Cover illustrations

From top:

Ulster:	Sacred Heart Chapel, Dunlewy, Co. Donegal
Connacht:	Ben Bulben, Co. Sligo
Munster:	Poulnabrone Dolmen, Co. Clare
Leinster:	Grand Canal, Dublin

CANCER IN IRELAND 1994-2001

INCIDENCE, MORTALITY AND TREATMENT

National Cancer Registry Ireland

A REPORT FROM THE NATIONAL CANCER REGISTRY

JUNE 2005

CONTENTS

KEY FINDINGS

- Between 1994 and 2001, an average of 20,523 cancer cases was registered each year. The commonest cancer by far was non-melanoma skin cancer (29% of all malignant cancers). If non-melanoma skin cancer is excluded, the commonest cancer in women was breast cancer (28% of all malignant cancers) and the commonest cancer in men was prostate cancer (21%).
- During the same period there was an average of 7,584 cancer deaths each year, about 25% of all deaths. Lung cancer accounted for 20% of cancer deaths (1499 per year) and was the commonest cause of death from cancer, although breast cancer (644 deaths) caused more deaths than lung cancer (534 deaths) in women.
- The number of cancer cases increased by 2.3% annually between 1994 and 2001. This increase seemed to be almost entirely due to changes in the size and age distribution of the population, with very little increase in the underlying risk of developing cancer. However, for some cancers—those of the kidney, prostate, testis and breast—there were significant increases in risk, of the order of 3-5% per annum, while for others—stomach, bladder, larynx and head and neck cancers—there was a significant decrease in risk.
- Cancer deaths increased much less than cancer numbers, by about 0.6% annually, and, when adjusted for change in the population size and age, there was an annual fall of about 0.9% in the overall risk of dying of cancer. The risk of dying of leukaemia, lymphoma, kidney and gallbladder cancer increased, while the risk of dying of cancers of the head and neck, bladder, stomach, breast and larynx fell.
- The incidence of many cancers—those of the oesophagus, stomach, colon/rectum, lung, non-melanoma skin cancer, breast, cervix and lymphoma—was higher in the east of the country. This can be partly attributed to the higher prevalence of smoking in the east. Colorectal cancer, melanoma, leukaemia and prostate cancer had their highest incidence rates in the south, while cancer of the head and neck was most common in the west.
- The majority of cancer patients (60%) had surgical treatment; 20% had radiotherapy and 15% had chemotherapy. Most patients had only one treatment type; only a quarter of all patients treated had combination therapy (e.g. surgery and radiotherapy), and 25% of patients had no cancer-directed treatment. The use of all treatment types varied considerably from cancer to cancer.
- For all treatments other than hormone therapy, rates of treatment were much lower in older patients. Those in the 70-79 years age group had treatment rates, a half to a third of those of patients aged 50-59, for most treatment types and common cancers.
- Surgery and radiotherapy rates rose only slightly between 1994 and 2001, but chemotherapy rates increased considerably for many cancers, and the overall uptake of chemotherapy rose from 13% of patients in 1996 to 18% in 2001, an annual increase of about 7%.
- Surgery rates for colorectal, lung, breast and prostate cancer were higher for patients living in the east, as were rates of radiotherapy (with the exception of prostate cancer). The geographical distribution of chemotherapy rates varied with cancer type; for colorectal cancer they were highest in the southeast and northwest, for lung cancer in the east, and for prostate cancer in the west. There was very little geographical variation in chemotherapy rates for breast cancer; but hormone therapy rates for breast cancer were high in Galway, as they were in the western region in general for prostate cancer.

CANCER CASES

The annual average number of cancers registered between 1994 and 2001 was 20523. The great majority of cancers (88%) was invasive, most of the remainder being carcinoma in situ of cervix, skin and breast (Table 1).

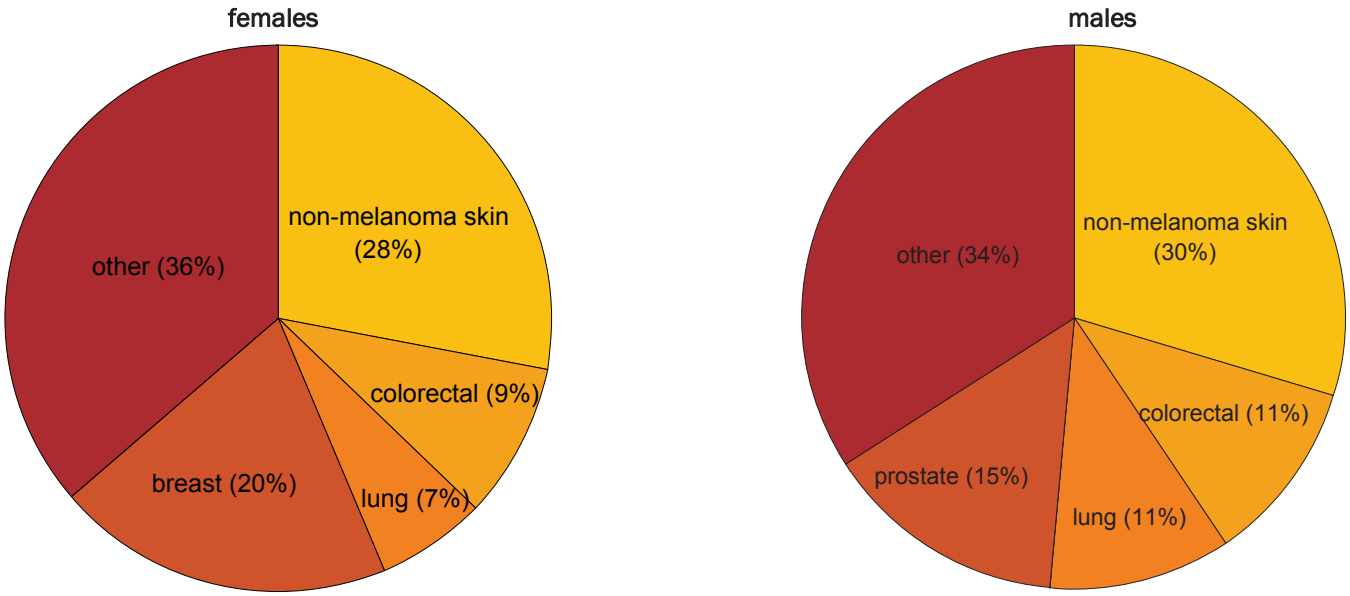
Non-melanoma skin cancer (NMSC), at 29% of the total, was by far the commonest of all the invasive cancers. Cancers of the bowel (colorectal), breast, lung and prostate made up just over half (51%) of the remainder. With the exception of NMSC, breast cancer was the most common cancer in women (28% of all cancers, excluding NMSC), while prostate cancer was the most common in men (21% of all cancers, excluding NMSC) (Figure 1).

Table 1. Annual average number of new cancers, 1994-2001

	annual average			
	females	males	both	% of invasive cancers
all cancers	10509	10014	20523	
all invasive cancers	8605	9410	*18014	
non-melanoma skin	2404	2790	5195	29%
colorectal	792	1029	1821	10%
breast	1726	14	1740	10%
lung	563	1014	1576	9%
prostate	--	1371	1371	8%
lymphoma	238	276	514	3%
stomach	185	297	482	3%
bladder	130	333	463	3%
melanoma of skin	249	153	401	2%
leukaemia	157	216	373	2%
pancreas	175	174	349	2%
ovary	334	--	334	2%
oesophagus	120	185	305	2%
head and neck	71	202	272	2%
kidney	95	171	266	1%
brain	110	154	264	1%
corpus uteri	223	--	223	1%
multiple myeloma	81	106	187	1%
cervix	180	--	180	1%
all non-invasive cancers	1904	604	2508	
carcinoma in situ of cervix	862	--	862	
carcinoma in situ of skin	520	227	748	
melanoma in situ of skin	110	61	172	
carcinoma in situ of breast	93	0	94	

*Numbers for "both sexes" may differ from the sum of "female" and "male" because of rounding to whole numbers

Figure 1. Common cancers in females and males, 1994-2001



CANCER DEATHS

The annual average number of cancer deaths between 1994 and 2001 was 7584. All but 1% of deaths (72 per year) were due to invasive cancer (Table 2). Cancer accounted for 24% of all deaths during this period.

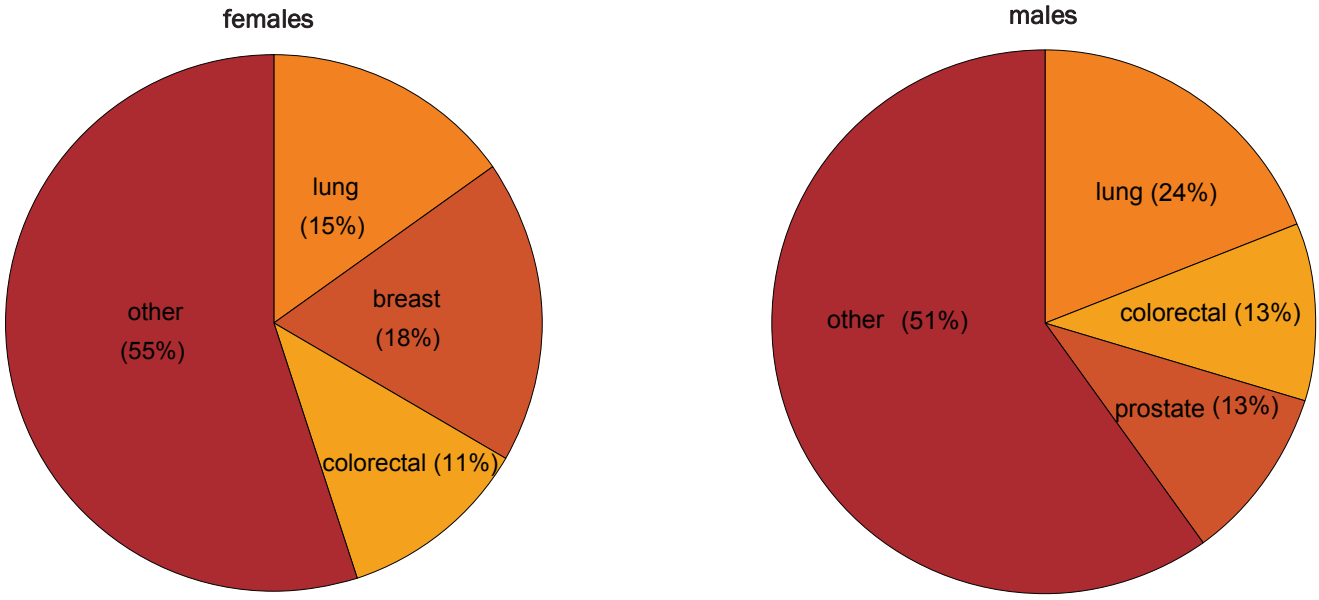
Deaths from lung cancer, at 20% of the total, were by far the commonest category of cancer deaths. Cancers of the bowel (colorectal), breast, lung and prostate made up just under half (47%) of all cancer deaths. Breast cancer was the commonest cause of cancer death in women (18% of all cancers), while lung cancer was the commonest cause in men (24%) (Figure 2).

Table 2. Annual average number of cancer deaths, 1994-2001

	annual average			
	females	males	both	% of cancer deaths
all cancer deaths	3522	4062	*7584	
lung	534	965	1499	20%
colorectal	404	526	930	12%
breast	644	5	649	9%
prostate	–	519	519	7%
stomach	152	224	375	5%
pancreas	176	184	360	5%
oesophagus	118	191	309	4%
lymphoma	114	135	249	3%
ovary	226	–	226	3%
leukaemia	97	127	225	3%
brain	92	121	213	3%
other digestive	82	87	169	2%
bladder	53	110	163	2%
myeloma	68	78	146	2%
kidney	51	89	140	2%
head and neck	37	97	134	2%
liver	54	77	132	2%
cervix	73	–	73	1%
melanoma skin	33	30	64	1%
larynx	11	45	56	1%
gallbladder and other biliary	33	19	52	1%
corpus uteri	48	–	48	1%
non melanoma skin	12	23	34	0%

*Numbers for “both sexes” may differ from the sum of “female” and “male” because of rounding to whole numbers

Figure 2. Common cancers causing death in females and males, 1994-2001



TIME TRENDS IN CANCER CASES

The number of newly diagnosed cancer cases increased by 2.3% annually between 1994 and 2001, 2.6% for women and 2.0% for men. The number of invasive cancers increased at a slower rate, 1.9% for women and 1.6% for men. The trends in case numbers shown in Table 3 and in Figure 3 were all statistically significant (p<.001). Age-standardised incidence rates increased at a much slower rate than case numbers, and none of the small increases in rate shown were significant, with the exception of the 1% annual increase in all cancers combined in women (Table 2, Figures 3 and 4), which is mainly attributable to the increase in breast cancer numbers.

Table 3. Annual number of cases and age-standardized incidence rates (EASR), 1994-2001

	all cancers				invasive			
	female		male		female		male	
	cases	EASR	cases	EASR	cases	EASR	cases	EASR
1994	9785	545	9505	627	8163	453	9058	598
1995	9605	529	9427	614	8067	443	8965	584
1996	10212	554	9727	628	8387	454	9188	593
1997	10501	562	9942	630	8617	461	9334	592
1998	10426	545	9888	616	8587	448	9281	579
1999	10642	552	10101	622	8655	449	9465	583
2000	11268	573	10678	648	9110	464	9924	603
2001	11632	582	10841	644	9252	464	10062	598
annual percentage change in numbers/rates	2.6%	1.0%	2.0%	0.5%	1.9%	0.4%	1.6%	0.1%

EASR: age-standardised incidence rate (European standard population). See page 27, "Methods and definitions".

Figure 3. Number of new cancers per year

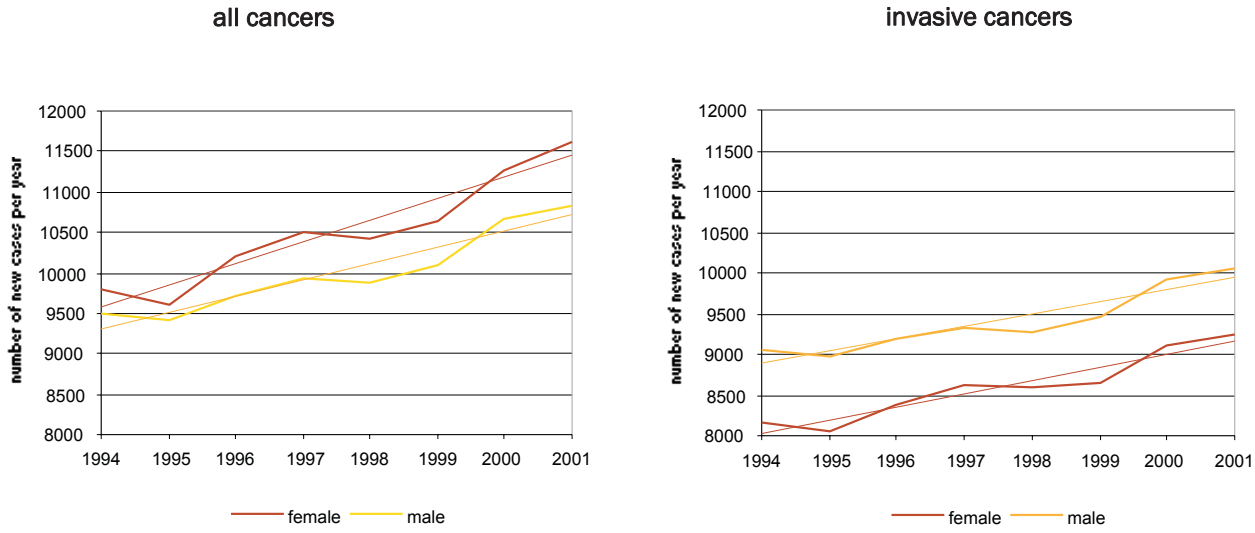
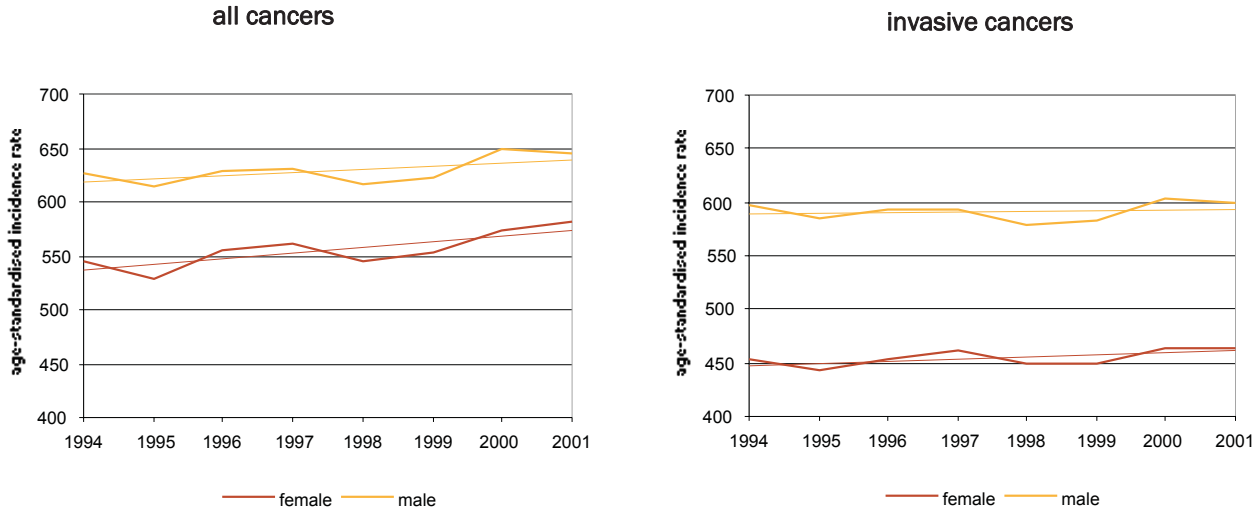


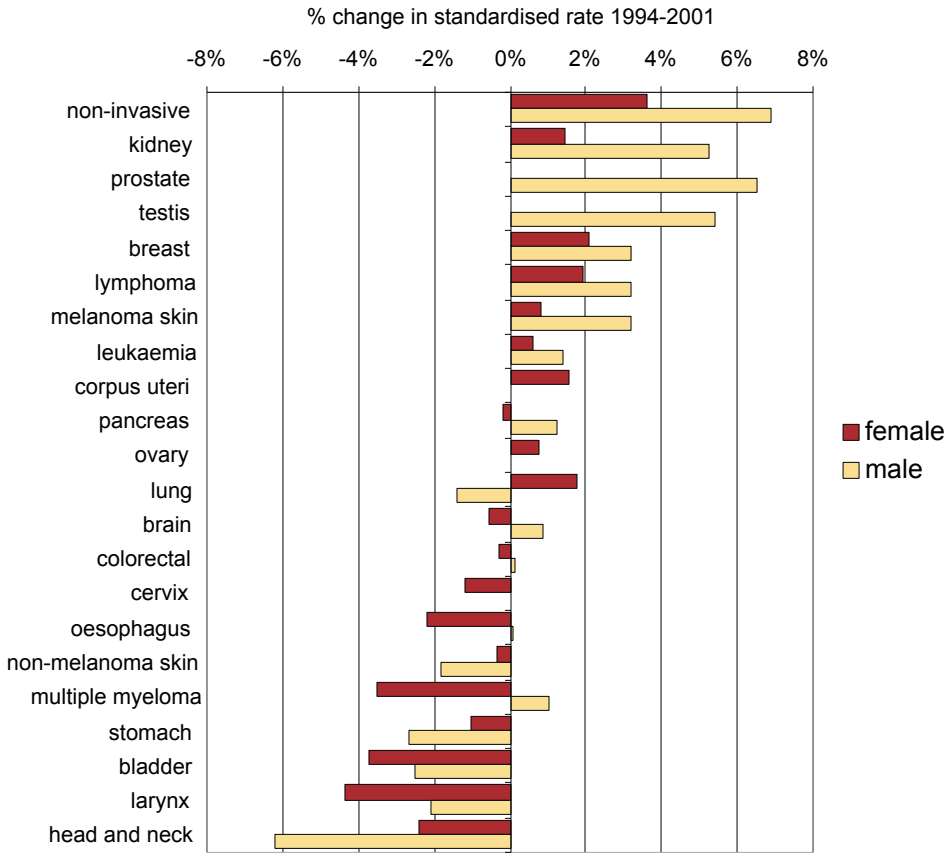
Figure 4. Age-standardised incidence rates by year



The comparatively small overall change in incidence rates conceals much larger changes in rates for some individual cancers (Figure 5). In men, significant increases (over 5% per annum) were seen for non-invasive cancers, cancers of the kidney, testis and prostate; a 3% increase in lymphoma incidence was also statistically significant. Increases in rate were mostly lower for women, with significant increases in non-invasive cancers (3.6%) and in cancer of the breast (2.1%) and lung (1.8%).

The largest decrease in rate was in cancer of the head and neck in men (6.8%). Other significant decreases in incidence rate were, for men, cancers of the bladder (2.5%), stomach (2.6%), lung (1.4%) and non-melanoma skin (1.8%), while for women there was a significant decrease only in cancer of the stomach (1.0%). Although large decreases are shown in the incidence rates for cancers of head and neck, multiple myeloma and oesophageal cancer in women, as well as for laryngeal cancer in both sexes, these changes were not statistically significant.

Figure 5. Annual percentage change in age-standardised rates 1994—2001



TIME TRENDS IN CANCER DEATHS

The number of cancer deaths increased by 0.9% annually between 1994 and 2001 for women and by 0.3% annually for men (Table 3 and Figure 6). Age-standardised death rates declined significantly for both women (0.7% per year) and men (1.1% per year) (Table 3, Figure 7). All of these trends were statistically significant (p<.001).

As with the overall cancer mortality rate, mortality for the majority of individual cancers also fell (Figure 8). The main exceptions to this were leukaemia, lymphoma, cancers of liver and gallbladder and melanoma, which increased by between 1.5% and 3.5% per year. Deaths from cancer of the kidney increased by an annual average of 4.7% in men, but the rates were unchanged in women. The largest decreases in mortality rates were in deaths from cancers of the breast in men, larynx in women and cancer of the stomach in both sexes. In general, the cancers with the largest decrease in mortality were also those with the largest decrease in incidence, with the notable exception of breast cancer.

Table 3. Annual number of deaths and age-standardized incidence rates (EASR), 1994-2001

	female		male	
	deaths	EASR	deaths	EASR
1994	3453	183	3980	263
1995	3435	179	4109	268
1996	3425	174	4006	258
1997	3541	180	4023	257
1998	3490	173	4059	254
1999	3534	173	4111	254
2000	3647	177	4132	251
2001	3652	172	4074	244
annual percentage change in numbers/rates	0.9%	-0.7%	0.3%	-1.1%

EASR: age-standardised mortality rate (European standard population). See page 27, "Methods and definitions".

Figure 6. Number of cancer deaths per year, 1994-2001

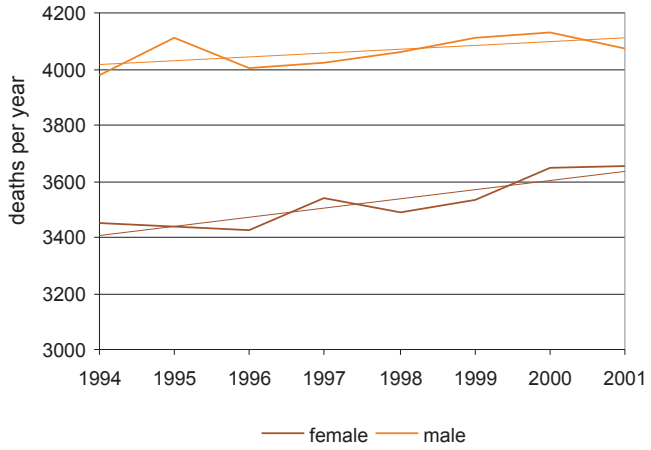


Figure 7. Age-standardised cancer mortality rate, 1994-2001

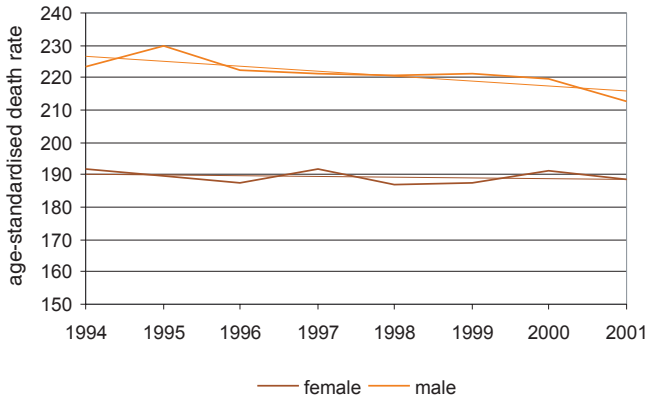
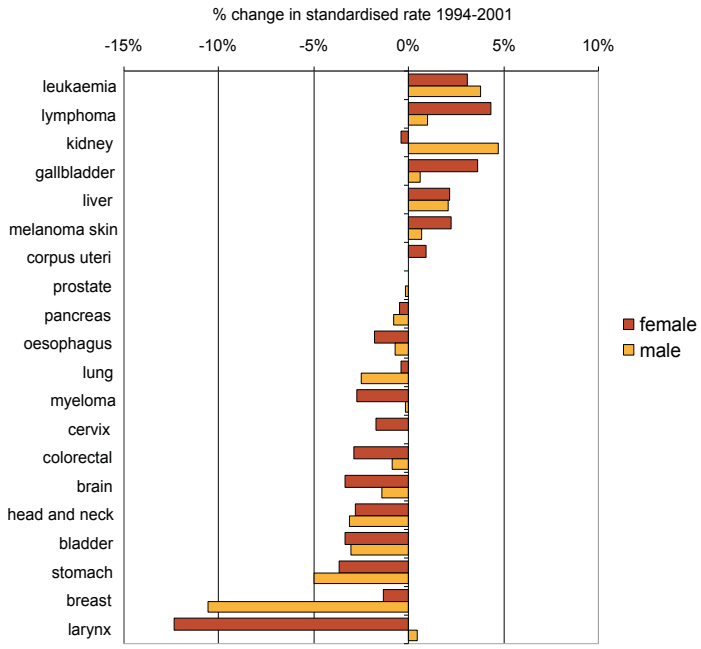


Figure 8. Annual percentage change in age-standardised death rates 1994–2001



GEOGRAPHICAL VARIATION IN CANCER CASES

For many of the common cancers, there was some variation in incidence rate with county of residence. However, almost all of this variation was due to relatively small, random differences in numbers of cases and was rarely significant at the level of the individual county. Figures 9 to 13 show information for the five commonest cancers—colorectal, lung, breast, prostate and non-melanoma cancers of the skin.

This type of comparison needs to be interpreted with care. Rates for counties with large populations are more likely to be statistically significant, even if the difference from the national rates is small. The large number of counties examined makes it likely that, just by chance, a county will have a cancer rate significantly different from the average, even though the underlying cancer risk is no different from the rest of the country. Finally, the high population and generally high incidence rates in Dublin tend to dominate the national average data, so to some extent statistical testing is testing for differences between each county and Dublin.

A significantly increased incidence of colorectal cancer in women was seen in counties Cork, and Donegal and in men in Cork and Dublin (Figure 9). Lung cancer incidence was significantly elevated for women in Dublin, and for men in Dublin, Kildare and Louth (Figure 10).

Figure 9. Standardised incidence ratio by county of residence: colorectal cancer

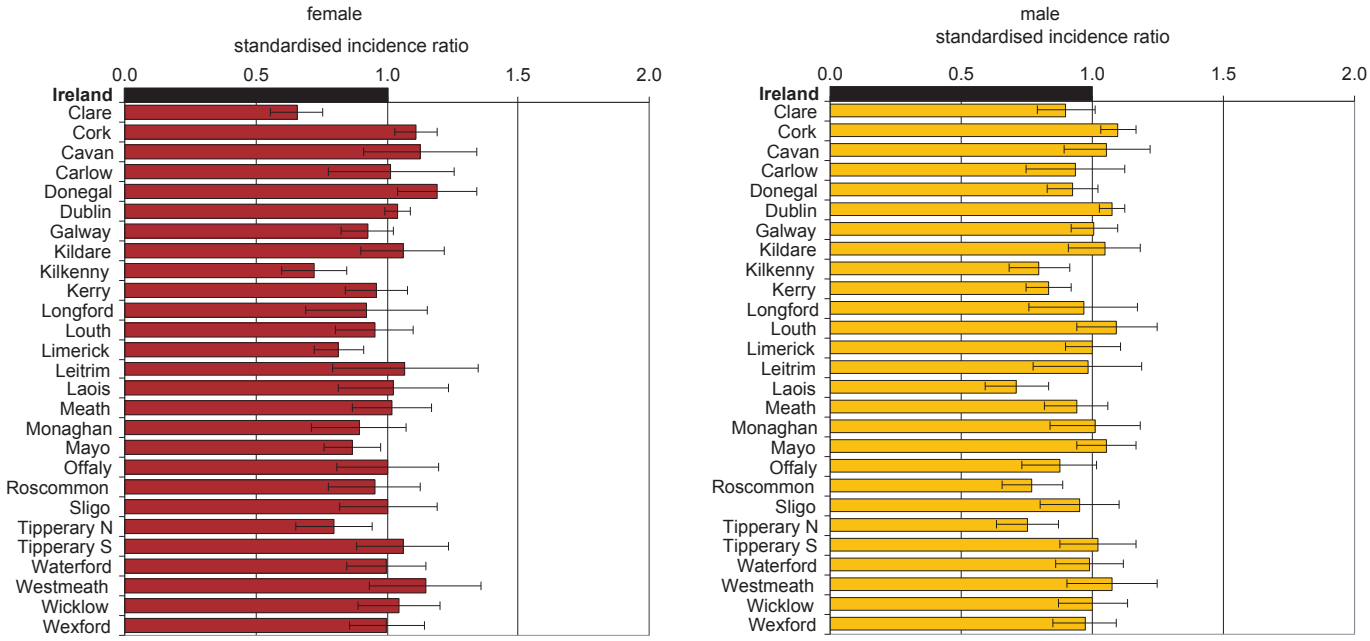
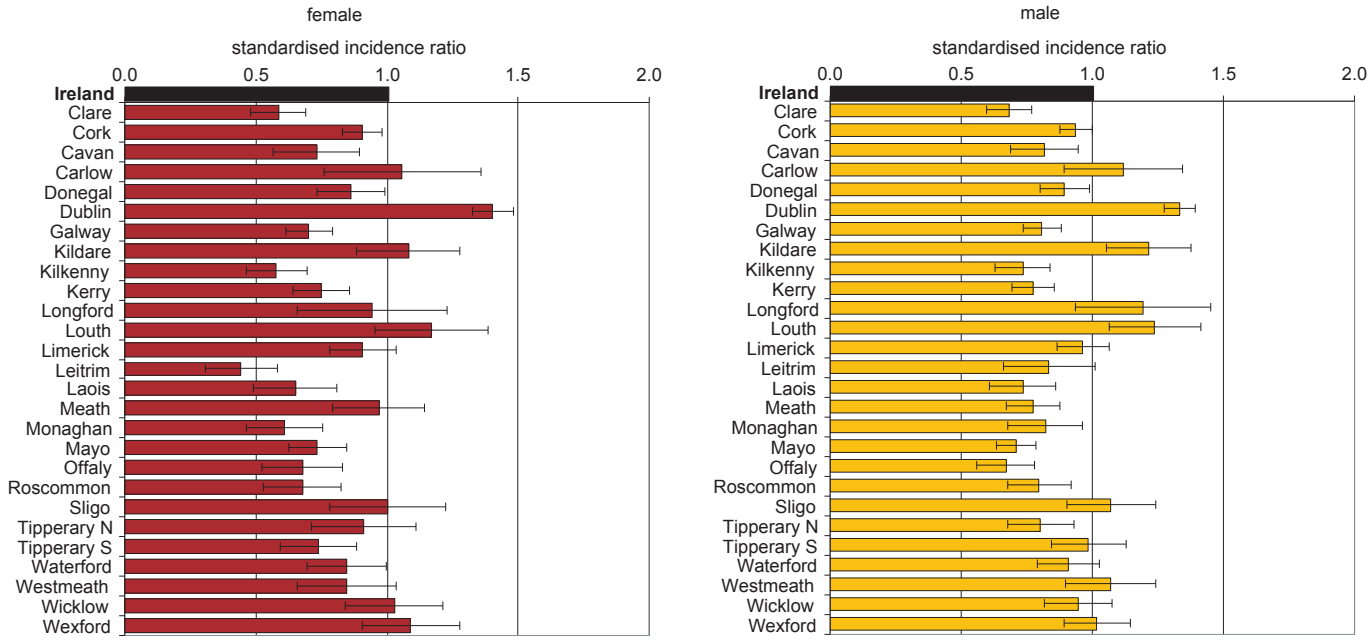


Figure 10. Standardised incidence ratio by county: lung cancer



Breast cancer incidence in women was significantly raised in Dublin and Westmeath (Figure 11), while prostate cancer rates were elevated in Cork, Carlow, Dublin and Wicklow (Figure 12). For non-melanoma skin cancers, rates were higher than expected for women in Dublin, Kerry and Louth and for men in Cork, Dublin, Kerry, Louth, Meath and Westmeath (Figure 13).

Using the SatScan statistical programme[1] , which averages incidence over wider areas, geographical variation in cancer incidence can be identified more objectively than by examining each county individually (Figure 14). **It is important to note that the high and low rates shown in Figure 14 apply to the full area on average and may not apply to every county within the area.**

Figure 11. Standardised incidence ratio by county of residence: female breast cancer

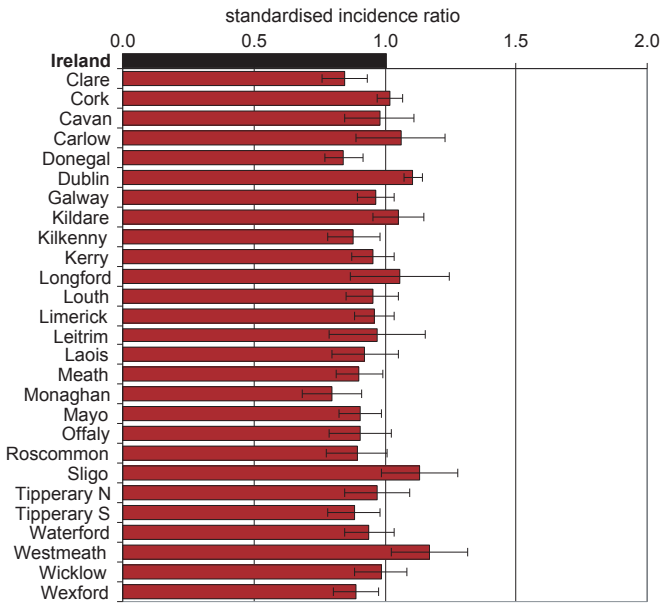


Figure 12. Standardised incidence ratio by county of residence: prostate cancer

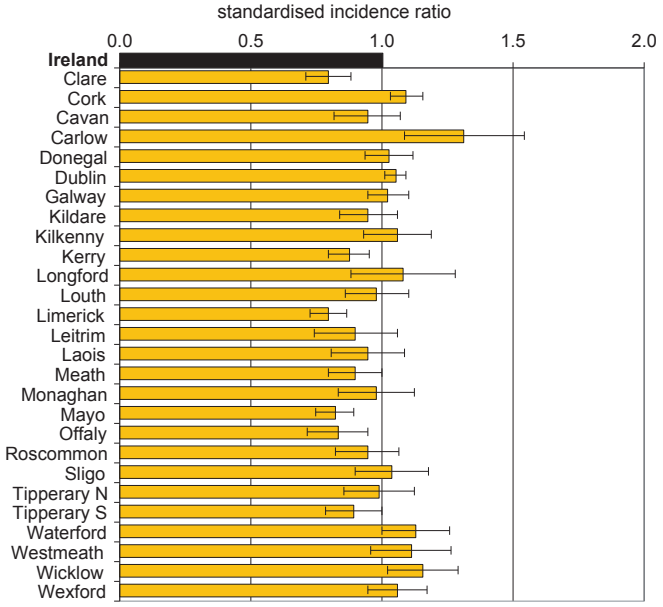
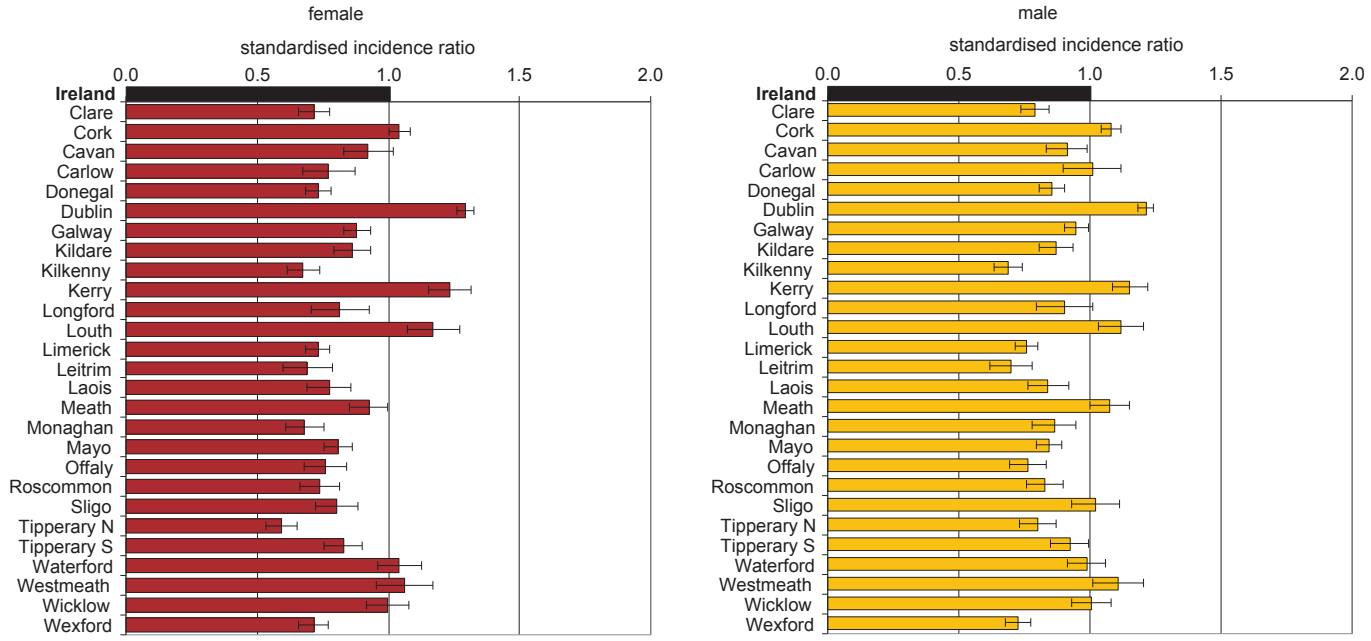


Figure 13. Standardised incidence ratio by county: non-melanoma skin cancer

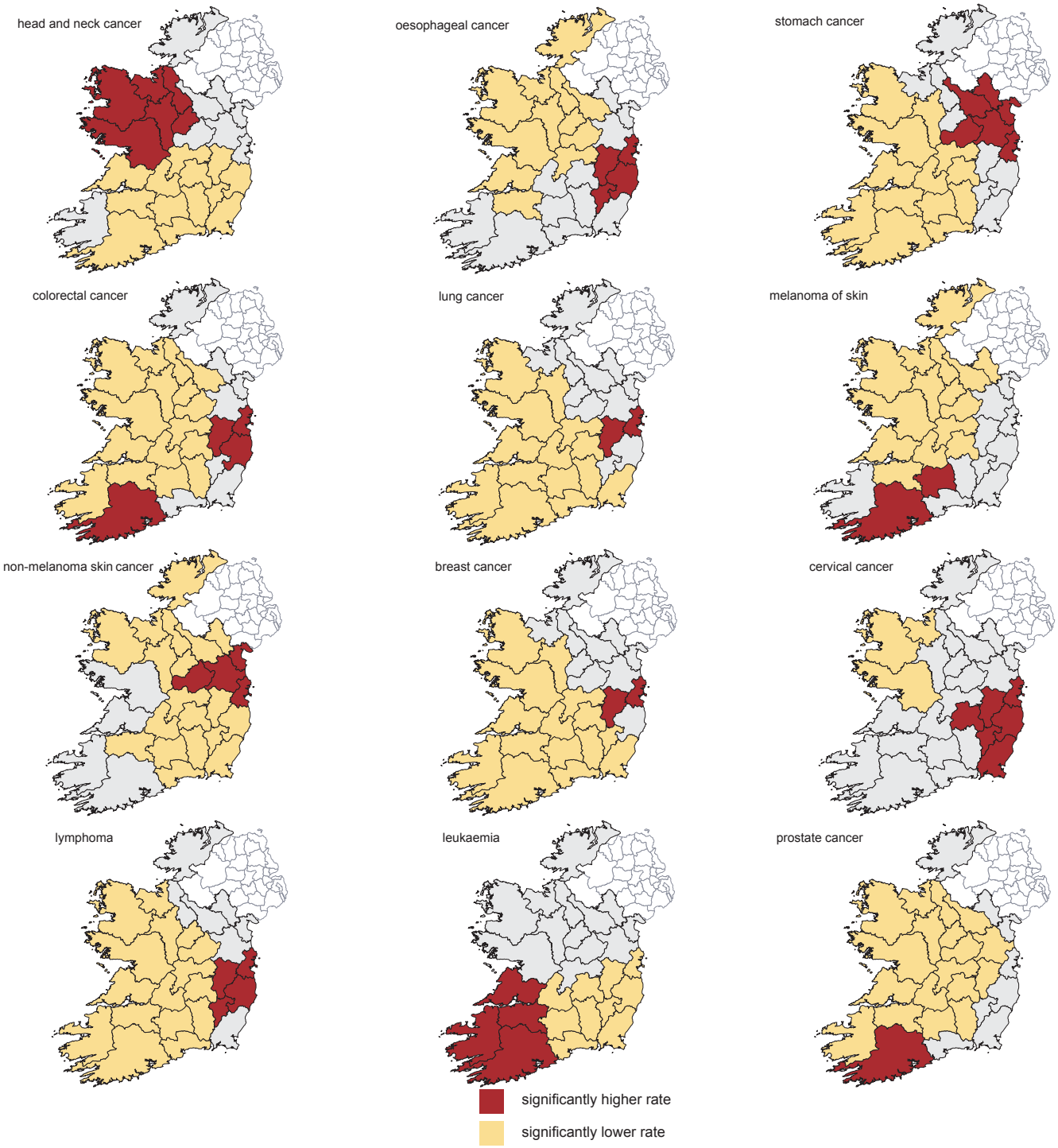


1. Kulldorff M. and Information Management Services, Inc. SaTScanTM v5.1: Software for the spatial and space-time scan statistics. http://www.satscan.org/, 2004. SaTScan™ is a trademark of Martin Kulldorff. The SaTScan™ software was developed under the joint auspices of Martin Kulldorff, of the National Cancer Institute and of Farzad Mostashari at the New York City Department of Health and Mental Hygiene

For the largest group of cancers—oesophageal, colorectal, lung, non-melanoma skin, breast and cervical cancer, and lymphoma—an area of high incidence was centred on Dublin, although with different patterns in the neighbouring counties. Colorectal cancer, leukaemia, melanoma of skin and prostate cancer had an area of high incidence in the southwest, stomach cancer in the northeast, cervical cancer in the southeast and head and neck cancer in the west.

Some of the cancers with high incidence around Dublin are smoking related—oesophagus, lung and cervix—while the higher incidence of breast cancer in this region is probably attributable to the BreastCheck screening programme. For head and neck cancer, known associations between the commonest subtype, cancer of the lip, and agricultural populations may explain the high incidence in the west. The high incidence of prostate cancer and leukaemia in the southwest may be due to differences in diagnostic practices rather than underlying differences in incidence. The reasons for the other geographical patterns are not clear.

Figure 14. Areas with standardised[1] incidence rate significantly different from average



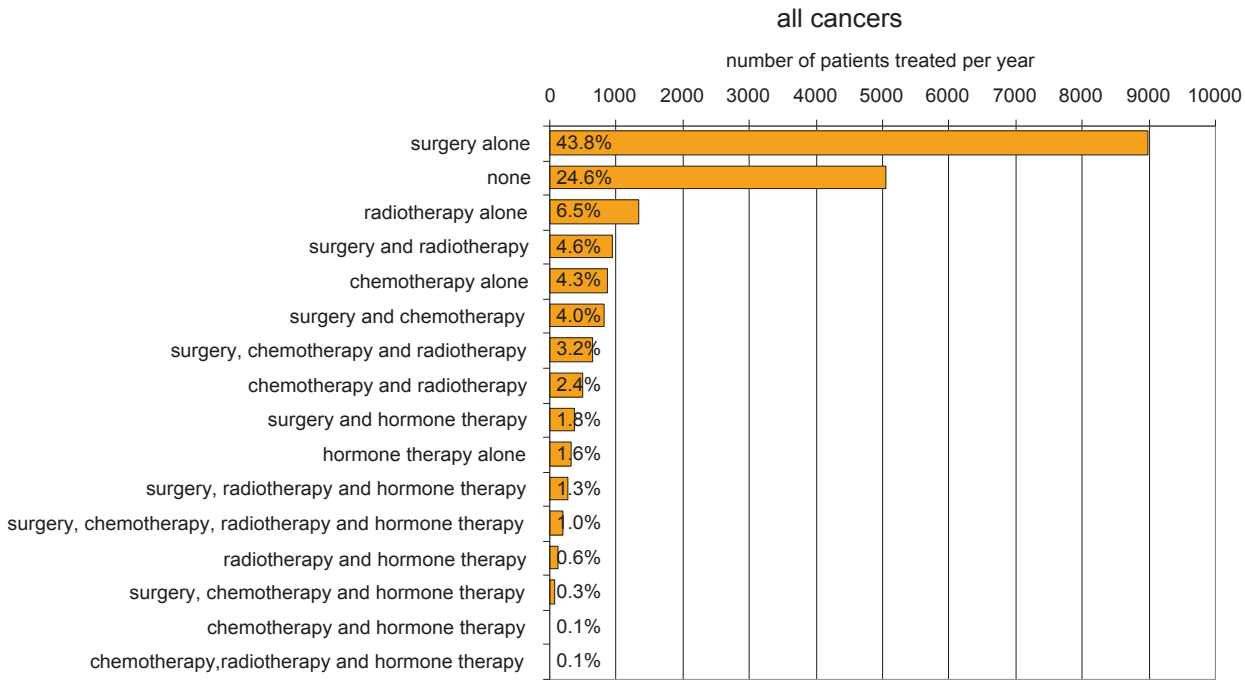
1. Age– and sex-standardised incidence rates (European standard population). See "Methods and definitions" page 27.

TREATMENTS

The Registry collects information on treatments administered in the period immediately after diagnosis, but not for later recurrence of disease. "Treatment" is defined as that aimed at removing the cancer, or reducing its bulk, and does not include treatment for symptom relief. For all cancer sites combined, surgery alone was by far the commonest treatment (Figure 15), followed by radiotherapy alone (6%). Almost a quarter of patients had no cancer-directed treatment.

Combination therapies were much less common than single-modality treatments. Of the patients treated, 74% had one treatment type only, and 26% had combination therapy.

Figure 15. Treatments given, 1994-2001



For the commoner cancers, treatment rates varied widely by site. Overall, 60% of patients had surgery (either on its own or as part of combination therapy), but while over 80% of patients with melanoma, cancer of the uterus, non-melanoma skin cancer and breast cancer had surgery, this was true for fewer than 20% of those with lymphoma or with cancers of lung or pancreas (Figure 16). Low surgery rates were also noted for leukaemia and myeloma, but surgery would rarely be an appropriate treatment for these cancers.

Radiotherapy rates were lower than those for surgery; 20% of patients had radiotherapy, ranging from over 50% of patients with cancers of the head and neck, cervix and breast to fewer than 10% of those with leukaemia, cancers of the skin, stomach, pancreas and ovary (Figure 17). Chemotherapy rates were slightly lower than those for radiotherapy; 15% of patients

Figure 16. Percentage of patients having surgery; by cancer site

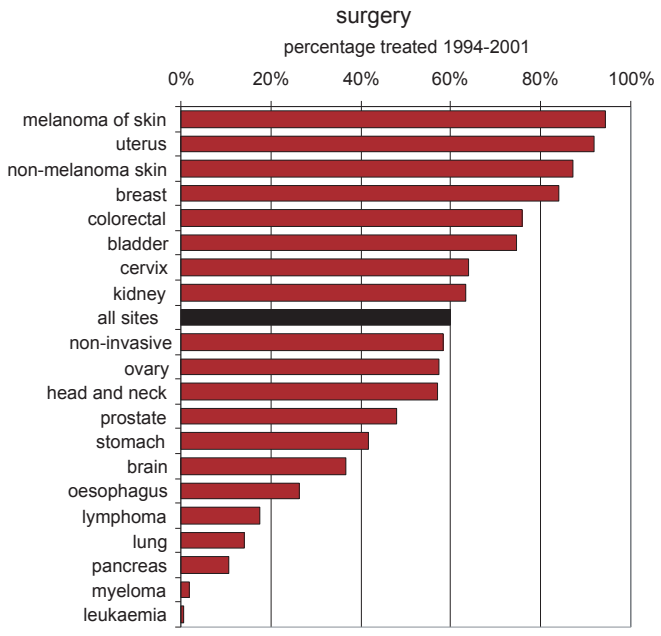
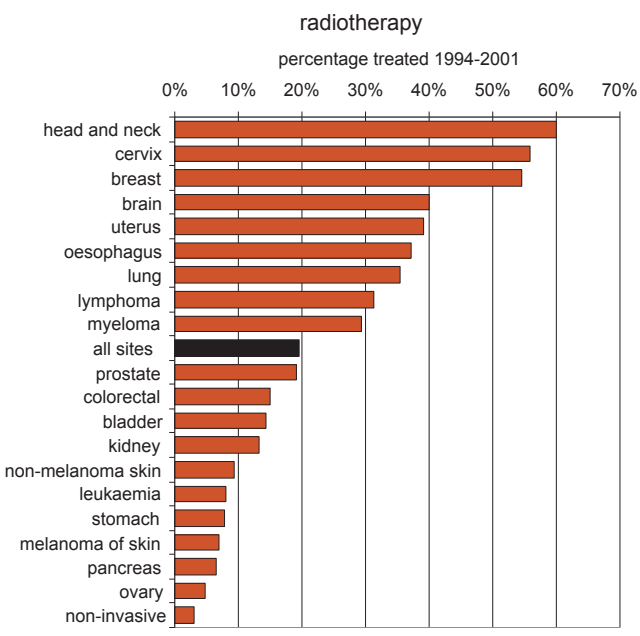
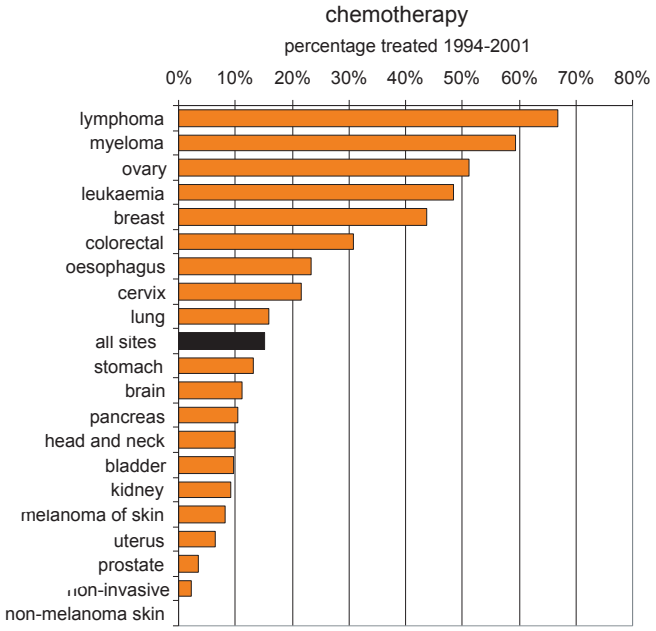


Figure 17. Percentage of patients having radiotherapy; by cancer site



had chemotherapy, ranging from over 50% of those with lymphoma, myeloma and cancer of the ovary to fewer than 10% with cancers of the head and neck, bladder, kidney, skin, uterus and prostate (Figure 18). Hormone therapy was given in significant numbers for breast cancer (52%) and prostate cancer (39%) only (Figure 19).

Figure 18. Percentage of patients having chemotherapy; by cancer site



Looking in more detail at the four commonest cancers (colorectal, lung, breast and prostate), surgery alone was the commonest modality for colorectal (Figure 20) and prostate cancer (Figure 23). However, combination therapies were more widely used for prostate cancer than for colorectal. Combination therapies were also common for breast cancer, the commonest treatment being the combination of surgery, chemotherapy and radiotherapy (Figure 22). The largest percentage of lung cancer patients (almost half) had no specific therapy (Figure 21) and the commonest treatment was the combination of surgery and radiotherapy .

Figure 19. Percentage of patients having hormone therapy; by cancer site

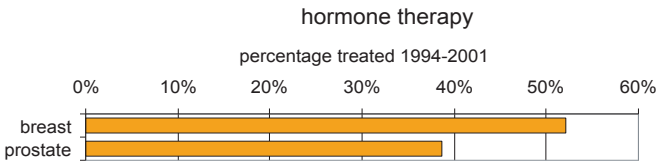


Figure 20. Treatment combinations for colorectal cancer

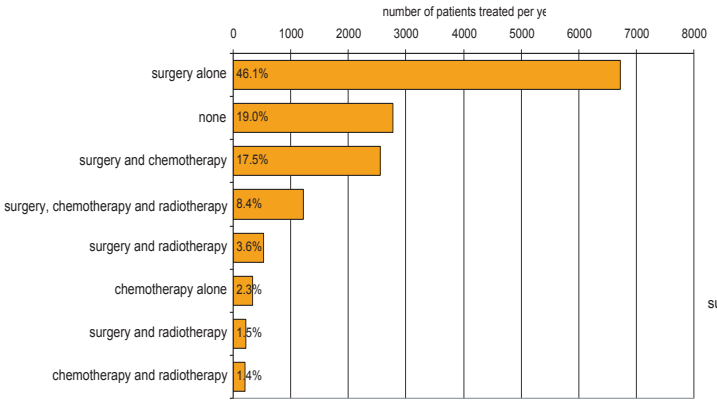


Figure 21. Treatment combinations for lung cancer

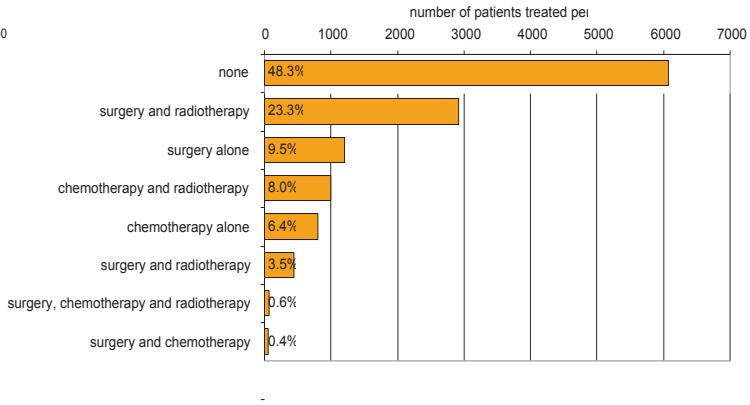


Figure 22. Treatment combinations for breast cancer

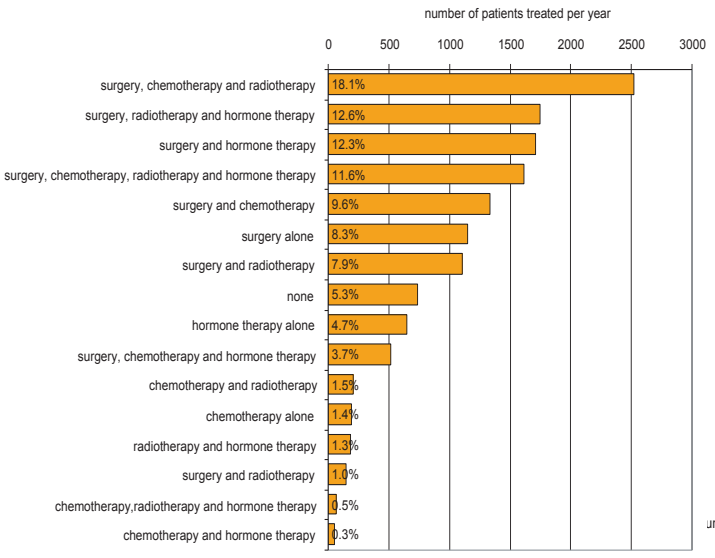
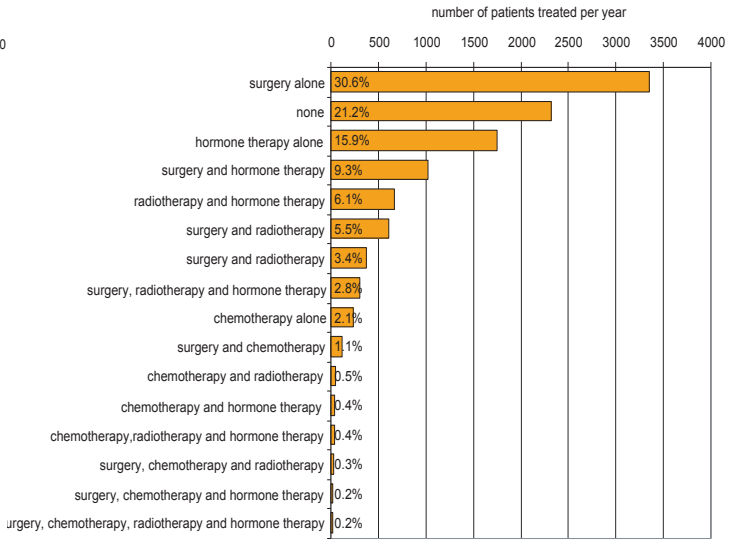


Figure 23. Treatment combinations for prostate cancer



AGE AND TREATMENT RATES

For almost every cancer site and treatment modality, treatment rates fell with increasing age at diagnosis. Lung cancer patients aged 70-79 were only half as likely to have surgery as those aged 50-59 (Figure 24). The ratio was higher for colorectal (91%), breast (81%) and prostate cancer (77%). Radiotherapy rates fell off even more rapidly with age, although for lung and prostate cancers they were also lower for patients under 50 (Figure 25). Patients aged 70-79 with colorectal cancer had radiotherapy rates only 43% of those aged 50-59. A similar picture was seen for chemotherapy, where rates in the 70-79 year age group were only 33-35% those of the 50-59 year age group (Figure 26). Prostate cancer, where chemotherapy rates were very low at all ages, was an exception to this trend, with no clear decrease in treatment rate by age. In contrast to the other main treatment modalities, hormone therapy became more frequent with age (Figure 27).

Figure 24. Surgery rates and age at diagnosis

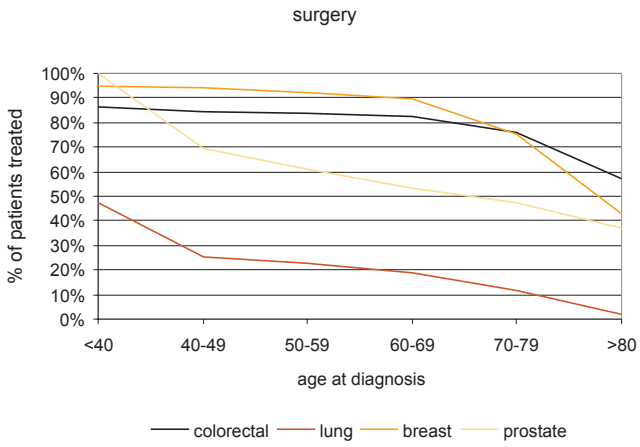


Figure 25. Radiotherapy rates and age at diagnosis

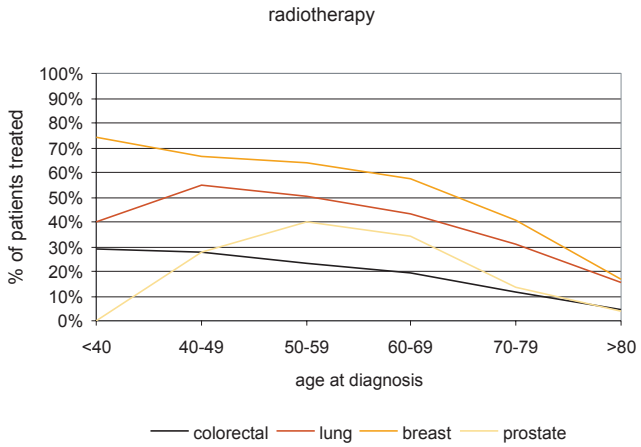


Figure 26. Chemotherapy rates and age at diagnosis

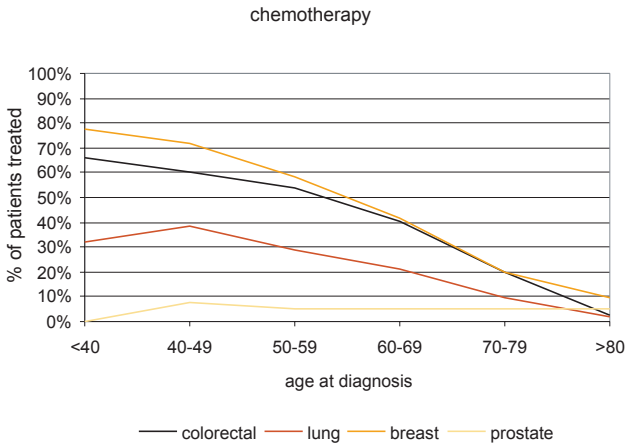
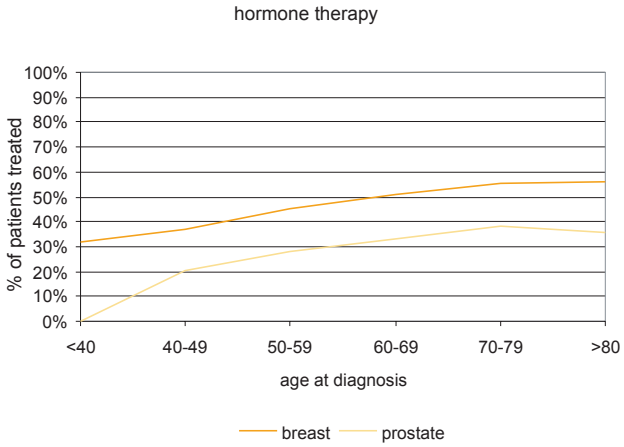


Figure 27. Hormone therapy rates and age at diagnosis



TIME TRENDS IN TREATMENT RATES

While overall surgery rates rose only slightly between 1994 and 2001, there were much larger increases for lymphoma and non-invasive cancers (although the rate of surgery for these cancers was low), and also for cancers of ovary, pancreas and bladder, while surgery rates fell for cancers of stomach, prostate, lung and oesophagus (Figure 28).

Radiotherapy rates rose rapidly for cancers of pancreas, stomach, prostate and oesophagus, while falling for non-invasive cancers, cancers of ovary and non-melanoma cancer of the skin (Figure 29). For chemotherapy (for the period 1996-2001) the most rapid increases in rate were for cancer of the cervix, which increased from 7% to 43% of cases, an annual increase of 50% (Figure 30). Other cancers with major increases in chemotherapy rates were cancers of head and neck, uterus, stomach and pancreas. Chemotherapy rates fell for only a small number of common cancers—melanoma and non-melanoma cancers of skin, myeloma, leukaemia and cancer of the ovary.

Figure 28. Annual percentage change in surgery rates

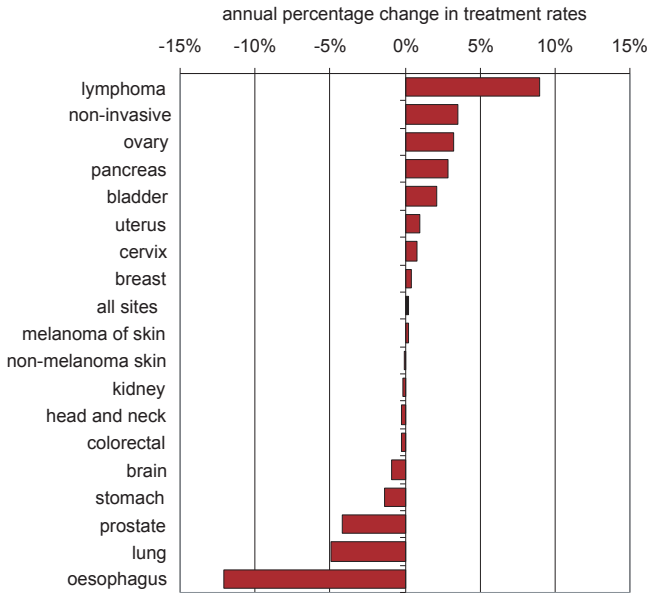


Figure 29. Annual percentage change in radiotherapy rates

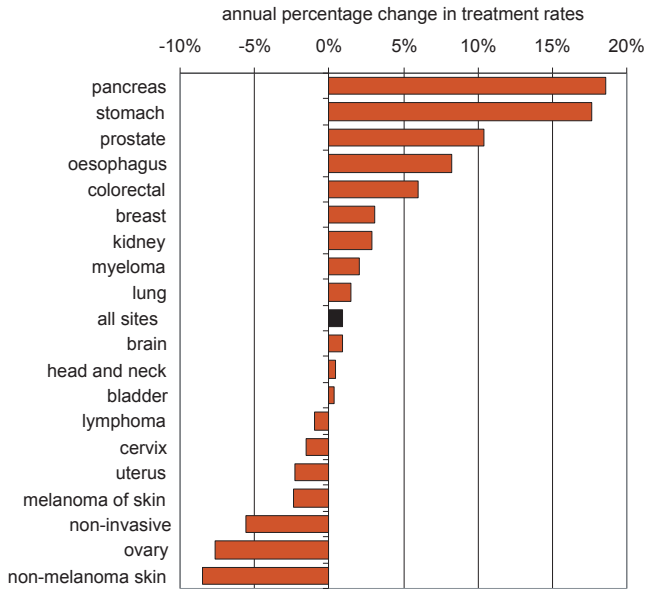
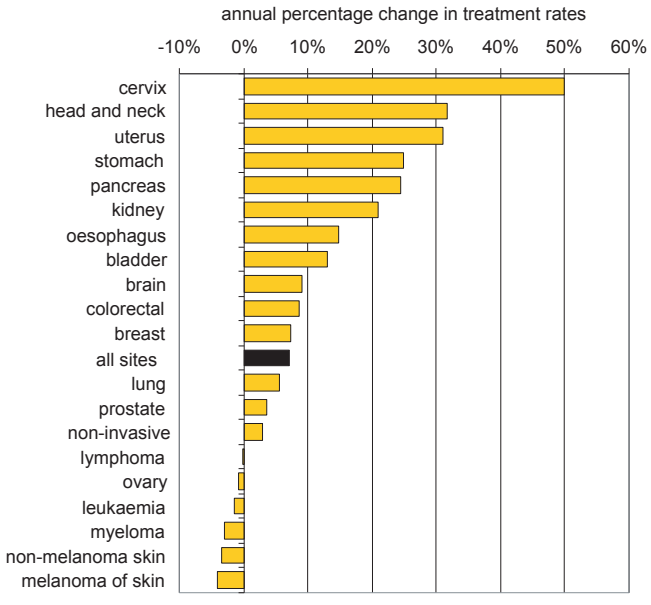


Figure 30. Annual percentage change in chemotherapy rates



For all cancers combined, surgery rates did not change significantly between 1994 and 2001, with an annual percentage increase of only 0.6% (Figure 31). Overall radiotherapy rates rose only slightly more (annual percentage increase of 0.9%). In 1994 and part of 1995, the Registry classified chemotherapy and hormone therapy together and therefore trends for these modalities are shown only from 1996 onwards for breast and prostate cancer. From 1996 to 2001, chemotherapy rates rose more rapidly than for any other treatment modality, from 13% to 18% of cases, an annual increase of 7% per year while hormone therapy rates increased by 1.3% annually.

While rates of surgery for colorectal cancer fell slightly, chemotherapy, and to a lesser extent, radiotherapy, increased in rate steadily from 1994 (Figure 32). The rate of radiotherapy for lung cancer peaked at 40% of cases in 1998. Surgery rates for lung cancer showed a steady decline while chemotherapy rates showed an almost identical rate of increase (Figure 33). Surgery rates for breast cancer remained constant while the radiotherapy rate increased between 1994 and 1999 and has remained steady since then. Chemotherapy rates for breast cancer have increased rapidly while hormone therapy has shown a matching decrease since 1996 (Figure 34). The rate of surgery for prostate cancer began to decline in 1997, and radiotherapy has been increasing in frequency since about the same time (Figure 35).

Figure 31. Time trends in treatment for all cancers combined

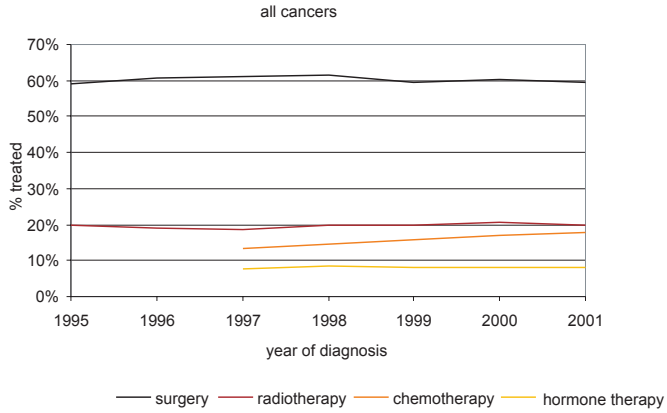


Figure 32. Time trends in colorectal cancer treatment

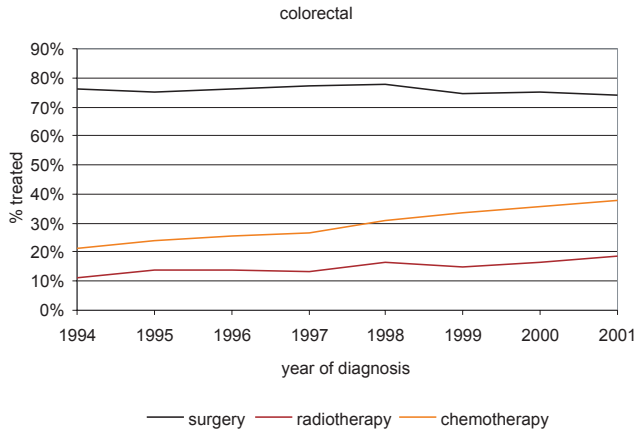


Figure 33. Time trends in lung cancer treatment

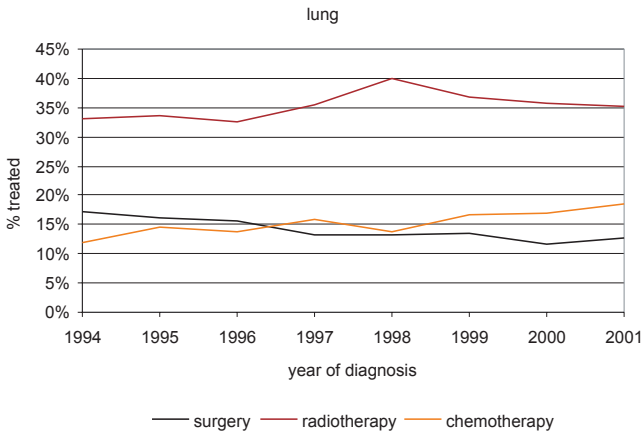


Figure 34. Time trends in breast cancer treatment

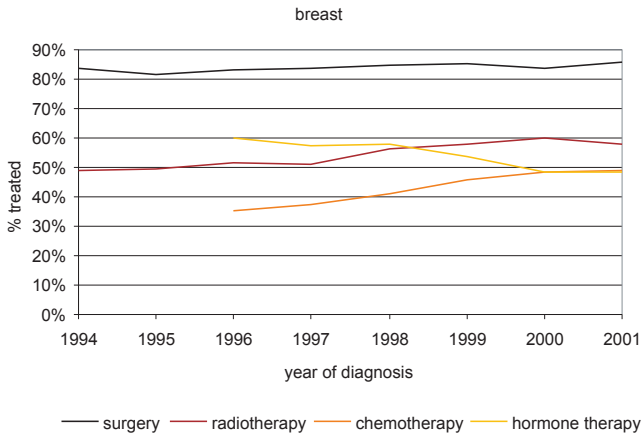
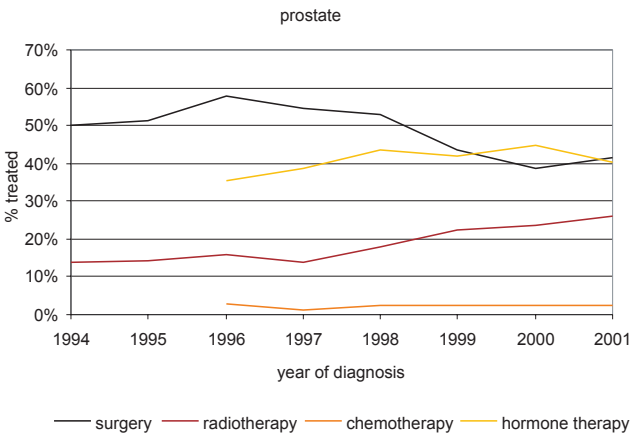


Figure 35. Time trends in prostate cancer treatment



GEOGRAPHICAL VARIATION IN TREATMENT RATES

As with incidence rates, assessment of treatment rates by county of residence is not very useful, and the SatScan[1] method has been used to identify areas where treatment rates seemed to be significantly above or below average. The maps in Figure 36 show the results of the SatScan analysis for treatments of the four commonest cancers types—colorectal, lung, breast and prostate. **It is important to note that the high and low rates apply to the full area on average and may not apply to every county individually.** The treatment rates shown below have not been adjusted for age. As has already been shown, rate of treatment are generally much lower for older populations, and differences between areas in the average age of cancer patients may be one important explanation for the differences shown below.

Surgery rates for all four cancer types tended to be higher in in the east; around Dublin for lung and breast cancers, in the east and northeast for colorectal cancer, and in the east and southeast for prostate cancer. Areas with low surgery rates were in the west/northwest for lung and prostate cancers, in the southeast for breast cancer and a broad area in the centre and south for colorectal. The variation between areas was small for colorectal cancer (97-106%) and breast cancer (97-102%), but was much greater for lung cancer (73%-121%) and prostate cancer (70-120%).

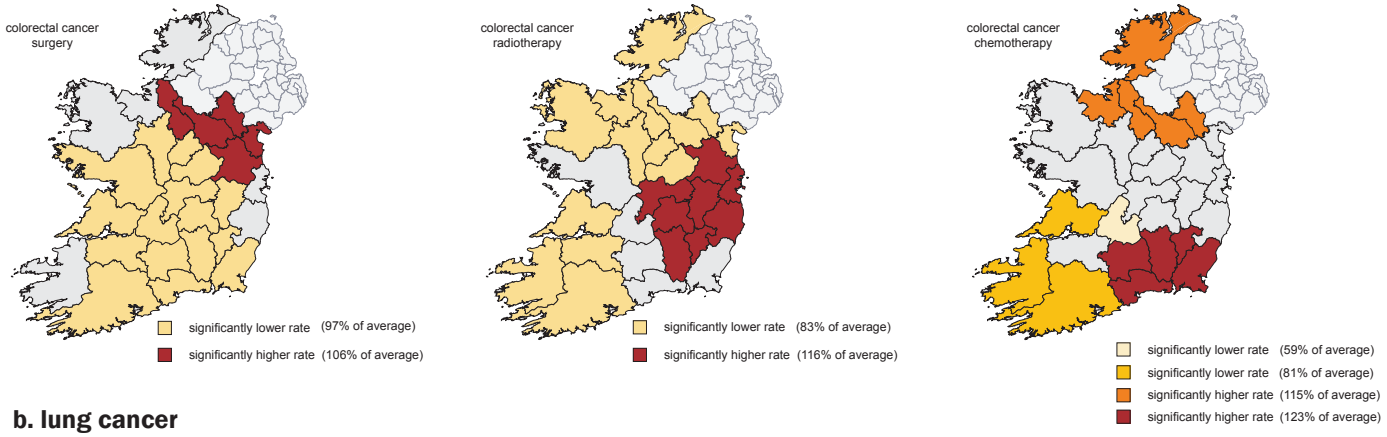
For lung and breast cancer, the areas with high radiotherapy rates were similar to those with high surgery rates (around Dublin), and the areas with low rates were in the northwest and west, with another area of low rate for lung cancer in the southeast. Radiotherapy rates for colorectal cancer were also high in the area around Dublin, with areas of low rate in the southwest and northwest. Areas of low radiotherapy use for prostate cancer were seen in the Midwest and in Cavan/Monaghan, but no areas of significantly high use were identified. The range of variation between low and high rates was typically from about 80% for the areas with lowest rates to 110-120% for those with the highest.

Rates of chemotherapy were more variable than for surgery or radiotherapy. The highest rates of chemotherapy for colorectal cancers were in the northwest (115% of average) and the southeast (123% of average), with low rates in the southwest. Lung cancer chemotherapy rates were highest around Dublin, similarly to surgery and radiotherapy rates, while low rates of treatment (61% of average) were seen in a broad area in the north, midland and part of the west. High rates of chemotherapy for breast cancer were not identified, but low rates were seen in the mid-west (79% of average). Although variation in chemotherapy rates for prostate cancer was seen, with rates almost twice the national average in the west, the overall rate of chemotherapy for prostate cancer was only 2%.

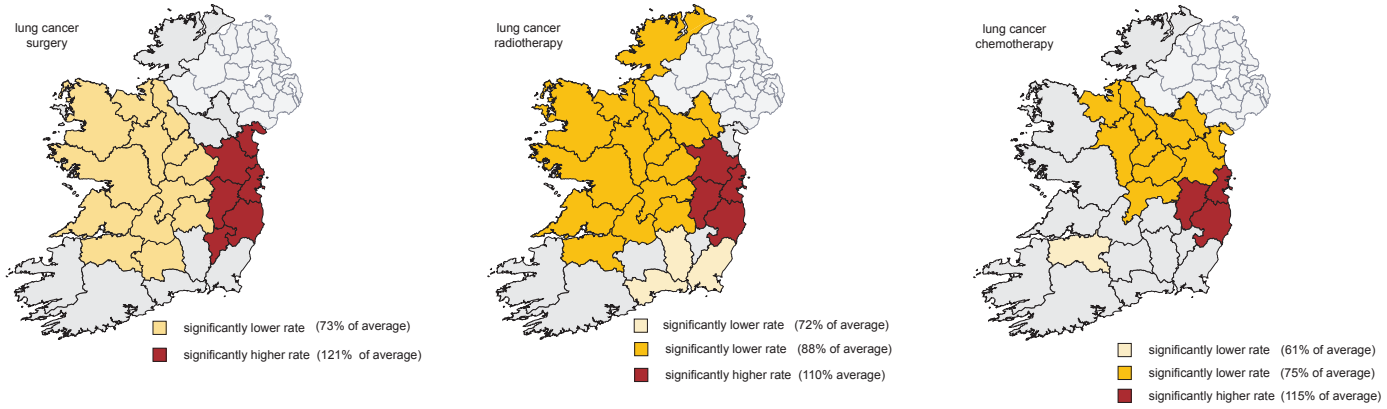
Hormone treatment for breast cancer was commonest in Galway (126% of the national average) and low around Dublin, while hormone treatment for prostate cancer was twice the national average in Donegal and 11% above the average in a broad area of the west, southwest and midlands. As with breast cancer, the lowest rates of hormone treatment were around Dublin.

Figure 36. Geographical variation in treatment, by cancer site

a. colorectal cancer



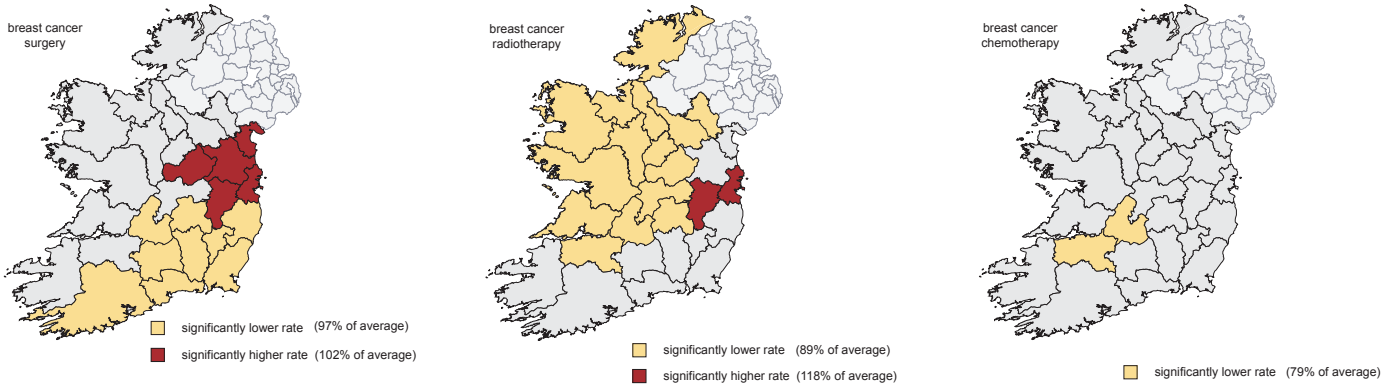
b. lung cancer



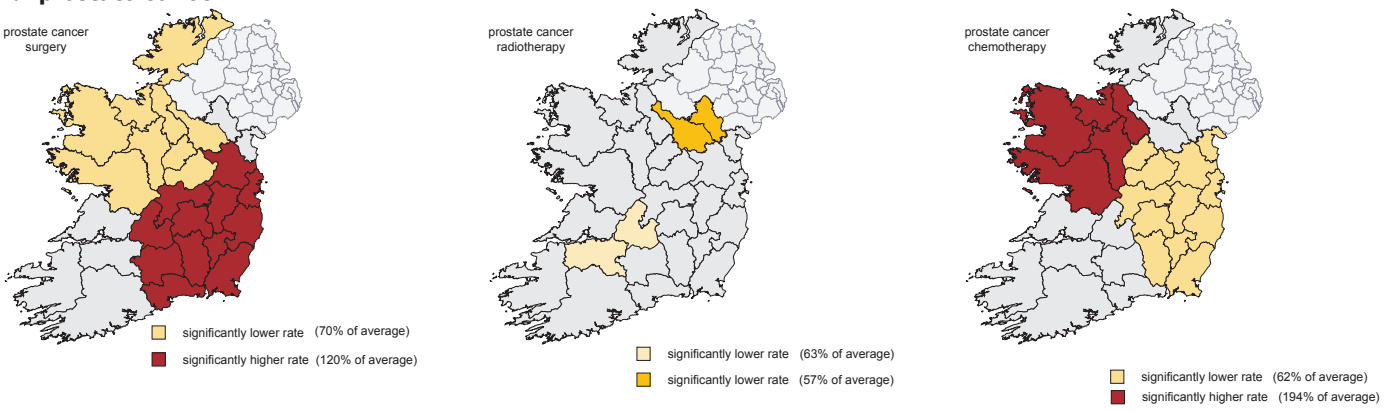
1. See note on page 7

Figure 36 (continued). Geographical variation in treatment, by cancer site

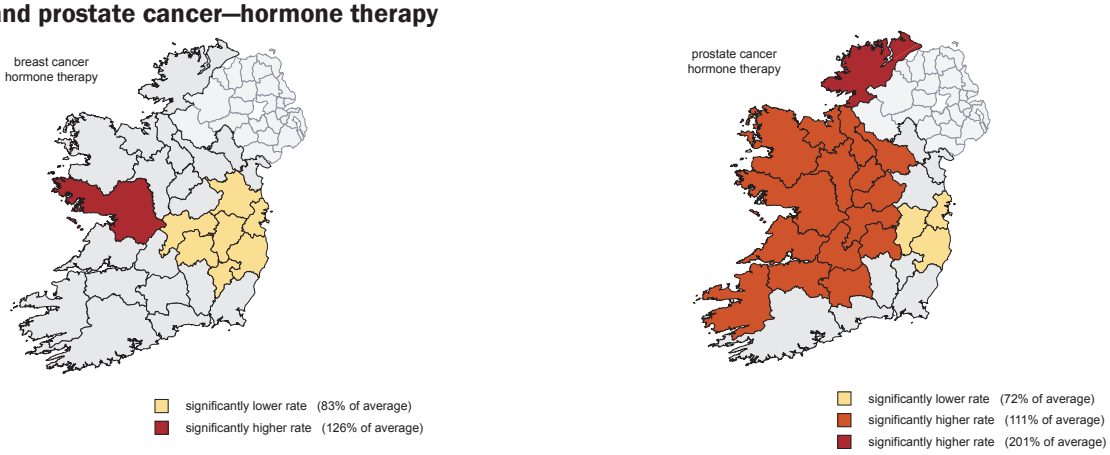
c. breast cancer



d. prostate cancer



e. breast and prostate cancer—hormone therapy



APPENDIX

Table A1. Number of cancer cases, annual average, crude and age-standardised rates and cumulative risk to age 75, 1994-2001

	cases 1994-2001			annual average			crude rate			EASR		risk 0-74	
	females	males	both	females	males	both	females	males	both	females	males	females	males
all cancers	*84071*	*80109*	*164180*	*10508.9*	*10013.6*	*20522.5*	*565.11*	*545.50*	*555.37*	*555.84*	*628.74*	*35.5%*	*38.8%*
lip	27	269	296	3.4	33.6	37.0	0.18	1.83	1.00	0.16	2.11	0.0%	0.2%
base of tongue	26	98	124	3.3	12.3	15.5	0.17	0.67	0.42	0.18	0.79	0.0%	0.1%
other tongue	93	215	308	11.6	26.9	38.5	0.63	1.46	1.04	0.62	1.75	0.1%	0.1%
gum	22	35	57	2.8	4.4	7.1	0.15	0.24	0.19	0.14	0.28	0.0%	0.0%
floor of mouth	47	154	201	5.9	19.3	25.1	0.32	1.05	0.68	0.32	1.24	0.0%	0.1%
palate	33	61	94	4.1	7.6	11.8	0.22	0.42	0.32	0.23	0.49	0.0%	0.0%
other mouth	58	102	160	7.3	12.8	20.0	0.39	0.69	0.54	0.37	0.82	0.0%	0.1%
parotid	55	112	167	6.9	14.0	20.9	0.37	0.76	0.56	0.35	0.88	0.0%	0.1%
other salivary	29	32	61	3.6	4.0	7.6	0.19	0.22	0.21	0.19	0.25	0.0%	0.0%
tonsil	34	114	148	4.3	14.3	18.5	0.23	0.78	0.50	0.26	0.94	0.0%	0.1%
oropharynx	14	60	74	1.8	7.5	9.3	0.09	0.41	0.25	0.10	0.49	0.0%	0.0%
nasopharynx	20	88	108	2.5	11.0	13.5	0.13	0.60	0.37	0.11	0.67	0.0%	0.1%
pyriform	36	142	178	4.5	17.8	22.3	0.24	0.97	0.60	0.24	1.16	0.0%	0.1%
hypopharynx	45	47	92	5.6	5.9	11.5	0.30	0.32	0.31	0.30	0.39	0.0%	0.0%
other mouth/pharynx	26	84	110	3.3	10.5	13.8	0.17	0.57	0.37	0.17	0.68	0.0%	0.1%
all head and neck	*565*	*1613*	*2178*	*70.6*	*201.6*	*272.3*	*3.44*	*10.92*	*7.16*	*3.75*	*12.93*	*0.3%*	*1.1%*
oesophagus	960	1479	2439	120.0	184.9	304.9	6.45	10.07	8.25	5.73	11.73	0.4%	0.9%
stomach	1478	2379	3857	184.8	297.4	482.1	9.93	16.20	13.05	8.95	18.74	0.7%	1.4%
small intestine	118	177	295	14.8	22.1	36.9	0.79	1.21	1.00	0.76	1.41	0.1%	0.1%
colon	4355	4803	9158	544.4	600.4	1144.8	29.27	32.71	30.98	27.46	37.81	2.1%	3.0%
rectosigmoid	433	676	1109	54.1	84.5	138.6	2.91	4.60	3.75	2.82	5.39	0.2%	0.4%
rectum	1444	2663	4107	180.5	332.9	513.4	9.71	18.13	13.89	9.37	21.11	0.8%	1.8%
anus	105	92	197	13.1	11.5	24.6	0.71	0.63	0.67	0.69	0.74	0.1%	0.1%
all colorectal	*6337*	*8234*	*14571*	*792.1*	*1029.3*	*1821.4*	*38.12*	*57.58*	*47.79*	*40.34*	*65.04*	*3.1%*	*5.2%*
liver	198	395	593	24.8	49.4	74.1	1.33	2.69	2.01	1.26	3.09	0.1%	0.3%
gallbladder	234	100	334	29.3	12.5	41.8	1.57	0.68	1.13	1.48	0.79	0.1%	0.1%
other biliary	276	304	580	34.5	38.0	72.5	1.86	2.07	1.96	1.66	2.43	0.1%	0.2%
pancreas	1397	1395	2792	174.6	174.4	349.0	9.39	9.50	9.44	8.39	11.04	0.6%	0.8%
other digestive	194	158	352	24.3	19.8	44.0	1.30	1.08	1.19	1.04	1.27	0.0%	0.1%
nasal cavity/middle ear	33	37	70	4.1	4.6	8.8	0.22	0.25	0.24	0.22	0.29	0.0%	0.0%
sinuses	37	58	95	4.6	7.3	11.9	0.25	0.39	0.32	0.22	0.46	0.0%	0.0%
larynx	149	742	891	18.6	92.8	111.4	1.00	5.05	3.01	1.04	5.97	0.1%	0.5%
trachea	16	17	33	2.0	2.1	4.1	0.11	0.12	0.11	0.11	0.13	0.0%	0.0%
lung	4500	8110	12610	562.5	1013.8	1576.3	30.25	55.22	42.66	28.65	63.87	2.4%	5.2%
thymus	13	22	35	1.6	2.8	4.4	0.09	0.15	0.12	0.10	0.18	0.0%	0.0%
mediastinum	36	70	106	4.5	8.8	13.3	0.24	0.48	0.36	0.22	0.55	0.0%	0.0%
other chest	7	7	14	0.9	0.9	1.8	0.05	0.05	0.05	0.04	0.05	0.0%	0.0%
bones, joints of limbs	67	88	155	8.4	11.0	19.4	0.45	0.60	0.52	0.42	0.56	0.0%	0.0%
bones, joints head and trunk	43	68	111	5.4	8.5	13.9	0.29	0.46	0.38	0.29	0.48	0.0%	0.0%
melanoma skin	1991	1220	3211	248.9	152.5	401.4	13.38	8.31	10.86	13.63	9.41	1.1%	0.7%
non-melanoma skin	19234	22323	41557	2404.3	2790.4	5194.6	129.29	152.01	140.57	122.06	176.49	9.0%	12.6%
mesothelioma	22	113	135	2.8	14.1	16.9	0.15	0.77	0.46	0.18	0.92	0.0%	0.1%
Kaposi's sarcoma	3	38	41	0.4	4.8	5.1	0.02	0.26	0.14	0.02	0.28	0.0%	0.0%
peripheral nerves	31	39	70	3.9	4.9	8.8	0.21	0.27	0.24	0.21	0.29	0.0%	0.0%
peritoneum	68	42	110	8.5	5.3	13.8	0.46	0.29	0.37	0.46	0.34	0.0%	0.0%
connective tissues	250	369	619	31.3	46.1	77.4	1.68	2.51	2.09	1.66	2.80	0.1%	0.2%
breast	13804	114	13918	1725.5	14.3	1739.8	92.79	0.78	47.08	100.18	0.90	7.9%	0.1%
vulva	270	—	270	33.8	—	33.8	1.81	—	0.91	1.62	—	0.1%	—
vagina	73	—	73	9.1	—	9.1	0.49	—	0.25	0.48	—	0.0%	—
cervix	1436	—	1436	179.5	—	179.5	9.65	—	4.86	10.30	—	0.8%	—
corpus uteri	1786	—	1786	223.3	—	223.3	12.01	—	6.04	13.05	—	1.1%	—
uterus unspecified	144	—	144	18.0	—	18.0	0.97	—	0.49	0.99	—	0.1%	—
other female genital	44	—	44	5.5	—	5.5	0.30	—	0.15	0.31	—	0.0%	—
placenta	3	—	3	0.4	—	0.4	0.02	—	0.01	0.02	—	0.0%	—
penis	—	172	172	—	21.5	21.5	—	1.17	0.58	—	1.36	—	0.1%
prostate	—	10969	10969	—	1371.1	1371.1	—	74.69	37.10	—	85.91	—	6.3%
testis	—	796	796	—	99.5	99.5	—	5.42	2.69	—	5.24	—	0.4%
other male genital	—	24	24	—	3.0	3.0	—	0.16	0.08	—	0.18	—	0.0%
kidney	759	1367	2126	94.9	170.9	265.8	5.10	9.31	7.19	5.15	10.90	0.4%	0.9%
renal pelvis	26	57	83	3.3	7.1	10.4	0.17	0.39	0.28	0.15	0.45	0.0%	0.0%

EASR: age-standardised incidence rate (European standard population).
Risk 0-74 : cumulative risk to age 75 See page 27, “Methods and definitions”

Table A1 (continued). Number of cancer cases, annual average, crude and age-standardised rates and cumulative risk to age 75, 1994-2001

	cases 1994-2001			annual average			crude rate			EASR		risk 0-74	
	females	males	both	females	males	both	females	males	both	females	males	females	males
ureter	32	55	87	4.0	6.9	10.9	0.22	0.37	0.29	0.21	0.44	0.0%	0.0%
bladder	1037	2665	3702	129.6	333.1	462.8	6.97	18.15	12.52	6.54	21.11	0.5%	1.5%
other urinary	18	31	49	2.3	3.9	6.1	0.12	0.21	0.17	0.11	0.24	0.0%	0.0%
eye	164	147	311	20.5	18.4	38.9	1.10	1.00	1.05	1.13	1.14	0.1%	0.1%
meninges	30	19	49	3.8	2.4	6.1	0.20	0.13	0.17	0.18	0.14	0.0%	0.0%
brain	876	1233	2109	109.5	154.1	263.6	5.89	8.40	7.13	5.95	9.32	0.5%	0.8%
spinal cord	40	46	86	5.0	5.8	10.8	0.27	0.31	0.29	0.26	0.33	0.0%	0.0%
thyroid	378	152	530	47.3	19.0	66.3	2.54	1.04	1.79	2.58	1.15	0.2%	0.1%
adrenal	44	43	87	5.5	5.4	10.9	0.30	0.29	0.29	0.32	0.32	0.0%	0.0%
other endocrine	30	42	72	3.8	5.3	9.0	0.20	0.29	0.24	0.21	0.29	0.0%	0.0%
ill-defined site	224	114	338	28.0	14.3	42.3	1.51	0.78	1.14	1.28	0.90	0.1%	0.1%
unknown primary site	2828	2773	5601	353.5	346.6	700.1	19.01	18.88	18.95	16.90	21.83	1.2%	1.6%
Hodgkin's disease	304	372	676	38.0	46.5	84.5	2.04	2.53	2.29	1.96	2.53	0.2%	0.2%
follicular non-Hodgkin's lymphoma	213	216	429	26.6	27.0	53.6	1.43	1.47	1.45	1.56	1.70	0.1%	0.1%
diffuse non-Hodgkin's lymphoma	562	696	1258	70.3	87.0	157.3	3.78	4.74	4.26	3.75	5.35	0.3%	0.4%
peripheral cutaneous T cell lymphoma	76	96	172	9.5	12.0	21.5	0.51	0.65	0.58	0.52	0.76	0.0%	0.1%
other and unspecified NHL	746	827	1573	93.3	103.4	196.6	5.01	5.63	5.32	5.03	6.43	0.4%	0.5%
all lymphoma	*1901*	*2207*	*4108*	*237.6*	*275.9*	*513.5*	*12.13*	*15.28*	*13.70*	*12.82*	*16.77*	*1.1%*	*1.3%*
malignant immunoproliferative disease	28	45	73	3.5	5.6	9.1	0.19	0.31	0.25	0.16	0.36	0.0%	0.0%
multiple myeloma	647	850	1497	80.9	106.3	187.1	4.35	5.79	5.06	3.98	6.68	0.3%	0.5%
lymphoid leukaemia	629	937	1566	78.6	117.1	195.8	4.23	6.38	5.30	4.04	7.20	0.3%	0.6%
myeloid leukaemia	398	498	896	49.8	62.3	112.0	2.68	3.39	3.03	2.67	3.74	0.2%	0.3%
monocytic leukaemia	9	20	29	1.1	2.5	3.6	0.06	0.14	0.10	0.06	0.15	0.0%	0.0%
other specified leukaemia	37	58	95	4.6	7.3	11.9	0.25	0.39	0.32	0.25	0.45	0.0%	0.0%
unspecified leukaemia	180	215	395	22.5	26.9	49.4	1.21	1.46	1.34	1.00	1.70	0.1%	0.1%
all leukaemia	*1253*	*1728*	*2981*	*156.6*	*216.0*	*372.6*	*7.68*	*11.83*	*9.74*	*8.03*	*13.24*	*0.6%*	*1.0%*
other lymphoid and haematopoietic	31	31	62	3.9	3.9	7.8	0.21	0.21	0.21	0.18	0.24	0.0%	0.0%
all invasive	*68838*	*75277*	*144115*	*8604.8*	*9409.6*	*18014.4*	*422.16*	*521.00*	*471.26*	*454.76*	*591.03*	*52.6%*	*37.0%*
in situ: oral cavity, oesophagus, stomach	60	82	142	7.5	10.3	17.8	0.40	0.56	0.48	0.35	0.65	0.0%	0.0%
other digestive	120	169	289	15.0	21.1	36.1	0.81	1.15	0.98	0.80	1.33	0.1%	0.1%
middle ear and respiratory	32	101	133	4.0	12.6	16.6	0.22	0.69	0.45	0.23	0.79	0.0%	0.1%
melanoma	883	490	1373	110.4	61.3	171.6	5.94	3.34	4.64	6.32	3.85	0.5%	0.3%
carcinoma of skin	4163	1817	5980	520.4	227.1	747.5	27.98	12.37	20.23	26.30	14.40	2.2%	1.2%
breast	747	3	750	93.4	0.4	93.8	5.02	0.02	2.54	5.89	0.03	0.5%	0.0%
cervix	6898	—	6898	862.3	—	862.3	46.37	—	23.33	45.73	—	3.2%	—
other genital	99	60	159	12.4	7.5	19.9	0.67	0.41	0.54	0.74	0.47	0.1%	0.0%
other sites	37	113	150	4.6	14.1	18.8	0.25	0.77	0.51	0.25	0.89	0.0%	0.1%
benign: lipomatous	4	1	5	0.5	0.1	0.6	0.03	0.01	0.02	0.03	0.01	0.0%	0.0%
haemangioma	1	8	9	0.1	1.0	1.1	0.01	0.05	0.03	0.01	0.06	0.0%	0.0%
meninges	381	149	530	47.6	18.6	66.3	2.56	1.01	1.79	2.71	1.18	0.2%	0.1%
brain	171	135	306	21.4	16.9	38.3	1.15	0.92	1.04	1.29	1.00	0.1%	0.1%
endocrine	170	196	366	21.3	24.5	45.8	1.14	1.33	1.24	1.21	1.48	0.1%	0.1%
uncertain: oral and digestive	319	317	636	39.9	39.6	79.5	2.14	2.16	2.15	2.03	2.41	0.2%	0.2%
respiratory	3	6	9	0.4	0.8	1.1	0.02	0.04	0.03	0.02	0.05	0.0%	0.0%
female genital	118	—	118	14.8	—	14.8	0.79	—	0.40	0.82	—	0.1%	—
male genital	—	14	14	—	1.8	1.8	—	0.10	0.05	—	0.10	—	0.0%
urinary	49	128	177	6.1	16.0	22.1	0.33	0.87	0.60	0.33	1.03	0.0%	0.1%
meninges	2	3	5	0.3	0.4	0.6	0.01	0.02	0.02	0.01	0.02	0.0%	0.0%
brain and CNS	33	34	67	4.1	4.3	8.4	0.22	0.23	0.23	0.22	0.25	0.0%	0.0%
endocrine	45	42	87	5.6	5.3	10.9	0.30	0.29	0.29	0.30	0.28	0.0%	0.0%
polycythaemia vera	126	139	265	15.8	17.4	33.1	0.85	0.95	0.90	0.78	1.09	0.1%	0.1%
myelodysplastic syndromes	285	373	658	35.6	46.6	82.3	1.92	2.54	2.23	1.63	2.90	0.1%	0.2%
lymphoid, haematopoietic	336	345	681	42.0	43.1	85.1	2.26	2.35	2.30	2.03	2.67	0.1%	0.2%
other sites	151	107	258	18.9	13.4	32.3	1.01	0.73	0.87	1.05	0.79	0.1%	0.0%
all non-invasive	*15233*	*4832*	*20065*	*1904.1*	*604.0*	*2508.1*	*98.76*	*34.95*	*67.06*	*101.08*	*37.72*	*7.5%*	*3.0%*

Table A2. Number of cancer deaths, annual average, crude and age-standardised rates and cumulative risk to age 75, 1994-2001

	deaths 1994-2001			annual average			crude rate			EASR		risk 0-74	
	females	males	both	females	males	both	females	males	both	females	males	females	males
all cancers	*28177*	*32494*	*60671*	*3522.1*	*4061.8*	*7583.9*	*189.40*	*221.27*	*205.23*	*176.20*	*255.91*	*0.1%*	*0.2%*
lip	10	49	59	1.3	6.1	7.4	0.07	0.33	0.20	0.05	0.39	0.0%	0.0%
base of tongue	1	13	14	0.1	1.6	1.8	0.01	0.09	0.05	0.01	0.11	0.0%	0.0%
other tongue	67	165	232	8.4	20.6	29.0	0.45	1.12	0.78	0.43	1.31	0.0%	0.1%
gum	12	6	18	1.5	0.8	2.3	0.08	0.04	0.06	0.07	0.05	0.0%	0.0%
floor of mouth	15	59	74	1.9	7.4	9.3	0.10	0.40	0.25	0.10	0.49	0.0%	0.0%
palate	15	26	41	1.9	3.3	5.1	0.10	0.18	0.14	0.09	0.21	0.0%	0.0%
other mouth	25	75	100	3.1	9.4	12.5	0.17	0.51	0.34	0.14	0.60	0.0%	0.0%
parotid	28	58	86	3.5	7.3	10.8	0.19	0.39	0.29	0.16	0.46	0.0%	0.0%
other salivary	7	16	23	0.9	2.0	2.9	0.05	0.11	0.08	0.04	0.13	0.0%	0.0%
tonsil	11	47	58	1.4	5.9	7.3	0.07	0.32	0.20	0.08	0.38	0.0%	0.0%
oropharynx	10	39	49	1.3	4.9	6.1	0.07	0.27	0.17	0.07	0.31	0.0%	0.0%
nasopharynx	20	41	61	2.5	5.1	7.6	0.13	0.28	0.21	0.12	0.31	0.0%	0.0%
pyriform	8	50	58	1.0	6.3	7.3	0.05	0.34	0.20	0.06	0.40	0.0%	0.0%
hypopharynx	35	32	67	4.4	4.0	8.4	0.24	0.22	0.23	0.22	0.27	0.0%	0.0%
other mouth/pharynx	33	102	135	4.1	12.8	16.9	0.22	0.69	0.46	0.21	0.83	0.0%	0.1%
all head and neck	*297*	*778*	*1075*	*37.1*	*97.3*	*134.4*	*2.00*	*5.30*	*3.64*	*1.83*	*6.25*	*0.1%*	*0.5%*
oesophagus	942	1526	2468	117.8	190.8	308.5	6.33	10.39	8.35	5.45	12.03	0.4%	0.9%
stomach	1213	1788	3001	151.6	223.5	375.1	8.15	12.18	10.15	7.08	14.15	0.5%	1.0%
small intestine	49	54	103	6.1	6.8	12.9	0.33	0.37	0.35	0.28	0.42	0.0%	0.0%
colon	2509	2985	5494	313.6	373.1	686.8	16.86	20.33	18.58	14.80	23.52	1.0%	1.7%
rectosigmoid	131	191	322	16.4	23.9	40.3	0.88	1.30	1.09	0.82	1.53	0.1%	0.1%
rectum	564	1006	1570	70.5	125.8	196.3	3.79	6.85	5.31	3.30	7.96	0.2%	0.6%
anus	29	24	53	3.6	3.0	6.6	0.19	0.16	0.18	0.19	0.20	0.0%	0.0%
all colorectal	*3233*	*4206*	*7439*	*404.1*	*525.8*	*929.9*	*21.73*	*28.64*	*25.16*	*19.11*	*33.22*	*1.3%*	*2.4%*
liver	435	619	1054	54.4	77.4	131.8	2.92	4.22	3.57	2.58	4.90	0.2%	0.4%
gallbladder	172	69	241	21.5	8.6	30.1	1.16	0.47	0.82	1.09	0.54	0.1%	0.0%
other biliary	91	84	175	11.4	10.5	21.9	0.61	0.57	0.59	0.52	0.66	0.0%	0.0%
pancreas	1407	1475	2882	175.9	184.4	360.3	9.46	10.04	9.75	8.25	11.71	0.6%	0.9%
other digestive	657	695	1352	82.1	86.9	169.0	4.42	4.73	4.57	3.72	5.47	0.2%	0.4%
nasal cavity/middle ear	9	7	16	1.1	0.9	2.0	0.06	0.05	0.05	0.06	0.06	0.0%	0.0%
sinuses	28	31	59	3.5	3.9	7.4	0.19	0.21	0.20	0.16	0.25	0.0%	0.0%
larynx	86	362	448	10.8	45.3	56.0	0.58	2.47	1.52	0.52	2.91	0.0%	0.2%
trachea	6	13	19	0.8	1.6	2.4	0.04	0.09	0.06	0.04	0.10	0.0%	0.0%
lung	4269	7705	11974	533.6	963.1	1496.8	28.70	52.47	40.50	26.62	60.49	2.2%	4.7%
thymus	5	6	11	0.6	0.8	1.4	0.03	0.04	0.04	0.04	0.05	0.0%	0.0%
mediastinum	30	102	132	3.8	12.8	16.5	0.20	0.69	0.45	0.20	0.81	0.0%	0.1%
other chest	1	0	1	0.1	0.0	0.1	0.01	0.00	0.00	0.00	0.00	0.0%	0.0%
bones, joints of limbs	23	24	47	2.9	3.0	5.9	0.15	0.16	0.16	0.14	0.18	0.0%	0.0%
bones, joints head and trunk	72	111	183	9.0	13.9	22.9	0.48	0.76	0.62	0.45	0.85	0.0%	0.1%
melanoma skin	267	242	509	33.4	30.3	63.6	1.79	1.65	1.72	1.72	1.89	0.1%	0.1%
non-melanoma skin	93	181	274	11.6	22.6	34.3	0.63	1.23	0.93	0.49	1.44	0.0%	0.1%
peritoneum	62	52	114	7.8	6.5	14.3	0.42	0.35	0.39	0.38	0.41	0.0%	0.0%
connective tissues	136	126	262	17.0	15.8	32.8	0.91	0.86	0.89	0.92	0.97	0.1%	0.1%
breast	5154	37	5191	644.3	4.6	648.9	34.64	0.25	17.56	35.26	0.29	2.7%	0.0%
vulva	103	—	103	12.9	—	12.9	0.69	—	0.35	0.59	—	0.0%	—
vagina	30	—	30	3.8	—	3.8	0.20	—	0.10	0.18	—	0.0%	—
cervix	586	—	586	73.3	—	73.3	3.94	—	1.98	4.17	—	0.3%	—
corpus uteri	380	—	380	47.5	—	47.5	2.55	—	1.29	2.41	—	0.2%	—
uterus nos	101	—	101	12.6	—	12.6	0.68	—	0.34	0.62	—	0.0%	—
ovary	1800	—	1800	225.0	—	225.0	12.10	—	6.09	12.19	—	1.0%	—
placenta	1	—	1	0.1	—	0.1	0.01	—	0.00	0.01	—	0.0%	—
penis	—	42	42	—	5.3	5.3	—	0.29	0.14	—	0.34	—	0.0%
prostate	—	4153	4153	—	519.1	519.1	—	28.28	14.05	—	32.71	—	1.5%
testis	—	60	60	—	7.5	7.5	—	0.41	0.20	—	0.42	—	0.0%
other male genital	—	3	3	—	0.4	0.4	—	0.02	0.01	—	0.02	—	0.0%
kidney	394	695	1089	49.3	86.9	136.1	2.65	4.73	3.68	2.44	5.63	0.2%	0.4%
renal pelvis	0	3	3	0.0	0.4	0.4	0.00	0.02	0.01	0.00	0.02	0.0%	0.0%
ureter	7	8	15	0.9	1.0	1.9	0.05	0.05	0.05	0.04	0.06	0.0%	0.0%
bladder	426	879	1305	53.3	109.9	163.1	2.86	5.99	4.41	2.33	6.92	0.1%	0.4%
other urinary	10	4	14	1.3	0.5	1.8	0.07	0.03	0.05	0.07	0.04	0.0%	0.0%

EASR: age-standardised incidence rate (European standard population)
Risk 0-74 : cumulative risk to age 75 See page 27, “Methods and definitions”

Table A2 (continued). Number of cancer deaths, annual average, crude and age-standardised rates and cumulative risk to age 75, 1994-2001

	deaths 1994-2001			annual average			crude rate			EASR		risk 0-74	
	females	males	both	females	males	both	females	males	both	females	males	females	males
eye	48	36	84	6.0	4.5	10.5	0.32	0.25	0.28	0.29	0.28	0.0%	0.0%
meninges	12	5	17	1.5	0.6	2.1	0.08	0.03	0.06	0.08	0.03	0.0%	0.0%
brain	733	970	1703	91.6	121.3	212.9	4.93	6.61	5.76	5.01	7.56	0.4%	0.7%
spinal cord	6	14	20	0.8	1.8	2.5	0.04	0.10	0.07	0.04	0.10	0.0%	0.0%
thyroid	122	59	181	15.3	7.4	22.6	0.82	0.40	0.61	0.76	0.45	0.1%	0.0%
adrenal	24	32	56	3.0	4.0	7.0	0.16	0.22	0.19	0.17	0.24	0.0%	0.0%
other endocrine	17	22	39	2.1	2.8	4.9	0.11	0.15	0.13	0.10	0.17	0.0%	0.0%
ill-defined site	353	355	708	44.1	44.4	88.5	2.37	2.42	2.39	2.00	2.83	0.1%	0.2%
unknown primary site	1732	1853	3585	216.5	231.6	448.1	11.64	12.62	12.13	10.31	14.54	0.7%	1.1%
Hodgkin's disease	77	116	193	9.6	14.5	24.1	0.52	0.79	0.65	0.50	0.87	0.0%	0.1%
follicular non-Hodgkin's lymphoma	0	8	8	0.0	1.0	1.0	0.00	0.05	0.03	0.00	0.06	0.0%	0.0%
diffuse non-Hodgkin's lymphoma	6	8	14	0.8	1.0	1.8	0.04	0.05	0.05	0.04	0.06	0.0%	0.0%
peripheral and cutaneous T cell lymphoma	4	5	9	0.5	0.6	1.1	0.03	0.03	0.03	0.03	0.04	0.0%	0.0%
other and unspecified NHL	822	927	1749	102.8	115.9	218.6	5.53	6.31	5.92	5.19	7.24	0.4%	0.6%
all lymphoma	*909*	*1064*	*1973*	*113.6*	*133.0*	*246.6*	*6.11*	*7.25*	*6.67*	*5.75*	*8.28*	*0.4%*	*0.7%*
multiple myeloma	548	631	1179	68.5	78.9	147.4	3.68	4.30	3.99	3.25	5.00	0.2%	0.3%
lymphoid leukaemia	273	389	662	34.1	48.6	82.8	1.84	2.65	2.24	1.52	3.02	0.1%	0.2%
myeloid leukaemia	348	401	749	43.5	50.1	93.6	2.34	2.73	2.53	2.20	3.13	0.2%	0.2%
monocytic leukaemia	5	10	15	0.6	1.3	1.9	0.03	0.07	0.05	0.03	0.09	0.0%	0.0%
other specified leukaemia	1	2	3	0.1	0.3	0.4	0.01	0.01	0.01	0.00	0.02	0.0%	0.0%
unspecified leukaemia	156	226	382	19.5	28.3	47.8	1.05	1.54	1.29	0.86	1.79	0.1%	0.1%
all leukaemia	*783*	*1028*	*1811*	*97.9*	*128.5*	*226.4*	*5.26*	*7.00*	*6.13*	*4.62*	*8.04*	*0.3%*	*0.6%*
other lymphoid and haematopoietic	0	2	2	0.0	0.3	0.3	0.00	0.01	0.01	0.00	0.02	0.0%	0.0%
in situ: middle ear and respiratory	0	0	0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%
other genital	0	1	1	0.0	0.1	0.1	0.00	0.01	0.00	0.00	0.01	0.0%	0.0%
other sites	0	1	1	0.0	0.1	0.1	0.00	0.01	0.00	0.00	0.01	0.0%	0.0%
benign: salivary glands	1	1	2	0.1	0.1	0.3	0.01	0.01	0.01	0.00	0.01	0.0%	0.0%
colorectal	4	7	11	0.5	0.9	1.4	0.03	0.05	0.04	0.02	0.05	0.0%	0.0%
other GI	4	11	15	0.5	1.4	1.9	0.03	0.07	0.05	0.03	0.08	0.0%	0.0%
respiratory	2	4	6	0.3	0.5	0.8	0.01	0.03	0.02	0.01	0.03	0.0%	0.0%
intrathoracic	1	0	1	0.1	0.0	0.1	0.01	0.00	0.00	0.01	0.00	0.0%	0.0%
bone and cartilage	5	0	5	0.6	0.0	0.6	0.03	0.00	0.02	0.03	0.00	0.0%	0.0%
peritoneum and retroperitoneum	2	0	2	0.3	0.0	0.3	0.01	0.00	0.01	0.01	0.00	0.0%	0.0%
soft tissue	6	5	11	0.8	0.6	1.4	0.04	0.03	0.04	0.04	0.04	0.0%	0.0%
other skin	2	3	5	0.3	0.4	0.6	0.01	0.02	0.02	0.01	0.02	0.0%	0.0%
leiomyoma	1	0	1	0.1	0.0	0.1	0.01	0.00	0.00	0.00	0.00	0.0%	0.0%
ovary	7	0	7	0.9	0.0	0.9	0.05	0.00	0.02	0.04	0.00	0.0%	0.0%
other female genital	1	–	1	0.1	–	0.1	0.01	–	0.00	0.01	–	0.0%	–
male genital	–	4	4	–	0.5	0.5	–	0.03	0.01	–	0.03	–	0.0%
urinary	1	1	2	0.1	0.1	0.3	0.01	0.01	0.01	0.01	0.01	0.0%	0.0%
meninges	36	18	54	4.5	2.3	6.8	0.24	0.12	0.18	0.22	0.14	0.0%	0.0%
brain	9	16	25	1.1	2.0	3.1	0.06	0.11	0.08	0.06	0.12	0.0%	0.0%
endocrine	8	6	14	1.0	0.8	1.8	0.05	0.04	0.05	0.06	0.05	0.0%	0.0%
other/unspecified	5	2	7	0.6	0.3	0.9	0.03	0.01	0.02	0.04	0.02	0.0%	0.0%
uncertain: oral and digestive	3	4	7	0.4	0.5	0.9	0.02	0.03	0.02	0.02	0.03	0.0%	0.0%
respiratory	3	2	5	0.4	0.3	0.6	0.02	0.01	0.02	0.02	0.01	0.0%	0.0%
female genital	1	–	1	0.1	–	0.1	0.01	–	0.00	0.01	–	0.0%	–
male genital	–	1	1	–	0.1	0.1	–	0.01	0.00	–	0.01	–	0.0%
urinary	2	1	3	0.3	0.1	0.4	0.01	0.01	0.01	0.01	0.01	0.0%	0.0%
meninges	7	4	11	0.9	0.5	1.4	0.05	0.03	0.04	0.05	0.03	0.0%	0.0%
brain and CNS	3	3	6	0.4	0.4	0.8	0.02	0.02	0.02	0.02	0.02	0.0%	0.0%
endocrine	9	3	12	1.1	0.4	1.5	0.06	0.02	0.04	0.06	0.02	0.0%	0.0%
polycythaemia vera	35	35	70	4.4	4.4	8.8	0.24	0.24	0.24	0.20	0.27	0.0%	0.0%
other lymphoid, haematopoietic	28	43	71	3.5	5.4	8.9	0.19	0.29	0.24	0.14	0.35	0.0%	0.0%
other sites	4	6	10	0.5	0.8	1.3	0.03	0.04	0.03	0.02	0.04	0.0%	0.0%

Table A3. Annual number of cancer cases, 1994-2001

	females								males							
	1994	1995	1996	1997	1998	1999	2000	2001	1994	1995	1996	1997	1998	1999	2000	2001
lip	2	1	3	8	3	3	6	1	52	31	44	32	39	39	18	14
base of tongue	3	3	1	3	4	6	4	2	12	17	18	19	8	7	12	5
other tongue	14	15	12	12	11	3	9	17	27	40	27	20	25	21	31	24
gum	2	3	1	0	7	2	6	1	2	5	7	1	2	7	6	5
floor of mouth	6	10	4	6	8	5	5	3	27	18	16	19	30	11	17	16
palate	3	2	2	5	4	8	7	2	10	9	5	7	10	8	4	8
other mouth	7	7	10	9	9	6	6	4	12	12	11	12	14	13	13	15
parotid	7	10	6	7	8	6	7	4	13	12	14	20	15	19	11	8
other salivary	3	4	5	3	6	2	1	5	9	4	3	3	3	2	3	5
tonsil	5	3	3	4	5	4	2	8	16	19	9	13	13	11	20	13
oropharynx	2	1	5	0	2	0	2	2	12	8	4	9	4	9	9	5
nasopharynx	1	4	2	1	1	3	5	3	9	9	15	12	9	16	8	10
pyriform	3	6	6	9	4	4	3	1	18	11	33	21	14	15	21	9
hypopharynx	11	8	6	2	5	4	6	3	6	8	8	4	7	6	6	2
other mouth/pharynx	2	2	5	1	4	5	5	2	6	13	10	14	8	12	10	11
oesophagus	128	137	111	106	118	116	124	120	171	170	188	200	155	196	181	218
stomach	180	190	185	180	184	189	185	185	305	299	308	314	296	290	279	288
small intestine	19	14	13	11	23	6	17	15	16	27	20	23	19	18	29	25
colon	553	546	509	554	519	551	556	567	606	567	591	591	587	624	621	616
rectosigmoid	61	39	59	57	53	52	63	49	95	78	83	85	91	75	74	95
rectum	154	173	150	190	211	192	182	192	284	293	313	353	348	332	350	390
anus	13	6	14	13	13	12	20	14	12	10	8	9	13	11	10	19
liver	28	15	16	24	29	18	34	34	42	45	40	39	46	54	71	58
gallbladder	21	21	24	40	26	35	39	28	8	16	11	14	9	17	10	15
other biliary	20	23	42	43	28	33	36	51	32	33	38	31	31	44	55	40
pancreas	173	155	182	179	167	174	193	174	164	148	175	182	174	180	184	188
other digestive	16	24	21	26	27	31	28	21	14	29	27	21	13	22	18	14
nasal cavity/middle ear	1	6	2	6	5	8	2	3	7	4	4	4	8	5	2	3
sinuses	3	3	5	5	2	2	9	8	5	6	6	10	13	6	8	4
larynx	20	18	18	16	21	22	20	14	92	99	89	86	95	92	112	77
trachea	2	1	1	0	4	3	3	2	3	4	2	3	1	3	0	1
lung	510	509	520	569	569	610	606	607	1062	977	997	972	1045	1018	1019	1020
thymus	2	0	2	1	2	2	3	1	3	1	1	7	1	6	2	1
mediastinum	2	3	4	4	8	4	6	5	9	10	7	6	10	8	9	11
other chest	1	0	2	2	0	0	1	1	1	0	0	0	3	2	1	0
bones, joints of limbs	9	12	6	12	9	5	7	7	15	8	11	14	10	8	10	12
bones, joints head and trunk	4	3	6	6	9	1	5	9	6	12	11	8	9	5	8	9
melanoma skin	239	234	232	239	236	252	278	281	135	124	129	169	150	166	165	182
non-melanoma skin	2315	2324	2413	2453	2388	2333	2455	2553	2813	2803	2873	2811	2671	2728	2842	2782
mesothelioma	1	2	0	4	1	7	5	2	8	15	15	21	11	11	14	18
Kaposi's sarcoma	0	0	0	0	1	1	1	0	7	6	6	3	3	4	4	5
peripheral nerves	2	6	5	3	3	4	3	5	3	5	4	6	7	6	3	5
peritoneum	10	6	4	9	9	7	11	12	6	5	3	5	5	6	6	6
connective tissues	31	33	32	33	32	33	30	26	40	47	47	40	49	41	46	59
breast	1532	1555	1625	1662	1733	1786	1891	2020	13	9	17	16	9	16	20	14
vulva	35	21	42	25	41	43	30	33	—	—	—	—	—	—	—	—
vagina	10	9	12	5	12	7	14	4	—	—	—	—	—	—	—	—
cervix	174	155	215	173	186	155	193	185	—	—	—	—	—	—	—	—
corpus uteri	181	220	217	225	197	250	255	241	—	—	—	—	—	—	—	—
uterus nos	34	15	14	14	17	13	17	20	—	—	—	—	—	—	—	—
ovary	284	334	320	347	321	348	374	347	—	—	—	—	—	—	—	—
other female genital	8	3	5	4	8	5	3	8	—	—	—	—	—	—	—	—
placenta	1	0	0	0	1	0	0	1	—	—	—	—	—	—	—	—
penis	—	—	—	—	—	—	—	—	19	25	21	17	17	26	19	28
prostate	—	—	—	—	—	—	—	—	1089	1146	1197	1255	1326	1468	1664	1824

Table A3 (continued) Annual number of cancer cases, 1994-2001

	females								males							
	1994	1995	1996	1997	1998	1999	2000	2001	1994	1995	1996	1997	1998	1999	2000	2001
testis	—	—	—	—	—	—	—	—	69	86	103	82	113	106	103	134
other male genital	—	—	—	—	—	—	—	—	4	1	4	0	5	3	3	4
kidney	87	90	91	89	98	106	92	106	139	125	151	179	184	184	195	210
renal pelvis	6	1	4	6	0	4	2	3	10	12	10	4	2	5	8	6
ureter	10	5	3	2	2	3	7	0	4	5	6	11	4	5	11	9
bladder	172	109	137	127	113	125	129	125	348	340	355	342	296	333	314	337
other urinary	1	3	3	3	2	2	1	3	6	5	3	6	3	5	2	1
eye	22	17	23	20	22	28	22	10	21	18	15	22	27	13	16	15
meninges	4	2	0	3	4	4	6	7	2	3	2	2	1	4	3	2
brain	100	109	119	106	99	107	116	120	141	157	137	152	158	149	164	175
spinal cord	7	4	3	3	6	5	6	6	9	6	5	4	5	1	6	10
thyroid	43	41	50	36	45	51	61	51	25	16	16	23	19	12	27	14
adrenal	3	4	4	7	2	9	4	11	4	5	4	5	10	4	2	9
other endocrine	2	2	6	4	4	4	2	6	2	5	5	4	8	7	8	3
ill-defined site	32	26	41	17	31	31	21	25	10	15	10	19	15	13	16	16
unknown primary site	333	358	355	377	363	353	331	358	399	378	337	364	364	326	319	286
Hodgkin's disease	37	32	29	44	47	32	41	42	48	37	44	43	52	45	48	55
follicular non-Hodgkin's lymphoma	39	18	25	26	25	21	30	29	17	15	32	35	38	24	28	27
diffuse non-Hodgkin's lymphoma	66	64	64	73	79	67	77	72	80	69	76	82	101	79	114	95
peripheral and cutaneous T cell lymphoma	12	11	7	5	7	4	13	17	11	6	12	10	13	14	14	16
other and unspecified NHL	69	78	94	93	85	94	128	105	85	101	92	98	100	118	112	121
malignant immunoproliferative disease	4	4	2	1	6	4	4	3	9	4	5	4	4	6	11	2
multiple myeloma	101	69	71	96	76	81	78	75	106	98	102	97	105	100	121	121
lymphoid leukaemia	84	58	72	80	91	69	85	90	102	126	98	112	113	120	139	127
myeloid leukaemia	56	38	44	51	52	50	46	61	53	56	54	64	70	67	79	55
monocytic leukaemia	2	1	2	1	3	0	0	0	0	0	3	5	2	5	2	3
other specified leukaemia	4	4	5	7	7	2	4	4	9	10	3	6	9	9	5	7
unspecified leukaemia	16	22	27	25	22	26	26	16	24	27	33	29	31	23	25	23
other lymphoid and haematopoietic	3	3	7	5	2	2	5	4	5	2	5	9	3	1	4	2
in situ: oral cavity, oesophagus and stomach	14	8	7	6	3	5	8	9	10	6	11	12	10	10	9	14
other digestive	18	15	13	18	7	15	12	22	23	18	21	29	14	22	19	23
middle ear and respiratory	3	3	3	5	6	4	4	4	13	16	11	12	10	9	19	11
melanoma	80	79	105	134	119	94	137	135	39	49	56	64	50	59	88	85
carcinoma of skin	447	459	533	522	526	581	553	542	165	166	211	231	235	244	287	278
breast	69	59	83	79	90	97	110	160	1	0	0	0	1	0	0	1
cervix	708	659	811	830	784	916	1012	1178								
other genital	13	10	14	5	14	15	18	10	4	3	10	10	11	6	5	11
other sites	5	3	0	5	7	9	6	2	11	5	8	13	22	26	18	10
benign: lipomatous	1	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0
haemangioma	0	0	0	0	1	0	0	0	0	1	0	0	1	0	4	2
meninges	54	41	39	57	56	39	47	48	10	16	19	20	23	20	24	17
brain	24	22	21	20	24	26	20	14	13	19	14	18	12	12	27	20
endocrine	18	17	21	26	26	19	25	18	23	23	27	26	21	28	23	25
uncertain: oral and digestive	30	38	39	44	36	34	46	52	18	28	33	37	50	40	44	67
respiratory	0	2	0	0	0	0	0	1	2	0	0	0	0	1	1	2
female genital	17	11	18	10	13	12	15	22	—	—	—	—	—	—	—	—
male genital	—	—	—	—	—	—	—	—	1	1	1	1	3	3	2	2
urinary	0	2	1	1	1	6	23	15	1	4	2	2	6	25	40	48
meninges	0	0	0	1	0	0	0	1	0	1	1	0	0	0	1	0
brain and CNS	5	2	5	2	4	2	8	5	2	1	3	4	7	1	4	12
endocrine	4	9	8	2	7	6	4	5	5	2	5	6	4	9	4	7
polycythaemia vera	23	16	12	18	8	13	22	14	14	20	16	22	14	20	16	17
myelodysplastic syndromes	31	30	34	36	43	32	31	48	44	29	41	42	52	41	65	59
other lymphoid, haematopoietic	46	40	38	37	47	32	42	54	38	42	35	44	50	45	41	50
other sites	12	12	18	26	17	30	15	21	10	12	14	14	11	15	13	18

Table A4. Number of patients treated, 1994-2001

	all patients treated							
	surgery		radiotherapy		chemotherapy		hormone	
	number	% of all cases	number	% of all cases	number	% of all cases	number	% of all cases
lip	212	88%	40	17%	0	0%	0	0%
base of tongue	46	42%	78	72%	17	16%	0	0%
other tongue	178	67%	165	62%	26	10%	0	0%
gum	32	60%	26	49%	4	8%	0	0%
floor of mouth	124	74%	89	53%	6	4%	1	1%
palate	30	37%	50	62%	10	12%	0	0%
other mouth	91	65%	86	61%	12	9%	0	0%
parotid	103	70%	79	54%	6	4%	0	0%
other salivary	24	49%	28	57%	0	0%	1	2%
tonsil	59	46%	104	82%	22	17%	0	0%
oropharynx	16	27%	44	73%	8	13%	0	0%
nasopharynx	30	31%	79	81%	39	40%	0	0%
pyriform	68	43%	133	85%	17	11%	1	1%
hypopharynx	19	25%	50	67%	7	9%	0	0%
other mouth/pharynx	33	32%	69	68%	11	11%	0	0%
oesophagus	547	26%	819	38%	501	23%	10	0%
stomach	1396	41%	274	8%	444	13%	13	0%
small intestine	160	62%	12	5%	55	21%	3	1%
colon	6095	76%	482	6%	2308	29%	18	0%
rectosigmoid	758	80%	179	19%	332	35%	0	0%
rectum	2733	74%	1214	33%	1225	33%	8	0%
anus	102	59%	105	61%	77	45%	0	0%
liver	56	11%	23	4%	42	8%	5	1%
gallbladder	134	44%	14	5%	20	7%	1	0%
other biliary	141	27%	32	6%	29	5%	3	1%
pancreas	271	11%	169	7%	255	10%	13	1%
other digestive	19	6%	12	4%	27	8%	0	0%
nasal cavity/middle ear	42	68%	34	55%	4	6%	0	0%
sinuses	40	46%	63	72%	17	20%	0	0%
larynx	243	31%	593	76%	43	6%	1	0%
trachea	2	7%	12	43%	4	14%	0	0%
lung	1502	14%	3942	36%	1744	16%	51	0%
thymus	14	47%	21	70%	11	37%	0	0%
mediastinum	7	7%	27	28%	19	20%	0	0%
other chest	0	0%	2	17%	1	8%	0	0%
bones, joints of limbs	88	67%	29	22%	87	66%	1	1%
bones, joints head and trunk	43	43%	41	41%	33	33%	0	0%
melanoma skin	2682	95%	195	7%	230	8%	12	0%
non-melanoma skin	31858	87%	3300	9%	100	0%	8	0%
mesothelioma	18	14%	23	18%	22	17%	3	2%
Kaposi's sarcoma	7	21%	6	18%	9	26%	0	0%
peripheral nerves	33	51%	13	20%	12	18%	0	0%
peritoneum	37	39%	12	13%	24	26%	1	1%
connective tissues	406	74%	236	43%	111	20%	3	1%
breast	10402	84%	6834	55%	5401	44%	6439	52%
vulva	193	82%	43	18%	8	3%	0	0%
vagina	22	35%	40	63%	6	10%	2	3%
cervix	823	65%	692	55%	272	22%	3	0%
corpus uteri	1483	92%	630	39%	103	6%	55	3%
uterus nos	76	69%	28	25%	13	12%	2	2%
ovary	1350	56%	112	5%	1222	51%	32	1%
other female genital	14	39%	12	33%	17	47%	0	0%
placenta	2	100%	0	0%	2	100%	0	0%
penis	134	88%	36	24%	9	6%	0	0%
prostate	4711	48%	1958	20%	339	3%	3826	39%

Table A4 (continued). Number of patients treated, 1994-2001

	as only treatment									
	surgery		radiotherapy		chemotherapy		hormone		combinations	
	number	% of all cases	number	% of all cases	number	% of all cases	number	% of all cases	number	% of all cases
lip	188	78%	16	7%	0	0%	0	0%	24	10%
base of tongue	13	12%	35	32%	1	1%	0	0%	43	39%
other tongue	73	27%	52	19%	0	0%	0	0%	114	43%
gum	20	38%	11	21%	0	0%	0	0%	15	28%
floor of mouth	60	36%	23	14%	0	0%	0	0%	66	39%
palate	17	21%	30	37%	0	0%	0	0%	20	25%
other mouth	38	27%	29	21%	0	0%	0	0%	58	41%
parotid	43	29%	19	13%	0	0%	0	0%	62	42%
other salivary	7	14%	10	20%	0	0%	0	0%	18	37%
tonsil	9	7%	45	35%	1	1%	0	0%	60	47%
oropharynx	3	5%	30	50%	2	3%	0	0%	15	25%
nasopharynx	5	5%	28	29%	0	0%	0	0%	51	52%
pyriform	8	5%	60	38%	1	1%	0	0%	73	46%
hypopharynx	6	8%	32	43%	0	0%	0	0%	18	24%
other mouth/pharynx	9	9%	37	36%	0	0%	0	0%	32	31%
oesophagus	277	13%	305	14%	61	3%	4	0%	536	25%
stomach	1143	34%	61	2%	163	5%	6	0%	329	10%
small intestine	114	44%	2	1%	12	5%	1	0%	48	18%
colon	3870	48%	35	0%	211	3%	6	0%	2252	28%
rectosigmoid	422	44%	12	1%	15	2%	0	0%	354	37%
rectum	1441	39%	130	4%	64	2%	1	0%	1418	39%
anus	38	22%	21	12%	0	0%	0	0%	90	52%
liver	42	8%	13	2%	31	6%	4	1%	17	3%
gallbladder	118	39%	1	0%	6	2%	0	0%	19	6%
other biliary	117	22%	11	2%	8	2%	1	0%	26	5%
pancreas	199	8%	52	2%	127	5%	4	0%	142	6%
other digestive	9	3%	5	2%	17	5%	0	0%	12	4%
nasal cavity/middle ear	20	32%	11	18%	0	0%	0	0%	23	37%
sinuses	9	10%	26	30%	1	1%	0	0%	37	43%
larynx	73	9%	398	51%	0	0%	0	0%	196	25%
trachea	0	0%	8	29%	0	0%	0	0%	5	18%
lung	1020	9%	2566	23%	708	6%	14	0%	1429	13%
thymus	5	17%	5	17%	3	10%	0	0%	16	53%
mediastinum	4	4%	17	18%	9	9%	0	0%	11	12%
other chest	0	0%	2	17%	1	8%	0	0%	0	0%
bones, joints of limbs	20	15%	5	4%	11	8%	0	0%	78	60%
bones, joints head and trunk	27	27%	10	10%	7	7%	0	0%	35	35%
melanoma skin	2363	83%	15	1%	16	1%	0	0%	329	12%
non-melanoma skin	30894	85%	2359	6%	38	0%	4	0%	973	3%
mesothelioma	9	7%	14	11%	14	11%	2	2%	12	10%
Kaposi's sarcoma	4	12%	2	6%	7	21%	0	0%	4	12%
peripheral nerves	20	31%	2	3%	3	5%	0	0%	15	23%
peritoneum	18	19%	2	2%	6	6%	0	0%	22	23%
connective tissues	206	38%	34	6%	14	3%	1	0%	227	41%
breast	1004	8%	128	1%	108	1%	628	5%	9839	80%
vulva	163	69%	11	5%	0	0%	0	0%	33	14%
vagina	8	13%	23	37%	0	0%	0	0%	17	27%
cervix	454	36%	202	16%	7	1%	1	0%	498	39%
corpus uteri	803	50%	23	1%	3	0%	8	0%	685	43%
uterus nos	46	42%	5	5%	4	4%	0	0%	30	27%
ovary	551	23%	4	0%	411	17%	11	0%	833	35%
other female genital	2	6%	4	11%	4	11%	0	0%	15	42%
placenta	0	0%	0	0%	0	0%	0	0%	2	100%
penis	98	64%	2	1%	0	0%	0	0%	37	24%
prostate	2952	30%	560	6%	112	1%	1725	17%	2529	26%

Table A4 (continued). Number of patients treated, 1994-2001

	all patients treated							
	surgery		chemotherapy		radiotherapy		hormone	
	number	% of all cases	number	% of all cases	number	% of all cases	number	% of all cases
testis	682	94%	289	40%	264	36%	4	1%
other male genital	7	35%	1	5%	0	0%	0	0%
kidney	1207	64%	260	14%	173	9%	10	1%
renal pelvis	52	78%	7	10%	7	10%	0	0%
ureter	66	90%	9	12%	5	7%	0	0%
bladder	2468	78%	460	14%	308	10%	14	0%
other urinary	24	57%	4	10%	3	7%	0	0%
eye	177	66%	40	15%	23	9%	1	0%
meninges	5	12%	7	16%	3	7%	0	0%
brain	703	38%	746	40%	207	11%	41	2%
spinal cord	30	43%	29	41%	11	16%	0	0%
thyroid	368	80%	174	38%	12	3%	0	0%
adrenal	48	60%	11	14%	22	28%	0	0%
other endocrine	30	44%	25	37%	12	18%	0	0%
ill-defined site	47	16%	25	8%	38	13%	3	1%
unknown primary site	216	4%	700	14%	527	11%	42	1%
Hodgkin's disease	60	10%	285	48%	448	76%	5	1%
follicular non-Hodgkin's lymphoma	60	16%	113	30%	258	69%	4	1%
diffuse non-Hodgkin's lymphoma	224	20%	332	30%	794	71%	14	1%
peripheral and cutaneous T cell lymphoma	37	25%	32	21%	38	26%	0	0%
other and unspecified NHL	285	20%	385	27%	893	63%	13	1%
malignant immunoproliferative disease	0	0%	0	0%	30	50%	0	0%
multiple myeloma	24	2%	383	30%	766	59%	31	2%
lymphoid leukaemia	8	1%	116	8%	629	46%	18	1%
myeloid leukaemia	3	0%	60	8%	525	67%	13	2%
monocytic leukaemia	0	0%	2	7%	14	52%	0	0%
other specified leukaemia	1	1%	5	6%	14	17%	0	0%
unspecified leukaemia	2	1%	19	5%	91	26%	1	0%
other lymphoid and haematopoietic	2	4%	2	4%	4	7%	0	0%
in situ: oral cavity, oesophagus and stomach	53	45%	20	17%	6	5%	0	0%
other digestive	171	69%	6	2%	2	1%	0	0%
middle ear and respiratory	25	21%	67	57%	4	3%	0	0%
melanoma	1162	93%	7	1%	0	0%	0	0%
carcinoma of skin	4611	86%	79	1%	30	1%	0	0%
breast	629	93%	180	26%	14	2%	138	20%
cervix	2263	37%	9	0%	2	0%	2	0%
other genital	109	77%	7	5%	1	1%	3	2%
other sites	96	72%	4	3%	18	13%	1	1%
benign: lipomatous	2	50%	0	0%	0	0%	0	0%
haemangioma	5	56%	1	11%	0	0%	0	0%
meninges	44	9%	18	4%	5	1%	10	2%
brain	231	86%	5	2%	2	1%	2	1%
endocrine	207	64%	62	19%	2	1%	8	2%
uncertain: oral and digestive	499	85%	2	0%	2	0%	0	0%
respiratory	3	43%	1	14%	1	14%	0	0%
female genital	83	82%	5	5%	14	14%	1	1%
male genital	13	100%	1	8%	1	8%	0	0%
urinary	166	94%	1	1%	11	6%	1	1%
meninges	0	0%	1	20%	0	0%	0	0%
brain and CNS	47	78%	7	12%	1	2%	1	2%
endocrine	37	47%	14	18%	1	1%	2	3%
polycythaemia vera	0	0%	4	2%	80	35%	3	1%
myelodysplastic syndromes	0	0%	8	1%	58	10%	1	0%
other lymphoid, haematopoietic	3	1%	12	2%	142	24%	8	1%
other sites	178	75%	8	3%	2	1%	1	0%

Table A4 (continued). Number of patients treated, 1994-2001

	as only treatment									
	surgery		radiotherapy		chemotherapy		hormone		combinations	
	number	% of all cases	number	% of all cases	number	% of all cases	number	% of all cases	number	% of all cases
testis	188	26%	6	1%	18	2%	0	0%	501	69%
other male genital	7	35%	1	5%	0	0%	0	0%	0	0%
kidney	1005	53%	92	5%	48	3%	6	0%	225	12%
renal pelvis	43	64%	4	6%	0	0%	0	0%	9	13%
ureter	52	71%	0	0%	0	0%	0	0%	14	19%
bladder	1860	58%	72	2%	33	1%	2	0%	617	19%
other urinary	20	48%	3	7%	0	0%	0	0%	4	10%
eye	147	55%	14	5%	5	2%	1	0%	35	13%
meninges	2	5%	2	5%	1	2%	0	0%	5	12%
brain	311	17%	315	17%	32	2%	9	0%	458	25%
spinal cord	12	17%	12	17%	2	3%	0	0%	20	29%
thyroid	227	49%	28	6%	1	0%	0	0%	146	32%
adrenal	30	38%	0	0%	6	8%	0	0%	20	25%
other endocrine	15	22%	7	10%	1	1%	0	0%	19	28%
ill-defined site	22	7%	4	1%	15	5%	2	1%	32	11%
unknown primary site	102	2%	453	9%	332	7%	21	0%	275	6%
Hodgkin's disease	8	1%	68	12%	226	38%	0	0%	238	40%
follicular non-Hodgkin's lymphoma	21	6%	39	10%	168	45%	0	0%	100	27%
diffuse non-Hodgkin's lymphoma	51	5%	75	7%	425	38%	3	0%	383	34%
peripheral and cutaneous T cell lymphoma	26	17%	10	7%	18	12%	0	0%	26	17%
other and unspecified NHL	88	6%	90	6%	504	36%	3	0%	419	30%
malignant immunoproliferative disease	0	0%	0	0%	30	50%	0	0%	0	0%
multiple myeloma	7	1%	113	9%	502	39%	14	1%	280	22%
lymphoid leukaemia	4	0%	12	1%	517	37%	11	1%	113	8%
myeloid leukaemia	1	0%	5	1%	469	60%	8	1%	58	7%
monocytic leukaemia	0	0%	0	0%	12	44%	0	0%	2	7%
other specified leukaemia	0	0%	3	4%	11	13%	0	0%	3	4%
unspecified leukaemia	1	0%	6	2%	77	22%	1	0%	14	4%
other lymphoid and haematopoietic	1	2%	1	2%	4	7%	0	0%	1	2%
in situ: oral cavity, oesophagus and stomach	51	43%	12	10%	0	0%	0	0%	8	7%
other digestive	166	67%	2	1%	0	0%	0	0%	5	2%
middle ear and respiratory	18	15%	57	49%	1	1%	0	0%	10	9%
melanoma	1158	92%	3	0%	0	0%	0	0%	4	0%
carcinoma of skin	4572	85%	43	1%	24	0%	0	0%	39	1%
breast	362	53%	9	1%	0	0%	6	1%	268	39%
cervix	2262	37%	8	0%	1	0%	1	0%	2	0%
other genital	102	72%	2	1%	1	1%	0	0%	7	5%
other sites	83	62%	2	1%	6	4%	0	0%	14	10%
benign: lipomatous	2	50%	0	0%	0	0%	0	0%	0	0%
haemangioma	5	56%	1	11%	0	0%	0	0%	0	0%
meninges	38	8%	13	3%	5	1%	8	2%	6	1%
brain	228	85%	3	1%	1	0%	0	0%	4	1%
endocrine	155	48%	13	4%	0	0%	3	1%	54	17%
uncertain: oral and digestive	495	84%	0	0%	0	0%	0	0%	4	1%
respiratory	2	29%	0	0%	0	0%	0	0%	1	14%
female genital	69	68%	0	0%	6	6%	0	0%	14	14%
male genital	11	85%	0	0%	0	0%	0	0%	2	15%
urinary	154	88%	0	0%	0	0%	1	1%	12	7%
meninges	0	0%	1	20%	0	0%	0	0%	0	0%
brain and CNS	40	67%	1	2%	1	2%	0	0%	7	12%
endocrine	32	41%	8	10%	1	1%	1	1%	6	8%
polycythaemia vera	0	0%	3	1%	79	35%	3	1%	1	0%
myelodysplastic syndromes	0	0%	7	1%	57	10%	1	0%	1	0%
other lymphoid, haematopoietic	2	0%	7	1%	136	23%	8	1%	6	1%
other sites	171	72%	2	1%	1	0%	0	0%	7	3%

METHODS AND DEFINITIONS

CASES AND DEATHS

All neoplasms (including in situ, uncertain and some benign neoplasms) registered as incident between January 1st, 1994 and December 31st, 2001, and which had been registered before January 1st, 2005, are included in this report. Neoplasms described as "invasive" are those in ICD 10 classifications C00 to C96 inclusive. Other conditions registered, and described as "non-invasive", are *in situ* cancers, cancers of uncertain behaviour, and benign intracranial and intraspinal tumours.

The rules suggested by IARC for dealing with multiple primary tumours have been used in compiling these statistics, so figures may differ from those presented in reports covering the years 1994 to 1997, which did not apply these rules.

As with all cancer registration, the data on which this report is based is dynamic, so case or death numbers may not exactly tally with those released previously or in the future.

Data on cancer deaths were kindly provided by the Central Statistics Office, Skehard Road, Cork.

CRUDE, AGE-STANDARDISED AND CUMULATIVE RATES

These were calculated by standard methods. The denominator population was drawn from the estimates made by the Central Statistics Office and Department of Health and Children (see below).

CRUDE INCIDENCE/MORTALITY RATE

The number of incident (new) cases or deaths divided by person-years at risk.

EUROPEAN AGE-STANDARDISED INCIDENCE/MORTALITY RATE (EASR)

An incidence/mortality rate adjusted (standardised) to a hypothetical European standard population. Use of this standard eliminates differences in incidence/mortality rate due to difference in age-composition of the populations compared.

CUMULATIVE RISK TO AGE 75

This gives the overall risk to an individual of developing (or dying of) cancer before age 75, assuming every individual survives to that age. As life expectancy in Ireland is approximately 75, this also gives a rough estimate of lifetime risk. However, as an estimate of lifetime risk it is inaccurate for cancers with a high incidence or mortality after the age of 74.

POPULATIONS

For census years (1991 and 1996) the published census populations were used. For intercensal years we have used the population estimates published in the Public Health Information System (PHIS, version 6.01, 2003) of the Department of Health and Children.

ANNUAL PERCENTAGE CHANGE (APC)

Annual percentage change was estimated for the period 1994 to 2001 from the slope of the regression of the log of the number of cases/deaths on the year of incidence/death, using the LOGEST function in Microsoft Excel ™. Case numbers for each year are related to those in the previous year by the formula:

$$n_{i+1} = n_1 + n_1 * EAPC; \text{ or } n_{i+x} = n_i + n_i * EAPC^x$$

TREATMENTS

The Registry defines "treatment" as any intervention which is aimed at removing the cancer or reducing cancer bulk. It therefore excludes by-pass and reconstructive surgery. Treatments are registered only if administered, or planned, at the time of diagnosis. Treatment given later in the course of the disease, for recurrence or relapse, is not registered. This distinction is not always clear and in case of doubt we register the treatment.

"Surgery" is any surgical procedure, other than biopsy, directed at removing the tumour or reducing tumour bulk. "Radiotherapy" is any form of radiation therapy, including brachytherapy. "Chemotherapy" includes not only conventional chemotherapy but also newer biological response modifiers and monoclonal antibodies. It does not include oestrogen/anti-oestrogen treatments for breast, prostate and other hormone-dependent cancers, which are classified as "hormone" treatment. Hormone treatment does not include corticosteroid hormones. In 1994 and 1995, hormone therapy was not separately classified by the Registry, but was included under "chemotherapy".

SATSCAN SOFTWARE

The SaTScan software analyzes spatial, temporal and space-time data using the spatial, temporal, or space-time scan statistics. In this report a Poisson model was used for incidence rates, which were adjusted for the age and sex distribution of the population at risk, and a Bernouilli model, which was not adjusted for age or sex, for treatments. (See http://www.satscan.org/).

SaTScan ™ is a trademark of Martin Kulldorff. The SaTScan ™ software was developed under the joint auspices of Martin Kulldorff, of the National Cancer Institute and of Farzad Mostashari at the New York City Department of Health and Mental Hygiene

NATIONAL CANCER REGISTRY BOARD

ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2003

AN BORD UM AN GCLÁRLANN NÁISIUNTA AILSE

RÁITIS AIRGEADAIS DON BLIAIN DAR CRÍOCH 31 NOLLAIG 2003

Income and Expenditure Account/Cúntas Ioncaim agus caiteachas

for the year ended 31 December 2003/don bhliain dar chríoch 21 Nollaig 2003

	2003	2002
	€	€
Income/Ioncam		
Department of Health & Children—Grants/ An Roinn Sláinte agus Leanaí—Deontais	**1,838,312**	1,403,983
Superannuation/Aoisliúntas	**57,460**	46,622
Statistical Income/Ioncam staitistiúil	**50**	1,747
Other Income/Ioncam eile	**1,894**	0
Total Income/Ioncam iomlan	**1,897,716**	1,452,352
Expenditure/Caiteachas		
Staff costs/Costais foirne	**1,088,146**	1,082,525
Administration costs/Costais riaracháin	**468,213**	150,946
Travel and subsistence/Taisteal agus cothú	**69,324**	49,834
Total Expenditure/Caiteachas iomlán	**1,625,683**	1,283,305
Surplus/(Deficit) for year Barrachas/(Easnamh) don bhliain	**272,033**	169,047
Balance Brought Forward 1st January/ Iarmhéid tugtha ar aghaidh amhail an 1 Eanair	**102,903**	(66,144)
Balance Carried Forward 31st December/ Iarmhéid tugtha ar aghaidh amhail an 31 Nollaig	**374,936**	102,903

Balance Sheet/Clár Comhardaithe

as at 31st December 2003/amhail an 31 Nollaig 2003

	2003		2002	
	€	€	€	€
Fixed Assets/Sóchmhainní Seasta		107,466		46,206
Current Assets/Sóchmhainní Reatha				
Debtors/Féichiúnaithe	42,487		15,764	
Cash at bank and in hand/ Iarmhéideanna Banc & Airgid Thirim	588,554		274,707	
	631,041		290,471	
Current Liabilities				
Amounts due to University College, Cork/ Méideanna dlithe le Colaiste na hOllscoile, Corcaigh	134,017		75,237	
Other creditors/Creidiúnaithe eile	3,083		80,000	
Accruals/Fabhruithe	57,965		32,331	
Grants received in advance/ Deontais	61,040		0	
	256,105		187,568	
Net Current Assets/Glansóchmhainní Reatha		374,936		102,903
Total Assets Less Current Liabilities/ Glansóchmhainní Iomlán Lúide Dliteanais Reatha		482,402		149,109
Financed by /Arna n-aireagadú ag				
Capital Grants/Deontais caiptiúil		107,466		46,206
Income and Expenditure Account/ Ráiteas ioncam agus caiteachas		374,936		102,903
		482,402		149,109