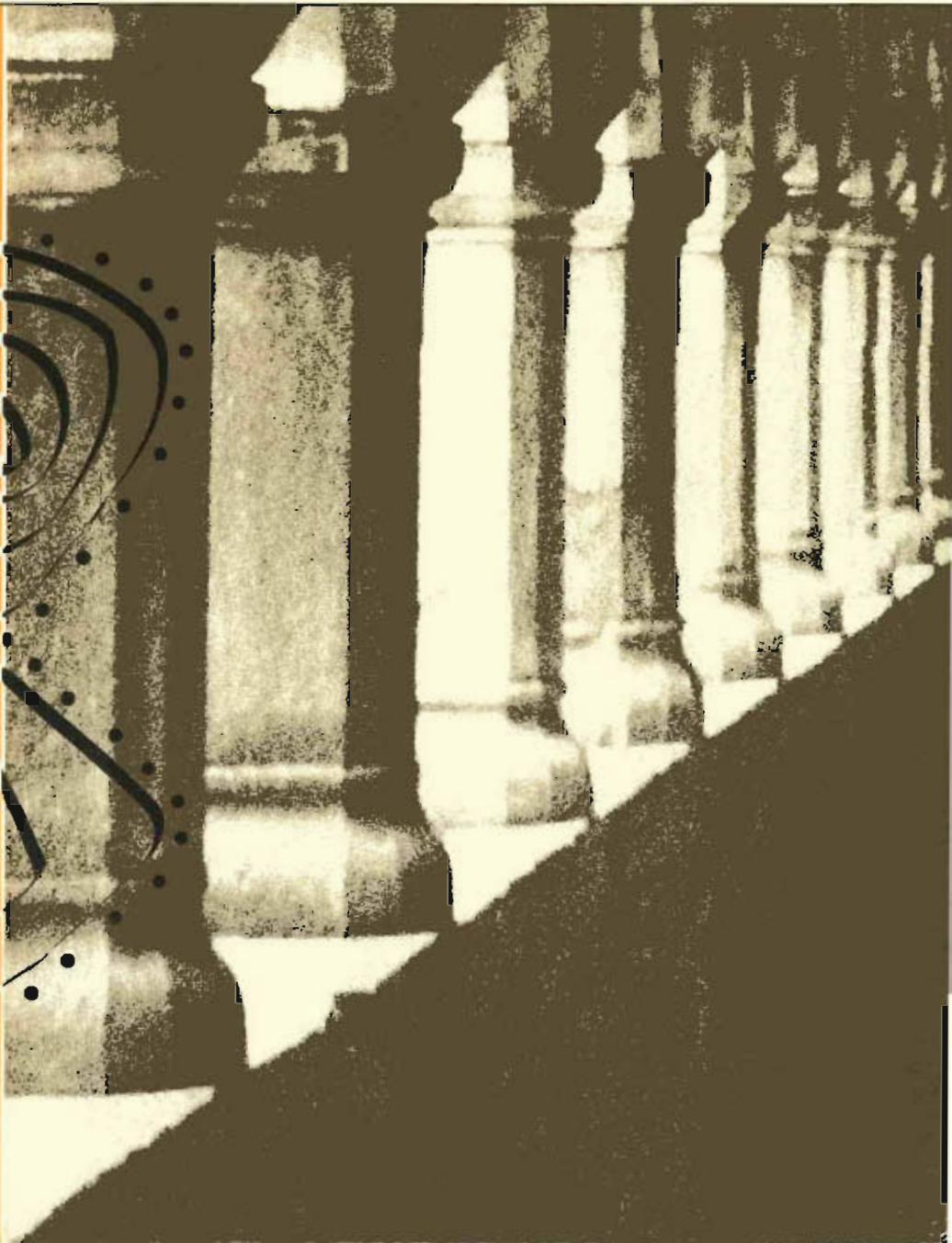


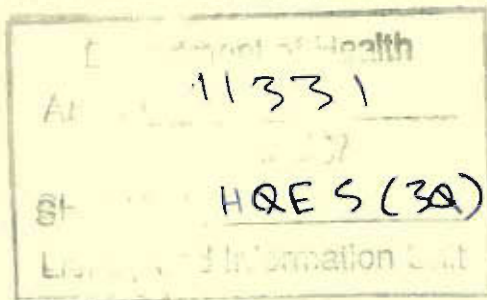


National Cancer Registry Ireland

Cancer in Ireland, 1994

Incidence and Mortality





Cancer in Ireland, 1994

Incidence and Mortality

Report of the National Cancer Registry



CORK

NATIONAL CANCER
REGISTRY BOARD

JUNE 1997

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I.I. FOREWORD

I am very pleased to receive the first report of the National Cancer Registry. The registry has been working hard to produce a detailed national data set on the incidence of cancer, and its first report is a most welcome step forward. Cancer is without doubt one of the major problems facing us today and one worthy of special support. On taking office, I set as a priority within my Department the development of services to combat cancer.



The Department of Health's strategy document "Shaping a Healthier Future" identified cancer as one of the three major sources of mortality among those aged under 65 years in Ireland and it set out a medium-term target to reduce the death rate from cancer in the under-65 age-group by 15 per cent in the ten-year period from 1994.

As an important contribution towards achieving that target, I published a National Cancer Strategy in November 1996. Its goal is to ensure the provision of an equitable and high quality cancer service throughout the country. The objective is to take all measures possible to reduce the incidence of cancer and to ensure that those who develop cancer receive the most effective treatment. In order to implement the National Cancer Strategy, I launched a major Action Plan in March 1997. This includes detailed plans by region for the development of cancer services and funding for the co-ordination of health research.

The work of the National Cancer Registry forms an important part of the fight against cancer. Collection and analysis of cancer data is critical for epidemiological and research purposes. I am very pleased that this important set of data is now available on a national basis.

I would like to take this opportunity to acknowledge the contribution made by University College Cork through the former Southern Tumour Registry and also to note UCC's continuing support to the National Cancer Registry. In welcoming this report and acknowledging the work of the Board of the National Cancer Registry, its Director, Dr. Harry Comber, and its dedicated staff, I would also like to pay tribute to all those agencies and individuals who have contributed to the fight against cancer in Ireland.

Michael Noonan, T.D.
Minister for Health.

1.2. INTRODUCTION

The effect of cancer on the health status of the Irish population is striking. Cancer is the second most common cause of death; it is a major cause of disability, and the diagnosis, treatment and follow-up of cancer patients places a considerable burden on Irish society in general and on the health services in particular. One in three of the population develops cancer during their lifetime and cancer causes one in four deaths in Ireland each year. The impact of cancer on our population will be minimized by increasing our understanding of its aetiology, improving prevention programmes and by earlier diagnosis, optimal therapy and appropriate palliative care.

All aspects of the health services are faced with the challenge of reducing the burden of cancer. To do so effectively requires timely and accurate information on the occurrence, distribution and progress of the disease. For too long this country has lacked this information. Since the late 1970s the Southern Tumour Registry has collected data on cancer incidence and mortality in Cork and Kerry. The National Cancer Registry extended collection of data to the rest of the country in 1994, resulting in this eagerly awaited first report on "Cancer in Ireland".

The report would not have been possible without the co-operation of all of those individuals in hospitals and agencies who assist the Registry in the collection and collation of data on a continuous basis. Their support and enthusiasm is appreciated and acknowledged. It is a tribute to the dedication and commitment of the Director and staff of the Registry that a report of this quality and excellence has been produced.

The quality of Cancer Registry data is central to its utility and the completeness of cancer registration requires constant vigilance. Even in this, the first national report, it is evident that a high standard of quality in the collection and recording of data has been achieved. It is vital that the Registry will strive to maintain and improve this high standard. A further challenge for the Registry is the facilitation of cancer research. Epidemiological analysis of the data will stimulate and focus cancer research initiatives. Those involved in all aspects of cancer research will benefit from the high quality data now available on cancer incidence and mortality.

The National Cancer Registry recognises the importance of collaboration and co-operation with other cancer registries and close working links have been established with the International Association of Cancer Registries, the European Network of Cancer Registries and the U.K. Association of Cancer Registries. The National Cancer Registry also has close bilateral relationships with many European cancer registries, and a particularly close working relationship with the Northern Ireland Cancer Registry, with which we hope to exploit the potential for cross-border epidemiological studies.

Of crucial importance to the success of the Cancer Registry is that the information now available will be actively used in the planning of programmes for the prevention, diagnosis and treatment of cancer. This report will thus act as an archive for reference in the future: a yardstick by which to measure our collective efforts in the control of cancer.

Dr. Elizabeth Keane
Chair
National Cancer Registry

1.3. THE NATIONAL CANCER REGISTRY BOARD

The National Cancer Registry Board was established by the Minister for Health in 1991, by Statutory Instrument. Its functions were laid down in its Establishment Order as follows:

1. to identify, collect, classify, record, store and analyse information relating to the incidence and prevalence of cancer and related tumours in Ireland;
2. to collect, classify, record and store information in relation to each newly diagnosed individual cancer patient and in relation to each tumour which occurs;
3. to promote and facilitate the use of the data thus collected in approved research and in the planning and management of services;
4. to publish an annual report based on the activities of the Registry;
5. to furnish advice, information and assistance in relation to any aspect of such service to the Minister.

The membership of the first National Cancer Registry Board (1991-1996) was appointed by the Minister on the nominations of various bodies concerned with cancer research and treatment, as follows:

Dr. A. Walsh (Chairman); appointed by the Minister for Health

Mr. E. Corcoran, Assistant Principal Officer, Department of Health; appointed by the Minister for Health (1991 to 1995)

Ms. M. Dowling, Assistant Principal Officer, Department of Health; appointed by the Minister for Health (1995 to 1996)

Mr. M. Crowley, Head of Statistics Laboratory, University College, Cork; nominated by University College, Cork

Dr. M. Coughlan, General Practitioner, Galway; nominated by the Irish College of General Practitioners

Professor C.T. Doyle, Department of Pathology, University College, Cork, and Consultant Pathologist, Cork Regional Hospital; nominated by the Faculty of Pathology of the Royal College of Physicians of Ireland

Professor J.J. Fennelly, Department of Clinical Oncology, University College, Dublin, and Consultant Oncologist, St. Vincent's Hospital, Dublin; nominated by the Royal College of Physicians of Ireland

Professor M. Leader, Department of Pathology, Royal College of Surgeons in Ireland and Consultant Pathologist, Beaumont Hospital, Dublin; nominated by the Royal College of Surgeons in Ireland

Dr. M. Moriarty, Consultant Oncologist, St. Luke's Hospital, Dublin; nominated by the Irish Cancer Society

Dr. A. Shannon, Acting Director of Community Care, North Eastern Health Board; appointed by the Minister for Health.

The term of office of this Board was from June 1st, 1991 to May 30th, 1996.

The second National Cancer Registry Board was appointed by the Minister of Health in October 1996, to hold office until October 2001. The membership of the current Board is:

Dr. Elizabeth Keane (Chairperson), Director of Public Health, Southern Health Board, Farm Centre, Dennehy's Cross, Cork; nominated by the Minister for Health

Professor Alun Evans, Division of Epidemiology of the Queen's University of Belfast, Mulhouse Building, Grosvenor Road, Belfast, BT1 2 6BJ; nominated by the Faculty of Public Health Medicine of Ireland

Professor James J. Fennelly, Consultant Oncologist, St. Vincent's Private Hospital, Herbert Avenue, Dublin 4; nominated by the Royal College of Physicians of Ireland

Professor Bernadette Herity, Department of Epidemiology and Public Health, University College, Dublin, Belfield, Dublin 4; nominated by the Irish Cancer Society

Professor Aine Hyland, Department of Education, University College, Cork; nominated by University College, Cork

Mr. Fergal Lynch, Assistant Principal Officer, Department of Health, Hawkins House, Hawkins St., Dublin 2; appointed by the Minister for Health

Professor Niall O'Higgins, Department of Surgery, St. Vincent's Hospital, Elm Park, Dublin 4; nominated by the Royal College of Surgeons in Ireland

Dr. Martin Rouse, Medical Centre, Emmet House, Clonmel, Co. Tipperary; nominated by the Irish College of General Practitioners

Dr. Kieran Sheahan, Consultant Pathologist, St. Vincent's Hospital, Elm Park, Dublin 4; nominated by the Faculty of Pathology of the Royal College of Physicians of Ireland

Dr. Niall Tierney, Former Chief Medical Officer, Department of Health, Hawkins House, Hawkins St., Dublin 2; appointed by the Minister for Health.

1.4. ACKNOWLEDGEMENTS

The production of a report such as this requires the help and co-operation of so many people that it may seem invidious to select some for special mention. However, I would like to acknowledge the special contribution of some groups and individuals.

I am particularly appreciative of the support and interest of the Minister for Health, his predecessors and the officials of his Department, who have given the Registry the resources and the freedom to develop in a way best suited to the Irish health care system.

The Registry has been fortunate in having, in its first five years, a Board whose expertise and insight have helped to lay the foundations of a successful registry, and whose support and guidance I have relied on heavily, and a newly appointed Board of the same calibre, who have already made a considerable contribution to this report.

The Registry has been enthusiastically helped by hospital staff throughout the country – laboratory and medical records staff, doctors and administrators. In many hospitals, staff have gone to considerable trouble to provide us with data collection facilities, and I am most grateful for this. I particularly wish to thank pathologists and their staff throughout the country whose provision of pathology reports on cancer to the Registry forms the main basis of registration. The assistance of the HIPE and case-mix staff in the public and voluntary hospitals, as well as those working on the system centrally in the Department of Health and in the ESRI, has also been invaluable. The staff of the Central Statistics Office have kindly provided us with facilities for the registration of deaths, and have produced, at our request, analyses of mortality data for 1992 and 1993.

A large number of GPs have sent us notifications of new cancer cases during the year, and I would like to thank them, and the many other GPs and consultants who have responded to our requests for information. I am also obliged to the staff of district hospitals, nursing homes and hospices around the country, who have been uniformly helpful.

Finally, I must acknowledge the skill and dedication of the Registry staff, who have made the task of setting up a national cancer registry so much easier, and without whom none of the information presented here could have been collected. I hope that this report will be a fitting tribute to their efforts.

Harry Comber, Director

1.5. SOURCES OF DATA FOR THIS REPORT

Cancer incidence and mortality information for 1994 is based on data collected by the Registry from January 1st, 1994 to March 31st, 1996. Mortality information for 1992 and 1993 was kindly provided by the Central Statistics Office (CSO), and is based on deaths registered, rather than occurring, in those years. Mortality data for earlier years are taken from the published reports on Vital Statistics [1], and are based on deaths occurring during the year in question. Population projections for 1994 [2] and census data for 1991 were also provided by the CSO. Cancer incidence and mortality data for Europe were provided through the European Network of Cancer Registries [3, 4], the International Agency for Research on Cancer [5], and by some individual registries (see "International comparisons", section 2.6). Maps of Ireland were provided by the Ordnance Survey Office. Other data used are acknowledged as appropriate in the text.

1.6. AVAILABILITY OF REGISTRY DATA

The Registry wishes to make its data as widely available as possible, within the restraints imposed by maintaining confidentiality. The material published here, with the exception of the maps of Ireland, for which the copyright belongs to the Ordnance Survey, may be reproduced freely, but the Registry must be cited as the source, and any alterations, omissions and interpretations of the data must be identified as having been made by the author.

Subsets, or further analyses, of the data may be obtained by any interested person by applying in writing to the Registry. Data from the Southern Tumour Registry for the period 1977 to 1993 are available on the same basis.

The data may be provided either as cross-tabulations or as individual data records, as appropriate. No information which could identify an individual patient, institution or health care worker will be released without their consent. This service is free to individuals or institutions who contribute data to the Registry; a small charge will be made to others for the time taken in producing the information. We would be particularly interested in hearing from individuals or institutions within the healthcare system who might wish to use Registry data routinely for performance review.

1.7. STAFF AND PREMISES

The Registry's offices are at:

**Elm Court
Boreenmanna Road
Cork**

Telephone: 021-318014
Fax: 021-318016
E-mail: cancereg@indigo.ie

The Registry staff at this office are:

**Harry Comber
Mary Chambers
Eleanor Crowley
Fiona Dwane
Geraldine Finn
Eilish Manley.**

Registration Officers, who are full time employees of the Registry, are based in hospitals throughout the country. Each of these officers is responsible for data collection at their base hospital and for other hospitals in the area. The Registration Officers are:

Eastern Health Board:

Elizabeth Behan, Beaumont Hospital. Tel: 01-8570313.
Criona Bolger, Mater Misericordiae Hospital. Tel: 01-8309001
Mairead Casey, Tallaght Hospital (at present in St. James's Hospital)
Eve Horan, St. Luke's Hospital. Tel: 01-4942170
Katherine Leonard, St. James's Hospital. Tel: 01-4549883
Martina McCarthy, St. Vincent's Hospital. Tel: 01-2601684

Midlands Health Board:

Michelle McClintock, Tullamore General Hospital. Tel: 0506-52586

Mid Western Health Board:

Mary Geoghegan, Limerick Regional Hospital. Tel: 061-304067

North Eastern Health Board:

Sharon Glynne, Navan General Hospital. Tel: 046-71277.

North Western Health Board:

Eileen Menarry, Sligo General Hospital. Tel: 071-46063

Southern Health Board:

Catherine Burke and **Maria Duane**, Elm Court, Boreenmanna Road, Cork. Tel: 021-318014

South Eastern Health Board:

Nuala Kirwan and **Joan O'Hagan**, Waterford Regional Hospital. Tel: 051-50779

Western Health Board:

Margaret Cawley, **Bettie Delaney** and **Celine O'Keeffe**,
University College Hospital, Galway. Tel: 091-23900.

2.1. THE HISTORY OF CANCER REGISTRATION IN IRELAND

2.1.1. THE SOUTHERN TUMOUR REGISTRY

Population-based cancer registration began in Ireland in 1975 with the Southern Tumour Registry, which was set up in Cork and Kerry as the result of an initiative by local clinicians, pathologists and epidemiologists. Funding for the Registry was provided by the Irish Cancer Society, and its first full year of cancer incidence recording was in 1977. The Registry had a close association with University College, Cork from its beginning, through its clinical teaching departments and also through the Departments of Social Medicine and of Statistics. The Heads of the latter Departments, Professors JP Corridan and MA Moran, provided epidemiological and technical support to the Registry, and were both founder members of the Registry Committee. For 17 years, the Southern Tumour Registry collected and analysed cancer incidence data for Cork and Kerry, and was the only comprehensive, population-based cancer registry in Ireland, serving a population of over 500,000. The establishment and success of the National Cancer Registry owes much to the pioneering work of those who set up, funded and administered the Southern Tumour Registry. The National Cancer Registry became responsible for data collection in Cork and Kerry late in 1991. Cancer incidence data for Cork and Kerry in 1991 have already been published by the Registry [6] and those for 1992 and 1993 are presented in Chapter 20 of this report. An extensive review of the data collected by the Southern Tumour Registry up to 1990 has recently been published [7].

2.1.2. THE NATIONAL CANCER REGISTRY

The establishment of a National Cancer Registry was one of the main recommendations of an expert group set up by the Minister for Health in November 1984 to investigate a suspected excess of leukaemia deaths on the eastern seaboard [8]. A working group on a National Cancer Registry was appointed by the Minister in 1988 and, acting on the recommendations of this group [9], the Minister established the National Cancer Registry Board in 1991. The Board assumed responsibility for the work of the Southern Tumour Registry in November of that year. Plans for national cancer registration were produced by the Board in 1992, and full registration of all cancers in the country began on January 1st, 1994. The memberships of the first (1991 to 1996) and second (1996 to 2001) National Cancer Registry Boards, with relevant extracts from the text of the statutory instrument setting out the functions of the Board, are given in section 1.3.

The aim of the Registry has been to register all cancers incident since January 1st, 1994, in persons resident in the Republic of Ireland. It has also registered deaths due to cancer since that time, and records the deaths, from whatever cause, of patients diagnosed as having cancer since January 1st, 1994. There is no compulsion, either legal or administrative, on individuals or institutions to supply the Registry with data.

2.2. CHARACTERISTICS OF THE CATCHMENT AREA

2.2.1. GEOGRAPHY AND CLIMATE

The catchment area of the Registry is the Republic of Ireland. A separate registry covers Northern Ireland. The Republic of Ireland is situated between 51°30' and 55°30' N and between 6°0' and 10°40' W. The total land area is 70282 km², with a long indented coastline of 3169 km. The highlands are mainly coastal, with a central limestone plain, and the country does not rise above 1040 m at any point. The climate is temperate and oceanic, with average winter temperatures between 4°C and 7°C, and summer temperatures between 14°C and 16°C. Yearly rainfall is highest on the mountains of the West and lowest in the east midlands.

2.2.2. ECONOMY

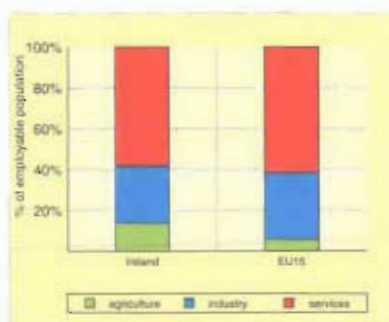
The number of employable persons (15 years or over) at the end of 1994 was estimated to be 2671000, distributed as shown in Table 2.1 [10].

Table 2.1. Economic status of population in 1994

status	number (000)	% of employable population
at work	1182	44
unemployed	218	8
student	323	12
home duties	638	24
retired	223	8
sickness or disability	65	2
other, not in labour force	22	1

The economy has a strong agricultural base, in farming and food processing, with little heavy industry, and has substantially more persons employed in agriculture than the EU average (Figure 2.1) [11].

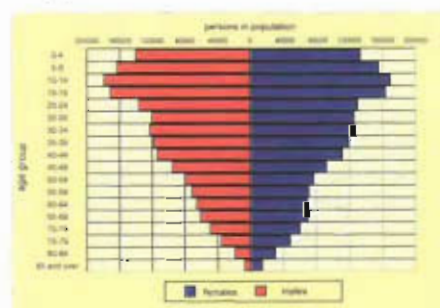
Fig 2.1. Percentage of employed labour force in 1994, by industry



2.2.3. POPULATION

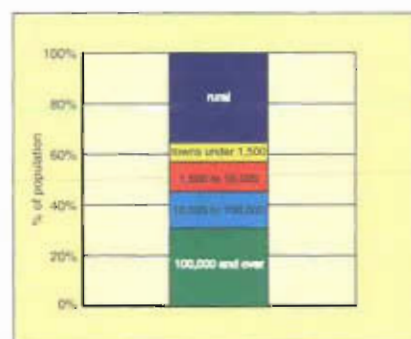
The population at the time of the 1991 census [12] was 3517895. The age and sex distribution of the population at that time is shown in Figure 2.2. The population distribution shows an obvious loss of population for both sexes in the age-groups 20 to 40, due to emigration (see "Migration", section 2.5.3.b).

Figure 2.2. Age and sex distribution of the Irish population, 1991



The average population density in 1991 was 51 persons per km² (EU average 114 per km²), ranging from 1112 persons per km² in Dublin (city and county) to 16 per km² in Co. Leitrim. 29% of the national population lived in Dublin city and county, which had a combined population of just over 1 million, while 43% of the population lived in rural areas and villages (fewer than 1500 persons) (Figure 2.3).

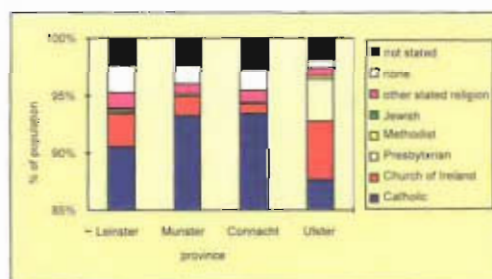
Figure 2.3. Urbanisation of Irish population, 1991



2.2.4. RELIGION AND ETHNICITY

The population is predominantly Roman Catholic (Figure 2.4).

Figure 2.4. Religion of the Irish population, by province, 1991



Geographical variation in the religious composition of the population is slight, from 94% Roman Catholic in Connacht to 88% in Ulster. No information is available on the ethnic composition of the Irish population. The Registry does not collect information on religion or ethnicity.

*A census was also carried out in 1996, the full results of which have not yet been published.

†"Ulster" here and in the figure refers only to counties Cavan, Donegal and Monaghan.

2.2.5. MEDICAL SERVICES

All Irish residents are entitled to free inpatient and outpatient hospital services. These services may be provided in publicly owned hospitals administered by the eight regional health boards, or in independently owned and managed hospitals, known as voluntary hospitals, which are funded directly by the Department of Health. A substantial number of patients elect for private treatment [13], which is available in public and voluntary hospitals, as well as in private hospitals, which cater exclusively for private patients. Patients can be referred by their general practitioner to any hospital of their choice in the country. Table 2.2 shows the distribution of acute hospital beds among the main hospitals in each sector [14, 15]. 87% of the beds are in the public sector, but, in the absence of any activity data on the private sector, bed numbers can be taken as only an approximation to the relative caseloads of the private and public hospitals.

Table 2.2. Acute hospital types, 1994

management type	number of hospitals	number of beds	% of all acute beds
health board	36	6392	47%
voluntary	27	5461	40%
private	19	1833	13%
Total	82	13686	

The Registry has equal access to data on public and private patients, and from both publicly and independently owned hospitals. All hospitals in the country co-operated fully with the Registry in providing data for this report.

a. public hospitals

In 1994 there were 63 acute general hospitals in the state-funded sector, 36 health board managed, and 27 voluntary. There was an average of 11853 inpatient beds available in this sector, with 522887 discharges or deaths and 193108 day cases during 1994. Ten hospitals were recorded as providing haematology, oncology or radiotherapy inpatient services, with 11497 discharges or deaths in these specialities. There were two radiotherapy services in the country in 1994, both in public hospitals, one in Dublin and one in Cork. There were 4 medical oncologists and 7 radiotherapist/oncologists in the state sector. Two of the radiotherapists were based in Cork, and all other posts were based in Dublin [16].

Information on the case mix of hospital admissions comes mainly from the Hospital Inpatient Enquiry (HIPE), which at present covers 92% of all discharges and deaths from public and voluntary hospitals – 97% of in-patient discharges (both public and private patients) and 80% of day cases. The hospitals which participate in HIPE, have, as mentioned above, about 87% of all the acute hospital beds in the country. The encounter data in Tables 2.3 and 2.4 and in Figures 2.5 and 2.6 are published by permission of the ESRI. The figures describe all patients with a discharge diagnosis of cancer, whether as a principal or other diagnosis. "Cancer" was defined as any diagnosis of a neoplasm of malignant (ICD-9 codes 140 to 208), in situ or uncertain behaviour (ICD-9 codes 230 to 239), as well as benign neoplasms of the central nervous system (ICD-9 code 225). HIPE recorded 34897 admissions and 13539 day cases under these headings in 1994 [17].

Cancer cases accounted for 8.6% of all admissions and day cases during 1994. Assuming that the case mix of the encounters not recorded by HIPE is similar to those recorded, a total of 3.16 encounters occurred in HIPE hospitals for each new cancer case registered in 1994. These encounters consisted of 2.28 admissions and 0.88 day cases (Table 2.3). Some of these encounters were for initial

diagnosis and treatment of the cancers, but many were return visits and follow-up contacts for cancers first diagnosed in 1994 or in previous years. The HIPE data, as currently analysed, do not allow these alternatives to be distinguished.

Table 2.3. HIPE encounters and cancer cases registered, 1994

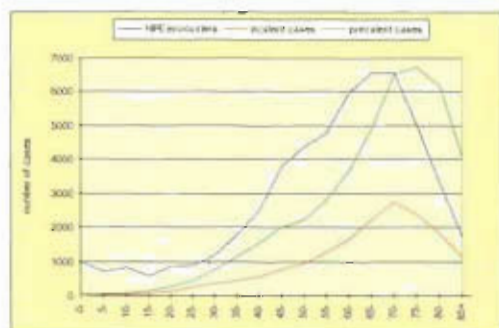
	encounters for cancer recorded by HIPE	estimated total number of encounters for cancer in HIPE hospitals	estimated number of encounters per new cancer case
admissions	34897	37932	2.28
day cases	13539	14716	0.88
total	48436	52648	3.16
all new cancers diagnosed in HIPE hospitals		16638	

Table 2.4. Inpatient and day case discharges for cancer, by age, HIPE hospitals, 1994

age	HIPE encounters		
	males	females	both sexes
0-	566	352	918
5-	358	303	661
10-	468	280	748
15-	294	244	538
20-	392	392	784
25-	433	384	817
30-	479	630	1109
35-	637	1020	1657
40-	728	1586	2314
45-	1118	2383	3501
50-	1695	2343	4038
55-	2083	2328	4411
60-	2877	2621	5498
65-	3299	2775	6074
70-	3246	2804	6050
75-	2738	1913	4651
80-	1665	1402	3067
85+	754	846	1600
all ages	23830	24606	48436

The age and sex distribution of encounters for cancer recorded by HIPE is given in Table 2.4. Female encounters exceeded male by 3%. The largest number of encounters for females was in the 70-74 year age-group and for males in the 65-69 year age group.

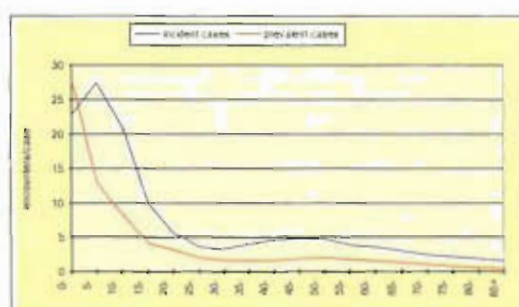
Figure 2.5. Number of HIPE encounters and the corresponding numbers of new and prevalent cancer cases, by age



The numbers of encounters should be compared to prevalent rather than to incident cases. It is not possible to accurately estimate prevalence without survival data, but an approximation can be made by use of the known age-specific incidence and mortality rates [18], and Figure 2.5 shows an estimate of the number of prevalent cases corresponding to the incident cases diagnosed in hospitals participating in the HIPE scheme.

The number of encounters per incident case was very high for young patients (Figure 2.6). It decreased to 3.3 encounters per case in the 30-34 year old group; for older patients, the number of encounters per new case decreased steadily with age. The number of encounters per prevalent case fell steadily with patient age from 28 per case in the 0-4 year olds to 0.4 per case in patients 85 years and over.

Figure 2.6. Number of HIPE encounters per registered new and prevalent cancer case, by age



b. private hospitals

There are 19 private hospitals outside the state-funded sector. Very little information is available on activity in private hospitals [13, 15].

2.3. DATA COLLECTION METHODS

2.3.1. SOURCES OF DATA

Reporting to the Registry is voluntary, and data collection is mainly active. The only information received passively at present is through notification forms returned by GPs. All other information is actively gathered by seventeen nurses trained in cancer registration methods who are employed by the Registry with the title of Tumour Registration Officer (TRO). These TROs are based in hospitals around the country (a contact address and telephone number for each TRO is given in the preface). Each is responsible for gathering cancer data from a group of hospitals, and from other sources within a designated geographical area. Within their catchment areas, they liaise with hospital pathology and haematology laboratories, special clinics, hospital administrators and medical records staff, HIPE and casemix staff, and any other persons they consider to be a useful source of cancer registration data. They also maintain links with public health nurses, hospices and nursing homes in the community.

Most cancer cases became known initially to the Registry through the TROs, who, in turn, received most of their notifications from pathology departments within hospitals (Table 2.5).

Table 2.5. Source of first notification of cases

source	cases	% of all cases
TRO notifications	18840	97.5%
pathology	16283	84.3%
HIPE	902	4.7%
other inpatient	753	3.9%
other outpatient	657	3.4%
radiotherapy	245	1.3%
death certificate	380	2.0%
GP	62	0.3%
not recorded	34	0.2%

The next largest number of cases was identified through the death certification system, although these represented just 2% of all cases registered. Half of these registrations were picked up by TROs from hospital death certificates and death registers, and the other half from certificates returned to the Central Statistics Office (CSO). The Registry has access, through the CSO, to all death certificates issued since January 1994, and keeps a copy of death certification details on every death. Deaths due to cancers which are not already known to the Registry are followed up by enquiries to the relevant hospital or the patient's GP. Existing registrations are automatically updated with death certificate information.

Cancer cases are also notified to the Registry by GPs. 650 cases were reported by GPs during 1994. Although 90% of these cases were already known to the Registry, notification by GPs is a valuable check on the completeness of registration from other sources, and is our only source of information on cancer cases treated solely by GPs.

Although HIPE data are pooled nationally, data acquisition from the HIPE system is done locally, as patient names are not available on the HIPE data centrally, making it impossible to match registrations with HIPE records.

2.3.2. DATA RECORDING

Data are entered directly onto laptop computers by the TROs, and very little information is kept on paper. This method of data collection is more secure than the use of paper forms, and also reduces errors in transferring data from one medium to another. The TRO first checks the database kept on the laptop computer, to see if the patient or case have already been registered, and then enters or updates data under three headings: patient, tumour and treatment information. Some of this information comes from the pathology report or other source of initial notification, but most is extracted from the patient's records when these become available to us, usually some weeks after discharge.

2.3.3. PATIENT DATA ITEMS

a. registry number

Each patient is allocated an unique registration number.

b. surname, maiden name, first name, main address

To avoid duplication of registrations, and to allow death certificate information to be linked to registrations, the Registry must record some identifying information on each case. The strictest confidentiality is observed in dealing with this information.

c. smoking status

This is recorded, if available, from the medical records. Information on smoking was available for 71% of patients (Table 2.6). 47% of men and 28% of women were recorded as current or ex-smokers.

Table 2.6. Smoking status of registered patients

	female		male		both sexes	
	patients	% of total	patients	% of total	patients	% of total
non-smoker	3786	40%	2440	28%	6226	34%
smoker	1945	21%	2776	32%	4721	26%
ex-smoker	624	7%	1289	15%	1913	11%
not known	3056	32%	2272	26%	5328	29%
total	9411		8777		18188	

d. date of birth and/or age at first registration

Although in almost all cases a date of birth is available, occasionally only an age is recorded.

e. sex

f. marital status

Table 2.7 shows the marital status of patients with registered cancers. Information was available on 94% of patients. 60% of men and slightly fewer than half of the women were married.

Table 2.7. Marital status of patients

	female		male		both sexes	
	patients	% of total	patients	% of total	patients	% of total
married	4315	45.9%	5228	59.6%	9543	52.5%
widowed	2593	27.6%	1043	11.9%	3636	20.0%
single	1615	17.2%	1904	21.7%	3519	19.3%
separated	170	1.8%	86	1.0%	256	1.4%
other	33	0.4%	13	0.1%	46	0.3%
divorced	15	0.2%	7	0.1%	22	0.1%
unknown	670	7.1%	496	5.7%	1166	6.4%
total	9411		8777		18188	

g. occupation (or parent's, or spouse's)

The patient's current or last occupation, as given in the medical records, was recorded. This information was often missing or unusable (Table 2.8). "Not recorded" includes instances where the occupation was given as, for instance, "retired", "OAP", or "housewife" (if no spouse's occupation was recorded). "Unclassifiable" includes descriptions such as "factory worker" or "council worker" which cannot be assigned to any particular occupation.

Table 2.8. Recording of occupation in medical records

	patients	% of total
occupation known	7672	42%
not recorded	9902	54%
unclassifiable	614	3%
total	18188	

b. employment status

This records if the patient was employed or not at the time of diagnosis, and was more frequently available than the occupation (Table 2.9).

Table 2.9. Employment status reported

	patients	% of total
retired	7255	39.9%
not recorded	5959	32.8%
housewife	3227	17.7%
unemployed	708	3.9%
self-employed	338	1.9%
employed	327	1.8%
religious	209	1.1%
student	146	0.8%
other	19	0.1%
total	18188	

A high proportion of those whose occupation was unknown were classified as "retired" or "housewife" (Table 2.10), so the population for which occupations were known was biased toward males and younger people, making it unsuitable for calculating occupational relative risks (Table 2.11).

Table 2.10. Numbers and % with valid occupational description

employment status	total	number with known occupation	% with known occupation
employed	327	300	92%
self-employed	338	297	88%
religious	209	170	81%
other	19	14	74%
not recorded	5959	2652	45%
retired	7255	3170	44%
unemployed	708	232	33%
housewife	3227	804	25%
student	146	33	23%
total	18188	7672	42%

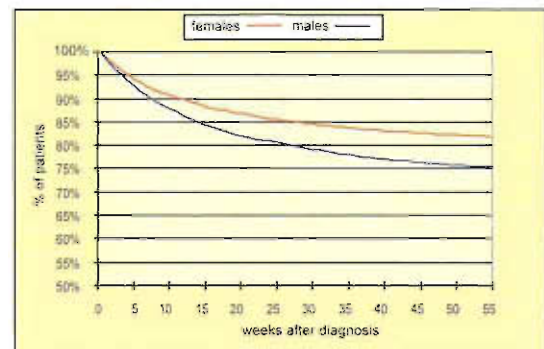
Table 2.11. Age and sex composition of population for whom occupations are recorded

	average age		
	males	females	male/female ratio
occupation known	67	59	1.7
occupation unknown	70	66	0.6

i. dead or alive: date of death

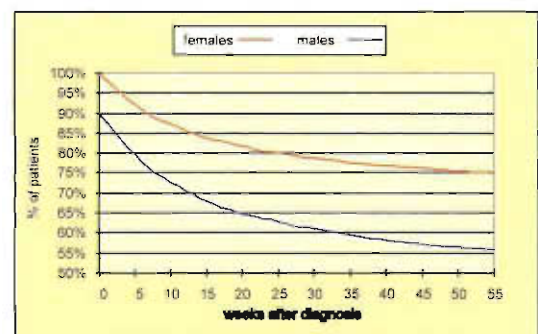
This records the patient's current status, and is automatically updated from the CSO death certification system. No formal analysis has been made of survival, as the follow-up period was too short. 82% of female patients and 75% of males were alive one year after diagnosis (Figure 2.8).

Figure 2.8. Percentage of all cancer patients surviving at one year



However, excluding patients with skin cancer, only 55% of males and 75% of females were alive one year after diagnosis (Figure 2.9).

Figure 2.9. Percentage of all cancer patients (excluding skin cancer) surviving at one year



2.3.4. TUMOUR DATA ITEMS

a. tumour number

There may be more than one tumour per person. The Registry has detailed rules to decide if a second or subsequent registered tumour for the same person is a new primary or a recurrence (see "Multiple primary cancers", section 2.5.4 c).

b. source of notification

Many tumours are notified to the Registry from more than one source. The source of notification, as registered, gives the source from which the Registry first became aware of the diagnosis of cancer – hospital, death certificate etc. (see "Sources of data"; section 2.3.1). This information is useful in assessing the relative value of different sources of information, and may also be used in estimating the completeness of registration.

c. method of presentation

Tumours discovered incidentally (either in the course of an examination for another problem, in a screening programme or at post mortem) were distinguished from those found in patients with signs or symptoms of cancer, as changes in the incidence of the former may be more dependent on medical activity than on changes in true disease incidence. In practice, the majority of cancers were only detected when they presented clinically (Table 2.12).

Table 2.12. Method of presentation of cancers

	cases	% of all cases
symptoms/signs	17387	90.0%
screening	711	3.7%
incidental	404	2.1%
autopsy	38	0.2%
not known/other	776	4.0%
all cancers	19316	

d. name of GP

This information is collected for follow-up purposes.

e. consultant, main hospital and medical record number

This information is collected for follow-up purposes.

f. date of incidence

The date of diagnosis is taken, by international agreement, to be the date on which a histological or cytological diagnosis of the cancer was first reported [19]. In the absence of a tissue diagnosis, it is taken to be either the date of admission to hospital or that of clinical diagnosis.

g. primary site of the cancer

The cancer site is described by the International Classification of Disease for Oncology, 2nd edition (ICD-O-2) [20], which is based on ICD 10. ICD-O-2 describes 69 main anatomical sites, and 311 subsites, allowing for quite precise localisation of cancers. Cancers can also be given a code of "primary site unknown" if only a secondary site is known.

h. side of the body

Side is recorded for paired organs.

i. histological description

The tumour histology is described by the morphology chapter of ICD-O-2, which is based on the SNOMED morphology of neoplasms, 3rd edition [21], and contains 817 separate morphology codes. Table 2.13 shows the twenty most common codes registered. The letters "NOS" denote "not otherwise specified", and indicate that no more specific description was possible from the information available.

Table 2.13. The most common morphological types of tumour

(NOS = not otherwise specified)	morphology code	cases
basal cell carcinoma	M-8090/3	1364
adenocarcinoma	M-8140/3	3070
squamous cell carcinoma	M-8070/3	2689
malignant neoplasm, NOS	M-8000/3	1156
CIN III	M-8077/2	866
infiltrating duct carcinoma	M-8500/3	862
carcinoma, NOS	M-8010/3	697
Bowen's disease	M-8081/2	548
squamous cell carcinoma in situ	M-8070/2	291
squamous cell carcinoma, keratinizing	M-8071/3	287
transitional cell carcinoma	M-8120/3	246
transitional cell carcinoma, papillary	M-8130/3	219
melanoma, NOS	M-8720/3	213
multicentric basal cell carcinoma	M-8091/3	195
multiple myeloma	M-9732/3	177
mucinous carcinoma	M-8480/3	164
mucin-secreting carcinoma	M-8481/3	155
carcinoma in situ, NOS	M-8010/2	146
renal cell carcinoma	M-8312/3	132
lobular carcinoma, NOS	M-8520/3	118

Berg [22] has suggested that these morphological types can be grouped into six broad families. The number of cancers in each of these groups is shown in Table 2.14.

Table 2.14. Groups of cancer types

	cases	% of all cases
1. carcinomas	15881	82.2%
epidermoid carcinoma	8895	46.0%
adenocarcinoma	5549	28.7%
other specific carcinoma	385	2.0%
other unspecified carcinoma	1052	5.4%
2. lymphoma	455	2.3%
3. sarcoma and other soft tissue	209	1.0%
4. leukaemia	306	1.6%
5. other specified types of cancer	1304	6.0%
6. unspecified types of cancer	1161	6.0%
all cancers	19316	

j. cancer grade

This was recorded as described by the pathologist. Four grades were distinguished, as well as three codes indicating the cell type of lymphomas and leukaemias. Fewer than half of the cancers registered had a grade description (Table 2.15).

Table 2.15. Grade of cancer

	cases	% of all cases
well differentiated	1662	8.6%
moderately differentiated	2832	14.7%
poorly differentiated	2257	11.7%
undifferentiated	488	2.5%
lymphoma and leukaemia: T cell	26	0.1%
lymphoma and leukaemia: B cell	150	0.8%
lymphoma and leukaemia: null cell	1	0.0%
grade not recorded	11900	61.6%
all cancers	19316	

k. tumour behaviour

Four types of tumour behaviour are recognised: benign, uncertain, in situ and malignant. In general, the pathology report will fully describe the behaviour of the tumour. However, if this is ambiguous and cannot be clarified by consultation with the pathologist, the tumour is given the behaviour described as appropriate to that histological type in ICD-O-2. 87% of the cancers registered were malignant, and 11% in situ (Table 2.16). The benign tumours registered were intracranial or intraspinal.

Table 2.16. Behaviour of cancer

	cases	% of all cases
benign	154	0.8%
uncertain	241	1.2%
in situ	2166	11.2%
malignant	16755	86.7%
all cancers	19316	

l. method of diagnosis

This records the most valid basis of diagnosis of the cancer. In most cases, cancers were diagnosed by histological examination of the primary tumour, or of a secondary site (Table 2.17). For those which were not, the most valid basis of diagnosis was recorded in the following order of validity:

cytology > bone marrow > blood film > post mortem > radiology > clinical.

A tissue diagnosis was made in 87.6% of registrations.

Table 2.17. Most valid basis of diagnosis of cancer

	cases	% of all cases
histology of primary cancer	15476	80.1%
clinical	1095	5.7%
radiology	921	4.8%
cytology	537	2.8%
histology of other site	408	2.1%
bone marrow	368	1.9%
not known	171	0.9%
blood film	131	0.7%
post mortem	124	0.6%
other	85	0.4%
all cancers	19316	

m. clinical and pathological stage

If TNM or other staging had been recorded by a clinician or pathologist, this was registered. Otherwise, tumours were allocated to a clinical and pathological stage by the TRO on the basis of information entered in the records. Non-melanoma skin cancers were not staged, and there is no staging system for leukaemia and a small number of other cancers. Cancers of unknown or ill-defined primary site were not staged. The total number of potentially stageable cancers, with these exclusions, was 11415, for which full staging information, either clinical, pathological or both, was available in 43% of cases (Table 2.18.). The T stage alone was available in 72% of cases.

Table 2.18. Staging information recorded

	number of cases staged	% of possible
T	8271	72%
N	6638	58%
M	6515	57%
T, N and M	4939	43%
all stageable cancers	11415	

n. site of metastases, if any

This information, although collected, has not been analysed in this report.

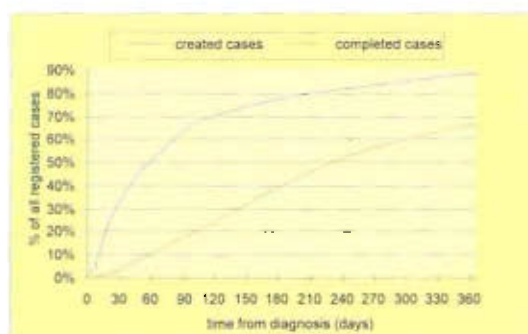
2.3.5. TREATMENT DATA ITEMS

The primary task of the Registry is to record the tumour and patient characteristics of each new cancer diagnosed. Treatment data and related information are also collected, whenever this is compatible with our main purpose. However, we do not attempt to gather comprehensive data on health service utilisation, partly because of limits to our resources, and partly because patients are not followed up by the

Registry after diagnosis. A registration is completed as soon as the patient's notes become available to us. As can be seen from Figure 2.10, most registrations have been created within two months of diagnosis, but very few have been completed by this time. However, by six months after diagnosis, almost 50% of the registrations have been completed, so treatments given after this time for these cancers would not be registered. To make the recording of treatment data independent of the interval between diagnosis and registration, the Registry attempts to record all treatments in the period up to four months after diagnosis, but does not register treatments given after this time, even if known to us. However, if a registration is completed less than four months from diagnosis, we are dependent on medical records becoming available to us later to update the treatment information, and this does not always happen. Because of these limitations, the treatment data presented here refer only to the initial phase, and may be incomplete for treatments planned, but not given, in the first four months after diagnosis.

"Treatment" is defined for registration purposes as specific cancer-directed therapy. Non-surgical palliative measures such as analgesia, or purely diagnostic biopsies, are not registered as treatments.

Figure 2.10. Time elapsing between diagnosis, creation of a registration and completion



a. treatment number

A number of treatments may be recorded for each tumour. Different phases of treatment of the same cancer may be recorded by different TROs in different hospitals, and it is not always possible to tell if two recorded treatments refer to the same episode or not. In presenting the treatment data, the following conventions have been observed:

- i. Only one episode of chemotherapy, radiotherapy or "other treatment" has been counted for each tumour.
- ii. Surgical operations occurring on the same day in the same hospital have been assumed to be the same. This assumption, that operations carried out a day or more apart are always different, may lead to some overcounting of surgical procedures, as the recorded day of operation may not always be precisely correct. However, only 84 operations were recorded as having occurred within a week of each other in the same hospital, so overcounting, if any, is slight.

b. treatment type

Four treatment types have been recorded: surgery, chemotherapy, radiotherapy and "other".

Two forms of surgery were distinguished at the time of collection of the data for this report: curative and palliative. This classification proved difficult to apply consistently, and has now been replaced by a division into four types: radical, total, partial and other.

Surgery was defined as any operative procedure, whether tumour-directed or not, which formed part of the cancer treatment. Purely diagnostic procedures such as biopsy and endoscopy were not considered treatment.

As will be seen from the data, however, this definition of what constituted surgery was not consistently applied in the early days of registration, and some procedures, such as lymph node and bone marrow biopsies, which would be considered purely diagnostic, seem to have been registered as "surgery".

"Chemotherapy" described all medication given orally or parenterally with the object of reducing tumour bulk. This included hormonal treatment, but not topical preparations.

"Radiotherapy" encompassed all forms of radiation treatment.

"Other" covered a wide range of treatment, but all had to be directed specifically at reducing tumour bulk.

c. date of treatment

d. treating hospital and consultant

This information was collected for follow-up purposes.

2.4. QUALITY CONTROL

The most important objective for the Registry is that capture of diagnosed cancer cases would be as close to complete as possible. Once a case has been registered, it should be fully and accurately described by the data recorded.

Completeness of registration is difficult to validate, as, by definition, cases not known to the Registry cannot be entered into the calculations of completeness. However, there are a number of indirect measures of completeness, and these are applied to Registry data regularly. The Registry carries out internal quality control checks on the data throughout collection and processing. The laptop data input system restricts operators to a range of predetermined values for each data item, and checks for internal consistency. When data collection for a case has been completed, the case information is transferred by modem to the Registry's offices in Cork, where it is checked again for completeness, errors and internal consistency. Registrations failing these checks are referred back to the TRO for verification. When data from all sources on the same patient and tumour have been merged, the cases are rechecked for consistency and duplication. Agreement of the coded data with source documents is ascertained by periodic re-abstraction of samples of medical records by expert coders.

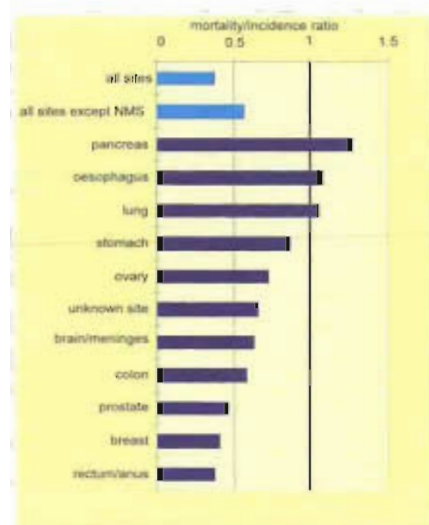
A number of external measures of quality have been used to compare the data to international standards [19]. These measure two aspects of registration quality — completeness and validity.

2.4.1. COMPLETENESS

a. mortality/incidence ratios

If registration is complete, then the number of cases registered for any cancer site should be greater than the number of deaths, except in very rare instances where mortality is high and the incidence of a cancer is falling rapidly. For some cancer sites (lung, pancreas, oesophagus), survival is very poor, so the number of deaths should be equivalent to the number of cases, and the mortality/incidence (M/I) ratio close to 1. An M/I ratio greater than 1 suggests either incomplete registration or inaccurate death certification. It can be seen from Table 2.19 and Figure 2.11 that the M/I ratio for some sites — lung, oesophagus, pancreas — exceeded unity.

Figure 2.11. Mortality/incidence ratios for some common cancer sites



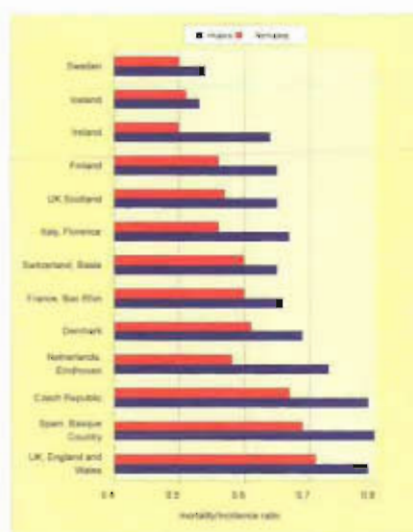
These figures raise the possibility that registration for these and other sites may not be complete. However, our examination of death certificates suggests that some of the deaths attributed to cancers at these sites were due to secondary carcinoma (see “Death certificate notifications”, section 2.5.4.b). For instance, 62 deaths registered as being due to lung cancer were of patients registered by us, and confirmed by re-examination of the notes, as having a cancer of unknown primary site. 7391 cancer deaths were registered in 1994, and, of these, only 380 (5%) were cancers previously unknown to the Registry. This makes it unlikely that substantial numbers of cancers are being missed.

Table 2.19. Mortality/incidence ratios for some common cancer sites

sites	males	females	overall
all sites	0.42	0.35	0.38
all sites except non-melanoma skin	0.65	0.50	0.57
lung	1.04	1.10	1.06
colon	0.60	0.57	0.59
breast	0.38	0.41	0.41
prostate	0.47		0.47
unknown site	0.70	0.56	0.68
stomach	0.78	1.02	0.87
pancreas	1.41	1.17	1.29
oesophagus	1.19	0.98	1.10
rectum/anus	0.36	0.40	0.38
ovary		0.73	0.73
brain/meninges	0.71	0.58	0.64

Table 2.20 and Figure 2.12 give mortality/incidence ratios for all sites combined (excluding skin cancer) for a number of European registries [5].

Figure 2.12. Mortality/incidence ratio for all sites combined (excluding skin) for Ireland and some European registries



The low value for Ireland suggests a high level of completeness of registration, although improved survival since the time that the European data were collected (1983-1987) may have had a small effect on the low Irish M/I ratio.

Table 2.20. Mortality/incidence ratios for all sites combined (excluding skin) for Ireland and some European registries

Registry	males	females
UK, England and Wales	0.79	0.71
Spain, Basque Country	0.80	0.69
Czech Republic	0.79	0.67
Netherlands, Eindhoven	0.73	0.58
Denmark	0.69	0.61
France, Bas Rhin	0.66	0.60
Switzerland, Basle	0.65	0.60
Italy, Florence	0.67	0.56
UK, Scotland	0.65	0.57
Finland	0.65	0.56
Ireland	0.65	0.50
Iceland	0.53	0.51
Sweden	0.54	0.50

b. histological verification

A high level of histological verification of registered cancers, above that which is clinically credible, suggests that cases which are not being biopsied may be escaping the attention of the Registry. The Irish figures overall (Table 2.17 and 2.22; Figure 2.13.), and those for individual sites, suggest that this is unlikely.

c. source of notification

Almost all cancer patients are seen at hospital at some stage during their illness. Ideally, all cancers should be detected and registered as a result of this hospital visit, when the diagnostic and other information is recent and most complete. However, if the system of registration is not operating effectively, some of these cancers will be missed, and may only come to the notice of the Registry long after the patient has left hospital, usually from a death certificate. A high level of notification from death certificates indicates flaws in the system of detection of cancers in hospital. For each cancer picked up first from a death certificate it must be assumed that a number of non-fatal cancers have also been missed. Benn et al. [23] have suggested a formula which can be used to roughly estimate the completeness of registration. Using the data in Table 2.21, (which exclude skin cancers, for which the death rate is very low, and for which the method is not valid) registration can be estimated to be over 98% complete.

Table 2.21. Calculation of completeness of registration for non-skin cancer cases

% of cases notified through death certificates	1.97%
Mortality/incidence ratio	0.570
Completeness of registration	98.5%

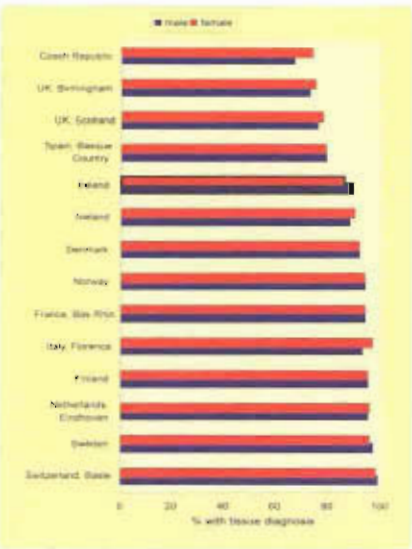
2.4.2. VALIDITY

a. basis of diagnosis

Ideally, all registered cancers would be verified by histology or cytology. Although this is not always either clinically possible or desirable, failure to confirm the diagnosis

by microscopic examination in a high proportion of cases increases the probability of misdiagnosis and reduces the validity of the data. Table 2.22 and Figure 2.13 show the percentage of cancers for which the basis of diagnosis was histology, cytology or bone marrow aspirate, for a number of typical European registries [5].

Figure 2.13. Percentage of tissue diagnosis in Ireland and some European registries



The great majority (87%) of cancers in Ireland were diagnosed either by histology or cytology, which was a little lower than the European norm [5].

Table 2.22. Percentage of cancers with a tissue diagnosis in Ireland and some European registries

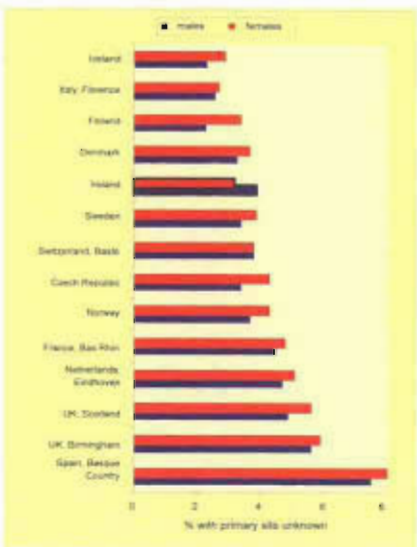
Registry	male	female	both
Switzerland, Basle	99%	98%	99%
Sweden	97%	96%	97%
Netherlands, Eindhoven	95%	96%	96%
Finland	95%	95%	95%
Italy, Florence	93%	97%	95%
France, Bas Rhin	94%	94%	94%
Norway	94%	93%	94%
Denmark	92%	92%	92%
Iceland	88%	90%	89%
Ireland	88%	86%	87%
Spain, Basque Country	79%	79%	79%
UK, Scotland	76%	78%	77%
UK, Birmingham	73%	75%	74%
Czech Republic	67%	74%	71%

b. primary site of cancer unknown

While there is obviously an irreducible minimum of cancer cases in which no investigation, no matter how thorough, could identify a primary site, in some cases failure to find a primary site is probably because the process of investigation was limited, either due to patient, doctor or health system factors. If no primary site is identified in a high

proportion of cases, this suggests a generally low level of investigation, and calls into question the general accuracy of the information on cancer sites.

Figure 2.14. Percentage of cases with primary site unknown in Ireland and some European registries



No primary site was recorded for 3.5% of all cancers registered in 1994, a proportion which is quite low by European standards [5] (Table 2.23; Figure 2.14).

Table 2.23. Percentage of cases with primary site unknown in Ireland and some European registries

Registry	males	females
Spain, Basque Country	7.5	8.0
UK, Birmingham	5.6	5.9
UK, Scotland	4.9	5.6
Netherlands, Eindhoven	4.7	5.1
France, Bas Rhin	4.5	4.8
Norway	3.7	4.3
Czech Republic	3.4	4.3
Switzerland, Basle	3.8	3.6
Sweden	3.4	3.8
Ireland	3.9	3.2
Denmark	3.3	3.7
Finland	2.3	3.4
Italy, Florence	2.6	2.7
Ireland	2.3	2.9

c. internal consistency

Many combinations of cancer site, morphology, patient age and sex are either unlikely or impossible. The International Agency for Research on Cancer has published an extensive list of checks for such combinations [19]. These checks are applied to all cases registered by the National Cancer Registry. Cases identified as inconsistent were referred back to the TRO for checking, and were accepted only if documentary evidence for the diagnosis was provided.

2.5. CALCULATIONS

The methods of calculation of rates, confidence intervals and statistical significance are based, unless otherwise mentioned, on those described in the standard works on the statistics of cancer registration [18, 24, 25].

2.5.1. RATES

a. cumulative risk

The cumulative risk of cancer from birth to age 74 (CR74) [5] has been used as the standard measure of rate, in preference to the world age standardised rate (ASW rate). The values of CR74 provide information which is more readily understandable and the measure does not rely on an artificially constructed standard population. Despite its name, the CR74 does not give the true risk of cancer for an individual, but is a cross-sectional risk based on the morbidity experience of all cohorts aged 74 and under. The contribution of each age cohort to the figure is taken to be the same, therefore ignoring the effects of mortality. In general terms, the CR74 over-estimates the true risk to the individual of developing cancer before age 74, but is reasonably close to the lifetime risk. The CR74 gives relatively lower rates than the ASW rate for cancers, such as prostate, which are more frequent in patients over 74, but avoids the distorting effect on the ASW rate of the high rates of cancer in the very elderly. For childhood cancers the cumulative risk to age 14 (CR14) has been used, based on the age-groups: under 1, 1 to 4, 5 to 9 and 10 to 14.

b. age standardised rates

Age standardised rates (ASW rate) based on the standard world population [5] have been used for many years by all registries for international comparisons. These are given for the commoner cancers in the appropriate chapter, and for all sites in Chapter 22.

c. standardised incidence ratio

Incidence data for individual Irish counties have been given as standardised incidence ratios (SIR), where the incidence for the country as a whole is taken to be 100. The populations used to calculate the expected number of cases for each county were hypothetical 1994 figures, extrapolated from those in the 1991 census by using the CSO estimates of changes in the size of each five-year age and sex group in the national population between 1991 and 1994.

d. relative age-specific incidence and mortality rates

With few exceptions, the age profile of cancer incidence and mortality is that of an exponential increase with age. Although the rate of increase and the age at which it begins varies with cancer site, these differences are slight compared to the overall pattern, and cannot be easily inferred from a comparison of age/incidence plots.

To help illustrate the relationship of incidence and mortality rate to age, plots of rate against age in this report have been given as a relative age specific rate (RASR). This

rate is the difference between the observed and expected age-specific rate for a particular cancer and age-group, calculated for each sex as follows:

$$RASR_{ij} = ASR_{ij} - \frac{\sum_{i=0}^{18} ASR_i}{\sum_{i=0}^{18} \sum_{j=0}^J ASR_{ij}} \cdot \sum_{j=0}^J ASR_{.j}$$

where

ASR_{ij} = age-specific rate for age-group i and site j

ASR_i = age-specific rate for age-group i for all j sites combined (excluding non-melanoma skin)

$ASR_{.j}$ = crude incidence rate for site j

An RASR greater than 0 indicates that a higher proportion of cases was found in that age-group than was found for all cancers (excluding non-melanoma skin) combined.

2.5.2. SIGNIFICANCE TESTS

Confidence limits for standardised incidence rates and standardised mortality rates for counties were calculated by the formula of Estève et al. [25 (p. 65), 26].

Although in many cases significant increases or decreases with time in mortality rate were found by log-linear regression of the age-standardised mortality rates on time, it may be seen from the chapters on individual sites that few of the time/mortality curves approximate a first-order linear or log-linear trend, and significance testing based on a linear assumption would not be appropriate. Polynomial curves have been fitted to the graphs of time trends in cancer mortality purely to highlight medium-term movements in the mortality rates, and are not intended to be either explanatory or predictive. We hope to produce an extensive examination and modelling of cancer mortality trends since 1950 in the near future.

2.5.3. DENOMINATOR

The denominator was the number of person-years of risk in the Republic of Ireland in 1994.

a. population estimates for 1994

The most recently published census of population was that of 1991. Preliminary results have been published for the 1996 census, but as these do not have an age or sex breakdown of the population, they cannot be used for incidence or mortality rate calculations.

The Central Statistics Office has prepared estimates of the population up to the year 2026, using current birth, mortality and migration data [2]. As there is no system of population registration, only net intercensal migration can be calculated, and some assumptions have been made by the CSO with regard to future patterns of fertility and migration. The denominator population used in this report for national statistics was the CSO estimate MIFI [2]. This estimate is not

available for counties or smaller areas, so the population of each age and sex group in county areas has been estimated as having changed in proportion to the projected change in the national population. This adjustment ensures agreement between the numbers of expected cases for each county and the national totals.

b. migration

The population in 1986 was 3540643 and, in 1991, 3525719, a decrease of 14924. In the same period, births exceeded deaths by approximately 119000. The difference between actual and expected population was due to a net outward migration of about 134000 persons (3.8% of the population). Most of the outward migration was of persons aged 20 to 29 years (Table 2.24), and cancer incidence and mortality rates for these age-groups are likely to be slightly underestimated.

Table 2.24. Net migration, 1986 to 1991 (thousands)

age	males (000)	females(000)	all(000)
0-14	-4.5	-3.6	-8.1
15-24	-40.2	-37.6	-77.8
25-34	-28.1	-19.6	-47.7
35-44	-4.3	-1.8	-6.1
45-54	-1.9	-1.3	-3.2
55-64	1.0	1.1	2.1
65 and over	3.9	3.3	7.2
all ages	-74.1	-59.5	-133.7

As cancer incidence in this group is low, the underestimation should not greatly affect the overall cancer incidence. However, the CSO has estimated that the net migration rate conceals a higher rate of short-term emigration and return of Irish residents (Table 2.25) of about 1% of the population per year, and it is estimated that 13% of the population born in Ireland is currently resident in another state of the EU, mainly the UK [27]. The impact of this pool of overseas residents on the Irish cancer rate is difficult to estimate without some form of registration of residence. There is a small but consistent level of inward migration to Ireland of persons age 60 and over, which reaches almost 1% per year for those aged 65 to 69. Cancers diagnosed in these immigrants in their country of origin, or within twelve months of returning to Ireland, should not be registered here, but medical records do not always have detailed information on previous residence. It seems likely that this inward migration causes some inflation of cancer rates.

Table 2.25. Total estimated migration

	1986-1991 (000)	1994 (000)
emigration	263.5	41.5
immigration	129.7	31.5
net migration	-133.7	-10.0

2.5.4. NUMERATOR

All cancers incident in residents of the Republic of Ireland between January 1st and December 31st, 1994, and which had been registered before April 1, 1996, are included in this report. For cancers diagnosed at post-mortem, the date of diagnosis was taken as the date of death.

a. registrable conditions

All malignant conditions are registrable, regardless of the method of diagnosis. In situ cancers, including cytologically diagnosed CINIII of cervix, are also registered, as are borderline cancers and those of uncertain behaviour. The only benign conditions registered are intracranial and intraspinal tumours. If a pathology report does not specifically state whether a condition is benign or malignant the behaviour assigned to the condition in the ICD-O manual (version 2) [20] is used by the Registry in deciding if it is registrable. International comparisons of rates exclude benign, uncertain and in situ cancers, so the rates used for the preparation of the European maps are based on malignant conditions only.

b. death certificate notifications

Cancers were not registered on the sole evidence of a death certificate. If, at the end of an extensive inquiry to the patient's GP and hospital, the existence of a cancer mentioned on the death certificate could not be confirmed from any other source, the cancer was classified as a "death certificate only" (DCO) case (Table 2.26) and not counted as an incident cancer by the Registry. If the medical records showed that death was due to a non-registrable cause, the death certificate diagnosis was rejected. These cases, although not, strictly speaking, DCO cases, are also counted here as DCOs, as the diagnosis could not be verified for any deaths due to cancer incident before 1994. Of the 7391 cancer deaths registered in 1994, 2992 (40%) were deaths of patients whose cancer was incident in 1994 and 3998 (54%) were of patients whose cancer was incident before 1994, or was otherwise unregistrable. In a further 401 (5%) cases, no information on the patient could be found. In 179 of these cases, a search for the patient's notes is still being made. As only 5% of all death certificates processed have so far yielded cancers which were registrable but unknown to the Registry, it seems likely that most of the 179 outstanding death certificates refer to cancers diagnosed prior to 1994.

Table 2.26. Death certificates

	number	% of death certificates	% of 1994 registrations
registered cancer	2992	40%	15%
non-registrable cancer	3998	54%	21%
DCO	401	5%	2%

DCO registrations comprised 2% of all non-skin cancer registrations. Table 2.27 shows data on DCOs from a number of European registries. The figure for Ireland is average, and is quite low considering the broad definition of a "DCO" that

we have had to adopt, and the fact that the majority of current death certificates describe cancers diagnosed before registration began.

Table 2.27. DCO registrations in some European registries

registry	% of all registrations (excluding skin cancer)
Italy, Florence	5%
Spain, Basque Country	4%
UK, Scotland	4%
UK, England and Wales	3%
Ireland	2%
Czech Republic	2%
Denmark	2%
Norway	1%
Iceland	0%
Switzerland, Basle	0%

If there was a conflict between the diagnosis on the death certificate and that recorded from other sources by the Registry, the registration was checked. Previous work [28] has shown that death certificates are an unreliable source of diagnostic information compared to cancer registries. If the registered diagnosis was confirmed, and there was no evidence for the existence of a second cancer, the registration diagnosis was taken as more reliable than that on the death certificate. However, the cause of death originally assigned by the CSO was not changed. This was because, as mentioned above, fewer than half of the deaths reported to the Registry were of patients with registrable cancers. We decided that it would be inconsistent, and might introduce bias, to revise the causes of death for patients with registrable cancers, while leaving those of nonregistrable cancers unrevised. Table 2.28 gives some of the instances in which the death certificate diagnosis differed from that registered. The most frequent discrepancy was that a certifier had assigned a cancer to a specific site while we felt, after reviewing the case notes, that there was insufficient evidence to give the cancer a specific primary site. For uncommon cancers, such as pancreas and liver, this discrepancy between registration practice and certification practice can lead to mortality/incidence ratios greater than one, as already noted. The second most frequent discrepancy was in the precise anatomical localisation of digestive tract tumours.

Table 2.28. Difference in diagnosis between death certificate and registration

Registry diagnosis	death certificate diagnosis	number of deaths
unknown primary	lung	62
unknown primary	liver	25
unknown primary	colon	19
unknown primary	pancreas	16
unknown primary	other digestive	15
unknown primary	stomach	14
unknown primary	ovary	10
rectum	colon	50
stomach	oesophagus	29
colon	other digestive	27
lung	unknown primary	12
other biliary	liver	11
other biliary	pancreas	10

c. multiple primary cancers

Although most individuals develop only one cancer in a lifetime, a substantial minority may have more than one primary tumour. Table 2.29 shows the number of patients diagnosed as having more than one tumour in 1994. This table does not include either first, or subsequent, tumours diagnosed in other years.

Table 2.29. Persons with more than one primary tumour diagnosed in 1994

number of tumours per person	number of persons	% of all tumours registered
1	17295	89.5%
2	727	7.5%
3	121	1.9%
4	29	0.6%
5	13	0.3%
>5	3	0.1%
all	18188	

Most second tumours are at different sites, and this causes no problems with registration, except in the rare case where a metastasis is mistaken for a new primary. However, there is no single satisfactory procedure for deciding if a second or subsequent malignant condition at the same site in the same person should be registered as a new primary or as a recurrence of the same condition. For most cancer sites, multiple primaries are rare, and differences in registration procedures make a negligible difference to incidence rates. For some sites however, particularly skin, multiple primary tumours are frequent enough, even in a single year, to affect the incidence data (Table 2.30).

Table 2.30. Persons with more than one tumour at the same site

site	persons	tumours	tumours per person
skin	5558	6408	1.15
ureter	14	15	1.07
kidney	214	218	1.02
small intestine	56	57	1.02
melanoma	472	480	1.02
colon	1136	1151	1.01
oesophagus	293	295	1.02
bladder	506	509	1.01
rectum	451	453	1.00
stomach	474	476	1.00
lung	1449	1455	1.00
breast	1551	1557	1.00

The Registry has tended, in cases of uncertainty, to treat cancers as new primaries for the purposes of registration, largely because of the possibility of loss of data if the second cancer is not registered. More stringent rules are later applied to bring the data into conformity with various international conventions.

The current policy with regard to registration is as follows:

- where there is a clearly recorded opinion from the responsible clinician or pathologist in the medical records on the status of the second or subsequent tumour, this is accepted.
- if no clinical opinion has been given, a second or subsequent tumour at the same site and with the same histology is considered to be a recurrence unless two years or more have elapsed between the diagnoses. In the latter case, a clinical opinion is sought. The definition of what is "the same" site or histology is complex, and varies between site and tumour type.

The above rules are used in the presentation of the data in this report. However, in presenting international comparisons (e.g. in the European maps), the rules suggested by IARC [19], which tend to reduce the number of multiple primary tumours, have been applied to the data, as this is the basis on which the data from other registries have been calculated.

d. mortality data

The deaths analysed are all of those occurring in 1994 which had been officially registered by December 1996. Only deaths where cancer was given as the primary cause of death have been included. A further 32 death certificates mentioned that cancer was present at the time of death, but was not a contributory factor. These were not considered to be deaths from cancer. As mentioned above, where there was conflict between the cause of death as certified and our interpretation of the evidence in the medical records, we have

not altered the cause of death as given on the death certificate (see "Death certificate notifications", section 2.5.4.b).

2.6. INTERNATIONAL COMPARISONS

For the commoner cancers, quintiles of CR74 have been shown, where available, on a map of Europe. Cancer incidence information is not uniformly available across Europe. Some countries have a national registration system (Denmark, Finland), or complete coverage of the population by regional registries (Netherlands, Scotland, England and Wales). Other countries have regional registries that cover a substantial part of the population (France, Spain, Italy), but there are a number of countries for which published incidence data cover so little of the national population that the figures could not be taken to be representative (Germany, Portugal). The International Agency for Research on Cancer (IARC) has produced, for the European Network of Cancer Registries, estimates of cancer incidence for all of those countries which do not have comprehensive cancer registration systems [4]. The methodology for producing these estimates is described by Parkin [29].

Information on cancer incidence rates for most European countries was provided by IARC [4, 30]. For three countries (Belarus, Czech Republic and Latvia) data were taken from "Cancer Incidence in Five Continents, vol. 6" [5]. Data for Poland and Slovenia were taken from the annual reports of their national cancer registration systems [31, 32]. Countries for which no reliable information was available, or for which incidence rates were based on very small sections of the population, are shown in white on the maps. The names of the registries which provided the data, the published source and the years to which they pertain are given in Chapter 19.

The incidence figures for Ireland on which the European maps are based differ from those published in the tables for two reasons:

a. The application of the IARC rules on registration of multiple primaries removes a small number of cancers which would have been considered new primaries by the Registry:

b. The internationally published figures exclude benign, uncertain and in situ tumours (with the exception of benign CNS lesions) and these have also been removed from the Irish data.

3.1. INTRODUCTION AND SUMMARY

Table 3.1. Incidence and death rates: summary statistics for all cancers

a. All cancers	incident cases			deaths		
	males	females	all	males	females	all
number	9428	9888	19316	3972	3419	7391
cumulative risk (0-74) (%)	38.7%	35.3%	36.7%	17.8%	13.0%	15.3%
crude rate (per 100,000)	531.8	552.2	542.0	224.0	192.9	207.4
age-standardised rate (per 100,000)	427.7	404.3	408.2	177.2	125.8	147.7
mortality/incidence ratio	0.42	0.35	0.38			
b. All cancers except NMS*						
number	6101	6807	12908	3947	3408	7355
% of all cancers	64.7%	68.8%	66.8%	99.4%	99.7%	99.5%
cumulative risk (0-74) (%)	23.4%	23.9%	23.5%	17.8%	13.0%	15.2%
crude rate (per 100,000)	344.1	380.1	362.2	222.6	192.2	206.4
age-standardised rate (per 100,000)	277.4	292.9	279.8	176.0	125.4	147.0
mortality/incidence ratio	0.65	0.50	0.57			

*NMS = non-melanoma skin cancer

The Registry recorded 19316 cancer cases as incident in 1994 (Table 3.1). 9888 of these (51%) were diagnosed in women and 9428 (49%) in men. The crude incidence rate for men was 5.3 cases per 1000 per year, and for women, 5.5 per 1000. The overall risk of developing cancer before age 75 was 37%, a little more than one in three, for the entire population – 39% for men and 35% for women.

In the same period, 7391 persons were registered as having died of cancer. The mortality rate was roughly 2 per 1000 persons per year and was slightly higher for men than for women. The risk of dying of cancer before age 75 was 18% for men, 13% for women, and 15%, just over one in seven, for both sexes combined.

Dividing the number of deaths by the number of cases gives the mortality/incidence ratio, which is an approximate measure of the overall death rate from cancer. For men, this was 0.42; that is, for every 100 men developing cancer, 42 could expect to die of this cancer. The ratio for women was significantly lower, at 0.35.

The figures given above include quite a large percentage (33%) of non-melanoma skin (NMS) cancers. These cancers are often excluded from summaries of cancer incidence, as they introduce bias into the data for the following reasons:

- Mortality from them is negligible
- They tend to be concentrated in the older age-groups, and so their large numbers shift estimates of average and median age to higher values.
- Their diagnosis and treatment is usually carried out on an out-patient or day case basis, and so they are more likely to escape registration than other cancers. Because of their

large numbers, small variations in the registration efficiency of NMS cancer may have a disproportionate effect on overall cancer incidence rates.

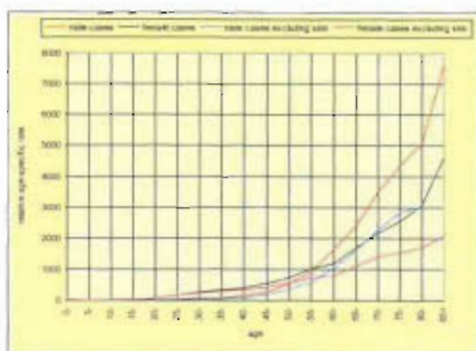
The second part of the table above presents data on all cancers other than NMS. The male/female difference in number of cases was greater for this group (47% males, 53% females) but the cumulative risks for both sexes were quite close, at just under one in four. The crude incidence rate for men was 3.4 per 1000, and for women 3.8 per 1000 per year.

As deaths from NMS were rare, the number of deaths for cancers excluding NMS was almost the same as for all cancers, and so the mortality/incidence ratio was considerably higher, at 0.65 for men and 0.50 for women.

3.2. AGE AND SEX PROFILE

The age and sex profiles for all cases, and for all cases excluding skin cancer, are shown in Figure 3.1.

Figure 3.1. Age- and sex-specific incidence rates for all cancers

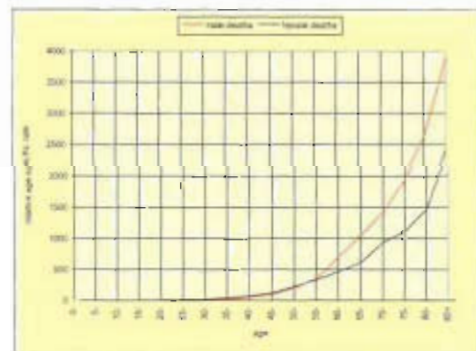


The incidence rate for males rose exponentially throughout life. The incidence in the first five years of life was higher than in the subsequent decade, but doubled approximately for every eight years of life from 5 years of age onwards.

The pattern for women was less regular. There was a rapid increase in incidence in the early twenties, and, at age 25-29, the female cancer rate was five times that in males. From age 25 onwards, the female incidence rate also rose exponentially, although at a slower rate than that for men, doubling for every 11 years of life. Female incidence rates were below male by age 60.

The median age of incidence for both men and women was 69 years. Excluding NMS cancer, the median age for men was 70 years, and for women 63 years. It can be seen that the difference between the rate for all cases and for those excluding skin cancer becomes greater with age.

Figure 3.2. Age- and sex-specific mortality rates for all cancers



Death rates for both males and females rose slowly during the first three decades of life, and exponentially from age 30 onwards (Figure 3.2). The differences seen in age-specific incidence rates between men and women were present, but much less marked, for deaths. Deaths excluding skin cancer are not shown separately, as the number of deaths from skin cancer was very small.

3.3. TIME TRENDS IN MORTALITY

Male mortality from all cancers rose quite rapidly throughout the 1960s and 1970s (Figure 3.3). After 1980, this increase seems to have been less, and the rate for 1990-1994 was a little below that for the preceding five year period. For females, on the other hand, there has been little overall change in cancer mortality. The death rate rose by about 10% between 1950 and 1974, but has since fallen back to levels close to those in the 1950s.

Figure 3.3. Time trends in mortality for all cancers



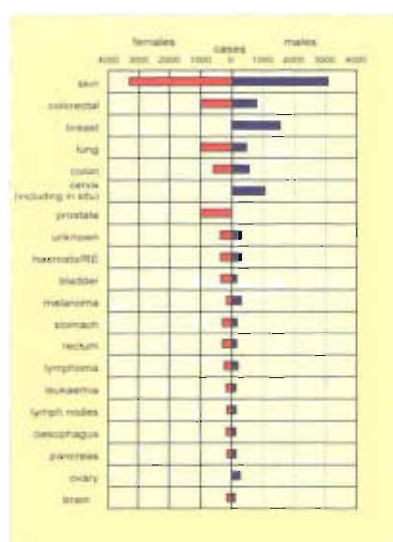
3.4. SITES

Table 3.2. Main sites of occurrence of cancers

	both sexes		males		females	
	cases	% of all cases	cases	% of all cases	cases	% of all cases
all sites	19316		9428		9888	
non-melanoma skin	6408	33.2%	3327	35.3%	3081	31.2%
colorectal	1785	9.2%	995	10.6%	790	8.0%
breast	1557	8.1%	13	0.1%	1544	15.6%
lung	1455	7.5%	987	10.5%	468	4.7%
colon	1151	6.0%	592	6.3%	559	5.7%
cervix (including in situ)	1061	5.5%			1061	10.7%
prostate	1000	5.2%	1000	10.6%		
unknown primary	678	3.5%	366	3.9%	312	3.2%
haematopoietic and reticuloendothelial	671	3.5%	357	3.8%	314	3.2%
bladder	509	2.6%	345	3.7%	164	1.7%
melanoma of skin	480	2.5%	165	1.8%	315	3.2%
stomach	476	2.5%	304	3.2%	172	1.7%
lymphoma	455	2.4%	244	2.6%	211	2.1%
rectum	453	2.3%	296	3.1%	157	1.6%
leukaemia	306	1.6%	171	1.8%	135	1.4%
lymph nodes	297	1.5%	155	1.6%	142	1.4%
oesophagus	295	1.5%	168	1.8%	127	1.3%
pancreas	284	1.5%	142	1.5%	142	1.4%
ovary	280	1.4%			280	2.8%
brain	255	1.3%	142	1.5%	113	1.1%
kidney	218	1.1%	138	1.5%	80	0.8%
corpus uteri	182	0.9%			182	1.8%
cervix (invasive)	170	0.9%			170	1.7%
rectosigmoid	156	0.8%	95	1.0%	61	0.6%

The commonest site by far was skin (excluding melanoma) (Table 3.2 and Figure 3.4). Colorectal cancers, comprising cancers of the colon, rectosigmoid, rectum and anus, were the second commonest category for both sexes combined, but both breast cancer and cervical cancer were more common in women, female breast cancer numbers being almost twice those of colorectal cancer. Prostate cancer was slightly more common than colorectal cancer in men. The five sites mentioned – skin, colorectal, breast, cervix and prostate – accounted for more than two-thirds of all the cancers registered.

Figure 3.4. Common cancer sites in males and females



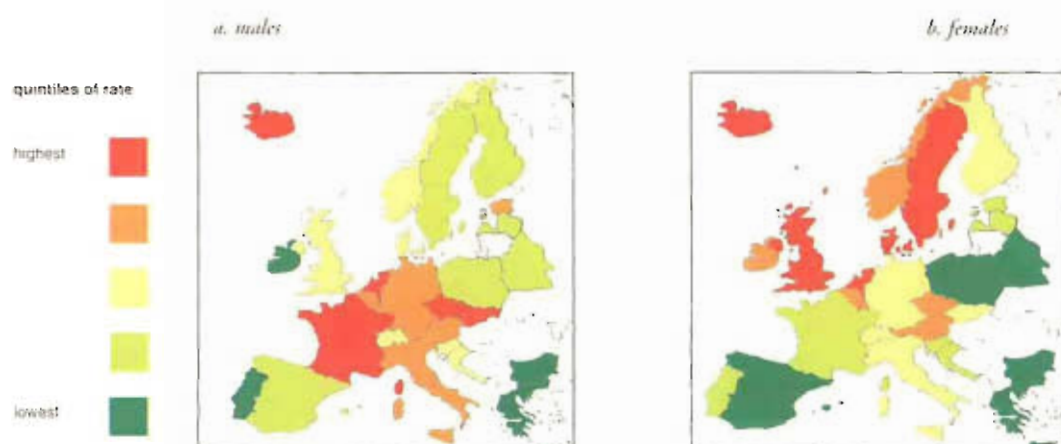
Lymphoma and leukaemia are not allocated specific site codes in ICD-0-2, but are distinguished on the basis of histology. The ICD-0-2 code C77 (lymph nodes) includes all of the nodal lymphomas, but the extranodal lymphomas were assigned to their organ of origin. The number of lymphomas was therefore greater than the number of cancers with a primary site of "lymph nodes". The site C42 (haematopoietic and reticuloendothelial systems) contains all of the leukaemias, but also includes myeloma and a variety of immuno- and myelo-proliferative disorders. Figures have been given in Table 3.3 for sites C77 and C42, but also for lymphomas and leukaemias separately.

3.5. GEOGRAPHICAL DISTRIBUTION

3.5.1. INTERNATIONAL

Because of the high inter-registry variability in the rate of registration of non-melanoma skin cancer, these are usually excluded from any international comparison of incidence, so the figures given below are for all sites excluding NMS.

Figure 3.5. Variation in cumulative risk of cancer incidence by country within Europe: all sites excluding NMS



Geographical patterns for male and female cancers were different (Figure 3.5). The overall incidence of male cancers was relatively low in Ireland, which ranked 25th of the 28 countries shown. With the exception of Iceland, the high-risk countries were in central western Europe. Female cancers were more common in the north-west of Europe. The highest incidence was in Denmark, and Ireland ranked ninth.

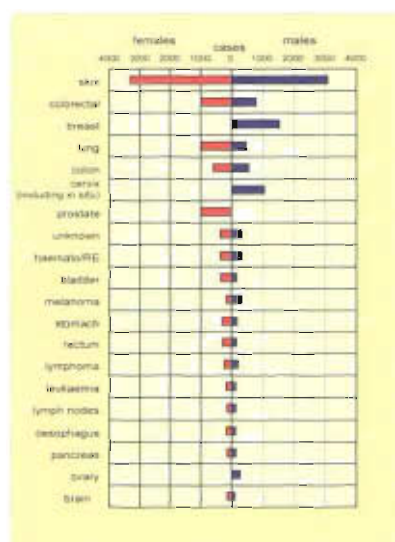
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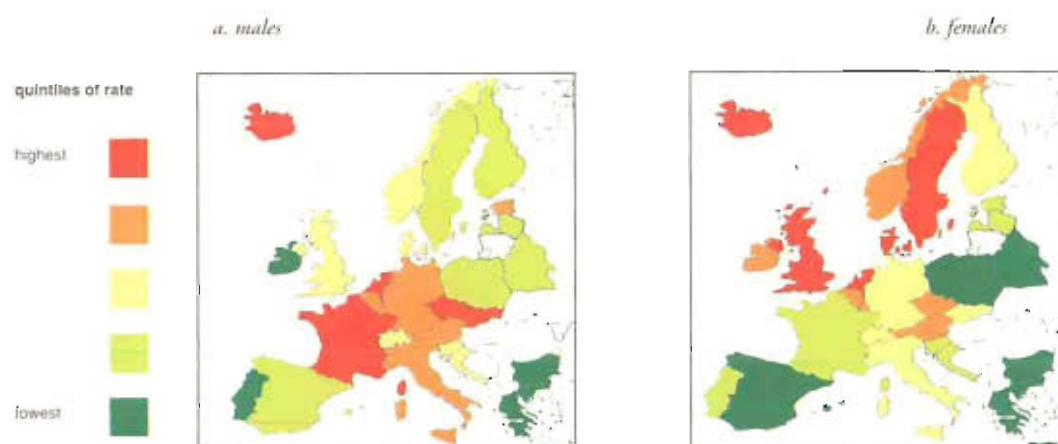
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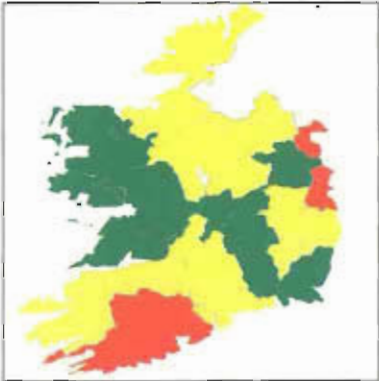
Geographical patterns for male and female cancers were different (Figure 3.5). The overall incidence of male cancers was relatively low in Ireland, which ranked 25th of the 28 countries shown. With the exception of Iceland, the high-risk countries were in central western Europe. Female cancers were more common in the north-west of Europe. The highest incidence was in Denmark, and Ireland ranked ninth.

3.5.2. NATIONAL

As will be seen later, there was considerable inter-county variation in the incidence of NMS cancers and we cannot rule out the possibility that some of this variation may have been due to differences in registration efficiency. If all cancers, including NMS, are mapped (Table 3.3; Figure 3.6), it can be seen that many counties in the west and the south midlands have a low incidence rate. However, if NMS cancers are excluded (Table 3.4, Figure 3.7) some of the inter-county variation disappears.

Figure 3.6. Standardised incidence ratios by county: all cancers including NMS.

a. males



b. females

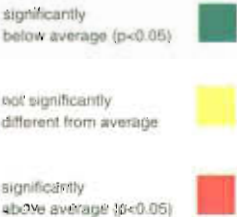
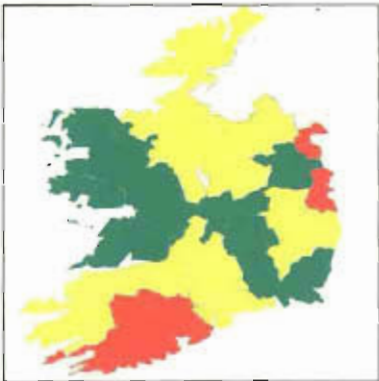


Table 3.3. Standardised incidence ratios (SIR) and their confidence limits for all cancers (including NMS), by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	83	67	103	99	81	120
Cavan	89	76	103	106	90	123
Clare	82	71	93	86	75	98
Cork	108	102	114	103	98	109
Donegal	96	87	106	92	83	103
Dublin	121	116	126	117	113	122
Galway	89	81	97	94	86	103
Kerry	105	96	116	104	94	115
Kildare	105	92	119	106	94	120
Kilkenny	67	56	79	57	47	68
Laois	78	64	93	109	92	127
Leitrim	84	68	103	85	67	107
Limerick	93	84	102	85	76	94
Longford	86	69	107	78	61	98
Louth	120	106	135	108	95	122
Mayo	82	74	91	82	73	92
Meath	87	76	100	95	83	107
Monaghan	90	75	106	59	47	73
Offaly	80	67	95	82	68	98
Roscommon	88	76	102	81	69	96
Sligo	88	75	102	96	82	111
Tipperary	92	83	102	83	74	93
Waterford	95	83	108	89	78	101
Westmeath	103	88	119	98	83	114
Wexford	79	69	90	77	68	88
Wicklow	110	97	124	116	103	130

For all cancers excluding NMS, incidence rates significantly above average were found for both sexes in Dublin (SIR 117 for males and 112 for females). The rate for males was also above average in Cork (SIR 109) and for females in Wicklow (SIR 118).

Rates significantly below average were found for both sexes in Clare (SIR males 83, females 80) and Kilkenny (SIR males 74, females 59), for males only in Galway (84), Laois (77), Mayo (87) and Meath (81), and for females only in Monaghan (64), Roscommon (76) and Waterford (84).

Figure 3.7. Standardised incidence ratios by county: all cancers (excluding NMS)

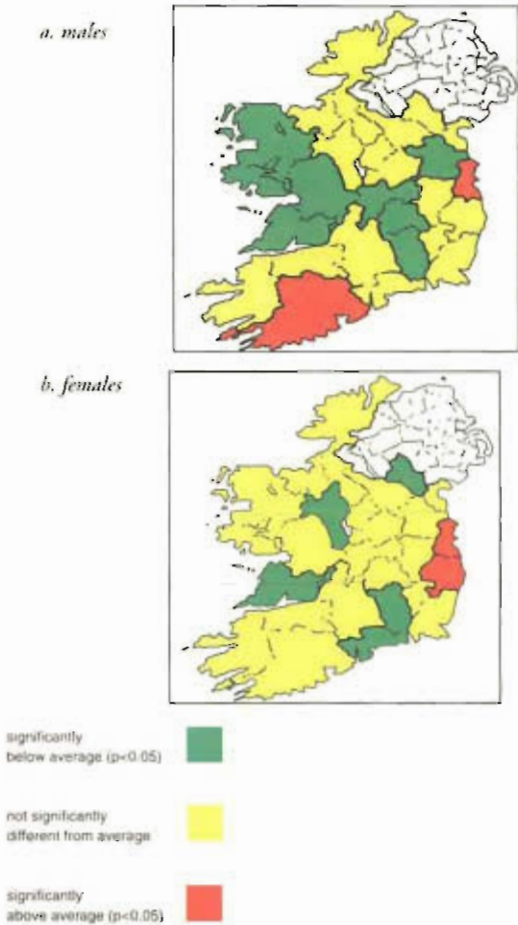


Table 3.4. Standardised incidence ratios (SIR) and their confidence limits for all cancers (excluding NMS), by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	95	73	121	112	89	139
Cavan	103	86	123	113	94	135
Clare	83	70	97	80	67	95
Cork	109	101	116	103	97	111
Donegal	94	83	107	101	89	114
Dublin	117	111	123	112	108	117
Galway	84	75	94	91	82	102
Kerry	96	85	108	91	80	104
Kildare	107	91	124	100	86	116
Kilkenny	74	60	90	59	47	74
Laois	77	61	96	112	92	136
Leitrim	85	65	109	111	86	142
Limerick	99	87	112	91	81	102
Longford	82	61	107	85	63	111
Louth	110	94	129	112	97	129
Mayo	87	76	99	90	79	103
Meath	81	68	96	97	83	112
Monaghan	100	81	121	64	49	82
Offaly	81	65	99	82	66	101
Roscommon	84	69	101	76	61	93
Sligo	98	81	117	105	87	125
Tipperary	92	81	105	93	82	105
Waterford	96	81	113	84	71	99
Westmeath	104	85	124	94	78	114
Wexford	93	80	108	88	75	102
Wicklow	111	94	129	118	103	135

3.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 3.5. Method of presentation

	all cancers		all cancers excluding NMS	
	cases	% of all cases	cases	% of all cases
symptoms/signs	17387	90.0%	11391	88.2%
screening	711	3.7%	711	5.5%
incidental	404	2.1%	329	2.5%
autopsy	38	0.2%	38	0.3%
not known/other	776	4.0%	439	3.4%
all cancers	19316		12908	

Ninety per cent of all cancers (88% excluding NMS) were detected through presentation by the patient (Table 3.5). The next most frequent method of presentation was through screening (5.5% of all non-NMS cancers). Most of these were cervical cancer – of the 711 cancers picked up by screening, 613 (86%) were cancers of the cervix, so only 98 (0.7%) of the other cancers were detected by screening. In 4% of cases, the method of presentation was not clear from the records.

The majority of incidentally detected cancers were in a small number of sites (Table 3.6), but accounted for only a small percentage of cancers at each site. Blood and renal cancers were more likely to have been found incidentally than those at other sites.

Table 3.6 Incidentally discovered cancers.

site	% of all incidentally discovered cancers	% of cancers at this site which were found incidentally
non-melanoma skin	19%	1%
lung	17%	5%
breast	14%	4%
haematopoietic and reticuloendothelial	10%	6%
prostate	9%	4%
colon	5%	2%
cervix	4%	2%
kidney	3%	6%

Table 3.7. Most valid basis of diagnosis of cancer

	all cancers cases	% of all cases	all cancers excluding NPS cases	% of all cases
histology of primary site	15476	80.1%	9696	75.1%
clinical	1095	5.7%	529	4.2%
radiology	921	4.8%	920	7.1%
cytology	537	2.8%	537	4.1%
histology of other site	408	2.1%	401	3.1%
bone marrow	368	1.9%	368	2.9%
not known	171	0.9%	120	0.9%
blood film/test	131	0.7%	131	1.0%
post mortem	124	0.6%	124	1.0%
other	85	0.4%	82	0.6%
all cancers	19316		12908	

A tissue diagnosis* was made in 87% of registrations (Table 3.7). Most of these were based on histological examination of the primary tumour (80%), but 2% were based on histology of another site, 3% on cytology and 2% on bone marrow examination. Excluding skin cancers, the percentage of tissue diagnosis was 85%, consisting of 75% histology of the primary site, 3% histology of another site, 4% cytology and 3% bone marrow.

3.7. STAGE

Non-melanoma skin cancers, leukaemias, and a small number of other cancers were not staged. The total number of stageable cancers was 11415. The data below is based on a pooling of clinical and pathological TNM data. If only a clinical or pathological stage was available this was used; if both were given the pathological was taken by preference.

a. T stages

Seventy-two per cent of stageable cancers could be assigned a valid T stage (Table 3.8). The staged cancers were approximately evenly divided between stages, with somewhat more at stages T1, T2 and T3, and fewer in situ and at T4.

Table 3.8. Tumour (T) stage distribution

T stage	Ta (bladder)	Tis	T1	T2	T3	T4	all staged	T%
number of cancers	48	1281	1908	2204	1896	934	8271	3144
% of all stageable cancers	0.4%	11.2%	16.7%	19.3%	16.6%	8.2%	72.5%	27.5%

b. N stages

Fifty-eight per cent of stageable cancers could be given a nodal stage (Table 3.9). 67% of these (39% of all cancers) were staged as N0.

Table 3.9. Nodal (N) stage distribution

N stage	N0	N1	N2	N3	all staged	N%
number of cancers	4428	1719	1187	104	6638	4777
% of all stageable cancers	38.6%	15.1%	3.4%	0.9%	58.2%	41.8%

c. M stages

The presence or absence of metastases was noted at diagnosis in 57% of stageable cases (Table 3.10). In 77% of these cases, no metastases were present.

Table 3.10. Metastasis (M) stage distribution

M stage	M0	M1	all staged	M%
number of cancers	5006	1509	6515	4900
% of all stageable cancers	43.9%	13.2%	57.1%	42.9%

* The term "tissue diagnosis" is used to describe any diagnosis made by microscopic examination of the cancer. It includes histology of the tumour (or of a secondary site), cytology and bone marrow aspiration/biopsy. It does not include diagnosis on the basis of a blood film only.

d. TNM stage combinations

The most common stage combination by far was TX, NX, MX, which accounted for 19% of all stageable cancers registered (Table 3.11.). The next most frequent stages were Tis, N0, M0 (11%), and T1, N0, M0 (7%).

Table 3.11. TNM stage distribution: most frequent stage combinations

T	N	M	cases	% of all cases
X	X	X	2210	19.4%
is	0	0	1281	11.2%
1	0	0	770	6.7%
2	0	0	661	5.8%
3	0	0	537	4.7%
1	X	X	498	4.4%
2	X	X	406	3.6%
X	X	1	379	3.3%
2	1	0	281	2.5%
3	1	0	271	2.4%
4	X	X	225	2.1%
3	X	X	224	2.0%
2	0	X	219	1.9%

3.8. TREATMENT

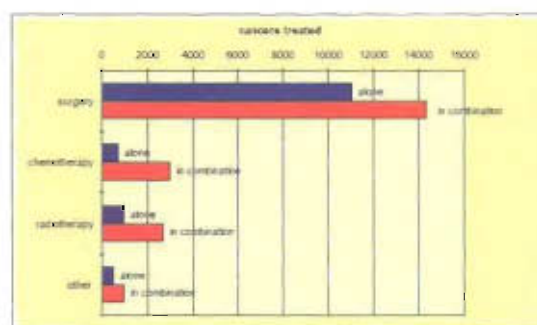
Some form of specific therapy was administered for 16700 cancers (86%) in the interval between diagnosis and completion of the registration (Table 3.12; Figure 3.7). Although almost all treatments were registered in the first four months after registration, a small number were registered later in the illness.

Table 3.12 Treatment of all cancers, including non-melanoma skin

	cases	% of all cases
all treatments	16700	86.5%
all surgery	14306	74.1%
all chemotherapy	2966	15.4%
all radiotherapy	2661	13.8%
all other	945	4.9%
surgery	11038	57.1%
surgery, chemotherapy	1476	7.6%
radiotherapy	944	4.9%
surgery, radiotherapy	920	4.8%
chemotherapy	693	3.6%
surgery, chemotherapy, radiotherapy	549	2.8%
other	510	2.6%
surgery, other	237	1.2%
chemotherapy, radiotherapy	135	0.7%
radiotherapy, other	52	0.3%
chemotherapy, other	49	0.3%
surgery, chemotherapy, other	36	0.2%
surgery, radiotherapy, other	33	0.2%
surgery, chemotherapy, radiotherapy, other	17	0.1%
chemotherapy, radiotherapy, other	11	0.1%

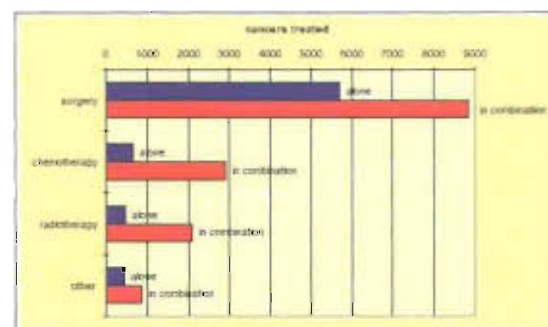
The commonest modality of treatment was surgery alone, in 57% of all registered cases, and two-thirds of the treated cases. However, it must be remembered that these were treatments within the first four months only, and many patients would have had subsequent, unregistered, treatment. The next most common treatment regime was a combination of surgery and chemotherapy, in 8% of cases, and radiotherapy alone, in 5% of cases. Overall, 14306 (74%) cancers were treated surgically, 15% by chemotherapy and 14% by radiotherapy. Chemotherapy here, and in subsequent sections, includes hormonal treatment.

Figure 3.7. Treatment of all cancers (including non-melanoma skin)



If skin cancers are excluded (Table 3.13; Figure 3.8), the proportion having surgery was considerably smaller, at 68%, but the combination of surgery and chemotherapy was more common, at 11%.

Figure 3.8. Treatment of all cancers (excluding non-melanoma skin)



*Table 3.13 Treatment of all cancers,
excluding non-melanoma skin*

	cases	% of all cases
all treatments	10639	82.4%
all surgery	8832	68.4%
all chemotherapy	2901	22.5%
all radiotherapy	2086	16.2%
all other	857	6.6%
surgery	5693	44.1%
surgery, chemotherapy	1468	11.4%
surgery, radiotherapy	827	6.4%
chemotherapy	647	5.0%
surgery, chemotherapy, radiotherapy	548	4.2%
radiotherapy	474	3.7%
other	450	3.5%
surgery, other	210	1.6%
chemotherapy, radiotherapy	125	1.0%
radiotherapy, other	51	0.4%
chemotherapy, other	49	0.4%
surgery, chemotherapy, other	36	0.3%
surgery, radiotherapy, other	33	0.3%
surgery, chemotherapy, radiotherapy, other	17	0.1%
chemotherapy, radiotherapy, other	11	0.1%

Non melanoma skin cancer

4

4.1. INTRODUCTION AND SUMMARY

Table 4.1. Incidence and death rates; summary statistics for non-melanoma skin cancer

	incident cases			deaths		
	males	females	all	males	females	all
number	3327	3081	6408	25	11	36
% of all cancers	35.3%	31.2%	33.2%	0.6%	0.3%	0.5%
cumulative risk (0-74)	15.3%	11.4%	13.2%	0.09%	0.03%	0.06%
crude rate (per 100,000)	187.7	172.1	179.8	1.4	0.6	1.0
age-standardised rate (per 100,000)	150.4	111.4	128.4	1.2	0.4	0.8
mortality/incidence ratio	0.007	0.004	0.006			

Non-melanoma skin cancers were by far the commonest cancers registered (Table 4.1). There were 6408 new cases in 1994, one-third of all registered cancers. Male cases were slightly more common than female. The cumulative risk of developing a skin cancer before age 75 was 15% for men (one in six) and 11% for women (one in nine).

Deaths were quite uncommon compared to cases, and more than twice as frequent in men. There was one death for every 133 cases in men, and one death for every 280 cases in women. By far the most common cause of death in men was cancer of the ear (Table 4.2), while for women the site of the fatal cancer was not specified in almost half of the cases, which is difficult to explain with such an easily localisable cancer.

Table 4.2. Sites of non-melanoma skin cancers causing death

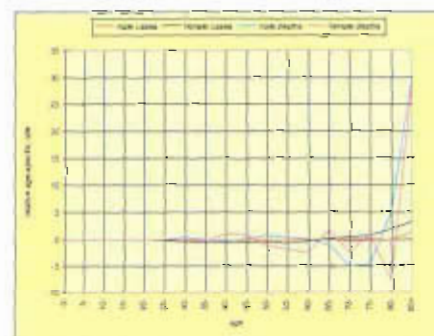
site of cancer on death certificate	% of skin cancer deaths		
	both sexes	females	males
ear	42%	9%	56%
site not specified	22%	45%	12%
leg	14%	18%	12%
face	8%	18%	4%
scalp and neck	6%	0%	8%
lip	3%	9%	0%
trunk	3%	0%	4%
arm	3%	0%	4%

4.2. AGE AND SEX PROFILE

The median age of cases was 72 years, compared to a median for all cancers of 70 years. The age profile of cases of non-melanoma skin cancer (Figure 4.1) was very similar to that of all other cancers combined, with the exception of a small excess of cases in the over 85s. This graph does not directly illustrate the variation in cancer incidence with age. Almost all cancers increase exponentially in incidence rate with age, and deviations from this age/incidence pattern are more interesting than the pattern itself. The lines on the graph represent the difference between the observed incidence rate for the individual cancer and the rate that would be expected if the cancer followed exactly the same age/incidence pattern as all other cancers combined. A positive value on the graph shows that cancer was more frequent at that age than would have been expected.

The age and sex profile of deaths showed a greater deviation from expectation in the oldest age-group, but the number of deaths was very small at this age. The peak incidence rate, in the 85+ age-group, was 35 cases per year per 1000 males and 25 cases per 1000 females. Deaths were almost completely confined to the oldest patients, with almost half of the deaths in patients of 80 years or over.

Figure 4.1. Relative age- and sex-specific incidence and mortality rates for non-melanoma skin cancers



4.3. TIME TRENDS IN MORTALITY

Because of the small number of deaths, the annual mortality rate from NMS cancer has been quite variable (Figure 4.2).

Figure 4.2. Time trends in mortality for non-melanoma skin cancers

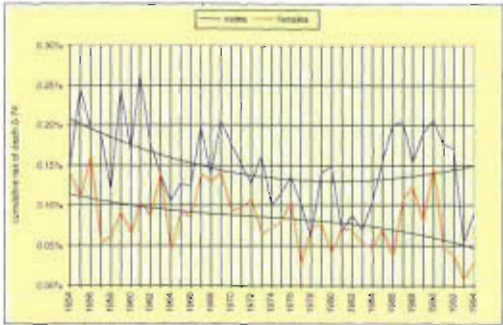


Table 4.3. Side of occurrence of non-melanoma skin cancer

	cases	left-sided	% of site	right-sided	% of site	not stated
eyelid	397	177	45%	195	49%	25
external ear	529	265	50%	243	46%	21
upper limb	581	279	48%	264	45%	38
lower limb	926	460	50%	424	46%	42
all paired sites	2433	1181	49%	1126	46%	126

4.4.2. SUBSITE

Table 4.4. Subsites of non-melanoma skin cancer

subsite	both sexes		female		male	
	cases	% of all cases	cases	% of all cases	cases	% of all cases
lip	227	4%	72	2%	155	5%
eyelid	397	6%	191	6%	206	6%
external ear	529	8%	34	1%	495	15%
face	2842	44%	1409	46%	1433	43%
scalp and neck	468	7%	175	6%	293	9%
trunk	373	6%	129	4%	244	7%
upper limb	581	9%	239	8%	342	10%
lower limb	926	14%	804	26%	122	4%
overlapping	3	0%	2	0%	1	0%
not stated	62	1%	26	1%	36	1%
all cancers	6403		3081		3327	

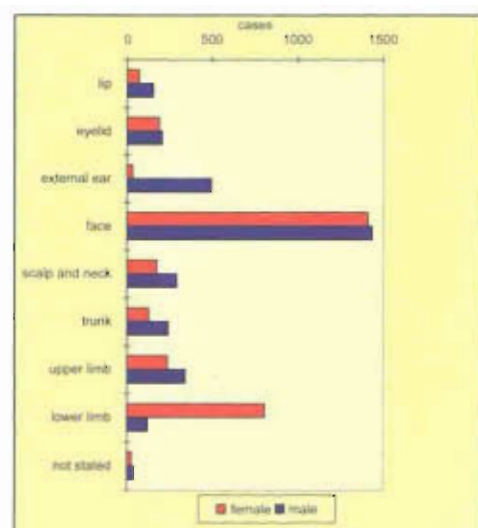
However, the overall trend for both sexes seems to be downward. The rate for both sexes seems to have fallen somewhat between 1950 to 1984, after which there was a sudden increase for a number of years, followed by a rapid decrease in 1993. The number of deaths from skin cancer went quite suddenly from an average of 47 in the early 80s to an average of 72 per year in the second half of the decade, and has now, apparently, gone back to the earlier rate. As will be seen, deaths attributed to melanoma have increased by almost the same amount as those from non-melanoma skin cancer have decreased.

4.4. SIDE AND SUBSITES

4.4.1. SIDE

Lesions were, in general, evenly distributed between sides of the body (Table 4.3), although left-sided lesions were slightly more common at all sites other than the eyelid.

Figure 4.3. Subsites of non-melanoma skin cancer



The commonest site by far was the face (44% of cases), followed by the lower limb (14%) (Table 4.4). The sites of cancers were different in men and women (Fig 4.3). While facial lesions predominated in both sexes (43% of lesions in men and 46% in women), the external ear was a common site in men (15% of cancers), but rare in women. Cancers of the leg were much more common in women, and this site was the only one at which female cancers out-numbered male. This pattern is probably related to differences in sun exposure.

4.5. GEOGRAPHICAL DISTRIBUTION

4.5.1. INTERNATIONAL

Completeness of registration of skin cancers varies considerably between registries, and policies on the registration of multiple skin cancers are also variable. For this reason, international comparisons of incidence are unreliable, and no figures are presented here.

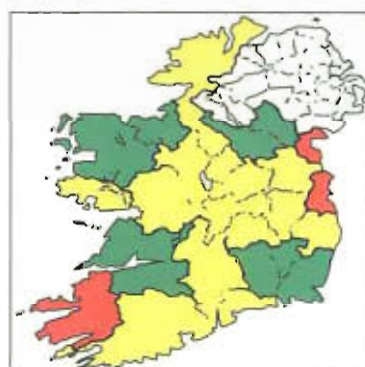
4.5.2. LOCAL

Table 4.5. Standardised incidence ratios (SIR) and their confidence limits for non-melanoma skin cancers, by county

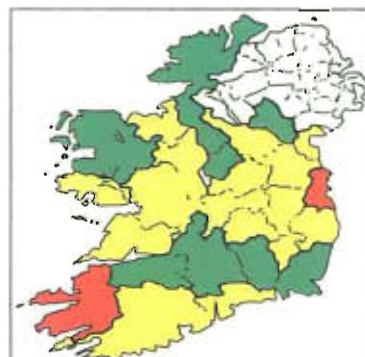
county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	62	39	93	68	43	103
Cavan	64	46	86	90	66	120
Clare	80	63	99	99	79	124
Cork	106	96	117	104	93	115
Donegal	99	83	116	75	61	92
Dublin	128	121	137	129	122	137
Galway	97	83	111	100	85	116
Kerry	123	106	142	132	113	154
Kildare	103	82	127	122	98	151
Kilkenny	53	37	72	52	36	73
Laois	79	57	106	100	73	135
Leitrim	81	56	114	34	16	62
Limerick	81	67	97	70	56	85
Longford	95	65	134	62	37	98
Louth	138	112	167	99	78	124
Mayo	72	60	87	67	54	83
Meath	99	80	122	90	70	114
Monaghan	71	51	97	48	30	72
Offaly	78	57	104	83	59	113
Roscommon	95	74	120	93	70	122
Sligo	70	51	93	76	55	102
Tipperary	91	76	109	62	49	78
Waterford	92	73	115	100	79	124
Westmeath	101	77	130	104	78	136
Wexford	54	40	70	55	41	73
Wicklow	108	87	134	111	89	136

Figure 4.4. Standardised incidence ratios by county: non-melanoma skin cancers

a. males



b. females



significantly below average ($p < 0.05$)

not significantly different from average

significantly above average ($p < 0.05$)

There was quite a degree of geographical variation in the incidence of skin cancer (Figure 4.4:Table 4.5). The large number of cases, compared to other cancers, made statistically significant differences more likely. There may also have been variations in the efficiency of detection of skin cancers by the Registry as a result of different local patterns of referral and treatment.

The rate of incidence was significantly greater than expected for both males and females in counties Dublin and Kerry, and less than expected in Kilkenny, Limerick, Mayo, Monaghan and Wexford. These patterns do not show any obvious relationship to either annual days of sunshine, or the proportion of the population in outdoor work, but other factors, such as differences in skin sensitivity in different parts of the country, may also be important.

4.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Only 1% of the cancers was discovered incidentally, and none by screening (Table 4.6).

Table 4.6. Method of presentation of non-melanoma skin cancers

	cases	% of all cases
symptoms/signs	5996	93.6%
incidental	75	1.2%
not known	309	4.8%
other	28	0.4%
all cancers	6408	

90% were histologically verified and almost all of the others (9%) were diagnosed clinically (Table 4.7).

Table 4.7. Most valid basis of diagnosis of non-melanoma skin cancers

	cases	% of all cases
histology of primary site	5780	90.2%
clinical	566	8.8%
histology of other site	7	0.1%
other	3	0.0%
radiology	1	0.0%
not known	51	0.8%
all cancers	6408	

The commonest histological type was basal cell carcinoma, which made up 56% of all the cancers diagnosed

Table 4.8. Morphology of non-melanoma skin cancers

	ICD code	behaviour			all types
		uncertain	in situ	malignant	
basal cell carcinoma	M-8090/3	0	0	3341	3341
squamous cell carcinoma	M-8070/3	0	0	1550	1550
Bowen's disease	M-8081/2	0	543	0	543
squamous cell carcinoma in situ	M-8070/2	0	257	0	257
multicentric basal cell carcinoma	M-8091/3	0	0	194	194
squamous cell carcinoma, keratinizing	M-8071/3	0	0	171	171
carcinoma in situ, NOS	M-8010/2	0	77	0	77
squamous-basal cell carcinoma, mixed	M-8094/3	0	0	47	47
epithelioma malignant	M-8011/3	0	0	45	45
carcinoma, NOS	M-8010/3	0	0	39	39
neoplasm malignant	M-8000/3	0	0	20	20
dermatofibrosarcoma protuberans, NOS	M-8832/3	0	0	16	16
mycosis fungoides	M-9700/3	0	0	13	13
morphea, basal cell carcinoma	M-8092/3	0	0	10	10
other		3	4	78	85
all types		3	881	5524	6408

Squamous cell carcinoma comprised 40% of the total, one-third of these being in situ (Table 4.9).

Table 4.9. Main histological types of non-melanoma skin cancer

basal cell carcinoma	56%
squamous cell carcinoma (all)	40%
squamous cell carcinoma (invasive)	27%
squamous cell carcinoma (in situ)	13%
other	4%

4.7. MULTIPLE TUMOURS

Multiple skin tumours were quite common. The 6408 skin cancers registered were diagnosed in 5558 patients. 1.15 cancers per person (Table 4.10). The tumour/patient ratio for all skin cancers was higher than that for individual histological groups, as some patients had both basal and squamous cell skin cancers.

Table 4.10. Multiple non-melanoma skin cancers

	tumours	patients	tumours per registered patient
BCC	3605	3120	1.12
SCC	2543	2275	1.12
other	260	246	1.06
all cancers	6408	5558	1.15

The 298 patients with multiple BCCs and the 218 with multiple SCCs had 2.2 cancers each (Table 4.11).

Table 4.11. Number of non-melanoma skin cancers in patients with multiple non-melanoma skin cancers

	tumours	patients	tumours per registered patient
BCC	683	298	2.29
SCC	486	218	2.23
other	27	13	2.08
all patients with multiple skin cancers	1196	529	2.26

The number of cancers registered for a single person ranged from 2 to 11 (Figure 4.12)

Table 4.12. Number of non-melanoma skin cancers per person

	number of patients		
number of tumours.	BCC	SCC	other
in an individual patient			
1	1912	3017	293
2	239	182	12
3	42	28	1
4	13	2	0
5	2	4	0
6	1	1	0
11	1	0	0
all patients	3220	3275	246

4.8. STAGING

Non-melanoma skin cancers were not staged.

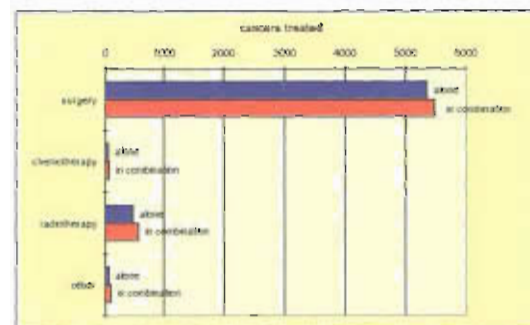
4.9. TREATMENT

Ninety-five per cent of cases (6061) had some cancer-directed treatment. 85% had surgery, and 9% radiotherapy, mainly as the only modality of treatment (Table 4.13; Figure 4.5).

Table 4.13. Treatment of non-melanoma skin cancer

	cases	% of all cases
all treatments	6061	94.6%
all surgery	5474	85.4%
all chemotherapy	65	1.0%
all radiotherapy	575	9.00%
all other	88	1.4%
surgery	5345	83.4%
radiotherapy	470	7.3%
surgery, radiotherapy	93	1.5%
other	60	0.9%
chemotherapy	46	0.7%
surgery, other	27	0.4%
chemotherapy, radiotherapy	10	0.2%
surgery, chemotherapy	8	0.1%
radiotherapy, other	1	0.02%
surgery, chemotherapy, radiotherapy	1	0.02%

Figure 4.5 Treatment of non-melanoma skin cancer



Breast cancer

5

5.1. INTRODUCTION AND SUMMARY

Table 5.1. Incidence and death rates: summary statistics for breast cancer

	incident cases			deaths		
	males	females	all	males	females	all
number	13	1544	1557	5	639	644
% of all cancers	0.1%	15.6%	8.1%	0.2%	18.7%	8.7%
cumulative risk (0-74)	0.08%	7.8%	4.1%	0.03%	2.8%	1.5%
crude rate (per 100,000)	0.73	86.2	43.7	0.28	36.0	18.1
age-standardised rate (per 100,000)	0.56	72.1	37.3	0.23	26.5	14.1
mortality/incidence ratio	0.38	0.41	0.41			

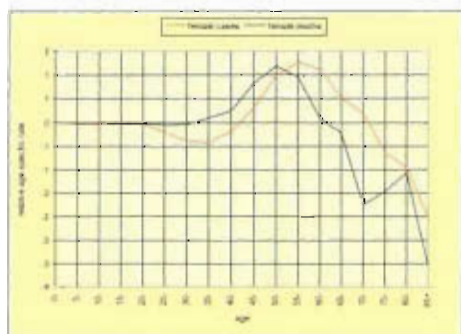
Breast cancer was the second most common non-cutaneous cancer, and the third most common cause of death (Table 5.1). 99% of cases were in females, and almost one in every six cancers in women was a breast cancer. The cumulative risk to a woman of developing breast cancer before age 75 was 7.8%, or just less than one in twelve. The cumulative risk to a woman of death from breast cancer before age 75 was 1 in 36. From the mortality/incidence ratio, mortality seemed to be similar in men and women, with 4 deaths for every 10 cases.

5.2. AGE AND SEX PROFILE

The median age of incidence for women was 59 years, considerably lower than that for all cancers. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of breast cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of breast cancer was found at that age than would have been expected.

This relative age-specific rate (RASR) was high for women aged between 45 and 70 years (Figure 5.1). There were fewer cases than expected above and below this age range. In contrast to most other cancers, whose incidence rate increased with age, the annual rate of incidence of female breast cancer was almost constant, at one case per 400 women per year, for women of all ages from 50 to 84 years.

Figure 5.1. Relative age- and sex-specific incidence and mortality rates for breast cancer



The relative mortality rate was also above average in the age range 30 to 60 years, but to a lesser extent than the incidence rate. Male cases were few, but both incidence and mortality were maximal in the 80-84 year age-group.

5.3. TIME TRENDS IN MORTALITY

The trend of female breast cancer mortality has been upwards for the past 40 years (Figure 5.2).

Figure 5.2 Time trends in mortality for female breast cancer



The cumulative risk of death before age 75 has increased by 40%, from 2% in 1950 to 3.3%, its highest level, in 1989. The rate of increase has been much slower since 1989, and mortality now shows some signs of decrease.

5.4. SUBSITES AND SIDE (FEMALE CANCERS ONLY)

5.4.1. SIDE

In all but 1% of cases, a side for the cancer was recorded (Table 5.2). 46% of the cancers were right-sided, and 51% left-sided, while 1.4% were described as bilateral.

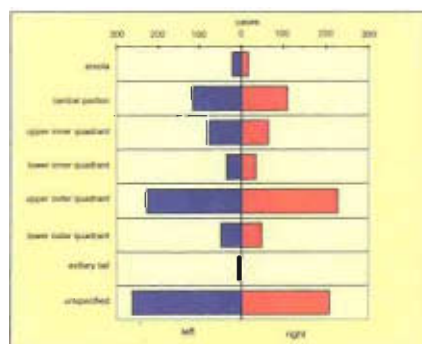
Table 5.2: Side and subsite of female breast cancers

		side				total
		right	left	both	not known	
areola	cases	17	20	0	0	37
	% of total	1.1%	1.3%	-	-	2.4%
central portion	cases	109	115	3	1	228
	% of total	7.1%	7.4%	0.2%	0.1%	14.8%
upper inner quadrant	cases	65	78	0	1	144
	% of total	4.2%	5.1%	-	0.1%	9.3%
lower inner quadrant	cases	34	35	1	0	70
	% of total	2.2%	2.3%	0.1%	-	4.5%
upper outer quadrant	cases	228	226	6	2	462
	% of total	14.8%	14.6%	0.4%	0.1%	29.9%
lower outer quadrant	cases	49	49	3	0	101
	% of total	3.2%	3.2%	0.2%	-	6.5%
axillary tail	cases	5	5	0	0	10
	% of total	0.3%	0.3%	-	-	0.6%
overlapping lesion	cases	68	69	1	0	138
	% of total	4.4%	4.5%	0.1%	-	8.9%
unspecified	cases	140	194	8	12	354
	% of total	9.1%	12.6%	0.5%	0.8%	22.9%
all sites	cases	715	791	22	16	1544
	% of total	46.3%	51.2%	1.4%	1.0%	

5.4.2. SUBSITE

In 354 cases (23%) no specific subsite within the breast was recorded (Table 5.3). The largest number of cancers (30%) was in the upper outer quadrant of the breast, and the next most frequent site was central. There were more cancers with unspecified subsite on the left side than on the right, but otherwise there was no significant difference in the distribution of left-sided and right-sided lesions (Figure 5.3).

Figure 5.3. Subsites of female breast cancer



5.5. GEOGRAPHICAL DISTRIBUTION

5.5.1. INTERNATIONAL

Of the 28 countries for which data have been mapped, Ireland had the eighth highest incidence rate for female breast cancer. The incidence tended to be highest in the north-west, and lowest in eastern and southern Europe (Figure 5.4). Male breast cancer was too infrequent to be mapped.

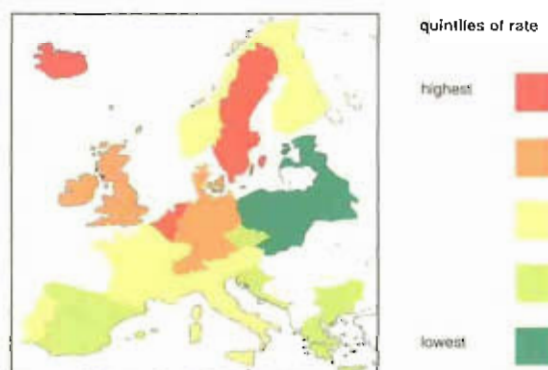


Figure 5.4. Variation in cumulative risk of cancer incidence by country within Europe: breast cancer

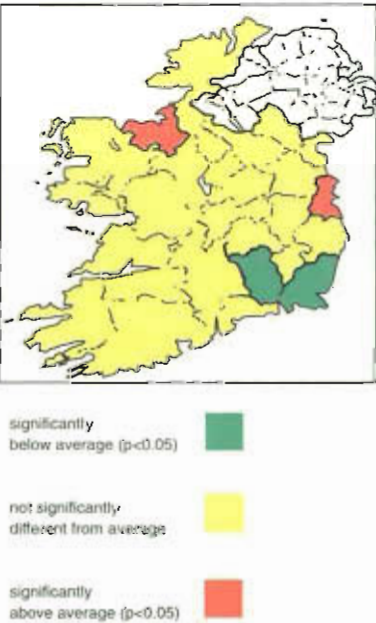
5.5.2. NATIONAL

Incidence rates for female breast cancer were significantly above average in Dublin (SIR 113) and Sligo (SIR 151), and significantly below average in Kilkenny (SIR 57) and Wexford (SIR 50) (Table 5.3; Figure 5.5).

Table 5.3. Standardised incidence ratios (SIR) and their confidence limits for female breast cancer, by county

county	SIR	lower limit	upper limit
Carlow	114	69	179
Cavan	113	74	164
Clare	81	55	114
Cork	114	99	130
Donegal	89	66	117
Dublin	113	103	123
Galway	83	64	106
Kerry	94	70	122
Kildare	109	80	145
Kilkenny	57	34	90
Laois	124	81	180
Leitrim	125	71	203
Limerick	91	70	116
Longford	94	50	161
Louth	69	46	101
Mayo	114	88	147
Meath	82	57	115
Monaghan	58	31	100
Offaly	86	53	131
Roscommon	93	60	139
Sligo	151	107	206
Tipperary	88	66	116
Waterford	78	53	110
Westmeath	106	70	153
Wexford	50	31	75
Wicklow	105	76	142

Figure 5.5. Standardised incidence ratios by county: breast cancer



5.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

In 89% of cases the diagnosis resulted from symptoms or signs presented by the patient (Table 5.4). 4% of cancers were discovered by screening, and 3.5% (55 cancers) incidentally. Six of the latter were found at the time of presentation of another cancer.

Table 5.4. Method of presentation of breast cancer (male and female)

	cases	% of all cases
symptoms/signs	1385	89%
screening	66	4%
incidental	55	4%
other	3	0%
not known	48	3%
all cancers	1557	

A tissue diagnosis was made in 95% of cases, 91% by histology and 4% by cytology (Table 5.5).

Table 5.5. Most valid basis of diagnosis of breast cancer (male and female)

	cases	% of all cases
histology of primary site	1413	90.8%
cytology	56	3.6%
clinical	43	2.8%
radiology	25	1.6%
histology of other site	5	0.3%
bone marrow	1	0.1%
other	14	0.8%
all cancers	1557	

Infiltrating duct carcinoma was by far the most common histological type, accounting for 55% of all diagnoses (Table 5.6). There were 90 in situ cancers.

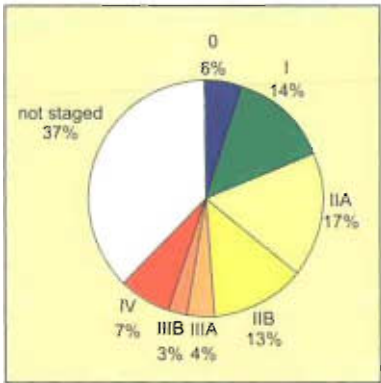
Table 5.6. Morphology of breast cancer (male and female)

	ICD code	behaviour			
		uncertain	in situ	invasive	all
infiltrating duct carcinoma	M-8500/3	0	0	855	855
carcinoma, NOS	M-8010/3	0	0	130	130
lobular carcinoma	M-8520/3	0	0	117	117
infiltrating ductular carcinoma	M-8521/3	0	0	73	73
intraductal carcinoma, noninfiltrating	M-8500/2	0	59	0	59
adenocarcinoma	M-8140/3	0	0	52	52
infiltrating duct and lobular carcinoma	M-8522/3	0	0	45	45
neoplasm NOS	M-8000/3	0	0	42	42
mucinous adenocarcinoma	M-8480/3	0	0	25	25
tubular adenocarcinoma	M-8211/3	0	0	21	21
undifferentiated carcinoma	M-8020/3	0	0	20	20
comedocarcinoma	M-8501/3	0	0	15	15
others		4	31	69	103
all types		4	90	1463	1557

5.7. STAGE

Full staging information was available in 63% of cases of breast cancer (Table 5.7; Figure 5.6).

Figure 5.6. Stage distribution of all breast cancer (male and female)



Almost half of the staged cancers were early (stages I and IIA).

Table 5.7. Stage distribution of all breast cancer (male and female)

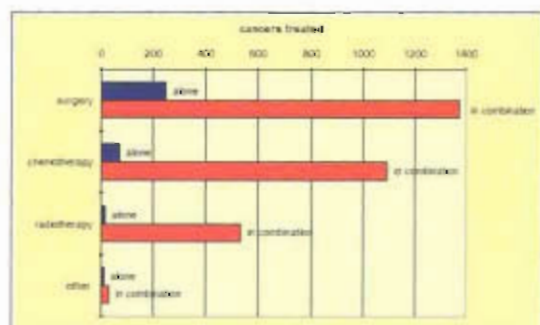
stage	cases	% of all cases	% of staged cases
0	90	6%	9%
I	213	14%	22%
IIA	270	17%	28%
IIB	196	13%	20%
IIIA	59	4%	6%
IIIB	45	3%	5%
IV	106	7%	11%
not staged	578	37%	
all cancers	1557		

5.8. TREATMENT

Table 5.8 Treatment of breast cancer (male and female)

	cases	% of all cases
all treatments	1500	96.3%
all surgery	1375	88.3%
all chemotherapy	1095	70.3%
all radiotherapy	531	34.1%
all other	29	1.9%
surgery, chemotherapy	633	40.7%
surgery, chemotherapy, radiotherapy	353	22.7%
surgery	249	16.0%
surgery, radiotherapy	125	8.0%
chemotherapy	69	4.4%
chemotherapy, radiotherapy	28	1.8%
radiotherapy	14	0.9%
other	10	0.6%
surgery, chemotherapy, radiotherapy, other	7	0.4%
surgery, other	4	0.3%
chemotherapy, other	2	0.1%
radiotherapy, other	1	0.1%
surgery, chemotherapy, other	2	0.1%
surgery, radiotherapy, other	2	0.1%
chemotherapy, radiotherapy, other	1	0.1%

Figure 5.4. Treatment of female breast cancer



Some form of treatment was given to 96% (1500) breast cancer patients. Eighty-eight per cent had surgery, mostly in combination with other modalities; only 16% had surgery with no other treatment. 995 patients (64%) had surgery in combination with chemotherapy and 487 (31%) surgery in combination with radiotherapy. "Chemotherapy" includes hormonal treatment, such as tamoxifen. 360 of these patients (23% of the total) had all three modalities of treatment. A total of 70% of patients had chemotherapy (including hormonal therapy), and 34% had radiotherapy. The percentage having surgery fell in the oldest patients, as did the percentage having radiotherapy, but the use of chemotherapy remained fairly constant.

Colorectal cancers

6

The ICD-O-2 classification of large bowel cancers describes four major sites: colon, rectosigmoid, rectum and anus. ICD9 has two major sites: colon, which corresponds to the ICD-O-2 site, and a combined site of rectum, rectosigmoid and anus, which corresponds to the three other ICD-O-2 sites. As all of these sites are contiguous, discrimination between them is sometimes difficult, and our experience has been that some cancers which are assigned by us to rectum appear on death certificates as colon, and vice versa (see Table 2.28, section 2.5.4.6). Data are presented here for all large bowel sites combined, as well as for the major sites within the organ. Information on deaths is presented for colon and for the combined site of rectum, rectosigmoid and anus.

6.1. INTRODUCTION AND SUMMARY

Table 6.1. Incidence and death rates: summary statistics for large bowel cancer (colon rectum and anus)

	incident cases			deaths		
	males	females	all	males	females	all
a. colon, rectum and anus:						
number	995	790	1785	505	412	917
% of all cancers	10.6%	8.0%	9.2%	12.7%	12.0%	12.4%
cumulative risk (0-74)	5.3%	3.4%	4.3%	2.5%	1.5%	2.0%
crude rate (per 100,000)	56.1	44.1	50.1	28.5	23.2	25.7
age-standardised rate (per 100,000)	45.1	28.9	36.1	22.6	13.7	17.7
mortality/incidence ratio	0.51	0.52	0.51			
b. colon:						
number	592	559	1151	358	319	677
% of all cancers	6.3%	5.7%	6.0%	9.0%	9.3%	9.2%
cumulative risk (0-74)	3.1%	2.4%	2.7%	1.8%	1.1%	1.4%
crude rate (per 100,000)	33.4	31.2	32.3	20.2	18.0	19.0
age-standardised rate (per 100,000)	26.7	20.5	23.2	16.1	10.5	13.0
mortality/incidence ratio	0.60	0.57	0.59			
c. rectosigmoid:						
number	95	61	156			
% of all cancers	1.0%	0.6%	0.8%			
cumulative risk (0-74)	0.5%	0.3%	0.4%			
crude rate (per 100,000)	5.4	3.4	4.4			
age-standardised rate (per 100,000)	4.2	2.2	3.1			
d. rectum						
number	296	157	453			
% of all cancers	2.1%	1.6%	2.3%			
cumulative risk (0-74)	1.7%	0.6%	1.1%			
age-standardised rate (per 100,000)	13.6	5.7	9.3			
crude rate (per 100,000)	16.7	8.8	12.7			
e. anus:						
number	12	13	25			
% of all cancers	0.1%	0.1%	0.1%			
cumulative risk (0-74)	0.06%	0.06%	0.06%			
crude rate (per 100,000)	0.7	0.7	0.7			
age-standardised rate (per 100,000)	0.6	0.5	0.6			
f. rectum, rectosigmoid and anus combined						
number	403	231	634	147	99	246
% of all cancers	4.3%	2.3%	3.3%	3.7%	2.7%	3.2%
cumulative risk (0-74)	2.3%	1.0%	1.7%	0.7%	0.4%	0.6%
crude rate (per 100,000)	22.7	12.9	17.8	8.3	5.2	6.7
age-standardised rate (per 100,000)	18.4	8.4	13.0	6.5	3.2	4.7
mortality/incidence ratio	0.36	0.40	0.38			

Colorectal cancers combined formed the largest group of non-cutaneous cancers, exceeding the number of breast and lung cancers (Table 6.1). Deaths from colorectal cancer were second only to those from lung cancer. 9% of all cases and 12% of deaths were due to colorectal cancer.

The overall incidence of colorectal cancer was higher in men than in women. The cumulative risk of cancer for men (5.3%) was 60% higher than that for women (3.4%). Death rates were also higher for men, and the mortality/incidence ratio for both sexes was close to 0.5.

There was less gender difference in the incidence of colon cancer alone, which had a 30% difference between the male cumulative rate (3.1%) and the female rate (2.4%). Mortality rates were also higher in males, and the mortality/incidence ratio for colon cancer for both sexes (0.6) was higher than for all colorectal cancers.

Rectosigmoid cancers were less common than those of the colon. The incidence rate in males was higher than in females.

Rectal cancer was a little less than half as common as colon cancer. The male/female difference in incidence was more marked for rectal cancer. The cumulative risk for men (1.7%) was almost three times that for women (0.6%).

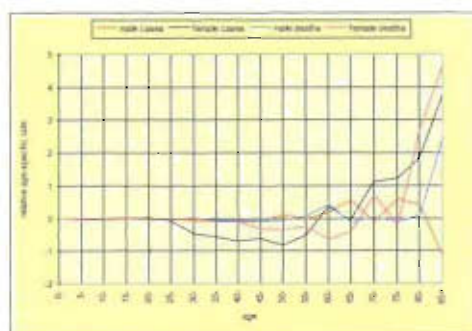
The mortality/incidence ratio for the combined group of distal large bowel cancers (rectosigmoid, rectum and anus) was 0.38, appreciably lower than for colon cancer (0.51), possibly due to the earlier presentation of distal cancers (see sections 7.6 and 8.5).

6.2. AGE AND SEX PROFILE

The median age of incidence of colorectal cancer for males was 70 years and for females 72 years. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of colorectal cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of colorectal cancer was found at that age than would have been expected.

The age profile of colorectal cancer was different for men and women (Figure 6.1; Table 6.2). The incidence and mortality rates at each age for men were quite similar to those for all cancers combined. However, for women, there were fewer cases than would have been expected in those aged 30 to 59 years, and fewer deaths of women aged 45 to 69 years. On the other hand, incidence rates and mortality for older women were above average.

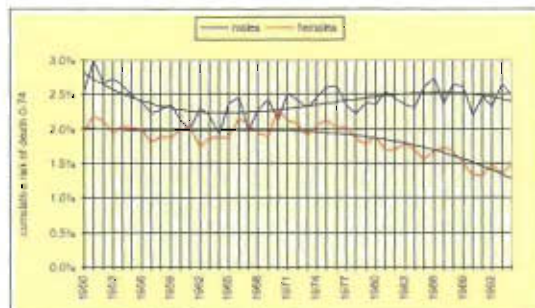
Figure 6.1. Relative age- and sex-specific incidence and mortality rates for colorectal cancer



6.3. TIME TRENDS IN MORTALITY

Overall mortality from colorectal cancer has not altered substantially since 1950 for males, but has fallen by about one-third for females (Figure 6.2).

Figure 6.2 Time trends in mortality from colorectal cancer.

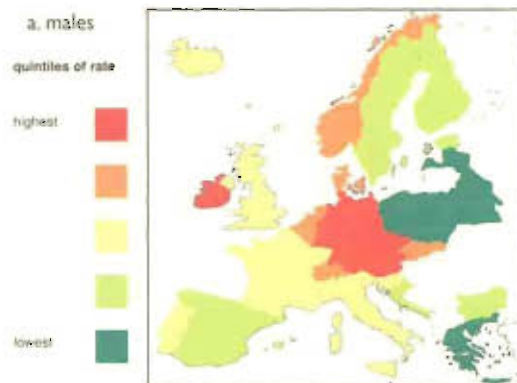


6.4. GEOGRAPHICAL VARIATION:

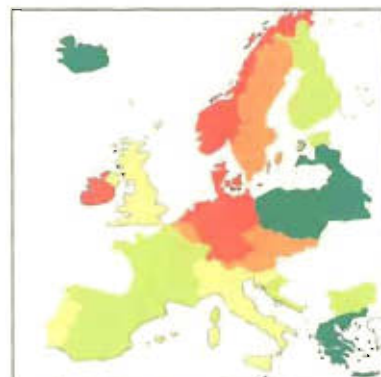
6.4.1. INTERNATIONAL

The incidence of colorectal cancer for both males and females was in the top quintile of European countries. Ireland had the third highest cumulative risk for males and the fifth highest for females (Figure 6.3).

Figure 6.3. Variation in cumulative risk of cancer incidence by country within Europe: colorectal cancer



b. females



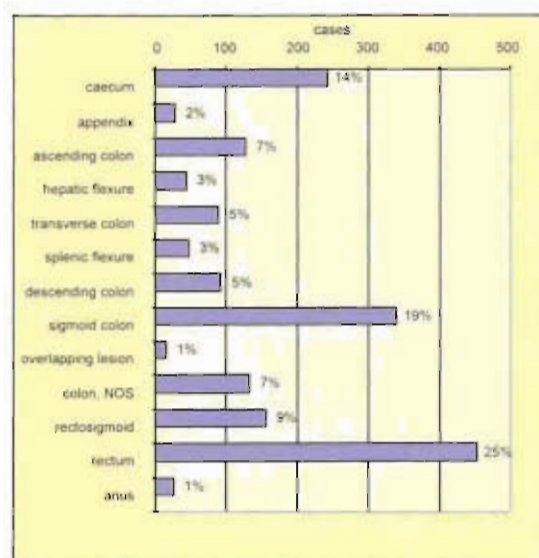
6.5. SUBSITES AND SIDE

Table 6.3. Subsites of colorectal cancer

	cases	% of all cases
caecum	241	13.5%
appendix	27	1.5%
ascending colon	126	7.1%
hepatic flexure	44	2.5%
transverse colon	88	4.9%
splenic flexure	47	2.6%
descending colon	92	5.2%
sigmoid colon	340	19.1%
overlapping lesion	14	0.8%
colon, NOS	132	7.4%
rectosigmoid	156	8.7%
rectum	453	25.4%
anus	25	1.4%
all cases	1785	

The commonest sites were rectum (25%), sigmoid colon (19%) and caecum (14%) (Table 6.3; Figure 6.4).

Figure 6.4. Subsites of colorectal cancer.



Right-sided lesions made up 25%, and left-sided lesions 60%, of the total.

Colon cancer

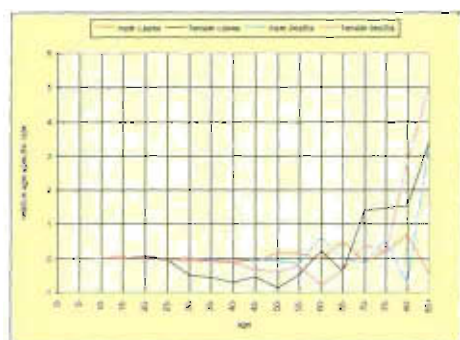
7

7.1. AGE AND SEX PROFILE

The median age of incidence of colon cancer for men was 70 years, and for women, 72 years. The highest age-specific incidence and mortality rates for both sexes were in the oldest age-groups.

The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of colon cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of colon cancer was found at that age than would have been expected. There were fewer cases than average in women under 60 years, and fewer deaths in those under 65 (Figure 7.1). The rates for older women were well above average. Rates for men were close to expectation at all ages.

Figure 7.1. Relative age- and sex-specific incidence and mortality rates for colon cancer



7.2. SUBSITES AND SIDE

Table 7.1. Subsites of colon cancer

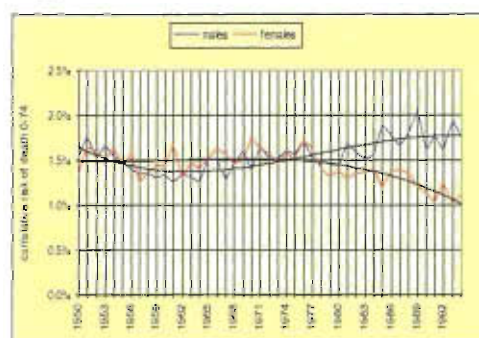
	cases	% of all cases
caecum	241	20.9%
appendix	27	2.4%
ascending colon	126	11.0%
hepatic flexure	44	3.8%
transverse colon	88	7.7%
splenic flexure	47	4.1%
descending colon	92	8.0%
sigmoid colon	340	29.5%
overlapping lesion	14	1.2%
colon, NOS	132	11.5%
all cases	1151	

Over one-third (38%) of the cancers were in the right-sided colon, while 42% were on the left (Table 7.1). Sigmoid colon was the most frequent single site.

7.3. TIME TRENDS IN MORTALITY

Mortality from colon cancer was quite constant, and equal for men and women, until about 1980, when the rate for males began to rise, and that for females to fall (Figure 7.2). The male death rate in 1994 was almost twice that of the female.

Figure 7.2. Time trends in mortality from colon cancer.



7.4. GEOGRAPHICAL DISTRIBUTION

7.4.1. INTERNATIONAL

Figures for colon cancer are included in those for colorectal cancers (see section 6.4.1).

7.4.2. NATIONAL

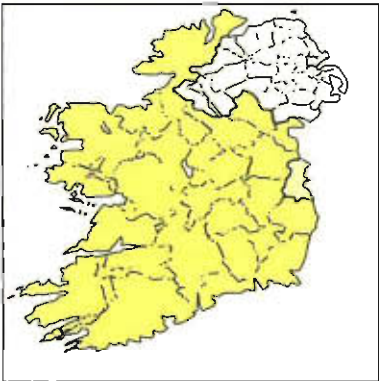
No county had a higher than expected incidence for males, and only Wicklow had a higher than expected risk for females (Table 7.2; Figure 7.3). The incidence for females in Kilkenny and Limerick was significantly below the national average.

Table 7.2. Standardised incidence ratios (SIR) and their confidence limits by county: colon cancer

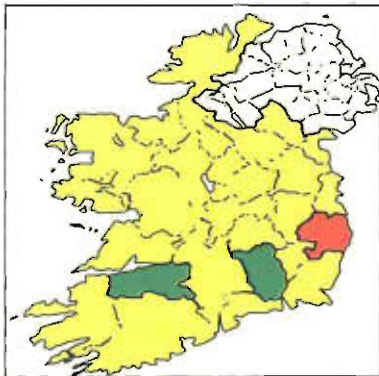
county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	60	16	156	118	47	245
Cavan	75	34	143	160	89	265
Clare	101	60	160	62	28	118
Cork	109	86	137	120	95	149
Donegal	83	52	125	127	84	184
Dublin	118	100	138	102	87	119
Galway	112	79	153	103	70	147
Kerry	71	43	111	80	47	127
Kildare	70	33	129	53	21	110
Kilkenny	68	31	130	35	9	89
Laois	124	64	217	138	69	248
Leitrim	84	30	184	112	40	246
Limerick	96	62	142	44	22	80
Longford	97	35	212	95	30	223
Louth	74	35	136	116	66	189
Mayo	90	58	134	77	44	123
Meath	96	53	158	159	100	241
Monaghan	120	62	211	48	12	123
Offaly	123	65	211	104	47	198
Roscommon	68	31	130	97	46	180
Sligo	85	41	158	128	68	219
Tipperary	99	64	146	63	34	105
Waterford	105	60	171	70	33	128
Westmeath	83	38	159	106	50	196
Wexford	90	51	146	112	66	177
Wicklow	118	69	189	176	114	260

Figure 7.3. Standardised incidence ratios by county: colon cancer

a. males



b. females



7.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Almost all cases (96%) were detected from symptoms and signs, and 1.6% as an unexpected finding. Only 0.3% were detected through screening.

Table 7.3. Most valid basis of diagnosis of colon cancer

	cases	% of all cases
histology of primary site	986	85.7%
histology of other site	20	1.7%
cytology	1	0.1%
clinical	57	5.0%
radiology	59	5.1%
post mortem	11	1.0%
other	17	1.4%
all cases	1151	

Eighty-seven per cent of cases were diagnosed by histology, 5% clinically and 5% by radiology (Table 7.3). Tissue diagnosis was less frequent in older patients, and more common in females than in males (Table 7.4; Figure 7.4).

Figure 7.4. Percentage of colon cancers diagnosed by histology, by age of patient

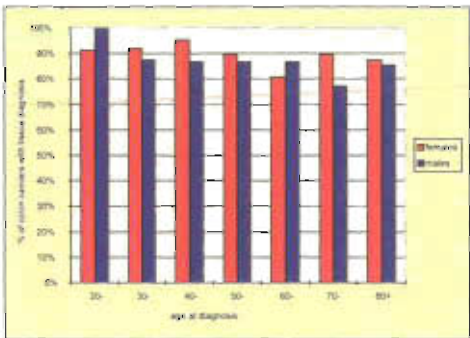


Table 7.4. Percentage of colon cancers diagnosed by histology, by age of patient

age	females	males
20-	91.3%	100.0%
30-	92.2%	87.5%
40-	95.3%	86.8%
50-	89.8%	86.7%
60-	80.8%	86.6%
70-	89.8%	77.2%
80+	87.5%	85.3%
all ages	89.8%	85.3%

significantly below average ($p < 0.05$)

not significantly different from average

significantly above average ($p < 0.05$)

Table 7.5 Morphology of colon cancer

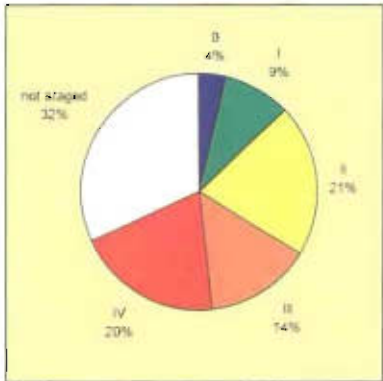
	ICD code	behaviour			total
		uncertain	in situ	malignant	
adenocarcinoma, NOS	M-8140/3	0	0	754	754
neoplasm, NOS	M-8000/3	0	0	83	83
mucin-secreting carcinoma	M-8481/3	0	0	71	71
mucous carcinoma	M-8480/3	0	0	62	62
carcinoma, NOS	M-8010/3	0	0	34	34
carcinoid of appendix	M-8240/1	19	0	0	19
adenocarcinoma in tubular adenoma	M-8210/3	0	0	18	18
adenocarcinoma in situ in tubular adenoma	M-8210/2	0	19	0	19
acinar cell carcinoma	M-8550/3	0	0	13	13
papillary adenocarcinoma	M-8260/3	0	0	12	12
adenocarcinoma in tubulovillous adenoma	M-8263/3	0	0	11	11
adenocarcinoma in villous adenoma	M-8261/3	0	0	8	8
signet ring cell carcinoma	M-8490/3	0	0	5	5
all other types		2	22	29	53
all types		21	41	1089	1151

The majority of cancers were described as adenocarcinoma, not otherwise specified (NOS) (Table 7.5). 57 cancers were described as having arisen in adenomas. There were 19 carcinoids of appendix (2% of the total).

7.6. STAGE

Sixty-eight per cent of cancers could be fully staged (Table 7.6; Figure 7.5).

Figure 7.5. Stage distribution of colon cancer



Over half of the cancers staged were at stages III and IV (Duke's C and D).

Table 7.6. Stage distribution of colon cancer

stage	cases	% of all cases	% of staged cases
0	41	4%	5%
I	105	9%	13%
II	241	21%	31%
III	161	14%	21%
IV	230	20%	30%
not known	373	32%	
all cases	1151		

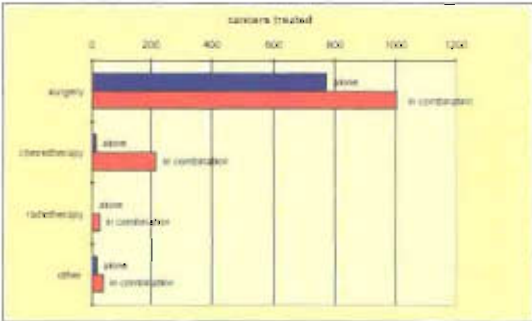
7.7. TREATMENT

Table 7.7. Treatment of colon cancer

	cases	% of all cases
all treatments	1035	89.9%
all surgery	1004	87.2%
all chemotherapy	214	18.6%
all radiotherapy	24	2.1%
all other	39	3.4%
surgery	771	67.0%
surgery, chemotherapy	188	16.3%
surgery, other	20	1.7%
other	16	1.4%
chemotherapy	13	1.1%
surgery, radiotherapy	12	1.0%
surgery, chemotherapy, radiotherapy	10	0.9%
surgery, chemotherapy, other	3	0.3%
radiotherapy	2	0.2%

Ninety per cent of patients had definitive treatment. 87% had surgery and 19% chemotherapy (Table 7.7; Figure 7.6). 201 of the 214 patients having chemotherapy had it in combination with surgery. The frequency of surgery did not vary with age.

Figure 7.6. Treatment of colon cancer



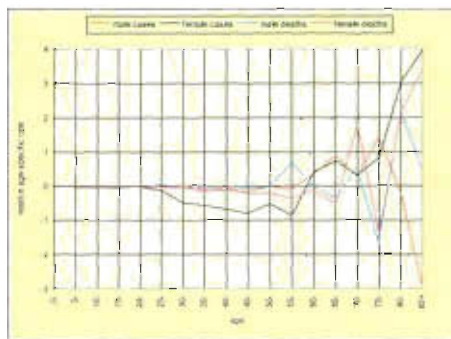
Rectal, rectosigmoid and anal cancer

8.1. AGE AND SEX PROFILE

The median age of incidence of rectal cancer was 70 years for men and 73 years for women. For rectosigmoid cancer the median age of incidence was 71 years for men and 72 years for women.

The relative incidence and mortality for anorectal* cancer was close to that expected, except for women under 60 years, who had a lower than expected incidence rate. For patients over 60 years, there was an high relative incidence rate for anorectal cancer, which increased with age, while mortality showed no overall trend (Figure 8.1). The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of anorectal cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of anorectal cancer was found at that age than would have been expected.

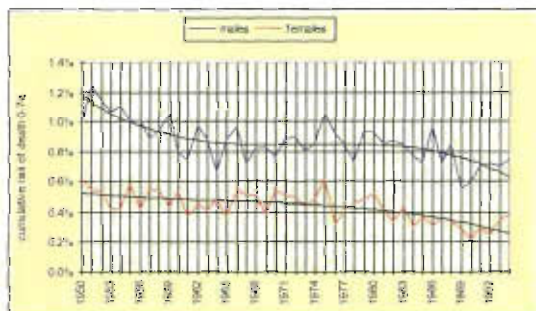
Figure 8.1. Relative age- and sex-specific incidence and mortality rates for anorectal



The incidence rates of rectal, rectosigmoid and anal cancers increased with age, and the ratios between the three cancer sites remained fairly constant, regardless of age.

8.2. TIME TRENDS IN MORTALITY

Figure 8.2 Time trends in mortality from anorectal



Mortality for anorectal cancer combined has fallen by about 50% for both sexes since 1951.

8.3. GEOGRAPHICAL VARIATION

8.3.1. INTERNATIONAL

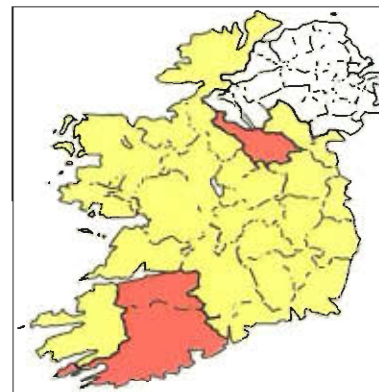
Incidence rates for anorectal cancer were not studied independently of those for colorectal cancer (see section 6.4.1).

8.3.2. NATIONAL

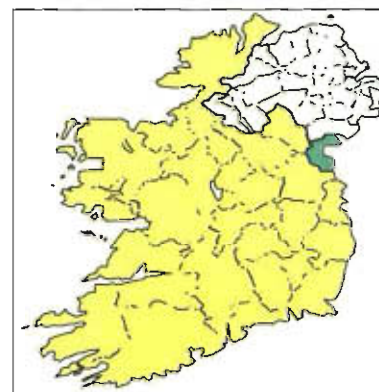
The incidence rate for anorectal cancer was slightly raised in Cavan, Cork and Limerick for men, and was below average in Louth for women (Figure 8.3; Table 8.1)

Figure 8.3. Standardised incidence ratios by county: anorectal cancers

a. males



b. females



significantly below average ($p < 0.05$)
not significantly different from average
significantly above average ($p < 0.05$)

* the term "anorectal" in this chapter describes rectosigmoid, rectal and anal cancers combined

Table 8.1. Standardised incidence ratios (SIR) and their confidence limits for anorectal cancer, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	74	34	142	117	46	242
Cavan	128	98	165	98	64	142
Clare	+195	111	317	129	41	304
Cork	133	48	291	164	43	424
Donegal	55	26	102	143	76	244
Dublin	104	85	127	102	79	130
Galway	93	58	141	75	34	143
Kerry	155	87	257	57	11	168
Kildare	67	24	146	84	22	216
Kilkenny	77	42	129	139	74	239
Laois	47	4	173	92	9	337
Leitrim	141	75	241	18	0	102
Limerick	+170	114	242	107	53	193
Longford	41	4	151	90	8	331
Louth	75	24	177	182	66	400
Mayo	85	38	161	71	18	183
Meath	88	32	193	29	0	164
Monaghan	88	50	144	108	52	200
Offaly	55	14	143	85	16	250
Roscommon	67	24	146	70	13	206
Sligo	101	43	199	142	51	312
Tipperary	86	48	143	86	37	171
Waterford	67	27	139	101	36	221
Westmeath	68	21	160	154	56	338
Wexford	123	63	215	86	27	201
Wicklow	66	28	131	75	24	176

8.4. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Clinical diagnosis was more frequent for rectal than for rectosigmoid cancer (Table 8.2) but the level of tissue diagnosis was high for both.

Table 8.2. Most valid basis of diagnosis of rectal and rectosigmoid cancer

	rectosigmoid		rectum	
	cases	% of all cases	cases	% of all cases
histology of primary site	147	94.2%	409	90.3%
clinical	6	3.8%	28	6.2%
histology of other site	0	0.0%	6	1.3%
radiology	2	1.3%	3	0.7%
PM	0	0.0%	2	0.4%
other	0	0.0%	2	0.4%
not known	1	0.6%	2	0.4%
cytology	0	0.0%	1	0.2%
all cases	156		453	

Table 8.3. Morphology of rectal and rectosigmoid cancers

	behaviour			
	ICD code	uncertain	in situ	malignant
adenocarcinoma, NOS	M-8140/3	0	0	429
mucous carcinoma	M-8480/3	0	0	24
mucin-secreting carcinoma	M-8481/3	0	0	24
neoplasm malignant	M-8000/3	0	0	23
carcinoma, NOS	M-8010/3	0	0	15
carcinoma in situ, NOS	M-8010/2	0	10	0
villous papilloma	M-8261/1	11	0	0
adenocarcinoma in tubulovillous adenoma	M-8263/3	0	0	12
adenocarcinoma in tubular adenoma	M-8210/3	0	0	10
other		0	18	33
all types		11	28	570

The majority of diagnoses (70%) of rectal and rectosigmoid cancer were of non-specific adenocarcinoma (Table 8.3). 28 in situ cancers were diagnosed, and 11 of uncertain behaviour, all of the latter being villous papillomata.

Table 8.4 Morphology of anal cancers

	behaviour			
	ICD code	in situ	malignant	all
adenocarcinoma, NOS	M-8140/3	0	8	8
mucin-secreting carcinoma	M-8481/3	0	1	1
carcinoma, NOS	M-8010/3	0	1	1
carcinoma in situ, NOS	M-8010/2	2	0	2
villous adenoma, adenocarcinoma in	M-8261/3	0	2	2
squamous cell carcinoma, NOS	M-8070/3	0	5	5
villous adenocarcinoma	M-8262/3	0	1	1
cloacogenic carcinoma	M-8124/3	0	2	2
basaloid carcinoma	M-8123/3	0	2	2
carcinoid tumour	M-8240/3	0	1	1
all types		2	23	25

The majority of anal carcinomas were also non-specific adenocarcinoma, but 20% were squamous cell carcinoma (Table 8.4).

8.5. STAGE

Table 8.5. Stage distribution of rectosigmoid and rectal cancer

stage	cases	% of all cases	% of staged cases
0	28	5%	7%
I	89	15%	23%
II	103	17%	27%
III	84	14%	22%
IV	84	14%	22%
not staged	221	36%	
all	609	100%	

Sixty-four percent of rectal and rectosigmoid cancers were staged (Table 8.5; Figure 8.4). Cancers were evenly distributed between the stages, with more early, and fewer late, cancers than in the colon.

Figure 8.4. Stage distribution of rectosigmoid and rectal cancers

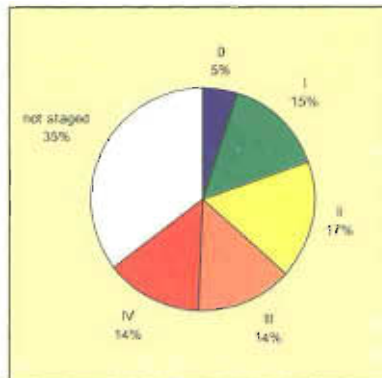


Table 8.6. Stage distribution of anal cancers

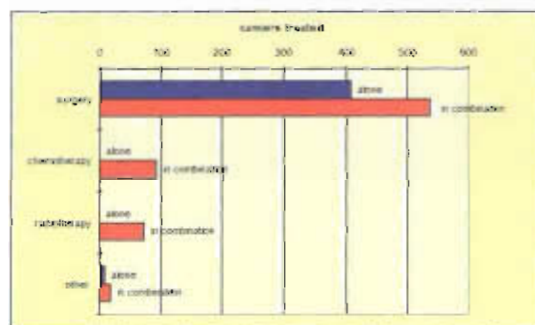
stage	cases	% of all cases	% of staged cases
0	2	8%	13%
I	3	12%	19%
II	5	20%	31%
III	1	4%	6%
IV	5	20%	31%
not staged	9	36%	
all cases	25	100%	

Sixty-four percent of anal cancers were staged (Table 8.8). 50% of those staged were at stage I or II.

8.6. TREATMENT

Specific therapy was administered to 551 rectal and rectosigmoid cancers (90%) (Table 8.7; Figure 8.5).

Figure 8.5. Treatment of rectosigmoid and rectal cancers



537 patients (88%) had surgery for rectosigmoid and rectal cancers. 409 (67%) had no other treatment modality recorded. For those who had treatment in addition to surgery, the most common second treatment was chemotherapy (90 cases), 50 of whom had surgery and chemotherapy combined, and 40 of whom also had

radiotherapy. Radiotherapy was more common in the treatment of rectal cancer (12% of cases) than for colon cancer (2%).

Table 8.7. Treatment of rectosigmoid and rectal cancer

	cases	% of all cases
all treatments	551	90.5%
all surgery	537	88.2%
all chemotherapy	93	15.3%
all radiotherapy	72	11.8%
all other	19	3.1%
surgery	409	67.2%
surgery, chemotherapy	50	8.2%
surgery, chemotherapy, radiotherapy	40	6.6%
surgery, radiotherapy	28	4.6%
other	9	1.5%
surgery, other	9	1.5%
chemotherapy	2	0.3%
radiotherapy	2	0.3%
chemotherapy, radiotherapy	1	0.2%
surgery, radiotherapy, other	1	0.2%

Table 8.8. Treatment of anal cancer

	cases	% of all cases
all treatments	24	96.0%
all surgery	23	92.0%
all chemotherapy	8	32.0%
all radiotherapy	6	24.0%
surgery	14	56.0%
surgery, chemotherapy	4	16.0%
surgery, chemotherapy, radiotherapy	3	12.0%
surgery, radiotherapy	2	8.0%
chemotherapy, radiotherapy	1	4.0%

All but one of the anal cancers was treated (Table 8.8). 23 (92%) had surgery, 14 as the only treatment, and 9 in combination with either chemotherapy, radiotherapy or both.

Lung cancer

9

9.1. INTRODUCTION AND SUMMARY

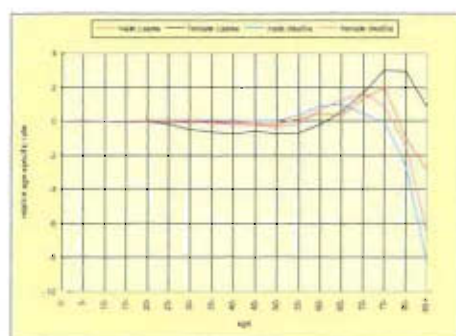
Table 9.1. Incidence and death rates: summary statistics for lung cancer

	incident cases			deaths		
	males	females	all	males	females	all
number	987	468	1455	1039	518	1557
% of all cancers	10.5%	4.7%	7.5%	26.2%	15.2%	21.1%
cumulative risk (0-74)	5.9%	2.3%	4.0%	5.7%	2.4%	4.0%
crude rate (per 100,000)	55.7	26.1	40.8	58.6	29.2	43.7
age-standardised rate (per 100,000)	45.0	17.3	30.0	46.8	19.0	31.7
mortality/incidence ratio	1.04	1.10	1.06			

Lung cancer was the third most frequent cancer in men (excluding skin cancer) and the fourth most common overall (Table 9.1). The cumulative risk of lung cancer before age 75 was 5.9% for men, and the risk of death before this age was almost the same. The risk for women was less than half of this. The number of deaths attributed to lung cancer can be seen to be greater than the number of cases, and this is probably due to the incorrect registration of some secondary lung cancers as primary on death certificates (see "Death certificate notifications", section 2.5.4.b). The small number of deaths due to cancer of the trachea which are included with those from lung cancer does not alter this conclusion.

9.2. AGE AND SEX PROFILE

Figure 9.1. Relative age- and sex-specific incidence and mortality rates for lung cancer



The age of peak incidence was 70-74 years for men and 65-79 years for women. The median age of male cases was 69 years, and of female cases, 71 years.

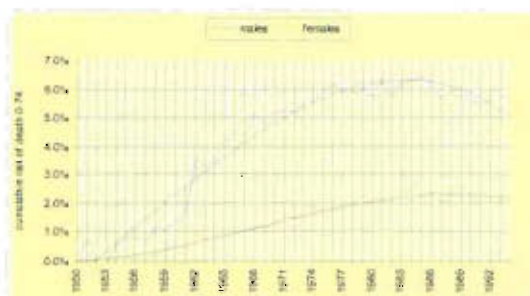
The number of cases and deaths was close to expected for men under 45 years, but the relative rates were high for men aged 50 to 74 years (Figure 9.1). The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of lung cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of lung cancer was found at that age than would have been expected. After the age of 74, the relative age-specific rate for men dropped quite sharply. A quite similar pattern was seen for women, although the number of cases for women aged 50 years and under was a little less than would have been expected.

The death rate relative to other cancers fell with age in women as it did in men, although the incidence rate remained above expectation for all ages except the oldest. Both death rates and incidence rates for women were therefore skewed towards the older age-groups. This is difficult to explain in view of the continuing increase in cigarette smoking and lung cancer mortality in women, but it may be due to a cohort effect.

9.3. TIME TRENDS IN MORTALITY

There has been a rapid increase in both male and female lung cancer mortality since the 1950s (Figure 9.2).

Figure 9.2. Time trends in mortality from lung cancer



Part of the initial increase may be due to changes in death certification procedures. Under the 6th and 7th revisions of the International Classifications of Disease, lung cancer could be classified as either "primary" or "unspecified whether primary or secondary". As deaths coded as "unspecified" could have been due to secondary lung cancer, they cannot be counted in estimates of lung cancer mortality.

However, as can be seen from Figure 9.4, coding practices seem to have altered significantly in 1962, when the category of “unspecified” lung cancer suddenly fell to a very small fraction of all lung cancers. The trend up to 1962 suggests that a substantial proportion of the “unspecified” lung cancers had, in fact, been primary, and that the rise in lung cancer mortality in the 1960s was not as spectacular as it might seem from Figure 9.3. However, the overall trend of lung cancer mortality has been undoubtedly sharply upwards.

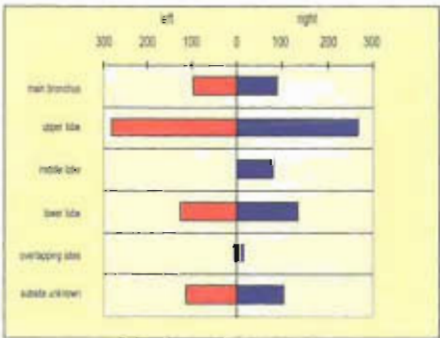
9.4. SUBSITES AND SIDE

Table 9.2. Side and subsites of lung cancer

	left		right		not stated		all	
subsite	cases	%	cases	%	cases	%	cases	%
main bronchus	97	6.7%	89	6.1%	22	1.5%	208	14.3%
upper lobe	281	19.3%	267	18.4%	12	0.8%	560	38.5%
middle lobe			80	5.5%	2	0.1%	82	5.6%
lower lobe	126	8.7%	134	9.2%	4	0.3%	264	18.1%
overlapping sites	4	0.3%	14	1.0%	1	0.1%	19	1.3%
subsite unknown	114	7.8%	103	7.1%	105	7.2%	322	22.1%
all cases	622	42.7%	687	47.2%	146	10.0%	1455	

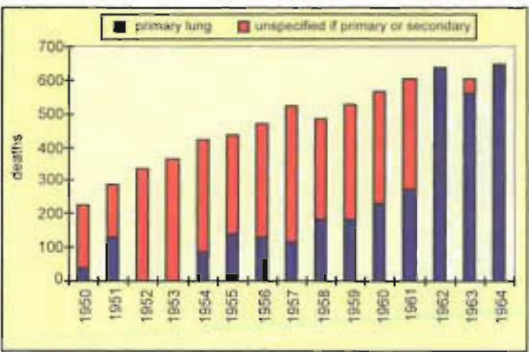
There was a slight excess of right sided over left sided lesions (Table 9.2; Figure 9.4).

Figure 9.3. Side and subsites of lung cancer



In 10% of cases the side of the primary was either not recorded, or could not be determined. In almost 80% of cases, the subsite within the lung was specified. 38% of all cancers, and almost 50% of the cancers for which a specific site was given, were in the upper lobe.

Figure 9.3. Time trends in certification of deaths from lung cancer

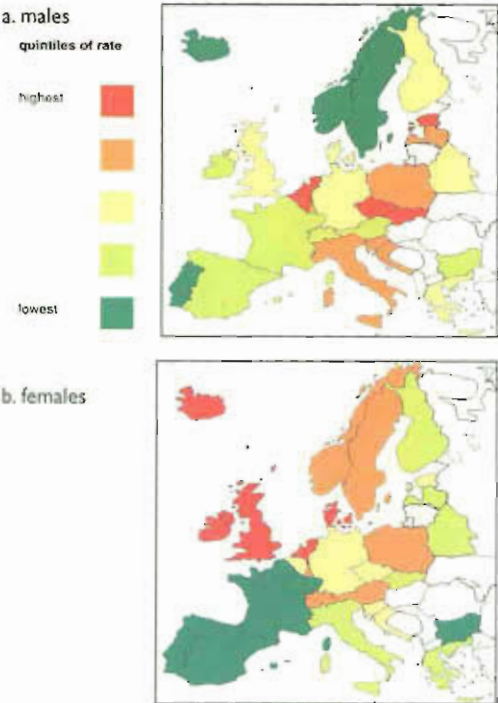


9.5. GEOGRAPHICAL DISTRIBUTION

9.5.1. INTERNATIONAL

Incidence for males was low by European standards, Ireland being ranked 21st of the 28 countries studied (Figure 9.4). Female incidence was comparatively much higher, being the fourth highest in Europe and of a similar magnitude to the incidence in other north-western European countries.

Figure 9.4. Variation in cumulative risk of cancer incidence by country within Europe: lung cancer



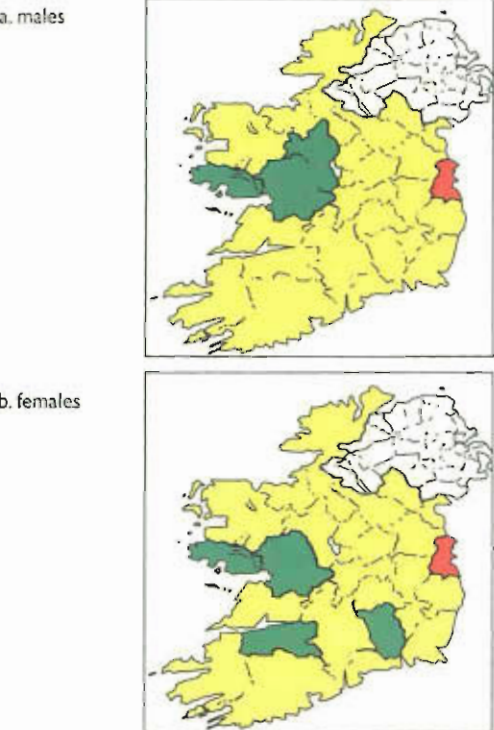
9.5.2. NATIONAL

Table 9.3. Standardised incidence ratios (SIR) and their confidence limits for lung cancer, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	99	49	177	121	44	265
Cavan	65	34	111	50	13	129
Clare	75	47	113	90	45	162
Cork	93	76	112	115	88	146
Donegal	82	58	114	103	62	162
Dublin	145	130	162	126	107	147
Galway	73	53	99	57	31	96
Kerry	94	68	127	74	40	124
Kildare	114	75	166	92	44	170
Kilkenny	59	31	100	31	6	91
Laois	61	29	113	134	61	256
Leitrim	93	46	166	88	23	227
Limerick	80	56	112	43	20	82
Longford	95	45	176	88	23	228
Louth	108	71	161	94	47	169
Mayo	82	58	114	101	60	157
Meath	65	38	105	104	53	182
Monaghan	120	73	186	71	22	167
Offaly	62	31	111	95	37	196
Roscommon	46	22	84	57	18	134
Sligo	103	63	160	47	12	121
Tipperary	110	81	146	117	73	177
Waterford	67	39	107	117	64	196
Westmeath	72	38	123	88	35	182
Wexford	122	85	189	141	85	221
Wicklow	101	64	150	77	35	146

Incidence for both men (SIR145) and women (SIR 126) was significantly higher than expected in Dublin (Table 9.3; Figure 9.5). There were 136 more cases of lung cancer per year in Dublin than would have been expected from the national averages.

Figure 9.5. Standardised incidence ratios by county: lung cancer.



Incidence was lower than expected for both men and women in Galway. The male incidence was lower than expected in Roscommon, and the female rate in Kilkenny and Limerick

9.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

In 99% of cases the diagnosis resulted from symptoms or signs presented by the patient; in the remaining 1% of cases the cancer was not expected prior to investigation.

Table 9.4. Most valid basis of diagnosis of lung cancer

	cases	% of all cases
histology of primary site	885	60.8%
radiology	232	15.9%
cytology	152	10.4%
clinical	68	4.7%
histology of other site	60	4.1%
post mortem	31	2.1%
other	15	1.0%
not known	12	0.8%
all cases	1455	

Seventy-five per cent of cases had a tissue diagnosis, 65% by histology, and 10% by cytology (Table 9.4). Most of the remainder (16%) were diagnosed radiologically.

Tissue diagnosis was less frequent for lung cancer (75% of cases) than for other cancers (85% of cases) and was even less frequent in older patients (Table 9.5; Figure 9.6).

Table 9.5. Variation in level of tissue diagnosis of lung cancer by age and sex

age group	females		males	
	no. histologically verified	% of all cases	no. histologically verified	% of all cases
20-	2	100%	1	100%
30-	2	100%	6	100%
40-	15	71%	24	92%
50-	47	90%	126	86%
60-	104	81%	262	82%
70-	136	69%	283	74%
80+	34	52%	55	50%
all ages	340	73%	757	77%

Figure 9.6. Variation in level of tissue diagnosis of lung cancer by age and sex

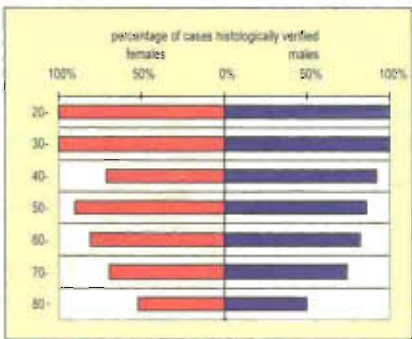


Table 9.6. Morphology of lung cancer

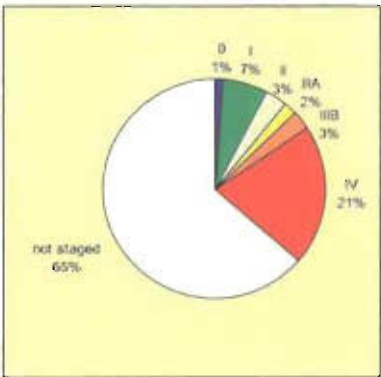
	ICD-O code	behaviour			
		uncertain	in situ	malignant	all
squamous cell carcinoma	M-8070/3	0	0	487	487
malignant neoplasm	M-8000/3	0	0	249	249
carcinoma	M-8010/3	0	0	166	166
adenocarcinoma	M-8140/3	0	0	159	159
oat cell carcinoma	M-8042/3	0	0	100	100
small cell carcinoma	M-8041/3	0	0	93	93
large cell carcinoma	M-8012/3	0	0	64	64
squamous cell carcinoma, keratinizing	M-8071/3	0	0	23	23
bronchiolo-alveolar carcinoma	M-8250/3	0	0	19	19
mucin-secreting carcinoma	M-8481/3	0	0	13	13
papillary adenocarcinoma	M-8260/3	0	0	8	8
carcinoid	M-8240/3	0	0	8	8
squamous cell carcinoma in situ	M-8070/2	0	7	0	7
small cell carcinoma, intermediate cell	M-8044/3	0	0	7	7
non-small cell carcinoma	M-8019/3	0	0	7	7
all other types		1	3	41	45
all types		1	10	1444	1455

The main histological types were squamous cell carcinoma, adenocarcinoma and small cell carcinoma (Table 9.6). Prior to 1996, no specific ICD-O-2 code was used for cancers described as "non-small cell", and these were initially assigned to the general category of "malignant neoplasm". A new code was created by the Registry for this cancer and was used for cancers registered from 1996 onwards, so the small number of cancers described as "non-small cell" in the table does not represent of all of those described as "non-small cell" by pathologists. Ten cancers were described as being in situ.

9.7. STAGE

Full staging was less commonly available for lung cancer (35% of cases) than for other stageable cancers (44% of cases). Most cancers which were staged were late (Table 9.7; Figure 9.7).

Figure 9.7. Stage distribution of lung cancer



Twenty-one per cent of all cancers, and 58% of those staged, had metastasised at diagnosis.

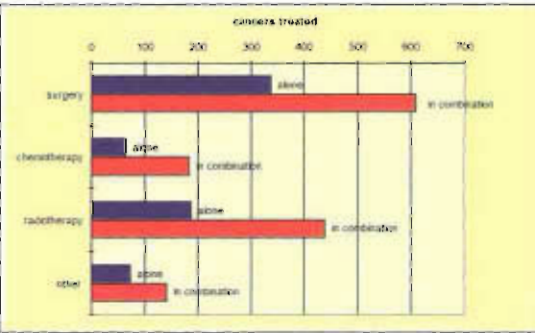
Table 9.7. Stage distribution of lung cancer

stage	cases	% of all cases	% of staged cases
0	10	1%	2%
I	96	7%	19%
II	40	3%	8%
IIIA	33	2%	6%
IIIB	37	3%	7%
IV	299	21%	58%
not staged	940	65%	
all cancers	1455		

9.8. TREATMENT

Specific treatment was administered to 897 lung cancer patients (68%), as compared to 86% of all cancer patients (Table 9.8; Figure 9.8).

Figure 9.8. Treatment of lung cancer



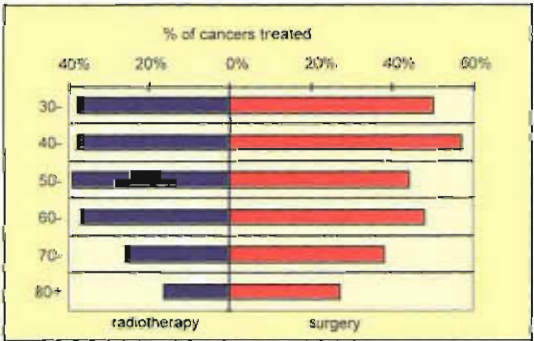
Forcy per cent had surgery either alone or in combination, and 30% had radiotherapy. The commonest treatment regime was surgery alone (338 patients, 23% of the total), followed by radiotherapy alone (186 patients, 13%) and radiotherapy with surgery (148, 10%).

Table 9.8. Treatment of lung cancer

	cases	% of all cases
all treatments	987	67.8%
all surgery	609	41.9%
all chemotherapy	183	12.6%
all radiotherapy	438	30.1%
all other	141	9.7%
surgery	338	23.2%
radiotherapy	186	12.8%
surgery, radiotherapy	148	10.2%
other	74	5.1%
chemotherapy	64	4.4%
surgery, chemotherapy	44	3.0%
surgery, chemotherapy, radiotherapy	35	2.4%
chemotherapy, radiotherapy	31	2.1%
surgery, other	24	1.6%
radiotherapy, other	21	1.4%
surgery, radiotherapy, other	13	0.9%
surgery, chemotherapy, other	5	0.3%
chemotherapy, radiotherapy, other	2	0.1%
surgery, chemotherapy, radiotherapy, other	2	0.1%

Surgical treatment was more frequent in the youngest age-group (Table 9.9; Figure 9.9), but did not become any less common with age after 40 years.

Figure 9.9. Proportion of lung cancers treated, by age



The proportion of patients having either surgery or radiotherapy remained constant up to age 70, but declined after that.

Table 9.9. Proportion of lung cancers treated, by age

age	surgery	radiotherapy
20-	100%	0%
30-	50%	38%
40-	57%	38%
50-	44%	39%
60-	48%	37%
70-	38%	26%
80+	27%	16%
all ages	42%	30%

Cancer of the uterine cervix

10

10.1. INTRODUCTION AND SUMMARY

Table 10.1. Incidence and death rates: summary statistics for cancer of the uterine cervix

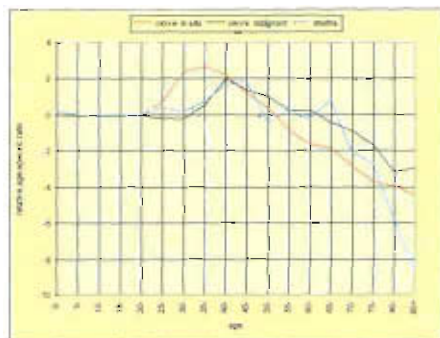
	incident cases			deaths
	invasive	in situ	all cervical cancers	
number	170	891	1061	61
% of all cancers	1.7%	9.0%	10.7%	1.8%
cumulative risk (0-74)	0.9%	3.6%	4.5%	0.3%
crude rate (per 100,000)	9.5	49.8	59.3	3.4
age-standardised rate (per 100,000 females)	8.5	47.7	56.2	2.9
mortality/incidence ratio	0.35		0.06	

In addition to the usual clinical and histological diagnoses, a registration of cancer of the cervix was made in situations where a cervical smear was described as showing "severe dysplasia/dyskaryosis" or described as being consistent with CINIII. Truly malignant or invasive cancer of the cervix therefore accounted for only a small fraction (16%) of the lesions registered. For 201 of the cases recorded as "CINIII" we have no record of a histological confirmation of the diagnosis. 93 of the 201 are registered as having had some type of definitive treatment (almost all surgery), and so, presumably, a biopsy had been taken, but, as no subsequent report was received by the Registry, the biopsy may not have shown any cancer. The incidence of non-invasive cancer of the cervix is probably over-estimated by the inclusion of lesions which had not been histologically verified. However, as these patients had been diagnosed provisionally as having "cancer", and had been treated surgically, we felt that we should, in the early years of the Registry, make every effort to ascertain all positive cervical smears. Follow-up of these cases is continuing.

Most of the cancers registered were described as in situ or CINIII (Table 10.1). The cumulative risk of all cervical cancer was 4.5%, while the risk of invasive cancer was only 0.9%. The number of malignant cases was about three times the number of deaths, which numbered 61, less than 2% of all cancer deaths in women.

10.2. AGE AND SEX PROFILE

Figure 10.1. Relative age and sex-specific incidence and mortality rates for cervical cancer

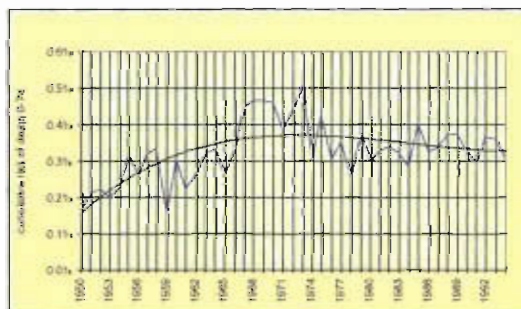


The incidence and mortality age profiles of in situ and malignant disease were quite different (Figure 10.1). The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of cervical cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of cervical cancer was found at that age than would have been expected.

In situ cases had a median age of 34 years, were most frequent in the 30-34 year age-group, and uncommon after 55 years. Malignant cases and deaths were similar in their age profiles, having their highest relative rates in the 40 to 49 year age-group, and declining in rate with age much more slowly than in situ cases. The median age of malignant cases was 48 years and of deaths, 57 years. All cervical cancer cases and deaths were relatively uncommon in older women.

10.3. TIME TRENDS IN MORTALITY

Figure 10.2 Time trends in mortality from cervical cancer



Mortality rose from a cumulative risk of 0.2% in the 1950s to a peak of 0.5% in 1973, and seems to have declined since then (Figure 10.2). However, there is considerable year-to-year fluctuation in the rate, and most of the decrease

seems to have happened in a few years between 1973 and 1980. Some of this decrease may be due to changes in death registration practices. Studies in other countries have shown that some cervical cancer may have been recorded on death certificates in the past as cancer of the uterus.

10.4. SUBSITES AND SIDE

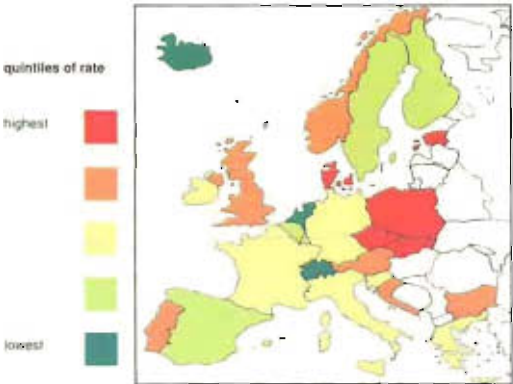
No subsites were recorded for cancer of the cervix.

10.5. GEOGRAPHICAL DISTRIBUTION

10.5.1. INTERNATIONAL

Incidence in Ireland (for invasive lesions only) was ranked 15th of the 23 countries for which data were available (Figure 10.3). The incidence of invasive cervical cancer was, in general, highest in eastern Europe, and lowest in the south and in the Nordic countries, with the exception of Norway.

Figure 10.3. Variation in cumulative risk of cancer incidence by country within Europe: invasive cancer of cervix



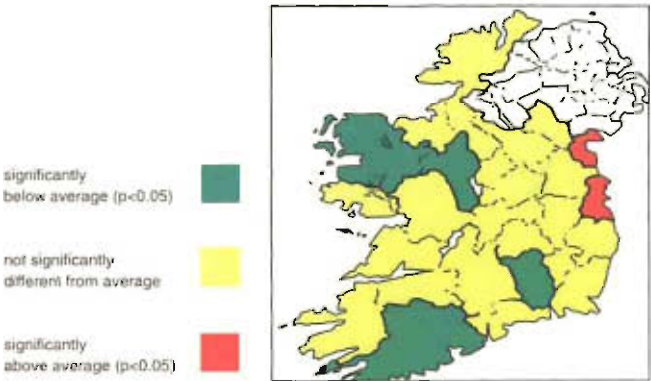
10.5.2. NATIONAL

Table 10.2. Standardised incidence ratios (SIR) and their confidence limits for all cervical cancer, by county

county	SIR	lower limit	upper limit
Carlow	111	59	190
Cavan	86	44	151
Clare	61	35	100
Cork	79	64	97
Donegal	81	54	117
Dublin	124	112	136
Galway	87	64	117
Kerry	93	64	132
Kildare	98	69	135
Kilkenny	47	22	87
Laois	48	19	100
Leitrim	137	62	262
Limerick	88	63	119
Longford	74	27	161
Louth	185	137	244
Mayo	40	21	71
Meath	117	83	162
Monaghan	78	39	140
Offaly	86	47	145
Roscommon	37	12	86
Sligo	82	43	140
Tipperary	80	54	115
Waterford	96	63	141
Westmeath	89	51	145
Wexford	102	69	146
Wicklow	139	100	188

The incidence of all cervical cancer (including in situ lesions) in Dublin and Louth was higher than expected and that in Cork, Kilkenny, Mayo and Roscommon slightly lower (Table 10.2; Figure 10.4). However, when in situ lesions were excluded, there was no evidence of inter-county variation in the incidence of cervical cancer.

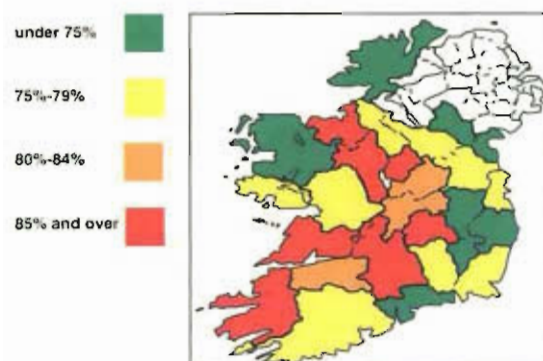
Figure 10.4. Standardised incidence ratios by county: all cervical cancer



Inter-county differences in the incidence of in situ cervical cancer are likely to be due to variation in the rate of cervical screening rather than in the underlying incidence of cancer of the cervix. In fact, counties differed considerably in

the proportion of cervical cancers picked up at the in situ stage, suggesting a varying degrees of efficacy of cervical screening in these areas (Table 10.3; Figure 10.5).

Figure 10.5. In situ lesions as percentage of all cervical cancer, by county



The figures in Table 10.3 and Figure 10.5 are corrected for age, as the proportion of in situ lesions would be expected to be higher in areas with a young population. As can be seen, the high incidence of cervical cancer in Co. Louth shown in Figure 10.4 and Table 10.2 was due to the high proportion of in situ cancers registered. There was no obvious association between health board area and the proportion of in situ cancers.

Table 10.3 In situ lesions as percentage of all cervical cancer, by county

	in situ/all
Louth	94%
Mayo	93
Waterford	90%
Kildare	88%
Monaghan	88%
Kilkenny	87%
Carlow	86%
Donegal	86%
Wicklow	85%
Cork	83%
Cavan	83%
Dublin	82%
Galway	81%
Leitrim	81%
Wexford	81%
Meath	80%
Westmeath	78%
Offaly	77%
Limerick	76%
Kerry	74%
Sligo	72%
Tipperary	65%
Clare	59%
Laois	58%
Longford	42%
Roscommon	42%

10.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 10.4. Method of presentation of cervical cancers

	cases	% of all cases
symptoms/signs	367	34.5%
screening	613	57.8%
incidental	17	1.6%
not known	64	6.1%
all cancers	1061	

Over half of the cases (613; 58%) presented through screening (Table 10.4).

Eighty-one per cent of all cases were diagnosed by histology, but in 19% of cases, the only recorded basis for the diagnosis was cytological (Table 10.5).

Table 10.5. Most valid basis of diagnosis of cervical cancer

	cases	% of all cases
histology of primary site	848	79.9%
cytology	201	18.9%
not known	6	0.6%
histology of other site	4	0.4%
clinical	1	0.1%
post mortem	1	0.1%
all cases	1061	

As mentioned above, for 93 of the 201 cytologically diagnosed cases, surgical or other definitive treatment was recorded, but no histology specimen could be identified. It is quite possible that the surgical biopsy specimen in these cases showed no malignant or in situ disease, and would therefore not have been reported to the Registry. We are attempting to trace these through the hospitals in which the treatment was given. For the remaining 108, we could find no further record of either histology or treatment. Almost all of these were smears processed, in a small number of cytology laboratories, for GPs or community clinics around the country, and we are following these up with the doctor who took the smear. Again, the likelihood is that many of these patients had biopsies and/or repeat smears which were negative, and which would not then have been reported to the Registry. The information given on request forms for cervical cytology is limited, and may not always be correct, so it is also possible that we have missed a follow-up record on a small number of these patients. As colposcopy and treatment is usually given in a hospital other than that in which the smear is read, there is considerable difficulty in tracing patients with positive smears but negative biopsies, and this emphasises the need for a national system for the co-ordination of cervical screening.

Table 10.6. Morphology of cervical cancer

	ICD code	behaviour		
		in situ	malignant	all cases
CIN III	M-8077/2	864	0	864
squamous cell carcinoma, NOS	M-8070/3	0	100	100
squamous cell carcinoma large cell, keratinizing	M-8071/3	0	17	17
adenocarcinoma, NOS	M-8140/3	0	13	13
carcinoma in situ, NOS	M-8010/2	13	0	13
nonkeratinizing squamous cell carcinoma	M-8072/3	0	10	10
all other types		14	30	44
all types		891	170	1061

Most of the cancers were described as CINIII (Table 10.6). The next largest category was squamous cell carcinoma (143 cases, of which 9 were in situ).

10.7. STAGE

Most of the cancers were at stage 0 (Tis) (Table 10.7).

Of the others, just over 65% had sufficient information for a stage to be assigned, and the majority of these were at stages I and III

One hundred and thirty-one (77%) patients with invasive disease had surgery, 63 as the only treatment and 63 in combination with radiotherapy (Table 10.9). The use of chemotherapy was infrequent.

Table 10.7. Stage distribution of cervical cancer

stage	cases	% of all cases	% of staged cases
0	891	84.0%	93.8%
I	2	0.2%	0.2%
IA	13	1.2%	1.4%
IB	4	0.4%	0.4%
II	1	0.1%	0.1%
II	7	0.7%	0.7%
III	1	0.1%	0.1%
III	1	0.1%	0.1%
III	23	2.2%	2.4%
IV	7	0.7%	0.7%
not staged	111	10.5%	
all cases	1061		

Table 10.9. Treatment of invasive cancer of cervix

	cases	% of all cases
all treatment	156	91.8%
all surgery	131	77.1%
all chemotherapy	6	3.5%
all radiotherapy	91	53.5%
all other	4	2.4%
surgery	63	37.1%
surgery, radiotherapy	63	37.1%
radiotherapy	21	12.4%
surgery, chemotherapy, radiotherapy	4	2.4%
other	2	1.2%
chemotherapy, radiotherapy	1	0.6%
radiotherapy, other	1	0.6%
surgery, chemotherapy, radiotherapy, other	1	0.6%

10.8. TREATMENT

Eighty-two per cent of patients with CINIII/carcinoma in situ were recorded as having treatment (Table 10.8). Most of these (715) had surgery, while 4 had radiotherapy in addition to surgery, and 29 had other treatments.

Table 10.8. Treatment of in situ cancer of cervix

	cases	% of all cases
all treatment	732	82.2%
all surgery	715	80.2%
all radiotherapy	4	0.4%
all other	29	3.3%
surgery	699	78.5%
other	17	1.9%
surgery, other	12	1.3%
surgery, radiotherapy	4	0.4%

Prostate cancer

11

11.1. INTRODUCTION AND SUMMARY

Table 11.1. Incidence and death rates: summary statistics for prostate cancer

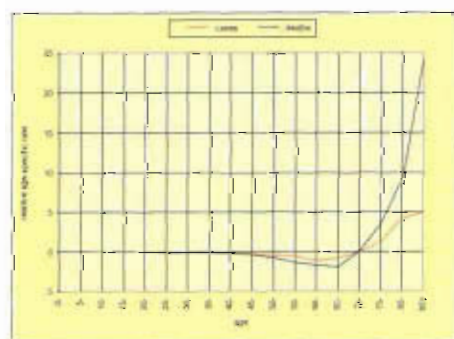
	incident cases	deaths
number	1000	474
% of all cancers	10.6%	11.9%
cumulative risk (0-74)	4.3%	1.5%
crude rate (per 100,000 males)	56.4	26.7
age-standardised rate (per 100,000 males)	41.2	19.4
mortality/incidence ratio	0.47	

Cancer of the prostate was the second commonest non-cutaneous cancer among men (Table 11.1). It represented 11% of all cancers, and 16% of the non-skin cancers, in men. The risk of developing prostate cancer before age 75 was 4.3%, and the risk of death 1.5%. Mortality was slightly less than 50% of incidence.

11.2. AGE AND SEX PROFILE

The median age of incidence was 74 years and of death, 78 years. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of prostate cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of prostate cancer was found at that age than would have been expected. Relative incidence and mortality rates were low for patients aged under 70 years, but rose above average for older patients (Figure 11.1). Deaths were uncommon in patients aged under 70 years, but were as frequent as cases in the oldest age-group.

Figure 11.1. Relative age- and sex-specific incidence and mortality rates for prostate cancer

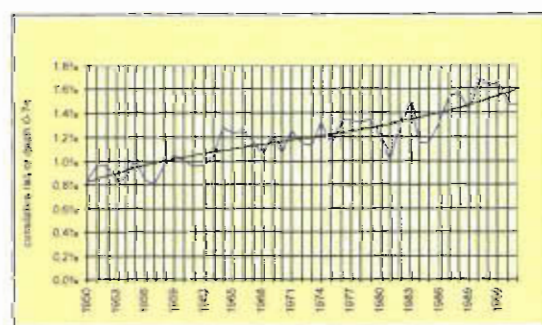


11.3. TIME TRENDS IN MORTALITY

Mortality from prostate cancer has doubled since 1950, from a lifetime risk of 0.8% to 1.6%. The underlying trend from 1950 to date has been steadily upward. However, these figures are susceptible to bias from the increasing use of more sensitive diagnostic techniques for prostatic cancer. The

improving survival of the male population also means that more men now live to an age at which prostatic cancer is more commonly detected.

Figure 11.2 Time trends in mortality from prostate cancer



11.4. SUBSITES AND SIDE

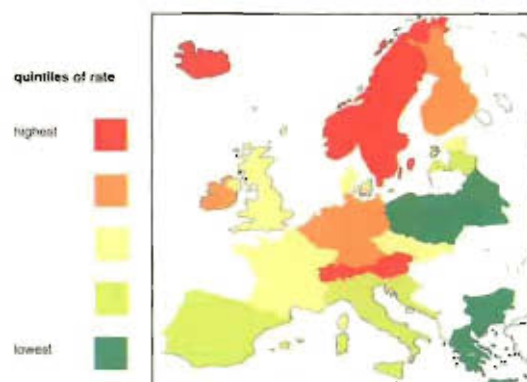
No subsites were recorded for prostate cancer.

11.5. GEOGRAPHICAL DISTRIBUTION

11.5.1. INTERNATIONAL

Incidence in Ireland was ranked 8th of the 26 countries for which data were available (Figure 11.3). Prostate cancer incidence was highest in north-western Europe, and lower in the south and east.

Figure 11.3. Variation in cumulative risk of cancer incidence by country within Europe: prostate cancer



11.5.2. NATIONAL

The incidence was higher than expected in Cork and Carlow, and below average in Donegal and Kerry (Table 11.2; Figure 11.4).

Figure 11.4. Standardised incidence ratios by county: prostate cancer

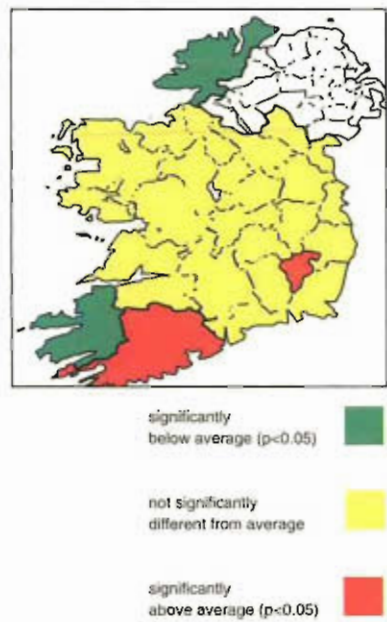


Table 11.2. Standardised incidence ratios (SIR) and their confidence limits for prostate cancer, by county

county	SIR	lower limit	upper limit
Carlow	173	104	271
Cavan	113	72	168
Clare	74	47	111
Cork	132	112	155
Donegal	71	49	99
Dublin	114	100	129
Galway	87	66	114
Kerry	69	48	97
Kildare	112	72	166
Kilkenny	107	68	159
Laois	90	50	149
Leitrim	60	26	120
Limerick	77	53	108
Longford	74	32	146
Louth	91	55	140
Mayo	79	56	108
Meath	74	44	115
Monaghan	115	70	178
Offaly	72	38	124
Roscommon	104	67	154
Sligo	86	51	137
Tipperary	99	72	134
Waterford	90	57	136
Westmeath	93	54	150
Wexford	109	75	153
Wicklow	130	88	185

11.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 11.3. Method of presentation of prostate cancer

	cases	% of all cases
symptoms/signs	926	92.6%
incidental	35	3.5%
screening	3	0.3%
other	2	0.2%
not known	34	3.4%
all cases	1000	

Although most of the cancers were picked up symptomatically, 3.5% were incidental findings, probably during TURP for benign disease (Table 11.3). Only 0.3% of cancers were detected through screening.

Table 11.4. Most valid basis of diagnosis of prostate cancer

	cases	% of all cases
histology of primary site	853	85.3%
clinical	66	6.6%
radiology	26	2.6%
other	24	2.4%
histology of other site	18	1.8%
not known	10	1.0%
PM	2	0.2%
cytology	1	0.1%
all cases	1000	0.1%

Eighty-seven per cent of cases were histologically diagnosed (Table 11.4). 84% of the cancers were described as adenocarcinoma, and almost all of the rest were not histologically classified (Table 11.5).

Table 11.5. Morphology of prostate cancer behaviour

	ICD code	in situ	malignant	all cases
adenocarcinoma, NOS	M-8140/3	0	844	844
neoplasm, NOS	M-8000/3	0	88	88
carcinoma, NOS	M-8010/3	0	46	46
urothelial carcinoma	M-8120/3	0	3	3
transitional cell carcinoma papillary	M-8130/3	0	3	3
others		2	14	16
all types		2	998	1000

11.7. STAGE

Table 11.6. Stage distribution of prostate cancer

stage	cases	% of all cases	% of staged cases
0	2	0.02%	0.05%
I	59	6%	16%
II	49	5%	13%
III	17	2%	5%
IV	238	24%	65%
not staged	635	64%	
all cases	1000		

Fewer than 40% of the cancers could be staged (Table 11.7). Most of the unstaged cancers were recorded as TX, NX, MX, and probably had been removed by TURP. Of the staged cancers, three-quarters were stage 4.

Eighty per cent of the cancers were graded, either by the conventional system or by Gleason grade or scores (Table 11.7). Where Gleason grades or scores were recorded, these have been converted to their equivalents in the conventional four grade system for registration purposes. Almost all of the cancers were in grades 1 to 3, and fairly evenly distributed between the grades.

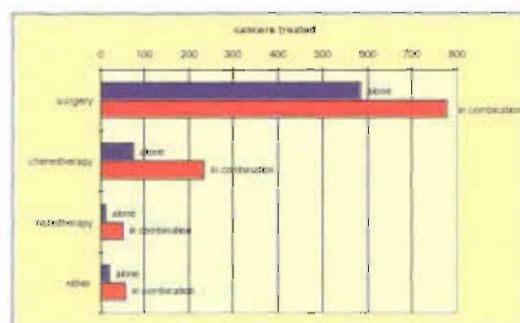
Table 11.7. Histological grade of prostate cancer

grade	cases	% of all cases
1	212	21%
2	306	31%
3	256	26%
4	22	2%
none recorded	204	20%
	1000	

11.8. TREATMENT

Eighty per cent of cases had specific treatment (Table 11.8; Figure 11.5).

Figure 11.5. Treatment of prostate cancer



The majority (777; 78%) had surgery, 585 (59%) as the sole treatment modality and 132 (13%) in combination with chemotherapy (hormonal treatment is here included as "chemotherapy"). Radiotherapy was given in only 5% of cases.

Table 11.8. Treatment of prostate cancer

	cases	% of all cases
all treatments	895	89.5%
all surgery	777	77.7%
all chemotherapy	235	23.5%
all radiotherapy	50	5.0%
all other	56	5.6%
surgery	585	58.5%
surgery, chemotherapy	132	13.2%
chemotherapy	75	7.5%
surgery, other	24	2.4%
surgery, radiotherapy	20	2.0%
other	19	1.9%
surgery, chemotherapy, radiotherapy	13	1.3%
radiotherapy	10	1.0%
chemotherapy, other	7	0.7%
chemotherapy, radiotherapy	4	0.4%
surgery, chemotherapy, other	3	0.3%
radiotherapy, other	2	0.2%
chemotherapy, radiotherapy, other	1	0.1%

Bladder cancer

12

12.1. INTRODUCTION AND SUMMARY

Table 12.1. Incidence and death rates: summary statistics for bladder cancer

	incident cases			deaths		
	males	females	all	males	females	all
number	345	164	509	112	73	185
% of all cancers	3.7%	1.7%	2.6%	2.8%	2.1%	2.5%
cumulative risk (0-74)	1.6%	0.7%	1.1%	0.5%	0.2%	0.3%
crude rate (per 100,000)	19.5	9.2	14.3	6.3	4.1	5.2
age-standardised rate (per 100,000)	15.0	6.0	10.0	4.7	2.0	3.3
mortality/incidence ratio	0.32	0.44	0.36			

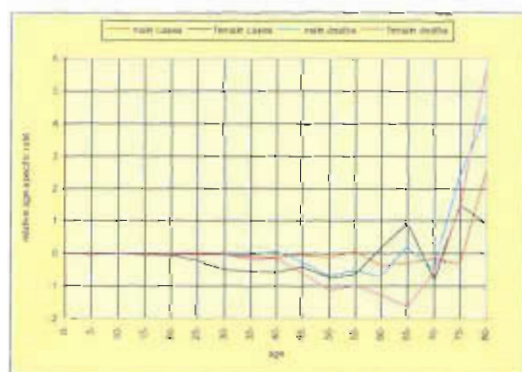
There were 509 cases of bladder cancer and 185 deaths, a mortality/incidence ratio of 0.36 (Table 12.1). 2.6% of all cases and 2.5% of deaths were due to bladder cancer.

The disease was twice as common in men as in women, with a male cumulative risk of 1.6% compared to the female risk of 0.7%. There was less of a difference in mortality rate, and the incidence/mortality ratio for women (0.44) was higher than for men (0.32).

12.2. AGE AND SEX PROFILE

The median age of incidence was 72 for both men and women.

Figure 12.1. Relative age specific incidence and mortality rates for bladder cancer



The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of bladder cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of bladder cancer was found at that age than would have been expected. Relative incidence and mortality for females was below average in all except the oldest patients. Relative mortality in men was also low for the under 80s, but the case incidence was close to the average value. Incidence and mortality were considerably above average for both males and females in the oldest age-group (Figure 12.1).

12.3. TIME TRENDS

Figure 12.2. Time trends in mortality from bladder cancer



Time trends for bladder cancer were similar to those for lung cancer, probably reflecting their common risk factor of cigarette smoking (Figure 12.2). The risk for men trebled from 0.3% in 1950 to almost 1% in 1993. That for women has doubled in the same period, from 0.2% to 0.4%, but the risk for both sexes may have begun to decrease in recent years.

12.4. SUBSITES AND SIDE

Half of the cancers could be assigned to a specific subsite within the bladder, mainly to the lateral wall (20%) (Table 12.2; Figure 12.3).

Figure 12.3. Subsites of bladder cancer

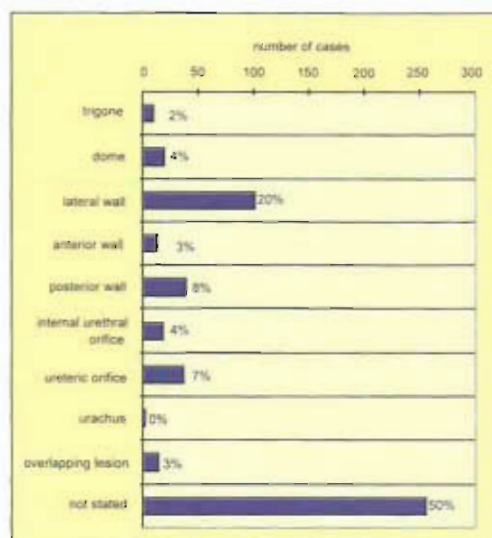


Table 12.2. Subsites of bladder cancer

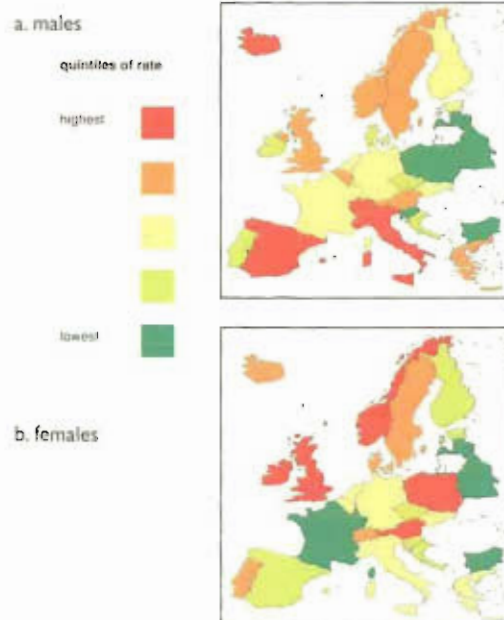
	cases	% of all cases
trigone	10	2%
dome	19	4%
lateral wall	101	20%
anterior wall	13	3%
posterior wall	39	8%
internal urethral orifice	18	4%
ureteric orifice	37	7%
urachus	2	0%
overlapping lesion	14	3%
not stated	256	50%
all cases	509	

12.5. GEOGRAPHICAL VARIATION

12.5.1. INTERNATIONAL

Unlike the temporal pattern of incidence, the spatial distribution of bladder cancer in men was quite different to that of lung cancer (Table 12.3; Figure 12.4). The highest incidence was in southern Europe, Austria, Iceland and Switzerland. Ireland was ranked 22nd of the countries described here. The pattern of incidence for women, on the other hand, was very like that of lung cancer, with high incidence in northern Europe. Ireland had the third highest incidence rate of female bladder cancer of the countries described here.

Figure 12.4. Variation in cumulative risk of cancer incidence by country within Europe: bladder cancer



12.5.2. NATIONAL

Table 12.3. Standardised incidence ratios (SIR) and their confidence limits for bladder cancer, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	78	15	232	0	0	174
Cavan	99	39	205	184	58	433
Clare	57	21	125	47	4	171
Cork	110	80	148	82	47	133
Donegal	88	48	148	107	43	223
Dublin	146	121	176	109	81	144
Galway	87	51	137	106	48	201
Kerry	82	43	140	152	72	280
Kildare	74	27	162	105	27	271
Kilkenny	52	14	135	30	0	169
Laois	53	10	157	171	45	442
Leitrim	70	13	206	63	0	361
Limerick	113	66	181	83	30	182
Longford	0	0	82	195	37	579
Louth	180	98	303	126	40	296
Mayo	62	30	115	76	24	180
Meath	78	31	161	99	26	255
Monaghan	85	27	200	0	0	122
Offaly	33	3	120	119	22	353
Roscommon	76	27	167	33	0	189
Sligo	72	23	169	133	35	344
Tipperary	88	47	151	122	52	241
Waterford	68	24	149	48	4	175
Westmeath	32	3	117	182	57	428
Wexford	86	39	164	63	12	187
Wicklow	144	74	252	141	51	310

Only Dublin had a higher than expected incidence of bladder cancer, and that in men only (Table 12.3). The rate for men in Longford was lower than expected, but with few expected and no observed cases. None of the county-specific rates for women differed significantly from that expected.

12.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 12.4. Method of presentation of bladder cancer

	cases	% of all cases
symptoms/signs	490	96.3%
incidental	7	1.4%
other	1	0.5%
not known	11	2.2%
all cases	509	

Ninety-six per cent of cases were diagnosed by routine presentation. Only 1.4% were unexpected at the time of diagnosis (Table 12.4).

Table 12.5. Most valid basis of diagnosis of bladder cancer

	cases	% of all cases
histology of primary site	469	92.1%
clinical	20	3.9%
cytology	7	1.4%
radiology	6	1.2%
histology of other site	3	0.6%
post mortem	2	0.4%
not known	2	0.4%
all cases	509	

The level of histological diagnosis was high (93%), and a further 4% were diagnosed by cytology (Table 12.5)

Almost all cancers (438) were of the transitional cell type (Table 12.6). There were 12 in situ carcinomas.

Table 12.6. Morphology of bladder cancer

behaviour				
	ICD code	in situ	malignant	all cases
transitional cell carcinoma	M-8120/3	0	227	227
transitional cell carcinoma papillary	M-8130/3	0	203	203
neoplasm malignant	M-8000/3	0	16	16
papillary carcinoma, NOS	M-8050/3	0	12	12
carcinoma, NOS	M-8010/3	0	11	11
squamous cell carcinoma, NOS	M-8070/3	0	9	9
transitional cell carcinoma in situ	M-8120/2	5	0	5
adenocarcinoma, NOS	M-8140/3	0	4	4
carcinoma in situ, NOS	M-8010/2	4	0	4
other		3	15	18
all cases		12	497	509

12.7. STAGE

Only 34% of the cancers could be staged, and were fairly evenly distributed between stage-groups (Table 12.7; Figure 12.5).

Figure 12.5. Stage distribution of bladder cancer

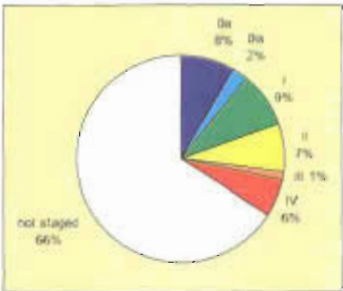


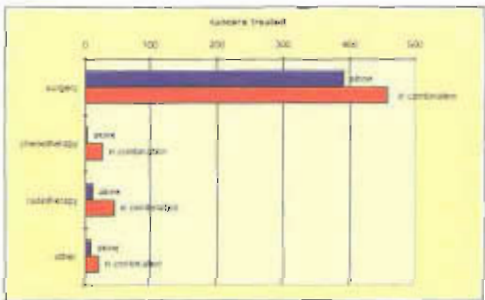
Table 12.7. Stage distribution of bladder cancer

stage	cases	% of all cases	% of staged cases
0a	43	8%	25%
0is	12	2%	7%
I	46	9%	26%
II	37	7%	21%
III	6	1%	3%
IV	30	6%	17%
not staged	335	66%	
all cases	509		

12.8. TREATMENT

Ninety-four per cent of patients had specific treatment (Table 12.8; Figure 12.5).

Figure 12.6. Treatment of bladder cancer



In almost all cases (458; 90%), the cancers were treated surgically. 392 patients had surgery alone, and the remainder a variety of treatment combinations.

Table 12.8. Treatment of bladder cancer

	cases	% of all cases
all treatments	480	94.3%
all surgery	458	90.0%
all chemotherapy	26	5.1%
all radiotherapy	45	8.8%
all other	20	3.9%
surgery	392	77.0%
surgery, radiotherapy	32	6.3%
surgery, chemotherapy	22	4.3%
radiotherapy	11	2.2%
surgery, other	10	2.0%
other	8	1.6%
chemotherapy	2	0.4%
chemotherapy, other	1	0.2%
surgery, chemotherapy, radiotherapy	1	0.2%
surgery, radiotherapy, other	1	0.2%

Melanoma of skin

13.1. INTRODUCTION AND SUMMARY

Table 13.1. Incidence and death rates: summary statistics for melanoma of skin

	incident cases			deaths		
	males	females	all	males	females	all
number	165	315	480	20	20	40
% of all cancers	1.8%	3.2%	2.5%	0.5%	0.6%	0.5%
cumulative risk (0-74)	0.8%	1.4%	1.1%	0.08%	0.1%	0.1%
crude rate (per 100,000)	9.3	17.6	13.5	1.1	1.1	1.1
age-standardised rate (per 100,000)	7.9	13.7	10.8	0.9	0.9	0.8
mortality/incidence ratio	0.12	0.06	0.08			

Melanomas, while much less common than other skin cancers, comprised 2.5% of all cancers registered (Table 13.1). 480 melanomas of the skin were registered in 1994, two-thirds of these in women. The cumulative risk of incidence was 0.8% for men and 1.4% for women. 40 deaths were registered in the same period, a mortality/incidence ratio of 0.08. The deaths were evenly divided between men and women, and so the mortality/incidence ratio for men was twice that for women.

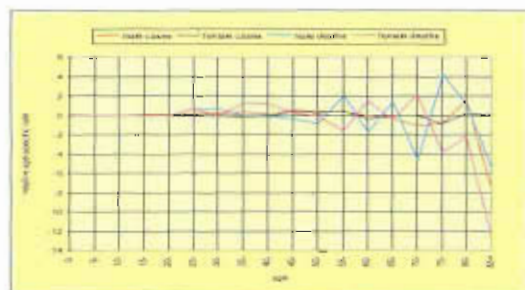
Table 13.2. Sites of skin and non-skin melanomas

	cases	% of all cases
skin	480	90.9%
eye	30	5.7%
unknown primary site	9	1.7%
vulva	3	0.6%
lip	1	0.2%
gum	1	0.2%
other mouth	1	0.2%
oesophagus	1	0.2%
meninges	1	0.2%
ill-defined	1	0.2%
all non-skin sites	48	9.1%
all melanomas	528	

Apart from skin, primary melanomas were found in a number of other sites (Table 13.2). Non-skin melanomas are not included in the figures given below and the term "melanoma", when used without qualification, refers to melanoma of skin only.

13.2. AGE AND SEX PROFILE

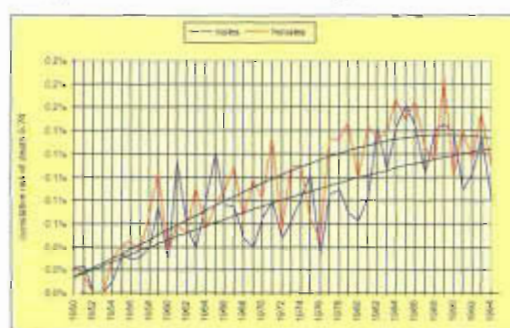
Figure 13.1. Relative age- and sex-specific incidence and mortality rates for melanoma.



The median age of incidence for men was 70 years and for women 64 years. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of melanoma had been exactly the same as for all other cancers. A positive value means that a higher proportion of melanoma was found at that age than would have been expected. There were fewer cases and deaths than average up to age 50. In patients older than this, the incidence rate was greater than average, but the death rate was too low to allow for any trend to be deduced (Figure 13.1).

13.3. TIME TRENDS

Figure 13.2 Time trends in mortality from melanoma



Mortality for both sexes was low and has been quite variable from year to year. Overall, however, it has risen from 0.02% in 1950 to about 0.14% at present, for both sexes. Deaths due to non-melanoma skin cancer have fallen by an amount similar to the increase in melanoma since 1950, and the overall cumulative risk of death before age 75 from all types of skin cancer has remained at about 0.2% since the 1950s. Changes in death certification practices may account for some of the apparent seven-fold increase in mortality from melanoma.

13.4. SUBSITES AND SIDE

Table 13.3. Sites of skin melanoma, by side

side	right		left		not stated	total
	cases	% of all cases	cases	% of all cases		
eyelid	2	33%	3	50%	1	6
external ear	5	31%	10	63%	1	16
upper limb	35	51%	31	45%	3	69
lower limb	70	51%	61	45%	6	137
not stated	1	10%	1	10%	8	10
all cases at paired sites	113		106		19	238

Almost all cases were assigned to a side of the body, where applicable, and were evenly distributed between sides (Table 13.3; Figure 13.3).

Figure 13.3. Subsites of skin melanoma

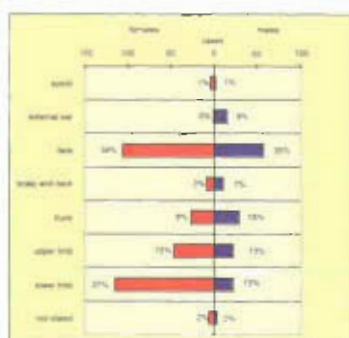


Table 13.4. Side and sites of skin melanomas, by sex

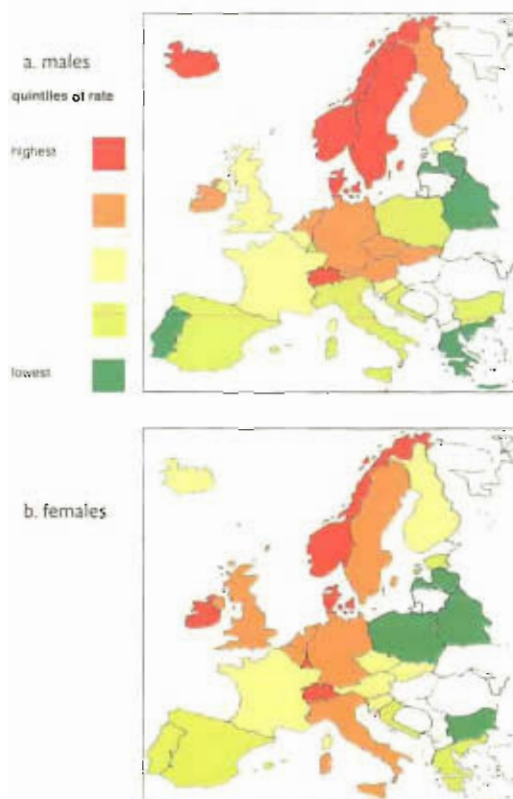
subsite	female		male		both sexes	
	cases	% of all cases	cases	% of all cases	cases	% of all cases
eyelid	4	1%	2	1%	6	1%
external ear	1	0%	15	9%	16	3%
face	106	34%	58	35%	164	34%
scalp and neck	9	3%	11	7%	20	4%
trunk	26	8%	29	18%	55	11%
upper limb	47	15%	22	13%	69	14%
lower limb	115	37%	22	13%	137	29%
not stated	7	2%	6	4%	13	3%
all cases	315		165		480	

The face was the most common site in both sexes, accounting for 1/3 of all cases in both males and females (Table 13.4). In contrast to non-melanoma cancers, melanomas at almost all sites were more frequent in females than in males; external ear was the only site for which there were substantially more male cases than female. In the lower limb, there were 5 cases in women for every one in men.

13.5. GEOGRAPHICAL VARIATION

13.5.1. INTERNATIONAL

Figure 13.5. Variation in cumulative risk of cancer incidence by country within Europe: melanoma of skin.



The incidence was highest for both sexes in northern Europe, particularly in the Scandinavian countries (Figure 13.5). Ireland had the fifth highest incidence of melanoma in women of the countries for which information is given here, and the tenth highest for men. The female/male ratio in Ireland was higher (1.85) than in any of the other high-incidence countries.

13.5.2. NATIONAL

Table 13.5. Standardised incidence ratios (SIR) and their confidence limits for melanoma, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	0	0	162	178	64	389
Cavan	94	18	277	103	32	241
Clare	82	21	213	74	27	162
Cork	114	72	174	113	81	153
Donegal	42	8	125	119	65	201
Dublin	115	84	154	113	92	137
Galway	116	58	209	119	71	186
Kerry	97	39	202	101	52	177
Kildare	116	36	272	104	47	198
Kilkenny	28	0	158	47	9	138
Laois	37	0	215	158	63	328
Leitrim	54	0	307	0	0	113
Limerick	151	75	271	78	39	140
Longford	60	0	344	36	0	204
Louth	78	15	230	76	27	167
Mayo	142	68	263	80	36	152
Meath	44	4	164	48	12	124
Monaghan	186	59	437	66	12	195
Offaly	35	0	199	82	21	211
Roscommon	116	30	299	95	30	225
Sligo	32	0	182	0	0	56
Tipperary	130	59	248	123	69	204
Waterford	71	13	209	86	34	179
Westmeath	168	53	395	150	64	297
Wexford	41	4	151	100	45	190
Wicklow	97	25	252	72	26	158

No county other than Sligo had a significantly raised or lowered risk of melanoma for either males or females. The rate for females in Sligo was less than expected, but this was based on very small numbers of observed and expected cases.

13.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 13.6. Method of presentation of melanoma

	cases	% of all cases
symptoms/signs	443	93.3%
incidental	4	0.8%
not known	27	5.6%
other	1	0.2%
all cases	480	

Very few melanomas were incidentally diagnosed (Table 13.6). The level of histological verification of melanoma was, as expected, high, at 97% of all cases (Table 13.7).

Table 13.7. Most valid basis of diagnosis of melanoma

	cases	% of all cases
histology of primary site	465	96.9%
other	7	1.5%
clinical	5	1.0%
histology of other site	3	0.6%
all cases	480	

Table 13.8 Morphology of melanoma behaviour

	behaviour			
	ICD code	in situ	malignant	all
melanoma, NOS	M-8720/3	0	185	185
lentigo maligna	M-8742/2	103	0	103
nodular melanoma	M-8721/3	0	62	62
superficial spreading melanoma	M-8743/3	0	44	44
malignant melanoma in				
lentigo maligna	M-8742/3	0	36	36
melanoma in situ	M-8720/2	28	0	28
acral lentiginous melanoma	M-8744/3	0	6	6
spindle cell melanoma	M-8772/3	0	5	5
amelanotic melanoma	M-8730/3	0	2	2
other types		1	8	9
all types		132	348	480

The commonest histological description was of melanoma, NOS (not otherwise specified), in 189 cases (39%) (Table 13.8). The next commonest type was in situ cancer, 132 (28%), mostly described as lentigo maligna. In situ melanoma was almost as common in men (26% of all melanomas) as in women (28%).

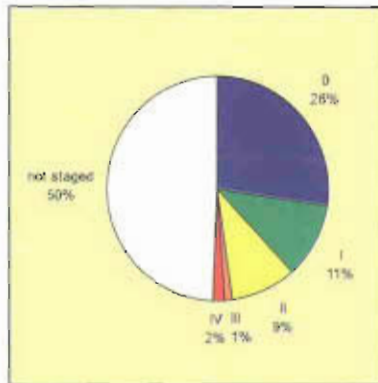
13.7. STAGE

50% of the melanomas could be staged. The lesions were widely distributed in stage, but the largest number (28%) was at stage 0 (in situ) (Table 13.9; Figure 13.6). The female/male difference in incidence and the much higher case mortality in men does not seem to be due to the diagnosis of disproportionately large numbers of earlier lesions in women.

Table 13.9. Stage distribution of melanoma, by sex

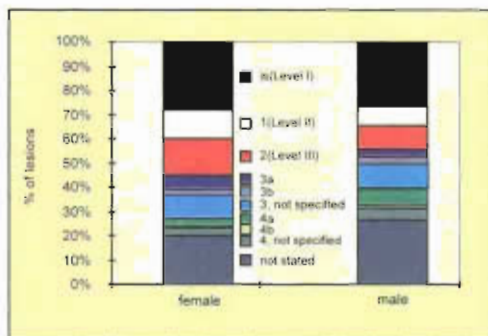
stage	both sexes			males			females		
	cases	% of all cases	% of staged cases	cases	% of all cases	% of staged cases	cases	% of all cases	% of staged
0	132	28%	55%	43	27%	52%	89	28%	56%
I	52	11%	21%	17	10%	20%	35	11%	22%
II	45	9%	19%	17	10%	20%	28	9%	18%
III	5	1%	2%	3	2%	4%	2	1%	1%
IV	8	2%	3%	3	2%	4%	5	2%	3%
not staged	238	50%		79	49%		159	50%	
all stages	480			162			318		

FIGURE 13.6. STAGE DISTRIBUTION OF MELANOMA



A thickness and/or level of invasion was given for almost 80% of all melanomas (Table 13.10; Figure 13.7).

Figure 13.7. Clark's level of melanoma



The largest number of melanomas was in situ, and the next largest number at Clark's level III. There were no major differences in stage distribution between men and women, although the percentage of late (Stage 4) melanomas in men (13%) was almost twice that in women (7%).

Table 13.10. Clark's level of melanoma, by sex

pT	both sexes		males		females	
	cases	% of all cases	cases	% of all cases	cases	% of all cases
is (Level I)	132	28%	43	26%	89	28%
I (Level II)	52	11%	14	8%	38	12%
2 (Level III)	64	13%	17	10%	47	15%
3 (Level IV), all	82	18%	26	16%	56	18%
3a	23	5%	5	3%	18	6%
3b	12	3%	5	3%	7	2%
3, not specified	47	10%	16	10%	31	10%
4 (Level V), all	44	10%	22	13%	22	7%
4a	23	5%	12	7%	11	3%
4b	4	1%	2	1%	2	1%
4, not specified	17	4%	8	5%	9	3%
not staged	106	22%	43	26%	63	20%
all stages	480		165		315	

13.8. TREATMENT

Ninety-three per cent of patients had some form of specific treatment (Table 13.11). Almost all had surgery. 2% had radiotherapy and 2% chemotherapy, mostly in combination with surgery.

Table 13.11. Treatment of melanoma

	cases	% of all cases
all treatments	446	92.9%
all surgery	440	91.7%
all chemotherapy	10	2.1%
all radiotherapy	10	2.1%
all other	5	1.0%
surgery	425	88.5%
surgery, chemotherapy	5	1.0%
surgery, chemotherapy, radiotherapy	4	0.8%
surgery, other	3	0.6%
surgery, radiotherapy	3	0.6%
radiotherapy	3	0.6%
other	2	0.4%
chemotherapy	1	0.2%

Stomach cancer

14

14.1. INTRODUCTION AND SUMMARY

Table 14.1. Incidence and death rates: summary statistics for stomach cancer

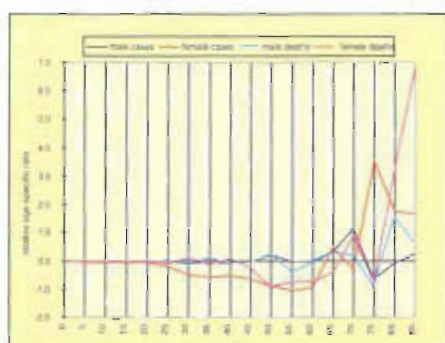
	incident cases			deaths		
	males	females	all	males	females	all
number	304	172	476	239	177	416
% of all cancers	3.2%	1.7%	2.5%	6.0%	5.2%	5.6%
cumulative risk (0-74)	1.6%	0.7%	1.2%	1.2%	0.6%	0.9%
crude rate (per 100,000)	17.2	9.6	13.4	13.5	10.0	11.7
age-standardised rate (per 100,000)	13.8	6.0	9.6	10.6	5.8	8.0
mortality/incidence ratio	0.78	1.02	0.87			

Almost 7/10 of the 476 cases of cancer of the stomach diagnosed were in men (Table 14.1). The cumulative risk of incidence of stomach cancer was twice as high in men (1.6%) as it was in women (0.7%). Mortality was high, with a mortality/incidence ratio of 0.8 in men and 1.0 in women.

14.2. AGE AND SEX PROFILE

The median age of incidence for men was 71 years, and for women, 75 years. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of stomach cancer had been exactly the same as for all other cancers. A positive value means that a higher proportion of stomach cancer was found at that age than would have been expected. The relative age-specific rate was below average for female cases and deaths up to age 65, and above average for older age-groups (Figure 14.1). The age profile for men was close to the average.

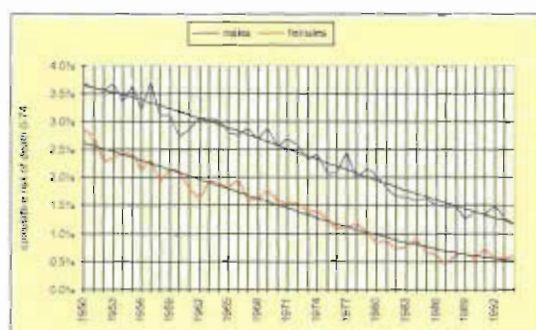
Figure 14.1. Relative age and sex-specific incidence and mortality rates for stomach cancer



14.3. TIME TRENDS IN MORTALITY

There has been a considerable decrease in the mortality due to stomach cancer in both men and women since 1950 (Figure 14.2).

Figure 14.2 Time trends in mortality from stomach cancer



The male risk has fallen from 3.7% to 1.2% and the female risk from 2.8% to 0.6%. This decrease seems to be continuing up to the present. Although the absolute fall has been similar for both sexes, the relative fall in risk has been greater for women.

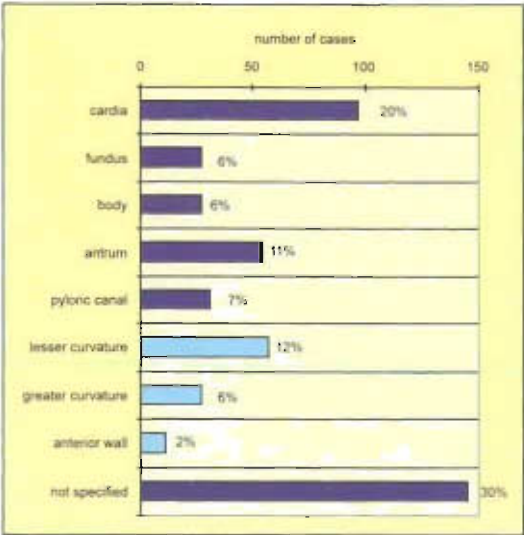
14.4. SUBSITES AND SIDE

Seventy per cent of cases could be localised to a specific site within the stomach.

Two mutually exclusive systems of topography are used in describing sites within the stomach. The use of the non-specific terms "greater curvature", "lesser curvature" and "anterior wall" is not recommended in the ICD-O classification, but at times this was the only information available from the records.

Fifty percent of cases were described by the more specific regional topography, while 20% were described by the less specific terms (Table 14.2; Figure 14.3).

Figure 14.3. Subsites of stomach cancer



Cancer occurred more frequently in the cardia and on the lesser curvature.

Table 14.2. Subsites of stomach cancer

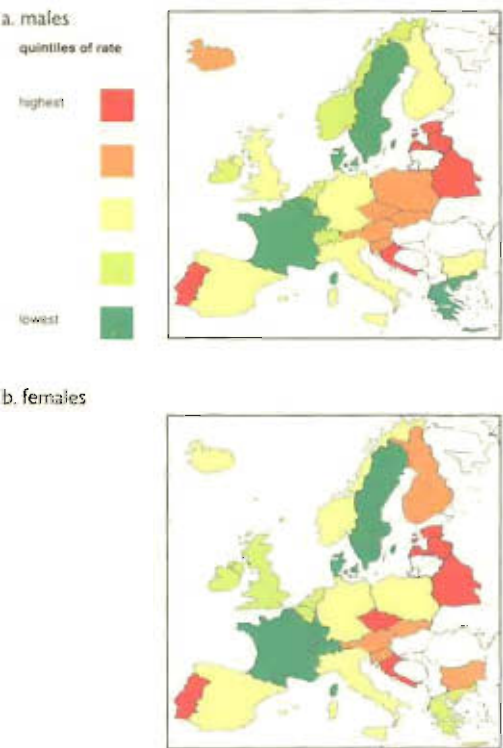
	cases	% of all cases
cardia	97	20%
fundus	27	6%
body	27	6%
antrum	54	11%
pyloric canal	31	7%
lesser curvature	57	12%
greater curvature	27	6%
anterior wall	11	2%
not specified	145	30%
all cases	476	

14.5. GEOGRAPHICAL VARIATION

14.5.1. INTERNATIONAL

The incidence of gastric cancer was highest in the countries of eastern and southern Europe, and the pattern was quite similar for men and women (Figure 14.4). Incidence in Ireland was below average for both sexes, ranking 19th for men and 20th for women.

Figure 14.4. Variation in cumulative risk of cancer incidence by country within Europe: stomach cancer



14.5.2. NATIONAL

The incidence for both males and females was higher than expected in Dublin, and also for males in Donegal and Westmeath (Table 14.3; Figure 14.5). The incidence rate was below average for men in Wexford.

Figure 14.5. Standardised incidence ratios by county: stomach cancer

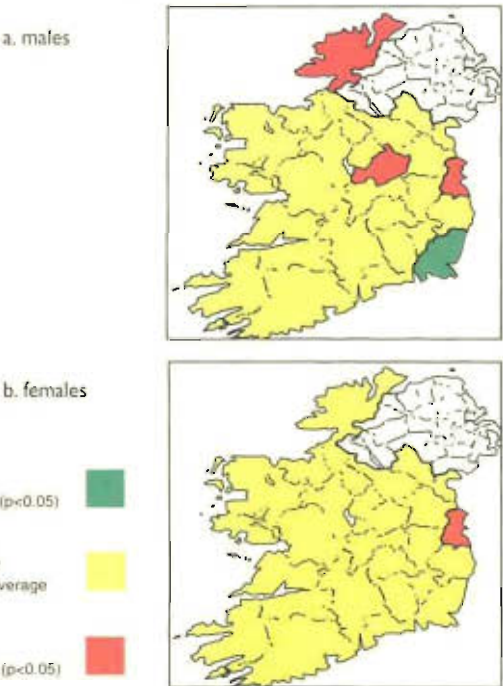


Table 14.3 Standardised incidence ratios (SIR) and their confidence limits for stomach cancer, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	29	0	168	56	0	318
Cavan	81	26	192	240	95	497
Clare	88	37	174	110	35	260
Cork	79	53	115	73	41	121
Donegal	169	107	254	72	23	170
Dublin	134	108	164	139	108	177
Galway	62	31	111	66	24	145
Kerry	73	35	135	57	15	147
Kildare	163	84	286	51	5	188
Kilkenny	147	70	271	56	5	207
Laois	100	32	236	0	0	122
Leitrim	27	0	157	58	0	332
Limerick	60	25	118	145	72	261
Longford	63	6	231	0	0	182
Louth	86	31	188	190	81	377
Mayo	51	20	106	57	15	146
Meath	100	43	197	166	66	344
Monaghan	20	0	112	78	7	285
Offaly	92	29	216	38	0	215
Roscommon	119	51	235	31	0	176
Sligo	117	46	242	93	18	275
Tipperary	92	47	161	115	49	228
Waterford	115	52	219	114	36	267
Westmeath	234	124	402	69	7	255
Wexford	22	2	80	40	4	148
Wicklow	108	46	214	90	23	234

14.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

The diagnosis was unexpected in 2% of cases (Table 14.4). Detection by screening was rare.

Table 14.4. Method of presentation of stomach cancer

	cases	% of all cases
symptoms/signs	453	95.2%
screening	1	0.2%
incidental	11	2.3%
not known	10	2.1%
other	1	0.2%
all cases	476	

The rate of histological verification was 88%, which was close to the average for all sites combined (Table 14.5).

Table 14.5. Most valid basis of diagnosis of stomach cancer

	cases	% of all cases
histology of primary site	408	85.7%
clinical	27	5.7%
radiology	14	2.9%
histology of other site	9	1.9%
PM	9	1.9%
other	4	0.8%
not known	3	0.6%
cytology	2	0.4%
all cases	476	

Most of the cancers diagnosed were adenocarcinomas of various types (Table 14.6). 23 lymphomas, nine squamous carcinomas and six carcinoids were also diagnosed. Stomach was the most frequent site of occurrence of primary extranodal lymphoma (see section 15.4).

Table 14.6. Morphology of stomach cancer

	ICD code	behaviour			
		uncertain	in situ	malignant	total
adenocarcinoma, NOS	M-8140/3	0	0	239	239
signet ring cell carcinoma	M-8490/3	0	0	63	63
carcinoma, NOS	M-8010/3	0	0	36	36
neoplasm malignant	M-8000/3	0	0	25	25
lymphoma (all types)		0	0	23	23
mucous carcinoma	M-8480/3	0	0	18	18
intestinal type adenocarcinoma	M-8144/3	0	0	11	11
squamous cell carcinoma, NOS	M-8070/3	0	0	9	9
mucin-secreting carcinoma	M-8481/3	0	0	8	8
carcinoma in situ, NOS	M-8010/2	0	7	0	7
carcinoid tumour	M-8240/3	0	0	6	6
papillary adenocarcinoma, NOS	M-8260/3	0	0	5	5
other types		1	6	20	27
all types		1	13	462	476

14.7. STAGE

Thirteen in situ carcinomas were registered (Table 14.7; Figure 14.6). Almost half of the cancers staged (47%) had metastasised at the time of diagnosis.

Figure 14.6. Stage distribution of stomach cancer

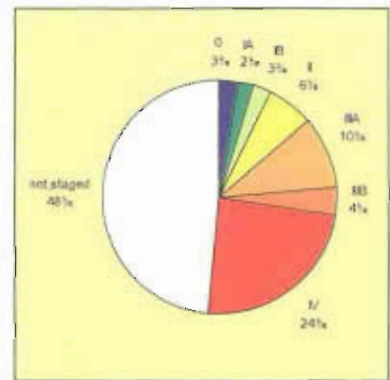


Table 14.7. Stage distribution of stomach cancer

stage	cases	% of all cases	% of staged
0	13	3%	5%
IA	9	2%	4%
IB	13	3%	5%
II	30	6%	12%
IIIA	47	10%	19%
IIIB	19	4%	8%
IV	114	24%	47%
not staged	231	49%	
Total	476		

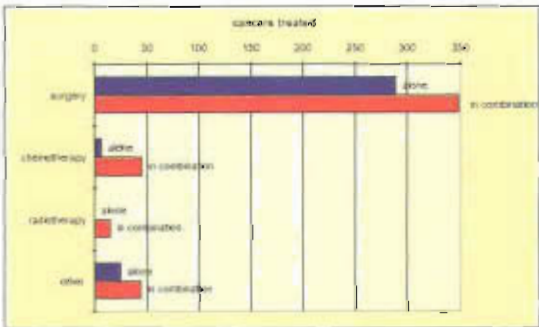
14.8. TREATMENT

Table 14.8. Treatment of stomach cancer

	cases	% of all cases
all treatments	382	80.3%
all surgery	348	73.1%
all chemotherapy	45	9.5%
all radiotherapy	15	3.2%
all other	44	9.2%
surgery	289	60.7%
surgery, chemotherapy	28	5.9%
other	25	5.3%
surgery, other	17	3.6%
surgery, chemotherapy, radiotherapy	7	1.5%
surgery, radiotherapy	6	1.3%
chemotherapy	6	1.3%
chemotherapy, radiotherapy	2	0.4%
chemotherapy, other	1	0.2%
surgery, chemotherapy, other	1	0.2%

80% of patients had definitive treatment (Table 14.8; Figure 14.7).

Figure 14.7. Treatment of stomach cancer



Most of these (73% of all patients) had surgery, mainly as the only form of treatment. 10% were given chemotherapy, almost all in combination with surgery and/or radiotherapy.

15.1. INTRODUCTION AND SUMMARY

Four hundred and fifty-five lymphomas, with 222 deaths, were registered (Table 15.1). Lymphoma comprised 2.4% of all cancers and 3.0% of cancer deaths. The cumulative risk of incidence was 1.1% and of death 0.5%. The incidence rate was slightly higher in men, as was mortality, and the mortality/incidence ratio for both sexes was close to 0.5.

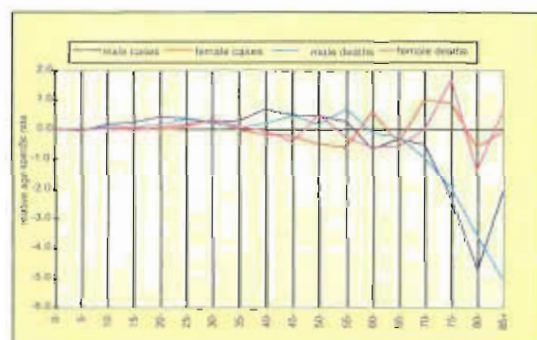
Table 15.1. Incidence and death rates: summary statistics for lymphoma

	incident cases			deaths		
	males	females	all	males	females	all
number	244	211	455	116	106	222
% of all cancers	2.6%	2.1%	2.4%	2.9%	3.1%	3.0%
cumulative risk (0-74)	1.2%	1.0%	1.1%	0.6%	0.4%	0.5%
crude rate (per 100,000)	13.8	11.8	12.8	6.5	6.0	6.2
age-standardised rate (per 100,000)	11.9	9.1	10.4	5.5	3.9	4.6
mortality/incidence ratio	0.48	0.49	0.48			

15.2. AGE AND SEX PROFILE

The median age of incidence was 58 years for men, and 60 years for women. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of lymphoma had been exactly the same as for all other cancers. A positive value means that a higher proportion of lymphoma was found at that age than would have been expected. Male cases and deaths were slightly more frequent than expected in patients under 60 years, and much less frequent in those 70 years and over (Figure 15.1). Female incidence and mortality rates did not deviate much from expectation.

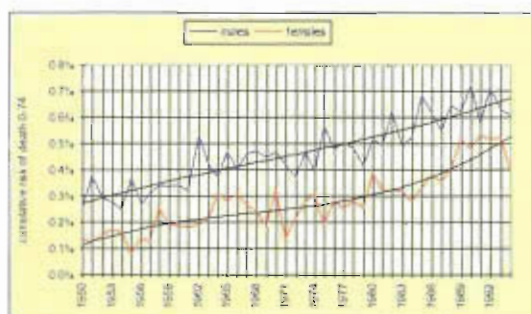
Figure 15.1 Relative age and sex-specific incidence and mortality rates for lymphoma



15.3. TIME TRENDS IN MORTALITY

There has been a steady increase in mortality from lymphoma since the 1950s (Figure 15.2).

Figure 15.2 Time trends in mortality from lymphoma



The death rate for males has increased from 0.25% to 0.6% and that for females from 0.1% to 0.4%. The rate of increase for both sexes seems to be greater for the period since 1980, and the male/female difference in risk is decreasing.

15.4. SUBSITES AND SIDE

83 (18%) of the lymphomas were Hodgkin's type, and all but one of these had a primary site in the lymph nodes (Table 15.2). The non-Hodgkin's types (NHL), although predominantly primary nodal lymphomas (63%), were widely distributed among extranodal sites. Of these, stomach (7%), skin (6%) and small intestine (5%) were the commonest primary sites.

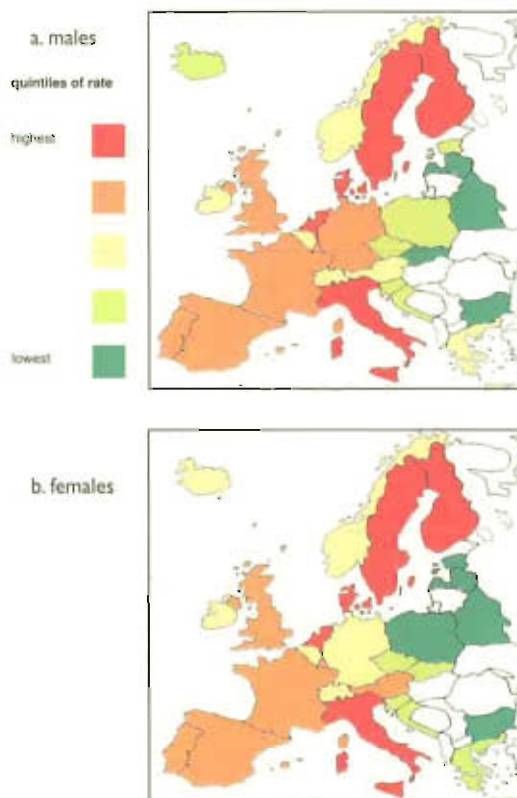
Table 15.2. Primary sites of lymphomas

	Hodgkin's	NHL	total
lymph nodes	82	232	314
stomach	0	23	23
skin	0	23	23
small intestine	0	19	19
brain	0	8	8
thyroid	0	6	6
eye	0	5	5
tonsil	0	4	4
colon	0	4	4
mediastinum	0	4	4
other	1	44	45
all sites	83	372	455

15.5. GEOGRAPHICAL VARIATION

15.5.1. INTERNATIONAL

Figure 15.3. Variation in cumulative risk of cancer incidence by country within Europe: lymphoma



The overall pattern of incidence was similar for males and females (Figure 15.3). The highest rates were in western Europe, with the exception of Spain and the Netherlands, and the lowest rates in the east. The incidence in Ireland was below the European average.

15.5.2. NATIONAL

Figure 15.4. Standardised incidence ratios by county: lymphoma

a. males



b. females



significantly below average ($p < 0.05$)

not significantly different from average

significantly above average ($p < 0.05$)

Table 15.3. Standardised incidence ratios (SIR) and their confidence limits for lymphoma, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	73	7	268	136	26	401
Caran	137	49	300	92	17	271
Clare	102	41	212	58	11	170
Cork	108	73	154	91	57	137
Donegal	111	55	200	65	21	154
Dublin	86	64	113	122	96	154
Galway	105	57	176	96	46	177
Kerry	112	56	201	64	20	151
Kildare	175	90	307	110	40	241
Kilkenny	57	11	169	95	25	245
Laois	0	0	79	138	36	356
Leitrim	287	114	594	57	0	324
Limerick	102	51	183	87	37	173
Longford	43	0	245	54	0	309
Louth	87	28	205	97	31	229
Mayo	96	43	182	188	102	316
Meath	45	8	133	75	20	195
Monaghan	104	27	270	67	6	246
Offaly	72	14	213	31	0	178
Roscommon	130	47	285	144	45	338
Sligo	93	24	240	57	5	208
Tipperary	81	35	161	125	60	232
Waterford	81	25	189	76	20	196
Westmeath	186	79	368	29	0	164
Wexford	112	48	222	17	0	98
Wicklow	147	67	281	150	64	297

The rates for men were higher than expected in Leitrim and, for women, in Mayo (Table 15.3; Figure 15.4). They were lower than expected for men in Laois, and for women in Wexford. However the observed and expected numbers of cases in these counties were small, and these deviations from average should not be given much importance.

15.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Ninety-one per cent of cases were diagnosed by histology, 2% by radiology and 1% clinically (Table 15.4).

Table 15.4. Most valid basis of diagnosis of lymphoma

	cases	% of all cases
histology of primary site	403	88.6%
bone marrow	13	2.9%
histology of other site	8	1.8%
radiology	8	1.8%
PM	3	1.6%
clinical	3	1.1%
not known	5	1.1%
cytology	4	0.9%
other	2	0.5%
all cases	455	

TABLE 15.5. MORPHOLOGY OF LYMPHOMA

	ICD code	cases	% of all cases
a. unspecified type, diffuse or not specified		158	34.7%
malignant lymphoma, NOS	M-9590/3	57	12.8%
non-Hodgkin's lymphoma, NOS	M-9591/3	82	18.5%
diffuse lymphoma, NOS	M-9595/3	19	4.3%
b. Hodgkin's disease		83	18.2%
Hodgkin's lymphoma	M-9650/3	13	2.9%
Hodgkin's disease, mixed cellularity	M-9652/3	16	3.6%
Hodgkin's disease, lymphocytic depletion	M-9653/3	3	0.7%
Hodgkin's disease, lymphocytic depletion, diffuse fibrosis	M-9654/3	1	0.2%
Hodgkin's disease, lymphocytic predominance	M-9657/3	1	0.2%
Hodgkin's disease, lymphocytic predominance, nodular	M-9659/3	1	0.2%
Hodgkin's disease, nodular sclerosis, NOS	M-9663/3	39	8.8%
Hodgkin's disease, nodular sclerosis, cellular phase	M-9664/3	1	0.2%
Hodgkin's disease, nodular sclerosis, lymphocytic predominance	M-9665/3	2	0.5%
Hodgkin's disease, nodular sclerosis, mixed cellularity	M-9666/3	6	1.4%
c. specified type, diffuse or NOS		130	28.6%
small lymphocytic NOS	M-9670/3	23	5.2%
lymphoplasmacytic	M-9671/3	5	1.1%
small cell cleaved, diffuse	M-9672/3	4	0.9%
small cell and large cell, mixed, diffuse	M-9675/3	16	3.6%
diffuse centroblastic-centrocytic	M-9676/3	7	1.6%
large cell NOS	M-9680/3	51	11.5%
large cell cleaved, NOS	M-9681/3	5	1.1%
large cell noncleaved NOS	M-9682/3	3	0.7%
diffuse centroblastic	M-9683/3	3	0.7%
immunoblastic, NOS	M-9684/3	9	2.0%
lymphoblastic	M-9685/3	2	0.5%
Burkitt's lymphoma	M-9687/3	2	0.5%
d. follicular or nodular		52	11.4%
follicular, NOS	M-9690/3	15	3.4%
small cell cleaved and large cell, mixed, follicular	M-9691/3	10	2.3%
follicular centroblastic-centrocytic	M-9692/3	8	1.8%
nodular lymphocytic, well differentiated	M-9693/3	1	0.2%
nodular lymphocytic, intermediate differentiation	M-9694/3	1	0.2%
small cell cleaved, follicular	M-9695/3	7	1.6%
nodular lymphocytic, poorly differentiated	M-9696/3	1	0.2%
follicular (nodular) centroblastic	M-9697/3	1	0.2%
large cell, follicular	M-9698/3	8	1.8%
e. specified cutaneous and peripheral T-cell		21	4.6%
mycosis fungoides	M-9700/3	13	2.9%
peripheral T-cell	M-9702/3	2	0.5%
lymphoepithelioid	M-9704/3	2	0.5%
peripheral T-cell, pleomorphic medium and large cell	M-9707/3	1	0.2%
cutaneous	M-9709/3	3	0.7%
f. other specified non-Hodgkin's lymphoma		9	2.0%
monocytoid B-cell lymphoma	M-9711/3	4	0.9%
large cell lymphoma	M-9714/3	5	1.1%
g. other lymphoreticular neoplasms		2	0.4%
malignant histiocytosis	M-9720/3	1	0.2%
Letterer-Siwe's disease	M-9722/3	1	0.2%

The histological classification of lymphoma is complex and a number of systems exist. The nomenclature used in ICD-O and SNOMED is given above, with the numbers of cases (Table 15.5). For the purposes of simplification, the classification according to the "Working Formulation" is also given, but it can be seen that insufficient information was available in most cases to assign the lymphomas to a Working Formulation equivalent (Table 15.6).

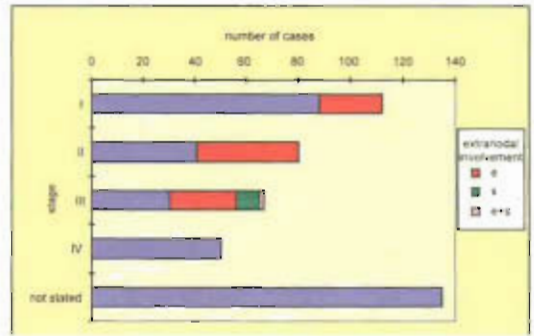
Table 15.6. Lymphomas by Working Formulation Classification.

not classified	288
small lymphocytic plasmacytoid	28
follicular; small cleaved cell	10
follicular; mixed small cleaved and large cell	18
follicular; large cell	9
diffuse; small cleaved	4
diffuse; mixed small and large cell	23
diffuse; large cell cleaved and non-cleaved	62
large cell, immunoblastic (diffuse)	9
lymphoblastic (diffuse)	2
Burkitt's lymphoma	2
all cases	455

15.7. STAGE

Lymphomas, both Hodgkin's and non-Hodgkin's, were staged by the Ann Arbor (UICC) system regardless of the organ of origin (Table 15.7; Figure 15.5).

Figure 15.5. Stage distribution of lymphoma



One hundred and fourteen (25%) were at stage I, and just over half of these (63) were stage IA without extralymphatic involvement.

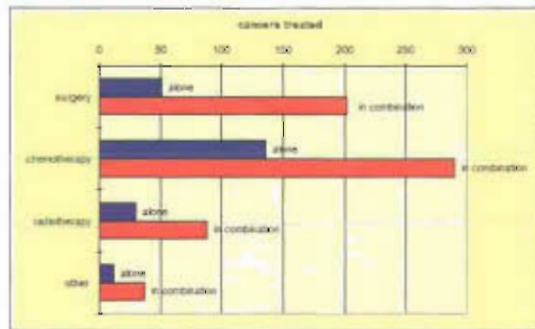
Table 15.7. Stage distribution of lymphoma

stage	systemic symptoms							
	A		B		not stated		total	
I	63	14%	7	2%	20	4%	90	20%
Ie	12	3%	5	1%	7	2%	24	5%
II	31	7%	7	2%	3	1%	41	9%
Ile	25	5%	10	2%	4	1%	39	9%
III	26	6%	4	1%	0	0%	30	7%
IIle	16	4%	6	1%	4	1%	26	6%
IIIs	6	1%	3	1%	0	0%	9	2%
IIle+s	1	0%	0	0%	1	0%	2	0%
IV	19	4%	23	5%	11	2%	53	12%
not stated	11	2%	4	1%	126	28%	141	31%
all stages	210	46%	69	15%	176	39%	455	

15.8. TREATMENT

Definitive treatment was administered for 408 lymphomas (90%).

Figure 15.6. Treatment of lymphoma



Chemotherapy, alone or in combination with surgery, was the most frequent treatment modality. The high frequency of surgery is surprising, but many of the operations carried out may have been excision biopsies of nodes.

Table 15.8. Treatment of lymphoma

	cases	% of all cases
all treatments	408	89.7%
all chemotherapy	290	63.7%
all surgery	202	44.4%
all radiotherapy	88	19.3%
all other	37	8.1%
chemotherapy	136	29.9%
surgery, chemotherapy	104	22.9%
surgery	51	11.2%
radiotherapy	30	6.6%
chemotherapy, radiotherapy	19	4.2%
surgery, chemotherapy, radiotherapy	18	4.0%
surgery, radiotherapy	13	2.9%
other	12	2.6%
chemotherapy, other	6	1.3%
surgery, other	6	1.3%
surgery, chemotherapy, other	5	1.1%
radiotherapy, other	3	0.7%
surgery, radiotherapy, other	3	0.7%
surgery, chemotherapy, radiotherapy, other	2	0.4%

16.1. INTRODUCTION AND SUMMARY

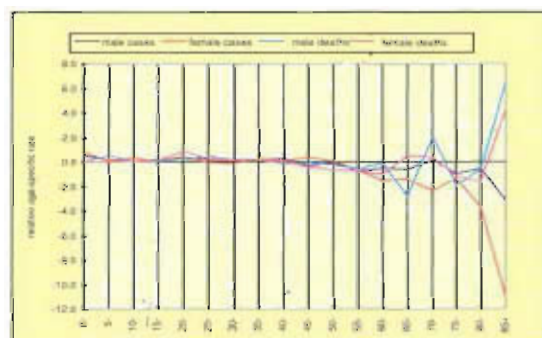
Table 16.1. Incidence and death rates: summary statistics for leukaemia.

	Incident cases			Deaths		
	males	females	all	males	females	all
number	171	135	306	101	82	183
% of all cancers	1.8%	1.4%	1.6%	2.5%	2.4%	2.5%
cumulative risk (0-74)	0.9%	0.6%	0.7%	0.5%	0.3%	0.4%
crude rate (per 100,000)	9.7	7.5	8.6	5.7	4.6	5.1
age-standardised rate (per 100,000)	8.1	5.6	6.7	4.7	3.1	3.8
mortality/incidence ratio	0.59	0.61	0.60			

Three hundred and six cases of leukaemia were registered, 1.6% of all cancers (Table 16.1). The male incidence and mortality rate was about 25% above the female rate. The mortality/incidence ratio for both sexes was close to 0.6.

16.2. AGE AND SEX PROFILE

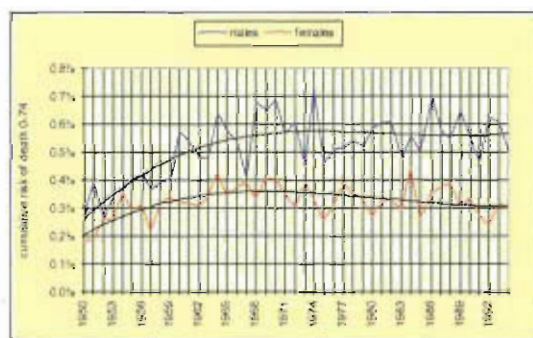
Figure 16.1. Relative age and sex-specific incidence and mortality rates for leukaemia



The age and sex profile of leukaemia cases and deaths was similar to the patterns for all cancers combined (Figure 16.1). The median age of incidence for males was 69 years and for females 68 years. The graph shows the difference between the observed incidence of cancer at a particular age, and the incidence rate that would have been found if the age pattern of leukaemia had been exactly the same as for all other cancers. A positive value means that a higher proportion of leukaemia was found at that age than would have been expected. Although there were slightly more cases and deaths in the younger age-groups than expected, most cases were in patients of 60 years and over. Childhood leukaemia, while an important cause of death in the under 15s, was not a significant part of the overall number of leukaemia cases. The number of male cases decreased after 75 years, although the mortality continued to rise.

16.3. TIME TRENDS IN MORTALITY

Figure 16.2 Time trends in mortality from leukaemia



Mortality from leukaemia for both men and women increased quite rapidly during, and probably before, the 1950s (Figure 16.2). By the mid 1960s this increase seems to have levelled off, and, although there have been sporadic years of high mortality in the interim, mortality for men has remained at about the same level. Mortality for women seems to have decreased.

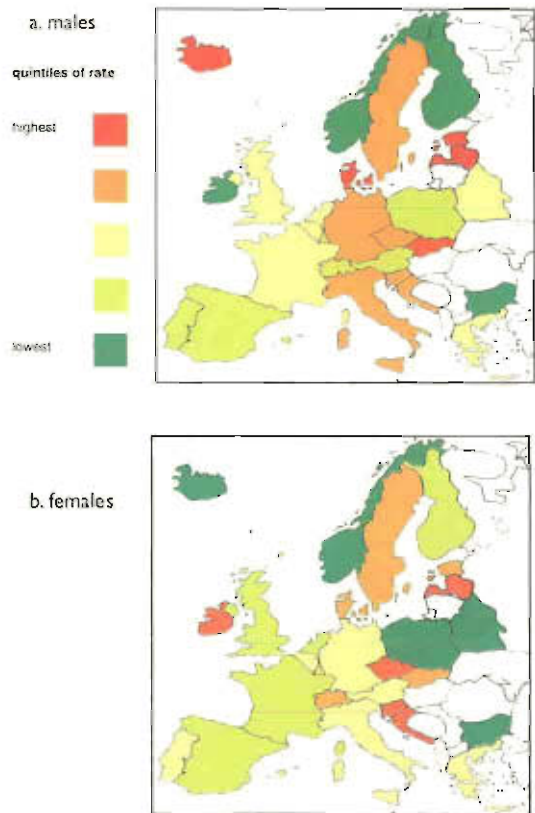
16.4. SUBSITES AND SIDE

No subsites were recorded for leukaemia.

16.5. GEOGRAPHICAL DISTRIBUTION

16.5.1. INTERNATIONAL

Figure 16.3. Variation in cumulative risk of cancer incidence by country within Europe: leukaemia



There was no obvious geographical pattern to leukaemia incidence in either men or women throughout Europe (Figure 16.3). Incidence in Ireland was a little above the average, and ranked ninth for both males and females.

16.5.2. NATIONAL

The incidence for females in Laois was a little above average, and that in Tipperary and Wicklow below average (Figure 16.4, Table 16.2). There were no deviations from expectation for males.

Figure 16.2. Standardised incidence ratios by county: leukaemia.

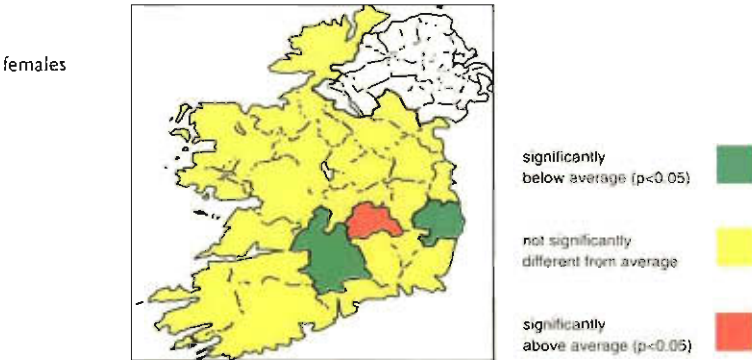


Table 16.2. Standardised incidence ratios (SIR) and their confidence limits for leukaemia, by county

county	males			females		
	SIR	lower limit	upper limit	SIR	lower limit	upper limit
Carlow	103	10	380	69	0	395
Cavan	60	6	220	136	26	401
Clare	139	55	288	200	79	415
Cork	131	85	192	125	76	193
Donegal	173	92	296	152	65	302
Dublin	71	48	102	100	71	137
Galway	80	34	159	114	49	225
Kerry	80	29	176	95	30	223
Kildare	89	23	231	85	16	252
Kilkenny	53	5	193	36	0	205
Laois	36	0	206	311	112	681
Leitrim	103	10	377	329	86	850
Limerick	119	54	227	50	9	147
Longford	114	11	420	80	0	457
Louth	75	14	223	118	31	306
Mayo	149	74	267	39	4	142
Meath	130	47	284	57	5	210
Monaghan	106	20	313	198	52	513
Offaly	33	0	189	94	9	348
Roscommon	28	0	159	84	8	310
Sligo	184	66	402	84	8	308
Tipperary	71	23	322	0	0	60
Waterford	137	49	299	115	30	298
Westmeath	194	70	425	131	25	388
Wexford	156	67	309	51	5	189
Wicklow	47	4	173	0	0	86

16.6. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Seventy-eight per cent of the cases were diagnosed by bone marrow aspiration, and 18% by blood film (Table 16.3).

Table 16.3. Most valid basis of diagnosis of leukaemia

	cases	% of all cases
bone marrow	239	78%
blood film	54	18%
cytology	2	1%
clinical	2	1%
not known	6	2%
other	3	1%
all cases	306	

Chronic lymphoid leukaemia was the commonest type, making up almost 40% of the total (Table 16.4).

Table 16.6. Morphology of leukaemia

	ICD-O code	cases
chronic lymphoid	M-9823/3	118
acute myeloid	M-9861/3	67
acute lymphoid	M-9821/3	39
chronic myeloid	M-9863/3	26
acute myelofibrosis	M-9932/3	9
undifferentiated leukaemia	M-9801/3	8
acute myelomonocytic	M-9867/3	7
chronic myelomonocytic	M-9868/3	6
leukaemia, NOS	M-9800/3	5
acute promyelocytic	M-9866/3	5
myelomonocytic, NOS	M-9860/3	4
hairy cell	M-9940/3	4
lymphoid, NOS	M-9820/3	2
aleukaemic	M-9824/3	2
plasmacytic	M-9830/3	1
monocytic	M-9890/3	1
acute monocytic	M-9891/3	1
megakaryocytic	M-9910/3	1
all cases		306

16.7. TREATMENT

One hundred and ninety-seven patients (64%) had some type of definitive treatment (Table 16.7). 150 of these had chemotherapy, either alone or in combination. 26 patients were recorded by the Registry as having surgery; this seems implausible, and some of these were bone marrow biopsies carried out in theatre. This procedure is no longer coded as surgery.

Table 16.7. Treatment of leukaemia

	cases	% of all cases
all treatments	197	64.4%
all surgery	26	6.5%
all chemotherapy	150	49.0%
all radiotherapy	13	4.2%
all other	50	16.3%
chemotherapy	116	37.9%
other	33	10.8%
surgery, chemotherapy	12	3.9%
surgery	11	3.6%
chemotherapy, other	9	2.9%
chemotherapy, radiotherapy	7	2.3%
chemotherapy, radiotherapy, other	5	1.6%
surgery, other	2	0.7%
surgery, chemotherapy, other	1	0.3%
radiotherapy	1	0.3%

17.1. INTRODUCTION AND SUMMARY

Table 17.1. Incidence and death rates: summary statistics for childhood cancer

	incident cases			deaths		
	males	females	all	males	females	all
number	60	58	118	20	9	29
% of all cancers	0.6%	0.6%	0.6%	0.3%	0.3%	0.4%
cumulative risk (0-14)	0.2%	0.2%	0.2%	0.07%	0.03%	0.05%
crude rate (per 100,000)	13.2	13.5	13.3	4.1	2.0	3.1
mortality/incidence ratio	0.33	0.16	0.25			

Childhood cancers (defined as cancers in patients under 15 years) were a small but heterogeneous group. Some basic statistics are presented here to give some idea of the size of the problem (Table 17.1). Childhood cancer was rare, accounting for only 0.6% of all cancers registered. The crude incidence rate was 13 per 100,000 persons under 15, compared to 549 per person for the entire population. The incidence rates were comparable for males and females, but mortality for males was twice as high.

17.2. AGE AND SEX PROFILE

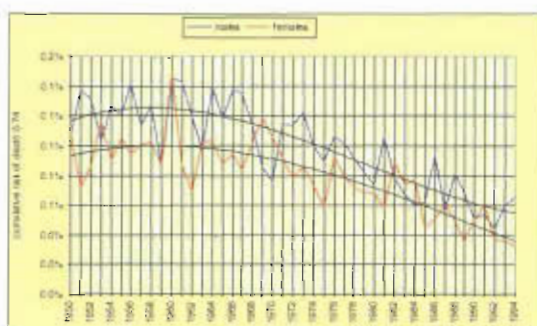
Table 17.2. Age and sex profile of childhood cancer cases and deaths

	per 100,000 persons per year		
	0-4	5-9	10-14
male cases	19.6	8.8	12.0
female cases	14.4	12.1	13.9
male deaths	3.8	4.7	4.6
female deaths	2.4	3.6	0.6

The group most at risk of developing cancer was boys aged 0 to 4 years, while deaths were most common in boys aged 5 to 9 years (Table 17.2). Female cases slightly exceeded male cases at all ages but the youngest, but male death rates were higher in all age-groups.

17.3. TIME TRENDS

Figure 17.1. Trends in death rate from cancer in patients aged 0-14



The death rate from childhood cancer has fallen for both sexes since the 1950s, from just over 0.1% to about half this value. Almost all of this fall has occurred since 1970.

17.4. GEOGRAPHICAL VARIATION

The incidence of childhood cancer in Ireland is typical of the countries of the EU [4] (Table 17.3).

Table 17.3. Cumulative incidence rates (0-14 years) of all cancers (excluding NMS) in the EU

males		females	
Portugal	0.26%	Portugal	0.31%
Spain	0.25%	Italy	0.25%
Finland	0.24%	Greece	0.23%
Italy	0.24%	Spain	0.23%
The Netherlands	0.22%	Finland	0.22%
Sweden	0.22%	Sweden	0.22%
Greece	0.22%	Ireland	0.20%
Denmark	0.22%	Denmark	0.18%
Ireland	0.20%	The Netherlands	0.18%
Austria	0.20%	Austria	0.17%
France	0.19%	United Kingdom	0.16%
United Kingdom	0.19%	France	0.13%
Belgium	0.18%	Germany	0.11%
Luxembourg	0.17%	Belgium	0.10%
Germany	0.16%	Luxembourg	0.09%

17.5. SITES

The commonest primary cancer site for both sexes was brain (Table 17.4; Figure 17.2).

Over half of the cases in girls were either brain tumours or leukaemia, while in boys, brain cancer, leukaemia and lymphomas accounted for 56% of all cases.

Figure 17.2. Sites of childhood cancer

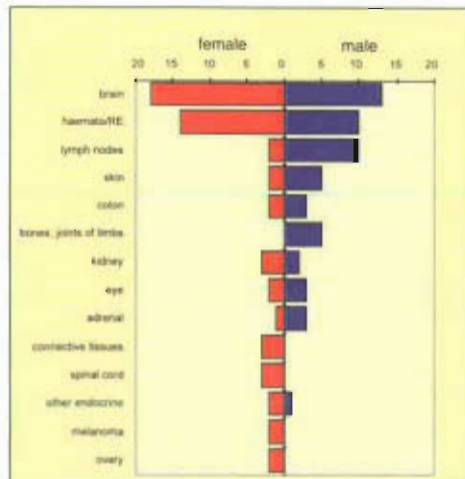


Table 17.4. Sites of childhood cancer

site	males		females		all	
	cases	% of all cases	cases	% of all cases	cases	% of all cases
all sites	60		58		118	
brain	13	22%	18	31%	31	26%
haematopoietic/reticuloendothelial	10	17%	14	24%	24	20%
lymph nodes	10	17%	2	3%	12	10%
kidney	2	3%	3	5%	5	4%
eye	3	5%	2	3%	5	4%
colon	3	5%	2	3%	5	4%
bones, joints of limbs	5	8%	0	0%	5	4%
adrenal	3	5%	1	2%	4	3%
spinal cord	0	0%	3	5%	3	3%
other endocrine	1	2%	2	3%	3	3%
connective tissues	0	0%	3	5%	3	3%
skin	2	3%	0	0%	2	2%
ovary	0	0%	2	3%	2	2%
meninges	1	2%	1	2%	2	2%
melanoma	0	0%	2	3%	2	2%
ill-defined	1	2%	1	2%	2	2%
parotid	0	0%	1	2%	1	1%
pancreas	0	0%	1	2%	1	1%
other male genital	3	5%	0	0%	3	3%
nasal cavity/middle ear	1	2%	0	0%	1	1%
lung	1	2%	0	0%	1	1%
bones, joints head and trunk	1	2%	0	0%	1	1%

Ninety-three (75%) cancers were diagnosed histologically and 19 (15%) by bone marrow aspirate or biopsy. The remainder were diagnosed clinically or by radiology.

The commonest histological types by the ICCC classification [33] were acute lymphoid leukaemia (18% of cases) and astrocytoma (16%) (Table 17.5).

Table 17.5. Histological classification of childhood cancers

	ICCC group	all cases	females				males			
			0-4	5-9	10-14	all 0-14	0-4	5-9	10-14	all 0-14
acute lymphoid leukaemia	Ia	22	8	2	3	13	7	2	0	9
acute non-lymphocytic leukaemia	Ib	1	0	0	1	1	0	0	0	0
other specified leukaemia	Id	1	0	0	0	0	0	0	1	1
Hodgkin's disease	IIa	7	0	0	0	0	0	2	5	7
non-Hodgkin's lymphoma	IIb	1	0	1	0	1	0	0	0	0
Burkitt's lymphoma	IIc	1	0	0	0	0	0	0	1	1
other lymphoreticular lymphoma	IId	2	1	0	0	1	1	0	0	1
unspecified lymphoma	IIf	3	0	1	0	1	0	2	0	2
ependymoma	IIIa	1	0	0	0	0	1	0	0	1
astrocytoma	IIIb	21	2	5	5	12	3	4	2	9
primitive neuroectodermal tumours	IIIc	5	1	2	1	4	0	0	1	1
other gliomas	IIId	4	0	1	2	3	0	0	1	1
other specified intracranial and intraspinal tumours	IIIf	4	0	1	1	2	1	0	1	
neuroblastoma and ganglioblastoma	IVa	3	0	0	0	0	2	1	0	3
retinoblastoma	V	3	0	0	0	0	3	0	0	3
Wilm's tumour	VIa	5	2	1	0	3	2	0	0	2
osteosarcoma	VIIa	5	0	0	0	0	0	0	5	5
rhabdomyosarcoma	IXa	9	2	1	2	5	4	0	0	4
fibrosarcoma	IXb	1	0	0	0	0	1	0	0	1
unspecified soft tissue sarcoma	IXc	1	0	0	1	1	0	0	0	0
intracranial and intraspinal germ cell tumours	Xa	1	0	0	0	0	0	1	0	1
other and unspecified non-gonadal germ cell tumours	Xb	2	2	0	0	2	0	0	0	
gonadal germ cell tumours	Xc	2	0	1	1	2	0	0	0	0
melanoma	XId	2	0	0	2	2	0	0	0	0
skin carcinoma	XIe	5	0	0	3	3	0	0	2	2
other and unspecified carcinoma	XIf	5	0	1	1	2	1	0	2	3
other specified malignant tumours	XIIa	1	0	0	0	0	0	1	0	1
all cancers		118	18	17	23	58	26	13	21	60

17.6. TREATMENT

Table 17.6. Treatment of childhood cancer

	cases	% of all cases
all treatments	106	89.8%
all surgery	61	51.7%
all chemotherapy	63	53.4%
all radiotherapy	16	13.6%
all other	2	1.7%
chemotherapy	35	29.7%
surgery	34	28.8%
surgery, chemotherapy	19	16.1%
surgery, chemotherapy, radiotherapy	5	4.2%
radiotherapy	4	3.4%
chemotherapy, radiotherapy	4	3.4%
surgery, radiotherapy	3	2.5%
other	2	1.7%

One hundred and six (90%) patients had definitive treatment (Table 17.6). Half had surgery and half had chemotherapy, mostly alone, but one third had some combination therapy.

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Registries whose data are used in this report.

Table 19.1. Sources of data for the European maps

country	source	year(s)
Austria	EUCAN	1990
Belarus	CIFC6	1983-87
Belgium	EUCAN	1990
Bulgaria	EUROCIM	1992
Croatia	EUROCIM	1989
Czech Rep	CIFC6	1983-87
Denmark	EUCAN	1990
Estonia	EUROCIM	1987
Finland	EUCAN	1990
France	EUCAN	1990
Germany	EUCAN	1990
Greece	EUCAN	1990
Iceland	EUROCIM	1992
Italy	EUCAN	1990
Latvia	CIFC6	1983-87
Luxembourg	EUCAN	1990
Malta	EUROCIM	1992
Netherlands	EUCAN	1990
Norway	CIFC6	1983-87
Poland	annual report	1991
Portugal	EUCAN	1990
Slovakia	EUROCIM	1992
Slovenia	annual report	1993
Spain	EUCAN	1990
Sweden	EUCAN	1990
Switzerland	EUCAN	1990
UK	EUCAN	1990

19.1. SOURCES

CIFC6: Parkin DM Muir CS Whelan CS Gao Y-T, Ferlay J, Powell eds. *Cancer Incidence in Five Continents*. Lyon: International Agency for Research on Cancer, 1993.

EUROCIM: . European Network of Cancer Registries. *European Cancer Incidence and Mortality Database. 2nd Edition*. Lyon: International Agency for Research on Cancer, 1995.

EUCAN: Ferlay J, Black RJ, Pisani P, Valdivieso MT and Parkin DM. *EUCAN90: Cancer in the European Union*. Lyon: International Agency for Research on Cancer, 1996.

Annual report:

Poland: Zatonski W, Tyczynski J eds. *Cancer in Poland, 1991*. Warszawa: National Cancer Registry/Marie Skłodowska-Curie Memorial Cancer Centre and Institute of Oncology, 1996.

Slovenia: Institute of Oncology, Ljubljana and Cancer Registry of Slovenia. *Cancer incidence in Slovenia 1993*. Ljubljana, 1996

19.2. REGISTRIES CONTRIBUTING DATA TO THE ABOVE SOURCES

country	registry
Austria	Austrian Cancer Registry A-1033 Wien
Belarus	Institute of Oncology and Radiology, 223052 Minsk
Belgium	National Cancer Registry, Ministry of Public Health and Environment, Brussels
Bulgaria	Bulgarian National Cancer Registry, 1756 Sofia
Croatia	Croatian National Cancer Registry, 41000 Zagreb
Czech Rep	Czech National Cancer Registry, 656 53 Brno
Denmark	Danish Cancer Registry, DK-2100 Copenhagen
Estonia	Estonian Cancer Registry, EE-0016 Tallinn
Finland	Finnish Cancer Registry, FIN-00170 Helsinki 17
France	
Registre Bas-Rhinois des Cancers,	F-67085 Strasbourg
Registre General des Tumeurs du Calvados,	F-14021 Caen
Registre des Tumeurs du Doubs,	F-25030 Besancon
Registre des Tumeurs du Haut-Rhin,	F-68070 Mulhouse
Registre des Tumeurs de l'Hérault,	F-340191 Montpellier
Registre des Cancers de l'Isère,	F-38240 Meylan
Registre General des Cancers du Limousin,	F-87000 Limoges
Registre des Cancers de la Somme,	F-80054 Amiens
Registre des Cancers du Tarn,	F-81000 Albi
Germany	Hamburg Cancer Registry, D-21048 Hamburg
Iceland	Icelandic Cancer Registry, IS-125 Reykjavik
Italy	
Tuscany Cancer Registry,	I-50135 Florence
Ligurian Cancer Registry,	I-16132 Genoa
Registro Tumori Lombardia,	I-20133 Milan
Parma Province Cancer Registry,	I-43100 Parma
Ragusa Cancer Registry,	I-97100 Ragusa
Romagna Cancer Registry,	I-47100 Forlì
Piedmont Cancer Registry,	I-10128 Turin
Trieste Cancer Registry,	I-34125 Trieste
Registro Tumori Veneto,	I-35100 Padova
Cancer Registry of Latina Province,	I-04100 Latina
Latvia	Latvian Cancer Registry, 226004 Riga
Luxembourg	Registre Morphologique des Tumeurs, L-1011 Luxembourg
Malta	Malta Cancer Registry, Valletta CMR 02
Netherlands	
Comprehensive Cancer Centre Amsterdam (IKA)	NL-1066 Amsterdam
Comprehensive Cancer Centre South (IKZ)	NL-5600 Eindhoven
Comprehensive Cancer Centre Limburg (IKL)	NL-6201 Maastricht
Comprehensive Cancer Centre Rotterdam (IKR)	NL-3000 Rotterdam
Comprehensive Cancer Centre North (IKN)	NL-9725 BE Groningen
Comprehensive Cancer Centre East (IKO)	NL-6501 Nijmegen
Comprehensive Cancer Centre Twente (IKST)	NL-7514 BP Enschede
Comprehensive Cancer Centre Middle (IKMN)	NL-3512 Utrecht
Comprehensive Cancer Centre West (IKW)	NL-2316 Leiden
Norway	Cancer Registry of Norway, N-0310 Oslo
Poland	Polish Cancer Registry, PL-02-781 Warsaw
Portugal	
Vila Nova de Gaia Registry,	P-4400 Vila Nova de Gaia
Centro de Oncologia de Coimbra,	P-3003 Coimbra
Slovakia	National Cancer Registry of Slovakia, 812 32 Bratislava
Slovenia	Cancer Registry of Slovenia, 61005 Ljubljana
Spain	
Registro de Tumores del Principado de Asturias,	E-33001 Oviedo
Euskadi Cancer Registry,	E-01006 Vitoria-Gasteiz
Tarragona Cancer Registry,	E-43002 Tarragona

Granada Cancer Registry,	E-18080 Granada
Murcia Cancer Registry,	E-30008 Murcia
Navarra Cancer Registry,	E-31003 Pamplona
Cancer Registry of Zaragoza,	E-50004 Zaragoza
Registre de Cancer de Mallorca,	E-07012 Palma
Sweden	Swedish Cancer Registry, S 106 30 Stockholm
Switzerland	
Basel Cancer Registry, CH-4003 Basel	
Registre Genève des Tumeurs,	CH-1205 Genève 4
Registre Neuchâtelois des Tumeurs,	CH-2000 Neuchâtel
Cancer Registry of St. Gallen Appenzell	CH-9007 St. Gallen
Cancer Registry of the Canton of Zurich,	CH-8091 Zurich
UK	
Office of National Statistics, National Cancer Registration Bureau,	London WC2B 6JP
Mersey and Cheshire Cancer Registry,	Liverpool L69 3BX
West Midlands Cancer Registry,	Birmingham B15 2TH
North Western Cancer Registry,	Manchester M20 9QL
Oxford Cancer Intelligence Unit,	Oxford OX3 7LF
South Western Cancer Registry,	Bristol BS8 2PR
Thames Cancer Registry, Sutton,	Surrey SM2 5NL
Wessex Cancer Registry,	Winchester SO22 5HE
Yorkshire Cancer Registry,	LS16 6QB
Cancer Registration Bureau of East Anglian Region,	Cambridge CB2 2QQ
Scotland East Cancer Registry,	Dundee DD2 1UB
Northern Cancer Registry,	Inverness IV2 3UJ
Grampian Health Board,	Aberdeen AB9 1RE
South-east Scotland Cancer Registry,	Edinburgh EH16 6UB
West of Scotland Cancer Surveillance Unit,	Glasgow G20 9NB

Key to data tables.

20

20.1. INCIDENCE AND MORTALITY DATA

crude rate: cases per 100,000 persons per year

ASW rate: age-standardised incidence rate (world population) per 100,000 persons per year.

CR74: cumulative risk of incidence age 0 to 74 years inclusive (%)

Separate figures for lymphoma, leukaemia and invasive carcinoma of the cervix uteri are given in the tables. These are shown in *italics*, as cases of these conditions are also included under their relevant ICD-O site, and should not be counted twice (see "Sites", section 3.4)

20.2. STANDARDISED INCIDENCE RATIOS (SIR)

SIRs which are significantly above expectation [18] ($p < 0.05$) are indicated by a + sign; those which are significantly below expectation are marked with a - sign.

20.3. TREATMENT DATA

ALL T	all treatments
ALL S	all surgery
ALL C	all chemotherapy
ALL R	all radiotherapy
ALL O	all other
S	surgery alone
C	chemotherapy alone
R	radiotherapy alone
O	other alone
SC	surgery, chemotherapy
SR	surgery, radiotherapy
SO	surgery, other
CR	chemotherapy, radiotherapy
CO	chemotherapy, other
RO	radiotherapy, other
SCR	surgery, chemotherapy, radiotherapy
SCO	surgery, chemotherapy, other
SRO	surgery, radiotherapy, other
CRO	chemotherapy, radiotherapy, other
SCRO	surgery, chemotherapy, radiotherapy, other

Data tables for Cork and Kerry, 1992 and 1993.

21.1.SUMMARY TABLES, CORK AND KERRY, 1992

	males					females				
	cases	% of total	crude rate	ASW rate	CR74	cases	% of total	crude rate	ASW rate	CR74
all cancers	1247		468.7	353.02	33.38%	1345		506.6	359.1	31.86%
lip	11	0.9%	4.1	2.80	0.32%	3	0.2%	1.1	0.76	0.09%
base of tongue	3	0.2%	1.1	0.73	0.03%	1	0.1%	0.4	0.38	0.05%
other tongue	2	0.2%	0.8	0.59	0.10%	2	0.1%	0.8	0.54	0.04%
gum	2	0.2%	0.8	0.71	0.09%	0	0.0%	0.0	0.00	0.00%
floor of mouth	3	0.2%	1.1	0.97	0.15%	0	0.0%	0.0	0.00	0.00%
palate	2	0.2%	0.8	0.59	0.09%	2	0.1%	0.8	0.55	0.09%
other mouth	2	0.2%	0.8	0.64	0.09%	2	0.1%	0.8	0.37	0.05%
parotid	0	0.0%	0.0	0.00	0.00%	2	0.1%	0.8	0.78	0.08%
other salivary	2	0.2%	0.8	0.50	0.03%	0	0.0%	0.0	0.00	0.00%
tonsil	3	0.2%	1.1	1.12	0.13%	0	0.0%	0.0	0.00	0.00%
oropharynx	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
nasopharynx	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
pyriform sinus	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
hypopharynx	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
other oral	1	0.1%	0.4	0.34	0.03%	1	0.1%	0.4	0.12	0.00%
oesophagus	17	1.4%	6.4	5.42	0.62%	19	1.4%	7.2	3.67	0.43%
stomach	58	4.7%	21.8	15.72	1.96%	33	2.5%	12.4	7.40	0.80%
small intestine	2	0.2%	0.8	0.50	0.03%	3	0.2%	1.1	0.69	0.10%
colon	104	8.3%	39.1	28.18	3.31%	96	7.1%	36.2	23.17	2.73%
rectosigmoid	9	0.7%	3.4	2.55	0.35%	8	0.6%	3.0	1.25	0.04%
rectum	45	3.6%	16.9	13.56	1.84%	34	2.5%	12.8	6.51	0.61%
anus	3	0.2%	1.1	1.10	0.13%	0	0.0%	0.0	0.00	0.00%
liver	4	0.3%	1.5	1.16	0.16%	3	0.2%	1.1	0.63	0.10%
gallbladder	4	0.3%	1.5	0.94	0.06%	10	0.7%	3.8	2.25	0.29%
other biliary	3	0.2%	1.1	0.92	0.09%	5	0.4%	1.9	1.47	0.19%
pancreas	25	2.0%	9.4	6.52	0.69%	17	1.3%	6.4	3.41	0.27%
other digestive	0	0.0%	0.0	0.00	0.00%	1	0.1%	0.4	0.10	0.00%
nasal/middle ear	1	0.1%	0.4	0.17	0.00%	0	0.0%	0.0	0.00	0.00%
nasal sinuses	2	0.2%	0.8	0.49	0.12%	0	0.0%	0.0	0.00	0.00%
larynx	16	1.3%	6.0	5.25	0.74%	3	0.2%	1.1	0.71	0.10%
trachea	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
bronchus/lung	147	11.8%	55.3	41.39	5.54%	57	4.2%	21.5	12.63	1.65%
thymus	2	0.2%	0.8	0.71	0.07%	0	0.0%	0.0	0.00	0.00%
mediastinum/pleura	3	0.2%	1.1	0.94	0.07%	0	0.0%	0.0	0.00	0.00%
other thoracic	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
bones/joints of limbs	2	0.2%	0.8	0.84	0.05%	1	0.1%	0.4	0.42	0.04%
other bones/joints	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
haematopoietic/RE	52	4.2%	19.5	15.38	1.55%	54	4.0%	20.3	12.65	0.99%
melanoma skin	25	2.0%	9.4	8.08	0.91%	46	3.4%	17.3	13.63	1.23%
non-melanoma skin	356	28.5%	143.2	107.54	11.11%	390	29.0%	146.9	93.51	10.02%
nerves	1	0.1%	0.4	0.39	0.02%	2	0.1%	0.8	0.68	0.05%
peritoneum	1	0.1%	0.4	0.33	0.03%	0	0.0%	0.0	0.00	0.00%
soft tissues	5	0.4%	1.9	1.73	0.12%	4	0.3%	1.5	1.41	0.12%
breast	3	0.2%	1.1	0.95	0.15%	227	16.9%	85.5	71.18	7.56%
vulva	0	0.0%	0.0	0.00	0.00%	6	0.4%	2.3	1.47	0.17%
vagina	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
cervix uteri	0	0.0%	0.0	0.00	0.00%	120	8.9%	45.2	45.02	3.61%
cervix: invasive	0	0.0%	0.0	0.00	0.00%	18	1.3%	6.8	6.29	0.67%
corpus uteri	0	0.0%	0.0	0.00	0.00%	24	1.8%	9.0	7.19	0.81%
uterus NOS	0	0.0%	0.0	0.00	0.00%	5	0.4%	1.9	1.34	0.19%

21.1.SUMMARY TABLES, CORK AND KERRY, 1992 CONTINUED.....

	males					females				
	cases	% of total	crude rate	ASW rate	CR74	cases	% of total	crude rate	ASW rate	CR74
ovary	0	0.0%	0.0	0.00	0.00%	65	4.8%	24.5	19.44	2.25%
other female genital	0	0.0%	0.0	0.00	0.00%	1	0.1%	0.4	0.21	0.05%
penis	4	0.3%	1.5	1.33	0.15%	0	0.0%	0.0	0.00	0.00%
prostate gland	133	10.7%	50.0	32.37	2.95%	0	0.0%	0.0	0.00	0.00%
testis	11	0.9%	4.1	3.90	0.30%	0	0.0%	0.0	0.00	0.00%
kidney	20	1.6%	7.5	6.32	0.91%	15	1.1%	5.6	4.28	0.35%
renal pelvis	1	0.1%	0.4	0.24	0.06%	0	0.0%	0.0	0.00	0.00%
ureter	0	0.0%	0.0	0.00	0.00%	1	0.1%	0.4	0.21	0.05%
bladder	49	3.9%	18.4	13.56	1.62%	21	1.6%	7.9	4.69	0.44%
other urinary	1	0.1%	0.4	0.31	0.05%	0	0.0%	0.0	0.00	0.00%
eye	3	0.2%	1.1	0.90	0.16%	1	0.1%	0.4	0.65	0.03%
meninges	0	0.0%	0.0	0.00	0.00%	3	0.2%	1.1	1.28	0.10%
brain	30	2.4%	11.3	10.54	1.06%	11	0.8%	4.1	3.63	0.48%
other CNS	2	0.2%	0.8	0.69	0.04%	1	0.1%	0.4	0.27	0.05%
thyroid	0	0.0%	0.0	0.00	0.00%	9	0.7%	3.4	2.67	0.25%
adrenal	1	0.1%	0.4	0.40	0.03%	4	0.3%	1.5	1.19	0.09%
other endocrine	3	0.2%	1.1	1.06	0.10%	2	0.1%	0.8	0.71	0.07%
ill-defined sites	0	0.0%	0.0	0.00	0.00%	3	0.2%	1.1	0.31	0.00%
lymph nodes	14	1.1%	5.3	5.13	0.53%	17	1.3%	6.4	5.27	0.47%
unknown primary	54	4.3%	20.3	14.38	1.73%	56	4.2%	21.1	12.07	1.43%
lymphoma	29	2.3%	10.9	9.47	1.02%	33	2.4%	12.4	8.76	0.84%

21.2. CORK AND KERRY: CASE NUMBERS BY SITE AND AGE-GROUP: MALES 1992

site	% of total	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers		1247	4	1	5	7	8	9	14	20	23	39	60	94	144	195	221	231	110	62
lip	0.9%	11	0	0	0	0	0	0	0	0	0	0	1	1	0	1	3	2	2	1
base of tongue	0.2%	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0
other tongue	0.2%	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0
gum	0.2%	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
floor of mouth	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0
palate	0.2%	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
other mouth	0.2%	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
parotid	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other salivary	0.2%	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
tonsil	0.2%	3	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0
oropharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nasopharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
pyriform sinus	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hypopharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other oral	0.1%	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
oesophagus	1.4%	17	0	0	0	0	0	0	0	0	1	0	1	2	4	3	2	0	2	2
stomach	4.7%	58	0	0	0	0	0	1	0	0	1	2	0	7	5	10	13	10	7	2
small intestine	0.2%	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0
colon	8.3%	104	0	0	0	0	0	0	0	0	2	5	4	8	11	16	21	19	14	4
rectosigmoid	0.7%	9	0	0	0	0	0	0	0	0	0	0	0	3	1	1	2	2	0	0
rectum	3.6%	45	0	0	0	0	0	0	0	0	2	1	1	4	9	10	10	5	1	2
anus	0.2%	3	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0
liver	0.3%	4	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	1	0
gallbladder	0.3%	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1
other biliary	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0
pancreas	2.0%	25	0	0	0	0	0	0	0	0	0	0	1	2	6	2	3	8	3	0
other digestive	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nasal/middle ear	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
nasal sinuses	0.2%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0
larynx	1.3%	16	0	0	0	0	0	0	0	0	0	0	0	2	6	6	1	1	0	0
trachea	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bronchus/lung	11.8%	147	0	0	0	0	0	0	1	2	5	5	9	20	34	35	25	8	3	
thymus	0.2%	2	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
mediastinum/pleura	0.2%	3	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0
other thoracic	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bones/joints of limbs	0.2%	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
other bones/joints	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
haematopoietic/RE	4.2%	52	0	0	1	3	1	1	0	1	2	2	3	4	4	6	8	7	5	4
melanoma skin	2.0%	25	0	0	0	0	1	1	3	0	0	1	4	0	4	3	4	2	1	1
non-melanoma skin	28.5%	356	0	0	1	1	0	2	3	9	4	13	25	24	32	55	57	77	30	23
nerves	0.1%	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
peritoneum	0.1%	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
soft tissues	0.4%	5	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1
breast	0.2%	3	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0
penis	0.3%	4	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1
prostate gland	10.7%	133	0	0	0	0	0	0	0	0	0	1	2	5	11	20	18	41	24	11
testis	0.9%	11	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0
kidney	1.6%	20	0	0	0	0	0	0	0	0	2	1	3	1	2	5	5	0	1	0
renal pelvis	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
ureter	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bladder	3.9%	49	0	0	0	0	0	0	1	1	1	0	1	6	3	10	9	9	4	3
other urinary	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
eye	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0
brain	2.4%	30	3	0	1	1	0	2	3	0	1	2	5	4	1	4	2	0	1	
other CNS	0.2%	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
thyroid	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
adrenal	0.1%	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
other endocrine	0.2%	3	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0
lymph nodes	1.1%	14	0	1	0	0	0	2	0	1	2	1	1	2	2	1	1	0	0	0
unknown primary	4.3%	54	0	0	0	0	0	0	1	0	1	0	1	3	11	4	13	14	4	2
lymphoma	2.3%	29	0	1	0	0	0	2	0	2	5	1	1	2	4	3	4	2	1	1

CORK AND KERRY: CASE NUMBERS BY SITE AND AGE-GROUP: FEMALES 1992

	% of total	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers		1345	7	4	2	5	20	28	39	42	71	87	71	98	121	160	170	202	130	88
lip	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0
base of tongue	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
other tongue	0.1%	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
gum	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
floor of mouth	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
palate	0.1%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
other mouth	0.1%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
parotid	0.1%	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
other salivary	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
tonsil	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
oropharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nasopharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
pyriform sinus	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hypopharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other oral	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
oesophagus	1.4%	19	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	5	5	0
stomach	2.5%	33	0	0	0	0	0	0	0	1	1	2	1	1	3	4	5	8	4	3
small intestine	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0
colon	7.1%	96	0	0	1	0	0	0	1	0	2	4	6	5	12	13	17	17	12	6
rectosigmoid	0.6%	8	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	2	1
rectum	2.5%	34	0	0	0	0	0	0	0	0	0	1	1	2	3	1	5	10	7	4
anus	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
liver	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1
gallbladder	0.7%	10	0	0	0	0	0	0	0	0	0	0	0	2	1	1	2	3	1	0
other biliary	0.4%	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	1	0	0
pancreas	1.3%	17	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	4	3	4
other digestive	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
nasal/middle ear	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nasal sinuses	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
larynx	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0
trachea	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bronchus/lung	4.2%	57	0	0	0	0	0	0	0	0	0	1	3	5	3	10	13	13	7	2
thymus	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
mediastinum/pleura	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other thoracic	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bones/joints of limbs	0.1%	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
other bones/joints	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
haematopoietic/RE	4.0%	54	3	4	0	1	0	0	0	1	1	3	0	1	2	2	8	17	8	3
melanoma skin	3.4%	46	0	0	0	2	0	1	2	0	5	8	4	2	3	4	2	6	3	4
non-melanoma skin	29.0%	390	0	0	0	2	0	1	3	2	17	20	18	30	36	51	58	62	53	37
nerves	0.1%	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
peritoneum	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
soft tissues	0.3%	4	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
breast	16.9%	227	0	0	0	0	0	4	3	10	24	26	25	28	22	29	21	16	7	12
vulva	0.4%	6	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	1	1	0
vagina	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
cervix uteri	8.9%	120	0	0	0	1	13	18	23	25	12	16	4	1	3	1	3	0	0	0
cervix invasive	1.3%	18	0	0	0	0	0	0	1	4	2	3	2	1	2	1	2	0	0	0
corpus uteri	1.8%	24	0	0	0	0	0	0	0	0	3	1	3	3	4	4	1	3	2	0
uterus NOS	0.4%	5	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	0
ovary	4.8%	65	0	0	0	1	1	1	4	0	6	4	4	8	7	11	8	5	3	2
other female genital	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
kidney	1.1%	15	1	0	0	0	0	1	0	1	0	1	0	0	3	2	0	4	1	1
ureter	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
bladder	1.6%	21	0	0	0	0	0	0	0	1	0	0	1	2	2	3	1	3	3	5
eye	0.1%	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
meninges	0.2%	3	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0
brain	0.8%	11	1	0	0	0	0	0	0	0	1	0	0	1	2	4	2	0	0	0
other CNS	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
thyroid	0.7%	9	0	0	0	0	2	1	0	0	1	0	0	0	0	2	1	0	1	1
adrenal	0.3%	4	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	1	0	0
other endocrine	0.1%	2	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
ill-defined sites	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0
lymph nodes	1.3%	17	0	0	0	0	3	1	1	0	2	1	0	1	2	1	1	3	1	0
unknown primary site	4.2%	56	0	0	0	0	0	1	0	1	0	1	1	3	4	9	11	14	5	6
lymphoma	2.4%	33	0	0	0	0	3	1	1	0	2	1	0	3	5	3	2	7	5	0

CORK AND KERRY: AGE-SPECIFIC INCIDENCE RATES PER 100,000 PERSONS BY SITE AND AGE-GROUP: MALES 1992

	crude rate	ASW rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	468.7	353.02	33.38%	19.8	4.2	18.9	27.4	39.8	49.8	76.6	111.5	132.1	260.6	471.6	814.9	1361.7	2038.7	2694.8	3826.5	3530.5	4487.0
lip	4.1	2.80	0.32%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	8.7	0.0	10.5	36.6	33.1	64.2	72.4
base of tongue	1.1	0.73	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	16.6	32.1	0.0
other tongue	0.8	0.59	0.10%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	12.2	0.0	0.0	0.0
gum	0.8	0.71	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
floor of mouth	1.1	0.97	0.15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	9.5	0.0	12.2	0.0	0.0	0.0
palate	0.8	0.59	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0
other mouth	0.8	0.64	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0
parotid	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other salivary	0.8	0.50	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0
tonsil	1.1	1.12	0.13%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	8.7	9.5	0.0	0.0	0.0	0.0	0.0
oropharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
nasopharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
pyriform sinus	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
hypopharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other oral	0.4	0.34	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
oesophagus	6.4	5.42	0.62%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	7.9	17.3	37.8	31.4	24.4	0.0	64.2	144.7
stomach	21.8	15.72	1.96%	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	5.7	13.4	0.0	60.7	47.3	104.6	158.5	165.6	224.7	144.7
small intestine	0.8	0.50	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0
colon	39.1	28.18	3.31%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	33.4	31.4	69.3	104.0	167.3	256.1	314.7	449.3	289.5
rectosigmoid	3.4	2.55	0.35%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0	9.5	10.5	24.4	33.1	0.0	0.0
rectum	16.9	13.56	1.84%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	6.7	7.9	34.7	85.1	104.6	121.9	82.8	32.1	144.7
anus	1.1	1.10	0.13%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7	0.0	0.0	10.5	0.0	0.0	0.0	0.0
liver	1.5	1.16	0.16%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9	0.0	12.2	0.0	32.1	0.0
gallbladder	1.5	0.94	0.06%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	33.1	0.0	72.4
other biliary	1.1	0.92	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9	0.0	0.0	16.6	0.0	0.0
pancreas	9.4	6.52	0.69%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	17.3	56.7	20.9	36.6	122.5	96.3	0.0
nasal/middle ear	0.4	0.17	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0
nasal sinuses	0.8	0.49	0.12%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4	0.0	0.0
larynx	6.0	5.25	0.74%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.3	56.7	62.7	12.2	16.6	0.0	0.0
trachea	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bronchus/lung	55.3	41.39	5.54%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	11.5	33.4	29.3	78.0	189.1	355.5	426.8	414.1	256.8	217.1
thymus	0.8	0.71	0.07%	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0

	crude rate	ASW rate	CRR	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
mediastinum/pleura	1.1	0.94	0.07%	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	32.1	0.0
other thoracic	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bones/joints of limbs	0.8	0.84	0.05%	0.0	0.0	0.0	0.0	5.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other bones/joints	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
haematopoietic/RE	19.5	15.38	1.55%	0.0	0.0	3.8	11.7	5.0	5.5	0.0	5.6	11.5	13.4	23.6	34.7	37.8	62.7	97.6	116.0	160.5	289.5
melanoma skin	9.4	8.08	0.91%	0.0	0.0	0.0	0.0	5.0	5.5	16.4	0.0	0.0	6.7	31.4	0.0	37.8	31.4	48.8	33.1	32.1	72.4
non-melanoma skin	143.2	107.54	11.11%	0.0	0.0	3.8	3.9	5.0	16.6	32.8	50.2	23.0	93.5	228.0	208.0	340.4	606.4	743.8	1308.6	995.0	1736.9
nerves	0.4	0.59	0.02%	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
peritoneum	0.4	0.33	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
soft tissues	1.9	1.73	0.12%	0.0	0.0	3.8	0.0	0.0	0.0	0.0	5.6	5.7	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	72.4
breast	1.1	0.95	0.15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0	10.5	12.2	0.0	0.0	0.0
penis	1.5	1.33	0.15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	9.5	0.0	12.2	0.0	0.0	72.4
prostate gland	50.0	32.37	2.95%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	15.7	43.3	104.0	209.1	219.5	679.2	770.3	796.1
testis	4.1	3.90	0.30%	0.0	0.0	0.0	0.0	14.9	5.5	16.4	0.0	0.0	13.4	0.0	0.0	0.0	10.5	0.0	0.0	32.1	0.0
other male genital	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
kidney	7.5	6.32	0.91%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	6.7	23.6	8.7	18.9	52.3	61.0	0.0	32.1	0.0
renal pelvis	0.4	0.24	0.06%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0	0.0
ureter	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bladder	18.4	13.56	1.62%	0.0	0.0	0.0	0.0	0.0	0.0	5.5	5.6	5.7	0.0	15.7	52.0	28.4	104.6	109.7	149.1	128.4	217.1
other urinary	0.4	0.31	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
eye	1.1	0.90	0.16%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7	0.0	10.5	12.2	0.0	0.0	0.0
meninges	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
brain	11.3	10.54	1.06%	14.8	0.0	3.8	3.9	0.0	0.0	10.9	16.7	0.0	6.7	15.7	43.3	37.8	10.5	48.8	33.1	0.0	72.4
other CNS	0.8	0.69	0.04%	0.0	0.0	3.8	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
thyroid	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
adrenal	0.4	0.40	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other endocrine	1.1	1.06	0.10%	0.0	0.0	0.0	3.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
ill-defined sites	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
lymph nodes	5.3	5.13	0.53%	0.0	4.2	0.0	0.0	0.0	11.1	0.0	5.6	11.5	6.7	7.9	17.3	18.9	10.5	12.2	0.0	0.0	0.0
unknown primary site	20.3	14.38	1.73%	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	5.7	0.0	7.9	26.0	104.0	41.8	158.5	231.9	128.4	144.7
lymphoma	10.9	9.47	1.02%	0.0	4.2	0.0	0.0	0.0	11.1	0.0	11.1	28.7	6.7	7.9	17.3	37.8	31.4	48.8	33.1	32.1	72.4

CORK AND KERRY: AGE-SPECIFIC INCIDENCE RATES PER 100,000 PERSONS BY SITE AND AGE-GROUP: FEMALES 1992

	crude rate	ASR rate	ICR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	506.6	359.1	31.86%	38.0	17.6	7.8	20.7	110.2	154.6	211.8	237.7	411.5	609.4	599.1	886.3	1147.5	1463.0	1757.5	2473.9	2480.5	2671.8
lip	1.1	0.76	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	9.1	0.0	12.2	0.0	0.0
base of tongue	0.4	0.38	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0
other tongue	0.8	0.54	0.04%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0
gum	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
floor of mouth	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
palate	0.8	0.55	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.3	0.0	0.0	0.0	0.0
other mouth	0.8	0.37	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	19.1	0.0
parotid	0.8	0.78	0.08%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
other salivary	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
tonsil	0.0	0.00	0.00%	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
oropharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
nasopharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
pyriform sinus	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
hypopharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other oral	0.4	0.12	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0
oesophagus	7.2	3.67	0.43%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.5	27.4	31.0	61.2	95.4	0.0
stomach	12.4	7.40	0.80%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	5.8	14.0	8.4	9.0	28.5	36.6	51.7	98.0	76.3	91.1
small intestine	1.1	0.69	0.10%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	10.3	12.2	0.0	0.0
colon	36.2	23.17	2.73%	0.0	0.0	3.9	0.0	0.0	0.0	5.4	0.0	11.6	28.0	50.6	45.2	113.8	118.9	175.7	208.2	229.0	182.2
rectosigmoid	3.0	1.25	0.04%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	49.0	38.2	

	crude rate	ASR rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
mediast/pleura	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other thoracic	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bones limbs	0.4	0.42	0.04%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other bones	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
haematopoietic/RE	20.3	12.65	0.99%	16.3	17.6	0.0	4.1	0.0	0.0	0.0	5.7	5.8	21.0	0.0	9.0	19.0	18.3	82.7	208.2	152.6	91.1
melanoma skin	17.3	13.63	1.23%	0.0	0.0	0.0	8.3	0.0	5.5	10.9	0.0	29.0	56.0	33.8	18.1	28.5	36.6	20.7	73.5	57.2	121.4
non-melanoma skin	146.9	93.51	10.02%	0.0	0.0	0.0	8.3	0.0	5.5	16.3	11.3	98.5	140.1	151.9	271.3	341.4	466.3	599.6	759.3	1011.3	1123.4
nerves	0.8	0.68	0.05%	0.0	0.0	3.9	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
peritoneum	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
soft tissues	1.5	1.41	0.12%	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	9.1	0.0	12.2	0.0	0.0
breast	85.5	71.18	7.56%	0.0	0.0	0.0	0.0	0.0	22.1	16.3	56.6	139.1	182.1	211.0	253.2	208.6	265.2	217.1	196.0	133.6	364.3
vulva	2.3	1.47	0.17%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	8.4	0.0	0.0	9.1	10.3	12.2	19.1	0.0
vagina	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
cervix uteri	45.2	45.02	3.61%	0.0	0.0	0.0	4.1	71.6	99.4	124.9	141.5	69.6	112.1	33.8	9.0	28.5	9.1	31.0	0.0	0.0	0.0
cervix, invasive	6.8	6.29	0.67%	0.0	0.0	0.0	0.0	0.0	0.0	5.4	22.6	11.6	21.0	16.9	9.0	19.0	9.1	20.7	0.0	0.0	0.0
corpus uteri	9.0	7.19	0.81%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4	7.0	25.3	27.1	37.9	36.6	10.3	36.7	38.2	0.0
uterus NOS	1.9	1.34	0.19%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	9.5	0.0	20.7	12.2	0.0	0.0
ovary	24.5	19.44	2.25%	0.0	0.0	0.0	4.1	5.5	5.5	21.7	0.0	34.8	28.0	33.8	72.4	66.4	100.6	82.7	61.2	57.2	60.7
oth. female genital	0.4	0.21	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.0	0.0	0.0
kidney	5.6	4.28	0.35%	5.4	0.0	0.0	0.0	0.0	5.5	0.0	5.7	0.0	7.0	0.0	0.0	28.5	18.3	0.0	49.0	19.1	30.4
ureter	0.4	0.21	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.0	0.0	0.0
bladder	7.9	4.69	0.44%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	8.4	18.1	19.0	27.4	10.3	36.7	57.2	151.8
other urinary	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
eye	0.4	0.65	0.03%	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
meninges	1.1	1.28	0.10%	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	7.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
brain	4.1	3.63	0.48%	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	9.0	19.0	36.6	20.7	0.0	0.0	0.0
other CNS	0.4	0.27	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.0	0.0	0.0	0.0
thyroid	3.4	2.67	0.25%	0.0	0.0	0.0	0.0	11.0	5.5	0.0	0.0	5.8	0.0	0.0	0.0	0.0	18.3	10.3	0.0	19.1	30.4
adrenal	1.5	1.19	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	10.9	0.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0
other endocrine	0.8	0.71	0.07%	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0
ill-defined sites	1.1	0.31	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	38.2	0.0
lymph nodes	6.4	5.27	0.47%	0.0	0.0	0.0	0.0	16.5	5.5	5.4	0.0	11.6	7.0	0.0	9.0	19.0	9.1	10.3	36.7	19.1	0.0
unknown primary	21.1	12.07	1.43%	0.0	0.0	0.0	0.0	0.0	5.5	0.0	5.7	0.0	7.0	8.4	27.1	37.9	82.3	113.7	171.5	95.4	182.2
lymphoma	12.4	8.76	0.84%	0.0	0.0	0.0	0.0	16.5	5.5	5.4	0.0	11.6	7.0	0.0	27.1	47.4	27.4	20.7	85.7	95.4	0.0

21.6. CORK AND KERRY: SUMMARY TABLE FOR 1993

	males					females				
	cases	% of total	crude rate	ASW rate	CR74	cases	% of total	crude rate	ASW rate	CR74
all cancers	1290		485.7	360.30	34.01%	1341		505.6	357.09	33.08%
lip	9	0.7%	3.4	2.32	0.37%	1	0.1%	0.4	0.21	0.05%
base of tongue	2	0.2%	0.8	0.48	0.05%	0	0.0%	0.0	0.00	0.00%
other tongue	4	0.3%	1.5	1.40	0.11%	1	0.1%	0.4	0.15	0.00%
gum	1	0.1%	0.4	0.39	0.03%	0	0.0%	0.0	0.00	0.00%
floor of mouth	2	0.2%	0.8	0.63	0.10%	1	0.1%	0.4	0.28	0.05%
palate	1	0.1%	0.4	0.38	0.04%	1	0.1%	0.4	0.12	0.00%
other mouth	4	0.3%	1.5	1.25	0.17%	0	0.0%	0.0	0.00	0.00%
parotid	3	0.2%	1.1	0.91	0.13%	3	0.2%	1.1	0.75	0.13%
other salivary	2	0.2%	0.8	0.73	0.00%	2	0.1%	0.8	0.56	0.07%
tonsil	3	0.2%	1.1	0.74	0.18%	2	0.1%	0.8	0.42	0.05%
oropharynx	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
nasopharynx	1	0.1%	0.4	0.37	0.05%	0	0.0%	0.0	0.00	0.00%
pyriform	1	0.1%	0.4	0.38	0.04%	1	0.1%	0.4	0.39	0.05%
hypopharynx	3	0.2%	1.1	0.96	0.14%	0	0.0%	0.0	0.00	0.00%
other mouth/pharynx	1	0.1%	0.4	0.37	0.05%	0	0.0%	0.0	0.00	0.00%
oesophagus	29	2.2%	10.9	7.88	0.91%	17	1.3%	6.4	3.58	0.45%
stomach	47	3.6%	17.7	13.28	1.70%	34	2.5%	12.8	6.45	0.82%
small intestine	3	0.2%	1.1	0.97	0.14%	2	0.1%	0.8	0.55	0.08%
colon	110	8.5%	41.4	28.88	3.59%	79	5.9%	29.8	18.44	2.26%
rectosigmoid	13	1.0%	4.9	3.88	0.48%	8	0.6%	3.0	2.08	0.29%
rectum	49	3.8%	18.4	13.90	1.60%	19	1.4%	7.2	4.67	0.53%
anus	3	0.2%	1.1	1.04	0.13%	4	0.3%	1.5	1.36	0.16%
liver	3	0.2%	1.1	0.99	0.14%	3	0.2%	1.1	0.60	0.10%
gallbladder	1	0.1%	0.4	0.36	0.00%	7	0.5%	2.6	1.61	0.25%
other biliary	4	0.3%	1.5	1.12	0.15%	3	0.2%	1.1	0.45	0.05%
pancreas	32	2.5%	12.0	9.68	1.25%	30	2.2%	11.3	6.69	0.73%
other digestive	1	0.1%	0.4	0.25	0.06%	1	0.1%	0.4	0.09	0.00%
nasal cavity/middle ear	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
sinuses	1	0.1%	0.4	0.37	0.05%	0	0.0%	0.0	0.00	0.00%
larynx	16	1.2%	6.0	5.18	0.68%	3	0.2%	1.1	0.78	0.15%
trachea	2	0.2%	0.8	0.63	0.10%	0	0.0%	0.0	0.00	0.00%
lung	157	12.2%	59.1	43.78	5.35%	70	5.2%	26.4	17.70	2.18%
thymus	0	0.0%	0.0	0.00	0.00%	1	0.1%	0.4	0.21	0.05%
mediastinum	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
other chest	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
bones, joints of limbs	1	0.1%	0.4	0.37	0.05%	2	0.1%	0.8	0.78	0.05%
bones, joints head and trunk	4	0.3%	1.5	1.31	0.16%	1	0.1%	0.4	0.45	0.03%
haematopoietic/RE	42	3.3%	15	11.33	1.37%	47	3.5%	17.7	11.94	1.44%
melanoma skin	35	2.7%	15.8	11.20	0.95%	54	4.0%	20.4	16.74	1.74%
non-melanoma skin	371	28.8%	132	104.77	10.14%	389	29.0%	146.7	93.72	10.13%
peripheral nerves	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
peritoneum	0	0.0%	0.0	0.00	0.00%	1	0.1%	0.4	0.32	0.03%
connective tissues	4	0.3%	1.5	1.75	0.14%	7	0.5%	2.6	2.30	0.14%
breast	0	0.0%	0.0	0.00	0.00%	258	19.2%	97.3	77.36	8.37%
vulva	0	0.0%	0.0	0.00	0.00%	7	0.5%	2.6	1.58	0.17%
vagina	0	0.0%	0.0	0.00	0.00%	2	0.1%	0.8	0.63	0.09%
cervix	0	0.0%	0.0	0.00	0.00%	101	7.5%	38.1	35.91	3.20%
corpus uteri	0	0.0%	0.0	0.00	0.00%	28	2.1%	10.6	8.78	0.99%
uterus NOS	0	0.0%	0.0	0.00	0.00%	5	0.4%	1.9	1.12	0.13%
ovary	0	0.0%	0.0	0.00	0.00%	37	2.8%	13.9	11.55	1.31%
penis	2	0.2%	0.8	0.41	0.06%	0	0.0%	0.0	0.00	0.00%
prostate	162	12.6%	61.0	38.47	4.35%	0	0.0%	0.0	0.00	0.00%
testis	21	1.6%	7.9	7.64	0.58%	0	0.0%	0.0	0.00	0.00%
other male genital	2	0.2%	0.8	0.41	0.06%	0	0.0%	0.0	0.00	0.00%
kidney	19	1.5%	7.2	5.43	0.64%	15	1.1%	5.7	5.16	0.55%

21.6. CORK AND KERRY: SUMMARY TABLE FOR 1993 CONTINUED

	males					females				
	cases	% of total	crude rate	ASW rate	CR74	cases	% of total	crude rate	ASW rate	CR74
renal pelvis	1	0.1%	0.4	0.37	0.05%	1	0.1%	0.4	0.12	0.00%
ureter	0	0.0%	0.0	0.00	0.00%	1	0.1%	0.4	0.36	0.05%
bladder	46	3.6%	17.3	11.68	1.41%	26	1.9%	9.8	6.25	0.79%
other urinary	0	0.0%	0.0	0.00	0.00%	0	0.0%	0.0	0.00	0.00%
eye	6	0.5%	2.3	1.56	0.17%	2	0.1%	0.8	0.61	0.07%
meninges	0	0.0%	0.0	0.00	0.00%	2	0.1%	0.8	0.40	0.05%
brain	27	2.1%	10.2	8.84	0.91%	20	1.5%	7.5	6.24	0.65%
spinal cord	1	0.1%	0.4	0.39	0.03%	1	0.1%	0.4	0.42	0.04%
thyroid	6	0.5%	2.3	1.97	0.23%	11	0.8%	4.1	3.74	0.39%
adrenal	1	0.1%	0.4	0.32	0.05%	0	0.0%	0.0	0.00	0.00%
other endocrine	5	0.4%	1.9	2.09	0.18%	2	0.1%	0.8	0.79	0.08%
ill-defined	3	0.2%	1.1	0.94	0.03%	4	0.3%	1.5	1.11	0.11%
lymph nodes	19	1.5%	7.2	6.29	0.62%	21	1.6%	7.9	6.57	0.56%
unknown primary	39	3.0%	14.7	10.46	1.42%	57	4.3%	21.5	10.76	1.19%
lymphoma	36	2.8%	13.6	11.8	1.15%	35	2.6%	13.2	10.15	0.98%

21.7. CORK AND KERRY: CASE NUMBERS BY SITE AND AGE-GROUP: MALES 1993

[illegible]

	% of total	All ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
mediastinum	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other chest	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bones, joints of limbs	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
bones, joints head and trunk	0.3%	4	0	0	0	1	0	0	0	0	1	0	0	0	1	0	1	0	0	0
haematopoietic/RE	3.3%	42	0	1	1	0	0	1	0	0	0	1	1	1	4	8	13	6	5	0
melanoma skin	2.7%	35	0	0	0	0	1	2	3	2	2	6	0	2	4	3	1	5	2	2
non-melanoma skin	28.8%	371	0	0	0	0	3	2	5	8	13	20	20	28	45	42	48	59	54	24
peripheral nerves	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
peritoneum	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
connective tissues	0.3%	4	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0
breast	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
penis	0.2%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
prostate	12.6%	162	0	0	0	0	0	0	0	0	0	0	2	5	8	23	42	40	32	10
testis	1.6%	21	0	0	0	1	3	5	4	3	1	1	0	1	0	1	0	1	0	0
other male genital	0.2%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
kidney	1.5%	19	0	0	0	0	0	0	0	2	0	0	4	1	1	3	3	5	0	0
renal pelvis	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
ureter	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bladder	3.6%	46	0	0	0	0	0	0	0	0	1	1	1	4	6	5	10	10	8	0
other urinary	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eye	0.5%	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	0	1
meninges	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
brain	2.1%	27	0	0	0	1	0	2	0	1	2	2	4	4	2	4	1	3	1	0
spinal cord	0.1%	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
thyroid	0.5%	6	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	1
adrenal	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
other endocrine	0.4%	5	1	0	0	0	0	0	0	0	0	2	0	1	1	0	0	0	0	0
ill-defined	0.2%	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
lymph nodes	1.5%	19	1	0	0	1	1	0	1	1	2	1	1	2	0	3	2	1	1	1
unknowns primary	3.0%	39	0	0	0	0	0	0	0	0	0	2	1	2	4	5	13	6	4	2
lymphoma	2.8%	36	1	0	0	1	1	0	3	1	3	4	2	2	3	4	4	1	3	3

21.8 CORK AND KERRY: CASE NUMBERS BY SITE AND AGE-GROUP: FEMALES 1993

site	% of total	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers		1341	5	2	1	7	12	20	36	58	65	88	77	91	123	167	203	182	115	89
lip	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
base of tongue	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other tongue	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
gum	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
floor of mouth	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
palate	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
other mouth	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
parotid	0.2%	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0
other salivary	0.1%	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
tonsil	0.1%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
oropharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nasopharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
pyriform	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
hypopharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other mouth/pharynx	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
oesophagus	1.3%	17	0	0	0	0	0	0	0	0	1	0	1	1	0	4	3	3	4	0
stomach	2.5%	34	0	0	0	0	0	0	0	0	0	1	0	2	1	4	9	8	6	3
small intestine	0.1%	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
colon	5.9%	79	0	0	0	0	0	2	0	1	2	2	3	6	6	10	18	15	7	7
rectosigmoid	0.6%	8	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	2	0
rectum	1.4%	19	0	0	0	0	0	0	0	0	1	2	1	1	2	2	3	3	3	1
anus	0.3%	4	0	0	0	0	0	1	0	0	0	0	0	1	0	2	0	0	0	0
liver	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0
gallbladder	0.5%	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	1	1	0
other biliary	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
pancreas	2.2%	30	0	0	0	0	0	0	0	0	1	0	1	2	3	7	2	9	2	3
other digestive	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
nasal/middle ear	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
sinuses	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
larynx	0.2%	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0
trachea	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lung	5.2%	70	0	0	0	0	0	0	0	0	0	2	4	7	11	12	11	10	5	8
thymus	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

21.8 CORK AND KERRY: CASE NUMBERS BY SITE AND AGE-GROUP: FEMALES 1993

site	% of total	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
mediastinum	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other chest	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bones, joints of limbs	0.1%	2	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
bones, joints head and trunk	0.1%	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
haematopoietic/RE	3.5%	47	2	0	0	2	1	0	0	1	1	1	2	2	4	3	14	4	9	1
melanoma skin	4.0%	54	0	0	0	2	1	2	2	4	6	7	3	1	7	4	7	6	1	1
non-melanoma skin	29.0%	389	0	0	0	2	1	3	3	12	16	19	25	15	33	47	68	61	44	40
peripheral nerves	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
peritoneum	0.1%	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
connective tissues	0.5%	7	0	0	0	1	1	2	0	0	0	1	0	0	0	0	0	0	2	0
breast	19.2%	258	0	0	0	0	0	1	6	13	22	32	18	28	31	35	26	26	12	8
vulva	0.5%	7	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0	1	2	0
vagina	0.1%	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
cervix	7.5%	101	0	0	0	0	5	9	19	21	12	12	6	3	4	5	4	0	0	1
corpus uteri	2.1%	28	0	0	0	0	0	0	1	1	1	2	2	5	7	2	2	3	0	2
uterus NOS	0.4%	5	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	1	0
ovary	2.8%	37	0	0	0	0	0	0	1	1	1	5	6	5	4	3	5	4	0	2
kidney	1.1%	15	2	0	0	0	0	0	0	0	1	0	1	3	2	2	2	1	1	0
renal pelvis	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
ureter	0.1%	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
bladder	1.9%	26	0	0	0	0	1	0	1	0	1	1	1	2	0	5	6	4	2	2
other urinary	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eye	0.1%	2	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
meninges	0.1%	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
brain	1.5%	20	1	1	0	1	0	0	0	0	1	1	1	1	3	4	2	2	0	2
spinal cord	0.1%	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
thyroid	0.8%	11	0	0	0	0	0	0	2	0	0	3	0	2	2	1	0	0	1	0
adrenal	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other endocrine	0.1%	2	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
ill-defined	0.3%	4	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	0
lymph nodes	1.6%	21	0	0	0	1	1	1	2	3	3	1	2	0	1	2	0	3	1	0
unknown primary	4.3%	57	0	0	0	0	0	0	0	0	0	2	1	1	3	7	11	16	9	7
lymphoma	2.6%	35	0	0	0	1	1	2	1	3	6	2	1	1	2	4	3	5	1	2

	male rate	ASW rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 +
mediastinum	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other chest	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bones, joints of limbs	0.4	0.37	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0
bones, joints head and trunk	1.5	1.31	0.16%	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	9.2	0.0	12.3	0.0	0.0	0.0
haematopoietic/RE	15.8	11.33	1.57%	0.0	4.3	3.8	0.0	0.0	5.5	0.0	0.0	0.0	6.5	7.7	8.4	36.9	84.2	159.6	100.1	161.6	0.0
melanoma skin	13.2	11.20	0.95%	0.0	0.0	0.0	0.0	5.0	11.1	16.4	11.1	11.5	39.1	0.0	16.9	36.9	31.6	12.3	83.4	64.6	145.8
non-melanoma skin	139.7	104.77	10.14%	0.0	0.0	0.0	0.0	15.1	11.1	27.3	44.5	74.6	130.2	153.2	236.5	414.7	442.2	589.5	984.3	1745.5	1749.3
peripheral nerves	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
peritoneum	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
connective tissues	1.5	1.75	0.14%	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	7.7	0.0	9.2	0.0	0.0	0.0	0.0	0.0
breast	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
penis	0.8	0.41	0.06%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	0.0	32.3	0.0
prostate	61.0	38.47	4.35%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3	42.2	73.7	242.2	515.8	667.3	1034.4	728.9
testis	7.9	7.64	0.58%	0.0	0.0	0.0	4.0	15.1	27.6	21.9	16.7	5.7	6.5	0.0	8.4	0.0	10.5	0.0	16.7	0.0	0.0
other male genital	0.8	0.41	0.06%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	16.7	0.0	0.0
kidney	7.2	5.43	0.64%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	0.0	0.0	30.6	8.4	9.2	31.6	36.8	83.4	0.0	0.0
renal pelvis	0.4	0.37	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0	0.0
ureter	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bladder	17.3	11.68	1.41%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	6.5	7.7	33.8	55.3	52.6	122.8	166.8	258.6	0.0
other urinary	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
eye	2.3	1.56	0.17%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	24.6	33.4	0.0	72.9
meninges	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
brain	10.2	8.84	0.91%	0.0	0.0	0.0	4.0	0.0	11.1	0.0	5.6	11.5	13.0	30.6	33.8	18.4	42.1	12.3	50.0	32.3	0.0
spinal cord	0.4	0.39	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
thyroid	2.3	1.97	0.23%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	8.4	9.2	10.5	12.3	0.0	0.0	72.9
adrenal	0.4	0.32	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0	0.0
other endocrine	1.9	2.09	0.18%	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	8.4	9.2	0.0	0.0	0.0	0.0	0.0
ill-defined	1.1	0.94	0.03%	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.4	0.0	0.0
lymph nodes	7.2	6.29	0.62%	5.0	0.0	0.0	4.0	5.0	0.0	5.5	5.6	11.5	6.5	7.7	16.9	0.0	31.6	24.6	16.7	32.3	72.9
unknown primary	14.7	10.46	1.42%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	7.7	16.9	36.9	52.6	159.6	100.1	129.3	145.8
lymphoma	13.6	11.8	1.15%	5.0	0.0	0.0	4.0	5.0	0.0	16.4	5.6	17.2	26.0	15.3	16.9	27.6	42.1	49.1	16.7	97.0	218.7

21.10 CORK AND KERRY: AGE-SPECIFIC INCIDENCE RATES BY SITE AND AGE-GROUP: FEMALES 1993

site	crude rate	ASR rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	505.6	357.09	33.08%	28.4	9.0	3.9	29.0	67.5	110.8	194.1	325.5	365.7	600.0	643.4	823.5	1185.0	1533.6	2113.0	2189.8	2128.6	2625.2
lip	0.4	0.21	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0
base of tongue	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other tongue	0.4	0.15	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.5
gum	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
floor of mouth	0.4	0.28	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0
palate	0.4	0.12	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0
other mouth	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
parotid	1.1	0.75	0.13%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	20.8	0.0	0.0	0.0
other salivary	0.8	0.56	0.07%	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0
tonsil	0.8	0.42	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	29.5
oropharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
nasopharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
pyriform	0.4	0.39	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0
hypopharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other mouth/pharynx	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
esophagus	6.4	3.58	0.45%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	8.4	9.0	0.0	36.7	31.2	36.1	74.0	0.0	0.0
stomach	12.8	6.45	0.82%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	18.1	9.6	36.7	93.7	96.3	111.1	88.5
small intestine	0.8	0.55	0.08%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0
colon	29.8	18.44	2.26%	0.0	0.0	0.0	0.0	0.0	11.1	0.0	5.6	11.3	13.6	25.1	54.3	57.8	91.8	187.4	180.5	129.6	206.5
rectosigmoid	3.0	2.08	0.29%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	19.3	18.4	10.4	0.0	37.0	0.0
rectum	7.2	4.67	0.53%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	13.6	8.4	9.0	19.3	18.4	31.2	36.1	55.5	29.5	0.0
anus	1.5	1.36	0.16%	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	9.0	0.0	18.4	0.0	0.0	0.0	0.0
liver	1.1	0.60	0.10%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	10.4	12.0	0.0	0.0
gallbladder	2.6	1.61	0.25%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	0.0	31.2	12.0	18.5	0.0
other biliary	1.1	0.45	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	24.1	0.0	0.0
pancreas	11.3	6.69	0.73%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	8.4	18.1	28.9	64.3	20.8	108.3	37.0	88.5	0.0
other digestive	0.4	0.09	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.5	0.0
nasal cavity/middle ear	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
larynx	1.1	0.78	0.15%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	20.8	0.0	0.0	0.0
trachea	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
lung	26.4	17.70	2.18%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	33.4	63.3	106.0	110.2	114.5	120.3	92.5	236.0
thymus	0.4	0.21	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0
mediastinum	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

site	crude rate	ASV rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
other chest	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bones, joints of limbs	0.8	0.78	0.05%	0.0	4.5	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bones, joints head and trunk	0.4	0.45	0.03%	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
haematopoietic/RE	17.7	11.94	1.44%	11.4	0.0	0.0	8.3	5.6	0.0	0.0	5.6	5.6	6.8	16.7	18.1	38.5	27.5	145.7	48.1	166.6	29.5
melanoma skin	20.4	16.74	1.74%	0.0	0.0	0.0	8.3	5.6	11.1	10.8	22.5	33.8	47.7	25.1	9.0	67.4	36.7	72.9	72.2	37.0	0.0
non-melanoma skin	146.7	93.72	10.13%	0.0	0.0	0.0	8.3	5.6	16.6	16.2	67.4	90.0	129.5	208.9	135.7	317.9	431.6	707.8	733.9	814.4	1179.9
peripheral nerves	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
peritoneum	0.4	0.32	0.03%	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
connective tissues	2.6	2.30	0.14%	0.0	0.0	0.0	4.1	5.6	11.1	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	0.0	37.0	0.0
breast	97.3	77.36	8.37%	0.0	0.0	0.0	0.0	0.0	5.5	32.3	73.0	123.8	218.2	150.4	253.4	298.7	321.4	270.6	312.8	222.1	236.0
vulva	2.6	1.58	0.17%	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	0.0	12.0	37.0	0.0
vagina	0.8	0.63	0.09%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	10.4	0.0	0.0	0.0
cervix	38.1	35.91	3.20%	0.0	0.0	0.0	0.0	28.1	49.9	102.4	117.9	67.5	81.8	50.1	27.1	38.5	45.9	41.6	0.0	0.0	29.5
corpus uteri	10.6	8.78	0.99%	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.6	5.6	13.6	16.7	45.2	67.4	18.4	20.8	36.1	0.0	59.0
uterus NOS	1.9	1.12	0.13%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	9.0	0.0	0.0	10.4	12.0	18.5	0.0
ovary	13.9	11.55	1.31%	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.6	5.6	34.1	50.1	45.2	38.5	27.5	52.0	48.1	0.0	59.0
placenta	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
kidney	5.7	5.16	0.55%	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	8.4	27.1	19.3	18.4	20.8	12.0	18.5	0.0
renal pelvis	0.4	0.12	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0
ureter	0.4	0.36	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
bladder	9.8	6.25	0.79%	0.0	0.0	0.0	0.0	5.6	9.0	5.4	0.0	5.6	6.8	8.4	18.1	0.0	45.9	62.5	48.1	37.0	59.0
other urinary	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
eye	0.8	0.61	0.07%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	9.2	0.0	0.0	0.0	0.0
meninges	0.8	0.40	0.05%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.0	12.0	0.0	0.0
brain	7.5	6.24	0.65%	5.7	4.5	0.0	4.1	0.0	0.0	0.0	0.0	5.6	6.8	8.4	9.0	28.9	36.7	20.8	24.1	0.0	59.0
spinal cord	0.4	0.42	0.04%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
thyroid	4.1	3.74	0.39%	0.0	0.0	0.0	0.0	0.0	0.0	10.8	0.0	0.0	20.5	0.0	18.1	19.3	9.2	0.0	0.0	18.5	0.0
adrenal	0.0	0.00	0.00%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
other endocrine	0.8	0.79	0.08%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	9.6	0.0	0.0	0.0	0.0	0.0
ill-defined	1.5	1.11	0.11%	0.0	0.0	0.0	0.0	5.6	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	10.4	12.0	0.0	0.0
lymph nodes	7.9	6.57	0.56%	0.0	0.0	0.0	4.1	5.6	5.5	10.8	16.8	16.9	6.8	16.7	0.0	9.6	18.4	0.0	36.1	18.5	0.0
unknown primary	21.5	10.76	1.19%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	8.4	9.0	28.9	64.3	114.5	192.5	166.6	206.5
lymphoma	13.2	10.15	0.98%	0.0	0.0	0.0	4.1	5.6	11.1	5.4	16.8	33.8	13.6	8.4	9.0	19.3	36.7	31.2	60.2	18.5	59.0

Data tables for Ireland, 1994.

22.1. NUMBER OF CASES, % OF TOTAL, CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK BY SITE: MALES

site	cases	% of total	crude rate	ASV rate	CR74
all cancers	9428		531.78	427.74	38.69%
all sites except non-melanoma skin	6101	64.7%	344.13	277.37	23.38%
non-melanoma skin	3327	35.3%	187.66	150.37	15.31%
prostate	1000	10.6%	56.40	41.20	4.31%
colorectal	995	10.6%	56.12	45.07	5.34%
lung	987	10.5%	55.67	45.04	5.89%
colon	592	6.3%	33.39	26.66	3.09%
unknowns primary	366	3.9%	20.64	16.52	2.00%
haematopoietic and reticuloendothelial	357	3.8%	20.14	16.47	1.82%
bladder	345	3.7%	19.46	15.01	1.61%
stomach	304	3.2%	17.15	13.76	1.62%
rectum	296	3.1%	16.70	13.60	1.70%
lymphoma	244	2.6%	13.76	11.94	1.25%
leukaemia	171	1.8%	9.65	8.06	0.86%
oesophagus	168	1.8%	9.48	7.68	0.86%
melanoma	165	1.8%	9.31	7.86	0.84%
lymph nodes	155	1.6%	8.74	7.44	0.73%
pancreas	142	1.5%	8.01	6.27	0.67%
brain	142	1.5%	8.01	7.58	0.80%
kidney	138	1.5%	7.78	6.79	0.81%
rectosigmoid	95	1.0%	5.36	4.19	0.49%
larynx	95	1.0%	5.36	4.45	0.58%
testis	65	0.7%	3.67	3.38	0.26%
lip	55	0.6%	3.10	2.47	0.29%
liver	42	0.4%	2.37	1.81	0.25%
connective tissues	35	0.4%	1.97	1.65	0.17%
other biliary	32	0.3%	1.80	1.57	0.21%
small intestine	31	0.3%	1.75	1.57	0.18%
floor of mouth	29	0.3%	1.64	1.45	0.18%
other endocrine	28	0.3%	1.58	1.30	0.13%
other tongue	26	0.3%	1.47	1.30	0.18%
ill-defined site	25	0.3%	1.41	1.17	0.11%
eye	24	0.3%	1.35	1.25	0.12%
thyroid	23	0.2%	1.30	0.99	0.12%
tonsil	21	0.2%	1.18	1.08	0.14%
mediastinum	21	0.2%	1.18	0.93	0.11%
penis	21	0.2%	1.18	1.10	0.12%
spinal cord	20	0.2%	1.13	1.04	0.11%
bones, joints of limbs	18	0.2%	1.02	0.91	0.08%
parotid	16	0.2%	0.90	0.73	0.06%
pyriform	16	0.2%	0.90	0.91	0.10%
breast	13	0.1%	0.73	0.56	0.08%
base of tongue	13	0.1%	0.73	0.63	0.08%
anus	12	0.1%	0.68	0.62	0.06%
renal pelvis	12	0.1%	0.68	0.65	0.06%
other mouth	11	0.1%	0.62	0.59	0.07%
nasopharynx	11	0.1%	0.62	0.54	0.07%
other digestive	10	0.1%	0.56	0.43	0.04%
bones, head and trunk	10	0.1%	0.56	0.52	0.05%
palate	10	0.1%	0.56	0.44	0.05%
other salivary	9	0.1%	0.51	0.40	0.06%

22.1. Number of cases, % of total, crude rate,
age-standardised rate and cumulative risk by site: males continued

nasal cavity/middle ear	9	0.1%	0.51	0.45	0.04%
meninges	8	0.1%	0.45	0.42	0.04%
gallbladder	8	0.1%	0.45	0.33	0.04%
oropharynx	8	0.1%	0.45	0.41	0.04%
other mouth/pharynx	8	0.1%	0.45	0.41	0.06%
peritoneum	7	0.1%	0.39	0.33	0.04%
hypopharynx	7	0.1%	0.39	0.37	0.04%
sinuses	7	0.1%	0.39	0.34	0.06%
peripheral nerves	6	0.1%	0.34	0.30	0.03%
other male genital	5	0.1%	0.28	0.25	0.02%
other urinary	5	0.1%	0.28	0.27	0.03%
ureter	4	0.0%	0.23	0.23	0.02%
adrenal	4	0.0%	0.23	0.30	0.02%
gum	3	0.0%	0.17	0.16	0.02%
trachea	3	0.0%	0.17	0.16	0.02%
thymus	2	0.0%	0.11	0.09	0.02%
other chest	1	0.0%	0.06	0.03	0.00%

22.2 NUMBER OF CASES, % OF TOTAL, CRUDE RATE , AGE-STANDARDISED RATE AND CUMULATIVE RISK BY SITE: FEMALES

site	cases	% of total	crude rate	ASW rate	CR74
all cancers	9888		552.18	404.29	35.29%
all sites except non-melanoma skin	6807	68.84%	380.13	292.94	23.91%
non-melanoma skin	3081	31.2%	172.05	111.35	11.37%
breast	1544	15.6%	86.22	72.12	7.83%
cervix (including in situ)	1061	10.7%	59.25	56.22	4.49%
colorectal	790	8.0%	44.07	28.87	3.36%
colon	559	5.7%	31.22	20.49	2.41%
lung	468	4.7%	26.14	17.31	2.25%
melanoma	315	3.2%	17.59	13.74	1.40%
haematopoietic and reticuloendothelial	314	3.2%	17.54	12.03	1.30%
unknown primary	312	3.2%	17.42	11.23	1.29%
ovary	280	2.8%	15.64	12.53	1.38%
lymphoma	211	2.1%	11.78	9.09	1.02%
corpus uteri	182	1.8%	10.16	8.15	1.00%
stomach	172	1.7%	9.61	5.99	0.71%
cervix (invasive)	170	1.7%	9.49	8.47	0.87%
bladder	164	1.7%	9.16	6.00	0.66%
rectum	157	1.6%	8.77	5.66	0.64%
lymph nodes	142	1.4%	7.93	6.27	0.66%
pancreas	142	1.4%	7.93	4.62	0.49%
leukoemia	135	1.4%	7.54	5.64	0.55%
oesophagus	127	1.3%	7.09	4.21	0.45%
brain	113	1.1%	6.31	5.59	0.55%
kidney	80	0.8%	4.47	3.10	0.32%
rectosigmoid	61	0.6%	3.41	2.19	0.25%
meninges	47	0.5%	2.62	2.21	0.25%
thyroid	46	0.5%	2.57	2.05	0.19%
vulva	42	0.4%	2.35	1.49	0.18%
ill-defined site	39	0.4%	2.18	1.58	0.19%
uterus NOS	35	0.4%	1.95	1.53	0.17%
connective tissues	29	0.3%	1.62	1.42	0.13%
liver	27	0.3%	1.51	0.89	0.11%
small intestine	26	0.3%	1.45	1.11	0.13%
spinal cord	24	0.2%	1.34	1.27	0.11%
eye	23	0.2%	1.28	1.09	0.12%
gallbladder	23	0.2%	1.28	0.79	0.09%
other biliary	21	0.2%	1.17	0.72	0.11%
larynx	20	0.2%	1.12	0.90	0.12%
other endocrine	19	0.2%	1.06	0.93	0.09%
other tongue	16	0.2%	0.89	0.60	0.06%
anus	13	0.1%	0.73	0.53	0.06%
ureter	11	0.1%	0.61	0.39	0.03%
other female genital	11	0.1%	0.61	0.52	0.06%
bones, joints of limbs	10	0.1%	0.56	0.44	0.05%
other digestive	10	0.1%	0.56	0.28	0.02%
peritoneum	10	0.1%	0.56	0.39	0.04%
lip	9	0.1%	0.50	0.43	0.05%
parotid	9	0.1%	0.50	0.40	0.04%
renal pelvis	9	0.1%	0.50	0.27	0.03%
hypopharynx	9	0.1%	0.50	0.27	0.02%
vagina	9	0.1%	0.61	0.52	0.06%
floor of mouth	7	0.1%	0.39	0.23	0.02%
other mouth	7	0.1%	0.39	0.25	0.03%
bones, joints head and trunk	7	0.1%	0.39	0.32	0.05%
tonsil	6	0.1%	0.33	0.21	0.04%
mediastinum	5	0.1%	0.28	0.17	0.03%

22.2 Number of cases, % of total, crude rate ,
age-standardised rate and cumulative risk by site: females continued.....

other salivary	4	0.0%	0.22	0.12	0.01%
pyriform sinus	3	0.0%	0.17	0.11	0.01%
base of tongue	3	0.0%	0.17	0.12	0.02%
palate	3	0.0%	0.17	0.11	0.01%
oropharynx	3	0.0%	0.17	0.12	0.01%
gum	3	0.0%	0.17	0.12	0.01%
nasopharynx	2	0.0%	0.11	0.09	0.01%
other mouth/pharynx	2	0.0%	0.11	0.07	0.01%
sinuses	2	0.0%	0.11	0.07	0.00%
peripheral nerves	2	0.0%	0.11	0.10	0.01%
adrenal	2	0.0%	0.11	0.15	0.01%
trachea	2	0.0%	0.11	0.04	0.00%
thymus	2	0.0%	0.11	0.10	0.01%
nasal cavity/middle ear	1	0.0%	0.06	0.06	0.01%
placenta	1	0.0%	0.06	0.05	0.00%

22.3 NUMBER OF CASES: CASES, % OF TOTAL, CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK BY SITE: BOTH SEXES

site	cases	% of total	crude rate	ASW rate	CR74
all cancers	19316		542.01	408.23	36.69
all sites except non-melanoma skin	12908	66.83%	362.22	279.82	23.46%
non-melanoma skin	6408	33.2%	179.80	128.40	13.23%
colorectal	1785	9.2%	50.09	36.14	4.33%
breast	1557	8.1%	43.69	37.33	4.13%
lung	1455	7.5%	40.83	30.03	3.97%
colon	1151	6.0%	32.30	23.23	2.73%
cervix	1061	5.5%	59.25	56.22	4.49%
prostate	1000	5.2%	56.40	41.20	4.31%
unknown primary	678	3.5%	19.03	13.67	1.62%
haematopoietic and reticuloendothelial	671	3.5%	18.83	13.98	1.55%
bladder	509	2.6%	14.28	9.98	1.11%
melanoma	480	2.5%	13.47	10.77	1.12%
stomach	476	2.5%	13.36	9.62	1.15%
lymphoma	455	2.4%	12.77	10.44	1.13%
rectum	453	2.3%	12.71	9.27	1.14%
leukaemia	306	1.6%	8.59	6.67	0.69%
lymph nodes	297	1.5%	8.33	6.82	0.69%
oesophagus	295	1.5%	8.28	5.77	0.64%
pancreas	284	1.5%	7.97	5.38	0.58%
ovary	280	1.4%	15.64	12.53	1.38%
brain	255	1.3%	7.16	6.56	0.67%
kidney	218	1.1%	6.12	4.83	0.55%
corpus uteri	182	0.9%	10.16	8.15	1.00%
cervix (invasive)	170	0.9%	9.49	8.47	0.87%
rectosigmoid	156	0.8%	4.38	3.08	0.36%
larynx	115	0.6%	3.23	2.56	0.33%
liver	69	0.4%	1.94	1.33	0.18%
thyroid	69	0.4%	1.94	1.54	0.15%
testis	65	0.3%	3.67	3.38	0.26%
lip	64	0.3%	1.80	1.35	0.16%
connective tissues	64	0.3%	1.80	1.51	0.15%
ill-defined site	64	0.3%	1.80	1.38	0.15%
small intestine	57	0.3%	1.60	1.34	0.16%
meninges	55	0.3%	1.54	1.33	0.15%
other biliary	53	0.3%	1.49	1.11	0.16%
eye	47	0.2%	1.32	1.18	0.12%
other endocrine	47	0.2%	1.32	1.10	0.12%
spinal cord	44	0.2%	1.23	1.14	0.11%
other tongue	42	0.2%	1.18	0.94	0.12%
vulva	42	0.2%	2.35	1.49	0.18%
floor of mouth	36	0.2%	1.01	0.83	0.10%
uterus NOS	35	0.2%	1.95	1.53	0.17%
gallbladder	31	0.2%	0.87	0.60	0.07%
bones, joints of limbs	28	0.1%	0.79	0.68	0.07%
tonsil	27	0.1%	0.76	0.62	0.09%
mediastinum	26	0.1%	0.73	0.53	0.07%
parotid	25	0.1%	0.70	0.55	0.06%
anus	25	0.1%	0.70	0.56	0.06%
penis	21	0.1%	1.18	1.10	0.12%
renal pelvis	21	0.1%	0.59	0.43	0.05%
other digestive	20	0.1%	0.56	0.36	0.04%
pyriform sinus	19	0.1%	0.53	0.48	0.06%
other mouth	18	0.1%	0.51	0.41	0.05%
bones, joints head and trunk	17	0.1%	0.48	0.42	0.06%
peritoneum	17	0.1%	0.48	0.36	0.04%

base of tongue	16	0.1%	0.45	0.37	0.05%
hypopharynx	16	0.1%	0.45	0.33	0.03%
ureter	15	0.1%	0.42	0.33	0.03%
palate	13	0.1%	0.36	0.27	0.03%
other salivary	13	0.1%	0.36	0.25	0.03%
nasopharynx	13	0.1%	0.36	0.31	0.04%
oropharynx	11	0.1%	0.31	0.25	0.02%
other female genital	11	0.1%	0.61	0.52	0.06%
other mouth/pharynx	10	0.1%	0.28	0.24	0.03%
nasal cavity/middle ear	10	0.1%	0.28	0.24	0.02%
sinuses	9	0.0%	0.25	0.19	0.03%
vagina	9	0.0%	0.61	0.52	0.06%
peripheral nerves	8	0.0%	0.22	0.20	0.02%
gum	6	0.0%	0.17	0.15	0.02%
adrenal	6	0.0%	0.17	0.23	0.01%
trachea	5	0.0%	0.14	0.10	0.01%
other male genital	5	0.0%	0.28	0.25	0.02%
other urinary	5	0.0%	0.14	0.13	0.01%
thymus	4	0.0%	0.11	0.09	0.02%
other chest	1	0.0%	0.03	0.01	0.00%
placenta	1	0.0%	0.06	0.05	0.00%

22.4 NUMBER OF CASES BY SITE AND AGE-GROUP: MALES

	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	9428	26	13	21	40	43	50	86	110	175	293	466	692	1093	1418	1781	1501	1055	565
lip	55	0	0	0	0	0	0	1	0	1	1	5	4	5	13	7	7	9	2
base of tongue	13	0	0	0	0	0	0	0	0	0	0	4	2	1	1	3	2	0	0
other tongue	26	0	0	0	0	0	0	0	0	1	3	1	2	6	3	7	2	0	1
gum	3	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0
floor of mouth	29	0	0	0	0	0	0	0	2	1	1	4	9	3	2	4	1	2	0
palate	10	0	0	0	0	0	0	0	0	0	0	0	1	3	1	1	4	0	0
other mouth	11	0	0	0	0	0	0	0	0	0	1	1	3	0	4	1	0	0	1
parotid	16	0	0	0	0	0	1	0	1	1	0	1	1	2	1	1	6	0	1
other salivary	9	0	0	0	0	0	0	0	0	0	0	0	1	1	3	2	0	2	0
tonsil	21	0	0	0	0	0	0	0	0	0	1	1	4	4	6	2	1	1	1
oropharynx	8	0	0	0	0	0	0	0	0	1	3	0	0	1	0	1	1	0	1
nasopharynx	11	0	0	0	1	1	0	0	0	1	1	0	0	2	2	2	1	0	0
pyriform sinus	16	0	0	0	0	0	0	0	0	0	2	2	3	3	4	0	0	0	2
hypopharynx	7	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	1	0	1
other pharynx	8	0	0	0	0	0	0	0	0	1	2	0	0	2	0	3	0	0	0
oesophagus	166	0	0	0	0	0	0	0	2	2	7	9	16	14	25	34	30	14	15
stomach	304	0	0	0	0	0	0	2	2	5	13	15	22	39	57	52	48	35	14
small intestine	31	0	0	0	0	0	0	0	0	5	3	1	3	8	5	2	3	1	0
colon	592	0	0	3	1	1	0	1	3	8	24	33	43	79	87	113	102	63	29
rectosigmoid	95	0	0	0	0	0	0	0	1	2	5	2	10	11	10	21	16	12	5
rectum	296	0	0	0	0	0	2	0	1	2	9	13	26	44	47	68	46	23	15
anus	12	0	0	0	0	0	0	0	0	0	0	1	2	2	2	1	2	0	2
liver	42	0	0	0	0	1	0	0	0	1	1	3	4	4	5	12	5	6	0
gallbladder	8	0	0	0	0	0	0	0	0	0	0	0	2	1	0	2	3	0	0
other biliary	32	0	0	0	0	0	0	0	0	1	1	0	3	6	8	7	3	1	2
pancreas	142	0	0	0	0	0	0	1	1	2	5	4	9	16	26	21	27	20	10
other digestive	10	0	0	0	0	0	0	0	0	1	0	0	1	2	1	1	3	1	0
nasal/ear	9	1	0	0	0	0	0	0	0	0	1	0	0	2	2	0	1	2	0
sinuses	7	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	0	0	0
larynx	95	0	0	0	0	0	0	0	0	1	4	6	8	22	12	20	10	10	2
trachea	3	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0
lung	987	1	0	0	0	0	1	2	4	7	19	56	90	126	192	242	138	77	32
thyroid	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0

	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
mediastinum	21	0	0	0	1	0	0	2	1	1	1	0	1	1	5	3	3	2	0
other chest	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
bones of limbs	18	0	0	5	4	1	1	1	0	0	0	0	1	2	0	2	1	0	0
bones head/ trunk	10	1	0	0	2	0	0	0	0	0	0	1	1	2	0	1	1	1	0
haematopoietic/RE	357	7	2	1	5	4	3	7	6	10	9	12	29	39	50	64	51	41	17
non-melanoma skin	3327	1	0	1	1	5	8	29	41	56	104	159	247	391	468	608	524	424	260
melanoma	165	0	0	0	1	3	3	5	3	9	9	11	12	17	19	27	31	4	11
peripheral nerves	6	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	1	0	0
peritoneum	7	0	0	0	0	0	0	0	0	2	1	0	0	1	1	1	0	1	0
connective tissues	35	0	0	0	2	2	0	0	2	2	3	2	2	4	4	4	3	4	1
breast	13	0	0	0	0	0	0	0	0	0	0	1	0	2	3	3	2	2	0
penis	21	0	0	0	0	0	0	1	0	0	1	3	3	3	2	3	1	1	3
prostate	1000	2	0	0	0	0	0	0	0	1	3	22	25	83	147	223	240	169	85
testis	65	0	0	0	3	11	7	16	11	6	2	4	1	1	1	0	1	1	0
other male genital	5	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	1
kidney	138	2	0	0	0	0	5	0	0	1	11	9	17	17	25	22	16	8	5
renal pelvis	12	0	0	0	0	0	0	0	0	0	0	2	1	2	1	2	0	1	3
ureter	4	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0
bladder	345	0	0	0	0	1	1	1	1	5	8	18	20	36	50	62	72	47	23
other urinary	5	0	0	0	0	0	1	0	0	0	0	0	0	2	1	0	1	0	0
eye	24	3	0	0	0	0	0	1	1	1	0	3	4	2	1	3	5	0	0
meninges	8	1	0	0	1	0	0	0	0	1	0	2	0	0	0	2	1	0	0
brain	142	4	5	4	6	1	6	5	8	11	15	8	16	16	15	14	3	4	1
spinal cord	20	0	0	0	2	0	1	1	3	2	0	3	2	0	5	0	1	0	0
thyroid	23	0	0	0	1	0	0	1	0	0	2	1	2	2	1	6	6	1	0
adrenal	4	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
other endocrine	28	0	0	1	0	2	1	0	0	3	4	3	1	1	1	5	5	1	0
ill-defined site	25	1	0	0	0	0	0	0	0	1	0	1	4	3	2	3	5	3	2
lymph nodes	155	0	4	6	9	8	5	4	13	8	7	9	6	11	19	16	8	19	3
unknown primary	366	0	0	0	0	1	4	2	3	11	5	26	23	40	71	70	54	42	14
lymphoma	244	1	4	6	11	9	5	9	14	12	14	15	12	25	33	29	16	21	8
leukaemia	171	7	2	0	4	4	3	3	4	6	2	8	7	16	22	33	24	18	8

22.5 NUMBER OF CASES BY SITE AND AGE-GROUP: FEMALES

	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	9868	18	17	23	27	127	235	331	403	460	591	611	744	810	1131	1376	1233	1030	721
lip	9	0	0	0	0	0	0	0	1	0	0	2	1	1	3	0	0	1	0
base of tongue	3	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0
other tongue	16	0	0	0	0	0	0	0	0	1	2	0	2	1	1	2	1	3	3
gum	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
floor of mouth	7	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0	1
palate	3	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0
other mouth	7	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	2	1	0
parotid	9	0	1	0	0	0	0	0	0	0	1	0	3	0	0	2	0	1	1
other salivary	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	1
tonsil	6	0	0	0	0	0	0	0	0	1	0	0	0	0	1	3	1	0	0
oropharynx	3	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0
nasopharynx	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
pyriform sinus	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0
hypopharynx	9	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	4	0	2
other mouth/pharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
oesophagus	127	0	0	0	0	0	0	1	0	3	1	11	3	5	19	20	20	28	16
stomach	172	0	0	0	0	0	0	1	3	3	3	4	7	17	17	44	27	20	26
small intestine	26	0	0	0	0	0	0	1	0	0	4	0	4	2	6	3	4	1	1
colon	559	0	0	2	5	6	0	3	3	13	10	28	49	37	90	102	84	83	42
rectosigmoid	61	0	0	0	0	0	0	0	0	0	0	4	8	6	7	10	9	12	5
rectum	157	0	0	0	0	1	0	1	1	1	6	5	15	17	19	25	30	25	11
anus	13	0	0	0	0	0	1	0	0	0	0	0	2	2	3	0	2	2	1
liver	27	0	0	0	0	0	1	0	0	1	1	1	0	1	2	9	4	5	2
gallbladder	23	0	0	0	0	0	0	0	0	0	1	1	1	1	4	4	7	1	3
other biliary	21	0	0	0	0	0	0	0	1	0	1	1	1	0	3	8	1	4	1
pancreas	142	0	0	1	0	0	0	1	0	1	2	5	4	12	17	25	30	27	17
other digestive	10	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	4	2	1
nasal cavity/middle ear	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
sinuses	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0
larynx	10	0	0	0	0	0	0	0	0	0	0	2	1	5	7	1	2	1	1
trachea	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
lung	468	0	0	0	0	2	0	0	2	9	12	19	33	48	80	110	88	47	18
thymus	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0

	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
mediastinum	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	1	0
bones, joints of limbs	10	0	0	0	1	1	1	0	0	0	1	0	1	0	1	2	2	0	0
bones, joints head and trunk	7	0	0	0	1	0	0	0	0	0	1	0	0	1	2	2	0	0	0
haematopoietic/RE	314	8	2	4	3	8	0	1	6	5	15	16	16	17	43	57	58	40	15
non-melanoma skin	3081	0	0	0	0	7	11	22	45	69	121	123	208	261	388	489	491	454	392
melanoma	315	0	0	2	3	7	9	11	15	26	26	29	20	25	34	31	36	27	14
peripheral nerves	2	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
peritoneum	10	0	0	0	0	0	0	0	0	0	3	0	1	0	1	2	2	1	0
connective tissues	29	1	0	2	2	0	3	4	1	1	1	1	3	0	4	2	0	2	2
breast	1544	0	0	0	0	1	8	23	61	120	197	201	191	155	179	167	128	72	41
vulva	42	0	0	0	0	0	1	0	3	1	1	0	1	5	3	11	3	8	5
vagina	9	0	0	0	1	0	1	0	1	0	0	1	0	0	0	1	2	1	1
cervix	1061	0	0	0	4	70	177	222	215	144	103	41	25	19	15	12	6	6	2
cervix invasive	170	0	0	0	0	0	3	14	32	25	22	14	15	11	13	12	4	5	2
corpus uteri	182	0	0	0	0	0	0	2	2	5	6	19	28	35	23	26	13	14	9
uterus NOS	35	0	0	0	0	0	0	0	1	1	3	4	0	7	6	4	2	3	4
ovary	280	0	1	1	1	2	3	11	11	17	24	32	27	29	35	29	27	22	8
other female genital	11	0	0	0	0	1	0	1	0	0	1	2	0	1	3	1	1	0	0
placenta	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
kidney	80	2	1	0	0	0	0	1	2	1	3	6	7	8	5	13	21	8	2
renal pelvis	9	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	2	1
ureter	11	0	0	0	0	0	0	1	0	0	0	0	0	3	1	0	2	3	1
bladder	164	0	0	0	0	0	0	1	2	5	4	7	14	19	13	30	22	25	22
eye	23	2	0	0	0	0	1	1	1	0	1	1	1	1	6	4	2	0	2
meninges	47	0	1	0	0	1	0	3	1	4	6	4	8	3	5	6	1	4	0
brain	113	3	9	6	1	1	4	2	3	6	9	6	10	12	14	10	11	5	1
spinal cord	24	0	0	3	2	3	0	1	1	4	3	3	0	1	2	1	0	0	0
thyroid	46	0	0	0	0	4	4	3	3	0	2	5	1	3	5	4	7	1	4
adrenal	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
other endocrine	19	0	0	2	0	2	0	2	3	2	0	2	2	0	2	1	1	0	0
ill-defined site	39	1	0	0	1	1	0	0	1	0	1	2	2	5	3	11	3	3	5
lymph nodes	142	0	2	0	2	6	10	7	7	7	5	6	16	9	16	18	13	11	7
unknown primary	312	0	0	0	0	1	0	1	6	8	7	13	25	32	30	62	49	49	29
lymphoma	211	1	2		2	6	11	9	8	10	9	9	21	13	30	33	19	17	11
leukaemia	135	8	2	4	1	5	0	0	4	3	7	7	6	8	16	20	25	15	4

22.6 AGE-SPECIFIC INCIDENCE RATES PER 100,000 PERSONS WITH CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK: MALES

	male rate	ASR rate	CR74	5-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	531.78	427.74	38.69%	19.56	8.78	12.01	23.03	27.21	41.25	70.73	91.24	150.90	270.95	540.97	937.57	1640.72	2434.59	3516.50	4358.94	5095.88	7647.54
all sites except non-melanoma/skin	344.13	277.37	23.38%	18.81	8.78	11.44	22.45	24.05	34.65	46.88	57.23	102.61	174.78	356.39	602.92	1053.79	1631.07	2316.03	2837.23	3047.87	4128.32
lip	3.10	2.47	0.29%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.86	0.92	5.80	5.42	7.51	22.32	13.82	20.33	43.47	27.07
base of tongue	0.73	0.63	0.08%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.64	2.71	1.50	1.72	5.92	5.81	0.00	0.00
other tongue	1.47	1.30	0.18%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.77	1.16	2.71	9.01	5.15	13.82	5.81	0.00	13.54
gum	0.17	0.16	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	1.35	1.50	0.00	0.00	0.00	0.00	0.00
floor of mouth	1.64	1.45	0.18%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66	0.86	0.92	4.64	12.19	4.50	3.43	7.90	2.90	9.66	0.00
palate	0.56	0.44	0.05%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	4.50	1.72	1.97	11.62	0.00	0.00
other mouth	0.62	0.59	0.07%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.16	4.06	0.00	6.87	1.97	0.00	0.00	13.54
parotid	0.90	0.73	0.06%	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.83	0.86	0.00	1.16	1.35	3.00	1.72	1.97	17.42	0.00	13.54
other salivary	0.51	0.40	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	1.50	5.15	3.95	0.00	9.66	0.00
tonsil	1.18	1.08	0.14%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.16	5.42	6.00	10.30	3.95	2.90	4.83	13.54
oropharynx	0.45	0.41	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.77	0.00	0.00	1.50	0.00	1.97	2.90	0.00	13.54
nasopharynx	0.62	0.54	0.07%	0.00	0.00	0.00	0.58	0.63	0.00	0.00	0.00	0.86	0.92	0.00	0.00	3.00	3.43	3.95	2.90	0.00	0.00
pyriform sinus	0.90	0.91	0.10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	2.32	4.06	4.50	6.87	0.00	0.00	0.00	27.07
hypopharynx	0.39	0.37	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	1.35	1.50	3.43	0.00	2.90	0.00	13.54
other mouth/pharynx	0.45	0.41	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	2.32	0.00	3.00	0.00	5.92	0.00	0.00	0.00
oesophagus	9.48	7.68	0.86%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66	1.72	6.47	10.45	21.68	21.02	42.92	67.13	87.12	67.62	203.01
stomach	17.15	13.76	1.62%	0.00	0.00	0.00	0.00	0.00	0.00	1.64	1.66	4.31	12.02	17.41	29.81	58.54	97.86	102.67	139.39	169.06	189.50
small intestine	1.75	1.57	0.18%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.31	2.77	1.16	4.06	12.01	8.58	3.95	8.71	4.83	0.00
colon	33.39	26.66	3.09%	0.00	0.00	1.72	0.58	0.63	0.00	0.82	2.49	6.90	22.19	38.31	58.26	118.59	149.37	227.06	296.21	304.30	392.53
rectosigmoid	5.36	4.19	0.49%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	1.72	4.62	2.32	13.55	16.51	17.17	41.46	46.46	57.96	67.68
rectum	16.70	13.60	1.70%	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.00	0.83	8.32	15.09	35.23	66.05	80.70	134.26	133.59	111.10	203.03
anus	0.68	0.62	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	2.71	3.00	3.43	1.97	5.81	0.00	27.07
colorectal	56.12	45.07	5.34%	0.00	0.00	1.72	0.58	0.63	1.65	0.82	4.15	10.25	35.14	56.88	109.74	204.15	250.67	404.76	482.07	473.36	690.31
liver	2.37	1.81	0.25%	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.00	0.86	0.92	3.48	5.42	6.00	8.58	23.69	14.52	28.98	0.00
gallbladder	0.45	0.33	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	1.50	0.00	3.95	8.71	0.00	0.00
other biliary	1.80	1.57	0.21%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.92	0.00	4.06	9.01	13.74	13.82	8.71	4.83	27.07
pancreas	8.01	6.27	0.67%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.83	1.72	4.62	4.64	12.19	24.02	44.64	41.46	78.41	96.60	135.35
other digestive	0.56	0.43	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	0.00	1.35	3.00	1.72	1.97	8.71	4.83	0.00
nasal cavity/middle ear	0.51	0.45	0.04%	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	3.00	3.43	0.00	2.90	9.66	0.00
sinuses	0.39	0.34	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.35	1.50	3.43	5.92	0.00	0.00	0.00
larynx	5.36	4.45	0.58%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	3.70	6.97	10.84	33.02	20.60	39.49	29.04	48.30	27.07
trachea	0.17	0.16	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	3.43	0.00	0.00	0.00	0.00

	smoke rate	ASV rate	CAGE	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
lung	55.67	45.04	5.89%	0.75	0.00	0.00	0.00	0.00	0.83	1.64	3.32	6.04	17.57	65.01	121.94	189.14	329.65	477.82	400.76	371.93	433.13
thymus	0.11	0.09	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	1.97	0.00	0.00	0.00
mediastinum	1.18	0.93	0.11%	0.00	0.00	0.00	0.58	0.00	0.00	1.64	0.83	0.86	0.92	0.00	1.35	1.50	8.58	5.92	8.71	9.66	0.00
other chest	0.06	0.03	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.90	0.00	0.00
bones, joints of limbs	1.02	0.91	0.08%	0.00	0.00	2.86	2.30	0.63	0.83	0.82	0.00	0.00	0.00	0.00	1.35	3.00	0.00	2.95	2.90	0.00	0.00
bones, joints head and trunk	0.56	0.52	0.05%	0.75	0.00	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	1.16	1.35	3.00	0.00	1.97	2.90	4.83	0.00
haematopoietic/RE	20.14	16.47	1.82%	5.27	1.35	0.57	2.88	2.53	2.48	5.76	4.98	8.62	8.32	13.93	39.29	58.54	85.85	126.36	148.11	198.04	230.10
non-melanoma skin	187.66	150.37	15.31%	0.75	0.00	0.57	0.58	3.16	6.60	23.85	34.01	48.29	96.17	184.58	334.65	586.94	603.52	1200.47	1521.71	2048.01	3519.22
melanoma	9.31	7.86	0.84%	0.00	0.00	0.00	0.58	1.90	2.48	4.11	2.49	7.76	8.32	12.77	16.26	25.52	32.62	53.31	90.02	19.32	148.89
peripheral nerves	0.34	0.30	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.86	0.92	0.00	1.35	1.50	0.00	0.00	2.90	0.00	0.00
peritoneum	0.39	0.33	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.92	0.00	0.00	1.50	1.72	1.97	0.00	4.83	0.00
connective tissues	1.97	1.65	0.17%	0.00	0.00	0.00	1.15	1.27	0.00	0.00	1.66	1.72	2.77	2.32	2.71	6.00	6.87	7.90	8.71	19.32	13.54
breast	0.73	0.56	0.08%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.00	3.00	5.15	5.92	5.81	9.66	0.00
penis	1.18	1.10	0.12%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.92	3.48	4.06	4.50	3.43	5.92	2.90	4.83	40.61
prostate	56.40	41.20	4.31%	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	2.77	25.54	33.87	124.59	252.39	440.30	696.97	816.31	1150.51
testis	3.67	3.38	0.26%	0.00	0.00	0.00	1.73	6.96	5.78	13.16	9.12	5.17	1.85	4.64	1.35	1.50	1.72	0.00	2.90	4.83	0.00
other male genital	0.28	0.25	0.02%	0.00	0.68	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.97	2.90	0.00	13.54
kidney	7.78	6.79	0.81%	1.50	0.00	0.00	0.00	0.00	4.13	0.00	0.00	0.86	10.17	10.45	23.03	25.52	42.92	43.44	46.46	38.64	67.68
renal pelvis	0.68	0.65	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32	1.35	3.00	1.72	3.95	0.00	4.83	40.61
ureter	0.23	0.23	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.16	1.35	1.50	0.00	0.00	0.00	0.00	0.00
bladder	19.46	15.01	1.61%	0.00	0.00	0.00	0.00	0.63	0.83	0.82	0.83	4.31	7.40	20.90	27.10	54.04	85.85	122.42	209.09	227.02	311.32
other urinary	0.28	0.27	0.03%	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	3.00	1.72	0.00	2.90	0.00	0.00
eye	1.35	1.25	0.12%	2.26	0.00	0.00	0.00	0.00	0.00	0.82	0.83	0.86	0.00	3.48	5.42	3.00	1.72	5.92	14.52	0.00	0.00
meninges	0.45	0.42	0.04%	0.75	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.86	0.00	2.32	0.00	0.00	0.00	3.95	2.90	0.00	0.00
brain	8.01	7.58	0.80%	3.01	3.38	2.29	3.45	0.63	4.95	4.11	6.64	9.49	13.87	9.29	21.68	24.02	25.75	27.64	8.71	19.32	13.54
spinal cord	1.13	1.04	0.11%	0.00	0.00	0.00	1.15	0.00	0.83	0.82	2.49	1.72	0.00	3.48	2.71	0.00	8.58	0.00	2.90	0.00	0.00
thyroid	1.30	0.99	0.12%	0.00	0.00	0.00	0.58	0.00	0.00	0.82	0.00	0.00	1.85	1.16	2.71	3.00	1.72	11.85	17.42	4.83	0.00
adrenal	0.23	0.30	0.02%	1.50	0.68	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
other endocrine	1.58	1.30	0.13%	0.00	0.00	0.57	0.00	1.27	0.83	0.00	0.00	2.59	3.70	3.48	1.35	1.50	1.72	9.87	14.52	4.83	0.00
ill-defined site	1.41	1.17	0.11%	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	1.16	5.42	4.50	3.43	5.92	14.52	14.49	27.07
lymph nodes	8.74	7.44	0.73%	0.00	2.70	3.43	5.18	5.06	4.13	3.29	10.78	6.90	6.47	10.45	8.13	16.51	32.62	31.59	23.23	91.77	40.61
unknown primary	20.64	16.52	2.00%	0.00	0.00	0.00	0.00	0.63	3.30	1.64	2.49	9.49	4.62	30.18	31.16	60.04	121.90	138.21	156.82	202.87	189.50
lymphoma	13.76	11.94	1.25%	0.75	2.70	3.43	6.33	5.70	4.13	7.40	11.61	10.35	12.95	17.41	16.26	37.53	56.66	57.26	46.46	101.43	108.28
leukaemia	9.65	8.06	0.86%	5.27	1.35	0.00	2.30	2.53	2.48	2.47	3.32	5.17	1.85	9.29	9.48	24.02	37.77	65.16	69.70	86.94	108.28

22.7 AGE-SPECIFIC INCIDENCE RATES PER 100,000 PERSONS WITH CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK: FEMALES

	Crude rate	Age-specific rate	Crude rate	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	552.18	404.29	35.29%	14.35	12.10	13.92	16.30	84.54	193.85	260.37	328.30	397.92	558.89	735.35	1019.95	1188.15	1699.60	2180.26	2553.38	3065.84	4617.06
all sites except non-melanoma skin	380.13	292.94	23.91%	14.35	12.10	13.92	16.30	79.88	184.77	243.07	291.64	338.23	444.47	587.31	734.80	805.30	1116.54	1406.46	1536.58	1714.49	2166.81
lip	0.50	0.43	0.05%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	2.41	1.37	1.47	4.51	0.00	0.00	2.98	0.00
base of tongue	0.17	0.12	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	1.59	0.00	0.00	0.00
other tongue	0.89	0.60	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	1.89	0.00	2.74	1.47	1.50	3.17	2.07	8.93	19.21
gum	0.17	0.12	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	1.59	0.00	0.00	6.40
floor of mouth	0.39	0.23	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	1.47	1.50	6.21	0.00	6.40
palate	0.17	0.11	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	1.50	0.00	0.00	2.98	0.00
other mouth	0.39	0.25	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	1.47	1.50	1.59	4.14	2.98	0.00
parotid	0.50	0.40	0.04%	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.00	4.11	0.00	0.00	3.17	0.00	2.98	6.40
other salivary	0.22	0.12	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00	5.95	6.40
total	0.34	0.21	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	1.50	4.76	2.07	0.00	0.00
oropharynx	0.17	0.12	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	1.37	0.00	0.00	0.00	2.07	0.00	0.00
nasopharynx	0.11	0.09	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	1.59	0.00	0.00	0.00
pyriform sinus	0.17	0.11	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	1.59	0.00	2.98	0.00
hypopharynx	0.50	0.27	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	1.59	8.28	0.00	12.81
other morphopharynx	0.11	0.07	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	2.07	0.00	0.00
oesophagus	7.09	4.21	0.45%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	2.60	0.95	13.24	4.11	7.33	28.55	31.71	41.42	83.34	102.46
stomach	9.61	5.99	0.71%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	2.44	2.60	2.84	4.81	9.60	24.94	25.55	69.77	55.91	59.53	166.50
small intestine	1.45	1.11	0.13%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.78	0.00	5.48	2.93	9.02	4.76	8.28	2.98	6.40
colon	31.22	20.49	2.41%	0.00	0.00	1.21	3.02	5.33	0.00	2.36	2.44	11.25	9.46	33.70	67.17	54.27	135.25	161.74	173.95	247.05	268.95
rectosigmoid	3.41	2.19	0.25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.81	10.97	8.80	10.52	15.86	18.64	35.72	32.02
rectum	8.77	5.66	0.64%	0.00	0.00	0.00	0.00	0.67	0.00	0.79	0.81	0.87	5.67	6.02	20.56	24.94	28.55	39.64	62.13	74.41	70.44
anus	0.73	0.53	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74	2.93	4.51	0.00	4.14	5.95	6.40
colonect	44.12	28.87	3.36%	0.00	1.21	3.02	5.99	0.82	3.15	2.26	12.11	15.13	44.53	101.45	90.95	178.83	217.23	258.86	363.14	377.82	
liver	1.51	0.99	0.11%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.87	0.95	1.20	0.00	1.47	3.01	14.77	8.28	14.88	12.81
gallbladder	1.28	0.79	0.09%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	1.20	1.37	1.47	6.01	6.34	14.50	2.98	19.21
other biliary	1.17	0.72	0.11%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.95	1.20	1.37	0.00	4.51	12.69	2.07	11.91	6.40
pancreas	7.93	4.62	0.49%	0.00	0.00	0.61	0.00	0.00	0.00	0.79	0.00	0.87	1.89	6.02	5.48	17.60	25.55	39.64	62.13	80.27	108.86
other digestive	0.56	0.38	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.50	1.59	8.28	5.95	6.40
nasal cavity/middle ear	0.06	0.06	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
sinuses	0.11	0.07	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.07	0.00	0.00
larynx	1.12	0.90	0.12%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	1.37	7.33	10.52	1.59	4.14	2.98	6.40
trachea	0.11	0.04	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14	0.00	0.00
lung	26.14	17.31	2.25%	0.00	0.00	0.00	0.00	1.33	0.00	0.00	1.63	7.79	11.35	22.87	45.24	70.41	120.22	174.42	182.24	139.90	115.27
thyroid	0.11	0.10	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.00	1.50	0.00	0.00	0.00	0.00
mediastinum	0.28	0.17	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	4.76	0.00	2.98	0.00

	crude rate	ASR rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
bones, joints of limbs	0.56	0.44	0.05%	0.00	0.00	0.00	0.60	0.67	0.82	0.00	0.00	0.00	0.95	0.00	1.37	0.00	1.50	3.17	4.14	0.00	0.00
bones, joints head and trunk	0.39	0.32	0.05%	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	1.47	3.01	3.17	0.00	0.00	0.00
haematopoietic/RE	17.54	12.03	1.30%	6.38	1.42	2.42	1.81	5.33	0.00	0.79	4.89	4.33	14.19	19.26	21.93	24.94	64.62	90.38	120.11	119.06	96.06
non-melanoma skin	172.05	111.35	11.37%	0.00	0.00	0.00	0.00	4.66	9.07	17.31	36.66	59.69	114.43	148.03	285.15	382.85	583.06	773.79	1016.79	1351.35	2510.25
melanoma	17.59	13.74	1.40%	0.00	0.00	1.21	1.81	4.66	7.42	8.65	12.22	22.49	24.59	34.90	27.42	36.67	51.09	49.15	74.55	80.37	89.65
peripheral nerves	0.11	0.10	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.00	0.00	0.00
peritoneum	0.56	0.39	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.84	0.00	1.37	0.00	1.50	3.17	4.14	2.98	0.00
connective tissues	1.62	1.42	0.13%	0.80	0.00	1.21	1.21	0.00	2.47	3.15	0.81	0.87	0.95	1.20	4.11	0.00	6.01	3.17	0.00	5.95	12.81
breast	96.22	72.12	7.83%	0.00	0.00	0.00	0.00	0.67	6.60	18.09	49.69	103.81	186.30	241.91	261.84	227.36	268.99	264.80	265.07	214.31	262.55
vulva	2.35	1.49	0.18%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	2.44	0.87	0.95	0.00	1.37	7.33	4.51	17.44	6.21	23.81	32.02
vagina	0.50	0.35	0.03%	0.00	0.00	0.00	0.60	0.00	0.82	0.00	0.81	0.00	0.00	1.20	0.00	0.00	0.00	1.59	4.14	2.98	6.40
cervix (all)	59.25	56.22	4.49%	0.00	0.00	0.00	2.42	46.60	146.00	174.63	175.15	124.57	97.40	49.34	34.27	27.87	22.54	19.03	12.43	17.86	12.81
cervix (in situ)	49.65	47.75	3.66%	0.00	0.00	0.00	2.42	46.60	143.53	163.62	149.08	102.94	76.60	32.49	13.71	11.73	3.01	0.00	4.14	2.98	0.00
cervix (invasive)	9.49	8.47	0.87%	0.00	0.00	0.00	0.00	0.00	2.47	11.01	26.07	21.63	20.80	16.85	20.56	16.14	19.54	19.03	8.28	14.88	12.81
corpus uteri	10.16	8.15	1.00%	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.63	4.33	5.67	22.87	38.39	51.34	34.56	41.23	26.92	41.67	57.63
uterus nos	1.95	1.53	0.17%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.87	2.84	4.81	0.00	10.27	9.02	6.34	4.14	8.93	25.61
ovary	15.64	12.51	1.38%	0.00	0.71	0.61	0.60	1.33	2.47	8.65	8.96	14.71	22.70	38.51	37.01	42.54	52.60	45.98	55.91	65.48	51.23
other female genital	0.61	0.52	0.06%	0.00	0.00	0.00	0.00	0.67	0.00	0.79	0.00	0.00	0.95	2.41	0.00	1.47	4.51	1.59	2.07	0.00	0.00
placenta	0.06	0.05	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
kidney	4.47	3.10	0.32%	1.59	0.71	0.00	0.00	0.00	0.00	0.79	1.63	0.87	2.84	7.22	9.60	11.73	7.51	20.61	43.49	23.81	12.81
renal pelvis	0.50	0.27	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.51	1.59	4.14	5.95	6.40
ureter	0.61	0.39	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	4.40	1.50	0.00	4.14	8.93	6.40
bladder	9.16	6.00	0.66%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.63	4.33	3.78	8.42	19.19	27.87	19.54	47.57	45.56	74.41	140.88
eye	1.28	1.09	0.12%	1.59	0.00	0.00	0.00	0.00	0.82	0.79	0.81	0.00	0.95	1.20	1.37	1.47	9.02	6.34	4.14	0.00	12.81
meninges	2.62	2.21	0.25%	0.00	0.71	0.00	0.00	0.67	0.00	2.36	0.81	3.46	5.67	4.81	10.97	4.40	7.51	9.51	2.07	11.91	0.00
brain	6.31	5.39	0.55%	2.39	6.41	3.63	0.60	0.67	3.30	1.57	2.44	5.19	8.51	7.22	13.71	17.60	21.04	15.86	22.78	14.88	6.40
spinal cord	1.34	1.27	0.11%	0.00	0.00	1.82	1.21	2.00	0.00	0.79	0.81	3.46	2.84	3.61	0.00	1.47	3.01	1.59	0.00	0.00	0.00
thyroid	2.57	2.05	0.19%	0.00	0.00	0.00	0.00	2.66	3.30	2.36	2.44	0.00	1.89	6.02	1.37	4.40	7.51	6.34	14.50	2.98	25.61
adrenal	0.11	0.15	0.01%	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	0.00	0.00	0.00	0.00
other endocrine	1.06	0.93	0.09%	0.00	0.00	1.21	0.00	1.33	0.00	1.57	2.44	1.73	0.00	2.41	2.74	0.00	3.01	1.59	2.07	0.00	0.00
ill-defined site	2.18	1.58	0.19%	0.80	0.00	0.00	0.60	0.67	0.00	0.00	0.81	0.00	0.95	2.41	2.74	7.33	4.51	17.44	6.21	8.93	32.02
lymph nodes	7.93	6.27	0.66%	0.00	1.42	0.00	1.21	3.99	8.25	5.51	5.70	6.06	4.73	7.22	21.93	13.20	24.04	28.54	26.92	32.74	44.83
unknown primary	17.42	11.23	1.29%	0.00	0.00	0.00	0.00	0.67	0.00	0.79	4.89	6.92	6.62	15.65	34.27	46.94	45.08	98.31	101.47	145.85	185.71
lymphoma	11.78	9.09	1.02%	0.80	1.42	0.00	1.21	3.99	9.07	7.08	6.52	8.65	8.51	10.83	28.79	19.07	45.08	52.33	39.35	50.60	70.44
leukaemia	7.54	5.64	0.55%	6.38	1.42	2.42	0.60	3.33	0.00	0.00	3.26	2.60	6.62	8.42	8.23	11.73	24.04	31.71	51.77	44.65	25.61

22.8. NUMBER OF DEATHS, % OF TOTAL, CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK:MALES

site	deaths	% of total	crude rate	ASW rate	CR74
all cancers	3972		224.04	177.19	17.84%
lip	5	0.1%	0.28	0.20	0.02%
tongue	22	0.6%	1.24	0.97	0.12%
major salivary	6	0.2%	0.34	0.29	0.03%
gum	1	0.0%	0.06	0.06	0.01%
floor of mouth	2	0.1%	0.11	0.09	0.02%
other mouth	15	0.4%	0.85	0.63	0.06%
oropharynx	11	0.3%	0.62	0.51	0.09%
nasopharynx	3	0.1%	0.17	0.10	0.00%
hypopharynx	15	0.4%	0.85	0.74	0.10%
other mouth/pharynx	13	0.3%	0.73	0.62	0.09%
oesophagus	200	5.0%	11.28	9.04	1.01%
stomach	239	6.0%	13.48	10.57	1.18%
small intestine	4	0.1%	0.23	0.22	0.03%
colon	358	9.0%	20.19	16.07	1.75%
rectum and anus	147	3.7%	8.29	6.54	0.74%
liver	78	2.0%	4.40	3.51	0.46%
gallbladder and other biliary	16	0.4%	0.90	0.67	0.10%
pancreas	200	5.0%	11.28	8.73	0.95%
peritoneum	5	0.1%	0.28	0.19	0.02%
other digestive	69	1.7%	3.89	3.00	0.31%
nasal cavity/middle ear	7	0.2%	0.39	0.35	0.05%
larynx	42	1.1%	2.37	2.00	0.25%
lung	1039	26.2%	58.60	46.81	5.66%
pleura	9	0.2%	0.51	0.41	0.04%
mediastinum	0	0.0%	0.00	0.00	0.00%
bones, joints	19	0.5%	1.07	0.92	0.11%
connective tissues	13	0.3%	0.73	0.65	0.06%
melanoma	20	0.5%	1.13	0.87	0.08%
non-melanoma skin	25	0.6%	1.41	1.22	0.09%
male breast	5	0.2%	0.28	0.23	0.03%
prostate	474	11.9%	26.74	19.35	1.47%
testis	9	0.2%	0.51	0.41	0.03%
penis	5	0.1%	0.28	0.20	0.02%
bladder	112	2.8%	6.32	4.71	0.47%
kidney	72	1.8%	4.06	3.43	0.37%
eye	4	0.1%	0.23	0.19	0.02%
brain	107	2.7%	6.04	5.22	0.59%
other nervous system	0	0.0%	0.00	0.00	0.00%
thyroid	9	0.2%	0.51	0.32	0.04%
other endocrine	6	0.2%	0.34	0.37	0.03%
ill-defined site	36	0.9%	2.03	1.58	0.17%
unknown primary site	258	6.5%	14.55	11.69	1.32%
lymphosarcoma	1	0.0%	0.06	0.06	0.01%
Hodgkin's disease	15	0.4%	0.85	0.79	0.08%
other lymphoid	100	2.5%	5.64	4.60	0.52%
myeloma	72	1.8%	4.06	3.24	0.32%
lymphoid leukaemia	43	1.1%	2.43	2.01	0.18%
myeloid leukaemia	44	1.1%	2.48	2.05	0.23%
monocytic leukaemia	2	0.1%	0.11	0.08	0.01%
other leukaemia	12	0.3%	0.68	0.52	0.06%
uncertain behaviour	3	0.1%	0.17	0.14	0.03%

22.10. NUMBER OF DEATHS, % OF TOTAL, CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK:FEMALES

site	deaths	% of total	crude rate	ASW rate	CR74
all cancers	3419		192.85	125.79	13.05%
lip	2	0.1%	0.11	0.03	0.00%
tongue	4	0.1%	0.23	0.14	0.02%
major salivary	10	0.3%	0.56	0.35	0.03%
gum	3	0.1%	0.17	0.12	0.02%
floor of mouth	4	0.1%	0.23	0.12	0.02%
other mouth	4	0.1%	0.23	0.12	0.01%
oropharynx	3	0.1%	0.17	0.14	0.01%
nasopharynx	2	0.1%	0.11	0.05	0.00%
hypopharynx	2	0.1%	0.11	0.08	0.01%
other mouth/pharynx	5	0.1%	0.28	0.19	0.02%
oesophagus	124	3.6%	6.99	4.10	0.44%
stomach	177	5.2%	9.98	5.76	0.61%
small intestine	3	0.1%	0.17	0.09	0.00%
colon	319	9.3%	17.99	10.51	1.11%
rectum and anus	93	2.7%	5.25	3.20	0.38%
liver	54	1.6%	3.05	1.71	0.21%
gallbladder and other biliary	28	0.8%	1.58	0.98	0.13%
pancreas	166	4.9%	9.36	5.09	0.47%
peritoneum	8	0.2%	0.45	0.30	0.03%
other digestive	69	2.0%	3.89	2.02	0.16%
nasal cavity/middle ear	4	0.1%	0.23	0.20	0.03%
larynx	18	0.5%	1.02	0.74	0.08%
lung	518	15.2%	29.22	18.96	2.43%
pleura	1	0.0%	0.06	0.06	0.00%
mediastinum	2	0.1%	0.11	0.08	0.02%
bones, joints	7	0.2%	0.39	0.28	0.02%
connective tissues	8	0.2%	0.45	0.30	0.04%
melanoma	20	0.6%	1.13	0.86	0.11%
non-melanoma skin	11	0.3%	0.62	0.40	0.03%
female breast	639	18.7%	36.04	26.45	2.80%
uterus, unspecified	20	0.6%	1.13	0.73	0.09%
cervix	61	1.8%	3.44	2.88	0.31%
corpus uteri	48	1.4%	2.71	1.79	0.21%
ovary	204	6.0%	11.51	8.61	1.05%
other female genital	26	0.8%	1.47	0.75	0.04%
bladder	73	2.1%	4.12	2.05	0.16%
kidney	49	1.4%	2.76	1.83	0.20%
eye	4	0.1%	0.23	0.13	0.02%
brain	93	2.7%	5.25	4.20	0.50%
other nervous system	3	0.1%	0.17	0.17	0.02%
thyroid	17	0.5%	0.96	0.63	0.07%
other endocrine	4	0.1%	0.23	0.20	0.01%
ill-defined site	40	1.2%	2.26	1.35	0.11%
secondary cancer	1	0.0%	0.06	0.01	0.00%
unknown primary site	204	6.0%	11.39	7.22	0.82%
lymphosarcoma	3	0.1%	0.17	0.07	0.01%
Hodgkin's disease	12	0.4%	0.68	0.45	0.04%
other lymphoid	91	2.7%	5.13	3.36	0.36%
myeloma	75	2.2%	4.23	2.71	0.31%
lymphoid leukaemia	29	0.8%	1.64	0.98	0.08%
myeloid leukaemia	47	1.4%	2.65	1.88	0.20%
monocytic leukaemia	1	0.0%	0.06	0.05	0.01%
other leukaemia	5	0.1%	0.28	0.18	0.03%
uncertain behaviour	1	0.0%	0.06	0.05	0.01%

22.11. NUMBER OF DEATHS, % OF TOTAL, CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK: BOTH SEXES

site	deaths	% of total	crude rate	ASW rate	CR74
all cancers	7391		207.40	147.70	15.30%
lip	7	0.1%	0.20	0.11	0.01%
tongue	26	0.4%	0.73	0.53	0.06%
major salivary	16	0.2%	0.45	0.34	0.03%
gum	4	0.1%	0.11	0.10	0.01%
floor of mouth	6	0.1%	0.17	0.11	0.02%
other mouth	19	0.3%	0.53	0.34	0.04%
oropharynx	14	0.2%	0.39	0.30	0.05%
nasopharynx	5	0.1%	0.14	0.07	0.00%
hypopharynx	17	0.2%	0.48	0.40	0.05%
other mouth/pharynx	18	0.2%	0.51	0.40	0.05%
oesophagus	324	4.4%	9.09	6.40	0.71%
stomach	416	5.6%	11.67	7.96	0.88%
small intestine	7	0.1%	0.20	0.16	0.02%
colon	677	9.2%	19.00	13.02	1.41%
rectum and anus	240	3.2%	6.73	4.70	0.55%
liver	132	1.8%	3.70	2.54	0.33%
gallbladder and other biliary	44	0.6%	1.23	0.85	0.11%
pancreas	366	5.0%	10.27	6.82	0.70%
peritoneum	13	0.2%	0.36	0.25	0.02%
other digestive	138	1.9%	3.87	2.50	0.23%
nasal cavity/middle ear	11	0.1%	0.31	0.27	0.04%
larynx	60	0.8%	1.68	1.31	0.16%
lung	1557	21.1%	43.69	31.65	3.97%
pleura	10	0.1%	0.28	0.22	0.02%
mediastinum	2	0.0%	0.06	0.04	0.01%
bones, joints	26	0.4%	0.73	0.58	0.06%
connective tissues	21	0.3%	0.59	0.48	0.05%
melanoma	40	0.5%	1.12	0.84	0.10%
non-melanoma skin	36	0.5%	1.01	0.75	0.06%
female breast	639	18.7%	36.04	26.45	2.80%
male breast	5	0.2%	0.28	0.23	0.03%
uterus, unspecified	20	0.6%	1.13	0.73	0.09%
cervix	61	1.8%	3.44	2.88	0.31%
corpus uteri	48	1.4%	2.71	1.79	0.21%
ovary	204	6.0%	11.51	8.61	1.05%
other female genital	26	0.8%	1.47	0.75	0.04%
prostate	474	11.9%	26.74	19.35	1.47%
testis	9	0.2%	0.51	0.41	0.03%
penis	5	0.1%	0.28	0.20	0.02%
bladder	185	2.5%	5.19	3.25	0.30%
kidney	121	1.6%	3.40	2.53	0.28%
eye	8	0.1%	0.22	0.15	0.02%
brain	200	2.7%	5.61	4.68	0.54%
other nervous system	3	0.0%	0.08	0.09	0.01%
thyroid	26	0.4%	0.73	0.49	0.06%
other endocrine	10	0.1%	0.28	0.28	0.02%
ill-defined site	76	1.0%	2.13	1.44	0.14%
secondary cancer	1	0.0%	0.03	0.01	0.00%
unknown primary site	462	6.2%	12.91	9.28	1.06%
lymphosarcoma	4	0.1%	0.11	0.07	0.01%
Hodgkin's disease	27	0.4%	0.76	0.61	0.06%
other lymphoid	191	2.6%	5.36	3.95	0.44%
myeloma	147	2.0%	4.13	2.87	0.31%
lymphoid leukaemia	72	1.0%	2.02	1.46	0.13%
myeloid leukaemia	91	1.2%	2.55	1.92	0.22%
monocytic leukaemia	3	0.0%	0.08	0.06	0.01%
other leukaemia	17	0.2%	0.48	0.31	0.04%
uncertain behaviour	4	0.1%	0.11	0.09	0.02%

22.12. NUMBER OF DEATHS BY SITE AND AGE-GROUP: MALE

site	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	3972	5	7	8	5	12	14	15	16	54	97	172	264	462	612	725	668	547	289
lip	5	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0
tongue	22	0	0	0	0	0	0	0	0	1	0	1	4	1	4	4	2	4	1
major salivary	6	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	1	1
gum	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
floor of mouth	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
other mouth	15	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3	4	2	1
oropharynx	11	0	0	0	0	0	0	0	0	0	0	0	2	1	3	4	0	1	0
nasopharynx	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
hypopharynx	15	0	0	0	0	0	0	0	0	0	2	2	2	3	1	3	1	1	0
other mouth/pharynx	13	0	0	0	0	0	0	0	0	0	0	2	1	4	0	4	1	1	0
oesophagus	200	0	0	0	0	0	0	1	0	3	6	16	15	20	37	31	40	19	12
stomach	239	0	0	0	0	1	0	0	3	2	5	13	12	27	39	45	36	38	18
small intestine	4	0	0	0	0	0	0	0	0	0	0	1	0	2	0	1	0	0	0
colon	358	0	0	0	0	0	0	2	0	4	7	14	21	50	55	64	64	46	31
rectum and anus	147	0	0	0	0	0	1	0	0	1	3	6	14	17	21	29	20	24	11
liver	78	0	0	0	0	0	0	0	0	0	1	3	8	9	16	18	9	10	4
gallbladder and other biliary	16	0	0	0	0	0	0	0	0	0	1	0	3	1	1	6	2	2	0
pancreas	200	0	0	0	0	0	0	1	2	4	5	10	13	24	27	35	43	25	11
peritoneum	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0
other digestive	69	0	0	0	0	0	0	0	1	1	2	4	5	7	9	11	10	14	5
nasal cavity/middle ear	7	0	0	0	0	0	0	0	0	0	1	0	0	3	1	1	0	1	0
larynx	42	0	0	0	0	0	0	0	0	3	0	3	2	2	15	6	7	1	3
lung	1039	0	0	0	0	0	0	1	2	11	25	44	86	154	192	203	172	109	40
pleura	9	0	0	0	0	0	0	0	0	0	0	0	3	1	2	0	2	1	0
bones, joints	19	0	0	1	0	1	1	0	0	0	0	1	0	2	5	4	3	0	1
connective tissues	13	0	0	0	1	0	0	0	1	2	1	1	2	2	1	0	1	1	0
melanoma	20	0	0	0	0	0	1	1	0	0	0	0	3	1	4	1	5	3	1
non-melanoma skin	25	0	0	0	0	0	0	1	0	0	1	2	2	3	3	1	2	5	5
male breast	5	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	1	0
prostate	474	1	0	0	0	0	0	0	0	0	1	3	5	26	43	87	111	115	82
testis	9	0	0	0	2	1	0	2	0	1	0	0	1	0	0	0	0	2	0
penis	5	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1	1	0
bladder	112	0	0	0	0	0	0	0	0	2	1	1	5	10	18	19	24	21	11
kidney	72	0	0	1	0	0	0	0	0	1	2	7	3	10	14	10	10	7	7
eye	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1
brain	107	3	1	2	0	2	3	1	1	5	7	11	9	10	15	16	11	9	1
thyroid	9	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	3	1	0
other endocrine	6	1	1	0	0	0	1	0	1	0	1	0	0	0	0	1	0	0	0
ill-defined site	36	0	0	1	0	1	0	0	0	0	0	1	3	3	4	8	4	7	4
unknown: primary site	258	0	1	2	0	2	1	0	1	9	11	13	18	31	39	46	35	35	14
lymphosarcoma	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Hodgkin's disease	15	0	0	0	0	2	1	1	0	0	2	0	0	2	2	2	1	0	2
other lymphoid	100	0	0	1	1	0	2	1	1	3	4	6	11	10	15	16	14	11	4
myeloma	72	0	0	0	0	0	0	0	0	1	2	3	6	7	12	9	12	12	8
lymphoid leukaemia	43	0	4	0	1	0	2	1	1	0	2	2	1	3	1	9	5	7	4
myeloid leukaemia	44	0	0	0	0	2	1	1	1	0	0	0	3	8	4	10	6	4	4
monocytic leukaemia	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
other leukaemia	12	0	0	0	0	0	0	0	0	0	1	0	0	1	5	2	1	2	2
uncertain behaviour	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0

22.13. NUMBER OF DEATHS BY SITE AND AGE-GROUP: FEMALES

site	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	3419	3	5	1	5	8	14	15	44	80	125	184	235	312	400	589	534	488	377
lip	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
tongue	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	1
major salivary	10	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	1	5
gum	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1
floor of mouth	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0
other mouth	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0
oropharynx	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
nasopharynx	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
hypopharynx	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0
other mouth/pharynx	5	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1
oesophagus	124	0	0	0	0	0	0	0	0	1	1	6	7	5	17	23	27	17	20
stomach	177	0	0	0	0	0	0	2	1	5	4	2	7	11	18	36	24	36	31
small intestine	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0
colon	319	0	0	0	0	0	0	2	2	5	5	11	19	19	33	60	52	62	49
rectum and anus	93	0	0	0	0	0	0	0	0	2	2	4	5	8	9	22	11	17	13
liver	54	0	0	0	0	0	0	0	0	0	2	1	3	3	5	14	13	9	4
gallbladder and other biliary	28	0	0	0	0	0	0	0	0	0	0	1	1	4	3	8	5	3	3
pancreas	166	0	0	0	0	0	0	0	3	1	2	7	7	6	15	25	41	34	25
peritoneum	8	0	0	0	0	0	0	1	0	0	0	0	0	2	0	1	1	1	2
other digestive	69	0	0	0	0	0	0	0	0	1	2	1	2	3	5	8	15	18	14
nasal cavity/middle ear	4	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	0	0
larynx	18	0	1	0	0	0	0	0	0	0	0	2	1	2	3	3	1	2	3
lung	518	0	0	0	0	0	0	1	2	6	13	20	32	60	85	119	93	60	27
pleura	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
mediastinum	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
bones, joints	7	0	0	0	2	0	0	0	0	0	0	0	1	0	0	1	1	0	2
connective tissues	8	0	0	0	0	0	0	1	2	0	0	0	0	1	0	2	1	1	0
melanoma	20	0	0	0	0	0	1	0	2	2	1	1	0	3	2	5	1	2	0
non-melanoma skin	11	0	0	0	0	0	0	0	0	1	1	0	0	0	2	1	2	0	4
female breast	639	1	0	0	0	0	0	1	12	25	54	69	69	62	69	71	74	78	54
uterus, unspecified	20	0	0	0	0	0	0	0	0	0	0	1	3	1	5	2	1	5	2
cervix	61	1	0	0	0	0	2	1	4	8	9	2	5	5	9	6	5	2	2
corpus uteri	48	0	0	0	0	0	0	0	1	1	1	1	1	10	6	8	4	9	6
ovary	204	0	0	0	0	0	1	0	2	4	9	15	29	33	22	36	21	17	15
other female genital	26	0	0	0	0	0	1	0	0	0	1	0	0	0	2	2	3	8	9
bladder	73	0	0	0	0	0	0	0	0	1	0	0	2	1	4	11	15	18	19
kidney	49	1	0	0	0	0	0	1	0	0	1	3	4	6	4	9	11	6	3
eye	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0
brain	93	0	2	1	0	1	2	0	1	5	2	10	8	15	16	12	12	4	2
other nervous system	3	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0
thyroid	17	0	0	0	0	0	0	1	0	0	1	0	1	2	1	4	4	0	3
other endocrine	4	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0
ill-defined site	40	0	0	0	1	0	0	0	1	0	2	1	1	4	5	2	5	11	7
secondary cancer	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
unknown primary site	204	0	1	0	0	0	2	0	6	4	8	6	13	16	22	43	31	30	22
lymphosarcoma	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0
Hodgkin's disease	12	0	0	0	1	0	0	1	0	0	0	1	0	1	1	2	2	1	2
other lymphoid	91	0	0	0	0	0	1	2	2	2	1	8	6	7	9	15	17	11	10
myeloma	75	0	1	0	0	0	0	0	0	1	1	5	4	10	9	12	18	11	3
lymphoid leukaemia	29	0	0	0	0	1	0	0	0	0	0	1	1	3	3	3	6	4	7
myeloid leukaemia	47	0	0	0	1	5	2	1	2	2	1	1	2	1	6	10	4	4	5
monocytic leukaemia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
other leukaemia	5	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0	1	0
uncertain behaviour	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

22.14 AGE-SPECIFIC DEATH RATES PER 100,000 PERSONS WITH CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK: MALES

	CRUDE RATE	AGEY RATE	CRR%	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
all cancers	224.04	177.19	17.94%	3.76	4.73	4.57	2.88	7.59	11.55	12.34	13.27	46.56	89.70	199.67	357.68	693.52	1050.75	1431.48	1939.89	2642.13	3911.75
lip	0.28	0.20	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	1.72	1.97	2.90	4.83	0.00
tongue	1.24	0.97	0.12%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	0.00	1.16	5.42	1.50	6.87	7.90	5.81	19.32	13.54
major salivary	0.34	0.29	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	3.43	1.97	0.00	4.83	13.54
gum	0.06	0.06	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00
floor of mouth	0.11	0.09	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	1.97	0.00	0.00	0.00
other mouth	0.85	0.63	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	1.35	3.00	1.72	5.92	11.62	9.66	13.54
oropharynx	0.62	0.51	0.09%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.71	1.50	5.15	7.90	0.00	4.83	0.00
nasopharynx	0.17	0.10	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.66	0.00
hypopharynx	0.85	0.74	0.10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	2.32	2.71	4.50	1.72	5.92	2.90	4.83	0.00
other mouth/pharynx	0.73	0.62	0.09%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32	1.35	6.00	0.00	7.90	2.90	4.83	0.00
oesophagus	11.28	9.04	1.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	2.59	5.55	18.57	20.32	30.02	63.53	61.21	116.16	91.77	162.43
stomach	13.48	10.57	1.16%	0.00	0.00	0.00	0.00	0.63	0.00	0.00	2.49	1.72	4.62	15.09	16.26	40.53	66.96	88.85	104.54	183.55	243.64
small intestine	0.23	0.22	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.00	3.00	0.00	1.97	0.00	0.00	0.00
colon	20.19	16.07	1.75%	0.00	0.00	0.00	0.00	0.00	0.00	1.44	0.00	3.45	6.47	16.35	28.45	75.06	94.43	126.36	185.86	222.19	0.00
rectum and anus	8.29	6.54	0.74%	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.86	2.77	6.97	18.97	75.52	36.06	57.26	58.08	115.93	148.89
liver	4.40	3.51	0.46%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	3.48	10.84	13.51	27.47	35.54	26.14	48.30	54.14
gallbladder and other biliary	0.90	0.67	0.10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	4.06	1.50	1.72	11.85	5.81	9.66	0.00
pancreas	11.28	8.73	0.95%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	1.66	3.45	4.62	11.61	17.61	36.03	46.36	69.11	124.87	120.76	148.89
peritoneum	0.28	0.19	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	1.97	8.71	0.00	0.00
other digestive	3.89	3.00	0.31%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.86	1.85	4.64	6.77	10.51	15.45	21.72	29.04	67.62	67.68
nasal cavity/middle ear	0.39	0.35	0.05%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	4.50	1.72	1.97	0.00	4.83	0.00
larynx	2.37	2.00	0.25%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.59	0.00	3.48	2.71	3.00	25.75	11.85	20.33	4.83	40.61
lung	58.60	46.81	5.66%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	1.66	9.49	23.12	51.08	116.52	231.17	329.65	400.81	499.49	526.49	541.42
pleura	0.51	0.41	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.06	1.50	3.43	0.00	5.81	4.83	0.00
bones/joints	1.07	0.92	0.11%	0.00	0.00	0.57	0.00	0.63	0.83	0.00	0.00	0.00	0.00	1.16	0.00	3.00	8.58	7.90	8.71	0.00	13.54
connective tissues	0.73	0.65	0.08%	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.83	1.72	0.92	1.16	2.71	3.00	1.72	0.00	2.90	4.83	0.00
melanoma	1.13	0.87	0.08%	0.00	0.00	0.00	0.88	0.00	0.83	0.82	0.00	0.00	0.00	0.00	4.06	1.50	6.87	1.97	14.52	14.49	13.54
non-melanoma skin	1.41	1.22	0.09%	0.00	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.92	2.32	2.71	4.50	5.15	1.97	5.81	24.15	67.68
male breast	0.28	0.23	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	1.50	1.72	1.97	0.00	4.83	0.00
prostate	26.74	19.35	1.47%	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	3.48	6.77	39.03	73.83	171.78	322.35	555.48	1109.91
testis	0.51	0.41	0.03%	0.00	0.00	0.00	1.15	0.63	0.00	1.64	0.00	0.86	0.00	0.00	1.35	0.00	0.00	0.00	0.00	9.66	0.00
penis	0.28	0.20	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	1.16	0.00	0.00	0.00	1.97	2.90	4.83	0.00

	crude rate	ASR rate	CR74	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
bladder	6.32	4.71	0.47%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.92	1.16	6.77	15.01	30.90	37.51	69.70	101.43	148.89
kidney	4.06	3.43	0.37%	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.86	1.85	8.13	4.06	15.01	24.04	19.74	29.04	33.81	94.75
eye	0.23	0.19	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	1.97	2.90	0.00	13.54
brain	6.04	5.22	0.59%	2.26	0.68	1.14	0.00	1.27	2.48	0.82	0.83	4.31	6.47	12.77	12.19	15.01	25.75	31.59	31.94	43.47	13.54
thyroid	0.51	0.32	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	7.90	8.71	4.83	0.00
other endocrine	0.34	0.37	0.03%	0.75	0.68	0.00	0.00	0.00	0.83	0.00	0.83	0.00	0.92	0.00	0.00	0.00	0.00	1.97	0.00	0.00	0.00
ill-defined site	2.03	1.58	0.17%	0.00	0.00	0.57	0.00	0.63	0.00	0.00	0.00	0.00	0.00	1.16	4.06	4.50	6.87	15.80	11.62	33.81	54.14
unknown primary site	14.55	11.69	1.32%	0.00	0.68	1.14	0.00	1.27	0.83	0.00	0.83	7.76	10.17	15.09	24.39	46.53	66.96	90.82	101.64	169.06	189.50
lymphosarcoma	0.06	0.06	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00
Hodgkin's disease	0.85	0.79	0.08%	0.00	0.00	0.00	0.00	1.27	0.83	0.82	0.00	0.00	1.85	0.00	0.00	3.00	3.43	3.95	2.90	0.00	27.07
other lymphoid	5.64	4.60	0.52%	0.00	0.00	0.57	0.58	0.00	1.65	0.82	0.83	2.59	3.70	6.97	14.90	15.01	25.75	31.59	40.66	53.13	54.14
myeloma	4.06	3.24	0.32%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86	1.85	3.48	8.13	10.51	20.60	17.77	34.85	57.96	108.28
lymphoid leukaemia	2.43	2.01	0.18%	0.00	2.70	0.00	0.58	0.00	1.65	0.82	0.83	0.00	1.85	2.32	1.35	4.50	1.72	17.77	14.52	33.81	54.14
myeloid leukaemia	2.48	2.05	0.23%	0.00	0.00	0.00	0.00	1.27	0.83	0.82	0.83	0.00	0.00	0.00	4.06	12.01	6.87	19.74	17.42	19.32	54.14
monocytic leukaemia	0.11	0.08	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	0.00	0.00	4.83	0.00
other leukaemia	0.68	0.52	0.06%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16	0.00	0.00	1.72	9.87	5.81	4.83	27.07
uncertain behaviour	0.17	0.14	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	3.95	0.00	0.00	0.00

22.15 AGE-SPECIFIC DEATH RATES PER 100,000 PERSONS WITH CRUDE RATE, AGE-STANDARDISED RATE AND CUMULATIVE RISK: FEMALES

	total rank	total score	CNTA	B-4	S-8	SS-14	SS-19	SS-24	SS-29	SS-34	SS-39	SS-44	SS-49	SS-54	SS-59	SS-64	SS-69	SS-74	SS-79	SS-84	BS-
all cancers	192.85	125.79	13.05%	2.39	3.56	0.61	3.02	5.33	11.55	11.80	35.84	69.20	118.21	221.45	322.16	457.66	601.10	913.94	1105.84	1452.55	2414.19
lip	0.11	0.03	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
tongue	0.23	0.14	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.01	0.00	2.07	0.00	6.40
major salivary gland	0.56	0.33	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	1.47	0.00	3.17	0.00	2.98	32.02
floor of mouth	0.17	0.12	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	1.59	0.00	0.00	6.40
other mouth	0.23	0.12	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.59	4.14	0.00	0.00
oropharynx	0.17	0.14	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	2.07	2.98	0.00
nasopharynx	0.11	0.05	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.98	6.40
hypopharynx	0.11	0.08	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	0.00	0.00	0.00	0.00	2.07	0.00	0.00
other nasopharynx	0.28	0.19	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	2.07	0.00	6.40
oesophagus	6.99	4.10	0.44%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.95	7.22	9.60	7.33	25.55	36.47	55.91	50.60	128.07
stomach	9.98	5.26	0.61%	0.00	0.00	0.00	0.00	0.00	0.00	1.57	0.81	4.33	3.78	2.41	9.60	16.14	27.05	57.08	49.70	107.16	198.51
small intestine	0.17	0.09	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	4.14	0.00	0.00
colon	17.99	10.51	1.15%	0.00	0.00	0.00	0.00	0.00	0.00	1.57	1.63	4.33	4.73	13.24	26.05	27.87	49.59	95.14	107.68	184.55	313.78
rectum and anus	5.25	3.20	0.38%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	1.89	4.81	8.65	11.73	13.52	34.88	22.78	50.60	82.25
uterus	3.05	1.71	0.21%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	4.11	4.40	7.51	22.20	26.92	26.79	25.61
gallbladder / biliary tract	1.58	0.98	0.11%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	1.37	5.87	4.51	12.69	10.35	8.97	19.21
pancreas	9.36	5.09	0.47%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.44	0.87	1.89	8.42	9.60	8.80	22.54	29.64	64.91	101.20	160.09
peritoneum	0.45	0.30	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.00	2.93	0.00	1.59	2.07	2.98	12.81
other digestive tract	3.89	2.02	0.16%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	1.89	4.20	2.74	4.40	7.51	12.69	31.06	51.38	89.65
nasal cavity/middle ear	0.23	0.20	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	0.00	0.00	0.00
larynx	1.02	0.74	0.08%	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	1.37	2.93	4.51	4.76	2.07	5.95	19.21
lung	29.22	18.96	2.43%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	1.63	5.19	12.29	24.07	43.87	88.01	122.73	188.69	192.59	178.59	172.90
pleura	0.06	0.06	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
mediastinum	0.11	0.08	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	1.59	0.00	0.00	0.00
bones, joints	0.39	0.28	0.03%	0.00	0.00	0.00	1.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.00	0.00	1.59	2.07	0.00	12.81
connective tissues	0.45	0.30	0.04%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	3.17	2.07	2.98	0.00
melanoma	1.13	0.86	0.11%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	1.63	1.73	0.95	1.20	0.00	4.40	3.01	7.93	2.07	5.95	0.00
non-melanoma skin	0.62	0.40	0.03%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.95	0.00	0.00	0.00	3.01	1.59	4.14	0.00	25.61
female breast	36.04	26.45	2.80%	0.80	0.00	0.00	0.00	0.00	0.00	0.79	9.78	21.63	51.07	83.94	94.59	90.95	101.69	112.58	152.24	222.17	345.80
uterus, unspecified	1.13	0.73	0.09%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	4.11	1.47	7.51	1.17	2.07	14.88	12.81
cervix	3.44	2.88	0.31%	0.80	0.00	0.00	0.00	0.00	1.65	0.79	3.26	6.92	8.51	2.41	6.85	7.33	13.52	9.51	10.35	5.95	12.81
corpus uteri	2.71	1.79	0.21%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81	0.87	0.95	1.20	1.37	14.87	9.02	12.69	26.79	38.42	

	crude rate	ASR rate	CRT4	5-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
ovary	11.51	8.61	1.05%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	1.63	3.46	8.51	18.05	39.76	48.41	33.06	57.08	43.49	50.60	96.06
other female genital	1.47	0.75	0.04%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.95	0.00	0.00	0.00	3.01	3.17	6.21	23.81	57.63
bladder	4.12	2.05	0.16%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.00	0.00	2.74	4.40	6.01	17.44	31.06	53.58	121.67
kidney	2.76	1.83	0.20%	0.80	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.95	3.61	5.48	8.80	6.01	14.27	22.78	17.86	19.21
eye	0.23	0.13	0.02%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	3.17	2.07	0.00	0.00
brain	5.25	4.20	0.50%	0.00	1.42	0.61	0.00	0.67	1.65	0.00	0.81	4.33	1.89	12.04	10.97	22.00	24.04	19.03	24.85	11.91	12.81
other nervous system	0.17	0.17	0.02%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.50	0.00	0.00	0.00	0.00
thyroid	0.96	0.63	0.07%	0.00	0.00	0.00	0.00	0.00	0.00	0.79	0.00	0.00	0.00	1.20	1.37	2.93	1.50	6.34	8.28	0.00	19.21
other endocrine	0.23	0.20	0.01%	0.00	0.00	0.00	0.00	0.00	0.82	0.00	0.00	0.87	0.00	1.20	0.00	0.00	0.00	0.00	2.07	0.00	0.00
ill-defined site	2.26	1.35	0.11%	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.81	0.00	1.89	1.20	1.37	5.87	7.51	3.17	10.35	32.74	44.83
secondary cancer	0.06	0.01	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.98	0.00
unknown primary site	11.50	7.23	0.83%	0.00	0.71	0.00	0.00	0.00	1.65	0.00	4.89	3.46	7.57	7.22	17.82	23.47	33.06	68.18	64.20	89.30	140.88
lymphosarcoma	0.17	0.07	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.59	4.14	0.00	0.00
Hodgkin's disease	0.68	0.45	0.04%	0.00	0.00	0.00	0.60	0.00	0.00	0.79	0.00	0.00	0.00	1.20	0.00	1.47	1.50	3.17	4.14	2.98	12.81
other lymphoid	5.13	3.36	0.36%	0.00	0.00	0.00	0.00	0.00	0.82	1.57	1.63	1.73	0.95	9.63	8.23	10.27	13.52	23.78	35.20	32.74	64.04
myeloma	4.23	2.71	0.31%	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.87	0.95	6.02	5.48	14.67	13.52	19.03	37.28	32.74	19.21
lymphoid leukaemia	1.64	0.98	0.08%	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	1.20	1.37	4.40	4.51	4.76	12.43	11.91	44.83
myeloid leukaemia	2.65	1.88	0.20%	0.00	0.00	0.00	0.60	3.33	1.65	0.79	1.63	1.73	0.95	1.20	2.74	1.47	9.02	15.86	8.28	11.91	32.02
monocytic leukaemia	0.06	0.05	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00
other leukaemia	0.28	0.18	0.03%	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	3.17	0.00	2.98	0.00
uncertain behaviour	0.06	0.05	0.01%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00

22.16. STANDARDISED INCIDENCE RATIO BY SITE AND COUNTY: MALES

larynx	185	158	71	81	72	+151	37	71	43	47	65	90	118	304	136	49	0	0	59	146	54	123	162	58	104	87
trachea	0	0	0	0	0	272	0	0	0	0	0	0	0	0	0	0	0	1973	0	0	0	0	0	0	0	0
lung	99	65	75	93	82	+145	-73	94	114	59	61	93	80	95	109	82	65	120	62	-46	103	110	67	72	122	101
thymus	0	0	0	0	0	0	0	+2173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
mediastinum	0	0	0	82	112	158	83	110	520	0	292	434	0	0	0	227	0	0	0	0	0	0	186	0	0	0
other chest	0	0	0	0	0	505	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bones, joints of limbs	0	344	0	47	0	123	0	448	0	0	0	0	120	594	221	329	186	0	312	0	0	0	0	0	0	0
bones, joints head and trunk	0	0	0	85	242	196	0	247	0	0	0	0	0	0	418	0	0	0	0	0	0	0	0	0	0	393
haematopoietic/RE	99	85	104	123	139	89	77	95	66	50	69	96	101	163	109	134	115	117	47	52	130	86	131	139	121	68
non-melanoma skin	-62	-64	-80	106	99	+128	97	+123	103	-53	79	81	-81	95	+138	-72	99	-71	78	95	-70	91	92	101	-54	108
melanoma	0	94	82	114	42	115	116	97	116	28	37	54	151	60	78	142	44	186	35	116	32	130	71	168	41	97
peripheral nerves	0	0	0	428	0	0	0	0	0	0	0	0	731	0	0	0	0	0	0	0	0	0	0	0	568	0
peritoneum	0	0	0	123	0	173	0	343	0	0	926	0	0	0	596	0	0	0	0	0	0	0	0	0	0	0
connective tissues	251	0	99	196	0	80	0	0	0	261	182	0	127	0	241	0	0	356	494	291	157	70	110	0	95	0
breast	679	0	0	66	339	102	130	333	0	0	0	0	0	0	0	0	0	0	0	339	383	0	299	0	0	0
penis	0	0	0	82	112	77	0	113	+562	0	297	422	108	0	411	113	0	0	0	228	0	0	181	525	0	0
prostate	+173	113	74	+132	-71	114	87	-69	112	107	90	60	77	74	91	79	74	115	720	104	86	99	90	93	109	130
testis	0	314	0	144	91	77	91	181	127	0	0	0	33	189	121	53	104	109	95	109	0	125	239	0	162	226
other male genital	0	0	0	173	0	246	0	0	0	944	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney	64	112	50	-50	102	122	141	135	57	65	134	0	114	0	153	69	54	89	82	105	116	86	139	+319	48	88
renal pelvis	0	0	280	72	0	176	0	0	0	0	0	0	0	0	0	186	0	0	473	0	428	193	0	0	273	0
ureter	0	0	0	211	0	271	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bladder	78	99	57	110	88	+146	87	82	74	52	53	70	113	0	180	62	78	85	33	76	72	88	68	32	86	144
other urinary	0	0	0	+684	498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
eye	0	0	0	143	0	50	75	199	0	0	0	405	185	0	173	105	0	263	240	0	+689	0	0	468	283	0
meninges	0	0	0	320	0	147	224	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	478
brain	61	41	101	96	109	104	119	145	114	32	0	154	77	74	57	98	146	45	81	40	83	174	81	78	214	27
spinal cord	428	0	0	43	0	111	95	0	158	0	0	0	108	530	199	0	0	0	0	293	300	249	0	0	171	378
thyroid	0	0	290	37	98	74	149	+574	0	0	266	0	98	0	0	99	0	0	0	201	0	104	170	0	147	0
adrenal	0	0	0	0	0	178	0	0	0	0	0	0	0	0	946	0	0	0	0	0	0	0	0	1428	0	0
other endocrine	0	400	124	152	86	28	64	170	123	164	458	0	239	0	0	0	0	228	0	0	199	178	276	0	122	0
ill-defined site	0	200	133	34	266	103	68	0	165	0	0	0	91	0	0	+529	0	238	0	0	203	0	155	0	0	163
lymph nodes	112	181	91	138	110	-68	127	175	175	59	0	+327	86	0	80	83	46	81	74	137	73	48	75	216	86	150
unknown primary	97	136	101	82	80	115	-51	140	101	98	100	69	105	104	142	98	124	49	168	112	84	70	42	180	-36	157
lymphoma	73	137	102	108	111	86	105	112	175	57	-0	+287	102	43	87	96	45	104	72	130	93	81	81	186	112	147

22.17 STANDARDISED INCIDENCE RATIO BY SITE AND COUNTY: FEMALES

	Carlow	Cavan	Clare	Cork	Donegal	Dublin	Galway	Kerry	Kildare	Kilkenny	Laois	Leitrim	Limerick	Longford	Louth	Mayo	Meath	Monaghan	Offaly	Roscommon	Sligo	Tipperary	Waterford	Westmeath	Wexford	Wicklow
all cancers	99	106	-86	103	92	+117	94	104	106	-57	109	85	-85	-78	108	-82	95	-59	-82	-81	96	-83	89	98	-77	+116
all sites except non-melanoma skin	112	113	-80	103	101	+112	91	91	100	-59	112	111	91	85	112	90	97	-64	8	2,76	105	93	-84	94	88	+118
lip	0	705	0	0	307	189	0	0	419	0	0	0	0	0	0	319	0	0	0	0	0	0	0	0	0	0
base of tongue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2201	0	0	1817	0	1272	0	0	0
other tongue	0	0	0	105	318	+220	0	158	0	0	0	0	0	0	0	0	0	0	0	349	0	0	0	0	0	0
gum	0	0	0	285	0	236	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
floor of mouth	0	0	0	0	0	264	0	0	0	0	0	0	0	0	586	0	0	0	931	0	0	0	0	0	0	0
palate	0	0	0	0	0	118	656	0	1196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other mouth	0	0	0	0	362	52	270	0	0	0	0	0	0	0	0	351	0	0	0	0	0	357	0	848	0	569
parotid	0	0	0	93	294	78	0	585	426	0	0	1283	0	0	0	0	0	0	0	0	0	0	0	0	0	417
other salivary	0	0	0	0	0	175	0	0	0	1218	0	0	0	0	1104	0	0	0	0	0	0	0	0	0	0	0
tonsill	562	0	0	0	0	62	632	0	0	0	0	0	0	0	0	404	0	0	0	0	0	0	0	0	0	660
oropharynx	0	0	1356	0	0	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
nasopharynx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1356	1954	0	0	0	0	0	0	0	0	0
pyriform sinus	0	0	0	276	848	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
hypopharynx	0	0	0	94	0	125	204	0	0	0	781	1036	0	0	0	0	0	0	+1468	0	0	0	0	0	0	0
other mouthpharynx	0	0	0	420	0	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
oesophagus	150	-47	60	132	58	119	45	77	207	76	56	80	125	84	130	38	195	52	104	42	0	98	61	0	27	+245
stomach	56	240	110	73	72	+139	66	57	51	56	0	58	145	0	190	57	166	78	38	31	93	115	114	69	40	90
small intestine	0	0	151	130	307	54	0	99	154	0	269	0	86	0	439	103	0	0	241	0	220	290	148	0	0	0
colon	118	160	62	120	127	102	103	80	53	-35	138	112	-44	95	116	77	159	48	104	97	128	63	70	106	112	+176
rectosigmoid	0	98	63	82	248	105	0	162	0	0	115	0	111	0	0	82	135	0	107	263	90	163	127	195	113	130
rectum	242	152	123	107	81	103	110	126	55	92	224	132	101	134	0	127	52	42	83	0	139	64	99	152	66	75
anus	0	0	304	65	401	80	0	195	331	374	0	0	173	0	317	0	0	0	0	0	435	0	0	0	0	0
liver	0	0	0	93	0	162	0	271	157	177	0	0	0	0	0	0	151	0	0	0	0	93	146	0	+517	0
gallbladder	0	0	332	+256	0	32	0	317	195	0	305	0	98	444	0	209	0	0	0	0	230	108	0	0	0	172
other biliary	0	0	181	80	121	121	92	0	395	0	662	0	214	0	0	0	0	0	200	257	0	0	0	284	0	0
pancreas	135	+290	160	88	104	105	106	68	63	68	0	140	96	74	116	135	58	93	0	74	149	122	55	42	122	83
other digestive	0	0	379	167	0	111	0	0	0	0	0	0	227	0	0	0	0	0	0	505	0	0	0	0	691	0
nasal cavity/middle ear	0	0	0	0	0	0	0	0	0	0	0	0	2236	0	0	0	0	0	0	0	0	0	0	0	0	0
sinuses	0	0	0	427	0	0	935	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
larynx	464	0	0	84	0	106	99	128	0	0	0	0	336	520	199	0	0	0	0	0	284	0	0	283	172	199

trachea	0	0	0	415	0	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
lung	121	50	90	115	103	+126	-57	74	92	-31	134	88	-43	88	94	101	104	71	95	57	47	117	117	88	141	77
thymus	0	0	0	419	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1229	0	0	0	0
mediastinum	0	0	0	0	0	294	0	0	0	0	0	0	0	2114	0	0	0	0	0	0	0	0	0	0	0	0
bones, joints of limbs	0	0	0	169	0	101	0	271	0	0	0	0	441	0	0	0	387	0	0	0	0	0	388	0	0	0
bones, joints head and trunk	0	0	0	121	0	0	278	0	0	0	990	0	0	0	0	388	0	0	0	823	0	0	551	0	0	554
haematopoietic/RE	60	115	147	+153	122	102	85	64	103	123	129	239	86	68	77	-32	76	149	61	124	71	-40	112	113	55	37
non-melanoma skin	68	90	99	104	-75	+129	100	+132	122	-52	100	-34	-70	-62	99	-67	90	-48	83	93	76	-62	100	104	-55	111
melanoma	178	103	74	113	119	113	119	101	104	47	158	0	78	36	76	80	48	66	82	95	0	123	86	150	100	72
peripheral nerves	0	0	0	426	0	163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
peritoneum	0	0	+1158	0	0	142	0	0	0	0	0	0	221	0	0	261	0	0	0	0	571	0	0	0	0	0
connective tissues	0	0	137	89	95	116	69	291	112	0	0	0	77	406	136	104	125	0	217	0	0	0	0	0	0	380
breast	114	113	81	114	89	+113	83	94	109	-57	124	125	91	94	69	114	82	58	86	93	+151	88	78	106	-50	105
vulva	226	143	0	80	241	77	91	178	0	114	166	0	108	256	195	59	191	159	0	0	130	0	93	0	331	91
vagina	1049	0	0	0	0	115	0	0	818	0	798	0	0	0	0	0	0	0	741	0	0	291	0	0	0	0
cervix (including in situ)	111	86	61	-79	81	+124	87	93	98	-47	48	137	88	74	+185	-40	117	78	86	-37	82	80	96	89	102	139
cervix (invasive only)	106	80	135	70	67	109	82	164	36	28	83	155	129	203	46	18	121	83	110	115	145	143	68	102	102	105
corpus uteri	51	136	0	116	59	101	120	157	111	53	77	62	160	119	133	74	0	75	103	62	95	124	191	0	76	107
uterus NOS	268	0	110	73	299	90	113	148	344	0	401	0	64	310	0	76	112	0	0	0	0	72	0	167	99	108
ovary	99	160	69	112	116	90	113	76	132	69	101	42	143	40	29	100	81	123	45	64	189	129	97	21	124	163
other female genital	0	0	0	0	252	122	0	0	0	448	0	1124	0	1022	0	0	349	0	0	0	0	0	0	0	321	352
placenta	0	0	0	0	0	0	0	0	0	4765	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
kidney	118	225	48	84	96	98	72	63	102	121	87	266	140	132	101	32	98	0	81	205	277	127	49	74	174	49
renal pelvis	0	0	0	93	0	206	0	0	0	0	0	0	0	0	458	0	468	0	0	0	0	0	0	0	0	444
ureter	0	0	0	0	0	194	347	0	786	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313	0
bladder	0	184	47	82	107	109	106	152	105	30	171	63	83	195	126	76	99	0	119	33	133	122	48	182	63	141
eye	0	262	169	37	0	61	+428	114	0	208	0	0	0	0	0	234	166	295	0	251	0	110	167	0	302	0
meninges	0	138	251	90	118	87	171	116	224	0	150	0	94	0	0	187	0	0	134	0	129	55	0	125	222	160
brain	160	0	138	105	119	111	87	72	61	171	0	0	196	97	174	101	129	0	0	0	53	91	68	102	92	67
spinal cord	0	0	164	143	0	109	83	124	0	0	0	272	0	160	0	144	0	0	0	0	114	0	0	0	0	451
thyroid	204	144	87	130	177	108	128	0	79	218	0	0	49	0	0	125	0	154	142	135	0	115	0	0	154	165
adrenal	0	0	0	434	0	173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other endocrine	0	363	0	180	0	87	105	153	0	0	375	738	0	0	206	168	0	0	0	0	332	286	0	0	0	0
ill defined site	0	0	0	65	0	-36	247	65	0	248	0	+813	58	0	103	+461	102	174	0	142	0	193	100	152	269	99
lymph nodes	196	181	56	54	76	117	125	57	77	103	150	85	110	80	141	+259	108	49	45	128	42	92	27	41	25	134
unknown primary	122	58	37	75	121	117	98	71	110	-15	135	132	87	34	+250	80	91	21	83	86	122	120	63	172	67	150
lymphoma	136	92	58	91	65	122	96	64	110	95	138	57	87	54	97	+188	75	67	31	144	57	125	76	29	-17	150

22.19. TNM STAGES BY SITE: BOTH SEXES

site	all cases	Ta	Tis	T1	T2	T3	TX	T4	N0	N1	N2	N3	NX	M0	M1	MX
all cancers	11415	48	1281	1908	2204	1896	3144	934	4428	1719	387	104	4777	5006	1509	4900
lip	64	0	1	14	8	1	36	4	18	2	2	0	42	18	0	46
base of tongue	16	0	0	1	7	3	4	1	2	6	3	1	4	10	0	6
other tongue	42	0	2	15	11	5	6	3	21	7	2	0	12	17	1	24
gum	6	0	0	1	1	1	2	1	4	0	1	0	1	2	2	2
floor of mouth	36	0	2	8	9	7	2	8	12	11	3	1	9	15	3	18
palate	13	0	1	4	1	3	2	2	5	1	2	0	5	6	0	7
parotid	25	0	0	4	6	0	12	3	6	1	1	0	17	7	1	17
other salivary	13	0	0	3	4	2	2	2	5	3	0	0	5	7	0	6
tonsil	27	0	2	6	4	5	9	1	5	4	7	0	11	8	1	18
oropharynx	11	0	0	2	3	1	2	3	5	1	2	0	3	5	0	6
nasopharynx	13	0	0	1	3	1	6	2	4	2	1	0	6	4	2	7
pyriform sinus	19	0	1	5	3	3	2	5	7	6	3	2	1	13	1	5
hypopharynx	16	0	0	5	5	1	1	4	6	3	3	0	4	5	2	9
oesophagus	295	0	10	41	34	39	133	38	75	64	0	0	156	98	50	147
stomach	476	0	13	36	52	124	162	89	102	124	56	0	194	165	111	200
small intestine	57	0	0	3	10	18	14	12	17	13	0	0	27	24	8	25
colon	1151	0	41	62	156	583	169	140	562	261	74	19	235	575	230	346
rectosigmoid	156	0	0	6	28	83	16	23	79	38	9	1	29	87	25	44
rectum	453	0	28	48	86	175	74	42	220	94	22	4	113	242	59	152
anus	25	0	2	4	5	6	7	1	12	3	0	0	10	14	5	6
liver	69	0	0	4	3	7	48	7	7	4	0	1	57	7	12	50
gallbladder	31	0	1	3	4	2	15	6	3	6	1	0	21	5	10	16
other biliary	53	0	2	9	2	8	31	1	7	7	0	0	39	10	7	36
pancreas	284	0	0	59	54	25	146	0	37	42	0	0	205	40	82	162
sinuses	9	0	1	1	0	1	3	3	2	0	0	0	7	3	0	6
larynx	115	0	12	35	26	14	17	11	70	6	7	1	31	58	5	52
trachea	5	0	0	0	0	0	5	0	0	1	0	0	4	0	0	5
lung	1455	0	10	134	345	110	685	171	270	229	70	48	838	310	299	846
thymus	4	0	0	0	0	0	4	0	0	0	0	0	4	0	0	4
mediastinum	26	0	0	6	2	0	9	9	6	2	0	0	18	5	2	19
bones, joints of limbs	28	0	0	2	7	0	19	0	7	1	0	0	20	5	4	19
bones, joints head and trunk	17	0	0	0	5	0	12	0	3	0	0	0	14	3	1	13
melanoma	480	0	132	53	71	91	84	49	244	13	2	0	221	244	8	228
peripheral nerves	8	0	0	1	0	0	7	0	1	0	0	0	7	1	0	7
peritoneum	17	0	0	0	3	0	14	0	2	1	0	0	14	2	5	10
connective tissues	64	0	0	18	28	0	17	1	19	10	0	0	35	22	3	39
breast	1557	0	90	422	591	182	142	130	746	537	62	10	202	919	106	532
vulva	42	0	6	6	18	3	9	0	16	8	3	0	15	21	3	18
vagina	9	0	0	3	1	2	3	0	1	2	0	0	6	1	0	8
cervix	1061	0	891	74	46	13	31	6	946	30	0	0	85	966	9	86
corpus uteri	182	0	9	127	16	15	12	3	88	7	0	0	87	99	16	67
uterus nos	35	0	1	13	2	5	13	1	8	3	0	0	24	10	4	21
ovary	280	1	0	104	55	76	44	0	79	43	0	0	158	99	79	102
placenta	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1
penis	21	0	3	8	7	0	3	0	8	1	0	0	12	9	1	11
prostate	1000	0	2	204	196	61	495	42	217	15	8	2	758	302	204	494
testis	65	0	0	34	15	6	5	5	30	8	9	2	16	36	9	20
kidney	218	0	0	16	97	45	50	10	75	10	9	1	123	72	41	105
renal pelvis	21	1	1	4	6	3	3	3	11	0	1	0	9	9	3	9
ureter	15	3	1	3	2	2	3	1	4	0	0	0	11	5	2	8
bladder	509	43	12	122	76	81	147	28	188	7	11	1	302	203	25	281
eye	47	0	4	9	5	8	17	4	17	1	0	0	29	18	2	27
meninges	55	0	0	13	1	0	41	0	0	0	0	0	55	4	0	51
brain	255	0	0	43	2	8	197	5	0	0	0	0	255	12	0	243
spinal cord	44	0	0	1	0	0	42	1	0	0	0	0	44	0	0	44
thyroid	69	0	0	12	13	9	19	16	19	14	0	0	36	22	12	35
adrenal	6	0	0	3	0	1	2	0	2	0	0	0	4	1	1	4
other endocrine	47	0	0	2	0	0	44	1	0	0	0	0	47	1	0	46

22.20 TNM STAGES BY SITE: MALES

site	all cases	Ta	Tis	T1	T2	T3	T4	TX	N0	N1	N2	N3	NX	M0	M1	MX
all cancers	5304	33	135	794	985	931	505	1921	1581	694	218	65	2746	1870	863	2571
lip	55	0	1	14	8	1	3	28	18	2	2	0	33	18	0	37
base of tongue	13	0	0	1	5	2	1	4	2	4	3	1	3	8	0	5
other tongue	26	0	0	11	7	2	2	4	13	5	2	0	6	12	1	13
gum	3	0	0	0	0	1	1	1	2	0	0	0	1	1	1	1
floor of mouth	29	0	2	7	8	5	6	1	11	9	2	1	6	14	1	14
palate	10	0	1	4	0	1	2	2	4	1	2	0	3	4	0	6
parotid	16	0	0	4	4	0	2	6	4	1	1	0	10	6	1	9
other salivary	9	0	0	2	4	1	1	1	3	3	0	0	3	5	0	4
tonsil	21	0	2	3	4	4	1	7	4	3	5	0	9	6	1	14
oropharynx	8	0	0	2	3	1	2	0	4	0	2	0	2	4	0	4
nasopharynx	11	0	0	1	3	1	2	4	4	2	1	0	4	4	2	5
pyriform sinus	16	0	1	5	1	3	4	2	6	4	3	2	1	12	1	3
hypopharynx	7	0	0	5	0	0	2	0	2	2	1	0	2	3	1	3
oesophagus	168	0	3	26	12	27	22	78	35	46	0	0	87	56	35	77
stomach	304	0	7	24	35	81	64	93	62	92	34	0	116	100	72	132
small intestine	31	0	0	2	6	11	5	7	8	8	0	0	15	15	4	12
colon	592	0	19	33	78	296	78	88	285	127	44	6	130	305	123	164
rectosigmoid	95	0	0	5	20	47	13	10	48	25	6	1	15	53	15	27
rectum	296	0	19	30	57	120	28	42	146	69	14	4	63	168	42	86
anus	12	0	1	0	3	3	0	5	5	1	0	0	6	6	3	3
liver	42	0	0	2	1	4	4	31	5	3	0	0	34	6	6	30
gallbladder	8	0	0	1	1	0	1	5	1	1	1	0	5	1	3	4
other biliary	32	0	1	3	1	4	1	22	4	3	0	0	25	6	3	23
pancreas	142	0	0	28	29	11	0	74	23	21	0	0	98	26	44	72
sinuses	7	0	1	0	0	0	3	3	1	0	0	0	6	2	0	5
larynx	95	0	9	31	23	10	7	15	57	4	5	1	28	48	5	42
trachea	3	0	0	0	0	0	0	3	0	1	0	0	2	0	0	3
lung	987	0	7	87	254	72	113	454	197	160	46	38	546	226	198	562
thymus	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
mediastinum	21	0	0	6	2	0	7	6	6	1	0	0	14	5	1	15
bones, joints of limbs	18	0	0	1	4	0	0	13	5	1	0	0	12	3	4	11
bones, joints head and trunk	10	0	0	0	3	0	0	7	1	0	0	0	9	2	1	7
melanoma	165	0	43	14	18	28	24	38	81	8	2	0	74	83	3	79
peripheral nerves	6	0	0	1	0	0	0	5	1	0	0	0	5	1	0	5
peritoneum	7	0	0	0	1	0	0	6	1	0	0	0	6	1	1	5
connective tissues	35	0	0	13	14	0	0	8	14	6	0	0	15	15	2	18
breast	13	0	1	7	3	0	2	0	9	3	0	0	1	10	0	3
penis	21	0	3	8	7	0	0	3	8	1	0	0	12	9	1	11
prostate	1000	0	2	204	196	61	42	495	217	15	8	2	758	302	204	494
testis	65	0	0	34	15	6	5	5	30	8	9	2	16	36	9	20
kidney	138	0	0	10	58	26	8	36	42	6	6	1	83	44	23	71
renal pelvis	12	1	0	3	4	1	2	1	7	0	0	0	5	7	1	4
ureter	4	1	0	0	1	1	0	1	1	0	0	0	3	1	0	3
bladder	345	31	10	78	49	60	17	100	134	5	10	1	195	137	15	193
eye	24	0	2	4	3	4	2	9	6	1	0	0	17	7	1	16
meninges	8	0	0	2	0	0	0	6	0	0	0	0	8	0	0	8
brain	142	0	0	24	1	3	2	112	0	0	0	0	142	6	0	136
spinal cord	20	0	0	0	0	0	0	20	0	0	0	0	20	0	0	20
thyroid	23	0	0	3	3	4	6	7	3	6	0	0	14	4	4	15
adrenal	4	0	0	1	0	1	0	2	1	0	0	0	3	0	1	2
other endocrine	28	0	0	1	0	0	1	26	0	0	0	0	28	1	0	27

22.21 TNM STAGES BY SITE: FEMALES

site	all cases	Ta	Tis	T1	T2	T3	T4	TX	N0	N1	N2	N3	N4	M0	M1	MX
all cancers	6111	15	1146	1114	1219	965	429	1223	2847	1025	169	39	2031	3136	646	2329
lip	9	0	0	0	0	0	1	8	0	0	0	0	9	0	0	9
base of tongue	3	0	0	0	2	1	0	0	0	2	0	0	1	2	0	1
other tongue	16	0	2	4	4	3	1	2	8	2	0	0	6	5	0	11
gum	3	0	0	1	1	0	0	1	2	0	1	0	0	1	1	1
floor of mouth	7	0	0	1	1	2	2	1	1	2	1	0	3	1	2	4
palate	3	0	0	0	1	2	0	0	1	0	0	0	2	2	0	1
parotid	9	0	0	0	2	0	1	6	2	0	0	0	7	1	0	8
other salivary	4	0	0	1	0	1	1	1	2	0	0	0	2	2	0	2
tonsil	6	0	0	3	0	1	0	2	1	1	2	0	2	2	0	4
oropharynx	3	0	0	0	0	0	1	2	1	1	0	0	1	1	0	2
nasopharynx	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
pyriform sinus	3	0	0	0	2	0	1	0	1	2	0	0	0	1	0	2
hypopharynx	9	0	0	0	5	1	2	1	4	1	2	0	2	2	1	6
oesophagus	127	0	7	15	22	12	16	55	40	18	0	0	69	42	15	70
stomach	172	0	6	12	17	43	25	69	40	32	22	0	78	65	39	68
small intestine	26	0	0	1	4	7	7	7	9	5	0	0	12	9	4	13
colon	559	0	22	29	78	287	62	81	277	134	30	13	105	270	107	182
rectosigmoid	61	0	0	1	8	36	10	6	31	13	3	0	14	34	10	17
rectum	157	0	9	18	29	55	14	32	74	25	8	0	50	74	17	66
anus	13	0	1	4	2	3	1	2	7	2	0	0	4	8	2	3
liver	27	0	0	2	2	3	3	17	2	1	0	1	23	1	6	20
gallbladder	23	0	1	2	3	2	5	10	2	5	0	0	16	4	7	12
other biliary	21	0	1	6	1	4	0	9	3	4	0	0	14	4	4	13
pancreas	142	0	0	31	25	14	0	72	14	21	0	0	107	14	38	90
sinuses	2	0	0	1	0	1	0	0	1	0	0	0	1	1	0	1
larynx	20	0	3	4	3	4	4	2	13	2	2	0	3	10	0	10
trachea	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
lung	468	0	3	47	91	38	58	231	73	69	24	10	292	84	101	283
thymus	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
mediastinum	5	0	0	0	0	0	2	3	0	1	0	0	4	0	1	4
bones, joints of limbs	10	0	0	1	3	0	0	6	2	0	0	0	8	2	0	8
bones, joints head and trunk	7	0	0	0	2	0	0	5	2	0	0	0	5	1	0	6
melanoma	315	0	89	39	53	63	25	46	163	5	0	0	147	161	5	149
peripheral nerves	2	0	0	0	0	0	0	2	0	0	0	0	2	0	0	2
peritoneum	10	0	0	0	2	0	0	8	1	1	0	0	8	1	4	5
connective tissues	29	0	0	5	14	0	1	9	5	4	0	0	20	7	1	21
breast	1544	0	89	415	588	182	128	142	737	534	62	10	201	909	106	529
vulva	42	0	6	6	18	3	0	9	16	8	3	0	15	21	3	18
vagina	9	0	0	3	1	2	0	3	1	2	0	0	6	1	0	8
cervix	1061	0	891	74	46	13	6	31	946	30	0	0	85	966	9	86
corpus uteri	182	0	9	127	16	15	3	12	88	7	0	0	87	99	16	67
uterus nos	35	0	1	13	2	5	1	13	8	3	0	0	24	10	4	21
ovary	280	1	0	104	55	76	0	44	79	43	0	0	158	99	79	102
placenta	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1
kidney	80	0	0	6	39	19	2	14	33	4	3	0	40	28	18	34
renal pelvis	9	0	1	1	2	2	1	2	4	0	1	0	4	2	2	5
ureter	11	2	1	3	1	1	1	2	3	0	0	0	8	4	2	5
bladder	164	12	2	44	27	21	11	47	54	2	1	0	107	66	10	88
eye	23	0	2	5	2	4	2	8	11	0	0	0	12	11	1	11
meninges	47	0	0	11	1	0	0	35	0	0	0	0	47	4	0	43
brain	113	0	0	19	1	5	3	85	0	0	0	0	113	6	0	107
spinal cord	24	0	0	1	0	0	1	22	0	0	0	0	24	0	0	24
thyroid	46	0	0	9	10	5	10	12	16	8	0	0	22	18	8	20
adrenal	2	0	0	2	0	0	0	0	1	0	0	0	1	1	0	1
other endocrine	19	0	0	1	0	0	0	18	0	0	0	0	19	0	0	19

22.22. NUMBERS TREATED AND TYPE OF TREATMENT, BY SITE: BOTH SEXES

SITE	ALL T	ALL S	ALL C	ALL R	ALL O	S	C	R	O	SC	SR	SO	CR	CO	RO	SCR	SCO	SRO	CRO	SCRO
all cancers	16701	14306	2966	2661	945	11038	693	944	510	1476	920	237	135	49	52	549	36	33	11	17
lip	61	51	1	13	1	46	0	10	0	1	3	1	0	0	0	0	0	0	0	0
base of tongue	15	9	2	13	1	2	0	5	0	0	5	0	1	0	0	1	0	1	0	0
other tongue	37	35	4	18	0	18	0	1	0	1	14	0	1	0	0	2	0	0	0	0
gun	5	4	0	3	0	2	0	1	0	0	2	0	0	0	0	0	0	0	0	0
floor of mouth	36	33	6	19	0	16	1	1	0	0	13	0	1	0	0	4	0	0	0	0
palate	12	8	1	7	0	4	1	3	0	0	4	0	0	0	0	0	0	0	0	0
other mouth	18	16	0	11	1	6	0	1	1	0	10	0	0	0	0	0	0	0	0	0
parotid	21	20	3	10	0	8	0	1	0	3	9	0	0	0	0	0	0	0	0	0
other salivary	13	13	0	6	0	7	0	0	0	0	6	0	0	0	0	0	0	0	0	0
tonsil	24	19	4	21	1	2	1	3	0	0	15	0	1	0	0	1	0	0	0	1
oropharynx	10	6	0	7	0	3	0	4	0	0	3	0	0	0	0	0	0	0	0	0
nasopharynx	12	4	3	9	0	1	2	5	0	0	3	0	1	0	0	0	0	0	0	0
pyriform sinus	18	13	1	14	1	3	0	5	0	0	8	1	0	0	0	1	0	0	0	0
hypopharynx	15	5	2	12	1	2	0	8	0	1	2	0	1	0	1	0	0	0	0	0
other mouth/pharynx	10	4	1	9	0	1	0	5	0	0	3	0	1	0	0	0	0	0	0	0
oesophagus	251	199	25	78	57	128	1	13	26	2	32	15	1	0	10	17	1	2	1	2
stomach	382	348	45	15	44	289	6	0	25	28	6	17	2	1	0	7	1	0	0	0
small intestine	51	48	17	1	0	34	3	0	0	13	0	0	0	0	0	1	0	0	0	0
colon	1035	1004	214	24	39	771	13	2	16	188	12	20	0	0	0	10	3	0	0	0
rectosigmoid	149	146	29	19	6	108	1	0	2	15	6	4	0	0	0	13	0	0	0	0
rectum	402	391	64	53	13	301	1	2	7	35	22	5	1	0	0	27	0	1	0	0
anus	24	23	8	6	0	14	0	0	0	4	2	0	1	0	0	3	0	0	0	0
liver	39	32	7	3	6	24	2	1	4	4	1	2	0	0	0	1	0	0	0	0
gallbladder	21	21	0	1	1	19	0	0	0	0	1	1	0	0	0	0	0	0	0	0
other biliary	45	34	0	1	14	31	0	0	11	0	0	2	0	0	0	0	0	1	0	0
pancreas	178	135	8	4	52	118	2	3	35	2	1	13	0	3	0	0	1	0	0	0
other digestive	13	10	1	0	5	7	0	0	3	1	0	2	0	0	0	0	0	0	0	0
nasal cavity/middle ear	10	5	4	7	0	2	0	2	0	1	2	0	3	0	0	0	0	0	0	0
sinuses	9	7	2	4	0	3	2	0	0	0	4	0	0	0	0	0	0	0	0	0
larynx	103	60	1	76	1	25	1	41	1	0	35	0	0	0	0	0	0	0	0	0
trachea	4	3	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0
lung	987	609	183	438	141	338	64	186	74	44	148	24	31	0	21	35	5	13	2	2
thymus	4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
mediastinum	24	12	7	9	5	8	2	3	2	1	2	1	3	1	1	0	0	0	0	0
other chest	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
bones, joints of limbs	24	21	14	5	0	6	0	2	0	13	2	0	1	0	0	0	0	0	0	0
bones, joints head and trunk	14	8	2	7	2	5	0	4	1	1	1	0	0	0	1	1	0	0	0	0
haematopoietic/RE	448	72	313	38	134	28	231	4	91	26	2	7	21	23	0	2	4	3	6	0
non-melanoma skin	6061	5474	65	575	88	5345	46	470	60	8	93	27	10	0	1	1	0	0	0	0
melanoma	446	440	10	10	5	425	1	3	2	5	3	3	0	0	0	4	0	0	0	0
peripheral nerves	8	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
peritoneum	11	9	2	1	4	7	0	0	2	0	0	0	0	0	0	0	1	0	0	1
connective tissues	60	55	16	15	2	33	3	1	0	7	9	1	1	0	0	4	1	0	0	0
breast	1500	1375	1095	531	29	249	69	14	10	633	125	4	28	2	1	353	2	2	1	7
vulva	37	37	4	5	1	30	0	0	0	1	2	1	0	0	0	3	0	0	0	0
vagina	8	6	1	4	1	3	0	1	1	0	2	0	0	0	0	1	0	0	0	0
cervix	888	846	6	95	33	762	0	21	19	0	67	12	1	0	1	4	0	0	0	1
corpus uteri	174	168	18	59	4	99	0	4	2	12	49	2	0	0	0	6	0	0	0	0
uterus nos	28	24	2	11	3	12	1	1	2	1	10	1	0	0	0	0	0	0	0	0
ovary	258	238	154	3	17	96	11	0	3	131	1	4	1	5	0	1	5	0	0	0
other female genital	10	10	4	2	0	4	0	0	0	4	2	0	0	0	0	0	0	0	0	0
placenta	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
penis	20	19	0	5	0	15	0	1	0	0	4	0	0	0	0	0	0	0	0	0
prostate	895	777	235	50	56	585	75	10	19	132	20	24	4	7	2	13	3	0	1	0
testis	62	60	28	17	1	19	2	0	0	23	14	1	0	0	0	3	0	0	0	0
other male genital	4	4	1	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0
kidney	155	150	14	9	7	125	1	2	1	12	7	5	0	0	0	0	1	0	0	0
renal pelvis	19	18	0	0	1	18	0	0	1	0	0	0	0	0	0	0	0	0	0	0
ureter	12	12	0	1	0	11	0	0	0	0	1	0	0	0	0	0	0	0	0	0
bladder	480	458	26	45	20	392	2	11	8	22	32	10	0	1	0	1	0	1	0	0

Site	ALL T	ALL S	ALL C	ALL R	ALL O	S	C	R	O	SC	SR	SO	CR	CO	RO	SCR	SCO	SRO	CRO	SCRO
other urinary	4	2	0	0	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
eye	39	35	4	6	1	29	1	3	0	2	2	1	0	0	0	1	0	0	0	0
meninges	40	38	0	1	2	37	0	1	1	0	0	1	0	0	0	0	0	0	0	0
brain	174	139	10	63	32	82	2	10	18	4	40	5	0	0	5	4	0	4	0	0
spinal cord	32	31	0	4	0	28	0	1	0	0	3	0	0	0	0	0	0	0	0	0
thyroid	62	52	5	26	7	32	0	7	0	1	12	2	1	0	2	2	1	2	0	0
adrenal	6	5	2	1	1	3	1	0	0	0	0	1	0	0	0	1	0	0	0	0
lymphoma	34	32	2	12	2	21	0	2	0	1	8	0	0	0	0	0	0	1	0	1
ill-defined site	46	41	5	3	2	37	1	2	1	3	0	1	1	0	0	0	0	0	0	0
lymph nodes	257	109	208	58	14	15	108	19	2	65	9	2	15	4	0	12	3	2	0	1
unknown primary	345	200	76	85	84	125	35	43	57	23	24	14	2	2	6	9	4	0	0	1

		ALL	ALL C	ALL H	ALL O	S	C	R	H	O	SC	SB	SO	CM	CO	NO	SCM	KCO	SNO	CMO	SCMO
all cancers		8063	6710	1079	1288	496	5502	3177	5777	2277	462	458	119	61	23	33	15	130	18	5	6
lip		52	42	13	1	31	1	1	0	10	3	1	0	0	0	0	0	0	1	0	0
base of tongue		12	6	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
other tongue		22	22	2	12	0	10	0	0	0	0	0	0	0	0	0	0	0	2	0	0
gum		2	1	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
floor of mouth		29	37	5	15	0	14	0	1	0	0	9	0	1	0	0	0	4	0	0	0
palate		9	5	1	6	0	2	1	3	0	0	3	0	0	0	0	0	0	0	0	0
other mouth		11	11	0	6	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0
pharynx		14	13	2	3	0	5	0	1	0	2	0	0	0	0	0	0	0	0	0	0
other pharynx		19	16	2	16	1	2	1	0	0	0	13	0	0	0	0	0	0	0	0	1
esophagus		8	5	0	5	0	3	0	3	0	0	2	0	0	0	0	0	0	0	0	0
nasopharynx		10	3	2	9	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0
hypopharynx		16	13	1	12	1	3	0	3	0	0	1	0	0	0	0	0	0	1	0	0
other mouth/pharynx		7	2	1	5	1	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0
esophagus		145	110	15	49	36	69	1	8	19	0	21	6	0	0	6	1	10	1	1	2
stomach		247	222	30	10	28	187	5	0	18	17	3	9	1	1	0	0	6	0	0	0
small intestine		31	29	11	0	0	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0
colon		526	511	119	14	14	387	7	1	7	104	4	5	0	0	0	2	6	0	0	0
rectosigmoid		92	90	22	14	4	62	1	0	1	11	4	3	0	0	0	0	10	0	0	0
rectum		269	266	45	33	7	206	1	0	2	23	11	4	0	0	0	0	0	21	1	0
anus		12	12	4	3	0	7	0	0	0	2	1	0	0	0	0	0	0	0	0	0
liver		24	17	4	3	4	14	2	1	4	1	0	0	0	0	0	0	1	0	0	0
gallbladder		6	6	0	1	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	0
other biliary		27	18	0	1	12	15	0	0	9	0	0	2	0	0	0	0	0	1	0	0
pancreas		96	78	3	2	25	69	0	1	15	0	1	7	0	0	2	0	1	0	0	0
other digestive		6	4	1	0	3	2	0	0	2	1	0	1	0	0	0	0	0	0	0	0
nasal cavity/middle ear		9	5	3	6	0	2	0	2	0	1	2	0	0	0	0	0	0	0	0	0
larynx		85	49	1	65	1	18	1	34	1	0	31	0	0	0	0	0	0	0	0	0
trachea		3	2	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
lung		675	411	108	314	93	231	34	140	53	28	106	14	26	0	16	1	23	7	1	1
thyroid		2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
mediastinum		20	10	7	6	4	7	2	2	2	1	1	3	1	0	0	0	0	0	0	0
other chest		1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
bones, joints of limbs		16	14	11	4	0	2	0	1	0	10	2	0	1	0	0	0	0	0	0	0
bones, joints head and trunk		9	4	2	5	2	2	3	3	1	1	0	0	0	0	1	0	1	0	0	0
hematopoietic		228	37	168	20	57	12	130	2	37	13	2	5	11	9	9	2	1	2	2	0
non-melanoma skin		3136	2816	37	321	39	2744	28	358	10	4	58	9	4	0	0	0	0	0	0	0
melanoma		152	149	6	0	1	140	0	3	3	2	1	0	0	0	0	0	0	0	0	0
peripheral nerves		6	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
pericardium		3	3	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1
connective tissues		34	30	8	9	2	19	2	1	0	3	5	1	1	0	0	0	1	1	0	0
breast		13	13	4	5	0	6	0	0	0	2	3	0	0	0	0	0	2	0	0	0
prostate		20	19	0	5	0	15	0	1	0	0	4	0	0	0	0	0	0	0	0	0
penis		895	777	235	50	56	585	75	10	15	132	20	24	4	7	2	3	13	0	1	0
testis		62	60	28	17	1	19	2	0	0	23	14	1	0	0	0	0	3	0	0	0
other male genital		4	4	1	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0
kidney		96	94	10	7	3	77	0	2	0	9	5	2	0	0	0	0	0	0	0	0
renal pelvis		10	10	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ureter		4	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
bladder		326	312	17	31	16	265	1	7	5	14	22	9	0	1	0	0	1	1	0	0
other urinary		4	2	0	0	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
eye		20	18	2	3	0	16	0	2	0	1	0	0	0	0	0	0	1	0	0	0
meninges		6	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
brain		101	81	5	34	17	50	1	6	11	2	23	3	0	0	0	0	2	1	0	0
spinal cord		13	13	0	2	0	11	0	0	0	0	2	0	0	0	0	0	0	0	0	0
thyroid		20	15	2	10	4	8	0	4	0	1	2	1	0	0	0	1	0	2	0	0
adrenal		4	3	2	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
other endocrine		19	17	1	7	1	11	0	2	0	1	4	0	0	0	0	0	0	1	0	0
lymph nodes		140	57	111	35	3	12	60	12	0	1	0	1	0	0	0	0	0	0	0	0
unknown primary		190	101	33	56	52	62	16	29	38	9	17	7	1	1	4	1	4	0	0	1

22.23. NUMBERS TREATED AND TYPE OF TREATMENT, BY SITE: MALES

22.20. NUMBERS TREATED AND TYPE OF TREATMENT BY SITE: FEMALES

site	ALL T	ALL S	ALL C	ALL R	ALL O	S	C	R	O	SC	SR	SO	CR	CO	RO	SCR	SCO	SRO	CRO	SCRO
all cancers	8637	7596	1887	1373	449	5536	316	367	233	1014	462	118	74	26	19	21	419	15	6	11
lip	9	9	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0
base of tongue	3	3	0	2	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0
other tongue	15	13	2	6	0	8	0	1	0	1	4	0	1	0	0	0	0	0	0	0
gum	3	3	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0
floor of mouth	7	6	1	4	0	2	1	0	0	0	4	0	0	0	0	0	0	0	0	0
palate	3	3	0	1	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0
other mouth	7	5	0	5	1	1	0	1	1	0	4	0	0	0	0	0	0	0	0	0
parotid	7	7	1	3	0	3	0	0	0	1	3	0	0	0	0	0	0	0	0	0
other salivary	4	4	0	1	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0
tonsil	5	3	2	5	0	0	0	1	0	0	2	0	1	0	0	0	1	0	0	0
oropharynx	2	1	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
nasopharynx	2	1	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0
pyriform sinus	2	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
hypopharynx	8	3	1	7	0	1	0	4	0	0	2	0	1	0	0	0	0	0	0	0
other mouth/pharynx	2	1	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
oesophagus	106	89	10	29	21	59	0	5	7	2	11	9	1	0	4	0	7	1	0	0
stomach	135	126	15	5	16	102	1	0	7	11	3	8	1	0	0	1	1	0	0	0
small intestine	20	19	6	1	0	14	1	0	0	4	0	0	0	0	0	0	1	0	0	0
colon	509	493	95	10	25	384	6	1	9	84	5	15	0	0	0	1	4	0	0	0
rectosigmoid	57	56	7	5	2	46	0	0	1	4	2	1	0	0	0	0	3	0	0	0
rectum	133	125	19	20	6	95	0	2	5	12	11	1	1	0	0	0	6	0	0	0
anus	12	11	4	3	0	7	0	0	0	2	1	0	1	0	0	0	1	0	0	0
liver	15	15	3	0	2	10	0	0	0	3	0	2	0	0	0	0	0	0	0	0
gallbladder	15	15	0	0	1	14	0	0	0	0	0	1	0	0	0	0	0	0	0	0
other biliary	18	16	0	0	2	16	0	0	2	0	0	0	0	0	0	0	0	0	0	0
pancreas	82	57	5	2	27	49	2	2	20	2	0	6	0	1	0	0	0	0	0	0
other digestive	7	6	0	0	2	5	0	0	1	0	0	1	0	0	0	0	0	0	0	0
nasal cavity/middle ear	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
sinuses	2	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
larynx	18	11	0	11	0	7	0	7	0	0	4	0	0	0	0	0	0	0	0	0
trachea	1	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
lung	312	198	75	124	48	107	30	46	21	16	42	10	11	0	5	4	12	6	1	1
thymus	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
mediastinum	4	2	0	3	1	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0
bones, joints of limbs	8	7	3	1	0	4	0	1	0	3	0	0	0	0	0	0	0	0	0	0
bones, joints head and trunk	5	4	0	2	0	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0
haematopoietic/RE	220	35	145	18	77	16	101	2	54	13	0	2	10	14	0	2	1	1	4	0
non-melanoma skin	2925	2658	28	254	49	2601	18	212	30	4	35	18	6	0	1	0	0	0	0	0
melanoma	294	291	4	2	4	285	1	0	2	2	1	2	0	0	0	0	1	0	0	0
peripheral nerves	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
peritoneum	8	6	1	0	3	5	0	0	2	0	0	0	0	0	0	1	0	0	0	0
connective tissues	26	25	8	7	0	14	1	0	0	4	4	0	0	0	0	0	3	0	0	0
breast	1487	1362	1091	526	29	243	69	14	10	631	122	4	28	2	1	2	351	2	1	7
vulva	37	37	4	5	1	30	0	0	0	1	2	1	0	0	0	0	3	0	0	0
vagina	8	6	1	4	1	3	0	1	1	0	2	0	0	0	0	0	1	0	0	0
cervix	888	846	6	95	33	762	0	21	19	0	67	12	1	0	1	0	4	0	0	1
corpus uteri	174	168	18	59	4	99	0	4	2	12	49	2	0	0	0	0	6	0	0	0
uterus nos	28	24	2	11	3	12	1	1	2	1	10	1	0	0	0	0	0	0	0	0
ovary	258	238	154	3	17	96	11	0	3	131	1	4	1	5	0	5	1	0	0	0
other female genital	10	10	4	2	0	4	0	0	0	4	2	0	0	0	0	0	0	0	0	0
placenta	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
kidney	58	56	4	2	4	48	1	0	1	3	2	3	0	0	0	0	0	0	0	0
renal pelvis	9	8	0	0	1	8	0	0	1	0	0	0	0	0	0	0	0	0	0	0
ureter	8	8	0	1	0	7	0	0	0	0	1	0	0	0	0	0	0	0	0	0
bladder	154	146	9	14	4	127	1	4	3	8	10	1	0	0	0	0	0	0	0	0
eye	19	17	2	3	1	13	1	1	0	1	2	1	0	0	0	0	0	0	0	0
meninges	34	32	0	1	2	31	0	1	1	0	0	1	0	0	0	0	0	0	0	0
brain	73	58	5	29	15	32	1	4	7	2	17	2	0	0	3	0	2	3	0	0
spinal cord	19	18	0	2	0	17	0	1	0	0	1	0	0	0	0	0	0	0	0	0
thyroid	42	37	3	16	3	24	0	3	0	0	10	1	1	0	1	1	1	0	0	0
adrenal	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other endocrine	15	15	1	5	1	10	0	0	0	0	4	0	0	0	0	0	0	0	0	1
ill-defined site	25	23	4	1	0	21	1	0	0	2	0	0	1	0	0	0	0	0	0	0
lymph nodes	117	52	97	23	11	3	48	7	2	35	4	2	5	3	0	1	4	2	0	1
unknown primary	155	99	43	29	32	63	19	14	19	14	7	7	1	1	2	3	5	0	0	0



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