

I. Summary

What is the report?

This is the first collaborative report of the two cancer registries in the island of Ireland. It is the result of a concerted effort of data harmonisation and analysis, and documents the similarities and differences in cancer patterns on an all-Ireland basis.

The data

- Cancer incidence and deaths, over 3 years.
- Over 25,000 malignant (invasive) cases per year, or almost 18,000 excluding non-melanoma skin cancer.
- Almost 11,000 cancer deaths per year.

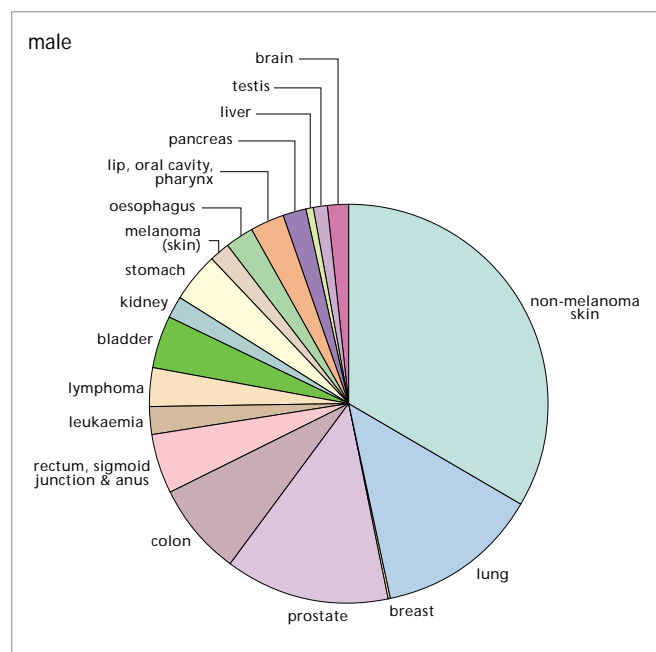
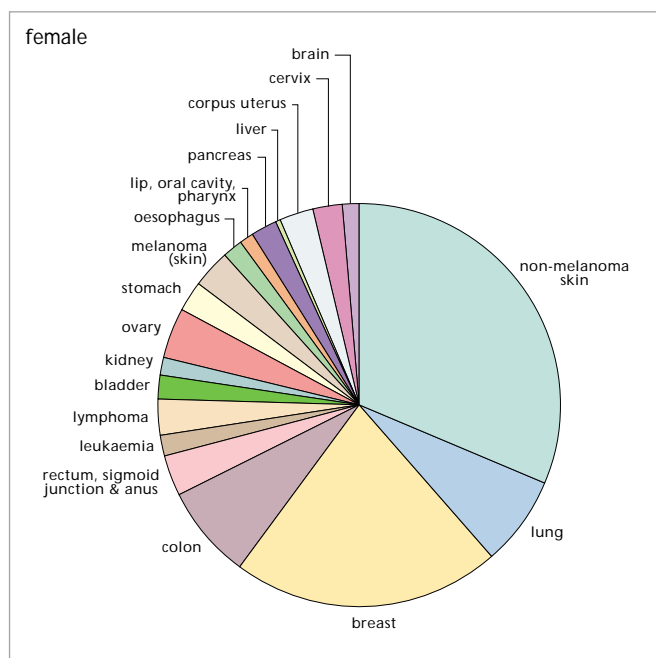
Who was involved?

- National Cancer Registry (Ireland)
- Northern Ireland Cancer Registry
- The Institute of Public Health in Ireland
- National Cancer Institute (USA)
- Department of Health, Social Services and Public Safety (Northern Ireland)
- Department of Health & Children (Ireland)

Annual average cases and deaths from cancer, Ireland, 1994-96, ranked by numbers of cases

female		cancer type	male	
cases	deaths		cases	deaths
3445	10	non-melanoma skin	3889	30
793	790	lung	1539	1511
2368	969	breast	21	6
826	495	colon	876	535
-	-	prostate	1550	718
360	139	rectum & anus	563	205
268	242	stomach	463	358
210	87	bladder	495	178
317	150	lymphoma	365	190
338	46	melanoma of skin	193	39
230	247	pancreas	220	251
183	162	leukaemia	262	123
445	296	ovary	-	-
177	175	oesophagus	268	266
124	59	lip, mouth, pharynx	321	133
148	130	brain	200	167
156	68	kidney	206	113
299	60	corpus uteri	-	-
259	105	cervix uteri	-	-
-	-	testis	132	12
43	80	liver	70	112
80	11	childhood cancers	99	24
8787	5108	all excluding NMS	9077	5839
12233	5118	all cancers	12967	5869

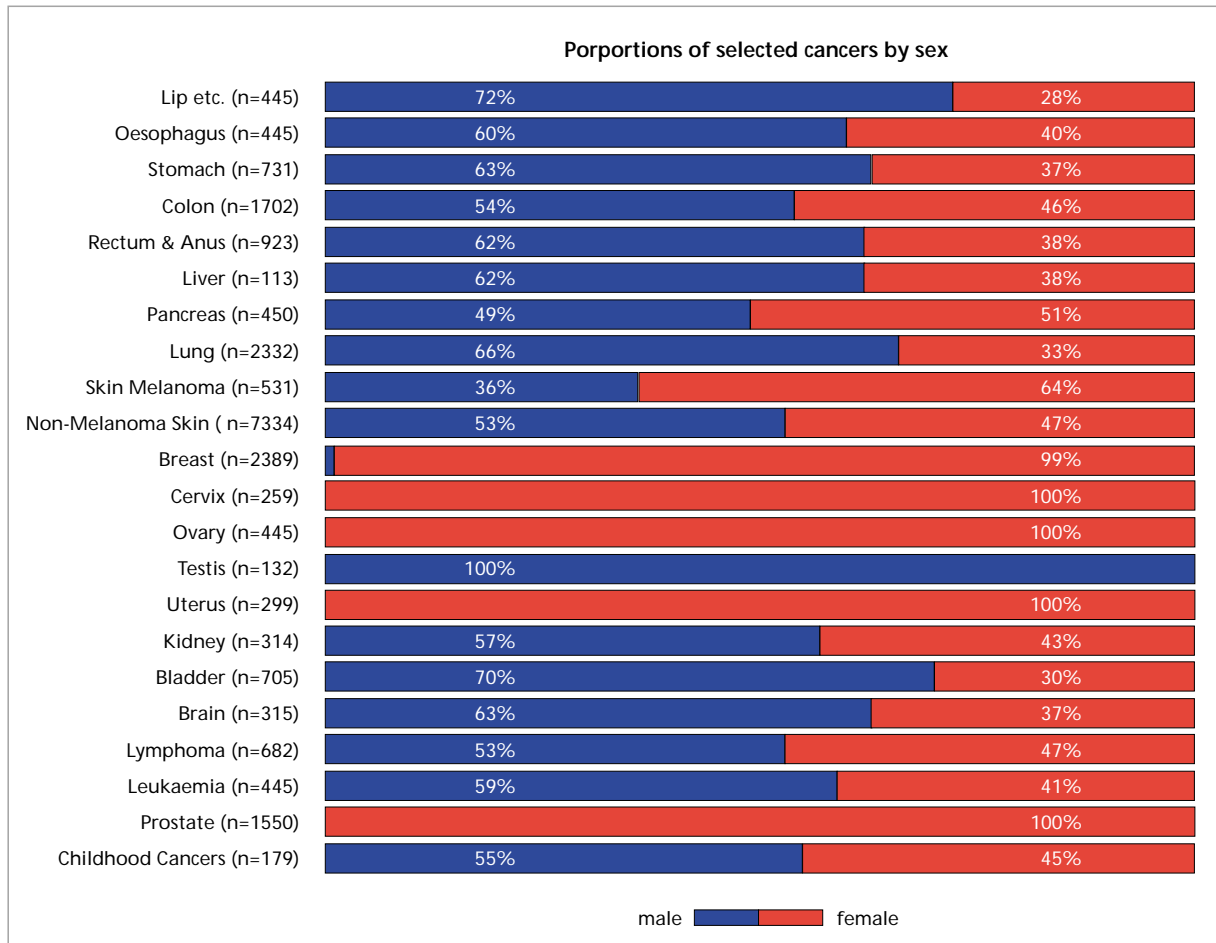
Most common cancers



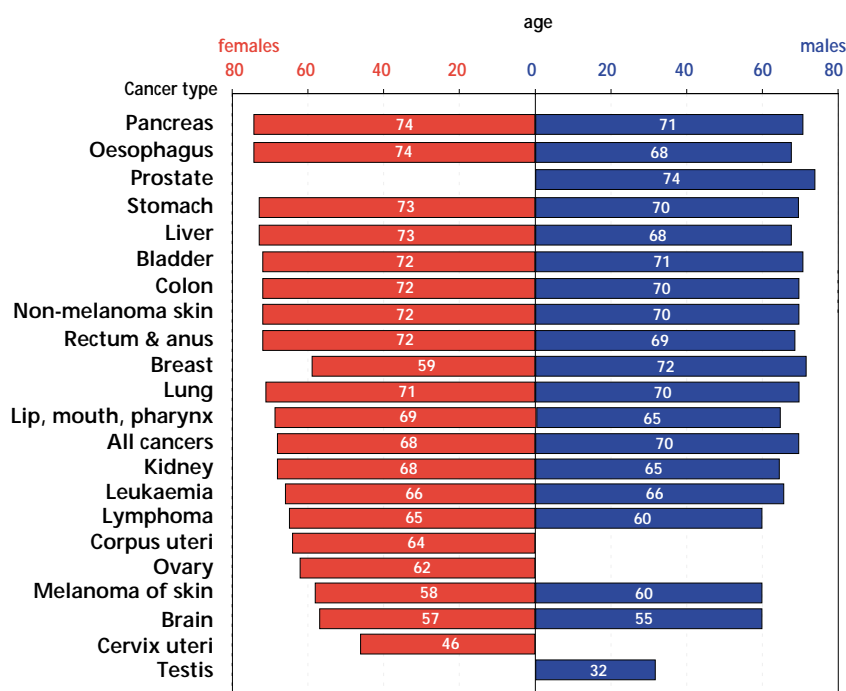
Important facts

- Age-standardised cancer incidence rates are 30% higher in men than in women.
- There is a 1-in-3 chance of developing cancer by age 74; 1-in-4 if skin cancer is excluded.
- Age-standardised cancer mortality rates are almost 50% higher for men than for women.
- Females have a 1-in-8 chance, males a 1-in-6 chance, of dying of cancer by age 74.
- Urban populations had higher rates of cancer: 10% higher for females, 15% for males.
- Lung cancer accounted for 1/4 of cancer deaths in men, 1/5 overall.
- Breast cancer accounted for 1/5 of cancer deaths in women.
- The Republic of Ireland had the highest rate of oesophageal cancer among women in the EU.
- Overall similarities between Northern Ireland (NI) and the Republic (RoI), but, where differences existed, incidence rates generally were more often higher in NI.

Gender and cancer



Although overall numbers of cancer were similar for men and women, the proportion of men to women for individual cancers varied. Apart from the sex-specific cancers (reproductive organs and breast), more men than women were diagnosed with almost all cancers. The highest ratio of men to women was for lip, lung and bladder cancers, while the highest ratio of women to men was for melanoma and pancreatic cancer.



Median age at diagnosis (age above and below which there were equal numbers of patients)

Age profile

Cancer is predominantly a disease of middle age and old age. Half of all patients were aged 68 or over at the time of diagnosis.

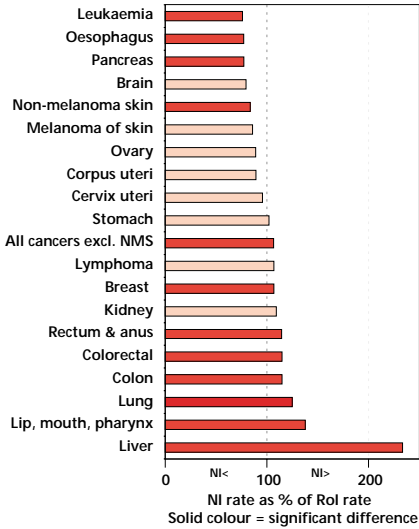
Patients diagnosed with melanoma and cancers of the breast, cervix and brain were relatively young, with more than 60% aged under 65. Half of those with cancer of the testis were diagnosed under 32 years. On the other hand, fewer than 30% of patients with cancers of the bladder, pancreas and prostate were aged under 65 at the time of diagnosis.

For most cancers that occurred in both sexes women tended to be slightly older at the time of diagnosis than men. Melanoma and breast cancer were exceptions to this trend.

Cancer patterns: geographical comparisons of cancer incidence rates

Comparisons below are based on age-standardised incidence rates (corrected to a standard European age-structure to remove the influence of age on rates). For some cancers, inadequate data were available for a given comparison. Figures for 'all cancers' exclude the less harmful, non-melanoma skin cancers (NMS).

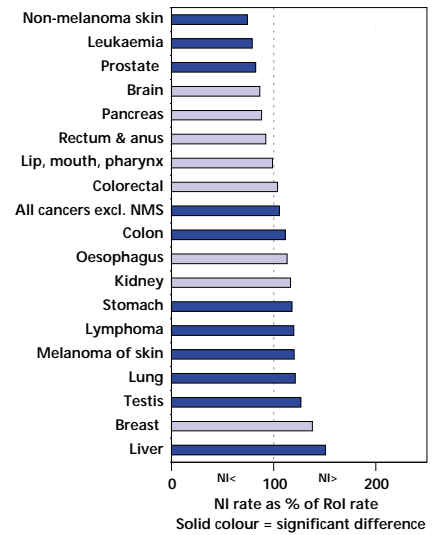
Northern Ireland v. Republic of Ireland rates



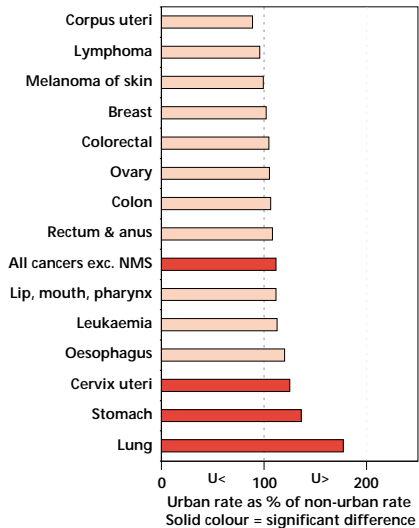
For many cancers, differences between NI and RoI rates were relatively small, and not statistically significant.

However, for a number of cancers (and depending on sex), rates were significantly different (solid colours).

Overall, cancer rates (excluding NMS) were an estimated 6-7% higher in Northern Ireland.

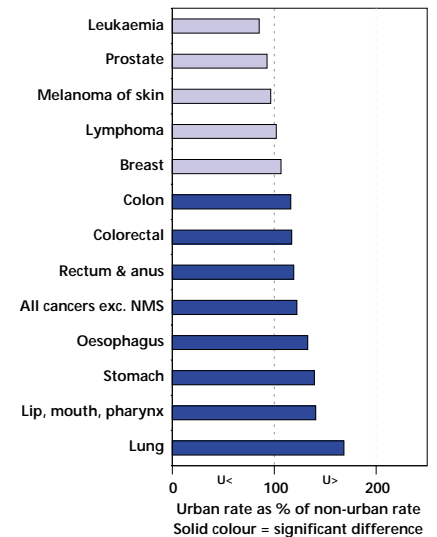


Urban (city) v. non-urban rates

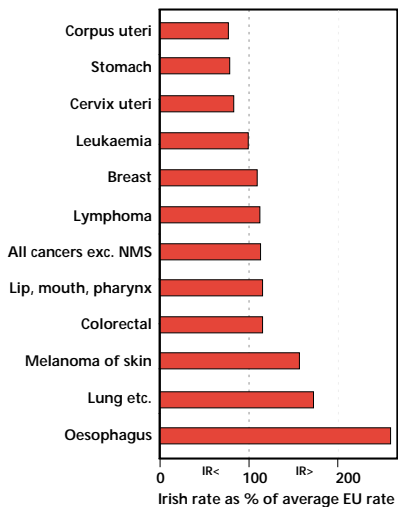


Rates of a number of cancers were significantly higher (solid colours) in urban populations than in populations outside of the cities. This is in line with international findings.

Higher urban rates may reflect the influence of tobacco smoking and other risk factors linked to social deprivation and poverty.

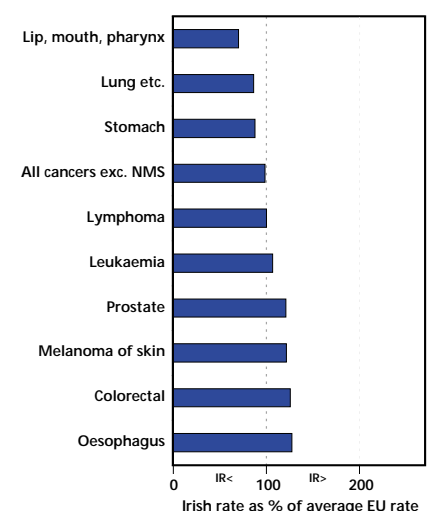


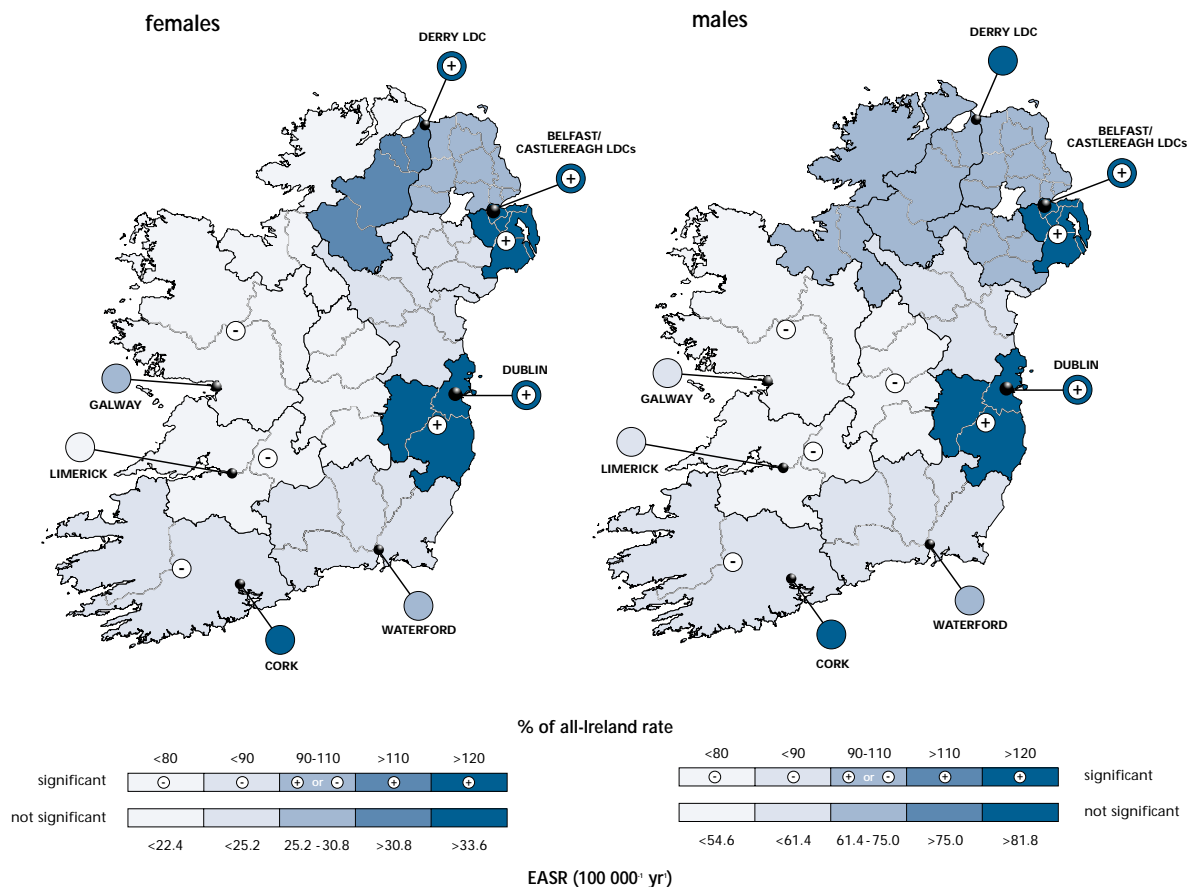
Irish v. EU average rates



For cancers as a whole, rates among Irish women were higher than the EU average. Rates among Irish men were similar to the EU average.

Among males, the different major cancers showed a relatively even mix of 'high' and 'low' Irish rates. Relatively more cancer types in females occurred at high rates (in EU terms).





Sample map from main report: Lung cancer: age-standardised incidence rates (as % of all-Ireland rate) by health-board areas, 1994-96. Rates within cities are included within health-board rates and also indicated separately. Rates significantly different from the rest of Ireland are indicated. Variation within Ireland is particularly striking for lung cancer, largely reflecting higher rates in the cities.

Age-standardised incidence and mortality rates (EASRs: cases or deaths per 100,000 persons per year), and cumulative risks ('lifetime risk' to age 74), for selected malignant cancers, all Ireland, 1994-96.

Description	ICD-10	Incidence (new cases)				Mortality			
		female		male		female		male	
		EASR	risk, 1 in	EASR	risk, 1 in	EASR	risk, 1 in	EASR	risk, 1 in
Lip, mouth, pharynx	C00-C14	4.4	290	14.5	82	1.9	700	6.0	210
Oesophagus	C15	5.8	240	12.1	103	5.5	260	11.9	111
Stomach	C16	8.8	150	20.5	62	7.6	195	16.0	86
Colorectal cancers	C18-21	40.9	32	64.2	20	20.0	73	32.9	42
Colon	C18	28.3	45	39.0	32	15.6	93	23.7	59
Rectum & anus	C19-C21	12.6	102	25.2	48	4.4	340	9.2	145
Liver	C22	1.4	860	3.1	400	2.5	550	5.0	250
Pancreas	C25	7.5	175	9.7	140	7.8	175	11.1	123
Lung	C34	28.0	41	68.2	17	27.0	44	66.5	19
Melanoma of skin	C43	12.9	100	8.5	160	1.6	840	1.8	870
Non-melanoma skin (NMS)	C44	117.4	12	173.7	8	0.3	6600	1.4	1600
Breast	C50	96.0	13	0.9	1400	36.2	36	0.3	4600
Cervix uteri	C53	10.5	120	-	-	4.2	300	-	-
Corpus uteri	C54	12.1	94	-	-	2.1	540	-	-
Ovary	C56	17.4	70	-	-	11.0	109	-	-
Prostate	C61	-	-	67.1	21	-	-	31.8	67
Testis	C62	-	-	5.0	280	-	-	0.5	3500
Kidney	C64	5.0	250	9.3	125	2.3	580	5.1	250
Bladder	C67	7.0	180	21.9	62	2.5	690	7.8	240
Brain	C71	5.7	210	8.6	130	4.9	240	7.3	160
Lymphoma	C81-C85	11.8	100	15.8	80	5.1	245	8.3	150
Leukaemia	C91-C95	6.5	190	11.2	120	4.1	340	7.0	205
All cancers except NMS	C00-43,45-97	325.1	4	399.4	4	173.9	8	258.6	6
All malignant cancers	C00-C97	442.5	3	573.2	3	174.0	8	260.0	6