
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	**19,035**	-	1	1	-	-	3	7	20	50
		F	**12,055**	-	-	-	2	1	3	4	18	52
C33	Malignant neoplasm of trachea	M	**30**	-	-	-	-	-	-	-	-	-
		F	**36**	-	-	-	-	-	-	-	-	-
C34	Malignant neoplasm of bronchus and lung	M	**19,005**	-	1	1	-	-	3	7	20	50
		F	**12,019**	-	-	-	2	1	3	4	18	52
C37	Malignant neoplasm of thymus	M	**32**	-	-	-	-	2	1	-	1	2
		F	**25**	-	-	-	-	-	1	1	2	2
C38	Malignant neoplasm of heart, mediastinum and pleura	M	**194**	-	1	-	-	1	1	2	2	6
		F	**115**	1	-	-	-	-	-	-	2	-
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	M	**1**	-	-	-	-	-	-	-	-	-
		F	**1**	-	-	-	-	-	-	-	-	-
C40	Malignant neoplasm of bone and articular cartilage of limbs	M	**131**	-	3	3	13	21	11	3	9	7
		F	**91**	-	-	7	15	6	6	6	4	3
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	M	**116**	-	1	-	9	5	6	-	6	6
		F	**97**	-	-	2	2	7	6	3	6	2
C43	Malignant melanoma of skin	M	**2,541**	-	-	1	2	12	31	63	107	137
		F	**3,280**	-	-	-	2	21	71	135	194	217
C44	Other malignant neoplasms of skin	M	**26,245**	1	-	3	5	13	29	61	172	280
		F	**23,138**	-	1	-	2	13	21	85	197	374
C45	Mesothelioma	M	**1,357**	-	-	-	-	-	-	-	2	4
		F	**234**	-	-	-	-	-	-	-	1	-
C46	Kaposi's sarcoma	M	**58**	-	-	-	-	-	1	5	6	17
		F	**13**	-	-	-	1	-	1	-	2	1
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	M	**43**	-	5	1	1	4	1	4	3	1
		F	**44**	-	4	2	-	3	2	2	3	-
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	**125**	2	1	-	2	-	1	2	2	2
		F	**190**	1	-	1	-	-	1	1	1	3

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
55	110	289	454	651	814	909	859	509	366	M	Malignant neoplasm of rectum	C20
35	85	176	201	258	341	449	588	442	559	F		
10	16	20	34	29	35	38	28	22	18	M	Malignant neoplasm of anus and anal	C21
20	28	26	37	39	40	50	52	61	52	F	canal	
23	54	65	109	145	199	252	220	120	75	M	Malignant neoplasm of liver and	C22
8	17	27	37	68	97	142	148	135	160	F	intrahepatic bile ducts	
1	1	8	9	13	13	34	16	14	14	M	Malignant neoplasm of gallbladder	C23
5	7	14	9	39	32	37	49	43	47	F		
3	8	15	20	30	37	46	57	43	37	M	Malignant neoplasm of other and	C24
5	6	12	19	22	35	48	59	55	76	F	unspecified parts of biliary tract	
29	88	150	226	332	402	513	515	323	277	M	Malignant neoplasm of pancreas	C25
24	44	115	158	238	334	457	619	451	583	F		
2	7	11	19	23	24	49	48	33	42	M	Malignant neoplasm of other and	C26
-	2	11	16	11	21	31	44	45	101	F	ill-defined digestive organs	
4	2	14	14	10	17	16	23	5	10	M	Malignant neoplasm of nasal cavity	C30
2	1	5	3	9	14	13	13	12	14	F	and middle ear	
-	5	5	12	10	7	11	10	7	4	M	Malignant neoplasm of accessory	C31
-	1	7	4	3	7	8	12	8	7	F	sinuses	
23	79	134	199	231	244	242	199	116	95	M	Malignant neoplasm of larynx	C32
4	13	21	46	42	36	58	44	27	28	F		
130	334	779	1,369	2,096	2,957	3,753	3,856	2,223	1,456	M	Malignant neoplasm of trachea,	C33-C34
129	278	581	812	1,152	1,672	2,325	2,356	1,482	1,188	F	bronchus and lung	
-	-	2	6	3	3	6	3	6	1	M	Malignant neoplasm of trachea	C33
1	-	2	3	4	8	6	5	3	4	F		
130	334	777	1,363	2,093	2,954	3,747	3,853	2,217	1,455	M	Malignant neoplasm of bronchus	C34
128	278	579	809	1,148	1,664	2,319	2,351	1,479	1,184	F	and lung	
1	2	5	5	5	4	1	3	-	-	M	Malignant neoplasm of thymus	C37
-	3	1	3	2	1	2	4	1	2	F		
5	6	10	13	23	18	29	33	28	16	M	Malignant neoplasm of heart,	C38
6	2	5	14	8	16	16	10	17	18	F	mediastinum and pleura	
-	-	-	-	-	-	-	1	-	-	M	Malignant neoplasm of other and	C39
-	-	1	-	-	-	-	-	-	-	F	ill-defined sites in the respiratory system and intrathoracic organs	
6	5	11	7	5	8	4	8	2	5	M	Malignant neoplasm of bone and	C40
3	3	4	1	4	3	7	9	6	4	F	articular cartilage of limbs	
5	5	7	10	13	13	9	7	9	5	M	Malignant neoplasm of bone and	C41
5	2	8	6	8	7	5	8	6	14	F	articular cartilage of other and unspecified sites	
160	162	235	236	290	278	265	262	180	120	M	Malignant melanoma of skin	C43
254	245	320	288	260	265	265	269	239	235	F		
460	747	1,316	1,914	2,723	3,523	4,234	4,638	3,316	2,810	M	Other malignant neoplasms of skin	C44
559	798	1,330	1,599	1,818	2,303	2,971	3,647	3,211	4,209	F		
6	21	89	145	210	203	276	221	109	71	M	Mesothelioma	C45
7	3	11	29	23	29	37	41	34	19	F		
10	9	1	-	2	-	1	2	4	-	M	Kaposi's sarcoma	C46
2	-	-	1	-	1	1	2	-	1	F		
1	2	5	1	5	-	3	3	2	1	M	Malignant neoplasm of peripheral	C47
2	1	3	3	5	4	3	3	1	3	F	nerves and autonomic nervous system	
5	5	9	12	14	14	22	15	11	6	M	Malignant neoplasm of	C48
2	12	9	12	24	35	34	20	18	16	F	retroperitoneum and peritoneum	

Table 1 Registrations - *continued*

ICD (10th Revision) number	Site description		**All ages**	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
C49	Malignant neoplasm of other connective and soft tissue	M	**589**	-	5	5	8	10	8	17	20	27
		F	**451**	2	5	3	5	16	5	10	12	14
C50	Malignant neoplasm of breast	M	**206**	-	-	-	-	-	-	1	1	-
		F	**33,829**	1	-	-	1	4	17	142	500	1,226
C51	Malignant neoplasm of vulva	F	**836**	-	-	-	-	-	1	3	8	22
C52	Malignant neoplasm of vagina	F	**175**	-	1	-	-	-	-	1	-	5
C53	Malignant neoplasm of cervix uteri	F	**2,424**	-	-	-	-	3	48	164	274	275
C54	Malignant neoplasm of corpus uteri	F	**4,730**	-	-	-	-	-	2	2	15	24
C55	Malignant neoplasm of uterus, part unspecified	F	**281**	-	-	-	-	-	-	1	4	2
C56-C57	Malignant neoplasm of ovary and other and unspecified female genital organs	F	**5,512**	1	1	4	12	16	31	51	103	135
C56	Malignant neoplasm of ovary	F	**5,400**	1	1	4	12	16	30	50	102	133
C57	Malignant neoplasm of other and unspecified female genital organs	F	**112**	-	-	-	-	-	1	1	1	2
C58	Malignant neoplasm of placenta	F	**12**	-	-	-	-	1	2	1	4	4
C60	Malignant neoplasm of penis	M	**385**	-	-	-	-	-	-	3	7	18
C61	Malignant neoplasm of prostate	M	**23,109**	-	-	-	-	1	1	2	-	6
C62	Malignant neoplasm of testis	M	**1,648**	2	8	2	3	49	151	249	285	328
C63	Malignant neoplasm of other and unspecified male genital organs	M	**56**	-	-	-	-	1	-	-	2	1
C64	Malignant neoplasm of kidney, except renal pelvis	M	**2,695**	6	25	8	1	1	1	12	16	44
		F	**1,646**	8	15	5	2	-	3	5	8	29
C65	Malignant neoplasm of renal pelvis	M	**201**	-	-	-	-	-	-	-	-	1
		F	**131**	-	-	-	-	-	-	-	1	2
C66	Malignant neoplasm of ureter	M	**179**	-	-	-	-	-	-	1	-	1
		F	**105**	-	-	-	-	-	-	-	-	1
C67	Malignant neoplasm of bladder	M	**6,587**	-	1	-	1	1	6	5	12	28
		F	**2,634**	-	-	-	-	1	1	3	3	10
C68	Malignant neoplasm of other and unspecified urinary organs	M	**95**	-	-	-	-	-	-	-	1	-
		F	**32**	-	-	-	-	-	-	-	-	1
C69	Malignant neoplasm of eye and adnexa	M	**192**	7	13	1	1	-	1	3	1	8
		F	**181**	5	7	1	1	1	1	1	4	8
C70	Malignant neoplasm of meninges	M	**27**	-	-	-	-	1	-	-	-	2
		F	**35**	-	1	-	1	1	-	-	-	-
C71	Malignant neoplasm of brain	M	**2,096**	3	47	38	29	24	37	45	73	96
		F	**1,610**	3	28	39	26	15	23	32	63	60
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	M	**44**	-	6	1	1	2	1	3	4	1
		F	**64**	1	7	6	4	3	2	-	5	4
C73	Malignant neoplasm of thyroid gland	M	**302**	-	-	-	1	2	4	11	19	23
		F	**829**	-	-	1	4	17	36	55	68	77
C74	Malignant neoplasm of adrenal gland	M	**75**	5	15	2	-	3	-	3	2	3
		F	**74**	3	10	2	1	-	2	1	2	2
C75	Malignant neoplasm of other endocrine glands and related structures	M	**42**	-	-	2	4	3	4	5	2	2
		F	**41**	1	1	-	-	3	1	2	2	-

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
32	36	50	36	47	76	76	52	51	33	M	Malignant neoplasm of other	C49
19	22	43	40	28	43	42	66	30	46	F	connective and soft tissue	
2	8	17	19	20	25	29	42	19	23	M	Malignant neoplasm of breast	C50
1,994	2,864	4,668	3,891	3,822	2,989	3,285	3,221	2,341	2,863	F		
26	24	40	37	49	78	111	135	116	186	F	Malignant neoplasm of vulva	C51
11	9	17	16	16	14	25	19	20	21	F	Malignant neoplasm of vagina	C52
279	223	182	167	132	120	143	189	119	106	F	Malignant neoplasm of cervix uteri	C53
73	134	414	645	782	702	671	589	363	314	F	Malignant neoplasm of corpus uteri	C54
8	11	27	23	20	27	29	32	40	57	F	Malignant neoplasm of uterus, part unspecified	C55
195	310	505	603	662	643	719	627	458	436	F	Malignant neoplasm of ovary and other and unspecified female genital organs	C56-C57
192	301	499	585	645	635	704	611	449	430	F	Malignant neoplasm of ovary	C56
3	9	6	18	17	8	15	16	9	6	F	Malignant neoplasm of other and unspecified female genital organs	C57
-	-	-	-	-	-	-	-	-	-	F	Malignant neoplasm of placenta	C58
14	20	30	33	38	41	42	60	34	45	M	Malignant neoplasm of penis	C60
13	90	475	1,111	2,385	3,962	4,750	4,899	2,945	2,469	M	Malignant neoplasm of prostate	C61
200	121	98	60	30	27	17	5	7	6	M	Malignant neoplasm of testis	C62
1	3	1	3	7	8	9	5	8	7	M	Malignant neoplasm of other and unspecified male genital organs	C63
57	114	202	259	368	431	412	382	220	136	M	Malignant neoplasm of kidney,	C64
34	60	101	152	173	216	244	252	165	174	F	except renal pelvis	
2	5	16	21	26	24	40	24	28	14	M	Malignant neoplasm of renal pelvis	C65
2	2	9	7	15	11	20	27	21	14	F		
1	7	7	7	18	28	38	41	20	10	M	Malignant neoplasm of ureter	C66
-	-	7	3	9	16	21	22	17	9	F		
53	98	247	415	636	902	1,234	1,309	884	755	M	Malignant neoplasm of bladder	C67
22	40	86	122	189	262	376	515	418	586	F		
-	3	3	7	9	10	20	22	7	13	M	Malignant neoplasm of other and	C68
1	-	1	3	-	7	5	4	5	5	F	unspecified urinary organs	
7	13	18	18	19	23	23	22	6	8	M	Malignant neoplasm of eye and	C69
8	9	6	15	21	15	16	33	14	15	F	adnexa	
1	3	2	1	2	1	-	6	3	5	M	Malignant neoplasm of meninges	C70
-	3	-	3	3	2	5	8	3	5	F		
94	137	168	210	257	240	248	207	79	64	M	Malignant neoplasm of brain	C71
68	82	135	125	153	186	192	188	106	86	F		
2	3	4	4	4	5	-	2	1	-	M	Malignant neoplasm of spinal cord,	C72
2	2	5	7	2	5	1	4	4	-	F	cranial nerves and other parts of central nervous system	
17	23	31	26	27	29	31	24	22	12	M	Malignant neoplasm of thyroid gland	C73
71	59	69	63	55	48	67	51	40	48	F		
3	3	2	3	4	5	8	7	5	2	M	Malignant neoplasm of adrenal gland	C74
4	2	6	6	8	6	6	7	1	5	F		
2	2	1	1	3	6	3	2	-	-	M	Malignant neoplasm of other	C75
3	3	3	2	6	2	4	4	3	1	F	endocrine glands and related structures	

Table 1 Registrations - *continued*

ICD (10th Revision) number	Site description		**All ages**	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
C76	Malignant neoplasm of other and ill-defined sites	M	**236**	2	2	2	3	2	6	11	2	6
		F	**357**	1	5	3	1	3	3	5	6	7
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	**340**	-	-	-	-	1	2	2	5	11
		F	**281**	-	-	1	-	1	-	1	4	3
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	**1,895**	-	-	-	-	-	-	5	8	10
		F	**1,949**	-	-	-	-	-	1	4	8	10
C79	Secondary malignant neoplasm of other sites	M	**799**	-	-	-	-	1	1	-	2	3
		F	**805**	-	-	-	1	-	2	2	3	6
C80	Malignant neoplasm without specification of site	M	**2,491**	-	-	1	-	-	1	5	5	15
		F	**3,167**	-	-	1	-	3	2	5	7	13
C81	Hodgkin's disease	M	**737**	-	3	14	25	48	72	73	78	65
		F	**517**	-	2	4	11	42	64	58	65	49
C82-C85	Non-Hodgkin's lymphoma	M	**4,084**	-	8	15	17	28	42	55	103	139
		F	**3,595**	-	5	10	7	16	27	50	50	66
C82	Follicular (nodular) non-Hodgkin's lymphoma	M	**503**	-	-	-	1	-	2	3	13	20
		F	**589**	-	-	-	1	-	2	5	10	7
C83	Diffuse non-Hodgkin's lymphoma	M	**1,467**	-	5	9	7	17	19	21	31	49
		F	**1,180**	-	4	8	3	5	6	22	17	31
C84	Peripheral and cutaneous T-cell lymphomas	M	**292**	-	-	-	-	3	3	5	8	8
		F	**175**	-	1	-	1	2	3	5	5	4
C85	Other and unspecified types of non-Hodgkin's lymphoma	M	**1,822**	-	3	6	9	8	18	26	51	62
		F	**1,651**	-	-	2	2	9	16	18	18	24
C88	Malignant immunoproliferative diseases	M	**127**	-	-	-	-	-	-	-	-	1
		F	**90**	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma and malignant plasma cell neoplasms	M	**1,580**	-	-	-	-	-	-	3	6	13
		F	**1,498**	-	1	-	-	-	1	1	5	9
C91-C95	All leukaemias	M	**3,268**	8	101	65	40	38	34	35	57	61
		F	**2,396**	3	82	33	30	24	24	31	39	61
C91	Lymphoid leukaemia	M	**1,707**	5	90	53	32	20	15	12	21	20
		F	**1,144**	2	64	24	21	7	9	10	8	12
C92	Myeloid leukaemia	M	**1,376**	2	10	10	8	16	18	20	34	35
		F	**1,116**	1	14	9	8	17	15	20	27	45
C93	Monocytic leukaemia	M	**46**	1	-	-	-	-	-	3	-	1
		F	**40**	-	-	-	-	-	-	-	1	-
C94	Other leukaemias of specified cell type	M	**16**	-	-	-	-	-	-	-	-	-
		F	**12**	-	1	-	-	-	-	-	1	2
C95	Leukaemia of unspecified cell type	M	**123**	-	1	2	-	2	1	-	2	5
		F	**84**	-	3	-	1	-	-	1	2	2
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	**11**	-	2	-	-	-	2	-	1	1
		F	**6**	-	-	-	-	-	-	-	-	2
C97	Malignant neoplasms of independent (primary) multiple sites	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D00	Carcinoma in situ of oral cavity, oesophagus and stomach	M	**153**	-	-	-	-	-	-	-	-	2
		F	**88**	-	-	-	-	-	-	-	1	-
D01	Carcinoma in situ of other and unspecified digestive organs	M	**160**	-	-	-	-	-	-	-	2	4
		F	**157**	-	-	-	-	-	1	-	3	5
D02	Carcinoma in situ of middle ear and respiratory system	M	**196**	-	-	-	-	-	-	-	2	-
		F	**57**	-	-	-	-	-	-	-	1	-
D03	Melanoma in situ	M	**719**	-	-	-	1	-	7	7	16	23
		F	**930**	-	-	-	-	5	13	20	35	33

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
11	9	12	12	18	23	24	42	22	27	M	Malignant neoplasm of other and ill-defined sites	C76
6	12	18	19	16	30	24	55	48	95	F		
9	25	39	40	40	40	49	38	22	17	M	Secondary and unspecified malignant neoplasm of lymph nodes	C77
12	22	28	25	20	30	43	32	25	34	F		
11	30	76	116	167	247	337	395	249	244	M	Secondary malignant neoplasm of respiratory and digestive organs	C78
11	21	65	101	134	203	272	369	327	423	F		
13	19	37	51	85	115	124	176	106	66	M	Secondary malignant neoplasm of other sites	C79
12	19	48	70	65	78	120	157	111	111	F		
29	40	73	116	175	300	420	516	380	415	M	Malignant neoplasm without specification of site	C80
31	54	109	118	161	248	421	612	544	838	F		
72	50	54	29	39	43	26	34	7	5	M	Hodgkin's disease	C81
26	20	25	18	35	21	30	20	19	8	F		
155	183	316	341	476	502	587	536	346	235	M	Non-Hodgkin's lymphoma	C82-C85
91	159	244	297	368	407	480	530	405	383	F		
32	38	67	67	68	61	45	51	28	7	M	Follicular (nodular) non-Hodgkin's lymphoma	C82
28	42	69	64	71	80	74	54	46	36	F		
56	47	105	115	177	189	245	192	100	83	M	Diffuse non-Hodgkin's lymphoma	C83
21	51	82	87	126	122	166	179	140	110	F		
8	20	23	21	42	43	44	31	24	9	M	Peripheral and cutaneous T-cell lymphomas	C84
5	9	16	20	24	21	20	17	13	9	F		
59	78	121	138	189	209	253	262	194	136	M	Other and unspecified types of non-Hodgkin's lymphoma	C85
37	57	77	126	147	184	220	280	206	228	F		
-	3	5	7	16	21	16	28	17	13	M	Malignant immunoproliferative diseases	C88
-	2	2	4	9	16	12	20	13	12	F		
27	48	96	125	178	217	286	253	187	141	M	Multiple myeloma and malignant plasma cell neoplasms	C90
18	39	64	90	133	187	231	263	210	246	F		
77	111	181	229	283	388	441	472	362	285	M	All leukaemias	C91-C95
48	63	118	126	175	196	283	371	267	422	F		
37	52	93	112	162	212	222	230	174	145	M	Lymphoid leukaemia	C91
13	27	52	66	72	105	135	184	113	220	F		
40	54	76	112	109	154	195	212	160	111	M	Myeloid leukaemia	C92
34	36	61	56	98	83	130	163	131	168	F		
-	3	3	1	4	3	6	8	7	6	M	Monocytic leukaemia	C93
-	-	1	3	2	-	8	11	7	7	F		
-	1	2	2	1	1	3	2	3	1	M	Other leukaemias of specified cell type	C94
-	-	-	-	-	1	3	-	2	2	F		
-	1	7	2	7	18	15	20	18	22	M	Leukaemia of unspecified cell type	C95
1	-	4	1	3	7	7	13	14	25	F		
-	-	-	1	-	-	2	-	1	1	M	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	C96
-	-	1	-	-	2	1	-	-	-	F		
-	-	-	-	-	-	-	-	-	-	M	Malignant neoplasms of independent (primary) multiple sites	C97
-	-	-	-	-	-	-	-	-	-	F		
5	5	13	16	14	15	33	20	16	14	M	Carcinoma in situ of oral cavity, oesophagus and stomach	D00
2	3	3	4	6	11	15	9	18	16	F		
3	7	5	16	20	24	27	24	20	8	M	Carcinoma in situ of other and unspecified digestive organs	D01
5	6	6	9	13	23	23	22	16	25	F		
1	6	13	18	27	25	38	39	21	6	M	Carcinoma in situ of middle ear and respiratory system	D02
-	3	3	8	11	6	11	9	2	3	F		
20	33	46	60	85	109	88	102	70	52	M	Melanoma in situ	D03
35	42	103	86	88	102	101	113	78	76	F		

Table 1 Registrations - *continued*

ICD (10th Revision) number	Site description		**All ages**	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
D04	Carcinoma in situ of skin	M	**1,958**	-	-	-	-	-	-	3	5	11
		F	**3,946**	-	-	-	-	-	-	4	8	14
D05	Carcinoma in situ of breast	M	**13**	-	-	-	-	-	-	-	1	-
		F	**2,875**	-	-	-	-	-	4	6	33	92
D06	Carcinoma in situ of cervix uteri	F	**20,458**	-	-	-	-	267	3,456	5,472	4,897	2,945
D07	Carcinoma in situ of other and unspecified genital organs	M	**361**	-	-	-	-	1	3	2	2	8
		F	**547**	-	-	-	-	1	9	17	54	76
D09	Carcinoma in situ of other and unspecified sites	M	**2,071**	-	-	-	-	-	4	6	11	19
		F	**734**	-	-	-	-	-	-	2	2	4
D33	Benign neoplasm of brain and other parts of central nervous system	M	**255**	-	3	3	5	11	6	9	16	15
		F	**272**	2	1	2	3	2	6	5	9	15
D35.2	Benign neoplasm of pituitary gland	M	**226**	-	-	-	-	3	4	4	13	13
		F	**179**	-	-	-	-	8	4	14	13	14
D35.3	Benign neoplasm of craniopharyngeal duct	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D35.4	Benign neoplasm of pineal gland	M	**2**	-	-	1	-	-	-	-	-	1
		F	**1**	-	-	-	-	-	-	-	-	-
D37	Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs	M	**931**	-	1	3	6	3	11	13	15	15
		F	**863**	1	-	2	11	14	15	15	15	18
D38	Neoplasm of uncertain or unknown behaviour of middle ear and respiratory and intrathoracic organs	M	**82**	-	1	-	1	1	1	1	1	4
		F	**92**	-	-	-	1	1	1	1	1	3
D39	Neoplasm of uncertain or unknown behaviour of female genital organs	F	**344**	-	1	2	2	12	19	35	34	22
D40	Neoplasm of uncertain or unknown behaviour of male genital organs	M	**114**	-	1	-	-	3	7	11	10	10
D41	Neoplasm of uncertain or unknown behaviour of urinary organs	M	**1,476**	2	1	-	1	2	3	6	8	18
		F	**536**	-	-	-	-	1	-	2	2	6
D42	Neoplasm of uncertain or unknown behaviour of meninges	M	**15**	-	-	-	-	-	-	2	2	-
		F	**19**	-	-	-	-	-	-	-	-	1
D43	Neoplasm of uncertain or unknown behaviour of brain and central nervous system	M	**264**	1	2	8	7	7	4	9	10	13
		F	**227**	-	1	4	3	5	4	1	4	7
D44	Neoplasm of uncertain or unknown behaviour of endocrine glands	M	**97**	-	1	2	3	1	4	2	3	8
		F	**112**	-	1	3	2	-	5	7	6	7
D45	Polycythaemia vera	M	**176**	-	-	-	-	-	-	3	1	3
		F	**164**	-	-	-	-	-	-	-	-	1
D46	Myelodysplastic syndromes	M	**1,019**	-	1	1	1	1	1	5	6	6
		F	**818**	-	1	1	-	-	5	2	7	3
D47	Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue	M	**791**	2	1	2	2	2	3	4	3	15
		F	**941**	1	2	1	1	1	6	2	4	20
D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites	M	**258**	1	2	4	10	6	8	13	13	17
		F	**378**	3	5	5	6	11	9	19	29	38
O01	Hydatidiform mole	F	**264**	-	-	-	2	40	49	75	63	25

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
23	28	66	116	192	286	328	423	274	203	M	Carcinoma in situ of skin	D04
35	44	102	150	274	440	639	794	664	778	F		
-	1	-	4	1	3	2	1	-	-	M	Carcinoma in situ of breast	D05
129	236	765	514	500	233	144	125	57	37	F		
1,563	717	449	303	225	94	26	31	7	6	F	Carcinoma in situ of cervix uteri	D06
3	12	19	28	51	80	50	58	28	16	M	Carcinoma in situ of other and	D07
80	51	52	41	41	45	26	23	14	17	F	unspecified genital organs	
33	47	118	159	229	318	413	367	211	136	M	Carcinoma in situ of other and	D09
8	13	32	51	68	106	148	132	90	78	F	unspecified sites	
24	23	29	31	22	24	16	12	3	3	M	Benign neoplasm of brain and other	D33
16	22	43	20	27	19	28	25	17	10	F	parts of central nervous system	
20	21	20	29	27	19	22	14	12	5	M	Benign neoplasm of pituitary gland	D35.2
17	14	20	23	15	14	12	7	4	-	F		
-	-	-	-	-	-	-	-	-	-	M	Benign neoplasm of craniopharyngeal	D35.3
-	-	-	-	-	-	-	-	-	-	F	duct	
-	-	-	-	-	-	-	-	-	-	M	Benign neoplasm of pineal gland	D35.4
-	1	-	-	-	-	-	-	-	-	F		
16	41	75	84	101	109	138	159	85	56	M	Neoplasm of uncertain or unknown	D37
27	32	55	63	71	99	112	126	96	91	F	behaviour of oral cavity and digestive organs	
-	2	3	12	11	6	13	10	9	6	M	Neoplasm of uncertain or unknown	D38
2	3	4	10	9	13	14	15	4	10	F	behaviour of middle ear and respiratory and intrathoracic organs	
24	26	32	31	25	13	19	25	12	10	F	Neoplasm of uncertain or unknown behaviour of female genital organs	D39
8	5	7	5	1	8	11	6	10	11	M	Neoplasm of uncertain or unknown behaviour of male genital organs	D40
18	41	72	130	177	215	256	277	161	88	M	Neoplasm of uncertain or unknown	D41
3	10	33	43	37	73	78	107	79	62	F	behaviour of urinary organs	
-	1	-	2	2	1	3	2	-	-	M	Neoplasm of uncertain or unknown	D42
1	-	2	1	2	3	4	3	-	2	F	behaviour of meninges	
14	14	13	12	13	28	28	32	28	21	M	Neoplasm of uncertain or unknown	D43
6	7	12	9	12	14	29	38	31	40	F	behaviour of brain and central nervous system	
3	5	12	13	8	7	9	4	8	4	M	Neoplasm of uncertain or unknown	D44
9	5	8	4	10	9	9	10	8	9	F	behaviour of endocrine glands	
9	9	9	15	25	25	26	34	8	9	M	Polycythaemia vera	D45
2	4	8	5	14	18	27	25	33	27	F		
6	11	18	27	48	105	144	246	196	196	M	Myelodysplastic syndromes	D46
6	12	18	26	39	64	111	145	172	206	F		
12	21	44	52	74	111	114	156	91	82	M	Other neoplasms of uncertain or	D47
19	19	44	59	72	91	136	161	124	178	F	unknown behaviour of lymphoid, haematopoietic and related tissue	
11	16	25	19	16	17	21	26	16	17	M	Neoplasm of uncertain or	D48
30	32	35	25	30	19	22	27	16	17	F	unknown behaviour of other and unspecified sites	
4	3	3	-	-	-	-	-	-	-	F	Hydatidiform mole	O01

Table 2 Estimated resident population: sex and age as at 30 June 2000

This table is spread over 2 pages.
Altogether there is 1 spread (2 pages).

(Figures in thousands)

Area		All ages	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
England	**M**	**23,834,723**	**293,805**	**1,230,927**	**1,626,885**	**1,638,393**	**1,521,552**	**1,428,104**	**1,649,539**	**1,875,952**	**1,902,230**
	F	**25,162,540**	**280,086**	**1,172,923**	**1,546,712**	**1,563,225**	**1,464,180**	**1,452,336**	**1,717,473**	**1,940,409**	**1,943,728**
Government office for the region											
North East	M	**1,222,449**	13,774	59,129	82,870	85,862	81,411	73,619	76,418	88,343	95,270
	F	**1,300,205**	13,128	56,222	78,415	82,237	80,057	74,430	79,616	93,348	99,314
North West	M	**3,262,553**	39,257	167,351	230,933	237,064	216,101	187,152	213,436	245,271	254,803
	F	**3,474,626**	37,377	159,496	218,645	227,007	212,043	195,314	222,922	256,625	263,845
Yorkshire and The Humber	M	**2,404,597**	28,636	123,416	167,448	169,987	159,412	146,736	157,502	181,785	186,208
	F	**2,545,048**	27,788	118,210	159,538	163,340	154,396	148,824	162,920	187,834	190,877
East Midlands	M	**2,041,125**	23,576	101,476	138,900	141,056	132,233	121,562	132,079	155,070	160,382
	F	**2,116,115**	22,451	95,855	130,945	133,800	124,809	118,161	134,803	159,911	161,799
West Midlands	M	**2,572,780**	31,738	134,818	179,139	184,127	171,146	150,852	169,377	196,359	195,944
	F	**2,687,203**	30,020	127,925	171,461	175,616	163,757	151,203	172,247	199,751	200,019
East of England	M	**2,630,883**	31,811	135,587	178,075	177,384	160,887	147,679	176,559	204,122	208,606
	F	**2,743,988**	30,354	129,253	170,040	169,588	154,608	144,180	179,438	207,413	209,871
London	M	**3,421,381**	51,398	196,655	234,349	221,478	202,177	243,802	319,102	333,264	306,104
	F	**3,682,992**	49,312	189,030	224,102	213,173	200,557	272,142	353,973	351,832	317,725
South East	M	**3,893,779**	47,230	198,947	262,613	262,046	247,829	225,503	257,232	299,259	314,255
	F	**4,088,359**	44,532	188,893	248,664	247,973	234,029	222,253	262,779	306,982	317,183
South West	M	**2,385,176**	26,385	113,548	152,558	159,389	150,356	131,199	147,834	172,479	180,658
	F	**2,524,004**	25,124	108,039	144,902	150,491	139,924	125,829	148,775	176,713	183,095

England, government offices for the regions

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Area
1,683,238	**1,539,414**	**1,671,016**	**1,340,932**	**1,182,190**	**1,031,453**	**881,598**	**693,951**	**382,485**	**261,059**	**M**	**England**
1,705,174	**1,567,553**	**1,696,058**	**1,366,243**	**1,226,055**	**1,124,434**	**1,062,491**	**982,563**	**663,450**	**687,447**	**F**	
											Government office for the region
89,282	83,254	87,869	68,417	64,295	58,095	48,376	36,554	18,544	11,067	M	North East
91,867	83,435	88,134	69,452	68,337	64,292	59,851	52,677	33,783	31,610	F	
228,078	212,968	233,157	187,064	168,969	145,012	121,679	93,330	48,983	31,945	M	North West
233,836	215,744	234,115	190,293	175,750	160,016	151,199	137,067	90,773	92,559	F	
169,454	156,412	170,412	135,927	122,129	105,430	89,696	71,256	37,734	25,017	M	Yorkshire and The Humber
171,514	156,976	172,002	137,012	128,141	117,742	110,475	100,519	67,590	69,350	F	
143,126	134,706	148,937	120,721	102,402	89,906	78,256	62,258	33,114	21,365	M	East Midlands
144,139	134,783	148,162	120,747	104,796	96,255	91,069	83,553	54,988	55,089	F	
175,543	166,397	180,215	152,520	132,594	113,625	97,820	74,728	40,266	25,572	M	West Midlands
176,963	166,881	179,305	153,226	135,268	122,743	115,780	105,896	70,993	68,149	F	
186,617	172,011	192,355	152,216	132,321	117,684	101,486	79,876	44,734	30,873	M	East of England
185,452	175,107	195,463	154,270	135,825	125,442	118,291	109,351	73,826	76,216	F	
246,144	201,184	199,482	153,386	140,675	119,509	98,885	77,611	44,421	31,755	M	London
252,460	212,926	210,760	164,573	148,243	130,024	121,151	111,689	76,985	82,335	F	
281,817	257,395	282,926	224,051	191,418	167,601	143,348	114,660	67,097	48,552	M	South East
281,511	260,660	287,657	227,292	197,974	183,029	172,947	164,106	114,545	125,350	F	
163,177	155,087	175,663	146,630	127,387	114,591	102,052	83,678	47,592	34,913	M	South West
167,432	161,041	180,460	149,378	131,721	124,891	121,728	117,705	79,967	86,789	F	

Table 3 Rates per 100,000 population of newly diagnosed cases of cancer: site, sex and age, 2000

This table is spread over 2 pages.
Altogether there are 5 spreads (10 pages).

ICD (10th Revision) number	Site description		All ages	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
	All registrations	**M**	**625.7**	**15.3**	**21.9**	**12.0**	**12.8**	**21.5**	**39.1**	**50.6**	**69.7**	**99.1**
		F	**676.4**	**13.9**	**16.6**	**9.6**	**10.9**	**41.3**	**278.5**	**385.1**	**361.5**	**325.1**
C00-C97	**All cancers**	**M**	**578.1**	**13.3**	**20.7**	**10.5**	**10.6**	**18.8**	**34.5**	**44.6**	**62.3**	**88.3**
		F	**537.3**	**11.4**	**15.6**	**8.3**	**8.9**	**16.1**	**30.2**	**53.3**	**92.4**	**152.8**
C00-C97 xC44	**All cancers excluding nmsc**	**M**	**468.0**	**12.9**	**20.7**	**10.3**	**10.3**	**17.9**	**32.4**	**40.9**	**53.1**	**73.6**
		F	**445.4**	**11.4**	**15.5**	**8.3**	**8.8**	**15.2**	**28.8**	**48.3**	**82.3**	**133.6**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	**10.9**	-	0.2	0.2	0.1	0.3	1.0	0.4	1.0	2.3
		F	**5.9**	-	0.3	0.3	0.2	0.3	0.6	0.9	1.3	1.6
C00	Malignant neoplasm of lip	M	**0.7**	-	0.1	-	-	-	-	-	-	0.2
		F	**0.4**	-	-	-	-	-	-	-	-	-
C01	Malignant neoplasm of base of tongue	M	**0.6**	-	-	-	-	-	-	0.1	-	0.2
		F	**0.2**	-	-	-	-	-	-	0.1	0.1	0.1
C02	Malignant neoplasm of other and unspecified parts of tongue	M	**1.9**	-	-	-	0.1	-	0.3	0.1	0.3	0.5
		F	**1.2**	-	-	-	-	-	-	0.3	0.4	0.3
C03	Malignant neoplasm of gum	M	**0.5**	-	-	-	-	-	-	-	0.1	-
		F	**0.4**	-	-	-	-	-	0.1	-	-	-
C04	Malignant neoplasm of floor of mouth	M	**1.0**	-	-	-	-	-	-	-	-	0.3
		F	**0.4**	-	-	-	-	-	-	-	0.1	0.1
C05	Malignant neoplasm of palate	M	**0.5**	-	-	0.1	-	-	0.1	-	0.1	0.2
		F	**0.4**	-	0.1	0.1	-	-	-	0.1	0.1	0.3
C06	Malignant neoplasm of other and unspecified parts of mouth	M	**0.7**	-	-	-	0.1	-	0.1	-	0.1	0.2
		F	**0.7**	-	-	-	-	-	-	-	-	0.2
C07	Malignant neoplasm of parotid gland	M	**0.7**	-	-	0.1	-	-	0.1	0.1	0.3	0.2
		F	**0.5**	-	-	0.1	0.1	0.2	0.1	0.1	0.4	0.2
C08	Malignant neoplasm of other and unspecified major salivary glands	M	**0.3**	-	-	-	-	-	0.1	0.1	-	-
		F	**0.3**	-	-	-	0.1	-	-	-	0.1	0.2
C09	Malignant neoplasm of tonsil	M	**1.4**	-	-	-	-	-	0.1	-	0.1	0.2
		F	**0.5**	-	0.1	-	-	-	-	0.1	0.1	0.1
C10	Malignant neoplasm of oropharynx	M	**0.4**	-	-	-	-	-	-	-	-	0.1
		F	**0.1**	-	-	-	-	-	-	-	0.1	-
C11	Malignant neoplasm of nasopharynx	M	**0.5**	-	0.1	0.1	-	0.3	0.3	0.1	0.1	0.1
		F	**0.3**	-	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.2
C12	Malignant neoplasm of pyriform sinus	M	**0.8**	-	-	-	-	-	-	-	-	0.1
		F	**0.2**	-	-	-	-	-	-	-	-	-
C13	Malignant neoplasm of hypopharynx	M	**0.3**	-	-	-	-	-	-	-	-	0.1
		F	**0.2**	-	-	-	-	-	-	-	-	0.1
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	**0.6**	-	-	-	-	-	-	-	-	0.1
		F	**0.3**	-	-	0.1	-	0.1	-	-	-	0.1
C15	Malignant neoplasm of oesophagus	M	**15.5**	-	-	-	-	-	-	-	0.3	0.8
		F	**9.3**	-	-	-	-	-	-	0.1	0.2	0.1
C16	Malignant neoplasm of stomach	M	**21.0**	0.3	-	-	0.1	-	0.2	0.4	0.9	1.6
		F	**11.4**	-	-	-	-	-	0.1	0.3	0.7	1.1
C17	Malignant neoplasm of small intestine	M	**1.4**	-	-	-	0.1	-	-	0.1	0.3	0.4
		F	**1.1**	-	-	-	-	-	-	0.1	0.2	0.3
C18-C20	Malignant neoplasm of colon and rectum	M	**64.1**	-	0.1	-	0.1	0.2	0.8	0.8	3.0	5.0
		F	**51.5**	-	-	-	0.1	0.5	1.2	1.0	2.2	4.8
C18	Malignant neoplasm of colon	M	**37.8**	-	0.1	-	0.1	0.2	0.6	0.5	2.1	3.0
		F	**35.3**	-	-	-	0.1	0.3	1.0	0.6	1.2	2.8
C19	Malignant neoplasm of rectosigmoid junction	M	**5.1**	-	-	-	-	-	0.1	-	0.2	0.3
		F	**3.5**	-	-	-	-	-	-	0.1	0.2	0.5

England
Registered by July 2003

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
143.2	**250.9**	**438.7**	**797.1**	**1331.4**	**2052.0**	**2898.3**	**3828.9**	**4413.5**	**5092.0**	**M**	**All registrations**	
375.3	**476.7**	**722.6**	**916.2**	**1154.4**	**1378.7**	**1783.7**	**2183.6**	**2496.6**	**2877.9**	**F**		
129.6	**228.2**	**402.4**	**733.9**	**1234.7**	**1903.1**	**2696.4**	**3539.0**	**4082.3**	**4734.6**	**M**	**All cancers**	**C00-C97**
256.7	**393.4**	**614.6**	**807.5**	**1024.8**	**1244.5**	**1620.5**	**1982.9**	**2264.2**	**2630.9**	**F**		
102.2	**179.7**	**323.6**	**591.2**	**1004.3**	**1561.6**	**2216.1**	**2870.7**	**3215.3**	**3658.2**	**M**	**All cancers excluding nmsc**	**C00-C97**
223.9	**342.5**	**536.2**	**690.4**	**876.6**	**1039.7**	**1340.9**	**1611.7**	**1780.2**	**2018.6**	**F**		**xC44**
6.4	13.1	21.2	27.0	27.9	32.8	32.3	37.9	38.4	41.8	M	Malignant neoplasm of lip, mouth	C00-C14
3.7	4.7	7.5	10.0	12.3	15.0	15.8	20.6	18.8	26.9	F	and pharynx	
0.2	0.6	0.7	0.7	1.4	1.6	3.2	4.5	5.0	4.2	M	Malignant neoplasm of lip	C00
0.2	0.3	0.6	0.5	0.6	0.7	1.2	1.4	1.7	2.5	F		
0.4	0.5	1.6	1.9	1.0	2.5	1.8	1.6	1.8	1.1	M	Malignant neoplasm of base of	C01
0.1	0.3	0.6	0.6	0.4	0.7	0.5	0.8	0.2	0.6	F	tongue	
0.9	2.7	3.7	4.4	4.6	5.5	5.6	6.1	7.3	6.9	M	Malignant neoplasm of other and	C02
0.8	0.7	1.1	1.9	2.9	3.2	2.4	5.0	3.8	6.3	F	unspecified parts of tongue	
0.2	0.7	0.8	0.4	1.1	1.5	2.0	2.7	3.4	3.4	M	Malignant neoplasm of gum	C03
0.2	0.1	0.2	0.6	0.5	1.1	1.9	1.8	1.7	2.2	F		
0.5	0.7	2.4	3.7	2.8	3.8	2.4	1.9	1.6	2.3	M	Malignant neoplasm of floor of	C04
0.1	0.5	0.4	0.8	0.6	1.2	1.5	1.2	1.2	0.9	F	mouth	
0.2	0.3	1.4	1.1	1.6	1.6	1.2	2.2	1.0	3.1	M	Malignant neoplasm of palate	C05
0.2	0.2	0.6	0.4	1.2	1.3	1.0	1.1	1.1	1.0	F		
0.4	0.6	1.4	1.6	2.2	1.9	2.5	3.2	2.1	3.4	M	Malignant neoplasm of other and	C06
0.3	0.6	0.8	0.7	1.1	1.8	1.9	2.6	3.5	3.9	F	unspecified parts of mouth	
0.3	0.5	0.5	0.7	2.1	1.8	2.6	3.6	4.4	5.4	M	Malignant neoplasm of parotid gland	C07
0.2	0.5	0.9	1.0	0.4	0.8	1.0	1.9	0.2	3.2	F		
0.2	0.1	0.4	0.7	0.8	0.5	0.8	0.9	1.6	2.3	M	Malignant neoplasm of other and	C08
0.4	0.3	0.1	0.5	0.4	0.5	0.7	0.9	0.8	0.6	F	unspecified major salivary glands	
2.1	3.6	3.1	4.3	3.9	2.9	2.6	3.6	1.6	1.1	M	Malignant neoplasm of tonsil	C09
0.6	0.6	0.9	1.7	1.4	1.0	1.0	1.1	0.8	1.0	F		
0.3	0.5	0.9	1.5	0.8	1.0	0.8	1.4	0.8	0.8	M	Malignant neoplasm of oropharynx	C10
-	0.1	0.4	0.4	0.2	0.3	0.3	0.2	0.3	0.4	F		
0.5	0.6	1.0	1.1	1.3	1.2	0.8	1.3	1.0	-	M	Malignant neoplasm of nasopharynx	C11
0.5	0.2	0.5	0.4	0.5	0.9	0.6	0.2	0.8	0.9	F		
0.2	0.7	1.6	2.4	2.1	3.3	2.6	2.3	3.4	3.8	M	Malignant neoplasm of pyriform	C12
-	0.1	0.1	0.1	0.9	0.4	0.7	0.5	1.2	0.6	F	sinus	
-	0.3	0.6	0.7	0.8	1.2	1.4	1.0	1.8	0.4	M	Malignant neoplasm of hypopharynx	C13
0.1	0.2	0.1	0.1	0.3	0.6	0.7	0.7	1.4	0.9	F		
0.1	0.5	1.3	1.6	1.4	2.4	2.0	1.7	1.6	3.4	M	Malignant neoplasm of other and	C14
-	0.1	0.2	0.4	1.0	0.6	0.5	0.9	0.6	2.0	F	ill-defined sites in the lip, oral cavity and pharynx	
2.6	7.9	15.3	24.5	36.2	48.6	72.0	94.0	105.9	119.1	M	Malignant neoplasm of oesophagus	C15
0.7	1.7	5.2	8.6	13.4	19.1	31.9	46.3	59.4	75.2	F		
3.6	6.8	11.8	23.1	40.3	69.4	105.4	132.9	179.6	206.5	M	Malignant neoplasm of stomach	C16
1.4	2.8	4.4	8.9	13.0	24.6	36.5	55.6	71.4	104.2	F		
0.7	0.9	1.4	1.9	3.4	4.5	5.1	6.9	9.4	9.6	M	Malignant neoplasm of small	C17
0.2	1.0	0.9	1.5	1.7	2.1	4.0	5.8	6.0	4.5	F	intestine	
10.1	19.9	44.4	86.4	146.8	222.4	316.1	419.0	453.4	483.8	M	Malignant neoplasm of colon	C18-C20
9.5	17.4	33.1	54.2	84.3	137.6	176.1	243.4	284.0	336.2	F	and rectum	
5.8	11.5	23.3	45.0	78.7	124.4	187.7	262.7	289.4	312.2	M	Malignant neoplasm of colon	C18
6.9	10.5	19.9	35.3	56.3	97.1	119.5	167.5	201.1	237.4	F		
1.1	1.3	3.8	7.6	13.1	19.1	25.3	32.6	30.9	31.4	M	Malignant neoplasm of rectosigmoid	C19
0.5	1.5	2.9	4.2	6.9	10.1	14.3	16.1	16.3	17.5	F	junction	

Table 3 Rates per 100,000 population - *continued*

ICD (10th Revision) number	Site description		All ages	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
C20	Malignant neoplasm of rectum	M	**21.3**	-	-	-	-	-	0.1	0.2	0.7	1.7
		F	**12.7**	-	-	-	-	0.2	0.2	0.2	0.7	1.5
C21	Malignant neoplasm of anus and anal canal	M	**1.1**	-	-	-	-	-	-	-	0.2	0.2
		F	**1.6**	-	-	-	-	-	-	-	0.1	0.2
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	**5.5**	0.7	0.2	0.1	0.1	0.2	0.3	0.2	0.4	1.2
		F	**3.4**	0.4	0.3	-	0.1	0.1	0.1	0.2	0.2	0.3
C23	Malignant neoplasm of gallbladder	M	**0.5**	-	-	-	-	-	-	-	-	-
		F	**1.1**	-	-	-	-	-	-	-	-	0.1
C24	Malignant neoplasm of other and unspecified parts of biliary tract	M	**1.3**	-	-	-	-	-	-	-	-	0.2
		F	**1.4**	-	-	-	-	-	-	-	0.2	0.1
C25	Malignant neoplasm of pancreas	M	**12.1**	-	-	-	-	-	-	0.1	0.4	0.9
		F	**12.1**	-	-	-	0.1	-	-	0.1	0.1	0.8
C26	Malignant neoplasm of other and ill-defined digestive organs	M	**1.1**	-	-	-	-	-	-	0.1	-	0.2
		F	**1.1**	-	-	-	-	-	-	-	-	0.1
C30	Malignant neoplasm of nasal cavity and middle ear	M	**0.5**	-	-	-	-	-	0.1	0.2	0.1	0.1
		F	**0.4**	-	-	-	-	-	-	0.1	0.1	0.2
C31	Malignant neoplasm of accessory sinuses	M	**0.3**	-	0.1	0.1	-	-	-	0.1	-	0.2
		F	**0.2**	-	0.1	-	-	0.1	-	-	-	0.1
C32	Malignant neoplasm of larynx	M	**6.6**	-	-	-	0.1	0.1	-	0.1	0.4	0.3
		F	**1.3**	-	-	-	-	-	0.1	-	0.1	0.2
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	**79.9**	-	0.1	0.1	-	-	0.2	0.4	1.1	2.6
		F	**47.9**	-	-	-	0.1	0.1	0.2	0.2	0.9	2.7
C33	Malignant neoplasm of trachea	M	**0.1**	-	-	-	-	-	-	-	-	-
		F	**0.1**	-	-	-	-	-	-	-	-	-
C34	Malignant neoplasm of bronchus and lung	M	**79.7**	-	0.1	0.1	-	-	0.2	0.4	1.1	2.6
		F	**47.8**	-	-	-	0.1	0.1	0.2	0.2	0.9	2.7
C37	Malignant neoplasm of thymus	M	**0.1**	-	-	-	-	0.1	0.1	-	0.1	0.1
		F	**0.1**	-	-	-	-	-	0.1	0.1	0.1	0.1
C38	Malignant neoplasm of heart, mediastinum and pleura	M	**0.8**	-	0.1	-	-	0.1	0.1	0.1	0.1	0.3
		F	**0.5**	0.4	-	-	-	-	-	-	0.1	-
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	M	**0.0**	-	-	-	-	-	-	-	-	-
		F	**0.0**	-	-	-	-	-	-	-	-	-
C40	Malignant neoplasm of bone and articular cartilage of limbs	M	**0.5**	-	0.2	0.2	0.8	1.4	0.8	0.2	0.5	0.4
		F	**0.4**	-	-	0.5	1.0	0.4	0.4	0.3	0.2	0.2
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	M	**0.5**	-	0.1	-	0.5	0.3	0.4	-	0.3	0.3
		F	**0.4**	-	-	0.1	0.1	0.5	0.4	0.2	0.3	0.1
C43	Malignant melanoma of skin	M	**10.7**	-	-	0.1	0.1	0.8	2.2	3.8	5.7	7.2
		F	**13.0**	-	-	-	0.1	1.4	4.9	7.9	10.0	11.2
C44	Other malignant neoplasms of skin	M	**110.1**	0.3	-	0.2	0.3	0.9	2.0	3.7	9.2	14.7
		F	**92.0**	-	0.1	-	0.1	0.9	1.4	4.9	10.2	19.2
C45	Mesothelioma	M	**5.7**	-	-	-	-	-	-	-	0.1	0.2
		F	**0.9**	-	-	-	-	-	-	-	0.1	-
C46	Kaposi's sarcoma	M	**0.2**	-	-	-	-	-	0.1	0.3	0.3	0.9
		F	**0.1**	-	-	-	0.1	-	0.1	-	0.1	0.1
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	M	**0.2**	-	0.4	0.1	0.1	0.3	0.1	0.2	0.2	0.1
		F	**0.2**	-	0.3	0.1	-	0.2	0.1	0.1	0.2	-
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	**0.5**	0.7	0.1	-	0.1	-	0.1	0.1	0.1	0.1
		F	**0.8**	0.4	-	0.1	-	-	0.1	0.1	0.1	0.2

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
3.3	7.1	17.3	33.9	55.1	78.9	103.1	123.8	133.1	140.2	M	Malignant neoplasm of rectum	C20
2.1	5.4	10.4	14.7	21.0	30.3	42.3	59.8	66.6	81.3	F		
0.6	1.0	1.2	2.5	2.5	3.4	4.3	4.0	5.8	6.9	M	Malignant neoplasm of anus and anal	C21
1.2	1.8	1.5	2.7	3.2	3.6	4.7	5.3	9.2	7.6	F	canal	
1.4	3.5	3.9	8.1	12.3	19.3	28.6	31.7	31.4	28.7	M	Malignant neoplasm of liver and	C22
0.5	1.1	1.6	2.7	5.5	8.6	13.4	15.1	20.3	23.3	F	intrahepatic bile ducts	
0.1	0.1	0.5	0.7	1.1	1.3	3.9	2.3	3.7	5.4	M	Malignant neoplasm of gallbladder	C23
0.3	0.4	0.8	0.7	3.2	2.8	3.5	5.0	6.5	6.8	F		
0.2	0.5	0.9	1.5	2.5	3.6	5.2	8.2	11.2	14.2	M	Malignant neoplasm of other and	C24
0.3	0.4	0.7	1.4	1.8	3.1	4.5	6.0	8.3	11.1	F	unspecified parts of biliary tract	
1.7	5.7	9.0	16.9	28.1	39.0	58.2	74.2	84.4	106.1	M	Malignant neoplasm of pancreas	C25
1.4	2.8	6.8	11.6	19.4	29.7	43.0	63.0	68.0	84.8	F		
0.1	0.5	0.7	1.4	1.9	2.3	5.6	6.9	8.6	16.1	M	Malignant neoplasm of other and	C26
-	0.1	0.6	1.2	0.9	1.9	2.9	4.5	6.8	14.7	F	ill-defined digestive organs	
0.2	0.1	0.8	1.0	0.8	1.6	1.8	3.3	1.3	3.8	M	Malignant neoplasm of nasal cavity	C30
0.1	0.1	0.3	0.2	0.7	1.2	1.2	1.3	1.8	2.0	F	and middle ear	
-	0.3	0.3	0.9	0.8	0.7	1.2	1.4	1.8	1.5	M	Malignant neoplasm of accessory	C31
-	0.1	0.4	0.3	0.2	0.6	0.8	1.2	1.2	1.0	F	sinuses	
1.4	5.1	8.0	14.8	19.5	23.7	27.5	28.7	30.3	36.4	M	Malignant neoplasm of larynx	C32
0.2	0.8	1.2	3.4	3.4	3.2	5.5	4.5	4.1	4.1	F		
7.7	21.7	46.6	102.1	177.3	286.7	425.7	555.7	581.2	557.7	M	Malignant neoplasm of trachea,	C33-C34
7.6	17.7	34.3	59.4	94.0	148.7	218.8	239.8	223.4	172.8	F	bronchus and lung	
-	-	0.1	0.4	0.3	0.3	0.7	0.4	1.6	0.4	M	Malignant neoplasm of trachea	C33
0.1	-	0.1	0.2	0.3	0.7	0.6	0.5	0.5	0.6	F		
7.7	21.7	46.5	101.6	177.0	286.4	425.0	555.2	579.6	557.3	M	Malignant neoplasm of bronchus	C34
7.5	17.7	34.1	59.2	93.6	148.0	218.3	239.3	222.9	172.2	F	and lung	
0.1	0.1	0.3	0.4	0.4	0.4	0.1	0.4	-	-	M	Malignant neoplasm of thymus	C37
-	0.2	0.1	0.2	0.2	0.1	0.2	0.4	0.2	0.3	F		
0.3	0.4	0.6	1.0	1.9	1.7	3.3	4.8	7.3	6.1	M	Malignant neoplasm of heart,	C38
0.4	0.1	0.3	1.0	0.7	1.4	1.5	1.0	2.6	2.6	F	mediastinum and pleura	
-	-	-	-	-	-	-	0.1	-	-	M	Malignant neoplasm of other and	C39
-	-	0.1	-	-	-	-	-	-	-	F	ill-defined sites in the respiratory system and intrathoracic organs	
0.4	0.3	0.7	0.5	0.4	0.8	0.5	1.2	0.5	1.9	M	Malignant neoplasm of bone and	C40
0.2	0.2	0.2	0.1	0.3	0.3	0.7	0.9	0.9	0.6	F	articular cartilage of limbs	
0.3	0.3	0.4	0.7	1.1	1.3	1.0	1.0	2.4	1.9	M	Malignant neoplasm of bone and	C41
0.3	0.1	0.5	0.4	0.7	0.6	0.5	0.8	0.9	2.0	F	articular cartilage of other and unspecified sites	
9.5	10.5	14.1	17.6	24.5	27.0	30.1	37.8	47.1	46.0	M	Malignant melanoma of skin	C43
14.9	15.6	18.9	21.1	21.2	23.6	24.9	27.4	36.0	34.2	F		
27.3	48.5	78.8	142.7	230.3	341.6	480.3	668.3	867.0	1076.4	M	Other malignant neoplasms of skin	C44
32.8	50.9	78.4	117.0	148.3	204.8	279.6	371.2	484.0	612.3	F		
0.4	1.4	5.3	10.8	17.8	19.7	31.3	31.8	28.5	27.2	M	Mesothelioma	C45
0.4	0.2	0.6	2.1	1.9	2.6	3.5	4.2	5.1	2.8	F		
0.6	0.6	0.1	-	0.2	-	0.1	0.3	1.0	-	M	Kaposi's sarcoma	C46
0.1	-	-	0.1	-	0.1	0.1	0.2	-	0.1	F		
0.1	0.1	0.3	0.1	0.4	-	0.3	0.4	0.5	0.4	M	Malignant neoplasm of peripheral	C47
0.1	0.1	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.4	F	nerves and autonomic nervous system	
0.3	0.3	0.5	0.9	1.2	1.4	2.5	2.2	2.9	2.3	M	Malignant neoplasm of	C48
0.1	0.8	0.5	0.9	2.0	3.1	3.2	2.0	2.7	2.3	F	retroperitoneum and peritoneum	

Table 3 Rates per 100,000 population - *continued*

ICD (10th Revision) number	Site description		All ages	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
C49	Malignant neoplasm of other connective and soft tissue	M	**2.5**	-	0.4	0.3	0.5	0.7	0.6	1.0	1.1	1.4
		F	**1.8**	0.7	0.4	0.2	0.3	1.1	0.3	0.6	0.6	0.7
C50	Malignant neoplasm of breast	M	**0.9**	-	-	-	-	-	-	0.1	0.1	-
		F	**134.4**	0.4	-	-	0.1	0.3	1.2	8.3	25.8	63.1
C51	Malignant neoplasm of vulva	F	**3.3**	-	-	-	-	-	0.1	0.2	0.4	1.1
C52	Malignant neoplasm of vagina	F	**0.7**	-	0.1	-	-	-	-	0.1	-	0.3
C53	Malignant neoplasm of cervix uteri	F	**9.6**	-	-	-	-	0.2	3.3	9.5	14.1	14.1
C54	Malignant neoplasm of corpus uteri	F	**18.8**	-	-	-	-	-	0.1	0.1	0.8	1.2
C55	Malignant neoplasm of uterus, part unspecified	F	**1.1**	-	-	-	-	-	-	0.1	0.2	0.1
C56-C57	Malignant neoplasm of ovary and other and unspecified female genital organs	F	**21.9**	0.4	0.1	0.3	0.8	1.1	2.1	3.0	5.3	6.9
C56	Malignant neoplasm of ovary	F	**21.5**	0.4	0.1	0.3	0.8	1.1	2.1	2.9	5.3	6.8
C57	Malignant neoplasm of other and unspecified female genital organs	F	**0.4**	-	-	-	-	-	0.1	0.1	0.1	0.1
C58	Malignant neoplasm of placenta	F	**0.0**	-	-	-	-	0.1	0.1	0.1	0.2	0.2
C60	Malignant neoplasm of penis	M	**1.6**	-	-	-	-	-	-	0.2	0.4	0.9
C61	Malignant neoplasm of prostate	M	**97**	-	-	-	-	0.1	0.1	0.1	-	0.3
C62	Malignant neoplasm of testis	M	**6.9**	0.7	0.6	0.1	0.2	3.2	10.6	15.1	15.2	17.2
C63	Malignant neoplasm of other and unspecified male genital organs	M	**0.2**	-	-	-	-	0.1	-	-	0.1	0.1
C64	Malignant neoplasm of kidney, except renal pelvis	M	**11.3**	2.0	2.0	0.5	0.1	0.1	0.1	0.7	0.9	2.3
		F	**6.5**	2.9	1.3	0.3	0.1	-	0.2	0.3	0.4	1.5
C65	Malignant neoplasm of renal pelvis	M	**0.8**	-	-	-	-	-	-	-	-	0.1
		F	**0.5**	-	-	-	-	-	-	-	0.1	0.1
C66	Malignant neoplasm of ureter	M	**0.8**	-	-	-	-	-	-	0.1	-	0.1
		F	**0.4**	-	-	-	-	-	-	-	-	0.1
C67	Malignant neoplasm of bladder	M	**27.6**	-	0.1	-	0.1	0.1	0.4	0.3	0.6	1.5
		F	**10.5**	-	-	-	-	0.1	0.1	0.2	0.2	0.5
C68	Malignant neoplasm of other and unspecified urinary organs	M	**0.4**	-	-	-	-	-	-	-	0.1	-
		F	**0.1**	-	-	-	-	-	-	-	-	0.1
C69	Malignant neoplasm of eye and adnexa	M	**0.8**	2.4	1.1	0.1	0.1	-	0.1	0.2	0.1	0.4
		F	**0.7**	1.8	0.6	0.1	0.1	0.1	0.1	0.1	0.2	0.4
C70	Malignant neoplasm of meninges	M	**0.1**	-	-	-	-	0.1	-	-	-	0.1
		F	**0.1**	-	0.1	-	0.1	0.1	-	-	-	-
C71	Malignant neoplasm of brain	M	**8.8**	1.0	3.8	2.3	1.8	1.6	2.6	2.7	3.9	5.0
		F	**6.4**	1.1	2.4	2.5	1.7	1.0	1.6	1.9	3.2	3.1
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	M	**0.2**	-	0.5	0.1	0.1	0.1	0.1	0.2	0.2	0.1
		F	**0.3**	0.4	0.6	0.4	0.3	0.2	0.1	-	0.3	0.2
C73	Malignant neoplasm of thyroid gland	M	**1.3**	-	-	-	0.1	0.1	0.3	0.7	1.0	1.2
		F	**3.3**	-	-	0.1	0.3	1.2	2.5	3.2	3.5	4.0
C74	Malignant neoplasm of adrenal gland	M	**0.3**	1.7	1.2	0.1	-	0.2	-	0.2	0.1	0.2
		F	**0.3**	1.1	0.9	0.1	0.1	-	0.1	0.1	0.1	0.1
C75	Malignant neoplasm of other endocrine glands and related structures	M	**0.2**	-	-	0.1	0.2	0.2	0.3	0.3	0.1	0.1
		F	**0.2**	0.4	0.1	-	-	0.2	0.1	0.1	0.1	-

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
1.9	2.3	3.0	2.7	4.0	7.4	8.6	7.5	13.3	12.6	M	Malignant neoplasm of other connective and soft tissue	C49
1.1	1.4	2.5	2.9	2.3	3.8	4.0	6.7	4.5	6.7	F		
0.1	0.5	1.0	1.4	1.7	2.4	3.3	6.1	5.0	8.8	M	Malignant neoplasm of breast	C50
116.9	182.7	275.2	284.8	311.7	265.8	309.2	327.8	352.9	416.5	F		
1.5	1.5	2.4	2.7	4.0	6.9	10.4	13.7	17.5	27.1	F	Malignant neoplasm of vulva	C51
0.6	0.6	1.0	1.2	1.3	1.2	2.4	1.9	3.0	3.1	F	Malignant neoplasm of vagina	C52
16.4	14.2	10.7	12.2	10.8	10.7	13.5	19.2	17.9	15.4	F	Malignant neoplasm of cervix uteri	C53
4.3	8.5	24.4	47.2	63.8	62.4	63.2	59.9	54.7	45.7	F	Malignant neoplasm of corpus uteri	C54
0.5	0.7	1.6	1.7	1.6	2.4	2.7	3.3	6.0	8.3	F	Malignant neoplasm of uterus, part unspecified	C55
11.4	19.8	29.8	44.1	54.0	57.2	67.7	63.8	69.0	63.4	F	Malignant neoplasm of ovary and other and unspecified female genital organs	C56-C57
11.3	19.2	29.4	42.8	52.6	56.5	66.3	62.2	67.7	62.6	F	Malignant neoplasm of ovary	C56
0.2	0.6	0.4	1.3	1.4	0.7	1.4	1.6	1.4	0.9	F	Malignant neoplasm of other and unspecified female genital organs	C57
-	-	-	-	-	-	-	-	-	-	F	Malignant neoplasm of placenta	C58
0.8	1.3	1.8	2.5	3.2	4.0	4.8	8.6	8.9	17.2	M	Malignant neoplasm of penis	C60
0.8	5.8	28.4	82.9	201.7	384.1	538.8	706.0	770.0	945.8	M	Malignant neoplasm of prostate	C61
11.9	7.9	5.9	4.5	2.5	2.6	1.9	0.7	1.8	2.3	M	Malignant neoplasm of testis	C62
0.1	0.2	0.1	0.2	0.6	0.8	1.0	0.7	2.1	2.7	M	Malignant neoplasm of other and unspecified male genital organs	C63
3.4	7.4	12.1	19.3	31.1	41.8	46.7	55.0	57.5	52.1	M	Malignant neoplasm of kidney, except renal pelvis	C64
2.0	3.8	6.0	11.1	14.1	19.2	23.0	25.6	24.9	25.3	F		
0.1	0.3	1.0	1.6	2.2	2.3	4.5	3.5	7.3	5.4	M	Malignant neoplasm of renal pelvis	C65
0.1	0.1	0.5	0.5	1.2	1.0	1.9	2.7	3.2	2.0	F		
0.1	0.5	0.4	0.5	1.5	2.7	4.3	5.9	5.2	3.8	M	Malignant neoplasm of ureter	C66
-	-	0.4	0.2	0.7	1.4	2.0	2.2	2.6	1.3	F		
3.1	6.4	14.8	30.9	53.8	87.4	140.0	188.6	231.1	289.2	M	Malignant neoplasm of bladder	C67
1.3	2.6	5.1	8.9	15.4	23.3	35.4	52.4	63.0	85.2	F		
-	0.2	0.2	0.5	0.8	1.0	2.3	3.2	1.8	5.0	M	Malignant neoplasm of other and unspecified urinary organs	C68
0.1	-	0.1	0.2	-	0.6	0.5	0.4	0.8	0.7	F		
0.4	0.8	1.1	1.3	1.6	2.2	2.6	3.2	1.6	3.1	M	Malignant neoplasm of eye and adnexa	C69
0.5	0.6	0.4	1.1	1.7	1.3	1.5	3.4	2.1	2.2	F		
0.1	0.2	0.1	0.1	0.2	0.1	-	0.9	0.8	1.9	M	Malignant neoplasm of meninges	C70
-	0.2	-	0.2	0.2	0.2	0.5	0.8	0.5	0.7	F		
5.6	8.9	10.1	15.7	21.7	23.3	28.1	29.8	20.7	24.5	M	Malignant neoplasm of brain	C71
4.0	5.2	8.0	9.1	12.5	16.5	18.1	19.1	16.0	12.5	F		
0.1	0.2	0.2	0.3	0.3	0.5	-	0.3	0.3	-	M	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	C72
0.1	0.1	0.3	0.5	0.2	0.4	0.1	0.4	0.6	-	F		
1.0	1.5	1.9	1.9	2.3	2.8	3.5	3.5	5.8	4.6	M	Malignant neoplasm of thyroid gland	C73
4.2	3.8	4.1	4.6	4.5	4.3	6.3	5.2	6.0	7.0	F		
0.2	0.2	0.1	0.2	0.3	0.5	0.9	1.0	1.3	0.8	M	Malignant neoplasm of adrenal gland	C74
0.2	0.1	0.4	0.4	0.7	0.5	0.6	0.7	0.2	0.7	F		
0.1	0.1	0.1	0.1	0.3	0.6	0.3	0.3	-	-	M	Malignant neoplasm of other endocrine glands and related structures	C75
0.2	0.2	0.2	0.1	0.5	0.2	0.4	0.4	0.5	0.1	F		

Table 3 Rates per 100,000 population - *continued*

ICD (10th Revision) number	Site description		All ages	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
C76	Malignant neoplasm of other and ill-defined sites	M	**1.0**	0.7	0.2	0.1	0.2	0.1	0.4	0.7	0.1	0.3
		F	**1.4**	0.4	0.4	0.2	0.1	0.2	0.2	0.3	0.3	0.4
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	**1.4**	-	-	-	-	0.1	0.1	0.1	0.3	0.6
		F	**1.1**	-	-	0.1	-	0.1	-	0.1	0.2	0.2
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	**8.0**	-	-	-	-	-	-	0.3	0.4	0.5
		F	**7.7**	-	-	-	-	-	0.1	0.2	0.4	0.5
C79	Secondary malignant neoplasm of other sites	M	**3.4**	-	-	-	-	0.1	0.1	-	0.1	0.2
		F	**3.2**	-	-	-	0.1	-	0.1	0.1	0.2	0.3
C80	Malignant neoplasm without specification of site	M	**10.5**	-	-	0.1	-	-	0.1	0.3	0.3	0.8
		F	**12.6**	-	-	0.1	-	0.2	0.1	0.3	0.4	0.7
C81	Hodgkin's disease	M	**3.1**	-	0.2	0.9	1.5	3.2	5.0	4.4	4.2	3.4
		F	**2.1**	-	0.2	0.3	0.7	2.9	4.4	3.4	3.3	2.5
C82-C85	Non-Hodgkin's lymphoma	M	**17.1**	-	0.6	0.9	1.0	1.8	2.9	3.3	5.5	7.3
		F	**14.3**	-	0.4	0.6	0.4	1.1	1.9	2.9	2.6	3.4
C82	Follicular (nodular) non-Hodgkin's lymphoma	M	**2.1**	-	-	-	0.1	-	0.1	0.2	0.7	1.1
		F	**2.3**	-	-	-	0.1	-	0.1	0.3	0.5	0.4
C83	Diffuse non-Hodgkin's lymphoma	M	**6.2**	-	0.4	0.6	0.4	1.1	1.3	1.3	1.7	2.6
		F	**4.7**	-	0.3	0.5	0.2	0.3	0.4	1.3	0.9	1.6
C84	Peripheral and cutaneous T-cell lymphomas	M	**1.2**	-	-	-	-	0.2	0.2	0.3	0.4	0.4
		F	**0.7**	-	0.1	-	0.1	0.1	0.2	0.3	0.3	0.2
C85	Other and unspecified types of non-Hodgkin's lymphoma	M	**7.6**	-	0.2	0.4	0.5	0.5	1.3	1.6	2.7	3.3
		F	**6.6**	-	-	0.1	0.1	0.6	1.1	1.0	0.9	1.2
C88	Malignant immunoproliferative diseases	M	**0.5**	-	-	-	-	-	-	-	-	0.1
		F	**0.4**	-	-	-	-	-	-	-	-	-
C90	Multiple myeloma and malignant plasma cell neoplasms	M	**6.6**	-	-	-	-	-	-	0.2	0.3	0.7
		F	**6.0**	-	0.1	-	-	-	0.1	0.1	0.3	0.5
C91-C95	All leukaemias	M	**13.7**	2.7	8.2	4.0	2.4	2.5	2.4	2.1	3.0	3.2
		F	**9.5**	1.1	7.0	2.1	1.9	1.6	1.7	1.8	2.0	3.1
C91	Lymphoid leukaemia	M	**7.2**	1.7	7.3	3.3	2.0	1.3	1.1	0.7	1.1	1.1
		F	**4.5**	0.7	5.5	1.6	1.3	0.5	0.6	0.6	0.4	0.6
C92	Myeloid leukaemia	M	**5.8**	0.7	0.8	0.6	0.5	1.1	1.3	1.2	1.8	1.8
		F	**4.4**	0.4	1.2	0.6	0.5	1.2	1.0	1.2	1.4	2.3
C93	Monocytic leukaemia	M	**0.2**	0.3	-	-	-	-	-	0.2	-	0.1
		F	**0.2**	-	-	-	-	-	-	-	0.1	-
C94	Other leukaemias of specified cell type	M	**0.1**	-	-	-	-	-	-	-	-	-
		F	**0.0**	-	0.1	-	-	-	-	-	0.1	0.1
C95	Leukaemia of unspecified cell type	M	**0.5**	-	0.1	0.1	-	0.1	0.1	-	0.1	0.3
		F	**0.3**	-	0.3	-	0.1	-	-	0.1	0.1	0.1
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	**0.0**	-	0.2	-	-	-	0.1	-	0.1	0.1
		F	**0.0**	-	-	-	-	-	-	-	-	0.1
C97	Malignant neoplasms of independent (primary) multiple sites	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D00	Carcinoma in situ of oral cavity, oesophagus and stomach	M	**0.6**	-	-	-	-	-	-	-	-	0.1
		F	**0.3**	-	-	-	-	-	-	-	0.1	-
D01	Carcinoma in situ of other and unspecified digestive organs	M	**0.7**	-	-	-	-	-	-	-	0.1	0.2
		F	**0.6**	-	-	-	-	-	0.1	-	0.2	0.3
D02	Carcinoma in situ of middle ear and respiratory system	M	**0.8**	-	-	-	-	-	-	-	0.1	-
		F	**0.2**	-	-	-	-	-	-	-	0.1	-
D03	Melanoma in situ	M	**3.0**	-	-	-	0.1	-	0.5	0.4	0.9	1.2
		F	**3.7**	-	-	-	-	0.3	0.9	1.2	1.8	1.7

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
0.7	0.6	0.7	0.9	1.5	2.2	2.7	6.1	5.8	10.3	M	Malignant neoplasm of other and ill-defined sites	C76
0.4	0.8	1.1	1.4	1.3	2.7	2.3	5.6	7.2	13.8	F		
0.5	1.6	2.3	3.0	3.4	3.9	5.6	5.5	5.8	6.5	M	Secondary and unspecified malignant neoplasm of lymph nodes	C77
0.7	1.4	1.7	1.8	1.6	2.7	4.0	3.3	3.8	4.9	F		
0.7	1.9	4.5	8.7	14.1	23.9	38.2	56.9	65.1	93.5	M	Secondary malignant neoplasm of respiratory and digestive organs	C78
0.6	1.3	3.8	7.4	10.9	18.1	25.6	37.6	49.3	61.5	F		
0.8	1.2	2.2	3.8	7.2	11.1	14.1	25.4	27.7	25.3	M	Secondary malignant neoplasm of other sites	C79
0.7	1.2	2.8	5.1	5.3	6.9	11.3	16.0	16.7	16.1	F		
1.7	2.6	4.4	8.7	14.8	29.1	47.6	74.4	99.4	159.0	M	Malignant neoplasm without specification of site	C80
1.8	3.4	6.4	8.6	13.1	22.1	39.6	62.3	82.0	121.9	F		
4.3	3.2	3.2	2.2	3.3	4.2	2.9	4.9	1.8	1.9	M	Hodgkin's disease	C81
1.5	1.3	1.5	1.3	2.9	1.9	2.8	2.0	2.9	1.2	F		
9.2	11.9	18.9	25.4	40.3	48.7	66.6	77.2	90.5	90.0	M	Non-Hodgkin's lymphoma	C82-C85
5.3	10.1	14.4	21.7	30.0	36.2	45.2	53.9	61.0	55.7	F		
1.9	2.5	4.0	5.0	5.8	5.9	5.1	7.3	7.3	2.7	M	Follicular (nodular) non-Hodgkin's lymphoma	C82
1.6	2.7	4.1	4.7	5.8	7.1	7.0	5.5	6.9	5.2	F		
3.3	3.1	6.3	8.6	15.0	18.3	27.8	27.7	26.1	31.8	M	Diffuse non-Hodgkin's lymphoma	C83
1.2	3.3	4.8	6.4	10.3	10.8	15.6	18.2	21.1	16.0	F		
0.5	1.3	1.4	1.6	3.6	4.2	5.0	4.5	6.3	3.4	M	Peripheral and cutaneous T-cell lymphomas	C84
0.3	0.6	0.9	1.5	2.0	1.9	1.9	1.7	2.0	1.3	F		
3.5	5.1	7.2	10.3	16.0	20.3	28.7	37.8	50.7	52.1	M	Other and unspecified types of non-Hodgkin's lymphoma	C85
2.2	3.6	4.5	9.2	12.0	16.4	20.7	28.5	31.0	33.2	F		
-	0.2	0.3	0.5	1.4	2.0	1.8	4.0	4.4	5.0	M	Malignant immunoproliferative diseases	C88
-	0.1	0.1	0.3	0.7	1.4	1.1	2.0	2.0	1.7	F		
1.6	3.1	5.7	9.3	15.1	21.0	32.4	36.5	48.9	54.0	M	Multiple myeloma and malignant plasma cell neoplasms	C90
1.1	2.5	3.8	6.6	10.8	16.6	21.7	26.8	31.7	35.8	F		
4.6	7.2	10.8	17.1	23.9	37.6	50.0	68.0	94.6	109.2	M	All leukaemias	C91-C95
2.8	4.0	7.0	9.2	14.3	17.4	26.6	37.8	40.2	61.4	F		
2.2	3.4	5.6	8.4	13.7	20.6	25.2	33.1	45.5	55.5	M	Lymphoid leukaemia	C91
0.8	1.7	3.1	4.8	5.9	9.3	12.7	18.7	17.0	32.0	F		
2.4	3.5	4.5	8.4	9.2	14.9	22.1	30.5	41.8	42.5	M	Myeloid leukaemia	C92
2.0	2.3	3.6	4.1	8.0	7.4	12.2	16.6	19.7	24.4	F		
-	0.2	0.2	0.1	0.3	0.3	0.7	1.2	1.8	2.3	M	Monocytic leukaemia	C93
-	-	0.1	0.2	0.2	-	0.8	1.1	1.1	1.0	F		
-	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.8	0.4	M	Other leukaemias of specified cell type	C94
-	-	-	-	-	0.1	0.3	-	0.3	0.3	F		
-	0.1	0.4	0.1	0.6	1.7	1.7	2.9	4.7	8.4	M	Leukaemia of unspecified cell type	C95
0.1	-	0.2	0.1	0.2	0.6	0.7	1.3	2.1	3.6	F		
-	-	-	0.1	-	-	0.2	-	0.3	0.4	M	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	C96
-	-	0.1	-	-	0.2	0.1	-	-	-	F		
-	-	-	-	-	-	-	-	-	-	M	Malignant neoplasms of independent (primary) multiple sites	C97
-	-	-	-	-	-	-	-	-	-	F		
0.3	0.3	0.8	1.2	1.2	1.5	3.7	2.9	4.2	5.4	M	Carcinoma in situ of oral cavity, oesophagus and stomach	D00
0.1	0.2	0.2	0.3	0.5	1.0	1.4	0.9	2.7	2.3	F		
0.2	0.5	0.3	1.2	1.7	2.3	3.1	3.5	5.2	3.1	M	Carcinoma in situ of other and unspecified digestive organs	D01
0.3	0.4	0.4	0.7	1.1	2.0	2.2	2.2	2.4	3.6	F		
0.1	0.4	0.8	1.3	2.3	2.4	4.3	5.6	5.5	2.3	M	Carcinoma in situ of middle ear and respiratory system	D02
-	0.2	0.2	0.6	0.9	0.5	1.0	0.9	0.3	0.4	F		
1.2	2.1	2.8	4.5	7.2	10.6	10.0	14.7	18.3	19.9	M	Melanoma in situ	D03
2.1	2.7	6.1	6.3	7.2	9.1	9.5	11.5	11.8	11.1	F		

Table 3 Rates per 100,000 population - *continued*

ICD (10th Revision) number	Site description		**All ages**	Age group								
				Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
D04	Carcinoma in situ of skin	M	**8.2**	-	-	-	-	-	-	0.2	0.3	0.6
		F	**15.7**	-	-	-	-	-	-	0.2	0.4	0.7
D05	Carcinoma in situ of breast	M	**0.1**	-	-	-	-	-	-	-	0.1	-
		F	**11.4**	-	-	-	-	-	0.3	0.3	1.7	4.7
D06	Carcinoma in situ of cervix uteri	F	**81.3**	-	-	-	-	18.2	238	318.6	252.4	151.5
D07	Carcinoma in situ of other and unspecified genital organs	M	**1.5**	-	-	-	-	0.1	0.2	0.1	0.1	0.4
		F	**2.2**	-	-	-	-	0.1	0.6	1.0	2.8	3.9
D09	Carcinoma in situ of other and unspecified sites	M	**8.7**	-	-	-	-	-	0.3	0.4	0.6	1.0
		F	**2.9**	-	-	-	-	-	-	0.1	0.1	0.2
D33	Benign neoplasm of brain and other parts of central nervous system	M	**1.1**	-	0.2	0.2	0.3	0.7	0.4	0.5	0.9	0.8
		F	**1.1**	0.7	0.1	0.1	0.2	0.1	0.4	0.3	0.5	0.8
D35.2	Benign neoplasm of pituitary gland	M	**0.9**	-	-	-	-	0.2	0.3	0.2	0.7	0.7
		F	**0.7**	-	-	-	-	0.5	0.3	0.8	0.7	0.7
D35.3	Benign neoplasm of craniopharyngeal duct	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D35.4	Benign neoplasm of pineal gland	M	**0.0**	-	-	0.1	-	-	-	-	-	0.1
		F	**0.0**	-	-	-	-	-	-	-	-	-
D37	Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs	M	**3.9**	-	0.1	0.2	0.4	0.2	0.8	0.8	0.8	0.8
		F	**3.4**	0.4	-	0.1	0.7	1.0	1.0	0.9	0.8	0.9
D38	Neoplasm of uncertain or unknown behaviour of middle ear and respiratory and intrathoracic organs	M	**0.3**	-	0.1	-	0.1	0.1	0.1	0.1	0.1	0.2
		F	**0.4**	-	-	-	0.1	0.1	0.1	0.1	0.1	0.2
D39	Neoplasm of uncertain or unknown behaviour of female genital organs	F	**1.4**	-	0.1	0.1	0.1	0.8	1.3	2.0	1.8	1.1
D40	Neoplasm of uncertain or unknown behaviour of male genital organs	M	**0.5**	-	0.1	-	-	0.2	0.5	0.7	0.5	0.5
D41	Neoplasm of uncertain or unknown behaviour of urinary organs	M	**6.2**	0.7	0.1	-	0.1	0.1	0.2	0.4	0.4	0.9
		F	**2.1**	-	-	-	-	0.1	-	0.1	0.1	0.3
D42	Neoplasm of uncertain or unknown behaviour of meninges	M	**0.1**	-	-	-	-	-	-	0.1	0.1	-
		F	**0.1**	-	-	-	-	-	-	-	-	0.1
D43	Neoplasm of uncertain or unknown behaviour of brain and central nervous system	M	**1.1**	0.3	0.2	0.5	0.4	0.5	0.3	0.5	0.5	0.7
		F	**0.9**	-	0.1	0.3	0.2	0.3	0.3	0.1	0.2	0.4
D44	Neoplasm of uncertain or unknown behaviour of endocrine glands	M	**0.4**	-	0.1	0.1	0.2	0.1	0.3	0.1	0.2	0.4
		F	**0.4**	-	0.1	0.2	0.1	-	0.3	0.4	0.3	0.4
D45	Polycythaemia vera	M	**0.7**	-	-	-	-	-	-	0.2	0.1	0.2
		F	**0.7**	-	-	-	-	-	-	-	-	0.1
D46	Myelodysplastic syndromes	M	**4.3**	-	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3
		F	**3.3**	-	0.1	0.1	-	-	0.3	0.1	0.4	0.2
D47	Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue	M	**3.3**	0.7	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.8
		F	**3.7**	0.4	0.2	0.1	0.1	0.1	0.4	0.1	0.2	1.0
D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites	M	**1.1**	0.3	0.2	0.2	0.6	0.4	0.6	0.8	0.7	0.9
		F	**1.5**	1.1	0.4	0.3	0.4	0.8	0.6	1.1	1.5	2.0
O01	Hydatidiform mole	F	**1.0**	-	-	-	0.1	2.7	3.4	4.4	3.2	1.3

40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and over		Site description	ICD (10th Revision) number
1.4	1.8	3.9	8.7	16.2	27.7	37.2	61.0	71.6	77.8	M	Carcinoma in situ of skin	D04
2.1	2.8	6.0	11.0	22.3	39.1	60.1	80.8	100.1	113.2	F		
-	0.1	-	0.3	0.1	0.3	0.2	0.1	-	-	M	Carcinoma in situ of breast	D05
7.6	15.1	45.1	37.6	40.8	20.7	13.6	12.7	8.6	5.4	F		
91.7	45.7	26.5	22.2	18.4	8.4	2.4	3.2	1.1	0.9	F	Carcinoma in situ of cervix uteri	D06
0.2	0.8	1.1	2.1	4.3	7.8	5.7	8.4	7.3	6.1	M	Carcinoma in situ of other and	D07
4.7	3.3	3.1	3.0	3.3	4.0	2.4	2.3	2.1	2.5	F	unspecified genital organs	
2.0	3.1	7.1	11.9	19.4	30.8	46.8	52.9	55.2	52.1	M	Carcinoma in situ of other and	D09
0.5	0.8	1.9	3.7	5.5	9.4	13.9	13.4	13.6	11.3	F	unspecified sites	
1.4	1.5	1.7	2.3	1.9	2.3	1.8	1.7	0.8	1.1	M	Benign neoplasm of brain and other	D33
0.9	1.4	2.5	1.5	2.2	1.7	2.6	2.5	2.6	1.5	F	parts of central nervous system	
1.2	1.4	1.2	2.2	2.3	1.8	2.5	2.0	3.1	1.9	M	Benign neoplasm of pituitary gland	D35.2
1.0	0.9	1.2	1.7	1.2	1.2	1.1	0.7	0.6	-	F		
-	-	-	-	-	-	-	-	-	-	M	Benign neoplasm of craniopharyngeal	D35.3
-	-	-	-	-	-	-	-	-	-	F	duct	
-	-	-	-	-	-	-	-	-	-	M	Benign neoplasm of pineal gland	D35.4
-	0.1	-	-	-	-	-	-	-	-	F		
1.0	2.7	4.5	6.3	8.5	10.6	15.7	22.9	22.2	21.5	M	Neoplasm of uncertain or unknown	D37
1.6	2.0	3.2	4.6	5.8	8.8	10.5	12.8	14.5	13.2	F	behaviour of oral cavity and digestive organs	
-	0.1	0.2	0.9	0.9	0.6	1.5	1.4	2.4	2.3	M	Neoplasm of uncertain or unknown	D38
0.1	0.2	0.2	0.7	0.7	1.2	1.3	1.5	0.6	1.5	F	behaviour of middle ear and respiratory and intrathoracic organs	
1.4	1.7	1.9	2.3	2.0	1.2	1.8	2.5	1.8	1.5	F	Neoplasm of uncertain or unknown behaviour of female genital organs	D39
0.5	0.3	0.4	0.4	0.1	0.8	1.2	0.9	2.6	4.2	M	Neoplasm of uncertain or unknown behaviour of male genital organs	D40
1.1	2.7	4.3	9.7	15.0	20.8	29.0	39.9	42.1	33.7	M	Neoplasm of uncertain or unknown	D41
0.2	0.6	1.9	3.1	3.0	6.5	7.3	10.9	11.9	9.0	F	behaviour of urinary organs	
-	0.1	-	0.1	0.2	0.1	0.3	0.3	-	-	M	Neoplasm of uncertain or unknown	D42
0.1	-	0.1	0.1	0.2	0.3	0.4	0.3	-	0.3	F	behaviour of meninges	
0.8	0.9	0.8	0.9	1.1	2.7	3.2	4.6	7.3	8.0	M	Neoplasm of uncertain or unknown	D43
0.4	0.4	0.7	0.7	1.0	1.2	2.7	3.9	4.7	5.8	F	behaviour of brain and central nervous system	
0.2	0.3	0.7	1.0	0.7	0.7	1.0	0.6	2.1	1.5	M	Neoplasm of uncertain or unknown	D44
0.5	0.3	0.5	0.3	0.8	0.8	0.8	1.0	1.2	1.3	F	behaviour of endocrine glands	
0.5	0.6	0.5	1.1	2.1	2.4	2.9	4.9	2.1	3.4	M	Polycythaemia vera	D45
0.1	0.3	0.5	0.4	1.1	1.6	2.5	2.5	5.0	3.9	F		
0.4	0.7	1.1	2.0	4.1	10.2	16.3	35.4	51.2	75.1	M	Myelodysplastic syndromes	D46
0.4	0.8	1.1	1.9	3.2	5.7	10.4	14.8	25.9	30.0	F		
0.7	1.4	2.6	3.9	6.3	10.8	12.9	22.5	23.8	31.4	M	Other neoplasms of uncertain or	D47
1.1	1.2	2.6	4.3	5.9	8.1	12.8	16.4	18.7	25.9	F	unknown behaviour of lymphoid, haematopoietic and related tissue	
0.7	1.0	1.5	1.4	1.4	1.6	2.4	3.7	4.2	6.5	M	Neoplasm of uncertain or	D48
1.8	2.0	2.1	1.8	2.4	1.7	2.1	2.7	2.4	2.5	F	unknown behaviour of other and unspecified sites	
0.2	0.2	0.2	-	-	-	-	-	-	-	F	Hydatidiform mole	O01

Table 4 Registrations of newly diagnosed causes of cancer: sex, site and government office for the region of residence, 2000

England, government offices for the regions Registered by July 2003

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	All registrations	**M**	**149,125**	**8,924**	**21,693**	**16,217**	**12,798**	**16,087**	**15,361**	**14,775**	**23,687**	**19,583**
		F	**170,206**	**10,458**	**25,651**	**18,255**	**15,029**	**18,303**	**17,232**	**17,009**	**26,901**	**21,368**
C00-C97	**All cancers**	**M**	**137,788**	**8,273**	**20,080**	**14,903**	**11,823**	**15,368**	**14,221**	**13,763**	**21,708**	**17,649**
		F	**135,204**	**7,850**	**20,162**	**14,472**	**11,863**	**14,656**	**13,536**	**13,711**	**21,452**	**17,502**
C00-C97 xC44	**All cancers excluding nmsc**	**M**	**111,543**	**6,511**	**15,905**	**11,836**	**9,213**	**12,261**	**12,001**	**13,176**	**18,112**	**12,528**
		F	**112,066**	**6,236**	**16,095**	**11,686**	**9,701**	**11,836**	**11,729**	**13,299**	**18,474**	**13,010**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	**2,594**	196	398	278	207	217	250	344	408	296
		F	**1,496**	81	225	151	127	131	133	195	268	185
C00	Malignant neoplasm of lip	M	**161**	23	10	23	15	8	18	7	34	23
		F	**95**	10	7	15	8	9	3	4	29	10
C01	Malignant neoplasm of base of tongue	M	**146**	4	30	15	10	20	12	20	21	14
		F	**58**	5	12	8	3	7	2	11	7	3
C02	Malignant neoplasm of other and unspecified parts of tongue	M	**448**	33	54	47	38	36	44	63	82	51
		F	**301**	14	44	28	26	19	31	31	65	43
C03	Malignant neoplasm of gum	M	**122**	-	10	13	15	7	17	23	23	14
		F	**101**	1	16	7	11	13	10	14	19	10
C04	Malignant neoplasm of floor of mouth	M	**232**	26	57	23	19	19	16	25	27	20
		F	**91**	5	15	12	6	8	7	15	16	7
C05	Malignant neoplasm of palate	M	**128**	12	21	9	13	10	16	16	15	16
		F	**100**	6	14	10	7	9	11	11	17	15
C06	Malignant neoplasm of other and unspecified parts of mouth	M	**175**	20	37	20	10	10	12	14	27	25
		F	**171**	11	23	18	18	9	19	24	28	21
C07	Malignant neoplasm of parotid gland	M	**171**	14	18	20	14	17	16	21	33	18
		F	**128**	10	17	14	19	9	15	16	16	12
C08	Malignant neoplasm of other and unspecified major salivary glands	M	**60**	4	7	7	1	5	8	10	6	12
		F	**63**	1	10	2	7	4	6	10	12	11
C09	Malignant neoplasm of tonsil	M	**337**	24	55	38	24	34	33	47	58	24
		F	**127**	8	22	14	11	11	11	17	19	14
C10	Malignant neoplasm of oropharynx	M	**90**	4	19	14	4	8	4	13	9	15
		F	**29**	3	8	3	1	5	1	3	3	2
C11	Malignant neoplasm of nasopharynx	M	**114**	5	17	10	6	11	13	25	18	9
		F	**76**	-	12	5	4	6	5	12	17	15
C12	Malignant neoplasm of pyriform sinus	M	**195**	10	34	18	21	20	24	28	22	18
		F	**45**	3	5	5	1	8	4	10	6	3
C13	Malignant neoplasm of hypopharynx	M	**75**	9	8	10	5	7	6	10	15	5
		F	**47**	3	10	5	2	7	7	5	6	2
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	**140**	8	21	11	12	5	11	22	18	32
		F	**64**	1	10	5	3	7	1	12	8	17
C15	Malignant neoplasm of oesophagus	M	**3,700**	185	563	363	314	385	376	415	659	440
		F	**2,333**	129	339	210	217	271	221	276	369	301
C16	Malignant neoplasm of stomach	M	**4,999**	362	762	622	423	620	511	561	657	481
		F	**2,866**	232	465	374	230	334	233	332	372	294
C17	Malignant neoplasm of small intestine	M	**330**	22	38	46	29	36	29	29	62	39
		F	**280**	14	33	38	22	25	36	27	44	41
C18-C20	Malignant neoplasm of colon and rectum	M	**15,281**	954	2,233	1,663	1,280	1,805	1,719	1,563	2,391	1,673
		F	**12,954**	766	1,797	1,355	1,049	1,390	1,433	1,509	2,133	1,522
C18	Malignant neoplasm of colon	M	**8,998**	525	1,326	915	689	1,072	979	945	1,463	1,084
		F	**8,875**	506	1,233	871	706	973	955	1,022	1,521	1,088
C19	Malignant neoplasm of rectosigmoid junction	M	**1,216**	109	164	163	89	120	171	139	187	74
		F	**892**	77	120	120	71	65	104	133	140	62

Table 4 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C20	Malignant neoplasm of rectum	M	**5,067**	320	743	585	502	613	569	479	741	515
		F	**3,187**	183	444	364	272	352	374	354	472	372
C21	Malignant neoplasm of anus and anal canal	M	**257**	22	33	26	18	18	19	32	50	39
		F	**410**	17	55	40	33	38	34	48	78	67
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	**1,309**	90	240	109	93	120	108	222	181	146
		F	**860**	52	235	79	66	59	75	86	121	87
C23	Malignant neoplasm of gallbladder	M	**123**	8	17	14	11	19	8	16	22	8
		F	**283**	18	44	35	31	34	26	40	30	25
C24	Malignant neoplasm of other and unspecified parts of biliary tract	M	**300**	18	31	24	19	36	35	35	52	50
		F	**342**	10	33	30	23	47	38	47	54	60
C25	Malignant neoplasm of pancreas	M	**2,881**	132	391	279	223	321	367	385	456	327
		F	**3,043**	160	408	300	265	307	322	396	532	353
C26	Malignant neoplasm of other and ill-defined digestive organs	M	**263**	5	35	9	24	12	17	37	59	65
		F	**283**	-	34	9	27	10	24	40	83	56
C30	Malignant neoplasm of nasal cavity and middle ear	M	**122**	10	15	8	7	5	15	18	31	13
		F	**93**	10	21	9	6	5	7	9	13	13
C31	Malignant neoplasm of accessory sinuses	M	**77**	5	10	12	6	5	4	11	17	7
		F	**60**	5	5	3	6	7	8	5	12	9
C32	Malignant neoplasm of larynx	M	**1,578**	111	281	198	119	187	141	168	202	171
		F	**325**	22	60	34	32	37	21	29	45	45
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	**19,035**	1,322	3,180	2,230	1,638	2,039	1,776	2,423	2,684	1,743
		F	**12,055**	970	2,146	1,488	983	1,122	1,065	1,560	1,681	1,040
C33	Malignant neoplasm of trachea	M	**30**	2	7	4	4	4	3	3	1	2
		F	**36**	4	11	2	1	4	3	2	5	4
C34	Malignant neoplasm of bronchus and lung	M	**19,005**	1,320	3,173	2,226	1,634	2,035	1,773	2,420	2,683	1,741
		F	**12,019**	966	2,135	1,486	982	1,118	1,062	1,558	1,676	1,036
C37	Malignant neoplasm of thymus	M	**32**	3	7	3	1	2	4	4	6	2
		F	**25**	3	5	1	2	1	2	4	2	5
C38	Malignant neoplasm of heart, mediastinum and pleura	M	**194**	1	39	14	11	10	6	16	46	51
		F	**115**	1	32	5	8	7	7	7	18	30
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	M	**1**	-	-	1	-	-	-	-	-	-
		F	**1**	-	-	-	-	-	-	-	-	1
C40	Malignant neoplasm of bone and articular cartilage of limbs	M	**131**	9	17	12	12	14	21	11	12	23
		F	**91**	4	12	7	4	9	4	8	22	21
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	M	**116**	1	19	8	9	2	10	15	30	22
		F	**97**	4	20	11	6	4	9	4	22	17
C43	Malignant melanoma of skin	M	**2,541**	101	313	205	205	239	298	255	500	425
		F	**3,280**	143	488	275	257	287	371	316	671	472
C44	Other malignant neoplasms of skin	M	**26,245**	1,762	4,175	3,067	2,610	3,107	2,220	587	3,596	5,121
		F	**23,138**	1,614	4,067	2,786	2,162	2,820	1,807	412	2,978	4,492
C45	Mesothelioma	M	**1,357**	123	166	123	102	115	157	169	265	137
		F	**234**	21	39	27	16	15	23	35	41	17
C46	Kaposi's sarcoma	M	**58**	-	7	1	3	1	1	34	11	-
		F	**13**	-	-	-	1	1	2	6	2	1
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	M	**43**	1	3	3	7	6	4	8	4	7
		F	**44**	2	4	11	6	3	1	3	7	7
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	**125**	4	17	9	6	11	11	13	20	34
		F	**190**	10	40	17	12	16	14	19	36	26

Table 4 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C49	Malignant neoplasm of other connective and soft tissue	M	**589**	33	74	74	60	55	54	49	87	103
		F	**451**	29	52	52	29	48	46	39	71	85
C50	Malignant neoplasm of breast	M	**206**	10	30	20	3	27	23	30	33	30
		F	**33,829**	1,663	4,589	3,268	2,910	3,700	3,775	3,991	5,866	4,067
C51	Malignant neoplasm of vulva	F	**836**	47	100	81	88	110	81	82	131	116
C52	Malignant neoplasm of vagina	F	**175**	11	30	17	18	15	13	29	26	16
C53	Malignant neoplasm of cervix uteri	F	**2,424**	151	414	309	192	261	202	300	337	258
C54	Malignant neoplasm of corpus uteri	F	**4,730**	225	633	453	480	538	548	509	773	571
C55	Malignant neoplasm of uterus, part unspecified	F	**281**	13	26	40	38	38	19	32	42	33
C56-C57	Malignant neoplasm of ovary and other and unspecified female genital organs	F	**5,512**	278	719	554	514	620	635	648	921	623
C56	Malignant neoplasm of ovary	F	**5,400**	271	702	549	503	605	627	636	903	604
C57	Malignant neoplasm of other and unspecified female genital organs	F	**112**	7	17	5	11	15	8	12	18	19
C58	Malignant neoplasm of placenta	F	**12**	1	1	1	2	1	1	2	3	-
C60	Malignant neoplasm of penis	M	**385**	34	56	40	25	45	36	46	61	42
C61	Malignant neoplasm of prostate	M	**23,109**	1,216	3,046	2,266	1,817	2,609	2,799	2,621	4,059	2,676
C62	Malignant neoplasm of testis	M	**1,648**	84	219	170	117	158	180	198	310	212
C63	Malignant neoplasm of other and unspecified male genital organs	M	**56**	5	2	11	5	11	7	2	4	9
C64	Malignant neoplasm of kidney, except renal pelvis	M	**2,695**	165	381	286	237	285	271	317	431	322
		F	**1,646**	104	222	240	171	173	158	161	230	187
C65	Malignant neoplasm of renal pelvis	M	**201**	13	31	29	12	37	22	13	30	14
		F	**131**	7	26	11	11	17	18	10	16	15
C66	Malignant neoplasm of ureter	M	**179**	18	24	22	13	21	23	13	19	26
		F	**105**	9	19	14	5	14	15	6	10	13
C67	Malignant neoplasm of bladder	M	**6,587**	348	921	714	591	939	734	655	1,020	665
		F	**2,634**	134	428	299	237	359	267	268	383	259
C68	Malignant neoplasm of other and unspecified urinary organs	M	**95**	3	19	5	6	5	5	7	16	29
		F	**32**	2	5	2	1	4	1	1	9	7
C69	Malignant neoplasm of eye and adnexa	M	**192**	7	29	16	22	11	10	27	39	31
		F	**181**	6	21	6	20	10	20	26	38	34
C70	Malignant neoplasm of meninges	M	**27**	-	1	3	3	1	2	4	5	8
		F	**35**	1	3	1	3	3	5	3	8	8
C71	Malignant neoplasm of brain	M	**2,096**	115	276	190	184	193	236	280	360	262
		F	**1,610**	95	218	168	159	157	174	167	261	211
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	M	**44**	1	-	2	2	3	11	9	8	8
		F	**64**	3	5	4	5	5	8	9	13	12
C73	Malignant neoplasm of thyroid gland	M	**302**	13	35	32	20	36	35	41	55	35
		F	**829**	44	111	76	81	90	95	118	122	92
C74	Malignant neoplasm of adrenal gland	M	**75**	3	8	2	5	4	7	21	14	11
		F	**74**	6	5	8	7	3	7	14	8	16
C75	Malignant neoplasm of other endocrine glands and related structures	M	**42**	4	6	3	2	2	3	5	8	9
		F	**41**	3	4	-	2	5	5	3	9	10

Table 4 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C76	Malignant neoplasm of other and ill-defined sites	M	**236**	1	14	1	2	8	28	72	69	41
		F	**357**	8	33	10	18	17	36	86	86	63
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	**340**	18	60	50	50	34	23	30	55	20
		F	**281**	18	46	32	35	34	27	22	42	25
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	**1,895**	129	251	265	226	158	249	208	303	106
		F	**1,949**	131	216	290	252	146	245	236	315	118
C79	Secondary malignant neoplasm of other sites	M	**799**	59	77	101	101	68	104	91	141	57
		F	**805**	59	80	96	104	71	107	112	123	53
C80	Malignant neoplasm without specification of site	M	**2,491**	122	421	232	153	331	265	314	340	313
		F	**3,167**	160	604	256	183	421	336	364	478	365
C81	Hodgkin's disease	M	**737**	42	89	76	47	70	86	111	142	74
		F	**517**	20	71	38	36	51	73	86	85	57
C82-C85	Non-Hodgkin's lymphoma	M	**4,084**	180	491	391	345	411	444	541	746	535
		F	**3,595**	168	442	363	326	341	351	478	646	480
C82	Follicular (nodular) non-Hodgkin's lymphoma	M	**503**	29	67	57	44	57	57	44	75	73
		F	**589**	26	81	64	57	53	44	64	108	92
C83	Diffuse non-Hodgkin's lymphoma	M	**1,467**	84	160	187	135	166	130	132	295	178
		F	**1,180**	68	134	151	108	157	86	105	230	141
C84	Peripheral and cutaneous T-cell lymphomas	M	**292**	17	33	29	34	40	29	32	41	37
		F	**175**	11	22	21	17	16	22	14	26	26
C85	Other and unspecified types of non-Hodgkin's lymphoma	M	**1,822**	50	231	118	132	148	228	333	335	247
		F	**1,651**	63	205	127	144	115	199	295	282	221
C88	Malignant immunoproliferative diseases	M	**127**	2	8	14	8	16	8	21	34	16
		F	**90**	2	3	13	9	7	8	6	25	17
C90	Multiple myeloma and malignant plasma cell neoplasms	M	**1,580**	60	173	157	148	159	149	214	288	232
		F	**1,498**	57	171	158	144	148	146	177	285	212
C91-C95	All leukaemias	M	**3,268**	141	348	403	242	336	299	450	607	442
		F	**2,396**	107	257	315	192	268	198	312	455	292
C91	Lymphoid leukaemia	M	**1,707**	61	137	247	125	177	133	240	332	255
		F	**1,144**	56	88	182	85	134	83	133	240	143
C92	Myeloid leukaemia	M	**1,376**	76	183	145	110	138	144	181	238	161
		F	**1,116**	49	153	122	97	118	103	156	183	135
C93	Monocytic leukaemia	M	**46**	2	2	2	-	10	2	11	13	4
		F	**40**	1	1	2	2	7	2	8	15	2
C94	Other leukaemias of specified cell type	M	**16**	-	1	2	1	3	2	1	3	3
		F	**12**	1	-	1	1	2	-	2	3	2
C95	Leukaemia of unspecified cell type	M	**123**	2	25	7	6	8	18	17	21	19
		F	**84**	-	15	8	7	7	10	13	14	10
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	**11**	-	-	1	-	3	1	2	3	1
		F	**6**	-	1	2	-	1	-	1	1	-
C97	Malignant neoplasms of independent (primary) multiple sites	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D00	Carcinoma in situ of oral cavity, oesophagus and stomach	M	**153**	20	19	14	8	13	10	13	24	32
		F	**88**	3	16	14	7	12	4	8	9	15
D01	Carcinoma in situ of other and unspecified digestive organs	M	**160**	12	16	19	8	34	17	18	19	17
		F	**157**	8	12	15	7	28	10	21	27	29
D02	Carcinoma in situ of middle ear and respiratory system	M	**196**	6	52	25	15	20	8	21	17	32
		F	**57**	3	17	9	6	3	5	2	7	5
D03	Melanoma in situ	M	**719**	31	86	65	87	57	65	35	137	156
		F	**930**	35	116	80	100	70	94	47	182	206

Table 4 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
D04	Carcinoma in situ of skin	M	**1,958**	127	485	314	227	230	243	101	231	-
		F	**3,946**	305	890	644	420	493	536	191	467	-
D05	Carcinoma in situ of breast	M	**13**	-	-	-	1	3	2	1	2	4
		F	**2,875**	136	377	328	262	234	389	261	503	385
D06	Carcinoma in situ of cervix uteri	F	**20,458**	1,805	3,243	2,097	1,831	2,451	2,117	2,126	2,972	1,816
D07	Carcinoma in situ of other and unspecified genital organs	M	**361**	24	37	56	21	33	30	61	51	48
		F	**547**	25	105	76	52	55	50	33	75	76
D09	Carcinoma in situ of other and unspecified sites	M	**2,071**	279	422	377	24	22	199	306	324	118
		F	**734**	105	153	140	14	1	67	104	109	41
D33	Benign neoplasm of brain and other parts of central nervous system	M	**255**	24	15	4	18	13	34	30	62	55
		F	**272**	26	17	7	23	11	39	38	57	54
D35.2	Benign neoplasm of pituitary gland	M	**226**	4	41	34	26	22	18	43	38	-
		F	**179**	8	41	20	17	12	23	28	30	-
D35.3	Benign neoplasm of craniopharyngeal duct	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D35.4	Benign neoplasm of pineal gland	M	**2**	-	-	1	-	-	1	-	-	-
		F	**1**	-	-	-	-	1	-	-	-	-
D37	Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs	M	**931**	35	223	36	67	57	52	39	126	296
		F	**863**	28	196	32	59	52	61	40	134	261
D38	Neoplasm of uncertain or unknown behaviour of middle ear and respiratory and intrathoracic organs	M	**82**	-	9	3	5	2	-	3	24	36
		F	**92**	-	10	2	7	2	2	1	18	50
D39	Neoplasm of uncertain or unknown behaviour of female genital organs	F	**344**	6	65	13	37	21	35	26	69	72
D40	Neoplasm of uncertain or unknown behaviour of male genital organs	M	**114**	1	15	3	2	3	5	19	31	35
D41	Neoplasm of uncertain or unknown behaviour of urinary organs	M	**1,476**	1	12	95	229	11	267	6	328	527
		F	**536**	-	8	39	92	7	73	1	110	206
D42	Neoplasm of uncertain or unknown behaviour of meninges	M	**15**	-	2	-	1	5	1	-	-	6
		F	**19**	-	3	-	2	5	-	1	3	5
D43	Neoplasm of uncertain or unknown behaviour of brain and central nervous system	M	**264**	9	31	13	18	26	23	26	55	63
		F	**227**	5	38	7	15	34	14	22	53	39
D44	Neoplasm of uncertain or unknown behaviour of endocrine glands	M	**97**	2	8	5	13	11	6	2	22	28
		F	**112**	3	10	4	14	6	12	8	20	35
D45	Polycythaemia vera	M	**176**	13	16	12	30	17	17	17	40	14
		F	**164**	6	15	4	22	16	22	32	37	10
D46	Myelodysplastic syndromes	M	**1,019**	26	72	95	116	83	86	130	188	223
		F	**818**	27	61	70	85	71	53	84	163	204
D47	Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue	M	**791**	35	34	136	38	44	46	133	207	118
		F	**941**	44	40	142	41	53	72	141	275	133
D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites	M	**258**	2	18	7	21	13	10	8	53	126
		F	**378**	7	26	15	21	9	14	25	88	173
O01	Hydatidiform mole	F	**264**	23	30	25	32	-	4	58	41	51

Table 5 Rates per 100,000 population of newly diagnosed causes of cancer: sex, site and government office for the region of residence, 2000

England, government offices for the regions Registered by July 2003

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	All Registrations	**M**	**625.7**	**730.0**	**664.9**	**674.4**	**627.0**	**625.3**	**583.9**	**431.8**	**608.3**	**821.0**
		F	**676.4**	**804.3**	**738.2**	**717.3**	**710.2**	**681.1**	**628.0**	**461.8**	**658.0**	**846.6**
C00-C97	**All cancers**	**M**	**578.1**	**676.8**	**615.5**	**619.8**	**579.2**	**597.3**	**540.5**	**402.3**	**557.5**	**739.9**
		F	**537.3**	**603.8**	**580.3**	**568.6**	**560.6**	**545.4**	**493.3**	**372.3**	**524.7**	**693.4**
C00-C97 xC44	**All cancers excluding NMSC**	**M**	**468.0**	**532.6**	**487.5**	**492.2**	**451.4**	**476.6**	**456.2**	**385.1**	**465.2**	**525.2**
		F	**445.4**	**479.6**	**463.2**	**459.2**	**458.4**	**440.5**	**427.4**	**361.1**	**451.9**	**515.5**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	**10.9**	16.0	12.2	11.6	10.1	8.4	9.5	10.1	10.5	12.4
		F	**5.9**	6.2	6.5	5.9	6.0	4.9	4.8	5.3	6.6	7.3
C00	Malignant neoplasm of lip	M	**0.7**	1.9	0.3	1.0	0.7	0.3	0.7	0.2	0.9	1.0
		F	**0.4**	0.8	0.2	0.6	0.4	0.3	0.1	0.1	0.7	0.4
C01	Malignant neoplasm of base of tongue	M	**0.6**	0.3	0.9	0.6	0.5	0.8	0.5	0.6	0.5	0.6
		F	**0.2**	0.4	0.3	0.3	0.1	0.3	0.1	0.3	0.2	0.1
C02	Malignant neoplasm of other and unspecified parts of tongue	M	**1.9**	2.7	1.7	2.0	1.9	1.4	1.7	1.8	2.1	2.1
		F	**1.2**	1.1	1.3	1.1	1.2	0.7	1.1	0.8	1.6	1.7
C03	Malignant neoplasm of gum	M	**0.5**	-	0.3	0.5	0.7	0.3	0.6	0.7	0.6	0.6
		F	**0.4**	0.1	0.5	0.3	0.5	0.5	0.4	0.4	0.5	0.4
C04	Malignant neoplasm of floor of mouth	M	**1.0**	2.1	1.7	1.0	0.9	0.7	0.6	0.7	0.7	0.8
		F	**0.4**	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.3
C05	Malignant neoplasm of palate	M	**0.5**	1.0	0.6	0.4	0.6	0.4	0.6	0.5	0.4	0.7
		F	**0.4**	0.5	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.6
C06	Malignant neoplasm of other and unspecified parts of mouth	M	**0.7**	1.6	1.1	0.8	0.5	0.4	0.5	0.4	0.7	1.0
		F	**0.7**	0.8	0.7	0.7	0.9	0.3	0.7	0.7	0.7	0.8
C07	Malignant neoplasm of parotid gland	M	**0.7**	1.1	0.6	0.8	0.7	0.7	0.6	0.6	0.8	0.8
		F	**0.5**	0.8	0.5	0.6	0.9	0.3	0.5	0.4	0.4	0.5
C08	Malignant neoplasm of other and unspecified major salivary glands	M	**0.3**	0.3	0.2	0.3	0.0	0.2	0.3	0.3	0.2	0.5
		F	**0.3**	0.1	0.3	0.1	0.3	0.1	0.2	0.3	0.3	0.4
C09	Malignant neoplasm of tonsil	M	**1.4**	2.0	1.7	1.6	1.2	1.3	1.3	1.4	1.5	1.0
		F	**0.5**	0.6	0.6	0.6	0.5	0.4	0.4	0.5	0.5	0.6
C10	Malignant neoplasm of oropharynx	M	**0.4**	0.3	0.6	0.6	0.2	0.3	0.2	0.4	0.2	0.6
		F	**0.1**	0.2	0.2	0.1	0.0	0.2	0.0	0.1	0.1	0.1
C11	Malignant neoplasm of nasopharynx	M	**0.5**	0.4	0.5	0.4	0.3	0.4	0.5	0.7	0.5	0.4
		F	**0.3**	-	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.6
C12	Malignant neoplasm of piriform sinus	M	**0.8**	0.8	1.0	0.7	1.0	0.8	0.9	0.8	0.6	0.8
		F	**0.2**	0.2	0.1	0.2	0.0	0.3	0.1	0.3	0.1	0.1
C13	Malignant neoplasm of hypopharynx	M	**0.3**	0.7	0.2	0.4	0.2	0.3	0.2	0.3	0.4	0.2
		F	**0.2**	0.2	0.3	0.2	0.1	0.3	0.3	0.1	0.1	0.1
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	**0.6**	0.7	0.6	0.5	0.6	0.2	0.4	0.6	0.5	1.3
		F	**0.3**	0.1	0.3	0.2	0.1	0.3	0.0	0.3	0.2	0.7
C15	Malignant neoplasm of oesophagus	M	**15.5**	15.1	17.3	15.1	15.4	15.0	14.3	12.1	16.9	18.4
		F	**9.3**	9.9	9.8	8.3	10.3	10.1	8.1	7.5	9.0	11.9
C16	Malignant neoplasm of stomach	M	**21.0**	29.6	23.4	25.9	20.7	24.1	19.4	16.4	16.9	20.2
		F	**11.4**	17.8	13.4	14.7	10.9	12.4	8.5	9.0	9.1	11.6
C17	Malignant neoplasm of small intestine	M	**1.4**	1.8	1.2	1.9	1.4	1.4	1.1	0.8	1.6	1.6
		F	**1.1**	1.1	0.9	1.5	1.0	0.9	1.3	0.7	1.1	1.6
C18-C20	Malignant neoplasm of colon and rectum	M	**64.1**	78.0	68.4	69.2	62.7	70.2	65.3	45.7	61.4	70.1
		F	**51.5**	58.9	51.7	53.2	49.6	51.7	52.2	41.0	52.2	60.3
C18	Malignant neoplasm of colon	M	**37.8**	42.9	40.6	38.1	33.8	41.7	37.2	27.6	37.6	45.4
		F	**35.3**	38.9	35.5	34.2	33.4	36.2	34.8	27.7	37.2	43.1
C19	Malignant neoplasm of rectosigmoid junction	M	**5.1**	8.9	5.0	6.8	4.4	4.7	6.5	4.1	4.8	3.1
		F	**3.5**	5.9	3.5	4.7	3.4	2.4	3.8	3.6	3.4	2.5

Table 5 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C20	Malignant neoplasm of rectum	M	**21.3**	26.2	22.8	24.3	24.6	23.8	21.6	14.0	19.0	21.6
		F	**12.7**	14.1	12.8	14.3	12.9	13.1	13.6	9.6	11.5	14.7
C21	Malignant neoplasm of anus and anal canal	M	**1.1**	1.8	1.0	1.1	0.9	0.7	0.7	0.9	1.3	1.6
		F	**1.6**	1.3	1.6	1.6	1.6	1.4	1.2	1.3	1.9	2.7
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	**5.5**	7.4	7.4	4.5	4.6	4.7	4.1	6.5	4.6	6.1
		F	**3.4**	4.0	6.8	3.1	3.1	2.2	2.7	2.3	3.0	3.4
C23	Malignant neoplasm of gallbladder	M	**0.5**	0.7	0.5	0.6	0.5	0.7	0.3	0.5	0.6	0.3
		F	**1.1**	1.4	1.3	1.4	1.5	1.3	0.9	1.1	0.7	1.0
C24	Malignant neoplasm of other and unspecified parts of biliary tract	M	**1.3**	1.5	1.0	1.0	0.9	1.4	1.3	1.0	1.3	2.1
		F	**1.4**	0.8	0.9	1.2	1.1	1.7	1.4	1.3	1.3	2.4
C25	Malignant neoplasm of pancreas	M	**12.1**	10.8	12.0	11.6	10.9	12.5	13.9	11.3	11.7	13.7
		F	**12.1**	12.3	11.7	11.8	12.5	11.4	11.7	10.8	13.0	14.0
C26	Malignant neoplasm of other and ill-defined digestive organs	M	**1.1**	0.4	1.1	0.4	1.2	0.5	0.6	1.1	1.5	2.7
		F	**1.1**	-	1.0	0.4	1.3	0.4	0.9	1.1	2.0	2.2
C30	Malignant neoplasm of nasal cavity and middle ear	M	**0.5**	0.8	0.5	0.3	0.3	0.2	0.6	0.5	0.8	0.5
		F	**0.4**	0.8	0.6	0.4	0.3	0.2	0.3	0.2	0.3	0.5
C31	Malignant neoplasm of accessory sinuses	M	**0.3**	0.4	0.3	0.5	0.3	0.2	0.2	0.3	0.4	0.3
		F	**0.2**	0.4	0.1	0.1	0.3	0.3	0.3	0.1	0.3	0.4
C32	Malignant neoplasm of larynx	M	**6.6**	9.1	8.6	8.2	5.8	7.3	5.4	4.9	5.2	7.2
		F	**1.3**	1.7	1.7	1.3	1.5	1.4	0.8	0.8	1.1	1.8
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	**79.9**	108.1	97.5	92.7	80.2	79.3	67.5	70.8	68.9	73.1
		F	**47.9**	74.6	61.8	58.5	46.5	41.8	38.8	42.4	41.1	41.2
C33	Malignant neoplasm of trachea	M	**0.1**	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.1
		F	**0.1**	0.3	0.3	0.1	0.0	0.1	0.1	0.1	0.1	0.2
C34	Malignant neoplasm of bronchus and lung	M	**79.7**	108.0	97.3	92.6	80.1	79.1	67.4	70.7	68.9	73.0
		F	**47.8**	74.3	61.4	58.4	46.4	41.6	38.7	42.3	41.0	41.0
C37	Malignant neoplasm of thymus	M	**0.1**	0.2	0.2	0.1	0.0	0.1	0.2	0.1	0.2	0.1
		F	**0.1**	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.2
C38	Malignant neoplasm of heart, mediastinum and pleura	M	**0.8**	0.1	1.2	0.6	0.5	0.4	0.2	0.5	1.2	2.1
		F	**0.5**	0.1	0.9	0.2	0.4	0.3	0.3	0.2	0.4	1.2
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	M	**0.0**	-	-	0.0	-	-	-	-	-	-
		F	**0.0**	-	-	-	-	-	-	-	-	0.0
C40	Malignant neoplasm of bone and articular cartilage of limbs	M	**0.5**	0.7	0.5	0.5	0.6	0.5	0.8	0.3	0.3	1.0
		F	**0.4**	0.3	0.3	0.3	0.2	0.3	0.1	0.2	0.5	0.8
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	M	**0.5**	0.1	0.6	0.3	0.4	0.1	0.4	0.4	0.8	0.9
		F	**0.4**	0.3	0.6	0.4	0.3	0.1	0.3	0.1	0.5	0.7
C43	Malignant melanoma of skin	M	**10.7**	8.3	9.6	8.5	10.0	9.3	11.3	7.5	12.8	17.8
		F	**13.0**	11.0	14.0	10.8	12.1	10.7	13.5	8.6	16.4	18.7
C44	Other malignant neoplasms of skin	M	**110.1**	144.1	128.0	127.5	127.9	120.8	84.4	17.2	92.4	214.7
		F	**92.0**	124.1	117.0	109.5	102.2	104.9	65.9	11.2	72.8	178.0
C45	Mesothelioma	M	**5.7**	10.1	5.1	5.1	5.0	4.5	6.0	4.9	6.8	5.7
		F	**0.9**	1.6	1.1	1.1	0.8	0.6	0.8	1.0	1.0	0.7
C46	Kaposi's sarcoma	M	**0.2**	-	0.2	0.0	0.1	0.0	0.0	1.0	0.3	-
		F	**0.1**	-	-	-	0.0	0.0	0.1	0.2	0.0	0.0
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	M	**0.2**	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.3
		F	**0.2**	0.2	0.1	0.4	0.3	0.1	0.0	0.1	0.2	0.3
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	**0.5**	0.3	0.5	0.4	0.3	0.4	0.4	0.4	0.5	1.4
		F	**0.8**	0.8	1.2	0.7	0.6	0.6	0.5	0.5	0.9	1.0

Table 5 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C49	Malignant neoplasm of other connective and soft tissue	M	**2.5**	2.7	2.3	3.1	2.9	2.1	2.1	1.4	2.2	4.3
		F	**1.8**	2.2	1.5	2.0	1.4	1.8	1.7	1.1	1.7	3.4
C50	Malignant neoplasm of breast	M	**0.9**	0.8	0.9	0.8	0.1	1.0	0.9	0.9	0.8	1.3
		F	**134.4**	127.9	132.1	128.4	137.5	137.7	137.6	108.4	143.5	161.1
C51	Malignant neoplasm of vulva	F	**3.3**	3.6	2.9	3.2	4.2	4.1	3.0	2.2	3.2	4.6
C52	Malignant neoplasm of vagina	F	**0.7**	0.8	0.9	0.7	0.9	0.6	0.5	0.8	0.6	0.6
C53	Malignant neoplasm of cervix uteri	F	**9.6**	11.6	11.9	12.1	9.1	9.7	7.4	8.1	8.2	10.2
C54	Malignant neoplasm of corpus uteri	F	**18.8**	17.3	18.2	17.8	22.7	20.0	20.0	13.8	18.9	22.6
C55	Malignant neoplasm of uterus, part unspecified	F	**1.1**	1.0	0.7	1.6	1.8	1.4	0.7	0.9	1.0	1.3
C56-C57	Malignant neoplasm of ovary and other and unspecified female genital organs	F	**21.9**	21.4	20.7	21.8	24.3	23.1	23.1	17.6	22.5	24.7
C56	Malignant neoplasm of ovary	F	**21.5**	20.8	20.2	21.6	23.8	22.5	22.8	17.3	22.1	23.9
C57	Malignant neoplasm of other and unspecified female genital organs	F	**0.4**	0.5	0.5	0.2	0.5	0.6	0.3	0.3	0.4	0.8
C58	Malignant neoplasm of placenta	F	**0.0**	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	-
C60	Malignant neoplasm of penis	M	**1.6**	2.8	1.7	1.7	1.2	1.7	1.4	1.3	1.6	1.8
C61	Malignant neoplasm of prostate	M	**97.0**	99.5	93.4	94.2	89.0	101.4	106.4	76.6	104.2	112.2
C62	Malignant neoplasm of testis	M	**6.9**	6.9	6.7	7.1	5.7	6.1	6.8	5.8	8.0	8.9
C63	Malignant neoplasm of other and unspecified male genital organs	M	**0.2**	0.4	0.1	0.5	0.2	0.4	0.3	0.1	0.1	0.4
C64	Malignant neoplasm of kidney, except renal pelvis	M	**11.3**	13.5	11.7	11.9	11.6	11.1	10.3	9.3	11.1	13.5
		F	**6.5**	8.0	6.4	9.4	8.1	6.4	5.8	4.4	5.6	7.4
C65	Malignant neoplasm of renal pelvis	M	**0.8**	1.1	1.0	1.2	0.6	1.4	0.8	0.4	0.8	0.6
		F	**0.5**	0.5	0.7	0.4	0.5	0.6	0.7	0.3	0.4	0.6
C66	Malignant neoplasm of ureter	M	**0.8**	1.5	0.7	0.9	0.6	0.8	0.9	0.4	0.5	1.1
		F	**0.4**	0.7	0.5	0.6	0.2	0.5	0.5	0.2	0.2	0.5
C67	Malignant neoplasm of bladder	M	**27.6**	28.5	28.2	29.7	29.0	36.5	27.9	19.1	26.2	27.9
		F	**10.5**	10.3	12.3	11.7	11.2	13.4	9.7	7.3	9.4	10.3
C68	Malignant neoplasm of other and unspecified urinery organs	M	**0.4**	0.2	0.6	0.2	0.3	0.2	0.2	0.2	0.4	1.2
		F	**0.1**	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.3
C69	Malignant neoplasm of eye and adnexa	M	**0.8**	0.6	0.9	0.7	1.1	0.4	0.4	0.8	1.0	1.3
		F	**0.7**	0.5	0.6	0.2	0.9	0.4	0.7	0.7	0.9	1.3
C70	Malignant neoplasm of meninges	M	**0.1**	-	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.3
		F	**0.1**	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.3
C71	Malignant neoplasm of brain	M	**8.8**	9.4	8.5	7.9	9.0	7.5	9.0	8.2	9.2	11.0
		F	**6.4**	7.3	6.3	6.6	7.5	5.8	6.3	4.5	6.4	8.4
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	M	**0.2**	0.1	-	0.1	0.1	0.1	0.4	0.3	0.2	0.3
		F	**0.3**	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.3	0.5
C73	Malignant neoplasm of thyroid gland	M	**1.3**	1.1	1.1	1.3	1.0	1.4	1.3	1.2	1.4	1.5
		F	**3.3**	3.4	3.2	3.0	3.8	3.3	3.5	3.2	3.0	3.6
C74	Malignant neoplasm of adrenal gland	M	**0.3**	0.2	0.2	0.1	0.2	0.2	0.3	0.6	0.4	0.5
		F	**0.3**	0.5	0.1	0.3	0.3	0.1	0.3	0.4	0.2	0.6
C75	Malignant neoplasm of other endocrine glands and related structures	M	**0.2**	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4
		F	**0.2**	0.2	0.1	-	0.1	0.2	0.2	0.1	0.2	0.4

Table 5 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C76	Malignant neoplasm of other and ill-defined sites	M	**1.0**	0.1	0.4	0.0	0.1	0.3	1.1	2.1	1.8	1.7
		F	**1.4**	0.6	0.9	0.4	0.9	0.6	1.3	2.3	2.1	2.5
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	**1.4**	1.5	1.8	2.1	2.4	1.3	0.9	0.9	1.4	0.8
		F	**1.1**	1.4	1.3	1.3	1.7	1.3	1.0	0.6	1.0	1.0
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	**8.0**	10.6	7.7	11.0	11.1	6.1	9.5	6.1	7.8	4.4
		F	**7.7**	10.1	6.2	11.4	11.9	5.4	8.9	6.4	7.7	4.7
C79	Secondary malignant neoplasm of other sites	M	**3.4**	4.8	2.4	4.2	4.9	2.6	4.0	2.7	3.6	2.4
		F	**3.2**	4.5	2.3	3.8	4.9	2.6	3.9	3.0	3.0	2.1
C80	Malignant neoplasm without specification of site	M	**10.5**	10.0	12.9	9.6	7.5	12.9	10.1	9.2	8.7	13.1
		F	**12.6**	12.3	17.4	10.1	8.6	15.7	12.2	9.9	11.7	14.5
C81	Hodgkin's disease	M	**3.1**	3.4	2.7	3.2	2.3	2.7	3.3	3.2	3.6	3.1
		F	**2.1**	1.5	2.0	1.5	1.7	1.9	2.7	2.3	2.1	2.3
C82-C85	Non-Hodgkin's lymphoma	M	**17.1**	14.7	15.0	16.3	16.9	16.0	16.9	15.8	19.2	22.4
		F	**14.3**	12.9	12.7	14.3	15.4	12.7	12.8	13.0	15.8	19.0
C82	Follicular (nodular) non-Hodgkin's lymphoma	M	**2.1**	2.4	2.1	2.4	2.2	2.2	2.2	1.3	1.9	3.1
		F	**2.3**	2.0	2.3	2.5	2.7	2.0	1.6	1.7	2.6	3.6
C83	Diffuse non-Hodgkin's lymphoma lymphoma	M	**6.2**	6.9	4.9	7.8	6.6	6.5	4.9	3.9	7.6	7.5
		F	**4.7**	5.2	3.9	5.9	5.1	5.8	3.1	2.9	5.6	5.6
C84	Peripheral and cutaneous T-cell lymphomas	M	**1.2**	1.4	1.0	1.2	1.7	1.6	1.1	0.9	1.1	1.6
		F	**0.7**	0.8	0.6	0.8	0.8	0.6	0.8	0.4	0.6	1.0
C85	Other and unspecified types on non-Hodgkin's lymphoma	M	**7.6**	4.1	7.1	4.9	6.5	5.8	8.7	9.7	8.6	10.4
		F	**6.6**	4.8	5.9	5.0	6.8	4.3	7.3	8.0	6.9	8.8
C88	Malignant immunoproliferative diseases	M	**0.5**	0.2	0.2	0.6	0.4	0.6	0.3	0.6	0.9	0.7
		F	**0.4**	0.2	0.1	0.5	0.4	0.3	0.3	0.2	0.6	0.7
C90	Multiple myeloma and malignant plasma cell neoplasms	M	**6.6**	4.9	5.3	6.5	7.3	6.2	5.7	6.3	7.4	9.7
		F	**6.0**	4.4	4.9	6.2	6.8	5.5	5.3	4.8	7.0	8.4
C91-C95	All leukaemias	M	**13.7**	11.5	10.7	16.8	11.9	13.1	11.4	13.2	15.6	18.5
		F	**9.5**	8.2	7.4	12.4	9.1	10.0	7.2	8.5	11.1	11.6
C91	Lymphoid leukaemia	M	**7.2**	5.0	4.2	10.3	6.1	6.9	5.1	7.0	8.5	10.7
		F	**4.5**	4.3	2.5	7.2	4.0	5.0	3.0	3.6	5.9	5.7
C92	Myeloid leukaemia	M	**5.8**	6.2	5.6	6.0	5.4	5.4	5.5	5.3	6.1	6.8
		F	**4.4**	3.8	4.4	4.8	4.6	4.4	3.8	4.2	4.5	5.3
C93	Monocytic leukaemia	M	**0.2**	0.2	0.1	0.1	-	0.4	0.1	0.3	0.3	0.2
		F	**0.2**	0.1	0.0	0.1	0.1	0.3	0.1	0.2	0.4	0.1
C94	Other leukaemias of specified cell type	M	**0.1**	-	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1
		F	**0.0**	0.1	-	0.0	0.0	0.1	-	0.1	0.1	0.1
C95	Leukaemia of unspecified cell type	M	**0.5**	0.2	0.8	0.3	0.3	0.3	0.7	0.5	0.5	0.8
		F	**0.3**	-	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.4
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	**0.0**	-	-	0.0	-	0.1	0.0	0.1	0.1	0.0
		F	**0.0**	-	0.0	0.1	-	0.0	-	0.0	0.0	-
C97	Malignant neoplasms of independent (primary) multiple sites	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D00	Carcinoma in situ of oral cavity, oesophagus and stomach	M	**0.6**	1.6	0.6	0.6	0.4	0.5	0.4	0.4	0.6	1.3
		F	**0.3**	0.2	0.5	0.6	0.3	0.4	0.1	0.2	0.2	0.6
D01	Carcinoma in situ of other and unspecified digestive organs	M	**0.7**	1.0	0.5	0.8	0.4	1.3	0.6	0.5	0.5	0.7
		F	**0.6**	0.6	0.3	0.6	0.3	1.0	0.4	0.6	0.7	1.1
D02	Carcinoma in situ of middle ear and respiratory system	M	**0.8**	0.5	1.6	1.0	0.7	0.8	0.3	0.6	0.4	1.3
		F	**0.2**	0.2	0.5	0.4	0.3	0.1	0.2	0.1	0.2	0.2
D03	Melanoma in situ	M	**3.0**	2.5	2.6	2.7	4.3	2.2	2.5	1.0	3.5	6.5
		F	**3.7**	2.7	3.3	3.1	4.7	2.6	3.4	1.3	4.5	8.2

Table 5 Registrations in government offices for the regions - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
D04	Carcinoma in situ of skin	M	**8.2**	10.4	14.9	13.1	11.1	8.9	9.2	3.0	5.9	-
		F	**15.7**	23.5	25.6	25.3	19.8	18.3	19.5	5.2	11.4	-
D05	Carcinoma in situ of breast	M	**0.1**	-	-	-	0.0	0.1	0.1	0.0	0.1	0.2
		F	**11.4**	10.5	10.9	12.9	12.4	8.7	14.2	7.1	12.3	15.3
D06	Carcinoma in situ of cervix uteri	F	**81.3**	138.8	93.3	82.4	86.5	91.2	77.2	57.7	72.7	71.9
D07	Carcinoma in situ of other and unspecified genital organs	M	**1.5**	2.0	1.1	2.3	1.0	1.3	1.1	1.8	1.3	2.0
		F	**2.2**	1.9	3.0	3.0	2.5	2.0	1.8	0.9	1.8	3.0
D09	Carcinoma in situ of other and unspecified sites	M	**8.7**	22.8	12.9	15.7	1.2	0.9	7.6	8.9	8.3	4.9
		F	**2.9**	8.1	4.4	5.5	0.7	0.0	2.4	2.8	2.7	1.6
D33	Benign neoplasm of brain and other parts of central nervous system	M	**1.1**	2.0	0.5	0.2	0.9	0.5	1.3	0.9	1.6	2.3
		F	**1.1**	2.0	0.5	0.3	1.1	0.4	1.4	1.0	1.4	2.1
D35.2	Benign neoplasm of pituitary gland	M	**0.9**	0.3	1.3	1.4	1.3	0.9	0.7	1.3	1.0	-
		F	**0.7**	0.6	1.2	0.8	0.8	0.4	0.8	0.8	0.7	-
D35.3	Benign neoplasm of craniopharyngeal duct	M	**-**	-	-	-	-	-	-	-	-	-
		F	**-**	-	-	-	-	-	-	-	-	-
D35.4	Benign neoplasm of pineal gland	M	**0.0**	-	-	0.0	-	-	0.0	-	-	-
		F	**0.0**	-	-	-	-	0.0	-	-	-	-
D37	Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs	M	**3.9**	2.9	6.8	1.5	3.3	2.2	2.0	1.1	3.2	12.4
		F	**3.4**	2.2	5.6	1.3	2.8	1.9	2.2	1.1	3.3	10.3
D38	Neoplasm of uncertain or unknown behaviour of middle ear and respiratory and intrathoracic organs	M	**0.3**	-	0.3	0.1	0.2	0.1	-	0.1	0.6	1.5
		F	**0.4**	-	0.3	0.1	0.3	0.1	0.1	0.0	0.4	2.0
D39	Neoplasm of uncertain or unknown behaviour of female genital organs	F	**1.4**	0.5	1.9	0.5	1.7	0.8	1.3	0.7	1.7	2.9
D40	Neoplasm of uncertain or unknown behaviour of male genital organs	M	**0.5**	0.1	0.5	0.1	0.1	0.1	0.2	0.6	0.8	1.5
D41	Neoplasm of uncertain or unknown behaviour of urinary organs	M	**6.2**	0.1	0.4	4.0	11.2	0.4	10.1	0.2	8.4	22.1
		F	**2.1**	-	0.2	1.5	4.3	0.3	2.7	0.0	2.7	8.2
D42	Neoplasm of uncertain or unknown behaviour of meninges	M	**0.1**	-	0.1	-	0.0	0.2	0.0	-	-	0.3
		F	**0.1**	-	0.1	-	0.1	0.2	-	0.0	0.1	0.2
D43	Neoplasm of uncertain or unknown behaviour of brain and central nervous system	M	**1.1**	0.7	1.0	0.5	0.9	1.0	0.9	0.8	1.4	2.6
		F	**0.9**	0.4	1.1	0.3	0.7	1.3	0.5	0.6	1.3	1.5
D44	Neoplasm of uncertain or unknown behaviour of endocrine glands	M	**0.4**	0.2	0.2	0.2	0.6	0.4	0.2	0.1	0.6	1.2
		F	**0.4**	0.2	0.3	0.2	0.7	0.2	0.4	0.2	0.5	1.4
D45	Polycythaemia vera	M	**0.7**	1.1	0.5	0.5	1.5	0.7	0.6	0.5	1.0	0.6
		F	**0.7**	0.5	0.4	0.2	1.0	0.6	0.8	0.9	0.9	0.4
D46	Myelodysplastic syndromes	M	**4.3**	2.1	2.2	4.0	5.7	3.2	3.3	3.8	4.8	9.3
		F	**3.3**	2.1	1.8	2.8	4.0	2.6	1.9	2.3	4.0	8.1
D47	Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue	M	**3.3**	2.9	1.0	5.7	1.9	1.7	1.7	3.9	5.3	4.9
		F	**3.7**	3.4	1.2	5.6	1.9	2.0	2.6	3.8	6.7	5.3
D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites	M	**1.1**	0.2	0.6	0.3	1.0	0.5	0.4	0.2	1.4	5.3
		F	**1.5**	0.5	0.7	0.6	1.0	0.3	0.5	0.7	2.2	6.9
O01	Hydatidiform mole	F	**1.0**	1.8	0.9	1.0	1.5	-	0.1	1.6	1.0	2.0

Table 6 Standardised registration ratios: site, sex and government office for the region of residence, 2000

England, government offices for the regions Registered by July 2003

ICD (10th Revision) number	Site description		Government office for the region								
			North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	All Registrations	**M**	**115**	**107**	**108**	**98**	**100**	**90**	**84**	**95**	**114**
		F	**118**	**109**	**105**	**105**	**101**	**91**	**77**	**95**	**114**
C00-C97	**All cancers**	**M**	**115**	**107**	**107**	**98**	**103**	**90**	**85**	**94**	**111**
		F	**110**	**107**	**105**	**104**	**101**	**90**	**83**	**95**	**114**
C00-C97 xC44	**All cancers excluding nmsc**	**M**	**112**	**105**	**105**	**94**	**102**	**94**	**100**	**97**	**98**
		F	**106**	**103**	**102**	**102**	**99**	**94**	**97**	**98**	**103**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	143	112	106	91	77	85	110	94	103
		F	103	108	99	100	82	80	106	107	110
C00	Malignant neoplasm of lip	M	273	46	141	106	46	98	37	126	125
		F	201	53	155	100	89	28	35	180	92
C01	Malignant neoplasm of base of tongue	M	52	149	101	78	125	72	115	86	87
		F	163	149	135	60	112	31	153	72	47
C02	Malignant neoplasm of other and unspecified parts of tongue	M	140	88	103	97	74	86	116	110	103
		F	89	105	91	102	59	93	83	129	127
C03	Malignant neoplasm of gum	M	-	60	105	140	53	122	159	113	101
		F	19	114	68	129	120	89	116	112	86
C04	Malignant neoplasm of floor of mouth	M	211	177	97	93	75	61	91	70	79
		F	103	118	129	77	82	69	137	106	68
C05	Malignant neoplasm of palate	M	178	119	69	116	72	110	104	70	113
		F	113	100	98	82	84	99	88	102	136
C06	Malignant neoplasm of other and unspecified parts of mouth	M	217	154	113	65	52	60	67	93	128
		F	122	97	103	125	49	100	117	97	107
C07	Malignant neoplasm of parotid gland	M	158	77	116	94	92	82	100	116	93
		F	151	96	108	176	66	106	97	75	85
C08	Malignant neoplasm of other and unspecified major salivary glands	M	129	86	115	19	77	117	139	60	177
		F	30	114	31	131	59	86	125	115	159
C09	Malignant neoplasm of tonsil	M	134	118	111	81	92	86	114	104	66
		F	119	124	108	101	80	78	107	90	101
C10	Malignant neoplasm of oropharynx	M	84	153	153	50	81	39	121	60	152
		F	197	198	101	40	160	31	85	62	62
C11	Malignant neoplasm of nasopharynx	M	83	108	86	60	88	101	175	96	74
		F	-	114	65	62	74	60	117	135	186
C12	Malignant neoplasm of piriform sinus	M	97	127	91	123	94	108	122	68	82
		F	125	79	108	26	165	80	188	80	58
C13	Malignant neoplasm of hypopharynx	M	226	77	131	76	85	70	114	120	60
		F	120	153	104	50	139	134	89	76	37
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	108	109	77	98	33	69	134	77	204
		F	30	112	76	56	102	14	156	74	232
C15	Malignant neoplasm of oesophagus	M	96	112	97	97	96	89	96	106	103
		F	106	105	88	111	109	85	101	93	110
C16	Malignant neoplasm of stomach	M	139	113	123	97	115	89	96	78	82
		F	156	117	128	96	110	73	98	76	87
C17	Malignant neoplasm of small intestine	M	128	85	138	101	101	77	73	112	104
		F	95	85	133	93	83	115	80	94	128
C18-C20	Malignant neoplasm of colon and rectum	M	119	107	107	96	109	98	88	94	95
		F	112	100	102	96	101	99	98	97	101
C18	Malignant neoplasm of colon	M	112	109	101	87	110	95	90	97	104
		F	109	100	96	94	103	97	97	101	105
C19	Malignant neoplasm of rectosigmoid junction	M	170	99	132	83	91	123	98	92	53
		F	163	96	131	94	68	105	126	93	60

Table 6 Standardised registration ratios - *continued*

ICD (10th Revision) number	Site description		Government office for the region								
			North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C20	Malignant neoplasm of rectum	M	120	107	114	113	111	98	81	88	88
		F	109	100	112	101	104	105	93	88	101
C21	Malignant neoplasm of anus and anal canal	M	163	94	100	80	64	65	104	116	135
		F	79	96	95	95	87	74	97	113	144
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	131	134	82	81	84	72	144	83	98
		F	115	197	90	91	64	78	84	83	87
C23	Malignant neoplasm of gallbladder	M	125	102	113	102	143	57	112	107	56
		F	120	112	121	130	112	82	119	63	76
C24	Malignant neoplasm of other and unspecified parts of biliary tract	M	116	77	79	73	111	101	100	103	143
		F	56	70	86	80	129	100	116	93	150
C25	Malignant neoplasm of pancreas	M	88	100	96	88	103	111	114	94	98
		F	100	96	96	103	95	95	111	103	99
C26	Malignant neoplasm of other and ill-defined digestive organs	M	37	99	34	105	42	56	120	133	210
		F	-	87	31	114	34	76	120	170	166
C30	Malignant neoplasm of nasal cavity and middle ear	M	157	90	65	66	38	108	123	152	94
		F	204	162	95	77	50	68	79	83	123
C31	Malignant neoplasm of accessory sinuses	M	124	95	154	89	60	46	119	132	81
		F	158	60	49	118	109	119	70	119	131
C32	Malignant neoplasm of larynx	M	133	130	124	86	109	78	91	77	96
		F	127	132	102	115	105	58	75	83	122
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	132	123	116	98	99	81	110	84	79
		F	151	127	120	96	87	79	110	83	75
C33	Malignant neoplasm of trachea	M	128	171	132	151	122	87	87	20	58
		F	207	218	54	33	103	75	47	83	97
C34	Malignant neoplasm of bronchus and lung	M	132	123	116	98	99	81	110	85	79
		F	150	127	120	96	86	79	110	83	75
C37	Malignant neoplasm of thymus	M	177	158	92	36	57	111	100	114	59
		F	231	145	40	95	38	73	119	48	186
C38	Malignant neoplasm of heart, mediastinum and pleura	M	10	149	71	65	48	27	69	141	230
		F	17	200	43	82	57	55	50	93	229
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	M	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-
C40	Malignant neoplasm of bone and articular cartilage of limbs	M	133	94	90	106	99	145	61	56	171
		F	84	95	75	52	92	40	63	149	224
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	M	17	120	68	89	16	77	100	156	176
		F	80	149	111	74	39	85	31	137	163
C43	Malignant melanoma of skin	M	76	90	80	93	87	103	79	118	153
		F	83	108	83	93	82	102	72	123	134
C44	Other malignant neoplasms of skin	M	129	118	116	114	110	74	19	82	168
		F	133	127	118	111	114	70	15	76	169
C45	Mesothelioma	M	171	89	89	86	78	101	107	118	88
		F	169	119	113	80	59	88	126	105	64
C46	Kaposi's sarcoma	M	-	90	17	61	16	16	389	115	-
		F	-	-	-	91	73	141	326	94	74
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	M	46	51	69	190	129	84	134	57	158
		F	87	66	245	162	64	21	49	97	152
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	61	100	71	55	81	77	85	96	244
		F	98	150	87	74	78	66	83	114	122

Table 6 Standardised registration ratios - *continued*

ICD (10th Revision) number	Site description		Government office for the region								
			North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C49	Malignant neoplasm of other connective and soft tissue	M	108	92	125	117	87	81	66	89	159
		F	123	83	113	76	100	92	68	95	171
C50	Malignant neoplasm of breast	M	94	107	96	17	121	97	124	95	126
		F	93	98	95	101	102	100	95	104	109
C51	Malignant neoplasm of vulva	F	108	86	95	125	124	87	81	92	120
C52	Malignant neoplasm of vagina	F	119	123	95	121	80	67	135	89	81
C53	Malignant neoplasm of cervix uteri	F	120	125	127	94	102	76	87	85	103
C54	Malignant neoplasm of corpus uteri	F	89	96	93	119	105	104	90	98	107
C55	Malignant neoplasm of uterus, part unspecified	F	89	67	140	160	127	61	94	88	102
C56-C57	Malignant neoplasm of ovary and other and unspecified female genital organs	F	95	94	98	110	105	103	95	100	102
C56	Malignant neoplasm of ovary	F	95	93	99	109	104	104	95	100	101
C57	Malignant neoplasm of other and unspecified female genital organs	F	118	109	44	115	124	64	87	97	152
C58	Malignant neoplasm of placenta	F	167	62	84	202	80	79	95	158	-
C60	Malignant neoplasm of penis	M	171	108	103	75	109	82	98	94	96
C61	Malignant neoplasm of prostate	M	101	97	97	90	104	105	98	105	98
C62	Malignant neoplasm of testis	M	101	99	104	84	91	100	76	116	134
C63	Malignant neoplasm of other and unspecified male genital organs	M	173	26	195	103	182	109	30	42	140
C64	Malignant neoplasm of kidney, except renal pelvis	M	116	103	105	100	97	88	99	96	106
		F	119	97	142	122	98	86	81	84	100
C65	Malignant neoplasm of renal pelvis	M	124	113	143	68	169	95	56	89	61
		F	101	142	82	99	121	123	64	73	100
C66	Malignant neoplasm of ureter	M	191	98	121	83	108	112	62	64	126
		F	160	129	130	56	124	128	49	57	107
C67	Malignant neoplasm of bladder	M	102	103	107	103	132	97	86	92	86
		F	98	117	111	107	128	91	86	86	84
C68	Malignant neoplasm of other and unspecified urinery organs	M	61	148	52	72	49	46	63	100	260
		F	118	112	61	37	117	28	26	167	190
C69	Malignant neoplasm of eye and adnexa	M	70	110	82	132	53	46	111	123	149
		F	63	84	33	131	51	100	113	126	170
C70	Malignant neoplasm of meninges	M	-	28	111	128	35	65	120	109	258
		F	54	61	28	101	80	129	71	136	201
C71	Malignant neoplasm of brain	M	105	96	89	101	85	100	105	104	116
		F	111	97	102	116	91	97	81	98	121
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	M	44	-	45	53	63	225	147	111	179
		F	91	56	62	92	72	114	101	124	184
C73	Malignant neoplasm of thyroid gland	M	83	85	105	76	111	103	105	110	107
		F	102	97	91	116	103	104	101	90	106
C74	Malignant neoplasm of adrenal gland	M	79	78	27	78	49	83	203	114	140
		F	156	49	106	112	38	86	140	66	205
C75	Malignant neoplasm of other endocrine glands and related structures	M	182	104	71	56	44	65	84	118	212
		F	139	70	-	58	114	111	54	134	230

Table 6 Standardised registration ratios - *continued*

ICD (10th Revision) number	Site description		Government office for the region								
			North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C76	Malignant neoplasm of other and ill-defined sites	M	8	44	4	10	32	104	242	175	154
		F	44	67	28	60	45	91	195	142	153
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	101	129	145	168	92	59	73	97	53
		F	121	118	112	147	113	86	64	89	79
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	132	98	139	137	77	114	94	95	48
		F	129	80	145	154	70	113	103	95	52
C79	Secondary malignant neoplasm of other sites	M	141	71	125	144	79	113	98	105	61
		F	139	71	117	153	82	119	117	91	57
C80	Malignant neoplasm without specification of site	M	96	126	93	71	124	92	108	81	106
		F	98	138	79	69	126	95	97	88	98
C81	Hodgkin's disease	M	111	89	102	74	89	106	103	118	100
		F	75	100	73	83	93	131	109	102	111
C82-C85	Non-Hodgkin's lymphoma	M	84	88	95	97	93	96	108	110	117
		F	88	88	99	107	89	88	108	108	118
C82	Follicular (nodular) non-Hodgkin's lymphoma	M	109	97	112	100	104	100	71	90	133
		F	83	99	106	113	84	67	88	110	141
C83	Diffuse non-Hodgkin's lymphoma	M	109	80	126	105	104	78	73	121	109
		F	109	82	125	108	124	66	72	117	106
C84	Peripheral and cutaneous T-cell lymphomas	M	110	82	98	133	126	87	89	85	114
		F	118	90	118	114	85	113	63	90	136
C85	Other and unspecified types on non-Hodgkin's lymphoma	M	53	93	64	83	75	110	149	110	120
		F	72	89	75	103	65	108	147	102	117
C88	Malignant immunoproliferative diseases	M	30	46	109	72	117	55	142	160	108
		F	42	24	141	118	72	80	57	165	163
C90	Multiple myeloma and malignant plasma cell neoplasms	M	73	81	98	107	93	82	115	109	127
		F	72	82	103	114	92	87	100	113	122
C91-C95	All leukaemias	M	83	78	122	85	95	80	112	111	120
		F	86	77	129	95	105	74	104	113	108
C91	Lymphoid leukaemia	M	69	59	143	84	96	68	114	117	133
		F	94	55	156	88	110	65	94	125	110
C92	Myeloid leukaemia	M	107	98	104	92	93	92	107	103	103
		F	84	99	107	103	99	83	111	98	108
C93	Monocytic leukaemia	M	86	32	43	-	204	38	192	168	76
		F	48	18	49	59	164	45	169	221	43
C94	Other leukaemias of specified cell type	M	-	46	124	71	173	109	54	111	163
		F	162	-	82	100	158	-	125	149	152
C95	Leukaemia of unspecified cell type	M	32	152	57	56	61	127	115	101	132
		F	-	130	94	100	79	107	126	98	102
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	-	-	91	-	255	82	127	165	87
		F	-	120	327	-	157	-	126	102	-
C97	Malignant neoplasms of independent (primary) multiple sites	M	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-
D00	Carcinoma in situ of oral cavity, oesophagus and stomach	M	251	91	91	60	78	57	72	94	182
		F	65	131	155	95	128	41	76	60	147
D01	Carcinoma in situ of other and unspecified digestive organs	M	143	73	117	57	195	93	95	71	93
		F	97	55	93	53	167	57	110	102	162
D02	Carcinoma in situ of middle ear and respiratory system	M	58	194	126	87	93	36	92	52	143
		F	98	212	154	123	49	79	29	74	78
D03	Melanoma in situ	M	83	88	89	139	73	79	40	114	192
		F	71	90	84	127	70	91	40	118	201

Table 6 Standardised registration ratios - *continued*

ICD (10th Revision) number	Site description		Government office for the region								
			North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
D04	Carcinoma in situ of skin	M	125	183	159	133	109	108	44	70	-
		F	147	162	159	127	117	122	41	70	-
D05	Carcinoma in situ of breast	M	-	-	-	87	208	136	64	94	281
		F	89	94	112	106	75	120	72	105	124
D06	Carcinoma in situ of cervix uteri	F	179	120	104	107	115	96	61	91	95
D07	Carcinoma in situ of other and unspecified genital organs	M	125	75	153	66	84	73	143	85	118
		F	87	139	138	112	95	83	43	83	134
D09	Carcinoma in situ of other and unspecified sites	M	256	149	180	13	10	84	126	94	50
		F	268	149	186	22	1	82	120	89	49
D33	Benign neoplasm of brain and other parts of central nervous system	M	180	43	16	81	47	119	89	148	207
		F	181	45	25	99	38	129	107	127	185
D35.2	Benign neoplasm of pituitary gland	M	34	132	149	132	90	71	148	101	-
		F	85	166	111	112	63	117	112	103	-
D35.3	Benign neoplasm of craniopharyngeal duct	M	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-
D35.4	Benign neoplasm of pineal gland	M	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-
D37	Neoplasm of uncertain or unknown behaviour of oral cavity and digestive organs	M	72	176	38	82	56	49	35	81	281
		F	61	163	36	81	56	64	37	93	270
D38	Neoplasm of uncertain or unknown behaviour of middle ear and respiratory and intrathoracic organs	M	-	81	36	70	22	-	30	175	389
		F	-	78	21	90	20	20	9	118	485
D39	Neoplasm of uncertain or unknown behaviour of female genital organs	F	34	138	38	128	58	93	52	123	204
D40	Neoplasm of uncertain or unknown behaviour of male genital organs	M	17	99	26	21	25	39	119	164	288
D41	Neoplasm of uncertain or unknown behaviour of urinary organs	M	1	6	64	177	7	158	3	133	311
		F	-	11	71	203	12	122	2	122	334
D42	Neoplasm of uncertain or unknown behaviour of meninges	M	-	98	-	77	306	59	-	-	376
		F	-	113	-	124	246	-	43	95	234
D43	Neoplasm of uncertain or unknown behaviour of brain and central nervous system	M	66	87	49	79	92	77	77	125	217
		F	42	121	30	79	141	56	78	139	151
D44	Neoplasm of uncertain or unknown behaviour of endocrine glands	M	40	60	51	154	105	55	16	136	269
		F	51	65	35	149	51	98	52	108	294
D45	Polycythaemia vera	M	140	66	67	195	89	85	80	137	71
		F	69	66	24	159	91	120	165	133	52
D46	Myelodysplastic syndromes	M	50	53	93	131	77	73	109	108	182
		F	64	54	84	124	82	58	86	117	212
D47	Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue	M	85	32	170	55	52	51	142	156	129
		F	89	31	148	52	53	69	125	173	122
D48	Neoplasm of uncertain or unknown behaviour of other and unspecified sites	M	15	51	27	94	47	34	23	124	454
		F	36	50	39	66	22	34	47	142	440
O01	Hydatidiform mole	F	175	84	96	148	-	14	123	99	214

Table 9 Cancer mortality to incidence ratios: sex and government office for the region of residence, 2000

England, government offices for the regions Registered by July 2003

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C00-C97	**All cancers**	**M**	**0.47**	**0.47**	**0.49**	**0.45**	**0.46**	**0.46**	**0.48**	**0.54**	**0.47**	**0.40**
		F	**0.44**	**0.46**	**0.45**	**0.43**	**0.42**	**0.43**	**0.47**	**0.52**	**0.45**	**0.37**
C00-C97 xC44	**All cancers excluding nmsc**	**M**	**0.58**	**0.59**	**0.61**	**0.57**	**0.59**	**0.58**	**0.57**	**0.56**	**0.56**	**0.56**
		F	**0.53**	**0.58**	**0.56**	**0.53**	**0.51**	**0.53**	**0.54**	**0.54**	**0.52**	**0.50**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	**0.36**	0.36	0.43	0.27	0.31	0.42	0.38	0.40	0.35	0.31
		F	**0.39**	0.36	0.47	0.32	0.35	0.50	0.39	0.42	0.36	0.36
C00	Malignant neoplasm of lip	M	**0.04**	0.00	0.20	0.00	0.00	0.00	0.06	0.00	0.12	0.00
		F	**0.13**	0.10	0.57	0.00	0.00	0.11	0.67	0.50	0.03	0.10
C01-C02	Malignant neoplasm of tongue	M	**0.39**	0.46	0.39	0.42	0.31	0.21	0.32	0.51	0.33	0.51
		F	**0.43**	0.63	0.39	0.25	0.31	0.50	0.42	0.57	0.40	0.46
C03	Malignant neoplasm of gum	M	**0.37**	-	0.50	0.23	0.27	0.71	0.41	0.52	0.22	0.14
		F	**0.49**	3.00	0.81	0.43	0.64	0.15	0.10	0.57	0.37	0.50
C04	Malignant neoplasm of floor of mouth	M	**0.14**	0.12	0.11	0.09	0.05	0.32	0.13	0.08	0.30	0.15
		F	**0.23**	0.00	0.40	0.17	0.50	0.00	0.29	0.20	0.19	0.29
C05-C06	Malignant neoplasm of palate, other and unspecified parts of mouth	M	**0.44**	0.53	0.64	0.14	0.39	0.60	0.54	0.47	0.33	0.27
		F	**0.35**	0.35	0.54	0.29	0.28	0.72	0.30	0.31	0.38	0.14
C07-C08	Malignant neoplasm of parotid gland, other and unspecified major salivary glands	M	**0.36**	0.11	0.40	0.22	0.67	0.23	0.46	0.42	0.46	0.23
		F	**0.29**	0.18	0.19	0.25	0.08	0.69	0.43	0.38	0.36	0.22
C09-C10	Malignant neoplasm of tonsil and oropharynx	M	**0.30**	0.39	0.34	0.15	0.21	0.36	0.24	0.40	0.25	0.38
		F	**0.35**	0.00	0.27	0.29	0.50	0.44	0.25	0.55	0.41	0.31
C11	Malignant neoplasm of nasopharynx	M	**0.68**	0.80	0.76	0.60	0.67	1.18	0.77	0.36	0.89	0.22
		F	**0.45**	-	0.50	1.00	0.75	1.00	0.80	0.17	0.29	0.20
C12-C13	Malignant neoplasm of pyriform sinus and hypopharynx	M	**0.32**	0.32	0.40	0.25	0.15	0.44	0.37	0.29	0.30	0.30
		F	**0.62**	0.67	0.40	0.80	1.00	0.53	0.36	0.33	0.75	2.00
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	**0.83**	1.13	1.05	1.09	0.92	2.20	1.09	0.55	0.83	0.38
		F	**0.91**	1.00	1.60	1.00	1.33	1.00	4.00	0.50	0.75	0.53
C15	Malignant neoplasm of oesophagus	M	**0.96**	0.96	1.02	0.99	0.99	1.01	0.96	0.82	0.93	0.96
		F	**0.91**	1.03	1.05	0.93	0.96	0.88	0.93	0.79	0.84	0.86
C16	Malignant neoplasm of stomach	M	**0.67**	0.64	0.63	0.65	0.71	0.66	0.67	0.71	0.70	0.68
		F	**0.70**	0.66	0.72	0.68	0.70	0.70	0.77	0.72	0.74	0.60
C17	Malignant neoplasm of small intestine	M	**0.37**	0.23	0.63	0.35	0.34	0.33	0.34	0.24	0.39	0.33
		F	**0.48**	0.29	0.64	0.45	0.36	0.44	0.72	0.37	0.48	0.37
C18-C21	Malignant neoplasm of colon, rectum, anus and anal canal	M	**0.45**	0.47	0.47	0.42	0.43	0.45	0.41	0.44	0.45	0.47
		F	**0.47**	0.46	0.47	0.46	0.48	0.48	0.46	0.46	0.48	0.47
C18	Malignant neoplasm of colon	M	**0.49**	0.51	0.52	0.47	0.50	0.49	0.46	0.46	0.51	0.49
		F	**0.50**	0.48	0.47	0.50	0.53	0.50	0.49	0.48	0.50	0.50
C19-C21	Malignant neoplasm of rectosigmoid junction, rectum, anus and anal canal	M	**0.39**	0.42	0.41	0.36	0.35	0.41	0.35	0.40	0.36	0.44
		F	**0.42**	0.41	0.47	0.40	0.40	0.45	0.39	0.40	0.42	0.41
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	**0.88**	0.81	0.77	0.89	0.74	1.05	0.93	1.01	0.90	0.79
		F	**0.93**	1.17	0.60	1.00	0.98	1.44	0.97	1.15	0.98	0.86
C23-C24	Malignant neoplasm of gallbladder, other and unspecified parts of biliary tract	M	**0.38**	0.27	0.58	0.45	0.47	0.40	0.37	0.24	0.38	0.28
		F	**0.53**	0.57	0.55	0.55	0.59	0.48	0.63	0.57	0.46	0.41
C25	Malignant neoplasm of pancreas	M	**0.97**	0.98	0.99	0.94	1.01	0.98	0.90	0.85	1.06	0.98
		F	**0.95**	0.96	1.06	0.91	0.89	0.98	0.95	0.90	0.94	0.95

Table 9 Cancer mortality to incidence ratios - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C26	Malignant neoplasm of other and ill-defined digestive organs	M	**3.01**	11.00	3.54	7.78	3.21	8.58	4.59	2.54	1.97	1.15
		F	**3.06**	-	4.09	9.67	2.56	10.70	4.33	2.23	1.69	1.34
C30-C31	Malignant neoplasm of nasal cavity, middle ear and accessory sinuses	M	**0.34**	0.33	0.32	0.55	0.31	0.70	0.53	0.17	0.31	0.15
		F	**0.27**	0.07	0.19	0.33	0.33	0.50	0.47	0.07	0.36	0.23
C32	Malignant neoplasm of larynx	M	**0.33**	0.30	0.32	0.28	0.43	0.38	0.33	0.43	0.30	0.28
		F	**0.39**	0.32	0.42	0.24	0.38	0.49	0.29	0.62	0.33	0.40
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	**0.89**	0.91	0.87	0.88	0.87	0.93	0.94	0.84	0.87	0.92
		F	**0.86**	0.91	0.86	0.82	0.81	0.93	0.85	0.80	0.87	0.91
C37-C39, C45	Malignant neoplasm of thymus, heart, mediastinum, pleura, other and ill- defined sites in the respiratory system and intrathoracic organs, and mesothelioma	M	**0.30**	0.35	0.30	0.43	0.29	0.46	0.33	0.19	0.30	0.17
		F	**0.32**	0.48	0.24	0.67	0.15	0.30	0.25	0.41	0.26	0.25
C40-C41	Malignant neoplasm of bone, articular cartilage of limbs and other and unspecified sites	M	**0.43**	0.40	0.44	0.60	0.48	0.25	0.32	0.58	0.57	0.22
		F	**0.52**	0.88	0.34	0.72	1.00	1.08	0.92	0.75	0.34	0.16
C43	Malignant melanoma of skin	M	**0.29**	0.32	0.29	0.34	0.28	0.26	0.31	0.30	0.30	0.27
		F	**0.21**	0.25	0.19	0.21	0.24	0.20	0.24	0.23	0.23	0.17
C44	Other malignant neoplasms of skin	M	**0.01**	0.00	0.01	0.00	0.01	0.01	0.01	0.04	0.01	0.00
		F	**0.01**	0.00	0.01	0.00	0.00	0.01	0.01	0.02	0.01	0.01
C47, C49	Malignant neoplasm of peripheral nerves and autonomic nervous system, and other connective and soft tissue	M	**0.48**	0.53	0.48	0.34	0.42	0.61	0.59	0.63	0.57	0.35
		F	**0.64**	0.65	0.52	0.62	0.69	0.53	1.00	1.05	0.72	0.33
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	**0.63**	1.50	0.71	0.67	1.00	1.18	0.73	0.46	0.50	0.35
		F	**0.52**	0.80	0.35	0.71	1.00	0.94	0.50	0.53	0.39	0.27
C50	Malignant neoplasm of breast	M	**0.33**	0.20	0.23	0.30	1.00	0.48	0.30	0.13	0.45	0.33
		F	**0.31**	0.31	0.32	0.31	0.31	0.31	0.33	0.33	0.30	0.31
C51-C52	Malignant neoplasm of vulva and vagina	F	**0.40**	0.38	0.47	0.45	0.26	0.40	0.44	0.46	0.38	0.33
C53	Malignant neoplasm of cervix uteri	F	**0.43**	0.38	0.44	0.41	0.41	0.36	0.47	0.45	0.43	0.48
C54-C55	Malignant neoplasm of corpus uteri, and uterus, part unspecified	F	**0.25**	0.22	0.24	0.27	0.24	0.22	0.23	0.29	0.27	0.24
C56-C57	Malignant neoplasm of ovary, other and unspecified female genital organs	F	**0.67**	0.69	0.69	0.70	0.60	0.66	0.65	0.67	0.70	0.62
C58	Malignant neoplasm of placenta	F	**0.25**	1.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	-
C60, C63	Malignant neoplasm of penis, other and unspecified male genital organs	M	**0.19**	0.13	0.21	0.14	0.30	0.25	0.19	0.21	0.15	0.16
C61	Malignant neoplasm of prostate	M	**0.34**	0.29	0.35	0.34	0.38	0.32	0.32	0.31	0.33	0.38
C62	Malignant neoplasm of testis	M	**0.04**	0.04	0.05	0.02	0.03	0.07	0.04	0.03	0.03	0.04
C64-C66, C68	Malignant neoplasm of kidney, renal pelvis, ureter, other and unspecified urinary organs	M	**0.49**	0.42	0.49	0.45	0.52	0.49	0.53	0.45	0.53	0.50
		F	**0.52**	0.48	0.61	0.43	0.46	0.52	0.55	0.52	0.55	0.52
C67	Malignant neoplasm of bladder	M	**0.41**	0.42	0.44	0.35	0.42	0.28	0.45	0.47	0.46	0.47
		F	**0.55**	0.63	0.52	0.59	0.58	0.41	0.57	0.55	0.65	0.50
C69	Malignant neoplasm of eye and adnexa	M	**0.21**	0.00	0.41	0.25	0.05	0.18	0.50	0.15	0.21	0.16
		F	**0.15**	0.17	0.14	0.33	0.10	0.10	0.30	0.00	0.13	0.21

Table 9 Cancer mortality to incidence ratios - *continued*

ICD (10th Revision) number	Site description		England	Government office for the region								
				North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
C70,C72	Malignant neoplasm of meninges, spinal cord, cranial nerves and other parts of central nervous system	M	**0.28**	2.00	3.00	0.00	0.20	0.50	0.38	0.08	0.23	0.19
		F	**0.25**	0.25	0.38	0.60	0.63	0.25	0.00	0.25	0.24	0.15
C71	Malignant neoplasm of brain	M	**0.75**	0.66	0.75	0.74	0.76	0.94	0.76	0.64	0.77	0.72
		F	**0.70**	0.64	0.68	0.66	0.67	0.82	0.76	0.75	0.73	0.57
C73	Malignant neoplasm of thyroid gland	M	**0.28**	0.15	0.43	0.44	0.35	0.25	0.20	0.24	0.29	0.17
		F	**0.20**	0.09	0.21	0.18	0.21	0.21	0.18	0.25	0.17	0.22
C74-C75	Malignant neoplasm of adrenal gland, other endocrine glands and related structures	M	**0.74**	0.86	0.21	1.60	0.71	2.67	0.60	0.42	0.77	0.70
		F	**0.72**	0.67	1.67	1.00	0.56	1.00	1.00	0.59	0.47	0.42
C76	Malignant neoplasm of other and ill-defined sites	M	**0.67**	4.00	1.50	12.00	9.00	2.00	0.61	0.26	0.45	0.51
		F	**0.85**	1.63	1.42	2.90	1.83	2.29	0.94	0.31	0.56	0.52
C80	Malignant neoplasm without specification of site	M	**2.47**	3.08	2.32	2.83	3.46	1.77	2.68	2.24	2.82	2.13
		F	**1.98**	2.39	1.57	2.59	2.77	1.46	2.08	2.20	2.01	1.78
C81	Hodgkin's disease	M	**0.17**	0.12	0.30	0.20	0.19	0.20	0.10	0.14	0.16	0.08
		F	**0.20**	0.25	0.21	0.24	0.28	0.20	0.18	0.19	0.20	0.11
C82-C85, C91.4, C96	Non-Hodgkin's lymphoma, hairy cell leukaemia and other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	**0.47**	0.46	0.52	0.49	0.52	0.52	0.46	0.43	0.42	0.45
		F	**0.50**	0.56	0.55	0.42	0.47	0.57	0.56	0.50	0.49	0.46
C88, C90	Malignant immunoproliferative diseases, multiple myeloma and malignant plasma cell neoplasms	M	**0.53**	0.92	0.60	0.60	0.51	0.55	0.77	0.46	0.42	0.41
		F	**0.61**	0.73	0.77	0.56	0.52	0.65	0.74	0.69	0.47	0.59
C91-C95 X C91.4	All leukaemias excluding hairy-cell leukaemia	M	**0.57**	0.76	0.76	0.44	0.64	0.61	0.68	0.56	0.50	0.46
		F	**0.63**	0.73	0.74	0.45	0.81	0.67	0.79	0.55	0.55	0.64

Table 10 Directly age standardised* registration rates per 100,000 population: site and sex, 1991 to 2000 **England**

ICD (10th Revision) number	Site description		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	All registrations	**M**	**466.6**	**480.9**	**477.3**	**487.8**	**501.7**	**494.5**	**508.6**	**517.6**	**519.8**	**536.3**
		F	**465.0**	**475.7**	**462.0**	**473.1**	**489.6**	**491.9**	**510.4**	**524.5**	**531.0**	**529.1**
C00-C97	**All cancers**	**M**	**449.9**	**463.1**	**457.7**	**466.8**	**474.8**	**467.1**	**478.3**	**487.2**	**485.5**	**495.3**
		F	**364.1**	**375.1**	**363.1**	**368.8**	**377.0**	**375.8**	**392.7**	**398.0**	**403.1**	**401.8**
C00-C97 xC44	**All cancers excluding nmsc**	**M**	**383.9**	**394.3**	**391.5**	**398.0**	**402.4**	**395.1**	**397.6**	**395.6**	**395.8**	**401.4**
		F	**321.2**	**328.5**	**320.5**	**323.8**	**329.3**	**327.5**	**339.1**	**337.8**	**342.4**	**338.4**
C00-C14	Malignant neoplasm of lip, mouth and pharynx	M	8.3	8.7	8.4	8.9	8.6	8.8	9.1	9.2	10.0	10.1
		F	3.5	3.9	3.7	3.8	3.9	4.0	4.5	4.3	4.5	4.7
C00	Malignant neoplasm of lip	M	0.5	0.7	0.6	0.7	0.6	0.7	0.6	0.5	0.6	0.6
		F	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3
C01	Malignant neoplasm of base of tongue	M	0.3	0.4	0.3	0.5	0.4	0.4	0.4	0.5	0.6	0.6
		F	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2
C02	Malignant neoplasm of other and unspecified parts of tongue	M	1.5	1.4	1.5	1.5	1.4	1.5	1.6	1.6	1.7	1.7
		F	0.7	0.8	0.8	0.7	0.7	0.8	1.0	0.9	1.0	0.9
C03	Malignant neoplasm of gum	M	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.4
		F	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
C04	Malignant neoplasm of floor of mouth	M	1.0	0.9	0.9	0.9	0.9	0.9	0.8	0.9	0.9	0.9
		F	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
C05	Malignant neoplasm of palate	M	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
		F	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.2	0.3
C06	Malignant neoplasm of other and unspecified parts of mouth	M	0.7	0.7	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.7
		F	0.3	0.4	0.3	0.4	0.5	0.4	0.5	0.5	0.5	0.5
C07	Malignant neoplasm of parotid gland	M	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.6	0.6
		F	0.3	0.5	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.4
C08	Malignant neoplasm of other and unspecified major salivary glands	M	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
		F	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2
C09	Malignant neoplasm of tonsil	M	0.8	0.9	0.8	0.8	0.8	1.0	1.1	1.2	1.3	1.4
		F	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5
C10	Malignant neoplasm of oropharynx	M	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4
		F	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C11	Malignant neoplasm of nasopharynx	M	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.5
		F	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3
C12	Malignant neoplasm of pyriform sinus	M	0.7	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.8	0.8
		F	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
C13	Malignant neoplasm of hypopharynx	M	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3
		F	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	M	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5
		F	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
C15	Malignant neoplasm of oesophagus	M	11.7	12.4	12.5	12.9	12.5	12.7	13.0	12.8	13.0	13.4
		F	5.4	5.7	5.5	5.8	5.7	5.4	5.6	5.6	5.9	5.7
C16	Malignant neoplasm of stomach	M	22.2	22.4	21.1	21.0	20.3	19.6	19.7	18.9	18.4	17.6
		F	9.0	8.8	8.3	8.2	7.9	7.5	7.8	7.3	6.7	6.9
C17	Malignant neoplasm of small intestine	M	0.8	0.9	0.8	0.9	0.9	1.0	1.0	1.2	1.2	1.2
		F	0.5	0.6	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8
C18-C21	Malignant neoplasm of colon, rectum and anus	M	51.4	53.8	53.5	52.6	53.4	55.0	55.6	56.0	55.6	55.5
		F	35.5	37.1	35.4	35.5	35.1	36.3	35.8	37.1	36.7	35.4
C18-C20	Malignant neoplasm of colon and rectum	M	50.5	52.9	52.6	51.8	52.5	54.1	54.6	55.0	54.6	54.6
		F	34.7	36.1	34.5	34.6	34.1	35.3	34.6	36.0	35.5	34.2

* Using the European standard population

Table 10 Directly age standardised* rates - *continued* **England**

ICD (10th Revision) number	Site description		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C18	Malignant neoplasm of colon	M	29.8	30.8	31.2	30.7	31.7	32.0	32.4	31.7	31.7	31.8
		F	23.8	24.8	23.4	23.7	23.6	24.1	23.4	24.0	23.5	23.2
C19	Malignant neoplasm of rectosigmoid junction	M	3.4	3.9	3.7	4.0	3.8	4.2	4.3	4.6	4.7	4.4
		F	2.1	2.1	2.1	2.2	2.2	2.4	2.5	2.5	2.7	2.5
C20	Malignant neoplasm of rectum	M	17.4	18.1	17.6	17.0	16.9	17.9	17.9	18.8	18.3	18.4
		F	8.7	9.2	9.0	8.6	8.4	8.9	8.8	9.4	9.3	8.5
C21	Malignant neoplasm of anus and anal canal	M	0.8	0.9	0.9	0.8	0.9	0.9	1.0	0.9	1.0	1.0
		F	0.8	1.0	1.0	0.9	1.0	1.0	1.2	1.2	1.2	1.2
C22	Malignant neoplasm of liver and intrahepatic bile ducts	M	2.9	3.2	3.2	3.4	3.6	4.0	4.1	4.3	4.2	4.8
		F	1.4	1.4	1.4	1.6	1.7	2.0	2.1	2.1	2.0	2.2
C23	Malignant neoplasm of gallbladder	M	0.7	0.6	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4
		F	0.9	0.9	0.9	0.9	0.7	0.8	0.8	0.8	0.8	0.8
C24	Malignant neoplasm of other and unspecified parts of biliary tract	M	1.4	1.6	1.4	1.2	1.2	1.3	1.1	1.1	1.1	1.1
		F	0.9	1.0	1.0	0.9	0.9	0.9	0.7	0.9	0.9	0.9
C25	Malignant neoplasm of pancreas	M	11.2	11.0	10.6	10.2	10.4	10.3	10.2	10.2	10.2	10.4
		F	8.0	7.8	7.8	7.8	7.7	7.6	7.4	7.2	7.9	7.8
C26	Malignant neoplasm of other and ill-defined digestive organs	M	0.8	1.0	0.8	0.9	0.9	1.0	1.1	1.0	1.0	0.9
		F	0.5	0.7	0.6	0.6	0.6	0.6	0.8	0.6	0.8	0.6
C30	Malignant neoplasm of nasal cavity and middle ear	M	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.5
		F	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3
C31	Malignant neoplasm of accessory sinuses	M	0.4	0.5	0.4	0.3	0.4	0.4	0.3	0.4	0.3	0.3
		F	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
C32	Malignant neoplasm of larynx	M	6.0	6.2	6.0	6.4	5.8	5.8	5.9	5.6	5.5	6.0
		F	1.1	1.1	1.2	1.1	1.1	1.0	1.1	1.0	1.0	1.0
C33-C34	Malignant neoplasm of trachea, bronchus and lung	M	89.5	89.1	83.3	82.2	79.2	74.9	73.8	71.0	68.9	67.4
		F	32.7	33.9	33.2	33.6	33.7	33.1	33.2	33.7	33.6	34.0
C33	Malignant neoplasm of trachea	M	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
		F	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C34	Malignant neoplasm of bronchus and lung	M	89.3	89.0	83.1	82.0	79.0	74.8	73.6	70.9	68.8	67.3
		F	32.6	33.8	33.1	33.5	33.7	33.0	33.2	33.7	33.5	33.9
C37	Malignant neoplasm of thymus	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		F	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C38	Malignant neoplasm of heart, mediastinum and pleura	M	0.9	0.9	0.8	0.6	0.8	0.6	0.7	0.6	0.7	0.7
		F	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C40	Malignant neoplasm of bone and articular cartilage of limbs	M	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.4	0.5
		F	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	M	0.5	0.5	0.3	0.4	0.5	0.4	0.4	0.4	0.5	0.5
		F	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3
C43	Malignant melanoma of skin	M	5.9	6.4	7.3	7.3	7.6	7.5	8.3	8.6	8.4	9.7
		F	7.7	8.4	9.6	9.4	9.9	9.5	9.8	9.9	9.9	11.2
C44	Other malignant neoplasms of skin	M	66.0	68.8	66.2	68.8	72.4	72.0	80.7	91.6	89.8	93.9
		F	42.9	46.6	42.6	45.0	47.8	48.3	53.6	60.2	60.7	63.3
C45	Mesothelioma	M	3.1	3.3	3.6	3.6	3.9	3.8	4.1	4.7	4.7	5.0
		F	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7
C46	Kaposi's sarcoma	M	0.6	0.6	0.7	0.6	0.6	0.4	0.3	0.3	0.2	0.2
		F	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0

* Using the European standard population

Table 10 Directly age standardised* rates - *continued* **England**

ICD (10th Revision) number	Site description		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	M	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
		F	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
C48	Malignant neoplasm of retroperitoneum and peritoneum	M	0.5	0.4	0.5	0.6	0.4	0.4	0.4	0.3	0.3	0.5
		F	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6
C49	Malignant neoplasm of other connective and soft tissue	M	2.3	2.6	2.2	2.2	1.8	2.1	2.0	2.3	2.1	2.2
		F	1.7	2.0	1.6	1.5	1.4	1.5	1.5	1.4	1.6	1.5
C50	Malignant neoplasm of breast	M	0.8	0.7	0.9	0.7	0.8	0.7	0.9	1.0	1.0	0.7
		F	105.1	106.4	101.4	103.5	106.0	106.4	113.2	113.4	116.7	114.0
C51	Malignant neoplasm of vulva	F	2.0	2.3	2.1	2.2	2.1	2.1	2.1	2.2	2.3	2.2
C52	Malignant neoplasm of vagina	F	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.5
C53	Malignant neoplasm of cervix uteri	F	12.6	11.8	11.5	11.0	10.4	10.0	9.7	9.2	9.4	8.6
C54	Malignant neoplasm of corpus uteri	F	12.5	12.4	12.7	12.8	13.0	13.0	13.8	13.5	14.1	15.4
C55	Malignant neoplasm of uterus, part unspecified	F	0.9	1.2	0.8	0.8	0.9	0.8	0.9	1.0	0.9	0.8
C56-C57	Malignant neoplasm of ovary and other and unspecified female genital organs	F	17.3	17.4	16.9	16.9	18.6	18.4	19.3	19.1	18.3	17.9
C56	Malignant neoplasm of ovary	F	17.1	17.0	16.7	16.7	18.2	18.1	18.8	18.7	17.9	17.5
C57	Malignant neoplasm of other and unspecified female genital organs	F	0.2	0.4	0.2	0.2	0.4	0.4	0.5	0.4	0.4	0.4
C58	Malignant neoplasm of placenta	F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C60	Malignant neoplasm of penis	M	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.4
C61	Malignant neoplasm of prostate	M	49.6	54.4	58.5	66.1	69.4	68.7	67.3	68.8	72.9	80.4
C62	Malignant neoplasm of testis	M	5.1	5.3	5.4	5.1	6.1	5.8	6.0	6.3	6.9	6.8
C63	Malignant neoplasm of other and unspecified male genital organs	M	0.2	0.2	0.3	0.1	0.3	0.2	0.4	0.2	0.2	0.2
C64	Malignant neoplasm of kidney, except renal pelvis	M	8.6	9.0	9.3	9.8	9.6	9.6	9.9	10.2	9.8	10.1
		F	4.4	4.3	4.3	4.6	4.6	4.9	4.9	4.9	5.1	5.0
C65	Malignant neoplasm of renal pelvis	M	0.5	0.5	0.5	0.5	0.7	0.5	0.6	0.6	0.6	0.7
		F	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.4
C66	Malignant neoplasm of ureter	M	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.5	0.6
		F	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
C67	Malignant neoplasm of bladder	M	30.2	30.5	30.6	30.0	30.6	28.4	27.2	27.3	26.5	23.1
		F	8.0	8.6	8.6	7.9	8.4	7.8	8.0	7.7	7.8	6.5
C68	Malignant neoplasm of other and unspecified urinary organs	M	0.2	0.3	0.3	0.3	0.3	0.3	1.0	0.2	0.2	0.3
		F	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1
C69	Malignant neoplasm of eye and adnexa	M	0.9	1.0	0.9	0.8	0.9	0.7	0.9	0.7	0.6	0.8
		F	0.8	0.8	0.7	0.6	0.8	0.6	0.7	0.5	0.5	0.6
C70	Malignant neoplasm of meninges	M	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
		F	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1
C71	Malignant neoplasm of brain	M	7.3	7.9	7.6	7.6	7.8	7.7	8.3	7.8	8.0	8.2
		F	4.7	5.4	5.2	5.1	5.4	5.3	5.3	5.4	5.0	5.5
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	M	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2
		F	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
C73	Malignant neoplasm of thyroid gland	M	1.0	0.9	1.0	1.0	1.0	1.1	1.1	1.3	1.2	1.2
		F	2.3	2.4	2.3	2.7	2.4	2.4	2.5	2.7	2.7	3.0

* Using the European standard population

Table 10 Directly age standardised* rates - *continued* **England**

ICD (10th Revision) number	Site description		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C74	Malignant neoplasm of adrenal gland	M	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3
		F	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
C75	Malignant neoplasm of other endocrine glands and related structures	M	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
		F	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
C76	Malignant neoplasm of other and ill-defined sites	M	0.4	0.4	0.4	0.6	0.7	0.7	0.7	0.7	0.9	0.9
		F	0.6	0.5	0.5	0.7	0.8	0.7	0.8	0.8	0.9	0.9
C77	Secondary and unspecified malignant neoplasm of lymph nodes	M	1.1	0.9	1.0	1.3	1.0	1.7	1.7	1.2	1.4	1.3
		F	0.8	0.7	0.9	1.0	0.8	1.1	1.2	0.8	0.8	0.9
C78	Secondary malignant neoplasm of respiratory and digestive organs	M	6.6	6.5	6.9	7.1	7.1	6.7	6.8	6.7	6.9	6.6
		F	4.8	4.9	5.3	5.6	5.3	5.3	5.3	5.1	5.2	4.8
C79	Secondary malignant neoplasm of other sites	M	3.4	3.1	3.3	3.5	3.2	3.3	3.1	3.0	2.9	2.8
		F	2.5	2.5	2.5	2.5	2.4	2.4	2.5	2.3	2.1	2.2
C80	Malignant neoplasm without specification of site	M	11.7	11.5	11.6	11.0	10.9	11.7	11.7	11.2	10.3	8.6
		F	8.6	8.4	8.4	8.2	8.6	8.7	9.1	8.2	8.4	7.5
C81	Hodgkin's disease	M	2.4	2.8	2.7	2.5	2.6	2.5	2.6	2.8	2.7	3.0
		F	1.6	1.8	1.8	1.9	1.9	1.8	1.8	2.0	1.9	2.0
C82-C85	Non-Hodgkin's lymphoma	M	13.1	13.3	13.4	14.2	13.8	13.8	14.5	14.8	15.1	15.3
		F	8.9	9.2	9.1	9.7	9.4	9.3	9.9	10.5	10.8	10.9
C88	Malignant immunoproliferative diseases	M	0.1	0.0	0.1	0.1	0.4	0.3	0.4	0.5	0.5	0.4
		F	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.2	0.3	0.2
C90	Multiple myeloma and malignant plasma cell neoplasms	M	5.3	5.4	5.3	5.1	5.4	5.2	5.2	5.8	5.5	5.7
		F	3.3	3.4	3.5	3.6	4.0	3.5	3.6	3.8	3.8	4.0
C91-C95	All leukaemias	M	11.1	10.6	10.9	10.9	12.6	11.2	11.5	11.7	11.4	12.2
		F	6.4	6.5	6.6	6.9	7.5	7.0	7.3	7.3	7.3	7.0
C91	Lymphoid leukaemia	M	5.2	4.9	5.4	5.3	6.6	6.2	5.8	6.0	6.0	6.4
		F	2.7	2.6	2.9	3.1	3.5	3.3	3.1	3.3	3.3	3.3
C92	Myeloid leukaemia	M	5.0	4.9	4.8	5.0	5.4	4.5	5.2	5.0	4.8	5.1
		F	3.3	3.4	3.3	3.4	3.6	3.3	3.8	3.6	3.6	3.3
C93	Monocytic leukaemia	M	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
		F	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
C94	Other leukaemias of specified cell type	M	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
		F	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C95	Leukaemia of unspecified cell type	M	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
		F	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2
C96	Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	M	0.1	0.2	0.2	0.1	0.0	0.2	0.4	0.1	0.1	0.0
		F	0.1	0.1	0.2	0.1	0.0	0.2	0.2	0.0	0.0	0.0
D05	Carcinoma in situ of breast	F	6.4	7.0	6.6	6.6	7.3	7.5	8.7	9.5	10.5	11.2
D06	Carcinoma in situ of cervix uteri	F	73.6	71.6	69.3	74.5	79.5	81.9	80.2	87.9	87.4	82.7

* Using the European standard population

Appendix 1 Guidance notes and definitions

1 DATA

Cancer registrations

For the purposes of the national cancer registration scheme the term 'cancer' includes all malignant neoplasms and the reticuloses, that is conditions listed under site code numbers C00 to C97 of the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems[1]. In addition, all carcinoma in situ and neoplasms of uncertain behaviour are registered. Benign neoplasms and neoplasms of unspecified nature of bladder and brain, including the pineal and pituitary glands, are also registered, together with hydatidiform mole.

It should be noted that some cancer registries are not always able to collect complete information about benign, uncertain and unspecified neoplasms and therefore these registration rates are almost certainly underestimates of the true incidence. In particular, this should be noted when interpreting regional differences.

Quality of cancer registration data

A brief history of cancer registration in England and Wales is given above (pages 4-10). The essential features of the current system have remained unchanged for over 30 years. The main flows of information to and from the regional registries and ONS, including the National Health Service Central Register (NHSCR), are illustrated in Figure A on page 5. Some aspects of the system which are relevant to the interpretation of the data have been discussed in considerable detail by Swerdlow[2]. These and others including geographic coverage; methods of data collection; ascertainment (or completeness of registration); completeness of recording of data items; validity; accuracy; late registrations, deletions and amendments; duplicate and multiple registrations; registrations from information on death certificates; clinical and pathological definitions and diagnoses; changes in coding systems; completeness of flagging at NHSCR; changes in definition of resident population; and error, are discussed below.

Over the years, changes have occurred to the number of registries and to their **geographic coverage**. In 1950 there were 74 centres registering cancer in England and Wales, but the system was progressively simplified and by 1958 ten regions were covered by regional cancer registries; full coverage of England and Wales (but not 100% ascertainment of cases - see below) was achieved in 1962. Some registries covered more than one RHA: the Thames Registry was formed in 1985 with the merger of the North West, North East and South Thames registries (the last of these covered both the South West and South East Thames RHAs). Wessex was separated from the South Thames registry in 1973; this coincided with a change in the method of data collection and a substantial increase in numbers of registrations for some parts of the Wessex region. Following reorganisations at the regional level in the NHS in 1996, the former South Western and Wessex RHAs are now covered by the South and West Cancer Intelligence Service based in Bristol and Winchester. The former Yorkshire RHA and part of the former Northern RHA are now covered by the Northern and Yorkshire Cancer Registry and Information Service based in Leeds (the remainder of the former Northern RHA, South Cumbria, is now covered by the North Western Registry). Further reorganisations at the regional level in the NHS occurred in 1999 and 2001, but no corresponding major changes have been made to the areas covered by the cancer registries. Some registries received reports from several centres in their areas - at various times five regional centres existed in Trent, two in South Western, and three in East Anglian.

The independent cancer registries differ considerably in their **methods of data collection**; some employ peripatetic clerks, others use hospital record staff to extract data for the registry, and several rely heavily on other organisations' computer systems including those in hospitals and pathology laboratories. The registries probably also differ in the level of **ascertainment** of their data (that is the degree to which reportable incident cases of cancer in the population are actually recorded in the registry) but the best are known to have very high levels. Direct measures are only available from occasional special studies[3,4]. That by Hawkins and Swerdlow[3] estimated that the under-ascertainment of registration of childhood cancers by the regional registries was just under 5%; under-ascertainment may be greater for adults, for whom registration and record linkage (in the registries and at NHSCR) may be more difficult, than for children. General indications of ascertainment levels can be obtained from comparisons of the numbers of registrations and deaths in a period. The figures for deaths are those coded to a particular type of cancer as the underlying cause of death in residents of the same geographical area. Such mortality to incidence ratios by sex and site for 2000 are presented in Table 9. These ratios have several limitations, but there are variations between regions (and over time) which would be difficult to explain unless there were similar variations in ascertainment.

It may be difficult to interpret any apparent trends in cancer registrations because the registries are continually striving to increase their levels of ascertainment of cases. Any particularly large increases from year to year in the numbers of registrations for an individual registry are most likely to have arisen because of this. For example, the recorded incidence for residents in some parts of the Thames Regional Health Authorities was unusually high in 1992, and unusually low in 1993, as a result of a one-off exercise by the Thames Cancer Registry in 1993 to find further information for people with cancer mentioned on their death certificate[5].

Completeness is the extent to which all appropriate data items have been recorded in the registry database. Some data items are essential; if high proportions of such items are missing, this is an indicator of poor quality. For example, for cases that have been registered solely from the information on a death certificate (DCO) the incidence date is unknown and has to be taken as the date of death and the case may well be recorded against the wrong calendar year. A high DCO rate also implies under-ascertainment[6] because patients are being missed by the registry while they are alive and not all cancer patients die of their disease (in which case, cancer is not mentioned on the death certificate). Other quality indicators are the proportion of cases where the primary site is unknown, and the proportions where important information such as the age of the patient or their postcode, is missing. Tables giving the proportions of registrations by region that have zero survival (which include both DCO cases and patients who were known to have died on the day of diagnosis - true zero survival) are given in Appendix E1 of the *Cancer Trends* volume[7]: and tables giving the proportions of registrations by region with site unspecified are given in its Appendix E2.

The agreed procedures to be followed by the cancer registries and ONS when submitting and processing data

Figure 1A Number of newly diagnosed cases of cancer* by quality status†, as at October 2003, England, 1971-2000

Year	Total	Status 1	Status 2	Status 3	Status 3 as % of total
1971	143,827	141,358	2,151	318	0.2
1972	146,350	144,173	1,840	337	0.2
1973	151,713	149,437	1,887	389	0.3
1974	156,553	155,441	618	494	0.3
1975	156,936	155,888	432	616	0.4
1976	157,821	156,204	869	748	0.5
1977	160,707	159,757	164	786	0.5
1978	160,652	159,744	159	749	0.5
1979	163,670	162,798	257	615	0.4
1980	169,230	168,324	298	608	0.4
1981	173,950	171,770	1,422	758	0.4
1982	174,836	172,557	1,532	747	0.4
1983	178,114	175,318	2,014	782	0.4
1984	178,129	174,374	2,810	945	0.5
1985	189,011	186,885	1,311	815	0.4
1986	185,609	183,068	1,641	900	0.5
1987	190,577	187,668	2,106	803	0.4
1988	196,688	193,318	2,412	958	0.5
1989	196,633	192,811	2,787	1,035	0.5
1990	197,695	178,493	18,962	240	0.1
1991	200,700	196,846	3,696	158	0.1
1992	208,082	203,807	3,785	490	0.2
1993	207,169	202,343	4,375	451	0.2
1994	211,292	210,518	372	402	0.2
1995	214,423	214,114	30	279	0.1
1996	213,502	213,297	28	177	0.1
1997	218,885	218,624	74	187	0.1
1998	220,623	220,400	42	181	0.1
1999	226,069	225,347	534	188	0.1
2000	225,556	225,437	20	99	0.0

* All malignant neoplasms excluding non-melanoma skin cancer
† See text

are set out in the 'Registry/ONS Interface Document' [8]. When a registry's submission is loaded onto the database at ONS, a large number of **validity** checks are carried out. There are over 40 checks on individual data items. These include that dates are valid, or that an 'indicator' is either 0 or 1 (or '&' if not known). There are around 20 cross checks between data items. These include the consistency of dates, for example that the incidence date is not after the date of death, and that the cancer site and histology are compatible. These latter cross checks are based closely on those promulgated by the International Agency for Research on Cancer (IARC)[6] and used by them when verifying data for inclusion in *Cancer Incidence in Five Continents*[9]. Combinations of site and histology are checked against three lists:

(i) histology codes which will be accepted in combination with <u>any</u> site code;

(ii) histology codes which will <u>only</u> be accepted if the site code is in the appropriate group (of which there are over 50); and

(iii) histology codes which will <u>not</u> be accepted in combination with any of the sites in a group (of which there are two).

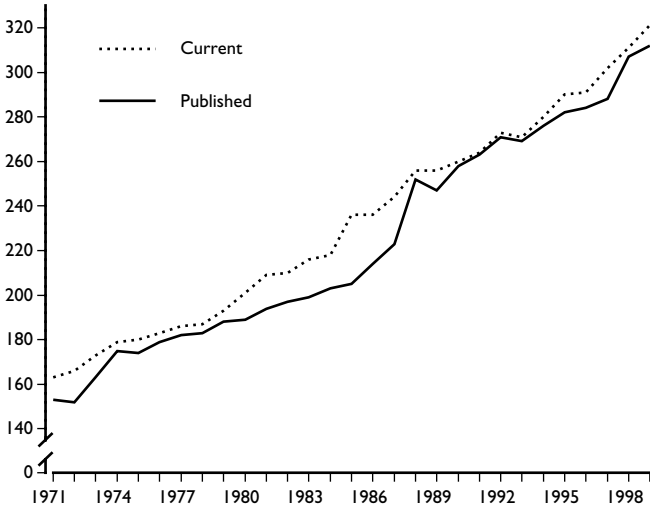
If a record passes all the checks and cross checks, it is given a quality status of 1. If a record fails any one of a small number of vital checks and cross checks, for example if the date of birth is invalid, thus making it impossible either to include the data in an output table in the ONS annual reference volume[5] or to flag the person concerned at the NHSCR, it is given a quality status of 3. If a record passes all the vital checks and cross checks but fails one or more other checks, it is given a quality status of 2, and along with records that have a quality status of 1, can be used in outputs and sent to the NHSCR for flagging. Information about all records which fail any of the validation checks is sent to the registries for them to investigate and submit corrections.

The national standards for cancer registries[10,11] require that when a registry's data for a particular year are complete, no more than 0.5% of records should have a quality status of 3. When OPCS redeveloped its cancer registration computer processing system in the early 1990s, all the previously submitted records were re-validated using the more stringent checks[8] incorporated in the new system. The quality status of all the records on the database at the National Cancer Intelligence Centre (NCIC) from 1971 up to 2000 is shown in Figure 1A. Over the past ten years, the proportion of records with serious errors has consistently been 0.2% or less.

As with completeness, the **accuracy** of the data (that is the proportion of cases recorded with a given characteristic that truly have the attribute) is only occasionally known directly from special studies. Various indirect measures, however, suggest that there is considerable variation between regions. A report of a project to audit the quality and comparability of cancer registration data in the UK, carried out under the aegis of the United Kingdom Association of Cancer Registries (see above) was published in 1995[12]. Variations among the registries were found in data quality for diagnostic factors, incidence date, stage of disease, treatment information, and use of death information. A study at the Merseyside and Cheshire Registry[13] also found that data quality within a registry varied by the age of the patient, the cancer site, and area of residence. However, a substantial audit of Scottish cancer registry data[14], in which information was re-abstracted from the available records, found that severe discrepancies had occurred in under 3% of cases. The review[12] concluded that although comparisons between the various published studies was difficult, cancer registry records were largely complete, accurate and reliable. The review found that the quality of cancer registry data depended heavily on the competence and experience of staff in the registry; on maintaining good relationships with clinicians, staff in health authorities, and scientists; and on the registry's active involvement in research.

The point in time at which ONS, in consultation with the cancer registries, decides to produce the tables for the reference volume is necessarily a compromise between two principal considerations - the need to minimise the delay between the relevant data year and the publication of the detailed results, and the requirement to obtain a very high level of completeness of the data and hence minimise the number of **late registrations**. The gap between the data year and production of tables has varied considerably; as a result there are currently varying proportions of additional cancer registrations held on the computer files at ONS compared with the numbers published in the corresponding reference volume, as shown in Figure 1B. Over the twenty nine year period the differences have averaged around

Figure 1B Number of registrations (thousands) published in ARVs and currently (October 2003) on the NCIC database, England



3% although the differences for 1985, 1986 and 1987 are larger as a result of the problems with the transmission of data between the Thames Registry and ONS[15]. The overall figures contain within them some substantial variations among the regions. For example, a problem at OPCS (as it was then) with the processing of one data tape for 1985 from the North Western registry resulted in a shortfall in the published figures of around two thousand registrations. Although this made a difference of less than 1 per cent to the total for England and Wales, it represented a shortfall of around 10 per cent for the North Western region. **Late deletions and amendments** to data are in general a much smaller problem than late new registrations.

A CD-ROM containing anonymised records of new cases of cancer - including all the 'late' registrations - for incidence years 1971 to 1992 has been produced by ONS[16]; the data are geographically coded to regional health authority level. Also included are anonymised records of deaths from cancer for 1971-1997; and the relevant mid-year population estimates to enable the calculation of incidence and mortality rates. The NCIC plans to update this CD-ROM with incidence data for 1991-1999 and cancer mortality data for 1991-2000.

While late registrations result in the figures published in the reference volume being too low, **duplicate registrations** can artificially inflate them. Such duplication may arise if a patient is resident in one area but treated in another; this is particularly so for those resident in North Wales and treated in Liverpool, and for those resident around London who are treated in central London. Duplications are prevented firstly by the cancer registries which hold alphabetic indexes of names and carry out computer searches; and secondly by the flagging at NHSCR, where if on flagging, a previous registration is found for the individual, the registrations are examined to see if they are duplicates or **true multiple primary** cancers. The rules for decisions on duplicates/multiples have changed over time, particularly for 1978 registrations which led to a 13 per cent decrease in registrations for Welsh residents. Currently, with the agreement of the cancer registries, all such cases are referred back to them by ONS, and decisions taken according to an agreed set of rules[8].

Since the early 1960s, copies of information from all death certificates mentioning cancer have been sent by ONS to the registry covering the area in which the death occurred. Any cancers registered solely from the information on the death certificates were not included in the published information prior to 1974, at which point an abrupt increase occurred. Registries use the death certificate information in different ways. For example, some check the data by reference to clinical notes or other local data sources, but others simply enter the death as a registration (with the year of death as the incidence year).

Inaccuracies and incompleteness may arise from **diagnostic practice**, and changes in it, although such errors and changes come from outside the cancer registration system and are not under its control. Misclassification of cancers is more likely to occur when there is no opportunity to obtain histological confirmation of disease, or if the tumour has a pre-malignant stage which can be confused with invasive carcinoma. Misclassification may also result from mistakes in the collection, abstraction or coding of information both before and after it reaches the registry. Also, **clinical and pathological** (and registry) **definitions of cancer** may change over time and between places, particularly for borderline malignant conditions.

Changes in **coding systems** may cause discontinuities in published data. For the national data held by ONS, for incidence years 1971 to 1978, site is coded to ICD8 and histology by the Manual of Tumor Nomenclature and Coding (MOTNAC) 1968 edition[17]; for incidence years 1979 to 1994, site is coded to ICD9 and histology to ICD-O[18]; and from incidence year 1995 onwards, site is coded to ICD10 and histology to ICD-O2[1]. Details of the effect of the changes between the ICD revisions on mortality statistics have been published[19]; these give an indication of their likely effect on cancer registrations. In addition, there have been some minor changes in ONS coding and classification rules[3]. Over time the submission of data from the registries to ONS on abstract cards was superseded by computer media (punched cards, magnetic tape and diskettes). Abstract cards were coded at ONS whereas magnetic tapes and diskettes were coded by the registry before being sent to ONS. Thus a change to magnetic tape (the last registry to do so was Oxford in 1985) may have been accompanied by changes in interpretation of coding.

In addition, the **completeness of flagging** of registrations by NHSCR is important for cohort studies. The proportion of cancer registrations received by ONS which were successfully linked to an NHSCR record was on average about 96 per cent from 1971 up to 1989. With the computerisation at NHSCR and improvements in data quality by the regional cancer registries, this has risen to over 99% for data for 1993 and subsequent years. The importance for any particular study of the records not traced will depend upon any biases by area, cancer site or other main factors of interest[20].

Rates of cancer incidence are dependent not only on the accuracy of the cancer registration data but also on that of the **population denominator data**. Recent censuses are believed to have been very accurate overall: under-enumeration in 1981 was estimated to be 0.5 per cent (240,000 people) and in 1991 to be 1.1 per cent (572,000 people), but this varied by age and by geographic area. Annual mid-year estimates of population, based on census data together with information on births, deaths and

migration (see above) also appear to be very accurate on a national basis, although errors of several per cent have been found for some counties, districts and London boroughs. There may also be differences between the definitions of 'place of residence' used for cancer registrations and for population estimates. For the former, the address used is 'the usual place of residence as given by the patient', whereas the census definition is not so straightforward, particularly when a person lives at more than one address throughout the year[21]. This may lead to biases in analyses of data for small areas which include large numbers of students, armed forces or people living in institutions.

Although the census population figures for 2001 were overall some 1 million lower than the previously published population estimates, the differences were concentrated largely in the younger age groups, particularly for males. Cancer is a disease predominantly of older people, and checks on data for England and Wales have shown that in general the effects on overall cancer incidence rates of using populations for the 1990s that have been revised in the light of the results of the 2001 census, and subsequently, are very small.

Finally, in published data on the scale of the national cancer registration system it is almost inevitable that straightforward **errors** will occur, for example in the transcription and printing of tables. Corrections to known errors have been published.

Mortality data

Most deaths are certified by a medical practitioner. The death certificate is then usually taken to a registrar of births and deaths by a person known as an informant - usually a near relative of the deceased. In certain cases, deaths are referred to, and sometimes then investigated by, a coroner who sends information to the registrar of deaths which is used instead of that from the medical practitioner. In some cases, additional information from the coroner's certificate is forwarded to ONS by the registrar. Thus the information used in ONS mortality statistics may have come from one of four sources: the doctor, the informant, a coroner, or derived from one or other of the above (for example, the age of the dead person is derived from date of birth and date of death).

In the early 1990s, OPCS redeveloped its deaths registrations computer processing system. The main changes affecting the data included the progressive computerisation of local offices of registrars of births and deaths, and the automation of cause of death coding.

A full set of notes and definitions for mortality data has been published by ONS[22]. This includes: base populations; occurrences and registrations; areal coverage; death rates and standardisation; certification of cause of death; coding the underlying cause of death; analysis of conditions mentioned on the death certificate; amended cause of death; accelerated registrations; legislation on registration of deaths and the processing, reporting and analysis of mortality data; and historical changes in mortality data including the introduction of the Ninth Revision of the International Classification of Diseases[18] in 1979, industrial action taken by registration officers in 1981-82, and the amendment by OPCS in 1984 of WHO Rule 3 (one of the rules used to select the underlying cause of death).

Further information is provided in reference 22 about the redevelopment of the deaths computer processing system, the use of 'medical enquiries' to the certifier of death for further information in order to assign a more definite code, and the use of WHO Rule 3. There is also advice on using cause of death from 1993 onwards.

The main change in introducing automated cause of death coding was in the interpretation of WHO Rule 3. The death certificate is set out in two parts; part I gives the condition or sequence of conditions leading to death, while part II gives details of any associated conditions. Rule 3 states that 'if the condition selected by the General rules or Rules 1 and 2 can be considered a direct sequel of another reported condition, whether in part I or part II, select this primary condition'[18]. The interpretation of Rule 3 was broadened by OPCS in 1984 so that certain conditions which were often terminal, such as bronchopneumonia or pulmonary embolism, could be considered a direct sequel of any more specific condition reported. The more specific condition would then be regarded as the underlying cause. This change in interpretation meant that the numbers of deaths from certain conditions such as pneumonia fell suddenly in 1984, while deaths from conditions often mentioned in part II of the certificate rose[23]. The change in 1993 was a move back to the internationally accepted interpretation of Rule 3 operating in England and Wales before 1984.

Information on the effects of moving back to this earlier interpretation of Rule 3 have been published[24,25]. The expected effects were based on the assumption that any allowance for them was the same in 1993 as it was in 1984 (which is unlikely to be exactly true). But the effects of the change appear to be generally in the opposite direction to those of 1984 and of a similar magnitude[22].

Since January 2001, cause of death has been coded to ICD10[1]. Under ICD10, the interpretation of WHO Rule 3 is different from that in ICD9,[18] but similar to that adopted by OPCS for deaths in 1984-1992 (see above). In order to quantify the effects of this and other differences between ICD9 and ICD10, ONS carried out a bridge coding study: all deaths registered in 1999 were independently coded

to both ICD9 and ICD10, and the causes compared using internationally agreed groups of equivalent codes. The full results can be found in the Report 'Results of the ICD bridge coding study, England and Wales, 1999' in *Health Statistics Quarterly* 14.[26] The numbers of deaths coded to "malignant neoplasms" in ICD10 were higher than in ICD9 by around three per cent for males and two per cent for females.

Quality of mortality data

As explained above, mortality statistics in England and Wales are derived from the registration of deaths certified by a doctor or coroner. The data pass through a number of processes before becoming usable for analysis. These processes are complex, and involve a wide range of people, organisations and computer systems. The scope for error is correspondingly wide. ONS aims to produce mortality statistics with the highest achievable quality given the available resources.

The quality checks and validations carried out at the various stages in the creation of mortality statistics are described in detail in reference 22. These include: writing the medical certificate of death; registration of the death; entry of data in the computer system used by registrars of births and deaths; other checks made by the registration service; receipt of death registration data at ONS; validation processes; routine checks by ONS; the automated cause coding system; checks before and after extraction of data for analysis; checks on routine outputs; and analysis of ill-defined causes of death.

Advantages and disadvantages of incidence and mortality data

In 1981, Doll and Peto[27] compared the quality and utility of incidence and mortality data in the USA. The incidence data came from two 'one off' national cancer surveys in 1947/48 and 1969-71, and from continuous collection up to 1977 by the Surveillance, Epidemiology and End Results (SEER) cancer registries (which operated in various cities and states and in total covered about 10% of the US population). They showed that mortality data were largely reliable and stable over time. But examples for a few major sites such as breast (in females) and prostate indicated that there were discrepancies with incidence that were too large to be explained without there being serious upward biases in the trends in cancer registration data, and that mortality data were generally more trustworthy.

These conclusions do not apply to cancer registration data in the UK. As noted above, a recent review of the quality of UK cancer registry data[12] concluded that results were largely complete, accurate and reliable. The data on cancer registration 'quality indicators' - mortality to incidence ratios, zero survival cases, and unspecified site - demonstrate that although there is some variability within England and Wales, the overall ascertainment and reliability is good. And the trends in incidence and mortality illustrated for the major cancer sites in Chapter 2 of the *Cancer Trends* volume[7] clearly confirm that, although there may have been some under registration, particularly for lung and stomach cancer, in the early 1970s, from the late 1970s onwards the trends in incidence are consistent with those for mortality and the recorded improvements in survival[28,29].

Mortality data are generally more timely than incidence (the current gap is two years - the latest mortality data[31] are for 2002[30], while incidence data are available up to 2000). This is largely because there is a statutory requirement to register a death within five days, and for the large majority of deaths there is only one source document. As explained above, cancer registration is not statutory and collating information from the necessary wide variety of sources is time consuming, and ONS cannot produce final results for England and Wales until data have been received from all registries. But trends in mortality give only a delayed

Figure 1C Advantages and disadvantages of incidence and mortality data

Incidence	Mortality
Advantages • high quality coding • both cancer site and histology • very low proportion site unspecified • incidence date known (except for small proportion registered solely from a death certificate)	**Disadvantages** • diagnostic accuracy less certain than for incidence • site only, no histology • around 10% site unspecified • deaths in any one year result from cases diagnosed over a long previous period
Disadvantages • may not be complete • may not be sufficiently timely • national coverage not achieved until 1962; evidence of under-ascertainment in the early 1970s	**Advantages** • virtually 100% complete • timely (within months of the end of a data year) • very long time series (if not affected by ICD or other coding changes[19])

indication of trends in new cases, because for cancers with moderate or good survival, those dying in any one year may have been diagnosed and treated many years earlier. Even in the 1970s, five year survival from many of the major cancers, for example breast (in females), cervix, larynx, melanoma of skin, testis and uterus, was in the range 50-70% and since then there have been notable improvements in survival for almost all except the highly fatal cancers (lung, oesophagus, pancreas)[28,29]. This has made incidence data increasingly more important for early monitoring of trends, and for assessment of major public health interventions such as breast and cervical screening[32-35].

Mortality data never were free from bias or criticism[36]. Death is not always correctly certified, or the underlying cause correctly coded, even for cancer. Many studies have shown wide variability in certification and coding, particularly between countries[37-48]. Although the mortality data are virtually 100% complete, while cancer registration data may not be, around 10% of deaths in England and Wales are coded to 'site unspecified'[22], whereas the corresponding proportion for incidence data is only 3%. These and other advantages and disadvantages of incidence and mortality data are summarised in Figure 1C.

Cancer mortality trends are therefore an imperfect and fuzzy indicator of trends in the efficacy of treatment - they reflect earlier trends in both incidence and survival and cannot be interpreted sensibly without them. Incidence and survival trends from the national cancer registry, based on data from the regional cancer registries, provide additional insight into the complex problems of cancer control. None of these indicators is perfect, and none is adequate on its own[49].

Populations

The population figures for 2000 used to calculate incidence rates given in this volume are the latest published ONS mid-year estimates of the population resident in England. The mid-1990 estimates and those for later years are not directly comparable with those produced for years before 1981: residents who were outside Great Britain on census night are now included whereas overseas visitors to Great Britain are now excluded.

Table 2 contains the population estimates for England by sex and age for 2000. Users requiring further information on these estimates should contact the Population Estimates Unit at: Office for National Statistics, Segensworth Road, Titchfield, Fareham, Hants, PO15 5RR.

Occasional Paper No. 37 describes methods used by ONS to produce annual mid-year estimates of the population of local and health authority areas in England and Wales. It includes historical background and methods used in the 1980s. Details are given of the components of change (births, deaths and migration), and of methods used to estimate some special groups in the population, such as students and armed forces. Methods for re-basing the estimates for the 1990s, incorporating the results of the 1991 Census, are also included. The paper is available, price £4.00, from Customer Enquiry Centre at: Office for National Statistics, Government Buildings, Cardiff Road, Newport, South Wales, NP10 8XG.

Government offices for the regions (GORs)

Regional incidence data in this annual reference volume are presented by the patient's government office for the region of usual residence.

Some cancer registry publications present statistics based on the number of patients treated in the cancer registry area. Statistics in some cancer registry reports may therefore differ from the analyses by region of residence given in this volume.

2 METHODS

Age standardised rates

The incidence of cancer varies greatly with age. Differences in the age structure of populations between geographical areas or over time therefore need to be controlled to give unbiased comparisons of incidence. This can be achieved through either direct or indirect standardisation[50].

(i) Direct standardisation: Age and sex specific rates in each group in the populations to be compared are multiplied by the corresponding number of people in a 'standard' population, usually the World or (here) European standards - see Appendix F of the *Cancer Trends* volume[7], and then summed to give an overall rate per 100,000 population.

Thus the directly standardised incidence rate using the European standard population is given by

$$I\,(ASR/E) = \{ \sum_k i_k P_k \} / \sum_k P_k$$

where i_k = observed incidence rate in age group k
k = 1, ... , 19 and the 19 age groups are 0, 1-4, 5-9, ... , 80-84, and 85 and over
P_k = standard population in age group k

Such directly standardised rates are presented in Table 10 which gives time series for 1991 to 2000.

(ii) Indirect standardisation: Here, one set of age and sex specific rates (here those for England as a whole) is taken as the standard. These rates are then applied to each of several index populations of known age structure to show how many registrations would have been expected in these index populations had they, at each age, experienced the cancer incidence of the standard population. The 'expected' incidence so found is then compared with the observed, their ratio being multiplied by 100 to give an index, called the standardised registration ratio (SRR), in which 100 is the value for the standard population. Calculations are based on nineteen age groups (those used in Table 1).

The use of the SRR enables data for a particular site and sex to be presented as a single index figure relative to a defined standard or baseline. If the incidence patterns in the various age groups are different in the two populations or time periods, however, SRRs are an unreliable guide to comparison, and age-specific rates should be examined.

Table 6 shows the SRRs in GORs of residence for 2000. For each cancer, the registration rates in England are taken as standards (with the sexes considered separately). For example, the SRR for cancer of the stomach in the East Midlands GOR was calculated as**:**

$$\text{SRR} = 100 \times \frac{\text{No. of registrations of cancer of the stomach in East Midlands GOR}}{\sum_{\text{Age group}} \left[\text{Population in each age group, East Midlands GOR} \times \text{registration rate for cancer of the stomach for that age, England} \right]}$$

Cumulative lifetime risk

The risk of a person developing cancer during their lifetime is obtained by applying sex- and age-specific incidence rates to the person years at risk derived from the numbers of survivors from a hypothetical cohort based on an England life table. It gives the percent of the cohort that would develop cancer should the current age and sex specific rates be experienced throughout the lifetime of the cohort[51]. It can also be expressed as the odds of developing the disease during a person's lifetime.

Survival

ONS registrations since 1971 have been linked at the NHSCR to the death records (as already described); national survival tables have been published in *Cancer Survival Trends in England and Wales, 1971-1995: deprivation and NHS region*[28], and extended in *Cancer Survival in England and Wales, 1991-98*[29], *Cancer Survival 1992-1999*[52]; *Cancer Survival, England, 1993-2000;*[53] and *Cancer Survival, England and Wales 1991-2001.*[54]

The results of the first EUROCARE cancer survival study, which covered 30 cancer registries in 12 European countries, including England and Scotland, were published[55] in 1995. Six cancer registries in England participated; these were geographically spread around the country and covered almost half the population. Cancer registration data up to 1985 were included.

Results from the second EUROCARE study which covered 45 cancer registries in 17 countries, also including England and Scotland, have also been published[56, 57]. Seven cancer registries in England participated. Cancer registration data up to 1989 were included.

Some results from the third EUROCARE study which covered 56 cancer registries in 22 countries, including eight English registries and the registries in Wales and Scotland, were released at the European Cancer Conference (ECCO 12) in September 2003; full results were to be published in the journal *Annals of Oncology.* Cancer registration data up to 1994 were included in the study.

Symbols and conventions used

-	nil
..	not available
:	not appropriate
nos	not otherwise specified
nec	not elsewhere classified

Further information

As noted above, individual anonymised records of new cases of cancer diagnosed from 1971 to 1992, together with individual anonymised records of deaths from cancer from 1971 to 1997, have been made available on a CD-ROM,[16] which can be purchased from ONS.

Special tabulations involving data not on the CD-ROM are available to order (subject to confidentiality thresholds) and on repayment. Such requests or enquiries should be made to:

National Cancer Intelligence Centre
Office for National Statistics
B7/04
1 Drummond Gate
London SW1V 2QQ

References

1. World Health Organisation. *International Statistical Classification of Diseases and Related Health Problems - Tenth Revision*. Geneva: WHO, 1992.
2. Swerdlow AJ. Cancer registration in England and Wales: Some aspects relevant to interpretation of the data. *Journal of the Royal Statistical Society Series A* 1986; **149**: 146-160.
3. Hawkins MM, Swerdlow AJ. Completeness of cancer and death follow-up obtained through the National Health Service Central Register for England and Wales. *British Journal of Cancer* 1992; **66**: 408-413.
4. Villard-Mackintosh L, Coleman MP, Vessey MP. The completeness of cancer registration in England: an assessment from Oxford FPA study. *British Journal of Cancer* 1988; **58**: 507-511.
5. Office for National Statistics. *Cancer statistics - registrations, England and Wales, 1993*. Series MB1 no.26. London: The Stationery Office, 1999.
6. Parkin DM, Chen VW, Ferlay J, Galceran J, Storm HH, Whelan SL. *Comparability and Quality Control in Cancer Registration*. IARC Technical Report No.19. Lyons: International Agency for Research on Cancer, 1994.
7. Quinn M J, Babb P J, Brock A, Kirby E A, Jones J. *Cancer Trends in England and Wales, 1950-1999.* Studies on Medical and Population Subjects No.66. London: The Stationery Office, 2001.
8. Office of Population Censuses and Surveys. *Registry/ONS Interface Document. National Cancer Registration System, England and Wales*. London: OPCS, 1994 (subsequently revised).
9. Parkin DM, Whelan S, Ferlay J, Raymond L, Young J (eds). *Cancer Incidence in Five Continents, Vol. VII*. IARC Scientific Publications No.143. Lyons: International Agency for Research on Cancer, 1997.
10. NHS Executive. *Core contract for purchasing Cancer Registration*. EL(96)7. London: NHS Executive, 1996. Winyard G. *EL(96)7: Core contract for purchasing cancer registration* (letter). Leeds: NHS Executive, 1998.
11. Department of Health. *Cancer Registry Standards for England, v2.1*. London: DH, 2001.
12. Huggett C. *Review of the Quality and Comparability of Data held by Regional Cancer Registries*. Bristol: Bristol Cancer Epidemiology Unit incorporating the South West Cancer Registry, 1995.
13. Seddon DJ, Williams EMI. Data quality in population based cancer registration: an assessment of the Merseyside and Cheshire Cancer Registry. *British Journal of Cancer* 1997; **76**: 667-674.
14. Brewster D, Crichton J, Muir C. How accurate are Scottish cancer registration data? *British Journal of Cancer* 1994; **70**: 954-959.
15. Office of Population Censuses and Surveys. *Cancer statistics – registrations, England and Wales, 1988*. Series MB1 no.21. London: HMSO, 1994.
16. Quinn MJ, Babb PJ, Jones J, Baker A, Ault C. *Cancer 1971-1997*. Registrations of cancer cases and deaths in England and Wales by sex, age, year, health region and type of cancer (CD-ROM). London: Office for National Statistics, 1999.
17. American Cancer Society. *Manual of tumor nomenclature and coding (MOTNAC)*. Washington DC: American Cancer Society, 1951.
18. World Health Organisation. *International Classification of Diseases - Ninth Revision*. Geneva: WHO, 1977.
19. Office of Population Censuses and Surveys. *Mortality statistics - comparison of 8th and 9th Revision of the International Classification of Diseases*. Series DH1 no.10. London: HMSO, 1983.
20. Quinn MJ. Progress on flagging cancers at NHSCR. *The Researcher* 2000; **14**: 4-5.
21. Office of Population Censuses and Surveys and General Register Office (Scotland). *1991 Census: Definitions, Great Britain*. London: HMSO, 1992.
22. Office for National Statistics. *Mortality statistics 1998: cause, England and Wales*. Series DH2 no.25. London: The Stationery Office, 1999.
23. Office of Population Censuses and Surveys. *Mortality statistics 1984: cause, England and Wales*. Series DH2 no.11. London: HMSO, 1985.
24. Office for National Statistics. *Mortality statistics 1993 (revised) and 1994: cause, England and Wales*. Series DH2 no.21. London: The Stationery Office, 1996.
25. Rooney C, Devis T. Mortality trends by cause of death in England and Wales 1980-94: the impact of introducing automated cause coding and related changes in 1993. *Population Trends* 1996; **86**: 29-35.
26. Office for National Statistics. Report: Results of the ICD10 bridge coding study, England and Wales, 1999. *Health Statistics Quarterly* 2002; **14**: 75-83.
27. Doll R, Peto R. *The Causes of Cancer*. Oxford: Oxford University Press, 1981.
28. Coleman MP, Babb P, Damiecki P, Grosclaude P, Honjo S, Jones J, Knerer G, Pitard A, Quinn MJ, Sloggett A, De Stavola B. *Cancer Survival Trends in England and Wales, 1971-1995: deprivation and NHS Region*. Studies in Medical and Population Subjects No. 61. London: The Stationery Office, 1999.
29. Coleman MP, Babb PJ, Harris S, Quinn MJ, Sloggett A, De Stavola BL. Report: Cancer survival in England and Wales, 1991-98. *Health Statistics Quarterly* 2000; **6**: 71-80.
30. Office for National Statistics. Report: Death registrations in England and Wales, 2002: causes. *Health Statistics Quarterly* 2003; **18**: 57-64.
31. Office for National Statistics. *Mortality Statistics 2001: England and Wales.* Series DH2 no.28. London: ONS, 2002.

32. Quinn MJ, Allen EJ, on behalf of the United Kingdom Association of Cancer Registries. Changes in incidence of and mortality from breast cancer in England and Wales since introduction of screening. *British Medical Journal* 1995; **311**: 1391-1395.
33. Blanks RG, Moss SM, McGahan CE, Quinn MJ, Babb PJ. Effect of NHS breast screening programme on mortality from breast cancer in England and Wales, 1990-8: comparison of observed with predicted mortality. *British Medical Journal* 2000; **321**: 665-669.
34. Quinn MJ, Babb PJ, Jones J, Allen E, on behalf of the United Kingdom Association of Cancer Registries. The effect of screening on the incidence of and mortality from cancer of the cervix in England: evaluation based on routinely collected statistics. *British Medical Journal* 1999; **318**: 904-908.
35. Sasieni P, Adams J. Effect of screening on cervical cancer mortality in England and Wales: analysis of trends with an age-cohort model. *British Medical Journal* 1999; **318**: 1244-1245.
36. Defoe D. *A journal of the plague year*. London, 1722.
37. Heasman MA, Lipworth L. *Accuracy of certification of cause of death.* Studies in Medical and Population Subjects no.20. London: HMSO, 1966.
38. Alderson MR, Meade TW. Accuracy of diagnosis on death certificates compared with that in hospital records. *British Journal of Preventive and Social Medicine* 1967; **21**: 22-29.
39. Grulich AE, Swerdlow AJ, dos Santos Silva I, Beral V. Is the apparent rise in cancer mortality in the elderly real? Analysis of changes in certification and coding of cause of death in England and Wales, 1970-1990. *International Journal of Cancer* 1995; **63**: 164-168.
40. Percy CL, Muir CS. The international comparability of cancer mortality data: results of an international death certificate study. *American Journal of Epidemiology* 1989; **129**: 934-946.
41. Ashworth TG. Inadequacy of death certification: proposal for change. *Journal of Clinical Pathology* 1991; **44**: 265-268.
42. Percy CL, Dolman AB. Comparison of the coding of death certificates related to cancer in seven countries. *Public Health Reports* 1978; **93**: 335-350.
43. Percy CL, Stanek E, Gloeckler Ries LA. Accuracy of cancer death certificates and its effect on cancer mortality statistics. *American Journal of Public Health* 1981; **71**: 242-250.
44. Percy CL, Miller BA, Gloeckler Ries LA. Effect of changes in cancer classification and the accuracy of cancer death certificates on trends in cancer mortality. *Annals of the New York Academy of Sciences* 1990; **609**: 87-97.
45. Hoel DG, Ron E, Carter R, Mabuchi K. Influence of death certificate errors on cancer mortality trends. *Journal of the National Cancer Institute* 1993; **85**: 1063-1068.
46. Lindahl BI, Johansson LA. Multiple cause-of-death data as a tool for detecting artificial trends in the underlying cause statistics: a methodological study. *Scandinavian Journal of Social Medicine* 1994; **22**: 145-158.
47. Garne JP, Aspegren K, Balldin G. Breast cancer as cause of death – a study over the validity of the officially registered cause of death in 2631 breast cancer patients dying in Malmö, Sweden 1964-1992. *Acta Oncologica* 1996; **35**: 671-675.
48. Jablon S, Thompson D, McConney M, Mabuchi K. Accuracy of cause-of-death certification in Hiroshima and Nagasaki, Japan. *Annals of the New York Academy of Sciences* 1990; **609**: 100-109.
49. Coleman MP, Babb PJ, Stockton D, Forman D, Møller H. Trends in breast cancer incidence, survival and mortality in England and Wales. *Lancet* 2000; **356**: 590-591 (letter).
50. dos Santos Silva I. *Cancer Epidemiology: Principles and Methods*. Lyons: International Agency for Research on Cancer, 1999.
51. Schouten LJ, Straatman H, Kiemeney LALM, Verbeek ALM. Cancer incidence: life table risk versus cumulative risk. *Journal of Epidemiology and Community Health* 1994; **48**: 596-600.
52. Office for National Statistics. *Cancer Survival 1992-1999*. London: ONS, 2001.
53. Office for National Statistics. *Cancer survival, England, 1993-2000*. London: ONS, 2002.
54. Office for National Statistics. *Cancer survival, England and Wales, 1991-2001*. London: ONS, 2003.
55. Berrino F, Sant M, Verdechia A, Capocaccia R, Hakulinen T, Estève J (eds). *Survival of cancer patients in Europe. The EUROCARE Study.* Lyons: International Agency for Research on Cancer, IARC Scientific Publication No.132, 1995.
56. Coebergh JWW, Sant M, Berrino F, Verdecchia A (eds). *Survival of Adult Cancer Patients diagnosed from 1978-1989: The EUROCARE II Study.* European Journal of Cancer 1998, **34**, 2137-2278.
57. Berrino F, Sant M, Verdechia A, Capocaccia R, Hakulinen T, Estève J (eds). *Survival of cancer patients in Europe during 1985-1989. EUROCARE II.* Lyons: International Agency for Research on Cancer, IARC Scientific Publication No. 151, 1999.

Appendix 2 Cancer registries in the United Kingdom: current directors, addresses, telephone and fax numbers

Figure 2A Areas covered by the regional cancer registries, England, 2000

(a) England

Northern &Yorkshire	Professor R Haward, Medical Director Tel: 0113 392 4163 Fax: 0113 392 4178 bob.haward@nycris.leedsth.nhs.uk Professor D Forman, Director of Information and Research Tel: 0113 392 4309 Fax: 0113 392 4178 david.forman@nycris.leedsth.nhs.uk Northern and Yorkshire Cancer Registry and Information Service, Arthington House Cookridge Hospital LEEDS, LS16 6QB
Trent	Dr J L Botha, Director Trent Cancer Registry Weston Park Hospital Whitham Road SHEFFIELD, S10 2SJ Tel: 0114 226 5351 Fax: 0114 226 5501 hannes.botha@sth.nhs.uk
East Anglian	Dr J Rashbass, Director East Anglian Cancer Registry Box 193, Level 5 Oncology Addenbrooke's Hospital Hills Road CAMBRIDGE, CB2 2QQ

	Tel: 01223 216644 Fax: 01223 245636 eacr@medschl.cam.ac.uk Cancer Intelligence Unit University of Cambridge Strangeways Research Laboratory Wort's Causeway Cambridge CB1 8RN Tel: 01223 740273 Email: sara.godward@srl.cam.ac.uk
Thames	Professor H Møller, Director & Professor of Epidemiology Thames Cancer Registry 1st Floor Capital House 42 Weston Street LONDON, SE1 3QD Tel: 020 7378 7688 Fax: 020 7378 9510 henrik.moller@kcl.ac.uk
Oxford	Dr M Roche, Medical Director Oxford Cancer Intelligence Unit Institute of Health Sciences Old Road Headington OXFORD, OX3 7LF Tel: 01865 227040 Fax: 01865 226809 monica.roche@phru.nhs.uk
South &West	Dr J Verne, Acting Director South and West Cancer Intelligence Service Grosvenor House 149 Whiteladies Road BRISTOL, BS8 2RA Tel: 0117 970 6474 Fax: 0117 970 6481 jverne.gosw@go-regions.gsi.gov.uk Mr T Malik, Deputy Director South and West Cancer Intelligence Service Highcroft Romsey Road WINCHESTER, SO22 5DH Tel: 01962 863511 Ext: 590 Fax: 01962 878360 tmalik@swcis.nhs.uk
West Midlands	Dr G Lawrence, Director West Midlands Cancer Intelligence Unit Public Health Building The University of Birmingham Edgbaston BIRMINGHAM, B15 2TT Tel: 0121 414 7711 Fax: 0121 414 7712 gill.lawrence@wmciu.nhs.com
Merseyside & Cheshire	Dr E M I Williams, Director Merseyside & Cheshire Cancer Registry 2nd Floor Muspratt Building The University of Liverpool LIVERPOOL, L69 3GB Tel: 0151 794 5690 0151 794 5691 Registry Fax: 0151 794 5700 lyn.williams@mccr.nhs.uk
North Western	Post vacant North Western Cancer Registry Centre for Cancer Epidemiology Christie Hospital NHS Trust Kinnaird Road Withington MANCHESTER, M20 9QL Tel: 0161 446 3566 Fax: 0161 446 3578
(b) Wales	
	Dr J Steward, Director Welsh Cancer Intelligence & Surveillance Unit 14 Cathedral Road CARDIFF, CF11 9LJ Tel: 029 20 373500 Fax: 029 20 373511 john.steward@velindre-tr.wales.nhs.uk
(c) Scotland	
	Dr D Brewster, Director of Cancer Registration in Scotland Scottish Cancer Registry National Health Service in Scotland Information & Statistics Division Trinity Park House South Trinity Road EDINBURGH, EH5 3SQ Tel: 0131 551 8903 Fax: 0131 551 8987 david.brewster@isd.csa.scot.nhs.uk
(d) N Ireland	Dr A Gavin, Director Northern Ireland Cancer Registry Dept of Epidemiology & Public Health The Queen's University of Belfast Mulhouse Building Grosvenor Road BELFAST, BT12 6BJ Tel: 028 9026 3136 Fax: 028 9024 8017 a.gavin@qub.ac.uk