Chapter 5: Comparability and quality of data

H.R. Shin, M.P. Curado, J. Ferlay, M. Heanue, B. Edwards and H. Storm

The purpose of Cancer Incidence in Five Continents is to present comparable incidence rates of cancer from different populations world-wide. The process of selecting the data to be included and the review and evaluation of the datasets by the Editors therefore require careful attention to several aspects related to comparability. As far as the cases registered (numerators of the rates) are concerned, these include:

(*a*) The definition of an incident case of cancer,

(*b*) The completeness of enumeration of cases in the population covered, and

(*c*) The accuracy of abstraction and coding of information.

In addition to these, the denominator—person-years at risk for the period under consideration—should be estimated as accurately as possible.

In this chapter we explain the evaluation of data comparability and quality undertaken by the Editors for this volume, and introduce the traditional tables of Indices of Data Quality with which the users themselves can make judgements on the completeness and validity of the different datasets.

Details of the standard definitions used by cancer registries to define an incident cancer, and the indices of comparability or validity that are found in the publication *Comparability and Quality Control in Cancer Registration* (Parkin 1994) and Chapter 5, "Comparability and quality of data" in the previous volumes (Parkin and Plummer 2002, in Volume VIII), were adopted to evaluate submissions for this volume.

In contrast to Volume VIII of *Cancer Incidence in Five Continents*, a comparison with standard values for several quantitative indices in the same region (see Chapter 5 in Volume VIII, pp. 66–67) was not executed for this volume. However, the editors tried to achieve standardization for this volume with more thorough efforts.

For Volume IX, the Editors considered these items:

(a) The number of cases in each year within the reference years 1998–2002, for the abrupt changes of number of cases by year in terms of completeness;

(b) The rates for each year, to check the tendency and stability of cancer incidence rates within the reference year;

(c) Other indices of data quality traditionally used by cancer registries, which are described later in detail;

(d) The existence and usage of official mortality data; and

(e) The coverage of the defined population.

The following Chapter 6, on Processing of Data, makes it clear that an extensive process of verifying coding, identifying possible duplicate registrations, querying unlikely or impossible combinations of codes, and converting data to a standard format has been carried out before any tabulations are prepared for editorial evaluation. These steps in validation of the data are part of the routine to which all datasets are subjected, and the successful completion of these steps forms part of the editorial evaluation.

A systematic and standard analysis according to the internal protocol at IARC produced the editorial tables and figures (listed below) that were provided to each contributor to allow an opportunity for feedback. These editorial sheets, along with the responses to the questionnaire filled by the registry and data process summary sheet were transferred to the secure FTP site. The site was subdivided into directories for each continent, country and registry. The external Editors, each assigned a continent, downloaded them for an initial review of the editorial sheets, and filled in a review summary form that was uploaded to the FTP site before the editorial meetings.

The systematic analysis produced the following:

(a) A set of editorial tables and figures including Editorial Sheets 1a (number of cancer cases) and 1b (age-standardized rates in major diagnosis groups in single calendar years of observation by sex)(Tables 5.1, 5.2), and Editorial Sheets 2a and 2b, age-specific graphs for major diagnosis groups, linear and logarithmic (Figures 5.1 and 5.2 respectively);

(b) The tables of age- and site-specific rates and summary rates (crude, age-standardized, percentage of Microscopically Verified cases (MV), and the change from the rates reported in Volume VIII (CH V8) (when available: see subsection *Comparison of rates with those in Volume VIII* in the section *Stability of incidence over time*) (Table 5.3);

(c) Other indices of data quality traditionally used for cancer registration, which are described later in detail (Table 5.4);

(d) The estimated population at risk, with the source of information as a form of population pyramid by sex and age, and the method of estimation used (population pyramids: Figure 5.3);

(e) The questionnaire responses provided by the registry; and

(f) Summary sheet to check the coding system, with applied rules for multiple primaries in the questionnaire (Figure 5.4).

At their formal meetings, the editors had access to all of the above, and each external editor reported the review result. All Editors agreed upon the final decision, and the responsible Editor filled in an evaluation form with the final decision and some queries, if necessary.

Comparability

Definition of incidence

In defining incidence rates, particular attention is required in three broad areas:

(*a*) The distinction between recurrence or extension of an existing cancer and the development of a new primary;

(*b*) The detection of cancers incidentally, in asymptomatic individuals; and

(*c*) The detection of cancers at autopsy.

Multiple primaries

Contributing registries were invited to submit all malignant and non-malignant diagnoses collected so that a common set of multiple primaries rules could be applied to each dataset. In this volume, the data were recoded (when necessary) into ICD–O–3 (Fritz *et al.*, 2000), and the international rules used to distinguish new primary cancers from existing extensions/recurrences were those set out in the IARC/IACR definitions (IARC, 2004). This also requires that all cancers in the same individual could be identified. Of the registries included in this volume, 46 did not provide a patient identification number, making it impossible for the Editors to distinguish multiple primary tumours from duplicate registrations. For those registries, the rules used prior to submission are indicated below the population pyramid of the corresponding registry.

As a result of recoding the datasets to the international standard, for those contributors who sent data already recoded according to a different set of rules, the results published in the volume do not exactly correspond to those published by the registries themselves. Table 5.5 shows the registration practices for the multiple primary rules by continent.

The second multiple primary check procedure performed at IARC may have removed some cases considered as duplicate registrations and, conversely, some records that are considered multiple primaries following the IARC/IACR rules (2004) may have been considered duplicates following the registry rules and excluded from the submission. For example, the Korea Central Cancer Registry submitted data for the period 1999–2002 according to the IARC/IACR rules (IARC, 2000). According to these rules, at least 261 cancer cases (of a total of approximately 430 000) that should have been considered multiple primaries following the IARC/IACR rules (2004) were considered duplicates by the registry and were not sent to IARC. In addition, 433 records that were considered multiple primaries by the registry were considered duplicates following the IARC/IACR (2004) rules and excluded from the final tables.

The number of cases to be removed due to duplicate cases on the basis of the 2004 rule is in fact very small, mostly affecting the number of cases from groups of tumours of the bladder, kidney and renal pelvis. Groups of haematopoietic and lymphoid tissues were changed to a more detailed classification. To compare the effect on incidence rates and time trends of certain sites, therefore, we should pay special attention to the changes in application of the multiple primary rules.

Incidental diagnosis

Almost all registries include malignant tumours diagnosed during screening programmes, or histological specimens taken from individuals in whom there were no symptoms, or no clinical suspicion of cancer. These cases will increase incidence rates if the malignant cells so identified would never have resulted in a clinical cancer had they remained undetected. The incidence of breast cancer appears to have been increased by the introduction of systematic mammographic screening for cancer. More striking, however, are the effects of such incidental diagnoses on the reported incidence of prostate cancer following the introduction of screening with prostate-specific antigen. Similarly, the increase in diagnostic activity may have influenced the incidence of thyroid cancer. Table 5.6 and 5.7 show the registration practices for using a screening program as a data source by continents.

Autopsy diagnosis

Most registries include cancers identified in necropsy examinations of subjects in whom cancer was not diagnosed (or perhaps even suspected) during life. The possible influence on incidence rates will depend upon the extent of necropsy examinations in different populations; in general this has been declining in most countries in recent decades. The registries' own appraisal of the percentage of cancer deaths autopsied is reproduced in Table 5.7.

Coding practice

For five cancer sites—skin, non-melanoma (ICD–10 C44), ovary (ICD–10 C56), urinary bladder (ICD–10 C67), brain and central nervous system (ICD–10 C70–72), and myeloproliferative disorders and myelodysplastic syndromes (MPD/MDS)—comparability is particularly affected by differences in classification and coding practices. These sites are printed in italics in the cancer registry tables, and care should be taken when comparing data from different registries for these sites.

Non-melanoma skin cancer. The incidence of non-melanoma skin cancer (NMSC) is difficult to assess. These cancers are very common but rarely fatal, and completeness of registration varies widely depending on access to outpatient records and general practitioners. Most NMSCs are basal cell (BCC) or squamous cell (SCC) carcinomas; other skin cancers are rare. While some registries record the first occurrence of all NMSC, others register BCC only, several registries collect information for lip and/or genital sites only, and many do not collect data on either SCC or BCC.

Ovarian cancer. Registries contributing to this volume were asked how they coded ovarian cystadenoma of borderline malignancy and borderline tumour of the ovary (see Chapter 3). Clearly, for these diagnoses, registration practice varies considerably. The borderline ovarian diagnoses were considered as non-malignant tumours in ICD–O–1/ICD–9. They were considered malignant in ICD–O–2/ICD–10, and have been changed back to the /1 borderline category in ICD–O–3; as a result, they have been excluded from the final tables in the present volume. Studies of trends in incidence should take into account the practice in previous volumes.

Bladder cancer. The problem of the coding of non-invasive tumours, taking into account recorded level of invasion and grade, and which to include in the tables as 'cancer of the bladder' has long been the subject of debate. In principle, the availability of data on histological type and behaviour has made it possible to publish only data on malignant cancer by excluding diagnoses with any behaviour code other than /3. However, many registries assign the behaviour code /3 to both non-invasive and unspecified diagnoses, making it impossible to distinguish such cases. The Editors decided to follow the policy adopted in the last two volumes and to accept that non-invasive diagnoses of bladder cancer (/1 and /2) are considered malignant, and the bladder cancer category includes the *in situ* and unspecified categories. A few registries preferred not to include such cases in their dataset, even when available in the registry, for the sake of continuity over time.

Brain and central nervous system. Benign and unspecified tumours of the brain and central nervous system are excluded from the tabulation. Some registries choose to include benign and unspecified tumours of the brain and central nervous system in their data because of the potentially serious clinical consequences of these tumours, and assign the behaviour code /3 to both benign and unspecified diagnoses, so making it impossible to distinguish such cases.

Myeloproliferative disorders and myelodysplastic syndromes. Unlike ovarian borderline tumours, these diagnoses that were considered as non-malignant disease (/1) in ICD–O–2 and in ICD–10 (D45–D47) have changed behaviour code to malignant (/3) in ICD–O–3. Only registries that collect information according to ICD–O–3, or those registries which have collected and submitted such cases although they were considered as non-malignant, can present data. Because no ICD–10 codes in the 'C' (malignant) category have been allocated to them, they are presented under the category MPD/MDS.

Completeness

Completeness of registration is the proportion of all incident cases in the registry population that have been included in the registry database. Completeness should be as close to 100% as possible, so that comparison of incidence rates between registries reflects true differences in cancer risk.

The Editors' main concern is with the possibility of incompleteness in the data submitted. *Duplicate registration* of the same case should be avoided by careful attention to record linkage during the registration process. Because the case lists submitted do not contain personal identifying information, it is impossible for the Editors to check for possible duplicates. However, sometimes the existence of duplicate registration was suspected, e.g. by indices of completeness (see below) being

higher than expected, and listings of possible duplicates (based on birthdate, sex, diagnosis and date of incidence) were returned to the registry for checking.

The following indices of completeness are routinely used during the editorial process:

(1) Historic data methods:
  (*a*) Stability of incidence rates over time
  (*b*) Age-specific incidence curves
  (*c*) Childhood cancer
(2) Proportion of cases microscopically verified
(3) Proportion of unknown basis of diagnosis
(4) Mortality:incidence (M:I) ratio
(5) Death certificate methods

Stability of incidence over time
Constancy of registrations during the period under review
Editorial Tables 1a and 1b (Tables 5.1 and 5.2) simply present the distribution of cases registered and age-standardized rates, by site and year. Those permit a rapid visual check on the stability of numbers of cases being recorded each year and signal potential problems in the registration process and/or in the population during the period under review.

Comparison of rates with those in Volume VIII
The change in incidence rates (as average percentage annual change) since Volume VIII is presented in the column headed CH V8 in Editorial Table 3 (Table 5.3). Those changes that are statistically significant, based on a comparison of the age-standardized rate in Volume VIII, are marked in bold. Changes in incidence rates over time that are greater than expected, and which cannot be ascribed to discrepancies in the estimation of person-years at risk, suggest the possibility of changes in the completeness of case ascertainment. When there was no corresponding rate published for that site in Volume VIII, the current rate was compared with an average value from other regions in the same country, or from neighbouring countries.

Age-specific incidence curves
Age-specific incidence curves for 12 sites in each sex comprised Editorial Sheet 2a, 2b (Figures 5.1 linear, 5.2 logarithmic). The curves were examined during the editorial process in order to detect abnormal fluctuations in the anticipated patterns, including any fall-off in the rate of increase in incidence in older subjects (suggestive of under-ascertainment in the oldest age groups). The curves also reveal problems with estimates of population at risk for specific age groups.

Childhood cancer
The possibility of under-enumeration (or duplicate registrations) in this age range was investigated by comparing the observed age-specific rates in the childhood age range (groups: 0–4, 5–9, 10–14 for all cancer sites) with the corresponding rates in Volume VIII, when available.

Proportion of cases microscopically verified
Editorial Sheet 4 (Table 5.4) tabulates, for each site by sex (19 for men, 21 for women), the percentage of cases for which the diagnosis was based upon microscopic verification of a tissue specimen (MV%). This includes, in addition to histological confirmation of diagnosis, those based upon exfoliative cytology specimens, and diagnoses of leukaemia based on haematological examination (without examination of bone marrow). The MV% figures are also presented in the tables of Indices of Data Quality on the website.

The main value of the MV% is as an indicator of the validity of the diagnostic information (Parkin et al., 1994). However, a very high proportion of cases diagnosed by histology or cytology/haematology—higher than might reasonably be expected—suggests over-reliance on the pathology laboratory as a source of information, and failure to find cases diagnosed by other means.

In Editorial Sheet 4 (Table 5.4), the column 'MV%' values in bold, accompanied by a flag (</>) signifies that the number of cases so diagnosed is significantly greater than (>) or less than (<) the value observed by sex and site in Volume VIII when available. When there was no MV% published for that site in Volume VIII, the current MV% was compared with an average MV% value from the other regions in the same country, or from neighbouring countries.

Proportion of cases of unknown basis of diagnosis
When each new cancer case is registered, the diagnostic modality is described as being by histology, cytology/haematology, clinical investigation with X-ray, ultrasound, MRI, autopsy or clinical diagnosis only. Cases not distinguished by the above modalities are listed as "unknown basis of diagnosis". If the proportion of cases denoted as "unknown basis of diagnosis" is higher than 20%, completeness of the registry is not sufficient to be included in this volume.

Mortality:Incidence ratio
This ratio is an important indicator of completeness, an example of the independent case ascertainment method (Parkin et al., 1994). Registries are asked to provide the mortality data on cancer by sex, age group and site, for the same period as the registered cases, from the local vital statistics office (municipal, provincial, national, etc.). Registry-generated mortality statistics (based on cases in the registry database who die during the period, or incorporating corrections to the certified cause of death) are *not* acceptable, since they do not constitute an independent data source.

When the quality of the mortality data is good, the M:I ratio is related to case fatality (1-survival). However, when mortality statistics are of poorer quality (incomplete certification, inaccurate cause of death statements) the relationship will be less close. Evaluation of the M:I ratio should take this into account. Since both survival and quality of mortality statistics are somewhat related to geographical region the regional location of the registry is important in evaluation of the statistic. As it is typical to use M:I ratio as a criteria for inclusion or exclusion, in the process of evaluation the editors compared the M/I ratio by site with a reasonable threshold level.

In Editorial Sheet 4 (Table 5.4), the M:I ratios for a given site are marked as being significantly greater (>) or less (<) than observed on the *Cancer Incidence in Five Continents*, Volume VIII, when available. When there was no corresponding ratio published for that site in Volume VIII, the current ratio was compared with an average value from the other regions in the same country, or from neighbouring countries. The tables of Indices of Data Quality show the values of the M:I ratio for registries where official mortality statistics are available.

Death certificate methods
Death certificates provide an important supplementary source of information for cancer registries. As far as incidence statistics are concerned, they function as a means of capturing information on cases that escaped the registration process during life.

Completeness of registration may be evaluated on the basis of the proportion of incident cancers that first come to the registry's attention via a death certificate notification of cancer (DCN cases). This proportion was provided by the registry to the editors of *Cancer Incidence in Five Continents,* whose data include only the numbers of death certificate only (DCO cases)—that is, the residuum of cases remaining after various follow-back procedures have been carried out on DCN cases. By itself, therefore, the DCO% is not an indicator

of completeness of registration; a low DCO% may indicate efficient case-finding, but it could equally well result from the efficient traceback of DCN cases (for example, there are actually no DCO cases with complete traceback in the Australia South and Canada Northwest Territories datasets). Nevertheless, the DCN% will always be equal to or greater than the DCO%, so an elevated DCO% is suggestive of incompleteness. Even this must be interpreted in the light of local circumstances; in some developing countries, the quality of death certificates may be very poor, with a fair number of erroneous cancer deaths, which the registry may have difficulty tracing back to a hospital capable of confirming (or not) the death certificate statement. Table 5.8 shows the registration practice used to distinguish the DCN cases and DCN (%) by each registry.

Failure to use death certificates, when these are available and can be linked to the registry database, is generally taken to mean that some lack of completeness is likely to be present.

Validity

Validity is defined as the proportion of cases in a data-set with a given characteristic (e.g., site, age) that truly have the attribute. *Cancer Incidence in Five Continents* uses five of the common indices of validity (Parkin *et al*., 1994):

(*a*) Internal consistency
(*b*) Histological verification
(*c*) Death certificate only
(*d*) Other and unspecified cases (ill-defined cases)
(*e*) Age unknown

The use of the IARC-CHECK program to perform consistency checks on the submitted data-sets is described in the chapter on data processing (Chapter 6). In practice, all datasets were submitted to this process, and the cases queried checked by the registry before incorporation into the database.

Microscopical verification

For most cases, the accuracy of the stated diagnosis is likely to be higher if it is based on histological examination by a pathologist. Previous surveys have shown that many cancer registries code diagnoses based on exfoliative cytology or on haematological examination of peripheral blood in the same category as histological examinations, so that it is impossible to distinguish between them. Partly for this reason, the index of validity used in the Editorial Sheet (Table 5.4) and the tables of Indices of Data Quality in this volume concern the percentage of cases microscopically verified.

For example, the MV% of liver cancer gradually decreased in the data from some Asian registries. In the practice guidelines, the diagnostic criteria of hepatocellular carcinoma included the non-invasive methods defined by the European Association for the Study of the Liver (Bruix *et al*., 2001) and by the American Association for the Study of Liver Disease (Bruix & Sherman 2005). In the regions with a high proportion of liver cancer among the total number of incidence cases, the overall MV% will be highly affected by the MV% of liver cancer. The practice guidelines should be considered in the evaluation of cancer cases from registries. Therefore, MV% without liver cancer was considered as one of the criteria for acceptance.

Also, MV% without leukaemia was considered when the MV% of each registry was less than the threshold of inclusion criteria.

Death certificate only

In this volume, considerable effort has been made to ensure that what is reported as DCO cases in the Editorial Tables and Indices of Data Quality Tables does, indeed, refer to such cases. That is, they represent the residuum of cases—*after all trace-back manoeuvres have been completed*—for which no other information than a death certificate mentioning cancer could be obtained. Inasmuch as the diagnostic information on death certificates is well known to suffer from lack of accuracy, or lack of precision, a high proportion of DCO cases implies a lack of validity of the data. It would usually imply a lack of completeness also, as noted earlier (see section on *Death certificate methods*).

There are many considerations involved in interpretation, and the sensitivity of the DCO% to local circumstances (availability of death certificates, quality of cause-of-death statements, facility to trace back cases). In this volume, the datasets with less than 20% of DCO cases were considered for the evaluation.

Other and unspecified (ill-defined) cases

The content of this category is defined in Chapter 3 (see Table 3.1). A high proportion of cases assigned to these rubrics generally implies poor diagnostic precision (as evidenced by the low MV% observed for this rubric), or failure to specify the site of the primary cancer in cases diagnosed on the basis of tissue obtained from a metastasis.

The percentage of ill-defined cases is given in Editorial Sheet 4 (Table 5.4). In this volume, only data with less than 20% of ill-defined cases were considered for the evaluation.

Age unknown

The proportion of cases for which age was unknown is reported in Table 5.3. In this volume, only data with less than 20% of age-unknown cases were taken into account for the evaluation.

Population

It is obvious that a 10% error in the estimation of population at risk produces just as much inaccuracy in the calculated incidence rate as a 10% error in enumeration of cases. However, cancer registries are generally not responsible for population estimates, and must rely upon various departments of central and local government to supply the required information. Registries should, however, inform themselves about the source of the population-at-risk figures that they use, and the methods used to produce estimates and projections. The Editors of this volume asked all contributing registries to provide this information, and it is summarised, along with the average annual population at risk for the period covered by the registrations, for each entry.

The population data provided by a registry could rarely be subjected to verification by the Editors. The shape of the population pyramids and irregularities in the age-specific incidence curves sometimes suggested errors in the estimates, and occasionally the appropriateness of the source of the information provided was queried. For Volume IX, which mainly concerns periods of time around 2000, census data were usually available, so that part of population at risk was based on post-censal and the other on intercensal estimates.

Grouping of datasets according to the inclusion criteria

Inclusion criteria

The Editors applied standard definitions for the inclusion criteria using the indices described above.

Up until Volume VIII, there were no rigidly defined criteria with ranges of acceptability for some quality indices; however, the Editors considered the guidelines for scrutinising the data when comparing them to previous volumes. The comparability groups A, B and C were created to facilitate high throughput of evaluation, did not require strict criteria for inclusion, and aided the Editors in the evaluation process. Table 5.7 shows the summarised inclusion criteria used for the review and evaluation of submissions and resubmissions. For some datasets, the intrinsic interest in providing information on little-known geographical and ethnic patterns, or continuity with earlier data from the same registry, were taken into consideration. The specialised cancer registries—e.g. site-specific cancer registries and childhood cancer registries—were not considered for inclusion.

Categorisation (Grouping)
Submissions with more than three-year data were taken into account for evaluation. Data with less than 20% of DCO cases, ill-defined cases, age-unknown cases were considered, except for some registries of special interest due to their geographical location.

An overall MV% of more than 75% was considered acceptable (data with higher than 99% of MV% were not considered for evaluation; see section on *Proportion of cases microscopically verified*). However, some registries reported a MV% without liver cancer or ill-defined cases that was higher than 75% (higher than 70% for some special-interest registries, for example China Jiashan) and were included as described in subsection *Microscopical verification* in the *Validity* section. Even though there was no strictly applied threshold of Mortality:Incidence ratio, a practically reasonable value by site was considered. Those with implausibly low or high incidence rates were not included in this volume.

The Editors received 313 submissions from cancer registries. For the editorial process, the submissions were categorized into three groups (group A, B, and C) according to the quality indicators. Of these, 225 (71.8% of submissions) were included.

Group A
The registries that included death reporting in the registry region that was in compliance with WHO recommendations were grouped as Group A. Data in this group also had more than 80% MV% and less than 10% ill-defined site, DCO% and unknown basis of diagnosis. Ideally, the registries with almost 100% completeness were considered for this group. The registries should have well-defined denominators and not show abrupt changes in trends. (For an example of Group A, see Editorial Sheet 4; Table 5.4a).

Group B
If a cancer registry had no access to death certificate data, even the existence of official mortality with causes of death, it was classified as comparability Group B. The registries were those with MV% between 75% and 80%. As described above, registries with a MV% due to a high proportion of liver cancer were calculated without liver cancer. MV% without leukaemia was also considered for this group. (For an example of Group B, see Editorial Sheet 4; Table 5.4b).

Group C
Regions or countries without official mortality were grouped as "C" for comparability. In terms of completeness, the registries in which ad hoc study is not available and death clearance is not a source of case finding were grouped into Group C. (For examples 1 and 2 of Group C, see Editorial Sheet 4; Table 5.4c).

The asterisk (*) for Group C and datasets of special interest
The presence of an asterisk on a registry table denotes that care should be taken in interpreting the rates for some or all of the cancer sites listed. The principal reason for use of an asterisk is to indicate those datasets, a total of 26, that the Editors considered to have some limitations in determining the number of cases or the population at risk that could affect the ability to make direct comparisons with other registry datasets. The criteria used to assign an asterisk were not strictly defined, being based instead on a number of quantitative indices discussed in this chapter as well as knowledge of the circumstances under which the registry operates. Certain registries were considered to be of special interest due to their providing important data on geographic or population groups little represented in the literature, and this was taken into consideration as well.

The submitting registries were notified of the assigned comparability group, but this information does not appear in the published volume.

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Table 5.1 Number of cases in major diagnosis groups in single calendar years of observation

ELSEWHERE (1998-2002)

MALE

SITE	1998	1999	2000	2001	2002	Total
Oral cavity & pharynx	88 (2.3)	79 (1.8)	99 (2.3)	110 (2.4)	114 (2.4)	490 (2.2)
Digestive organs	2375 (61.4)	2641 (61.6)	2655 (61.3)	2919 (62.4)	2968 (61.4)	13558 (61.6)
Respirathory organs	694 (17.9)	745 (17.4)	807 (18.6)	812 (17.4)	850 (17.6)	3908 (17.8)
Bone & cartilage	26 (0.7)	12 (0.3)	13 (0.3)	23 (0.5)	18 (0.4)	92 (0.4)
Breast	1 (0.0)	2 (0.0)	4 (0.1)	5 (0.1)	3 (0.1)	15 (0.1)
Male genital	69 (1.8)	110 (2.6)	97 (2.2)	117 (2.5)	139 (2.9)	532 (2.4)
Urinary organs	237 (6.1)	230 (5.4)	236 (5.4)	287 (6.1)	314 (6.5)	1304 (5.9)
Eye, brain & NS	57 (1.5)	56 (1.3)	72 (1.7)	47 (1.0)	45 (0.9)	277 (1.3)
Thyroid & endocrine	45 (1.2)	50 (1.2)	51 (1.2)	54 (1.2)	56 (1.2)	256 (1.2)
Ill-defined & unknown	84 (2.2)	96 (2.2)	65 (1.5)	81 (1.7)	73 (1.5)	399 (1.8)
Haematopoietic	157 (4.1)	215 (5.0)	198 (4.6)	180 (3.8)	204 (4.2)	954 (4.3)
All sites but skin	3867 (100.0)	4285 (100.0)	4334 (100.0)	4679 (100.0)	4834 (100.0)	21999 (100.0)

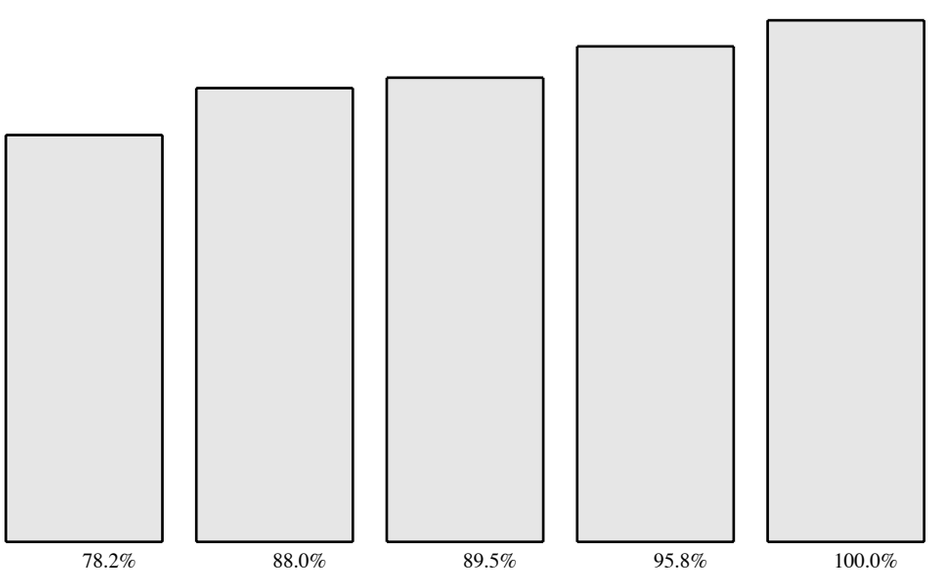
FEMALE

SITE	1998	1999	2000	2001	2002	Total
Oral cavity & pharynx	29 (1.0)	40 (1.2)	50 (1.5)	38 (1.0)	40 (1.0)	197 (1.1)
Digestive organs	1266 (43.1)	1427 (42.4)	1425 (41.3)	1465 (40.2)	1624 (42.1)	7207 (41.8)
Respirathory organs	217 (7.4)	309 (9.2)	277 (8.0)	329 (9.0)	308 (8.0)	1440 (8.3)
Bone & cartilage	12 (0.4)	12 (0.4)	19 (0.6)	22 (0.6)	16 (0.4)	81 (0.5)
Breast	408 (13.9)	465 (13.8)	496 (14.4)	550 (15.1)	621 (16.1)	2540 (14.7)
Female genital	520 (17.7)	562 (16.7)	540 (15.7)	567 (15.6)	608 (15.8)	2797 (16.2)
Urinary organs	67 (2.3)	74 (2.2)	92 (2.7)	106 (2.9)	101 (2.6)	440 (2.6)
Eye, brain & NS	40 (1.4)	44 (1.3)	55 (1.6)	53 (1.5)	39 (1.0)	231 (1.3)
Thyroid & endocrine	144 (4.9)	184 (5.5)	202 (5.9)	250 (6.9)	230 (6.0)	1010 (5.9)
Ill-defined & unknown	73 (2.5)	81 (2.4)	90 (2.6)	71 (1.9)	60 (1.6)	375 (2.2)
Haematopoietic	114 (3.9)	118 (3.5)	158 (4.6)	154 (4.2)	170 (4.4)	714 (4.1)
All sites but skin	2934 (100.0)	3362 (100.0)	3448 (100.0)	3646 (100.0)	3858 (100.0)	17248 (100.0)

BOTH SEXES

SITE	1998	1999	2000	2001	2002	Total
Oral cavity & pharynx	117 (1.7)	119 (1.6)	149 (1.9)	148 (1.8)	154 (1.8)	687 (1.8)
Digestive organs	3641 (53.5)	4068 (53.2)	4080 (52.4)	4384 (52.7)	4592 (52.8)	20765 (52.9)
Respirathory organs	911 (13.4)	1054 (13.8)	1084 (13.9)	1141 (13.7)	1158 (13.3)	5348 (13.6)
Bone & cartilage	38 (0.6)	24 (0.3)	32 (0.4)	45 (0.5)	34 (0.4)	173 (0.4)
Breast	409 (6.0)	467 (6.1)	500 (6.4)	555 (6.7)	624 (7.2)	2555 (6.5)
Female genital	520 (7.6)	562 (7.3)	540 (6.9)	567 (6.8)	608 (7.0)	2797 (7.1)
Male genital	69 (1.0)	110 (1.4)	97 (1.2)	117 (1.4)	139 (1.6)	532 (1.4)
Urinary organs	304 (4.5)	304 (4.0)	328 (4.2)	393 (4.7)	415 (4.8)	1744 (4.4)
Eye, brain & NS	97 (1.4)	100 (1.3)	127 (1.6)	100 (1.2)	84 (1.0)	508 (1.3)
Thyroid & endocrine	189 (2.8)	234 (3.1)	253 (3.3)	304 (3.7)	286 (3.3)	1266 (3.2)
Ill-defined & unknown	157 (2.3)	177 (2.3)	155 (2.0)	152 (1.8)	133 (1.5)	774 (2.0)
Haematopoietic	271 (4.0)	333 (4.4)	356 (4.6)	334 (4.0)	374 (4.3)	1668 (4.3)
All sites but skin	6801 (100.0)	7647 (100.0)	7782 (100.0)	8325 (100.0)	8692 (100.0)	39247 (100.0)

ALL SITES NUMBER OF CASES BOTH SEXES



Population data provided for 5 year(s).

Table 5.2 ASR in major diagnosis groups in single calendar years of observation

ELSEWHERE (1998-2002)

MALE

SITE	1998	1999	2000	2001	2002	Total
Oral cavity & pharynx	5.7 (2.2)	4.8 (1.7)	6.0 (2.3)	6.2 (2.2)	6.1 (2.2)	5.8 (2.1)
Digestive organs	156.5 (60.2)	166.0 (59.8)	156.7 (59.4)	167.9 (60.3)	163.5 (59.4)	162.2 (59.8)
Respirathory organs	51.1 (19.7)	53.8 (19.4)	53.3 (20.2)	53.7 (19.3)	52.1 (18.9)	52.9 (19.5)
Bone & cartilage	1.5 (0.6)	0.6 (0.2)	0.7 (0.3)	1.4 (0.5)	1.2 (0.4)	1.1 (0.4)
Breast	0.0 (0.0)	0.1 (0.0)	0.5 (0.2)	0.3 (0.1)	0.2 (0.1)	0.2 (0.1)
Male genital	6.3 (2.4)	9.2 (3.3)	7.4 (2.8)	8.7 (3.1)	9.5 (3.4)	8.3 (3.1)
Urinary organs	15.4 (5.9)	15.1 (5.4)	15.0 (5.7)	17.2 (6.2)	18.3 (6.7)	16.3 (6.0)
Eye, brain & NS	3.5 (1.4)	3.4 (1.2)	4.1 (1.6)	2.5 (0.9)	2.4 (0.9)	3.2 (1.2)
Thyroid & endocrine	2.4 (0.9)	2.8 (1.0)	2.5 (1.0)	2.8 (1.0)	3.1 (1.1)	2.7 (1.0)
Ill-defined & unknown	5.9 (2.3)	6.7 (2.4)	4.3 (1.6)	5.3 (1.9)	4.7 (1.7)	5.3 (2.0)
Haematopoietic	9.5 (3.6)	12.5 (4.5)	11.1 (4.2)	9.9 (3.5)	11.3 (4.1)	10.9 (4.0)
All sites but skin	259.8 (100.0)	277.6 (100.0)	263.7 (100.0)	278.4 (100.0)	275.2 (100.0)	271.3 (100.0)

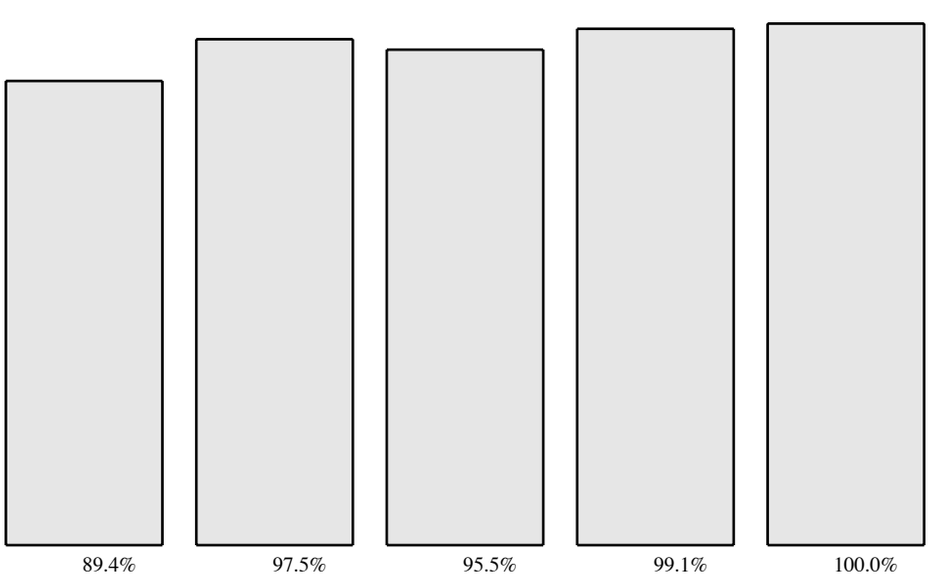
FEMALE

SITE	1998	1999	2000	2001	2002	Total
Oral cavity & pharynx	1.4 (1.0)	1.9 (1.2)	2.3 (1.5)	1.7 (1.1)	1.7 (1.0)	1.8 (1.1)
Digestive organs	62.9 (44.8)	68.5 (43.7)	65.8 (42.1)	65.8 (40.9)	71.0 (42.8)	66.9 (42.8)
Respirathory organs	10.8 (7.7)	14.8 (9.4)	12.9 (8.3)	15.1 (9.4)	13.4 (8.1)	13.4 (8.6)
Bone & cartilage	0.6 (0.4)	0.6 (0.4)	0.9 (0.5)	1.3 (0.8)	0.9 (0.5)	0.8 (0.5)
Breast	17.6 (12.6)	20.0 (12.8)	20.8 (13.3)	22.4 (13.9)	25.0 (15.0)	21.2 (13.6)
Female genital	23.4 (16.7)	24.7 (15.7)	23.1 (14.8)	23.8 (14.8)	25.4 (15.3)	24.1 (15.4)
Urinary organs	3.5 (2.5)	3.7 (2.4)	4.6 (3.0)	4.9 (3.0)	4.5 (2.7)	4.3 (2.7)
Eye, brain & NS	2.2 (1.6)	2.1 (1.3)	2.8 (1.8)	2.7 (1.7)	1.8 (1.1)	2.3 (1.5)
Thyroid & endocrine	6.4 (4.6)	8.3 (5.3)	8.7 (5.6)	10.8 (6.7)	9.6 (5.8)	8.8 (5.6)
Ill-defined & unknown	3.5 (2.5)	4.0 (2.6)	4.2 (2.7)	3.2 (2.0)	2.6 (1.5)	3.5 (2.2)
Haematopoietic	5.6 (4.0)	6.1 (3.9)	8.2 (5.2)	7.6 (4.7)	8.4 (5.0)	7.2 (4.6)
All sites but skin	140.4 (100.0)	156.9 (100.0)	156.3 (100.0)	161.1 (100.0)	166.0 (100.0)	156.4 (100.0)

BOTH SEXES

SITE	1998	1999	2000	2001	2002	Total
Oral cavity & pharynx	3.2 (1.7)	3.1 (1.5)	3.9 (1.9)	3.6 (1.8)	3.7 (1.8)	3.5 (1.7)
Digestive organs	101.7 (54.5)	109.9 (53.9)	105.2 (52.7)	110.0 (53.1)	111.0 (53.1)	107.7 (53.4)
Respirathory organs	27.0 (14.5)	30.2 (14.8)	29.6 (14.8)	30.7 (14.8)	29.4 (14.1)	29.4 (14.6)
Bone & cartilage	1.1 (0.6)	0.6 (0.3)	0.8 (0.4)	1.3 (0.6)	1.0 (0.5)	0.9 (0.5)
Breast	9.2 (4.9)	10.4 (5.1)	10.9 (5.5)	11.6 (5.6)	12.9 (6.2)	11.0 (5.5)
Female genital	12.4 (6.6)	13.1 (6.4)	12.3 (6.1)	12.5 (6.0)	13.3 (6.4)	12.7 (6.3)
Male genital	2.3 (1.2)	3.4 (1.6)	2.8 (1.4)	3.3 (1.6)	3.6 (1.7)	3.1 (1.5)
Urinary organs	8.5 (4.6)	8.3 (4.1)	9.0 (4.5)	10.0 (4.8)	10.4 (5.0)	9.3 (4.6)
Eye, brain & NS	2.8 (1.5)	2.7 (1.3)	3.4 (1.7)	2.5 (1.2)	2.1 (1.0)	2.7 (1.3)
Thyroid & endocrine	4.5 (2.4)	5.6 (2.7)	5.7 (2.9)	6.8 (3.3)	6.3 (3.0)	5.8 (2.9)
Ill-defined & unknown	4.5 (2.4)	5.0 (2.5)	4.2 (2.1)	4.0 (1.9)	3.4 (1.6)	4.2 (2.1)
Haematopoietic	7.3 (3.9)	9.0 (4.4)	9.6 (4.8)	8.7 (4.2)	9.5 (4.6)	8.9 (4.4)
All sites but skin	186.8 (100.0)	203.8 (100.0)	199.5 (100.0)	207.1 (100.0)	209.0 (100.0)	201.6 (100.0)

ALL SITES ASR BOTH SEXES



Population data provided for 5 year(s).

Figure 5.1 Age-specific rates for major diagnosis groups - linear

ELSEWHERE (1998-2002)

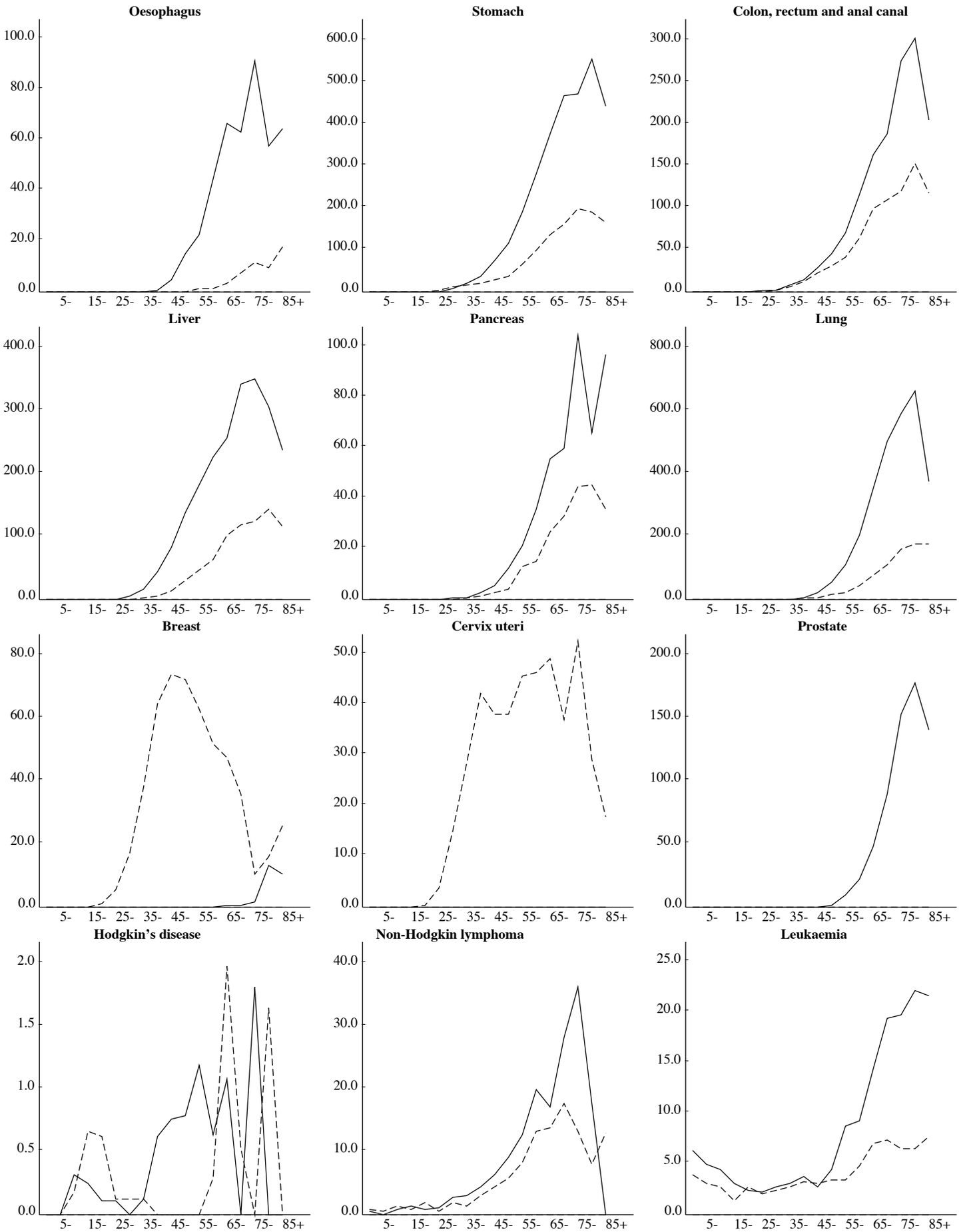


Figure 5.2 Age-specific rates for major diagnosis groups - logarithmic scale

ELSEWHERE (1998-2002)

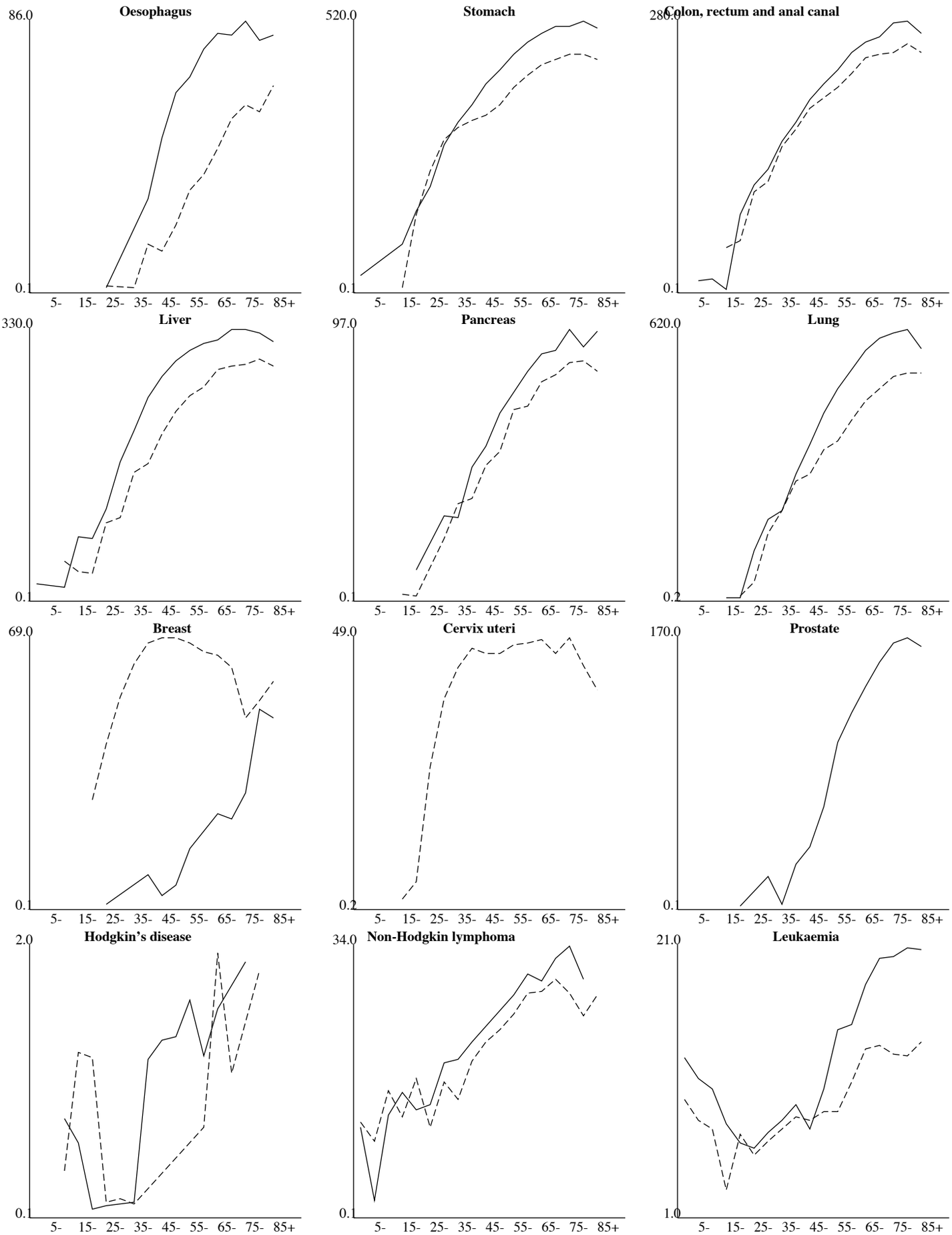


Table 5.3 CI5 Volume IX (editorial table 3a)

ELSEWHERE (1998-2002)
ANNUAL INCIDENCE PER 100 000 BY AGE GROUP (YEARS) - MALE

SITE	ALL AGES	AGE UNK	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	80-	85+	CRUDE RATE	(%)	MV (%)	**ASR (W)**	*CI V8	ICD (10th)
Lip	3	0	-	-	-	-	-	-	-	-	-	-	0.2	-	-	0.5	0.9	-	-	-	0.0	0.0	100.0	**0.0**	*-47.5*	*C00*
Tongue	83	0	-	-	-	-	-	0.1	-	0.4	0.7	0.9	2.0	4.4	6.0	3.5	2.7	5.0	4.1	20.1	0.9	0.4	92.8	**1.0**	-7.2	*C01-02*
Salivary gland	51	0	-	-	-	0.1	0.2	0.5	0.5	0.7	0.5	0.6	0.4	1.8	1.8	1.0	4.5	3.3	4.1	-	0.5	0.2	92.2	**0.5**	**13.6**	*C07-08*
Mouth	98	0	-	-	0.2	0.2	-	0.1	0.1	-	0.2	1.3	1.5	2.2	6.0	11.0	9.0	10.0	16.5	20.1	1.0	0.4	89.8	**1.3**	-2.6	*C03-06*
Oropharynx	82	0	-	-	-	-	0.1	-	-	0.1	0.8	1.3	1.8	4.2	3.6	8.0	5.4	1.7	-	-	0.9	0.4	89.0	**0.9**	5.0	*C09-10*
Nasopharynx	80	0	-	-	0.2	0.1	0.3	0.3	0.2	0.8	0.9	1.1	2.0	2.9	2.7	5.0	1.8	1.7	4.1	-	0.8	0.4	96.2	**0.8**	2.0	*C11*
Hypopharynx	81	0	-	-	-	-	-	-	-	-	0.2	0.9	2.2	2.4	5.7	6.5	8.1	5.0	24.7	-	0.9	0.4	87.7	**1.0**	**6.5**	*C12-13*
Pharynx unspecified	12	0	-	-	-	-	-	-	-	-	0.2	0.1	-	0.9	-	1.0	1.8	1.7	-	-	0.1	0.1	58.3	**0.1**	*-10.0*	*C14*
Oesophagus	620	0	-	-	-	-	-	0.1	-	-	1.0	4.7	14.3	21.6	42.0	62.3	58.7	85.3	53.5	60.3	6.5	2.8	82.4	**8.1**	-5.9	*C15*
Stomach	5009	0	0.2	-	-	0.5	1.3	2.9	10.5	21.4	37.2	69.7	109.1	178.2	260.1	350.9	433.8	436.5	514.6	411.8	52.7	22.8	88.8	**59.9**	-5.3	*C16*
Small intestine	85	0	-	-	-	-	-	0.1	-	0.1	0.3	1.3	1.5	2.2	4.8	7.0	9.0	10.0	28.8	-	0.9	0.4	87.1	**1.1**	**16.5**	*C17*
Colon	1014	0	-	0.1	0.2	-	0.3	1.3	2.1	4.3	7.4	12.0	19.7	29.9	53.0	72.3	83.1	140.5	168.8	130.6	10.7	4.6	84.4	**12.7**	3.1	*C18*
Rectum	1087	0	-	-	-	0.1	0.7	1.1	1.6	4.2	7.5	15.8	23.4	37.0	55.4	79.8	92.2	115.4	111.2	60.3	11.4	4.9	91.3	**13.0**	6.5	*C19-21*
Liver	4438	0	0.2	-	0.2	0.7	0.7	1.6	6.3	16.3	43.2	78.3	129.4	169.6	210.1	238.3	316.3	326.1	284.1	221.0	46.7	20.2	19.9	**49.8**	-4.9	*C22*
Gallbladder etc.	682	0	-	-	-	-	0.1	0.2	0.4	0.5	3.0	7.4	11.9	21.8	33.7	57.8	90.4	103.7	102.9	140.6	7.2	3.1	46.2	**9.3**	-1.3	*C23-24*
Pancreas	592	0	-	-	-	-	0.2	-	0.9	0.8	3.0	5.1	11.5	19.8	33.7	51.8	56.0	97.0	61.8	90.4	6.2	2.7	34.1	**7.7**	-0.6	*C25*
Peritoneum	23	0	0.2	0.3	-	0.1	-	-	-	-	0.3	0.6	0.5	0.9	0.3	0.5	1.8	1.7	-	-	0.2	0.1	73.9	**0.3**	*-16.0*	*C48*
Nose, sinuses etc.	59	0	0.2	-	-	-	-	0.2	-	-	0.5	1.0	1.6	3.3	1.2	4.0	7.2	1.7	-	-	0.6	0.3	91.5	**0.7**	**-10.9**	*C30-31*
Larynx	382	0	-	-	-	-	-	0.1	-	0.6	1.0	3.3	7.9	15.0	24.1	37.4	38.0	43.5	24.7	30.1	4.0	1.7	83.8	**4.9**	-5.0	*C32*
Bronchus, lung	3368	0	-	-	-	0.2	0.2	0.9	2.2	2.9	8.4	21.1	51.6	106.0	190.7	329.5	467.2	546.8	613.4	351.5	35.5	15.3	70.6	**46.2**	-3.0	*C33-34*
Other thoracic organs	96	0	0.7	-	0.2	0.7	0.4	0.8	0.4	0.4	0.8	1.7	0.9	2.9	2.4	4.0	7.2	8.4	4.1	10.0	1.0	0.4	79.2	**1.1**	0.3	*C37-38*
Bone	92	0	-	0.6	2.4	1.5	0.7	0.6	0.5	0.5	0.8	0.6	0.5	1.1	2.7	2.5	1.8	3.3	8.2	10.0	1.0	0.4	77.2	**1.1**	-5.5	*C40-41*
Connective tissue	119	0	1.4	0.4	0.8	0.2	0.4	0.5	0.7	1.0	1.2	1.6	2.0	2.6	5.1	4.0	3.6	8.4	4.1	-	1.3	0.5	89.9	**1.3**	-1.4	*C47,49*
Mesothelioma	15	0	-	-	-	-	-	-	0.1	-	0.1	0.1	0.4	1.1	0.3	0.5	2.7	-	-	-	0.2	0.1	100.0	**0.2**	*-14.9*	*C45*
Kaposi's sarcoma	2	0	-	-	-	-	0.1	-	-	-	0.1	-	-	-	-	-	-	-	-	-	0.0	0.0	100.0	**0.0**	*-50.5*	*C46*
Melanoma of skin	42	0	-	0.1	-	-	-	0.1	0.2	0.1	0.5	0.3	0.9	1.5	2.4	2.5	2.7	1.7	4.1	10.0	0.4	0.2	97.6	**0.5**	*7.1*	*C43*
Other skin	187	0	-	-	0.2	-	0.2	0.6	1.0	0.8	0.7	2.1	3.3	5.5	8.9	14.0	18.1	23.4	16.5	40.2	2.0	0.9	94.7	**2.4**	-7.7	*C44*
Breast	15	0	-	-	-	-	-	0.1	-	-	0.2	0.1	0.2	0.4	-	1.0	0.9	1.7	12.4	10.0	0.2	0.1	80.0	**0.2**	*-3.1*	*C50*
Prostate	455	0	-	-	-	-	0.1	-	0.2	0.1	0.3	0.6	1.6	9.5	21.2	44.9	84.0	142.1	164.7	130.6	4.8	2.1	79.6	**7.3**	1.0	*C61*
Testis	47	0	2.3	-	-	0.5	0.9	0.8	0.5	0.2	0.2	0.1	0.2	0.2	0.6	0.5	0.9	-	-	-	0.5	0.2	93.6	**0.6**	*1.3*	*C62*
Penis	21	0	-	-	-	-	-	-	-	0.1	0.2	0.4	0.2	1.1	0.6	1.0	1.8	1.7	8.2	-	0.2	0.1	100.0	**0.2**	*-9.4*	*C60*
Other male genital	9	0	-	-	-	-	0.1	-	-	-	-	-	-	-	0.9	1.5	-	3.3	-	-	0.1	0.0	100.0	**0.1**	*-9.0*	*C63*
Bladder	766	0	-	-	-	-	0.3	0.3	1.0	1.4	4.7	6.1	13.5	24.2	35.5	64.3	99.4	115.4	148.2	90.4	8.1	3.5	88.3	**10.2**	0.2	*C67*
Kidney etc.	538	0	1.4	-	-	0.1	0.2	0.5	1.1	2.6	6.3	8.7	10.6	17.2	31.3	30.4	42.5	31.8	24.7	20.1	5.7	2.4	81.2	**6.1**	-3.3	*C64-66,68*
Eye	13	0	0.7	0.1	0.2	-	-	-	-	-	-	-	0.2	-	0.3	1.0	2.7	-	-	-	0.1	0.1	76.9	**0.2**	*-13.3*	*C69*
Brain, nervous system	264	0	1.8	2.1	2.0	0.8	1.7	2.1	1.5	2.2	2.0	3.6	4.4	5.7	6.6	7.0	17.2	10.0	16.5	-	2.8	1.2	59.8	**3.0**	-2.0	*C70-72*
Thyroid	215	0	-	0.1	-	0.7	1.0	1.0	1.5	1.8	3.6	4.4	4.0	6.4	6.6	6.5	5.4	8.4	-	40.2	2.3	1.0	93.0	**2.2**	10.0	*C73*
Other endocrine	41	0	1.1	0.6	0.2	0.5	0.3	-	0.4	0.2	0.2	0.4	0.5	0.4	0.3	1.5	2.7	1.7	-	-	0.4	0.2	43.9	**0.5**	*12.4*	*C74-75*
Hodgkin's disease	31	0	-	-	0.3	0.2	0.1	0.1	-	0.1	0.6	0.7	0.7	1.1	0.6	1.0	-	1.7	-	-	0.3	0.1	100.0	**0.3**	*1.5*	*C81*
Non-Hodgkin lymphoma	417	0	0.7	0.1	0.9	1.5	1.0	1.1	2.7	3.0	4.3	6.0	8.6	11.9	18.5	16.0	26.2	33.4	16.5	-	4.4	1.9	93.0	**4.5**	2.7	*C82-85,96*
Multiple myeloma	97	0	-	-	-	-	-	0.1	0.5	-	0.5	1.6	2.2	2.9	6.9	6.5	9.9	8.4	-	-	1.0	0.4	93.8	**1.1**	5.2	*C88,90*
Lymphoid leukaemia	128	0	4.0	4.0	2.7	1.2	1.0	0.8	0.5	0.4	0.5	0.6	0.7	0.7	1.2	2.5	0.9	-	8.2	-	1.3	0.6	98.4	**1.7**	11.1	*C91*
Myeloid leukaemia	233	0	1.6	0.7	1.5	1.6	1.3	1.1	2.1	2.4	2.8	1.4	3.1	6.8	6.0	7.5	9.9	10.0	4.1	10.0	2.5	1.1	97.9	**2.5**	4.6	*C92*
Monocytic leukaemia	5	0	-	-	-	-	-	-	-	-	0.1	-	-	-	0.3	0.5	0.9	1.7	-	-	0.1	0.0	100.0	**0.1**	*15.4*	*C93*
Other leukaemia	1	0	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	0.0	0.0	100.0	**0.0**	*-31.1*	*C94*
Leukaemia unspecified	55	0	0.4	-	-	0.3	-	0.2	-	0.5	0.3	0.7	0.5	1.1	1.5	3.5	7.2	8.4	8.2	10.0	0.6	0.3	56.4	**0.7**	9.2	*C95*
Other and unspecified	433	0	0.5	-	0.2	0.1	0.4	0.7	0.7	1.1	1.8	4.3	7.3	11.7	20.3	35.4	58.7	55.2	74.1	90.4	4.6	2.0	0.0	**5.9**	**-12.0**	*O&U*
All sites	22186	0	17.2	9.6	11.9	12.0	14.7	21.1	40.6	72.1	149.2	272.3	459.2	739.7	1115.7	1587.6	2095.8	2416.4	2540.0	2008.8	233.6	100.9	67.7	**273.7**	**-2.9**	*ALL*
All sites but skin	21999	0	17.2	9.6	11.8	12.0	14.4	20.6	39.6	71.3	148.5	270.2	455.9	734.2	1106.7	1573.6	2077.7	2393.0	2523.6	1968.7	231.7	100.0	67.5	**271.3**	**-2.9**	*ALLb*

* Average percentage annual change since volume VIII (1993-1997)
Significant changes (95% confidence level, Miettinen method, page 869 of Volume VI) are marked in bold
Rate 5- is significantly different. (9.6 vs 10.2)
Rate 10- is significantly different. (11.8 vs 13.6)

Table 5.4 CI5 Volume IX (editorial table 4)

ELSEWHERE (1998-2002)

Quality indicators

MALE

S I T E	Cases	ASR (l-u)		ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	490	5.8	(4.8 - 6.9)	6.0	**90.4 >**	82.9	2.4	**41.2 <**	-	C00-14
Oesophagus	620	**8.1**	**(6.9 - 9.5) <**	10.0	**82.4 >**	76.3	4.8	82.4	-	C15
Stomach	5009	59.9	(46.3 - 77.5)	72.5	**88.8 >**	83.5	3.3	53.5	-	C16
Colon, rectum, anus	2101	25.8	(18.6 - 35.6)	21.9	**88.0 >**	81.6	2.7	37.4	-	C18-21
Liver	4438	49.8	(36.4 - 68.2)	59.4	**19.9 <**	27.9	5.5	78.8	-	C22
Pancreas	592	7.7	(6.8 - 8.8)	7.9	34.1	41.0	9.1	101.9	-	C25
Larynx	382	**4.9**	**(4.1 - 5.8) <**	5.8	**83.8 >**	69.6	4.7	67.5	-	C32
Lung, trachea, bronchus	3368	46.2	(38.5 - 55.3)	51.3	**70.6 >**	65.3	6.1	87.4	-	C33-34
Pleura & other thoracic	96	1.1	(0.9 - 1.5)	1.1	79.2	71.9	7.3	**39.6 <**	-	C37-38
Melanoma of skin	42	0.5	(0.4 - 0.7)	0.4	*97.6 <*	100.0	2.4	*59.5 <*	-	C43
Prostate	455	7.3	(5.8 - 9.2)	7.1	79.6	83.1	2.4	42.4	-	C61
Testis	47	0.6	(0.5 - 0.8)	0.6	93.6	95.5	-	21.3	-	C62
Kidney & urinaryNOS	538	6.1	(4.8 - 7.8)	6.9	81.2	77.6	1.3	35.5	-	C64-66,68
Bladder	766	10.2	(8.8 - 11.7)	10.1	88.3	86.9	3.0	31.6	-	C67
Brain & nervous sytem	264	3.0	(2.5 - 3.4)	3.2	59.8	55.9	12.9	**88.3 >**	-	C70-72
Thyroid	215	**2.2**	**(1.8 - 2.8) >**	1.6	**93.0 >**	78.4	0.5	16.7	-	C73
Lymphoma	545	5.9	(4.6 - 7.7)	5.3	93.6	97.6	3.5	**54.5 >**	-	C81-85,90,88,96
Leukaemia	422	**5.1**	**(4.6 - 5.6) >**	4.0	92.7	92.0	6.4	**70.9 <**	-	C91-95
Ill-defined (1.8%)	399	**5.3**	**(3.8 - 7.4) <**	8.6	47.1	53.1	8.0	51.4	-	C76-80
All sites but skin	21999	**271.3**	**(258.7 - 284.6) <**	300.8	**67.5 >**	64.9	4.6	64.8	-	ALLb

FEMALE

S I T E	Cases	ASR (l-u)		ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	197	1.8	(1.4 - 2.3)	1.9	84.8	82.7	6.6	36.5	-	C00-14
Oesophagus	75	**0.7**	**(0.6 - 0.9) <**	1.2	64.0	64.4	16.0	81.3	-	C15
Stomach	2617	**23.9**	**(19.8 - 28.8) <**	30.4	**85.5 >**	79.6	5.5	58.7	-	C16
Colon, rectum, anus	1665	15.4	(13.4 - 17.7)	14.4	**84.4 >**	80.0	3.9	43.1	-	C18-21
Liver	1582	14.9	(12.0 - 18.6)	17.1	**19.7 <**	23.7	7.6	74.2	-	C22
Pancreas	411	3.8	(3.0 - 4.9)	4.5	29.4	30.0	7.8	98.1	-	C25
Larynx	58	0.6	(0.4 - 0.7)	0.7	**72.4 >**	33.3	17.2	86.2	-	C32
Lung, trachea, bronchus	1303	12.2	(10.5 - 14.1)	12.4	**59.2 >**	49.7	9.0	88.1	-	C33-34
Pleura & other thoracic	50	**0.5**	**(0.3 - 0.6) >**	0.3	82.0	69.2	2.0	**38.0 <**	-	C37-38
Melanoma of skin	38	0.3	(0.3 - 0.4)	0.3	*100.0 <*	100.0	-	*42.1 <*	-	C43
Breast	2540	**21.2**	**(20.1 - 22.4) >**	18.6	**95.6 >**	89.2	1.3	21.0	-	C50
Cervix	1812	**15.3**	**(13.0 - 17.9) <**	21.1	**93.4 >**	89.0	1.3	22.5	-	C53
Corpus & uterus NOS	335	3.0	(2.6 - 3.3)	3.0	**85.4 >**	53.8	11.6	65.7	-	C54-55
Ovary	565	5.1	(4.4 - 5.9)	4.8	87.6	82.6	1.6	46.0	-	C56
Kidney & urinaryNOS	264	2.6	(2.0 - 3.4)	2.1	75.4	73.1	2.7	39.4	-	C64-66,68
Bladder	176	1.7	(1.4 - 2.1)	2.0	74.4	76.3	6.2	44.9	-	C67
Brain & nervous sytem	218	**2.1**	**(1.8 - 2.6) <**	3.0	52.3	50.9	15.1	**83.0 >**	-	C70-72
Thyroid	989	**8.5**	**(7.0 - 10.4) >**	6.1	**95.0 >**	85.2	0.8	7.4	-	C73
Lymphoma	424	4.1	(3.4 - 5.0)	3.9	94.3	97.3	3.3	**46.5 >**	-	C81-85,90,88,96
Leukaemia	316	**3.3**	**(2.9 - 3.8) >**	2.3	94.9	94.5	3.8	**64.6 <**	-	C91-95
Ill-defined (2.2%)	375	3.5	(2.4 - 5.1)	4.5	47.7	51.7	10.7	51.5	-	C76-80
All sites but skin	17248	**156.4**	**(148.1 - 165.2) <**	166.8	**75.7 >**	70.4	4.7	49.9	-	ALLb

Data compared to: ELSEWHERE (1993-1997) (Published in CI5 Volume VIII)

Table 5.4a CI5 Volume IX (editorial table 4)

Group A (1998-2002)

CI5 volume 9 (Editorial sheet 4)
Quality indicators

MALE

S I T E	Cases		ASR (l-u)	ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	1252	7.6	(5.8 - 9.9)	8.2	99.1	98.9	-	40.7	-	C00-14
Oesophagus	600	3.3	(3.0 - 3.6)	3.3	96.3	94.0	0.7	88.7	-	C15
Stomach	1825	**9.1**	**(8.0 - 10.4) <**	11.6	96.5	96.3	0.3	81.4	-	C16
Colon, rectum, anus	7808	40.7	(37.9 - 43.8)	39.6	96.1	96.4	0.4	**50.1 <**	0.0	C18-21
Liver	388	2.1	(1.6 - 2.6)	1.7	**83.5 <**	89.0	2.1	78.1	-	C22
Pancreas	1403	7.3	(6.0 - 9.0)	7.5	60.9	64.2	1.7	96.3	0.1	C25
Larynx	534	3.0	(2.5 - 3.6)	3.3	**99.4 >**	97.5	-	32.4	-	C32
Lung, trachea, bronchus	6516	35.5	(25.2 - 49.9)	36.4	**87.4 <**	90.3	1.0	88.6	0.0	C33-34
Pleura & other thoracic	93	0.6	(0.4 - 0.8)	0.5	76.3	75.8	3.2	**92.5 >**	-	C37-38
Melanoma of skin	2305	14.2	(11.1 - 18.1)	14.3	**99.7 <**	100.0	0.0	28.1	-	C43
Prostate	14669	**76.0**	**(61.2 - 94.3) >**	60.9	**92.1 <**	95.2	1.0	**36.8 <**	0.0	C61
Testis	1171	**9.6**	**(8.5 - 10.8) >**	8.2	99.6	99.5	-	4.3	-	C62
Kidney & urinaryNOS	1652	9.5	(7.4 - 12.1)	10.3	**86.1 <**	89.0	1.0	51.3	-	C64-66,68
Bladder	3889	19.6	(15.9 - 24.1)	21.3	97.9	98.4	0.2	32.0	0.0	C67
Brain & nervous sytem	955	**6.7**	**(5.9 - 7.5) <**	7.8	**85.0 >**	75.2	0.4	**77.7 >**	-	C70-72
Thyroid	247	1.6	(1.3 - 2.0)	1.5	98.4	98.7	0.4	26.3	-	C73
Lymphoma	2964	17.8	(15.7 - 20.2)	16.3	**97.5 >**	84.1	0.5	**54.9 <**	0.1	C81-85,90,88,96
Leukaemia	1817	**11.0**	**(10.0 - 12.1) >**	8.1	**93.3 >**	60.1	4.9	**43.0 <**	0.1	C91-95
Ill-defined (2.6%)	1412	**6.8**	**(5.3 - 8.6) <**	9.1	**60.7 <**	66.1	3.5	100.2	-	C76-80
All sites but skin	53499	293.8	(282.1 - 305.9)	282.5	**91.7 >**	91.3	0.9	**52.3 <**	0.0	ALLb

FEMALE

S I T E	Cases		ASR (l-u)	ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	655	3.2	(2.6 - 4.0)	3.2	98.9	98.7	-	41.1	-	C00-14
Oesophagus	252	**1.0**	**(0.9 - 1.2) >**	0.8	95.6	93.0	0.4	84.1	-	C15
Stomach	1192	**4.4**	**(3.7 - 5.3) <**	5.5	94.1	93.7	0.7	85.2	-	C16
Colon, rectum, anus	8066	32.7	(26.7 - 40.1)	32.7	94.5	94.2	0.5	**49.7 <**	-	C18-21
Liver	250	1.1	(0.8 - 1.5)	0.9	77.2	75.0	2.4	89.2	-	C22
Pancreas	1633	5.8	(4.8 - 7.1)	5.8	**50.0 <**	58.9	2.7	97.6	-	C25
Larynx	96	**0.5**	**(0.4 - 0.6) <**	0.6	95.8	99.0	-	41.7	-	C32
Lung, trachea, bronchus	3761	19.2	(15.1 - 24.4)	16.6	**87.1 <**	89.6	0.9	83.0	-	C33-34
Pleura & other thoracic	41	0.2	(0.1 - 0.2)	0.2	61.0	75.9	7.3	97.6	-	C37-38
Melanoma of skin	2472	14.6	(11.1 - 19.1)	16.1	**99.8 <**	100.0	-	16.3	-	C43
Breast	12521	**71.0**	**(65.2 - 77.3) >**	63.2	98.4	98.5	0.3	**29.4 <**	-	C50
Cervix	1524	**10.0**	**(8.3 - 12.1) <**	12.2	99.6	99.3	-	35.6	-	C53
Corpus & Uterus NOS	2813	14.4	(13.0 - 15.9)	13.8	98.5	98.0	0.2	**23.1 <**	-	C54-55
Ovary	2343	12.8	(10.1 - 16.2)	13.2	94.0	95.0	0.7	67.8	0.0	C56
Kidney & urinaryNOS	1078	4.8	(3.7 - 6.3)	5.5	**79.0 <**	86.1	1.2	56.4	0.2	C64-66,68
Bladder	1341	5.4	(3.9 - 7.5)	5.5	95.6	96.0	0.6	41.7	-	C67
Brain & nervous sytem	736	**4.8**	**(4.2 - 5.4) <**	6.5	**77.3 >**	69.1	1.0	**76.1 >**	-	C70-72
Thyroid	649	4.2	(3.9 - 4.6)	4.3	98.5	98.0	0.2	19.3	-	C73
Lymphoma	2670	12.9	(11.0 - 15.3)	11.0	**96.1 >**	83.1	0.7	**54.7 <**	0.1	C81-85,90,88,96
Leukaemia	1278	**6.7**	**(5.9 - 7.5) >**	5.4	**95.5 >**	54.3	2.5	**52.0 <**	0.2	C91-95
Ill-defined (3.6%)	1757	5.8	(4.0 - 8.4)	7.7	**57.1 <**	64.6	6.5	100.7	-	C76-80
All sites but skin	49387	246.4	(235.6 - 257.6)	241.3	**92.0 >**	91.0	0.8	**49.1 <**	0.0	ALLb

Data compared to: Group A (1993-1997) (Published in CI5 Vol.8.)

Table 5.4b CI5 Volume IX (editorial table 4)

Group B (1998-2002)

CI5 volume 9 (Editorial sheet 4)
Quality indicators

MALE

S I T E	Cases	ASR (l-u)		ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	5006	**23.9**	**(21.0 - 27.2) <**	28.3	**85.5 >**	81.1	4.9	**35.3 >**	-	C00-14
Oesophagus	2406	**12.0**	**(10.4 - 13.8) <**	15.0	**78.1 >**	68.5	9.3	**65.1 >**	-	C15
Stomach	5895	**29.4**	**(26.7 - 32.4) <**	39.8	**79.5 >**	71.1	8.4	**55.1 >**	-	C16
Colon, rectum, anus	6570	32.8	(27.3 - 39.3)	34.2	**81.8 >**	76.8	6.2	**37.9 >**	-	C18-21
Liver	585	**2.9**	**(2.2 - 3.8) >**	1.9	**94.7 <**	100.0	1.2	**209.9 <**	-	C22
Pancreas	1315	6.6	(5.7 - 7.5)	6.8	36.0	35.2	27.0	92.7	-	C25
Larynx	2542	**12.8**	**(11.4 - 14.4) <**	17.6	**81.5 >**	73.0	6.8	47.3	-	C32
Lung, trachea, bronchus	6525	**33.5**	**(31.0 - 36.2) <**	44.0	**66.9 >**	59.7	13.8	**72.8 >**	-	C33-34
Pleura & other thoracic	148	0.7	(0.5 - 0.9)	0.5	54.7	40.0	21.6	74.3	-	C37-38
Melanoma of skin	1392	**6.5**	**(5.8 - 7.3) >**	5.3	99.6	99.8	-	20.0	-	C43
Prostate	16155	**84.8**	**(71.4 - 100.7) >**	66.6	**83.8 >**	77.6	5.3	**20.4 <**	-	C61
Testis	740	**2.7**	**(2.3 - 3.0) >**	2.3	**76.5 <**	85.2	2.0	13.4	-	C62
Kidney & urinaryNOS	1469	7.2	(6.2 - 8.3)	6.6	**74.1 >**	65.4	9.1	33.7	-	C64-66,68
Bladder	3309	16.8	(13.0 - 21.8)	20.6	85.8	84.0	4.7	**26.6 >**	-	C67
Brain & nervous sytem	1796	8.0	(7.6 - 8.5)	8.0	58.4	61.2	14.9	**61.5 >**	-	C70-72
Thyroid	861	**3.6**	**(3.4 - 3.9) >**	3.1	**85.9 <**	91.1	1.2	7.8	-	C73
Lymphoma	3887	17.8	(16.9 - 18.8)	18.1	99.4	99.8	-	35.8	-	C81-85,90,88,96
Leukaemia	2029	**9.1**	**(8.7 - 9.6) <**	10.2	99.1	99.7	-	**51.0 >**	-	C91-95
Ill-defined (5.0%)	3541	**17.3**	**(15.3 - 19.5) <**	22.5	44.2	43.6	22.2	40.1	-	C76-80
All sites but skin	70229	**346.6**	**(339.6 - 353.8) <**	373.3	**79.0 >**	73.5	7.6	41.6	-	ALLb

FEMALE

S I T E	Cases	ASR (l-u)		ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	1682	**5.9**	**(4.8 - 7.3) <**	7.4	79.5	79.3	5.5	22.1	-	C00-14
Oesophagus	621	**2.2**	**(1.9 - 2.6) <**	3.0	**75.0 >**	68.4	10.6	54.8	-	C15
Stomach	3600	**12.4**	**(11.0 - 13.9) <**	15.6	**77.9 >**	69.1	9.6	50.2	-	C16
Colon, rectum, anus	7518	26.3	(21.9 - 31.5)	27.0	**81.0 >**	73.9	7.0	36.8	-	C18-21
Liver	300	1.1	(0.8 - 1.6)	0.9	**91.3 <**	100.0	4.0	280.0	-	C22
Pancreas	1449	5.0	(4.4 - 5.7)	5.5	38.2	33.5	28.9	92.7	-	C25
Larynx	486	1.8	(1.4 - 2.3)	2.0	74.5	71.7	4.9	28.6	-	C32
Lung, trachea, bronchus	3247	**11.7**	**(10.8 - 12.6) <**	13.1	**66.6 >**	59.8	14.2	**65.5 >**	-	C33-34
Pleura & other thoracic	154	**0.6**	**(0.4 - 0.8) >**	0.3	**63.0 >**	38.7	13.6	59.1	-	C37-38
Melanoma of skin	1687	5.7	(4.4 - 7.5)	4.6	**100.0 <**	100.0	-	17.2	-	C43
Breast	22598	80.8	(74.1 - 88.1)	87.6	**82.2 >**	78.8	4.6	22.8	-	C50
Cervix	6028	**21.1**	**(20.2 - 22.0) <**	26.3	85.6	84.2	4.1	**24.9 >**	-	C53
Corpus & Uterus NOS	2940	**10.7**	**(8.6 - 13.3) <**	15.4	76.2	76.5	8.3	**40.1 >**	-	C54-55
Ovary	3197	11.6	(9.9 - 13.5)	12.0	**74.4 >**	69.0	9.1	38.3	-	C56
Kidney & urinaryNOS	925	3.4	(3.0 - 4.0)	3.4	**74.3 >**	66.2	8.6	33.0	-	C64-66,68
Bladder	1299	4.5	(3.1 - 6.4)	4.6	79.1	74.7	6.2	27.3	-	C67
Brain & nervous sytem	1716	6.3	(5.9 - 6.7)	6.7	**53.6 <**	61.2	16.1	**59.3 >**	-	C70-72
Thyroid	4399	**14.9**	**(12.4 - 17.8) >**	10.7	**86.3 <**	91.9	0.7	3.3	-	C73
Lymphoma	3656	13.0	(12.1 - 13.9)	13.0	99.6	99.6	-	36.6	-	C81-85,90,88,96
Leukaemia	1739	**6.4**	**(6.0 - 6.8) <**	7.4	**99.4 <**	100.0	-	52.9	-	C91-95
Ill-defined (4.7%)	3662	**12.7**	**(11.2 - 14.4) <**	16.6	44.8	45.7	21.4	40.4	-	C76-80
All sites but skin	77358	**273.8**	**(267.9 - 279.8) <**	302.2	**78.5 >**	75.2	7.1	34.5	-	ALLb

Data compared to: Group B (1993,1997) (Submitted for CI5 Vol.8 - Not published.)

Table 5.4c CI5 Volume IX (editorial table 4)

Group C, Example 1 (1998-2002)

CI5 volume 9 (Editorial sheet 4)
Quality indicators

MALE

S I T E	Cases		ASR (l-u)	ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	93	6.4	(4.9 - 8.3)	6.0	**65.6 <**	80.5	-	-	-	C00-14
Oesophagus	125	14.1	(11.6 - 17.1)	13.2	**56.0 >**	39.6	-	-	-	C15
Stomach	59	6.2	(4.1 - 9.4)	7.0	42.4	50.9	-	-	-	C16
Colon, rectum, anus	75	7.5	(5.9 - 9.6)	7.7	58.7	58.8	-	-	-	C18-21
Liver	100	8.7	(5.7 - 13.3)	6.5	40.0	36.5	-	-	-	C22
Pancreas	12	1.2	(0.9 - 1.6)	1.0	16.7	25.0	-	-	-	C25
Larynx	14	1.4	(1.1 - 1.8)	1.3	57.1	90.0	-	-	-	C32
Lung, trachea, bronchus	46	4.8	(3.9 - 6.1)	3.9	65.2	60.6	-	-	-	C33-34
Pleura & other thoracic	1	*0.0*	*(0.0 - 0.0) <*	0.3	*100.0 <*	100.0	-	-	-	C37-38
Melanoma of skin	9	*0.9*	*(0.7 - 1.1) <*	1.3	*100.0 >*	90.9	-	-	-	C43
Prostate	262	37.6	(30.2 - 46.8)	37.1	**57.6 <**	77.2	-	-	-	C61
Testis	7	0.6	(0.5 - 0.8)	0.5	71.4	50.0	-	-	-	C62
Kidney & urinaryNOS	23	0.8	(0.6 - 1.2)	1.2	78.3	72.7	-	-	-	C64-66,68
Bladder	29	3.0	(2.2 - 4.1)	2.9	51.7	52.9	-	-	-	C67
Brain & nervous sytem	10	0.6	(0.4 - 1.0)	0.8	50.0	63.6	-	-	-	C70-72
Thyroid	11	0.5	(0.4 - 0.7)	0.6	*54.5 <*	100.0	-	-	-	C73
Lymphoma	198	**8.4**	**(7.1 - 9.9) >**	7.1	81.8	81.4	-	-	-	C81-85,90,88,9€
Leukaemia	33	*1.3*	*(0.9 - 1.9) >*	0.9	*100.0 >*	78.3	-	-	-	C91-95
Ill-defined (4.1%)	90	6.9	(5.0 - 9.6)	9.1	55.6	68.8	-	-	-	C76-80
All sites but skin	2173	153.6	(145.3 - 162.4)	158.1	**67.1 <**	74.2	-	-	-	ALLb

FEMALE

S I T E	Cases		ASR (l-u)	ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	61	3.3	(2.2 - 4.9)	4.7	68.9	72.1	-	-	-	C00-14
Oesophagus	78	**8.4**	**(6.4 - 11.1) <**	12.2	47.4	41.8	-	-	-	C15
Stomach	64	6.9	(5.1 - 9.3)	5.5	45.3	44.7	-	-	-	C16
Colon, rectum, anus	89	8.1	(6.3 - 10.5)	7.3	64.0	67.2	-	-	-	C18-21
Liver	73	5.8	(4.7 - 7.2)	6.0	28.8	39.0	-	-	-	C22
Pancreas	6	*0.4*	*(0.3 - 0.5) <*	1.1	16.7	22.2	-	-	-	C25
Larynx	6	*0.3*	*(0.2 - 0.5) <*	1.1	66.7	87.5	-	-	-	C32
Lung, trachea, bronchus	40	*3.8*	*(2.9 - 5.0) >*	2.3	70.0	65.2	-	-	-	C33-34
Pleura & other thoracic	3	*0.2*	*(0.2 - 0.3) <*	0.5	66.7	60.0	-	-	-	C37-38
Melanoma of skin	16	*1.4*	*(1.1 - 1.8) <*	2.0	93.8	61.5	-	-	-	C43
Breast	332	**23.4**	**(20.8 - 26.4) >**	20.7	68.4	63.4	-	-	0.3	C50
Cervix	649	**45.8**	**(42.8 - 49.1) >**	41.7	59.2	63.9	-	-	-	C53
Corpus & Uterus NOS	57	5.4	(4.5 - 6.6)	5.4	71.9	83.3	-	-	-	C54-55
Ovary	114	8.1	(5.8 - 11.4)	6.3	49.1	54.7	-	-	-	C56
Kidney & urinaryNOS	17	*0.4*	*(0.3 - 0.5) <*	1.5	70.6	72.7	-	-	-	C64-66,68
Bladder	17	*1.8*	*(1.4 - 2.3) >*	1.2	64.7	25.0	-	-	-	C67
Brain & nervous sytem	14	*0.7*	*(0.5 - 1.0) >*	0.4	*35.7 <*	100.0	-	-	-	C70-72
Thyroid	26	*1.5*	*(1.2 - 1.9) <*	4.6	92.3	80.9	-	-	-	C73
Lymphoma	156	6.4	(5.3 - 7.8)	6.1	78.8	79.9	-	-	-	C81-85,90,88,9€
Leukaemia	29	1.4	(0.9 - 2.1)	1.6	*100.0 >*	62.5	-	-	-	C91-95
Ill-defined (3.3%)	92	7.9	(5.4 - 11.5)	6.8	**50.0 <**	67.5	-	-	-	C76-80
All sites but skin	2777	171.4	(161.8 - 181.5)	169.9	**65.9 <**	69.0	-	-	0.0	ALLb

Data compared to: Group C, Example 1 (1993-1997) (Published in CI5 Vol.8.)
No mortality data to compare to.

Table 5.4c (contd). CI5 Volume IX (editorial table 4)

Group C, Example 2 (1998-2002)

CI5 volume 9 (Editorial sheet 4)
Quality indicators

MALE

S I T E	Cases		ASR (l-u)	ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	83	6.4	(5.6 - 7.3)	5.6	96.4	98.4	-	-	-	C00-14
Oesophagus	254	20.2	(16.9 - 24.2)	20.7	**77.2 <**	89.8	1.2	-	-	C15
Stomach	431	**32.1**	**(29.2 - 35.2) <**	38.9	**90.7 <**	97.0	0.5	-	-	C16
Colon, rectum, anus	272	20.9	(16.9 - 25.7)	21.8	96.7	98.8	0.4	-	-	C18-21
Liver	440	33.8	(26.1 - 43.7)	36.7	**20.0 >**	10.3	0.5	-	-	C22
Pancreas	91	7.1	(5.6 - 9.0)	6.0	30.8	19.0	-	-	-	C25
Larynx	14	1.1	(0.9 - 1.3)	1.0	*100.0 <*	100.0	-	-	-	C32
Lung, trachea, bronchus	600	46.7	(42.2 - 51.7)	44.1	**32.5 >**	25.6	0.5	-	-	C33-34
Pleura & other thoracic	7	*0.6*	*(0.5 - 0.7) <*	0.7	28.6	25.0	-	-	-	C37-38
Melanoma of skin	2	*0.1*	*(0.1 - 0.2) <*	0.4	*100.0 <*	100.0	-	-	-	C43
Prostate	16	*1.4*	*(1.3 - 1.5) <*	1.9	56.2	68.8	-	-	-	C61
Testis	8	*0.7*	*(0.6 - 0.8) >*	0.4	*100.0 <*	100.0	-	-	-	C62
Kidney & urinaryNOS	24	*1.8*	*(1.5 - 2.2) >*	1.0	62.5	70.0	-	-	-	C64-66,68
Bladder	73	5.9	(4.8 - 7.2)	6.1	97.3	92.3	-	-	-	C67
Brain & nervous sytem	46	4.0	(2.9 - 5.6)	4.7	54.3	45.8	-	-	-	C70-72
Thyroid	11	*1.0*	*(0.7 - 1.4) >*	0.6	*72.7 <*	100.0	-	-	-	C73
Lymphoma	48	4.3	(2.9 - 6.4)	4.3	*100.0 <*	100.0	-	-	-	C81-85,90,88,96
Leukaemia	52	5.8	(3.9 - 8.6)	5.4	**100.0 <**	100.0	-	-	-	C91-95
Ill-defined (0.7%)	17	*1.3*	*(1.1 - 1.6) >*	0.3	*88.2 >*	-	11.8	-	-	C76-80
All sites but skin	2586	202.7	(156.7 - 262.1)	209.7	61.3	61.3	0.5	-	-	ALLb

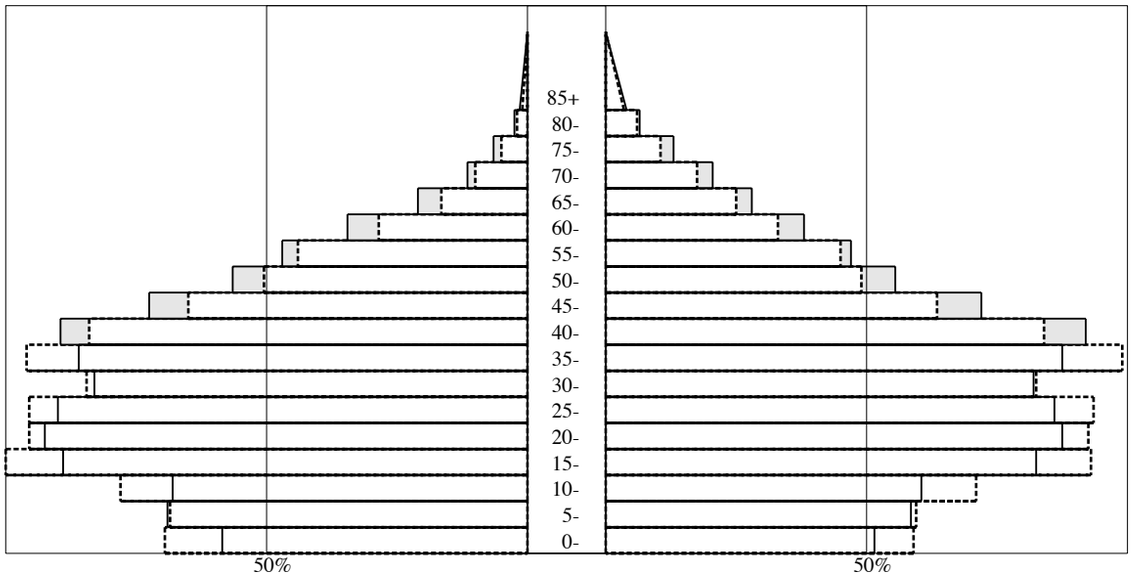
FEMALE

S I T E	Cases		ASR (l-u)	ASR v8	MV(%)	MV v8(%)	DCO(%)	M/I(%)	UB(%)	ICD-10
Mouth & pharynx	33	2.3	(1.8 - 2.9)	2.2	*93.9 <*	100.0	-	-	-	C00-14
Oesophagus	70	4.8	(3.7 - 6.2)	5.3	84.3	90.9	2.9	-	-	C15
Stomach	156	**10.6**	**(9.0 - 12.5) <**	15.7	**81.4 <**	94.7	0.6	-	-	C16
Colon, rectum, anus	242	17.8	(13.8 - 23.0)	17.9	97.1	99.0	-	-	-	C18-21
Liver	174	12.6	(10.3 - 15.5)	14.5	**16.7 >**	4.8	0.6	-	-	C22
Pancreas	82	**5.4**	**(4.5 - 6.5) >**	3.4	25.6	22.0	-	-	-	C25
Larynx	2	*0.2*	*(0.1 - 0.2) >*	0.1	*100.0 <*	100.0	-	-	-	C32
Lung, trachea, bronchus	182	**13.0**	**(11.7 - 14.4) >**	11.0	**32.4 >**	21.2	0.5	-	-	C33-34
Pleura & other thoracic	5	*0.4*	*(0.3 - 0.4) >*	0.1	*60.0 >*	-	-	-	-	C37-38
Melanoma of skin	4	*0.3*	*(0.2 - 0.3) <*	0.3	*100.0 <*	100.0	-	-	-	C43
Breast	199	**14.7**	**(13.3 - 16.3) >**	9.1	99.5	98.1	-	-	-	C50
Cervix	33	*2.4*	*(2.0 - 2.9) >*	1.2	*100.0 <*	100.0	-	-	-	C53
Corpus & Uterus NOS	17	*1.2*	*(1.1 - 1.4) <*	2.9	88.2	81.2	-	-	-	C54-55
Ovary	47	*3.7*	*(2.9 - 4.8) >*	2.3	*100.0 >*	88.9	-	-	-	C56
Kidney & urinaryNOS	11	*0.8*	*(0.7 - 1.0) >*	0.6	72.7	50.0	-	-	-	C64-66,68
Bladder	15	*1.0*	*(0.8 - 1.3) >*	0.7	86.7	87.5	-	-	-	C67
Brain & nervous sytem	45	*3.6*	*(2.6 - 5.1) >*	2.4	51.1	61.5	2.2	-	-	C70-72
Thyroid	20	1.5	(1.1 - 1.9)	1.2	*95.0 <*	100.0	-	-	-	C73
Lymphoma	23	2.5	(1.8 - 3.3)	1.9	*100.0 <*	100.0	-	-	-	C81-85,90,88,96
Leukaemia	41	*4.5*	*(3.2 - 6.4) >*	3.0	*100.0 <*	100.0	-	-	-	C91-95
Ill-defined (0.7%)	11	*0.8*	*(0.7 - 0.9) >*	0.1	*81.8 >*	-	9.1	-	-	C76-80
All sites but skin	1507	110.9	(90.7 - 135.6)	103.7	71.1	70.4	0.5	-	-	ALLb

Data compared to: Group C, Example 2 (1993-1997) (Published in CI5 Vol.8.)

Figure 5.3 Population pyramids

ELSEWHERE (1998-2002)



1899314
Vol 8: 1928923
(V9/V8: 98%)

Population data provided for 5 year(s).

1901520
Vol 8: 1930295
(V9/V8: 98%)

Figure 5.4 CI5 Volume IX Data Process-Summary

Registry number: 441099

Registry name: Elsewhere Cancer Registry

Date: 20/03/2007

Files submitted:

Case listing ☒ Population ☒ Mortality ☒

Data originally re-coded/coded according to ICDO-3……. yes☒ No ☐

Data originally coded according to:

Topography:……ICD9 ☐ ICD10☐ T-ICDO-2 ☒ Other ☐

Morphology:…… M-ICDO-1 ☐ M-ICDO-2 ☒ Other ☐

Re-code performed by:……registry ☒ or IARC☐

Validity of single records checked (*IARCcrgTools*) by registry & confirmed ☒
by IARC ☒
Data-check list ☐ Date:

Multiple Primaries

ICDO-3 (2004) by IARC-DEP (*IARCcrgTools*) **on historical data**… …….. ☐

ICDO-3 (2004) by IARC-DEP (*IARCcrgTools*) **only on the CI5 IX period** …….. ☒

Years …….. 1998-2002

Remarks

DATA VALIDATED **yes**☒ **No** ☐

Table 5.5 Multiple primary rules for the years 1998–2002

Continents (No. of registries)	ICD-O-1	ICD-O-2	ICD-O-3 2000	ICD-O-2 + ICD-O-3 2000	ICD-O-3 2004	Others	N/A
Africa (5)	1	1	2	0	0	1	0
South and Central America (11)	0	5	2	1	3	0	0
North America (54)	0	1	2	29	4	13	5
Asia (44)	1	14	6	7	7	4	5
Europe (100)	4	28	12	8	25	22	1
Oceania (11)	0	6	2	1	0	2	0
Total (225)	6 (2.7%)	55 (24.4%)	26 (11.6%)	46 (20.4%)	39 (17.3%)	42 (18.7%)	11 (4.9%)

Table 5.6 Screening program as data source

Continents (No. of registries)									Cases with Necropsy	Distinguish DCN
	Cervix	Breast	Prostate	Colo-rectal	Mela-noma	Lung	Mouth	Others	Yes	Yes
Africa (5)	3	1	0	0	0	0	0	0	3	2
South and Central America (11)	10	5	2	1	1	0	0	0	5	6
North America (54)	35	36	4	4	1	0	1	0	51	20
Asia (44)	18	16	1	13	0	5	3	12	21	31
Europe (100)	45	59	5	14	7	2	1	1	86	53
Oceania (11)	7	7	1	1	1	1	1	1	9	4
Total (225)	118 (52.4%)	124 (55.1%)	13 (5.8%)	33 (14.7%)	10 (4.4%)	8 (3.6%)	6 (2.7%)	14 (6.2%)	175 (77.8%)	116 (51.6%)

Table 5.8 Summary of applied inclusion criteria for comparability and quality of data in Volume IX

Group A	**Group B**	**Group C**	**Excluded**
Complete coverage	No access to death certificates	No *ad hoc* study of completeness	Data with ≤2 years
Death reporting meets WHO recommendations	Official mortality data not available by cause, or poor quality by cause	No death clearance as source of case finding	DCO >20% %Unk >20% ill-defined site >20%; overall MV% <75%
%Unk <10% DCO <10% Ill-defined site <10% MV% >80% DCO 0.0% (no DCOs)*	10% < %Unk <20% 10% < DCO <20% 10% < ill defined <20% 10% < age unk <20% 75% < MV% <80%	No official mortality data	MV% too high (99–100%) MV% low for selected sites; M/I threshold by site
No abrupt trends, cases; Denominators OK	*MV% but C22*** *MV% but C91-95****		Implausible incidence rates; Specialized registries, e.g. childhood, mesothelioma

*No DCO cases due to complete trace back for the DCN cases; **C22: liver cancer; ***C91-95: leukaemia.

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Africa													
Algeria, Setif	ICDO-1	Yes	No	No	No	No	No	No	No	No	-	No	-
Egypt, Gharbiah	Other	No	No	No	No	No	No	No	No	No	-	Yes	5.5
Tunisia, Central Region	ICDO-2	Yes	No	No	No	No	No	No	No	Yes	< 1	No	-
Uganda, Kyadondo County	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	NK	No	-
Zimbabwe, Harare	ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	NA	Yes	NK	Yes	10
South and Central America													
Argentina, Bahia Blanca	ICDO-3 (2004)	Yes	Yes	Yes	No	No	No	No	No	Yes	3	No	-
Brazil, Brasilia	ICDO-2	Yes	No	No	No	No	No	No	No	Yes	12	Yes	60
Brazil, Cuiaba	ICDO-2	Yes	No	No	No	No	No	No	No	No	-	No	-
Brazil, Goiânia	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	4.23
Brazil, São Paulo	ICDO-2	Yes	No	No	No	No	No	No	No	Yes	0.6	Yes	9.6
Chile, Valdivia	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
Colombia, Cali	ICDO-3 (2004)	Yes	No	No	No	No	No	No	No	No	NK	No	-
Costa Rica	ICDO-3 (2000)	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	0.42	Yes	1.75
Ecuador, Quito	ICDO-2	No	No	No	No	No	No	No	No	No	-	Yes	8.2
France, Martinique	ICDO-2	Yes	Yes	No	No	No	No	No	No	No	-	NA	NA
Peru, Trujillo	ICDO-3 (2000)	Yes	No	No	No	No	No	No	No	No	2	Yes	86.3
North America													
Canada	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	NK	No	-
Canada, Alberta	ICDO-2 and ICDO-3 (2000)	No	Yes	No	No	No	No	No	No	Yes	0.3	Yes	0.3
Canada, British Columbia	Other	Yes	Yes	No	No	No	No	No	No	No	-	No	-
Canada, Manitoba	ICDO-2 and ICDO-3 (2000)	Yes	Yes	Yes	No	No	No	No	No	Yes	-	NA	NA
Canada, New Brunswick	SEER rules	No	Yes	No	No	No	No	No	No	Yes	0.69	No	-
Canada, Newfoundland and Labrador	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	No	-	No	-
Canada, Northwest Territories	ICDO-2 and ICDO-3 (2004)	Yes	No	No	No	No	No	No	No	Yes	NK	Yes	NK

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Canada, Nova Scotia	ICDO-2 and ICDO-3 (2000)	Yes	Yes	Yes	No	No	No	No	No	Yes	< 1	No	-
Canada, Ontario	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	<5	No	-
Canada, Prince Edward Island	Other	No	No	No	No	No	No	No	No	Yes	NK	No	-
Canada, Saskatchewan	ICDO-3 (2004)	Yes	Yes	NA	NA	NA	NA	NA	NA	Yes	2.4	Yes	2.78
USA, Alabama	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	2.06 (2002)
USA, Alaska	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	2.6	Yes	1
USA, Arizona	SEER rules	No	No	No	No	No	No	No	No	Yes	0.1	NA	NA
USA, California	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	0.21	No	-
USA, California, Greater San Francisco Bay Area	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	NK	NA	NA
USA, California, Los Angeles County	ICDO-2, ICDO-3 (2000) and SEER rules	No	No	No	No	No	No	No	No	Yes	NK	No	-
USA, Colorado	ICDO-2 and ICDO-3(2000)	Yes	Yes	No	No	No	No	No	No	Yes	<1	No	-
USA, Connecticut	ICDO-2, ICDO-3 (2000) and SEER rules	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	1
USA, District of Columbia	NA	Yes	Yes	Yes	No	No	No	NA	No	Yes	<3	No	-
USA, Florida	ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	<0.5	Yes	<1
USA, Georgia	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
USA, Georgia, Atlanta	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
USA, Idaho	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	2.7
USA, Illinois	SEER rules	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
USA, Indiana	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
USA, Iowa	SEER rules	No	No	No	No	No	No	No	No	Yes	NK	No	5.22
USA, Kentucky	SEER rules	Yes	Yes	No	No	Yes	No	No	No	Yes	0.1	Yes	1.2
USA, Louisiana	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	0.2	No	-

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
USA, Louisiana, New Orleans	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	0.2	No	-
USA, Maine	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	0.04	No	-
USA, Massachusetts	SEER rules	Yes	Yes	Yes	No	No	No	No	No	Yes	0.15	Yes	3
USA, Michigan	SEER rules	Yes	Yes	No	No	No	No	No	No	Yes	<5	Yes	7
USA, Michigan, Detroit	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	NK	Yes	NA
USA, Missouri	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	<1	Yes	NK
USA, Montana	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	0.1	Yes	5
USA, New Jersey	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	34	Yes	1.3
USA, New Mexico	NA	Yes	Yes	No	No	No	No	No	No	Yes	2	No	-
USA, New York State	SEER rules	No	No	No	No	No	No	No	No	Yes	3	No	-
USA, NPCR													
USA, Ohio	NA	Yes	Yes	No	Yes	No	No	No	No	Yes	0.001	No	-
USA, Oklahoma	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	Yes	No	No	Yes	No	Yes	1.3	Yes	1.7
USA, Oregon	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	0.1	No	-
USA, Pennsylvania	SEER rules	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
USA, Rhode Island	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	0.1	Yes	1-2
USA, SEER	ICDO-2, ICDO-3 (2000) and SEER rules	Yes	Yes	No	Yes	No	No	No	No	Yes	NK	No	-
USA, South Carolina	ICDO-2, ICDO-3 (2000) and SEER rules	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
USA, Texas	ICDO-2, ICDO-3 (2000) and SEER rules	No	No	No	No	No	No	No	No	Yes	NK	No	-
USA, Utah	SEER rules	No	No	No	No	No	No	No	No	Yes	NK	No	-
USA, Vermont	ICDO-2 and ICDO-3 (2000)	Yes	Yes	NA	NA	NA	NA	NA	NA	Yes	0.2	Yes	1

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
USA, Washington	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	Yes	No	No	No	No	Yes	<0.5	Yes	1-2
USA, Washington, Seattle	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	NK	Yes	<1
USA, West Virginia	ICDO-2	Yes	Yes	NA	NA	NA	NA	NA	NA	Yes	NK	No	-
USA, Wisconsin	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	3	Yes	7
Asia													
Bahrain	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	15-25
China, Guangzhou	ICDO-2	No	No	No	No	No	No	No	No	No	NK	Yes	9.3
China, Hong Kong	NA	No	No	No	No	No	No	No	No	Yes	NK	No	-
China, Jiashan	ICDO-3 (2000)	No	No	No	Yes	No	No	No	No	Yes	<0.01	Yes	0.5
China, Nangang District, Harbin City	Other	No	No	No	No	No	No	No	No	No	-	Yes	1.94
China, Shanghai	ICDO-2	No	No	No	No	No	No	No	No	No	-	Yes	10
China, Zhongshan	ICDO-2	No	No	No	No	No	No	No	Nasopha-rynx	Yes	NK	Yes	0.08
Cyprus	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	No	-	NA	NA
India, Chennai (Madras)	ICMR National Cancer Registry	No	No	No	No	No	No	No	No	No	-	Yes	5.1
India, Karunagappally	NA	Yes	Yes	NA	NA	NA	NA	Yes	Other	No	-	Yes	NA
India, Mumbai (Bombay)	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	No	-	Yes	52
India, Nagpur	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	No	-	Yes	30
India, New Delhi	ICDO-1	No	No	No	No	No	No	No	No	No	-	Yes	NA
India, Poona	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	No	-	Yes	42
India, Trivandrum	ICDO-2	NA	NA	NA	NA	NA	NA	Yes	No	No	-	Yes	3
Israel	ICDO-3 (2000)	NA	NA	NA	NA	NA	NA	NA	NA	Yes	<0.01	Yes	2.9
Japan, Aichi Prefecture	ICDO-2	No	No	No	No	No	No	No	No	No	-	NA	NA
Japan, Fukui Prefecture	NA	No	No	No	Yes	No	No	No	Stomach	Yes	<1	Yes	1.7
Japan, Hiroshima	Other	No	No	No	No	No	No	No	No	Yes	NK	No	-

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Japan, Miyagi Prefecture	ICDO-2	Yes	Yes	No	Yes	No	Yes	No	Stomach	Yes	NK	Yes	14
Japan, Nagasaki Prefecture	ICDO-3 (2004)	Yes	Yes	No	Yes	No	Yes	No	Stomach	Yes	NK	No	-
Japan, Osaka Prefecture	ICDO-2	No	No	No	No	No	No	No	No	Yes	5.5 in 2000	Yes	35.1 in 2000
Japan, Yamagata Prefecture	Other and ICDO-3 (2004)	No	No	No	Yes	No	No	No	Stomach	Yes	<1	Yes	22
Korea	ICDO-3 (2000)	Yes	Yes	No	Yes	No	No	No	No	Yes	NK	Yes	7.9
Korea, Busan	ICDO-3 (2000)	Yes	Yes	No	Yes	No	No	No	No	Yes	NK	No	-
Korea, Daegu	ICDO-2	Yes	Yes	No	Yes	No	No	No	No	Yes	NK	Yes	12.9
Korea, Daejeon	ICDO-3 (2000)	Yes	Yes	No	Yes	No	Yes	No	Stomach, liver	No	-	Yes	33.1
Korea, Gwangju	ICDO-3 (2004)	No	No	No	No	No	No	No	No	No	-	No	-
Korea, Incheon	ICDO-2 and ICDO-3 (2000)	Yes	No	No	No	No	Yes	No	No	No	-	Yes	4.6
Korea, Jejudo	ICDO-3 (2004)	Yes	Yes	No	Yes	No	No	No	Stomach, liver	No	-	Yes	5.1
Korea, Seoul	ICDO-3 (2004)	Yes	Yes	No	Yes	No	Yes	No	No	No	-	No	-
Korea, Ulsan	ICDO-3 (2000)	Yes	Yes	No	Yes	No	No	No	Stomach, liver	Yes	NK	Yes	6.4
Kuwait	NA	NA	NA	NA	NA	NA	NA	NA	NA	Yes	0.028	Yes	10.4
Malaysia, Penang	ICDO-2	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	<1	Yes	10
Malaysia, Sarawak	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	Yes	0	Yes	NA
Oman, Omani	ICDO-2	No	No	No	No	No	No	No	No	No	-	No	-
Pakistan, South Karachi	ICDO-3 (2004)	No	No	No	No	No	No	No	No	No	-	Yes	0.1
Philippines, Manila	NA	No	No	No	No	No	No	No	No	Yes	10	No	-
Singapore	ICDO-2	No	No	No	No	No	No	No	No	Yes	0.01	Yes	0.9
Thailand, Chiang Mai	ICDO-2	Yes	No	No	No	No	No	No	No	Yes	NK	No	-
Thailand, Lampang	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	5
Thailand, Songkhla	ICDO-2 and ICDO-3 (2000)	Yes	No	No	No	No	No	No	No	Yes	0	No	-
Turkey, Antalya	ICDO-2	No	No	No	No	No	No	No	No	No	-	Yes	NA
Turkey, Izmir	ICDO-2	No	Yes	No	No	No	No	No	No	No	-	NA	NA

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Europe													
Austria	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	No	-
Austria, Tyrol	ICDO-1 and ICDO-3 (2000)	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	15	Yes	4
Austria, Vorarlberg	ICDO-2	Yes	Yes	Yes	Yes	No	No	No	No	Yes	<1	Yes	4
Belarus	Other	NA	NA	NA	NA	NA	NA	NA	NA	Yes	0.2-0.5	No	-
Belgium, Antwerp	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	No	-	No	-
Belgium, Flanders	ICDO-2	Yes	Yes	No	No	Yes	No	No	Regional practices	Yes	0.05	NA	NA
Bulgaria	ICDO-2	No	No	No	No	No	No	No	No	Yes	<1	Yes	13
Croatia	ICDO-2, ICDO-3 (2000) and ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	5	NA	NA
Czech Republic	ICDO-3 (2000)	Yes	Yes	No	Yes	No	No	No	No	Yes	21 in 2002	No	-
Denmark	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	< 12	No	6-8
Estonia	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	No	-
Finland	Other	Yes	Yes	No	Yes	No	No	No	No	Yes	NA	No	-
France, Bas-Rhin	ICDO-3 (2000)	Yes	Yes	NA	NA	NA	NA	NA	NA	Yes	<1	NA	NA
France, Calvados	ICDO-2, ICDO-3 (2000) and ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	NK	No	-
France, Doubs	ICDO-2	Yes	No	No	No	No	No	No	No	Yes	NA	No	-
France, Haut-Rhin	ICDO-2	No	No	No	No	No	No	No	No	Yes	NA	No	-
France, Herault	ICDO-2 and ICDO-3 (2000)	No	Yes	Yes	Yes	No	No	No	No	No	-	No	-
France, Isere	ICDO-2, ICDO-3 (2000) and ICDO-3 (2004)	Yes	Yes	No	Yes	No	No	No	No	Yes	<1	No	-
France, Loire-Atlantique	ICDO-2 and ICDO-3 (2000)	No	Yes	No	No	No	No	No	No	No	-	No	-

Table 5.7 Registration practices

Registry	MP rules 1998-2002	Screening programme as data source								Cases with		Distinguish	
		Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
France, Manche	ICDO-2, ICDO-3 (2000) and ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	NK	Yes	NK
France, Somme	ICDO-3 (2004)	No	Yes	No	No	No	No	No	No	Yes	0.02	Yes	29
France, Tarn	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	NK	No	-
France, Vendee	ICDO-2 and ICDO-3 (2000)	No	Yes	No	No	No	No	No	No	No	-	No	-
Germany, Brandenburg	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	2	Yes	NA
Germany, Free State of Saxony	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	2	Yes	NA
Germany, Hamburg	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	<1	No	-
Germany, Mecklenburg-Western Pomerania	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	2	Yes	NA
Germany, Munich	ICDO-3 (2004)	Yes	No	No	No	No	No	No	No	No	2	Yes	10
Germany, North Rhine-Westphalia: Münster	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	<1	Yes	18
Germany, Saarland	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	Yes	10
Iceland	Other	Yes	Yes	No	No	No	No	No	No	Yes	9	Yes	2
Ireland	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	Yes	2.38
Italy, Biella Province	ICDO-3 (2004)	Yes	Yes	No	Yes	No	No	No	No	Yes	0.06	No	-
Italy, Brescia Province	ICDO-2	No	Yes	No	No	No	No	No	No	Yes	0.02	No	-
Italy, Ferrara Province	ICDO-3 (2004)	Yes	Yes	No	Yes	No	No	No	No	Yes	<1	Yes	0.1
Italy, Florence and Prato	ICDO-3 (2004)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	0.06	Yes	1.3
Italy, Genoa Province	ICDO-3 (2004)	No	Yes since 2000	No	No	No	No	No	No	Yes	<1	No	-
Italy, Macerata Province	ICDO-2 and ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	0.1	No	-
Italy, Milan	ICDO-3 (2004)	No	Yes	No	No	No	No	No	No	Yes	0.07	Yes	2.2
Italy, Modena Province	ICDO-3 (2000)	Yes	Yes	NA	Yes	NA	NA	NA	NA	Yes	0.1	Yes	2
Italy, Naples	ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	1.3
Italy, North East	ICDO-1 and ICDO-2 and ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	Yes	0.25	No	-
Italy, Parma Province	ICDO-3 (2004)	Yes	Yes	NA	NA	NA	NA	NA	NA	Yes	NK	Yes	1.2
Italy, Ragusa Province	ICDO-3 (2004)	No	Yes	No	No	No	No	No	No	No	-	Yes	1.6

Table 5.7 Registration practices

Registry	MP rules	Screening programme as data source								Cases with		Distinguish	
	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Italy, Reggio Emilia Province	ICDO-2	Yes	Yes	NA	Yes	Yes	NA	NA	NA	Yes	NK	Yes	2
Italy, Romagna Region	ICDO-3 (2004)	Yes	Yes	NA	Yes	NA	NA	NA	NA	Yes	1.7	Yes	3
Italy, Salerno Province	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	5
Italy, Sassari Province	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	0.3	Yes	0.3
Italy, Sondrio	ICDO-3 (2004)	No	Yes since 2000	No	No	Yes	No	No	No	Yes	1	Yes	0.6
Italy, Syracuse Province	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	1.5
Italy, Torino	ICDO-1	Yes	Yes	No	Yes	No	No	No	No	No	<1	No	-
Italy, Umbria Region	ICDO-1 and ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	No	0.01	Yes	1.5
Italy, Varese Province	ICDO-2	No	No	No	No	No	No	No	No	Yes	<1	No	-
Italy, Veneto Region	ICDO-3 (2004)	Yes	Yes	NA	No	Yes	NA	NA	NA	Yes	1.5	No	-
Latvia	ICDO-2	No	No	No	No	No	No	No	No	Yes	8	NA	NA
Lithuania	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	12	Yes	5 - 10
Malta	ICDO-2	No	No	No	No	No	No	No	No	Yes	0.2	No	-
The Netherlands	ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	Yes	0.4	No	-
The Netherlands, Eindhoven	NA	Yes	Yes	No	No	No	No	No	No	NA	NA	No	-
The Netherlands, Maastricht	ICDO-2 and ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
Norway	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	0.45	No	-
Poland, Cracow	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	0.2	Yes	7.2
Poland, Kielce	Other	Yes	Yes	NA	Yes	NA	NA	NA	NA	Yes	1	Yes	3
Poland, Warsaw City	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	0.1	No	-
Portugal, Porto	ICDO-3 (2000)	Yes	Yes	NA	NA	NA	NA	NA	NA	No	NK	No	-
Portugal, South Regional	ICDO-3 (2000)	No	Yes	No	No	No	No	No	No	Yes	<1	Yes	12.4
Russia, St Petersburg	ICDO-2	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	4 - 6	Yes	4 - 6
Serbia	ICDO-2 and ICDO-3 (2000)	No	No	No	No	No	No	No	No	No	-	NA	NA
Slovak Republic	ICDO-1	No	No	No	No	No	No	No	No	Yes	4	No	-
Slovenia	ICDO-2 and ICDO-3 (2000)	Yes	No	No	No	No	No	No	No	Yes	NK	No	-
Spain, Albacete	ICDO-2	No	Yes	No	No	No	No	No	No	Yes	<0.1	Yes	8
Spain, Asturias	ICDO-3 (2004)	No	No	No	No	No	No	No	No	Yes	0.8	No	-

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Registry	MP rules 1998-2002	Screening programme as data source								Cases with		Distinguish	
		Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Spain, Basque Country	ICDO-2 and ICDO-3 (2000)	No	Yes	No	No	No	No	No	No	Yes	NK	Yes	4.8
Spain, Canary Islands	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	NK	No	-
Spain, Cuenca	ICDO-3 (2000)	No	Yes	No	No	No	No	No	No	Yes	0.1	Yes	12.5
Spain, Girona	ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	5.7
Spain, Granada	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	<1	No	-
Spain, Murcia	ICDO-2	No	Yes	No	No	No	No	No	No	Yes	0.1	Yes	4.1
Spain, Navarra	Other	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	3.4
Spain, Tarragona	Other	Yes	Yes	No	No	No	No	No	No	Yes	1.15	Yes	9.2
Spain, Zaragoza	ICDO-2	NA	Yes	NA	NA	NA	NA	NA	NA	No	-	No	-
Sweden	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	10	No	-
Switzerland, Geneva	ICDO-2	No	No	No	No	No	No	No	No	Yes	10	Yes	0.7
Switzerland, Graubünden and Glarus	ICDO-2	No	No	No	No	No	No	No	No	Yes	8	Yes	NK
Switzerland, Neuchâtel	ICDO-1	No	No	No	No	No	No	No	No	Yes	2.5	Yes	NA
Switzerland, St Gall-Appenzell	ICDO-2	No	No	No	No	No	No	No	No	Yes	10	Yes	2
Switzerland, Ticino	ICDO-2	No	No	No	No	No	No	No	No	Yes	3	Yes	2
Switzerland, Valais	ICDO-2	No	Yes	No	No	No	No	No	No	Yes	1 - 2	Yes	NA
Switzerland, Vaud	ICDO-1	No	Yes	No	No	No	No	No	No	Yes	1.4	Yes	NA
UK, England, East of England Region	Other	No	Yes	No	No	No	No	No	No	Yes	6	No	NK
UK, England, Merseyside and Cheshire	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	19
UK, England, North Western	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	NK
UK, England, Northern and Yorkshire	Other	Yes	Yes	No	No	No	No	No	No	Yes	1.6	Yes	17
UK, England, Oxford Region	Other	Yes	Yes	No	No	No	No	No	No	Yes	2 - 3	Yes	13 in 2002
UK, England, South and Western Regions	Other	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	NK
UK, England, Thames	Other	No	Yes	No	No	No	No	No	No	Yes	NK	Yes	30
UK, England, Trent	Other	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
UK, England, West Midlands	Other	No	No	NA	NA	NA	NA	NA	NA	Yes	0.8	Yes	2.4
UK, Northern Ireland	Other	Yes	Yes	No	No	No	No	No	No	Yes	<1	Yes	NA
UK, Scotland	Other	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	3.2

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	1998-2002	Cervix	Breast	Prostate	Colorec-tal	Mela-noma	Lung	Mouth	Others	Necropsy	Necropsy (%)	DCN	DCN%
Oceania													
Australian Capital Territory	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	No	-
Australia, New South Wales	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	No	-
Australia, Northern Territory	ICDO-2	No	No	No	No	No	No	No	No	Yes	NK	No	-
Australia, Queensland	ICDO-3 (2000)	No	No	No	No	No	No	No	No	Yes	0.08	Yes	1.31 (based on 2003 dx patients)
Western Australia	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	NK	Yes	4
Australia, Tasmania	ICDO-3 (2000)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	15
Australia, Victoria	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	NK	No	-
French Polynesia	ICDO-3 (2000) and ICDO-3 (2004)	Yes	Yes	No	No	No	No	No	No	No	-	Yes	NA
New Zealand	ICDO-2	Yes	Yes	No	No	No	No	No	No	Yes	NK	NA	NA
USA, Hawaii	ICDO-2 and ICDO-3 (2000)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	0	No	-

NA = not applicable

NK = not known