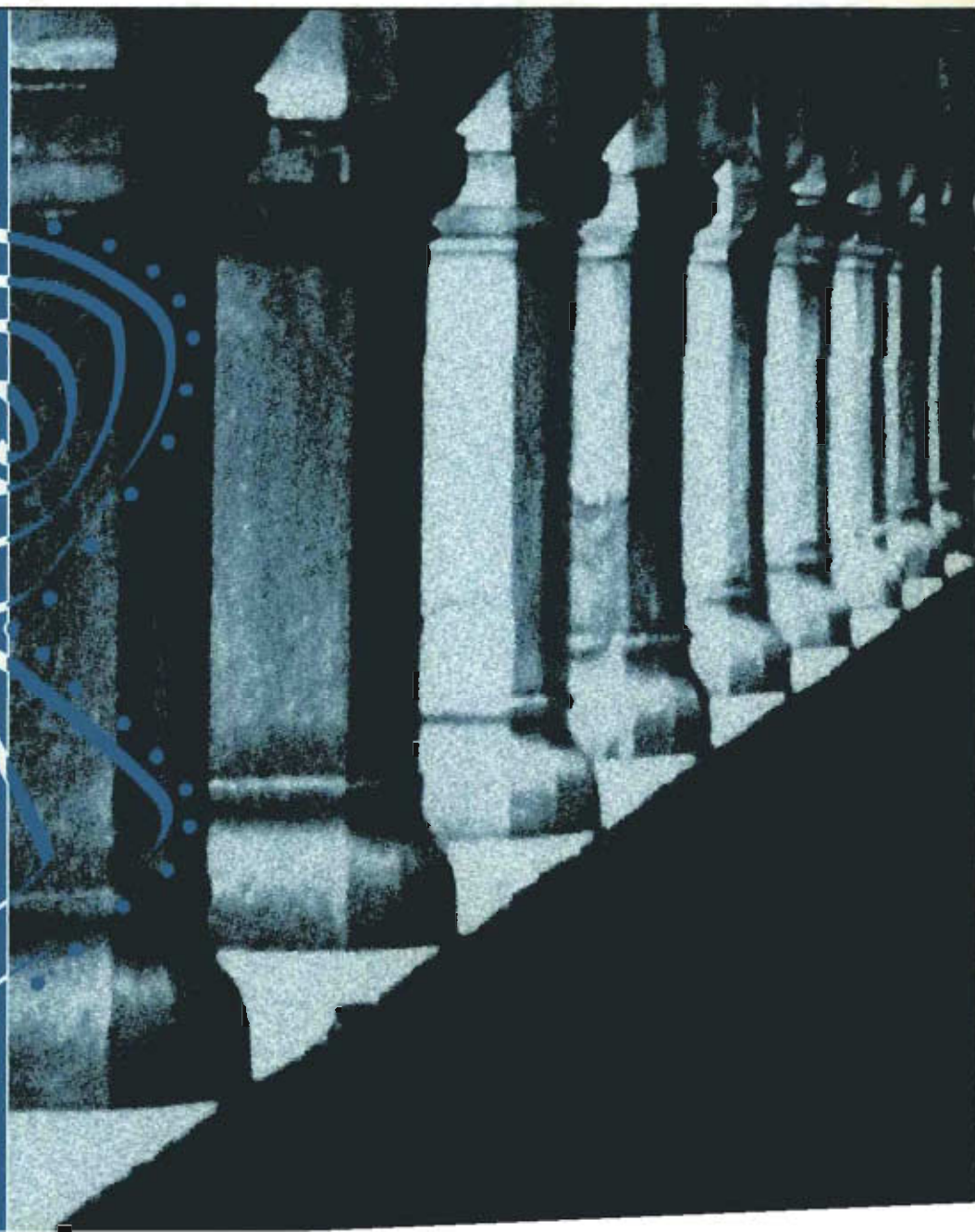




**National Cancer Registry Ireland**

# **Cancer in Ireland, 1997**

**Incidence and Mortality**



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## **1.1 FOREWORD**

The effect of cancer on the health status of the Irish population is striking. One in three of the population develops cancer during their lifetime and cancer causes one in four deaths in Ireland each year. As a result cancer presents a formidable physical, psychological and socio-economic burden on patients, their families and on health care providers.

The impact of cancer on our population will be minimised by increasing our understanding of its aetiology, improving cancer prevention programmes and by earlier diagnosis, optimal therapy and appropriate palliative care. To achieve this the National Cancer Strategy has set the framework for the development and organisation of cancer services throughout the country. A crucial component of the strategy is the availability of epidemiological information on cancer.

The National Cancer Registry has made tremendous progress since its establishment in 1991 in providing data that is reliable, valid, comprehensive and of a standard that is on a par with the highest internationally.

The quality of data is central to its utility and the completeness of cancer registration requires constant vigilance. Total population coverage is also vital if the Registry is to provide data which enables us to monitor the incidence and patterns of the disease; examine treatment outcomes; analyse survival, plan appropriate services and facilitate research. Issues of consent and confidentiality that might impact on data quality must be addressed and resolved without compromising either.

It is encouraging and commendable that an active research programme is now in place in the Cancer Registry. This encompasses both epidemiological research and collaboration with those involved in various aspects of cancer research both nationally and internationally.

The National Cancer Registry also has developed close bilateral relationships with many other European cancer registries. It has a particularly close working relationship with the Northern Ireland Cancer Registry which has generated important cross-border epidemiological research.

The excellence of this report is testimony to the hard work and dedication of the Director and staff of the Cancer Registry. 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. This 1997 report builds on previous reports and proves beyond doubt the great benefits to be gained from investing in the collection of high quality cancer data.

This is vital if we are to control this disease and lessen its impact on our population.

**Dr. Elizabeth Keane,  
Chair,  
National Cancer Registry**

## 1.2. 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 second National Cancer Registry Board was appointed by the Minister for 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, Sarsfield House, Sarsfield Road, Cork; nominated by the Minister for Health
- Professor Alun Evans, Department of Epidemiology and Public Health, The Queen's University of Belfast, Mulhouse Building, Institute of Clinical Sciences, Grosvenor Road, Belfast, BT12 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. Kevin McCarthy, Assistant Principal Officer, Department of Health, Hawkins House, Hawkins St., Dublin 2; appointed by the Minister for Health (replacing Mr. Fergal Lynch)
- 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.



### **1.3. ACKNOWLEDGEMENTS**

As in previous years, production of our annual report has been a team effort. The quality and comprehensiveness of the data are due to the work of our tumour registration officers around the country. Collection, checking and analysis of the information is made possible by the IT systems developed at the Registry by our IT team, while the quality of the data is assiduously checked by a team at the Registry. Writing the report, and responsibility for any errors, is largely my responsibility, but with indispensable checking and proof-reading assistance from the Registry staff.

We are conscious of our indebtedness to many outside the Registry – pathology, medical records and HIPE staff, who identify cases and provide medical records to us; hospital management who in many cases provide the offices and facilities which allow us to operate; and most importantly, the Department of Health and Children, which provides the funding essential for our activities.

Harry Comber, Director

## **1.4. SOURCES OF DATA FOR THIS REPORT**

Cancer incidence and mortality information for 1997 is based on data collected by the Registry from January 1st, 1997 to March 31st, 1999. Death information has been extracted by the Registry from copies of death certificates made available to us by the Central Statistics Office (CSO). Census data for 1996 were also provided by the CSO. Cancer incidence data for Europe were extracted from the EUROCIM database of the European Network of Cancer Registries. The names of registries contributing to this data are given in the report for 1996. Other data used are acknowledged as appropriate in the text.

## **1.5. 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 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. A summary of this report, many of the data tables and the basic dataset from which the report has been written, are available on the Registry website at: [www.ncrirl.org](http://www.ncrirl.org)

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 (Cork and Kerry) 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 charge will be payable by 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.

The Registry has begun a broad-based programme of research. Most of this work is in the early stages and details of results will not be presented here. Details of work in progress, as well as copies of papers published or presented, will be posted on our website at [www.ncrirl.org/research.htm](http://www.ncrirl.org/research.htm) as they become available. We are interested in hearing from researchers who might wish to use our data in their own projects or in collaboration with the Registry. Projects in progress\* or due to begin shortly\*\* are as follows:

## **2.1. DESCRIPTIVE AND METHODOLOGICAL WORK**

- \* Time trends in cancer mortality in Ireland, 1951 to 1999.
- \* Rates of radiotherapy treatment and future projections of need.
- \* Development of new statistical approaches to small area variation in cancer incidence and mortality (Collaborations with Department of Mathematics, University of Limerick, Department of Statistics, University College, Cork, Department of Family and Community Medicine, Trinity College, Dublin).
- \*\* Time trends in leukaemia and lymphoma incidence and survival for Northern Ireland and Republic of Ireland, 1974 to 1997 (Collaboration with Northern Ireland Cancer Registry).

## **2.2. HEALTH SERVICES RESEARCH**

- \* Effects of treatment, hospital and consultant workload on breast cancer survival.
- \* Variation in cancer incidence with deprivation – an analysis at ward/DED level (Collaboration with Department of Geography, TCD).
- \* Variation in treatment of the commoner cancers by age and sex (Collaboration with Department of Family and Community Medicine, TCD).
- \* Relative costs of surgery and radiotherapy for non-melanoma skin cancer.
- \* Screening history of cases of carcinoma of cervix in MWHB (Collaboration with Dr. Marian O'Reilly, Cervical Screening Project).
- \* Patient delay in presenting with signs/symptoms of colorectal cancers (Collaboration with Dr. Joe Moran, Department of General Practice, University College, Cork).
- \*\* Delays in diagnosis and treatment of breast cancer – patient and system factors.
- \*\* Differences in breast cancer by age, stage and other prognostic factors between Northern Ireland and Republic of Ireland, with reference to screening (Collaboration with Northern Ireland Cancer Registry).
- \*\* Evaluation of National Cancer Strategy.

## **2.3. AETIOLOGICAL RESEARCH**

- \* Geographical variation in some childhood and adult cancers, with focus on Louth, Down and Armagh (Collaboration with Northern Ireland Cancer Registry, the North-Eastern Health Board and the Department of Family and Community Medicine, TCD).
- \*\* Radon and lung cancer in non-smokers – descriptive and case-control studies (Collaboration with Radiological Protection Institute of Ireland).
- \*\* Drinking water fluoridation and cancer in Northern Ireland and Republic of Ireland (Collaboration with Northern Ireland Cancer Registry).
- \*\* Genetic predisposition to ovarian cancer and its interaction with the oral contraceptive pill.
- \*\* The effects of alcohol intake and folic acid levels on the incidence of breast cancer in Irish and American women (Collaboration with National Cancer Institute, USA).
- \*\* Risk factors for cancer in agricultural workers.

## 3.1. DATA COLLECTION METHODS

### 1 SOURCES OF DATA

Reporting to the Registry is voluntary, and data collection is mainly active. The only information received passively at present is on notification forms returned by general practitioners. All other information is actively gathered by eighteen 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. 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, Hospital Inpatient Enquiry (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 cases (20941; 98%) were first recorded in hospital. The predominant source of notification of cases (17550; 82% of the total) was through active registration by the tumour registration officers (TROs) from reports provided by pathology departments within hospitals (Table 3.1).

**Table 3.1. Source of notification of cases**

SOURCE	CASES	% OF ALL CASES
<b>tumour registration officer notifications</b>	<b>20941</b>	<b>97.6%</b>
<i>pathology</i>	17550	81.8%
<i>hospital inpatient enquiry (HIPE)</i>	1954	9.1%
<i>other inpatient</i>	863	4.0%
<i>other outpatient</i>	479	2.2%
<i>radiology</i>	95	0.4%
<b>death certificate</b>	<b>210</b>	<b>1.0%</b>
<b>GP</b>	<b>108</b>	<b>0.5%</b>
<b>other sources</b>	<b>167</b>	<b>0.8%</b>
<b>not recorded</b>	<b>24</b>	<b>0.1%</b>
<b>all cases</b>	<b>21450</b>	

The most important non-hospital source of cases (210; 1.0%) was death certificates. The Registry has access, through the Central Statistics Office, to all death certificates issued since January 1994, and keeps a copy of death certification details on every death. The Registry, at present, does not register a case based on death certification alone, but only after the diagnosis has been confirmed from another source. Our reason for doing this is that almost all cases which first come to our attention from death certificates have turned out to pertain to pre-1994 incident cases. On the basis that almost all current death certificate only (DCO) cases are likely to pre-date the establishment of the Registry, we have decided to exclude them for the present.

Cancer cases are also notified to the Registry by general practitioners. The number of new cases from this source is quite small (108; 0.5%), but 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.

Data acquisition from the HIPE system is done at hospital level, as we have no access to identifiable HIPE data centrally. This is in marked contrast to the situation in Northern Ireland, where the equivalent data is the main source of cancer registrations.

## 2 DATA RECORDING

Data is entered directly onto laptop computers by the TROs. The TRO enters or updates data under three headings: patient, tumour and treatment information (Table 3.2). 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. The date, cause and place of death are entered by linkage with death certificates and the ward/DED data by linkage of the address with a national address database.

**Table 3.2. Data collected**

PATIENT	TUMOUR	TREATMENT
name - surname, first name, maiden name, other name	source of notification	treatment type
address: four fields	method of presentation	treatment date
other address(es)	GP	hospital
ward/district electoral division of residence*	hospital	consultant
GMS number	consultant	
RSI number	medical record number	
VHI number	incidence date	
date of birth	age at incidence	
sex	topography	
smoking status	morphology	
marital status	grade	
occupation	behaviour	
occupational status	method of diagnosis	
alive or dead*	TNM stage (clinical and pathological)	
date of death*	basis of staging	
cause of death*	residual disease	
place of death*	sites of metastases	
	histology date, lab, pathologist and reference number	

\* added by data linkage

## 3.2. QUALITY CONTROL

The Registry carries out internal quality control checks on the data throughout collection and processing. Details of these procedures have been given in earlier reports.



The information collected by the Registry mainly pertains to tumours and their treatment, but a limited set of patient data is also collected. As the Registry has no facilities for data linkage with other national datasets such as census or occupational registers, the patient data presented here is that which can be extracted from clinical medical records. As such, it is necessarily limited and sometimes of unproven validity. Apart from age, sex and area of residence, we have not attempted to link other patient variables with individual cancer sites, and the aggregate patient data is presented below.

The 21450 registered cancers were diagnosed in 19867 patients, 1.08 cancers per patient.

## 4.1. SMOKING STATUS

This is recorded, if available, from the medical records. Information on smoking was available for 64% of patients (Table 4.1). Forty per cent of men and 25% of women were recorded as current or ex-smokers.

**Table 4.1. Distribution of cancer patients by smoking status and sex**

	MALES		FEMALES		BOTH SEXES	
	patients	% of total	patients	% of total	patients	% of total
smoker	2451	25%	1883	18%	4334	22%
ex-smoker	1483	15%	724	7%	2207	11%
never smoked	2537	26%	3693	36%	6230	31%
unknown	3180	33%	3916	38%	7096	36%
<b>all patients</b>	<b>9651</b>		<b>10216</b>		<b>19867</b>	

## 4.2. MARITAL STATUS

Table 4.2. shows the marital status of patients with registered cancers. Information was available on 92% of patients. Fifty-seven percent of men and 42% of women were married. Far more women were widowed, due to their greater life expectancy.

**Table 4.2. Marital status of patients**

	MALES		FEMALES		BOTH SEXES	
	patients	% of total	patients	% of total	patients	% of total
married	5500	57%	4296	42%	9796	49%
single	1864	19%	1692	17%	3556	18%
widowed	1094	11%	2714	27%	3808	19%
separated	130	1%	214	2%	344	2%
divorced	24	0%	23	0%	47	0%
other/unknown	1039	11%	1277	12%	2316	11%
<b>all patients</b>	<b>9651</b>		<b>10216</b>		<b>19867</b>	

### 4.3. OCCUPATION

**Table 4.3. Occupational class of patients**

	MALES		FEMALES	
	patients	% of total	patients	% of total
farming, fishing and forestry	1532	15.9%	412	4.0%
electrical trades	80	0.8%	17	0.2%
engineering and allied trades	154	1.6%	53	0.5%
textile, clothing and leather	28	0.3%	25	0.2%
food, drink and tobacco production	67	0.7%	30	0.3%
chemical, paper, wood, rubber, plastics and printing	46	0.5%	9	0.1%
other manufacturing	153	1.6%	30	0.3%
building and construction	392	4.1%	85	0.8%
managers and executives	115	1.2%	59	0.6%
communication, warehouse and transport	452	4.7%	104	1.0%
clerical and office	92	1.0%	236	2.3%
sales	205	2.1%	182	1.8%
business and commerce	94	1.0%	59	0.6%
computer software	8	0.1%	3	0.0%
scientific and technical	134	1.4%	33	0.3%
health and related	148	1.5%	337	3.3%
social workers and related	3	0.0%	12	0.1%
religious	95	1.0%	51	0.5%
other professional	44	0.5%	25	0.2%
personal service and childcare	206	2.1%	303	3.0%
teachers	98	1.0%	177	1.7%
central and local government	108	1.1%	65	0.6%
Garda	69	0.7%	16	0.2%
Army	33	0.3%	15	0.1%
other	335	3.5%	204	2.0%
not given	4960	51.4%	7674	75.1%
<b>all patients</b>	<b>9651</b>		<b>10216</b>	

The patient's current or last occupation, as given in the medical records, was recorded. This information was recorded in fewer than 50% of cases for men and in only 25% of women (Table 4.3). The most frequent occupational category for both males and females was "farming, fishing and forestry workers" as it was in the 1996 census. The percentage of males with cancer describing themselves as farmers (16%) was higher than would be expected from the census data for a group of the same age composition (11%) but this may be due to differential reporting of occupation by retired persons.

#### 4.4. EMPLOYMENT STATUS

This was more frequently available than occupation (Table 4.3). The largest number of males (52%) was described as "retired", and of females (38%) as "housewife".

**Table 4.4. Employment status of patients**

	MALES		FEMALES		BOTH SEXES	
	patients	% of total	patients	% of total	patients	% of total
retired	5006	52%	2543	25%	7549	38%
housewife			3843	38%	3844	19%
employed	1086	11%	653	6%	1739	9%
self-employed	458	5%	78	1%	536	3%
religious	135	1%	108	1%	243	1%
student	55	1%	90	1%	145	1%
other/unknown	2911	30%	2901	28%	5811	29%
<b>all patients</b>	<b>9651</b>		<b>10216</b>		<b>19867</b>	

## 5.1. INTRODUCTION AND SUMMARY

Table 5.1. Summary of incidence and mortality statistics: all cancers

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C00-C80)</b>						
1997 cases	10546	10904	21450	4017	3538	7555
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	582.8	593.7	588.3	222.0	192.6	207.2
World age-standardised rate	450.5	422.9		164.6	120.4	
European age-standardised rate	672.3	587.0		254.2	179.0	
cumulative risk (0-74)	40.8%	37.3%		16.9%	12.8%	
mortality/incidence ratio	0.381	0.324	0.352			
<b>Time trends (all cancers)</b>						
1994 cases	9826	10109	19935	3974	3441	7415
1995 cases	9869	9970	19839	4099	3427	7526
1996 cases	10279	10586	20865	3985	3400	7385
1997 cases	10546	10904	21450	3975	3496	7471
1994-1997 average	10130	10392	20522	4008	3441	7449
annual % change 1994-97	+1.6%	+1.9%	+1.8%	-1.0%	-1.0%	-1.1%
95% confidence limits of trend	(0.6%; 2.7%)	(0.0%; 3.9%)	(0.3%; 3.3%)	(-2.5%; 0.5%)	(-2.7%; 0.8%)	(-2.0%; -0.1%)
<b>Invasive cancers only (ICD-10 C00-C96)</b>						
1997 cases	9841	8812	18653	3975	3496	7471
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	543.8	479.8	511.6	219.7	190.4	204.9
World age-standardised rate	420.2	333.9		162.9	119.0	
European age-standardised rate	628.0	475.6		251.7	176.9	
cumulative risk (0-74)	38.6%	31.7%		16.8%	12.7%	
mortality/incidence ratio	0.404	0.397	0.401			

The Registry recorded 21450 cancer cases as incident in 1997 (Table 5.1). 10904 of these (51%) were diagnosed in women and 10546 (49%) in men. The crude incidence rate for women was 5.9 cases per 1000 per year and for men 5.8 per 1000. The overall risk of developing cancer before age 75 was 41% for men and 37% for women.

The total number of cancers registered has increased every year since 1994. When adjusted for increases in the population and changing age structure, the annual increase in rate was just about 1.8% per year.

The mortality/incidence ratio, an approximate measure of the overall death rate from cancer, was 0.38 for men and 0.32 for women. These figures have fallen substantially, from 0.42 and 0.35, respectively, in 1994.

The figures given above include quite a large percentage (36.4%) of non-melanoma skin (NMS) 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. For this reason, cancer registrations are conventionally described both with and without the inclusion of NMS cancers.



**Table 5.2. Summary of incidence and mortality statistics: all cancers but non-melanoma skin**

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C00 to C80, excluding C44)</b>						
1997 cases	6476	7158	13634	3995	3526	7521
% of all cancers	61.4%	65.6%	63.6%	99.5%	99.7%	99.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	357.9	389.7	373.9	220.8	192.0	206.3
World age-standardised rate	278.8	294.8		163.7	120.1	
European age-standardised rate	411.9	395.3		252.9	178.5	
cumulative risk (0-74)	27.5%	27.2%		16.8%	12.8%	
mortality/incidence ratio	0.617	0.493	0.552			
<b>Time trends (all cancers)</b>						
1994 cases	6404	6944	13348	3951	3431	7382
1995 cases	6280	6670	12950	4073	3419	7492
1996 cases	6434	7042	13476	3966	3397	7363
1997 cases	6476	7158	13634	3954	3484	7438
1994-1997 average	6399	6954	13352	3986	3433	7419
annual % change 1994-97	-0.2%	+0.5%	+0.1%	-1.0%	-1.0%	-1.1%
95% confidence limits of trend	(-1.6%; 1.1%)	(-2.0%; 3.1%)	(-1.8%; 2.1%)	(-2.4%; 0.5%)	(-2.6%; 0.7%)	(-1.9%; 0.2%)
<b>Invasive cancers only (ICD-10 C00 to C96, excluding C44)</b>						
1997 cases	6146	5804	11950	3954	3484	7438
% of all invasive cancers	62.5%	65.9%	64.1%	99.5%	99.7%	99.6%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	339.6	316.0	327.7	218.5	189.7	204.0
World age-standardised rate	264.5	229.8		162.1	118.7	
European age-standardised rate	391.5	320.6		250.4	176.5	
cumulative risk (0-74)	26.4%	23.0%		16.7%	12.6%	
mortality/incidence ratio	0.643	0.600	0.622			

Table 5.2 above presents data on all cancers other than NMS. NMS was defined as all cancers, other than melanoma and lymphoma, with a primary site in skin (see Chapter 9). It includes ICD-10 codes C44 (malignant) or D04 (in situ), and a small number of non-epithelial skin cancers.

The cumulative risk of developing cancer (excluding NMS cancer) before age 75 was 27% for both men and women. The crude incidence rate for men was 3.6 per 1000, and for women 3.9 per 1000 per year. Most of the increase in cancer numbers since 1994 was due to non-melanoma skin cancers, and, when these are excluded, the annual rate of increase between 1994 and 1997 (0.1%) is not statistically significant.

The mortality/incidence ratio, after excluding NMS cancers, was considerably higher than for all cancers, at 0.62 for men and 0.49 for women. Overall survival from cancer is therefore 38% for men and 51% for women.



5.2. AGE AND SEX PROFILE

The age and sex distribution of all cases is shown in Table 5.3. The same data, excluding NMS cancers, are shown in Table 5.4.

Table 5.3. Annual average number of cases and age-specific incidence rate for all cancers, 1994 to 1997, by sex

	MALES		FEMALES	
	cases	cases per 100,000	cases	cases per 100,000
0-4	27	21	21	17
5-9	17	11	16	12
10-14	22	13	20	12
15-19	38	22	41	25
20-24	48	32	120	84
25-29	65	50	244	189
30-34	90	70	316	238
35-39	132	105	382	298
40-44	213	179	466	390
45-49	326	291	589	537
50-54	576	618	709	785
55-59	786	1018	789	1045
60-64	1155	1689	919	1328
65-69	1533	2540	1207	1805
70-74	1824	3645	1412	2270
75-79	1584	4489	1317	2698
80-84	1092	5232	1074	3135
>85	607	5834	751	3163
all ages	10130	564	10392	571

Cancers were most frequent in the 70 to 74 year age group for both sexes, but the incidence rate continued to increase up to the oldest age group.

**Table 5.4. Annual average number of cases, age-specific incidence rate and relative age-specific rate for all cancers (excluding non-melanoma skin), 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	27	21	1.6	21	17	1.5
5-9	17	11	1.6	16	12	1.5
10-14	22	13	1.6	19	12	1.5
15-19	37	21	1.5	39	24	1.4
20-24	43	29	1.4	115	80	1.4
25-29	52	40	1.3	233	180	1.4
30-34	70	55	1.2	290	219	1.4
35-39	87	69	1.1	337	262	1.3
40-44	132	111	1.0	389	326	1.3
45-49	204	182	1.0	477	435	1.2
50-54	354	379	1.0	529	585	1.1
55-59	499	646	1.0	556	736	1.1
60-64	716	1047	1.0	608	878	1.0
65-69	1006	1668	1.0	747	1117	0.9
70-74	1150	2298	1.0	849	1366	0.9
75-79	998	2828	1.0	777	1591	0.9
80-84	650	3116	0.9	588	1715	0.8
>85	337	3239	0.9	366	1540	0.7
<b>all ages</b>	<b>6399</b>	<b>356</b>	<b>1.0</b>	<b>6954</b>	<b>382</b>	<b>1.0</b>

A similar pattern could be seen after the exclusion of non-melanoma skin cancers, although the age specific rate was highest in the 80-84 year old age group in women.

The male/female ratio was above one in the under tens, but fell rapidly to its lowest value at age 25-29, due to cervical and breast cancer. The incidence rate for men, relative to women, increased throughout the rest of life as cancers such as lung and prostate became more common, so that, in the oldest men, cancer was twice as common as in women of the same age.

### 5.3. SITES OF CANCERS

Table 5.5. Main sites of occurrence of cancer by ICD-10 site and sex

Description	ICD-10 code	MALES		FEMALES		BOTH SEXES	
		cases	% of total	cases	% of total	cases	% of total
<b>all cancers</b>	<b>C00-D48</b>	<b>10546</b>		<b>10904</b>		<b>21450</b>	
<i>malignant tumours (C00-C96)</i>							
all malignant tumours	C00-C96	9841	93.3%	8812	80.8%	18653	87.0%
non-melanoma skin	C44	3695	35.0%	3008	27.6%	6703	31.2%
colorectal	C18-C21	1009	9.6%	775	7.1%	1784	8.3%
breast	C50	17	0.2%	1620	14.9%	1637	7.6%
lung	C34	908	8.6%	509	4.7%	1417	6.6%
prostate	C61	1130	10.7%	0	0.0%	1130	5.3%
unknown primary site	C80	338	3.2%	344	3.2%	682	3.2%
lymphoma	C81-85	262	2.5%	230	2.1%	492	2.3%
stomach	C16	297	2.8%	173	1.6%	470	2.2%
bladder	C67	332	3.1%	122	1.1%	454	2.1%
melanoma skin	C43	167	1.6%	239	2.2%	406	1.9%
pancreas	C25	173	1.6%	169	1.5%	342	1.6%
leukaemia	C91-95	195	1.8%	144	1.3%	339	1.6%
ovary	C56	0	0.0%	306	2.8%	306	1.4%
oesophagus	C15	195	1.8%	99	0.9%	294	1.4%
kidney	C64	174	1.6%	82	0.8%	256	1.2%
brain	C71	145	1.4%	102	0.9%	247	1.2%
corpus uteri	C54	0	0.0%	218	2.0%	218	1.0%
multiple myeloma	C90	90	0.9%	81	0.7%	171	0.8%
cervix	C53	0	0.0%	159	1.5%	159	0.7%
other sites		714	6.9%	432	3.9%	1146	5.4%
<i>in situ cancers (D00-D09)</i>							
all in situ cancers	D00-D09	504	4.8%	1822	16.7%	2326	11.0%
carcinoma of skin	D04	364	3.5%	743	6.8%	1107	5.2%
cervix	D06	0	0.0%	806	7.4%	806	3.8%
melanoma	D03	65	0.6%	146	1.3%	211	1.0%
breast	D05	0	0.0%	84	0.8%	84	0.4%
other sites		75	0.7%	43	0.4%	118	0.6%
<i>benign cancer (D10-D36)</i>							
all benign cancers	D10-D36	39	0.4%	73	0.7%	112	0.5%
<i>cancers of uncertain and unstated behaviour (D37-D48)</i>							
all cancers of uncertain and unstated behaviour	D37-D48	162	1.6%	197	1.8%	359	1.7%
polycythaemia vera	D45	20	0.2%	15	0.1%	35	0.2%
myelodysplastic syndromes	D46	40	0.4%	34	0.3%	74	0.3%
other sites	D37-D44; D47-D48	102	1.0%	148	1.4%	250	1.2%

The classification used in Table 5.5. above is ICD-10, which has some minor points of difference from ICD-O-2. The main difference is that, under ICD-O-2, cancers of all behaviour types (malignant, benign, in situ and uncertain behaviour) and cell types (carcinoma, sarcoma, lymphoma) occurring at a site are all given the same site code, and included in the figures for the site. For most cancers, this does not make an appreciable difference to the rates, but some sites (cervix and melanoma) have a high proportion of in situ cancers, while many lymphomas have a primary site outside the lymph nodes.

The commonest in situ cancers were carcinoma in situ of skin, (5% of all cancers), and carcinoma in situ of cervix (4% of the total). When in situ cancers are excluded, cervical cancer is quite uncommon (only 1.5% of all cancers in women). Only benign intracranial and intraspinal tumours were registered, and these made up 0.5% of the total.

## 5.4. GEOGRAPHICAL DISTRIBUTION

### INTERNATIONAL

As many registries do not register or record benign tumour or cancers of uncertain or in situ behaviours, the table below, and all subsequent data on European comparisons, is based only on malignant (invasive) cancers. It also excludes non-melanoma skin cancers, for which registries have many different registration practices, and for which international data are not comparable.

The relative position of Ireland was different for male and female cancer (Table 5.6). Male cancer incidence was relatively low, being 15th of the 23 countries shown. Ireland ranked higher in female cancer risk, being 10th of the 23. While a small part of these differences may be due to variation in the efficiency of cancer registration, in general the quality of the data is high and dependable.

Compared to our closest neighbours, cancer incidence was lower than in Northern Ireland, and considerably lower than in Scotland, but higher than in England.

**Table 5.6. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: all cancers excluding non-melanoma skin**

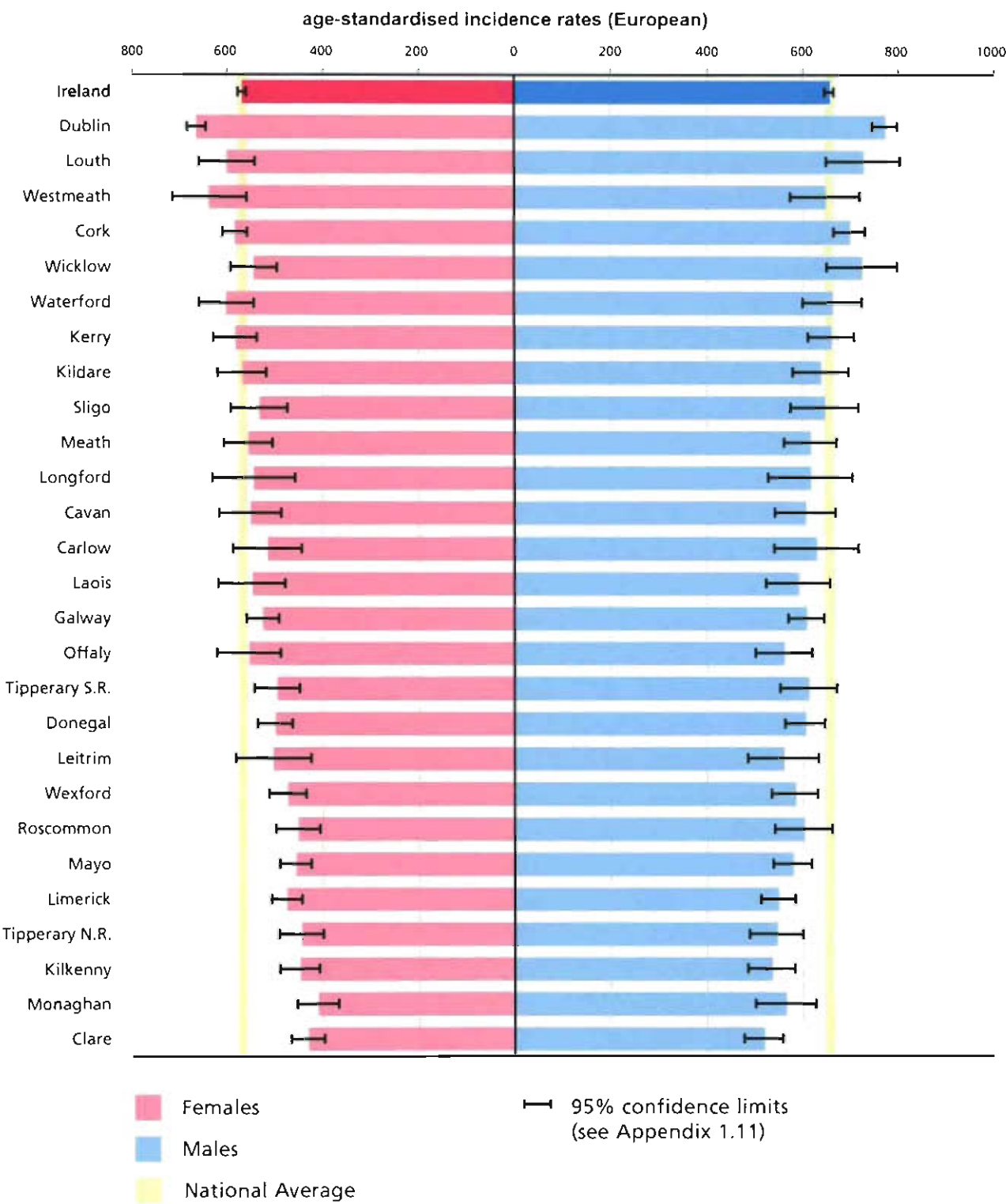
	MALES		FEMALES	
	age-standardised rate (per 100,000)	rank	age-standardised rate (per 100,000)	rank
Scotland	464.6	1	374.2	3
Iceland	434.4	7	397.1	1
Czech Republic	462.8	2	326.1	9
Denmark	386.0	18	395.2	2
Italy	449.0	3	331.1	6
Netherlands	444.7	4	331.3	5
N. Ireland	411.1	13	343.8	4
Switzerland	422.9	12	311.6	11
Austria	427.8	8	306.7	12
Germany	424.6	11	300.5	13
Norway	392.9	14	328.2	7
France	438.2	6	274.5	18
<b>Ireland (1994-1997)</b>	<b>393.6</b>	<b>15</b>	<b>318.6</b>	<b>10</b>
Slovakia	439.8	5	272.0	19
Spain	427.6	9	279.3	17
Finland	386.4	17	294.4	16
Estonia	426.6	10	251.1	21
Sweden	346.0	21	327.9	8
Malta	359.9	19	297.1	15
Slovenia	390.6	16	265.2	20
England	329.1	22	300.0	14
Poland	348.3	20	221.6	22
Bulgaria	244.4	23	203.0	23



NATIONAL

Significantly higher than average cancer rates were observed for both sexes in Dublin and for men only in Cork (Figure 5.1). Although many counties appear to have lower than average rates, this is due to the disproportionate effect of the Dublin figures on the national averages, and is unlikely to be meaningful in itself.

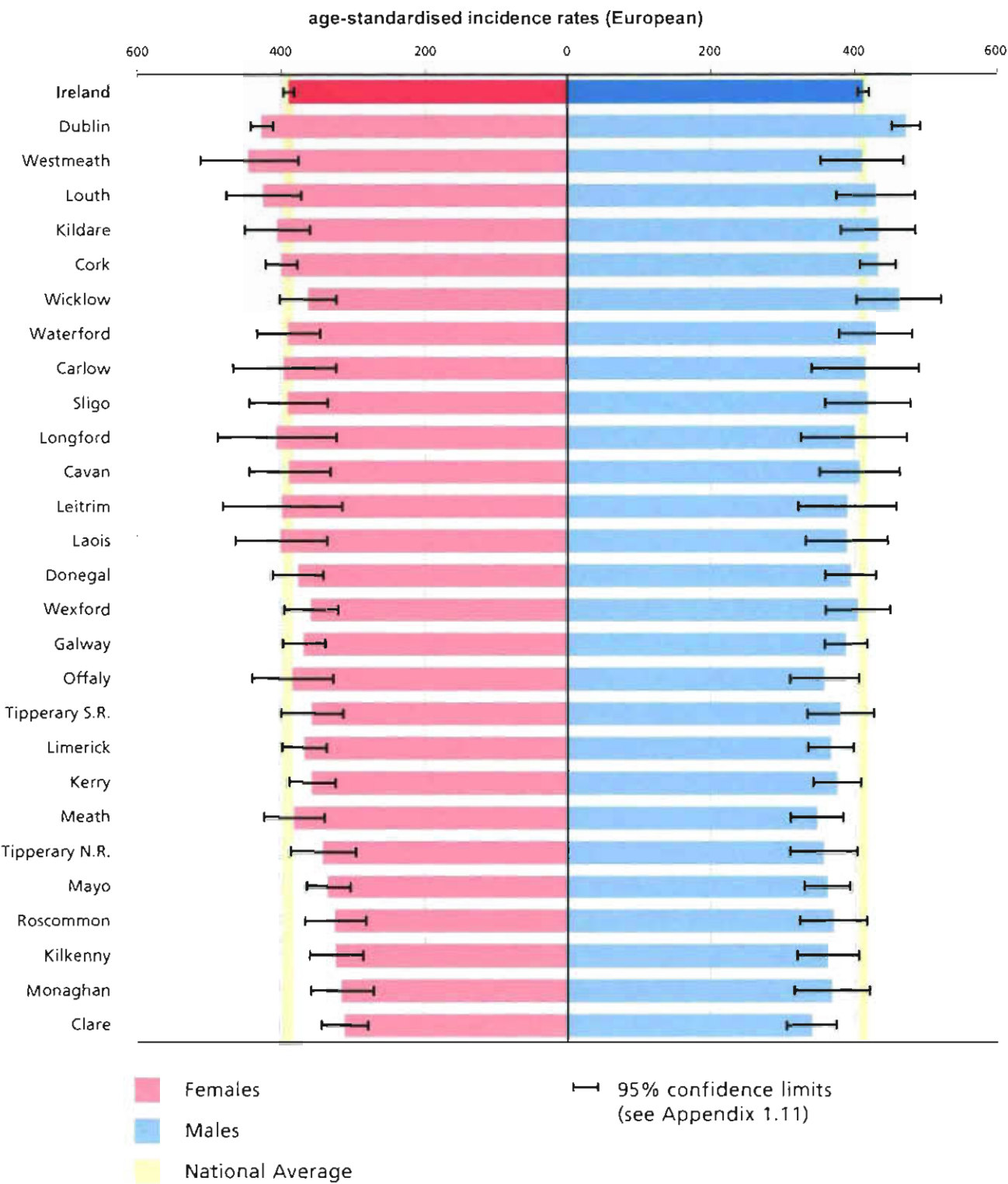
Figure 5.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: all cancers





Excluding non-melanoma skin cancers gives a more realistic estimate of inter-county variation in cancer risk (Figure 5.2). The rates are again above average for both sexes in Dublin.

**Figure 5.2. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: all cancers excluding non-melanoma skin**



## 5.5. METHOD OF PRESENTATION

The number of cancers may be increased by greater case-finding, as through screening programmes, and it is important for the Registry to distinguish cancers found in this way from those which are picked up in the normal course of events. In 1997, there was very little screening activity, and the majority of cancers were only detected when they presented clinically (Table 5.7). Only 3.2% of cancers were picked up at screening, and this percentage has hardly changed since 1994.

**Table 5.7. Method of presentation: all cancers**

	1994		1995		1996		1997	
	cases	% of total	cases	% of total	cases	% of total	cases	% of total
symptoms	18023	90.4%	18344	92.5%	18811	90.2%	19673	91.7%
screening	577	2.9%	463	2.3%	716	3.4%	688	3.2%
incidental	419	2.1%	367	1.8%	440	2.1%	329	1.5%
autopsy	47	0.2%	55	0.3%	51	0.2%	30	0.1%
unknown	871	4.4%	612	3.1%	847	4.1%	730	3.4%
<b>all cases</b>	<b>19937</b>		<b>19841</b>		<b>20865</b>		<b>21450</b>	<b>100.0%</b>

Most of these cancers were in situ cancers of the cervix (Table 5.8).

**Table 5.8. Screen-detected cancers, 1997**

SITE	CASES	% OF ALL CASES AT THAT SITE
cervix (all)	637	66.0%
(invasive)	24	15.1%
breast	33	1.9%
oesophagus	2	0.7%
prostate	7	0.6%
corpus uteri	1	0.4%
ovary	1	0.3%
colon	3	0.3%
lymphoma	1	0.2%
rectum	1	0.2%
melanoma	1	0.2%
skin	1	0.0%
<b>all cancers</b>	<b>688</b>	

## 5.6. HISTOLOGICAL DESCRIPTION

### MORPHOLOGY

The tumour histology was described by the morphology chapter of ICD-O-2. Table 5.9 shows the 16 most common morphologies registered. The letters "NOS" denote "not otherwise specified", and indicate that no more specific description was possible from the information available.

Cancers described as "malignant neoplasm" (M-8000/3) are generally those for which histology was not performed. In general, the Registry ascribes this code to any clinically or radiologically diagnosed cancers, even when more specific diagnoses are given in the records (e.g. a clinically diagnosed "carcinoma" of prostate is not given the code M-8010/3 for carcinoma, but the code M-8000/3). The main exceptions to this rule are clinically diagnosed skin and radiologically diagnosed CNS lesions. The proportion of these non-specific cancers was lower in 1997 than in previous years.

**Table 5.9. The most common morphological types of tumour**

Description	ICD-O-2 Code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
basal cell carcinoma, NOS	8090/3	4004	18.7%	3713	18.1%
adenocarcinoma NOS	8140/3	3380	15.8%	3243	15.8%
squamous cell carcinoma NOS	8070/3	2873	13.4%	2760	13.4%
malignant neoplasm	8000/3	1740	8.1%	1764	8.6%
infiltrating duct carcinoma	8500/3	1084	5.1%	953	4.6%
cervical intraepithelial neoplasia, grade III	8077/2	789	3.7%	732	3.6%
Bowen's disease	8081/2	676	3.2%	613	3.0%
carcinoma NOS	8010/3	411	1.9%	474	2.3%
squamous cell carcinoma in situ, NOS	8070/2	411	1.9%	357	1.7%
squamous cell carcinoma large cell, keratinising	8071/3	331	1.5%	341	1.7%
multicentric basal cell carcinoma	8091/3	376	1.8%	304	1.5%
papillary transitional cell carcinoma	8130/3	249	1.2%	229	1.1%
transitional cell carcinoma NOS	8120/3	177	0.8%	216	1.1%
melanoma malignant, NOS	8720/3	191	0.9%	183	0.9%
multiple myeloma	9732/3	154	0.7%	163	0.8%
mucous adenocarcinoma	8480/3	152	0.7%	158	0.8%
all other types		4452	20.8%	4323	21.1%
<b>all cancers</b>		<b>21450</b>		<b>20523</b>	

### BEHAVIOUR

Four types of cancer behaviour are recorded:

- benign
- uncertain whether benign or malignant
- in situ
- malignant.

In general, the pathology report fully describes 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. Malignant tumours have remained at around 87% of the total since 1994 (Table 5.10).

**Table 5.10. Behaviour of cancers**

Behaviour	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
benign	112	0.5%	104	0.5%
uncertain	333	1.6%	314	1.5%
in situ	2326	10.8%	2103	10.2%
invasive	18679	87.1%	18003	87.7%
<b>all cancers</b>	<b>21450</b>		<b>20522</b>	

## 5.7. 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 5.11). 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.

Blood film is accepted by IARC as a histological method of confirmation of diagnosis, but is classed below as "clinical" as we believe it to be an unsatisfactory method of diagnosis for many haematological malignancies in the absence of bone marrow examination. Tissue diagnosis of disease was provided in 89% of cases.

**Table 5.11. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>19101</b>	<b>89.0%</b>
histology of primary	17614	82.1%
histology of other site	578	2.7%
cytology	361	1.7%
bone marrow	548	2.6%
<b>clinical diagnosis</b>	<b>2349</b>	<b>11.0%</b>
clinical	980	4.6%
blood film	111	0.5%
radiology	1109	5.2%
post-mortem	33	0.2%
other	8	0.0%
not known	108	0.5%
<b>all cancers</b>	<b>21450</b>	

## 5.8. CLINICAL AND PATHOLOGICAL STAGE

If TNM or other staging was specifically described by a clinician or pathologist, this was registered. Otherwise, tumours were allocated to a clinical and pathological stage by the TRO based on information entered in the records. Non-melanoma skin cancers were not staged, and there is no staging system for leukaemia, CNS cancer, for cancers of unknown or ill-defined primary site and for a small number of other sites. For just over half of all cancers, TNM staging was applicable (Table 5.12).

Reporting of T stage was high, but N and M stages were not so well recorded. A T stage, either clinical or pathological, could be extracted from the medical record in 77% of cases where staging was applicable. N stage was available in 55% of cases and M stage in 54%.

**Table 5.12. Staging information recorded**

T stage	cases	% of total
Tis/Ta	1221	5.7%
T1	1964	9.2%
T2	2448	11.4%
T3	2187	10.2%
T4	1058	4.9%
not staged	2724	12.7%
N stage	cases	% of total
N0	4020	18.7%
N1	1614	7.5%
N2	578	2.7%
N3	148	0.7%
not staged	5242	24.4%
M Stage	cases	% of total
M0	4485	20.9%
M1	1812	8.4%
not staged	5305	24.7%
staging not applicable	9848	45.9%
<b>all stages</b>	<b>21450</b>	



As full TNM staging is not always possible, a summary "extent of disease" measure can indicate if the cancer is confined to the organ of origin (local), has spread to regional lymph nodes (regional) or has metastasised beyond this (distant). This information could be retrieved for 75% of all cases and for 54% of those to which staging was applicable (Table 5.13). Local disease was most frequent (46% of those staged), followed by distant (29%).

**Table 5.13. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	2886	13.5%
regional	1599	7.5%
distant	1812	8.4%
not applicable	9848	45.9%
not known	5305	24.7%
<b>all cancers</b>	<b>21450</b>	

The most frequent TNM combination was Tis N0 M0 (Table 5.14). The next most frequent were T2 N0 M0 and T1 N0 M0.

**Table 5.14. TNM staging**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	1221	5.7%	0	0.0%	0	0.0%
T1	N0	545	2.5%	15	0.1%	280	1.3%
	N1	106	0.5%	34	0.2%	97	0.5%
	N2	9	0.0%	4	0.0%	11	0.1%
	N3	4	0.0%	0	0.0%	5	0.0%
	not staged	148	0.7%	84	0.4%	622	2.9%
T2	N0	584	2.7%	50	0.2%	321	1.5%
	N1	225	1.0%	42	0.2%	213	1.0%
	N2	31	0.1%	21	0.1%	66	0.3%
	N3	18	0.1%	9	0.0%	15	0.1%
	not staged	192	0.9%	149	0.7%	512	2.4%
T3	N0	397	1.9%	75	0.3%	261	1.2%
	N1	219	1.0%	108	0.5%	218	1.0%
	N2	90	0.4%	70	0.3%	76	0.4%
	N3	8	0.0%	16	0.1%	10	0.0%
	not staged	112	0.5%	179	0.8%	348	1.6%
T4	N0	76	0.4%	25	0.1%	61	0.3%
	N1	78	0.4%	83	0.4%	101	0.5%
	N2	22	0.1%	53	0.2%	62	0.3%
	N3	6	0.0%	23	0.1%	17	0.1%
	not staged	72	0.3%	137	0.6%	242	1.1%
not staged	N0	63	0.3%	18	0.1%	28	0.1%
	N1	16	0.1%	34	0.2%	40	0.2%
	N2	10	0.0%	33	0.2%	20	0.1%
	N3	0	0.0%	5	0.0%	12	0.1%
	not staged	233	1.1%	545	2.5%	1667	7.8%
All T	All N	4485	20.9%	1812	8.4%	5305	24.7%
not applicable		9848	45.9%				
<b>all cancers</b>		<b>21450</b>					

## 5.9. TREATMENTS

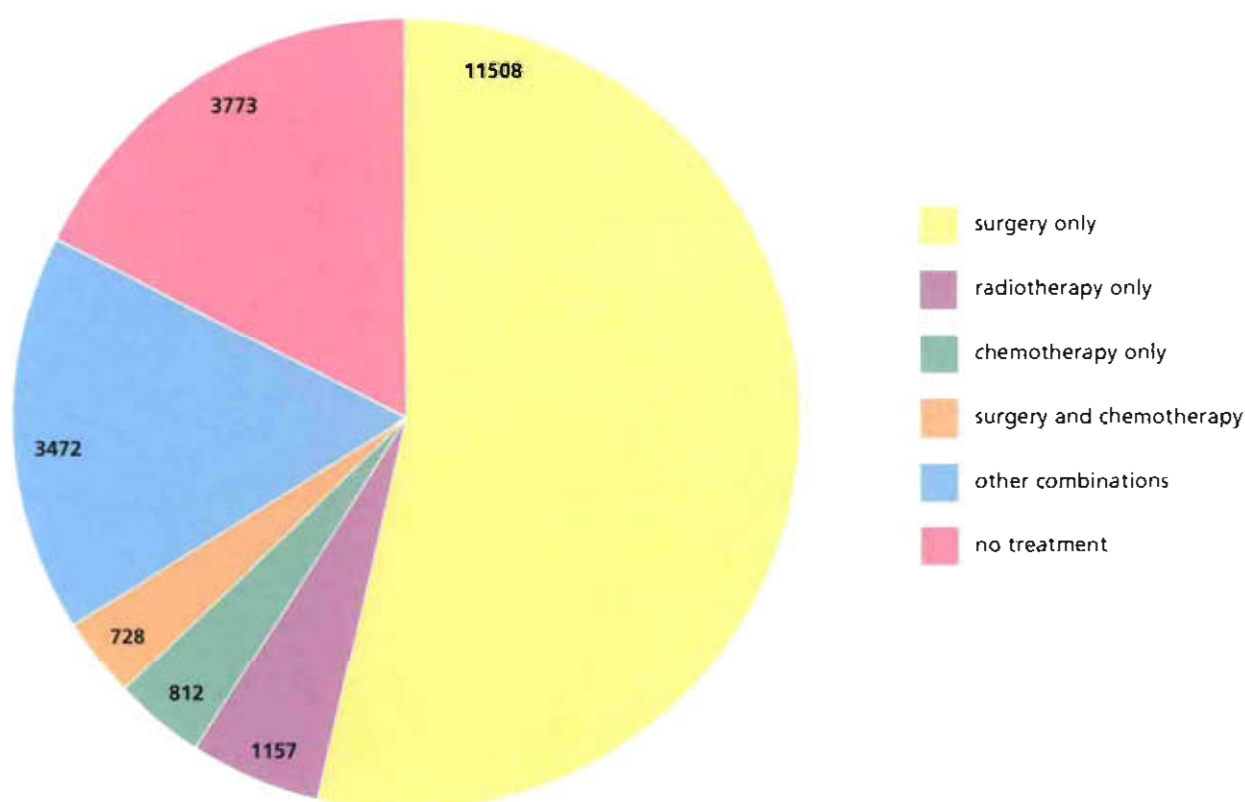
The majority of patients (82%) received some cancer-directed treatment (Table 5.15), most commonly surgery (66%). This proportion has increased steadily from 61% in 1994. Hormone treatment or chemotherapy was administered to 17% of patients. This figure has also increased since 1994. Hormone therapy was not registered separately from chemotherapy in 1994. The percentage having radiotherapy (12%) has gone down by 1% since 1996. Registrations of "other" treatments have declined very much, and this is due to the improvement in the quality of this item of data, as many treatments were originally included under this heading which probably should not have been. The commonest treatment modality was surgery alone (54% of patients), while the commonest combined treatment was surgery and chemotherapy (3.4%) (Figure 5.3).

**Table 5.15. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	14251	66.4%	65.2%	62.7%	60.7%
chemotherapy	2254	10.5%	10.3%	16.0%	15.1%
hormone	1367	6.4%	6.4%		
radiotherapy	2526	11.8%	12.8%	11.8%	12.7%
other treatment	1281	6.0%	7.6%	6.0%	21.6%
all cases treated	17677	82.4%	82.2%	82.4%	85.1%
no treatment	3773	17.6%	17.8%	17.6%	14.9%
<b>all cases</b>	<b>21450</b>	<b>21450</b>	<b>20865</b>	<b>19839</b>	<b>19935</b>

**Figure 5.3. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



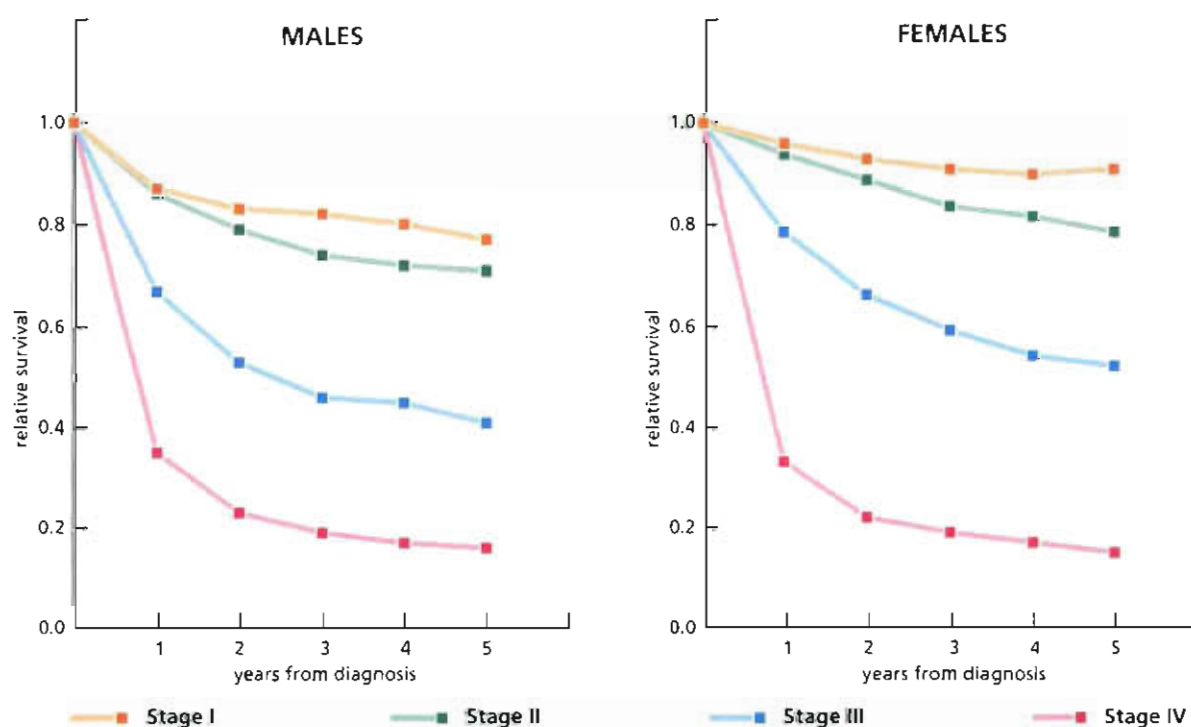
## 5.10. SURVIVAL

**Table 5.16. Relative survival ( $\pm$  95% confidence limits) for all cancers 1994 to 1997 (except non-melanoma skin)**

sex	stage	cases	YEARS SINCE DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	0	468	0.97	0.02	0.98	0.04	1.01	0.07
	I	1317	0.87	0.02	0.82	0.03	0.77	0.05
	II	1408	0.86	0.02	0.74	0.03	0.71	0.04
	III	1131	0.67	0.03	0.46	0.03	0.41	0.04
	IV	4029	0.35	0.02	0.19	0.01	0.16	0.02
	unknown	15886	0.61	0.01	0.51	0.01	0.50	0.01
	<b>all</b>	<b>24239</b>	<b>0.60</b>	<b>0.01</b>	<b>0.49</b>	<b>0.01</b>	<b>0.46</b>	<b>0.01</b>
females	0	3820	1.00	0.00	1.00	0.00	1.00	0.01
	I	1863	0.96	0.01	0.91	0.02	0.91	0.03
	II	2541	0.94	0.01	0.84	0.02	0.79	0.03
	III	1162	0.79	0.02	0.60	0.03	0.53	0.04
	IV	2810	0.34	0.02	0.20	0.02	0.16	0.02
	unknown	14523	0.66	0.01	0.58	0.01	0.57	0.01
	<b>all</b>	<b>26719</b>	<b>0.69</b>	<b>0.01</b>	<b>0.59</b>	<b>0.01</b>	<b>0.57</b>	<b>0.01</b>

Relative survival is given in Table 5.16. for all cancers diagnosed from 1994 to 1997. Patients with only non-melanoma skin cancer are excluded from these figures. Patients with more than one primary cancer, other than a non-melanoma skin cancer, are also excluded. The latter exclusion removed 2450 cancers (4.6% of the total). Survival at five years for all male cases was 46%  $\pm$  1% and for all females 57%  $\pm$  1%. Survival was strongly stage-dependent – for males survival of stage I cases was almost five times better than for stage IV, and for women it was almost six times better (Figure 5.4). As noted in previous reports, the survival of unstaged cases was close to average.

**Figure 5.4. Relative survival by stage for cases diagnosed from 1994 to 1997**





## 6.1. INTRODUCTION AND SUMMARY

Table 6.1. Summary of incidence and mortality statistics: non-melanoma skin cancer

	INCIDENT CASES			DEATHS (ICD-10)		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C44)</b>						
1997 cases	4070	3746	7816	21	12	33
% of all cancers	38.6%	34.4%	36.4%	0.5%	0.3%	0.4%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	224.9	204.0	214.4	1.2	0.7	0.9
World age-standardised rate	171.6	128.2		0.8	0.3	
European age-standardised rate	260.5	191.7		1.3	0.5	
cumulative risk (0-74)	18.4%	13.9%		0.1%	0.0%	
mortality/incidence ratio	0.014	0.012	0.013			
<b>Time trends (all cancers)</b>						
1994 cases	3422	3165	6587	23	10	33
1995 cases	3589	3300	6889	26	8	34
1996 cases	3845	3544	7389	19	3	22
1997 cases	4070	3746	7816	21	12	33
1994-1997 average	3732	3439	7170	22	8	31
annual % change 1994-97	+4.9%	+5.0%	+5.0%	-8.2%	-10.8%	-7.9%
95% confidence limits of trend	(4.4%; 5.5%)	(4.4%; 5.7%)	(4.4%; 5.5%)	(-21.8%; 7.6%)	(-53.2%; 69.9%)	(-28.6%; 18.7%)
<b>Invasive cancers only (ICD-10 C44)</b>						
1997 cases	3695	3008	6703	21	12	33
% of all invasive cancers	35.0%	27.6%	31.2%	0.5%	0.3%	0.4%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	204.2	163.8	183.8	1.2	0.7	0.9
World age-standardised rate	155.7	104.1		0.8	0.3	
European age-standardised rate	236.5	155.0		1.3	0.5	
cumulative risk (0-74)	16.6%	11.3%		0.1%	0.0%	
mortality/incidence ratio	0.006	0.004	0.005			

Non-melanoma skin cancer is by far the commonest of all cancers (36% of the total) (Table 6.1), but is rarely fatal, and so is less of a public health concern than cancers such as lung, bowel and breast. The incidence of these cancers has been increasing significantly since registration began, at 5% per year. We cannot tell without further study if this is due to a real increase in incidence rate, increased rates of diagnosis due to changes in patterns of presentation and/or management, or improved efficiency of registration.



## 6.2. AGE AND SEX PROFILE

**Table 6.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for non-melanoma skin cancers, 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	1	1	0.1	2	1	0.2
20-24	5	3	0.3	6	4	0.1
25-29	13	10	0.6	12	9	0.1
30-34	20	16	0.6	26	20	0.3
35-39	45	36	0.9	45	35	0.4
40-44	81	68	1.0	77	64	0.5
45-49	122	109	1.0	112	102	0.6
50-54	222	238	1.1	181	200	0.8
55-59	287	372	1.0	233	309	0.9
60-64	439	642	1.0	311	450	1.0
65-69	527	873	0.9	460	688	1.2
70-74	674	1347	1.0	563	905	1.2
75-79	586	1661	1.0	541	1107	1.2
80-84	442	2116	1.1	487	1420	1.4
>85	270	2595	1.2	385	1623	1.6
<b>all ages</b>	<b>3732</b>	<b>208</b>	<b>1.0</b>	<b>3439</b>	<b>189</b>	<b>1.0</b>

Non-melanoma skin cancer has a predominantly elderly age profile (Table 6.2). The median age for skin cancer was 71, compared to 67 for all cancers. Sixty-nine percent of skin cancer patients were 65 or over, compared to 61% of all cancer patients.

## 6.3. SUBSITES

Most skin cancers were on the face – 67% in men and 54% in women (Table 6.3). Cancer of the leg was the next most common site in women (25%), and that of the ear in men (15%).

**Table 6.3. Subsites of non-melanoma skin cancer**

		MALES		FEMALES	
		cases	% of total	cases	% of total
lip	C44.0	153	3.8%	91	2.4%
eyelid	C44.1	248	6.1%	204	5.4%
external ear	C44.2	625	15.4%	59	1.6%
face	C44.3	1679	41.3%	1654	44.2%
scalp, neck	C44.4	387	9.5%	224	6.0%
trunk	C44.5	311	7.6%	200	5.3%
upper limb	C44.6	462	11.4%	357	9.5%
lower limb	C44.7	171	4.2%	925	24.7%
other and unspecified	C44.9	34	0.8%	32	0.9%
<b>all cases</b>		<b>4070</b>		<b>3746</b>	

## 6.4. GEOGRAPHICAL DISTRIBUTION

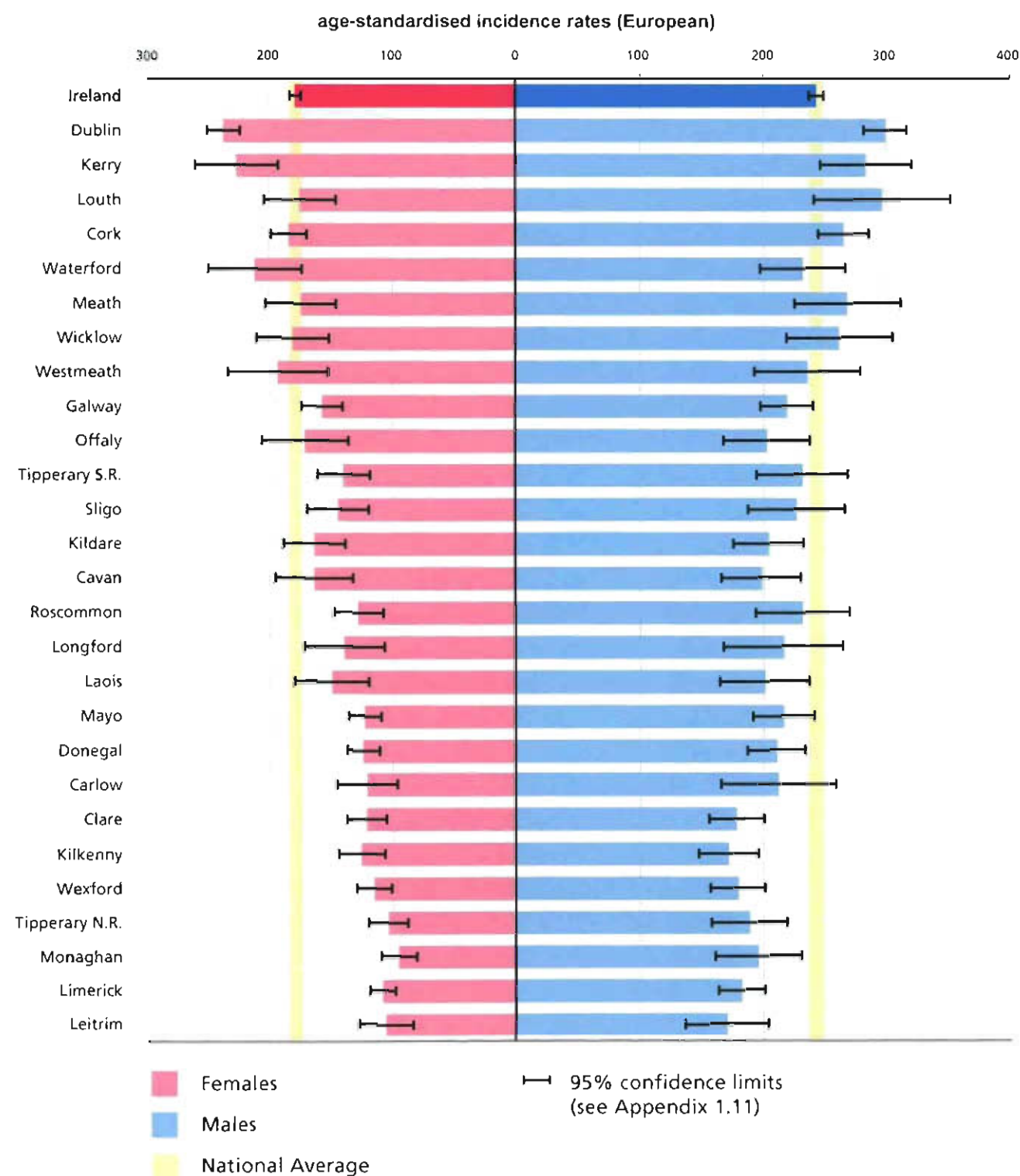
### INTERNATIONAL

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.

### NATIONAL

The highest non-melanoma skin cancer rates were found in Dublin and Kerry for both men and women (Figure 6.1).

**Figure 6.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: non-melanoma skin cancer**



## 6.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Basal cell carcinoma (BCC) was the predominant cell type (58% of total) (Table 6.4), while squamous carcinomas (SCC) made up 40%, of which about one-third were in situ cancers (Bowen's disease and related conditions).

**Table 6.4. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
basal cell carcinoma, NOS	8090/3	3995	51.1%	3701	51.6%
squamous cell carcinoma, NOS	8070/3	1884	24.1%	1741	24.3%
Bowen's disease	8081/2	672	8.6%	609	8.5%
squamous cell carcinoma in situ, NOS	8070/2	375	4.8%	322	4.5%
multicentric basal cell carcinoma	8091/3	375	4.8%	304	4.2%
squamous cell carcinoma large cell, keratinizing	8071/3	195	2.5%	192	2.7%
basosquamous carcinoma	8094/3	117	1.5%	82	1.1%
carcinoma in situ, NOS	8010/2	58	0.7%	65	0.9%
carcinoma, NOS	8010/3	36	0.5%	34	0.5%
malignant neoplasm	8000/3	38	0.5%	28	0.4%
epithelioma malignant	8011/3	2	0.0%	13	0.2%
dermatofibrosarcoma, NOS	8832/3	7	0.1%	12	0.2%
basal cell carcinoma, morphea	8092/3	6	0.1%	7	0.1%
verrucous carcinoma, NOS	8051/3	8	0.1%	7	0.1%
Merkel cell tumour	8247/3	5	0.1%	7	0.1%
squamous cell carcinoma spindle cell	8074/3	3	0.0%	4	0.1%
all other types		40	0.5%	45	0.6%
<b>Behaviour</b>					
uncertain		9	0.1%	7	0.1%
in situ		1106	14.2%	997	13.9%
invasive		6701	85.7%	6167	86.0%
<b>all cancers</b>		<b>7816</b>		<b>7171</b>	<b>100.0%</b>

## 6.6. TREATMENT

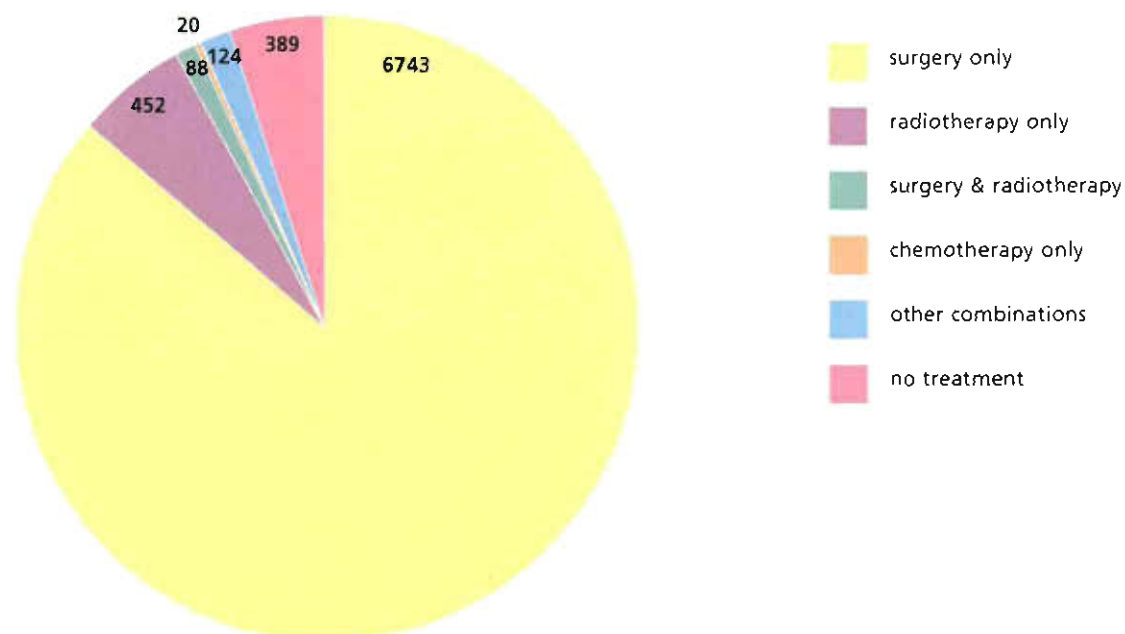
Surgical removal was the treatment of choice in 88% of cases, while 7% were treated by radiotherapy (Table 6.5, Figure 6.2). For 1997, the percentage treated by radiotherapy was lower than the 1994 to 1997 average, and, overall, surgery appears to be replacing radiotherapy in the treatment of these cancers. Treatment of 9% of BCCs was by radiotherapy, compared to 4% of SCCs.

**Table 6.5. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	6880	88.0%	87.0%	84.6%	83.9%
chemotherapy	22	0.3%	0.1%	0.3%	1.0%
hormone	1	0.0%	0.0%		
radiotherapy	545	7.0%	7.7%	7.0%	9.1%
other treatment	121	1.5%	3.1%	1.5%	3.4%
all cases treated	7427	95.0%	95.7%	95.0%	94.4%
no treatment	389	5.0%	4.3%	5.0%	5.6%
<b>all cases</b>	<b>7816</b>	<b>7816</b>	<b>7389</b>	<b>6889</b>	<b>6587</b>

**Figure 6.2. Frequent treatment combinations**

*Note: numbers indicated refer to the number of cases treated*



## 6.7. STAGE

Stage was not recorded for non-melanoma skin cancer.

## 6.8. SURVIVAL

Survival was not calculated for non-melanoma skin cancer.



Both ICD-O-2 and ICD-10 describe four major sites: colon, rectosigmoid, rectum and anus. As all of these sites are contiguous, discrimination between borderline sites is sometimes difficult. This is particularly true for cancers of the sigmoid, rectosigmoid and rectum. As cancers at all of these sites are aetiologically and morphologically similar, it is useful to present colorectal cancers as a single entity, as well as under the separate site headings (Chapters 8 and 9).

Data are presented in this chapter on all large bowel sites combined. More detailed information on colon and anorectal cancer is given separately in the subsequent chapters.

## 7.1. INTRODUCTION AND SUMMARY

Colorectal cancer was the commonest non-skin cancer diagnosed in Ireland (Table 7.1). It makes up about 10% of all new cancers diagnosed, and is commoner in men than in women. Roughly one in every twenty men and one in thirty women will develop this cancer before age 75, and half will die of it. There is at present no overall time trend in colorectal cancer incidence.

**Table 7.1. Summary of incidence and mortality statistics: colorectal cancer**

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C18 to C21)</b>						
1997 cases	1069	839	1908	529	443	972
% of all cancers	10.1%	7.7%	8.9%	13.2%	12.5%	12.9%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	59.1	45.7	52.3	29.2	24.1	26.7
World age-standardised rate	45.6	29.9		21.7	14.0	
European age-standardised rate	68.1	43.8		33.7	21.4	
cumulative risk (0-74)	5.3%	3.4%		2.5%	1.6%	
mortality/incidence ratio	0.495	0.528	0.509			
<b>Time trends (all cancers)</b>						
1994 cases	1034	826	1860	509	415	924
1995 cases	989	793	1782	550	425	975
1996 cases	1042	750	1792	493	403	896
1997 cases	1069	839	1908	527	443	970
1994-1997 average	1034	802	1836	520	422	941
annual % change 1994-97	+1.4%	-1.1%	-1.4%	-1.0%	+0.2%	-0.5%
95% confidence limits of trend	(-1.1%; 4.1%)	(-6.9%; 5.1%)	(-2.9%; 0.1%)	(-5.2%; 3.4%)	(-5.9%; 6.8%)	(-5.0%; 4.2%)
<b>Invasive cancers only (ICD-10 C18 to C21)</b>						
1997 cases	1009	775	1784	527	443	970
% of all invasive cancers	10.3%	4.2%	9.6%	13.3%	12.7%	13.0%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	55.8	42.2	48.9	29.1	24.1	26.6
World age-standardised rate	43.0	27.2		21.6	14.0	
European age-standardised rate	64.4	40.6		33.6	21.4	
cumulative risk (0-74)	5.0%	3.1%		2.5%	1.6%	
mortality/incidence ratio	0.522	0.572	0.544			

## 7.2. AGE AND SEX PROFILE

**Table 7.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for colorectal cancers, 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.2
10-14	1	1	0.6	3	2	1.8
15-19	1	1	0.3	7	4	2.1
20-24	1	1	0.2	4	3	0.4
25-29	2	2	0.3	3	2	0.1
30-34	4	3	0.4	7	5	0.3
35-39	9	7	0.7	8	6	0.3
40-44	17	14	0.8	19	16	0.5
45-49	39	35	1.2	30	27	0.7
50-54	58	62	1.0	40	44	0.7
55-59	89	115	1.1	66	88	1.1
60-64	133	194	1.1	73	105	1.0
65-69	181	299	1.2	109	163	1.2
70-74	184	368	1.0	132	212	1.2
75-79	164	464	1.0	131	267	1.3
80-84	99	475	0.9	105	307	1.3
>85	52	502	0.8	66	278	1.1
<b>all ages</b>	<b>1034</b>	<b>58</b>	<b>1.0</b>	<b>802</b>	<b>44</b>	<b>1.0</b>

Colorectal cancers were most frequently found in patients aged 70-74. The highest rate relative to all cancers was found in men aged 45 to 49 and, apart from a small number of cases in the 10 to 19 year age group, in women aged 75 to 79 (Table 7.2). The cancers in the younger age group are predominantly carcinoids of the appendix.

### 7.3. GEOGRAPHICAL VARIATION

#### INTERNATIONAL

Colorectal cancer was more frequent for men than women in all countries shown (Table 7.3). Male incidence in Ireland was fourth highest, while female incidence was ninth highest. The incidence in Northern Ireland was one of the highest in Europe for both males and females; incidence in Scotland was also higher than that in Ireland, while that in England was much lower.

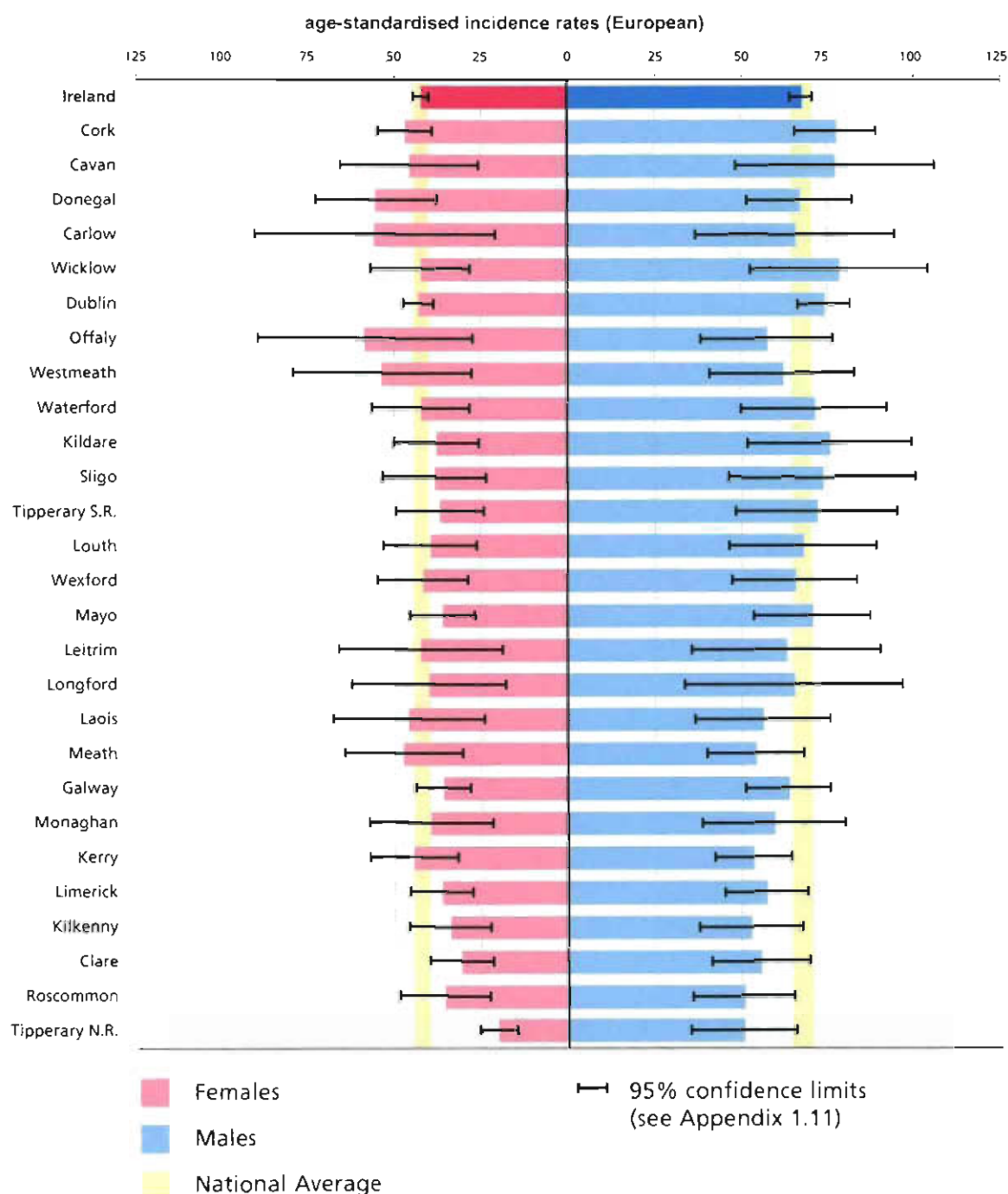
**Table 7.3. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: colorectal cancer (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Czech Republic	81	1	45	3
N. Ireland	66	3	48	2
Norway	62	8	51	1
Italy	67	2	41	8
Scotland	62	7	43	5
<b>Ireland (1994-1997)</b>	<b>64</b>	<b>4</b>	<b>40</b>	<b>9</b>
Austria	63	6	40	11
Netherlands	57	12	43	6
Slovakia	64	5	35	16
Spain	62	9	38	14
Germany	58	11	41	7
Denmark	54	13	44	4
France	60	10	37	15
Switzerland	52	14	38	12
Slovenia	51	15	31	18
Iceland	42	19	40	10
Sweden	45	17	34	17
Malta	38	21	38	13
Estonia	47	16	29	20
England	44	18	30	19
Finland	40	20	28	21
Bulgaria	34	22	23	22
Poland	33	23	22	23

**NATIONAL**

Incidence rates for males varied from 115% of expected in Cork to 75% in Tipperary North Riding (Figure 7.1). Rates for females varied from 139% of expected in Offaly to 48% of expected in Tipperary North. Only the low rate for women in Tipperary was statistically significant.

**Figure 7.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: colorectal cancer**

**7.4. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE****7.5. TREATMENT****7.6. STAGE****7.7. SURVIVAL**

These are reported for colon and rectal cancers separately.



## 8.1. INTRODUCTION AND SUMMARY

Table 8.1. Summary of incidence and mortality statistics: colon cancer

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C18)</b>						
1997 cases	600	565	1165	386	342	728
% of all cancers	5.7%	5.2%	5.4%	9.6%	9.7%	9.6%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	33.2	30.8	32.0	21.3	18.6	20.0
World age-standardised rate	25.4	20.2		15.9	10.9	
European age-standardised rate	38.0	29.4		24.7	16.6	
cumulative risk (0-74)	2.9%	2.3%		1.8%	1.2%	
mortality/incidence ratio	0.643	0.605	0.625			
<b>Time trends (all cancers)</b>						
1994 cases	620	585	1205	361	321	682
1995 cases	589	559	1148	397	332	729
1996 cases	619	511	1130	357	327	684
1997 cases	600	565	1165	384	342	726
1994-1997 average	607	555	1162	375	331	705
annual % change 1994-97	-1.5%	-3.0%	-2.3%	-0.0%	+1.0%	+0.3%
95% confidence limits of trend	(-4.4%; 1.5%)	(-9.5%; 3.9%)	(-4.5%; 0.1%)	(-4.3%; 4.5%)	(-3.0%; 5.1%)	(-3.6%; 4.3%)
<b>Invasive cancers only (ICD-10 C18)</b>						
1997 cases	569	525	1094	384	342	726
% of all invasive cancers	5.8%	6.0%	5.9%	9.7%	9.8%	9.7%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	31.4	28.6	30.0	21.2	18.6	19.9
World age-standardised rate	23.9	18.4		15.7	10.9	
European age-standardised rate	36.1	27.4		24.5	16.6	
cumulative risk (0-74)	2.7%	2.1%		1.8%	1.2%	
mortality/incidence ratio	0.675	0.651	0.664			

Colon cancer was the commonest of the colorectal sites. Over 5% of cancers in both men and women arose in the colon, with a mortality of 62.5% (Table 8.1). The incidence of colon cancer has decreased for both men and women since 1994, but not significantly.

## 8.2. AGE AND SEX PROFILE

**Table 8.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for colon cancers, 1994 to 1997**

	MALES			FEMALES		
	annual average number of cases	cases per 100,000	relative rate	annual average number of cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.3
10-14	1	1	1.0	3	2	2.6
15-19	1	1	0.6	7	4	3.1
20-24	1	1	0.4	4	3	0.6
25-29	1	1	0.3	2	1	0.1
30-34	2	2	0.4	5	4	0.3
35-39	6	5	0.8	6	4	0.3
40-44	11	9	0.9	12	10	0.5
45-49	23	21	1.2	20	18	0.6
50-54	30	32	0.9	28	31	0.7
55-59	49	64	1.0	46	60	1.1
60-64	77	113	1.1	44	64	0.9
65-69	104	172	1.1	79	119	1.2
70-74	107	213	1.0	89	144	1.2
75-79	99	280	1.0	91	185	1.3
80-84	64	308	1.0	76	221	1.3
>85	30	288	0.8	45	189	1.1
<b>all ages</b>	<b>607</b>	<b>34</b>	<b>1.0</b>	<b>555</b>	<b>31</b>	<b>1.0</b>

Colon cancer was most frequent in men aged 70 to 74 and women aged 75 to 79 (Table 8.2). The highest incidence rates relative to other cancers were in men aged 60 to 64 and women, apart from a few cases in the 10 to 19 year age group (carcinoids; see previous chapter), was highest in those aged 80 to 84.

## 8.3. SUBSITES

Sigmoid colon was the most frequent subsite for both sexes (Table 8.3). However, right-sided cancers were more frequent in women (43% of total) than in men (35%).

**Table 8.3. Subsites of colon cancer**

	ICD-O-2 site	MALES		FEMALES	
		cases	% of total	cases	% of total
caecum	C18.0	111	18.5%	129	22.8%
appendix	C18.1	16	2.7%	32	5.7%
ascending colon	C18.2	53	8.8%	57	10.1%
hepatic flexure	C18.3	30	5.0%	23	4.1%
transverse colon	C18.4	56	9.3%	50	8.8%
splenic flexure	C18.5	24	4.0%	24	4.2%
descending colon	C18.6	49	8.2%	43	7.6%
sigmoid colon	C18.7	224	37.3%	165	29.2%
overlapping lesion of colon	C18.8	8	1.3%	7	1.2%
other and unspecified	C18.9	29	4.8%	35	6.2%
<b>all cancers</b>		<b>600</b>		<b>565</b>	

## 8.4. GEOGRAPHICAL DISTRIBUTION

### INTERNATIONAL

As with colorectal cancers, male cancers were more frequent than female in all countries (Table 8.4). The incidence rates for Ireland were a little higher than average, while lower than those in Northern Ireland and Scotland.

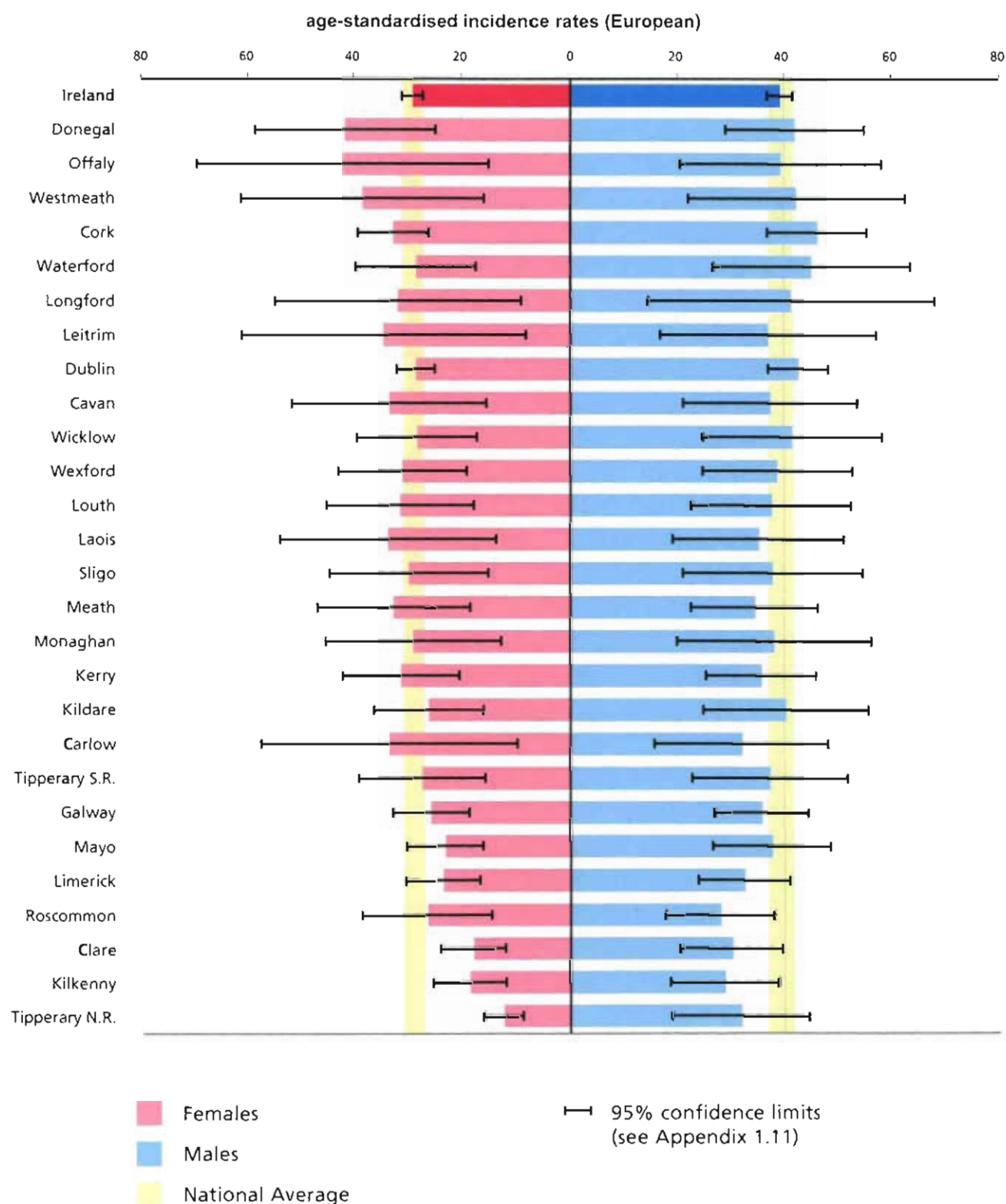
**Table 8.4. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: colon cancer (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
N. Ireland	43	2	33	2
Italy	45	1	29	5
Scotland	40	5	31	3
Norway	36	8	33	1
Czech Republic	42	3	27	11
Spain	40	4	24	14
<b>Ireland (1994-1997)</b>	<b>38</b>	<b>7</b>	<b>27</b>	<b>9</b>
Iceland	34	11	29	4
Austria	38	6	25	12
Netherlands	34	10	28	6
Germany	35	9	27	10
Denmark	31	15	28	8
Switzerland	33	13	24	13
France	34	12	23	15
Slovakia	31	14	20	18
Sweden	27	16	23	16
Malta	22	21	28	7
England	26	18	20	17
Estonia	26	17	18	20
Finland	23	20	18	19
Slovenia	24	19	17	21
Bulgaria	16	22	12	23
Poland	16	23	12	22

**NATIONAL**

Colon cancer incidence in males ranged from 118% of expected in Cork to 71% in Roscommon, and for females from 145% in Offaly to 42% in Tipperary North (Figure 8.1). The incidence rate was not significantly elevated in any county, but was significantly below expected for women in Tipperary North.

**Figure 8.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: colon cancer**





## 8.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 8.5. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>1065</b>	<b>91.4%</b>
histology of primary	1036	88.9%
histology of other site	25	2.1%
cytology	4	0.3%
<b>clinical diagnosis</b>	<b>100</b>	<b>8.6%</b>
clinical	50	4.3%
radiology	42	3.6%
post-mortem	4	0.3%
other/not known	4	0.3%
<b>all cancers</b>	<b>1165</b>	

Over 90% of colon cancers were verified histologically, with a further 3.6% diagnosed through radiology (Table 8.5).

Almost all histologically characterised cancers were adenocarcinoma (Table 8.6). The most frequent non-adenocarcinoma cancer was carcinoid (41 cases to 3.5%). Few cancers (2%) were in situ at the time of diagnosis.

**Table 8.6. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
adenocarcinoma, NOS	8140/3	765	65.7%	753	64.8%
malignant neoplasm	8000/3	102	8.8%	109	9.4%
mucous adenocarcinoma	8480/3	70	6.0%	67	5.8%
mucin-secreting adenocarcinoma	8481/3	42	3.6%	54	4.7%
adenocarcinoma in adenomatous polyp	8210/3	24	2.1%	28	2.4%
carcinoid tumour, NOS, of appendix	8240/1	32	2.7%	27	2.3%
carcinoma, NOS	8010/3	9	0.8%	18	1.5%
adenocarcinoma in tubulovillous adenoma	8263/3	21	1.8%	16	1.3%
villous adenoma, NOS	8261/1	16	1.4%	15	1.3%
acinar cell carcinoma	8550/3	17	1.5%	15	1.2%
signet ring cell carcinoma	8490/3	14	1.2%	10	0.9%
adenocarcinoma in situ in adenomatous polyp	8210/2	10	0.9%	10	0.8%
papillary adenocarcinoma, NOS	8260/3	4	0.3%	7	0.6%
adenocarcinoma in villous adenoma	8261/3	4	0.3%	7	0.6%
carcinoid tumour	8240/3	9	0.8%	5	0.4%
carcinoma in situ, NOS	8010/2	5	0.4%	4	0.3%
all other types		21	1.8%	20	1.7%
<b>Behaviour</b>					
uncertain		48	4.1%	42	3.6%
in situ		22	1.9%	19	1.7%
Invasive		1095	94.0%	1101	94.7%
<b>all cancers</b>		<b>1165</b>		<b>1162</b>	<b>100.0%</b>

## 8.6. STAGE

**Table 8.7. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	22	1.9%	19	1.7%
I	91	7.8%	87	7.4%
II	180	15.5%	198	17.0%
III	145	12.4%	136	11.7%
IV	227	19.5%	237	20.4%
not applicable	58	5.0%	48	4.1%
not staged	442	37.9%	438	37.7%
<b>all stages</b>	<b>1165</b>		<b>1162</b>	

Summary staging could be assigned to 62% of cancers (Table 8.7). The largest number of these were stage IV cancers (20%; 34% of those staged). The stage distribution does not seem to have changed appreciably over the 1994-1997 period.

**Table 8.8. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	294	25.2%
regional	194	16.7%
distant	227	19.5%
not applicable	58	5.0%
not known	392	33.6%
<b>all cancers</b>	<b>1165</b>	

Extent of disease information (Table 8.8) was available for a slightly larger number of cases than summary or TNM staging. There was a slight predominance of local lesions. The most frequent TNM stage (Table 8.9) was T3 N0 M0 (14% of cases).

**Table 8.9. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	22	1.9%	0	0.0%	0	0.0%
T1	N0	18	1.5%	1	0.1%	7	0.6%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	4	0.3%	0	0.0%	16	1.4%
T2	N0	73	6.3%	1	0.1%	29	2.5%
	N1	11	0.9%	2	0.2%	6	0.5%
	N2	2	0.2%	1	0.1%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	10	0.9%	0	0.0%	9	0.8%
T3	N0	162	13.9%	23	2.0%	113	9.7%
	N1	79	6.8%	38	3.3%	49	4.2%
	N2	34	2.9%	20	1.7%	21	1.8%
	N3	2	0.2%	4	0.3%	2	0.2%
	not staged	15	1.3%	22	1.9%	19	1.6%
T4	N0	18	1.5%	6	0.5%	14	1.2%
	N1	12	1.0%	18	1.5%	21	1.8%
	N2	4	0.3%	5	0.4%	5	0.4%
	N3	1	0.1%	1	0.1%	1	0.1%
	not staged	10	0.9%	23	2.0%	15	1.3%
not staged	N0	1	0.1%	1	0.1%	0	0.0%
	N1	0	0.0%	1	0.1%	1	0.1%
	N2	0	0.0%	2	0.2%	0	0.0%
	N3	0	0.0%	2	0.2%	0	0.0%
	not staged	10	0.9%	56	4.8%	64	5.5%
<b>all T</b>	<b>all N</b>	<b>488</b>	<b>41.9%</b>	<b>227</b>	<b>19.5%</b>	<b>392</b>	<b>33.6%</b>
not applicable		58	5.0%				
<b>all cancers</b>		<b>1165</b>					

## 8.7. TREATMENT

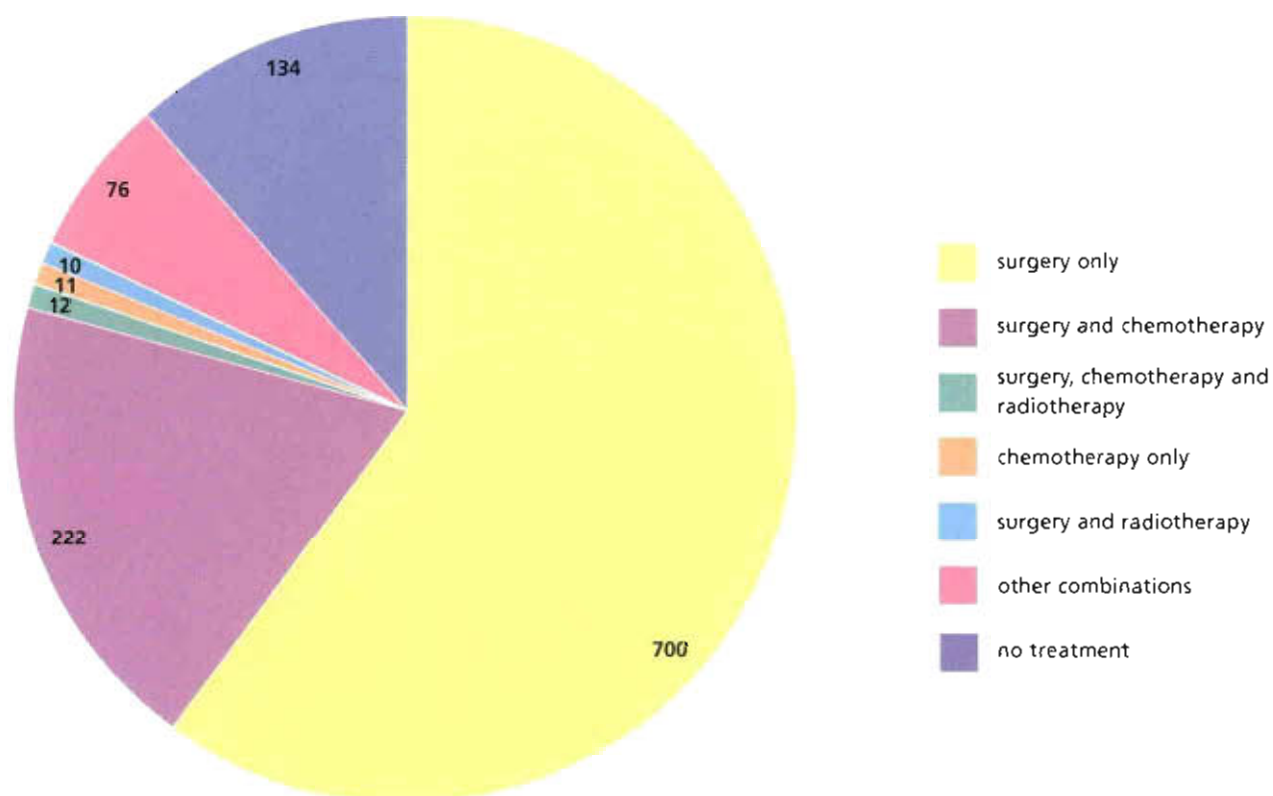
Most colon cancers (83%) were surgically treated (Table 8.10). Many of these (20% of all cancers and 24% of surgical cases) had adjuvant chemotherapy (Figure 8.2). The use of chemotherapy has increased from 17% of cases in 1994 to 22% in 1997, while radiotherapy levels have remained constant at around 2%.

**Table 8.10. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	970	83.3%	79.5%	78.5%	76.2%
chemotherapy	259	22.2%	20.7%	18.8%	17.3%
hormone	4	0.3%	0.1%		
radiotherapy	25	2.1%	2.6%	2.1%	1.7%
other treatment	70	6.0%	8.2%	6.0%	26.8%
all cases treated	1031	88.5%	86.4%	88.5%	88.7%
no treatment	134	11.5%	13.6%	11.5%	11.3%
<b>all cases</b>	<b>1165</b>	<b>1165</b>	<b>1130</b>	<b>1148</b>	<b>1205</b>

**Figure 8.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated





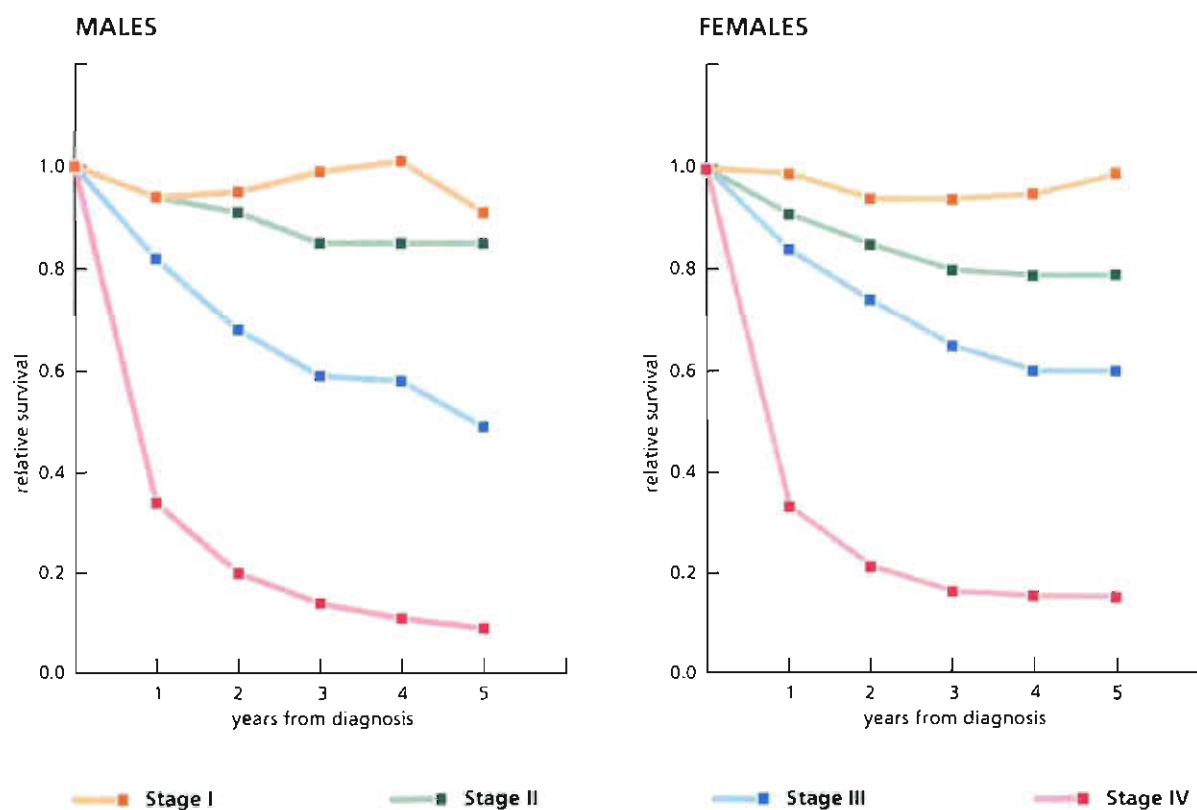
## 8.8. SURVIVAL

Overall survival at five years was  $56\% \pm 3\%$  for men and  $57\% \pm 3\%$  for women (Table 8.11). These figures are close to those for colorectal cancer. Five-year survival for stage I cases was  $91\% \pm 15\%$  for men and  $99\% \pm 8\%$  for women, while survival for stage IV cases was  $9\% \pm 4\%$  for men and  $15\% \pm 5\%$  for women (Figure 8.3).

**Table 8.11. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

sex	stage	cases	YEARS FROM DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	0	40	0.90	0.12	0.86	0.17	1.04	0.18
	I	167	0.94	0.05	0.99	0.06	0.91	0.15
	II	400	0.94	0.03	0.85	0.05	0.85	0.08
	III	249	0.82	0.05	0.59	0.08	0.49	0.12
	IV	492	0.34	0.04	0.14	0.03	0.09	0.04
	X	886	0.73	0.03	0.64	0.04	0.63	0.05
	all	2234	0.71	0.02	0.59	0.02	0.56	0.03
females	0	22	0.93	0.12	0.97	0.12	1.02	0.12
	I	143	0.99	0.04	0.94	0.07	0.99	0.08
	II	338	0.91	0.04	0.80	0.06	0.79	0.08
	III	257	0.84	0.05	0.65	0.07	0.60	0.09
	IV	417	0.33	0.05	0.16	0.04	0.15	0.05
	X	889	0.73	0.03	0.65	0.04	0.60	0.05
	all	2066	0.71	0.02	0.60	0.02	0.57	0.03

**Figure 8.3. Relative survival by stage for cases diagnosed from 1994 to 1997**





## 9.1. INTRODUCTION AND SUMMARY

**Table 9.1. Summary of incidence and mortality statistics: rectosigmoid cancer**

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C19)</b>						
1997 cases	85	56	141	17	17	34
% of all cancers	0.8%	0.5%	0.7%	0.4%	0.5%	0.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	4.7	3.0	3.9	0.9	0.9	0.9
World age-standardised rate	3.7	2.0		0.7	0.5	
European age-standardised rate	5.6	3.0		1.1	0.9	
cumulative risk (0-74)	0.5%	0.2%		0.1%	0.1%	
mortality/incidence ratio	0.200	0.304	0.241			
<b>Time trends (all cancers)</b>						
1994 cases	97	62	159	15	6	21
1995 cases	80	38	118	14	13	27
1996 cases	84	59	143	18	13	31
1997 cases	85	56	141	17	17	34
1994-1997 average	87	54	140	16	12	28
annual % change 1994-97	-3.4%	+0.5%	-2.0%	+4.2%	+25.6%	+12.6%
95% confidence limits of trend	(-9.9%; 3.6%)	(-19.6%; 25.8%)	(-13.4%; 11.0%)	(-1.9%; 10.6%)	(-5.1%; 66.2%)	(4.4%; 21.5%)
<b>Invasive cancers only (ICD-10 C19)</b>						
1997 cases	85	55	140	17	17	34
% of all invasive cancers	0.9%	0.6%	0.8%	0.4%	0.5%	0.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	4.7	3.0	3.8	0.9	0.9	0.9
World age-standardised rate	3.7	1.9		0.7	0.5	
European age-standardised rate	5.6	2.9		1.1	0.9	
cumulative risk (0-74)	0.5%	0.2%		0.1%	0.1%	
mortality/incidence ratio	0.200	0.309	0.243			

Cancers assigned to the rectosigmoid area were relatively uncommon (7% of all colorectal cancers) and like other colorectal cancers, more frequent in men than women (Table 9.1). Mortality appeared low, but this is almost certainly due to the low rate of use of the term "rectosigmoid" on death certificates. The number of cancers reported in the rectosigmoid seems to be falling, but again, variation in diagnostic labelling may be the reason for this.

**Table 9.2. Summary of incidence and mortality statistics: rectal cancer**

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C20)</b>						
1997 cases	375	203	578	123	81	204
% of all cancers	3.6%	1.9%	2.7%	3.1%	2.3%	2.7%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	20.7	11.1	15.9	6.8	4.4	5.6
World age-standardised rate	16.1	7.0		5.0	2.4	
European age-standardised rate	23.9	10.6		7.8	3.8	
cumulative risk (0-74)	1.9%	0.9%		0.6%	0.3%	
mortality/incidence ratio	0.328	0.399	0.353			
<b>Time trends (all cancers)</b>						
1994 cases	304	165	469	130	87	217
1995 cases	310	190	500	138	73	211
1996 cases	331	166	497	118	59	177
1997 cases	375	203	578	123	81	204
1994-1997 average	330	181	511	127	75	202
annual % change 1994-97	+5.7%	+4.1%	+5.6%	-4.2%	-5.6%	-4.6%
95% confidence limits of trend	(3.4%; 8.1%)	(-5.9%; 15.3%)	(2.2%; 9.0%)	(-9.3%; 1.3%)	(-20.1%; 11.6%)	(-10.3%; 1.4%)
<b>Invasive cancers only (ICD-10 C20)</b>						
1997 cases	346	182	528	123	81	204
% of all invasive cancers	3.5%	2.1%	2.8%	3.1%	2.3%	2.7%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	19.1	9.9	14.5	6.8	4.4	5.6
World age-standardised rate	15.0	6.4		5.0	2.4	
European age-standardised rate	22.2	9.5		7.8	3.8	
cumulative risk (0-74)	1.8%	0.8%		0.6%	0.3%	
mortality/incidence ratio	0.355	0.445	0.386			

Rectum is the single most frequent anatomical location of colorectal cancer (30% of the total) (Table 9.2). The male/female ratio (2:1) is much higher than for other colorectal sites. Mortality from rectal cancer (35%) is lower than that for colon cancer. Male cancer rates have increased significantly, at an annual rate of 5.7% per year, since 1994, while female rates have been very variable and show no significant overall trend. As overall colorectal cancer rates in men have remained relatively stable, the increase in rectal cancer may be a real phenomenon or a change in diagnostic labelling.

Table 9.3. Summary of incidence and mortality statistics: anal cancer

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C21)</b>						
1997 cases	9	15	24	3	3	6
% of all cancers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	0.5	0.8	0.7	0.2	0.2	0.2
World age-standardised rate	0.4	0.6		0.1	0.1	
European age-standardised rate	0.5	0.9		0.2	0.1	
cumulative risk (0-74)	0.0%	0.1%		0.0%	0.0%	
mortality/incidence ratio	0.333	0.200	0.250			
<b>Time trends (all cancers)</b>						
1994 cases	13	14	27	3	1	4
1995 cases	10	6	16	1	7	8
1996 cases	8	14	22	0	4	4
1997 cases	9	15	24	3	3	6
1994-1997 average	10	12	22	2	4	6
annual % change 1994-97	-15.6%	+10.0%	-3.0%	n/a	+10.5%	+0.4%
95% confidence limits of trend	(-21.5%; -9.2%)	(-28.8%; 70.0%)	(-23.8%; 23.6%)	n/a	(-49.6%; 142.2%)	(-37.0%; 60.1%)
<b>Invasive cancers only (ICD-10 C21)</b>						
1997 cases	9	13	22	3	3	6
% of all invasive cancers	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	0.5	0.7	0.6	0.2	0.2	0.2
World age-standardised rate	0.4	0.5		0.1	0.1	
European age-standardised rate	0.5	0.8		0.2	0.1	
cumulative risk (0-74)	0.0%	0.1%		0.0%	0.0%	
mortality/incidence ratio	0.333	0.231	0.273			

The number of anal cancers is very small (1% of all colorectal cancers), and unlike all other colorectal cancers, as common in women as in men (Table 9.3). As the numbers each year are so small, no inferences can be drawn with respect to time trends.

## 9.2. AGE AND SEX PROFILE

**Table 9.4. Annual average number of cases, age-specific incidence rate and relative age-specific rate for anorectal cancers, 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	0	0	0.0	0	0	0.0
20-24	0	0	0.0	0	0	0.0
25-29	1	1	0.4	1	1	0.1
30-34	2	1	0.5	2	2	0.3
35-39	3	2	0.5	3	2	0.3
40-44	6	5	0.7	6	5	0.6
45-49	16	15	1.2	10	9	0.7
50-54	28	30	1.1	12	13	0.7
55-59	40	52	1.2	21	28	1.1
60-64	55	81	1.1	29	42	1.3
65-69	77	127	1.2	30	45	1.1
70-74	77	154	1.0	43	69	1.3
75-79	65	184	1.0	40	82	1.3
80-84	35	167	0.8	29	85	1.2
>85	22	214	0.9	21	90	1.2
<b>all ages</b>	<b>427</b>	<b>24</b>	<b>1.0</b>	<b>247</b>	<b>14</b>	<b>1.0</b>

Anorectal cancers were most frequent in men aged 65 to 74 and women aged 70 to 74 (Table 9.4). The relative incidence rate was highest for men aged 55 to 59 and women aged 60 to 64.



### 9.3. GEOGRAPHICAL VARIATION

#### INTERNATIONAL

Anorectal cancer incidence in men in Ireland was one of the highest in Europe, but that for women was average (Table 9.5). Some of the international differences may be attributable to variation in anatomical labelling of cancers.

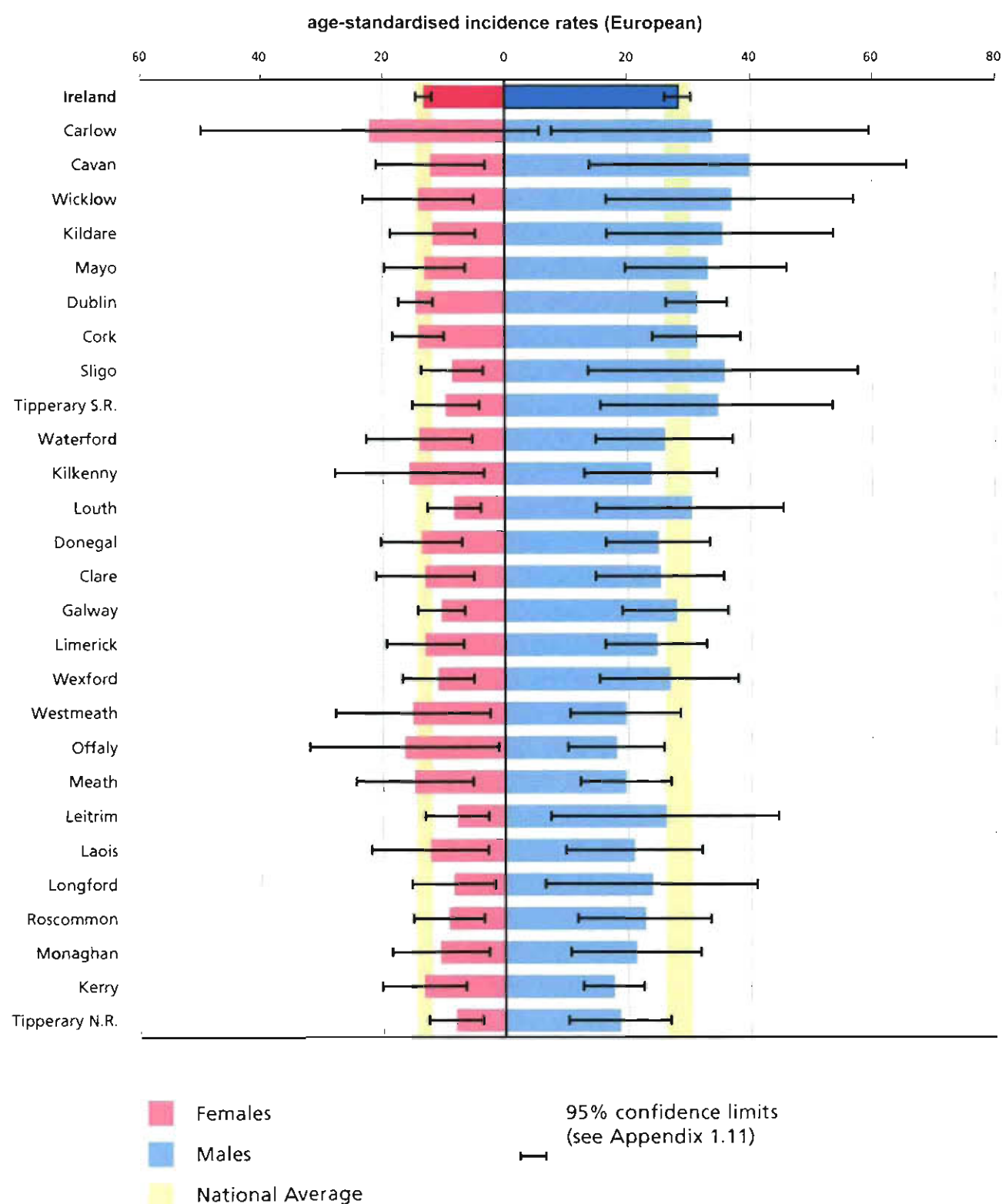
**Table 9.5. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: anorectal cancer (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Czech Republic	39	1	18	1
Slovakia	33	2	15	4
Norway	26	7	18	2
Slovenia	27	3	15	6
<b>Ireland (1994-1997)</b>	<b>27</b>	<b>4</b>	<b>12</b>	<b>13</b>
Denmark	24	8	16	3
Austria	26	6	14	8
France	26	5	13	11
Netherlands	23	11	15	5
N. Ireland	23	9	15	7
Germany	23	10	14	9
Spain	22	14	13	12
Scotland	23	12	12	15
Italy	22	13	12	14
Switzerland	18	16	14	10
Estonia	21	15	11	18
Sweden	18	17	12	16
Bulgaria	18	18	11	17
England	18	19	10	20
Poland	17	20	10	23
Finland	17	21	10	21
Malta	17	22	10	22
Iceland	8	23	10	19

**NATIONAL**

The incidence of anorectal cancer varied from 146% of expected for men in Cavan to 63% in Kerry and from 170% of expected for women in Carlow to 61% in Leitrim (Figure 9.1). However, the incidence rate was not significantly different from expectation in any county.

**Figure 9.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: all cancers**



## 9.4. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 9.6. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>712</b>	<b>95.8%</b>
histology of primary	705	94.9%
histology of other site	7	0.9%
<b>clinical diagnosis</b>	<b>31</b>	<b>4.2%</b>
clinical	19	2.6%
radiology	10	1.3%
post-mortem	1	0.1%
other/not known	1	0.1%
<b>all cancers</b>	<b>743</b>	

Almost all cancers were diagnosed by histology of the primary, only a very small number (4%) being clinically or radiologically diagnosed (Table 9.6). The level of histological verification was considerably higher than for colon cancers. Almost all cancers were adenocarcinoma, and just over 3% were in situ (Table 9.7).

**Table 9.7. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
adenocarcinoma, NOS	8140/3	499	67.3%	453	67.3%
malignant neoplasm	8000/3	32	4.3%	38	5.6%
villous adenoma, NOS	8261/1	28	3.8%	22	3.3%
mucous adenocarcinoma	8480/3	19	2.6%	22	3.2%
adenocarcinoma in tubulovillous adenoma	8263/3	30	4.0%	18	2.7%
mucin-secreting adenocarcinoma	8481/3	18	2.4%	18	2.6%
adenocarcinoma in adenomatous polyp	8210/3	23	3.1%	17	2.5%
carcinoma, NOS	8010/3	14	1.9%	14	2.0%
acinar cell carcinoma	8550/3	11	1.5%	12	1.7%
adenocarcinoma in villous adenoma	8261/3	6	0.8%	9	1.4%
carcinoma in situ, NOS	8010/2	9	1.2%	8	1.2%
papillary adenocarcinoma, NOS	8260/3	13	1.8%	8	1.1%
adenocarcinoma in situ in adenomatous polyp	8210/2	8	1.1%	7	1.0%
squamous cell carcinoma, NOS	8070/3	8	1.1%	6	0.9%
signet ring cell carcinoma	8490/3	2	0.3%	5	0.7%
adenocarcinoma in situ in tubulovillous adenoma	8263/2	5	0.7%	3	0.5%
all other types		18	2.2%	16	2.4%
<b>Behaviour</b>					
uncertain		29	3.9%	22	3.3%
in situ		24	3.2%	20	2.9%
invasive		690	92.9%	632	93.8%
<b>all cancers</b>		<b>741</b>		<b>674</b>	<b>100.0%</b>

## 9.5. STAGE

**Table 9.8. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	24	3.2%	20	2.9%
I	79	10.7%	72	10.7%
II	94	12.7%	87	12.8%
III	74	10.0%	75	11.2%
IIIA	1	0.1%	2	0.3%
IIIB	0	0.0%	1	0.1%
IV	131	17.7%	123	18.2%
not applicable	30	4.0%	23	3.4%
not staged	310	41.7%	273	40.5%
<b>all cancers</b>	<b>743</b>		<b>674</b>	

**Table 9.9. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	199	26.8%
regional	118	15.9%
distant	131	17.6%
not applicable	30	4.0%
not known	265	35.7%
<b>all cancers</b>	<b>743</b>	

As with colon cancer, T3 N0 M0 was the commonest TNM stage (Table 9.10).

A summary stage could be assigned to almost 60% of cancers (Table 9.8). The largest number (18%) was at stage IV. An extent of disease could be assigned to 65% of cases, the largest number of which were local (Table 9.9).

**Table 9.10. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	24	3.2%	0	0.0%	0	0.0%
T1	N0	13	1.8%	0	0.0%	9	1.2%
	N1	2	0.3%	1	0.1%	0	0.0%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	1	0.1%	3	0.4%	17	2.3%
T2	N0	69	9.3%	1	0.1%	28	3.8%
	N1	5	0.7%	0	0.0%	4	0.5%
	N2	3	0.4%	0	0.0%	2	0.3%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	10	1.35%	3	0.4%	10	1.4%
T3	N0	84	11.3%	13	1.8%	44	5.9%
	N1	38	5.1%	14	1.9%	34	4.6%
	N2	16	2.2%	15	2.0%	17	2.3%
	N3	3	0.4%	1	0.1%	2	0.3%
	not staged	10	1.3%	9	1.2%	13	1.8%
T4	N0	7	0.9%	4	0.5%	5	0.7%
	N1	5	0.7%	6	0.8%	5	0.7%
	N2	2	0.3%	6	0.8%	1	0.1%
	N3	1	0.1%	2	0.3%	0	0.0%
	not staged	9	1.2%	14	1.9%	6	0.8%
not staged	N0	2	0.3%	3	0.4%	1	0.1%
	N1	0	0.0%	1	0.1%	1	0.1%
	N2	0	0.0%	0	0.0%	1	0.1%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	14	1.9%	35	4.7%	65	8.7%
all T	all N	317	42.8%	131	17.7%	265	35.7%
not applicable		30					
<b>all cancers</b>		<b>743</b>					



## 9.6. TREATMENT

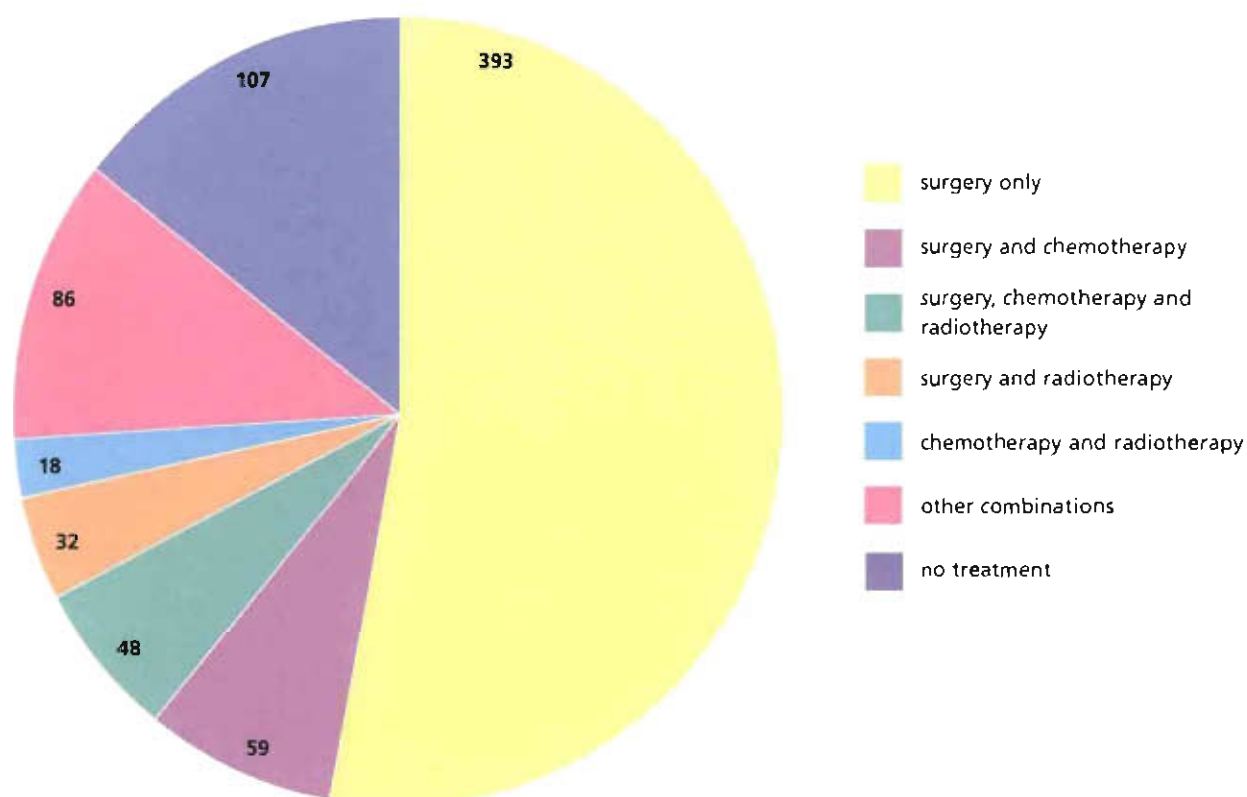
Surgery was the most frequent treatment type (Table 9.11). 74% of tumours were surgically removed and in 53% of cases this was the only treatment. The percentage having chemotherapy was 19%. Although this has gone down slightly since 1996, overall there has been an increase in chemotherapy since 1994. Radiotherapy treatments have increased from 11% in 1994 to 17% in 1997. Chemotherapy and radiotherapy were rarely given alone but usually as adjuvant therapy (Figure 9.2).

**Table 9.11. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	552	74.3%	76.0%	73.0%	75.7%
chemotherapy	140	18.8%	21.0%	17.2%	14.8%
hormone	0	0.0%	0.0%		
radiotherapy	129	17.4%	16.5%	17.4%	11.1%
other treatment	68	9.2%	13.4%	9.2%	29.3%
all cases treated	636	85.6%	88.2%	85.6%	91.0%
no treatment	107	14.4%	11.8%	14.4%	9.0%
<b>all cases</b>	<b>743</b>	<b>743</b>	<b>662</b>	<b>634</b>	<b>655</b>

**Figure 9.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



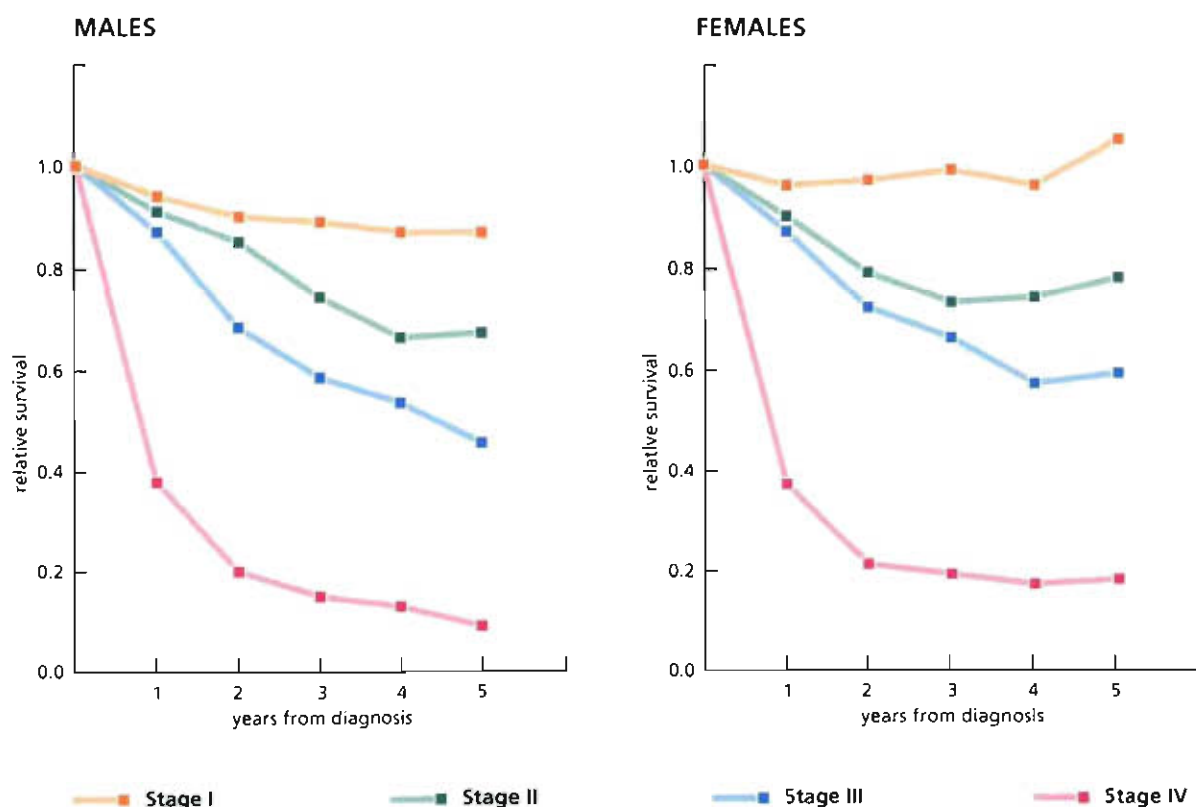
## 9.7. SURVIVAL

Overall survival at five years was  $52\% \pm 4\%$  for men and  $60\% \pm 4\%$  for women (Table 9.12). These figures are almost identical to those for colon cancer. Five-year survival for stage I cases was  $87\% \pm 11\%$  for men and  $105\% \pm 11\%$  for women, while survival for stage IV cases was  $8\% \pm 6\%$  for men and  $18\% \pm 7\%$  for women (Figure 9.3).

**Table 9.12. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

sex	stage	cases	YEARS SINCE DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	0	35	0.94	0.11	0.94	0.15	0.86	0.32
	I	171	0.94	0.05	0.89	0.07	0.87	0.11
	II	218	0.91	0.05	0.74	0.08	0.67	0.11
	III	180	0.87	0.06	0.58	0.09	0.45	0.13
	IV	318	0.37	0.06	0.14	0.04	0.08	0.06
	X	649	0.76	0.04	0.60	0.05	0.59	0.07
	<b>all</b>	<b>1571</b>	<b>0.74</b>	<b>0.02</b>	<b>0.56</b>	<b>0.03</b>	<b>0.52</b>	<b>0.04</b>
females	0	35	0.84	0.14	0.90	0.14	0.96	0.14
	I	102	0.96	0.05	0.99	0.07	1.05	0.11
	II	104	0.90	0.07	0.73	0.10	0.78	0.11
	III	106	0.87	0.07	0.66	0.11	0.59	0.13
	IV	155	0.37	0.08	0.19	0.07	0.18	0.07
	X	443	0.77	0.04	0.62	0.05	0.57	0.07
	<b>all</b>	<b>945</b>	<b>0.75</b>	<b>0.03</b>	<b>0.62</b>	<b>0.04</b>	<b>0.60</b>	<b>0.04</b>

**Figure 9.3. Relative survival by stage for cases diagnosed from 1994 to 1997**



## 10.1. INTRODUCTION AND SUMMARY

Table 10.1. Summary of incidence and mortality statistics: breast cancer

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C50)</b>						
1997 cases	16	1715	1731	3	634	637
% of all cancers	0.2%	15.7%	8.1%	0.1%	17.9%	8.4%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	0.9	93.4	47.5	0.2	34.5	17.5
World age-standardised rate	0.7	75.6		0.1	24.8	
European age-standardised rate	1.1	102.6		0.2	35.4	
cumulative risk (0-74)	0.1%	8.1%		0.0%	2.8%	
mortality/incidence ratio	0.188	0.370	0.368			
<b>Time trends (all cancers)</b>						
1994 cases	14	1595	1609	4	648	652
1995 cases	8	1596	1604	7	655	662
1996 cases	17	1689	1706	6	635	641
1997 cases	16	1715	1731	3	634	637
1994-1997 average	14	1649	1663	5	643	648
annual % change 1994-97	+14.9%	+1.3%	+1.4%	-12.4%	-2.1%	-2.1%
95% confidence limits of trend	(-20.5%; 66.0%)	(-0.7%; 3.3%)	(-0.6%; 3.4%)	(-47.0%; 44.5%)	(-3.2%; -0.9%)	(-3.4%; -0.9%)
<b>Invasive cancers only (ICD-10 C50)</b>						
1997 cases	16	1620	1636	3	634	637
% of all invasive cancers	0.2%	18.4%	8.8%	0.1%	18.1%	8.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	0.9	88.2	44.9	0.2	34.5	17.5
World age-standardised rate	0.8	71.1		0.1	24.8	
European age-standardised rate	1.1	96.7		0.2	35.4	
cumulative risk (0-74)	0.1%	7.7%		0.0%	2.8%	
mortality/incidence ratio	0.176	0.391	0.389			

Breast cancer was the commonest non-skin cancer in women (16% of the total) but was rare in men (Table 10.1). Overall mortality for women was 37% (63% survival). Female breast cancer has increased in incidence since 1994, by 1.3% per year, but this is not statistically significant.

## 10.2. AGE AND SEX PROFILE

**Table 10.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for breast cancers, 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	0	0	0.0	0	0	0.0
20-24	0	0	0.0	2	1	0.1
25-29	0	0	0.0	8	6	0.2
30-34	0	0	0.0	29	22	0.6
35-39	0	0	1.4	78	60	1.3
40-44	1	1	2.6	139	116	1.9
45-49	1	0	1.1	197	180	2.1
50-54	1	1	0.6	218	241	1.9
55-59	2	2	1.4	195	258	1.6
60-64	1	2	0.8	174	251	1.2
65-69	2	4	1.1	170	255	0.9
70-74	3	7	1.3	161	259	0.7
75-79	2	5	0.8	130	267	0.6
80-84	1	5	0.7	90	261	0.5
>85	1	7	0.9	60	253	0.5
<b>all ages</b>	<b>14</b>	<b>1</b>	<b>1.0</b>	<b>1649</b>	<b>91</b>	<b>1.0</b>

Breast cancer in women was commonest in those aged 50 to 54, while the relative incidence was highest for those aged 45 to 49 (Table 10.2). Sporadic male cases were seen at all ages over 40, but most were in men aged 65 and over.

## 10.3. SUBSITES

A subsite was specified in over 80% of female breast cancers (Table 10.3). This was most often the upper outer quadrant of the breast (37% of cases). In 15%, the lesion extended over more than one subsite.

**Table 10.3. Subsites of female breast cancer**

DESCRIPTION	ICD SITE CODE	CASES	% OF TOTAL
nipple	C50.0	47	2.7%
central portion	C50.1	226	13.2%
upper inner quadrant	C50.2	176	10.3%
lower inner quadrant	C50.3	72	4.2%
upper outer quadrant	C50.4	628	36.6%
lower outer quadrant	C50.5	108	6.3%
maxillary tail	C50.6	11	0.6%
overlapping lesion	C50.8	249	14.5%
not specified	C50.9	198	11.5%
<b>all cancers</b>		<b>1715</b>	



## 10.4. GEOGRAPHICAL DISTRIBUTION.

### INTERNATIONAL

Female breast cancer incidence in Ireland ranked 12th of 23, below Scotland, England and Northern Ireland (Table 10.4). As the existence of a breast cancer screening programme can add over 10% to the incidence levels, these are not easily comparable between countries, such as Ireland, without such a programme in 1997, and most other Western European countries, which had a programme of some sort.

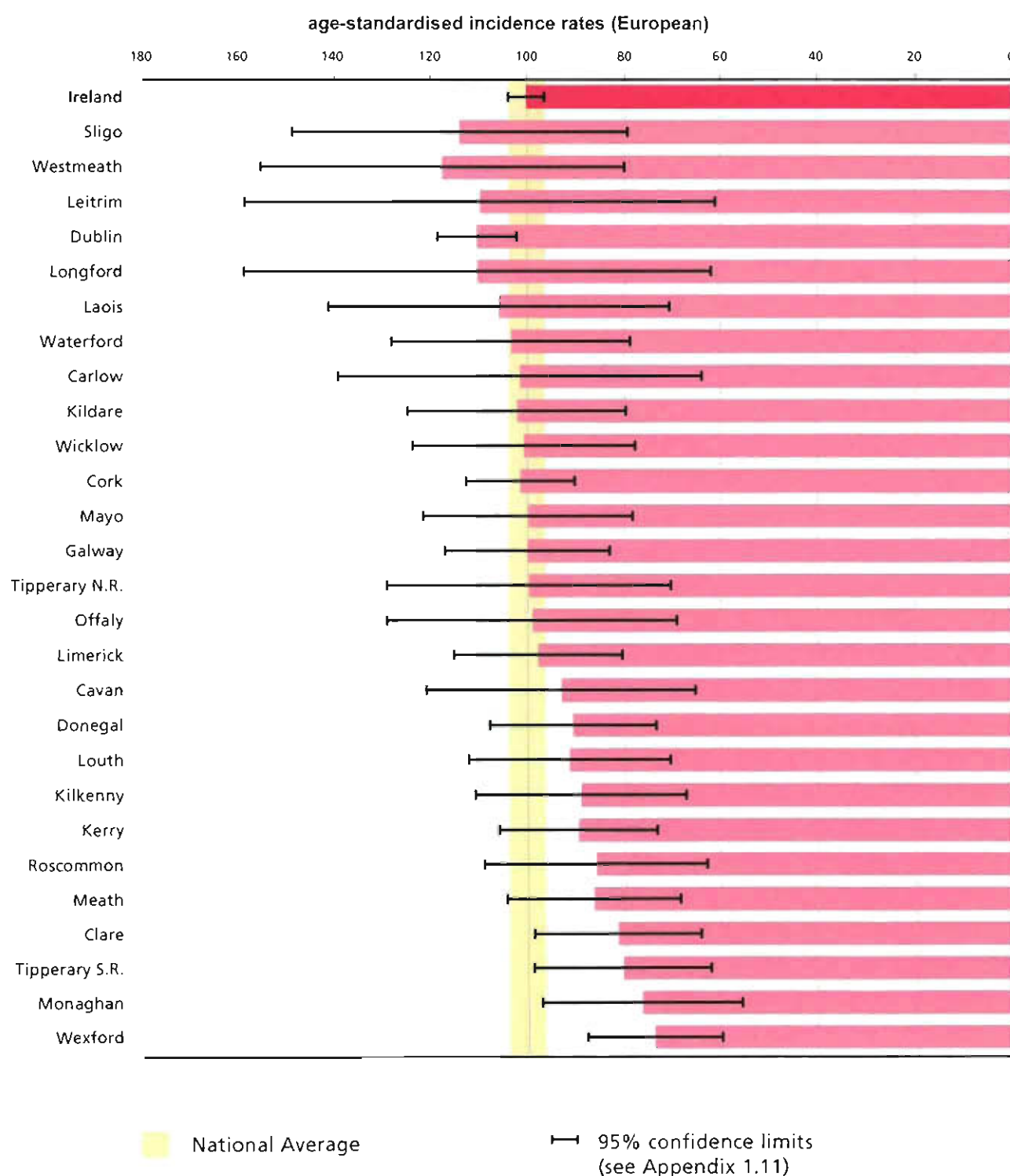
**Table 10.4. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: breast cancer (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Netherlands	0.7	18	112	1
Switzerland	0.7	15	111	2
Italy	1.4	3	110	4
Denmark	0.8	14	111	3
Scotland	0.7	16	108	5
N. Ireland	1.4	3	104	7
Sweden	0.6	20	104	6
Iceland	1.2	7	103	8
England	0.7	16	102	9
France	1.4	5	100	11
Finland	0.6	19	100	10
<b>Ireland (1994-1997)</b>	<b>0.9</b>	<b>9</b>	<b>95</b>	<b>12</b>
Germany	0.8	11	94	13
Spain	1.7	1	92	14
Malta	1.3	6	89	15
Norway	0.5	23	88	16
Austria	0.8	12	87	17
Czech Republic	0.9	10	74	18
Slovenia	1.5	2	68	19
Bulgaria	0.8	13	60	20
Slovakia	0.5	22	56	21
Estonia	0.6	21	54	22
Poland	1.0	8	47	23

**NATIONAL**

Figures for men are given for information, and are too few for inter-county comparison (Figure 10.1). Female breast cancer rates ranged from 117% of expected in Westmeath to 74% of expected in Wexford. Only in Wexford was the rate significantly different from expected.

**Figure 10.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: breast cancer**



## 10.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 10.5. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>1675</b>	<b>96.8%</b>
histology of primary	1618	93.5%
histology of other site	17	1.0%
cytology	40	2.3%
<b>clinical diagnosis</b>	<b>56</b>	<b>3.2%</b>
clinical	39	2.3%
radiology	12	0.7%
other/not known	5	0.3%
<b>all cancers</b>	<b>1731</b>	

Almost all cancers (97%) had tissue verification of the diagnosis (Table 10.5). Cytology was the sole basis of diagnosis in 2.3% of cases.

Almost  $\frac{2}{3}$  of cases (62%) were infiltrating duct carcinoma (Table 10.6). This proportion seems to be increasing. In situ duct carcinoma (DCIS) continues to make up about 3% of all cases. Other in situ carcinomas made up a further 2% of cases.

**Table 10.6. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
infiltrating duct carcinoma	8500/3	1081	62.4%	948	57.0%
lobular carcinoma, NOS	8520/3	175	10.1%	150	9.0%
carcinoma, NOS	8010/3	88	5.1%	111	6.7%
malignant neoplasm	8000/3	60	3.5%	75	4.5%
adenocarcinoma, NOS	8140/3	43	2.5%	50	3.0%
intraductal carcinoma, noninfiltrating, NOS	8500/2	50	2.9%	50	3.0%
infiltrating ductular carcinoma	8521/3	23	1.3%	42	2.5%
infiltrating duct and lobular carcinoma	8522/3	35	2.0%	40	2.4%
comedocarcinoma, NOS	8501/3	20	1.2%	29	1.7%
mucous adenocarcinoma	8480/3	26	1.5%	27	1.6%
tubular adenocarcinoma	8211/3	24	1.4%	21	1.2%
lobular carcinoma in situ	8520/2	18	1.0%	12	0.7%
scirrhous adenocarcinoma	8141/3	13	0.8%	10	0.6%
Paget's disease and infiltrating duct carcinoma of breast	8541/3	7	0.4%	10	0.6%
undifferentiated carcinoma, NOS	8020/3	0	0.0%	9	0.5%
medullary carcinoma, NOS	8510/3	8	0.5%	9	0.5%
all other types		60	3.5%	73	4.4%
<b>Behaviour</b>					
uncertain		10	0.6%	6	0.3%
in situ		84	4.9%	79	4.7%
invasive		1637	94.6%	1578	94.9%
<b>all cancers</b>		<b>1731</b>		<b>1663</b>	<b>100.0%</b>

## 10.6. STAGE

**Table 10.7. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	84	4.9%	79	4.7%
I	165	9.5%	168	10.2%
IIA	242	14.0%	234	14.1%
IIB	170	9.8%	172	10.4%
IIIA	57	3.3%	56	3.4%
IIIB	46	2.7%	40	2.4%
IV	106	6.1%	116	7.0%
not applicable	10	0.6%	6	0.3%
not staged	851	49.2%	793	47.6%
<b>all cancers</b>	<b>1731</b>		<b>1663</b>	

Summary stage data was available on a little over half of the cases (Table 10.7). Of those staged, the largest numbers were at stage 2a (14%) and 2b (10%).

**Table 10.9. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	84	4.9%	0	0.0%	0	0.0%
T1	N0	165	9.5%	2	0.1%	124	7.2%
	N1	77	4.4%	2	0.1%	57	3.3%
	N2	2	0.1%	1	0.1%	3	0.2%
	N3	4	0.2%	0	0.0%	2	0.1%
	not staged	18	1.0%	5	0.3%	47	2.7%
T2	N0	165	9.5%	2	0.1%	115	6.6%
	N1	148	8.5%	8	0.5%	131	7.6%
	N2	8	0.5%	1	0.1%	12	0.7%
	N3	8	0.5%	2	0.1%	4	0.2%
	not staged	23	1.3%	5	0.3%	53	3.1%
T3	N0	22	1.3%	1	0.1%	19	1.1%
	N1	47	2.7%	4	0.2%	37	2.1%
	N2	0	0.0%	5	0.3%	3	0.2%
	N3	1	0.1%	0	0.0%	0	0.0%
	not staged	8	0.5%	3	0.2%	16	0.9%
T4	N0	9	0.5%	4	0.2%	14	0.8%
	N1	21	1.2%	14	0.8%	26	1.5%
	N2	1	0.1%	13	0.8%	11	0.6%
	N3	2	0.1%	1	0.1%	2	0.1%
	not staged	4	0.2%	13	0.8%	19	1.1%
not staged	N0	6	0.3%	3	0.2%	6	0.3%
	N1	6	0.3%	2	0.1%	10	0.6%
	N2	0	0.0%	0	0.0%	3	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	4	0.2%	15	0.9%	68	3.9%
all T	all N	833	48.1%	106	6.1%	782	45.2%
not applicable		10					
<b>all cancers</b>		<b>1731</b>					

**Table 10.8. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	451	26.1%
regional	382	22.1%
distant	106	6.1%
not applicable	10	0.6%
not known	782	45.2%
<b>all cancers</b>	<b>1731</b>	

Data on extent of disease were available for 55% of cases (Table 10.8). Almost half of these were local.

The most frequent TNM stages were T1 N0 M0 and T2 N0 M0, both 9.5% of the total (Table 10.9). Most of the missing stage information was for metastases, as 45% of cases had no information on M stage, either clinical or pathological, while T stage was missing in only 7% of cases and N stage in 17%. Failure to record the metastatic status of the tumour in patients' notes is therefore leading to the loss of much valuable staging data.



## 10.7. TREATMENT

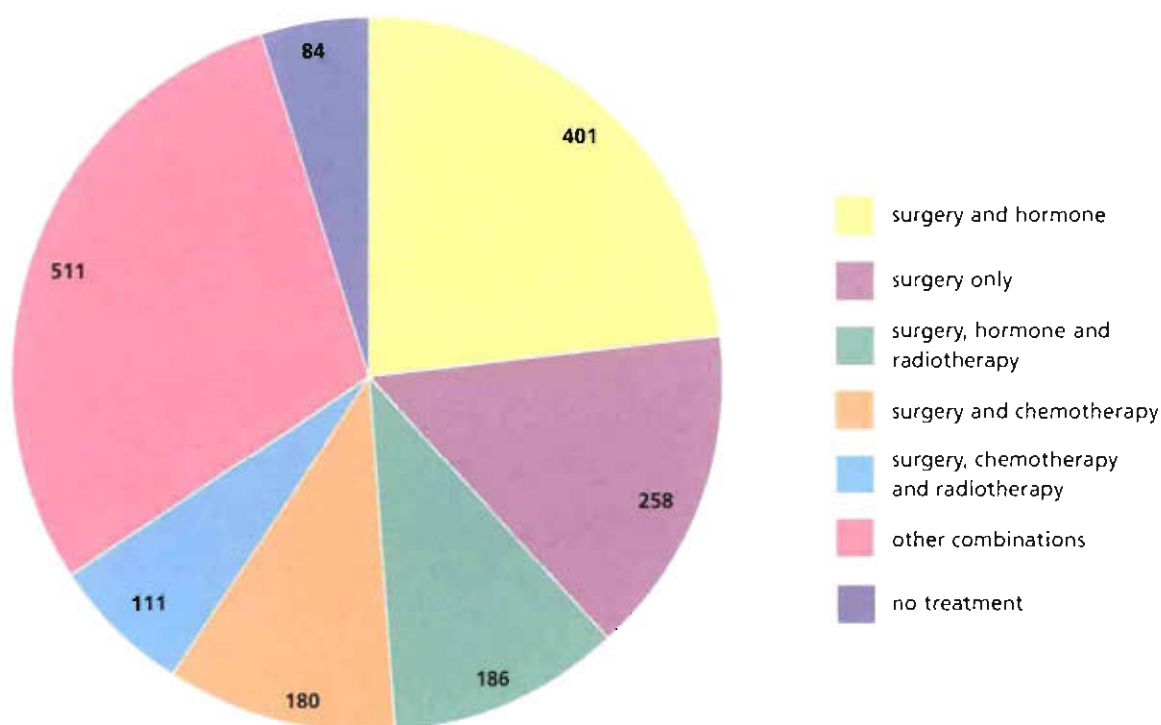
Most cancers (84%) were surgically removed and this removal was usually accompanied by adjuvant treatment (Table 10.10). The commonest combinations were of surgery with hormone therapy (23%), with hormone and radiotherapy (11%) and with chemotherapy (10%) (Figure 10.2).

**Table 10.10. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	1450	83.8%	82.4%	81.7%	83.1%
chemotherapy	524	30.3%	29.0%	76.1%	71.1%
hormone	907	52.4%	54.3%		
radiotherapy	544	31.4%	33.4%	31.4%	31.6%
other treatment	107	6.2%	6.9%	6.2%	23.7%
all cases treated	1647	95.1%	95.3%	95.1%	96.5%
no treatment	84	4.9%	4.7%	4.9%	3.5%
<b>all cases</b>	<b>1731</b>	<b>1731</b>	<b>1706</b>	<b>1604</b>	<b>1609</b>

**Figure 10.2. Frequent treatment combinations**

*Note: numbers indicated refer to the number of cases treated*



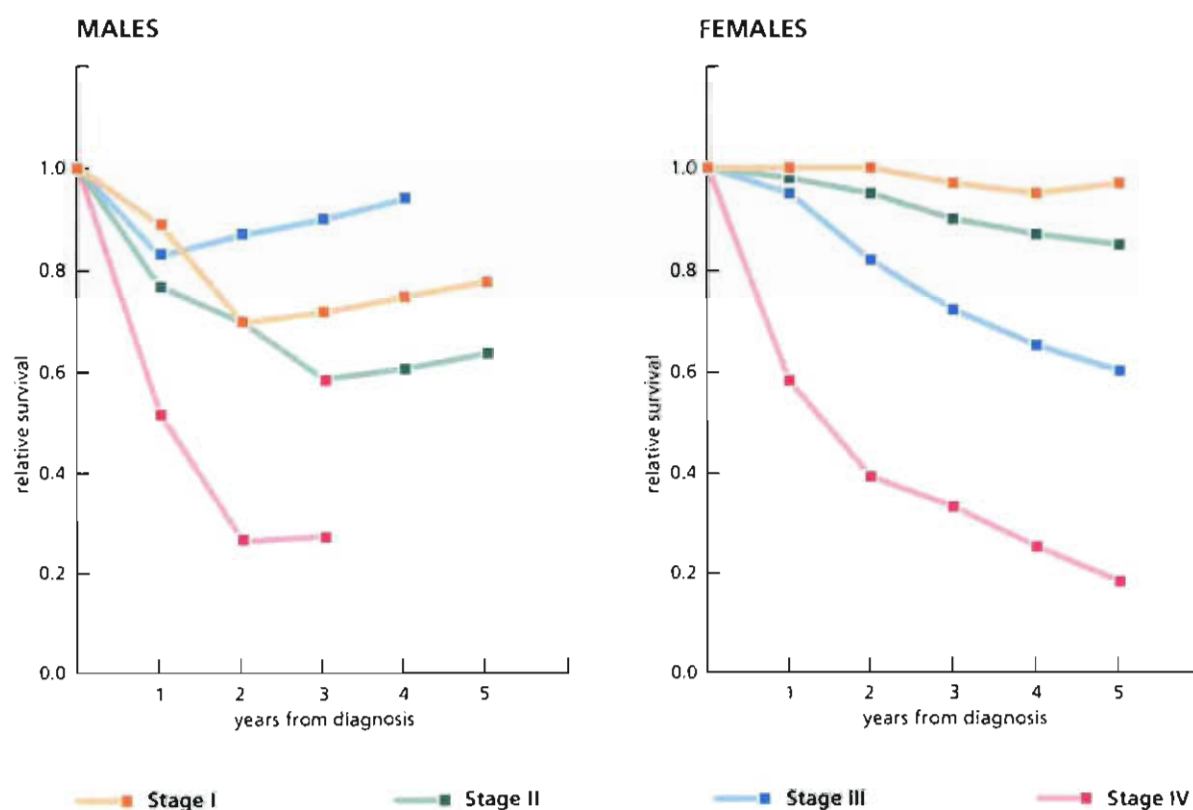
## 10.8. SURVIVAL

Overall survival at five years was  $56\% \pm 27\%$  for men and  $78\% \pm 2\%$  for women (Table 10.11). Five-year survival for stage I female cases was  $97\% \pm 4\%$ , while survival for stage IV cases was  $18\% \pm 7\%$  (Figure 10.3).

**Table 10.11. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

sex	stage	cases	YEARS FROM DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	0	1	1.03	0.00	1.10	0.00	1.20	0.00
	I	7	0.89	0.27	0.72	0.40	0.78	0.40
	II	12	0.77	0.25	0.59	0.32	0.64	0.32
	III	5	0.83	0.36	0.90	0.37		
	IV	4	0.52	0.51	0.28	0.44		
	X	21	0.97	0.13	0.70	0.26	0.76	0.26
	<b>all</b>	<b>50</b>	<b>0.86</b>	<b>0.11</b>	<b>0.66</b>	<b>0.16</b>	<b>0.56</b>	<b>0.27</b>
females	0	294	1.00	0.01	1.01	0.02	1.00	0.06
	I	637	1.00	0.01	0.97	0.02	0.97	0.04
	II	1567	0.98	0.01	0.90	0.02	0.85	0.03
	III	367	0.95	0.03	0.72	0.06	0.60	0.09
	IV	444	0.58	0.05	0.33	0.05	0.18	0.07
	X	3029	0.94	0.01	0.85	0.02	0.79	0.03
	<b>all</b>	<b>6338</b>	<b>0.93</b>	<b>0.01</b>	<b>0.84</b>	<b>0.01</b>	<b>0.78</b>	<b>0.02</b>

**Figure 10.3. Relative survival by stage for cases diagnosed from 1994 to 1997**



## 11.1. INTRODUCTION AND SUMMARY

Lung cancer incidence and mortality were almost the same, with an overall mortality/incidence ratio of 91.3% or a survival of only 8.7% (Table 11.1). For the first time since registration of lung cancers began, the number of cases exceeded that of deaths. This may reflect more accurate certification of deaths or the continuing decline in lung cancer mortality. Incidence in males shows a definite downward trend of almost 5% per year. Female rates have increased by 0.4% per year since 1994, but this trend is not statistically significant.

**Table 11.1. Summary of incidence and mortality statistics: lung cancer**

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C34)</b>						
1997 cases	909	511	1420	890	498	1388
% of all cancers	8.6%	4.7%	6.6%	22.2%	14.1%	18.4%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	50.2	27.8	38.9	49.2	27.1	38.1
World age-standardised rate	39.2	18.1		37.1	16.2	
European age-standardised rate	58.7	26.8		56.6	24.8	
cumulative risk (0-74)	4.8%	2.3%		4.5%	2.0%	
mortality/incidence ratio	0.979	0.975	0.977			
<b>Time trends (all cancers)</b>						
1994 cases	1048	496	1544	1029	519	1548
1995 cases	947	486	1433	1031	536	1567
1996 cases	963	495	1458	958	506	1464
1997 cases	909	511	1420	888	497	1385
1994-1997 average	967	497	1464	977	515	1491
annual % change 1994-97	-4.9%	+0.4%	-3.3%	-5.7%	-4.1%	-5.3%
95% confidence limits of trend	(-7.9%; -1.7%)	(-2.1%; 3.0%)	(-6.2%; -0.4%)	(-7.7%; -3.6%)	(-6.2%; -1.9%)	(-7.1%; -3.5%)
<b>Invasive cancers only (ICD-10 C34)</b>						
1997 cases	908	509	1417	888	497	1385
% of all invasive cancers	9.2%	5.8%	7.6%	22.3%	14.2%	18.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	50.2	27.7	38.9	49.1	27.1	38.0
World age-standardised rate	39.1	18.0		37.0	16.1	
European age-standardised rate	58.6	26.6		56.5	24.7	
cumulative risk (0-74)	4.8%	2.3%		4.5%	2.0%	
mortality/incidence ratio	0.978	0.976	0.977			

## 11.2. AGE AND SEX PROFILE

**Table 11.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for lung cancers, 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	0	0	0.1	1	0	0.3
20-24	0	0	0.1	1	1	0.1
25-29	0	0	0.0	0	0	0.0
30-34	1	1	0.1	0	0	0.0
35-39	3	3	0.3	2	2	0.1
40-44	10	8	0.5	9	7	0.4
45-49	19	17	0.6	9	8	0.3
50-54	56	60	1.0	24	26	0.7
55-59	80	104	1.1	29	39	0.8
60-64	128	187	1.2	54	78	1.2
65-69	191	316	1.3	85	126	1.5
70-74	201	402	1.2	106	171	1.6
75-79	150	426	1.0	99	202	1.6
80-84	91	435	0.9	57	165	1.1
>85	37	353	0.6	23	98	0.7
<b>all ages</b>	<b>967</b>	<b>54</b>	<b>1.0</b>	<b>497</b>	<b>27</b>	<b>1.0</b>

The largest number of cases in both men and women was in the 70 to 74 year age group, while the largest relative incidence rates were in the 65 to 69 and 70 to 79 year old populations, respectively (Table 11.2).

## 11.3. SUBSITES

Most cancers were assigned to a specific anatomical subsite within the lung (Table 11.3). Most of these (47%) were in the upper lobe.

**Table 11.3. Subsites of lung cancer**

	ICD-O-2 code	MALES		FEMALES	
		cases	% of total	cases	% of total
main bronchus	C34.0	127	14.0%	71	13.9%
upper lobe	C34.1	424	46.6%	241	47.2%
middle lobe	C34.2	49	5.4%	27	5.3%
lower lobe	C34.3	185	20.4%	106	20.7%
overlapping lesion	C34.8	25	2.8%	12	2.3%
lung NOS	C34.9	99	10.9%	54	10.6%
<b>all cancers</b>		<b>909</b>		<b>511</b>	



## 11.4. GEOGRAPHICAL DISTRIBUTION

### INTERNATIONAL

Male lung cancer incidence in Ireland is quite low by international standards, being 18th of the 23 listed here (Table 11.4). On the other hand, female lung cancer incidence was the sixth highest, although lower than that in Northern Ireland, Scotland and England.

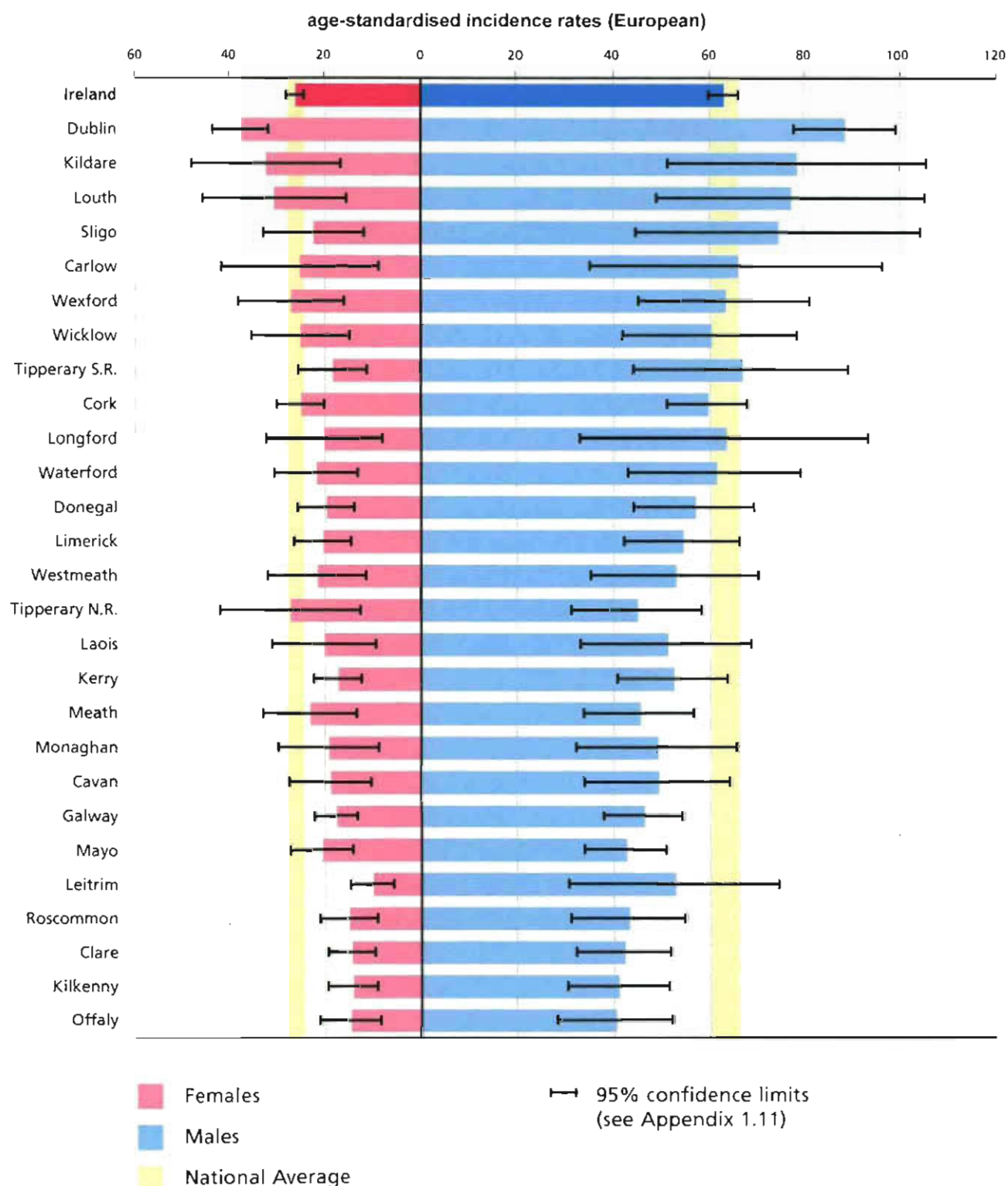
**Table 11.4. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: lung cancer (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age standardised rate	rank
Scotland	107	2	51	1
Netherlands	96	7	26	7
Estonia	110	1	12	18
Czech Republic	102	5	18	14
Poland	105	3	14	16
Italy	94	8	20	11
Slovakia	103	4	11	19
Denmark	70	13	41	3
Slovenia	97	6	14	15
Germany	88	9	21	9
Iceland	56	21	50	2
N. Ireland	73	11	33	4
Switzerland	72	12	21	10
England	61	19	27	5
Austria	70	14	18	13
<b>Ireland (1994-1997)</b>	<b>63</b>	<b>18</b>	<b>27</b>	<b>6</b>
Malta	76	10	8	22
Finland	65	16	12	17
Spain	70	15	7	23
Norway	52	22	22	8
France	64	17	9	20
Bulgaria	59	20	8	21
Sweden	31	23	18	12

**NATIONAL**

Lung cancer incidence for both males and females was significantly above expected in Dublin (Figure 11.1). The incidence of lung cancer varied from 141% of expected for men in Dublin to 64% in Offaly and from 144% of expected for women in Dublin to 39% in Leitrim. The large number of cases and high rates in Dublin have a strong effect in pushing the national rates upward and this accounts for the number of counties where rates appear to be significantly low.

**Figure 11.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: lung cancer**



## 11.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 11.5. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>1091</b>	<b>76.8%</b>
histology of primary	850	59.9%
histology of other site	56	3.9%
cytology	185	13.0%
<b>clinical diagnosis</b>	<b>329</b>	<b>23.2%</b>
clinical	37	2.6%
radiology	276	19.4%
post-mortem	6	0.4%
other/not known	10	0.7%
<b>all cancers</b>	<b>1420</b>	

A much lower number of lung cancers was histologically verified than for the other common cancers (Table 11.5). Only 60% had a biopsy of the primary while another 13% were confirmed as malignant by cytology.

One result of the low level of verification is the large number of cancers described only as "malignant neoplasm" (Table 11.6). The most frequent histological type was squamous cell carcinoma (27%), followed by small cell types (13.8%). In situ carcinomas were very rare.

**Table 11.6. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
malignant neoplasm	8000/3	446	31.4%	439	30.0%
squamous cell carcinoma, NOS	8070/3	386	27.2%	421	28.8%
adenocarcinoma, NOS	8140/3	186	13.1%	170	11.6%
small cell carcinoma, NOS	8041/3	146	10.3%	125	8.6%
carcinoma, NOS	8010/3	41	2.9%	72	4.9%
oat cell carcinoma	8042/3	58	4.1%	71	4.8%
large cell carcinoma, NOS	8012/3	38	2.7%	51	3.5%
squamous cell carcinoma large cell, keratinizing	8071/3	52	3.7%	39	2.7%
bronchiolo-alveolar adenocarcinoma	8250/3	13	0.9%	15	1.0%
carcinoid tumour, NOS	8240/3	8	0.6%	9	0.6%
mucin-secreting adenocarcinoma	8481/3	3	0.2%	7	0.5%
adenosquamous carcinoma	8560/3	5	0.4%	5	0.3%
small cell carcinoma intermediate cell	8044/3	6	0.4%	5	0.3%
papillary adenocarcinoma, NOS	8260/3	4	0.3%	5	0.3%
squamous cell carcinoma in situ, NOS	8070/2	3	0.2%	4	0.3%
undifferentiated carcinoma, NOS	8020/3	0	0.0%	4	0.2%
all other types		25	1.8%	24	1.7%
<b>Behaviour</b>					
in situ		4	0.3%	5	0.4%
invasive		1416	99.7%	1459	99.6%
<b>all cancers</b>		<b>1420</b>		<b>1464</b>	<b>100.0%</b>

11.6. STAGE

Table 11.7. Summary stage

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	4	0.3%	5	0.3%
I	56	3.9%	69	4.7%
II	20	1.4%	27	1.8%
IIIA	44	3.1%	36	2.5%
IIIB	31	2.2%	26	1.8%
IV	370	26.1%	359	24.5%
not staged	895	63.0%	942	64.3%
all cancers	1420		1464	

Staging information was also less complete for lung cancers and a full summary stage could be assigned to only 37% (Table 11.7). Most of those staged were advanced (Stage 4).

Table 11.8. Extent of disease

EXTENT OF DISEASE	CASES	% OF TOTAL
local	93	6.5%
regional	156	11.0%
distant	370	26.1%
not known	801	56.4%
all cancers	1420	

Extent of disease data could be inferred for 44% of cases, of which the majority had distant spread (Table 11.8).

There was a wide spread of TNM stage (Table 11.9). Of the fully staged cases, the commonest TNM combination was T2 N0 M0 (41 cases; 3%).

Table 11.9. TNM stage

		M0		M1		NOT STAGED	
T stage	N stage	cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	4	0.3%	0	0.0%	0	0.0%
T1	N0	15	1.1%	1	0.1%	17	1.2%
	N1	4	0.3%	6	0.4%	7	0.5%
	N2	3	0.2%	2	0.1%	2	0.1%
	N3	0	0.0%	0	0.0%	3	0.2%
	not staged	8	0.6%	17	1.2%	20	1.4%
T2	N0	41	2.9%	12	0.8%	49	3.5%
	N1	16	1.1%	11	0.8%	36	2.5%
	N2	10	0.7%	14	1.0%	37	2.6%
	N3	8	0.6%	4	0.3%	7	0.5%
	not staged	20	1.4%	30	2.1%	53	3.7%
T3	N0	10	0.7%	4	0.3%	10	0.7%
	N1	4	0.3%	8	0.6%	13	0.9%
	N2	17	1.2%	8	0.6%	8	0.6%
	N3	1	0.1%	6	0.4%	3	0.2%
	not staged	8	0.6%	19	1.3%	40	2.8%
T4	N0	10	0.7%	4	0.3%	6	0.4%
	N1	5	0.4%	8	0.6%	5	0.4%
	N2	6	0.4%	14	1.0%	17	1.2%
	N3	1	0.1%	12	0.8%	6	0.4%
	not staged	17	1.2%	37	2.6%	78	5.5%
not staged	N0	13	0.9%	4	0.3%	7	0.5%
	N1	1	0.1%	7	0.5%	12	0.8%
	N2	8	0.6%	18	1.3%	6	0.4%
	N3	0	0.0%	3	0.2%	10	0.7%
	not staged	19	1.3%	121	8.5%	349	24.6%
all T	all N	249	17.8%	370	26.1%	801	56.3%
all cancers		1420					



## 11.7. TREATMENT

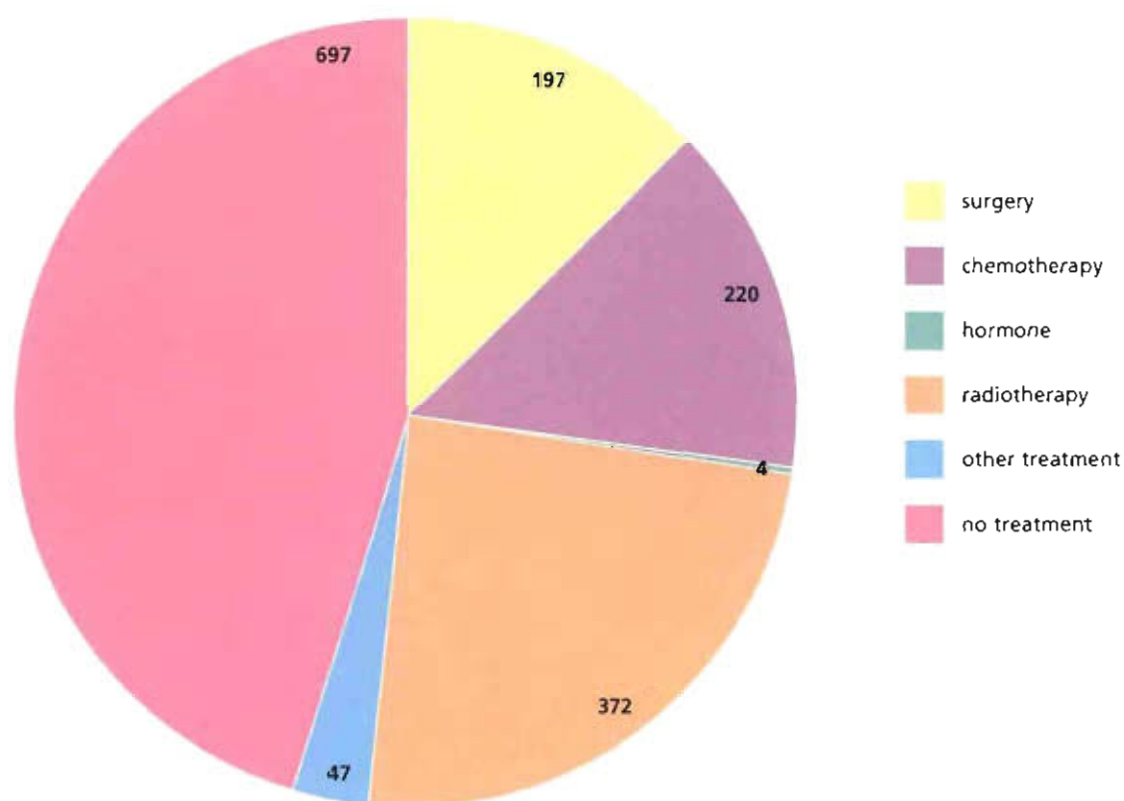
As would be expected from the low level of histological verification and staging, many lung cancers were not surgically removed, only 14% altogether having surgery (Table 11.10). Radiotherapy was the commonest treatment modality (26%) of cases, and most of these (76%) were not registered as having any other form of therapy. Combination therapy was quite uncommon (Figure 11.2), most patients having either radiotherapy, surgery or chemotherapy as the sole treatment. The role of surgery appears to be decreasing since 1994, while both radiotherapy and chemotherapy are becoming more common.

**Table 11.10. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	197	13.9%	15.3%	16.3%	17.2%
chemotherapy	220	15.5%	13.4%	14.4%	11.6%
hormone	4	0.3%	0.2%		
radiotherapy	372	26.2%	25.2%	26.2%	24.6%
other treatment	47	3.3%	4.4%	3.3%	35.6%
all cases treated	723	50.9%	48.8%	50.9%	63.9%
no treatment	697	49.1%	51.2%	49.1%	36.1%
<b>all cases</b>	<b>1420</b>	<b>1420</b>	<b>1458</b>	<b>1433</b>	<b>1544</b>

**Figure 11.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



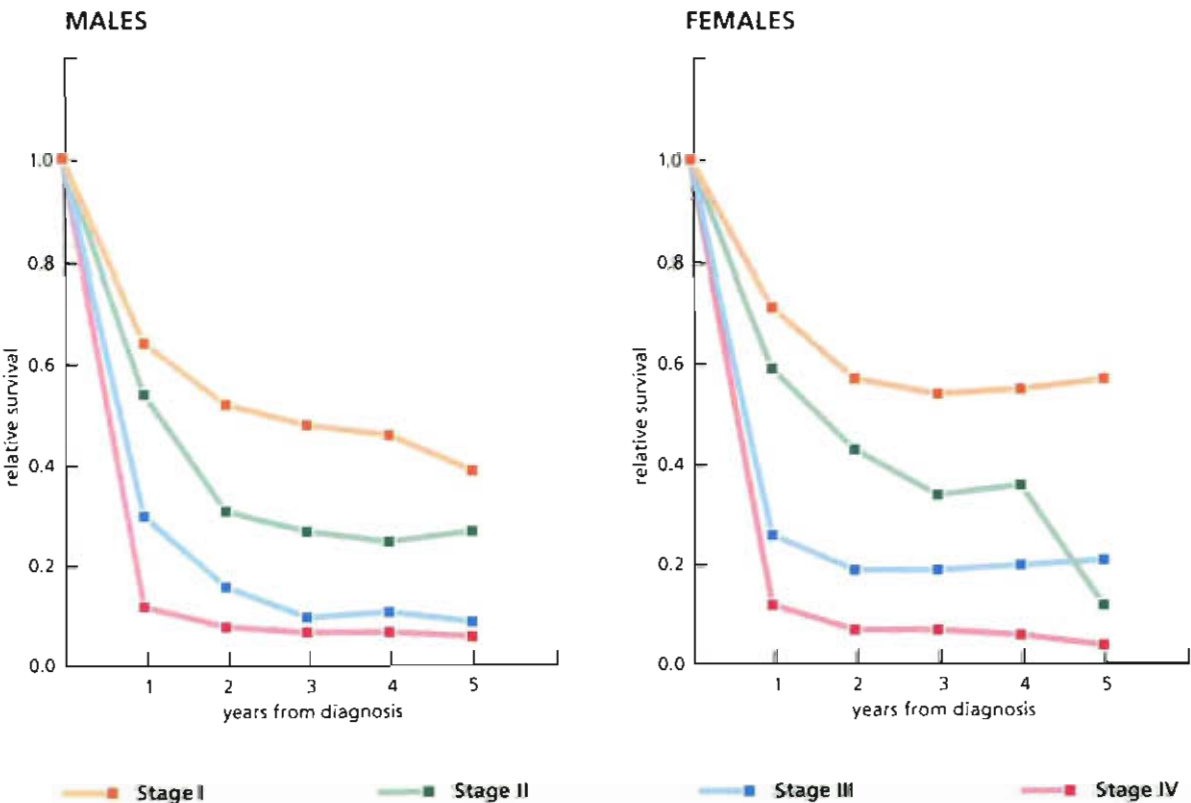
11.8. SURVIVAL

Overall survival at five years was 13%±1% for men and 14%±2% for women (Table 11.11). Five-year survival for stage I cases was 39%±12% for men and 57%±13% for women, while survival for stage IV cases was 6%±2% for men and 4%±3% for women (Figure 11.3).

Table 11.11. One to five year relative survival (± 95% confidence limits) for cancers diagnosed from 1994 to 1997

			YEARS SINCE DIAGNOSIS					
			1		3		5	
sex	stage	cases	survival	95% confidence limits (±)	survival	95% confidence limits (±)	survival	95% confidence limits (±)
males	0	13	0.58	0.29	0.20	0.24	0.21	0.24
	I	185	0.64	0.07	0.48	0.08	0.39	0.12
	II	66	0.54	0.13	0.27	0.12	0.27	0.12
	III	162	0.30	0.07	0.10	0.05	0.09	0.06
	IV	930	0.12	0.02	0.07	0.02	0.06	0.02
	X	2361	0.28	0.02	0.14	0.01	0.13	0.02
	all	3717	0.26	0.01	0.14	0.01	0.13	0.01
females	0	5	0.62	0.45	0.67	0.45		
	I	74	0.71	0.11	0.54	0.12	0.57	0.13
	II	35	0.59	0.17	0.34	0.18	0.12	0.25
	III	74	0.26	0.10	0.19	0.09	0.21	0.09
	IV	475	0.12	0.03	0.07	0.02	0.04	0.03
	X	1266	0.28	0.03	0.17	0.02	0.15	0.03
	all	1929	0.27	0.02	0.16	0.02	0.14	0.02

Figure 11.3. Relative survival by stage for cases diagnosed from 1994 to 1997



## 12.1. INTRODUCTION AND SUMMARY

The registration and classification of cancer of the cervix is more difficult than that of other cancers, as the majority of cancers of the cervix are very early lesions detected because of screening. Opinions differ on whether these lesions are cancerous or pre-cancerous, and on their likelihood of progressing, without treatment, to invasive cancer. The National Cancer Registry's policy is to register all cancers of the cervix, including CIN III, regardless of type, if they have been verified by histology. However, the lesions registered as "in situ" below would not be registered as "cancer" by the majority of cancer registries and are not included in international comparisons.

Invasive cancers of the cervix make up only a small proportion of female cancers (1.8%) (Table 12.1). Mortality for invasive cancers is about 50%. There has been a small and statistically insignificant increase in all cancers (including in situ) since 1994.

**Table 12.1. Summary of incidence and mortality statistics: cervical cancer**

	INCIDENT CASES	DEATHS
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C53)</b>		
1997 cases	965	82
% of all cancers (female)	8.8%	2.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>		
crude rate	52.5	4.5
World age-standardised rate	49.1	3.4
European age-standardised rate	53.1	4.6
cumulative risk (0-74)	3.8%	0.4%
mortality/incidence ratio	0.085	
<b>Time trends (all cancers)</b>		
1994 cases	902	60
1995 cases	826	72
1996 cases	1017	82
1997 cases	965	82
1994-1997 average	928	74
annual % change 1994-97	+2.5%	+9.1%
95% confidence limits of trend	(-5.5%; 11.2%)	(0.9%; 17.9%)
<b>Invasive cancers only (ICD-10 C53)</b>		
1997 cases	159	82
% of all invasive cancers (female)	1.8%	2.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>		
crude rate	8.7	4.5
World age-standardised rate	7.6	3.4
European age-standardised rate	9.5	4.6
cumulative risk (0-74)	0.8%	0.4%
mortality/incidence ratio	0.516	

## 12.2. AGE AND SEX PROFILE

**Table 12.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for cervical cancers, 1994 to 1997**

	ALL CASES (INCLUDING IN SITU)			INVASIVE CASES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	5	3	1.4	0	0	0.0
20-24	73	52	6.8	1	1	0.5
25-29	179	138	8.2	4	3	1.1
30-34	199	150	7.1	18	14	3.5
35-39	168	130	4.9	26	20	4.1
40-44	117	98	2.8	32	27	4.1
45-49	81	74	1.6	24	22	2.4
50-54	36	40	0.6	16	18	1.4
55-59	22	29	0.3	12	16	0.9
60-64	15	22	0.2	10	14	0.7
65-69	12	18	0.1	10	15	0.5
70-74	10	16	0.1	9	15	0.4
75-79	7	13	0.1	5	10	0.2
80-84	3	10	0.0	3	10	0.2
>85	2	8	0.0	2	7	0.1
<b>all ages</b>	<b>928</b>	<b>50.9</b>	<b>1.0</b>	<b>173</b>	<b>9.5</b>	<b>1.0</b>

Including in situ types, cervical cancers were most common in women aged 30 to 34 and invasive cancers in those aged 40 to 44 (Table 12.2). The highest relative age-specific rate for all cancers was in the 25 to 29 year age group while the highest rate for invasive cancers was in the 40 to 44 year age group.

## 12.3. SUBSITES

A site other than cervix, NOS, was given for only four cancers.



## 12.4. GEOGRAPHICAL DISTRIBUTION

### INTERNATIONAL

Invasive cervical cancer in Ireland was relatively uncommon, ranking 15th of 23 and quite close to the incidence in England and Northern Ireland (Table 12.3).

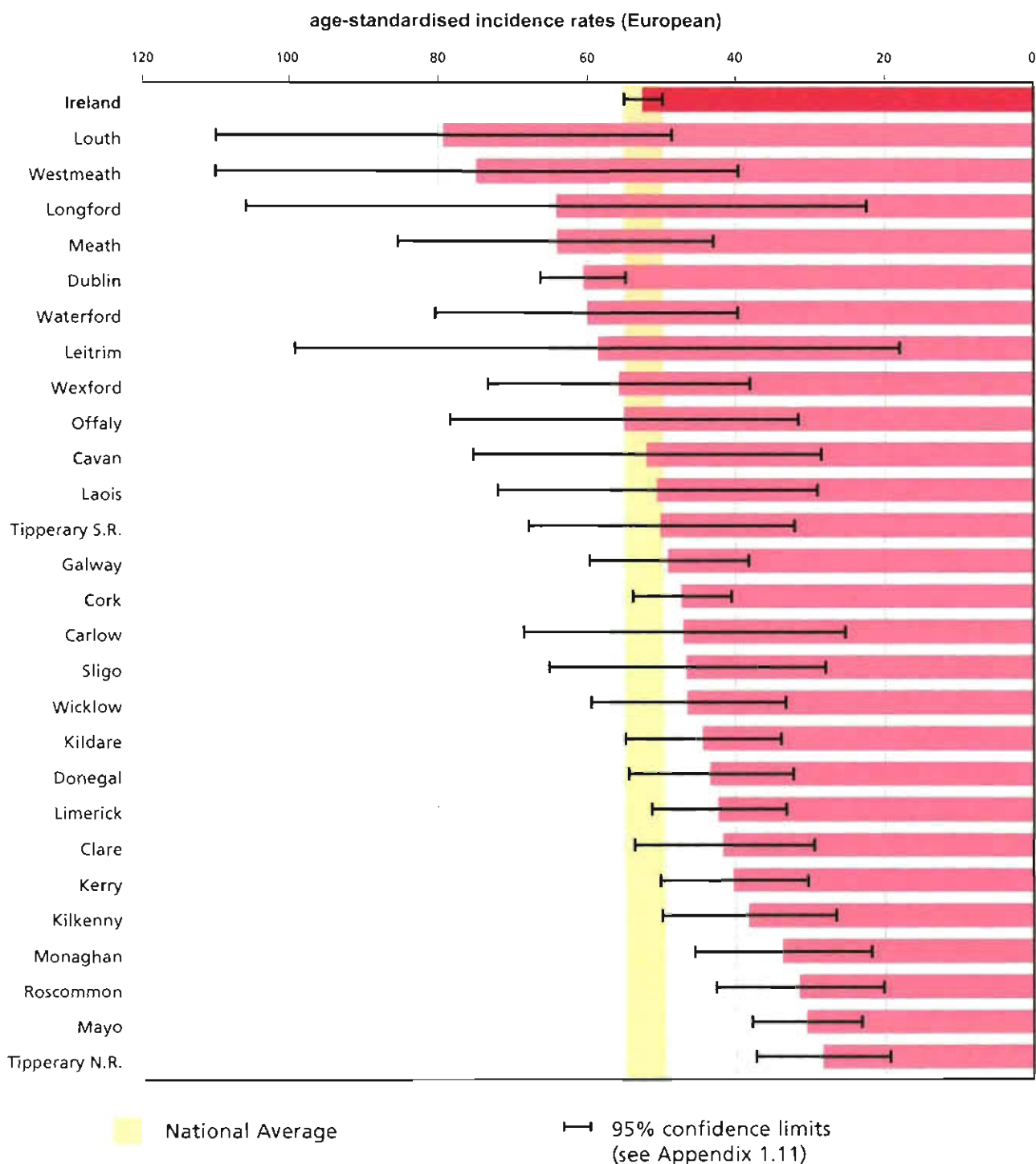
**Table 12.3. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: cervical cancer (invasive cases only)**

	AGE-STANDARDISED RATE	RANK
Slovakia	22.1	1
Czech Republic	20.8	2
Slovenia	19.7	3
Estonia	18.8	4
Poland	18.4	5
Bulgaria	18.1	6
Denmark	17.5	7
Norway	15.5	8
Germany	12.8	9
Austria	12.8	10
France	11.9	11
Scotland	11.8	12
Italy	11.3	13
Spain	10.6	14
<b>Ireland (1994-1997)</b>	<b>10.4</b>	<b>15</b>
England	10.2	16
N. Ireland	9.7	17
Sweden	9.4	18
Netherlands	9.0	19
Malta	8.9	20
Iceland	8.9	21
Finland	5.8	22
Switzerland	5.3	23

**NATIONAL**

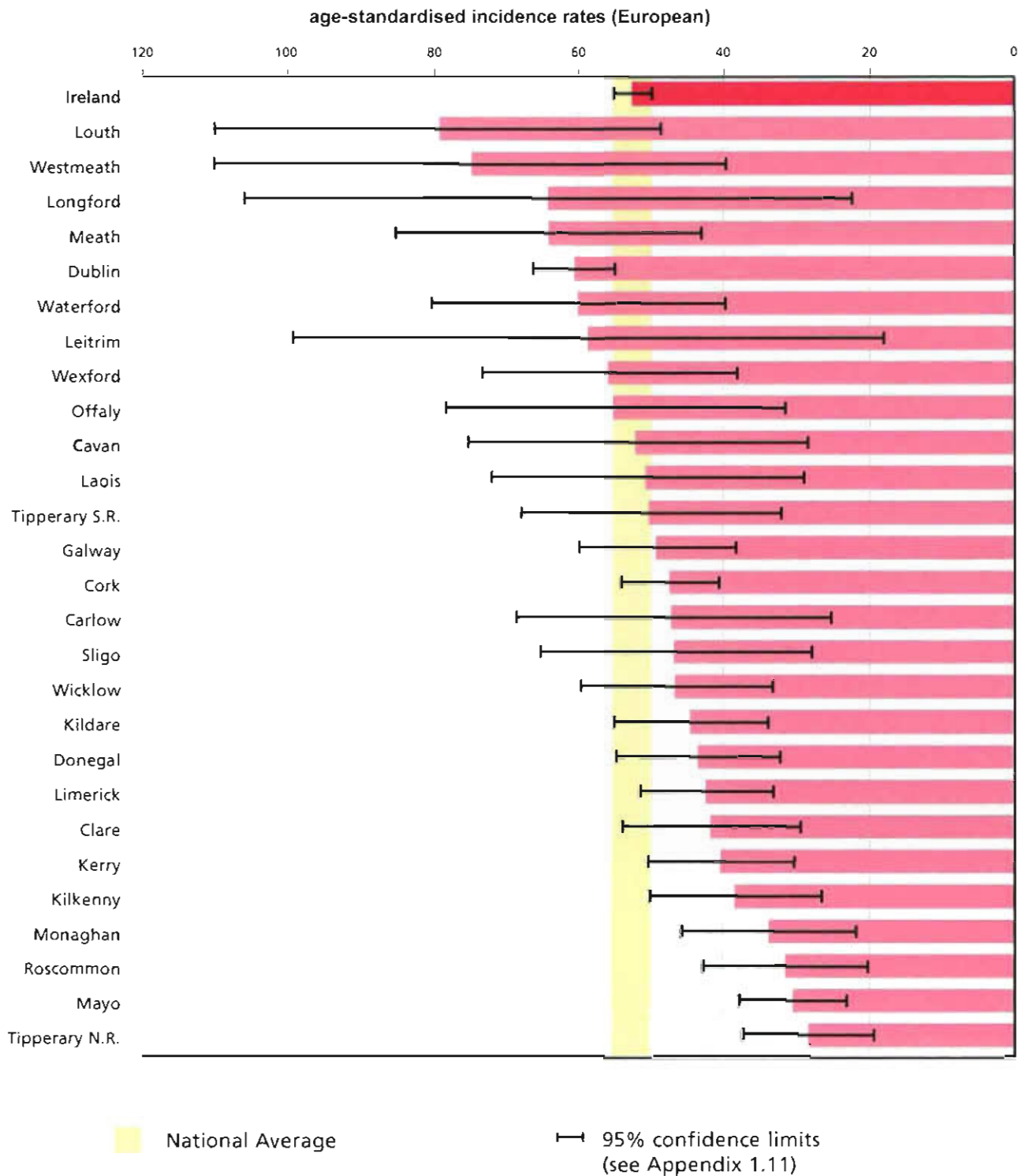
The incidence of all cervical cancers (including in situ) varied from 151% of expected in Louth to 54% in Tipperary North (Figure 12.1). The incidence rate was significantly above expected in Dublin. Almost all of the cancers in the Table 12.4 are in situ, and the main determining factor in the incidence of in situ cervical cancer is the level of cervical screening, incidence being high in areas where screening is active.

**Figure 12.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: cancer of the uterine cervix**



The numbers of invasive cancers were too small to allow for any meaningful comparison between counties (Figure 12.2).

**Figure 12.2. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: invasive cases only**



## 12.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

All in situ cases, and all but 2 invasive cases were diagnosed by histology (Table 12.4).

**Table 12.4. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL	CASES	% OF TOTAL
	in situ cases		invasive cases	
<b>tissue diagnosis</b>	<b>806</b>		<b>157</b>	<b>98.7%</b>
histology of primary	805	99.9%	153	96.2%
histology of other site	1	0.1%	4	2.5%
<b>clinical diagnosis</b>	<b>0</b>	<b>0.0%</b>	<b>2</b>	<b>1.3%</b>
clinical	0	0.0%	2	1.3%
<b>all cancers</b>	<b>806</b>		<b>159</b>	

Most of the cancers were described as CIN III (Table 12.5). The next largest category was invasive squamous cell carcinoma.

**Table 12.5. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
cervical intraepithelial neoplasia, grade III	8077/2	788	81.7%	730	78.7%
squamous cell carcinoma, NOS	8070/3	96	9.9%	98	10.6%
squamous cell carcinoma large cell, keratinizing	8071/3	9	0.9%	16	1.7%
adenocarcinoma, NOS	8140/3	12	1.2%	14	1.5%
squamous cell carcinoma in situ, NOS	8070/2	12	1.2%	13	1.4%
squamous cell carcinoma microinvasive	8076/3	7	0.7%	10	1.1%
carcinoma in situ, NOS	8010/2	4	0.4%	9	0.9%
squamous cell carcinoma nonkeratinizing, NOS	8072/3	10	1.0%	8	0.9%
adenosquamous carcinoma	8560/3	1	0.1%	6	0.7%
carcinoma, NOS	8010/3	5	0.5%	5	0.5%
papillary adenocarcinoma, NOS	8260/3	8	0.8%	4	0.5%
adenocarcinoma in situ, NOS	8140/2	2	0.2%	3	0.3%
malignant neoplasm	8000/3	3	0.3%	3	0.3%
mucin-secreting adenocarcinoma	8481/3	1	0.1%	3	0.3%
clear cell adenocarcinoma, NOS	8310/3	1	0.1%	2	0.2%
mucous adenocarcinoma	8480/3	2	0.2%	1	0.1%
all other types		4	0.4%	4	0.5%
<b>Behaviour</b>					
in situ		806	83.5%	754	81.3%
invasive		159	16.5%	173	18.6%
<b>all cancers</b>		<b>965</b>		<b>928</b>	<b>100.0%</b>



## 12.6. STAGE

**Table 12.6. Summary stage**

	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	806	83.5%	754	81.3%
IA	19	2.0%	20	2.1%
IB	10	1.0%	17	1.8%
IIA	5	0.5%	7	0.7%
IIB	3	0.3%	2	0.2%
IIIA	0	0.0%	1	0.1%
IIIB	4	0.4%	10	1.1%
IVA	0	0.0%	0	0.0%
IVB	9	0.9%	8	0.8%
not staged	109	11.3%	108	11.6%
not applicable	0	0.0%	1	0.1%

Most cases were in situ. Of the staged invasive cancers, most were at stage 1A or 1B (Table 12.6).

Apart from the Tis cancers, the commonest TNM stage was T1 N0 M0 with 29 cases (3%) (Table 12.8).

**Table 12.8. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	806	83.5%	0	0.0%	0	0.0%
T1	N0	29	3.0%	1	0.1%	12	1.2%
	N1	1	0.1%	0	0.0%	12	1.2%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	0	0.0%	1	0.1%	15	1.6%
T2	N0	8	0.8%	0	0.0%	4	0.4%
	N1	1	0.1%	0	0.0%	3	0.3%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	0	0.0%	1	0.1%	13	1.3%
T3	N0	1	0.1%	0	0.0%	1	0.1%
	N1	1	0.1%	2	0.2%	5	0.5%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	3	0.3%	2	0.2%	12	1.2%
T4	N0	0	0.0%	0	0.0%	0	0.0%
	N1	0	0.0%	1	0.1%	2	0.2%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	1	0.1%	1	0.1%	3	0.3%
not staged	N0	1	0.1%	0	0.0%	1	0.1%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	1	0.1%	0	0.0%	20	2.1%
all T	all N	853	88.4%	9	0.9%	103	10.7%
all cancers		965					

**Table 12.7. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	845	87.6%
regional	8	0.8%
distant	9	0.9%
not known	103	10.7%
all	965	

Almost all cancers were local (Table 12.7).

12.7. TREATMENT

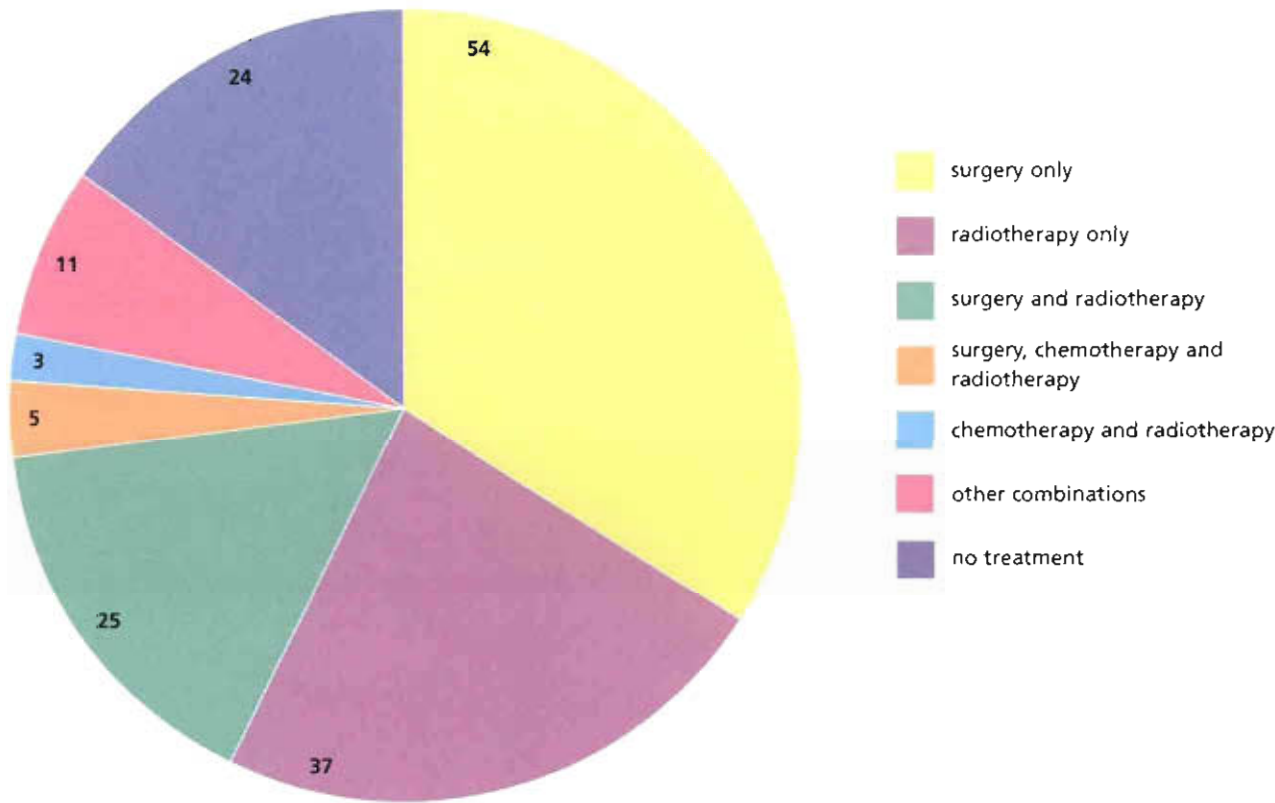
Invasive cervical cancer is treated mainly by surgery (55%) (Table 12.9). Radiotherapy is quite commonly used in combination with surgery, but appears to be declining slightly in frequency (Figure 12.3).

Table 12.9. Treatment summary (invasive cases only)

	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	88	55.3%	61.2%	60.0%	50.3%
chemotherapy	11	6.9%	1.9%	1.9%	1.8%
hormone	1	0.6%	0.5%		
radiotherapy	76	47.8%	40.3%	47.8%	52.6%
other treatment	8	5.0%	6.3%	5.0%	40.4%
all cases treated	135	84.9%	85.9%	84.9%	91.2%
no treatment	24	15.1%	14.1%	15.1%	8.8%
all cases	159	159	206	155	171

Figure 12.3. Frequent treatment combinations

Note: numbers indicated refer to the number of cases treated



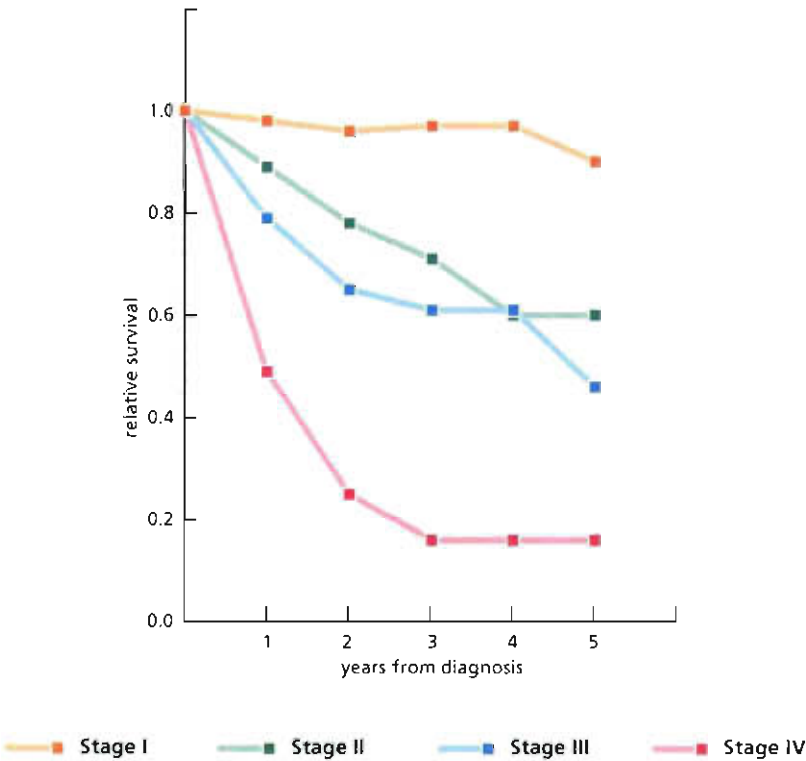
12.8. SURVIVAL

Overall survival for all cervical cancer at five years was 93%±1% and for invasive (stages I to IV) as 62%±5% (Table 12.10). Five-year survival for stage I cases was 90%±15% while survival for stage IV cases was 16%±14% (Figure 12.4).

Table 12.10. One to five year relative survival (± 95% confidence limits) for cancers diagnosed from 1994 to 1997

stage	cases	YEARS SINCE DIAGNOSIS					
		1		3		5	
		survival	95% confidence limits (±)	survival	95% confidence limits (±)	survival	95% confidence limits (±)
0	2984	1.00	0.00	1.00	0.00	1.00	0.01
I	143	0.98	0.02	0.97	0.03	0.90	0.15
II	32	0.79	0.14	0.61	0.19	0.46	0.29
III	45	0.89	0.09	0.60	0.17	0.60	0.17
IV	31	0.49	0.18	0.16	0.14	0.16	0.14
X	417	0.81	0.04	0.60	0.06	0.59	0.07
all	3652	0.97	0.01	0.94	0.01	0.93	0.01

Figure 12.4. Relative survival by stage for invasive cases diagnosed from 1994 to 1997



## 13.1. INTRODUCTION AND SUMMARY

Prostate cancer was the second commonest non-cutaneous cancer in men (Table 13.1). Men had a 5% risk of developing prostate cancer before age 75, and a 1.6% chance of dying before the same age.

Prostate cancer incidence has increased since 1994, at an annual rate of 1.6%. Whether this is due to better case-finding, more incidental diagnoses or a true increase in incidence is unknown.

**Table 13.1. Summary of incidence and mortality statistics: prostate cancer**

	INCIDENT CASES	DEATHS
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C61)</b>		
1997 cases	1133	536
% of all cancers (male)	10.7%	13.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>		
crude rate	62.6	29.6
World age-standardised rate	44.6	18.8
European age-standardised rate	71.3	32.9
cumulative risk (0-74)	5.1%	1.6%
mortality/incidence ratio	0.473	
<b>Time trends (all cancers)</b>		
1994 cases	1069	475
1995 cases	1112	521
1996 cases	1156	523
1997 cases	1133	535
1994-1997 average	1118	514
annual % change 1994-97	+1.6%	+2.7%
95% confidence limits of trend	(-0.6%; 3.8%)	(-0.1%; 5.6%)
<b>Invasive cancers only (ICD-10 C61)</b>		
1997 cases	1130	535
% of all invasive cancers (male)	11.5%	13.5%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>		
crude rate	62.4	29.6
World age-standardised rate	44.5	18.8
European age-standardised rate	71.1	32.8
cumulative risk (0-74)	5.0%	1.6%
mortality/incidence ratio	0.473	



### 13.2. AGE AND SEX PROFILE

*Table 13.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for prostate cancers, 1994 to 1997*

	CASES	CASES PER 100,000	RELATIVE RATE
0-4	0	0	0.1
5-9	0	0	0.0
10-14	0	0	0.0
15-19	0	0	0.0
20-24	0	0	0.0
25-29	0	0	0.0
30-34	0	0	0.0
35-39	0	0	0.0
40-44	1	1	0.0
45-49	4	3	0.1
50-54	22	23	0.3
55-59	44	56	0.5
60-64	103	150	0.8
65-69	173	287	1.0
70-74	261	522	1.3
75-79	243	687	1.4
80-84	176	841	1.5
>85	93	889	1.4
<b>all ages</b>	<b>1118</b>	<b>62.2</b>	<b>1.0</b>

The largest number of cases was in men aged 70 to 74, but the highest relative age-specific rate was in those aged 80 to 84, reflecting the largely elderly age profile of prostate cancer patients (Table 13.2).

### 13.3. GEOGRAPHICAL DISTRIBUTION

#### INTERNATIONAL

The incidence in Ireland was a little above average, and above that for England, Scotland and Northern Ireland (Table 13.3). The Nordic countries (with the exception of Denmark) all had high incidence rates, which may indicate active screening.

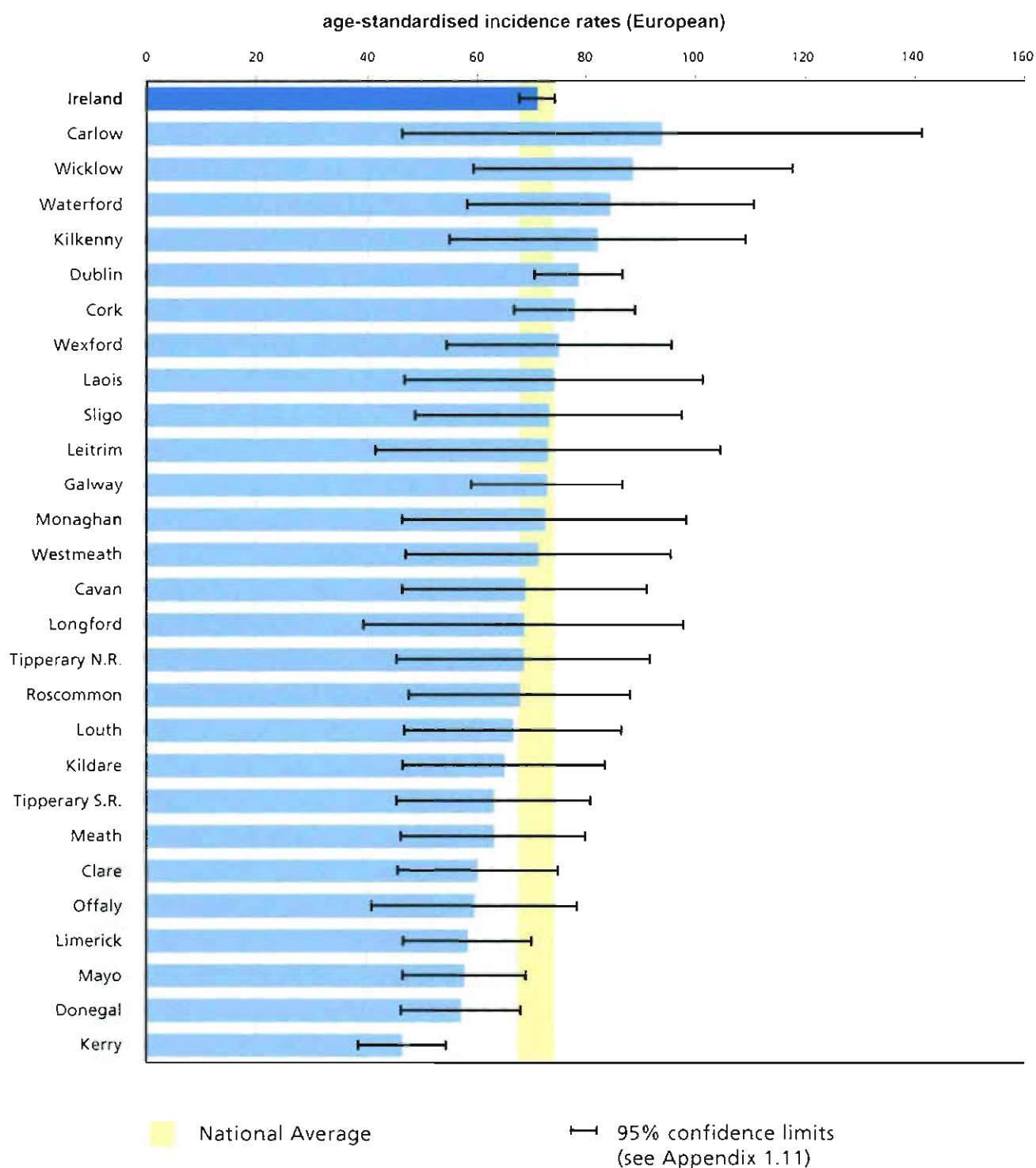
**Table 13.3. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: prostate cancer (invasive cases only)**

	AGE-STANDARDISED RATE	RANK
Iceland	131	1
Finland	100	2
Sweden	96	3
Norway	93	4
Switzerland	92	5
Austria	88	6
France	88	7
Netherlands	86	8
<b>Ireland (1994-1997)</b>	<b>71</b>	<b>9</b>
Germany	70	10
Scotland	67	11
N. Ireland	61	12
England	54	13
Spain	53	14
Czech Republic	50	15
Estonia	47	16
Malta	44	17
Italy	43	18
Denmark	43	19
Slovakia	39	20
Slovenia	36	21
Poland	25	22
Bulgaria	19	23

# NATIONAL

The incidence of prostate cancer varied from 132% of expected in Carlow to 65% in Kerry (Figure 13.1). Apart from the low rate in Kerry, the incidence rate was not significantly different from expectation in any county.

**Figure 13.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: prostate cancer**



### 13.4. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Most prostate cancers were diagnosed by biopsy, but a substantial proportion (7%) were registered only on the basis of a clinical diagnosis and a further 4% on the basis of imaging (Table 13.4).

**Table 13.4. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>990</b>	<b>87.4%</b>
histology of primary	971	85.7%
histology of other site	17	1.5%
cytology	1	0.1%
bone marrow	1	0.1%
<b>clinical diagnosis</b>	<b>143</b>	<b>12.6%</b>
clinical	84	7.4%
blood film	5	0.4%
radiology	44	3.9%
post-mortem	2	0.2%
other/not known	8	0.7%
<b>all cancers</b>	<b>1133</b>	

Most prostate cancers were diagnosed by biopsy, but a substantial proportion (7%) were registered only on the basis of a clinical diagnosis and a further 4% on the basis of imaging (Table 13.4).

Almost all of the histologically diagnosed cancers were described as adenocarcinoma (Table 13.5). Most of the remainder were those not histologically verified, with a tiny number of other histologies.

**Table 13.5. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
adenocarcinoma, NOS	8140/3	952	84.0%	920	82.3%
malignant neoplasm	8000/3	145	12.8%	148	13.2%
carcinoma, NOS	8010/3	28	2.5%	34	3.0%
acinar cell carcinoma	8550/3	0	0.0%	3	0.2%
transitional cell carcinoma, NOS	8120/3	2	0.2%	2	0.2%
carcinoma in situ, NOS	8010/2	2	0.2%	1	0.1%
small cell carcinoma, NOS	8041/3	0	0.0%	1	0.1%
clear cell adenocarcinoma, NOS	8310/3	0	0.0%	1	0.1%
mucin-secreting adenocarcinoma	8481/3	1	0.1%	1	0.1%
anaplastic carcinoma, NOS	8021/3	1	0.1%	1	0.1%
papillary transitional cell carcinoma	8130/3	0	0.0%	1	0.1%
adenocarcinoma in situ, NOS	8140/2	0	0.0%	1	0.1%
signet ring cell carcinoma	8490/3	0	0.0%	1	0.0%
intraductal adenocarcinoma, papillary, with invasion	8503/3	1	0.1%	1	0.0%
undifferentiated carcinoma, NOS	8020/3	0	0.0%	1	0.0%
leiomyosarcoma, NOS	8890/3	0	0.0%	0	0.0%
all other types		1	0.1%	2	0.2%
<b>Behaviour</b>					
in situ		2	0.2%	2	0.2%
invasive		1131	99.8%	1116	99.8%
<b>All Cancers</b>		<b>1133</b>		<b>1118</b>	



### 13.5. STAGE

**Table 13.6. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	8	0.7%	9	0.8%
I	8	0.7%	19	1.7%
II	43	3.8%	37	3.3%
III	9	0.8%	13	1.2%
IV	241	21.3%	242	21.7%
not staged	824	72.7%	799	71.5%
<b>all cases</b>	<b>1133</b>		<b>1118</b>	

Staging was poorly recorded for prostate cancer; fewer than 30% had a summary stage (Table 13.6). Most of these were stage IV cancers.

**Table 13.7. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	76	6.7%
regional	192	16.9%
distant	235	20.7%
not known	630	55.6%
<b>all</b>	<b>1133</b>	

Extent of disease was slightly better documented, and could be described for 45% of cases, about half of which had metastases (Table 13.7).

As with the summary stage, TNM information was quite limited (Table 13.8). The commonest TNM stage was T2 N0 M0.

**Table 13.8. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	2	0.2%	0	0.0%	0	0.0%
T1	N0	16	1.4%	0	0.0%	3	0.3%
	N1	2	0.2%	0	0.0%	0	0.0%
	N2	0	0.0%	0	0.0%	1	0.1%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	24	2.1%	12	1.1%	110	9.7%
T2	N0	43	3.8%	5	0.4%	17	1.5%
	N1	1	0.1%	0	0.0%	0	0.0%
	N2	0	0.0%	1	0.1%	0	0.0%
	N3	0	0.0%	1	0.1%	0	0.0%
	not staged	42	3.7%	51	4.5%	92	8.1%
T3	N0	9	0.8%	1	0.1%	6	0.5%
	N1	1	0.1%	0	0.0%	2	0.2%
	N2	0	0.0%	1	0.1%	0	0.0%
	N3	0	0.0%	1	0.1%	0	0.0%
	not staged	13	1.1%	9	0.8%	25	2.2%
T4	N0	1	0.1%	0	0.0%	0	0.0%
	N1	0	0.0%	1	0.1%	0	0.0%
	N2	1	0.1%	1	0.1%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	7	0.6%	18	1.6%	15	1.3%
not staged	N0	5	0.4%	0	0.0%	0	0.0%
	N1	0	0.0%	3	0.3%	0	0.0%
	N2	0	0.0%	3	0.3%	2	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	101	8.9%	127	11.2%	357	31.5%
<b>all T</b>	<b>all N</b>	<b>268</b>	<b>23.7%</b>	<b>235</b>	<b>20.7%</b>	<b>630</b>	<b>55.6%</b>
<b>all cancers</b>		<b>1133</b>					

**Table 13.9. Histological grade of prostate cancer**

grade	1997		1994-1997 AVERAGE	
	cases	% of all cases	cases	% of all cases
1	238	21.0%	240	21.4%
2	362	32.0%	338	30.2%
3	242	21.4%	261	23.4%
4	8	0.7%	15	1.3%
not known	283	25.0%	264	23.6%
<b>all</b>	<b>1133</b>	<b>100.0%</b>	<b>1118</b>	<b>100.0%</b>

Grade information was more available than stage, as many of the cancers were removed by TURP (Table 13.9). 75% of cases were graded, with most at grade 2.

### 13.6. TREATMENT

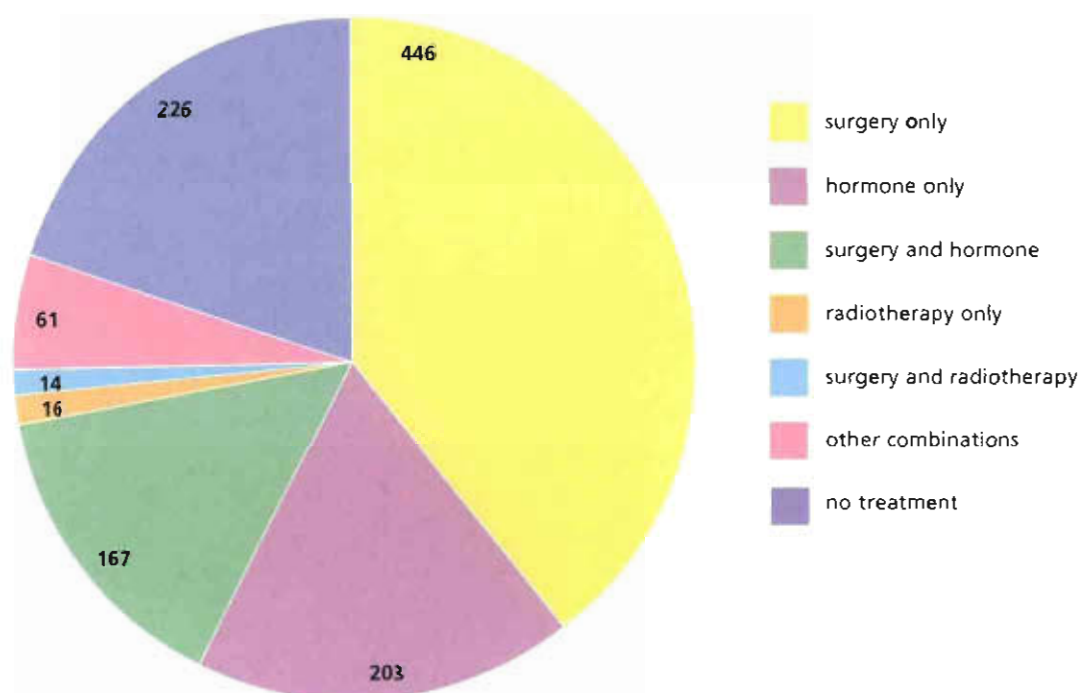
57% of prostate cancers were removed surgically, a figure which has increased from 48% in 1994 (Table 13.10). Hormone therapy was the next most frequent treatment, and was given alone in 18% of cases and with surgery in 15% (Figure 13.2). Four percent of patients had radiotherapy, a figure that has not changed appreciably since 1994.

**Table 13.10. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	651	57.5%	58.1%	50.4%	47.8%
chemotherapy	7	0.6%	1.6%	30.0%	22.7%
hormone	395	34.9%	31.5%		
radiotherapy	43	3.8%	5.4%	3.8%	3.6%
other treatment	45	4.0%	8.7%	4.0%	35.8%
all cases treated	907	80.1%	81.6%	80.1%	86.2%
no treatment	226	19.9%	18.4%	19.9%	13.8%
<b>all cases</b>	<b>1133</b>	<b>1133</b>	<b>1156</b>	<b>1112</b>	<b>1069</b>

**Figure 13.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



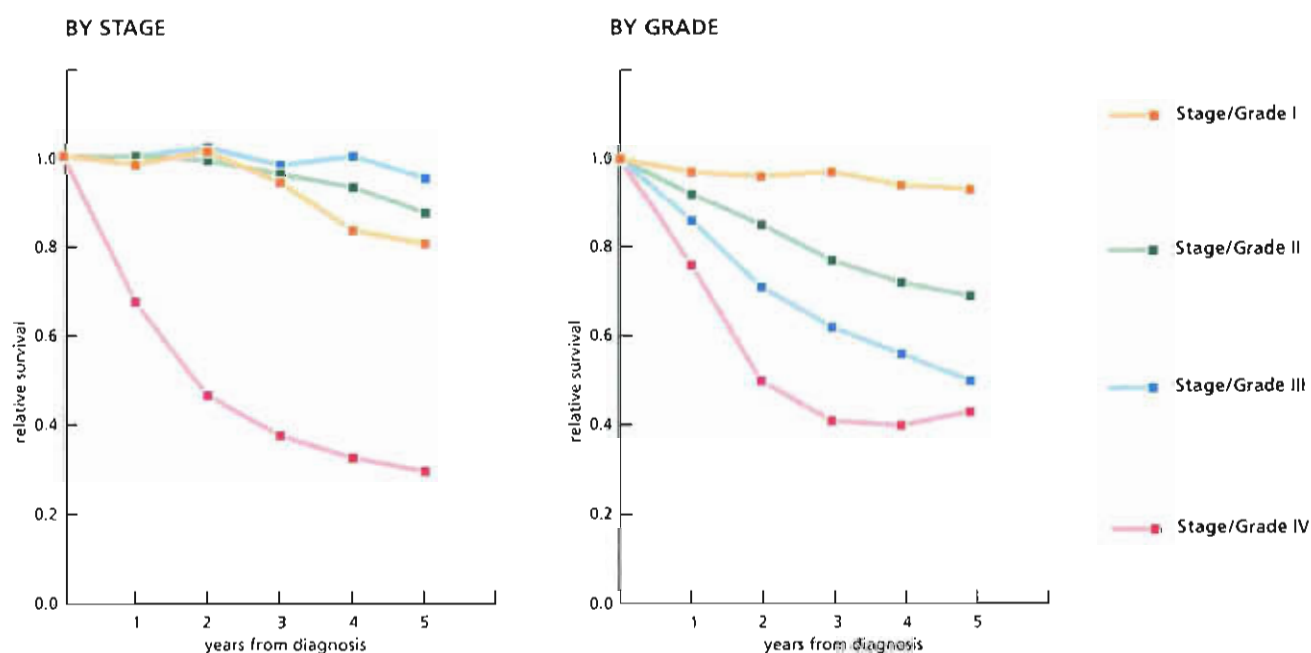
### 13.7. SURVIVAL

Overall survival at five years was  $72\% \pm 3\%$  (Table 13.11). Five-year survival for stage I cases was  $80\% \pm 17\%$ , while survival for stage IV cases was  $29\% \pm 5\%$  (Figure 13.3).

**Table 13.11. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997: by stage**

stage	cases	YEARS SINCE DIAGNOSIS					
		1		3		5	
		survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
0	32	1.01	0.09	0.97	0.19	0.93	0.23
I	70	0.98	0.07	0.94	0.12	0.80	0.17
II	142	1.00	0.04	0.96	0.08	0.87	0.17
III	49	1.00	0.06	0.98	0.12	0.95	0.24
IV	934	0.67	0.03	0.37	0.04	0.29	0.05
X	3004	0.93	0.01	0.85	0.02	0.84	0.04
all	4231	0.88	0.01	0.76	0.02	0.72	0.04

**Figure 13.3. Relative survival by stage and grade for cases diagnosed from 1994 to 1997**



**Table 13.12. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997: by grade**

grade	cases	YEARS SINCE DIAGNOSIS					
		1		3		5	
		survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
1	958	0.97	0.02	0.97	0.04	0.93	0.09
2	1351	0.92	0.02	0.77	0.04	0.69	0.06
3	1044	0.86	0.03	0.62	0.04	0.50	0.07
4	59	0.76	0.14	0.41	0.16	0.43	0.30
not known	819	0.68	0.03	0.50	0.04	0.49	0.07
all	4231	0.88	0.01	0.76	0.02	0.72	0.04

Five-year survival for grade 1 cases was  $93\% \pm 9\%$ , while survival for grade 4 cases was  $43\% \pm 30\%$  (Table 13.12). Survival for ungraded cases was much poorer than for graded cases (Figure 13.3).



## 14.1. INTRODUCTION AND SUMMARY

Table 14.1. Summary of incidence and mortality statistics: bladder cancer

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C67)</b>						
1997 cases	345	129	474	115	62	177
% of all cancers	3.3%	1.2%	2.2%	2.9%	1.8%	2.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	19.1	7.0	13.0	6.4	3.4	4.9
World age-standardised rate	14.4	4.7		4.2	1.8	
European age-standardised rate	22.4	6.7		7.2	2.8	
cumulative risk (0-74)	1.6%	0.6%		0.4%	0.2%	
mortality/incidence ratio	0.333	0.481	0.373			
<b>Time trends (all cancers)</b>						
1994 cases	353	175	528	115	71	186
1995 cases	344	111	455	116	46	162
1996 cases	352	133	485	114	49	163
1997 cases	345	129	474	113	60	173
1994-1997 average	349	137	486	115	57	171
annual % change 1994-97	-1.2%	-7.6%	-3.4%	-1.8%	-3.6%	-3.1%
95% confidence limits of trend	(-1.6%; -0.8%)	(-22.5%; 10.1%)	(-8.4%; 2.0%)	(-2.4%; -1.1%)	(-21.2%; 17.8%)	(-9.9%; 4.2%)
<b>Invasive cancers only (ICD-10-C67)</b>						
1997 cases	332	122	454	113	60	173
% of all invasive cancers	3.4%	1.4%	2.4%	2.8%	1.7%	2.3%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	18.3	6.6	12.5	6.2	3.3	4.7
World age-standardised rate	13.9	4.4		4.2	1.7	
European age-standardised rate	21.5	6.4		7.0	2.7	
cumulative risk (0-74)	1.6%	0.6%		0.4%	0.2%	
mortality/incidence ratio	0.340	0.492	0.381			

Bladder cancer was almost three times as common in men as in women, although there was less of a difference in mortality (Table 14.1). Overall survival was 68% in men and 53% in women. There is no evidence of a significant upward or downward time trend at present.



## 14.2. AGE AND SEX PROFILE

**Table 14.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for bladder cancers, 1994 to 1997**

	MALES			FEMALES		
	cases	cases per 100,000	relative rate	cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.0	0	0	0.0
15-19	0	0	0.0	0	0	0.0
20-24	1	1	0.6	0	0	0.0
25-29	1	1	0.6	1	1	0.2
30-34	1	1	0.3	0	0	0.1
35-39	4	3	0.8	2	1	0.3
40-44	3	3	0.4	4	3	0.6
45-49	11	9	0.9	5	5	0.7
50-54	19	20	1.0	5	5	0.5
55-59	30	39	1.1	10	13	0.9
60-64	34	50	0.9	13	18	1.1
65-69	52	85	1.0	20	30	1.3
70-74	63	126	1.0	27	43	1.4
75-79	63	179	1.2	20	40	1.1
80-84	41	195	1.1	18	53	1.3
>85	27	255	1.3	14	58	1.4
all ages	349	19.4	1.0	137	7.5	1.0

The largest number of cases for men was in the 70-79 age group and for women in the 70 to 74 year olds (Table 14.2). The highest relative age-specific rates for men were in those aged 75 to 79 and for women in those aged 70 to 74.

## 14.3. SUBSITES

50% of male cases and 66% of female cases were assigned to a subsite in the bladder (Table 14.3). Most of these were on the lateral wall.

**Table 14.3. Subsites of bladder cancer**

	ICD-O-2 code	MALES		FEMALES	
		cases	% of total	cases	% of total
trigone	C67.0	10	2.9%	6	4.7%
dome	C67.1	7	2.0%	6	4.7%
lateral wall	C67.2	63	18.3%	36	27.9%
anterior wall	C67.3	5	1.4%	6	4.7%
posterior wall	C67.4	13	3.8%	10	7.8%
neck	C67.5	16	4.6%	5	3.9%
ureteric orifice	C67.6	28	8.1%	4	3.1%
urachus	C67.7	3	0.9%	0	0.0%
overlapping lesion	C67.8	27	7.8%	12	9.3%
bladder NOS	C67.9	173	50.1%	44	34.1%
all cancers		345		129	

## 14.4. GEOGRAPHICAL VARIATION

### INTERNATIONAL

The international position of Ireland with regard to bladder cancer was similar to that for lung cancer, with a relatively low incidence rate in males, but a higher in females (Table 14.4). The incidence rate for men was lower than in Scotland and England but higher than for Northern Ireland, and that for women was lower than in all three countries.

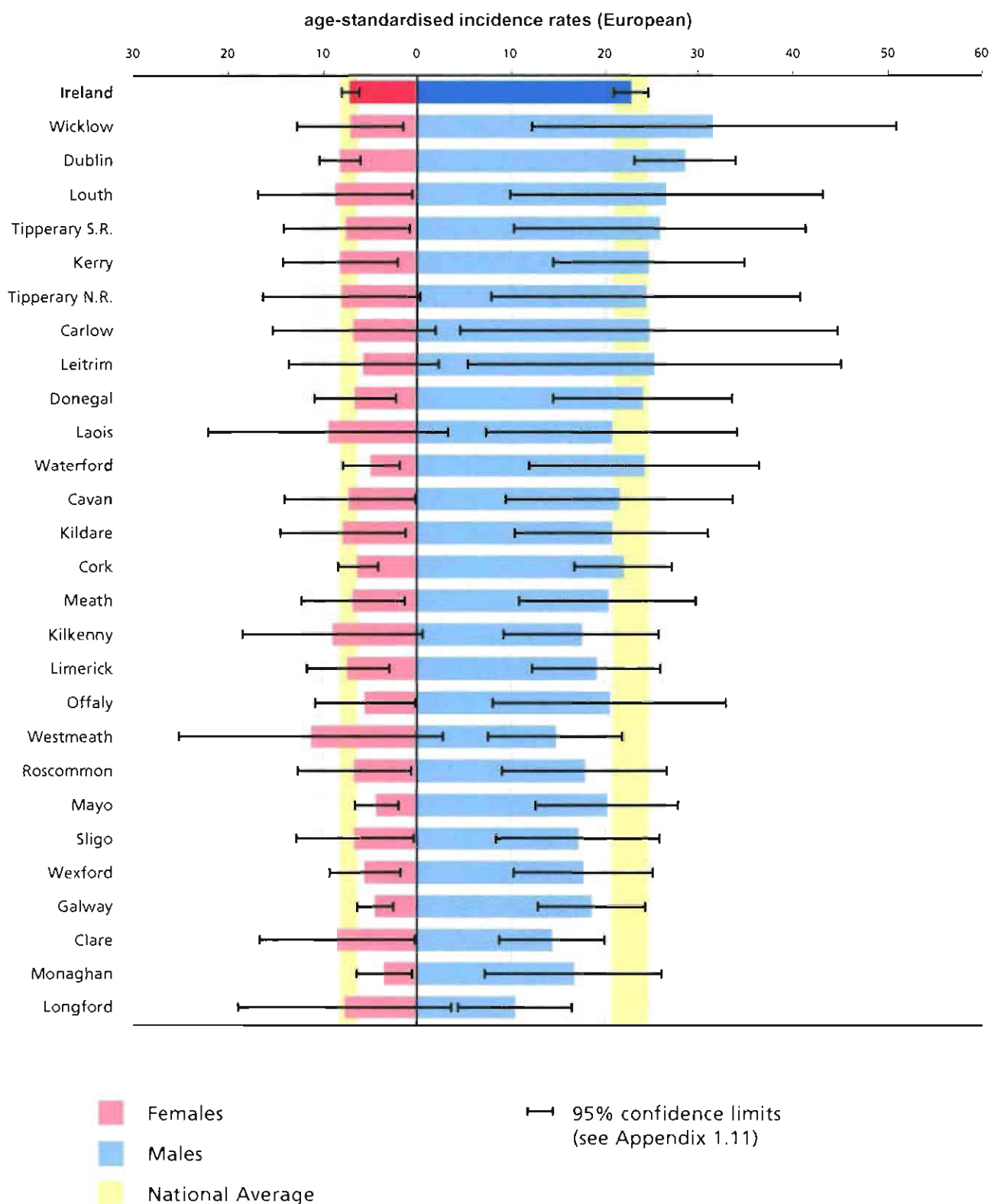
**Table 14.4. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: bladder cancer (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Spain	46.0	1	7.5	4
Scotland	35.8	3	12.2	1
Malta	36.4	2	4.6	18
Norway	32.5	4	8.4	3
Iceland	31.3	5	8.4	2
Austria	29.0	6	6.7	8
Czech Republic	27.8	8	6.8	6
England	24.8	10	7.4	5
France	28.2	7	4.0	20
Sweden	23.7	12	6.6	9
Netherlands	25.3	9	4.8	16
Germany	23.4	14	5.7	11
Finland	23.7	12	5.2	13
<b>Ireland (1994-1997)</b>	<b>22.1</b>	<b>17</b>	<b>6.0</b>	<b>10</b>
Switzerland	22.7	15	4.9	15
Poland	23.8	11	3.0	22
Italy	22.5	16	4.2	19
Estonia	21.1	19	5.1	14
N. Ireland	19.3	20	6.7	7
Slovakia	21.2	18	4.6	17
Denmark	18.5	21	5.3	12
Slovenia	18.1	22	3.2	21
Bulgaria	15.4	23	2.7	23

# NATIONAL

The incidence of bladder cancer varied from 139% of expected for men in Wicklow to 46% in Longford and from 157% of expected for women in Westmeath to 48% in Monaghan (Figure 14.1). However, the incidence rate was not significantly different from expectation in any county.

**Figure 14.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: bladder cancer**



## 14.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 14.5. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>457</b>	<b>96.4%</b>
histology of primary	445	93.9%
histology of other site	9	1.9%
cytology	3	0.6%
<b>clinical diagnosis</b>	<b>17</b>	<b>3.6%</b>
clinical	12	2.5%
radiology	3	0.6%
post-mortem	1	0.2%
other/not known	1	0.2%
<b>all cancers</b>	<b>474</b>	

Histological diagnosis of bladder cancer was the rule, with only 2% of clinical or radiological diagnoses (Table 14.5).

The morphological classification of bladder cancer is not consistent between registries. The National Cancer Registry registers all bladder cancers, including those of uncertain behaviour. Most of the cancers were transitional cell carcinoma, either papillary or NOS. 3.6% were in situ (Table 14.6).

**Table 14.6. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
papillary transitional cell carcinoma	8130/3	230	48.5%	214	44.0%
transitional cell carcinoma, NOS	8120/3	162	34.2%	198	40.7%
malignant neoplasm	8000/3	16	3.4%	23	4.6%
carcinoma, NOS	8010/3	8	1.7%	9	1.8%
squamous cell carcinoma, NOS	8070/3	13	2.7%	9	1.8%
transitional cell carcinoma in situ	8120/2	13	2.7%	7	1.5%
adenocarcinoma, NOS	8140/3	9	1.9%	7	1.4%
papillary carcinoma, NOS	8050/3	6	1.3%	7	1.3%
carcinoma in situ, NOS	8010/2	4	0.8%	2	0.5%
urothelial papilloma	8120/1	2	0.4%	2	0.5%
squamous cell carcinoma large cell, keratinizing	8071/3	3	0.6%	2	0.4%
small cell carcinoma, NOS	8041/3	1	0.2%	1	0.2%
undifferentiated carcinoma, NOS	8020/3	0	0.0%	1	0.2%
mucous adenocarcinoma	8480/3	1	0.2%	1	0.2%
clear cell adenocarcinoma, NOS	8310/3	0	0.0%	1	0.1%
mucin-secreting adenocarcinoma	8481/3	1	0.2%	1	0.1%
all other types		5	1.1%	4	0.9%
<b>Behaviour</b>					
uncertain		3	0.6%	3	0.6%
in situ		17	3.6%	10	2.1%
invasive		454	95.8%	473	97.4%
<b>all cases</b>		<b>474</b>		<b>486</b>	



## 14.6. STAGE

**Table 14.7. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0a	4	0.8%	12	2.5%
0is	15	3.2%	9	1.9%
I	25	5.3%	47	9.6%
II	25	5.3%	28	5.8%
III	9	1.9%	6	1.1%
IV	28	5.9%	29	5.9%
not applicable	3	0.6%	3	0.6%
not staged	365	77.0%	353	72.7%
<b>all cancers</b>	<b>474</b>		<b>486</b>	

Few of the cancers were staged (Table 14.7).

**Table 14.8. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	82	17.3%
regional	59	12.4%
distant	24	5.1%
not applicable	3	0.6%
not known	306	64.6%
<b>all cancers</b>	<b>474</b>	

Extent of disease information was more widely available (Table 14.8). Most of the staged cancers were confined to the bladder.

The commonest TNM combination, of those cases which were fully staged, was T1 N0 M0 (Table 14.9).

**Table 14.9. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	19	4.0%	0	0.0%	0	0.0%
T1	N0	25	5.3%	1	0.2%	9	1.9%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	16	3.4%	2	0.4%	106	22.4%
T2	N0	17	3.6%	0	0.0%	5	1.1%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	1	0.2%	0	0.0%	1	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	7	1.5%	3	0.6%	46	9.7%
T3	N0	14	3.0%	2	0.4%	3	0.6%
	N1	1	0.2%	0	0.0%	2	0.4%
	N2	2	0.4%	0	0.0%	3	0.6%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	11	2.3%	5	1.1%	24	5.1%
T4	N0	3	0.6%	1	0.2%	0	0.0%
	N1	0	0.0%	1	0.2%	0	0.0%
	N2	1	0.2%	0	0.0%	2	0.4%
	N3	0	0.0%	0	0.0%	1	0.2%
	not staged	4	0.8%	3	0.6%	13	2.7%
not staged	N0	4	0.8%	0	0.0%	0	0.0%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	2	0.4%	1	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	16	3.4%	4	0.8%	90	19.0%
all T	all N	141	29.7%	24	5.1%	306	64.6%
staging not applicable		3	0.6%				
<b>all cancers</b>		<b>474</b>					

## 14.7. TREATMENT

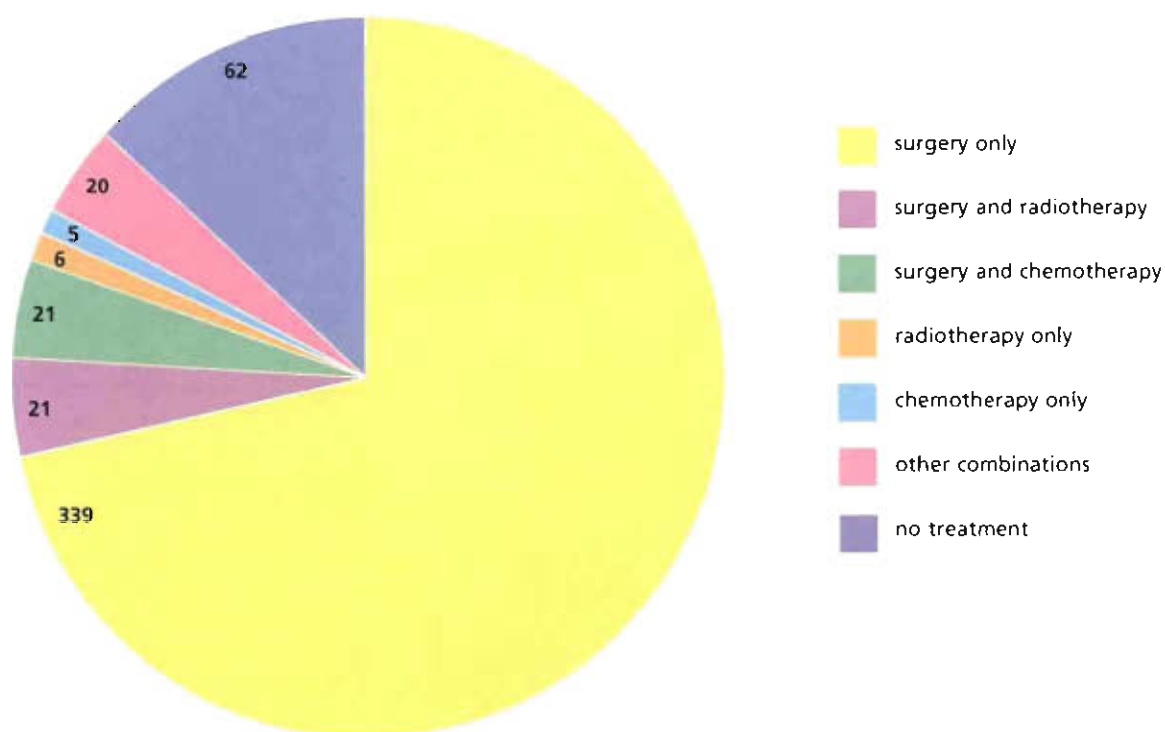
Most patients (83%) had surgical treatment (Table 14.10). The most common additional treatment was radiotherapy, which was administered to 5.9% of patients. Both surgery and chemotherapy have become more common as treatments for bladder cancer since 1994. Combination therapy was infrequent (Figure 14.2).

**Table 14.10. Treatment summary**

	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	393	82.9%	81.9%	70.3%	54.0%
chemotherapy	26	5.5%	4.1%	4.8%	3.2%
hormone	3	0.6%	0.2%		
radiotherapy	28	5.9%	7.2%	5.9%	7.4%
other treatment	18	3.8%	7.8%	3.8%	45.8%
all cases treated	412	86.9%	88.0%	86.9%	91.7%
no treatment	62	13.1%	12.0%	13.1%	8.3%
<b>all cases</b>	<b>474</b>	<b>474</b>	<b>485</b>	<b>455</b>	<b>528</b>

**Figure 14.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



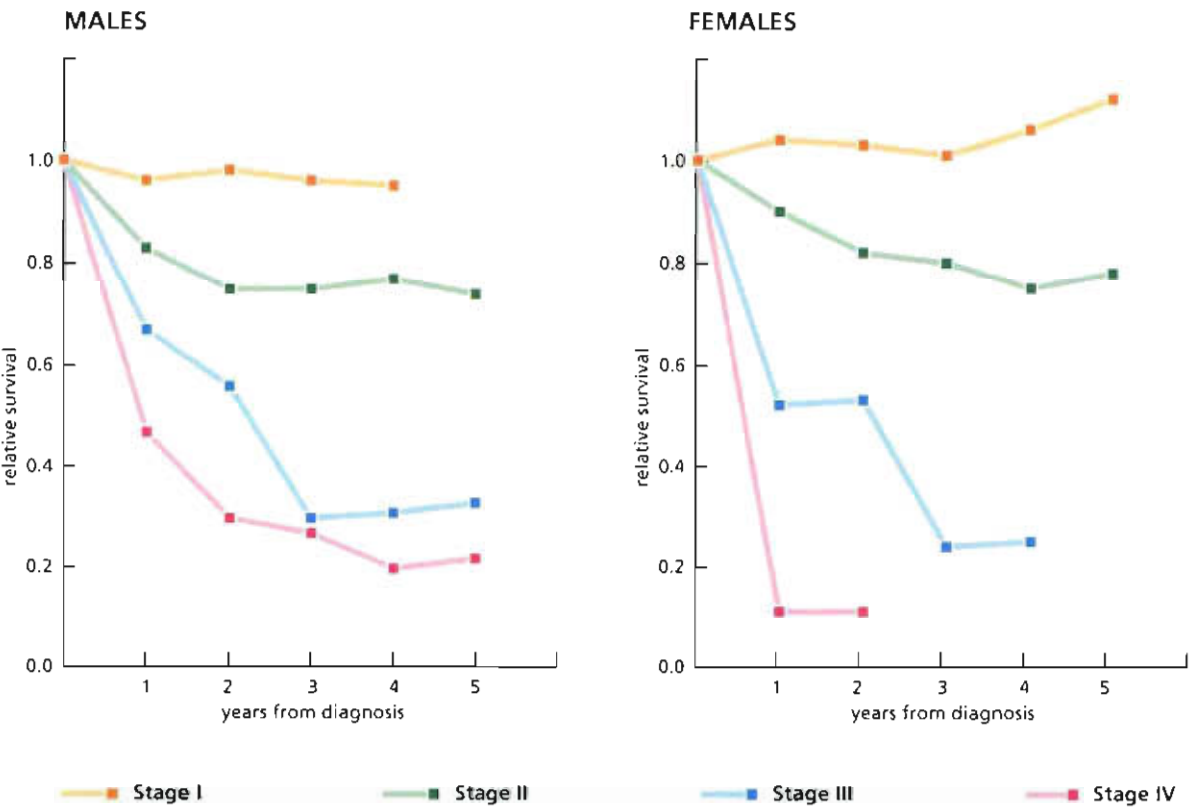
14.8. SURVIVAL

Overall survival at five years was 76%±5% for men and 75%±5% for women (Table 14.11). The large percentage of unstaged cancers makes stage-specific calculation quite unreliable. Five-year survival for stage I cases was 95%±15% for men and 112%±11% for women, while survival for stage IV cases was 22%±11% for men and was unavailable for women (Figure 14.3).

Table 14.11. One to five year relative survival (± 95% confidence limits) for cancers diagnosed from 1994 to 1997

			YEARS FROM DIAGNOSIS					
			1		3		5	
sex	stage	cases	survival	95% confidence limits (±)	survival	95% confidence limits (±)	survival	95% confidence limits (±)
males	0	48	1.02	0.06	0.99	0.14	0.92	0.23
	I	125	0.96	0.05	0.96	0.08	0.95	0.15
	II	74	0.83	0.10	0.75	0.13	0.74	0.18
	III	11	0.67	0.30	0.30	0.41	0.33	0.41
	IV	80	0.47	0.12	0.27	0.10	0.22	0.11
	X	934	0.86	0.03	0.80	0.04	0.77	0.05
	all	1272	0.85	0.02	0.78	0.03	0.76	0.05
females	0	15	1.02	0.00	1.07	0.00	1.10	0.00
	I	50	1.04	0.00	1.01	0.11	1.12	0.11
	II	30	0.90	0.13	0.80	0.18	0.78	0.21
	III	10	0.52	0.32	0.24	0.30		
	IV	20	0.11	0.14				
	X	393	0.77	0.05	0.69	0.05	0.73	0.06
	all	518	0.78	0.04	0.70	0.05	0.75	0.05

Figure 14.3. Relative survival by stage for cases diagnosed from 1994 to 1997



## 15.1. INTRODUCTION AND SUMMARY

Table 15.1. Summary of incidence and mortality statistics: melanoma of skin

	INCIDENT CASES			DEATHS (ICD-10)		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C44; M-8720 to M-8790)</b>						
1997 cases	228	381	609	35	33	68
% of all cancers	2.2%	3.5%	2.8%	0.9%	0.9%	0.9%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	12.6	20.7	16.7	1.9	1.8	1.9
World age-standardised rate	10.6	16.1		1.6	1.3	
European age-standardised rate	14.4	21.9		2.2	1.8	
cumulative risk (0-74)	1.2%	1.8%		0.2%	0.1%	
mortality/incidence ratio	0.154	0.087	0.112			
<b>Time trends (all cancers)</b>						
1994 cases	175	323	498	22	25	47
1995 cases	168	331	499	33	26	59
1996 cases	188	334	522	27	33	60
1997 cases	228	381	609	35	33	68
1994-1997 average	190	342	532	29	29	59
annual % change 1994-97	+8.1%	+5.0%	+6.4%	+13.3%	+10.7%	+11.8%
95% confidence limits of trend	(0.2%; 16.7%)	(0.8%; 9.4%)	(1.4%; 11.6%)	(-2.4%; 31.5%)	(2.7%; 19.2%)	(6.5%; 17.3%)
<b>Invasive cancers only (ICD-10 C43)</b>						
1997 cases	167	239	406	35	33	68
% of all invasive cancers	1.7%	2.7%	2.2%	0.9%	0.9%	0.9%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	9.2	13.0	11.1	1.9	1.8	1.9
World age-standardised rate	7.9	10.0		1.6	1.3	
European age-standardised rate	10.5	13.5		2.2	1.8	
cumulative risk (0-74)	0.9%	1.1%		0.2%	0.1%	
mortality/incidence ratio	0.210	0.138	0.167			

Melanomas of skin were much less frequent than non-melanoma skin cancers. The incidence rate in women was 65% higher than in men (Table 15.1). The incidence for both men and women has increased sharply since 1994, by 8% in men (although with very wide confidence limits) and 5% in women.

Overall survival, including in situ cancers, was 86% in men and 92% in women, while for invasive cancers only it was 81% and 87% respectively.



In addition to the skin melanomas described in this chapter, a small number of melanomas was registered with a non-cutaneous primary site (Table 15.2). Most of these were ocular in origin.

**Table 15.2. Primary sites of melanoma**

	MALES		FEMALES		BOTH SEXES	
	cases	% of total	cases	% of total	cases	% of total
skin	228	90.8%	381	92.9%	609	92.1%
eye	16	6.4%	17	4.1%	33	5.0%
unknown primary site	4	1.6%	4	1.0%	8	1.2%
urogenital	1	0.4%	7	1.7%	8	1.2%
oropharyngeal	2	0.8%	1	0.2%	3	0.5%
<b>all sites</b>	<b>251</b>		<b>410</b>		<b>661</b>	

## 15.2. AGE AND SEX PROFILE

**Table 15.3. Annual average number of cases, age-specific incidence rate and relative age-specific rate for melanoma skin cancers, 1994 to 1997**

	MALES			FEMALES		
	annual average number of cases	cases per 100,000	relative rate	annual average number of cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.5
10-14	1	0	1.8	1	1	1.6
15-19	1	1	1.8	3	2	1.9
20-24	3	2	3.7	10	7	2.4
25-29	6	5	4.9	11	9	1.4
30-34	8	6	4.8	12	9	1.1
35-39	7	5	2.7	19	15	1.5
40-44	12	10	2.9	23	19	1.5
45-49	13	11	2.1	27	24	1.4
50-54	15	16	1.4	34	37	1.4
55-59	16	20	1.1	30	39	1.1
60-64	21	30	0.9	34	49	1.1
65-69	22	37	0.8	37	55	0.9
70-74	25	49	0.7	32	52	0.7
75-79	23	64	0.8	36	73	0.8
80-84	11	53	0.5	22	65	0.6
>85	8	77	0.7	14	57	0.5
<b>all ages</b>	<b>190</b>	<b>10.6</b>	<b>1.0</b>	<b>342</b>	<b>18.8</b>	<b>1.0</b>

The largest number of melanomas in men was in the 70 to 74 year age group and in women in the 65 to 69 year age group. The highest relative rate for men was in those aged 25 to 29 and for women in those aged 20 to 24.

### 15.3 SUBSITES

**Table 15.4. Subsites of skin melanoma**

	MALES		FEMALES	
	cases	% of total	cases	% of total
lip	0	0.0%	4	1.0%
eyelid	2	0.9%	10	2.6%
external ear	19	8.3%	1	0.3%
other parts of face	73	32.0%	127	33.3%
scalp and neck	29	12.7%	7	1.8%
trunk	50	21.9%	22	5.8%
upper limb	26	11.4%	75	19.7%
lower limb	23	10.1%	131	34.4%
skin, NOS	6	2.6%	4	1.0%
<b>all cancers</b>	<b>228</b>		<b>381</b>	

The distribution of melanoma (Table 15.4) was similar to that of non-melanoma skin cancer (Table 6.3), although lesions on the trunk in men formed a higher proportion of melanoma than of non-melanoma skin cancer. The commonest cutaneous site for both sexes was the face (39%). Men had more melanomas on the ear and trunk, and women had more on the legs and arms.

### 15.4. GEOGRAPHICAL VARIATION

#### INTERNATIONAL

The incidence of melanoma in Ireland was relatively high for women. It was twelfth highest in men and sixth in women (Table 15.5. This table does not include in situ lesions). This incidence was slightly higher than in Northern Ireland, although with a quite different male/female ratio. The Irish rate was higher than in England and Scotland and exceeded only by the Nordic countries.

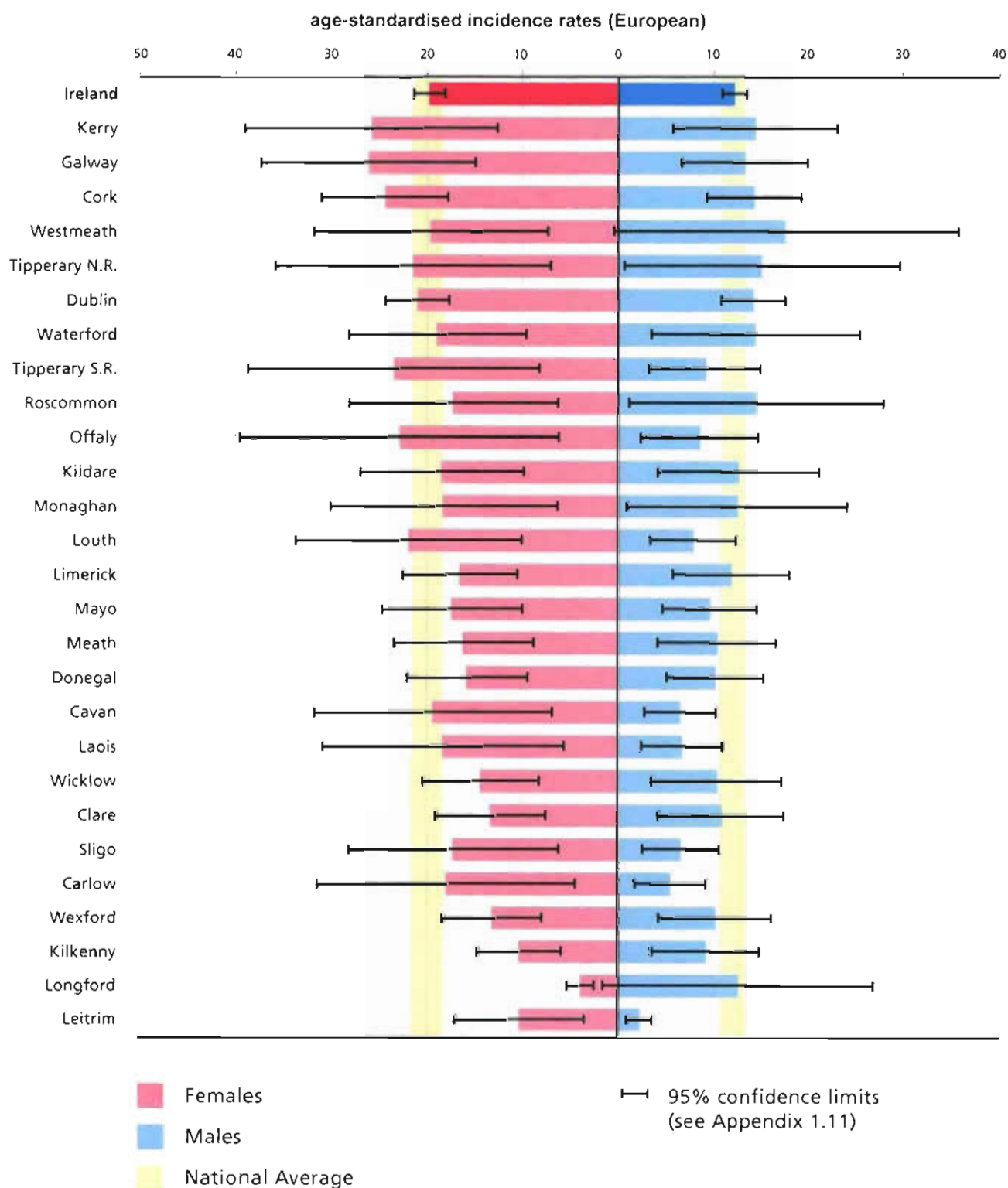
**Table 15.5. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: melanoma of skin (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Norway	20.8	1	21.7	1
Switzerland	19.6	2	15.5	3
Denmark	15.1	4	18.2	2
Sweden	15.4	3	14.8	4
Netherlands	10.2	7	14.4	5
<b>Ireland</b>	<b>8.9</b>	<b>12</b>	<b>13.5</b>	<b>6</b>
N. Ireland	11.3	6	11.8	9
Czech Republic	11.3	5	11.3	10
Scotland	9.4	10	13.1	7
Iceland	8.0	14	12.3	8
Finland	10.2	8	8.5	12
Austria	9.4	11	8.0	15
England	7.4	17	9.9	11
Slovenia	8.3	13	7.6	16
Estonia	7.7	16	7.5	17
France	7.0	18	8.1	14
Spain	6.7	19	8.2	13
Germany	7.7	15	6.9	19
Italy	9.7	9	3.8	20
Slovakia	6.3	20	7.1	18
Poland	3.6	21	3.4	22
Malta	2.6	23	3.7	21
Bulgaria	2.8	22	2.4	23

# NATIONAL

The incidence of melanoma varied from 144% of expected for men in Westmeath to 19% in Leitrim and from 132% of expected for women in Galway to 19% in Longford (Figure 15.1). However, apart from the very low levels in Leitrim and Longford, the incidence rate was not significantly different from expectation in any county.

**Figure 15.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: melanoma**



15.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

Table 15.6. Most valid basis of diagnosis

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
tissue diagnosis	602	98.9%
histology of primary	598	98.2%
histology of other site	4	0.7%
clinical diagnosis	7	1.1%
clinical	4	0.7%
other/not known	3	0.5%
all cancers	609	

Most cases were histologically verified (Table 15.6) and only 1% were clinically diagnosed.

Most melanomas were described as either "unspecified" (26%), Hutchinson's freckle/lentigo maligna (27%) or superficial spreading (20%) (Table 15.7). There was a high percentage of in situ cancers (34.6%) and this seems to be increasing with time.

Table 15.7. Morphology

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
malignant melanoma, NOS	8720/3	156	25.6%	155	29.2%
Hutchinson's melanotic freckle, NOS	8742/2	162	26.6%	128	24.1%
superficial spreading melanoma	8743/3	123	20.2%	89	16.7%
nodular melanoma	8721/3	67	11.0%	70	13.2%
melanoma in situ	8720/2	49	8.0%	36	6.7%
melanoma malignant, in Hutchinson's melanotic freckle	8742/3	35	5.7%	32	6.1%
spindle cell melanoma, NOS	8772/3	3	0.5%	6	1.0%
acral lentiginous melanoma, malignant	8744/3	2	0.3%	5	0.9%
amelanotic melanoma	8730/3	4	0.7%	3	0.5%
melanoma malignant, in junctional nevus	8740/3	3	0.5%	3	0.5%
epithelioid cell melanoma	8771/3	2	0.3%	2	0.4%
desmoplastic melanoma, malignant	8745/3	0	0.0%	2	0.3%
epithelioid and spindle cell melanoma, mixed	8770/3	1	0.2%	1	0.1%
melanoma malignant, regressing	8723/3	1	0.2%	1	0.1%
melanoma malignant, in giant pigmented nevus	8761/3	0	0.0%	0	0.0%
balloon cell melanoma	8722/3	0	0.0%	0	0.0%
all other types		1	0.2%	0	0.0%
Behaviour					
in situ		211	34.6%	164	30.8%
invasive		398	65.4%	368	69.2%
all cancers		609		532	



## 15.6. STAGE

**Table 15.8. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	211	34.6%	164	30.8%
1	30	4.9%	42	7.9%
2	20	3.3%	30	5.6%
3	3	0.5%	3	0.6%
4	13	2.1%	12	2.3%
not staged	332	54.5%	282	53.0%
<b>all stages</b>	<b>609</b>		<b>532</b>	

46% of melanomas were staged (Table 15.8). Apart from in situ lesions (35% of the total) the most frequent stage was stage I (30 cases; 4.9%).

**Table 15.9. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	262	43.0%
regional	23	3.8%
distant	13	2.1%
not known	311	51.1%
<b>all</b>	<b>609</b>	

The extent of disease data (Table 15.9) is also dominated by the in situ cancers, but most cancers seem to be confined to the primary site at diagnosis.

Apart from in situ cancers, the commonest TNM stage was T3 N0 M0 (18 cases; 3%) (Table 15.10).

**Table 15.10. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	211	34.6%	0	0.0%	0	0.0%
T1	N0	15	2.5%	0	0.0%	9	1.5%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	0	0.0%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	4	0.7%	1	0.2%	50	8.2%
T2	N0	15	2.5%	0	0.0%	9	1.5%
	N1	0	0.0%	1	0.2%	1	0.2%
	N2	0	0.0%	0	0.0%	1	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	2	0.3%	0	0.0%	60	9.9%
T3	N0	18	3.0%	1	0.2%	15	2.5%
	N1	0	0.0%	0	0.0%	2	0.3%
	N2	1	0.2%	2	0.3%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	7	1.1%	2	0.3%	70	11.5%
T4	N0	2	0.3%	0	0.0%	3	0.5%
	N1	1	0.2%	0	0.0%	3	0.5%
	N2	1	0.2%	2	0.3%	5	0.8%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	3	0.5%	0	0.0%	29	4.8%
not staged	N0	1	0.2%	0	0.0%	2	0.3%
	N1	0	0.0%	0	0.0%	0	0.0%
	N2	0	0.0%	1	0.2%	0	0.0%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	4	0.7%	3	0.5%	52	8.5%
<b>all T</b>	<b>all N</b>	<b>285</b>	<b>46.8%</b>	<b>13</b>	<b>2.1%</b>	<b>311</b>	<b>51.1%</b>
<b>all cancers</b>		<b>609</b>					

Table 15.11. T stage and Clark's level

T STAGE	CLARK'S LEVEL	CASES	% OF TOTAL
Tis/Ta	I	211	34.6%
T1	II	79	13.0%
T2	III	89	14.6%
T3	IV	118	19.4%
T4	V	49	8.0%
not staged		63	10.3%
all cancers		609	

A thickness and/or level of invasion was given for almost 90% of all melanomas (Table 15.11). The largest number of lesions was at level I (35%), followed by level IV (19%).

15.7. TREATMENT

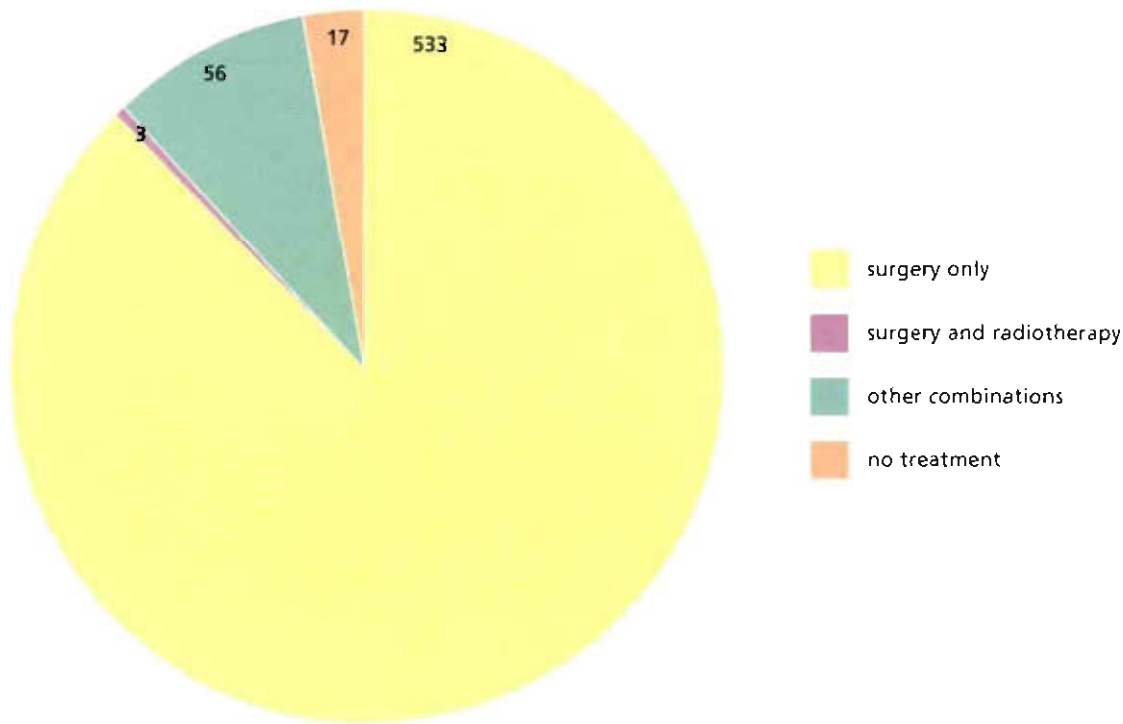
Almost all melanomas were surgically treated (Table 15.12). A small number (8%) had "other treatment", presumably immunotherapy, mainly in combination with surgery (Figure 15.2).

Table 15.12. Treatment summary

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	586	96.2%	93.9%	92.0%	92.2%
chemotherapy	6	1.0%	1.7%	1.0%	1.6%
hormone	1	0.2%	0.0%		
radiotherapy	7	1.1%	1.3%	1.1%	1.2%
other treatment	49	8.0%	9.4%	8.0%	7.6%
all cases treated	592	97.2%	95.0%	97.2%	95.6%
no treatment	17	2.8%	5.0%	2.8%	4.4%
all cases	609	609	522	499	498

Figure 15.2. Frequent treatment combinations

Note: numbers indicated refer to the number of cases treated



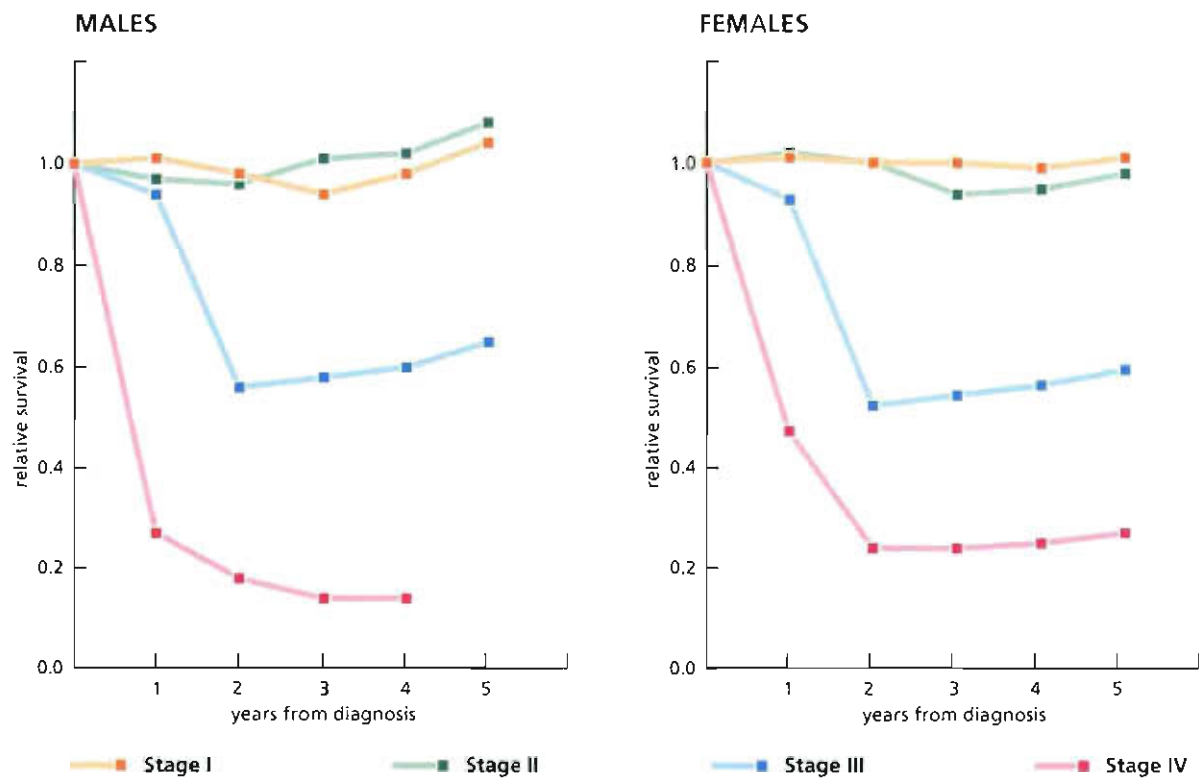
15.8. SURVIVAL

Overall survival at five years was 93%±5% for men and 96%4±% for women (Table 15.13). These figures reflect the high number of in situ and early stage lesions. Five-year relative survival for stage I cases was 104%±11% for men and 101%±7% for women, while survival for stage IV cases was unavailable for men and 28%±18% for women (Figure 15.3). A relative survival greater than 100% indicates that survival of this group was slightly better than that of the general population. This may be due, for instance, to a better socio-economic status of patients suffering from melanoma, but we have not yet investigated this.

Table 15.13. One to five year relative survival (± 95% confidence limits) for cancers diagnosed from 1994 to 1997

			YEARS FROM DIAGNOSIS					
sex	stage	cases	1		3		5	
			survival	95% confidence limits (±)	survival	95% confidence limits (±)	survival	95% confidence limits (±)
males	0	196	1.03	0.01	1.10	0.03	1.25	0.03
	I	58	1.01	0.03	0.94	0.11	1.04	0.11
	II	45	0.97	0.08	1.01	0.11	1.08	0.14
	III	11	0.94	0.18	0.58	0.31	0.65	0.32
	IV	31	0.27	0.16	0.14	0.12		
	X	434	0.93	0.03	0.83	0.05	0.82	0.07
	all	775	0.94	0.02	0.88	0.03	0.93	0.05
females	0	377	1.01	0.01	1.06	0.02	1.05	0.07
	I	110	1.01	0.02	1.00	0.05	1.01	0.07
	II	70	1.02	0.03	0.94	0.10	0.98	0.11
	III	8	0.93	0.24	0.55	0.37	0.60	0.37
	IV	26	0.48	0.20	0.25	0.18	0.28	0.18
	X	749	0.97	0.02	0.93	0.03	0.93	0.05
	all	1340	0.98	0.01	0.95	0.02	0.96	0.04

Figure 15.3. Relative survival by stage for cases diagnosed from 1994 to 1997



## 16.1. INTRODUCTION AND SUMMARY

Table 16.1. Summary of incidence and mortality statistics: stomach cancer

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C16)</b>						
1997 cases	301	175	476	233	141	374
% of all cancers	2.9%	1.6%	2.2%	5.8%	4.0%	5.0%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	16.6	9.5	13.1	12.9	7.7	10.3
World age-standardised rate	12.7	5.9		9.6	4.5	
European age-standardised rate	19.3	8.7		14.8	6.9	
cumulative risk (0-74)	1.5%	0.7%		1.1%	0.6%	
mortality/incidence ratio	0.774	0.806	0.786			
<b>Time trends (all cancers)</b>						
1994 cases	304	179	483	241	179	420
1995 cases	295	183	478	259	153	412
1996 cases	308	176	484	236	163	399
1997 cases	301	175	476	233	141	374
1994-1997 average	302	178	480	242	159	401
annual % change 1994-97	-0.7%	-1.0%	-0.9%	-2.3%	-6.0%	-4.1%
95% confidence limits of trend	(-2.2%; 0.8%)	(-2.2%; 0.1%)	(-2.3%; 0.5%)	(-7.7%; 3.4%)	(-10.7%; -1.1%)	(-6.0%; -2.3%)
<b>Invasive cancers only (ICD-10 C16)</b>						
1997 cases	297	173	470	233	141	374
% of all invasive cancers	3.0%	2.0%	2.5%	5.9%	4.0%	5.0%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	16.4	9.4	12.9	12.9	7.7	10.3
World age-standardised rate	12.5	5.8		9.6	4.5	
European age-standardised rate	19.1	8.6		14.8	6.9	
cumulative risk (0-74)	1.4%	0.7%		1.1%	0.6%	
mortality/incidence ratio	0.785	0.815	0.796			

Stomach cancer was almost twice as common in men as in women, with a high mortality in both sexes (Table 16.1). The incidence rates for both men and women have not changed since 1994.



## 16.2. AGE AND SEX PROFILE

**Table 16.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for stomach cancers, 1994 to 1997**

	MALES			FEMALES		
	annual average number of cases	cases per 100,000	relative rate	annual average number of cases	cases per 100,000	relative rate
0-4	0	0	0.0	0	0	0.0
5-9	0	0	0.0	0	0	0.0
10-14	0	0	0.4	0	0	0.0
15-19	0	0	0.0	0	0	0.0
20-24	0	0	0.2	0	0	0.1
25-29	0	0	0.1	0	0	0.1
30-34	2	2	0.7	1	1	0.1
35-39	3	2	0.8	3	2	0.4
40-44	7	5	1.0	4	3	0.5
45-49	10	8	1.0	5	5	0.5
50-54	16	17	0.9	7	8	0.6
55-59	27	35	1.2	8	10	0.6
60-64	34	50	1.0	15	21	0.9
65-69	51	84	1.1	23	34	1.1
70-74	50	99	0.9	37	59	1.5
75-79	50	141	1.1	25	51	1.1
80-84	36	171	1.1	29	84	1.6
>85	18	168	1.0	24	100	1.8
<b>all ages</b>	<b>302</b>	<b>16.8</b>	<b>1.0</b>	<b>178</b>	<b>9.8</b>	<b>1.0</b>

The largest number of cases in men was in the 65 to 69 year age group and for women in the 70 to 74 year age group (Table 16.2). The highest relative incidence rate for men was in those aged 55 to 59, and for women in those aged 85 and over.

## 16.3. SUBSITES

Most cases could be localised to a specific site within the stomach (Table 16.3). 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. Only 13% of cases had no site registered.

The largest number of cases, by the first classification system, was in the cardia (26%) and, by the second system, on the lesser curvature (13%).

**Table 16.3. Subsites of stomach cancer**

	ICD-O-2 site	MALES		FEMALES	
		cases	% of total	cases	% of total
cardia, NOS	C16.0	91	30.2%	31	17.7%
fundus	C16.1	24	8.0%	15	8.6%
body	C16.2	25	8.3%	15	8.6%
antrum	C16.3	32	10.6%	17	9.7%
pylorus	C16.4	23	7.6%	17	9.7%
lesser curvature	C16.5	38	12.6%	26	14.9%
greater curvature	C16.6	16	5.3%	17	9.7%
overlapping lesion	C16.8	18	6.0%	10	5.7%
stomach, NOS	C16.9	34	11.3%	27	15.4%
<b>all cancers</b>		<b>301</b>		<b>175</b>	

## 16.4. GEOGRAPHICAL VARIATION

### INTERNATIONAL

**Table 16.4. Age-adjusted incidence rate (European standard population) and rank of rates by country, 1994 to 1997 (invasive cases only)**

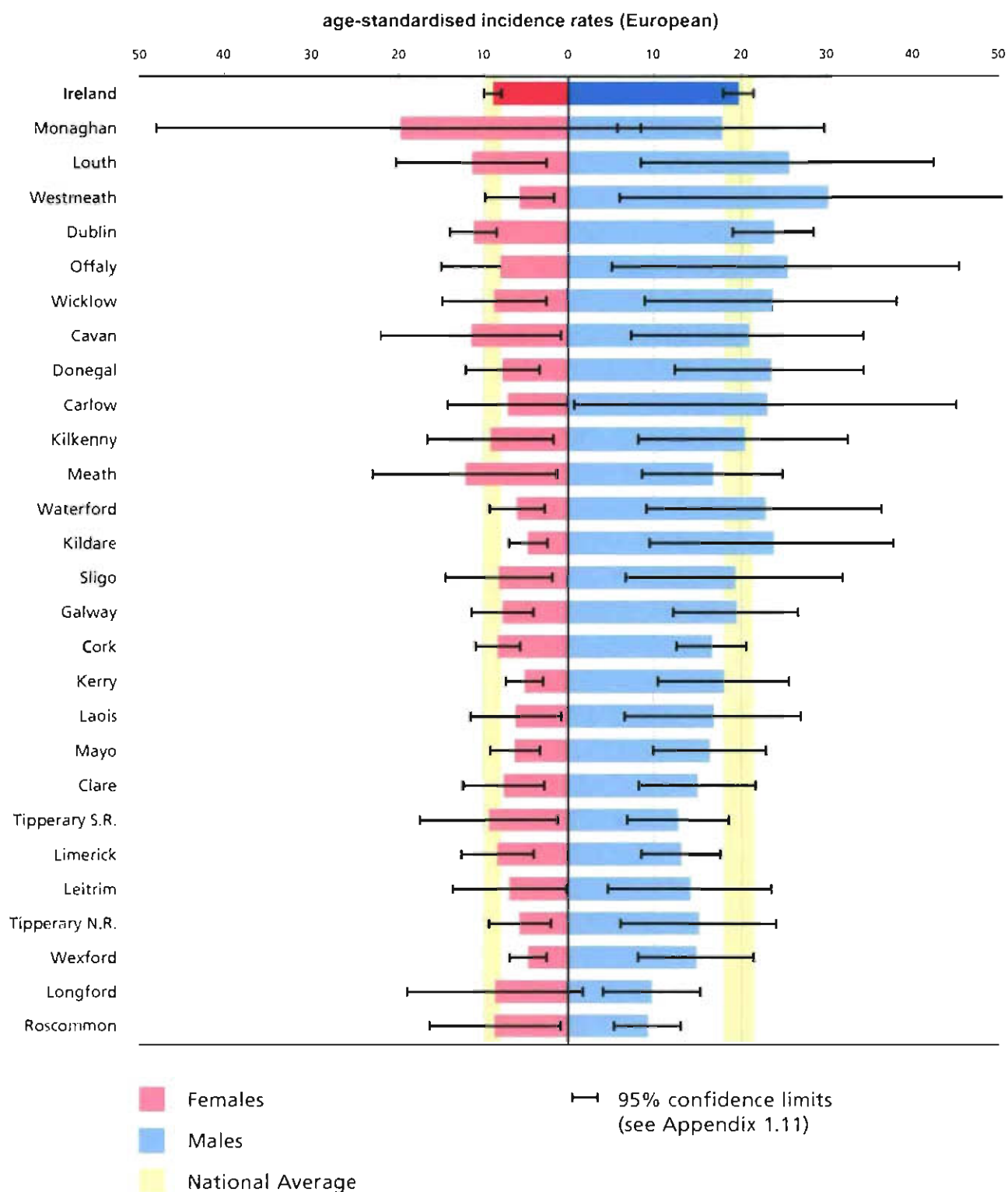
	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Estonia	47	1	22	1
Slovenia	34	3	15	3
Italy	36	2	13	6
Slovakia	32	4	14	4
Austria	27	6	15	2
Poland	30	5	12	7
Czech Republic	27	7	13	5
Scotland	23	9	11	9
Bulgaria	22	11	11	8
Germany	23	10	9	13
Malta	23	8	7	19
N. Ireland	22	12	8	16
Finland	19	15	10	10
Spain	20	13	9	11
<b>Ireland (1994-1997)</b>	<b>19</b>	<b>14</b>	<b>9</b>	<b>14</b>
Netherlands	19	16	8	15
Norway	17	17	9	12
Iceland	17	18	8	17
France	16	19	7	20
England	16	20	6	22
Switzerland	14	21	7	18
Sweden	13	22	7	21
Denmark	12	23	5	23

The highest incidence of gastric cancer for both men and women was found in Estonia, and the lowest in Denmark (Table 16.4). Ireland ranked 14th highest of 23 for both men and women, below Northern Ireland and Scotland, but above England.

# NATIONAL

The highest incidence rate for men was in Westmeath (153% of expected) and for women in Monaghan (222% of expected) (Figure 16.1). The lowest rates were for men in Roscommon (47% of expected) and for women in Kildare and Wexford (53% of expected).

**Figure 16.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: stomach cancer**



## 16.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 16.5. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>434</b>	<b>91.2%</b>
histology of primary	413	86.8%
histology of other site	18	3.8%
cytology	2	0.4%
bone marrow	1	0.2%
<b>clinical diagnosis</b>	<b>42</b>	<b>8.8%</b>
clinical	20	4.2%
radiology	17	3.6%
post-mortem	2	0.4%
other/not known	3	0.6%
<b>all cancers</b>	<b>476</b>	

A histological confirmation of diagnosis was made in 91.2% of cases (Table 16.5). Quite a high proportion (4%) was diagnosed by histology of a metastatic site.

Most of the cancers diagnosed were adenocarcinoma (288 cases; 60.5%) (Table 16.6). Other cancers included carcinoid (3) and leiomyosarcoma (5).

**Table 16.6. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
adenocarcinoma, NOS	8140/3	247	51.9%	249	51.8%
signet ring cell carcinoma	8490/3	57	12.0%	64	13.2%
malignant neoplasm	8000/3	44	9.2%	51	10.6%
carcinoma, NOS	8010/3	36	7.6%	31	6.4%
adenocarcinoma intestinal type	8144/3	27	5.7%	17	3.6%
mucin-secreting adenocarcinoma	8481/3	11	2.3%	13	2.6%
mucous adenocarcinoma	8480/3	5	1.1%	11	2.2%
squamous cell carcinoma, NOS	8070/3	9	1.9%	6	1.3%
papillary adenocarcinoma, NOS	8260/3	2	0.4%	5	0.9%
carcinoma in situ, NOS	8010/2	3	0.6%	4	0.8%
carcinoma diffuse type	8145/3	6	1.3%	4	0.8%
carcinoid tumour, NOS	8240/3	3	0.6%	4	0.8%
linitis plastica	8142/3	5	1.1%	4	0.7%
leiomyosarcoma, NOS	8890/3	5	1.1%	3	0.6%
adenocarcinoma in situ, NOS	8140/2	1	0.2%	2	0.4%
acinar cell carcinoma	8550/3	3	0.6%	2	0.4%
all other types		12	2.5%	13	2.7%
<b>Behaviour</b>					
uncertain		1	0.2%	1	0.3%
in situ		5	1.1%	7	1.4%
invasive		470	98.7%	473	98.4%
<b>all cases</b>		<b>476</b>		<b>480</b>	



## 16.6. STAGE

**Table 16.7. Summary stage**

stage	1997		1994-1997 AVERAGE	
	cases	% of total	cases	% of total
0	5	1.1%	7	1.4%
IA	13	2.7%	12	2.4%
IB	14	2.9%	14	2.9%
II	24	5.0%	22	4.6%
IIIA	22	4.6%	29	6.0%
IIIB	15	3.2%	19	4.0%
IV	140	29.4%	133	27.7%
not applicable	4	0.8%	6	1.2%
not staged	239	50.2%	239	49.7%
<b>all cancers</b>	<b>476</b>		<b>480</b>	

**Table 16.8. Extent of disease**

EXTENT OF DISEASE	CASES	% OF TOTAL
local	52	10.9%
regional	78	16.4%
distant	139	29.2%
not applicable	4	0.8%
not known	203	42.6%
<b>all cancers</b>	<b>476</b>	

Full summary stage information was available for 50% of stomach cancers (Table 16.7). Just under 30% (60% of those staged) were at stage IV. This pattern has not changed since 1994.

Extent of disease information was available for 57% of cases, of which the majority had metastasised at the time of diagnosis (Table 16.8).

The most frequent TNM combination was T3 N1 M0 (Table 16.9).

**Table 16.9. TNM stage**

T stage	N stage	M0		M1		NOT STAGED	
		cases	% of total	cases	% of total	cases	% of total
Tis/Ta	N0	5	1.1%	0	0.0%	0	0.0%
T1	N0	13	2.7%	0	0.0%	2	0.4%
	N1	1	0.2%	2	0.4%	2	0.4%
	N2	0	0.0%	0	0.0%	1	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	1	0.2%	1	0.2%	5	1.1%
T2	N0	14	2.9%	2	0.4%	5	1.1%
	N1	12	2.5%	3	0.6%	6	1.3%
	N2	2	0.4%	1	0.2%	1	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	2	0.4%	5	1.1%	10	2.1%
T3	N0	13	2.7%	2	0.4%	10	2.1%
	N1	17	3.6%	10	2.1%	27	5.7%
	N2	13	2.7%	3	0.6%	4	0.8%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	2	0.4%	9	1.9%	8	1.7%
T4	N0	3	0.6%	3	0.6%	2	0.4%
	N1	2	0.4%	4	0.8%	5	1.1%
	N2	1	0.2%	6	1.3%	6	1.3%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	8	1.7%	13	2.7%	22	4.6%
not staged	N0	4	0.8%	2	0.4%	1	0.2%
	N1	2	0.4%	4	0.8%	1	0.2%
	N2	1	0.2%	3	0.6%	1	0.2%
	N3	0	0.0%	0	0.0%	0	0.0%
	not staged	14	2.9%	66	13.9%	84	17.6%
<b>all T</b>	<b>all N</b>	<b>130</b>	<b>27.3%</b>	<b>139</b>	<b>29.2%</b>	<b>203</b>	<b>42.6%</b>
staging not applicable		4	0.8%				
<b>all cancers</b>		<b>476</b>					

## 16.7. TREATMENT

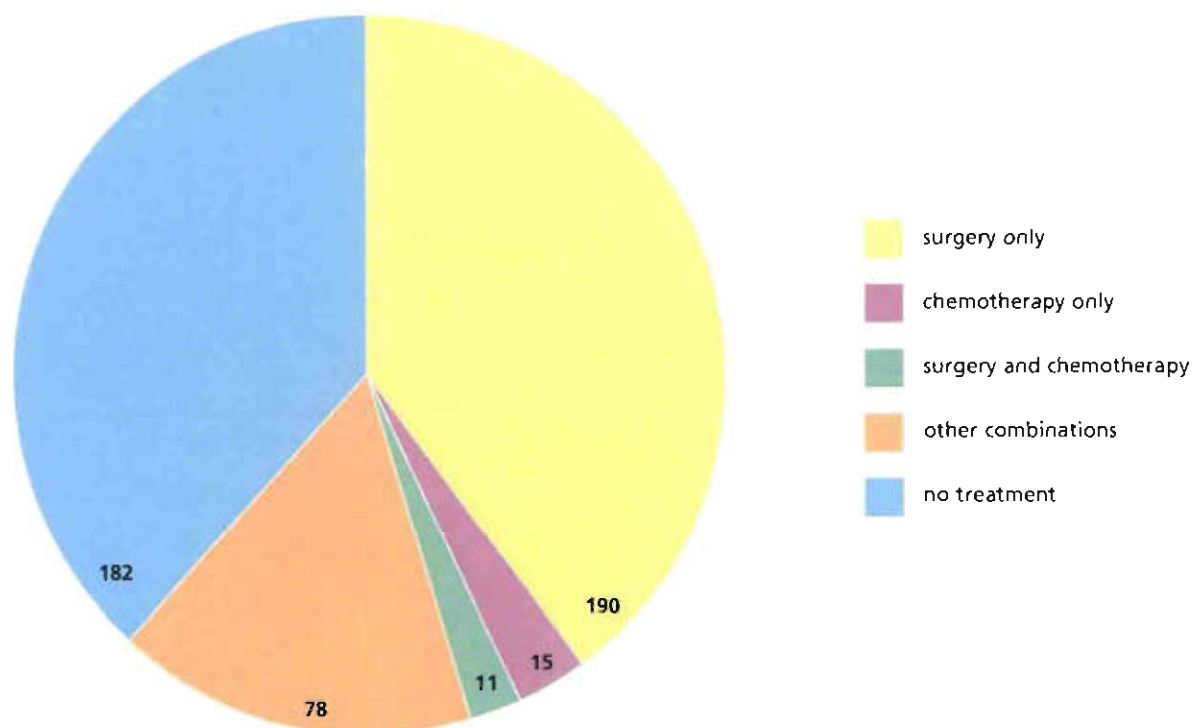
45% of patients had surgery, usually without adjuvant therapy (Table 16.10). Few patients had radiotherapy or chemotherapy, although the numbers having chemotherapy have increased from 6% to 8.4% since 1994 (Figure 16.2).

**Table 16.10. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	213	44.7%	44.2%	42.3%	44.5%
chemotherapy	40	8.4%	7.2%	6.3%	6.0%
hormone	2	0.4%	0.2%		
radiotherapy	14	2.9%	3.3%	2.9%	2.9%
other treatment	62	13.0%	18.6%	13.0%	48.2%
all cases treated	294	61.8%	64.7%	61.8%	77.4%
no treatment	182	38.2%	35.3%	38.2%	22.6%
<b>all cases</b>	<b>476</b>	<b>476</b>	<b>484</b>	<b>478</b>	<b>483</b>

**Figure 16.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



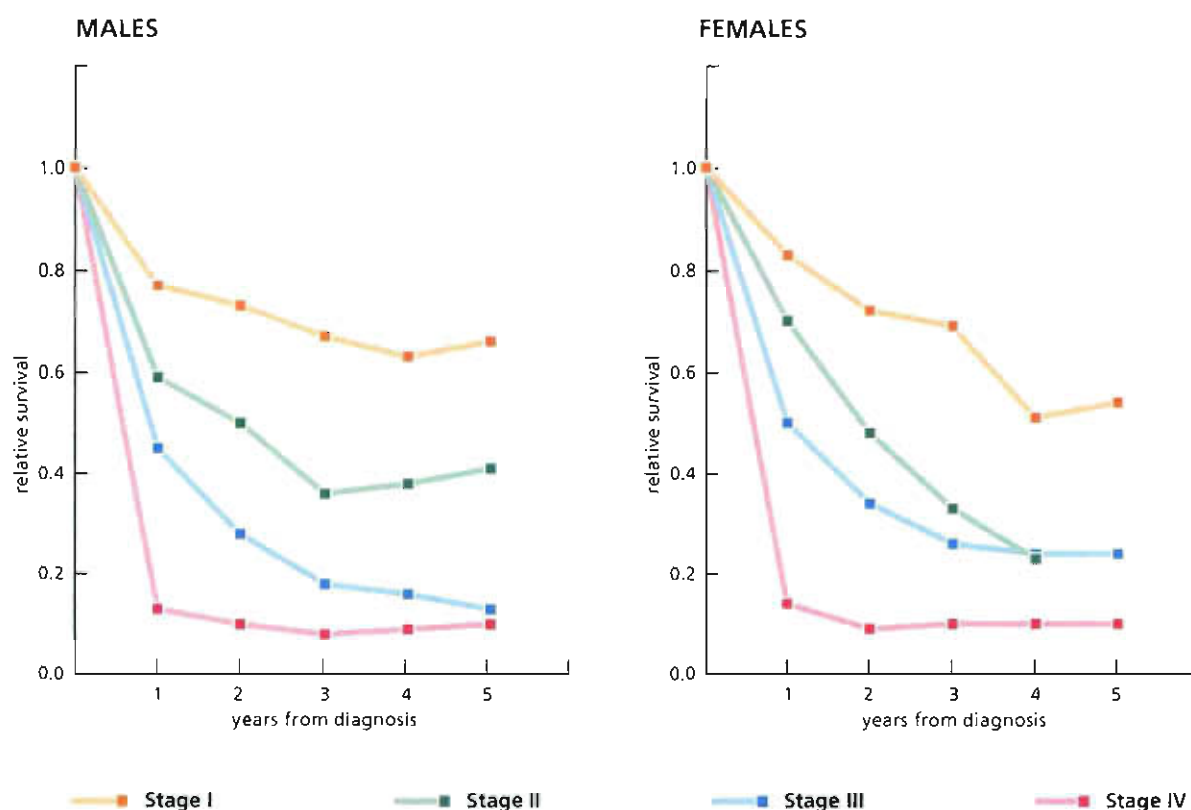
## 16.8. SURVIVAL

**Table 16.11. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

sex	stage	cases	YEARS FROM DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	0	10	0.82	0.26	0.68	0.37	0.73	0.38
	I	61	0.77	0.12	0.67	0.14	0.66	0.17
	II	53	0.59	0.14	0.36	0.15	0.41	0.15
	III	127	0.45	0.09	0.18	0.07	0.13	0.07
	IV	336	0.13	0.04	0.08	0.03	0.10	0.03
	X	577	0.39	0.04	0.27	0.04	0.28	0.04
	<b>all</b>	<b>1164</b>	<b>0.35</b>	<b>0.03</b>	<b>0.23</b>	<b>0.03</b>	<b>0.23</b>	<b>0.03</b>
females	0	14	0.84	0.23	0.74	0.27	0.84	0.28
	I	40	0.83	0.13	0.69	0.18	0.54	0.27
	II	35	0.70	0.16	0.33	0.19		
	III	62	0.50	0.13	0.26	0.11	0.24	0.12
	IV	182	0.14	0.05	0.10	0.04	0.10	0.04
	X	358	0.36	0.05	0.27	0.05	0.27	0.06
	<b>all</b>	<b>691</b>	<b>0.37</b>	<b>0.04</b>	<b>0.26</b>	<b>0.04</b>	<b>0.24</b>	<b>0.05</b>

Survival was poor for stomach cancer (Table 16.11). Overall survival at five years was 23% $\pm$ 3% for men and 24% $\pm$ 5% for women. Five-year survival for stage I cases was 66% $\pm$ 17% for men and 54% $\pm$ 27% for women, while survival for stage IV cases was 10% $\pm$ 3% for men and 10% $\pm$ 4% for women (Figure 16.3).

**Figure 16.3. Relative survival by stage for cases diagnosed from 1994 to 1997**



## 17.1. INTRODUCTION AND SUMMARY

Table 17.1. Summary of incidence and mortality statistics: lymphoma

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
<b>All cancers (invasive, in situ and uncertain) (ICD-O-2 C00 to C80, M-9590 to M-9723)</b>						
1997 cases	265	232	497	117	101	218
% of all cancers	2.5%	2.1%	2.3%	2.9%	2.9%	2.9%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	14.6	12.6	13.6	6.5	5.5	6.0
World age-standardised rate	12.5	9.6		5.1	3.6	
European age-standardised rate	16.5	12.5		7.3	5.2	
cumulative risk (0-74)	1.3%	1.0%		0.6%	0.4%	
mortality/incidence ratio	0.442	0.435	0.439			
<b>Time trends (all cancers)</b>						
1994 cases	242	221	463	115	107	222
1995 cases	228	196	424	126	94	220
1996 cases	251	212	463	130	89	219
1997 cases	265	232	497	117	101	218
1994-1997 average	247	215	462	122	98	220
annual % change 1994-97	+3.5%	+0.7%	+2.2%	-0.3%	-2.3%	-1.2%
95% confidence limits of trend	(-0.3%; 7.4%)	(-4.9%; 6.7%)	(-2.2%; 6.8%)	(-6.2%; 5.9%)	(-10.1%; 6.2%)	(-1.4%; -1.0%)
<b>Invasive cancers only (ICD-10 C81 to C85)</b>						
1997 cases	262	230	492	117	101	218
% of all invasive cancers	2.7%	1.2%	2.6%	2.9%	2.9%	2.9%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	14.5	12.5	13.5	6.5	5.5	6.0
World age-standardised rate	12.3	9.5		5.1	3.6	
European age-standardised rate	16.3	12.4		7.3	5.2	
cumulative risk (0-74)	1.3%	1.0%		0.6%	0.4%	
mortality/incidence ratio	0.447	0.439	0.443			

The cumulative risk of lymphoma for men was 1.3% to age 75 and for women 1.0%. (Table 17.1). The incidence for men has increased by 3.5% annually since 1994, but that for women has remained almost unchanged.



## 17.2. AGE AND SEX PROFILE

**Table 17.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for lymphoma, 1994 to 1997**

	MALES			FEMALES		
	annual average number of cases	cases per 100,000	relative rate	annual average number of cases	cases per 100,000	relative rate
0-4	2	1	2.7	1	1	2.8
5-9	2	2	5.5	1	1	3.7
10-14	4	2	6.5	3	2	6.8
15-19	9	5	9.8	5	3	5.6
20-24	8	5	6.5	7	5	2.7
25-29	8	6	4.8	8	6	1.5
30-34	10	8	4.7	10	7	1.5
35-39	12	10	3.8	8	6	1.0
40-44	15	12	2.8	8	6	0.8
45-49	17	15	2.2	10	9	0.8
50-54	23	24	1.6	16	18	1.1
55-59	22	29	1.2	19	25	1.1
60-64	22	32	0.8	21	30	1.1
65-69	31	51	0.8	24	36	0.9
70-74	23	46	0.5	29	47	1.0
75-79	22	62	0.6	22	45	0.8
80-84	14	65	0.5	16	47	0.7
>85	5	48	0.3	9	39	0.6
<b>all ages</b>	<b>247</b>	<b>13.7</b>	<b>1.0</b>	<b>215</b>	<b>11.8</b>	<b>1.0</b>

The largest number of cases for men was in the 65 to 69 year age group, while the highest relative rate was in those aged 15 to 19 (Table 17.2). For women, the largest number of cases was in the 70 to 74 year age group, while the highest relative rate was in those aged 10 to 14.

### 17.3. PRIMARY SITES

Primary lymphoma was diagnosed in many sites (Table 17.3). The majority had a primary site of lymph nodes (69%) or other lymphoid tissue, but there were significant numbers in the skin (23; 4.6%) and stomach (33; 6.6%).

**Table 17.3. Primary sites of lymphoma**

	MALES		FEMALES		BOTH SEXES	
	cases	% of total	cases	% of total	cases	% of total
lymph nodes	192	72.5%	150	64.7%	342	68.8%
stomach	13	4.9%	20	8.6%	33	6.6%
skin	13	4.9%	10	4.3%	23	4.6%
small intestine	10	3.8%	4	1.7%	14	2.8%
tonsil	3	1.1%	6	2.6%	9	1.8%
colon	6	2.3%	2	0.9%	8	1.6%
bones, joints head and trunk	2	0.8%	4	1.7%	6	1.2%
haematopoietic and reticulendothelial	4	1.5%	1	0.4%	5	1.0%
lung	3	1.1%	2	0.9%	5	1.0%
nasal cavity/middle ear	2	0.8%	1	0.4%	3	0.6%
rectum	1	0.4%	2	0.9%	3	0.6%
other tongue	2	0.8%	0	0.0%	2	0.4%
nasopharynx	2	0.8%	0	0.0%	2	0.4%
bones, joints of limbs	2	0.8%	0	0.0%	2	0.4%
testis	2	0.8%	0	0.0%	2	0.4%
liver	1	0.4%	1	0.4%	2	0.4%
eye	1	0.4%	1	0.4%	2	0.4%
peritoneum	1	0.4%	0	0.0%	1	0.2%
connective tissues	1	0.4%	0	0.0%	1	0.2%
prostate	1	0.4%	0	0.0%	1	0.2%
brain	1	0.4%	4	1.7%	5	1.0%
unknown primary site	1	0.4%	0	0.0%	1	0.2%
floor of mouth	0	0.0%	1	0.4%	1	0.2%
palate	0	0.0%	1	0.4%	1	0.2%
parotid	0	0.0%	2	0.9%	2	0.4%
oesophagus	0	0.0%	1	0.4%	1	0.2%
rectosigmoid	0	0.0%	1	0.4%	1	0.2%
other digestive	0	0.0%	2	0.9%	2	0.4%
sinuses	0	0.0%	1	0.4%	1	0.2%
mediastinum	0	0.0%	1	0.4%	1	0.2%
breast	0	0.0%	3	1.3%	3	0.6%
vagina	0	0.0%	1	0.4%	1	0.2%
cervix	0	0.0%	2	0.9%	2	0.4%
kidney	0	0.0%	1	0.4%	1	0.2%
thyroid	0	0.0%	5	2.2%	5	1.0%
ill-defined site	0	0.0%	1	0.4%	1	0.2%

## 17.4. GEOGRAPHICAL VARIATION

### INTERNATIONAL

**Table 17.4. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: lymphoma (invasive cases only)**

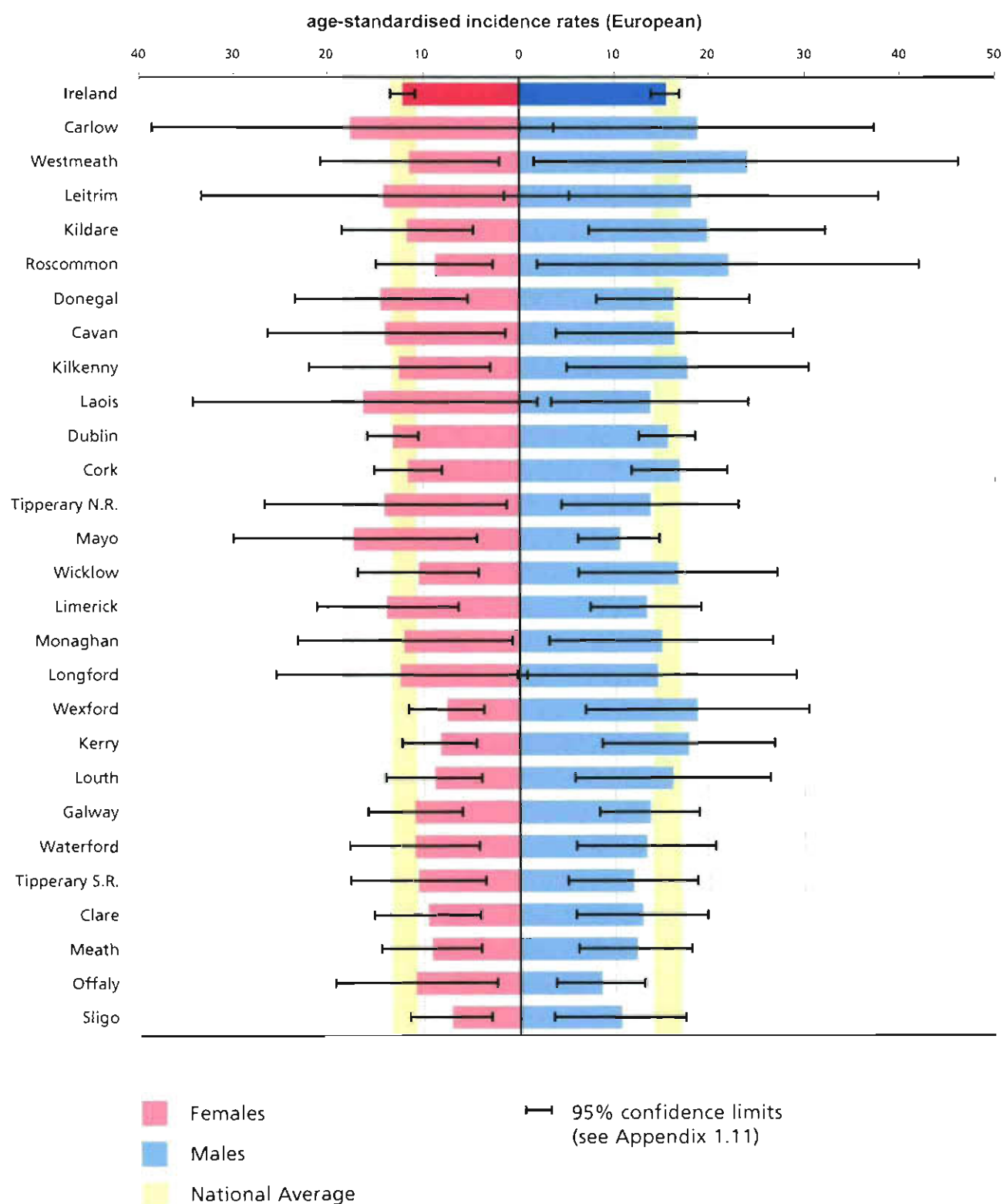
	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Finland	19.7	4	14.2	1
N. Ireland	21.4	2	11.9	8
Scotland	18.6	6	13.3	3
Switzerland	19.8	3	12.1	6
Spain	22.5	1	8.9	17
France	19.0	5	11.8	10
Italy	17.2	9	13.6	2
Iceland	18.5	7	12.2	5
Netherlands	17.9	8	11.8	9
<b>Ireland (1994-1997)</b>	<b>15.4</b>	<b>13</b>	<b>12.0</b>	<b>7</b>
Denmark	16.8	10	11.4	11
Sweden	16.7	11	11.3	12
England	16.0	12	10.8	14
Germany	14.9	14	10.8	13
Malta	9.7	20	12.3	4
Czech Republic	12.0	15	9.5	15
Austria	11.4	18	9.1	16
Slovenia	11.5	17	8.5	18
Estonia	11.5	16	8.4	19
Slovakia	10.8	19	7.7	20
Poland	9.0	22	7.3	21
Norway	9.3	21	6.6	22
Bulgaria	6.0	23	3.0	23

Ireland ranked 13th in male incidence and 7th in female incidence (Table 17.4). However, the differences between countries were quite small in the majority of cases.

**NATIONAL**

The highest rate for males was in Westmeath (154% of expected) and the lowest in Offaly (54%) (Figure 17.1). The highest rate for women was in Carlow (154% of expected) and the lowest in Sligo (60%).

**Figure 17.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: lymphoma**





## 17.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 17.5. Most valid basis of diagnosis**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>492</b>	<b>99.0%</b>
histology of primary	469	94.4%
histology of other site	6	1.2%
bone marrow biopsy	14	2.8%
cytology	3	0.6%
<b>clinical diagnosis</b>	<b>5</b>	<b>1.0%</b>
post mortem	3	0.6%
radiology	2	0.4%
<b>all cancers</b>	<b>497</b>	

Most cases (99%) were diagnosed by histology, either of an affected node (94%), bone marrow (3%) or another site (1%) (Table 17.5).

Many lymphomas continue to be given non-specific labels – those described just as lymphoma or non-Hodgkin's lymphoma made up 34% of the total (Table 17.6). The most frequent specific type was large cell diffuse (13.5% of the total).

**Table 17.6. Morphology of lymphoma**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
non-Hodgkin's, NOS	9591/3	77	15.5%	85	18.5%
lymphoma, NOS	9590/3	92	18.5%	76	16.4%
large cell diffuse, NOS	9680/3	67	13.5%	55	11.9%
Hodgkin's disease nodular sclerosis, NOS	9663/3	37	7.4%	35	7.6%
follicular (nodular), NOS	9690/3	30	6.0%	20	4.3%
small cell lymphocytic, NOS	9670/3	14	2.8%	20	4.2%
diffuse, NOS	9595/3	21	4.2%	19	4.0%
Hodgkin's disease mixed cellularity, NOS	9652/3	14	2.8%	14	3.0%
Hodgkin's disease, NOS	9650/3	20	4.0%	14	3.0%
mixed small and large cell, diffuse	9675/3	11	2.2%	12	2.7%
mycosis fungoides	9700/3	12	2.4%	12	2.6%
mixed small cleaved and large cell, follicular	9691/3	13	2.6%	10	2.2%
small cell cleaved, follicular	9695/3	11	2.2%	9	1.9%
immunoblastic, NOS	9684/3	7	1.4%	8	1.7%
large cell (Ki-1)	9714/3	12	2.4%	6	1.3%
large cell follicular, NOS	9698/3	3	0.6%	6	1.3%
all other types		56	11.3%	62	13.4%
<b>all cancers</b>		<b>497</b>		<b>462</b>	

## 17.6. STAGE

Lymphomas, both Hodgkin's and non-Hodgkin's, were staged by the Ann Arbor (UICC) system regardless of the organ of origin (Table 17.7). Staging was available for 80% of cases. The largest number (129; 26%) were stage I cancers.

**Table 17.7. Ann Arbor staging of lymphomas**

T stage	SYSTEMIC SYMPTOMS					
	NO (A)		YES (B)		NOT KNOWN	
	cases	% of total	cases	% of total	cases	% of total
I	78	16%	6	1%	14	3%
Ie	8	2%	8	2%	3	1%
Ix	1	0%	1	0%	10	2%
II	37	7%	18	4%	7	1%
Ile	10	2%	8	2%	3	1%
IIx	3	1%	4	1%	8	2%
III	28	6%	17	3%	7	1%
IIle	5	1%	7	1%	1	0%
IIIs	1	0%	8	2%	1	0%
IIle+s	1	0%	2	0%	1	0%
IIIx	0	0%	4	1%	5	1%
IV	29	6%	36	7%	21	5%
not staged	10	2%	4	1%	82	16%
<b>all stages</b>	<b>211</b>	<b>42%</b>	<b>123</b>	<b>25%</b>	<b>163</b>	<b>33%</b>
<b>all cancers</b>	<b>497</b>					

## 17.7. TREATMENT

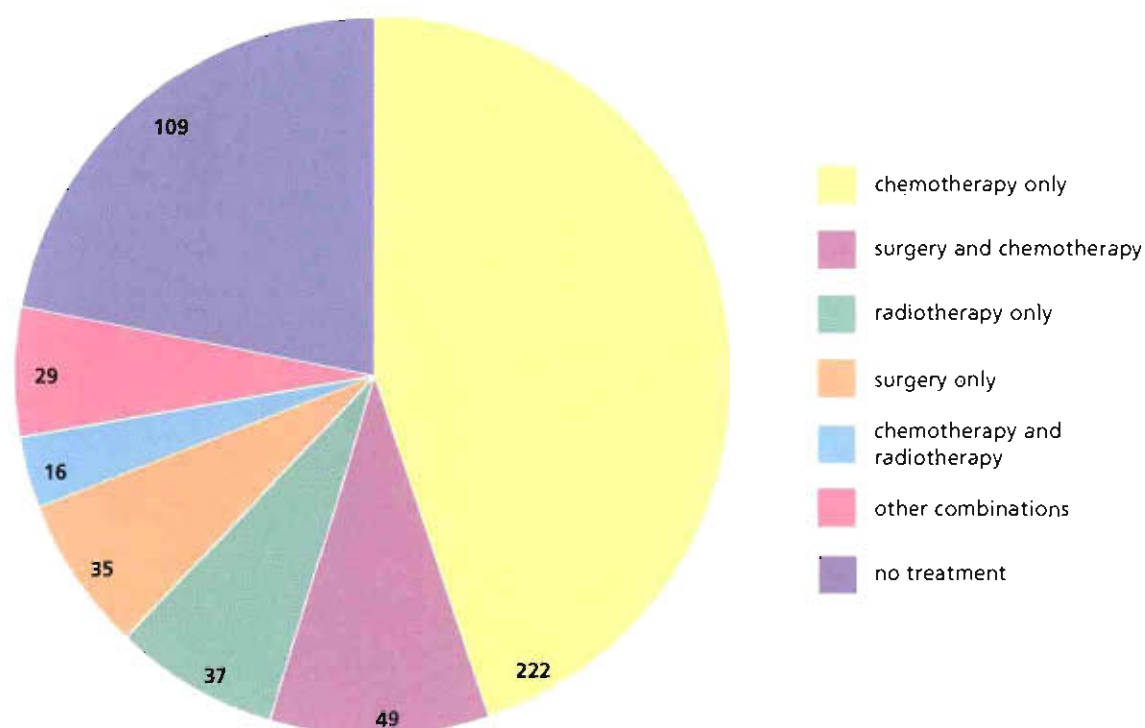
Chemotherapy was the most frequent treatment used (61%), followed by surgery (19%) (Table 17.8). The use of radiotherapy has declined from 15% in 1994 to 13% in 1997. Treatment combinations are shown in Figure 17.2.

**Table 17.8. Treatment summary**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	95	19.1%	10.8%	11.6%	10.4%
chemotherapy	302	60.8%	60.9%	63.0%	60.9%
hormone	2	0.4%	0.4%		
radiotherapy	63	12.7%	14.0%	12.7%	15.1%
other treatment	19	3.8%	10.4%	3.8%	35.2%
all cases treated	388	78.1%	78.8%	78.1%	85.5%
no treatment	109	21.9%	21.2%	21.9%	14.5%
<b>all cases</b>	<b>497</b>	<b>497</b>	<b>463</b>	<b>424</b>	<b>463</b>

**Figure 17.2. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



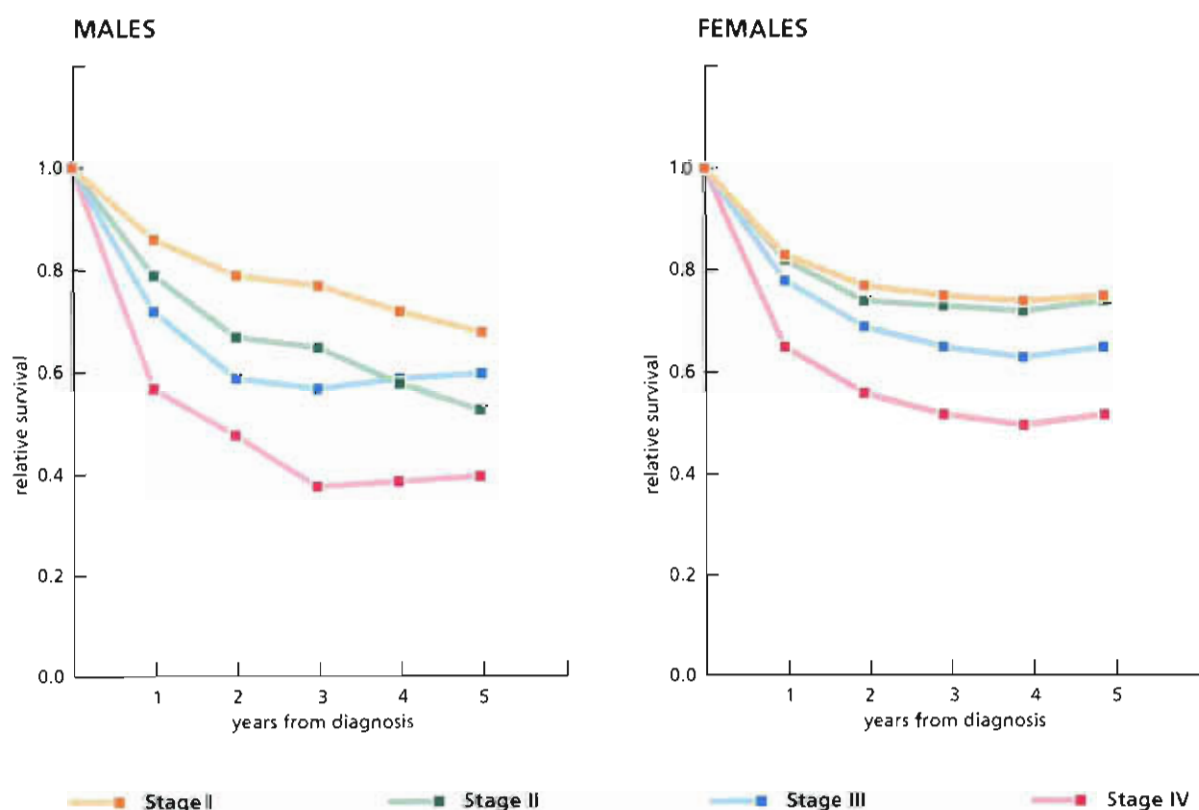
## 17.8. SURVIVAL

Overall survival at five years was  $55\% \pm 5\%$  for men and  $65\% \pm 4\%$  for women. Survival was not greatly dependent on stage (Figure 17.3). Five-year survival for stage I cases was  $68\% \pm 13\%$  for men and  $75\% \pm 8\%$  for women, while survival for stage IV cases was  $40\% \pm 8\%$  for men and  $52\% \pm 11\%$  for women.

**Table 17.9. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

sex	stage	cases	YEARS FROM DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	I	172	0.86	0.06	0.77	0.08	0.68	0.13
	II	125	0.79	0.08	0.65	0.09	0.53	0.15
	III	98	0.72	0.09	0.57	0.11	0.60	0.11
	IV	205	0.57	0.07	0.38	0.08	0.40	0.08
	X	356	0.73	0.05	0.64	0.06	0.58	0.09
	all	956	0.73	0.03	0.61	0.03	0.55	0.05
females	I	164	0.83	0.06	0.75	0.08	0.75	0.08
	II	132	0.82	0.07	0.73	0.08	0.74	0.09
	III	92	0.78	0.09	0.65	0.11	0.65	0.12
	IV	130	0.65	0.09	0.52	0.10	0.52	0.11
	X	316	0.73	0.05	0.63	0.06	0.61	0.08
	all	834	0.76	0.03	0.65	0.04	0.65	0.04

**Figure 17.3. Relative survival by stage for cases diagnosed from 1994 to 1997**





## 18.1. INTRODUCTION AND SUMMARY

Table 18.1. Summary of incidence and mortality statistics: leukaemia

	INCIDENT CASES			DEATHS		
	males	females	both sexes	males	females	both sexes
All cancers (ICD-O 2 C42.1, M-9800 to M-9941 and ICD-10 C91 to C95)						
1997 cases	195	144	339	124	90	214
% of all cancers	1.8%	1.3%	1.6%	3.1%	2.5%	2.8%
<i>Incidence and mortality rates (per 100,000 persons per year)</i>						
crude rate	10.8	7.8	9.3	6.9	4.9	5.9
World age-standardised rate	8.9	6.2		5.4	3.2	
European age-standardised rate	12.0	7.5		7.8	4.3	
cumulative risk (0-74)	0.8%	0.5%		0.5%	0.3%	
mortality/incidence ratio	0.636	0.625	0.631			
<b>Time trends (all cancers)</b>						
1994 cases	180	153	333	109	87	196
1995 cases	203	113	316	101	80	181
1996 cases	189	138	327	120	90	210
1997 cases	195	144	339	125	90	215
1994-1997 average	192	137	329	114	87	201
annual % change 1994-97	+1.1%	-0.4%	+0.1%	+5.1%	+1.0%	+3.4%
95% confidence limits of trend	(-3.8%; 6.1%)	(-14.3%; 15.8%)	(-2.1%; 2.3%)	(-1.0%; 11.6%)	(-3.2%; 5.3%)	(-1.7%; 8.7%)

Leukaemia cases made up 1.6% of all cancers registered, with a mortality of 60% (Table 18.1). The incidence rates have not changed significantly since 1994.

## 18.2. AGE AND SEX PROFILE

**Table 18.2. Annual average number of cases, age-specific incidence rate and relative age-specific rate for leukaemia 1994 to 1997**

	MALES			FEMALES		
	annual average number of cases	cases per 100,000	relative rate	annual average number of cases	cases per 100,000	relative rate
0-4	9	7	18.3	8	6	27.7
5-9	4	3	13.4	4	3	17.5
10-14	4	2	9.0	3	2	11.7
15-19	4	2	5.9	4	2	6.5
20-24	3	2	3.6	3	2	1.6
25-29	3	3	2.7	3	2	0.8
30-34	4	3	2.2	2	2	0.5
35-39	4	3	1.5	3	3	0.6
40-44	6	5	1.5	4	4	0.7
45-49	5	4	0.8	6	5	0.7
50-54	10	10	0.9	8	9	0.9
55-59	10	13	0.7	8	10	0.7
60-64	23	33	1.0	8	11	0.6
65-69	22	36	0.8	17	25	1.0
70-74	30	60	0.9	18	29	1.0
75-79	23	64	0.8	19	39	1.1
80-84	19	91	0.9	15	44	1.1
>85	10	91	0.8	7	27	0.7
<b>all ages</b>	<b>192</b>	<b>10.7</b>	<b>1.0</b>	<b>137</b>	<b>7.5</b>	<b>1.0</b>

The largest number of cases for men was in the 70 to 74 year age group with the highest relative rate in the 0 to 4 age group (9 cases) (Table 18.2). For women the largest number of cases was in the 75 to 79 year age group and the highest relative rate in those aged 0 to 4 (8 cases).

## 18.3. SUBSITES

No subsites were recorded for leukaemia.

## 18.4. GEOGRAPHICAL DISTRIBUTION

### INTERNATIONAL

Apart from the very low rate in Norway, international variation in leukaemia rates was small. Ireland ranked 7th in incidence for both men and women (Table 18.3). The incidence was higher than that registered in Northern Ireland, England or Scotland.

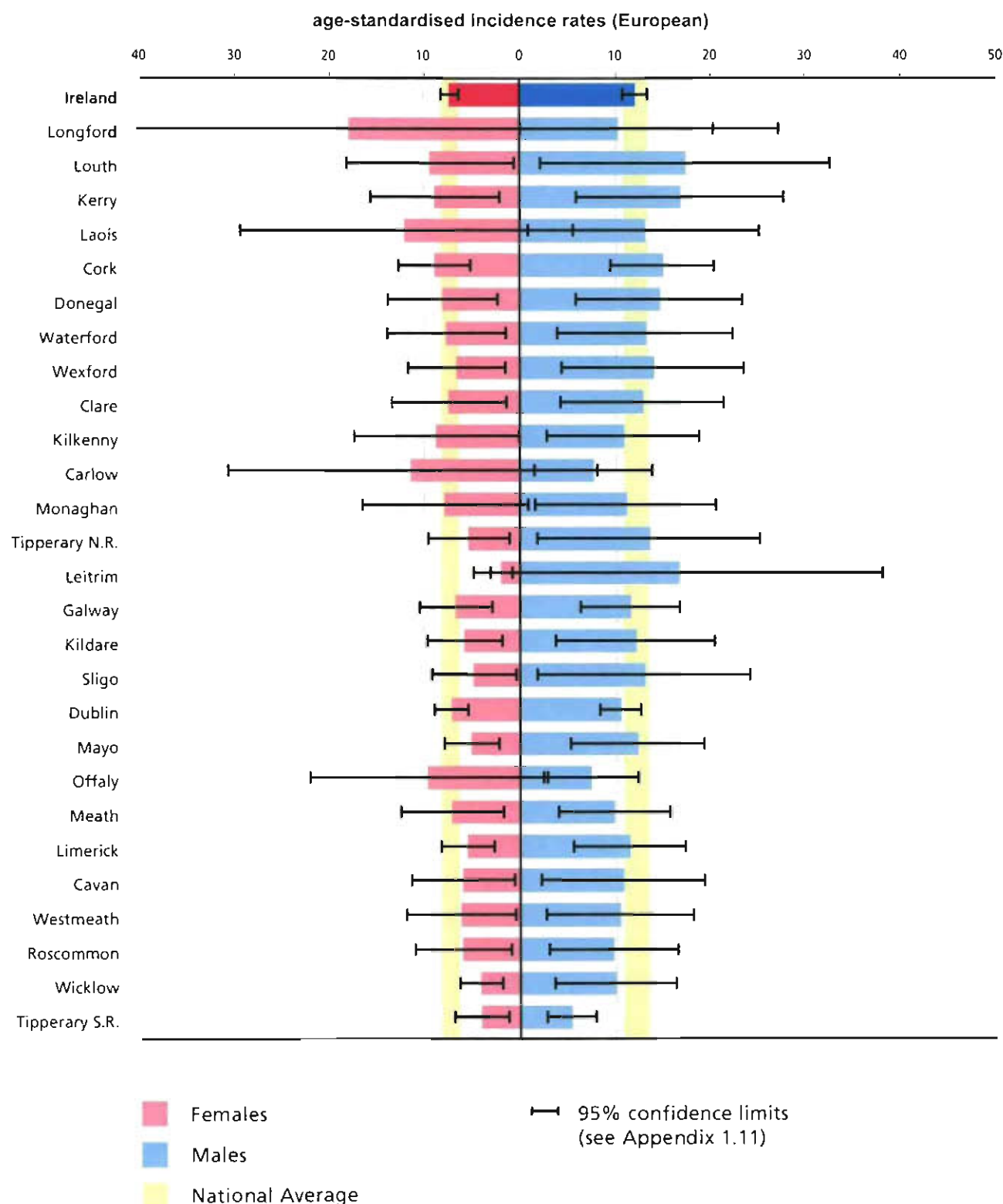
**Table 18.3. Age-adjusted annual incidence rate (European standard population) and rank of rates by country, 1995: leukaemia (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Switzerland	18.7	1	7.2	8
Malta	17.1	2	8.6	3
Iceland	13.2	6	9.6	1
Estonia	13.9	3	8.4	4
Italy	13.4	4	8.8	2
Denmark	13.2	5	8.0	5
<b>Ireland (1994-1997)</b>	<b>12.0</b>	<b>7</b>	<b>7.3</b>	<b>7</b>
Sweden	10.7	12	7.8	6
N. Ireland	10.9	10	7.2	9
Slovakia	11.5	8	6.5	13
Germany	10.7	13	7.0	10
England	10.7	13	6.9	11
Scotland	11.2	9	5.9	15
Austria	10.2	15	6.5	13
France	10.0	17	6.5	12
Slovenia	10.8	11	5.4	17
Czech Republic	10.0	16	5.4	17
Spain	9.3	19	5.6	16
Finland	9.4	18	5.3	19
Poland	9.1	20	3.9	20
Bulgaria	5.1	22	3.8	21
Netherlands	5.9	21	2.6	22
Norway	1.5	23	0.8	23

# NATIONAL

The highest incidence rate for men was in Louth (144% of expected) and the lowest in Tipperary South (44% of expected) (Figure 18.1). The highest rate for women was in Longford (244% of expected) and the lowest in Leitrim (27% of expected). None of the differences from average was statistically significant.

**Figure 18.1. Age-adjusted (European population) rates and 95% confidence limits by county, 1994 to 1997: leukaemia**





## 18.5. BASIS OF DIAGNOSIS AND HISTOLOGICAL TYPE

**Table 18.4. Most valid basis of diagnosis of cancer**

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
<b>tissue diagnosis</b>	<b>267</b>	<b>78.8%</b>
histology of primary	6	1.8%
bone marrow	261	77.0%
<b>clinical diagnosis</b>	<b>72</b>	<b>21.2%</b>
clinical	4	1.2%
blood film	67	19.8%
radiology	1	0.3%
<b>all cancers</b>	<b>339</b>	

77% per cent of the cases were diagnosed by bone marrow aspiration and 20% by blood film (Table 18.4).

Chronic lymphoid leukaemia was the commonest type, making up 34% of the total (Table 18.5), followed by acute myeloid (20%) and acute lymphoid (13%).

**Table 18.5. Morphology**

Description	ICD-O-2 code	1997		1994-1997 AVERAGE	
		cases	% of total	cases	% of total
chronic lymphoid	9823/3	116	34.2%	117	35.7%
acute myeloid	9861/3	69	20.4%	63	19.2%
acute lymphoid	9821/3	45	13.3%	47	14.3%
chronic myeloid	9863/3	32	9.4%	28	8.4%
leukaemia NOS	9800/3	18	5.3%	18	5.6%
acute leukaemia NOS	9801/3	14	4.1%	12	3.5%
acute myelofibrosis	9932/3	10	2.9%	10	2.9%
hairy cell	9940/3	5	1.5%	7	2.1%
chronic myelomonocytic	9868/3	5	1.5%	5	1.6%
acute promyelocytic	9866/3	6	1.8%	5	1.4%
acute myelomonocytic	9867/3	4	1.2%	4	1.3%
acute monocytic	9891/3	5	1.5%	3	0.8%
myeloid NOS	9860/3	1	0.3%	3	0.8%
chronic leukaemia NOS	9803/3	0	0.0%	1	0.3%
lymphoid NOS	9820/3	1	0.3%	1	0.3%
acute megakaryoblastic	9910/3	0	0.0%	1	0.3%
all other types		8	2.4%	6	1.7%
<b>all cancers</b>		<b>339</b>		<b>329</b>	

18.6. TREATMENT

Many patients (47%; 158 patients) were recorded as having no specific treatment (Table 18.6). Almost all of the patients treated had chemotherapy. Combination therapy was infrequent (Figure 18.2).

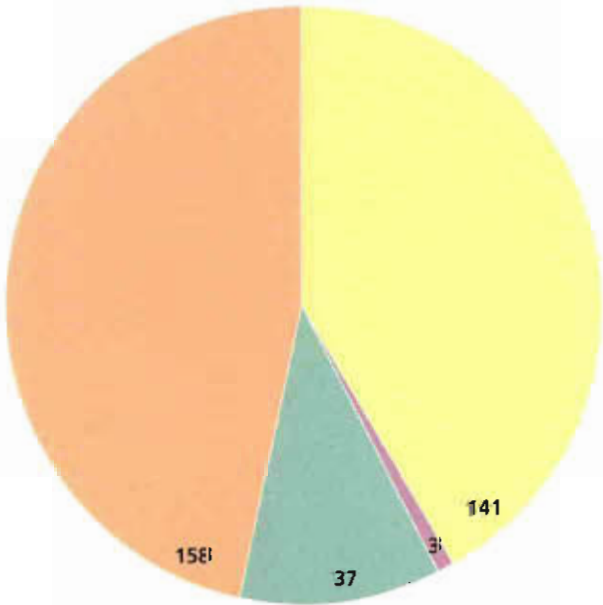
Table 18.6. Treatment summary

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	3	0.9%	0.3%	0.0%	0.3%
chemotherapy	155	45.7%	47.7%	47.8%	44.7%
hormone	4	1.2%	0.6%		
radiotherapy	4	1.2%	1.2%	1.2%	1.2%
other treatment	30	8.8%	11.0%	8.8%	21.3%
all cases treated	181	53.4%	56.0%	53.4%	59.2%
no treatment	158	46.6%	44.0%	46.6%	40.8%
all cases	339	339	327	316	333

Figure 18.2. Frequent treatment combinations

Note: numbers indicated refer to the number of cases treated

- chemotherapy only
- hormone only
- other combinations
- no treatment



Most of the untreated patients (87; 55%) had chronic lymphatic leukaemia (Table 18.7).

Table 18.7. Untreated leukaemias

DESCRIPTION	CASES	NUMBER UNTREATED	% UNTREATED
all leukaemias	339	158	47%
chronic lymphoid	116	87	75%
acute myeloid	69	27	39%
acute lymphoid	45	3	7%
chronic myeloid	32	7	22%
leukaemia, NOS	18	10	56%
acute leukaemia, NOS	14	7	50%
acute myelofibrosis	10	9	90%
hairy cell	5	0	0%
chronic myelomonocytic	5	3	60%
acute promyelocytic	6	0	0%
acute myelomonocytic	4	1	25%
acute monocytic	5	0	0%
myeloid, NOS	1	1	100%
lymphoid, NOS	1	1	100%
all other types	8	2	25%

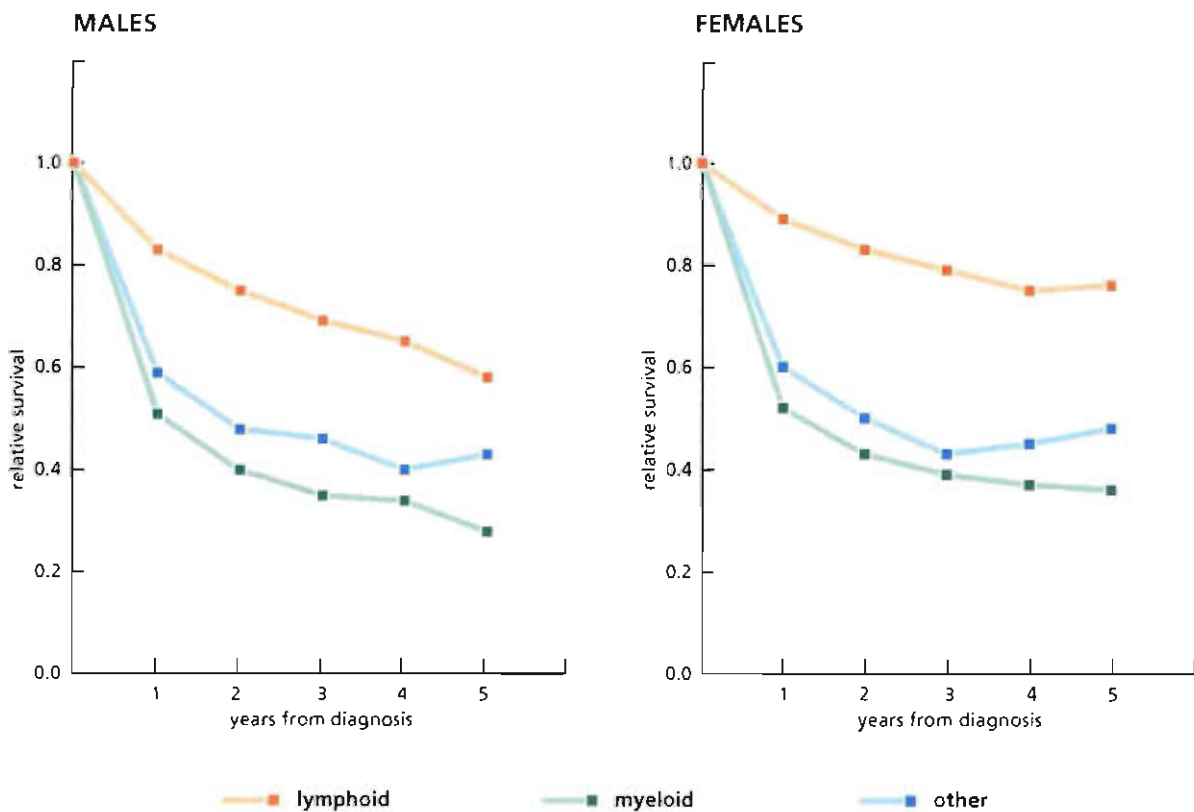
## 18.7. SURVIVAL

Overall survival at five years was  $47\% \pm 7\%$  for men and  $57\% \pm 7\%$  for women (Table 18.8). Five-year survival from lymphoid leukaemia was  $58\% \pm 10\%$  for men and  $76\% \pm 9\%$  for women (Figure 18.3). Survival from myeloid leukaemia was  $28\% \pm 10\%$  for men and  $36\% \pm 9\%$  for women.

**Table 18.8. One to five year relative survival ( $\pm$  95% confidence limits) for cancers diagnosed from 1994 to 1997**

sex	type	cases	YEARS FROM DIAGNOSIS					
			1		3		5	
			survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )	survival	95% confidence limits ( $\pm$ )
males	lymphoid	401	0.83	0.05	0.69	0.06	0.58	0.10
	myeloid	230	0.51	0.07	0.35	0.08	0.28	0.10
	other	135	0.59	0.08	0.46	0.10	0.43	0.13
	<b>all</b>	<b>766</b>	<b>0.69</b>	<b>0.03</b>	<b>0.55</b>	<b>0.05</b>	<b>0.47</b>	<b>0.07</b>
females	lymphoid	267	0.89	0.05	0.79	0.07	0.76	0.09
	myeloid	200	0.52	0.07	0.39	0.08	0.36	0.09
	other	81	0.60	0.11	0.43	0.13	0.48	0.15
	<b>all</b>	<b>548</b>	<b>0.71</b>	<b>0.04</b>	<b>0.59</b>	<b>0.05</b>	<b>0.57</b>	<b>0.07</b>

**Figure 18.3. Relative survival by type for cases diagnosed from 1994 to 1997**



## 19.1. INTRODUCTION AND SUMMARY

**Table 19.1. Summary of incidence and mortality statistics: all childhood cancers (benign, uncertain and invasive)**

	CASES			DEATHS		
	males	females	all	males	females	all
<b>Case/death numbers 1997</b>						
0-4	24	22	46	5	5	10
5-9	16	18	34	2	4	6
10-14	18	20	38	6	3	9
0-14	58	60	118	13	12	25
% of total	0.55%	0.55%	0.55%	0.32%	0.34%	0.33%
<b>Crude Incidence and mortality rates (per 100,000 per year), 1997</b>						
0-4	19.0	18.4	18.7	4.0	4.2	4.1
5-9	11.3	13.4	12.3	1.4	3.0	2.2
10-14	10.9	12.8	11.8	3.6	1.9	2.8
0-14	13.4	14.6	14.0	3.0	2.9	3.0
<b>Mortality/incidence ratio</b>						
0-4	0.21	0.23	0.22			
5-9	0.13	0.22	0.18			
10-14	0.33	0.15	0.24			
0-14	0.22	0.20	0.21			
<b>Time trends in numbers of cases per year</b>						
males	1994	1995	1996	1997	1994-1997 average	
0-4	26	33	24	24	26.8	
5-9	15	26	10	16	16.8	
10-14	22	25	23	18	22.0	
0-14	63	84	57	58	65.5	
females						
0-4	21	19	23	22	21.3	
5-9	16	15	16	18	16.3	
10-14	22	22	14	20	19.5	
0-14	59	56	53	60	57.0	

Childhood cancers were uncommon, and made up only 0.5% of all cancers registered (Table 19.1). There was an exceptionally large number of male cases in 1995, but overall case numbers average about 60 per year for both boys and girls, with a somewhat lower incidence in the 5 to 9 year olds.

Cancer mortality seems to be equal in boys and girls, at 20%.



## 19.2. GEOGRAPHICAL VARIATION

### INTERNATIONAL

The incidence of childhood cancer in Ireland is typical of European countries (Table 19.2). However, inter-country variation in childhood cancer is expected to be slight.

**Table 19.2. Age-adjusted (European standard) incidence rates and rank of rates by country, 1995, for patients under 15: all cancers excluding non-melanoma skin (invasive cases only)**

	MALES		FEMALES	
	age-standardised rate	rank	age-standardised rate	rank
Spain	36	1	35	1
Malta	24	3	25	2
Switzerland	21	5	24	3
Denmark	25	2	13	11
Slovenia	18	6	16	4
Italy	24	4	6	23
Finland	15	11	14	7
England	16	10	13	8
<b>Ireland</b>	<b>14</b>	<b>15</b>	<b>15</b>	<b>5</b>
Sweden	16	8	13	12
Scotland	15	11	13	10
France	16	9	12	14
Netherlands	14	13	13	9
Estonia	14	16	14	6
Slovakia	16	7	10	19
N. Ireland	14	14	11	16
Germany	13	18	10	17
Austria	13	17	9	20
Iceland	9	22	13	12
Bulgaria	10	20	10	18
Czech Republic	11	19	9	21
Poland	8	23	12	15
Norway	10	21	9	22

**NATIONAL**

The figures for childhood cancer, by county, are given in Table 19.3. The inter-county differences in incidence rate, because of the very small number of cases, are not significant.

**Table 19.3. Yearly average number of cases and crude incidence rates by county, 1994 to 1997**

	MALES		FEMALES		BOTH	
	cases	cases per 100,000 per year	cases	cases per 100,000 per year	cases	cases per 100,000 per year
Ireland	66	15	57	14	123	14
Carlow	2	28	1	25	3	26
Cavan	1	11	1	8	1	9
Clare	3	23	1	11	4	17
Cork	8	16	7	15	15	15
Donegal	3	16	2	12	5	14
Dublin	15	12	15	13	30	13
Galway	2	9	3	12	5	10
Kerry	4	23	3	17	6	20
Kildare	3	14	3	16	5	15
Kilkenny	2	18	2	22	4	20
Laoighis	1	7	1	15	2	11
Leitrim	1	16	0	0	1	9
Limerick	4	19	3	13	6	16
Longford	0	6	1	20	1	13
Louth	2	17	2	16	4	17
Mayo	3	18	2	17	5	17
Meath	2	15	1	5	3	10
Monaghan	1	7	0	0	1	4
Offaly	2	22	1	17	3	20
Roscommon	1	16	2	25	3	20
Sligo	1	7	1	20	2	13
Tipperary N.R.	1	10	2	25	3	18
Tipperary S.R.	2	21	1	8	3	15
Waterford	2	13	1	11	3	12
Westmeath	1	16	1	16	3	16
Wexford	3	19	1	6	3	12
Wicklow	2	15	1	10	3	13

### 19.3. SITES

Leukaemia and brain cancer were the commonest types, but cancers were found at a wide variety of primary sites in children (Table 19.4).

**Table 19.4. Sites of childhood cancer: number of cases, 1997**

	ICD-10 code	MALES					FEMALES				
		0-4	5-9	10-14	0-14	% of total	0-4	5-9	10-14	0-14	% of total
<b>all cancers</b>		<b>24</b>	<b>16</b>	<b>18</b>	<b>58</b>		<b>22</b>	<b>18</b>	<b>20</b>	<b>60</b>	
brain	C71	3	7	4	14	24.1%	3	6	4	13	21.7%
lymphoid leukaemia	C91	9	1	2	12	20.7%	6	5	2	13	21.7%
kidney	C64	3	0	0	3	5.2%	3	1	0	4	6.7%
other and unspecified NHL	C85	0	0	2	2	3.4%	0	1	3	4	6.7%
adrenal	C74	1	2	0	3	5.2%	2	0	0	2	3.3%
myeloid leukaemia	C92	0	1	1	2	3.4%	2	0	1	3	5.0%
bones, joints of limbs	C40	0	1	3	4	6.9%	0	0	0	0	0.0%
other lymphoid and haematopoietic	C96	2	1	0	3	5.2%	0	0	1	1	1.7%
uncertain: oral and digestive	D37	0	0	0	0	0.0%	0	0	4	4	6.7%
peripheral nerves	C47	1	1	0	2	3.4%	0	1	0	1	1.7%
diffuse non-Hodgkin's lymphoma	C83	0	0	1	1	1.7%	0	1	1	2	3.3%
uncertain: meninges	D42	0	0	0	0	0.0%	1	1	1	3	5.0%
liver	C22	0	0	0	0	0.0%	2	0	0	2	3.3%
non-melanoma skin	C44	0	1	0	1	1.7%	0	0	0	0	0.0%
eye	C69	1	0	0	1	1.7%	1	0	0	1	1.7%
Hodgkin's disease	C81	0	0	0	0	0.0%	0	0	2	2	3.3%
other mouth	C06	0	0	0	0	0.0%	1	0	0	1	1.7%
other salivary	C08	0	0	1	1	1.7%	0	0	0	0	0.0%
nasopharynx	C11	0	1	0	1	1.7%	0	0	0	0	0.0%
stomach	C16	0	0	1	1	1.7%	0	0	0	0	0.0%
bones, joints head and trunk	C41	1	0	0	1	1.7%	0	0	0	0	0.0%
connective tissues	C49	0	0	0	0	0.0%	1	0	0	1	1.7%
testis	C62	0	0	1	1	1.7%	0	0	0	0	0.0%
meninges	C70	1	0	0	1	1.7%	0	0	0	0	0.0%
spinal cord	C72	0	0	0	0	0.0%	0	0	1	1	1.7%
other endocrine	C75	0	0	2	2	3.4%	0	0	0	0	0.0%
uncertain: female genital	D39	0	0	0	0	0.0%	0	1	0	1	1.7%
myelodysplastic syndromes	D46	1	0	0	1	1.7%	0	0	0	0	0.0%
other uncertain lymphoid, haematopoietic	D47	1	0	0	1	1.7%	0	0	0	0	0.0%
uncertain: other sites	D48	0	0	0	0	0.0%	0	1	0	1	1.7%

19.4. BASIS OF DIAGNOSIS AND MORPHOLOGY

Table 19.5. Most valid basis of diagnosis

BASIS OF DIAGNOSIS	CASES	% OF TOTAL
tissue diagnosis	110	93.2%
histology of primary	78	66.1%
cytology	1	0.8%
bone marrow	31	26.3%
clinical diagnosis	8	6.8%
clinical	2	1.7%
blood film	1	0.8%
radiology	5	4.2%
all cancers	118	

93% of cases were histologically verified either by biopsy or bone marrow examination (Table 19.5).

The commonest histological types by the ICCC classification were acute lymphoid leukaemia (21% of cases) and astrocytoma (16%) (Table 19.6). The table below also includes a small number of non-invasive cancers, which are not described in the ICCC classification.

Table 19.6. Histological classification of childhood cancers

Description	ICCC code	MALES		FEMALES		BOTH SEXES	
		cases	% of total	cases	% of total	cases	% of total
lymphoid leukaemia	Ia	12	21%	13	22%	25	21%
acute non-lymphocytic leukaemia	Ib	2	3%	3	5%	5	4%
Hodgkin's disease	IIa	0	0%	2	3%	2	2%
non-Hodgkin's lymphoma	IIb	2	3%	3	5%	5	4%
Burkitt's lymphoma	IIc	0	0%	1	2%	1	1%
other lymphoreticular lymphoma	IId	3	5%	1	2%	4	3%
unspecified lymphoma	IIf	1	2%	2	3%	3	3%
ependymoma	IIIa	0	0%	1	2%	1	1%
astrocytoma	IIIb	10	17%	9	15%	19	16%
primitive neuroectodermal tumours	IIIc	3	5%	1	2%	4	3%
other gliomas	IIId	1	2%	3	5%	4	3%
unspecified intracranial and intraspinal tumours	IIIff	1	2%	0	0%	1	1%
neuroblastoma and ganglioblastoma	IVa	3	5%	1	2%	4	3%
other sympathetic nervous system tumours	IVb	1	2%	0	0%	1	1%
rhabdomyosarcoma and embryonal sarcoma	IXa	2	3%	1	2%	3	3%
fibrosarcoma	IXb	0	0%	1	2%	1	1%
other specified soft tissue sarcoma	IXd	1	2%	0	0%	1	1%
retinoblastoma	V	1	2%	1	2%	2	2%
Wilm's tumour	VIa	3	5%	4	7%	7	6%
hepatoblastoma	VIIa	0	0%	2	3%	2	2%
osteosarcoma	VIIIa	1	2%	0	0%	1	1%
Ewing's sarcoma	VIIIc	4	7%	0	0%	4	3%
intracranial and intraspinal germ cell tumours	Xa	1	2%	0	0%	1	1%
other and unspecified non germ cell tumours	Xb	0	0%	1	2%	1	1%
adrenocortical carcinoma	XIa	1	2%	1	2%	2	2%
other and unspecified carcinoma	XIf	1	2%	0	0%	1	1%
other unspecified malignant tumours	XIIb	1	2%	0	0%	1	1%
all ICCC classified cancers		55	97%	51	85%	106	91%
outside ICCC classification		3	3	9	15%	12	9%
all childhood cancers		58		60		118	



## 19.5. TREATMENT

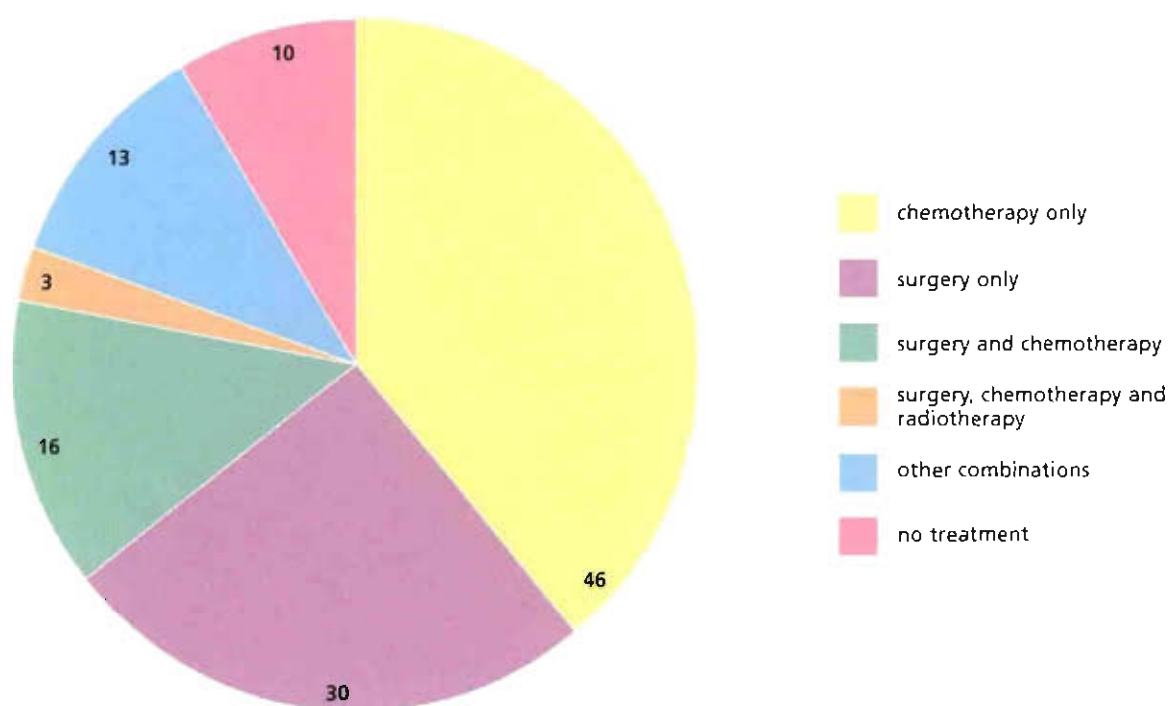
Treatment data is not very meaningful, due to the wide range of tumour types affecting children (Table 19.7., Figure 19.1).

**Table 19.7. Treatment of childhood cancer**

TREATMENT	NUMBER OF 1997 CASES TREATED	TRENDS IN % OF CASES TREATED			
		1997	1996	1995	1994
surgery	57	48.3%	31.8%	42.1%	45.9%
chemotherapy	69	58.5%	56.4%	55.0%	52.5%
hormone	1	0.8%	0.0%		
radiotherapy	7	5.9%	9.1%	5.9%	10.7%
other treatment	10	8.5%	11.8%	8.5%	11.5%
all cases treated	108	91.5%	85.5%	91.5%	89.3%
no treatment	10	8.5%	14.5%	8.5%	10.7%
<b>all cases</b>	<b>118</b>	<b>118</b>	<b>110</b>	<b>140</b>	<b>122</b>

**Figure 19.1. Frequent treatment combinations**

Note: numbers indicated refer to the number of cases treated



# Appendix 1. Methods & Glossary of Terms

## 1. INCIDENT CASE

Any case diagnosed in a resident of the Republic of Ireland during the calendar year 1997.

All cancers of malignant, in situ and uncertain/borderline behaviour were registered, regardless of primary site. Benign intracranial and intraspinal cancers were also registered.

Where a person had a previously or simultaneously diagnosed cancer, a new cancer was registered if, in the opinion of the Registry, this new cancer differed in site and/or morphology from all others. The rules used in making this decision were based on, but not identical to, those developed by the UK Association of Cancer Registries and the SEER registries in the U.S.A.

Cases notified by death certificate only were not registered.

## 2. POPULATION AT RISK

The population for each county and for Ireland as a whole for 1997 was estimated by linear extrapolation of the population trends between the 1991 and 1996 censuses.<sup>1</sup>

## 3. CRUDE INCIDENCE RATE

The number of incident cases divided by the population at risk; usually expressed per 100,000 persons per year.

## 4. AGE-SPECIFIC RATE

The number of cases per person in a specific age band, usually for five-year age bands up to age 85. It is generally expressed per 100,000 persons per year.

## 5. RELATIVE AGE-SPECIFIC RATE

The number of cases per person in a specific age band, divided by the number expected. The number expected is calculated by assuming that the distribution of cases by age is the same as that for all cancers combined.

$$\text{relative age-specific rate for age group } i = \frac{a_{ij} \cdot a_{..}}{a_{i.} \cdot a_{.j}}$$

where:

$a_{ij}$  = age-specific rate for the  $i^{\text{th}}$  age group and the  $j^{\text{th}}$  cancer site

$a_{i.}$  = age-specific rate for the  $i^{\text{th}}$  age group and all cancer sites

$a_{.j}$  = crude incidence rate for all ages and the  $j^{\text{th}}$  cancer site

$a_{..}$  = crude incidence rate for all ages and cancer sites

These have been based on pooled data for 1994, 1995 and 1996 to provide more precise estimates.

## 6. EUROPEAN (EASR) AND WORLD (WASR) AGE-STANDARDISED RATE

The incidence rate that would have been found if the population of Ireland had the same age and sex composition as a hypothetical European or world population. The rates are calculated by applying the age-specific rates for Ireland, or a county, to a theoretical European or World standard population; usually expressed per 100,000 persons per year.

$$ASR = \frac{\sum_{i=1}^{15} a_i \cdot w_i}{\sum_{i=1}^{15} w_i}$$

where:

$a_i$  = age-specific rate for the  $i^{\text{th}}$  age group

$w_i$  = standard "World" or "European" weights

## 7. CUMULATIVE RATE TO AGE 75

The total accumulated cancer incidence or mortality rate between age 0 and 74 inclusive.

$$\text{cumulative rate} = \sum_{i=1}^{15} a_i * 5$$

where:

$a_i$  = age specific rate for the  $i^{\text{th}}$  age group

## 8. CUMULATIVE RISK TO AGE 75

The risk to an individual, given current cancer rates, of developing, or dying of, a cancer before his or her 75<sup>th</sup> birthday; usually expressed as a percentage.

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

## 9. MORTALITY/INCIDENCE (M/I) RATIO

The number of deaths for a period (usually a year) divided by the number of incident cases of the same condition for the same period.

## 10. RELATIVE SURVIVAL

The ratio between the survival of cancer cases and the expected survival of the same number of persons with the same age and sex composition in the general population.<sup>4</sup> For some subgroups of cancer, the relative risk may be greater than one. This can come about when mortality from the cancer is small, and mortality from other causes in the group which is diagnosed with the cancer is less than for the population as a whole. This may happen, for instance, where the cancer is linked with higher social class.

Relative survival was calculated for all registered cases where, after the exclusion of all non-melanoma skin cancers

(a) a valid survival  $\geq 0$  days could be calculated

(b) the patient had one, and only one, primary cancer.

## 11. CALCULATIONS

### a. European age-standardised ratios for counties

These have been based on pooled data for 1994, 1995, 1996 and 1997 to provide estimates that are more precise.

For each estimate of the annual rate, a 95% confidence limit has been given both in the figures in each chapter and in Tables A2.5. If these confidence limits for any specific county are outside the national average it is likely that the incidence rate for that county for that cancer will be consistently higher every year (or lower, as the case may be) than the national average. If the value for the county is different from the national average, but the confidence limits include this average, then it is likely that measurements of the rate in future years will not be consistently above or below average.

As each table of county rates consists of 27 separate comparisons with the national average, a Bonferroni correction has been applied in calculating the 95% confidence limits for each county. The limits shown are equivalent to 99.8% confidence limits for the individual county. The results given by this more conservative method accord with those derived from linear modelling of the county effect.

### b. Survival

Relative survival was calculated using the method of Hakulinen et al<sup>4</sup> with a censoring date of January 1st, 1999. The life tables were those for 1990 to 1992.<sup>5</sup>

### c. Denominator

The denominator was the number of person-years at risk in the Republic of Ireland in 1997, as calculated by linear extrapolation from the 1991 and 1996 population censuses (Table A1.1). Populations for individual counties were also calculated by linear extrapolation.

**Table A1.1. Estimated population of Republic of Ireland by 5-year age class in 1997**

age	MALES		FEMALES	
	persons	% of total	persons	% of total
0-	126375	7.0%	119349	6.5%
5-	141733	7.8%	134098	7.3%
10-	165067	9.1%	156572	8.5%
15-	174458	9.6%	165980	9.0%
20-	151676	8.4%	147035	8.0%
25-	131104	7.2%	130486	7.1%
30-	128648	7.1%	134652	7.3%
35-	127623	7.1%	131610	7.2%
40-	121306	6.7%	122087	6.6%
45-	117491	6.5%	115437	6.3%
50-	97809	5.4%	94806	5.2%
55-	79038	4.4%	77021	4.2%
60-	69310	3.8%	69312	3.8%
65-	60116	3.3%	65904	3.6%
70-	50312	2.8%	62873	3.4%
75-	35131	1.9%	48969	2.7%
80-	21496	1.2%	35569	1.9%
85+	10902	0.6%	24805	1.4%
<b>all ages</b>	<b>1809595</b>		<b>1836566</b>	

**d. Numerator**

All cancers incident in residents of the Republic of Ireland between January 1st and December 31st, 1997, and which had been registered before January 1st, 2000, are included in this report. For cancers diagnosed at post-mortem, the date of diagnosis was taken as the date of death. Definitions of registrable conditions, death certificate notifications and multiple primary cancers have been given in the previous report. Cancers known from death certificate only and not confirmed from other sources (death certificate only or DCO cases) have not been registered as most of these are believed to have been incident before 1994.

**e. Mortality data**

The deaths analysed are all those occurring in 1997 which had been officially registered by January 1st, 1999. Only deaths where cancer was given as the primary cause of death have been included.

**f. International comparisons**

Information on cancer incidence rates for European countries was taken from EUROCIM (version 3.0).<sup>2</sup> Data have been used only from countries for which cancer registration covers a substantial proportion of the population. The names of the registries which provided the data have been given in the previous edition of this report and are contained in the software. The cases provided by EUROCIM describe invasive (malignant) cancers only.



## 12. CODING AND CLASSIFICATION

Two related systems of coding of neoplasms are in common use: the International Classification of Diseases (ICD)<sup>6</sup> and the International Classification of Diseases for Oncology (ICD-O)<sup>7</sup>. ICD-O (version 2) is routinely used by the National Cancer Registry for recording new registrations. The "site" coding axis corresponds to the malignant neoplasms section of ICD-10, but includes also benign, in situ and uncertain neoplasms, distinguishing between these by a second "morphology" axis. However, ICD (versions 9 or 10) is commonly used for registration of deaths and by many registries for published data. Neither system is completely satisfactory for the presentation of registration data and so we have decided to present all the detailed tables (Appendix 2) classified by ICD-10, so other registries may use the data for comparative purposes. Individual chapters on organs or organ systems use the broader definition of a site as used in ICD-O but data are also given in the summary section for "malignant" tumours as classified by ICD-10. The only exception to this has been that lymphomas, regardless of primary site, are not included in the cases for any organ or organ system, other than "lymphoma".

It will be noted that the numbers of cases for many sites under the ICD-10 classification do not exactly agree with the number of "invasive" cancers as defined by ICD-O-2. This is because ICD-10 allocates a "default" site to cancers of some morphological types (e.g. melanoma) which is not always the same as that used by the Registry. However the differences account for only a few cases in each instance.

For childhood cancers, the International Classification of Childhood cancer (ICCC)<sup>8</sup> was used. This classifies only malignant disease, so a small number of cancers (carcinoid being the most common) fall outside this classification. The chapter on "childhood cancer" lists all cancers in those aged 0-14 regardless of behaviour.

**Note:** The ICD-O-2 coding used in the tables in this appendix differs in three minor respects from the standard classification:

1. Site C44 (skin) has been divided into melanoma (M-8720 to M-8790) and non-melanoma (all other morphologies);
2. Site C42 (haematopoietic and reticulendothelial) has been divided into "leukaemia" (M-9800 to M-9941) and "myeloma etc." (all other morphologies);
3. Lymphomas (M-9590 to M-9723) from all primary sites have been classified under the heading of "lymphoma" and do not appear in the data for other primary sites.

**Table A2.1. Summary table: number of cases and incidence rates by ICD-10 site: both sexes 1997**

*WASR: AGE STANDARDISED RATE PER 100,000, WORLD POPULATION. *EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION								
site	ICD-10 code	both sexes			males			
		cases	% of total	per 100,000	cases	% of total	per 100,000	WASR
lip	C00	41	0.2%	1.124	33	0.3%	1.824	1.357
base of tongue	C01	22	0.1%	0.603	19	0.2%	1.050	0.902
other tongue	C02	32	0.1%	0.878	19	0.2%	1.050	0.889
gum	C03	1	0.0%	0.027	1	0.0%	0.055	0.023
floor of mouth	C04	23	0.1%	0.631	17	0.2%	0.939	0.786
palate	C05	11	0.1%	0.302	6	0.1%	0.332	0.303
other mouth	C06	22	0.1%	0.603	13	0.1%	0.718	0.597
parotid	C07	26	0.1%	0.713	19	0.2%	1.050	0.847
other salivary	C08	7	0.0%	0.192	4	0.0%	0.221	0.191
tonsil	C09	16	0.1%	0.439	13	0.1%	0.718	0.624
oropharynx	C10	9	0.0%	0.247	9	0.1%	0.497	0.414
nasopharynx	C11	11	0.1%	0.302	10	0.1%	0.553	0.508
pyriform	C12	30	0.1%	0.823	21	0.2%	1.160	0.983
hypopharynx	C13	7	0.0%	0.192	4	0.0%	0.221	0.205
other mouth/pharynx	C14	14	0.1%	0.384	13	0.1%	0.718	0.588
oesophagus	C15	294	1.4%	8.063	195	1.8%	10.776	8.346
stomach	C16	470	2.2%	12.890	297	2.8%	16.413	12.529
small intestine	C17	32	0.1%	0.878	22	0.2%	1.216	0.964
colon	C18	1094	5.1%	30.004	569	5.4%	31.444	23.943
rectosigmoid	C19	140	0.7%	3.840	85	0.8%	4.697	3.713
rectum	C20	528	2.5%	14.481	346	3.3%	19.120	14.990
anus	C21	22	0.1%	0.603	9	0.1%	0.497	0.382
liver	C22	60	0.3%	1.646	37	0.4%	2.045	1.624
gallbladder	C23	53	0.2%	1.454	13	0.1%	0.718	0.629
other biliary	C24	70	0.3%	1.920	29	0.3%	1.603	1.218
pancreas	C25	342	1.6%	9.380	173	1.6%	9.560	7.317
other digestive	C26	26	0.1%	0.713	13	0.1%	0.718	0.494
nasal cavity/middle ear	C30	10	0.0%	0.274	4	0.0%	0.221	0.172
sinuses	C31	16	0.1%	0.439	11	0.1%	0.608	0.540
larynx	C32	94	0.4%	2.578	79	0.7%	4.366	3.567
trachea	C33	2	0.0%	0.055	2	0.0%	0.111	0.091
lung	C34	1417	6.6%	38.863	908	8.6%	50.177	39.112
thymus	C37	7	0.0%	0.192	6	0.1%	0.332	0.303
mediastinum	C38	8	0.0%	0.219	5	0.0%	0.276	0.204
other chest	C39	0	0.0%	0.000	0	0.0%	0.000	0.000
bones, joints of limbs	C40	26	0.1%	0.713	14	0.1%	0.774	0.754
bones, joints head and trunk	C41	12	0.1%	0.329	10	0.1%	0.553	0.504
melanoma skin	C43	406	1.9%	11.135	167	1.6%	9.229	7.883
non-melanoma skin	C44	6703	31.2%	183.837	3695	35.0%	204.189	155.734
mesothelioma	C45	23	0.1%	0.631	19	0.2%	1.050	0.894
Kaposi's sarcoma	C46	2	0.0%	0.055	2	0.0%	0.111	0.098
peripheral nerves	C47	6	0.0%	0.165	4	0.0%	0.221	0.262
peritoneum	C48	14	0.1%	0.384	5	0.0%	0.276	0.255
connective tissues	C49	67	0.3%	1.838	36	0.3%	1.989	1.599
breast	C50	1637	7.6%	44.897	17	0.2%	0.939	0.759
vulva	C51	25	0.1%	0.686	0	0.0%	0.000	0.000
vagina	C52	5	0.0%	0.137	0	0.0%	0.000	0.000
cervix	C53	159	0.7%	4.361	0	0.0%	0.000	0.000
corpus uteri	C54	218	1.0%	5.979	0	0.0%	0.000	0.000
uterus nos	C55	11	0.1%	0.302	0	0.0%	0.000	0.000
ovary	C56	306	1.4%	8.392	0	0.0%	0.000	0.000
other female genital	C57	4	0.0%	0.110	0	0.0%	0.000	0.000
placenta	C58	0	0.0%	0.000	0	0.0%	0.000	0.000
penis	C60	17	0.1%	0.466	17	0.2%	0.939	0.705
prostate	C61	1130	5.3%	30.992	1130	10.7%	62.445	44.462
testis	C62	83	0.4%	2.276	83	0.8%	4.587	4.257
other male genital	C63	0	0.0%	0.000	0	0.0%	0.000	0.000
kidney	C64	256	1.2%	7.021	174	1.6%	9.615	7.952
renal pelvis	C65	11	0.1%	0.302	5	0.0%	0.276	0.156
ureter	C66	13	0.1%	0.357	11	0.1%	0.608	0.521



		females							
EASR	cumulative rate (0-74)	cases	% of total	per 100,000	WASR	EASR	cumulative rate (0-74)	site	
2.124	0.2%	8	0.1%	0.436	0.233	0.364	0.0%	lip	
1.245	0.1%	3	0.0%	0.163	0.111	0.162	0.0%	base of tongue	
1.267	0.1%	13	0.1%	0.708	0.552	0.761	0.1%	other tongue	
0.047	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	gum	
1.148	0.1%	6	0.1%	0.327	0.247	0.334	0.0%	floor of mouth	
0.399	0.0%	5	0.0%	0.272	0.194	0.279	0.0%	palate	
0.873	0.1%	9	0.1%	0.490	0.427	0.524	0.0%	other mouth	
1.318	0.1%	7	0.1%	0.381	0.284	0.385	0.0%	parotid	
0.223	0.0%	3	0.0%	0.163	0.099	0.150	0.0%	other salivary	
0.845	0.1%	3	0.0%	0.163	0.119	0.175	0.0%	tonsil	
0.612	0.1%	0	0.0%	0.000	0.000	0.000	0.0%	oropharynx	
0.643	0.1%	1	0.0%	0.054	0.052	0.061	0.0%	nasopharynx	
1.401	0.1%	9	0.1%	0.490	0.407	0.565	0.1%	pyriform	
0.316	0.0%	3	0.0%	0.163	0.066	0.116	0.0%	hypopharynx	
0.877	0.1%	1	0.0%	0.054	0.032	0.048	0.0%	other mouth/pharynx	
12.505	1.0%	99	0.9%	5.390	3.195	4.820	0.4%	oesophagus	
19.059	1.4%	173	1.6%	9.420	5.821	8.614	0.7%	stomach	
1.453	0.1%	10	0.1%	0.544	0.404	0.556	0.1%	small intestine	
36.093	2.7%	525	4.8%	28.586	18.379	27.405	2.1%	colon	
5.577	0.5%	55	0.5%	2.995	1.936	2.906	0.2%	rectosigmoid	
22.188	1.8%	182	1.7%	9.910	6.373	9.532	0.8%	rectum	
0.549	0.0%	13	0.1%	0.708	0.538	0.759	0.1%	anus	
2.324	0.2%	23	0.2%	1.252	0.993	1.300	0.1%	liver	
0.972	0.1%	40	0.4%	2.178	1.377	2.037	0.2%	gallbladder	
1.953	0.1%	41	0.4%	2.232	1.335	2.078	0.2%	other biliary	
11.337	0.9%	169	1.5%	9.202	5.412	8.288	0.6%	pancreas	
0.866	0.0%	13	0.1%	0.708	0.417	0.651	0.0%	other digestive	
0.258	0.0%	6	0.1%	0.327	0.285	0.385	0.0%	nasal cavity/middle ear	
0.728	0.1%	5	0.0%	0.272	0.205	0.269	0.0%	sinuses	
5.138	0.4%	15	0.1%	0.817	0.610	0.873	0.1%	larynx	
0.131	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	trachea	
58.587	4.8%	509	4.7%	27.715	18.006	26.650	2.3%	lung	
0.391	0.0%	1	0.0%	0.054	0.045	0.052	0.0%	thymus	
0.334	0.0%	3	0.0%	0.163	0.121	0.158	0.0%	mediastinum	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	other chest	
0.751	0.1%	12	0.1%	0.653	0.592	0.589	0.0%	bones, joints of limbs	
0.582	0.0%	2	0.0%	0.109	0.095	0.118	0.0%	bones, joints head and trunk	
10.500	0.9%	239	2.2%	13.013	10.024	13.486	1.1%	melanoma skin	
236.515	16.6%	3008	27.6%	163.784	104.058	155.021	11.3%	non-melanoma skin	
1.288	0.1%	4	0.0%	0.218	0.214	0.289	0.0%	mesothelioma	
0.114	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	Kaposi's sarcoma	
0.225	0.0%	2	0.0%	0.109	0.119	0.104	0.0%	peripheral nerves	
0.336	0.0%	9	0.1%	0.490	0.336	0.485	0.0%	peritoneum	
2.247	0.2%	31	0.3%	1.688	1.181	1.587	0.1%	connective tissues	
1.116	0.1%	1620	14.9%	88.208	71.051	96.675	7.7%	breast	
0.000	0.0%	25	0.2%	1.361	0.714	1.111	0.1%	vulva	
0.000	0.0%	5	0.0%	0.272	0.170	0.267	0.0%	vagina	
0.000	0.0%	159	1.5%	8.657	7.588	9.503	0.8%	cervix	
0.000	0.0%	218	2.0%	11.870	9.598	13.288	1.2%	corpus uteri	
0.000	0.0%	11	0.1%	0.599	0.428	0.607	0.0%	uterus nos	
0.000	0.0%	306	2.8%	16.662	12.911	17.810	1.6%	ovary	
0.000	0.0%	4	0.0%	0.218	0.133	0.208	0.0%	other female genital	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	placenta	
1.074	0.1%	0	0.0%	0.000	0.000	0.000	0.0%	penis	
71.135	5.0%	0	0.0%	0.000	0.000	0.000	0.0%	prostate	
4.562	0.3%	0	0.0%	0.000	0.000	0.000	0.0%	testis	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	other male genital	
11.192	0.9%	82	0.8%	4.465	3.599	4.735	0.4%	kidney	
0.269	0.0%	6	0.1%	0.327	0.184	0.296	0.0%	renal pelvis	
0.740	0.1%	2	0.0%	0.109	0.101	0.135	0.0%	ureter	



Table A2.1. (continued) Summary table: number of cases and incidence rates by ICD-10 site: both sexes 1997

*WASR: AGE STANDARDISED RATE PER 100,000, WORLD POPULATION. *EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION								
site	ICD-10 code	both sexes			males			
		cases	% of total	per 100,000	cases	% of total	per 100,000	WASR
bladder	C67	454	2.1%	12.451	332	3.1%	18.347	13.855
other urinary	C68	7	0.0%	0.192	6	0.1%	0.332	0.270
eye	C69	40	0.2%	1.097	21	0.2%	1.160	0.952
meninges	C70	4	0.0%	0.110	1	0.0%	0.055	0.095
brain	C71	247	1.2%	6.774	145	1.4%	8.013	7.195
spinal cord	C72	6	0.0%	0.165	3	0.0%	0.166	0.151
thyroid	C73	57	0.3%	1.563	23	0.2%	1.271	1.038
adrenal	C74	12	0.1%	0.329	5	0.0%	0.276	0.344
other endocrine	C75	7	0.0%	0.192	4	0.0%	0.221	0.217
ill-defined site	C76	32	0.1%	0.878	16	0.2%	0.884	0.722
lymph nodes	C77	3	0.0%	0.082	1	0.0%	0.055	0.051
unknown primary site	C80	682	3.2%	18.705	338	3.2%	18.678	13.851
Hodgkin's disease	C81	84	0.4%	2.304	43	0.4%	2.376	2.195
follicular non-Hodgkin's lymphoma	C82	61	0.3%	1.673	36	0.3%	1.989	1.753
diffuse non-Hodgkin's lymphoma	C83	149	0.7%	4.086	81	0.8%	4.476	3.598
peripheral and cutaneous T cell lymphoma	C84	14	0.1%	0.384	9	0.1%	0.497	0.428
other and unspecified NHL	C85	184	0.9%	5.046	93	0.9%	5.139	4.304
malignant immunoproliferative disease	C88	4	0.0%	0.110	3	0.0%	0.166	0.142
multiple myeloma	C90	171	0.8%	4.690	90	0.9%	4.973	3.787
lymphoid leukaemia	C91	171	0.8%	4.690	103	1.0%	5.692	4.860
myeloid leukaemia	C92	119	0.6%	3.264	63	0.6%	3.481	2.707
monocytic leukaemia	C93	5	0.0%	0.137	4	0.0%	0.221	0.207
other specified leukaemia	C94	12	0.1%	0.329	6	0.1%	0.332	0.319
unspecified leukaemia	C95	32	0.1%	0.878	19	0.2%	1.050	0.786
other lymphoid and haematopoietic	C96	5	0.0%	0.137	3	0.0%	0.166	0.260
in situ: oral cavity, oesophagus and stomach	D00	18	0.1%	0.494	12	0.1%	0.663	0.558
in situ: other digestive	D01	48	0.2%	1.316	28	0.3%	1.547	1.188
in situ: middle ear and respiratory	D02	19	0.1%	0.521	13	0.1%	0.718	0.551
in situ: melanoma	D03	211	1.0%	5.787	65	0.6%	3.592	2.882
in situ: carcinoma of skin	D04	1107	5.2%	30.361	364	3.5%	20.115	15.427
in situ: breast	D05	84	0.4%	2.304	0	0.0%	0.000	0.000
in situ: cervix	D06	806	3.8%	22.105	0	0.0%	0.000	0.000
in situ: other genital	D07	15	0.1%	0.411	10	0.1%	0.553	0.445
in situ: other sites	D09	18	0.1%	0.494	12	0.1%	0.663	0.486
benign colorectal	D12	0	0.0%	0.000	0	0.0%	0.000	0.000
benign other GI	D13	0	0.0%	0.000	0	0.0%	0.000	0.000
benign respiratory	D14	0	0.0%	0.000	0	0.0%	0.000	0.000
benign bone and cartilage	D16	0	0.0%	0.000	0	0.0%	0.000	0.000
benign lipomatous	D17	1	0.0%	0.027	1	0.0%	0.055	0.051
haemangioma	D18	0	0.0%	0.000	0	0.0%	0.000	0.000
benign soft tissue	D21	32	0.1%	0.878	15	0.1%	0.829	0.772
other benign skin	D23	0	0.0%	0.000	0	0.0%	0.000	0.000
leiomyoma	D25	0	0.0%	0.000	0	0.0%	0.000	0.000
benign ovary	D27	0	0.0%	0.000	0	0.0%	0.000	0.000
benign other female genital	D28	0	0.0%	0.000	0	0.0%	0.000	0.000
benign meninges	D32	74	0.3%	2.030	20	0.2%	1.105	0.923
benign brain	D33	5	0.0%	0.137	3	0.0%	0.166	0.137
benign endocrine	D35	0	0.0%	0.000	0	0.0%	0.000	0.000
uncertain: oral and digestive	D37	81	0.4%	2.222	36	0.3%	1.989	1.530
uncertain respiratory	D38	0	0.0%	0.000	0	0.0%	0.000	0.000
uncertain: female genital	D39	35	0.2%	0.960	0	0.0%	0.000	0.000
uncertain: male genital	D40	1	0.0%	0.027	1	0.0%	0.055	0.053
uncertain: urinary	D41	3	0.0%	0.082	2	0.0%	0.111	0.104
uncertain: meninges	D42	7	0.0%	0.192	2	0.0%	0.111	0.101
uncertain: brain and CNS	D43	7	0.0%	0.192	5	0.0%	0.276	0.251
uncertain: endocrine	D44	8	0.0%	0.219	6	0.1%	0.332	0.300
polycythaemia vera	D45	35	0.2%	0.960	20	0.2%	1.105	0.840
myelodysplastic syndromes	D46	74	0.3%	2.030	40	0.4%	2.210	1.511
other uncertain lymphoid, haematopoietic	D47	74	0.3%	2.030	38	0.4%	2.100	1.571
uncertain: other sites	D48	34	0.2%	0.932	12	0.1%	0.663	0.532



		females							
EASR	cumulative rate (0-74)	cases	% of total	per 100,000	WASR	EASR	cumulative rate (0-74)	site	
21.545	1.6%	122	1.1%	6.643	4.439	6.400	0.6%	bladder	
0.381	0.0%	1	0.0%	0.054	0.058	0.072	0.0%	other urinary	
1.265	0.1%	19	0.2%	1.035	0.943	1.195	0.1%	eye	
0.063	0.0%	3	0.0%	0.163	0.055	0.110	0.0%	meninges	
8.899	0.8%	102	0.9%	5.554	4.656	5.527	0.4%	brain	
0.205	0.0%	3	0.0%	0.163	0.155	0.176	0.0%	spinal cord	
1.416	0.1%	34	0.3%	1.851	1.539	1.855	0.1%	thyroid	
0.310	0.0%	7	0.1%	0.381	0.432	0.422	0.0%	adrenal	
0.223	0.0%	3	0.0%	0.163	0.161	0.197	0.0%	other endocrine	
1.066	0.1%	16	0.1%	0.871	0.474	0.759	0.0%	ill-defined site	
0.060	0.0%	2	0.0%	0.109	0.072	0.100	0.0%	lymph nodes	
21.579	1.6%	344	3.2%	18.731	11.176	17.061	1.3%	unknown primary site	
2.419	0.2%	41	0.4%	2.232	2.015	2.145	0.2%	Hodgkin's disease	
2.356	0.2%	25	0.2%	1.361	1.117	1.429	0.1%	follicular non-Hodgkin's lymphoma	
5.033	0.4%	68	0.6%	3.703	2.436	3.482	0.3%	diffuse non-Hodgkin's lymphoma	
0.612	0.1%	5	0.0%	0.272	0.153	0.234	0.0%	peripheral and cutaneous T cell lymphoma	
5.928	0.5%	91	0.8%	4.955	3.744	5.133	0.4%	other and unspecified NHL	
0.250	0.0%	1	0.0%	0.054	0.014	0.028	0.0%	malignant immunoproliferative disease	
5.791	0.4%	81	0.7%	4.410	2.624	4.071	0.3%	multiple myeloma	
6.390	0.4%	68	0.6%	3.703	3.016	3.491	0.2%	lymphoid leukaemia	
3.739	0.2%	56	0.5%	3.049	2.416	3.042	0.2%	myeloid leukaemia	
0.239	0.0%	1	0.0%	0.054	0.020	0.040	0.0%	monocytic leukaemia	
0.388	0.0%	6	0.1%	0.327	0.219	0.308	0.0%	other specified leukaemia	
1.241	0.1%	13	0.1%	0.708	0.479	0.639	0.0%	unspecified leukaemia	
0.176	0.0%	2	0.0%	0.109	0.110	0.119	0.0%	other lymphoid and haematopoietic	
0.764	0.1%	6	0.1%	0.327	0.221	0.336	0.0%	in situ: oral cavity, oesophagus and stomach	
1.771	0.1%	20	0.2%	1.089	0.649	1.016	0.1%	in situ: other digestive	
0.842	0.1%	6	0.1%	0.327	0.249	0.338	0.0%	in situ: middle ear and respiratory	
4.180	0.3%	146	1.3%	7.950	6.256	8.661	0.7%	in situ: melanoma	
23.272	2.0%	743	6.8%	40.456	24.274	36.950	3.0%	in situ: carcinoma of skin	
0.000	0.0%	84	0.8%	4.574	4.067	5.347	0.5%	in situ: breast	
0.000	0.0%	806	7.4%	43.886	41.489	43.578	3.1%	in situ: cervix	
0.592	0.0%	5	0.0%	0.272	0.264	0.355	0.0%	in situ: other genital	
0.734	0.0%	6	0.1%	0.327	0.184	0.279	0.0%	in situ: other sites	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign colorectal	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign other GI	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign respiratory	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign bone and cartilage	
0.072	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign lipomatous	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	haemangioma	
0.922	0.1%	17	0.2%	0.926	0.844	1.080	0.1%	benign soft tissue	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	other benign skin	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	leiomyoma	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign ovary	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign other female genital	
1.289	0.1%	54	0.5%	2.940	2.185	3.024	0.3%	benign meninges	
0.174	0.0%	2	0.0%	0.109	0.104	0.156	0.0%	benign brain	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	benign endocrine	
2.115	0.1%	45	0.4%	2.450	2.034	2.239	0.2%	uncertain: oral and digestive	
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	uncertain respiratory	
0.000	0.0%	35	0.3%	1.906	1.613	1.886	0.1%	uncertain: female genital	
0.046	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	uncertain: male genital	
0.164	0.0%	1	0.0%	0.054	0.046	0.061	0.0%	uncertain: urinary	
0.126	0.0%	5	0.0%	0.272	0.267	0.233	0.0%	uncertain: meninges	
0.319	0.0%	2	0.0%	0.109	0.065	0.093	0.0%	uncertain: brain and CNS	
0.335	0.0%	2	0.0%	0.109	0.105	0.134	0.0%	uncertain: endocrine	
1.248	0.1%	15	0.1%	0.817	0.650	0.897	0.1%	polycythaemia vera	
2.394	0.2%	34	0.3%	1.851	1.060	1.614	0.1%	myelodysplastic syndromes	
2.276	0.2%	36	0.3%	1.960	1.318	1.946	0.1%	other uncertain lymphoid, haematopoietic	
0.688	0.1%	22	0.2%	1.198	1.109	1.215	0.1%	uncertain: other sites	



**Table A2.2. Summary table: number of cases and incidence rates by ICD-O-2 site: both sexes 1997**

*WASR: AGE STANDARDISED RATE PER 100,000, WORLD POPULATION. *EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION								
site	ICD-O-2 site code	both sexes			males			
		cases	% of total	per 100,000	cases	% of total	per 100,000	WASR
lip	C00	52	0.2%	1.426	37	0.4%	2.045	1.523
base of tongue	C01	22	0.1%	0.603	19	0.2%	1.050	0.902
other tongue	C02	33	0.2%	0.905	20	0.2%	1.105	0.936
gum	C03	2	0.0%	0.055	2	0.0%	0.111	0.074
floor of mouth	C04	23	0.1%	0.631	17	0.2%	0.939	0.786
palate	C05	12	0.1%	0.329	6	0.1%	0.332	0.303
other mouth	C06	22	0.1%	0.603	13	0.1%	0.718	0.597
parotid	C07	26	0.1%	0.713	19	0.2%	1.050	0.847
other salivary	C08	7	0.0%	0.192	4	0.0%	0.221	0.191
tonsil	C09	16	0.1%	0.439	13	0.1%	0.718	0.624
oropharynx	C10	9	0.0%	0.247	9	0.1%	0.497	0.414
nasopharynx	C11	11	0.1%	0.302	10	0.1%	0.553	0.508
pyriform	C12	30	0.1%	0.823	21	0.2%	1.160	0.983
hypopharynx	C13	7	0.0%	0.192	4	0.0%	0.221	0.205
other mouth/pharynx	C14	16	0.1%	0.439	14	0.1%	0.774	0.628
oesophagus	C15	299	1.4%	8.200	199	1.9%	10.997	8.522
stomach	C16	476	2.2%	13.055	301	2.9%	16.634	12.710
small intestine	C17	33	0.2%	0.905	22	0.2%	1.216	0.964
colon	C18	1165	5.4%	31.951	600	5.7%	33.157	25.425
rectosigmoid	C19	141	0.7%	3.867	85	0.8%	4.697	3.713
rectum	C20	578	2.7%	15.852	375	3.6%	20.723	16.101
anus	C21	24	0.1%	0.658	9	0.1%	0.497	0.382
liver	C22	59	0.3%	1.618	37	0.4%	2.045	1.624
gallbladder	C23	54	0.3%	1.481	14	0.1%	0.774	0.678
other biliary	C24	72	0.3%	1.975	31	0.3%	1.713	1.270
pancreas	C25	342	1.6%	9.380	173	1.6%	9.560	7.317
other digestive	C26	26	0.1%	0.713	13	0.1%	0.718	0.494
nasal cavity/middle ear	C30	11	0.1%	0.302	4	0.0%	0.221	0.172
sinuses	C31	16	0.1%	0.439	11	0.1%	0.608	0.540
larynx	C32	110	0.5%	3.017	93	0.9%	5.139	4.154
trachea	C33	3	0.0%	0.082	3	0.0%	0.166	0.140
lung	C34	1420	6.6%	38.945	909	8.6%	50.232	39.163
thymus	C37	7	0.0%	0.192	6	0.1%	0.332	0.303
mediastinum	C38	29	0.1%	0.795	24	0.2%	1.326	1.098
other chest	C39	0	0.0%	0.000	0	0.0%	0.000	0.000
bones, joints of limbs	C40	31	0.1%	0.850	17	0.2%	0.939	0.856
bones, joints head and trunk	C41	17	0.1%	0.466	11	0.1%	0.608	0.524
myeloma* etc	C42	342	1.6%	9.380	178	1.7%	9.836	7.261
melanoma of skin*	C44	609	2.8%	16.703	228	2.2%	12.600	10.571
non-melanoma skin*		7816	36.4%	214.362	4070	38.6%	224.912	171.618
peripheral nerves	C47	14	0.1%	0.384	7	0.1%	0.387	0.414
peritoneum	C48	17	0.1%	0.466	5	0.0%	0.276	0.255
connective tissues	C49	64	0.3%	1.755	33	0.3%	1.824	1.511
breast	C50	1731	8.1%	47.475	16	0.2%	0.884	0.719
vulva	C51	28	0.1%	0.768	0	0.0%	0.000	0.000
vagina	C52	6	0.0%	0.165	0	0.0%	0.000	0.000
cervix	C53	965	4.5%	26.466	0	0.0%	0.000	0.000
corpus uteri	C54	223	1.0%	6.116	0	0.0%	0.000	0.000
uterus nos	C55	11	0.1%	0.302	0	0.0%	0.000	0.000
ovary	C56	337	1.6%	9.243	0	0.0%	0.000	0.000
other female genital	C57	4	0.0%	0.110	0	0.0%	0.000	0.000
placenta	C58	1	0.0%	0.027	0	0.0%	0.000	0.000
penis	C60	24	0.1%	0.658	24	0.2%	1.326	1.030
prostate	C61	1133	5.3%	31.074	1133	10.7%	62.611	44.575
testis	C62	85	0.4%	2.331	85	0.8%	4.697	4.356
other male genital	C63	0	0.0%	0.000	0	0.0%	0.000	0.000
kidney	C64	255	1.2%	6.994	174	1.6%	9.615	7.952
renal pelvis	C65	12	0.1%	0.329	6	0.1%	0.332	0.184
ureter	C66	13	0.1%	0.357	11	0.1%	0.608	0.521
bladder	C67	474	2.2%	13.000	345	3.3%	19.065	14.417



		females						site
EASR	cumulative rate (0-74)	cases	% of total	per 100,000	WASR	EASR	cumulative rate (0-74)	
2.372	0.2%	15	0.1%	0.817	0.494	0.752	0.1%	lip
1.245	0.1%	3	0.0%	0.163	0.111	0.162	0.0%	base of tongue
1.322	0.1%	13	0.1%	0.708	0.552	0.761	0.1%	other tongue
0.106	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	gum
1.148	0.1%	6	0.1%	0.327	0.247	0.334	0.0%	floor of mouth
0.399	0.0%	6	0.1%	0.327	0.247	0.352	0.0%	palate
0.873	0.1%	9	0.1%	0.490	0.427	0.524	0.0%	other mouth
1.318	0.1%	7	0.1%	0.381	0.284	0.385	0.0%	parotid
0.223	0.0%	3	0.0%	0.163	0.099	0.150	0.0%	other salivary
0.845	0.1%	3	0.0%	0.163	0.119	0.175	0.0%	tonsil
0.612	0.1%	0	0.0%	0.000	0.000	0.000	0.0%	oropharynx
0.643	0.1%	1	0.0%	0.054	0.052	0.061	0.0%	nasopharynx
1.401	0.1%	9	0.1%	0.490	0.407	0.565	0.1%	pyriform
0.316	0.0%	3	0.0%	0.163	0.066	0.116	0.0%	hypopharynx
0.936	0.1%	2	0.0%	0.109	0.064	0.095	0.0%	other mouth/pharynx
12.760	1.0%	100	0.9%	5.445	3.247	4.898	0.4%	oesophagus
19.311	1.5%	175	1.6%	9.529	5.873	8.703	0.7%	stomach
1.453	0.1%	11	0.1%	0.599	0.456	0.634	0.1%	small intestine
38.033	2.9%	565	5.2%	30.764	20.237	29.405	2.3%	colon
5.577	0.5%	56	0.5%	3.049	1.985	2.963	0.2%	rectosigmoid
23.918	1.9%	203	1.9%	11.053	7.026	10.551	0.9%	rectum
0.549	0.0%	15	0.1%	0.817	0.610	0.859	0.1%	anus
2.324	0.2%	22	0.2%	1.198	0.941	1.222	0.1%	liver
1.039	0.1%	40	0.4%	2.178	1.377	2.037	0.2%	gallbladder
2.056	0.1%	41	0.4%	2.232	1.335	2.078	0.2%	other biliary
11.337	0.9%	169	1.5%	9.202	5.412	8.288	0.6%	pancreas
0.866	0.0%	13	0.1%	0.708	0.417	0.651	0.0%	other digestive
0.258	0.0%	7	0.1%	0.381	0.334	0.443	0.0%	nasal cavity/middle ear
0.728	0.1%	5	0.0%	0.272	0.205	0.269	0.0%	sinuses
6.033	0.5%	17	0.2%	0.926	0.712	1.004	0.1%	larynx
0.189	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	trachea
58.663	4.8%	511	4.7%	27.824	18.072	26.751	2.3%	lung
0.391	0.0%	1	0.0%	0.054	0.045	0.052	0.0%	thymus
1.623	0.1%	5	0.0%	0.272	0.231	0.308	0.0%	mediastinum
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	other chest
0.931	0.1%	14	0.1%	0.762	0.704	0.703	0.1%	bones, joints of limbs
0.630	0.0%	6	0.1%	0.327	0.288	0.333	0.0%	bones, joints head and trunk
11.122	0.8%	164	1.5%	8.930	5.541	8.398	0.6%	myeloma* etc
14.428	1.2%	381	3.5%	20.745	16.145	21.948	1.8%	melanoma of skin*
260.473	18.4%	3746	34.4%	203.968	128.182	191.712	13.9%	non-melanoma skin*
0.391	0.0%	7	0.1%	0.381	0.386	0.337	0.0%	peripheral nerves
0.336	0.0%	12	0.1%	0.653	0.493	0.698	0.1%	peritoneum
1.997	0.2%	31	0.3%	1.688	1.235	1.581	0.1%	connective tissues
1.056	0.1%	1715	15.7%	93.381	75.638	102.597	8.1%	breast
0.000	0.0%	28	0.3%	1.525	0.895	1.292	0.1%	vulva
0.000	0.0%	6	0.1%	0.327	0.215	0.321	0.0%	vagina
0.000	0.0%	965	8.8%	52.544	49.078	53.081	3.8%	cervix
0.000	0.0%	223	2.0%	12.142	9.824	13.611	1.2%	corpus uteri
0.000	0.0%	11	0.1%	0.599	0.428	0.607	0.0%	uterus nos
0.000	0.0%	337	3.1%	18.349	14.306	19.475	1.7%	ovary
0.000	0.0%	4	0.0%	0.218	0.133	0.208	0.0%	other female genital
0.000	0.0%	1	0.0%	0.054	0.049	0.057	0.0%	placenta
1.498	0.1%	0	0.0%	0.000	0.000	0.000	0.0%	penis
71.308	5.1%	0	0.0%	0.000	0.000	0.000	0.0%	prostate
4.663	0.3%	0	0.0%	0.000	0.000	0.000	0.0%	testis
0.000	0.0%	0	0.0%	0.000	0.000	0.000	0.0%	other male genital
11.192	0.9%	81	0.7%	4.410	3.579	4.694	0.4%	kidney
0.326	0.0%	6	0.1%	0.327	0.184	0.296	0.0%	renal pelvis
0.740	0.1%	2	0.0%	0.109	0.101	0.135	0.0%	ureter
22.386	1.6%	129	1.2%	7.024	4.668	6.739	0.6%	bladder



**Table A2.2. (continued) Summary table: number of cases and incidence rates by ICD-O-2 site: both sexes 1997**

*WASR: AGE STANDARDISED RATE PER 100,000, WORLD POPULATION. *EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION								
site	ICD-O-2 site code	both sexes			males			
		cases	% of total	per 100,000	cases	% of total	per 100,000	WASR
other urinary	C68	7	0.0%	0.192	6	0.1%	0.332	0.270
eye	C69	41	0.2%	1.124	21	0.2%	1.160	0.952
meninges	C70	77	0.4%	2.112	21	0.2%	1.160	1.018
brain	C71	254	1.2%	6.966	150	1.4%	8.289	7.445
spinal cord	C72	45	0.2%	1.234	22	0.2%	1.216	1.112
thyroid	C73	57	0.3%	1.563	23	0.2%	1.271	1.038
adrenal	C74	12	0.1%	0.329	5	0.0%	0.276	0.344
other endocrine	C75	15	0.1%	0.411	10	0.1%	0.553	0.516
ill-defined site	C76	38	0.2%	1.042	20	0.2%	1.105	0.920
lymph nodes	C77	5	0.0%	0.137	3	0.0%	0.166	0.156
lymphoma*		497	2.3%	13.631	265	2.5%	14.644	12.539
leukaemia*		339	1.6%	9.297	195	1.8%	10.776	8.879
unknown primary site	C80	698	3.3%	19.143	345	3.3%	19.065	14.205
all sites		21450	100.0%	588.290	10546	100.0%	582.782	450.451

\* see notes, page 139.

		females							
	EASR	cumulative rate (0-74)	cases	% of total	per 100,000	WASR	EASR	cumulative rate (0-74)	site
	0.381	0.0%	1	0.0%	0.054	0.058	0.072	0.0%	other urinary
	1.265	0.1%	20	0.2%	1.089	0.989	1.255	0.1%	eye
	1.352	0.1%	56	0.5%	3.049	2.182	3.062	0.2%	meninges
	9.238	0.8%	104	1.0%	5.663	4.728	5.645	0.4%	brain
	1.352	0.1%	23	0.2%	1.252	1.153	1.458	0.1%	spinal cord
	1.416	0.1%	34	0.3%	1.851	1.539	1.855	0.1%	thyroid
	0.310	0.0%	7	0.1%	0.381	0.432	0.422	0.0%	adrenal
	0.558	0.0%	5	0.0%	0.272	0.266	0.332	0.0%	other endocrine
	1.349	0.1%	18	0.2%	0.980	0.572	0.881	0.1%	ill-defined site
	0.187	0.0%	2	0.0%	0.109	0.072	0.100	0.0%	lymph nodes
	16.524	1.3%	232	2.1%	12.632	9.576	12.541	1.0%	lymphoma*
	11.997	0.8%	144	1.3%	7.841	6.150	7.519	0.5%	leukaemia*
	22.052	1.6%	353	3.2%	19.221	11.474	17.525	1.3%	unknown primary site
	672.323	40.8%	10904	100.0%	593.717	422.946	587.037	37.3%	all sites

Table A2.3. Number of cases by age group and ICD-10 site: males 1997

site	ICD-10 code	all	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
lip	C00	33	0	0	0	0	0	0	0	0
base of tongue	C01	19	0	0	0	0	0	0	0	1
other tongue	C02	19	0	0	0	0	0	0	0	0
gum	C03	1	0	0	0	0	0	0	0	0
floor of mouth	C04	17	0	0	0	0	0	0	0	0
palate	C05	6	0	0	0	0	0	0	0	0
other mouth	C06	13	0	0	0	0	0	0	0	0
parotid	C07	19	0	0	0	0	0	0	0	0
other salivary	C08	4	0	0	1	0	0	0	0	1
tonsil	C09	13	0	0	0	0	0	0	0	0
oropharynx	C10	9	0	0	0	0	0	0	0	0
nasopharynx	C11	10	0	1	0	0	0	0	0	1
pyriform	C12	21	0	0	0	0	0	0	0	0
hypopharynx	C13	4	0	0	0	0	0	0	0	0
other mouth/pharynx	C14	13	0	0	0	0	0	0	0	0
oesophagus	C15	195	0	0	0	0	0	2	0	0
stomach	C16	297	0	0	1	0	0	0	2	2
small intestine	C17	22	0	0	0	0	0	1	0	0
colon	C18	569	0	0	0	0	0	0	5	9
rectosigmoid	C19	85	0	0	0	0	0	0	0	0
rectum	C20	346	0	0	0	0	0	2	1	1
anus	C21	9	0	0	0	0	0	0	0	0
liver	C22	37	0	0	0	0	0	1	0	1
gallbladder	C23	13	0	0	0	0	0	0	0	0
other biliary	C24	29	0	0	0	0	0	0	0	0
pancreas	C25	173	0	0	0	0	0	0	0	1
other digestive	C26	13	0	0	0	0	0	0	0	0
nasal cavity/middle ear	C30	4	0	0	0	0	0	0	0	0
sinuses	C31	11	0	0	0	0	0	0	1	0
larynx	C32	79	0	0	0	0	1	0	0	0
trachea	C33	2	0	0	0	0	0	0	0	0
lung	C34	908	0	0	0	0	0	0	0	3
thymus	C37	6	0	0	0	0	0	0	0	0
mediastinum	C38	5	0	0	0	0	0	0	0	0
other chest	C39	0	0	0	0	0	0	0	0	0
bones, joints of limbs	C40	14	0	1	3	2	1	1	2	0
bones, joints head and trunk	C41	10	1	0	0	0	0	1	1	1
melanoma skin	C43	167	0	0	0	2	5	10	11	8
non-melanoma skin	C44	3695	0	1	0	0	2	13	21	41
mesothelioma	C45	19	0	0	0	0	0	0	0	0
Kaposi's sarcoma	C46	2	0	0	0	0	0	0	0	1
peripheral nerves	C47	4	1	1	0	0	0	0	1	0
peritoneum	C48	5	0	0	0	0	0	0	0	1
connective tissues	C49	36	0	0	0	2	0	0	3	2
breast	C50	17	0	0	0	0	0	0	0	0
vulva	C51	0	0	0	0	0	0	0	0	0
vagina	C52	0	0	0	0	0	0	0	0	0
cervix	C53	0	0	0	0	0	0	0	0	0
corpus uteri	C54	0	0	0	0	0	0	0	0	0
uterus nos	C55	0	0	0	0	0	0	0	0	0
ovary	C56	0	0	0	0	0	0	0	0	0
other female genital	C57	0	0	0	0	0	0	0	0	0
placenta	C58	0	0	0	0	0	0	0	0	0
penis	C60	17	0	0	0	0	0	0	0	0
prostate	C61	1130	0	0	0	0	0	0	0	1
testis	C62	83	0	0	1	2	11	17	17	12
other male genital	C63	0	0	0	0	0	0	0	0	0
kidney	C64	174	3	0	0	0	0	1	1	3
renal pelvis	C65	5	0	0	0	0	0	0	0	0
ureter	C66	11	0	0	0	0	0	0	0	0
bladder	C67	332	0	0	0	0	0	0	0	5
other urinary	C68	6	0	0	0	0	0	0	0	0



	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	0	1	1	3	3	4	9	5	4	3	lip
	1	1	3	1	6	0	3	3	0	0	base of tongue
	1	1	1	2	4	4	2	2	1	1	other tongue
	0	0	0	0	0	0	0	0	1	0	gum
	0	1	4	2	3	0	4	1	1	1	floor of mouth
	0	1	0	0	3	1	0	1	0	0	palate
	0	0	1	2	4	2	0	4	0	0	other mouth
	0	1	2	1	2	3	3	1	2	4	parotid
	0	0	0	0	0	1	1	0	0	0	other salivary
	1	2	1	2	1	4	1	0	1	0	tonsil
	0	0	0	3	2	1	1	2	0	0	oropharynx
	1	0	1	2	2	1	0	0	1	0	nasopharynx
	0	1	1	1	6	5	2	3	1	1	pyriform
	0	0	0	2	1	0	0	0	0	1	hypopharynx
	0	1	1	3	3	0	1	1	2	1	other mouth/pharynx
	8	5	12	22	17	34	36	31	19	9	oesophagus
	4	9	24	30	29	47	46	58	30	15	stomach
	0	0	2	5	0	3	6	4	0	1	small intestine
	16	22	24	48	66	93	88	106	65	27	colon
	2	1	4	8	13	15	17	12	7	6	rectosigmoid
	4	14	27	29	40	76	50	54	36	12	rectum
	1	1	1	0	0	3	0	2	1	0	anus
	1	2	3	1	4	9	5	5	4	1	liver
	0	0	0	1	2	4	2	0	0	4	gallbladder
	1	1	0	4	2	4	4	5	3	5	other biliary
	3	3	11	15	15	29	34	30	15	17	pancreas
	0	0	1	1	0	2	0	3	3	3	other digestive
	0	0	0	0	2	0	0	2	0	0	nasal cavity/middle ear
	1	2	0	4	0	2	1	0	0	0	sinuses
	0	10	7	12	7	13	13	10	4	2	larynx
	0	0	1	0	0	0	1	0	0	0	trachea
	7	20	55	72	129	180	166	149	86	41	lung
	1	2	1	1	0	1	0	0	0	0	thymus
	0	0	0	0	0	1	2	1	0	1	mediastinum
	0	0	0	0	0	0	0	0	0	0	other chest
	0	0	1	1	1	1	0	0	0	0	bones, joints of limbs
	1	2	0	1	0	0	0	1	1	0	bones, joints head and trunk
	7	15	16	12	14	19	23	9	8	8	melanoma skin
	80	105	243	283	428	513	677	558	477	253	non-melanoma skin
	0	1	2	5	3	3	2	3	0	0	mesothelioma
	0	1	0	0	0	0	0	0	0	0	Kaposi's sarcoma
	1	0	0	0	0	0	0	0	0	0	peripheral nerves
	0	0	0	1	1	2	0	0	0	0	peritoneum
	1	3	4	4	1	4	3	4	3	2	connective tissues
	0	2	0	2	2	3	4	3	0	1	breast
	0	0	0	0	0	0	0	0	0	0	vulva
	0	0	0	0	0	0	0	0	0	0	vagina
	0	0	0	0	0	0	0	0	0	0	cervix
	0	0	0	0	0	0	0	0	0	0	corpus uteri
	0	0	0	0	0	0	0	0	0	0	uterus nos
	0	0	0	0	0	0	0	0	0	0	ovary
	0	0	0	0	0	0	0	0	0	0	other female genital
	0	0	0	0	0	0	0	0	0	0	placenta
	0	1	1	2	2	2	3	1	4	1	penis
	0	4	25	57	113	168	246	242	181	93	prostate
	6	7	6	1	0	1	1	0	1	0	testis
	0	0	0	0	0	0	0	0	0	0	other male genital
	8	12	18	20	20	26	24	23	12	3	kidney
	0	0	0	0	1	0	0	1	3	0	renal pelvis
	0	1	1	3	2	2	0	1	1	0	ureter
	3	7	18	35	29	47	65	54	39	30	bladder
	0	1	1	0	0	2	1	1	0	0	other urinary



**Table A2.3. (continued) Number of cases by age group and ICD-10 site: males 1997**

site	ICD-10 code	all	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
eye	C69	21	1	0	0	0	1	0	0	1
meninges	C70	1	1	0	0	0	0	0	0	0
brain	C71	145	3	7	4	4	2	6	7	7
spinal cord	C72	3	0	0	0	0	0	0	0	0
thyroid	C73	23	0	0	0	0	0	1	0	1
adrenal	C74	5	1	2	0	0	0	0	0	0
other endocrine	C75	4	0	0	2	0	0	0	0	0
ill-defined site	C76	16	0	0	0	0	0	0	0	0
lymph nodes	C77	1	0	0	0	0	0	0	0	0
unknown primary site	C80	338	0	0	0	0	0	0	3	2
Hodgkin's disease	C81	43	0	0	0	5	2	10	5	2
follicular non-Hodgkin's lymphoma	C82	36	0	0	0	0	1	0	0	7
diffuse non-Hodgkin's lymphoma	C83	81	0	0	1	3	2	1	2	3
peripheral and cutaneous T cell lymphoma	C84	9	0	0	0	0	0	0	0	0
other and unspecified NHL	C85	93	0	0	2	0	4	2	3	4
malignant immunoproliferative disease	C88	3	0	0	0	0	0	0	0	0
multiple myeloma	C90	90	0	0	0	0	0	0	0	1
lymphoid leukaemia	C91	103	9	1	2	3	0	0	1	2
myeloid leukaemia	C92	63	0	1	1	2	1	3	6	1
monocytic leukaemia	C93	4	0	0	0	0	1	0	1	0
other specified leukaemia	C94	6	0	0	0	0	0	1	0	0
unspecified leukaemia	C95	19	0	0	0	1	0	0	1	0
other lymphoid and haematopoietic	C96	3	2	1	0	0	0	0	0	0
in situ: oral cavity, oesophagus and stomach	D00	12	0	0	0	0	0	0	0	1
in situ: other digestive	D01	28	0	0	0	0	0	0	0	2
in situ: middle ear and respiratory	D02	13	0	0	0	0	0	0	0	0
in situ: melanoma	D03	65	0	0	0	0	1	0	0	2
in situ: carcinoma of skin	D04	364	0	0	0	0	0	0	1	3
in situ: breast	D05	0	0	0	0	0	0	0	0	0
in situ: cervix	D06	0	0	0	0	0	0	0	0	0
in situ: other genital	D07	10	0	0	0	0	0	0	1	4
in situ: other sites	D09	12	0	0	0	0	1	0	0	0
benign lipomatous	D17	1	0	0	0	0	0	0	0	0
benign soft tissue	D21	15	0	0	0	0	1	1	0	1
benign meninges	D32	20	0	0	0	0	0	0	0	1
benign brain	D33	3	0	0	0	0	0	0	1	0
uncertain: oral and digestive	D37	36	0	0	0	3	2	0	0	1
uncertain respiratory	D38	0	0	0	0	0	0	0	0	0
uncertain: female genital	D39	0	0	0	0	0	0	0	0	0
uncertain: male genital	D40	1	0	0	0	0	1	0	0	0
uncertain: urinary	D41	2	0	0	0	0	0	0	0	0
uncertain: meninges	D42	2	0	0	0	0	0	0	0	0
uncertain: brain and CNS	D43	5	0	0	0	1	0	0	0	0
uncertain: endocrine	D44	6	0	0	0	1	0	0	0	3
polycythaemia vera	D45	20	0	0	0	0	0	0	1	0
myelodysplastic syndromes	D46	40	1	0	0	0	0	0	0	0
other uncertain lymphoid, haematopoietic	D47	38	1	0	0	1	0	0	0	1
uncertain: other sites	D48	12	0	0	0	3	0	0	0	0
all cancers		10546	24	16	18	35	40	74	99	145

	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	2	1	1	1	4	0	3	3	3	0	eye
	0	0	0	0	0	0	0	0	0	0	meninges
	9	7	9	21	10	20	15	8	6	0	brain
	0	0	1	0	0	2	0	0	0	0	spinal cord
	3	1	2	1	2	4	4	2	2	0	thyroid
	0	0	0	1	1	0	0	0	0	0	adrenal
	0	0	0	0	1	1	0	0	0	0	other endocrine
	1	0	0	2	4	1	4	3	0	1	ill-defined site
	0	1	0	0	0	0	0	0	0	0	lymph nodes
	3	8	17	20	35	46	70	68	39	27	unknown primary site
	2	5	3	2	2	1	1	2	1	0	Hodgkin's disease
	2	3	7	6	2	4	1	2	0	1	follicular non-Hodgkin's lymphoma
	3	3	7	9	2	17	9	8	8	3	diffuse non-Hodgkin's lymphoma
	0	0	1	2	1	3	1	1	0	0	peripheral and cutaneous T cell lymphoma
	4	7	8	12	5	13	12	12	1	4	other and unspecified NHL
	0	0	0	0	0	1	0	0	0	2	malignant immunoproliferative disease
	1	4	2	16	9	12	14	17	10	4	multiple myeloma
	1	6	6	6	9	12	12	17	11	5	lymphoid leukaemia
	4	3	4	5	2	2	8	8	9	3	myeloid leukaemia
	0	0	0	0	1	1	0	0	0	0	monocytic leukaemia
	1	0	1	0	1	2	0	0	0	0	other specified leukaemia
	0	0	0	1	1	3	3	2	3	4	unspecified leukaemia
	0	0	0	0	0	0	0	0	0	0	other lymphoid and haematopoietic
	1	1	0	1	3	1	2	2	0	0	in situ: oral cavity, oesophagus and stomach
	0	2	2	2	1	8	1	7	2	1	in situ: other digestive
	0	0	2	3	1	0	4	2	1	0	in situ: middle ear and respiratory
	1	3	7	7	6	14	8	12	3	1	in situ: melanoma
	3	8	19	37	46	47	95	54	36	15	in situ: carcinoma of skin
	0	0	0	0	0	0	0	0	0	0	in situ: breast
	0	0	0	0	0	0	0	0	0	0	in situ: cervix
	0	0	0	1	1	1	0	1	1	0	in situ: other genital
	0	2	0	2	1	0	0	2	3	1	in situ: other sites
	0	0	1	0	0	0	0	0	0	0	benign lipomatous
	4	3	2	1	1	1	0	0	0	0	benign soft tissue
	2	2	0	1	4	4	1	3	1	1	benign meninges
	0	1	0	0	0	0	1	0	0	0	benign brain
	0	3	3	1	4	3	4	9	3	0	uncertain: oral and digestive
	0	0	0	0	0	0	0	0	0	0	uncertain respiratory
	0	0	0	0	0	0	0	0	0	0	uncertain: female genital
	0	0	0	0	0	0	0	0	0	0	uncertain: male genital
	0	0	0	0	1	0	0	0	0	1	uncertain: urinary
	0	1	0	0	0	1	0	0	0	0	uncertain: meninges
	0	0	1	1	1	0	1	0	0	0	uncertain: brain and CNS
	1	0	0	0	1	0	0	0	0	0	uncertain: endocrine
	0	1	3	2	1	2	5	3	2	0	polycythaemia vera
	0	0	0	3	2	3	12	11	7	1	myelodysplastic syndromes
	1	1	2	2	5	2	8	8	6	0	other uncertain lymphoid, haematopoietic
	2	0	1	0	0	1	2	1	1	1	uncertain: other sites
	211	341	637	873	1154	1568	1848	1664	1176	623	all cancers



Table A2.4. Number of cases by age group and ICD-10 site: females 1997

site	ICD-10 code	all	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
lip	C00	8	0	0	0	0	0	0	0	0
base of tongue	C01	3	0	0	0	0	0	0	0	0
other tongue	C02	13	0	0	0	0	0	0	0	1
gum	C03	0	0	0	0	0	0	0	0	0
floor of mouth	C04	6	0	0	0	0	0	0	0	0
palate	C05	5	0	0	0	0	0	0	1	0
other mouth	C06	9	1	0	0	0	0	0	0	0
parotid	C07	7	0	0	0	0	0	0	1	0
other salivary	C08	3	0	0	0	0	0	0	0	0
tonsil	C09	3	0	0	0	0	0	0	0	0
oropharynx	C10	0	0	0	0	0	0	0	0	0
nasopharynx	C11	1	0	0	0	0	0	0	0	0
pyriform	C12	9	0	0	0	0	0	0	0	0
hypopharynx	C13	3	0	0	0	0	0	0	0	0
other mouth/pharynx	C14	1	0	0	0	0	0	0	0	0
oesophagus	C15	99	0	0	0	0	0	0	0	0
stomach	C16	173	0	0	0	0	0	1	1	3
small intestine	C17	10	0	0	0	0	0	0	1	0
colon	C18	525	0	0	0	0	0	0	5	6
rectosigmoid	C19	55	0	0	0	0	0	0	0	0
rectum	C20	182	0	0	0	0	0	1	0	3
anus	C21	13	0	0	0	0	0	0	0	0
liver	C22	23	2	0	0	0	0	0	0	0
gallbladder	C23	40	0	0	0	0	0	0	0	0
other biliary	C24	41	0	0	0	0	0	0	0	0
pancreas	C25	169	0	0	0	0	0	0	0	0
other digestive	C26	13	0	0	0	0	0	0	1	0
nasal cavity/middle ear	C30	6	0	0	0	0	0	0	0	1
sinuses	C31	5	0	0	0	1	0	0	0	0
larynx	C32	15	0	0	0	0	0	0	0	0
trachea	C33	0	0	0	0	0	0	0	0	0
lung	C34	509	0	0	0	1	0	0	0	1
thymus	C37	1	0	0	0	0	0	0	1	0
mediastinum	C38	3	0	0	0	0	0	0	0	0
other chest	C39	0	0	0	0	0	0	0	0	0
bones, joints of limbs	C40	12	0	0	0	3	3	1	0	0
bones, joints head and trunk	C41	2	0	0	0	0	0	0	0	0
melanoma skin	C43	239	0	0	0	1	7	7	11	17
non-melanoma skin	C44	3008	0	0	0	5	4	10	32	36
mesothelioma	C45	4	0	0	0	0	0	0	0	0
Kaposi's sarcoma	C46	0	0	0	0	0	0	0	0	0
peripheral nerves	C47	2	0	1	0	0	0	0	1	0
peritoneum	C48	9	0	0	0	0	0	0	0	0
connective tissues	C49	31	1	0	0	1	2	0	2	0
breast	C50	1620	0	0	0	0	2	7	34	76
vulva	C51	25	0	0	0	0	0	0	0	1
vagina	C52	5	0	0	0	0	0	0	0	0
cervix	C53	159	0	0	0	0	1	3	15	18
corpus uteri	C54	218	0	0	0	1	0	1	2	5
uterus nos	C55	11	0	0	0	0	0	0	0	0
ovary	C56	306	0	0	0	1	3	2	6	7
other female genital	C57	4	0	0	0	0	0	0	0	0
placenta	C58	0	0	0	0	0	0	0	0	0
penis	C60	0	0	0	0	0	0	0	0	0
prostate	C61	0	0	0	0	0	0	0	0	0
testis	C62	0	0	0	0	0	0	0	0	0
other male genital	C63	0	0	0	0	0	0	0	0	0
kidney	C64	82	3	1	0	2	0	1	0	5
renal pelvis	C65	6	0	0	0	0	0	0	0	0
ureter	C66	2	0	0	0	0	0	0	0	0
bladder	C67	122	0	0	0	0	0	1	0	1
other urinary	C68	1	0	0	0	0	0	0	0	0



	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
1	0	0	0	0	0	1	2	2	1	1	lip
0	0	0	0	0	0	2	0	0	0	1	base of tongue
0	1	1	2	2	2	2	2	0	2	0	other tongue
0	0	0	0	0	0	0	0	0	0	0	gum
0	1	0	0	0	2	1	0	0	1	1	floor of mouth
0	0	0	1	0	0	1	1	0	0	1	palate
0	0	2	0	2	1	1	1	0	2	0	other mouth
1	0	1	0	1	1	1	0	1	1	0	parotid
0	0	1	0	0	0	0	1	0	1	0	other salivary
0	0	1	0	0	0	1	0	1	0	0	tonsil
0	0	0	0	0	0	0	0	0	0	0	oropharynx
0	1	0	0	0	0	0	0	0	0	0	nasopharynx
0	0	1	1	3	1	2	1	0	0	0	pyriform
0	0	0	0	0	0	0	1	0	1	1	hypopharynx
0	0	0	0	0	0	0	1	0	0	0	other mouth/pharynx
1	4	2	4	15	11	13	15	24	10		oesophagus
3	10	6	8	16	22	31	22	31	19		stomach
1	0	0	1	2	1	2	0	1	1		small intestine
5	24	27	50	49	75	72	101	76	35		colon
3	1	2	6	7	6	6	16	6	2		rectosigmoid
3	5	10	17	16	21	38	32	18	18		rectum
1	1	1	2	1	3	1	1	1	1		anus
0	0	2	2	3	2	7	3	1	1		liver
0	3	1	1	3	9	8	6	4	5		gallbladder
0	0	2	3	4	5	8	10	4	5		other biliary
1	5	8	7	17	25	22	27	33	24		pancreas
0	0	2	2	0	1	0	2	4	1		other digestive
0	0	1	1	1	1	1	0	0	0		nasal cavity/middle ear
0	0	1	0	1	0	0	0	0	2		sinuses
0	0	0	2	4	3	2	3	1	0		larynx
0	0	0	0	0	0	0	0	0	0		trachea
7	11	29	27	66	79	102	99	60	27		lung
0	0	0	0	0	0	0	0	0	0		thymus
1	0	0	0	1	0	0	0	1	0		mediastinum
0	0	0	0	0	0	0	0	0	0		other chest
1	1	0	0	1	0	1	0	1	0		bones, joints of limbs
1	0	0	0	0	0	1	0	0	0		bones, joints head and trunk
13	16	22	26	19	23	26	26	15	10		melanoma skin
68	98	186	236	255	395	453	442	431	357		non-melanoma skin
0	1	0	2	1	0	0	0	0	0		mesothelioma
0	0	0	0	0	0	0	0	0	0		Kaposi's sarcoma
0	0	0	0	0	0	0	0	0	0		peripheral nerves
1	0	0	1	1	2	1	0	1	2		peritoneum
2	0	2	3	0	3	4	5	3	3		connective tissues
129	185	204	203	188	170	148	119	94	61		breast
0	1	0	1	2	3	2	4	9	2		vulva
0	0	0	1	0	1	1	1	0	1		vagina
35	23	12	14	13	11	6	3	3	2		cervix
12	9	26	33	41	25	26	24	10	3		corpus uteri
1	1	1	0	2	1	1	2	0	2		uterus nos
19	18	36	32	36	45	43	29	19	10		ovary
0	0	1	1	0	0	0	0	2	0		other female genital
0	0	0	0	0	0	0	0	0	0		placenta
0	0	0	0	0	0	0	0	0	0		penis
0	0	0	0	0	0	0	0	0	0		prostate
0	0	0	0	0	0	0	0	0	0		testis
0	0	0	0	0	0	0	0	0	0		other male genital
4	5	3	15	8	3	17	8	2	5		kidney
0	0	0	1	0	1	1	1	1	1		renal pelvis
1	0	0	1	0	0	0	0	0	0		ureter
5	8	4	6	13	19	25	16	12	12		bladder
0	0	0	0	1	0	0	0	0	0		other urinary



Table A2.4. (continued) Number of cases by age group and ICD-10 site: females 1997

site	ICD-10 code	all	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
eye	C69	19	1	0	0	0	1	0	0	0
meninges	C70	3	0	0	0	0	0	0	0	0
brain	C71	102	3	6	4	4	3	2	2	8
spinal cord	C72	3	0	0	1	0	0	0	0	1
thyroid	C73	34	0	0	0	2	2	2	1	4
adrenal	C74	7	2	0	0	0	0	1	0	0
other endocrine	C75	3	0	0	0	0	0	0	0	1
ill-defined site	C76	16	0	0	0	0	0	0	0	0
lymph nodes	C77	2	0	0	0	0	0	0	0	0
unknown primary site	C80	344	0	0	0	0	0	0	1	3
Hodgkin's disease	C81	41	0	0	2	5	3	7	6	3
follicular non-Hodgkin's lymphoma	C82	25	0	0	0	1	0	2	2	1
diffuse non-Hodgkin's lymphoma	C83	68	0	1	1	0	1	0	2	1
peripheral and cutaneous T cell lymphoma	C84	5	0	0	0	0	0	0	0	0
other and unspecified NHL	C85	91	0	1	3	0	0	0	1	3
malignant immunoproliferative disease	C88	1	0	0	0	0	0	0	0	0
multiple myeloma	C90	81	0	0	0	0	0	0	0	0
lymphoid leukaemia	C91	68	6	5	2	2	2	0	1	1
myeloid leukaemia	C92	56	2	0	1	3	1	2	2	2
monocytic leukaemia	C93	1	0	0	0	0	0	0	0	0
other specified leukaemia	C94	6	0	0	0	0	0	0	0	0
unspecified leukaemia	C95	13	0	0	0	1	0	1	0	0
other lymphoid and haematopoietic	C96	2	0	0	1	0	0	0	0	0
in situ: oral cavity, oesophagus and stomach	D00	6	0	0	0	0	0	0	0	0
in situ: other digestive	D01	20	0	0	0	0	0	0	0	0
in situ: middle ear and respiratory	D02	6	0	0	0	0	0	0	0	0
in situ: melanoma	D03	146	0	0	0	0	1	1	2	5
in situ: carcinoma of skin	D04	743	0	0	0	0	0	0	0	3
in situ: breast	D05	84	0	0	0	0	0	0	0	3
in situ: cervix	D06	806	0	0	0	10	93	203	190	138
in situ: other genital	D07	5	0	0	0	0	0	0	0	0
in situ: other sites	D09	6	0	0	0	0	0	0	0	0
benign lipomatous	D17	0	0	0	0	0	0	0	0	0
benign soft tissue	D21	17	0	0	0	1	0	0	2	1
benign meninges	D32	54	0	0	0	0	1	0	2	2
benign brain	D33	2	0	0	0	0	0	0	0	0
uncertain: oral and digestive	D37	45	0	0	4	9	5	1	1	0
uncertain respiratory	D38	0	0	0	0	0	0	0	0	0
uncertain: female genital	D39	35	0	1	0	1	3	3	4	4
uncertain: male genital	D40	0	0	0	0	0	0	0	0	0
uncertain: urinary	D41	1	0	0	0	0	0	0	0	0
uncertain: meninges	D42	5	1	1	1	0	0	0	0	0
uncertain: brain and CNS	D43	2	0	0	0	0	0	0	1	0
uncertain: endocrine	D44	2	0	0	0	0	0	0	0	0
polycythaemia vera	D45	15	0	0	0	0	0	0	0	2
myelodysplastic syndromes	D46	34	0	0	0	0	1	0	0	0
other uncertain lymphoid, haematopoietic	D47	36	0	0	0	1	0	0	0	0
uncertain: other sites	D48	22	0	1	0	2	2	1	3	4
all cancers		10904	22	18	20	58	141	261	337	371

	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	0	3	3	3	2	3	1	1	1	0	eye
	0	0	0	0	0	0	0	2	1	0	meninges
	3	8	8	6	6	8	11	11	7	2	brain
	0	0	0	1	0	0	0	0	0	0	spinal cord
	5	3	4	0	2	2	2	3	2	0	thyroid
	0	0	0	0	1	2	0	1	0	0	adrenal
	0	0	0	0	2	0	0	0	0	0	other endocrine
	0	0	0	1	2	2	1	3	3	4	ill-defined site
	0	0	0	0	1	0	0	0	1	0	lymph nodes
	6	9	12	17	29	48	61	71	47	40	unknown primary site
	1	2	1	0	4	1	3	2	1	0	Hodgkin's disease
	0	1	2	0	6	3	2	4	0	1	follicular non-Hodgkin's lymphoma
	0	4	3	5	4	10	11	15	9	1	diffuse non-Hodgkin's lymphoma
	1	0	0	0	0	0	2	1	0	1	peripheral and cutaneous T cell lymphoma
	3	7	5	12	12	8	15	12	7	2	other and unspecified NHL
	0	0	0	0	0	0	0	0	1	0	malignant immunoproliferative disease
	0	3	2	8	10	5	12	27	12	2	multiple myeloma
	1	4	6	4	1	5	5	7	12	4	lymphoid leukaemia
	3	1	6	2	3	11	2	9	4	2	myeloid leukaemia
	0	0	0	0	0	0	0	0	0	1	monocytic leukaemia
	1	1	0	0	0	1	1	1	0	1	other specified leukaemia
	0	1	2	0	0	2	1	1	3	1	unspecified leukaemia
	0	0	1	0	0	0	0	0	0	0	other lymphoid and haematopoietic
	0	0	1	1	0	0	3	1	0	0	in situ: oral cavity, oesophagus and stomach
	0	0	2	2	1	2	4	3	3	3	in situ: other digestive
	2	0	1	0	0	1	1	1	0	0	in situ: middle ear and respiratory
	9	11	18	18	18	21	10	16	6	10	in situ: melanoma
	4	11	25	37	74	117	147	140	120	65	in situ: carcinoma of skin
	14	17	20	10	3	6	10	0	0	1	in situ: breast
	74	58	20	9	6	2	1	2	0	0	in situ: cervix
	1	0	2	1	1	0	0	0	0	0	in situ: other genital
	0	1	0	0	0	1	1	2	1	0	in situ: other sites
	0	0	0	0	0	0	0	0	0	0	benign lipomatous
	1	4	3	4	0	0	1	0	0	0	benign soft tissue
	1	6	3	6	7	5	8	6	5	2	benign meninges
	0	0	0	2	0	0	0	0	0	0	benign brain
	2	2	1	1	4	2	5	5	2	1	uncertain: oral and digestive
	0	0	0	0	0	0	0	0	0	0	uncertain respiratory
	4	1	2	2	2	1	3	1	3	0	uncertain: female genital
	0	0	0	0	0	0	0	0	0	0	uncertain: male genital
	0	0	0	0	0	1	0	0	0	0	uncertain: urinary
	0	0	0	0	0	0	0	1	1	0	uncertain: meninges
	0	0	0	0	0	0	0	1	0	0	uncertain: brain and CNS
	0	1	1	0	0	0	0	0	0	0	uncertain: endocrine
	3	0	2	3	0	1	2	1	0	1	polycythaemia vera
	0	0	1	2	3	5	5	6	9	2	myelodysplastic syndromes
	1	1	5	3	1	7	3	6	2	6	other uncertain lymphoid, haematopoietic
	3	1	2	0	1	1	1	0	0	0	uncertain: other sites
	463	594	762	873	1003	1262	1414	1385	1140	780	all cancers



Table A2.5. Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE													
site	ICD-0-2 site	Ireland						Carlow					
		female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
all cancers		10392	567.5	31.1	10130	655.9	40.3	101	515.2	276.7	110	627.3	319.9
lip	C00	8	0.4	0.2	44	2.8	0.7	0	0.0	0.5	0	1.5	4.7
base of tongue	C01	3	0.1	0.1	16	1.1	0.4	0	0.0	0.5	0	0.0	0.5
other tongue	C02	14	0.8	0.3	29	1.9	0.6	0	1.5	4.5	0	2.7	8.3
gum	C03	2	0.1	0.1	4	0.2	0.2	0	0.0	0.5	0	0.0	0.5
floor of mouth	C04	7	0.4	0.2	20	1.4	0.5	0	0.0	0.5	0	1.7	5.1
palate	C05	3	0.2	0.2	8	0.5	0.3	0	0.0	0.5	0	0.0	0.5
other mouth	C06	8	0.4	0.2	11	0.7	0.3	0	1.9	5.8	0	0.0	0.5
parotid	C07	8	0.4	0.2	16	1.0	0.4	0	0.0	0.5	1	4.0	7.1
other salivary	C08	4	0.2	0.2	5	0.3	0.2	0	0.0	0.5	0	0.0	0.5
tonsil	C09	4	0.2	0.2	15	1.0	0.4	0	1.1	3.3	0	1.4	4.1
oropharynx	C10	2	0.1	0.1	8	0.5	0.3	0	0.0	0.5	0	1.4	4.1
nasopharynx	C11	2	0.1	0.1	11	0.7	0.3	0	0.0	0.5	0	0.0	0.5
pyriform	C12	6	0.3	0.2	21	1.4	0.5	0	1.0	3.0	0	0.0	0.5
hypopharynx	C13	7	0.3	0.2	6	0.4	0.3	1	2.9	6.2	0	0.0	0.5
other mouth/pharynx	C14	3	0.1	0.1	11	0.7	0.3	0	0.0	0.5	0	0.0	0.5
oesophagus	C15	120	5.9	0.8	182	12.0	1.4	2	10.1	10.9	2	8.0	10.0
stomach	C16	178	8.9	0.7	302	19.6	1.7	2	7.1	8.9	4	22.9	18.8
small intestine	C17	15	0.8	0.2	23	1.5	0.5	0	0.0	0.5	0	1.7	5.2
colon	C18	555	29.1	1.2	607	39.3	1.6	6	33.6	13.2	6	32.0	20.0
rectosigmoid	C19	54	2.9	0.4	87	5.7	0.6	1	2.1	2.8	1	4.5	5.1
rectum	C20	181	9.7	0.7	330	21.7	1.2	4	19.0	10.0	5	26.3	12.2
anus	C21	12	0.7	0.2	10	0.7	0.2	0	1.1	2.1	1	2.8	3.9
liver	C22	20	1.0	0.2	40	2.5	0.4	0	1.1	2.1	0	1.7	3.3
gallbladder	C23	27	1.4	0.3	12	0.8	0.2	0	1.6	3.2	0	0.0	0.5
other biliary	C24	32	1.6	0.3	34	2.3	0.4	0	1.1	2.1	1	5.3	6.0
pancreas	C25	164	8.1	0.6	159	10.4	0.8	2	11.5	8.0	1	3.6	4.1
other digestive	C26	13	0.6	0.2	16	1.0	0.3	0	0.0	0.5	0	0.0	0.5
nasal cavity/middle ear	C30	4	0.2	0.1	5	0.3	0.1	0	0.0	0.5	0	0.0	0.5
sinuses	C31	4	0.2	0.1	8	0.5	0.2	0	0.0	0.5	0	1.2	2.4
larynx	C32	20	1.2	0.3	99	6.6	0.6	0	0.7	1.5	1	4.1	5.7
trachea	C33	1	0.1	0.0	3	0.2	0.1	0	0.0	0.5	0	0.0	0.5
lung	C34	497	26.1	1.1	967	62.9	2.0	5	25.2	10.8	12	65.7	18.6
thymus	C37	1	0.1	0.1	2	0.1	0.1	0	0.0	0.5	0	0.0	0.5
mediastinum	C38	5	0.3	0.1	21	1.4	0.3	0	0.0	0.5	0	0.0	0.5
other chest	C39	0	0.0	0.0	0	0.0	0.0	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	C40	12	0.6	0.2	14	0.7	0.2	0	0.0	0.5	0	0.0	0.5
bones, joints head and trunk	C41	6	0.3	0.1	12	0.7	0.2	0	1.6	3.2	0	1.0	1.9
myeloma etc	C42	167	8.4	0.6	189	12.1	0.9	1	6.0	5.9	2	9.3	6.9
melanoma of skin	C43	342	19.8	1.0	190	12.2	0.9	4	18.0	9.4	1	5.5	5.3
non-melanoma skin	C44	3439	178.7	3.0	3732	243.6	3.9	27	120.9	23.0	37	212.4	34.1
peripheral nerves	C47	5	0.3	0.1	6	0.3	0.1	0	0.0	0.5	0	1.3	2.6
peritoneum	C48	8	0.4	0.1	6	0.4	0.2	0	0.0	0.5	0	1.4	2.7
connective tissues	C49	28	1.5	0.3	39	2.4	0.4	0	0.0	0.5	1	2.1	3.0
breast	C50	1649	100.3	2.4	14	0.9	0.2	18	101.6	23.6	1	2.5	3.5
vulva	C51	35	1.8	0.3	0	0.0	0.5	0	1.1	2.1	0	0.0	0.5
vagina	C52	9	0.5	0.2	0	0.0	0.5	0	1.0	1.9	0	0.0	0.5
cervix	C53	928	52.4	1.7	0	0.0	0.5	9	47.0	15.3	0	0.0	0.5
corpus uteri	C54	211	13.0	0.9	0	0.0	0.5	1	6.5	5.7	0	0.0	0.5
uterus nos	C55	20	1.1	0.3	0	0.0	0.5	0	1.1	2.2	0	0.0	0.5
ovary	C56	323	18.9	1.0	0	0.0	0.5	3	16.3	9.2	0	0.0	0.5
other female genital	C57	6	0.3	0.1	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
placenta	C58	2	0.1	0.1	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
penis	C60	0	0.0	0.5	24	1.6	0.3	0	0.0	0.5	0	1.3	2.5
prostate	C61	0	0.0	0.5	1118	71.0	2.1	0	0.0	0.5	16	93.8	22.8
testis	C62	0	0.0	0.5	86	4.7	0.5	0	0.0	0.5	1	4.9	4.3
other male genital	C63	0	0.0	0.5	3	0.2	0.1	0	0.0	0.5	0	0.0	0.5
kidney	C64	86	4.8	0.5	144	9.5	0.8	2	6.3	5.0	3	14.5	9.0
renal pelvis	C65	5	0.2	0.1	10	0.6	0.2	0	0.0	0.5	0	1.4	2.7
ureter	C66	5	0.3	0.1	7	0.4	0.2	0	0.0	0.5	0	0.0	0.5
bladder	C67	137	7.2	0.6	349	22.7	1.2	1	6.7	5.9	4	24.7	11.7
other urinary	C68	2	0.1	0.1	5	0.3	0.1	0	0.0	0.5	0	0.0	0.5
eye	C69	21	1.2	0.3	19	1.2	0.3	0	0.0	0.5	0	0.0	0.5
meninges	C70	46	2.6	0.4	17	1.1	0.3	1	2.8	3.9	0	1.4	2.7
brain	C71	111	6.3	0.6	150	9.3	0.7	2	7.9	6.3	1	4.3	4.9
spinal cord	C72	27	1.7	0.3	21	1.3	0.3	1	3.2	4.4	1	2.9	3.3
thyroid	C73	42	2.3	0.4	20	1.3	0.3	0	1.6	3.2	0	1.2	2.4
adrenal	C74	4	0.3	0.1	5	0.3	0.1	0	0.0	0.5	0	0.0	0.5
other endocrine	C75	8	0.5	0.2	8	0.4	0.1	0	1.2	2.3	0	0.0	0.5
ill-defined site	C76	33	1.7	0.3	18	1.2	0.3	0	1.1	2.1	0	0.0	0.5
lymph nodes	C77	3	0.2	0.1	3	0.2	0.1	0	1.4	2.7	0	0.0	0.5
lymphoma		215	12.1	0.8	247	15.5	1.0	4	17.6	9.2	4	18.7	9.8
leukaemia		137	7.3	0.6	192	12.0	0.9	2	11.4	7.9	2	7.6	6.1
unknown primary site	C80	344	17.3	0.9	362	23.4	1.2	2	10.8	7.1	3	22.5	12.3



	Cavan						Clare						site
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL	
	162	550.7	225.3	178	604.7	259.8	205	431.6	168.0	236	516.6	201.2	all cancers
	0	0.0	0.5	1	1.6	3.5	0	0.6	1.8	1	1.6	2.8	lip
	0	0.0	0.5	1	2.8	4.9	0	0.3	0.8	0	0.7	2.0	base of tongue
	1	1.4	3.1	0	1.0	3.2	0	0.0	0.5	1	3.2	4.3	other tongue
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.2	2.7	gum
	0	0.0	0.5	0	1.0	3.2	0	0.6	1.7	1	1.0	2.2	floor of mouth
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.7	2.0	palate
	1	1.3	2.9	0	0.0	0.5	0	0.3	0.8	0	0.0	0.5	other mouth
	0	0.0	0.5	1	1.7	3.6	0	0.0	0.5	1	1.3	2.8	parotid
	0	0.0	0.5	0	1.3	3.8	0	0.3	0.8	0	0.0	0.5	other salivary
	0	0.0	0.5	0	1.3	3.8	0	0.0	0.5	1	2.0	3.5	tonsil
	0	0.0	0.5	0	0.0	0.5	0	0.8	2.4	1	1.7	2.9	oropharynx
	0	0.0	0.5	0	1.0	3.0	0	0.0	0.5	0	0.0	0.5	nasopharynx
	0	0.7	2.0	0	0.7	2.2	0	0.8	2.4	0	0.5	1.7	pyriform
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.7	2.0	hypopharynx
	0	0.0	0.5	0	0.0	0.5	0	0.3	0.8	0	0.6	1.7	other mouth/pharynx
	2	4.2	4.9	3	10.3	9.1	1	1.7	2.7	5	10.4	7.3	oesophagus
	5	11.4	8.2	7	20.9	12.5	4	7.6	5.6	7	15.0	8.7	stomach
	0	0.7	1.3	1	3.5	5.3	0	0.8	1.5	1	1.1	2.4	small intestine
	11	33.5	10.0	11	37.4	17.1	8	17.9	6.1	14	30.2	12.4	colon
	0	1.5	2.9	2	6.8	4.7	2	3.8	3.0	2	5.0	3.3	rectosigmoid
	4	10.7	5.6	9	32.1	10.5	4	8.1	3.9	9	19.8	6.6	rectum
	0	0.0	0.5	0	0.9	1.7	1	1.2	1.7	0	0.4	0.7	anus
	0	0.5	1.0	1	1.7	2.3	1	1.2	1.7	0	0.0	0.5	liver
	0	0.0	0.5	1	1.8	2.5	1	1.7	1.9	1	1.6	1.8	gallbladder
	1	3.5	3.9	1	2.5	2.8	1	2.4	2.3	1	2.0	2.3	other biliary
	4	11.8	6.0	5	15.4	7.1	4	8.8	4.2	4	8.4	4.0	pancreas
	0	0.0	0.5	1	1.1	1.6	1	0.6	0.9	0	0.6	1.1	other digestive
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	nasal cavity/middle ear
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.6	1.1	sinuses
	0	0.9	1.8	2	7.5	5.2	1	1.4	1.9	3	6.0	3.7	larynx
	0	0.0	0.5	0	0.7	1.4	0	0.0	0.5	0	0.4	0.7	trachea
	6	18.9	7.4	15	49.1	12.3	7	14.5	5.5	20	42.1	9.3	lung
	1	2.5	3.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	thymus
	0	0.0	0.5	1	2.1	2.9	0	0.0	0.5	1	1.2	1.6	mediastinum
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other chest
	0	0.0	0.5	0	1.0	2.0	0	0.0	0.5	0	0.5	1.0	bones, joints of limbs
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	bones, joints head and trunk
	3	8.6	5.1	5	16.0	7.2	4	7.3	3.8	5	11.7	5.1	myeloma etc
	6	19.3	8.1	2	6.5	4.5	6	13.3	5.3	5	10.9	4.8	melanoma of skin
	53	163.6	22.0	58	198.0	25.5	63	121.1	15.0	81	177.9	19.3	non-melanoma skin
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.4	0.9	peripheral nerves
	1	1.3	1.8	0	0.0	0.5	1	1.6	1.8	0	0.0	0.5	peritoneum
	1	1.7	2.4	1	2.4	2.7	1	0.5	0.7	0	0.5	1.0	connective tissues
	23	93.2	19.0	0	0.7	1.4	35	81.5	13.5	1	0.9	1.2	breast
	1	3.5	3.5	0	0.0	0.5	1	1.3	1.5	0	0.0	0.5	vulva
	0	0.0	0.5	0	0.0	0.5	0	0.4	0.7	0	0.0	0.5	vagina
	12	51.9	15.0	0	0.0	0.5	18	41.7	9.7	0	0.0	0.5	cervix
	4	14.1	7.1	0	0.0	0.5	4	8.0	4.2	0	0.0	0.5	corpus uteri
	1	2.4	3.3	0	0.0	0.5	1	2.8	2.4	0	0.0	0.5	uterus nos
	6	22.2	9.1	0	0.0	0.5	7	15.9	6.0	0	0.0	0.5	ovary
	0	0.0	0.5	0	0.0	0.5	0	0.3	0.5	0	0.0	0.5	other female genital
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	placenta
	0	0.0	0.5	0	0.9	1.7	0	0.0	0.5	0	0.7	1.3	penis
	0	0.0	0.5	21	68.9	14.6	0	0.0	0.5	29	60.2	11.0	prostate
	0	0.0	0.5	2	7.5	5.2	0	0.0	0.5	2	5.0	3.3	testis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other male genital
	2	6.4	4.5	2	8.2	5.7	2	3.0	2.4	3	6.3	3.7	kidney
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.1	1.6	renal pelvis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	ureter
	3	7.2	4.4	7	21.5	8.1	4	8.5	4.4	6	14.4	5.6	bladder
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.1	1.5	other urinary
	1	2.4	3.3	0	0.0	0.5	0	0.4	0.8	0	0.0	0.5	eye
	1	1.7	2.0	0	0.6	1.3	2	3.4	2.7	1	1.1	1.6	meninges
	2	5.2	3.8	3	11.5	6.5	2	4.3	3.2	4	9.4	4.6	brain
	1	2.7	3.7	0	0.0	0.5	1	1.7	1.9	1	1.7	1.9	spinal cord
	1	2.5	2.9	0	0.0	0.5	1	2.3	2.3	1	2.0	2.2	thyroid
	0	0.0	0.5	0	0.8	1.5	0	0.0	0.5	0	0.6	1.1	adrenal
	1	2.4	3.3	0	0.7	1.3	0	0.0	0.5	0	0.5	1.0	other endocrine
	0	0.5	1.0	1	2.8	3.1	1	1.6	2.2	1	1.1	1.5	ill-defined site
	0	0.0	0.5	0	0.0	0.5	0	0.8	1.5	0	0.0	0.5	lymph nodes
	4	13.9	6.8	5	16.3	7.5	5	9.6	4.3	6	12.8	5.4	lymphoma
	2	6.0	4.2	3	10.8	6.1	4	7.4	3.7	6	12.8	5.1	leukaemia
	5	14.2	6.4	7	23.7	8.6	10	17.6	5.5	11	23.6	7.0	unknown primary site



Table A2.5 (continued). Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE												
site	Cork						Donegal					
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
all cancers	1253	582.8	90.5	1250	698.5	114.2	352	499.0	154.5	406	604.2	181.1
lip	0	0.0	0.5	2	0.9	1.0	1	1.0	1.8	4	6.9	5.2
base of tongue	0	0.0	0.5	1	0.6	0.9	1	0.6	1.3	1	0.8	1.7
other tongue	1	0.6	0.8	4	1.9	1.6	1	0.6	1.4	2	2.8	3.2
gum	1	0.3	0.6	0	0.1	0.4	0	0.0	0.5	0	0.0	0.5
floor of mouth	1	0.3	0.6	3	1.7	1.5	1	0.5	1.0	0	0.0	0.5
palate	0	0.1	0.4	2	0.8	1.0	0	0.3	1.0	0	0.0	0.5
other mouth	1	0.3	0.6	2	0.9	1.0	1	1.4	2.1	1	1.3	2.3
parotid	1	0.4	0.6	3	1.5	1.4	1	0.4	0.9	1	0.8	1.8
other salivary	1	0.4	0.7	1	0.2	0.5	0	0.3	0.8	0	0.2	0.7
tonsil	0	0.0	0.5	1	0.6	0.9	0	0.0	0.5	1	1.8	2.7
oropharynx	0	0.2	0.5	1	0.3	0.6	0	0.5	1.6	0	0.4	1.3
nasopharynx	0	0.0	0.5	2	1.1	1.2	0	0.0	0.5	0	0.5	1.6
pyriform	1	0.2	0.4	4	2.0	1.6	1	1.6	2.5	1	1.3	2.0
hypopharynx	1	0.6	0.8	1	0.5	0.8	0	0.0	0.5	0	0.0	0.5
other mouth/pharynx	1	0.3	0.5	2	1.3	1.3	0	0.0	0.5	1	1.0	1.8
oesophagus	17	6.8	2.5	25	14.1	4.4	2	2.7	3.0	5	7.1	5.1
stomach	20	8.2	2.9	30	16.6	4.6	6	7.7	5.0	16	23.4	9.1
small intestine	2	0.6	0.5	3	1.4	1.4	1	1.7	1.9	1	1.7	2.6
colon	75	32.6	3.7	81	46.2	7.9	30	41.7	7.5	29	42.1	12.0
rectosigmoid	4	1.7	0.8	7	4.0	1.4	4	5.3	2.6	5	7.5	3.3
rectum	27	12.3	2.3	47	26.7	3.8	5	6.1	2.6	11	16.9	5.0
anus	1	0.2	0.3	1	0.5	0.5	2	2.2	1.6	0	0.4	0.8
liver	3	1.2	0.7	5	2.4	1.1	0	0.0	0.5	1	1.7	1.5
gallbladder	6	2.4	1.0	1	0.5	0.5	1	1.4	1.2	1	0.9	1.1
other biliary	2	0.6	0.5	3	1.6	0.9	2	2.2	1.5	3	4.9	2.8
pancreas	21	9.2	2.0	19	10.5	2.4	6	6.7	2.7	7	9.6	3.6
other digestive	3	1.1	0.6	3	1.8	1.0	1	0.5	0.6	0	0.4	0.8
nasal cavity/middle ear	1	0.2	0.2	0	0.0	0.5	0	0.0	0.5	0	0.4	0.8
sinuses	1	0.5	0.4	1	0.3	0.4	0	0.2	0.5	1	1.1	1.2
larynx	4	1.9	1.0	11	6.2	1.8	1	1.4	1.6	4	6.3	3.1
trachea	0	0.1	0.2	1	0.3	0.4	0	0.0	0.5	0	0.0	0.5
lung	56	25.0	3.3	105	59.4	5.7	16	19.7	4.9	39	56.6	8.9
thymus	0	0.1	0.2	0	0.2	0.3	0	0.0	0.5	0	0.0	0.5
mediastinum	0	0.0	0.5	3	1.8	1.0	0	0.0	0.5	1	0.7	1.0
other chest	0	0.1	0.1	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	2	0.6	0.5	2	0.8	0.6	1	1.1	1.3	0	0.3	0.6
bones, joints head and trunk	2	0.8	0.6	1	0.7	0.6	0	0.6	1.1	1	2.2	1.9
myeloma etc	35	14.6	2.4	33	17.8	3.1	7	9.0	3.3	7	11.2	4.1
melanoma of skin	49	24.4	3.4	27	14.3	2.7	10	15.7	5.0	7	10.2	3.9
non-melanoma skin	407	184.2	9.0	470	265.7	12.0	102	123.9	12.0	140	210.5	17.4
peripheral nerves	1	0.2	0.3	1	0.6	0.5	0	0.0	0.5	1	0.8	1.1
peritoneum	1	0.5	0.5	1	0.3	0.4	1	0.7	1.0	0	0.0	0.5
connective tissues	3	1.4	0.8	6	3.2	1.3	1	1.8	1.7	2	3.1	2.1
breast	199	101.7	7.1	1	0.2	0.3	54	90.8	12.1	1	1.2	1.2
vulva	5	1.8	0.8	0	0.0	0.5	2	2.6	1.8	0	0.0	0.5
vagina	1	0.6	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
cervix	97	47.2	4.7	0	0.0	0.5	25	43.4	8.5	0	0.0	0.5
corpus uteri	26	13.6	2.6	0	0.0	0.5	9	14.0	4.7	0	0.0	0.5
uterus nos	1	0.4	0.4	0	0.0	0.5	1	2.2	1.9	0	0.0	0.5
ovary	40	19.7	3.1	0	0.0	0.5	12	17.7	5.1	0	0.0	0.5
other female genital	0	0.2	0.3	0	0.0	0.5	1	0.8	1.1	0	0.0	0.5
placenta	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
penis	0	0.0	0.5	1	0.4	0.4	0	0.0	0.5	2	2.5	2.0
prostate	0	0.0	0.5	143	77.9	6.4	0	0.0	0.5	42	57.2	8.6
testis	0	0.0	0.5	13	6.1	1.7	0	0.0	0.5	3	4.4	2.6
other male genital	0	0.0	0.5	1	0.2	0.3	0	0.0	0.5	0	0.0	0.5
kidney	10	4.6	1.4	15	8.2	2.1	4	6.5	3.2	6	9.9	3.9
renal pelvis	0	0.2	0.3	1	0.2	0.3	0	0.0	0.5	1	0.7	0.8
ureter	0	0.0	0.5	1	0.5	0.5	0	0.0	0.5	0	0.5	1.0
bladder	15	6.2	1.6	39	21.9	3.5	5	6.6	3.0	17	24.0	5.7
other urinary	0	0.0	0.5	1	0.5	0.5	0	0.2	0.5	0	0.5	1.0
eye	2	1.3	0.9	4	2.0	1.0	1	1.0	1.2	1	0.7	1.0
meninges	7	3.1	1.2	4	1.9	1.0	1	2.4	2.1	0	0.2	0.4
brain	14	6.9	1.8	19	10.0	2.3	4	6.1	3.1	5	8.1	3.6
spinal cord	3	1.6	0.9	1	0.5	0.5	1	1.3	1.5	1	1.3	1.5
thyroid	5	2.2	1.0	2	1.0	0.7	2	3.0	2.1	1	1.3	1.4
adrenal	1	0.4	0.5	0	0.2	0.3	0	0.0	0.5	1	0.8	1.1
other endocrine	1	0.6	0.5	1	0.4	0.4	0	0.2	0.3	1	1.1	1.3
ill-defined site	2	0.9	0.6	1	0.5	0.6	1	1.5	1.4	1	2.0	1.7
lymph nodes	0	0.0	0.5	1	0.3	0.4	0	0.4	0.8	0	0.0	0.5
lymphoma	25	11.6	2.3	31	16.8	3.0	9	14.4	4.8	11	16.2	4.9
leukaemia	20	8.9	2.0	27	14.9	2.8	6	8.1	3.3	10	14.6	4.6
unknown primary site	35	14.0	2.3	39	21.3	3.4	14	16.3	4.3	13	18.8	5.2



	Dublin						Galway						site
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL	
	3508	783.7	71.8	2863	772.0	83.5	491	524.8	129.9	543	606.5	158.5	all cancers
4	0.7	0.6		4	1.0	0.8	1	0.6	1.1	11	12.1	5.6	lip
1	0.1	0.3		6	1.5	0.9	0	0.1	0.4	1	1.7	2.3	base of tongue
6	1.1	0.7		8	2.2	1.2	1	0.8	1.4	2	2.4	2.6	other tongue
0	0.0	0.1		1	0.3	0.5	1	0.5	1.0	1	0.6	1.3	gum
3	0.5	0.5		9	2.3	1.2	0	0.2	0.7	1	0.5	1.2	floor of mouth
1	0.3	0.3		3	0.7	0.7	0	0.3	0.9	1	0.7	1.4	palate
2	0.3	0.3		5	1.3	0.9	1	0.7	1.5	0	0.0	0.5	other mouth
1	0.3	0.4		4	1.0	0.8	1	1.0	1.8	1	1.3	2.0	parotid
1	0.2	0.3		1	0.2	0.3	0	0.2	0.7	0	0.0	0.5	other salivary
1	0.2	0.4		4	0.9	0.7	1	0.9	1.6	1	1.1	1.8	tonsil
1	0.1	0.2		2	0.6	0.6	0	0.0	0.5	1	1.3	1.9	oropharynx
1	0.1	0.2		3	0.6	0.6	0	0.2	0.6	2	1.9	2.3	nasopharynx
2	0.4	0.5		6	1.7	1.0	0	0.1	0.4	1	0.8	1.3	pyriform
2	0.3	0.3		2	0.6	0.6	1	0.7	1.5	1	0.9	1.6	hypopharynx
1	0.3	0.4		3	0.8	0.7	0	0.0	0.5	0	0.0	0.5	other mouth/pharynx
39	6.9	1.7		47	13.1	2.9	2	1.8	1.8	9	10.6	5.3	oesophagus
62	11.2	2.2		88	23.7	3.9	8	7.7	4.2	17	19.4	7.2	stomach
4	0.8	0.4		6	1.6	1.0	0	0.3	0.6	2	2.6	2.8	small intestine
155	28.5	2.2		158	42.8	5.2	25	25.7	5.1	32	35.8	9.7	colon
22	4.0	0.8		24	6.5	1.3	1	1.4	1.2	4	4.0	2.1	rectosigmoid
54	10.1	1.3		89	24.1	2.5	10	9.1	2.8	20	23.3	5.1	rectum
3	0.6	0.3		2	0.6	0.4	0	0.0	0.5	0	0.3	0.7	anus
8	1.4	0.5		14	3.6	0.9	1	0.9	0.8	2	2.2	1.5	liver
6	1.2	0.5		3	0.8	0.5	1	0.7	0.8	1	0.9	1.0	gallbladder
9	1.6	0.5		7	1.9	0.7	1	0.7	0.8	2	2.7	1.7	other biliary
44	7.6	1.1		34	9.2	1.6	8	7.1	2.5	11	11.0	3.3	pancreas
3	0.5	0.3		4	1.0	0.5	1	0.9	0.8	1	0.8	0.9	other digestive
1	0.2	0.2		2	0.4	0.3	0	0.0	0.5	1	0.6	0.8	nasal cavity/middle ear
1	0.1	0.1		2	0.5	0.4	1	0.6	0.8	1	1.0	1.2	sinuses
7	1.4	0.5		33	8.8	1.5	0	0.4	0.7	5	5.5	2.5	larynx
1	0.1	0.1		2	0.4	0.3	0	0.0	0.5	0	0.0	0.5	trachea
200	37.6	2.6		326	88.5	4.8	18	17.7	4.1	41	46.1	7.1	lung
0	0.1	0.1		0	0.1	0.1	0	0.0	0.5	0	0.0	0.5	thymus
1	0.2	0.2		8	2.2	0.7	0	0.3	0.5	1	1.3	1.3	mediastinum
0	0.0	0.5		0	0.1	0.1	0	0.0	0.5	0	0.0	0.5	other chest
4	0.7	0.3		4	0.8	0.4	0	0.2	0.5	1	0.5	0.7	bones, joints of limbs
1	0.2	0.2		5	1.0	0.5	1	0.4	0.6	0	0.3	0.5	bones, joints head and trunk
42	7.6	1.2		45	11.9	1.8	8	6.8	2.4	8	8.4	2.9	myeloma etc
107	21.0	2.0		56	14.2	1.9	23	26.1	5.4	11	13.3	3.9	melanoma of skin
1283	236.9	6.5		1097	299.5	8.9	159	157.2	12.2	196	219.1	15.4	non-melanoma skin
2	0.4	0.3		1	0.1	0.2	0	0.3	0.6	0	0.0	0.5	peripheral nerves
2	0.4	0.3		1	0.3	0.3	1	0.4	0.5	0	0.0	0.5	peritoneum
10	1.9	0.6		8	1.9	0.7	1	0.4	0.5	2	2.2	1.5	connective tissues
527	110.5	4.7		5	1.3	0.6	82	100.2	10.8	1	0.6	0.8	breast
10	1.9	0.6		0	0.0	0.5	2	1.3	1.1	0	0.0	0.5	vulva
3	0.5	0.3		0	0.0	0.5	1	0.6	0.8	0	0.0	0.5	vagina
349	60.6	3.2		0	0.0	0.5	43	49.1	7.3	0	0.0	0.5	cervix
57	11.9	1.5		0	0.0	0.5	13	16.2	4.4	0	0.0	0.5	corpus uteri
5	1.0	0.5		0	0.0	0.5	1	1.2	1.0	0	0.0	0.5	uterus nos
91	18.3	1.9		0	0.0	0.5	15	16.3	4.1	0	0.0	0.5	ovary
3	0.6	0.3		0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other female genital
0	0.0	0.1		0	0.0	0.5	0	0.3	0.5	0	0.0	0.5	placenta
0	0.0	0.5		7	1.8	0.7	0	0.0	0.5	2	2.6	1.7	penis
0	0.0	0.5		279	78.7	4.6	0	0.0	0.5	70	72.9	8.6	prostate
0	0.0	0.5		26	4.8	0.9	0	0.0	0.5	5	5.1	2.3	testis
0	0.0	0.5		2	0.4	0.3	0	0.0	0.5	0	0.3	0.6	other male genital
23	4.5	0.9		44	11.3	1.7	4	5.0	2.5	8	9.5	3.4	kidney
2	0.4	0.3		3	0.9	0.5	1	0.3	0.4	0	0.0	0.5	renal pelvis
3	0.6	0.3		2	0.5	0.4	1	0.5	0.7	0	0.3	0.6	ureter
45	8.3	1.2		104	28.5	2.7	5	4.4	2.0	17	18.6	4.4	bladder
1	0.1	0.1		2	0.4	0.3	0	0.0	0.5	0	0.0	0.5	other urinary
6	1.2	0.5		2	0.5	0.3	2	2.0	1.4	1	0.9	1.0	eye
13	2.5	0.7		5	1.1	0.5	4	3.9	2.1	1	1.6	1.4	meninges
36	6.9	1.1		42	9.8	1.5	7	7.2	2.8	10	11.4	3.6	brain
9	1.8	0.6		7	1.5	0.6	1	1.6	1.4	1	1.2	1.2	spinal cord
13	2.5	0.7		4	1.0	0.5	3	2.8	1.7	1	1.3	1.2	thyroid
1	0.2	0.2		1	0.2	0.2	0	0.0	0.5	0	0.0	0.5	adrenal
2	0.3	0.3		1	0.2	0.2	1	1.0	1.1	1	0.4	0.6	other endocrine
7	1.2	0.5		4	1.0	0.5	3	2.9	1.8	1	0.9	1.0	ill-defined site
1	0.1	0.2		0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	lymph nodes
70	13.2	1.5		65	15.6	1.9	10	10.9	3.4	13	13.7	3.8	lymphoma
39	7.1	1.1		43	10.4	1.6	6	6.7	2.6	11	11.5	3.5	leukaemia
102	139.5	13.6		98	26.9	2.7	17	17.0	4.1	15	16.6	4.2	unknown primary site



Table A2.5 (continued). Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE												
site	Kerry						Kildare					
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
all cancers	409	582.5	146.6	440	658.8	180.5	293	568.0	181.2	261	637.1	226.6
lip	0	0.0	0.5	1	1.7	2.3	1	1.1	2.4	1	3.2	4.4
base of tongue	0	0.3	0.8	1	0.8	1.8	0	0.0	0.5	1	1.2	2.5
other tongue	1	0.6	1.1	1	2.2	3.0	1	1.4	2.5	1	3.6	5.5
gum	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
floor of mouth	0	0.4	1.2	0	0.3	1.1	0	0.4	1.1	0	0.7	2.0
palate	0	0.0	0.5	1	1.2	2.1	1	0.8	1.6	0	0.6	1.9
other mouth	0	0.0	0.5	1	0.9	2.0	0	0.0	0.5	1	1.2	2.5
parotid	1	0.5	1.0	1	1.1	1.9	1	1.4	2.2	0	1.2	3.6
other salivary	0	0.0	0.5	1	1.5	2.4	0	0.0	0.5	0	0.0	0.5
tonsil	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.4	3.0
oropharynx	0	0.0	0.5	1	1.0	2.1	0	0.4	1.3	0	0.0	0.5
nasopharynx	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.3	0.9
pyriform	0	0.0	0.5	2	2.7	3.3	0	0.0	0.5	0	0.7	2.0
hypopharynx	0	0.3	0.9	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
other mouth/pharynx	0	0.0	0.5	1	0.9	2.0	0	0.0	0.5	1	1.4	3.0
oesophagus	4	4.8	3.8	9	13.4	7.0	6	11.8	7.5	4	9.4	7.4
stomach	4	5.1	3.9	12	18.0	8.1	3	4.7	4.3	10	23.7	11.6
small intestine	1	0.7	0.9	1	0.8	1.7	0	0.0	0.5	0	0.6	1.8
colon	23	31.4	6.4	23	35.7	11.5	13	26.1	7.2	17	40.3	15.1
rectosigmoid	2	2.1	1.7	2	2.2	1.8	0	0.0	0.5	3	8.1	4.6
rectum	7	10.6	3.9	10	13.9	4.3	5	11.5	4.9	11	27.1	8.2
anus	0	0.6	1.1	1	1.5	1.7	0	0.4	0.7	0	0.0	0.5
liver	2	1.7	1.4	1	0.7	1.0	0	0.5	1.0	2	3.8	3.0
gallbladder	2	1.8	1.4	0	0.2	0.4	1	2.6	2.5	1	1.2	1.7
other biliary	1	1.0	1.1	4	5.5	2.9	2	3.6	2.7	1	3.1	3.1
pancreas	6	7.6	3.0	7	10.3	3.9	4	8.9	4.2	5	12.6	5.8
other digestive	0	0.2	0.3	0	0.3	0.6	0	0.4	0.9	0	0.7	1.3
nasal cavity/middle ear	0	0.0	0.5	0	0.0	0.5	1	1.2	1.6	0	0.7	1.4
sinuses	0	0.0	0.5	0	0.4	0.8	0	0.0	0.5	0	0.0	0.5
larynx	1	0.7	0.9	3	5.0	2.8	1	1.7	1.9	2	4.2	3.1
trachea	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
lung	13	17.4	4.7	34	52.2	8.8	16	32.3	8.0	31	78.4	13.8
thymus	0	0.0	0.5	1	0.7	1.0	0	0.0	0.5	0	0.0	0.5
mediastinum	0	0.4	0.7	1	1.2	1.4	0	0.4	0.7	1	3.3	2.9
other chest	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	1	1.0	1.2	1	1.7	1.5	0	0.0	0.5	0	0.0	0.5
bones, joints head and trunk	0	0.0	0.5	0	0.5	0.9	0	0.5	1.0	1	0.7	1.0
Myeloma etc	6	7.6	3.2	7	10.5	3.8	5	10.4	4.4	3	7.6	4.1
Melanoma of skin	16	25.9	6.4	9	14.5	4.7	10	18.4	5.8	6	12.7	5.2
Non-melanoma skin	169	226.6	17.1	192	283.7	20.1	83	163.4	17.6	83	203.9	21.9
peripheral nerves	0	0.4	0.8	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
peritoneum	0	0.0	0.5	0	0.5	0.9	0	0.0	0.5	1	1.5	1.7
connective tissues	2	2.3	1.9	1	1.7	1.6	1	1.3	1.5	2	3.3	2.6
breast	57	89.7	11.6	1	0.7	1.0	51	102.2	14.0	1	1.3	1.8
vulva	1	1.2	1.1	0	0.0	0.5	1	1.6	1.9	0	0.0	0.5
vagina	0	0.0	0.5	0	0.0	0.5	0	0.6	1.1	0	0.0	0.5
cervix	23	40.3	8.2	0	0.0	0.5	31	44.4	7.9	0	0.0	0.5
corpus uteri	13	20.7	5.7	0	0.0	0.5	7	15.7	5.8	0	0.0	0.5
uterus nos	1	0.9	1.0	0	0.0	0.5	1	2.2	2.1	0	0.0	0.5
ovary	12	20.0	5.6	0	0.0	0.5	11	22.2	6.5	0	0.0	0.5
other female genital	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
placenta	0	0.0	0.5	0	0.0	0.5	0	0.6	1.1	0	0.0	0.5
penis	0	0.0	0.5	1	0.9	1.3	0	0.0	0.5	1	2.1	2.1
prostate	0	0.0	0.5	34	46.4	7.8	0	0.0	0.5	25	65.0	12.8
testis	0	0.0	0.5	5	7.1	3.3	0	0.0	0.5	3	4.1	2.3
other male genital	0	0.0	0.5	0	0.5	1.0	0	0.0	0.5	0	0.0	0.5
kidney	3	3.0	1.9	6	9.8	3.8	3	6.3	3.5	4	8.8	4.3
renal pelvis	0	0.2	0.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
ureter	0	0.0	0.5	0	0.4	0.8	1	1.1	1.5	0	0.0	0.5
bladder	6	8.2	3.4	16	24.6	6.0	4	7.9	3.9	8	20.7	7.2
other urinary	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
eye	1	0.8	1.1	2	2.5	2.0	1	0.8	1.1	0	0.5	1.0
meninges	3	3.6	2.2	1	1.0	1.4	2	3.8	2.6	0	0.4	0.7
brain	3	4.4	2.5	7	10.8	4.2	4	5.8	3.0	6	11.9	4.9
spinal cord	2	3.0	2.4	1	1.1	1.3	1	1.1	1.3	1	1.5	1.8
thyroid	1	1.0	1.4	3	4.3	2.6	1	1.4	1.3	0	0.0	0.5
adrenal	0	0.3	0.5	0	0.0	0.5	0	0.6	1.3	0	0.4	0.7
other endocrine	1	0.5	0.6	0	0.0	0.5	1	0.7	1.0	0	0.0	0.5
ill-defined site	1	0.5	0.7	0	0.0	0.5	1	1.9	1.8	1	1.6	1.8
lymph nodes	1	0.9	1.2	0	0.0	0.5	0	0.7	1.3	0	0.3	0.7
lymphoma	6	8.4	3.5	12	17.7	5.0	7	11.7	4.5	10	19.7	6.2
leukaemia	6	8.8	3.5	11	16.8	5.0	3	5.8	3.1	5	12.1	5.3
unknown primary site	13	14.6	4.0	18	24.7	5.7	11	23.6	6.9	10	24.5	7.6



	Kilkenny						Laoighis						
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL	site
	172	448.4	187.2	187	533.1	220.7	137	547.7	236.4	146	589.2	281.2	all cancers
0	1.0	3.0	0	0.7	2.2	0	0.0	0.5	0	1.0	3.1	lip	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	base of tongue	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	3.5	6.2	other tongue	
0	0.0	0.5	0	0.5	1.7	0	0.0	0.5	0	0.0	0.5	gum	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	2.9	5.1	floor of mouth	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	palate	
0	0.7	2.2	0	0.0	0.5	0	1.2	3.7	0	0.8	2.6	other mouth	
0	0.0	0.5	1	1.6	3.4	0	0.0	0.5	0	0.8	2.6	parotid	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other salivary	
0	0.0	0.5	1	1.4	3.0	0	0.0	0.5	0	1.2	3.7	tonsil	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.7	2.1	oropharynx	
0	0.5	1.4	1	1.6	3.4	0	0.0	0.5	0	0.0	0.5	nasopharynx	
0	0.0	0.5	1	1.4	3.1	0	0.0	0.5	0	0.8	2.6	pyriform	
0	0.7	2.2	0	0.0	0.5	0	1.4	4.4	1	2.8	6.1	hypopharynx	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	1.2	3.7	other mouth/pharynx	
2	5.5	5.6	4	12.2	9.1	3	8.0	7.7	4	15.8	12.5	oesophagus	
4	9.2	7.2	7	20.3	11.6	2	6.2	7.7	5	16.7	11.8	stomach	
0	0.4	0.7	1	2.1	3.7	1	2.0	2.8	0	0.8	2.6	small intestine	
8	18.6	6.6	10	28.8	13.9	9	33.7	11.0	9	35.2	17.9	colon	
1	1.9	2.6	3	8.4	5.0	1	1.8	2.5	1	3.5	3.9	rectosigmoid	
5	13.1	5.9	5	14.4	6.2	3	10.5	6.0	4	17.4	8.5	rectum	
0	0.7	1.4	0	0.8	1.7	0	0.0	0.5	0	0.0	0.5	anus	
1	0.9	1.3	2	4.7	3.8	0	0.0	0.5	0	0.0	0.5	liver	
0	0.5	1.1	0	0.0	0.5	1	2.6	2.9	0	1.0	2.0	gallbladder	
2	3.2	2.6	0	0.5	1.1	1	2.2	2.5	1	3.8	4.3	other biliary	
3	7.2	4.4	3	7.0	4.1	2	7.2	5.0	3	9.1	5.6	pancreas	
0	0.5	1.1	1	1.2	1.6	0	0.0	0.5	1	3.1	3.6	other digestive	
0	0.6	1.3	0	0.0	0.5	0	1.2	2.4	0	0.0	0.5	nasal cavity/middle ear	
0	0.4	0.7	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	sinuses	
0	0.0	0.5	1	3.1	3.1	1	1.7	2.4	2	5.7	4.5	larynx	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	trachea	
6	14.2	5.8	15	41.0	10.4	5	20.2	8.8	13	51.0	14.0	lung	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	1.1	2.2	thymus	
0	0.7	1.4	0	0.6	1.2	0	0.0	0.5	1	2.0	2.8	mediastinum	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other chest	
0	0.9	1.7	0	0.7	1.3	0	0.0	0.5	0	1.2	2.4	bones, joints of limbs	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	bones, joints head and trunk	
4	8.9	4.7	4	10.2	5.2	2	8.3	5.8	3	9.7	5.7	Myeloma etc	
4	10.3	5.2	4	9.2	4.8	4	18.2	8.7	2	6.7	5.0	Melanoma of skin	
53	125.6	17.0	60	171.3	21.7	40	149.4	23.1	48	200.9	28.3	Non-melanoma skin	
0	0.8	1.5	0	0.0	0.5	0	0.0	0.5	0	1.0	2.0	peripheral nerves	
1	1.8	2.0	0	0.7	1.4	0	0.9	1.7	1	2.4	3.4	peritoneum	
1	2.3	2.3	1	3.0	3.0	0	1.1	2.1	1	1.9	2.6	connective tissues	
31	89.1	15.7	1	1.6	2.2	24	106.0	21.2	0	0.0	0.5	breast	
1	1.1	1.5	0	0.0	0.5	1	1.8	2.4	0	0.0	0.5	vulva	
0	0.9	1.8	0	0.0	0.5	0	0.8	1.5	0	0.0	0.5	vagina	
14	38.3	10.2	0	0.0	0.5	12	50.6	14.2	0	0.0	0.5	cervix	
4	9.1	4.8	0	0.0	0.5	2	10.1	6.6	0	0.0	0.5	corpus uteri	
1	1.6	2.2	0	0.0	0.5	1	1.7	2.4	0	0.0	0.5	uterus nos	
7	20.9	7.6	0	0.0	0.5	6	26.9	10.8	0	0.0	0.5	ovary	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other female genital	
0	0.7	1.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	placenta	
0	0.0	0.5	0	0.7	1.4	0	0.0	0.5	1	2.8	3.2	penis	
0	0.0	0.5	29	82.1	14.9	0	0.0	0.5	19	74.1	16.6	prostate	
0	0.0	0.5	1	2.6	2.6	0	0.0	0.5	1	3.7	3.7	testis	
0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	0	0.0	0.5	other male genital	
1	3.1	2.7	5	13.0	6.0	2	7.6	5.6	3	12.4	7.0	kidney	
0	0.5	1.1	0	1.2	2.4	0	0.0	0.5	0	0.8	1.7	renal pelvis	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.7	2.3	ureter	
3	8.9	4.9	6	17.4	6.8	2	9.4	6.1	5	20.7	9.3	bladder	
0	0.0	0.5	0	0.7	1.4	0	0.0	0.5	0	0.0	0.5	other urinary	
1	1.7	2.4	1	1.7	2.0	0	0.0	0.5	1	2.5	3.4	eye	
0	0.0	0.5	0	0.9	1.9	1	3.0	3.4	0	0.0	0.5	meninges	
2	5.8	3.8	2	4.5	3.6	1	5.2	4.6	2	6.2	5.0	brain	
1	1.0	1.5	0	0.9	1.9	0	0.0	0.5	0	0.0	0.5	spinal cord	
1	1.1	1.6	1	1.3	1.8	0	0.8	1.5	1	1.5	2.1	thyroid	
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.7	1.4	adrenal	
0	0.5	1.0	1	1.1	1.6	1	1.7	2.4	1	1.8	2.5	other endocrine	
1	2.2	2.1	1	1.8	2.5	0	0.5	1.1	0	0.8	1.6	ill-defined site	
0	0.0	0.5	0	0.7	1.4	0	0.0	0.5	0	0.0	0.5	lymph nodes	
5	12.5	5.8	6	17.7	7.1	4	16.3	8.5	3	13.7	7.5	lymphoma	
4	8.7	4.6	4	10.8	5.7	3	11.9	6.8	3	13.1	7.1	leukaemia	
4	9.6	4.7	8	24.0	8.4	5	15.6	7.2	7	26.5	10.0	unknown primary site	



Table A2.5 (continued). Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE												
site	Leitrim						Limerick					
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
all cancers	77	503.2	304.7	97	559.1	311.7	387	475.3	137.8	371	547.6	167.2
lip	0	0.7	2.1	1	7.4	10.1	0	0.0	0.5	1	1.2	2.1
base of tongue	0	0.0	0.5	0	0.0	0.5	0	0.3	1.0	1	1.2	2.1
other tongue	0	0.0	0.5	0	2.4	7.3	0	0.0	0.5	1	0.6	1.4
gum	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
floor of mouth	0	0.0	0.5	0	2.0	6.1	0	0.0	0.5	1	1.4	2.2
palate	0	0.0	0.5	0	0.0	0.5	0	0.3	1.0	1	1.0	1.8
other mouth	0	0.0	0.5	0	0.0	0.5	0	0.2	0.5	0	0.0	0.5
parotid	0	1.2	3.7	0	0.0	0.5	0	0.3	1.0	0	0.3	1.0
other salivary	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
tonsil	0	1.0	3.0	0	1.1	3.3	1	0.8	1.7	1	1.6	2.5
oropharynx	0	0.0	0.5	1	3.2	6.8	1	0.8	1.6	0	0.4	1.1
nasopharynx	0	2.4	7.4	1	5.9	10.4	0	0.0	0.5	1	0.6	1.3
pyriform	0	0.0	0.5	0	0.0	0.5	1	0.9	1.5	1	1.1	2.0
hypopharynx	1	2.2	4.7	0	0.0	0.5	0	0.0	0.5	1	0.8	1.7
other mouth/pharynx	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.3	1.0
oesophagus	1	4.3	9.4	2	9.2	10.7	5	6.7	4.5	8	11.6	6.5
stomach	2	6.9	8.6	3	14.1	13.0	8	8.3	4.6	9	13.1	6.8
small intestine	0	0.0	0.5	0	0.0	0.5	1	0.8	1.0	1	0.7	1.5
colon	6	34.6	14.1	7	37.0	21.4	19	23.6	5.3	22	32.5	10.5
rectosigmoid	0	0.7	1.3	0	1.1	2.1	3	3.9	2.3	4	5.4	2.8
rectum	2	6.6	5.3	4	24.9	12.6	7	8.4	3.2	12	18.0	5.0
anus	0	0.7	1.3	0	0.0	0.5	1	0.7	1.0	1	1.1	1.3
liver	0	3.1	6.1	1	3.3	4.6	0	0.0	0.5	1	1.9	1.7
gallbladder	1	3.4	4.7	0	0.0	0.5	1	0.7	1.0	1	0.7	0.9
other biliary	1	3.4	4.7	0	0.0	0.5	2	2.4	1.6	1	1.1	1.2
pancreas	1	2.3	3.2	3	16.2	10.0	9	9.2	3.1	10	15.8	4.8
other digestive	0	0.0	0.5	0	0.0	0.5	1	0.4	0.6	0	0.3	0.7
nasal cavity/middle ear	0	0.0	0.5	0	0.9	1.7	1	0.8	1.0	1	1.0	1.1
sinuses	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.4	0.8
larynx	0	0.0	0.5	1	6.3	6.2	1	1.5	1.4	6	8.3	3.4
trachea	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
lung	2	10.1	7.0	10	52.5	16.7	18	20.4	4.8	36	54.2	8.9
thymus	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
mediastinum	0	0.0	0.5	0	0.0	0.5	0	0.4	0.9	1	0.8	1.1
other chest	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	0	0.0	0.5	0	1.3	2.6	1	1.0	1.0	1	0.7	0.9
bones, joints head and trunk	0	0.0	0.5	0	0.0	0.5	0	0.4	0.8	0	0.3	0.7
myeloma etc	2	11.2	7.3	2	8.6	6.4	8	10.1	3.5	9	13.0	4.3
melanoma of skin	2	10.2	8.2	0	2.3	4.5	13	16.5	4.5	8	11.9	4.1
non-melanoma skin	20	105.9	23.4	30	169.7	30.6	94	108.6	11.0	124	181.9	16.0
peripheral nerves	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.2	1.2
peritoneum	0	0.0	0.5	0	0.0	0.5	0	0.4	0.9	0	0.4	0.8
connective tissues	1	3.9	5.5	0	1.7	3.3	1	1.6	1.4	3	3.9	2.3
breast	15	109.9	28.3	0	2.1	4.1	72	98.0	11.3	0	0.0	0.5
vulva	1	2.8	3.9	0	0.0	0.5	2	1.9	1.4	0	0.0	0.5
vagina	0	1.2	2.4	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
cervix	6	58.7	23.0	0	0.0	0.5	34	42.3	7.1	0	0.0	0.5
corpus uteri	3	20.8	12.9	0	0.0	0.5	13	15.9	4.4	0	0.0	0.5
uterus nos	1	3.5	4.9	0	0.0	0.5	1	0.6	0.8	0	0.0	0.5
ovary	3	22.8	12.9	0	0.0	0.5	14	19.3	5.0	0	0.0	0.5
other female genital	0	1.7	3.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
placenta	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
penis	0	0.0	0.5	1	5.0	5.7	0	0.0	0.5	1	1.4	1.4
prostate	0	0.0	0.5	14	73.0	19.5	0	0.0	0.5	40	58.4	9.1
testis	0	0.0	0.5	1	5.0	7.0	0	0.0	0.5	2	2.0	1.5
other male genital	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
kidney	1	7.2	8.2	0	2.0	3.9	4	5.6	2.8	5	7.4	3.3
renal pelvis	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
ureter	0	0.0	0.5	0	0.9	1.7	0	0.0	0.5	1	0.7	1.0
bladder	1	5.7	6.4	5	25.2	11.3	7	7.3	2.8	13	19.0	5.2
other urinary	0	1.2	2.4	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
eye	0	2.4	4.8	0	2.3	4.5	1	0.6	0.9	1	1.8	1.6
meninges	1	3.4	4.7	0	0.0	0.5	2	3.0	2.0	1	1.1	1.3
brain	1	3.3	4.6	2	12.2	9.1	5	6.4	2.7	6	7.6	3.2
spinal cord	0	2.1	4.1	0	0.0	0.5	2	2.0	1.5	1	1.0	1.2
thyroid	0	0.0	0.5	0	1.1	2.1	1	1.1	1.0	1	1.4	1.4
adrenal	0	0.0	0.5	0	0.0	0.5	0	0.4	0.7	0	0.0	0.5
other endocrine	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
ill-defined site	1	5.1	5.7	0	0.0	0.5	2	2.0	1.5	2	2.3	1.9
lymph nodes	0	0.0	0.5	0	0.0	0.5	0	0.2	0.5	0	0.3	0.7
lymphoma	2	14.1	10.5	3	18.1	10.7	11	13.8	4.1	9	13.3	4.3
leukaemia	1	1.9	2.7	3	16.6	9.8	5	5.5	2.3	8	11.4	4.0
unknown primary site	4	20.4	10.7	4	24.7	12.1	17	18.8	4.5	18	27.4	6.4



	Longford						Louth						site
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL	
	88	543.6	293.6	100	615.1	331.4	273	599.0	193.9	259	726.6	243.0	all cancers
	1	2.7	5.9	2	11.3	13.1	0	0.4	1.2	1	1.5	3.1	lip
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	base of tongue
	0	0.0	0.5	0	1.6	5.0	0	0.6	1.9	1	3.2	4.4	other tongue
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	gum
	0	0.0	0.5	1	3.6	7.8	0	0.5	1.4	0	0.6	1.9	floor of mouth
	0	0.0	0.5	0	0.0	0.5	0	0.8	2.4	0	0.6	1.9	palate
	0	0.0	0.5	0	1.0	3.1	0	0.0	0.5	1	1.4	3.0	other mouth
	0	0.0	0.5	0	1.0	3.1	0	0.5	1.5	1	1.3	2.9	parotid
	0	1.0	3.1	0	0.0	0.5	1	1.8	3.3	1	1.2	2.6	other salivary
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.7	2.2	tonsil
	0	0.0	0.5	0	1.4	4.2	0	0.0	0.5	0	0.0	0.5	oropharynx
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	nasopharynx
	0	0.0	0.5	0	1.8	5.5	0	0.6	1.8	0	0.8	2.3	pyriform
	0	1.6	4.8	0	0.0	0.5	0	0.6	1.8	0	0.0	0.5	hypopharynx
	0	1.2	3.7	0	1.0	3.1	0	0.0	0.5	0	0.6	1.9	other mouth/pharynx
	1	4.7	7.2	2	8.7	10.9	2	3.6	4.1	7	18.6	10.8	oesophagus
	2	8.6	10.7	2	9.7	11.2	7	11.4	6.9	9	25.5	13.0	stomach
	0	0.0	0.5	0	0.0	0.5	1	2.0	2.3	1	2.6	3.9	small intestine
	6	31.8	13.3	6	41.3	25.3	15	31.5	8.0	14	37.7	15.5	colon
	0	0.0	0.5	0	1.4	2.7	0	0.4	0.8	3	7.1	4.4	rectosigmoid
	1	7.2	6.3	3	22.4	12.7	3	7.6	4.3	8	23.1	7.9	rectum
	0	1.2	2.4	0	0.0	0.5	0	0.4	0.8	0	0.0	0.5	anus
	0	0.0	0.5	0	1.4	2.7	0	0.5	0.9	1	1.4	1.9	liver
	1	2.6	3.6	0	0.0	0.5	1	1.2	1.7	0	0.0	0.5	gallbladder
	0	0.0	0.5	1	2.2	3.1	1	1.2	1.7	0	0.6	1.2	other biliary
	2	11.7	8.1	1	5.4	6.1	5	11.3	4.8	4	11.1	5.4	pancreas
	0	2.4	4.6	0	0.0	0.5	0	0.6	1.2	0	0.6	1.2	other digestive
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	nasal cavity/middle ear
	0	0.0	0.5	0	2.3	4.5	0	0.8	1.5	0	0.0	0.5	sinuses
	0	1.6	3.1	2	13.2	9.2	1	1.4	1.9	3	6.7	4.2	larynx
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	trachea
	4	20.2	9.9	11	63.2	19.1	14	30.6	8.2	27	77.1	14.5	lung
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	thymus
	0	1.2	2.4	1	2.8	3.8	0	0.0	0.5	1	1.5	2.1	mediastinum
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other chest
	0	0.0	0.5	0	1.1	2.2	1	1.0	1.4	1	1.3	1.8	bones, joints of limbs
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.3	1.5	bones, joints head and trunk
	2	9.5	7.6	3	21.2	11.5	3	5.0	3.1	5	13.6	5.9	myeloma etc
	1	3.8	4.4	2	12.6	8.8	10	21.9	6.8	3	7.9	4.5	melanoma of skin
	26	139.0	26.6	36	216.1	35.2	84	175.3	18.8	102	296.7	28.8	non-melanoma skin
	0	0.0	0.5	0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	peripheral nerves
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.6	1.1	peritoneum
	0	0.0	0.5	1	3.0	4.2	1	1.3	1.8	1	1.2	1.6	connective tissues
	15	110.4	27.9	0	0.0	0.5	38	91.5	14.6	0	0.0	0.5	breast
	1	2.8	3.8	0	0.0	0.5	1	2.8	2.5	0	0.0	0.5	vulva
	1	3.9	5.4	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	vagina
	9	64.2	21.6	0	0.0	0.5	36	79.3	12.9	0	0.0	0.5	cervix
	2	15.1	10.5	0	0.0	0.5	6	15.4	6.3	0	0.0	0.5	corpus uteri
	0	0.0	0.5	0	0.0	0.5	0	0.5	0.9	0	0.0	0.5	uterus nos
	2	15.3	10.6	0	0.0	0.5	7	16.7	6.3	0	0.0	0.5	ovary
	0	1.6	3.1	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other female genital
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	placenta
	0	0.0	0.5	0	1.4	2.7	0	0.0	0.5	1	2.6	2.5	penis
	0	0.0	0.5	12	68.7	19.2	0	0.0	0.5	24	66.7	13.4	prostate
	0	0.0	0.5	1	10.1	8.9	0	0.0	0.5	2	4.6	3.2	testis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other male genital
	1	3.5	3.9	1	3.2	4.4	3	6.1	3.6	4	10.5	5.3	kidney
	0	0.0	0.5	0	0.0	0.5	0	0.6	1.2	0	0.6	1.2	renal pelvis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.8	1.5	ureter
	1	7.6	6.7	2	10.4	8.3	4	8.7	4.3	8	26.5	9.0	bladder
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other urinary
	0	0.0	0.5	1	3.0	4.2	1	1.4	1.9	1	1.9	2.1	eye
	1	3.4	4.7	0	1.7	3.4	1	1.8	2.0	1	1.5	2.1	meninges
	1	5.3	6.0	1	5.8	6.5	3	6.4	3.6	3	7.9	4.3	brain
	1	3.2	4.4	0	1.1	2.1	0	0.6	1.2	1	1.6	1.8	spinal cord
	0	1.2	2.4	0	0.0	0.5	2	3.6	2.9	0	0.7	1.4	thyroid
	0	0.0	0.5	0	1.8	3.6	0	0.6	1.2	1	1.3	1.9	adrenal
	0	0.0	0.5	0	0.0	0.5	0	0.6	1.2	1	0.9	1.3	other endocrine
	1	4.6	5.2	0	0.0	0.5	1	1.9	1.9	0	0.6	1.2	ill-defined site
	0	0.0	0.5	0	0.0	0.5	0	0.3	0.6	1	1.3	1.9	lymph nodes
	2	12.4	8.1	2	14.4	10.0	4	8.9	4.2	6	16.1	6.3	lymphoma
	2	17.9	11.7	2	10.2	7.6	5	9.4	4.3	7	17.4	6.7	leukaemia
	3	19.2	10.5	5	32.4	14.6	13	26.9	7.3	6	15.2	6.1	unknown primary site



Table A2.5 (continued). Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE												
site	Mayo						Meath					
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
all cancers	296	456.8	148.1	368	577.6	182.4	271	555.0	178.1	262	615.2	203.1
lip	0	0.4	1.3	2	3.7	4.0	0	0.0	0.5	2	3.8	4.7
base of tongue	0	0.0	0.5	1	1.7	2.7	0	0.0	0.5	0	0.4	1.3
other tongue	0	0.6	1.7	0	0.4	1.3	0	0.0	0.5	1	1.1	2.5
gum	0	0.0	0.5	0	0.5	1.6	0	0.0	0.5	0	0.0	0.5
floor of mouth	0	0.7	2.0	1	1.4	2.4	0	0.0	0.5	1	1.3	2.7
palate	0	0.0	0.5	1	0.9	1.9	0	0.0	0.5	0	0.0	0.5
other mouth	1	0.5	1.2	1	0.7	1.5	0	0.7	2.3	0	0.6	1.9
parotid	0	0.0	0.5	1	1.9	2.8	1	1.0	2.3	0	0.0	0.5
other salivary	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
tonsil	0	0.3	0.9	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
oropharynx	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
nasopharynx	0	0.3	0.9	0	0.5	1.4	0	0.0	0.5	0	0.7	2.1
pyriform	0	0.0	0.5	1	1.4	2.4	0	0.0	0.5	0	0.5	1.4
hypopharynx	0	0.0	0.5	1	1.0	2.1	0	0.3	0.9	0	0.0	0.5
other mouth/pharynx	0	0.0	0.5	1	1.8	2.8	0	0.0	0.5	1	1.0	2.2
oesophagus	3	3.1	2.9	5	8.7	5.8	5	9.3	6.5	6	14.4	9.0
stomach	5	6.2	4.3	11	16.4	7.6	6	12.1	7.9	8	16.7	9.3
small intestine	1	1.0	1.2	1	1.9	2.6	0	0.3	0.6	0	0.7	2.1
colon	17	23.2	5.5	25	37.7	11.7	16	32.7	8.0	15	34.5	13.6
rectosigmoid	4	4.6	2.4	9	14.3	4.7	1	3.1	2.8	2	4.2	3.1
rectum	6	8.5	3.5	11	18.1	5.3	6	11.0	4.6	7	15.3	5.9
anus	0	0.0	0.5	1	0.5	0.7	1	0.7	1.0	0	0.0	0.5
liver	1	1.1	1.2	2	2.7	2.0	1	2.5	2.4	1	3.5	3.0
gallbladder	1	1.4	1.6	1	1.3	1.5	0	0.7	1.3	0	0.7	1.4
other biliary	1	0.5	0.7	1	1.5	1.5	2	2.6	2.1	1	3.1	2.7
pancreas	8	9.9	3.4	6	9.7	3.9	4	7.9	3.9	4	8.6	4.4
other digestive	0	0.0	0.5	0	0.0	0.5	1	0.6	0.8	0	0.0	0.5
nasal cavity/middle ear	0	0.7	1.3	0	0.4	0.7	0	0.6	1.2	0	0.7	1.4
sinuses	0	0.0	0.5	1	1.6	1.5	0	0.0	0.5	1	1.1	1.6
larynx	0	0.6	1.1	3	5.0	2.8	1	1.1	1.6	2	3.6	2.9
trachea	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
lung	16	20.6	5.1	27	42.4	8.0	11	23.2	6.9	19	45.2	10.1
thymus	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
mediastinum	1	1.1	1.3	1	1.0	1.1	0	0.0	0.5	1	1.1	1.5
other chest	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	1	0.7	1.0	1	1.0	1.2	0	0.7	1.5	0	0.3	0.6
bones, joints head and trunk	0	0.0	0.5	1	0.9	1.2	0	0.0	0.5	0	0.0	0.5
myeloma etc	4	5.3	2.6	6	9.1	3.7	4	7.7	3.7	5	12.6	5.5
melanoma of skin	10	17.3	5.3	6	9.7	4.0	8	16.1	5.7	5	10.4	4.7
non-melanoma skin	95	122.7	12.3	138	216.3	18.0	85	174.5	18.6	113	268.5	24.8
peripheral nerves	0	0.0	0.5	0	0.0	0.5	0	0.4	0.8	0	0.6	1.1
peritoneum	0	0.2	0.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
connective tissues	1	1.5	1.7	1	0.9	1.2	1	1.8	1.7	1	1.7	1.9
breast	51	100.0	13.8	1	1.2	1.6	41	86.4	13.3	0	0.0	0.5
vulva	1	1.2	1.4	0	0.0	0.5	1	1.7	1.7	0	0.0	0.5
vagina	1	1.0	1.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
cervix	14	30.5	8.0	0	0.0	0.5	33	64.1	11.0	0	0.0	0.5
corpus uteri	6	10.6	4.3	0	0.0	0.5	3	6.1	3.8	0	0.0	0.5
uterus nos	2	2.4	1.9	0	0.0	0.5	1	1.6	1.8	0	0.0	0.5
ovary	9	15.0	4.8	0	0.0	0.5	10	20.0	6.4	0	0.0	0.5
other female genital	0	0.0	0.5	0	0.0	0.5	0	0.3	0.7	0	0.0	0.5
placenta	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
penis	0	0.0	0.5	2	2.7	2.2	0	0.0	0.5	1	1.0	1.3
prostate	0	0.0	0.5	42	57.8	8.7	0	0.0	0.5	27	63.1	12.0
testis	0	0.0	0.5	2	4.1	2.7	0	0.0	0.5	2	3.6	2.5
other male genital	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
kidney	3	4.1	2.4	4	6.8	3.4	2	3.6	2.9	2	5.4	3.5
renal pelvis	0	0.4	0.8	1	0.4	0.6	0	0.4	0.9	0	0.6	1.1
ureter	0	0.0	0.5	0	0.3	0.6	0	0.0	0.5	0	0.7	1.4
bladder	3	4.2	2.5	13	20.2	5.4	3	6.8	3.7	9	20.3	6.7
other urinary	0	0.0	0.5	0	0.4	0.7	0	0.7	1.3	0	0.0	0.5
eye	1	1.5	1.4	0	0.5	1.0	1	0.8	1.1	1	2.2	2.5
meninges	2	2.5	2.0	1	2.0	2.0	1	1.8	2.1	0	0.7	1.4
brain	4	6.6	3.2	7	12.6	4.8	3	7.0	4.0	4	6.8	3.6
spinal cord	1	1.6	1.8	1	1.5	1.7	1	1.7	1.7	1	1.5	1.7
thyroid	2	3.8	2.8	1	1.2	1.4	1	2.7	2.4	1	2.1	2.0
adrenal	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.5	1.0
other endocrine	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
ill-defined site	2	3.0	2.1	2	2.3	1.9	2	3.3	2.5	1	1.2	1.6
lymph nodes	0	0.0	0.5	0	0.5	1.0	0	0.0	0.5	0	0.0	0.5
lymphoma	9	17.3	5.7	6	10.4	4.1	5	9.2	4.3	6	12.1	4.9
leukaemia	4	5.0	2.6	8	12.3	4.4	4	7.1	3.5	5	9.8	4.5
unknown primary site	9	13.1	4.2	15	23.6	6.0	9	17.7	5.7	11	26.7	8.0



	Monaghan						Offaly						site
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL	
	109	410.3	212.8	139	563.1	259.4	156	553.7	230.6	151	559.4	250.1	all cancers
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	2	7.1	7.7	lip
	0	0.8	2.4	0	0.0	0.5	0	0.0	0.5	0	1.0	3.1	base of tongue
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	2.0	4.2	other tongue
	0	0.0	0.5	0	0.0	0.5	0	0.9	2.8	0	0.0	0.5	gum
	0	1.3	3.8	1	2.3	5.1	0	1.1	3.3	0	0.0	0.5	floor of mouth
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	palate
	0	0.0	0.5	1	2.3	5.1	0	0.6	1.9	0	0.0	0.5	other mouth
	0	0.0	0.5	0	0.9	2.7	0	0.6	1.9	0	0.9	2.8	parotid
	0	1.5	4.6	0	1.5	4.4	0	0.0	0.5	0	0.0	0.5	other salivary
	0	1.0	3.1	0	1.1	3.2	0	0.0	0.5	0	0.9	2.8	tonsil
	0	0.0	0.5	0	0.9	2.7	0	0.0	0.5	0	0.0	0.5	oropharynx
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	nasopharynx
	0	0.0	0.5	0	0.0	0.5	0	1.2	3.7	0	0.9	2.8	pyriform
	0	0.0	0.5	0	0.0	0.5	1	1.4	3.0	0	0.8	2.4	hypopharynx
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other mouth/pharynx
	1	3.5	5.4	4	16.1	13.2	3	11.7	9.9	3	10.3	9.1	oesophagus
	6	19.8	12.6	4	17.7	13.1	3	8.0	7.7	6	25.3	15.5	stomach
	0	0.0	0.5	0	0.0	0.5	1	2.1	3.0	1	2.4	5.2	small intestine
	8	29.1	10.4	10	38.1	18.7	12	42.2	11.9	11	39.4	18.6	colon
	0	0.0	0.5	1	2.4	3.4	1	3.8	3.7	2	5.0	4.0	rectosigmoid
	3	9.6	6.0	4	15.7	7.5	2	8.0	5.2	4	12.1	6.4	rectum
	0	1.0	2.0	1	3.1	3.5	1	4.7	4.6	0	0.9	1.8	anus
	0	0.0	0.5	1	1.9	2.6	0	0.0	0.5	0	0.0	0.5	liver
	0	0.8	1.6	1	2.1	2.9	0	0.7	1.4	0	0.0	0.5	gallbladder
	1	1.2	1.6	1	2.6	2.9	1	3.2	3.1	0	0.9	1.8	other biliary
	2	6.6	5.3	2	4.9	3.9	2	6.0	3.9	3	11.7	6.9	pancreas
	0	0.7	1.4	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other digestive
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	nasal cavity/middle ear
	0	0.0	0.5	0	1.5	2.9	0	0.0	0.5	0	0.0	0.5	sinuses
	0	0.0	0.5	1	2.2	3.1	0	1.1	2.1	2	6.5	4.8	larynx
	0	0.0	0.5	0	1.2	2.4	0	0.0	0.5	0	0.0	0.5	trachea
	5	19.3	8.9	12	48.9	13.7	4	14.8	7.0	11	40.3	11.8	lung
	0	0.0	0.5	0	1.1	2.1	0	0.0	0.5	0	0.0	0.5	thymus
	0	0.8	1.5	0	0.0	0.5	0	1.1	2.1	0	0.0	0.5	mediastinum
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other chest
	0	0.0	0.5	0	1.2	2.4	0	0.0	0.5	1	1.2	1.6	bones, joints of limbs
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.6	1.1	bones, joints head and trunk
	4	14.0	7.3	3	10.0	5.6	3	9.6	5.7	3	10.7	6.3	myeloma etc
	5	18.2	8.2	3	12.6	7.1	6	22.9	9.1	2	8.6	5.6	melanoma of skin
	29	95.5	17.4	47	195.6	27.9	51	171.0	23.5	54	202.6	27.0	non-melanoma skin
	0	0.0	0.5	0	0.0	0.5	0	0.9	1.8	0	0.9	1.8	peripheral nerves
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	peritoneum
	0	1.1	2.1	1	1.7	2.3	0	0.6	1.2	2	5.2	4.2	connective tissues
	19	76.4	17.3	0	0.0	0.5	26	99.1	19.2	0	0.0	0.5	breast
	1	3.6	3.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	vulva
	0	0.7	1.4	0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	vagina
	8	33.7	11.7	0	0.0	0.5	15	55.0	14.2	0	0.0	0.5	cervix
	2	8.8	6.5	0	0.0	0.5	3	11.8	7.0	0	0.0	0.5	corpus uteri
	0	0.0	0.5	0	0.0	0.5	1	2.1	3.0	0	0.0	0.5	uterus nos
	4	15.1	7.4	0	0.0	0.5	3	10.7	5.8	0	0.0	0.5	ovary
	0	1.1	2.2	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other female genital
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	placenta
	0	0.0	0.5	0	1.0	1.9	0	0.0	0.5	0	0.0	0.5	penis
	0	0.0	0.5	19	72.5	16.2	0	0.0	0.5	17	59.7	14.2	prostate
	0	0.0	0.5	1	2.7	3.1	0	0.0	0.5	1	4.0	3.5	testis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other male genital
	1	4.3	3.8	3	11.7	6.9	1	3.2	3.1	3	12.0	6.5	kidney
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	2.7	3.0	renal pelvis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	ureter
	1	3.4	3.9	4	16.7	8.2	2	5.5	4.4	5	20.4	8.7	bladder
	0	0.0	0.5	0	0.0	0.5	0	0.9	1.8	0	0.0	0.5	other urinary
	1	1.8	2.5	0	1.1	2.1	0	0.0	0.5	0	0.8	1.5	eye
	0	0.0	0.5	0	1.5	2.8	1	2.9	3.3	0	0.0	0.5	meninges
	0	1.5	2.9	3	14.2	7.7	1	3.5	3.1	2	7.8	5.1	brain
	0	1.0	2.0	0	0.0	0.5	0	0.0	0.5	1	2.8	3.1	spinal cord
	1	3.7	4.2	0	0.0	0.5	1	1.6	2.3	1	2.4	3.3	thyroid
	0	0.0	0.5	0	0.8	1.6	0	0.9	1.8	0	0.0	0.5	adrenal
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other endocrine
	0	0.8	1.6	1	2.7	3.1	0	0.7	1.4	1	2.0	2.7	ill-defined site
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	lymph nodes
	3	12.0	7.1	4	14.9	7.8	3	10.9	5.9	2	8.4	5.5	lymphoma
	2	7.9	5.1	3	11.1	6.5	3	9.6	6.0	2	7.4	5.1	leukaemia
	3	8.6	5.1	6	22.8	9.5	5	16.2	6.9	8	30.9	10.5	unknown primary site



Table A2.5 (continued). Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE												
site	Roscommon						Sligo					
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
all cancers	145	451.5	202.1	196	601.0	251.0	170	532.5	211.1	186	645.3	274.8
lip	0	0.0	0.5	3	10.3	8.7	0	0.0	0.5	2	4.8	6.0
base of tongue	0	0.0	0.5	1	1.9	4.1	0	0.9	2.8	1	2.0	4.2
other tongue	0	0.5	1.6	1	2.5	4.4	0	0.0	0.5	0	0.8	2.3
gum	0	0.0	0.5	0	0.6	1.9	0	0.0	0.5	1	1.2	2.6
floor of mouth	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	3.5	6.1
palate	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
other mouth	0	1.1	3.3	0	0.0	0.5	0	0.0	0.5	0	0.8	2.3
parotid	0	0.0	0.5	0	0.9	2.7	0	0.0	0.5	1	1.3	2.8
other salivary	0	0.0	0.5	1	1.5	3.2	0	0.0	0.5	0	0.0	0.5
tonsil	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	3.4	6.0
oropharynx	0	0.0	0.5	0	1.0	3.1	0	0.0	0.5	0	0.8	2.3
nasopharynx	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
pyriform	0	0.0	0.5	0	1.0	3.1	0	0.0	0.5	1	3.2	5.6
hypopharynx	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
other mouth/pharynx	0	0.0	0.5	0	0.6	1.9	0	0.9	2.7	0	0.0	0.5
oesophagus	2	5.2	6.5	4	11.3	8.9	2	3.3	4.1	4	13.9	11.4
stomach	3	8.6	8.0	3	9.2	8.1	3	8.1	6.9	6	19.3	12.6
small intestine	1	1.7	2.3	1	1.3	2.8	0	1.3	2.5	0	0.9	2.7
colon	10	26.5	8.3	9	28.0	14.3	10	29.8	9.1	11	37.8	17.5
rectosigmoid	1	5.1	4.5	1	1.2	1.7	1	1.8	2.5	2	8.0	5.2
rectum	2	4.2	3.1	6	20.7	8.3	2	4.3	3.2	7	25.1	9.3
anus	0	0.0	0.5	0	0.7	1.3	1	2.6	3.0	1	2.5	2.8
liver	0	0.0	0.5	1	2.0	2.8	0	0.0	0.5	1	3.7	3.6
gallbladder	0	0.3	0.7	1	1.6	2.3	1	1.8	2.1	0	0.0	0.5
other biliary	1	2.8	2.7	1	2.1	2.4	0	0.0	0.5	1	2.4	2.7
pancreas	4	10.1	5.3	2	6.4	4.8	3	9.0	4.9	4	11.5	6.0
other digestive	0	0.5	1.0	1	3.5	3.4	1	1.6	2.3	0	0.0	0.5
nasal cavity/middle ear	0	1.1	2.1	0	1.0	2.0	0	0.0	0.5	0	0.0	0.5
sinuses	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
larynx	0	0.3	0.7	2	6.6	4.6	0	0.9	1.8	1	3.9	3.9
trachea	0	0.0	0.5	0	0.9	1.8	0	0.0	0.5	0	0.0	0.5
lung	5	15.1	6.5	15	43.0	11.1	8	22.3	7.7	21	74.4	16.0
thymus	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
mediastinum	0	0.0	0.5	1	1.6	2.2	0	0.0	0.5	0	0.0	0.5
other chest	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	0	1.4	2.7	1	2.0	2.8	0	0.9	1.8	0	0.7	1.3
bones, joints head and trunk	0	0.8	1.6	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
myeloma	3	6.5	3.7	4	10.6	5.5	3	7.3	4.3	3	8.9	5.3
melanoma of skin	5	17.2	8.0	4	14.6	7.1	5	17.2	8.0	2	6.5	4.8
non-melanoma skin	48	127.7	18.0	78	231.7	25.7	50	144.2	19.9	66	227.1	27.3
peripheral nerves	0	0.9	1.7	0	0.0	0.5	0	1.1	2.2	0	0.0	0.5
peritoneum	0	0.0	0.5	0	1.0	1.9	0	0.5	1.0	0	0.9	1.7
connective tissues	1	1.6	1.8	1	2.6	2.9	0	0.0	0.5	1	1.3	1.8
breast	24	86.0	17.1	1	2.0	2.8	33	114.0	19.4	1	4.3	3.8
vulva	1	0.7	1.0	0	0.0	0.5	1	1.5	2.1	0	0.0	0.5
vagina	0	0.0	0.5	0	0.0	0.5	0	0.4	0.7	0	0.0	0.5
cervix	7	31.5	11.9	0	0.0	0.5	12	46.6	13.3	0	0.0	0.5
corpus uteri	3	12.3	6.7	0	0.0	0.5	3	11.1	6.0	0	0.0	0.5
uterus nos	0	0.5	1.1	0	0.0	0.5	1	2.2	3.1	0	0.0	0.5
ovary	6	25.2	10.1	0	0.0	0.5	8	26.0	9.1	0	0.0	0.5
other female genital	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
placenta	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
penis	0	0.0	0.5	0	0.9	1.7	0	0.0	0.5	0	0.9	1.8
prostate	0	0.0	0.5	25	67.9	13.4	0	0.0	0.5	23	73.2	15.0
testis	0	0.0	0.5	1	4.1	4.0	0	0.0	0.5	1	3.2	3.6
other male genital	0	0.0	0.5	0	0.8	1.6	0	0.0	0.5	0	0.0	0.5
kidney	2	5.8	4.3	3	9.4	5.6	3	9.6	5.7	3	10.9	6.4
renal pelvis	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	2.4	3.3
ureter	1	2.1	2.3	0	0.0	0.5	0	0.0	0.5	1	2.0	2.7
bladder	3	6.6	4.1	6	17.8	7.1	2	6.6	4.3	5	17.1	7.3
other urinary	0	0.0	0.5	0	0.8	1.6	0	0.0	0.5	0	0.0	0.5
eye	0	0.0	0.5	0	0.9	1.8	1	4.1	4.0	1	3.0	3.4
meninges	1	1.2	1.6	1	2.1	2.4	1	1.6	2.2	1	1.7	2.3
brain	2	7.0	5.2	3	11.1	6.0	2	7.8	5.1	2	7.9	5.2
spinal cord	1	2.8	3.9	1	1.3	1.8	1	2.3	3.2	0	1.0	1.9
thyroid	1	5.1	4.5	1	1.6	2.2	1	1.9	2.2	1	1.8	2.4
adrenal	1	2.3	3.1	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
other endocrine	0	0.0	0.5	0	0.7	1.3	1	2.4	3.3	0	0.9	1.8
ill-defined site	0	0.6	1.3	0	0.7	1.3	0	0.6	1.1	1	2.4	2.7
lymph nodes	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
lymphoma	3	8.8	5.2	6	21.9	9.0	3	7.2	4.5	3	10.5	6.5
leukaemia	2	6.0	3.9	3	9.7	5.3	1	4.8	4.2	4	13.0	6.6
unknown primary site	4	7.9	4.1	7	23.3	8.5	8	21.9	7.5	6	18.9	7.9



	Tipperary N.R.						Tipperary S.R.						site
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL	
	137	444.9	197.0	154	543.9	242.9	197	495.5	186.2	218	611.5	230.0	all cancers
	0	0.0	0.5	1	1.5	3.2	0	0.0	0.5	1	2.6	3.9	lip
	0	0.0	0.5	0	0.0	0.5	0	0.7	2.0	1	3.2	4.9	base of tongue
	1	2.2	4.7	1	3.0	5.2	1	1.8	3.2	1	3.1	4.8	other tongue
	0	0.0	0.5	0	0.7	2.1	0	0.0	0.5	0	0.0	0.5	gum
	0	0.0	0.5	0	0.0	0.5	0	1.0	2.9	0	0.0	0.5	floor of mouth
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.6	1.7	palate
	0	0.0	0.5	0	0.0	0.5	0	0.5	1.4	0	0.0	0.5	other mouth
	0	0.0	0.5	0	0.7	2.3	0	0.0	0.5	0	0.0	0.5	parotid
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.8	3.9	other salivary
	0	0.0	0.5	0	1.2	3.5	0	0.5	1.5	0	0.8	2.5	tonsil
	0	0.0	0.5	0	1.0	3.0	0	0.0	0.5	0	0.0	0.5	oropharynx
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	nasopharynx
	0	0.0	0.5	0	0.7	2.2	0	0.0	0.5	0	0.7	2.1	pyriform
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.7	3.7	hypopharynx
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.8	2.5	other mouth/pharynx
	2	7.5	7.7	3	11.0	9.3	3	7.0	6.0	4	12.5	9.3	oesophagus
	2	5.7	5.8	4	15.1	11.5	4	9.4	7.7	5	12.7	8.9	stomach
	1	1.8	2.5	0	1.1	3.5	1	1.8	2.1	0	0.0	0.5	small intestine
	5	12.2	5.5	10	31.9	15.8	12	27.4	7.9	14	37.3	15.4	colon
	1	2.8	2.8	2	4.9	3.9	1	1.5	1.7	2	5.7	4.0	rectosigmoid
	2	5.3	3.7	4	13.7	6.9	3	7.8	4.4	10	28.9	8.9	rectum
	0	0.0	0.5	0	0.0	0.5	0	0.3	0.6	0	0.0	0.5	anus
	0	0.0	0.5	0	1.0	1.9	0	0.5	1.0	1	2.8	2.8	liver
	0	0.6	1.3	1	2.2	3.1	1	1.5	1.6	0	1.1	2.2	gallbladder
	0	1.0	2.0	1	3.0	3.4	1	1.1	1.6	1	3.0	2.6	other biliary
	3	8.6	4.9	3	9.0	5.6	4	7.7	4.0	4	11.0	5.6	pancreas
	0	0.0	0.5	1	1.5	2.1	0	0.0	0.5	1	1.3	1.8	other digestive
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.8	1.6	nasal cavity/middle ear
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	sinuses
	0	0.4	0.8	2	6.7	4.9	0	0.0	0.5	3	8.5	4.8	larynx
	0	0.0	0.5	0	0.9	1.7	0	0.0	0.5	0	0.0	0.5	trachea
	9	27.3	8.9	13	44.7	12.1	8	18.3	6.3	23	66.7	13.5	lung
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	thymus
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	mediastinum
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other chest
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	bones, joints of limbs
	0	1.0	1.9	0	0.0	0.5	0	0.0	0.5	0	0.7	1.5	bones, joints head and trunk
	2	4.8	3.6	3	9.3	5.3	3	7.0	3.9	3	6.6	4.1	myeloma
	6	21.5	8.4	4	15.2	7.4	8	23.5	8.1	3	9.2	5.0	melanoma of skin
	34	103.9	17.4	54	188.3	25.2	60	139.9	17.7	83	231.7	25.0	non-melanoma skin
	0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	0	0.7	1.4	peripheral nerves
	1	0.8	1.2	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	peritoneum
	1	1.5	2.0	1	3.5	3.4	0	0.7	1.5	1	1.8	2.0	connective tissues
	27	99.8	18.7	0	0.0	0.5	29	80.4	14.6	0	0.0	0.5	breast
	0	0.6	1.3	0	0.0	0.5	0	0.8	1.5	0	0.0	0.5	vulva
	1	1.7	2.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	vagina
	7	28.3	10.5	0	0.0	0.5	17	50.1	11.9	0	0.0	0.5	cervix
	4	12.0	6.3	0	0.0	0.5	5	13.3	6.2	0	0.0	0.5	corpus uteri
	0	0.0	0.5	0	0.0	0.5	0	0.5	0.9	0	0.0	0.5	uterus nos
	6	20.9	8.7	0	0.0	0.5	9	24.4	8.1	0	0.0	0.5	ovary
	0	0.4	0.8	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other female genital
	0	0.9	1.8	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	placenta
	0	0.0	0.5	0	1.2	2.3	0	0.0	0.5	1	2.8	2.8	penis
	0	0.0	0.5	20	68.6	15.2	0	0.0	0.5	24	63.2	12.6	prostate
	0	0.0	0.5	2	6.1	4.5	0	0.0	0.5	3	6.7	4.1	testis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other male genital
	2	6.2	4.3	3	10.0	5.7	2	4.6	3.2	1	4.0	3.5	kidney
	0	0.0	0.5	1	1.7	2.3	0	0.0	0.5	1	1.2	1.7	renal pelvis
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	ureter
	3	8.0	4.7	6	24.3	9.7	3	7.5	4.1	9	25.8	8.7	bladder
	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.5	1.1	other urinary
	1	1.2	1.6	1	1.7	2.4	1	1.7	2.4	1	1.7	2.4	eye
	0	0.6	1.1	0	1.0	1.9	1	1.4	1.9	0	0.7	1.3	meninges
	2	5.1	3.8	2	6.6	4.6	3	9.4	5.1	3	6.7	4.1	brain
	0	0.6	1.2	1	2.0	2.8	0	0.7	1.4	0	0.0	0.5	spinal cord
	1	4.8	4.2	1	1.5	2.0	1	0.8	1.1	1	1.3	1.8	thyroid
	0	0.0	0.5	0	0.0	0.5	0	0.5	0.9	0	0.9	1.7	adrenal
	0	0.0	0.5	0	0.0	0.5	0	1.0	1.9	0	0.0	0.5	other endocrine
	1	2.2	3.0	0	0.0	0.5	1	2.1	2.0	1	2.4	2.7	ill-defined site
	0	0.0	0.5	0	0.7	1.5	0	0.0	0.5	0	0.0	0.5	lymph nodes
	4	14.1	6.9	4	13.7	6.7	4	10.6	5.1	4	11.9	5.7	lymphoma
	2	5.3	3.7	4	13.5	6.6	2	4.1	3.2	2	5.3	3.7	leukaemia
	7	23.0	8.4	5	19.1	8.2	11	21.9	6.6	7	18.2	7.0	unknown primary site



Table A2.5 (continued). Average number of cases and European age-standardised incidence rates by county and ICD-0-2 site, 1994-1997

*EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION; 95% CL: 95% CONFIDENCE LIMITS OF RATE												
site	Waterford						Westmeath					
	female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL
<b>all cancers</b>	<b>288</b>	<b>600.0</b>	<b>175.3</b>	<b>274</b>	<b>661.9</b>	<b>223.0</b>	<b>196</b>	<b>636.5</b>	<b>232.9</b>	<b>184</b>	<b>646.7</b>	<b>271.0</b>
lip	0	0.0	0.5	1	2.2	4.0	1	1.8	3.8	1	2.5	4.4
base of tongue	0	0.0	0.5	0	0.7	2.0	0	0.0	0.5	0	1.1	3.4
other tongue	0	0.4	1.3	0	0.0	0.5	0	0.8	2.5	1	3.7	5.7
gum	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
floor of mouth	0	0.0	0.5	0	0.6	1.7	0	1.0	2.9	1	1.8	4.0
palate	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
other mouth	0	0.7	2.2	0	0.0	0.5	0	1.1	3.2	0	1.0	3.1
parotid	0	0.0	0.5	1	1.2	2.6	0	0.0	0.5	0	0.0	0.5
other salivary	0	0.0	0.5	0	0.7	2.1	0	0.0	0.5	0	0.0	0.5
tonsil	0	0.0	0.5	1	1.2	2.6	0	0.0	0.5	0	0.8	2.4
oropharynx	0	0.0	0.5	0	0.7	2.0	0	0.0	0.5	0	0.0	0.5
nasopharynx	0	0.0	0.5	0	0.7	2.0	0	0.4	1.4	1	2.5	4.4
pyriform	0	0.3	0.9	1	2.7	4.1	0	0.4	1.4	0	0.9	2.8
hypopharynx	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
other mouth/pharynx	0	0.0	0.5	0	0.5	1.5	0	0.0	0.5	0	0.0	0.5
oesophagus	4	6.8	5.3	5	12.2	8.6	1	4.2	5.8	3	9.1	8.8
stomach	4	6.0	4.9	9	22.8	11.6	2	5.8	6.2	9	30.1	15.5
small intestine	0	0.6	1.1	0	0.5	1.7	1	1.8	2.6	1	2.5	4.4
colon	15	28.4	7.3	19	45.2	15.9	12	38.5	10.9	12	42.4	18.7
rectosigmoid	1	2.4	2.1	3	5.7	3.5	1	2.5	2.8	1	4.6	4.0
rectum	6	11.6	4.8	8	18.9	6.6	4	12.0	6.3	4	13.3	6.7
anus	0	0.0	0.5	1	1.3	1.8	0	0.7	1.3	1	1.6	2.3
liver	0	0.6	1.3	2	4.6	3.2	0	0.6	1.1	1	4.2	3.7
gallbladder	1	3.0	2.6	0	0.0	0.5	0	0.7	1.3	0	0.0	0.5
other biliary	1	2.3	2.0	1	3.0	2.6	1	2.8	2.4	1	2.8	3.1
pancreas	4	7.0	3.5	6	15.0	6.1	3	7.4	4.4	3	10.1	5.7
other digestive	1	0.8	1.2	1	1.8	2.0	0	1.2	2.3	0	0.0	0.5
nasal cavity/middle ear	0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	0	0.0	0.5
sinuses	0	0.0	0.5	0	0.0	0.5	0	0.7	1.3	0	1.1	2.2
larynx	0	0.7	1.5	3	6.2	3.9	0	0.8	1.6	2	7.1	4.9
trachea	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
lung	11	21.8	6.5	26	61.1	11.9	8	21.7	7.8	15	52.7	13.2
thymus	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.8	1.6
mediastinum	0	0.4	0.8	1	1.3	1.8	0	0.0	0.5	0	0.0	0.5
other chest	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bones, joints of limbs	0	0.4	0.8	0	0.4	0.8	1	1.8	2.5	0	0.0	0.5
bones, joints head and trunk	1	1.0	1.4	1	1.8	2.0	0	0.0	0.5	0	0.7	1.3
myeloma	4	7.7	3.8	5	12.7	5.4	2	6.7	4.4	4	14.4	7.0
melanoma of skin	9	18.9	6.2	6	14.5	5.9	6	19.6	7.8	5	17.6	7.9
non-melanoma skin	104	211.7	20.3	95	232.2	23.3	63	192.7	23.9	66	236.0	28.5
peripheral nerves	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.9	1.8
peritoneum	0	0.7	1.4	0	0.0	0.5	0	0.0	0.5	0	0.9	1.8
connective tissues	0	0.5	1.0	1	1.5	1.7	1	2.4	2.7	1	2.3	2.6
breast	45	103.4	15.2	1	1.8	2.0	32	117.6	20.4	0	0.0	0.5
vulva	1	1.3	1.4	0	0.0	0.5	0	0.7	1.3	0	0.0	0.5
vagina	1	1.0	1.4	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
cervix	27	60.1	11.3	0	0.0	0.5	22	74.9	15.6	0	0.0	0.5
corpus uteri	7	15.7	5.7	0	0.0	0.5	2	7.7	5.0	0	0.0	0.5
uterus nos	0	0.6	1.2	0	0.0	0.5	1	2.1	2.4	0	0.0	0.5
ovary	13	27.7	7.7	0	0.0	0.5	5	16.0	7.0	0	0.0	0.5
other female genital	0	0.0	0.5	0	0.0	0.5	1	2.0	2.8	0	0.0	0.5
placenta	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
penis	0	0.0	0.5	1	2.5	2.5	0	0.0	0.5	1	2.2	3.1
prostate	0	0.0	0.5	35	84.5	14.0	0	0.0	0.5	21	71.3	15.3
testis	0	0.0	0.5	2	3.8	2.8	0	0.0	0.5	1	3.6	3.2
other male genital	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
kidney	2	4.2	2.9	4	9.7	4.7	1	3.7	3.2	3	9.2	5.4
renal pelvis	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	2.2	3.1
ureter	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5
bladder	3	4.8	2.9	11	24.2	7.3	4	11.2	5.7	4	14.7	7.0
other urinary	0	0.0	0.5	0	0.7	1.3	0	0.0	0.5	0	0.9	1.8
eye	1	1.0	1.4	1	1.0	1.3	0	0.9	1.7	1	2.7	3.0
meninges	1	2.0	2.0	0	0.0	0.5	1	2.9	3.3	0	0.0	0.5
brain	2	3.5	2.8	4	10.1	4.9	3	8.5	5.2	2	7.8	5.1
spinal cord	0	0.6	1.2	0	0.0	0.5	0	1.0	1.9	1	1.6	2.3
thyroid	2	3.5	2.6	0	0.5	0.9	1	3.5	3.5	0	0.9	1.8
adrenal	0	0.0	0.5	0	0.0	0.5	0	0.7	1.3	1	1.7	2.4
other endocrine	0	0.0	0.5	1	2.7	2.4	0	0.0	0.5	1	2.3	2.6
ill-defined site	2	3.2	2.2	1	1.2	1.7	1	2.5	2.8	0	0.0	0.5
lymph nodes	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.9	1.8
lymphoma	5	10.9	4.7	6	13.3	5.4	3	11.4	6.2	7	23.9	9.2
leukaemia	4	7.6	3.7	6	13.2	5.4	2	6.2	4.3	3	10.4	5.6
unknown primary site	7	13.7	5.0	8	18.6	6.5	10	33.1	10.1	6	20.7	8.3



Wexford							Wicklow							site
female cases	EASR	95% CL	male cases	EASR	95% CL	female cases	EASR	95% CL	male cases	EASR	95% CL			
251	473.0	171.4	269	582.7	204.5	271	543.4	174.1	283	724.1	238.4	all cancers		
0	0.0	0.5	1	1.7	3.0	0	0.0	0.5	1	1.2	2.7	lip		
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	1	1.8	3.2	base of tongue		
1	2.4	3.7	0	0.6	1.9	0	0.6	1.8	1	2.0	3.5	other tongue		
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	gum		
0	0.0	0.5	0	0.0	0.5	0	0.4	1.2	1	1.4	3.0	floor of mouth		
0	0.6	1.7	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	palate		
0	0.0	0.5	0	0.4	1.3	1	1.1	2.4	0	0.0	0.5	other mouth		
1	1.4	2.5	0	0.5	1.6	0	0.4	1.3	1	1.3	2.8	parotid		
1	0.9	2.0	0	0.0	0.5	0	0.0	0.5	0	0.7	2.1	other salivary		
0	0.0	0.5	1	2.2	3.4	0	0.5	1.5	1	1.3	2.8	tonsil		
0	0.0	0.5	0	0.6	1.9	0	0.0	0.5	0	0.0	0.5	oropharynx		
0	0.0	0.5	1	1.6	2.8	0	0.0	0.5	0	0.0	0.5	nasopharynx		
0	0.4	1.3	0	0.4	1.3	0	0.0	0.5	1	1.6	3.5	pyriform		
0	0.0	0.5	0	0.0	0.5	0	0.5	1.5	0	0.0	0.5	hypopharynx		
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.5	1.6	other mouth/pharynx		
3	4.5	4.1	4	8.4	6.2	5	8.0	5.8	5	12.2	8.6	oesophagus		
3	4.7	4.1	7	14.8	8.7	5	8.7	6.3	9	23.6	12.0	stomach		
0	0.6	1.2	1	2.1	3.2	1	1.2	1.6	1	1.7	3.0	small intestine		
18	31.0	7.1	18	38.8	14.2	15	28.3	7.3	16	41.5	15.8	colon		
2	3.3	2.5	2	4.2	2.9	2	4.9	3.2	3	8.6	4.7	rectosigmoid		
4	7.1	3.6	10	21.9	6.9	4	8.1	4.0	10	27.5	8.5	rectum		
0	0.6	1.2	0	0.6	1.2	1	1.2	1.7	0	0.7	1.3	anus		
2	2.7	2.1	2	3.2	2.6	1	0.8	1.2	1	2.4	2.4	liver		
1	1.1	1.5	1	2.3	2.3	1	1.5	1.7	0	0.5	1.0	gallbladder		
1	0.6	0.9	1	2.0	2.2	1	1.1	1.5	1	1.5	2.1	other biliary		
5	8.1	3.7	8	17.6	6.2	3	6.1	3.5	4	9.6	4.9	pancreas		
2	2.8	2.3	1	3.1	2.7	0	0.0	0.5	1	1.7	1.9	other digestive		
0	0.0	0.5	0	0.0	0.5	0	0.6	1.3	0	0.7	1.3	nasal cavity/middle ear		
0	0.4	0.7	0	0.5	1.0	0	0.0	0.5	0	0.6	1.2	sinuses		
1	1.9	1.9	3	6.5	3.7	0	0.7	1.4	2	3.8	3.0	larynx		
0	0.4	0.7	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	trachea		
15	27.1	6.8	29	63.1	11.4	13	25.0	6.7	24	60.2	12.2	lung		
0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	0	0.5	1.0	thymus		
0	0.6	1.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	mediastinum		
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other chest		
0	0.0	0.5	0	0.0	0.5	0	0.4	0.7	0	0.6	1.2	bones, joints of limbs		
0	0.0	0.5	0	0.5	1.0	0	0.3	0.6	1	1.4	1.5	bones, joints head and trunk		
3	5.2	3.0	6	11.9	5.0	3	6.0	3.2	7	17.4	6.6	myeloma		
7	13.1	4.9	5	10.2	4.6	7	14.3	5.3	4	10.4	5.1	melanoma of skin		
66	115.5	13.9	82	178.9	19.4	93	181.1	18.4	102	261.9	25.4	non-melanoma skin		
0	0.4	0.7	1	1.0	1.4	0	0.0	0.5	0	0.0	0.5	peripheral nerves		
0	0.0	0.5	0	0.0	0.5	0	0.5	1.1	1	1.2	1.7	peritoneum		
1	1.5	1.7	1	2.7	2.4	2	3.0	2.4	2	4.3	3.2	connective tissues		
36	73.8	12.1	1	1.2	1.6	47	100.8	14.5	1	1.4	2.0	breast		
2	3.4	2.5	0	0.0	0.5	1	2.4	2.1	0	0.0	0.5	vulva		
1	0.9	1.2	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	vagina		
27	55.7	10.6	0	0.0	0.5	23	46.4	9.4	0	0.0	0.5	cervix		
7	15.3	5.8	0	0.0	0.5	7	16.6	6.2	0	0.0	0.5	corpus uteri		
1	1.3	1.8	0	0.0	0.5	0	0.6	1.1	0	0.0	0.5	uterus nos		
10	19.4	6.2	0	0.0	0.5	7	15.0	5.6	0	0.0	0.5	ovary		
0	0.0	0.5	0	0.0	0.5	0	0.4	0.8	0	0.0	0.5	other female genital		
0	0.5	1.0	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	placenta		
0	0.0	0.5	1	1.0	1.4	0	0.0	0.5	1	1.6	2.2	penis		
0	0.0	0.5	36	75.1	12.4	0	0.0	0.5	34	88.5	14.9	prostate		
0	0.0	0.5	1	2.5	2.2	0	0.0	0.5	3	5.9	3.5	testis		
0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other male genital		
3	5.7	3.1	4	8.3	4.2	2	3.8	2.8	5	11.5	5.3	kidney		
0	0.0	0.5	0	0.5	1.0	0	0.3	0.6	0	0.7	1.3	renal pelvis		
0	0.5	1.0	0	0.6	1.2	0	0.0	0.5	0	0.0	0.5	ureter		
3	5.5	3.1	8	17.7	6.0	4	7.1	3.6	12	31.5	8.8	bladder		
0	0.4	0.8	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	other urinary		
1	1.4	1.6	1	2.6	2.3	0	0.7	1.4	1	1.2	1.7	eye		
2	5.5	3.6	0	0.5	1.0	1	1.7	1.9	1	1.2	1.7	meninges		
2	3.4	2.5	5	10.2	4.5	3	5.7	3.4	3	7.1	4.0	brain		
1	1.5	1.7	1	2.1	2.0	1	2.6	2.2	1	3.0	2.6	spinal cord		
1	1.6	1.8	1	1.8	2.1	1	2.0	1.9	0	0.5	1.0	thyroid		
0	0.7	1.3	0	0.0	0.5	0	0.0	0.5	0	0.0	0.5	adrenal		
1	1.1	1.5	0	0.6	1.2	0	0.5	1.0	0	0.0	0.5	other endocrine		
3	4.1	2.5	1	2.6	2.3	1	1.7	1.7	1	1.5	2.0	ill-defined site		
0	0.0	0.5	0	0.6	1.2	0	0.0	0.5	0	0.0	0.5	lymph nodes		
4	7.7	3.9	9	18.6	6.2	5	10.6	4.5	7	16.7	6.2	lymphoma		
3	6.6	3.6	7	13.9	5.3	3	4.1	2.5	4	9.9	4.9	leukaemia		
10	18.4	5.6	9	18.9	6.3	8	15.0	5.1	14	35.6	9.3	unknown primary site		



**Table A2.6. Summary table: number of deaths and mortality rates by ICD-10 code: both sexes 1997**

*WASR: AGE STANDARDISED RATE PER 100,000, WORLD POPULATION. EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION.								
site	ICD-10 code	both sexes			males			
		deaths	% of total	per 100,000	deaths	% of total	per 100,000	WASR
all cancers		7555	100.0%	207.204	4017	100.0%	221.983	164.560
lip	C00	8	0.1%	0.219	8	0.2%	0.442	0.276
base of tongue	C01	2	0.0%	0.055	2	0.0%	0.111	0.109
other tongue	C02	47	0.6%	1.289	38	0.9%	2.100	1.709
floor of mouth	C04	8	0.1%	0.219	7	0.2%	0.387	0.334
palate	C05	4	0.1%	0.110	3	0.1%	0.166	0.126
other mouth	C06	12	0.2%	0.329	8	0.2%	0.442	0.364
parotid	C07	14	0.2%	0.384	11	0.3%	0.608	0.478
other salivary	C08	3	0.0%	0.082	2	0.0%	0.111	0.068
tonsil	C09	6	0.1%	0.165	4	0.1%	0.221	0.190
oropharynx	C10	5	0.1%	0.137	5	0.1%	0.276	0.233
nasopharynx	C11	5	0.1%	0.137	2	0.0%	0.111	0.108
pyriform	C12	2	0.0%	0.055	2	0.0%	0.111	0.057
hypopharynx	C13	9	0.1%	0.247	2	0.0%	0.111	0.086
other mouth/pharynx	C14	15	0.2%	0.411	13	0.3%	0.718	0.551
oesophagus	C15	311	4.1%	8.530	204	5.1%	11.273	8.540
stomach	C16	374	5.0%	10.257	233	5.8%	12.876	9.577
small intestine	C17	21	0.3%	0.576	11	0.3%	0.608	0.435
colon	C18	726	9.6%	19.911	384	9.6%	21.220	15.746
rectosigmoid	C19	34	0.5%	0.932	17	0.4%	0.939	0.729
rectum	C20	204	2.7%	5.595	123	3.1%	6.797	4.995
anus	C21	6	0.1%	0.165	3	0.1%	0.166	0.121
liver	C22	120	1.6%	3.291	63	1.6%	3.481	2.467
gallbladder	C23	24	0.3%	0.658	5	0.1%	0.276	0.214
other biliary	C24	21	0.3%	0.576	7	0.2%	0.387	0.252
pancreas	C25	364	4.8%	9.983	184	4.6%	10.168	7.846
other digestive	C26	171	2.3%	4.690	87	2.2%	4.808	3.443
nasal cavity/middle ear	C30	1	0.0%	0.027	0	0.0%	0.000	0.000
sinuses	C31	6	0.1%	0.165	2	0.0%	0.111	0.101
larynx	C32	66	0.9%	1.810	57	1.4%	3.150	2.508
trachea	C33	1	0.0%	0.027	1	0.0%	0.055	0.051
lung	C34	1385	18.3%	37.985	888	22.1%	49.072	37.034
mediastinum	C38	19	0.3%	0.521	16	0.4%	0.884	0.707
bones, joints of limbs	C40	7	0.1%	0.192	2	0.0%	0.111	0.079
bones, joints head and trunk	C41	33	0.4%	0.905	15	0.4%	0.829	0.720
melanoma skin	C43	68	0.9%	1.865	35	0.9%	1.934	1.560
non-melanoma skin	C44	33	0.4%	0.905	21	0.5%	1.160	0.828
peritoneum	C48	10	0.1%	0.274	7	0.2%	0.387	0.319
connective tissues	C49	33	0.4%	0.905	18	0.4%	0.995	0.873
breast	C50	637	8.4%	17.470	3	0.1%	0.166	0.091
vulva	C51	13	0.2%	0.357	0	0.0%	0.000	0.000
vagina	C52	3	0.0%	0.082	0	0.0%	0.000	0.000
cervix	C53	82	1.1%	2.249	0	0.0%	0.000	0.000
corpus uteri	C54	40	0.5%	1.097	0	0.0%	0.000	0.000
uterus nos	C55	14	0.2%	0.384	0	0.0%	0.000	0.000
ovary	C56	259	3.4%	7.103	0	0.0%	0.000	0.000
other female genital	C57	4	0.1%	0.110	0	0.0%	0.000	0.000
penis	C60	5	0.1%	0.137	5	0.1%	0.276	0.219
prostate	C61	535	7.1%	14.673	535	13.3%	29.565	18.767
testis	C62	5	0.1%	0.137	5	0.1%	0.276	0.263
kidney	C64	146	1.9%	4.004	98	2.4%	5.416	4.256
ureter	C66	3	0.0%	0.082	2	0.0%	0.111	0.068
bladder	C67	173	2.3%	4.745	113	2.8%	6.244	4.175
eye	C69	17	0.2%	0.466	7	0.2%	0.387	0.372
meninges	C70	1	0.0%	0.027	0	0.0%	0.000	0.000
brain	C71	212	2.8%	5.814	119	3.0%	6.576	5.663
spinal cord	C72	1	0.0%	0.027	1	0.0%	0.055	0.052
thyroid	C73	23	0.3%	0.631	8	0.2%	0.442	0.334
adrenal	C74	7	0.1%	0.192	4	0.1%	0.221	0.191
other endocrine	C75	5	0.1%	0.137	3	0.1%	0.166	0.185
ill-defined site	C76	96	1.3%	2.633	38	0.9%	2.100	1.510



## CUMULATIVE: CUMULATIVE RISK TO AGE 0-74

		females							
	EASR	cumulative	deaths	% of total	per 100,000	WASR	EASR	cumulative	site
	254.241	16.9%	3538	100.00%	192.642	120.414	178.997	12.8%	all cancers
	0.469	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	lip
	0.144	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	base of tongue
	2.513	0.2%	9	0.25%	0.490	0.328	0.478	0.0%	other tongue
	0.446	0.0%	1	0.03%	0.054	0.020	0.041	0.0%	floor of mouth
	0.189	0.0%	1	0.03%	0.054	0.046	0.061	0.0%	palate
	0.546	0.0%	4	0.11%	0.218	0.100	0.170	0.0%	other mouth
	0.788	0.0%	3	0.08%	0.163	0.086	0.142	0.0%	parotid
	0.117	0.0%	1	0.03%	0.054	0.014	0.028	0.0%	other salivary
	0.269	0.0%	2	0.06%	0.109	0.098	0.135	0.0%	tonsil
	0.317	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	oropharynx
	0.148	0.0%	3	0.08%	0.163	0.131	0.187	0.0%	nasopharynx
	0.114	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	pyriform
	0.129	0.0%	7	0.20%	0.381	0.254	0.376	0.0%	hypopharynx
	0.859	0.1%	2	0.06%	0.109	0.064	0.095	0.0%	other mouth/pharynx
	12.889	1.0%	107	3.02%	5.826	2.947	4.711	0.3%	oesophagus
	14.828	1.1%	141	3.99%	7.677	4.531	6.856	0.6%	stomach
	0.704	0.0%	10	0.28%	0.544	0.316	0.481	0.0%	small intestine
	24.540	1.8%	342	9.67%	18.622	10.937	16.637	1.2%	colon
	1.055	0.1%	17	0.48%	0.926	0.525	0.855	0.1%	rectosigmoid
	7.784	0.6%	81	2.29%	4.410	2.400	3.782	0.3%	rectum
	0.178	0.0%	3	0.08%	0.163	0.108	0.137	0.0%	anus
	3.864	0.3%	57	1.61%	3.104	1.734	2.709	0.2%	liver
	0.319	0.0%	19	0.54%	1.035	0.597	0.934	0.1%	gallbladder
	0.454	0.0%	14	0.40%	0.762	0.345	0.589	0.0%	other biliary
	12.013	0.9%	180	5.09%	9.801	5.691	8.716	0.7%	pancreas
	5.358	0.4%	84	2.37%	4.574	2.165	3.627	0.2%	other digestive
	0.000	0.0%	1	0.03%	0.054	0.058	0.072	0.0%	nasal cavity/middle ear
	0.138	0.0%	4	0.11%	0.218	0.131	0.189	0.0%	sinuses
	3.797	0.3%	9	0.25%	0.490	0.253	0.377	0.0%	larynx
	0.072	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	trachea
	56.456	4.5%	497	14.05%	27.061	16.148	24.740	2.0%	lung
	1.051	0.1%	3	0.08%	0.163	0.121	0.168	0.0%	mediastinum
	0.133	0.0%	5	0.14%	0.272	0.187	0.259	0.0%	bones, joints of limbs
	0.952	0.1%	18	0.51%	0.980	0.604	0.915	0.1%	bones, joints head and trunk
	2.238	0.2%	33	0.93%	1.797	1.255	1.804	0.1%	melanoma skin
	1.318	0.1%	12	0.34%	0.653	0.273	0.472	0.0%	non-melanoma skin
	0.445	0.0%	3	0.08%	0.163	0.149	0.194	0.0%	peritoneum
	1.132	0.1%	15	0.42%	0.817	0.668	0.898	0.1%	connective tissues
	0.163	0.0%	634	17.92%	34.521	24.814	35.393	2.8%	breast
	0.000	0.0%	13	0.37%	0.708	0.370	0.580	0.0%	vulva
	0.000	0.0%	3	0.08%	0.163	0.130	0.190	0.0%	vagina
	0.000	0.0%	82	2.32%	4.465	3.432	4.604	0.4%	cervix
	0.000	0.0%	40	1.13%	2.178	1.194	1.858	0.1%	corpus uteri
	0.000	0.0%	14	0.40%	0.762	0.472	0.706	0.1%	uterus nos
	0.000	0.0%	259	7.32%	14.102	10.016	14.387	1.2%	ovary
	0.000	0.0%	4	0.11%	0.218	0.150	0.197	0.0%	other female genital
	0.326	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	penis
	32.814	1.6%	0	0.00%	0.000	0.000	0.000	0.0%	prostate
	0.267	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	testis
	6.326	0.5%	48	1.36%	2.614	1.734	2.510	0.2%	kidney
	0.117	0.0%	1	0.03%	0.054	0.020	0.041	0.0%	ureter
	7.020	0.4%	60	1.70%	3.267	1.737	2.727	0.2%	bladder
	0.503	0.0%	10	0.28%	0.544	0.266	0.441	0.0%	eye
	0.000	0.0%	1	0.03%	0.054	0.014	0.028	0.0%	meninges
	7.594	0.7%	93	2.63%	5.064	3.745	5.082	0.4%	brain
	0.040	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	spinal cord
	0.504	0.0%	15	0.42%	0.817	0.479	0.736	0.1%	thyroid
	0.247	0.0%	3	0.08%	0.163	0.152	0.161	0.0%	adrenal
	0.189	0.0%	2	0.06%	0.109	0.034	0.069	0.0%	other endocrine
	2.390	0.1%	58	1.64%	3.158	1.703	2.652	0.1%	ill-defined site

**Table A2.6. (continued) Summary table: number of deaths and mortality rates by ICD-10 code: both sexes 1997**

*WASR: AGE STANDARDISED RATE PER 100,000, WORLD POPULATION. EASR: AGE-STANDARDISED INCIDENCE RATE PER 100,000, EUROPEAN POPULATION.								
site	ICD-10 code	both sexes			males			
		deaths	% of total	per 100,000	deaths	% of total	per 100,000	WASR
unknown primary site	C80	441	5.8%	12.095	227	5.7%	12.544	9.187
Hodgkin's disease	C81	26	0.3%	0.713	14	0.3%	0.774	0.576
diffuse non-Hodgkin's lymphoma	C83	2	0.0%	0.055	2	0.0%	0.111	0.103
other and unspecified NHL	C85	190	2.5%	5.211	101	2.5%	5.581	4.435
multiple myeloma	C90	137	1.8%	3.757	74	1.8%	4.089	3.172
lymphoid leukaemia	C91	84	1.1%	2.304	50	1.2%	2.763	2.327
myeloid leukaemia	C92	79	1.0%	2.167	43	1.1%	2.376	1.883
monocytic leukaemia	C93	2	0.0%	0.055	1	0.0%	0.055	0.023
unspecified leukaemia	C95	50	0.7%	1.371	31	0.8%	1.713	1.168
other lymphoid and haematopoietic	C96	1	0.0%	0.027	1	0.0%	0.055	0.028
benign: mouth and pharynx	D10	1	0.0%	0.027	0	0.0%	0.000	0.000
benign colorectal	D12	2	0.0%	0.055	2	0.0%	0.111	0.110
benign other GI	D13	2	0.0%	0.055	2	0.0%	0.111	0.081
benign respiratory	D14	1	0.0%	0.027	0	0.0%	0.000	0.000
benign bone and cartilage	D16	2	0.0%	0.055	0	0.0%	0.000	0.000
benign soft tissue	D21	1	0.0%	0.027	0	0.0%	0.000	0.000
other benign skin	D23	1	0.0%	0.027	1	0.0%	0.055	0.040
benign uterus	D26	1	0.0%	0.027	0	0.0%	0.000	0.000
benign ovary	D27	1	0.0%	0.027	0	0.0%	0.000	0.000
benign other female genital	D28	1	0.0%	0.027	0	0.0%	0.000	0.000
benign male genital	D29	1	0.0%	0.027	1	0.0%	0.055	0.023
benign meninges	D32	5	0.1%	0.137	3	0.1%	0.166	0.158
benign brain	D33	4	0.1%	0.110	1	0.0%	0.055	0.040
benign endocrine	D35	3	0.0%	0.082	0	0.0%	0.000	0.000
benign other/unspecified	D36	1	0.0%	0.027	1	0.0%	0.055	0.046
uncertain: oral and digestive	D37	6	0.1%	0.165	3	0.1%	0.166	0.115
uncertain respiratory	D38	9	0.1%	0.247	6	0.1%	0.332	0.194
uncertain: urinary	D41	4	0.1%	0.110	2	0.0%	0.111	0.069
uncertain: meninges	D42	3	0.0%	0.082	1	0.0%	0.055	0.053
uncertain: brain and CNS	D43	6	0.1%	0.165	4	0.1%	0.221	0.125
uncertain: endocrine	D44	2	0.0%	0.055	2	0.0%	0.111	0.096
polycythaemia vera	D45	16	0.2%	0.439	9	0.2%	0.497	0.347
other uncertain lymphoid, haematopoietic	D47	6	0.1%	0.165	3	0.1%	0.166	0.129
uncertain: other sites	D48	5	0.1%	0.137	1	0.0%	0.055	0.049



## CUMULATIVE: CUMULATIVE RISK TO AGE 0-74

		females							
EASR	cumulative	deaths	% of total	per 100,000	WASR	EASR	cumulative	site	
14.298	1.0%	214	6.05%	11.652	6.725	10.376	0.8%	unknown primary site	
0.833	0.1%	12	0.34%	0.653	0.520	0.631	0.0%	Hodgkin's disease	
0.113	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	diffuse non-Hodgkin's lymphoma	
6.387	0.5%	89	2.52%	4.846	3.043	4.576	0.3%	other and unspecified NHL	
4.862	0.4%	63	1.78%	3.430	1.823	2.884	0.2%	multiple myeloma	
3.144	0.2%	34	0.96%	1.851	1.179	1.530	0.1%	lymphoid leukaemia	
2.748	0.2%	36	1.02%	1.960	1.396	1.841	0.1%	myeloid leukaemia	
0.047	0.0%	1	0.03%	0.054	0.046	0.061	0.0%	monocytic leukaemia	
1.966	0.1%	19	0.54%	1.035	0.531	0.850	0.1%	unspecified leukaemia	
0.057	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	other lymphoid and haematopoietic	
0.000	0.0%	1	0.03%	0.054	0.020	0.041	0.0%	benign: mouth and pharynx	
0.111	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	benign colorectal	
0.119	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	benign other GI	
0.000	0.0%	1	0.03%	0.054	0.020	0.040	0.0%	benign respiratory	
0.000	0.0%	2	0.06%	0.109	0.077	0.101	0.0%	benign bone and cartilage	
0.000	0.0%	1	0.03%	0.054	0.052	0.078	0.0%	benign soft tissue	
0.060	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	other benign skin	
0.000	0.0%	1	0.03%	0.054	0.020	0.041	0.0%	benign uterus	
0.000	0.0%	1	0.03%	0.054	0.046	0.061	0.0%	benign ovary	
0.000	0.0%	1	0.03%	0.054	0.046	0.061	0.0%	benign other female genital	
0.047	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	benign male genital	
0.215	0.0%	2	0.06%	0.109	0.046	0.076	0.0%	benign meninges	
0.060	0.0%	3	0.08%	0.163	0.104	0.149	0.0%	benign brain	
0.000	0.0%	3	0.08%	0.163	0.116	0.173	0.0%	benign endocrine	
0.092	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	benign other/unspecified	
0.186	0.0%	3	0.08%	0.163	0.146	0.143	0.0%	uncertain: oral and digestive	
0.329	0.0%	3	0.08%	0.163	0.080	0.122	0.0%	uncertain respiratory	
0.138	0.0%	2	0.06%	0.109	0.034	0.068	0.0%	uncertain: urinary	
0.046	0.0%	2	0.06%	0.109	0.110	0.119	0.0%	uncertain: meninges	
0.230	0.0%	2	0.06%	0.109	0.052	0.089	0.0%	uncertain: brain and CNS	
0.112	0.0%	0	0.00%	0.000	0.000	0.000	0.0%	uncertain: endocrine	
0.525	0.0%	7	0.20%	0.381	0.254	0.394	0.0%	polycythaemia vera	
0.195	0.0%	3	0.08%	0.163	0.066	0.117	0.0%	other uncertain lymphoid, haematopoietic	
0.058	0.0%	4	0.11%	0.218	0.112	0.181	0.0%	uncertain: other sites	

Table A2.7. Number of deaths by age group and ICD-10 code: males 1997

site	ICD-10 cases	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
all cancers		4017	5	2	6	10	8	10	21	26
lip	C00	8	0	0	0	0	0	0	0	0
base of tongue	C01	2	0	0	0	0	0	0	0	0
other tongue	C02	38	0	0	0	0	0	0	0	0
floor of mouth	C04	7	0	0	0	0	0	0	0	0
palate	C05	3	0	0	0	0	0	0	0	0
other mouth	C06	8	0	0	0	0	0	0	0	0
parotid	C07	11	0	0	0	0	0	0	0	0
other salivary	C08	2	0	0	0	0	0	0	0	0
tonsil	C09	4	0	0	0	0	0	0	0	0
oropharynx	C10	5	0	0	0	0	0	0	1	0
nasopharynx	C11	2	0	0	0	0	0	0	0	0
pyriform	C12	2	0	0	0	0	0	0	0	0
hypopharynx	C13	2	0	0	0	0	0	0	0	0
other mouth/pharynx	C14	13	0	0	0	0	0	0	0	0
oesophagus	C15	204	0	0	0	0	1	0	3	0
stomach	C16	233	0	0	0	0	0	0	1	2
small intestine	C17	11	0	0	0	0	0	0	0	0
colon	C18	384	0	0	0	0	0	1	2	2
rectosigmoid	C19	17	0	0	0	0	0	0	0	0
rectum	C20	123	0	0	0	0	0	0	1	2
anus	C21	3	0	0	0	0	0	0	0	0
liver	C22	63	0	0	0	0	0	0	0	1
gallbladder	C23	5	0	0	0	0	0	0	0	0
other biliary	C24	7	0	0	0	0	0	0	0	0
pancreas	C25	184	0	0	0	0	0	0	1	1
other digestive	C26	87	0	0	0	0	0	0	0	0
nasal cavity/middle ear	C30	0	0	0	0	0	0	0	0	0
sinuses	C31	2	0	0	0	0	0	0	0	0
larynx	C32	57	0	0	0	0	0	0	0	0
trachea	C33	1	0	0	0	0	0	0	0	0
lung	C34	888	0	0	0	0	0	0	0	3
mediastinum	C38	16	0	0	0	0	0	0	0	0
bones, joints of limbs	C40	2	0	0	0	0	0	0	0	0
bones, joints head and trunk	C41	15	0	0	0	1	1	0	0	0
melanoma skin	C43	35	0	0	0	0	0	1	0	1
non-melanoma skin	C44	21	0	0	0	0	0	0	0	0
peritoneum	C48	7	0	0	0	0	0	0	0	0
connective tissues	C49	18	0	0	0	0	0	2	0	1
breast	C50	3	0	0	0	0	0	0	0	0
vulva	C51	0	0	0	0	0	0	0	0	0
vagina	C52	0	0	0	0	0	0	0	0	0
cervix	C53	0	0	0	0	0	0	0	0	0
corpus uteri	C54	0	0	0	0	0	0	0	0	0
uterus nos	C55	0	0	0	0	0	0	0	0	0
ovary	C56	0	0	0	0	0	0	0	0	0
other female genital	C57	0	0	0	0	0	0	0	0	0
penis	C60	5	0	0	0	0	0	0	0	0
prostate	C61	535	0	0	0	0	0	0	0	0
testis	C62	5	0	0	0	0	2	1	1	0
kidney	C64	98	0	1	0	0	0	0	0	0
ureter	C66	2	0	0	0	0	0	0	0	0
bladder	C67	113	0	0	0	0	0	0	0	0
eye	C69	7	0	0	0	0	0	0	0	0
meninges	C70	0	0	0	0	0	0	0	0	0
brain	C71	119	2	0	2	3	0	0	2	5
spinal cord	C72	1	0	0	0	1	0	0	0	0
thyroid	C73	8	0	0	0	0	0	0	0	0
adrenal	C74	4	0	0	1	0	0	0	0	0
other endocrine	C75	3	1	0	0	0	0	0	0	0
ill-defined site	C76	38	0	0	0	1	0	0	1	0
unknown primary site	C80	227	0	0	1	1	1	1	1	1



	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	52	90	180	288	406	587	712	708	611	295	all cancers
	0	0	0	0	1	0	2	0	4	1	lip
	0	0	1	0	1	0	0	0	0	0	base of tongue
	1	2	4	7	4	5	7	6	1	1	other tongue
	1	1	2	0	1	1	0	0	1	0	floor of mouth
	0	0	0	0	1	0	1	1	0	0	palate
	0	0	0	3	2	0	1	2	0	0	other mouth
	0	0	0	2	1	1	2	1	1	3	parotid
	0	0	0	0	0	0	1	1	0	0	other salivary
	0	0	0	1	0	2	1	0	0	0	tonsil
	1	0	0	1	1	0	0	1	0	0	oropharynx
	0	0	0	1	1	0	0	0	0	0	nasopharynx
	0	0	0	0	0	0	0	2	0	0	pyriform
	0	0	0	0	1	0	0	1	0	0	hypopharynx
	0	1	0	2	1	2	2	0	3	2	other mouth/pharynx
	4	9	10	18	18	34	40	26	30	11	oesophagus
	2	7	8	23	25	32	43	39	35	16	stomach
	1	0	0	2	0	1	2	3	1	1	small intestine
	4	3	14	33	40	58	76	71	51	29	colon
	1	0	0	1	3	5	2	2	3	0	rectosigmoid
	1	3	7	8	8	21	23	19	20	10	rectum
	0	0	0	0	1	0	1	0	1	0	anus
	0	3	0	5	6	9	11	12	13	3	liver
	0	0	0	0	1	2	0	2	0	0	gallbladder
	0	0	1	0	0	0	1	0	3	2	other biliary
	3	4	13	17	20	27	36	31	16	15	pancreas
	1	3	3	7	8	11	19	12	19	4	other digestive
	0	0	0	0	0	0	0	0	0	0	nasal cavity/middle ear
	0	0	1	0	0	1	0	0	0	0	sinuses
	0	1	6	4	6	13	10	9	3	5	larynx
	0	0	1	0	0	0	0	0	0	0	trachea
	8	14	47	58	109	169	167	155	114	44	lung
	0	0	1	5	2	3	1	1	3	0	mediastinum
	0	0	0	1	0	0	0	1	0	0	bones, joints of limbs
	1	1	2	0	2	4	0	1	1	1	bones, joints head and trunk
	1	4	3	2	4	5	4	5	3	2	melanoma skin
	0	0	2	0	3	2	4	3	5	2	non-melanoma skin
	0	1	1	0	2	1	0	1	1	0	peritoneum
	0	3	1	2	1	5	1	1	1	0	connective tissues
	0	0	0	0	0	0	1	1	1	0	breast
	0	0	0	0	0	0	0	0	0	0	vulva
	0	0	0	0	0	0	0	0	0	0	vagina
	0	0	0	0	0	0	0	0	0	0	cervix
	0	0	0	0	0	0	0	0	0	0	corpus uteri
	0	0	0	0	0	0	0	0	0	0	uterus nos
	0	0	0	0	0	0	0	0	0	0	ovary
	0	0	0	0	0	0	0	0	0	0	other female genital
	0	0	0	1	0	2	1	1	0	0	penis
	0	2	1	10	24	38	103	119	158	80	prostate
	0	0	0	0	0	1	0	0	0	0	testis
	2	1	6	11	19	14	11	20	10	3	kidney
	0	0	0	0	0	0	1	1	0	0	ureter
	0	0	3	3	8	12	21	28	25	13	bladder
	0	2	0	1	3	0	0	0	0	1	eye
	0	0	0	0	0	0	0	0	0	0	meninges
	6	8	14	18	10	21	14	8	6	0	brain
	0	0	0	0	0	0	0	0	0	0	spinal cord
	0	0	3	0	0	1	2	1	1	0	thyroid
	0	0	0	1	1	0	0	1	0	0	adrenal
	0	0	0	0	0	1	1	0	0	0	other endocrine
	0	1	2	3	3	3	6	7	7	4	ill-defined site
	1	7	7	17	23	29	40	51	30	16	unknown primary site



Table A2.7. (continued) Number of deaths by age group and ICD-10 code: males 1997

site	ICD-10 cases	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Hodgkin's disease	C81	14	0	0	0	0	0	0	0	2
diffuse non-Hodgkin's lymphoma	C83	2	0	0	0	0	1	0	0	0
other and unspecified NHL	C85	101	0	0	0	1	0	0	4	5
multiple myeloma	C90	74	0	0	0	0	0	0	0	0
lymphoid leukaemia	C91	50	2	1	2	2	1	0	0	0
myeloid leukaemia	C92	43	0	0	0	0	0	3	2	0
monocytic leukaemia	C93	1	0	0	0	0	0	0	0	0
unspecified leukaemia	C95	31	0	0	0	0	0	0	0	0
other lymphoid and haematopoietic	C96	1	0	0	0	0	0	0	0	0
benign: mouth and pharynx	D10	0	0	0	0	0	0	0	0	0
benign colorectal	D12	2	0	0	0	0	0	1	0	0
benign other GI	D13	2	0	0	0	0	0	0	0	0
benign respiratory	D14	0	0	0	0	0	0	0	0	0
benign bone and cartilage	D16	0	0	0	0	0	0	0	0	0
benign soft tissue	D21	0	0	0	0	0	0	0	0	0
other benign skin	D23	1	0	0	0	0	0	0	0	0
benign uterus	D26	0	0	0	0	0	0	0	0	0
benign ovary	D27	0	0	0	0	0	0	0	0	0
benign other female genital	D28	0	0	0	0	0	0	0	0	0
benign male genital	D29	1	0	0	0	0	0	0	0	0
benign meninges	D32	3	0	0	0	0	0	0	0	0
benign brain	D33	1	0	0	0	0	0	0	0	0
benign endocrine	D35	0	0	0	0	0	0	0	0	0
benign other/unspecified	D36	1	0	0	0	0	0	0	0	0
uncertain: oral and digestive	D37	3	0	0	0	0	0	0	0	0
uncertain respiratory	D38	6	0	0	0	0	0	0	0	0
uncertain: urinary	D41	2	0	0	0	0	0	0	0	0
uncertain: meninges	D42	1	0	0	0	0	1	0	0	0
uncertain: brain and CNS	D43	4	0	0	0	0	0	0	0	0
uncertain: endocrine	D44	2	0	0	0	0	0	0	1	0
polycythaemia vera	D45	9	0	0	0	0	0	0	0	0
other uncertain lymphoid, haematopoietic	D47	3	0	0	0	0	0	0	0	0
uncertain: other sites	D48	1	0	0	0	0	0	0	0	0

	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	1	1	3	1	0	0	2	1	3	0	Hodgkin's disease
	0	0	0	0	0	1	0	0	0	0	diffuse non-Hodgkin's lymphoma
	6	5	7	10	13	9	14	18	6	3	other and unspecified NHL
	0	1	0	5	13	16	11	14	7	7	multiple myeloma
	0	1	1	1	7	8	9	5	5	5	lymphoid leukaemia
	1	1	3	2	3	9	4	6	5	4	myeloid leukaemia
	0	0	0	0	0	0	0	0	1	0	monocytic leukaemia
	0	0	1	0	2	4	6	6	7	5	unspecified leukaemia
	0	0	0	0	0	0	0	1	0	0	other lymphoid and haematopoietic
	0	0	0	0	0	0	0	0	0	0	benign: mouth and pharynx
	1	0	0	0	0	0	0	0	0	0	benign colorectal
	0	0	0	0	1	0	0	0	1	0	benign other GI
	0	0	0	0	0	0	0	0	0	0	benign respiratory
	0	0	0	0	0	0	0	0	0	0	benign bone and cartilage
	0	0	0	0	0	0	0	0	0	0	benign soft tissue
	0	0	0	0	0	0	1	0	0	0	other benign skin
	0	0	0	0	0	0	0	0	0	0	benign uterus
	0	0	0	0	0	0	0	0	0	0	benign ovary
	0	0	0	0	0	0	0	0	0	0	benign other female genital
	0	0	0	0	0	0	0	0	1	0	benign male genital
	0	0	0	1	1	1	0	0	0	0	benign meninges
	0	0	0	0	0	0	1	0	0	0	benign brain
	0	0	0	0	0	0	0	0	0	0	benign endocrine
	0	0	0	0	0	0	0	0	0	1	benign other/unspecified
	0	0	0	0	1	0	0	2	0	0	uncertain: oral and digestive
	0	0	0	0	0	0	3	1	2	0	uncertain respiratory
	0	0	0	0	0	0	0	0	1	1	uncertain: urinary
	0	0	0	0	0	0	0	0	0	0	uncertain: meninges
	0	0	0	0	0	0	1	3	0	0	uncertain: brain and CNS
	1	0	0	0	0	0	0	0	0	0	uncertain: endocrine
	2	0	0	0	0	2	1	3	1	0	polycythaemia vera
	0	0	1	0	0	1	0	1	0	0	other uncertain lymphoid, haematopoietic
	1	0	0	0	0	0	0	0	0	0	uncertain: other sites



**Table A2.8. Number of deaths by age group and ICD-10 code: females 1997**

site	ICD-10 code	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
all cancers		3538	5	4	3	7	4	12	22	51
lip	C00	0	0	0	0	0	0	0	0	0
base of tongue	C01	0	0	0	0	0	0	0	0	0
other tongue	C02	9	0	0	0	0	0	0	0	0
floor of mouth	C04	1	0	0	0	0	0	0	0	0
palate	C05	1	0	0	0	0	0	0	0	0
other mouth	C06	4	0	0	0	0	0	0	0	0
parotid	C07	3	0	0	0	0	0	0	0	0
other salivary	C08	1	0	0	0	0	0	0	0	0
tonsil	C09	2	0	0	0	0	0	0	0	0
oropharynx	C10	0	0	0	0	0	0	0	0	0
nasopharynx	C11	3	0	0	0	0	0	0	0	0
pyriform	C12	0	0	0	0	0	0	0	0	0
hypopharynx	C13	7	0	0	0	0	0	0	0	0
other mouth/pharynx	C14	2	0	0	0	0	0	0	0	0
oesophagus	C15	107	0	0	0	0	0	0	0	0
stomach	C16	141	0	0	0	0	0	0	0	2
small intestine	C17	10	0	0	0	0	0	0	0	0
colon	C18	342	0	0	0	0	0	1	2	2
rectosigmoid	C19	17	0	0	0	0	0	0	0	0
rectum	C20	81	0	0	0	0	0	0	0	1
anus	C21	3	0	0	0	0	0	0	1	0
liver	C22	57	0	0	0	0	0	0	0	0
gallbladder	C23	19	0	0	0	0	0	0	0	0
other biliary	C24	14	0	0	0	0	0	0	0	0
pancreas	C25	180	0	0	0	0	0	0	0	0
other digestive	C26	84	0	0	0	0	0	0	0	0
nasal cavity/middle ear	C30	1	0	0	0	0	0	0	0	0
sinuses	C31	4	0	0	0	0	0	0	0	0
larynx	C32	9	0	0	0	1	0	0	0	0
trachea	C33	0	0	0	0	0	0	0	0	0
lung	C34	497	0	0	0	0	0	0	0	4
mediastinum	C38	3	0	0	0	0	0	0	0	0
bones, joints of limbs	C40	5	0	0	0	0	0	0	0	0
bones, joints head and trunk	C41	18	0	0	0	0	0	0	0	0
melanoma skin	C43	33	0	0	0	0	0	2	0	0
non-melanoma skin	C44	12	0	0	0	0	0	0	0	0
peritoneum	C48	3	0	0	0	0	0	0	0	0
connective tissues	C49	15	0	0	0	0	0	1	0	1
breast	C50	634	0	0	0	0	0	0	7	17
vulva	C51	13	0	0	0	0	0	0	0	0
vagina	C52	3	0	0	0	0	0	0	0	0
cervix	C53	82	0	0	0	0	0	2	3	8
corpus uteri	C54	40	0	0	0	0	0	0	0	0
uterus nos	C55	14	0	0	0	0	0	0	0	0
ovary	C56	259	0	0	0	1	2	0	4	3
other female genital	C57	4	0	0	0	0	0	0	0	0
penis	C60	0	0	0	0	0	0	0	0	0
prostate	C61	0	0	0	0	0	0	0	0	0
testis	C62	0	0	0	0	0	0	0	0	0
kidney	C64	48	0	0	0	1	1	0	0	0
ureter	C66	1	0	0	0	0	0	0	0	0
bladder	C67	60	0	0	0	0	0	0	0	0
eye	C69	10	0	0	0	0	0	0	0	0
meninges	C70	1	0	0	0	0	0	0	0	0
brain	C71	93	1	3	0	0	1	1	2	4
spinal cord	C72	0	0	0	0	0	0	0	0	0
thyroid	C73	15	0	0	0	0	0	0	0	0
adrenal	C74	3	0	1	0	0	0	0	0	0
other endocrine	C75	2	0	0	0	0	0	0	0	0
ill-defined site	C76	58	0	0	0	0	0	0	1	1
unknown primary site	C80	214	0	0	0	0	0	0	0	2



	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	78	129	208	234	305	424	551	557	605	339	all cancers
	0	0	0	0	0	0	0	0	0	0	lip
	0	0	0	0	0	0	0	0	0	0	base of tongue
	0	1	1	1	0	2	1	0	2	1	other tongue
	0	0	0	0	0	0	0	1	0	0	floor of mouth
	0	0	0	0	0	1	0	0	0	0	palate
	0	0	0	0	0	1	0	2	1	0	other mouth
	0	0	0	0	0	1	0	1	0	1	parotid
	0	0	0	0	0	0	0	0	1	0	other salivary
	0	0	1	0	0	1	0	0	0	0	tonsil
	0	0	0	0	0	0	0	0	0	0	oropharynx
	0	0	1	0	1	0	0	1	0	0	nasopharynx
	0	0	0	0	0	0	0	0	0	0	pyriform
	0	1	0	1	0	1	2	1	0	1	hypopharynx
	0	0	0	0	0	0	2	0	0	0	other mouth/pharynx
	0	2	3	2	7	14	14	16	36	13	oesophagus
	4	3	7	8	12	13	31	15	33	13	stomach
	0	0	1	0	1	2	1	1	3	1	small intestine
	9	13	19	14	24	44	47	53	68	46	colon
	0	0	0	4	1	0	3	3	3	3	rectosigmoid
	0	1	1	3	4	9	24	13	13	12	rectum
	1	0	0	0	0	0	0	0	1	0	anus
	0	3	3	3	3	5	11	8	12	9	liver
	0	0	0	2	2	3	2	3	4	3	gallbladder
	0	0	0	1	1	0	2	3	5	2	other biliary
	2	3	6	6	16	33	26	29	37	22	pancreas
	1	1	3	2	3	5	12	19	22	16	other digestive
	0	0	0	0	1	0	0	0	0	0	nasal cavity/middle ear
	0	0	0	0	1	1	0	0	2	0	sinuses
	0	0	0	0	0	1	2	3	2	0	larynx
	0	0	0	0	0	0	0	0	0	0	trachea
	5	6	20	29	46	65	100	112	74	36	lung
	0	0	0	0	1	0	2	0	0	0	mediastinum
	1	0	0	0	1	1	0	1	1	0	bones, joints of limbs
	0	1	1	2	1	3	2	2	4	2	bones, joints head and trunk
	2	1	4	4	1	3	5	4	2	5	melanoma skin
	0	1	0	0	0	0	2	3	4	2	non-melanoma skin
	0	0	0	0	1	2	0	0	0	0	peritoneum
	0	1	3	1	1	3	2	2	0	0	connective tissues
	26	50	69	66	66	73	71	64	71	54	breast
	0	0	0	1	2	1	1	1	6	1	vulva
	0	0	0	1	1	0	0	0	0	1	vagina
	11	7	8	6	4	7	10	6	3	7	cervix
	0	0	2	0	4	5	9	8	10	2	corpus uteri
	0	0	1	0	3	2	1	2	3	2	uterus nos
	6	10	24	32	29	33	42	29	32	12	ovary
	0	2	0	0	0	0	1	0	1	0	other female genital
	0	0	0	0	0	0	0	0	0	0	penis
	0	0	0	0	0	0	0	0	0	0	prostate
	0	0	0	0	0	0	0	0	0	0	testis
	0	3	3	4	3	7	10	6	5	5	kidney
	0	0	0	0	0	0	0	1	0	0	ureter
	1	2	0	1	4	7	13	11	13	8	bladder
	0	0	1	0	1	0	1	4	3	0	eye
	0	0	0	0	0	0	0	0	1	0	meninges
	0	4	9	7	12	7	16	15	10	1	brain
	0	0	0	0	0	0	0	0	0	0	spinal cord
	0	0	0	1	1	4	2	4	3	0	thyroid
	0	0	0	0	0	1	1	0	0	0	adrenal
	0	0	0	0	0	0	0	1	1	0	other endocrine
	4	1	0	4	6	2	3	8	17	11	ill-defined site
	3	3	6	12	18	31	33	42	42	22	unknown primary site

**Table A2.8. (continued) Number of deaths by age group and ICD-10 code: females 1997**

site	ICD-10 code	all ages	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
Hodgkin's disease	C81	12	0	0	0	0	0	4	0	0
diffuse non-Hodgkin's lymphoma	C83	0	0	0	0	0	0	0	0	0
other and unspecified NHL	C85	89	0	0	0	0	0	0	1	1
multiple myeloma	C90	63	0	0	0	0	0	0	0	1
lymphoid leukaemia	C91	34	3	0	1	1	0	0	1	1
myeloid leukaemia	C92	36	0	0	1	3	0	1	0	1
monocytic leukaemia	C93	1	0	0	0	0	0	0	0	0
unspecified leukaemia	C95	19	0	0	0	0	0	0	0	0
other lymphoid and haematopoietic	C96	0	0	0	0	0	0	0	0	0
benign: mouth and pharynx	D10	1	0	0	0	0	0	0	0	0
benign colorectal	D12	0	0	0	0	0	0	0	0	0
benign other GI	D13	0	0	0	0	0	0	0	0	0
benign respiratory	D14	1	0	0	0	0	0	0	0	0
benign bone and cartilage	D16	2	0	0	0	0	0	0	0	1
benign soft tissue	D21	1	0	0	0	0	0	0	0	0
other benign skin	D23	0	0	0	0	0	0	0	0	0
benign uterus	D26	1	0	0	0	0	0	0	0	0
benign ovary	D27	1	0	0	0	0	0	0	0	0
benign other female genital	D28	1	0	0	0	0	0	0	0	0
benign male genital	D29	0	0	0	0	0	0	0	0	0
benign meninges	D32	2	0	0	0	0	0	0	0	0
benign brain	D33	3	0	0	0	0	0	0	0	0
benign endocrine	D35	3	0	0	0	0	0	0	0	0
benign other/unspecified	D36	0	0	0	0	0	0	0	0	0
uncertain: oral and digestive	D37	3	1	0	0	0	0	0	0	0
uncertain respiratory	D38	3	0	0	0	0	0	0	0	1
uncertain: urinary	D41	2	0	0	0	0	0	0	0	0
uncertain: meninges	D42	2	0	0	1	0	0	0	0	0
uncertain: brain and CNS	D43	2	0	0	0	0	0	0	0	0
uncertain: endocrine	D44	0	0	0	0	0	0	0	0	0
polycythaemia vera	D45	7	0	0	0	0	0	0	0	0
other uncertain lymphoid, haematopoietic	D47	3	0	0	0	0	0	0	0	0
uncertain: other sites	D48	4	0	0	0	0	0	0	0	0



	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	site
	0	0	1	0	2	0	1	2	1	1	Hodgkin's disease
	0	0	0	0	0	0	0	0	0	0	diffuse non-Hodgkin's lymphoma
	1	7	4	11	6	7	13	19	15	4	other and unspecified NHL
	0	1	2	0	6	6	11	15	13	8	multiple myeloma
	0	0	1	0	1	2	5	5	8	5	lymphoid leukaemia
	1	0	1	1	5	7	3	5	5	2	myeloid leukaemia
	0	0	0	0	0	1	0	0	0	0	monocytic leukaemia
	0	0	1	0	1	4	1	5	6	1	unspecified leukaemia
	0	0	0	0	0	0	0	0	0	0	other lymphoid and haematopoietic
	0	0	0	0	0	0	0	1	0	0	benign: mouth and pharynx
	0	0	0	0	0	0	0	0	0	0	benign colorectal
	0	0	0	0	0	0	0	0	0	0	benign other GI
	0	0	0	0	0	0	0	0	0	1	benign respiratory
	0	0	0	0	0	0	1	0	0	0	benign bone and cartilage
	0	0	0	1	0	0	0	0	0	0	benign soft tissue
	0	0	0	0	0	0	0	0	0	0	other benign skin
	0	0	0	0	0	0	0	1	0	0	benign uterus
	0	0	0	0	0	1	0	0	0	0	benign ovary
	0	0	0	0	0	1	0	0	0	0	benign other female genital
	0	0	0	0	0	0	0	0	0	0	benign male genital
	0	0	0	0	0	0	1	0	1	0	benign meninges
	0	1	0	0	0	0	1	1	0	0	benign brain
	0	0	0	1	0	0	2	0	0	0	benign endocrine
	0	0	0	0	0	0	0	0	0	0	benign other/unspecified
	0	0	0	0	0	0	1	0	1	0	uncertain: oral and digestive
	0	0	0	0	0	0	0	0	1	1	uncertain: respiratory
	0	0	0	0	0	0	0	0	1	1	uncertain: urinary
	0	0	1	0	0	0	0	0	0	0	uncertain: meninges
	0	0	0	0	0	0	1	1	0	0	uncertain: brain and CNS
	0	0	0	0	0	0	0	0	0	0	uncertain: endocrine
	0	0	0	2	0	1	2	2	0	0	polycythaemia vera
	0	0	0	0	0	0	1	1	1	0	other uncertain lymphoid, haematopoietic
	0	0	0	0	1	0	0	1	1	1	uncertain: other sites



Table A2.9. Treatments by ICD-0-2 site: both sexes 1997

all: all cases having this treatment modality either alone or in combination; alone: cases having only this treatment modality and no other													
ICD-0-2 site	ICD-0-2 code	cases		surgery		chemotherapy		hormone		radiotherapy		other treatment	no treatment
				all	alone	all	alone	all	alone	all	alone		
lip	C00	52	cases treated	46	45	0	0	0	0	1	1	1	5
			% of total	88.5%	86.5%	0.0%	0.0%	0.0%	0.0%	1.9%	1.9%	1.9%	9.6%
base of tongue	C01	22	cases treated	5	2	0	0	0	0	13	9	2	6
			% of total	22.7%	9.1%	0.0%	0.0%	0.0%	0.0%	59.1%	40.9%	9.1%	27.3%
other tongue	C02	33	cases treated	16	14	0	0	0	0	11	8	1	8
			% of total	48.5%	42.4%	0.0%	0.0%	0.0%	0.0%	33.3%	24.2%	3.0%	24.2%
gum	C03	2	cases treated	1	1	0	0	0	0	0	0	0	1
			% of total	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%
floor of mouth	C04	23	cases treated	16	10	0	0	0	0	7	3	3	4
			% of total	69.6%	43.5%	0.0%	0.0%	0.0%	0.0%	30.4%	13.0%	13.0%	17.4%
palate	C05	12	cases treated	6	5	0	0	0	0	4	3	0	3
			% of total	50.0%	41.7%	0.0%	0.0%	0.0%	0.0%	33.3%	25.0%	0.0%	25.0%
other mouth	C06	22	cases treated	11	4	0	0	0	0	13	7	4	4
			% of total	50.0%	18.2%	0.0%	0.0%	0.0%	0.0%	59.1%	31.8%	18.2%	18.2%
parotid	C07	26	cases treated	20	14	0	0	0	0	8	2	1	3
			% of total	76.9%	53.8%	0.0%	0.0%	0.0%	0.0%	30.8%	7.7%	3.8%	11.5%
other salivary	C08	7	cases treated	6	4	0	0	0	0	3	1	0	0
			% of total	85.7%	57.1%	0.0%	0.0%	0.0%	0.0%	42.9%	14.3%	0.0%	0.0%
tonsil	C09	16	cases treated	7	3	0	0	0	0	8	3	2	4
			% of total	43.8%	18.8%	0.0%	0.0%	0.0%	0.0%	50.0%	18.8%	12.5%	25.0%
oropharynx	C10	9	cases treated	0	0	1	1	0	0	7	6	2	0
			% of total	0.0%	0.0%	11.1%	11.1%	0.0%	0.0%	77.8%	66.7%	22.2%	0.0%
nasopharynx	C11	11	cases treated	2	0	4	0	0	0	8	2	3	1
			% of total	18.2%	0.0%	36.4%	0.0%	0.0%	0.0%	72.7%	18.2%	27.3%	9.1%
pyriform	C12	30	cases treated	13	2	2	0	0	0	24	10	4	2
			% of total	43.3%	6.7%	6.7%	0.0%	0.0%	0.0%	80.0%	33.3%	13.3%	6.7%
hypopharynx	C13	7	cases treated	1	1	0	0	0	0	2	2	1	3
			% of total	14.3%	14.3%	0.0%	0.0%	0.0%	0.0%	28.6%	28.6%	14.3%	42.9%
other mouth/pharynx	C14	16	cases treated	5	3	0	0	0	0	9	6	1	4
			% of total	31.3%	18.8%	0.0%	0.0%	0.0%	0.0%	56.3%	37.5%	6.3%	25.0%
oesophagus	C15	299	cases treated	87	68	41	3	2	1	70	18	88	93
			% of total	29.1%	22.7%	13.7%	1.0%	0.7%	0.3%	23.4%	6.0%	29.4%	31.1%
stomach	C16	476	cases treated	213	190	40	15	2	1	14	5	62	182
			% of total	44.7%	39.9%	8.4%	3.2%	0.4%	0.2%	2.9%	1.1%	13.0%	38.2%
small intestine	C17	33	cases treated	25	20	5	0	0	0	0	0	2	6
			% of total	75.8%	60.6%	15.2%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	18.2%
colon	C18	1165	cases treated	970	700	259	11	4	1	25	0	70	134
			% of total	83.3%	60.1%	22.2%	0.9%	0.3%	0.1%	2.1%	0.0%	6.0%	11.5%
rectosigmoid	C19	141	cases treated	106	69	29	1	0	0	18	2	13	22
			% of total	75.2%	48.9%	20.6%	0.7%	0.0%	0.0%	12.8%	1.4%	9.2%	15.6%
rectum	C20	578	cases treated	433	316	102	2	0	0	100	13	51	82
			% of total	74.9%	54.7%	17.6%	0.3%	0.0%	0.0%	17.3%	2.2%	8.8%	14.2%
anus	C21	24	cases treated	13	8	9	0	0	0	11	0	4	3
			% of total	54.2%	33.3%	37.5%	0.0%	0.0%	0.0%	45.8%	0.0%	16.7%	12.5%
liver	C22	59	cases treated	3	1	4	1	2	2	2	2	16	35
			% of total	5.1%	1.7%	6.8%	1.7%	3.4%	3.4%	3.4%	3.4%	27.1%	59.3%
gallbladder	C23	54	cases treated	22	19	3	1	1	0	0	0	12	21
			% of total	40.7%	35.2%	5.6%	1.9%	1.9%	0.0%	0.0%	0.0%	22.2%	38.9%
other biliary	C24	72	cases treated	16	8	1	0	0	0	1	1	43	19
			% of total	22.2%	11.1%	1.4%	0.0%	0.0%	0.0%	1.4%	1.4%	59.7%	26.4%
pancreas	C25	342	cases treated	33	14	24	10	3	0	18	5	152	152
			% of total	9.6%	4.1%	7.0%	2.9%	0.9%	0.0%	5.3%	1.5%	44.4%	44.4%
other digestive	C26	26	cases treated	4	3	2	1	0	0	1	1	4	16
			% of total	15.4%	11.5%	7.7%	3.8%	0.0%	0.0%	3.8%	3.8%	15.4%	61.5%
nasal cavity/middle ear	C30	11	cases treated	6	4	0	0	0	0	5	4	2	1
			% of total	54.5%	36.4%	0.0%	0.0%	0.0%	0.0%	45.5%	36.4%	18.2%	9.1%
sinuses	C31	16	cases treated	10	3	3	0	0	0	10	2	2	2
			% of total	62.5%	18.8%	18.8%	0.0%	0.0%	0.0%	62.5%	12.5%	12.5%	12.5%
larynx	C32	110	cases treated	32	17	1	0	0	0	67	47	13	21
			% of total	29.1%	15.5%	0.9%	0.0%	0.0%	0.0%	60.9%	42.7%	11.8%	19.1%
trachea	C33	3	cases treated	0	0	0	0	0	0	2	1	1	1
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	33.3%	33.3%	33.3%
lung	C34	1420	cases treated	197	157	220	149	4	3	372	282	47	697
			% of total	13.9%	11.1%	15.5%	10.5%	0.3%	0.2%	26.2%	19.9%	3.3%	49.1%
thymus	C37	7	cases treated	4	4	1	0	0	0	3	2	0	0
			% of total	57.1%	57.1%	14.3%	0.0%	0.0%	0.0%	42.9%	28.6%	0.0%	0.0%
mediastinum	C38	29	cases treated	5	4	1	0	1	1	2	1	5	17
			% of total	17.2%	13.8%	3.4%	0.0%	3.4%	3.4%	6.9%	3.4%	17.2%	58.6%
bones, joints of limbs	C40	31	cases treated	11	3	16	8	0	0	3	2	6	7
			% of total	35.5%	9.7%	51.6%	25.8%	0.0%	0.0%	9.7%	6.5%	19.4%	22.6%
bones, joints head and trunk	C41	17	cases treated	6	4	5	2	0	0	8	6	1	2
			% of total	35.3%	23.5%	29.4%	11.8%	0.0%	0.0%	47.1%	35.3%	5.9%	11.8%



all: all cases having this treatment modality either alone or in combination; alone: cases having only this treatment modality and no other													
ICD-O-2 site	ICD-O-2 code	cases		surgery		chemotherapy		hormone		radiotherapy		other treatment	no treatment
				all	alone	all	alone	all	alone	all	alone		
myeloma	C42	342	cases treated	1	0	125	99	3	2	38	13	22	181
			% of total	0.3%	0.0%	36.5%	28.9%	0.9%	0.6%	11.1%	3.8%	6.4%	52.9%
melanoma of skin		609	cases treated	586	533	6	1	1	0	7	2	49	17
			% of total	96.2%	87.5%	1.0%	0.2%	0.2%	0.0%	1.1%	0.3%	8.0%	2.8%
non-melanoma skin	C44	7816	cases treated	6880	6743	22	20	1	1	545	452	121	389
			% of total	88.0%	86.3%	0.3%	0.3%	0.0%	0.0%	7.0%	5.8%	1.5%	5.0%
peripheral nerves	C47	14	cases treated	7	5	2	1	0	0	1	0	0	6
			% of total	50.0%	35.7%	14.3%	7.1%	0.0%	0.0%	7.1%	0.0%	0.0%	42.9%
peritoneum	C48	17	cases treated	10	7	1	0	1	0	0	0	2	6
			% of total	58.8%	41.2%	5.9%	0.0%	5.9%	0.0%	0.0%	0.0%	11.8%	35.3%
connective tissues	C49	64	cases treated	53	40	6	1	0	0	13	2	2	6
			% of total	82.8%	62.5%	9.4%	1.6%	0.0%	0.0%	20.3%	3.1%	3.1%	9.4%
breast	C50	1731	cases treated	1450	258	524	28	907	87	544	11	107	84
			% of total	83.8%	14.9%	30.3%	1.6%	52.4%	5.0%	31.4%	0.6%	6.2%	4.9%
vulva	C51	28	cases treated	22	20	0	0	0	0	4	2	1	4
			% of total	78.6%	71.4%	0.0%	0.0%	0.0%	0.0%	14.3%	7.1%	3.6%	14.3%
vagina	C52	6	cases treated	4	2	0	0	0	0	3	1	0	1
			% of total	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	50.0%	16.7%	0.0%	16.7%
cervix	C53	965	cases treated	676	639	11	1	1	1	76	37	95	158
			% of total	70.1%	66.2%	1.1%	0.1%	0.1%	0.1%	7.9%	3.8%	9.8%	16.4%
corpus uteri	C54	223	cases treated	205	147	5	2	13	1	49	5	4	9
			% of total	91.9%	65.9%	2.2%	0.9%	5.8%	0.4%	22.0%	2.2%	1.8%	4.0%
uterus nos	C55	11	cases treated	6	4	2	1	1	0	1	1	1	2
			% of total	54.5%	36.4%	18.2%	9.1%	9.1%	0.0%	9.1%	9.1%	9.1%	18.2%
ovary	C56	337	cases treated	232	111	157	28	5	2	5	1	28	51
			% of total	68.8%	32.9%	46.6%	8.3%	1.5%	0.6%	1.5%	0.3%	8.3%	15.1%
other female genital	C57	4	cases treated	3	0	3	0	0	0	0	0	1	1
			% of total	75.0%	0.0%	75.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0%	25.0%
placenta	C58	1	cases treated	0	0	1	1	0	0	0	0	0	0
			% of total	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
penis	C60	24	cases treated	23	18	1	0	0	0	3	0	3	0
			% of total	95.8%	75.0%	4.2%	0.0%	0.0%	0.0%	12.5%	0.0%	12.5%	0.0%
prostate	C61	1133	cases treated	651	446	7	2	395	203	43	16	45	226
			% of total	57.5%	39.4%	0.6%	0.2%	34.9%	17.9%	3.8%	1.4%	4.0%	19.9%
testis	C62	85	cases treated	74	27	29	5	0	0	24	0	1	5
			% of total	87.1%	31.8%	34.1%	5.9%	0.0%	0.0%	28.2%	0.0%	1.2%	5.9%
kidney	C64	255	cases treated	174	158	12	3	0	0	17	9	15	59
			% of total	68.2%	62.0%	4.7%	1.2%	0.0%	0.0%	6.7%	3.5%	5.9%	23.1%
renal pelvis	C65	12	cases treated	10	10	0	0	0	0	0	0	0	2
			% of total	83.3%	83.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%
ureter	C66	13	cases treated	13	11	2	0	0	0	0	0	0	0
			% of total	100.0%	84.6%	15.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
bladder	C67	474	cases treated	393	339	26	5	3	0	28	6	18	62
			% of total	82.9%	71.5%	5.5%	1.1%	0.6%	0.0%	5.9%	1.3%	3.8%	13.1%
other urinary	C68	7	cases treated	6	5	1	0	0	0	0	0	0	1
			% of total	85.7%	71.4%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
eye	C69	41	cases treated	27	25	3	1	0	0	8	4	4	5
			% of total	65.9%	61.0%	7.3%	2.4%	0.0%	0.0%	19.5%	9.8%	9.8%	12.2%
meninges	C70	77	cases treated	55	49	1	0	1	0	1	0	5	21
			% of total	71.4%	63.6%	1.3%	0.0%	1.3%	0.0%	1.3%	0.0%	6.5%	27.3%
brain	C71	254	cases treated	94	43	15	7	0	0	87	38	21	100
			% of total	37.0%	16.9%	5.9%	2.8%	0.0%	0.0%	34.3%	15.0%	8.3%	39.4%
spinal cord	C72	45	cases treated	37	31	0	0	0	0	1	0	5	8
			% of total	82.2%	68.9%	0.0%	0.0%	0.0%	0.0%	2.2%	0.0%	11.1%	17.8%
thyroid	C73	57	cases treated	44	36	1	0	0	0	7	1	8	9
			% of total	77.2%	63.2%	1.8%	0.0%	0.0%	0.0%	12.3%	1.8%	14.0%	15.8%
adrenal	C74	12	cases treated	6	5	4	3	0	0	0	0	1	2
			% of total	50.0%	41.7%	33.3%	25.0%	0.0%	0.0%	0.0%	0.0%	8.3%	16.7%
other endocrine	C75	15	cases treated	12	6	1	0	1	0	6	0	5	1
			% of total	80.0%	40.0%	6.7%	0.0%	6.7%	0.0%	40.0%	0.0%	33.3%	6.7%
ill-defined site	C76	38	cases treated	7	6	4	1	1	0	3	0	6	23
			% of total	18.4%	20.7%	10.5%	4.2%	2.6%	0.0%	7.9%	0.0%	15.8%	100.0%
lymph nodes	C77	5	cases treated	0	0	1	1	0	0	0	0	0	4
			% of total	0.0%	0.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
lymphoma		497	cases treated	95	35	302	222	2	1	63	37	19	109
			% of total	19.1%	2	7.3%	6.2%	1.1%	1.0%	13.6%	10.8%	6.2%	100.0%
leukaemia		339	cases treated	3	2	155	141	4	3	4	1	30	158
			% of total	0.9%	1.3%	45.7%	47.2%	1.2%	1.9%	1.2%	0.6%	8.8%	100.0%
unknown primary site	C80	698	cases treated	41	27	51	33	8	5	95	61	43	502
			% of total	5.9%	5.1%	7.3%	6.2%	1.1%	1.0%	13.6%	10.8%	6.2%	100.0%
all cancers		20451	cases treated	14251	11508	2254	812	1367	315	2526	1157	1281	3773
			% of total	66.4%	75.3%	10.5%	17.7%	6.4%	7.7%	11.8%	23.5%	6.0%	100.0%



Table A2.10. TNM stage by ICD-O-2 site: both sexes 1997

			T STAGE							
site	ICD-O-2 code	all cases		Tis/Ta	T1	T2	T3	T4	not staged	
lip	C00	52	cases	4	18	3	1	2	24	
			% of total	7.7%	34.6%	5.8%	1.9%	3.8%	46.2%	
base of tongue	C01	22	cases	0	2	4	1	6	9	
			% of total	0.0%	9.1%	18.2%	4.5%	27.3%	40.9%	
other tongue	C02	33	cases	1	11	7	4	2	8	
			% of total	3.0%	33.3%	21.2%	12.1%	6.1%	24.2%	
gum	C03	2	cases	1	0	0	0	0	1	
			% of total	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	
floor of mouth	C04	23	cases	0	3	5	3	10	2	
			% of total	0.0%	13.0%	21.7%	13.0%	43.5%	8.7%	
palate	C05	12	cases	1	2	2	1	2	4	
			% of total	8.3%	16.7%	16.7%	8.3%	16.7%	33.3%	
other mouth	C06	22	cases	0	3	4	3	10	2	
			% of total	0.0%	13.6%	18.2%	13.6%	45.5%	9.1%	
parotid	C07	26	cases	0	6	8	5	1	6	
			% of total	0.0%	23.1%	30.8%	19.2%	3.8%	23.1%	
other salivary	C08	7	cases	0	0	6	0	0	1	
			% of total	0.0%	0.0%	85.7%	0.0%	0.0%	14.3%	
tonsil	C09	16	cases	0	2	5	0	6	3	
			% of total	0.0%	12.5%	31.3%	0.0%	37.5%	18.8%	
oropharynx	C10	9	cases	0	0	2	1	4	2	
			% of total	0.0%	0.0%	22.2%	11.1%	44.4%	22.2%	
nasopharynx	C11	11	cases	0	2	3	2	3	1	
			% of total	0.0%	18.2%	27.3%	18.2%	27.3%	9.1%	
pyriform	C12	30	cases	0	2	5	6	12	5	
			% of total	0.0%	6.7%	16.7%	20.0%	40.0%	16.7%	
hypopharynx	C13	7	cases	0	1	2	2	1	1	
			% of total	0.0%	14.3%	28.6%	28.6%	14.3%	14.3%	
other mouth/pharynx	C14	16	cases	2	1	4	0	4	5	
			% of total	12.5%	6.3%	25.0%	0.0%	25.0%	31.3%	
oesophagus	C15	299	cases	5	21	21	63	29	160	
			% of total	1.7%	7.0%	7.0%	21.1%	9.7%	53.5%	
stomach	C16	476	cases	5	28	63	118	75	183	
			% of total	1.1%	5.9%	13.2%	24.8%	15.8%	38.4%	
small intestine	C17	33	cases	0	0	4	7	5	7	
			% of total	0.0%	0.0%	12.1%	21.2%	15.2%	21.2%	
colon	C18	1165	cases	22	46	144	603	154	138	
			% of total	1.9%	3.9%	12.4%	51.8%	13.2%	11.8%	
rectosigmoid	C19	141	cases	0	3	22	75	16	24	
			% of total	0.0%	2.1%	15.6%	53.2%	11.3%	17.0%	
rectum	C20	578	cases	22	40	105	235	56	91	
			% of total	3.8%	6.9%	18.2%	40.7%	9.7%	15.7%	
anus	C21	24	cases	2	3	7	3	1	8	
			% of total	8.3%	12.5%	29.2%	12.5%	4.2%	33.3%	
liver	C22	59	cases	0	1	5	7	12	34	
			% of total	0.0%	1.7%	8.5%	11.9%	20.3%	57.6%	
gallbladder	C23	54	cases	1	7	6	17	5	18	
			% of total	1.9%	13.0%	11.1%	31.5%	9.3%	33.3%	
other biliary	C24	72	cases	1	15	6	10	1	38	
			% of total	1.4%	20.8%	8.3%	13.9%	1.4%	52.8%	
pancreas	C25	342	cases	0	94	55	49	0	144	
			% of total	0.0%	27.5%	16.1%	14.3%	0.0%	42.1%	
other digestive	C26	26	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
nasal cavity/middle ear	C30	11	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
sinuses	C31	16	cases	0	1	2	3	3	3	
			% of total	0.0%	6.3%	12.5%	18.8%	18.8%	18.8%	
larynx	C32	110	cases	14	34	25	12	9	16	
			% of total	12.7%	30.9%	22.7%	10.9%	8.2%	14.5%	
trachea	C33	3	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
lung	C34	1420	cases	4	105	348	159	226	578	
			% of total	0.3%	7.4%	24.5%	11.2%	15.9%	40.7%	
thymus	C37	7	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
mediastinum	C38	29	cases	0	2	1	3	2	19	
			% of total	0.0%	6.9%	3.4%	10.3%	6.9%	65.5%	
bones, joints of limbs	C40	31	cases	0	3	10	0	0	13	
			% of total	0.0%	9.7%	32.3%	0.0%	0.0%	41.9%	
bones, joints head and trunk	C41	17	cases	0	0	4	0	0	3	
			% of total	0.0%	0.0%	23.5%	0.0%	0.0%	17.6%	



	N STAGE					M STAGE				site
	N0	N1	N2	N3	not staged	M0	M1	not staged	not applicable	
	11	0	1	0	40	9	0	43	0	lip
	21.2%	0.0%	1.9%	0.0%	76.9%	17.3%	0.0%	82.7%	0.0%	
	4	7	2	1	8	2	3	17	0	base of tongue
	18.2%	31.8%	9.1%	4.5%	36.4%	9.1%	13.6%	77.3%	0.0%	
	10	4	1	0	18	7	0	26	0	other tongue
	30.3%	12.1%	3.0%	0.0%	54.5%	21.2%	0.0%	78.8%	0.0%	
	1	0	0	0	1	1	0	1	0	gum
	50.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	50.0%	0.0%	
	8	4	6	0	5	10	0	13	0	floor of mouth
	34.8%	17.4%	26.1%	0.0%	21.7%	43.5%	0.0%	56.5%	0.0%	
	3	1	1	1	6	2	0	10	0	palate
	25.0%	8.3%	8.3%	8.3%	50.0%	16.7%	0.0%	83.3%	0.0%	
	8	5	3	0	6	7	1	14	0	other mouth
	36.4%	22.7%	13.6%	0.0%	27.3%	31.8%	4.5%	63.6%	0.0%	
	5	5	6	0	10	4	2	20	0	parotid
	19.2%	19.2%	23.1%	0.0%	38.5%	15.4%	7.7%	76.9%	0.0%	
	1	0	0	0	6	1	0	6	0	other salivary
	14.3%	0.0%	0.0%	0.0%	85.7%	14.3%	0.0%	85.7%	0.0%	
	4	1	6	2	3	6	0	10	0	tonsil
	25.0%	6.3%	37.5%	12.5%	18.8%	37.5%	0.0%	62.5%	0.0%	
	6	0	2	1	0	4	3	2	0	oropharynx
	66.7%	0.0%	22.2%	11.1%	0.0%	44.4%	33.3%	22.2%	0.0%	
	3	3	4	0	1	3	1	7	0	nasopharynx
	27.3%	27.3%	36.4%	0.0%	9.1%	27.3%	9.1%	63.6%	0.0%	
	4	6	8	4	8	4	3	23	0	pyriform
	13.3%	20.0%	26.7%	13.3%	26.7%	13.3%	10.0%	76.7%	0.0%	
	2	2	1	0	2	3	1	3	0	hypopharynx
	28.6%	28.6%	14.3%	0.0%	28.6%	42.9%	14.3%	42.9%	0.0%	
	5	2	1	1	7	6	0	10	0	other mouth/pharynx
	31.3%	12.5%	6.3%	6.3%	43.8%	37.5%	0.0%	62.5%	0.0%	
	58	69	0	0	172	82	35	182	0	oesophagus
	19.4%	23.1%	0.0%	0.0%	57.5%	27.4%	11.7%	60.9%	0.0%	
	81	98	43	0	250	130	139	203	4	stomach
	17.0%	20.6%	9.0%	0.0%	52.5%	27.3%	29.2%	42.6%	0.8%	
	3	7	0	0	13	9	3	11	10	small intestine
	9.1%	21.2%	0.0%	0.0%	39.4%	27.3%	9.1%	33.3%	30.3%	
	489	238	94	13	273	488	227	392	58	colon
	42.0%	20.4%	8.1%	1.1%	23.4%	41.9%	19.5%	33.6%	5.0%	
	56	27	13	2	42	59	31	50	1	rectosigmoid
	39.7%	19.1%	9.2%	1.4%	29.8%	41.8%	22.0%	35.5%	0.7%	
	243	88	49	7	162	249	100	200	29	rectum
	42.0%	15.2%	8.5%	1.2%	28.0%	43.1%	17.3%	34.6%	5.0%	
	8	1	1	0	14	9	0	15	0	anus
	33.3%	4.2%	4.2%	0.0%	58.3%	37.5%	0.0%	62.5%	0.0%	
	6	3	0	0	50	8	8	43	0	liver
	10.2%	5.1%	0.0%	0.0%	84.7%	13.6%	13.6%	72.9%	0.0%	
	6	5	1	0	42	14	19	21	0	gallbladder
	11.1%	9.3%	1.9%	0.0%	77.8%	25.9%	35.2%	38.9%	0.0%	
	9	5	3	0	54	15	10	46	1	other biliary
	12.5%	6.9%	4.2%	0.0%	75.0%	20.8%	13.9%	63.9%	1.4%	
	31	53	0	0	258	56	117	169	0	pancreas
	9.1%	15.5%	0.0%	0.0%	75.4%	16.4%	34.2%	49.4%	0.0%	
	0	0	0	0	0	0	0	0	26	other digestive
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	0	0	0	0	11	nasal cavity/middle ear
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	3	1	0	0	8	5	1	6	4	sinuses
	18.8%	6.3%	0.0%	0.0%	50.0%	31.3%	6.3%	37.5%	25.0%	
	69	8	7	0	26	49	0	61	0	larynx
	62.7%	7.3%	6.4%	0.0%	23.6%	44.5%	0.0%	55.5%	0.0%	
	0	0	0	0	0	0	0	0	3	trachea
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	207	143	170	64	836	249	370	801	0	lung
	14.6%	10.1%	12.0%	4.5%	58.9%	17.5%	26.1%	56.4%	0.0%	
	0	0	0	0	0	0	0	0	7	thymus
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	2	1	2	0	22	2	5	20	2	mediastinum
	6.9%	3.4%	6.9%	0.0%	75.9%	6.9%	17.2%	69.0%	6.9%	
	5	1	0	0	20	10	4	12	5	bones, joints of limbs
	16.1%	3.2%	0.0%	0.0%	64.5%	32.3%	12.9%	38.7%	16.1%	
	1	0	0	0	6	3	0	4	10	bones, joints head and trunk
	5.9%	0.0%	0.0%	0.0%	35.3%	17.6%	0.0%	23.5%	58.8%	



Table A2.10. (continued) TNM stage by ICD-0-2 site: both sexes 1997

			T STAGE							
site	ICD-0-2 code	all cases		Tis/Ta	T1	T2	T3	T4	not staged	
myeloma etc	C42	342	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
melanoma of skin		609	cases	211	79	89	118	49	63	
			% of total	34.6%	13.0%	14.6%	19.4%	8.0%	10.3%	
non-melanoma skin	C44	7816	cases	0	1	0	1	0	5	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	
peripheral nerves	C47	14	cases	0	2	2	0	0	0	
			% of total	0.0%	14.3%	14.3%	0.0%	0.0%	0.0%	
peritoneum	C48	17	cases	0	3	7	0	0	6	
			% of total	0.0%	17.6%	41.2%	0.0%	0.0%	35.3%	
connective tissues	C49	64	cases	0	18	28	0	0	11	
			% of total	0.0%	28.1%	43.8%	0.0%	0.0%	17.2%	
breast	C50	1731	cases	84	509	685	166	154	123	
			% of total	4.9%	29.4%	39.6%	9.6%	8.9%	7.1%	
vulva	C51	28	cases	1	8	11	3	0	2	
			% of total	3.6%	28.6%	39.3%	10.7%	0.0%	7.1%	
vagina	C52	6	cases	0	3	1	0	0	1	
			% of total	0.0%	50.0%	16.7%	0.0%	0.0%	16.7%	
cervix	C53	965	cases	806	71	30	27	8	23	
			% of total	83.5%	7.4%	3.1%	2.8%	0.8%	2.4%	
corpus uteri	C54	223	cases	4	159	20	20	5	15	
			% of total	1.8%	71.3%	9.0%	9.0%	2.2%	6.7%	
uterus nos	C55	11	cases	0	4	1	2	0	4	
			% of total	0.0%	36.4%	9.1%	18.2%	0.0%	36.4%	
ovary	C56	337	cases	0	97	74	127	0	33	
			% of total	0.0%	28.8%	22.0%	37.7%	0.0%	9.8%	
other female genital	C57	4	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
placenta	C58	1	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
penis	C60	24	cases	7	7	3	2	0	5	
			% of total	29.2%	29.2%	12.5%	8.3%	0.0%	20.8%	
prostate	C61	1133	cases	2	168	253	68	44	598	
			% of total	0.2%	14.8%	22.3%	6.0%	3.9%	52.8%	
testis	C62	85	cases	1	53	12	7	2	9	
			% of total	1.2%	62.4%	14.1%	8.2%	2.4%	10.6%	
kidney	C64	255	cases	0	13	127	79	4	31	
			% of total	0.0%	5.1%	49.8%	31.0%	1.6%	12.2%	
renal pelvis	C65	12	cases	1	1	2	3	1	4	
			% of total	8.3%	8.3%	16.7%	25.0%	8.3%	33.3%	
ureter	C66	13	cases	0	6	2	1	2	2	
			% of total	0.0%	46.2%	15.4%	7.7%	15.4%	15.4%	
bladder	C67	474	cases	19	159	80	67	29	117	
			% of total	4.0%	33.5%	16.9%	14.1%	6.1%	24.7%	
other urinary	C68	7	cases	0	3	0	2	1	1	
			% of total	0.0%	42.9%	0.0%	28.6%	14.3%	14.3%	
eye	C69	41	cases	0	10	12	5	2	8	
			% of total	0.0%	24.4%	29.3%	12.2%	4.9%	19.5%	
meninges	C70	77	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
brain	C71	254	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
spinal cord	C72	45	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
thyroid	C73	57	cases	0	4	22	8	13	10	
			% of total	0.0%	7.0%	38.6%	14.0%	22.8%	17.5%	
adrenal	C74	12	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
other endocrine	C75	15	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
ill-defined site	C76	38	cases	0	0	1	0	0	0	
			% of total	0.0%	0.0%	2.6%	0.0%	0.0%	0.0%	
lymph nodes	C77	5	cases	0	1	0	0	1	1	
			% of total	0.0%	20.0%	0.0%	0.0%	20.0%	20.0%	
lymphoma		497	cases	0	129	98	88	86	96	
			% of total	0.0%	26.0%	19.7%	17.7%	17.3%	19.3%	
leukaemia		339	cases	0	0	0	0	0	0	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
unknown primary site	C80	698	cases	0	0	0	0	0	5	
			% of total	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	
all cancers		21450	cases	1221	1964	2448	2187	1058	2724	
			% of total	5.7%	9.2%	11.4%	10.2%	4.9%	12.7%	



	N STAGE					M STAGE				site
	N0	N1	N2	N3	not staged	M0	M1	not staged	not applicable	
	0	0	0	0	0	0	0	0	342	myeloma etc
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	301	8	13	0	287	285	13	311	0	melanoma of skin
	49.4%	1.3%	2.1%	0.0%	47.1%	46.8%	2.1%	51.1%	0.0%	
	0	0	0	0	7	0	0	7	7809	non-melanoma skin
	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.1%	99.9%	
	0	1	0	0	3	1	0	3	10	peripheral nerves
	0.0%	7.1%	0.0%	0.0%	21.4%	7.1%	0.0%	21.4%	71.4%	
	3	2	0	0	11	4	3	9	1	peritoneum
	17.6%	11.8%	0.0%	0.0%	64.7%	23.5%	17.6%	52.9%	5.9%	
	12	1	0	0	44	16	7	34	7	connective tissues
	18.8%	1.6%	0.0%	0.0%	68.8%	25.0%	10.9%	53.1%	10.9%	
	741	590	63	26	301	833	106	782	10	breast
	42.8%	34.1%	3.6%	1.5%	17.4%	48.1%	6.1%	45.2%	0.6%	
	11	3	3	0	8	7	1	17	3	vulva
	39.3%	10.7%	10.7%	0.0%	28.6%	25.0%	3.6%	60.7%	10.7%	
	2	0	0	0	3	1	1	3	1	vagina
	33.3%	0.0%	0.0%	0.0%	50.0%	16.7%	16.7%	50.0%	16.7%	
	864	28	0	0	73	853	9	103	0	cervix
	89.5%	2.9%	0.0%	0.0%	7.6%	88.4%	0.9%	10.7%	0.0%	
	72	3	0	0	148	75	8	140	0	corpus uteri
	32.3%	1.3%	0.0%	0.0%	66.4%	33.6%	3.6%	62.8%	0.0%	
	0	0	0	0	11	0	1	10	0	uterus nos
	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	9.1%	90.9%	0.0%	
	61	25	0	0	245	78	118	135	6	ovary
	18.1%	7.4%	0.0%	0.0%	72.7%	23.1%	35.0%	40.1%	1.8%	
	0	0	0	0	0	0	0	0	4	other female genital
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	0	0	0	0	1	placenta
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	10	2	2	2	8	13	0	11	0	penis
	41.7%	8.3%	8.3%	8.3%	33.3%	54.2%	0.0%	45.8%	0.0%	
	108	10	10	2	1003	268	235	630	0	prostate
	9.5%	0.9%	0.9%	0.2%	88.5%	23.7%	20.7%	55.6%	0.0%	
	38	7	4	3	32	40	15	29	1	testis
	44.7%	8.2%	4.7%	3.5%	37.6%	47.1%	17.6%	34.1%	1.2%	
	82	16	22	5	129	120	58	76	1	kidney
	32.2%	6.3%	8.6%	2.0%	50.6%	47.1%	22.7%	29.8%	0.4%	
	2	0	2	0	8	3	0	9	0	renal pelvis
	16.7%	0.0%	16.7%	0.0%	66.7%	25.0%	0.0%	75.0%	0.0%	
	1	0	1	1	10	8	1	4	0	ureter
	7.7%	0.0%	7.7%	7.7%	76.9%	61.5%	7.7%	30.8%	0.0%	
	102	4	13	1	351	140	24	307	3	bladder
	21.5%	0.8%	2.7%	0.2%	74.1%	29.5%	5.1%	64.8%	0.6%	
	1	0	1	0	5	3	0	4	0	other urinary
	14.3%	0.0%	14.3%	0.0%	71.4%	42.9%	0.0%	57.1%	0.0%	
	12	0	0	0	25	10	2	25	4	eye
	29.3%	0.0%	0.0%	0.0%	61.0%	24.4%	4.9%	61.0%	9.8%	
	0	0	0	0	0	0	0	0	77	meninges
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	0	0	0	0	254	brain
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	0	0	0	0	45	spinal cord
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	16	10	0	0	31	8	3	46	0	thyroid
	28.1%	17.5%	0.0%	0.0%	54.4%	14.0%	5.3%	80.7%	0.0%	
	0	0	0	0	0	0	0	0	12	adrenal
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	0	0	0	0	15	other endocrine
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	1	1	0	0	37	ill-defined site
	0.0%	0.0%	0.0%	0.0%	2.6%	2.6%	0.0%	0.0%	97.4%	
	1	0	0	1	1	0	1	2	2	lymph nodes
	20.0%	0.0%	0.0%	20.0%	20.0%	0.0%	20.0%	40.0%	40.0%	
	227	116	19	11	124	211	123	163	0	lymphoma
	45.7%	23.3%	3.8%	2.2%	24.9%	42.5%	24.7%	32.8%	0.0%	
	0	0	0	0	0	0	0	0	339	leukaemia
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	0	0	0	0	5	0	0	5	693	unknown primary site
	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%	99.3%	
	4019	1614	578	148	5243	4484	1812	5306	9848	all cancers
	18.7%	7.5%	2.7%	0.7%	24.4%	20.9%	8.4%	24.7%	45.9%	



Table A2.11. Relative survival by ICD-O-2 site, cases diagnosed 1994-1997\*

ICD-O-2 site	cases analysed	YEARS SINCE DIAGNOSIS									
		one		two		three		four		five	
		relative survival	95% confidence limits (z)	relative survival	95% confidence limits (z)	relative survival	95% confidence limits (z)	relative survival	95% confidence limits (z)	relative survival	95% confidence limits (z)
lip	195	95.0%	4.6%	94.1%	6.0%	94.9%	7.4%	94.3%	9.7%	95.9%	12.9%
base of tongue	70	53.3%	11.8%	36.3%	12.0%	32.3%	12.6%	24.6%	14.1%	25.6%	14.7%
other tongue	160	70.8%	7.4%	58.1%	8.5%	55.3%	9.2%	50.2%	10.9%	53.1%	11.5%
gum	20	75.1%	20.1%	69.2%	22.8%	74.5%	24.5%	79.7%	26.2%	84.3%	27.8%
floor of mouth	104	69.8%	9.2%	56.5%	10.4%	57.2%	10.9%	57.0%	11.8%	59.3%	12.3%
palate	39	82.4%	12.9%	66.9%	16.2%	69.9%	17.0%	65.6%	21.1%	70.0%	22.5%
other mouth	69	71.3%	11.3%	71.4%	12.2%	64.8%	14.5%	68.6%	15.4%	72.2%	16.2%
parotid	88	72.7%	10.2%	63.0%	11.9%	62.9%	13.1%	67.0%	14.0%	71.0%	14.8%
other salivary	36	86.8%	12.5%	87.2%	14.0%	81.7%	17.8%	76.7%	23.7%	49.5%	41.1%
tonsil	71	60.8%	11.5%	52.7%	12.2%	45.5%	13.1%	40.0%	14.5%	31.3%	20.1%
oropharynx	40	59.5%	15.2%	44.0%	16.0%	45.6%	16.6%	47.4%	17.2%	49.1%	17.8%
nasopharynx	44	74.4%	13.1%	60.7%	15.0%	52.0%	16.4%	48.0%	18.3%	50.6%	19.3%
pyriform	104	65.0%	9.5%	45.7%	10.4%	40.1%	11.3%	29.2%	14.1%	30.5%	14.8%
hypopharynx	50	42.1%	13.8%	30.3%	13.5%	22.4%	13.5%	24.0%	14.5%	25.9%	15.6%
other mouth/pharynx	53	51.3%	13.6%	36.7%	14.1%	34.3%	15.2%	27.1%	18.9%	28.2%	19.7%
oesophagus	1168	31.0%	2.8%	21.5%	2.6%	18.6%	2.7%	19.0%	3.0%	19.3%	3.6%
stomach	1855	36.0%	2.3%	28.3%	2.3%	24.5%	2.4%	23.6%	2.6%	23.6%	3.2%
small intestine	133	61.7%	8.6%	56.2%	9.2%	55.9%	9.9%	55.7%	11.0%	58.1%	11.5%
colon	4299	71.1%	1.5%	63.7%	1.7%	59.9%	1.9%	58.4%	2.2%	57.3%	3.0%
rectosigmoid	528	72.4%	4.1%	60.0%	4.8%	55.8%	5.4%	50.6%	6.3%	54.0%	6.8%
rectum	1911	74.9%	2.1%	65.1%	2.6%	59.9%	2.9%	57.5%	3.4%	56.0%	4.7%
anus	76	71.5%	11.0%	59.6%	12.8%	51.8%	14.5%	44.4%	16.2%	47.3%	17.3%
liver	234	21.5%	5.4%	13.9%	4.9%	12.8%	5.2%	11.5%	6.1%	12.4%	6.5%
gallbladder	152	23.7%	7.0%	17.7%	6.7%	17.7%	7.0%	17.3%	7.4%	18.4%	7.9%
other biliary	252	41.5%	6.4%	29.8%	6.3%	27.2%	6.7%	23.2%	7.7%	24.7%	8.1%
pancreas	1247	17.7%	2.2%	12.6%	2.0%	11.7%	2.1%	10.8%	2.3%	11.6%	2.5%
other digestive	111	12.7%	6.5%	9.8%	6.4%	10.7%	7.0%	7.8%	8.5%	8.5%	9.3%
nasal cavity/middle ear	33	94.8%	10.7%	68.7%	18.1%	72.0%	18.9%	58.6%	24.0%	61.2%	25.1%
sinuses	44	57.5%	14.9%	44.8%	16.3%	36.3%	18.4%	38.0%	19.3%	39.5%	20.0%
larynx	456	86.4%	3.6%	77.8%	4.7%	74.4%	5.4%	72.8%	6.4%	70.6%	9.0%
trachea	17	24.6%	19.8%	25.9%	20.8%	27.6%	22.1%	29.5%	23.6%		
lung	5646	26.5%	1.2%	17.4%	1.1%	15.1%	1.1%	14.6%	1.2%	13.3%	1.5%
thymus	13	62.4%	23.8%	63.6%	24.2%	65.3%	24.9%	67.9%	25.8%	71.3%	27.1%
mediastinum	97	33.1%	9.5%	20.6%	8.6%	19.5%	9.0%	20.4%	9.5%	21.5%	10.0%
other chest	2	55.5%	45.0%	0.0%	0.0%						
bones, joints of limbs	99	84.0%	7.5%	74.4%	9.3%	70.3%	10.4%	66.1%	12.1%	67.5%	12.3%

ICD-O-2 site	cases analysed	YEARS SINCE DIAGNOSIS									
		one		two		three		four		five	
		relative survival	95% confidence limits (±)	relative survival	95% confidence limits (±)	relative survival	95% confidence limits (±)	relative survival	95% confidence limits (±)	relative survival	95% confidence limits (±)
bones, joints head and trunk	67	77.9%	10.3%	65.8%	12.1%	67.3%	12.4%	64.4%	14.4%	66.3%	14.9%
haematopoietic and reticulendothelial	1359	72.8%	2.6%	63.3%	3.1%	57.8%	3.5%	55.0%	4.0%	54.2%	5.0%
melanoma	2114	96.5%	1.1%	94.2%	1.5%	92.8%	1.9%	92.9%	2.4%	94.2%	3.1%
peripheral nerves	43	89.3%	9.8%	76.5%	13.4%	73.6%	14.4%	69.2%	16.5%	70.8%	16.8%
peritoneum	52	40.1%	13.3%	31.7%	13.5%	33.3%	14.2%	34.9%	14.9%	36.4%	15.6%
connective tissues	253	83.3%	5.0%	74.2%	6.1%	69.1%	7.1%	71.2%	7.3%	73.3%	7.5%
breast	6386	93.2%	0.7%	88.4%	1.0%	84.0%	1.3%	80.6%	1.6%	78.4%	2.1%
vulva	120	85.0%	7.4%	78.6%	9.1%	79.9%	10.0%	79.0%	12.2%	69.3%	20.4%
vagina	33	82.3%	14.2%	64.6%	17.8%	57.5%	19.8%	52.7%	22.1%	55.4%	23.2%
cervix	3652	97.0%	0.6%	94.8%	0.8%	94.2%	0.9%	93.9%	1.0%	93.4%	1.3%
corpus uteri	784	90.5%	2.3%	84.5%	3.0%	82.1%	3.6%	81.1%	4.3%	84.2%	4.4%
uterus nos	75	62.1%	11.2%	51.1%	11.9%	51.1%	12.3%	53.0%	12.8%	55.1%	13.3%
ovary	1213	66.8%	2.8%	55.2%	3.1%	50.7%	3.3%	48.8%	3.6%	46.3%	4.8%
other female genital	21	74.3%	18.8%	65.8%	21.2%	60.4%	23.5%	51.6%	26.7%	53.9%	27.9%
placenta	6	100.1%	0.0%	100.3%	0.0%	100.4%	0.0%	100.5%	0.0%	100.5%	0.0%
penis	90	83.1%	8.8%	80.6%	10.3%	82.9%	11.4%	79.0%	15.5%	70.0%	26.4%
prostate	4230	87.7%	1.3%	80.3%	1.8%	75.8%	2.1%	73.6%	2.7%	72.4%	4.1%
testis	339	94.5%	2.6%	91.1%	3.3%	89.6%	3.7%	89.9%	3.7%	90.3%	3.7%
other male genital	11	104.7%	0.0%	99.8%	19.8%	90.9%	27.5%	95.9%	29.1%	101.2%	30.7%
kidney	856	65.6%	3.4%	59.6%	3.7%	57.3%	4.0%	58.2%	4.4%	58.0%	5.7%
renal pelvis	48	71.1%	13.8%	57.6%	15.9%	47.1%	17.6%	50.3%	18.8%	53.7%	20.1%
ureter	45	86.2%	11.6%	87.9%	12.9%	84.3%	16.3%	82.2%	19.3%	86.5%	20.3%
bladder	1790	82.8%	2.1%	78.7%	2.5%	76.8%	2.9%	76.7%	3.5%	78.0%	4.7%
other urinary	24	78.8%	17.3%	57.0%	21.2%	52.1%	23.5%	55.3%	24.9%	58.6%	26.4%
eye	41	92.5%	10.7%	88.7%	13.6%	85.4%	16.4%	82.7%	19.4%	86.1%	20.2%
meninges	239	89.7%	4.4%	88.9%	4.9%	88.8%	5.5%	91.1%	5.7%	86.3%	10.8%
brain	1026	45.1%	3.1%	38.3%	3.1%	36.9%	3.3%	34.9%	3.5%	34.1%	4.1%
spinal cord	189	90.1%	4.5%	87.8%	5.1%	87.8%	5.3%	86.1%	6.3%	83.1%	9.5%
thyroid	234	76.7%	5.7%	76.3%	6.1%	77.0%	6.5%	75.6%	7.7%	74.3%	11.0%
adrenal	34	62.8%	15.8%	53.2%	16.9%	38.7%	18.4%	39.2%	18.7%	39.3%	18.8%
other endocrine	63	83.5%	9.4%	80.8%	10.3%	79.2%	11.4%	80.4%	11.5%	82.0%	11.7%
ill-defined site	197	41.4%	7.2%	38.4%	7.5%	38.3%	7.9%	38.3%	8.5%	37.8%	9.9%
lymph nodes	20	51.5%	20.7%	41.3%	21.2%	30.6%	24.0%				
lymphoma	1790	74.1%	2.2%	66.5%	2.4%	64.0%	2.7%	63.0%	3.0%	61.9%	3.9%
leukaemia	1248	70.6%	2.7%	62.4%	3.1%	57.7%	3.5%	55.2%	4.0%	52.3%	5.3%
unknown primary site	2743	18.2%	1.5%	14.6%	1.5%	13.8%	1.5%	14.4%	1.6%	15.4%	1.8%

\* For inclusion and exclusion criteria, see Appendix 1.10



# References

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