

Cancer in Ireland 1994-2013: Annual Report of the National Cancer Registry



2015

ABBREVIATIONS

95% CI	95% confidence interval
APC	Annual percentage change
ASR	Age-standardised rate (European standard population)
CNS	Central nervous system
CSO	Central Statistics Office
ESP	European Standard Population
IARC	International Agency for Research on Cancer
ICD	International Statistical Classification of Diseases and Related Health Problems
NCR	National Cancer Registry
NMSC	Non-melanoma skin cancer
NOS	Not otherwise specified
PSA	Prostate specific antigen
TNM	Tumour, node, metastasis (staging)

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This is the 20th annual statistical report of the National Cancer Registry. The report summarises cancer incidence in Ireland for the period 1994 to 2013, with particular emphasis on the most recent three years for which reliable data are available (2011-2013), longer-term trends in incidence, and prevalence (the numbers of cancer patients still alive). Brief summaries of cancer mortality (2011-2012 data) and survival are also included.

Incidence: new cases per year

An average of 37,000 neoplasms was registered annually between 2011 and 2013 inclusive. Approximately 19% of these were non-invasive. Approximately 30,000 cases of invasive cancer, or 20,500 cases excluding non-melanoma skin cancer (NMSC), were registered annually. Incidence rates for all invasive cancers combined, excluding NMSC, were 28% higher for men than for women and cumulative lifetime risk (to age 75 years) remains approximately 1 in 3 for men and 1 in 4 for women.

Incidence trends

For males, the rate of diagnosis of invasive cancer (excluding NMSC) reached a plateau over the period of 2008-2013. This was probably due to the static incidence rate of prostate cancer since 2004, a consistent fall in the rate of lung and bladder cancer since 1994, and of leukaemia since 2004. Rates of invasive cancer (excluding NMSC) in females have increased significantly by about 1% annually since 1994, without evidence of a plateau. Population screening for breast and cervical cancer probably had some bearing on this as did the continuing upward trend in female lung cancer. For the first time, lung cancer has now marginally overtaken colorectal cancer as the 2nd most common cancer diagnosed in females (average counts 2011-2013). Lung cancer incidence fell by 1% annually in males but increased by >2% annually in females over the period 1994-2013.

For the first time, this report also explores the implications and feasibility of using the latest EUROSTAT population age weights (ESP 2013) as opposed to the 1976 weights previously used by the NCR and other European registries for age-standardisation of cancer incidence rates. Rates are calculated for all the main cancer sites, and annual rates and trends compared, using both population weights. In general, rates calculated using the new standard tended to be higher (because older populations are more heavily weighted) but for most cancers types this did not affect assessment of time-trends in incidence.

Mortality: deaths from cancer

Lung cancer was the leading cause of cancer death in both sexes, comprising 18% of cancer deaths in women and 23% of cancer deaths in men during the period 2011-2012. Deaths from lung, colorectal, breast and prostate cancers combined made up almost half of all deaths from cancer during this period.

Cancer survival

A full analysis of cancer survival is not included in this report, but net survival figures are presented for colorectal, cervical and female breast cancers. Age-standardised, five-year net survival for colorectal cancer patients improved from 57% to 61%, for breast cancer from 80% to 82% and for cervical cancer from 56% to 62% between diagnosis periods 2003-2007 and 2008-2012. These improvements were generally also evident at regional level (HSE area of residence).

Cancer prevalence

For the diagnosis period 1994-2013 there were approximately 124,000 persons still alive at the end of 2013 after diagnosis with invasive cancer (excluding NMSC). In this 20-year prevalent population the most numerous cancer survivors were ranked as follows: 1) breast, 2) prostate, 3) colorectal and 4) melanoma of the skin.

1. INCIDENCE 2011-2013

An average of approximately 37,000 cancers and other (non-invasive) tumours was registered per year between 2011 and 2013 inclusive, representing an overall age-standardised incidence rate of 764 female cases and 795 male cases per 100,000 per year (based on the 1976 European standard population; Table 1-1). Approximately 19% of these were non-invasive tumours (in situ carcinomas, tumours of uncertain behaviour and benign brain and CNS tumours) and 26% were invasive non-melanoma skin cancers (NMSC, 9,512 cases per year). Invasive cancers as a whole averaged 30,000 per year during 2011-2013, or an age-standardised rate of 546 female and 724 male cases per 100,000 per year.

For all invasive cancers excluding NMSC, the figures most often quoted in international comparisons, approximately 20,500 cases were registered annually, representing 68% of all registered cases and equivalent to an incidence rate of 384 cases per 100,000 females and 490 cases per 100,000 males per year. This rate was 28% higher for men than for women (similar to previously published figures for Ireland), and cumulative lifetime risk (to age 75 years) remained approximately 1 in 3 for men and 1 in 4 for women. Further statistics by individual cancer type are summarised below and, for a longer list of sites, in Appendix I.

Table 1-1. Annual average incidence of most common cancers: 2011-2013

ICD10 site	CASES			RATE** per 100,000		% RISK to age 75 years		% of all invasive cancers		
	females	males	total	females	males	females	males	females	males	total
C00-C96: all invasive cancers	13,726	16,240	29,966	546.0	723.8	35.05	44.40	100.0	100.0	100.0
<i>C00-C43, C45-C96 all invasive cancers, excluding NMSC</i>	9,506	10,948	20,454	384.1	489.5	26.45	33.68	69.3	67.4	68.3
<i>C00-D48 all registered cancers</i>	19,215	17,848	37,062	763.7	795.1	44.86	47.44			
<i>D00-D48: all non-invasive cancers</i>	5,488	1,608	7,096	217.7	71.3	15.11	5.46			
mouth & pharynx	122	280	403	5.1	12.7	0.41	1.12	0.9	1.7	1.3
oesophagus	138	251	389	5.0	11.3	0.36	0.95	1.0	1.6	1.3
stomach	192	341	532	7.1	15.1	0.50	1.18	1.4	2.1	1.8
colorectum	1,019	1,441	2,460	39.0	64.0	3.01	4.96	7.4	8.9	8.2
liver	75	167	243	2.8	7.4	0.21	0.58	0.6	1.0	0.8
pancreas	238	259	496	8.7	11.5	0.62	0.89	1.7	1.6	1.7
lung and trachea	1,027	1,292	2,318	40.3	57.3	3.29	4.45	7.5	8.0	7.7
melanoma of skin	491	422	913	19.8	18.7	1.56	1.46	3.6	2.6	3.1
other malignant neoplasms of skin (NMSC)	4,220	5,292	9,512	161.9	234.4	11.69	16.18	30.7	32.6	31.7
breast	2,883	34	2,917	122.6	1.5	9.61	0.12	21.0	0.2	9.7
cervix	295		295	12.4		0.96		2.2		1.0
corpus uteri	435		435	18.6		1.64		3.2		1.5
ovary	361		361	14.8		1.19		2.6		1.2
other gynaecological cancers†	102		102	4.1		0.31		0.8		0.3
prostate		3,400	3,400		154.3	0.00	13.77		20.9	11.4
testis		167	167		7.0		0.50		1.0	0.6
kidney	197	373	570	8.0	16.7	0.68	1.35	1.4	2.3	1.9
bladder	135	306	440	4.9	13.5	0.33	0.95	1.0	1.9	1.5
all brain & CNS tumours	311	285	597	12.9	12.7	1.01	1.02			
<i>brain and CNS: malignant</i>	156	199	355	6.4	8.8	0.51	0.73	1.1	1.2	1.2
<i>brain & CNS: benign</i>	120	55	175	4.9	2.4	0.40	0.20			
<i>brain & CNS: uncertain</i>	35	32	67	1.5	1.4	0.10	0.10			
thyroid	205	69	275	8.6	3.0	0.68	0.25	1.5	0.4	0.9
lymphoma (total)	412	480	892	16.8	21.4	1.38	1.67	3.0	3.0	3.0
<i>Hodgkin lymphoma</i>	60	75	135	2.6	3.3	0.20	0.25	0.4	0.5	0.5
<i>non-Hodgkin lymphoma</i>	352	406	757	14.2	18.1	1.18	1.42	2.6	2.5	2.5
multiple myeloma	96	153	249	3.6	6.8	0.26	0.51	0.7	0.9	0.8
leukaemia (total)	190	289	479	7.6	12.9	0.59	0.93	1.4	1.8	1.6
other invasive tumours (not listed ‡)	737	1,025	1,762					5.3	6.3	5.8

* invasive cancer included all tumours classified as behaviour 3 in ICD-O-3 classification (including some neoplasms previously classified as uncertain behaviour) [1]

**rates are standardised to the 1976 European standard population (ESP) [2] – see Appendix I for rates standardised to the 2013 ESP

† vulva, vagina, uterus (NOS) and placenta

‡ see Appendix I for further site-specific statistics

Figure 1-1. Relative frequency of the most common invasive cancers (including non-melanoma skin cancer) diagnosed during 2011-2013

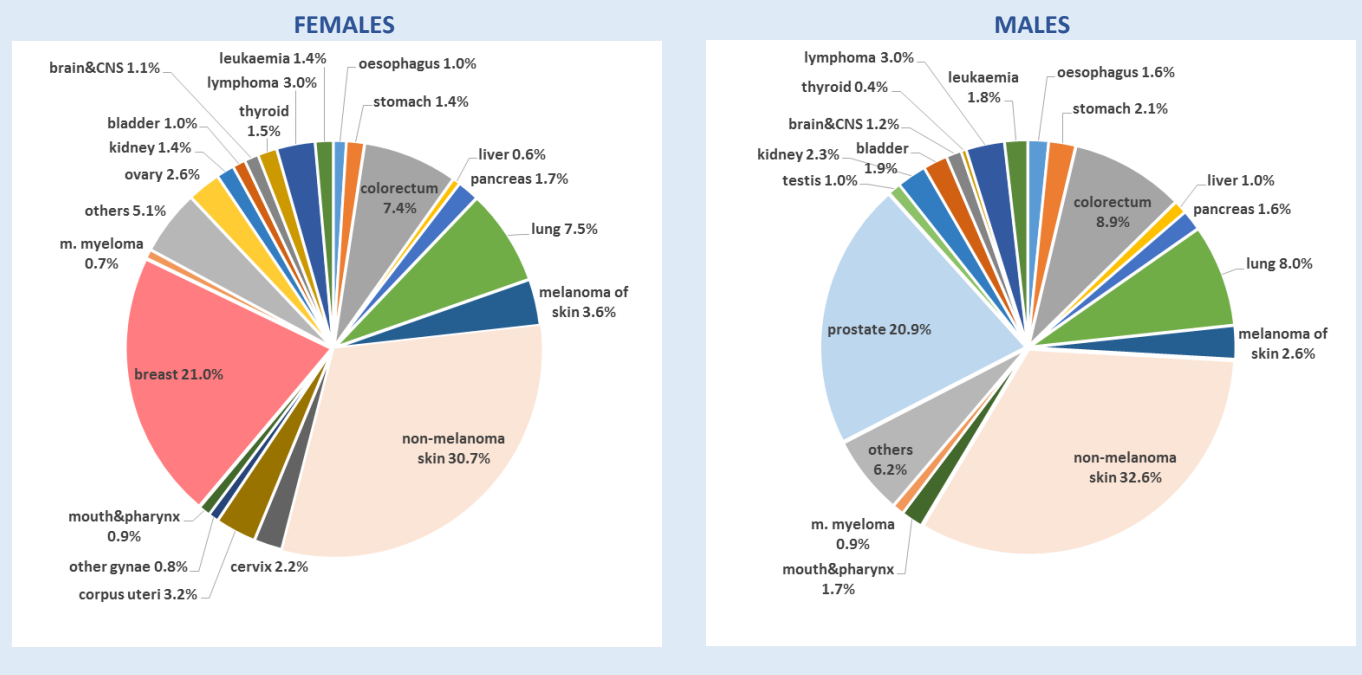


Table 1-2. Proportions and ranks of the most commonly diagnosed invasive cancers (excluding NMSC): 2011-2013

	FEMALES		MALES		ALL	
	%	rank	%	rank	%	rank
C00-C43, C45-C96 all invasive cancers, excluding NMSC	100.0%		100.0%		100.0%	
prostate			31.1%	1	16.6%	1
breast	30.3%	1			14.3%	2
colorectal	10.7%	3	13.2%	2	12.0%	3
lung	10.8%	2	11.8%	3	11.3%	4
melanoma of skin	5.2%	4	3.9%	5	4.5%	5
lymphoma	4.3%	6	4.4%	4	4.4%	6
kidney	2.1%	11	3.4%	6	2.8%	7
stomach	2.0%	12	3.1%	7	2.6%	8
pancreas	2.5%	9	2.4%	11	2.4%	9
leukaemia	2.0%	13	2.6%	9	2.3%	10
bladder	1.4%	16	2.8%	8	2.2%	11
corpus uteri	4.6%	5			2.1%	12
mouth & pharynx	1.3%	17	2.6%	10	2.0%	13
oesophagus	1.5%	15	2.3%	12	1.9%	14
ovary	3.8%	7			1.8%	15
brain & CNS	1.6%	14	1.8%	13	1.7%	16
cervix	3.1%	8			1.4%	17
thyroid	2.2%	10	0.6%	17	1.3%	18
multiple myeloma	1.0%	18	1.4%	16	1.2%	19
liver	0.8%	19	1.5%	15	1.2%	20
testis			1.5%	14	0.8%	21
other sites not listed	8.5%		9.5%		9.0%	

NMSC was the most common invasive cancer, representing 31% and 33% of all cases in females and males respectively (Figure 1-1). If NMSC was excluded, prostate and female breast cancer were the most commonly diagnosed cancers overall, and each comprised almost one-third of all cancers in men and women respectively (Table 1-2). Colorectal and lung cancer were the 2nd and 3rd most common cancers in males, but for the first time lung cancer has moved from 3rd place to 2nd place ahead of colorectal cancer in females. Otherwise, there was little change observed in the relative frequency of individual cancer types from the last annual report (which presented 2010-2012 averages) [3].

Comparison of incidence rates standardised using the 'old' (1976) and 'new' (2013) European standard populations

The age-standardised (ASR) rate for any specified disease is the annual rate of newly diagnosed cases (or deaths) in a given population (and year), expressed per 100,000 persons, weighted by the age-structure of a defined 'standard' population in order to allow meaningful comparisons between different European countries or over time.

By convention for European cancer registries, age-standardised rates for incidence and mortality are typically weighted by the European standard population (ESP) as defined in 1976 [2]. However, in this report (Figures 1-2, 1-3 and Appendix I) the NCR has, for the first time, also presented rates weighted by the 2013 ESP proposed by EUROSTAT to more accurately reflect the demographic age shift in the European population since 1976 [4]. The 2013 ESP is a better reflection of the current population structure than the ESP of 1976, and gives older ages a greater weight than the 1976 ESP (see Methods section)

In general, incidence rates for cancer sites during 2011-2013 tended to be higher when calculated using the more recent age weights (ESP 2013). This is more apparent for cancer sites with older median age of incidence (Figure 1-2), e.g. bladder cancer (74 years), which tended to have a much greater relative difference in rates between the ESP 1976 and ESP 2013 calculations than cancers with a lower median age at diagnosis, e.g. Hodgkin lymphoma (38 years) (Figures 1-3, 1-4).

For the immediate future, the NCR will continue to publish incidence and mortality rates using the 1976 standard population but with rates also provided based on the 2013 standard, both in published reports and (when the necessary programming has been completed) on the NCR website.

Figure 1-2.
Comparison of incidence rates calculated using 1976 and 2013 European standard population (ESP) weights: average annual age-standardised rates for 2011-2013
MALES **FEMALES**

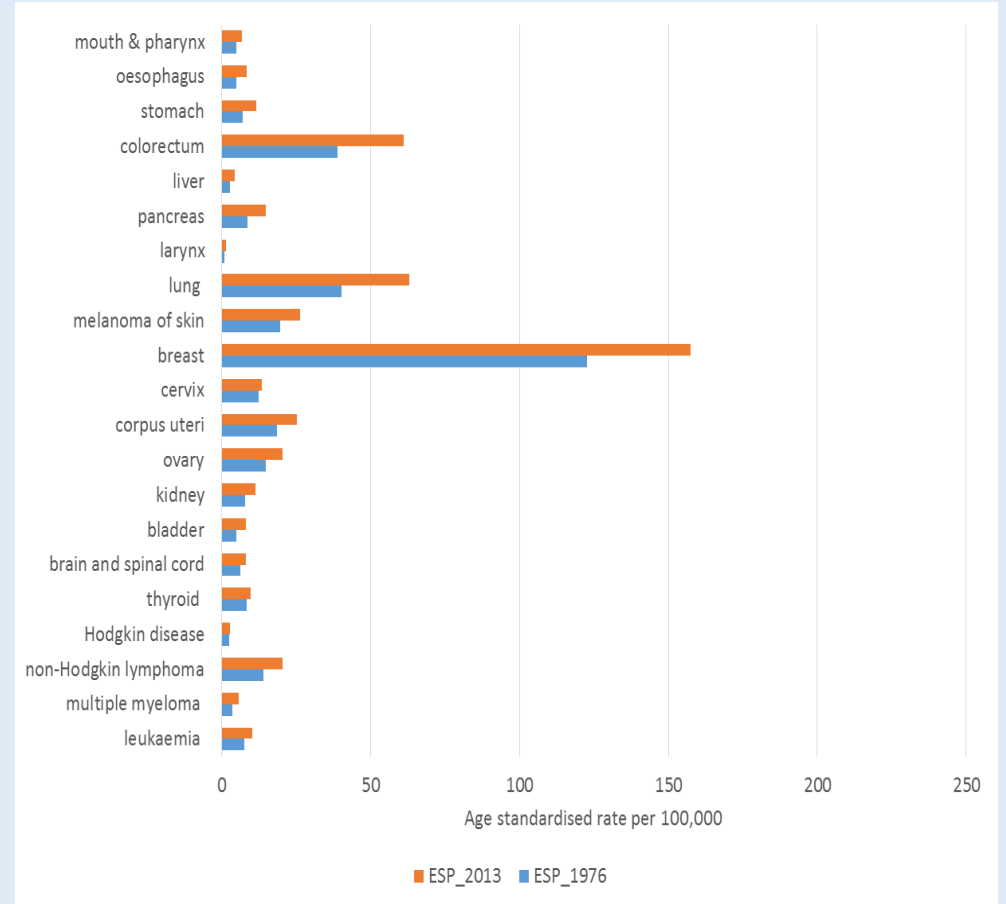
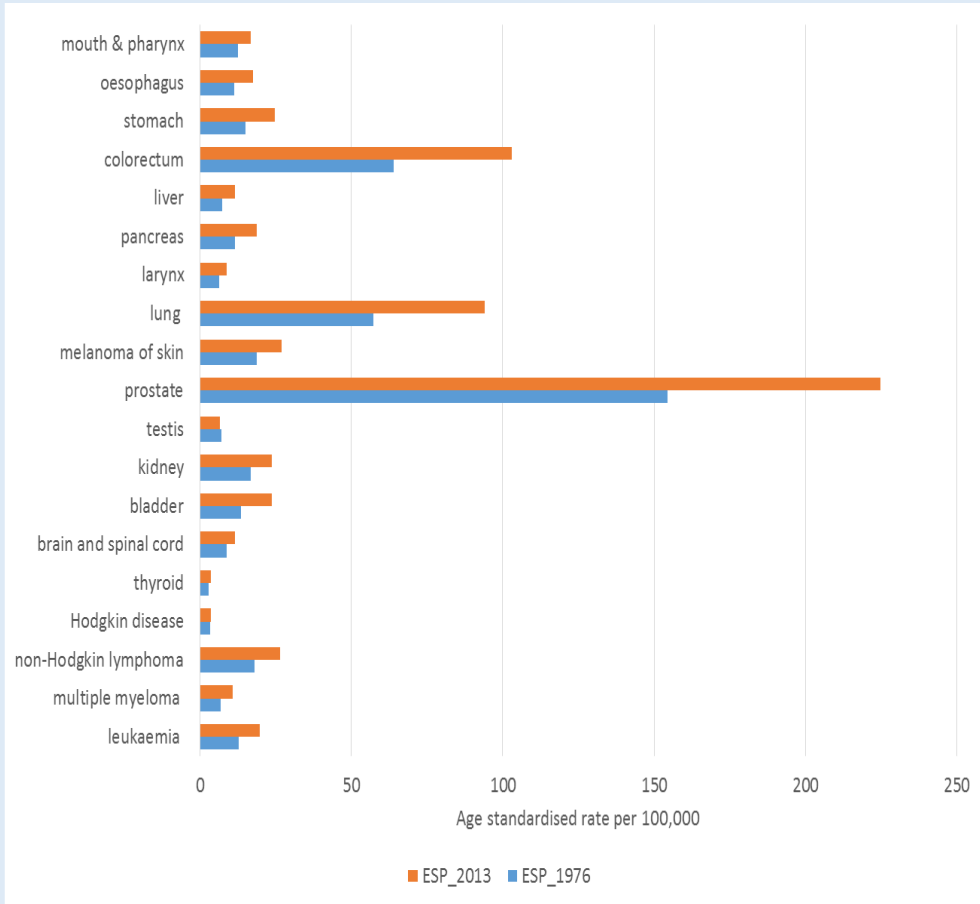
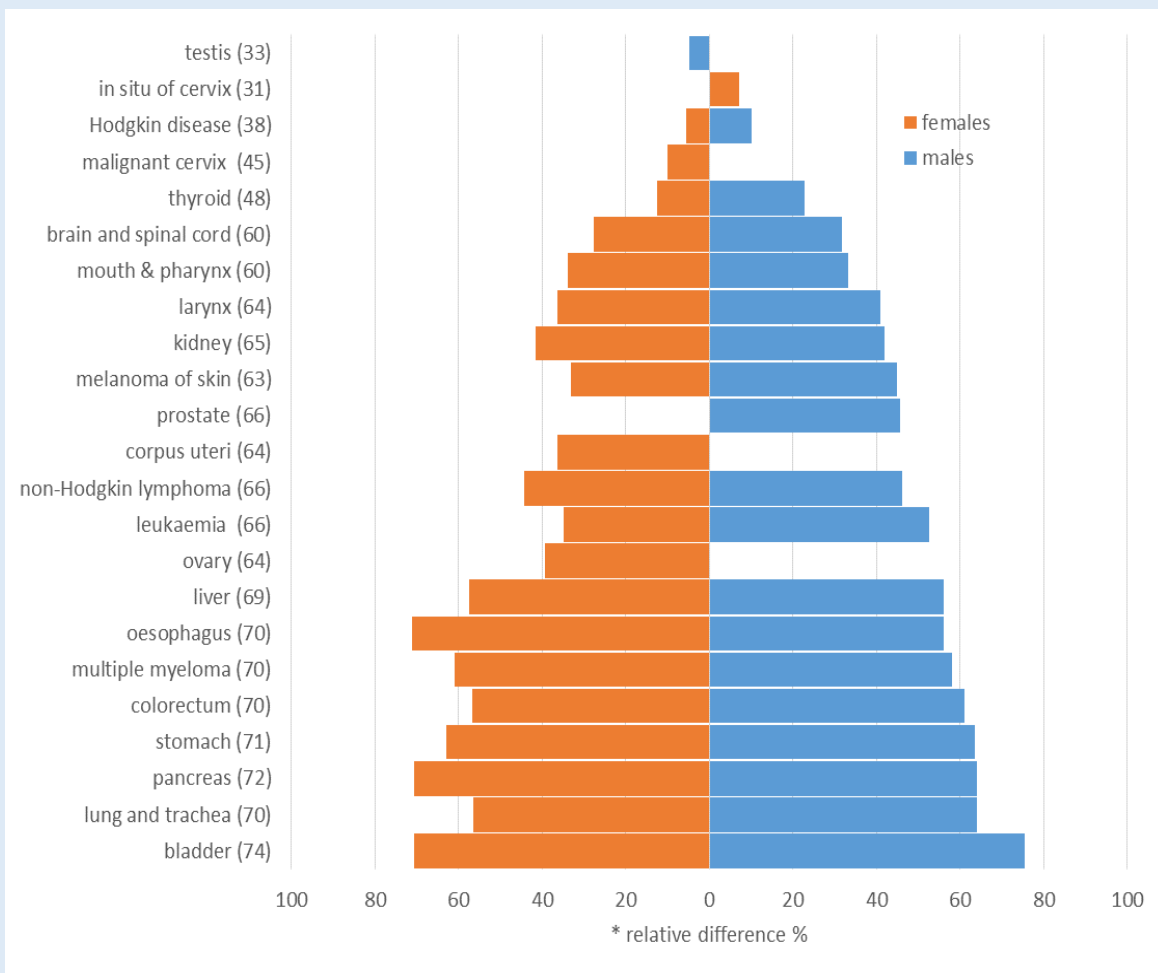


Figure 1-3.

Relative difference between age standardised rate calculated with ESP1976 and ESP2013



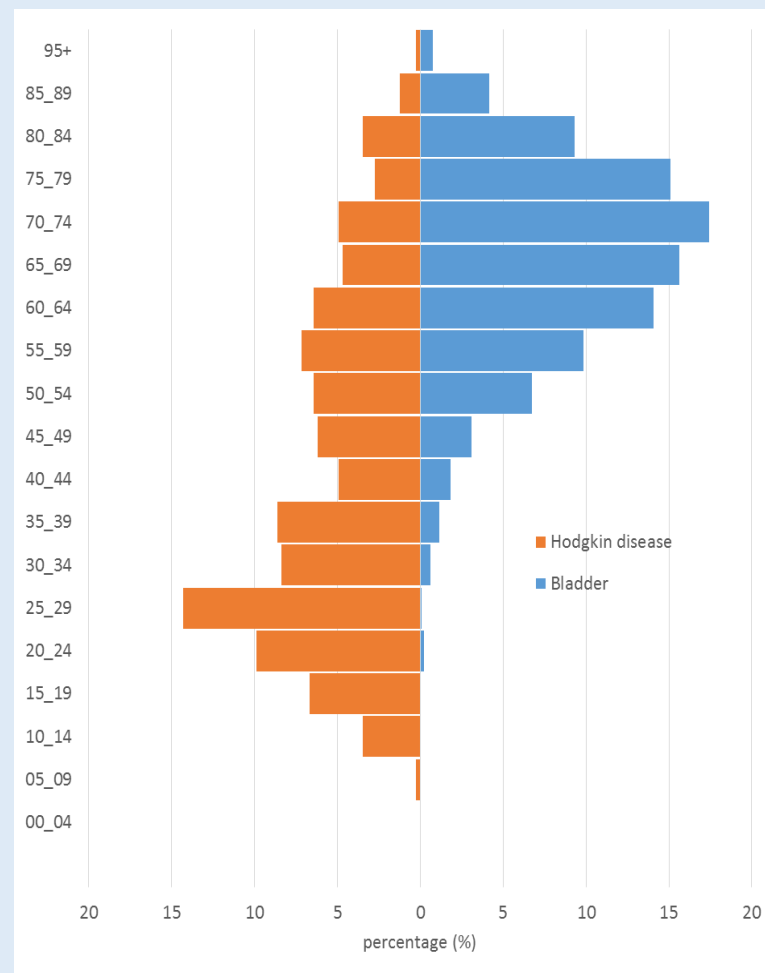
Median age for both sexes combined are shown in brackets

*relative difference % = [(rate calculated using ESP2013/rate calculated using ESP1976) - 1]*100

Note: testis and in situ cervix show small negative values (ESP2013 rate < ESP1976 rate)

Figure 1-4.

Comparison of age-specific % breakdown of cases 2011-2013: bladder cancer and Hodgkin lymphoma, both sexes combined



2. MORTALITY 2011-2012

Cancer continues to be the second most common cause of death in Ireland, after diseases of the circulatory system, and an annual average of 8,827 deaths from cancer or other neoplasms occurred during the period 2011-2012. This represented about 30% of all deaths for the period and an age-standardised mortality rate of 153 deaths per 100,000 females and 211 deaths per 100,000 males per year (Table 2-1). All-cancer mortality rates were approximately 37% higher in men than in women. The lifetime risk (to age 75 year) of dying from cancer was approximately 1 in 10 for women and 1 in 8 for men.

Some deaths were attributed to non-invasive tumours ('D00-D48: All non-invasive neoplasm deaths', Table 2-1). These mostly comprise two groups: 1) benign and uncertain-behaviour neoplasms of the brain and CNS, which can be as fatal as malignant brain tumours; 2) some blood cancers such as polycythaemia vera, myelodysplastic syndromes and related neoplasms of uncertain or unknown behaviour, previously classed as non-malignant (in the ICD10 coding scheme still used for official mortality statistics in Ireland) but now classed as malignant for purposes of cancer incidence reporting.

A more detailed breakdown of mortality statistics by cancer site is given below and, in more detail, in Appendix II.

Table 2-1. Average annual number of deaths from cancer: 2011-2012

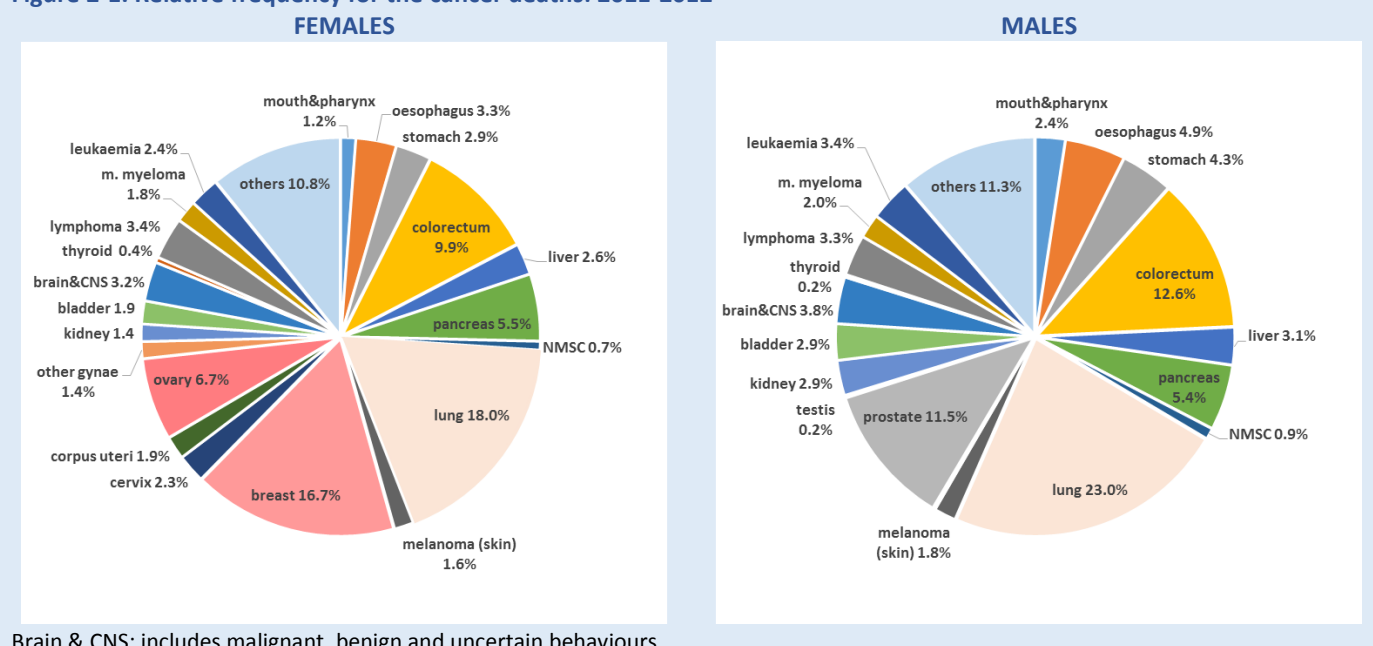
	DEATHS			RATE* per 100,000		% RISK to age 75 Y		% of all registered cancer deaths		
	females	males	total	females	males	females	males	females	males	total
C00-D48 all registered cancer/neoplasm deaths	4,135	4,692	8,827	152.9	211.1	10.26	12.9	100.0	100.0	100.0
<i>C00-C96: All invasive cancer deaths</i>	4,038	4,581	8,619	149.9	206.1	10.12	12.7	97.7	97.6	97.7
<i>C00-C43, C45-C96 all invasive cancer deaths, excluding NMSC</i>	4,012	4,539	8,551	149.1	204.1	10.1	12.6	97.0	96.7	96.9
<i>D00-D48: All non-invasive neoplasm deaths</i>	97	111	208	3.1	5.0	0.15	0.22	2.3	2.4	2.4
mouth & pharynx	50	114	164	1.9	5.2	0.14	0.44	1.2	2.4	1.9
oesophagus	137	231	368	4.8	10.5	0.32	0.81	3.3	4.9	4.2
stomach	120	201	320	4.1	9.0	0.25	0.6	2.9	4.3	3.6
colorectal	409	591	1,000	14.3	26.5	0.91	1.73	9.9	12.6	11.3
liver	106	143	249	3.8	6.5	0.25	0.49	2.6	3.1	2.8
pancreas	226	251	477	8.2	11.3	0.55	0.78	5.5	5.4	5.4
lung	745	1,081	1,826	28.4	48.5	2.14	3.53	18.0	23.0	20.7
non-melanoma skin cancer	27	42	69	0.8	1.9	0.02	0.11	0.7	0.9	0.8
melanoma of skin	65	84	148	2.4	3.7	0.16	0.26	1.6	1.8	1.7
breast	690	8	698	26.7	0.4	1.99	0.03	16.7	0.2	7.9
cervix	96		96	4.1		0.32		2.3		1.1
corpus uteri	78		78	2.9		0.22		1.9		0.9
ovary	277		277	10.9		0.83		6.7		3.1
other gynaecological cancer deaths†	57		57	2.0		0.14		1.4		0.6
prostate		541	541		24.4		1.01		11.5	6.1
testis		8	8		0.3		0.03		0.2	0.1
kidney	59	134	193	2.2	6.1	0.17	0.44	1.4	2.9	2.2
bladder	77	138	215	2.4	6.2	0.11	0.31	1.9	2.9	2.4
all brain & CNS tumours	133	179	312	5.2	8.0	0.43	0.65	3.2	3.8	3.5
<i>brain and CNS: malignant</i>	111	160	271	4.5	7.1	0.37	0.59	2.7	3.4	3.1
<i>brain & CNS: benign</i>	10	4	14	0.3	0.2	0.02	0.01	0.2	0.1	0.2
<i>brain & CNS: uncertain</i>	13	16	28	0.4	0.7	0.04	0.05	0.3	0.3	0.3
thyroid	18	10	27	0.7	0.4	0.05	0.04	0.4	0.2	0.3
lymphoma	142	156	298	5.2	6.9	0.38	0.4	3.4	3.3	3.4
<i>Hodgkin lymphoma</i>	14	11	25	0.5	0.4	0.04	0.03	0.3	0.2	0.3
<i>non-Hodgkin lymphoma</i>	128	146	273	4.7	6.5	0.34	0.37	3.1	3.1	3.1
multiple myeloma	74	92	166	2.5	4.1	0.14	0.26	1.8	2.0	1.9
leukaemia	101	158	259	3.6	7.0	0.23	0.4	2.4	3.4	2.9
other cancer deaths‡	448	530	981					10.8	11.3	11.1

*rates are standardised to the 1976 European standard population [2]

†vulva, vagina, unspecified female genital, uterus (NOS), placenta

‡see Appendix II for further site-specific mortality data

Figure 2-1. Relative frequency for the cancer deaths: 2011-2012



Brain & CNS: includes malignant, benign and uncertain behaviours

Table 2-2. Proportion and rank of the most common cancers deaths, by sex: 2011-2012

	FEMALES		MALES		ALL	
	%	rank	%	rank	%	rank
C00-D48 all registered cancer/neoplasm deaths	100.0%		100.0%		100.0%	
lung	18.0%	1	23.0%	1	20.7%	1
colorectal	9.9%	3	12.6%	2	11.3%	2
breast	16.7%	2			7.9%	3
prostate			11.5%	3	6.1%	4
pancreas	5.5%	5	5.3%	4	5.4%	5
oesophagus	3.3%	7	4.9%	5	4.2%	6
stomach	2.9%	9	4.3%	6	3.6%	7
all brain & CNS tumours‡	3.2%	8	3.8%	7	3.5%	8
lymphoma	3.4%	6	3.3%	9	3.4%	9
ovary	6.7%	4			3.1%	10
leukaemia	2.4%	11	3.4%	8	2.9%	11
liver	2.6%	10	3.0%	10	2.8%	12
bladder	1.9%	14	2.9%	11	2.4%	13
kidney	1.4%	17	2.9%	12	2.2%	14
multiple myeloma	1.8%	15	2.0%	14	1.9%	15
mouth & pharynx	1.2%	19	2.4%	13	1.9%	16
melanoma of skin	1.6%	16	1.8%	15	1.7%	17
cervix	2.3%	12			1.1%	18
corpus uteri	1.9%	13			0.9%	19
non-melanoma skin cancer	0.7%	20	0.9%	16	0.8%	20
other gynaecological cancer deaths†	1.4%	18			0.6%	21
thyroid	0.4%	21	0.2%	17	0.3%	22
testis			0.2%	18	0.1%	23
other cancer deaths‡	10.8%		11.3%		11.1%	

‡ Brain & CNS: includes malignant, benign and uncertain behaviours

† vulva, vagina, placenta and uterus NOS

Lung cancer was the leading cause of cancer death in both sexes, averaging 1,826 deaths per year or 18% of cancer deaths in women and 23% of cancer deaths in men during the period 2011-2012 (Figure 2-1). Deaths from lung, colorectal, breast and prostate cancers combined made up almost half of all deaths from cancer during this period. Deaths from cancers of the ovary and pancreas in females, and from cancers of the pancreas, oesophagus and stomach in males, made up 12% and 15% respectively of all cancer deaths. These high-fatality cancers ranked as the 4th and 5th most common causes of cancer death in women and 4th to 6th most common in men (Table 2-2), much higher than their incidence rankings (Table 1-2).

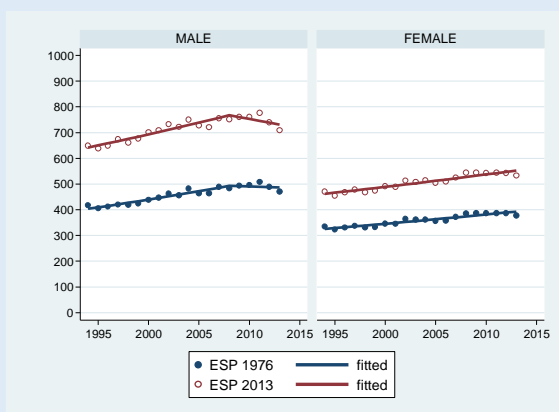
3. TRENDS IN INCIDENCE 1994-2013

In previous NCR reports, cancer incidence trends have been assessed using rates age-standardised to the 1976 European standard population (ESP). For comparison, trends have also been assessed in this report using rates standardised to the 2013 ESP. In section 1 it was noted that rates calculated using the 2013 ESP were generally higher than rates calculated using the 1976 ESP, reflecting the greater weighting given to older populations by the 2013 ESP. This raises an important question as to whether calculated trends differ if based on different population weights (1976 and 2013 ESP).

Annual percentage changes (APC) in incidence over time were fitted using Joinpoint regression applied to annual age-standardised rates and their standard errors for the period 1994-2013 [5][6].

In interpreting the trends reported below, possible changes in diagnostic activity (e.g. introduction or expansion of screening, improvements in diagnosis methods) or in coding practices should be borne in mind, as well as possible changes in the true underlying risk of the cancers involved (reflecting changes over time in risk factors).

Figure 3-1. Trend in incidence by sex: C00-C43, C45-C96 All invasive cancers, excluding NMSC



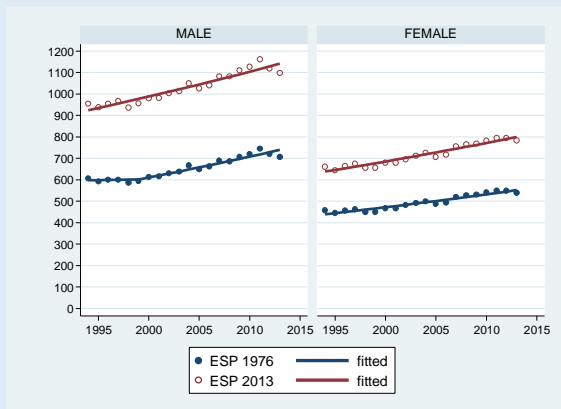
	MALE					FEMALE				
	from	to	APC‡	95%CI	trend†	from	to	APC‡	95%CI	trend†
ESP 1976	1994	2008	1.4	1.1 1.8	↑	1994	2013	1.0	0.8 1.2	↑
ESP 1976	2008	2013	-0.3	-1.6 1.1	↔					
ESP2013	1994	2008	1.3	0.9 1.6	↑	1994	2013	0.9	0.8 1.1	↑
ESP2013	2008	2013	-1.0	-2.3 0.4	↔					

APC‡: annual percentage change over the 'from-to' period & 95% confidence interval (**95%CI**) of APC

trend†: ↑=significant increase, ↓=significant decrease, ↔=no change, at the 95% level

The incidence rate of invasive cancers excluding NMSC increased significantly by >1% annually in males until 2008, then the trend became static between 2008 and 2013, with some evidence for the beginning of a downward trend (Figure 3-1). The rate increased by 1% per annum in females through the period 1994-2013. The conspicuous levelling off in the rate of invasive cancers in males probably reflects, in part, a levelling off in prostate cancer diagnoses since 2004 (before which diagnoses increased rapidly) and an ongoing fall in the rate of male lung cancer. In contrast, increases in female lung cancer rates and increased detection of breast cancer through the BreastCheck screening programme probably contributed to the sustained increase in overall cancer rates for women. Bladder cancers have also decreased in both sexes over the same period, but more so in males, and leukaemia rates in males have also fallen since 2004. Calculated trends were broadly similar whether based on the 1976 or the 2013 ESP, although the 2013 ESP figures suggested a more marked recent decline in male incidence rates.

Figure 3-2. Trend in incidence by sex: C00-96 All invasive cancers

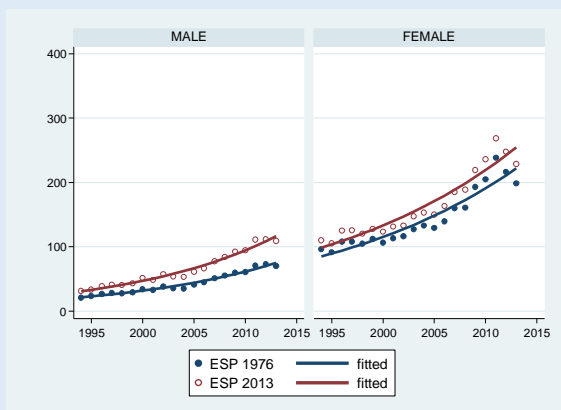


	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	1999	0.1	-1.5 1.8	↔	1994	2013	1.2	1.0 1.4	↑
ESP 1976	1999	2013	1.5	1.2 1.8	↑					
ESP 2013	1994	2013	1.1	0.9 1.3	↑	1994	2013	1.2	1.0 1.4	↑

For all invasive cancers combined, the trend in females (1.2% annual increase during 1994-2013) was the same regardless of which population standard was used. For males there was a 1.1% annual increase over the period 1994-2013 using the ESP2013 population weight; however, using the ESP1976 standard, Joinpoint suggested a static trend until 1999, after which the rate increased by 1.5% annually (Figure 3-2). However, the patterns shown by the actual data points, for both males and females, are quite similar between the two standards for this all-cancer grouping, thus apparent differences in trends for males depending on which population standard is used should be interpreted with caution.

Unlike the previous figure (Figure 3-1), which excluded non-melanoma skin cancers, there was no evidence of a plateau from 2008 in males when NMSCs were included. This difference reflects the marked increase in NMSC in males from 2001 (by c.3% annually - see Figure 3-12).

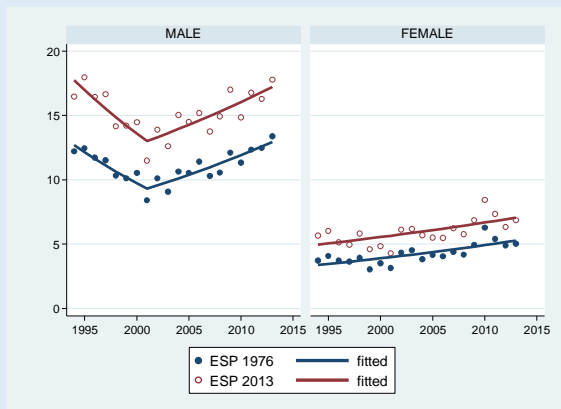
Figure 3-3. Trend in incidence by sex: D00-48 All non-invasive neoplasms



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	6.8	6.2 7.4	↑	1994	2013	5.2	4.3 6.1	↑
ESP 2013	1994	2013	7.2	6.6 7.8	↑	1994	2013	5.1	4.3 5.9	↑

Figure 3-3 shows the substantially higher rate of incidence of non-invasive tumours in females compared to males, largely accounted for by in situ cervix and breast tumours which together comprise over 50% all non-invasive tumours regardless of sex (Appendix I). The rate of non-invasive tumours in females increased at 5% annually since 1994, latterly reflecting (at least in part) the implementation of the national breast and cervical screening programmes. The increased rate in males (by 7% annually) since 1994 was due in part to increases in patients presenting with in situ skin cancers since 2000. Trends were broadly similar for both sexes regardless of which population standard was used.

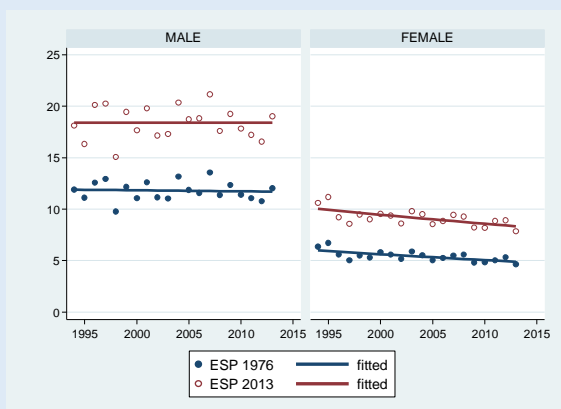
Figure 3-4. Trend in incidence by sex: C01-14 Cancer of mouth & pharynx



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2001	-4.4	-6.4 -2.2	↓	1994	2013	2.4	1.4 3.4	↑
ESP 1976	2001	2013	2.8	1.9 3.7	↑					
ESP2013	1994	2001	-4.3	-6.8 -1.8	↓	1994	2013	1.9	0.8 2.9	↑
ESP2013	2001	2013	2.4	1.3 3.4	↑					

The incidence rate of oral and pharyngeal cancer increased by 2-3% annually for males from 2001 onwards (following an earlier decline by c.4% annually) and by c.2% annually for females throughout 1994-2013 (Figure 3-4). The trends were quite similar regardless of the population standard used (1976 or 2013 ESP).

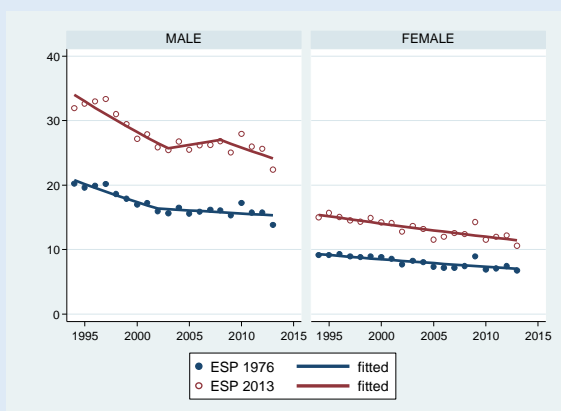
Figure 3-5. Trend in incidence by sex: C15 Oesophageal cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	-0.1	-0.7 0.6	↔	1994	2013	-1.1	-1.6 -0.5	↓
ESP 2013	1994	2013	0.0	-0.7 0.7	↔	1994	2013	-1.0	-1.5 -0.4	↓

There was no significant change in the annual incidence rate of oesophageal cancer in males, but the rate in females fell by 1% annually during 1994-2013 (Figure 3-5). Trends were similar regardless of the choice of ESP (1976 or 2013).

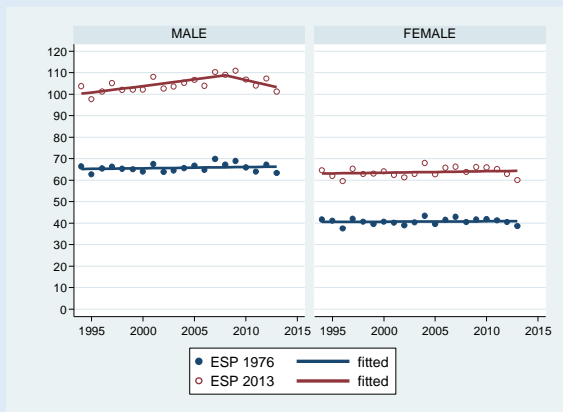
Figure 3-6. Trend in incidence by sex: C16 Stomach cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2002	-2.9	-4.5 -1.4	↓	1994	2013	-1.5	-2.0 -1.0	↓
ESP 1976	2002	2013	-0.6	-1.5 0.3	↔					
ESP 2013	1994	2003	-3.1	-4.5 -1.6	↓	1994	2013	-1.5	-2.0 -1.1	↓
ESP 2013	2003	2008	1.0	-4.0 6.2	↔					
ESP 2013	2008	2013	-2.2	-5.5 1.2	↔					

The incidence rate of stomach cancer in males declined significantly by c.3% annually up to 2002, before slowing (a non-significant <1% annual decrease) during 2002-2013, based on rates calculated using the 1976 ESP (Figure 3-6). Use of the 2013 ESP resulted in an extra break-point at 2008, but the post-2002 trends were again not statistically significant. In females, the incidence rate declined more steadily, by c1.5% annually during 1994-2013, regardless of which ESP was used.

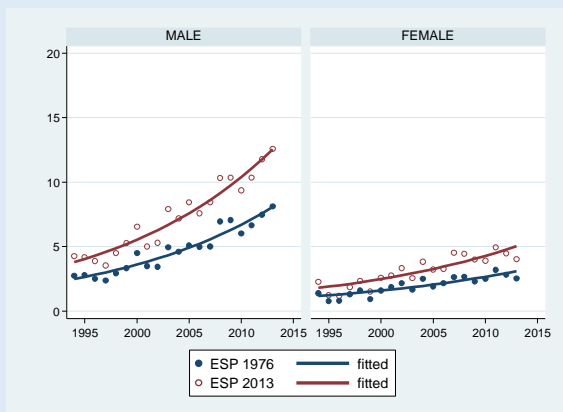
Figure 3-7. Trend in incidence by sex: C18-20 Colorectal cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	0.1	-0.2 0.3	↔	1994	2013	0.0	-0.3 0.4	↔
ESP 2013	1994	2008	0.6	0.2 0.9	↑	1994	2013	0.0	-0.2 0.4	↔
ESP 2013	2008	2013	-1.0	-2.4 0.4	↔					

The incidence rate of colorectal cancer in males and females did not change significantly during 1994-2013 when using the 1976 ESP (Figure 3-7). However rates calculated using the 2013 ESP increased by 0.6% annually in males from 1994 to 2008, followed by a non-significant trend (apparent decline). For females, trends were the same regardless of the population standard used.

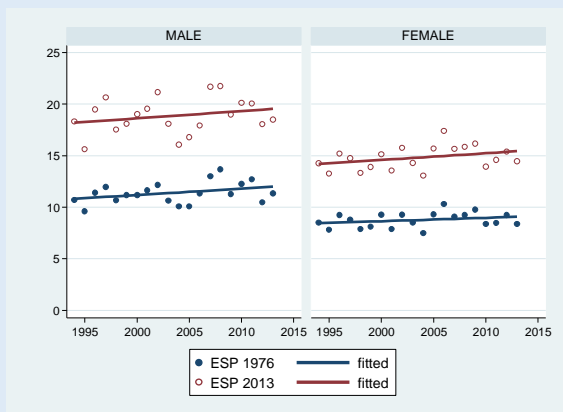
Figure 3-8. Trend in incidence by sex: C22 Liver cancer (including intrahepatic bile ducts)



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	6.4	5.4 7.4	↑	1994	2013	5.3	3.6 7.0	↑
ESP 2013	1994	2013	6.5	5.5 7.4	↑	1994	2013	5.6	3.9 7.3	↑

Rates of primary invasive liver increased by c.6.5% annually in males and c.5.5% in females during the period 1994-2013, regardless of which population standard was used (Figure 3-8).

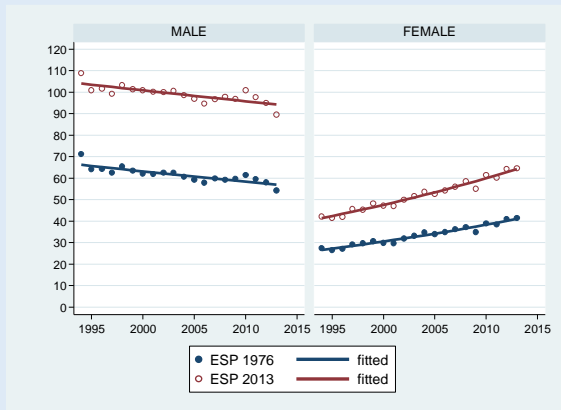
Figure 3-9. Trend in incidence by sex: C25 Pancreatic cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	0.5	-0.2 1.3	↔	1994	2013	0.4	-0.3 1.1	↔
ESP 2013	1994	2013	0.4	-0.4 1.1	↔	1994	2013	0.4	-0.2 1.0	↔

Incidence trends for pancreatic cancer suggest slight but non-significant increases, by c.0.5% annually, in both males and females (Figure 3-9). The trend was similar regardless of the choice of standard population (1976 or 2013 ESP).

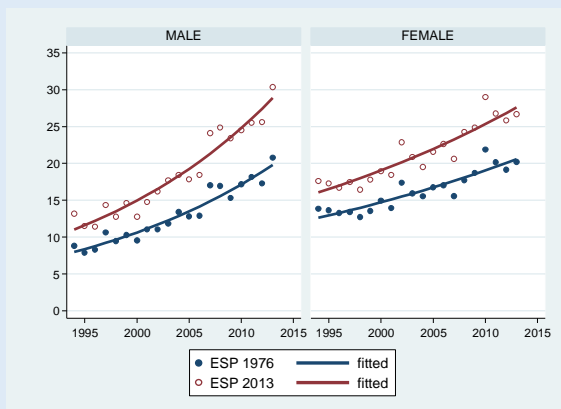
Figure 3-10. Trend in incidence by sex: C33-34 Lung & tracheal cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	-0.8	-1.0 -0.5	↓	1994	2013	2.3	2.1 2.5	↑
ESP 2013	1994	2013	-0.5	-0.7 -0.3	↓	1994	2013	2.3	2.1 2.6	↑

The incidence rate of lung cancer declined steadily in males by almost 1% annually during 1994-2013 (slightly less if based on the 2013 ESP), whereas in females it increased significantly by over 2% annually over the same period (Figure 3-10). In both sexes, the trend was the similar regardless of the choice of standard population (1976 or 2013 ESP).

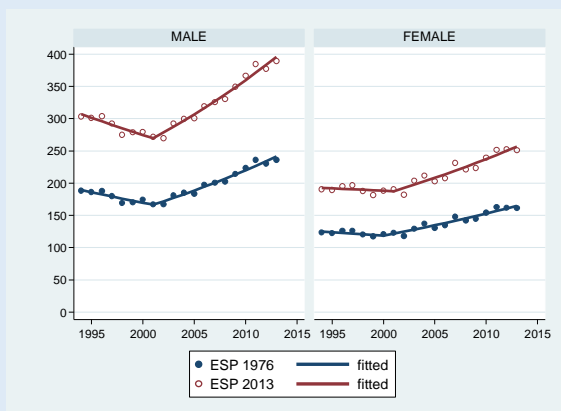
Figure 3-11. Trend in incidence by sex: C43 Melanoma of skin



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	4.9	4.2 5.6	↑	1994	2013	2.6	2.0 3.2	↑
ESP 2013	1994	2013	5.2	4.5 5.9	↑	1994	2013	2.9	2.3 3.5	↑

For melanoma skin cancer, the rate of incidence in females increased by almost 3% annually during the period 1994-2012, and in males by c.5% annually over the same period. Trends were similar regardless of the choice of ESP (1976 or 2013).

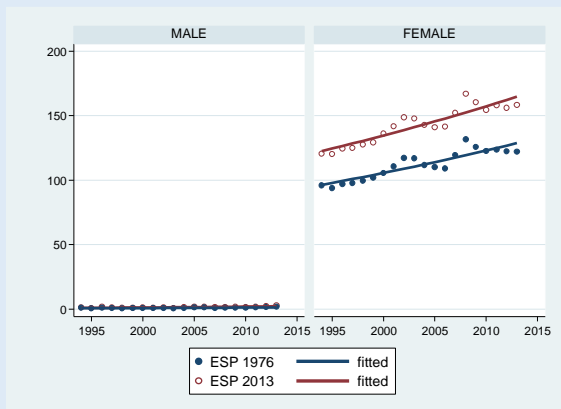
Figure 3-12. Trend in incidence by sex: C44 Non-melanoma skin cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2001	-1.8	-2.9 -0.7	↓	1994	2000	-0.9	-2.7 0.9	↔
ESP 1976	2001	2013	3.1	2.7 3.6	↑	2000	2013	2.6	2.1 3.0	↑
ESP 2013	1994	2001	-1.8	-2.8 -0.8	↓	1994	2001	-0.4	-1.9 1.1	↔
ESP 2013	2001	2013	3.3	2.9 3.6	↑	2001	2013	2.7	2.1 3.2	↑

Incidence rates of non-melanoma skin cancer have increased by c.3% annually since 2000 or 2001 in both males and females (Figure 3-12), following a period of more stable or declining rates. Trends were similar regardless of the choice of ESP (1976 or 2013).

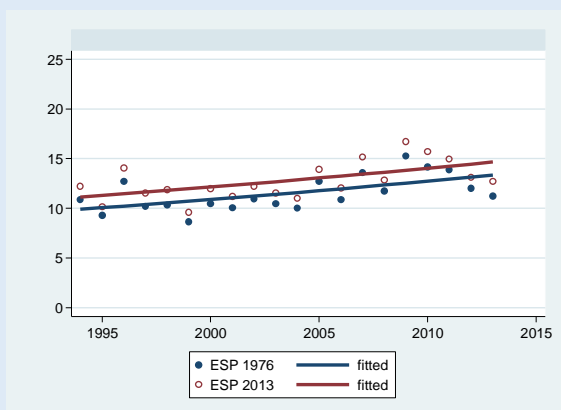
Figure 3-13. Trend in incidence by sex: C50 Breast cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	4.0	2.0 6.0	↑	1994	2013	1.5	1.1 1.9	↑
ESP 2013	1994	2013	4.2	2.3 6.2	↑	1994	2013	1.6	1.2 1.9	↑

The incidence rate for female breast cancer increased significantly by c.1.5% annually during the period 1994-2013 (Figure 3-13). In large part, the incidence trend for malignant breast cancer probably reflects the introduction of the national breast screening program (BreastCheck) in the eastern half of the country from 2000 and the rest of the country by 2007. This is evident from the two peaks in incidence which followed the two roll-out phases. Perhaps surprisingly, rates of breast cancer have risen more steeply among males (Figure 3-13), but based on much smaller numbers of cases annually. Trends were similar regardless of the choice of ESP (1976 or 2013).

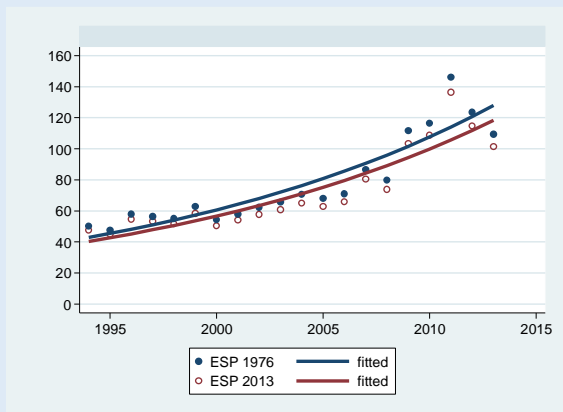
Figure 3-14. Trend in incidence: C53 Cervical cancer



	FEMALE				
	from	to	APC	95%CI	trend
ESP 1976	1994	2013	1.6	0.5 2.6	↑
ESP 2013	1994	2013	1.5	0.4 2.5	↑

The incidence rate for invasive cervical cancer increased by c.1.5% annually during 1994-2013 (Figure 3-14). Screening activity may have had some bearing on the upward trend in rates, and the increased rate we are seeing now may (in part) reflect increased or earlier detection of invasive cases. Increased detection of *in situ* carcinomas of the cervix through screening (see below) should, in theory, lead to a reduction in incidence of invasive cases, but it may be too soon yet to see this effect, and the suggestion in the trend graph of a reduction from 2009 onwards may be just a chance effect (reflecting low numbers of cases). The actual rates themselves and the trend were very similar regardless of choice of ESP (1976 or 2013).

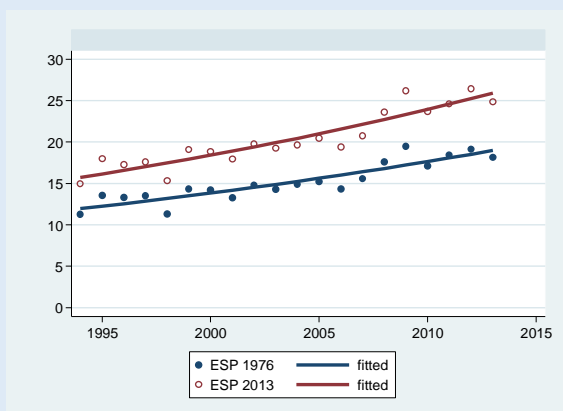
Figure 3-15. Trend in incidence: D06 Carcinoma in situ of cervix



		FEMALE				
		from	to	APC	95%CI	trend
ESP 1976		1994	2013	5.9	4.6 7.2	↑
ESP 2013		1994	2013	5.8	4.5 7.2	↑

The incidence rate of in situ cervical cancer increased significantly by c.6% annually during 1994-2013, probably mainly due to screening, especially in the most recent years (Figure 3-15). As in situ cervical cancer is typically diagnosed in younger women (Figure 1-3), the actual rates themselves and the trend were very similar regardless of choice of ESP (1976 or 2013).

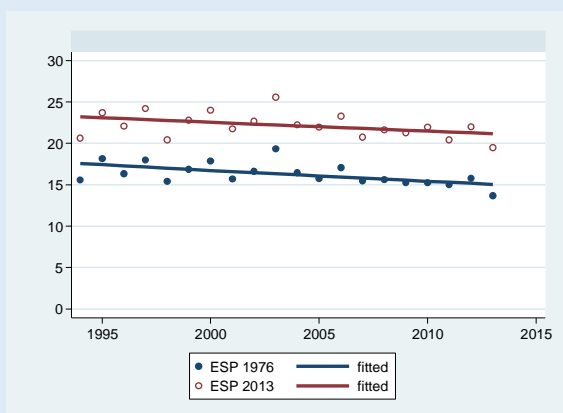
Figure 3-16. Trend in incidence: C54 Uterine cancer



		FEMALE				
		from	to	APC	95%CI	trend
ESP 1976		1994	2013	2.5	1.9 3.0	↑
ESP 2013		1994	2013	2.7	2.1 3.2	↑

Incidence of uterine cancer (cancer of corpus uteri) increased significantly by c.2.5% annually during 1994-2013 (Figure 3-16). The trend was similar regardless of the choice of ESP (1976 or 2013).

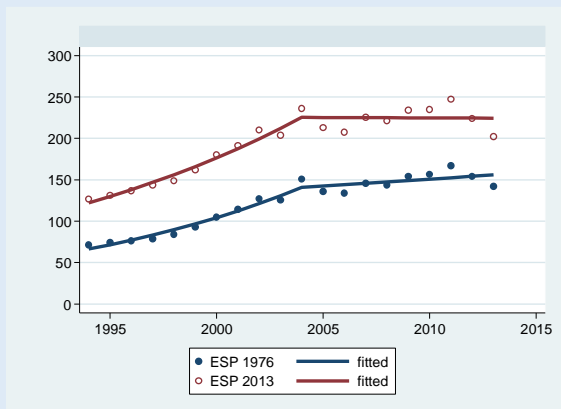
Figure 3-17. Trend in incidence: C56 Ovarian cancer



		FEMALE				
		from	to	APC	95%CI	trend
ESP 1976		1994	2013	-0.8	-1.4 -0.2	↓
ESP 2013		1994	2013	-0.5	-1.0 0.0	↔

The incidence rate of ovarian cancer decreased by <1% annually during 1994-2013 (Figure 3-17). The downward trend was significant when the 1976 ESP was applied, but non-significant using the 2013 ESP.

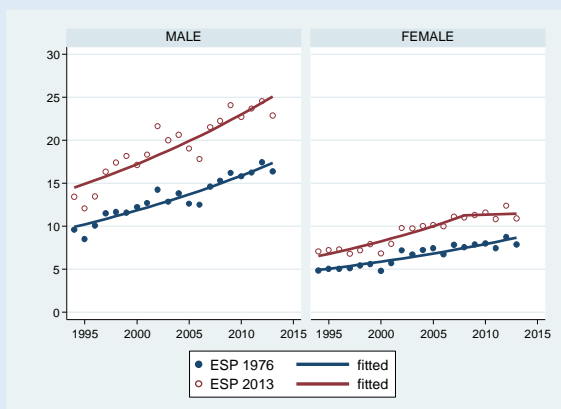
Figure 3-18. Trend in incidence: C61 Prostate cancer



		MALE				
		from	to	APC	95%CI	trend
ESP 1976	1994	2004	7.8	6.1	9.6	↑
ESP 1976	2004	2013	1.1	-0.3	2.5	↔
ESP 2013	1994	2004	6.3	4.5	8.2	↑
ESP 2013	2004	2013	0.0	-1.5	1.4	↔

For prostate cancer, the incidence rate increased significantly between 1994 and 2004, by 6-8% annually (depending on which population standard is used). The increase then levelled off or slowed down (non-significant increase by c.1% annually, based on the 1976 ESP, or a flat trend based on the 2013 ESP*) (Figure 3-18). Increases in incidence during the earlier period, in particular, probably reflect large-scale PSA testing of asymptomatic men. The number of PSA tests carried out in Ireland increased five-fold between 1995 and 2004 [7]. [*The age-standardised trend based on the 2013 ESP is more strongly influenced by trends in older populations, and age-specific incidence of prostate cancer has shown significant recent declines for age-groups 75-84 and 85+but not for younger age-groups – full details not presented here.]

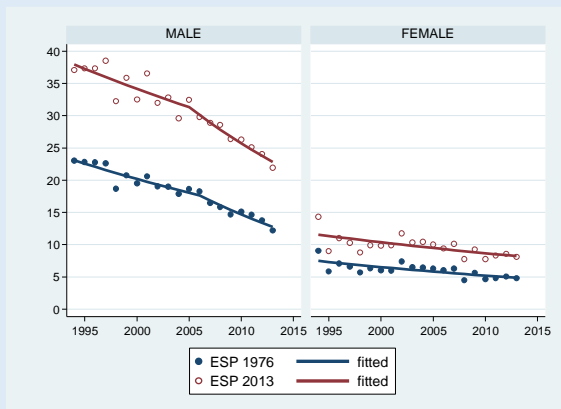
Figure 3-19. Trend in incidence by sex: C64 Kidney cancer



		MALE					FEMALE					
		from	to	APC	95%CI	trend	from	to	APC	95%CI	trend	
ESP 1976	1994	2013	3.0	2.4	3.5	↑	1994	2013	3.0	2.4	3.7	↑
ESP 2013	1994	2013	2.9	2.2	3.7	↑	1994	2008	4.0	2.9	5.1	↑
ESP 2013							2008	2013	0.4	-3.7	4.5	↔

The incidence rate of kidney cancer increased by about 3% annually for males during 1994-2013 regardless of what ESP was applied (Figure 3-19). For females, rates calculated using the 1976 standard population indicated an ongoing increase by c.3% annually throughout 1994-2013, but for rates calculated with the 2013 ESP the rate increased up to 2008 (4% annually) followed by a levelling off up to 2013.

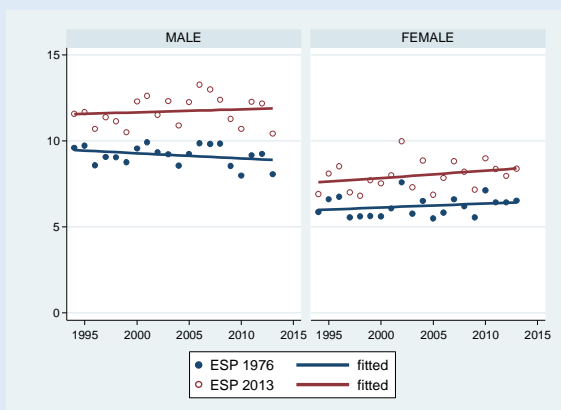
Figure 3-20. Trend in incidence by sex: C67 Bladder cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2006	-2.2	-3.0 -1.4	↓	1994	2013	-2.2	-3.2 -1.3	↓
ESP 1976	2006	2013	-4.5	-6.3 -2.7	↓					
ESP 2013	1994	2005	-1.7	-2.6 -0.8	↓	1994	2013	-1.8	-2.7 -0.8	↓
ESP 2013	2005	2013	-3.9	-5.3 -2.4	↓					

The incidence rate of bladder cancers coded as invasive decreased by c.2% annually in females over the period 1994-2013 regardless of which ESP was applied. The rate in males also fell by c.2% annually until 2005-2006, after which the rate of decrease accelerated to c.4% annually. The point of break for males changed slightly depending on which ESP was used in the rate calculation. For both sexes, the magnitude of the downward trend may be exaggerated by changes in diagnosis or coding (in particular, a higher proportion of bladder tumours may have been coded as non-invasive in more recent years). It is not clear to what extent the trends reflect true changes in the underlying risk of bladder cancer.

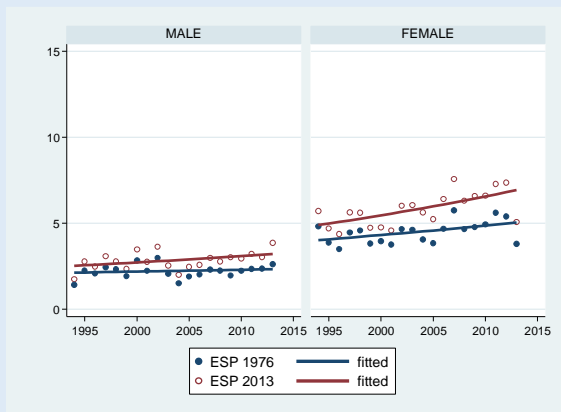
Figure 3-21. Trend in incidence by sex: C71-72 Brain & CNS cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	-0.3	-0.9 0.2	↔	1994	2013	0.4	-0.4 1.1	↔
ESP 2013	1994	2013	0.1	-0.5 0.8	↔	1994	2013	0.5	-0.3 1.4	↔

There were no significant change for males or females in the incidence rate of invasive brain/CNS tumours during the period 1994-2013, regardless of the choice of ESP (1976 or 2013) (Figure 3-21).

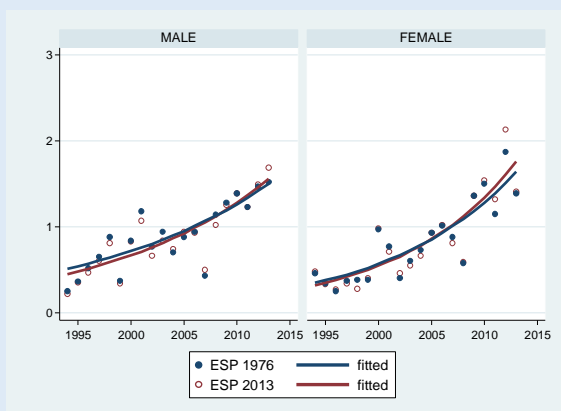
Figure 3-22. Trend in incidence by sex: D32-D33 Benign neoplasm of brain & CNS



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	0.5	-0.9 1.9	↔	1994	2013	1.2	0.1 2.3	↑
ESP 2013	1994	2013	1.3	-0.1 2.7	↔	1994	2013	1.9	0.8 3.0	↑

For benign brain & CNS tumours, there was a 1-2% annual increase in the incidence rate in females during 1994-2013, and no significant change in the male incidence rate over the same period (Figure 2-22). For both sexes, rates calculated using the 2013 ESP appeared to show stronger evidence of an increasing trend than rates calculated using the 1976 ESP.

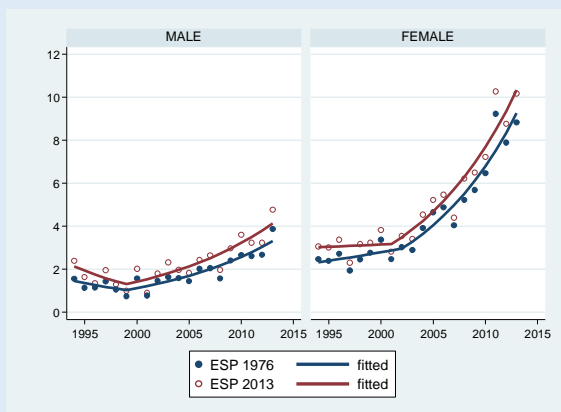
Figure 3-23. Trend in incidence by sex: D42-D43 Tumours of uncertain behaviour of brain, meninges & CNS



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	5.8	3.5 8.2	↑	1994	2013	8.5	5.9 11.2	↑
ESP 2013	1994	2013	6.7	4.6 8.9	↑	1994	2013	9.4	6.6 12.3	↑

Neoplasms of uncertain morphology for the brain, meninges and CNS are very rare, but there was a significant annual increase of 6-7% in males and 8-9% in females over the period 1994-2013 (Figure 3-23). This could be an artefact of coding or diagnosis changes: for example, a proportion of brain/CNS tumours that would previously have been coded as malignant or as benign might now be appearing in the 'uncertain' category. The trend lines and actual rates appeared very similar regardless of which ESP was applied.

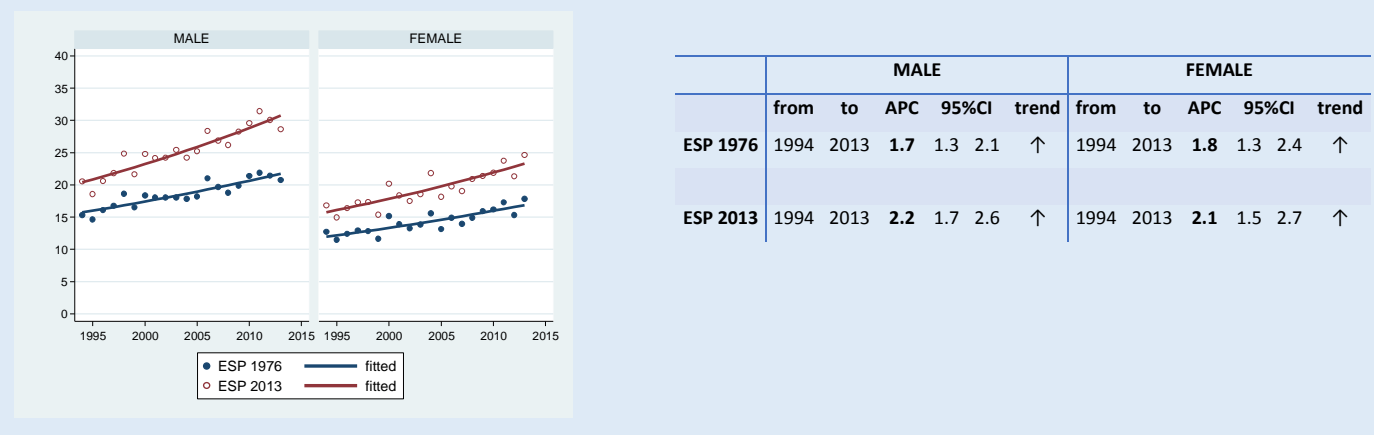
Figure 3-24. Trend in incidence by sex: C73 Thyroid cancer



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	1999	-6.6	-20.0 8.9	↔	1994	2002	3.1	-3.3 9.9	↔
ESP 1976	1999	2013	8.7	6.2 11.3	↑	2002	2013	10.9	8.2 13.7	↑
ESP 2013	1994	1999	-9.4	-23.7 7.6	↔	1994	2001	0.6	-6.3 8.1	↔
ESP 2013	1999	2013	8.6	5.8 11.5	↑	2001	2013	10.4	8.1 12.7	↑

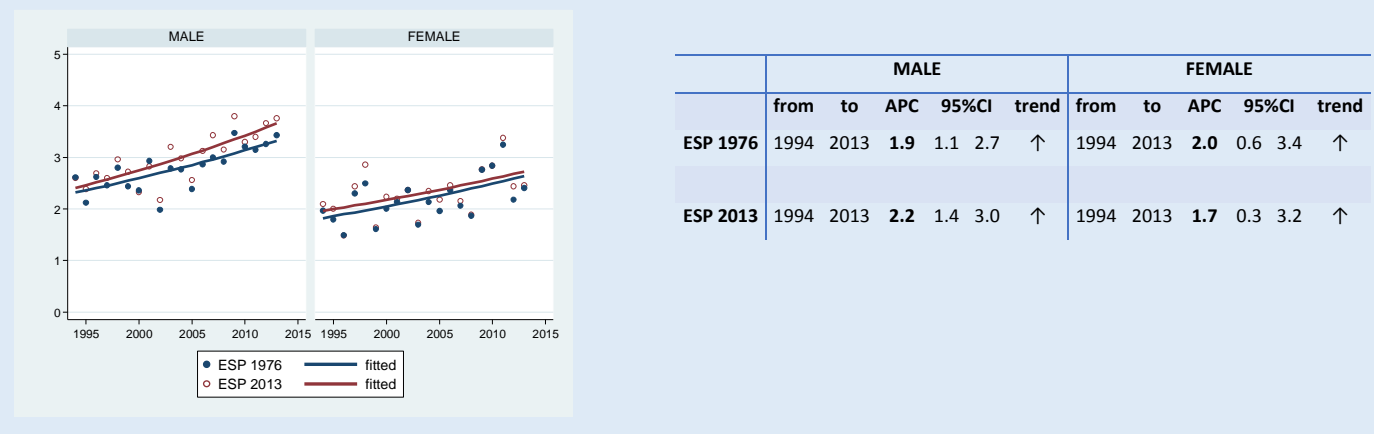
Thyroid cancers are infrequent and between 2011 and 2013 they comprised just 2.2% of all female cancers and just 0.6% of male cancers (excluding NMSC). The female incidence rate increased significantly, by c.11% annually during 2002-2013 (based on rates calculated using the 1976 ESP), while the male rate increased by c.9% annually during 1999-2013 (Figure 3-24). For both sexes, these recent increases followed an earlier period in which there was no clear trend. The recent trends are likely to reflect an increase in ‘incidental’ detection of thyroid cancers during investigations for other conditions. The actual rate and trend lines appear similar (from 2005 to 2013) regardless of which ESP was applied, because thyroid cancers tend to present in younger persons (Figure 1-3).

Figure 3-25. Trend in incidence by sex: C81-C85 Lymphoma (total)



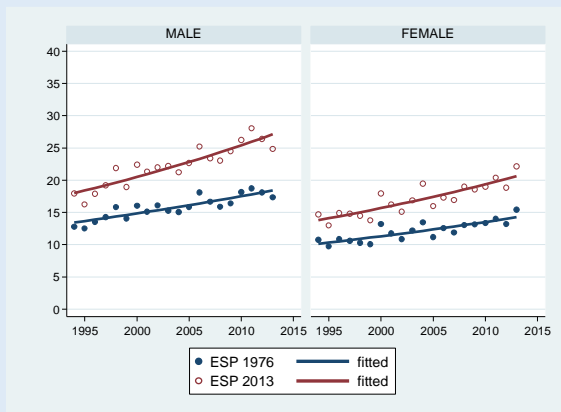
Lymphomas are a heterogeneous group of cancers of the haematopoietic system, classified as two distinct groups based on histological appearance. They comprise just under half of all haematopoietic cancers (which also include leukaemias, multiple myeloma and similar malignancies). The incidence rate for lymphomas as a whole increased steadily by c.2% annually in both sexes during the period 1994-2013, with similar trends apparent for rates based on the 1976 and 2013 standard populations (Figure 3-25).

Figure 3-26. Trend in incidence by sex: C81 Hodgkin lymphoma



The incidence rate for Hodgkin lymphoma increased steadily by c.2% annually in males and females during 1994-2013, regardless of which ESP was applied in the rate calculations (Figure 3-26).

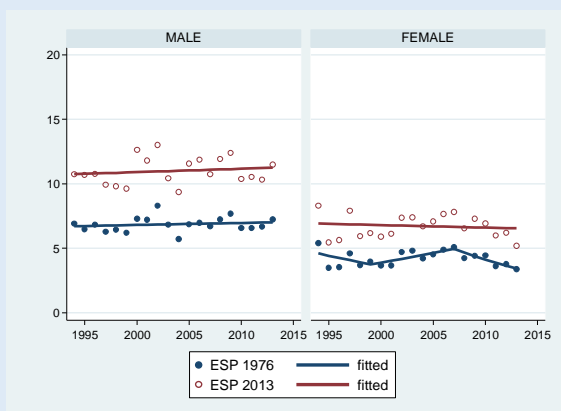
Figure 3-27. Trend in incidence by sex: C82-C85 All non-Hodgkin lymphoma



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	1.7	1.2 2.1	↑	1994	2013	1.8	1.2 2.4	↑
ESP 2013	1994	2013	2.2	1.7 2.7	↑	1994	2013	2.1	1.5 2.7	↑

Non-Hodgkin lymphoma cases are diagnosed at approximately five times the frequency of Hodgkin lymphoma. Similarly to Hodgkin lymphomas, incidence rates for non-Hodgkin lymphoma increased significantly and steadily by c.2% annually in both males and females during the period 1994-2013, regardless of which ESP was applied in the rate calculations (Figure 3-27).

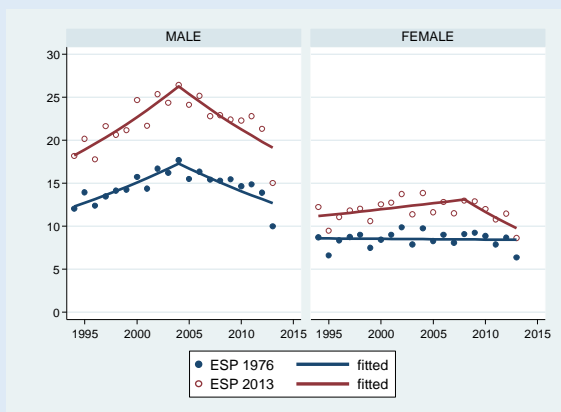
Figure 3-28. Trend in incidence by sex: C90 Multiple myeloma and malignant plasma cell neoplasms



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2013	0.2	-0.4 0.9	↔	1994	1999	-4.0	-11.8 4.5	↔
ESP 1976						1999	2007	3.6	-1.4 8.8	↔
ESP 1976						2007	2013	-6.0	-11.5 -0.2	↓
ESP 2013	1994	2013	0.2	-0.5 1.0	↔	1994	2013	-0.3	-1.4 0.8	↔

Multiple myeloma is a cancer of plasma cells (immunoglobulin-producing B-lymphocytes), where abnormal plasma cells accumulate in the bone marrow and interfere with haematopoiesis. The incidence rate showed no significant trend during the period 1994-2013 for males. In females, the modelled trend was static if calculated with the 2013 ESP, but the trend was more complex, including a significant downward trend by 6% annually from 2007 to 2013, if the 1976 ESP was applied to the rate calculation (Figure 3-28).

Figure 3-29. Trend in incidence by sex: C91-C95 Leukaemia (total)



	MALE					FEMALE				
	from	to	APC	95%CI	trend	from	to	APC	95%CI	trend
ESP 1976	1994	2004	3.5	1.4 5.6	↑	1994	2013	-0.1	-1.0 0.8	↔
ESP 1976	2004	2013	-3.4	-5.4 -1.3	↓					
ESP 2013	1994	2004	3.7	1.5 6.0	↑	1994	2008	1.2	-0.2 2.5	↔
ESP 2013	2004	2013	-3.5	-5.6 -1.2	↓	2008	2013	-5.7	-11.2 0.0	↔

Leukaemia comprised about one quarter of all cancers of the haematopoietic system during 2011-2013. The incidence rate in males decreased significantly by c.3.5% annually during 2004-2013, following an earlier period of increase (again by c.3.5% annually). There was no clear trend in incidence among females over the same period, based on rates calculated using the 1976 ESP, but rates calculated using the 2013 ESP showed a downward trend from 2008 by almost 6% annually (not quite statistically significant) (Figure 3-29).

4. PREVALENCE

Follow-up of all registered cancer patients (through matching of registrations to death certificates) is currently complete to the end of 2013. From the beginning of 1994 (when national cancer registration began in Ireland) to the end of 2013, a total of 137,467 females and 148,892 males were diagnosed with invasive cancer (excluding NMSC, and counting only the first invasive cancer per patient). Some 12% of these patients had more than one invasive cancer (other than NMSC) diagnosed during 1994-2013. In Table 4-1, which assesses prevalence of invasive cancer as a whole, patients were counted once only, choosing their first invasive cancer. Total prevalence for the 20 year period shows that 123,342 of these patients were still alive at the end of 2013, representing 47% of all females and 41% of males diagnosed with cancer since 1994 (or nearly 3% of the total Irish population in 2013) (Table 4-1).

Note that figures given here are for *period prevalence*, i.e. based on cases diagnosed during a defined period. In reality, some patients diagnosed with cancer before 1994 will also have survived to the end of 2013.

Table 4-1. Prevalence of invasive cancer (excluding non-melanoma skin cancer) in Ireland at the end of 2013

Diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
	Jan 1994	Jan 2013	Jan 2004	Jan 2013	Jan 2009	Jan 2013	Jan 2011	Jan 2013	Jan 2013	Jan 2013
	alive 2013*	% alive†	alive 2013	% alive	alive 2013	% alive	alive 2013	% alive	alive 2013	% alive
all persons	123,342	44	91,164	58	56,841	68	37,453	74	13,943	84
female	63,240	47	44,373	59	27,341	69	17,848	75	6,681	84
male	60,102	41	46,791	56	29,500	67	19,605	73	7,262	83
‡<65	55,193	57	43,516	70	28,861	79	19,321	84	7,269	92
‡65+	68,149	37	47,648	50	27,980	59	18,132	65	6,674	76

* alive 2013: number of persons diagnosed with an invasive cancer who were alive at the end of 2013

‡ refers to age of patient at end of 2013

† Figures for ' % alive ' should not be interpreted as survival estimates because length of follow-up of individual patients is not accounted for.

The majority of those still alive are patients diagnosed in the most recent ten years. Shorter-term prevalence can provide a good indicator of cancer burden - for example, one-year prevalence provides an estimate of the number of patients currently undergoing treatment or just recently completing their treatment (c.14,000), while three-year prevalence gives an includes the latter group together with patients who may have completed treatment but are still under more intensive clinical surveillance or follow-up (c.37,500).

Prevalence figures are also presented in Tables 4-2 and 4-3 for the more common individual cancers. Note that some patients may be counted under more than one cancer type, but for these site-specific figures only the first cancer of each site or type is counted. Site-specific counts are presented as such because, e.g. a hypothetical patient with cancer of the breast (1st) followed by colon cancer some years later (2nd) generally undergoes two sets of treatment and follow-up protocols. Therefore, the healthcare resources involved, and the psychosocial or other impacts on the cancer survivor, are likely to be more substantial than would otherwise be the case.

A total of 1,389 patients diagnosed with lung cancer during 2013 were still alive at the end of that year (one-year prevalence) (Table 4-2). This suggests that 59% of all patients diagnosed with lung cancer were likely to be still undergoing or just completing first-course treatment at that point. Three-year prevalence for lung cancer indicated that 2,592 patients were alive and likely to be still undergoing treatment or active clinical surveillance at the end of 2013. Lung cancer has very high mortality and, of the >37,000 cases diagnosed during 1994-2013, only 12% were alive at the close of 2013 (Table 4-2).

Totals of 16,754 colorectal, 29,828 breast and 28,432 prostate cancer patients diagnosed since 1994 were still alive at the end of 2013, representing 40%, 67% and 63%, respectively, of those diagnosed since 1994 (Tables 4-2). These cancers all have a better prognosis than lung cancer, and focusing on those patients who are likely to be still under active treatment or clinical follow-up (three-year prevalence) gives totals for colorectal cancer of 5,550 (74% of all those diagnosed during 2011-2013), for breast cancer 8,097 (93% of 2011-2013 cases) and 10,200 for prostate cancer (94% of 2011-2013 cases).

Table 4-2. Prevalence and ranks of common cancers 1994-2013

Diagnosis period	20-year prevalence				10-year prevalence				5-year prevalence				3-year prevalence				1-year prevalence			
	Jan 1994 to Dec 2013				Jan 2004 to Dec 2013				Jan 2009 to Dec 2013				Jan 2011 to Dec 2013				Jan 2013 to Dec 2013			
	N	alive	alive	rank	N	alive	alive	rank	N	alive	alive	rank	N	alive	alive	rank	N	alive	alive	rank
	end 2013	%		end 2013	%			end 2013	%			end 2013	%			end 2013	%			
C50 breast	44,772	29,828	67	1	26,374	21,230	81	2	14,303	12,720	89	2	8,752	8,097	93	2	2,983	2,882	97	2
C61 prostate	45,418	28,432	63	2	29,920	23,953	80	1	16,624	14,868	89	1	10,200	9,540	94	1	3,213	3,140	98	1
C18-20 colorectal	42,043	16,754	40	3	23,509	12,593	54	3	12,418	8,162	66	3	7,512	5,550	74	3	2,485	2,134	86	3
C43 melanoma of skin	11,952	8,510	71	4	7,639	6,097	80	4	4,395	3,832	87	4	2,740	2,501	91	5	984	954	97	5
C82-85 non-Hodgkin lymphoma	11,013	5,569	51	5	6,561	4,132	63	5	3,630	2,594	72	6	2,272	1,734	76	6	787	670	85	6
C33-34 lung	37,097	4,512	12	6	20,879	3,932	19	6	11,285	3,190	28	5	6,955	2,592	37	4	2,338	1,389	59	4
C54 corpus uteri	6,024	3,873	64	7	3,679	2,735	74	9	2,111	1,740	82	8	1,306	1,130	87	8	437	409	94	8
C91-95 leukaemia	9,067	3,811	42	8	5,024	2,770	55	8	2,511	1,613	64	9	1,436	984	69	9	391	299	77	12
C67 bladder	9,211	3,654	40	9	4,527	2,299	51	10	2,209	1,321	60	10	1,321	879	67	10	420	332	79	11
C64 kidney	7,746	3,575	46	10	4,858	2,792	58	7	2,749	1,869	68	7	1,709	1,274	75	7	571	476	83	7
C53 cervix	4,666	2,977	64	11	2,816	2,044	73	11	1,566	1,259	80	11	886	765	86	12	272	257	95	15
C62 testis	2,755	2,575	94	12	1,673	1,616	97	14	856	829	97	16	501	487	97	18	154	153	99	20
C01-14 mouth & pharynx	5,797	2,274	39	13	3,399	1,793	53	12	1,952	1,232	63	12	1,208	869	72	11	423	359	85	9
C73 thyroid	2,581	2,031	79	14	1,875	1,621	87	13	1,212	1,093	90	13	824	758	92	13	304	280	92	14
C56 ovary	6,561	2,027	31	15	3,480	1,418	41	15	1,791	942	53	15	1,083	678	63	15	346	250	72	16
C16 stomach	9,853	1,717	17	16	5,100	1,374	27	16	2,688	1,009	38	14	1,597	742	47	14	506	342	68	10
C81 Hodgkin lymphoma	2,076	1,605	77	17	1,216	1,012	83	18	688	600	87	20	405	355	88	21	133	118	89	23
C71-72 brain & CNS	5,993	1,297	22	18	3,295	909	28	19	1,711	644	38	19	1,065	477	45	19	347	232	67	17
C90 multiple myeloma	4,381	1,253	29	19	2,416	1,097	45	17	1,266	776	61	17	748	540	72	16	256	220	86	18
C32 larynx	2,692	1,155	43	20	1,518	873	58	20	804	564	70	21	499	389	78	20	172	153	89	20
C15 oesophagus	6,785	999	15	21	3,721	846	23	21	1,913	655	34	18	1,167	510	44	17	404	292	72	13
C25 pancreas	8,230	589	7	22	4,635	509	11	22	2,438	422	17	22	1,489	353	24	22	500	215	43	19
C22 liver	2,737	430	16	23	1,912	387	20	23	1,124	321	29	23	728	263	36	23	257	130	51	22

N = number of cases diagnosed during diagnosis period, ranked by the number alive at end of 2013, e.g. the highest 20-year prevalence was for breast cancer (C50), the highest 10- year prevalence was for prostate cancer (C61) For other less common cancers see Appendix IV: Prevalence

The majority (just over half) of all cancer patients in the 20-year prevalent population in at the end of 2013 were those who had first been diagnosed with breast, prostate and colorectal cancers. Other cancers with generally good prognoses, such as melanoma, also contributed a large proportion of the total (Table 4-2). Cancers with generally poor survival, such as pancreatic and oesophageal cancer, represented fairly low numbers in the prevalent population (Table 4-2). For example, out of almost 8,230 patients with pancreatic cancer diagnosed between 1994 and 2013, only 7% (589) were still alive at the close of 2013.

In contrast, there were greater numbers of patients still alive who had been diagnosed with cancers with good prognoses, such as thyroid cancer where 20-year prevalence was 79% of all patients diagnosed with this cancer during 1994-2013 (Table 4-2).

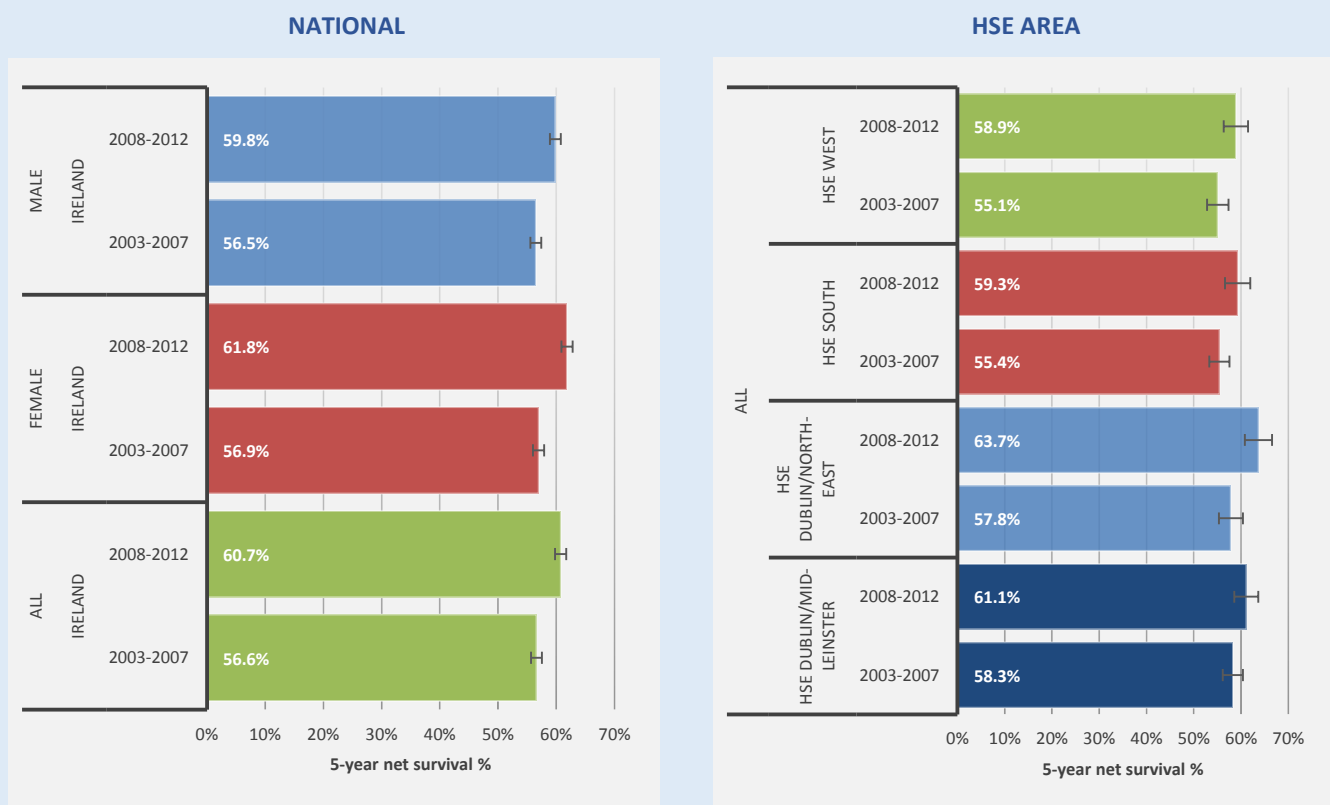
Over 70% of known prostate, colorectal and bladder cancer survivors were over 65 at the end of 2013, reflecting their generally older age at diagnosis. In contrast, fewer than 15% of patients diagnosed with cancers of the cervix and Hodgkin lymphoma were over 65, indicative of their much younger age at diagnosis (Appendix IV).

5. SURVIVAL

Net survival estimates to five years, including an assessment of recent survival changes, are presented here for three cancer types (colorectal cancer, female breast cancer, and cervical cancer), including a breakdown by HSE area of residence. Net survival is calculated by comparing the observed survival of patients with the expected survival of persons of the same age and sex in the general population. It represents the cumulative probability of a patient surviving a given time in the hypothetical situation in which the disease of interest is the only possible cause of death, i.e. survival having controlled for other possible cause of death.

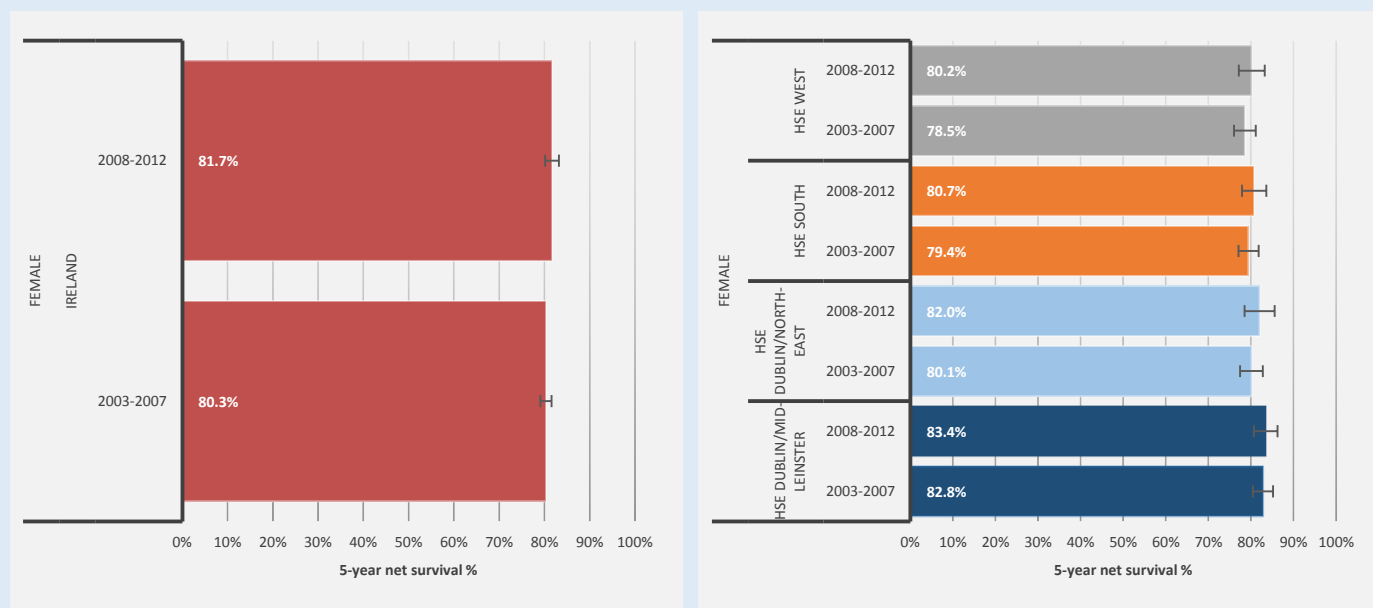
A more comprehensive summary of survival of Irish cancer patients was given in the previous NCR report covering longer-term changes in survival, a longer list of cancer types and international comparisons [3]. See also the NCR website for further details of stage by site, sex, age, stage and area of residence [8].

Figure 5-1. Percentage 5-year net survival and 95% confidence intervals: colorectal cancer: 2003-2007 vs. 2008-2012



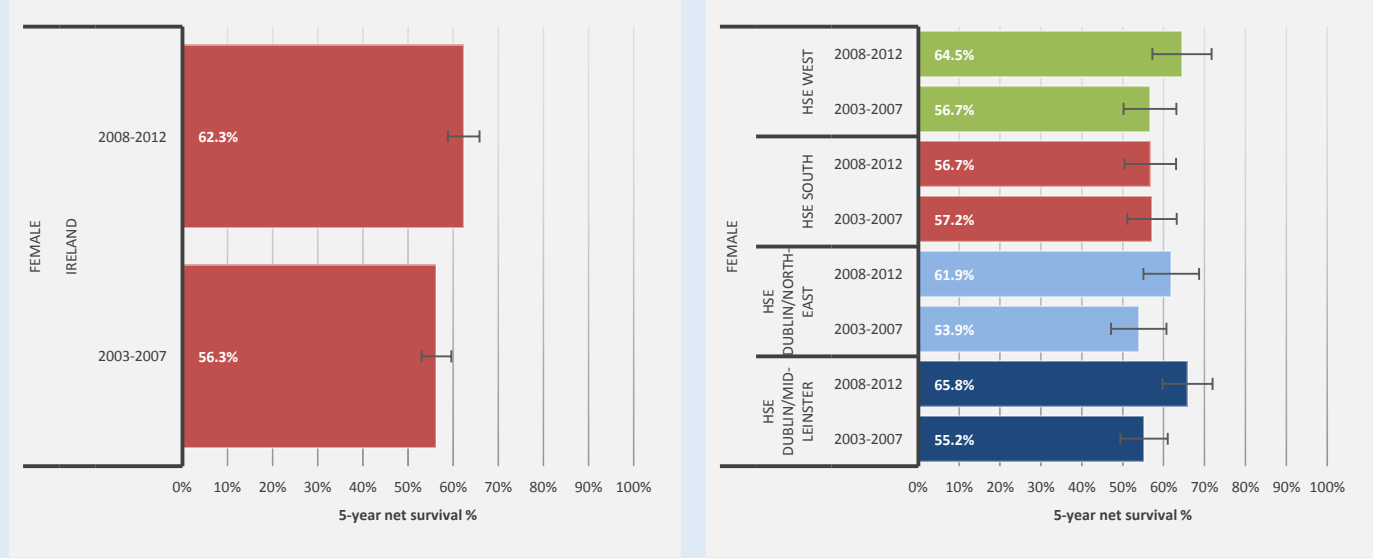
Age-standardised, five-year net survival for colorectal cancer patients as a whole improved from 57% to 61% between diagnosis periods 2003-2007 and 2008-2012 (Figure 5-1). Broadly similar improvements were also evident for male and female cases, and at regional scale. Regional variation in survival was not statistically significant, but survival appeared to be highest for patients living in the Dublin/Mid-Leinster and Dublin/North-East regions.

Figure 5-2. Percentage 5-year net survival and 95% confidence intervals: breast cancer: 2003-2007 vs. 2008-2012



Only minor improvements in breast cancer survival were seen between 2003-2007 and 2008-2012, from 80% to 82% net survival at five years, with similar patterns at regional scale (Figure 5-2). This follows more substantial improvements in survival between the mid/late 1990s and early 2000s noted in the previous annual report of the NCR [3]. Regional variation was also quite small, although survival appeared to be higher among patients living in the Dublin/Mid-Leinster and Dublin/North-East regions.

Figure 5-3. Percentage 5-year net survival and 95% confidence intervals: cervical cancer: 2003-2007 vs. 2008-2012



A substantial improvement in survival was noted for cervical cancer between 2003-2007 and 2008-2012, from 56% to 62% net survival at five years (Figure 5-3). Little or no improvement in cervical cancer had been seen in earlier years [8]. Three of the four HSE areas also showed evidence of improvements. However, confidence intervals on regional estimates are wide for this cancer, reflecting the small numbers of cases involved, thus it would be unsafe to draw any inferences about (apparent) regional variation in survival or in survival trends.

The National Cancer Registry was established by the Minister for Health in 1991. It has been collecting comprehensive cancer information for the Republic of Ireland since 1994. The information collected is used in research into the causes of cancer, in education and information programmes, and in the planning of cancer services to deliver the best cancer care to the whole population. Completeness of case ascertainment at five years after diagnosis is estimated to be at least 98% [9].

Incidence data are collected and coded by the NCR according to the ICDO3 classification (including translation from ICDO2 codes for older data) [1]. For convenience, cancer types are specified or grouped in this report under ICD10-type codes, but these do not correspond to 'strict' ICD10 codes as some neoplasms classed as non-invasive / non-malignant under ICD10 (e.g. myelodysplastic syndrome, ICD10 D46) are now considered fully malignant under ICDO3. For such cases, the nearest equivalent malignant ICD10 code or subheading is used (thus polycythaemia vera, myelodysplastic syndromes and chronic myeloproliferative diseases have been included under C96, rather than D45-D47).

Age-, sex- and cause-specific anonymised data for deaths attributable to cancer and other neoplasms were downloaded from the Central Statistics Office website for years 2011 and 2012 [10]. At the time of compilation of this report, deaths for 2013 (by year of death) were not available, and no update of the mortality trends presented in the last NCR report (for the years 1994-2012, [3]) has been attempted.

Table 6-1. Comparison of the 1976 ESP and the 2013 ESP population structures

1976 ESP		2013 ESP	
age band	weight per 100,000	age band	weight per 100,000
<1	1600	<1	1000
01-04	6400	01-04	4000
05-09	7000	05-09	5500
10-14	7000	10-14	5500
15-19	7000	15-19	5500
20-24	7000	20-24	6000
25-29	7000	25-29	6000
30-34	7000	30-34	6500
35-39	7000	35-39	7000
40-44	7000	40-44	7000
45-49	7000	45-49	7000
50-54	7000	50-54	7000
55-59	6000	55-59	6500
60-64	5000	60-64	6000
65-69	4000	65-69	5500
70-74	3000	70-74	5000
75-79	2000	75-79	4000
80-84	1000	80-84	2500
85+	1000	85-89	1500
		90-94	800
		95+	200
Total	100,000	Total	100,000

Source: EUROSTAT [4]

The age-standardised (ASR) rate is the annual rate of newly diagnosed cases (or deaths) in a given population (and year), expressed per 100,000 persons (usually males and females separately), weighted by the age-structure of a defined 'standard' population, to allow meaningful comparisons between different countries over time. By convention for European cancer registries, age-standardised rates for incidence and mortality were weighted by the European standard population (ESP) as defined in 1976 [2]. However, for the first time this report also presents rates weighted by the 2013 ESP proposed by EUROSTAT to more accurately reflect the demographic age shift in the European population since 1976 [4]. The 2013 ESP is a better reflection of the current population structure than the ESP of 1976. The 2013 ESP gives older ages a greater weight than the 1976 ESP and also, while the 1976 ESP has only one upper age band of 85+ years, the 2013 ESP contains age bands of 85-89, 90-94 and 95+. Like most cancer registries, by convention the NCR pools case-counts and population weights for age categories '<1 year' and '01-04 years' (Table 6-1).

Annual percentage changes (APC) of incidence over time (1994-2013) were estimated with the Joinpoint regression program, using annual age-standardised rates and their standard errors as inputs [5][6]. The same break point constraints for trend were applied to rates calculated using the 1976 ESP and 2013 ESP; a trend break point was allowed only after five consecutive years, and five years from either end of the year range.

Survival figures presented in this report use net survival, an 'improved' version of relative survival taking better account of competing mortality risks and allowing greater comparability between different populations or age-groups. Net survival represents the cumulative probability of a patient surviving a given time in the hypothetical situation in which the disease of interest is the only possible cause of death, i.e. survival having controlled for other possible cause of death. (This involves comparison of observed survival with the expected survival of persons of the same age and gender in the general population, as for relative survival.) Net survival was calculated using the 'strs' command in STATA with an adjustment to obtain the Pohar-Perme estimate [11][12]. All survival estimates were age-standardised to the International Cancer Survival Standards (ICSS) [13].

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APPENDIX I: SUMMARY TABLE - CANCER INCIDENCE: ANNUAL AVERAGE 2011-2013

ICD10* cancer site (INCIDENCE)	MALES						FEMALES						ALL		
	N [#]	% all	% all	ASR‡	ASR‡	Risk†	N [#]	% all	% all	ASR‡	ASR‡	Risk†	N [#]	% all	% all
N [#] : Average annual number of cases 2011-2013 rounded to nearest integer															
ASR‡: Age standardised rate/100,000- weighted by ESP of 1976 and 2013				invasive	invasive	ESP				invasive	invasive	ESP			
Risk†: Cumulative risk (%) to age 75 years				ex. NMSC	1976	2013				ex. NMSC	1976	2013	%		
C00-C96: All invasive cancers*	16,240	100.0%		723.8	1125.7	44.40	13,726	100.0%		546.0	791.6	35.05	29,966	100.0%	
C00-C43, C45-C96 all invasive cancers, excluding NMSC	10,948	67.4%	100.0%	489.5	741.9	33.68	9,506	69.3%	100.0%	384.1	540.3	26.45	20,454	68.3%	100.0%
C00-D48 all registered tumours	17,848			795.1	1236.5	47.44	19,215			763.7	1040.0	44.86	37,062		
D00-D48: All non-invasive tumours**	1,608			71.3	110.8	5.46	5,488			217.7	248.3	15.11	7,096		
C01 Malignant neoplasm of base of tongue	26	0.2%	0.2%	1.2	1.5	0.11	9	0.1%	0.1%	0.4	0.5	0.04	35	0.1%	0.2%
C00 Malignant neoplasm of lip	17	0.1%	0.2%	0.8	1.4	0.06	6	<0.1%	0.1%	0.2	0.3	0.01	23	0.1%	0.1%
C02 Malignant neoplasm of other and unspecified parts of tongue	48	0.3%	0.4%	2.1	2.9	0.19	27	0.2%	0.3%	1.1	1.5	0.09	75	0.3%	0.4%
C03 Malignant neoplasm of gum	10	0.1%	0.1%	0.5	0.6	0.05	8	0.1%	0.1%	0.3	0.5	0.03	18	0.1%	0.1%
C04 Malignant neoplasm of floor of mouth	27	0.2%	0.2%	1.3	1.6	0.12	7	0.1%	0.1%	0.3	0.4	0.03	34	0.1%	0.2%
C05 Malignant neoplasm of palate	12	0.1%	0.1%	0.5	0.7	0.04	6	<0.1%	0.1%	0.2	0.3	0.01	17	0.1%	0.1%
C06 Malignant neoplasm of other and unspecified parts of mouth	15	0.1%	0.1%	0.7	1.0	0.05	16	0.1%	0.2%	0.6	0.9	0.04	31	0.1%	0.2%
C07 Malignant neoplasm of parotid gland	19	0.1%	0.2%	0.8	1.3	0.06	12	0.1%	0.1%	0.5	0.6	0.04	31	0.1%	0.2%
C08 Malignant neoplasm of other and unspecified major salivary glands	4	<0.1%	<0.1%	0.2	0.3	0.01	3	<0.1%	<0.1%	0.1	0.2	0.01	7	<0.1%	<0.1%
C09 Malignant neoplasm of tonsil	42	0.3%	0.4%	1.9	2.3	0.17	12	0.1%	0.1%	0.5	0.6	0.04	54	0.2%	0.3%
C10 Malignant neoplasm of oropharynx	18	0.1%	0.2%	0.8	1.2	0.07	5	<0.1%	0.1%	0.2	0.3	0.02	24	0.1%	0.1%
C11 Malignant neoplasm of nasopharynx	12	0.1%	0.1%	0.5	0.6	0.05	5	<0.1%	0.1%	0.2	0.3	0.02	17	0.1%	0.1%
C12 Malignant neoplasm of pyriform sinus	23	0.1%	0.2%	1.0	1.4	0.10	3	<0.1%	<0.1%	0.1	0.2	0.01	26	0.1%	0.1%
C13 Malignant neoplasm of hypopharynx	14	0.1%	0.1%	0.6	0.9	0.05	5	<0.1%	0.1%	0.2	0.3	0.01	18	0.1%	0.1%
C14 Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	12	0.1%	0.1%	0.5	0.7	0.05	5	<0.1%	0.1%	0.2	0.3	0.01	17	0.1%	0.1%
C01-14 Malignant neoplasm of mouth & pharynx	280	1.7%	2.6%	12.7	16.9	1.12	122	0.9%	1.3%	5.1	6.8	0.41	403	1.3%	2.0%
C15 Malignant neoplasm of oesophagus	251	1.5%	2.3%	11.3	17.6	0.95	138	1.0%	1.5%	5.0	8.5	0.36	389	1.3%	1.9%
C16 Malignant neoplasm of stomach	341	2.1%	3.1%	15.1	24.7	1.18	192	1.4%	2.0%	7.1	11.6	0.50	532	1.8%	2.6%
C17 Malignant neoplasm of small intestine	49	0.3%	0.4%	2.2	3.2	0.18	33	0.2%	0.3%	1.3	1.9	0.10	82	0.3%	0.4%
C18 Malignant neoplasm of colon	882	5.4%	8.1%	39.1	64.7	2.87	731	5.3%	7.7%	27.6	44.2	2.02	1,614	5.4%	7.9%
C19 Malignant neoplasm of rectosigmoid junction	106	0.7%	1.0%	4.7	7.5	0.39	57	0.4%	0.6%	2.2	3.4	0.19	163	0.5%	0.8%
C20 Malignant neoplasm of rectum	452	2.8%	4.1%	20.2	30.7	1.71	231	1.7%	2.4%	9.3	13.6	0.75	683	2.3%	3.3%
C21 Malignant neoplasm of anus and anal canal	19	0.1%	0.2%	0.8	1.3	0.07	25	0.2%	0.3%	1.0	1.4	0.08	44	0.1%	0.2%
C19-20 Malignant neoplasm of rectosigmoid junction and rectum	558	3.4%	5.1%	24.9	38.2	2.09	288	2.1%	3.0%	11.5	17.0	0.93	846	2.8%	4.1%
C18-20 Malignant neoplasm of colon and rectum	1,441	8.9%	13.2%	64.0	102.9	4.90	1,019	7.4%	10.7%	39.0	61.2	2.93	2,460	8.2%	12.0%
C18-21 Malignant neoplasm of colon, rectum and anus	1,460	9.0%	13.3%	64.8	104.2	4.96	1,044	7.6%	11.0%	40.1	62.6	3.01	2,504	8.4%	12.2%
C22 Malignant neoplasm of liver and intrahepatic bile ducts	167	1.0%	1.5%	7.4	11.6	0.58	75	0.5%	0.8%	2.8	4.5	0.21	243	0.8%	1.2%
C23 Malignant neoplasm of gallbladder	16	0.1%	0.1%	0.7	1.3	0.04	41	0.3%	0.4%	1.5	2.6	0.10	57	0.2%	0.3%
C24 Malignant neoplasm of other and unspecified parts of biliary tract	55	0.3%	0.5%	2.4	4.1	0.18	53	0.4%	0.6%	1.9	3.3	0.12	109	0.4%	0.5%
C25 Malignant neoplasm of pancreas	259	1.6%	2.4%	11.5	18.9	0.89	238	1.7%	2.5%	8.7	14.8	0.62	496	1.7%	2.4%
C26 Malignant neoplasm of other and ill-defined digestive organs	14	0.1%	0.1%	0.6	1.1	0.04	19	0.1%	0.2%	0.6	1.1	0.03	33	0.1%	0.2%
C30 Malignant neoplasm of nasal cavity and middle ear	6	<0.1%	0.1%	0.3	0.4	0.02	6	<0.1%	0.1%	0.3	0.3	0.02	12	<0.1%	0.1%
C31 Malignant neoplasm of accessory sinuses	6	<0.1%	0.1%	0.3	0.4	0.02	5	<0.1%	0.1%	0.2	0.3	0.02	10	<0.1%	<0.1%
C32 Malignant neoplasm of larynx	140	0.9%	1.3%	6.3	8.9	0.54	27	0.2%	0.3%	1.1	1.5	0.11	166	0.6%	0.8%
C33 Malignant neoplasm of trachea	1	<0.1%	<0.1%	0.1	0.1	<0.01	1	<0.1%	<0.1%	0.1	0.1	<0.01	2	<0.1%	<0.1%
C34 Malignant neoplasm of bronchus and lung	1,290	7.9%	11.8%	57.3	94.0	4.45	1,026	7.5%	10.8%	40.2	62.9	3.29	2,316	7.7%	11.3%
C33-34 Malignant neoplasm of lung and trachea	1,292	8.0%	11.8%	57.3	94.1	4.45	1,027	7.5%	10.8%	40.3	63.0	3.29	2,318	7.7%	11.3%

ICD10* cancer site (INCIDENCE)	MALES							FEMALES							ALL		
N#: Average annual number of cases 2011-2013 rounded to nearest integer	N#	% all	% all	ASR‡	ASR‡	Risk†		N#	% all	% all	ASR‡	ASR‡	Risk†		N#	% all	% all
ASR‡: Age standardised rate/100,000- weighted by ESP of 1976 and 2013	invasive	invasive	ESP	ESP	75Y			invasive	invasive	ESP	ESP	75Y		invasive	invasive		
Risk†: Cumulative risk (%) to age 75 years	ex. NMSC	ex. NMSC	1976	2013				ex. NMSC	ex. NMSC	1976	2013			ex. NMSC	ex. NMSC		
C37 Malignant neoplasm of thymus	5	<0.1%	<0.1%	0.2	0.3	0.01		5	<0.1%	0.1%	0.2	0.3	0.02	10	<0.1%	<0.1%	
C38 Malignant neoplasm of heart, mediastinum and pleura	10	0.1%	0.1%	0.4	0.7	0.03		3	<0.1%	<0.1%	0.1	0.2	0.01	13	<0.1%	0.1%	
C40 Malignant neoplasm of bone and articular cartilage of limbs	14	0.1%	0.1%	0.6	0.7	0.05		9	0.1%	0.1%	0.4	0.4	0.03	22	0.1%	0.1%	
C41 Malignant neoplasm of bone and articular cartilage of other and unspecified sites	11	0.1%	0.1%	0.5	0.6	0.03		7	0.1%	0.1%	0.3	0.3	0.03	18	0.1%	0.1%	
C43 Malignant melanoma of skin	422	2.6%	3.9%	18.7	27.1	1.46		491	3.6%	5.2%	19.8	26.4	1.56	913	3.0%	4.5%	
C44 Other malignant neoplasms of skin	5,292	32.6%		234.4	383.9	16.18		4,220	30.7%		161.9	251.4	11.69	9,512	31.7%		
C45 Mesothelioma	37	0.2%	0.3%	1.6	2.7	0.15		6	<0.1%	0.1%	0.2	0.3	0.02	43	0.1%	0.2%	
C46 Kaposi sarcoma	10	0.1%	0.1%	0.4	0.5	0.03		1	<0.1%	<0.1%	<0.1	<0.1	<0.01	11	<0.1%	0.1%	
C47 Malignant neoplasm of peripheral nerves and autonomic nervous system	3	<0.1%	<0.1%	0.1	0.1	0.01		2	<0.1%	<0.1%	0.1	0.1	<0.01	5	<0.1%	<0.1%	
C48 Malignant neoplasm of retroperitoneum and peritoneum	7	<0.1%	0.1%	0.3	0.5	0.02		20	0.1%	0.2%	0.8	1.2	0.07	27	0.1%	0.1%	
C49 Malignant neoplasm of other connective and soft tissue	64	0.4%	0.6%	2.8	4.1	0.20		43	0.3%	0.5%	1.8	2.4	0.13	107	0.4%	0.5%	
C50 Malignant neoplasm of breast	34	0.2%	0.3%	1.5	2.4	0.12		2,883	21.0%	30.3%	122.6	157.5	9.61	2,917	9.7%	14.3%	
C51 Malignant neoplasm of vulva								49	0.4%	0.5%	1.9	2.8	0.15	49	0.2%	0.2%	
C52 Malignant neoplasm of vagina								14	0.1%	0.1%	0.5	0.8	0.04	14	<0.1%	0.1%	
C53 Malignant neoplasm of cervix uteri								295	2.1%	3.1%	12.4	13.6	0.96	295	1.0%	1.4%	
C54 Malignant neoplasm of corpus uteri								435	3.2%	4.6%	18.6	25.3	1.64	435	1.5%	2.1%	
C55 Malignant neoplasm of uterus, part unspecified								22	0.2%	0.2%	0.9	1.3	0.07	22	0.1%	0.1%	
C56 Malignant neoplasm of ovary								361	2.6%	3.8%	14.8	20.6	1.19	361	1.2%	1.8%	
C57 Malignant neoplasm of other and unspecified female genital organs								15	0.1%	0.2%	0.6	0.9	0.05	15	0.1%	0.1%	
C58 Malignant neoplasm of placenta								3	<0.1%	<0.1%	0.1	0.1	0.01	3	<0.1%	<0.1%	
C51-52,55,57,58 Malignancies of vulva, vagina, uterus (NOS), unspecified female genital & placenta								102	0.7%	1.1%	4.1	5.9	0.31	102	0.3%	0.5%	
C60 Malignant neoplasm of penis	33	0.2%	0.3%	1.5	2.2	0.10								33	0.1%	0.2%	
C61 Malignant neoplasm of prostate	3,400	20.9%	31.1%	154.3	224.6	13.77								3,400	11.3%	16.6%	
C62 Malignant neoplasm of testis	167	1.0%	1.5%	7.0	6.7	0.50								167	0.6%	0.8%	
C63 Malignant neoplasm of other and unspecified male genital organs	4	<0.1%	<0.1%	0.2	0.3	0.01								4	<0.1%	<0.1%	
C64 Malignant neoplasm of kidney, except renal pelvis	373	2.3%	3.4%	16.7	23.7	1.35		197	1.4%	2.1%	8.0	11.4	0.68	570	1.9%	2.8%	
C65 Malignant neoplasm of renal pelvis	17	0.1%	0.2%	0.7	1.3	0.05		8	0.1%	0.1%	0.3	0.5	0.03	25	0.1%	0.1%	
C66 Malignant neoplasm of ureter	13	0.1%	0.1%	0.6	0.9	0.05		6	<0.1%	0.1%	0.2	0.4	0.02	19	0.1%	0.1%	
C67 Malignant neoplasm of bladder	306	1.9%	2.8%	13.5	23.7	0.95		135	1.0%	1.4%	4.9	8.3	0.33	440	1.5%	2.2%	
C68 Malignant neoplasm of other and unspecified urinary organs	3	<0.1%	<0.1%	0.1	0.2	0.01		2	<0.1%	<0.1%	0.1	0.1	<0.01	5	<0.1%	<0.1%	
C69 Malignant neoplasm of eye and adnexa	33	0.2%	0.3%	1.5	1.9	0.13		26	0.2%	0.3%	1.1	1.4	0.09	60	0.2%	0.3%	
C70 Malignant neoplasm of meninges	4	<0.1%	<0.1%	0.2	0.3	0.01		6	<0.1%	0.1%	0.2	0.3	0.02	10	<0.1%	<0.1%	
C71 Malignant neoplasm of brain	192	1.2%	1.8%	8.5	11.3	0.71		149	1.1%	1.6%	6.2	7.9	0.49	341	1.1%	1.7%	
C72 Malignant neoplasm of spinal cord, cranial nerves and other parts of CNS	7	<0.1%	0.1%	0.3	0.3	0.02		7	0.1%	0.1%	0.3	0.3	0.02	14	<0.1%	0.1%	
C71-72 Malignant neoplasm of brain and spinal cord	199	1.2%	1.8%	8.8	11.6	0.73		156	1.1%	1.6%	6.4	8.2	0.51	355	1.2%	1.7%	
C73 Malignant neoplasm of thyroid gland	69	0.4%	0.6%	3.0	3.7	0.25		205	1.5%	2.2%	8.6	9.7	0.68	275	0.9%	1.3%	
C74 Malignant neoplasm of adrenal gland	9	0.1%	0.1%	0.4	0.4	0.03		8	0.1%	0.1%	0.3	0.3	0.02	17	0.1%	0.1%	
C75 Malignant neoplasm of other endocrine glands and related structures	8	<0.1%	0.1%	0.3	0.4	0.03		6	<0.1%	0.1%	0.2	0.3	0.01	14	<0.1%	0.1%	
C76 Malignant neoplasm of other and ill-defined sites	7	<0.1%	0.1%	0.3	0.4	0.03		15	0.1%	0.2%	0.5	0.9	0.04	22	0.1%	0.1%	
C77 Secondary and unspecified malignant neoplasm of lymph nodes	2	<0.1%	<0.1%	0.1	0.1	<0.01		1	<0.1%	<0.1%	<0.1	<0.1	<0.01	3	<0.1%	<0.1%	
C80 Malignant neoplasm without specification of site	215	1.3%	1.9%	9.6	16.3	0.65		227	1.6%	2.4%	7.9	13.9	0.52	442	1.5%	2.1%	
C81 Hodgkin lymphoma	75	0.5%	0.7%	3.3	3.6	0.25		60	0.4%	0.6%	2.6	2.8	0.20	135	0.5%	0.7%	
C82 Follicular [nodular] non-Hodgkin lymphoma	82	0.5%	0.7%	3.7	4.8	0.32		101	0.7%	1.1%	4.3	5.7	0.38	183	0.6%	0.9%	
C83 Diffuse non-Hodgkin lymphoma	204	1.3%	1.9%	9.1	13.5	0.71		148	1.1%	1.6%	5.9	8.7	0.48	352	1.2%	1.7%	
C84 Peripheral and cutaneous T-cell lymphomas	37	0.2%	0.3%	1.6	2.3	0.13		25	0.2%	0.3%	1.0	1.4	0.09	61	0.2%	0.3%	
C85 Other and unspecified types of non-Hodgkin lymphoma	83	0.5%	0.8%	3.6	5.8	0.27		78	0.6%	0.8%	3.0	4.7	0.23	161	0.5%	0.8%	

ICD10* cancer site (INCIDENCE)	MALES						FEMALES						ALL		
	N [#]	% all	% all	ASR†	ASR†	Risk†	N [#]	% all	% all	ASR†	ASR†	Risk†	N [#]	% all	% all
		invasive	invasive	ESP	ESP	75Y		invasive	invasive	ESP	ESP	75Y		invasive	invasive
			ex. NMSC			ex. NMSC						ex. NMSC			
C82-85 All non-Hodgkin lymphoma	406	2.5%	3.7%	18.1	26.4	1.42	352	2.6%	3.7%	14.2	20.5	1.18	757	2.5%	3.7%
C81-85 Lymphoma (total)	480	3.0%	4.4%	21.4	30.0	1.67	412	3.0%	4.3%	16.8	23.2	1.38	892	3.0%	4.4%
C88 Malignant immunoproliferative diseases	12	0.1%	0.1%	0.5	0.9	0.04	7	0.1%	0.1%	0.3	0.4	0.03	19	0.1%	0.1%
C90 Multiple myeloma and malignant plasma cell neoplasms	153	0.9%	1.4%	6.8	10.8	0.51	96	0.7%	1.0%	3.6	5.8	0.26	249	0.8%	1.2%
C91 Lymphoid leukaemia	164	1.0%	1.5%	7.4	10.7	0.55	98	0.7%	1.0%	4.1	5.3	0.32	263	0.9%	1.3%
C92 Myeloid leukaemia	101	0.6%	0.9%	4.5	6.9	0.32	75	0.5%	0.8%	3.0	4.1	0.24	175	0.6%	0.9%
C93 Monocytic leukaemia	2	<0.1%	<0.1%	0.1	0.1	<0.01	2	<0.1%	<0.1%	0.1	0.1	0.01	4	<0.1%	<0.1%
C94 Other leukaemias of specified cell type	6	<0.1%	0.1%	0.3	0.4	0.02	2	<0.1%	<0.1%	0.1	0.1	<0.01	8	<0.1%	<0.1%
C95 Leukaemia of unspecified cell type	17	0.1%	0.2%	0.8	1.6	0.03	13	0.1%	0.1%	0.4	0.7	0.02	29	0.1%	0.1%
C91-C95 Leukaemia (total)	289	1.8%	2.6%	12.9	19.7	0.93	190	1.4%	2.0%	7.6	10.3	0.59	479	1.6%	2.3%
C96 Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue*	183	1.1%	1.7%	8.1	13.4	0.58	118	0.9%	1.2%	4.5	7.1	0.34	301	1.0%	1.5%
D01 Carcinoma in situ of other and unspecified digestive organs	20			0.9	1.3	0.07	19			0.8	1.0	0.07	39		
D02 Carcinoma in situ of middle ear and respiratory system	9			0.4	0.6	0.04	9			0.4	0.5	0.03	18		
D03 Melanoma in situ	264			11.8	17.2	0.95	294			12.0	16.5	1.00	558		
D04 Carcinoma in situ of skin	714			31.5	51.9	2.45	1,048			39.1	65.5	2.99	1,762		
D05 Carcinoma in situ of breast	1			<0.1	<0.1	<0.01	360			16.4	18.7	1.34	361		
D06 Carcinoma in situ of cervix uteri							3,213			126.4	117.5	8.69	3,213		
D32 Benign neoplasm of meninges	35			1.6	2.4	0.12	99			4.0	5.5	0.33	134		
D33 Benign neoplasm of brain and other parts of CNS	19			0.9	1.0	0.07	21			0.9	1.0	0.07	40		
D32-D33 Benign neoplasm of meninges, brain & CNS	55			2.4	3.4	0.20	120			4.9	6.6	0.40	175		
D42 Neoplasm of uncertain or unknown behaviour of meninges	6			0.3	0.3	0.02	8			0.3	0.4	0.03	15		
D43 Neoplasm of uncertain or unknown behaviour of brain and CNS	26			1.1	1.1	0.08	27			1.1	1.2	0.08	52		
D42-D43 Neoplasm of uncertain meninges, brain & CNS	32			1.4	1.5	0.10	35			1.5	1.6	0.10	67		
C71-72, D32-33, D42-43 All malignant, benign, uncertain neoplasms of brain and CNS	285			12.7	16.4	1.02	311			12.9	16.4	1.01	597		

*Incidence figures for C00-C96 and C96 presented in this report include polycythaemia vera, myelodysplastic syndromes and chronic myeloproliferative disease, considered malignant in ICDO3 but previously classed as uncertain behaviour (and previously coded under ICD10 codes D45-D47).

** D00-D48 tumours in this report exclude polycythaemia vera, myelodysplastic syndromes and chronic myeloproliferative disease (see note above).

APPENDIX II: SUMMARY TABLE - CANCER DEATHS: ANNUAL AVERAGE 2011-2012

ICD10 cancer site (MORTALITY)	MALES				FEMALES				ALL	
	N [#]	% of all neoplasm deaths	ASR‡ ESP 1976	Risk† 75Y	N [#]	% of all neoplasm deaths	ASR‡ ESP 1976	Risk† 75Y %	N [#]	% of all neoplasm deaths
N [#] : Average annual number of deaths 2011-2012 rounded to nearest integer										
ASR‡: Age standardised rate/100,000 - weighted by ESP of 1976										
Risk†: Cumulative risk of death (%) due to listed cancer up to age 75 years										
C00-D48 all neoplasms/tumours	4,692	100.0%	211.1	12.90	4,135	100.0%	152.9	10.26	8,827	100.0%
C00-C96: All invasive cancers	4,581	97.6%	206.1	12.70	4,038	97.7%	149.9	10.12	8,619	97.6%
C00-C43, C45-C96 all invasive cancers, excluding NMSC	4,539	96.7%	204.1	12.60	4,012	97.0%	149.1	10.10	8,551	96.9%
D00-D48: All non-invasive neoplasms/tumours	111	2.4%	5.0	0.22	97	2.3%	3.1	0.15	208	2.4%
C01 Malignant neoplasm of base of tongue	5	0.1%	0.2	0.02	1	0.0%	<0.1	<0.01	6	0.1%
C00 Malignant neoplasm of lip	3	0.1%	0.1	0.00	0	0.0%	0.0	<0.01	3	0.0%
C02 Malignant neoplasm of other and unspecified parts of tongue	21	0.4%	0.9	0.09	15	0.4%	0.6	0.05	36	0.4%
C03 Malignant neoplasm of gum	2	0.0%	0.1	0.00	2	0.0%	0.1	<0.01	4	0.0%
C04 Malignant neoplasm of floor of mouth	6	0.1%	0.3	0.03	1	0.0%	<0.1	<0.01	7	0.1%
C05 Malignant neoplasm of palate	3	0.1%	0.1	0.01	2	0.0%	0.1	<0.01	5	0.1%
C06 Malignant neoplasm of other and unspecified parts of mouth	9	0.2%	0.4	0.03	6	0.1%	0.2	0.01	15	0.2%
C07 Malignant neoplasm of parotid gland	6	0.1%	0.3	0.01	6	0.1%	0.2	0.01	12	0.1%
C08 Malignant neoplasm of other and unspecified major salivary glands	2	0.0%	0.1	0.00	3	0.1%	0.1	0.01	5	0.1%
C09 Malignant neoplasm of tonsil	10	0.2%	0.4	0.04	2	0.0%	0.1	<0.01	12	0.1%
C10 Malignant neoplasm of oropharynx	14	0.3%	0.6	0.05	2	0.0%	0.1	<0.01	16	0.2%
C11 Malignant neoplasm of nasopharynx	9	0.2%	0.4	0.04	4	0.1%	0.2	0.01	13	0.1%
C12 Malignant neoplasm of pyriform sinus	7	0.1%	0.3	0.03	2	0.0%	0.1	0.01	9	0.1%
C13 Malignant neoplasm of hypopharynx	5	0.1%	0.2	0.01	3	0.1%	0.1	<0.01	8	0.1%
C14 Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	19	0.4%	0.9	0.09	4	0.1%	0.2	0.01	23	0.3%
C01-14 Malignant neoplasm of mouth & pharynx	114	2.4%	5.2	0.44	50	1.2%	1.9	0.14	164	1.9%
C15 Malignant neoplasm of oesophagus	231	4.9%	10.5	0.81	137	3.3%	4.8	0.32	368	4.2%
C16 Malignant neoplasm of stomach	201	4.3%	9.0	0.60	120	2.9%	4.1	0.25	321	3.6%
C17 Malignant neoplasm of small intestine	12	0.3%	0.5	0.02	13	0.3%	0.5	0.01	25	0.3%
C18 Malignant neoplasm of colon	296	6.3%	13.3	0.83	248	6.0%	8.3	0.51	544	6.2%
C19 Malignant neoplasm of rectosigmoid junction	186	4.0%	8.4	0.61	98	2.4%	3.7	0.27	284	3.2%
C20 Malignant neoplasm of rectum	110	2.3%	4.9	0.29	63	1.5%	2.2	0.14	173	2.0%
C21 Malignant neoplasm of anus and anal canal	5	0.1%	0.2	0.01	7	0.2%	0.3	0.03	12	0.1%
C19-20 Malignant neoplasm of rectosigmoid junction and rectum	295	6.3%	13.2	0.90	161	3.9%	6.0	0.41	456	5.2%
C18-20 Malignant neoplasm of colon and rectum	591	12.6%	26.5	1.73	409	9.9%	14.3	0.91	1,000	11.3%
C18-21 Malignant neoplasm of colon, rectum and anus	596	12.7%	26.8	1.74	416	10.1%	14.6	0.94	1,012	11.5%
C22 Malignant neoplasm of liver and intrahepatic bile ducts	143	3.0%	6.5	0.49	106	2.6%	3.8	0.25	249	2.8%
C23 Malignant neoplasm of gallbladder	9	0.2%	0.4	0.03	20	0.5%	0.7	0.04	29	0.3%
C24 Malignant neoplasm of other and unspecified parts of biliary tract	9	0.2%	0.4	0.03	12	0.3%	0.4	0.03	21	0.2%
C25 Malignant neoplasm of pancreas	251	5.3%	11.3	0.78	226	5.5%	8.2	0.55	477	5.4%
C26 Malignant neoplasm of other and ill-defined digestive organs	72	1.5%	3.2	0.19	63	1.5%	2.1	0.13	135	1.5%
C30 Malignant neoplasm of nasal cavity and middle ear	1	0.0%	<0.1	0.00	2	0.0%	0.1	<0.01	3	0.0%
C31 Malignant neoplasm of accessory sinuses	2	0.0%	0.1	0.01	3	0.1%	0.1	<0.01	5	0.1%
C32 Malignant neoplasm of larynx	57	1.2%	2.6	0.19	10	0.2%	0.4	0.04	67	0.8%
C33 Malignant neoplasm of trachea	1	0.0%	<0.1	0.00	1	0.0%	<0.1	<0.01	2	0.0%
C34 Malignant neoplasm of bronchus and lung	1,081	23.0%	48.5	3.52	744	18.0%	28.4	2.14	1,825	20.7%
C33-34 Malignant neoplasm of lung and trachea	1,081	23.0%	48.5	3.53	745	18.0%	28.4	2.14	1,826	20.7%

ICD10 cancer site (MORTALITY)	MALES				FEMALES				ALL	
N#: Average annual number of deaths 2011-2012 rounded to nearest integer	N#	% of all neoplasm deaths	ASR‡ ESP 1976	Risk† 75Y	N#	% of all neoplasm deaths	ASR‡ ESP 1976	Risk† 75Y %	N#	% of all neoplasm deaths
C37 Malignant neoplasm of thymus	1	0.0%	<0.1	<0.01	2	0.0%	0.1	<0.01	3	0.0%
C38 Malignant neoplasm of heart, mediastinum and pleura	1	0.0%	<0.1	<0.01	1	0.0%	<0.1	<0.01	2	0.0%
C39 Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	1	0.0%	<0.1	<0.01	0	0.0%			1	0.0%
C40 Malignant neoplasm of bone and articular cartilage of limbs	2	0.0%	0.1	<0.01	1	0.0%	<0.1	<0.01	3	0.0%
C41 Malignant neoplasm of bone and articular cartilage of other and unspecified sites	9	0.2%	0.4	0.03	6	0.1%	0.2	0.01	15	0.2%
C43 Malignant melanoma of skin	84	1.8%	3.7	0.26	65	1.6%	2.4	0.16	149	1.7%
C44 Other malignant neoplasms of skin	42	0.9%	1.9	0.11	27	0.7%	0.8	0.02	69	0.8%
C45 Mesothelioma	31	0.7%	1.3	0.09	5	0.1%	0.2	0.01	36	0.4%
C46 Kaposi sarcoma	0	0.0%	0.0	0.00	0	0.0%			0	0.0%
C47 Malignant neoplasm of peripheral nerves and autonomic nervous system	0	0.0%	0.0	0.00	1	0.0%	<0.1	<0.01	1	0.0%
C48 Malignant neoplasm of retroperitoneum and peritoneum	3	0.1%	0.1	0.01	14	0.3%	0.5	0.05	17	0.2%
C49 Malignant neoplasm of other connective and soft tissue	31	0.7%	1.4	0.09	20	0.5%	0.8	0.07	51	0.6%
C50 Malignant neoplasm of breast	8	0.2%	0.4	0.03	690	16.7%	26.7	1.99	698	7.9%
C51 Malignant neoplasm of vulva					17	0.4%	0.5	0.03	17	0.2%
C52 Malignant neoplasm of vagina					5	0.1%	0.2	0.01	5	0.1%
C53 Malignant neoplasm of cervix uteri					96	2.3%	4.1	0.32	96	1.1%
C54 Malignant neoplasm of corpus uteri					78	1.9%	2.9	0.22	78	0.9%
C55 Malignant neoplasm of uterus, part unspecified					27	0.7%	1.0	0.07	27	0.3%
C56 Malignant neoplasm of ovary					277	6.7%	10.9	0.83	277	3.1%
C57 Malignant neoplasm of other and unspecified female genital organs					9	0.2%	0.3	0.03	9	0.1%
C58 Malignant neoplasm of placenta					0	0.0%	0.0	0.00	0	0.0%
C51-52, 55, 57, 58 Other malignant gynaecological neoplasms					57	1.4%	2.0	0.14	57	0.6%
C60 Malignant neoplasm of penis	8	0.2%	0.3	0.03					8	0.1%
C61 Malignant neoplasm of prostate	541	11.5%	24.4	1.01					541	6.1%
C62 Malignant neoplasm of testis	8	0.2%	0.3	0.03					8	0.1%
C63 Malignant neoplasm of other and unspecified male genital organs	1	0.0%	<0.1	0.00					1	0.0%
C64 Malignant neoplasm of kidney, except renal pelvis	134	2.9%	6.1	0.44	59	1.4%	2.2	0.17	193	2.2%
C65 Malignant neoplasm of renal pelvis	1	<0.1%	<0.1	0.00	1	0.0%	<0.1	<0.01	2	0.0%
C66 Malignant neoplasm of ureter	4	0.1%	0.2	0.00	5	0.1%	0.2	0.01	9	0.1%
C67 Malignant neoplasm of bladder	138	2.9%	6.2	0.31	77	1.9%	2.4	0.11	215	2.4%
C68 Malignant neoplasm of other and unspecified urinary organs	4	0.1%	0.2	0.01	3	0.1%	0.1	<0.01	7	0.1%
C69 Malignant neoplasm of eye and adnexa	2	<0.1%	0.1	0.01	5	0.1%	0.2	0.01	7	0.1%
C70 Malignant neoplasm of meninges	1	<0.1%	<0.1	<0.01	1	0.0%	<0.1	<0.01	2	0.0%
C71 Malignant neoplasm of brain	160	3.4%	7.1	0.59	110	2.7%	4.5	0.37	270	3.1%
C72 Malignant neoplasm of spinal cord, cranial nerves and other parts of CNS	0	0.0%	0.0	0.00	1	0.0%	<0.1	<0.01	1	0.0%
C71-72 Malignant neoplasm of brain and spinal cord	160	3.4%	7.1	0.59	111	2.7%	4.5	0.37	271	3.1%
C73 Malignant neoplasm of thyroid gland	10	0.2%	0.4	0.04	18	0.4%	0.7	0.05	28	0.3%
C74 Malignant neoplasm of adrenal gland	4	0.1%	0.2	0.01	7	0.2%	0.3	0.02	11	0.1%
C75 Malignant neoplasm of other endocrine glands and related structures	3	0.1%	0.1	0.01	0	0.0%	0.0	0.00	3	0.0%
C76 Malignant neoplasm of other and ill-defined sites	19	0.4%	0.8	0.04	18	0.4%	0.6	0.04	37	0.4%
C80 Malignant neoplasm without specification of site	146	3.1%	6.5	0.40	166	4.0%	5.8	0.37	312	3.5%
C81 Hodgkin lymphoma	11	0.2%	0.4	0.03	14	0.3%	0.5	0.04	25	0.3%
C82 Follicular [nodular] non-Hodgkin lymphoma	8	0.2%	0.3	0.01	2	0.0%	0.1	<0.01	10	0.1%
C83 Diffuse non-Hodgkin lymphoma	30	0.6%	1.3	0.09	12	0.3%	0.5	0.05	42	0.5%
C84 Peripheral and cutaneous T-cell lymphomas	11	0.2%	0.5	0.04	10	0.2%	0.4	0.04	21	0.2%
C85 Other and unspecified types of non-Hodgkin lymphoma	97	2.1%	4.3	0.22	104	2.5%	3.8	0.25	201	2.3%

ICD10 cancer site (MORTALITY)	MALES				FEMALES				ALL	
N [#] : Average annual number of deaths 2011-2012 rounded to nearest integer	N [#]	% of all neoplasm deaths	ASR‡ ESP 1976	Risk† 75Y	N [#]	% of all neoplasm deaths	ASR‡ ESP 1976	Risk† 75Y %	N [#]	% of all neoplasm deaths
C82-C85 All non-Hodgkin lymphoma	146	3.1%	6.5	0.37	128	3.1%	4.7	0.34	274	3.1%
C81-C85 Lymphoma (total)	156	3.3%	6.9	0.40	142	3.4%	5.2	0.38	298	3.4%
C88 Malignant immunoproliferative diseases	3	0.1%	0.1	0.01	2	0.0%	0.1	0.00	5	0.1%
C90 Multiple myeloma and malignant plasma cell neoplasms	92	2.0%	4.1	0.26	74	1.8%	2.5	0.14	166	1.9%
C91 Lymphoid leukaemia	61	1.3%	2.7	0.17	34	0.8%	1.1	0.07	95	1.1%
C92 Myeloid leukaemia	89	1.9%	3.9	0.20	59	1.4%	2.2	0.14	148	1.7%
C93 Monocytic leukaemia	1	<0.1%	0.0	<0.01	1	0.0%	<0.1	0.00	2	0.0%
C94 Other leukaemias of specified cell type	1	<0.1%	0.1	<0.01	0	0.0%	0.0	0.00	1	0.0%
C95 Leukaemia of unspecified cell type	7	0.1%	0.3	0.03	8	0.2%	0.3	0.02	15	0.2%
C91-95 Leukaemia (total)	158	3.4%	7.0	0.40	101	2.4%	3.6	0.23	259	2.9%
C96 Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	1	<0.1%	<0.1	<0.01	0	0.0%	0.0	0.00	1	0.0%
C97 Malignant neoplasms of independent (primary) multiple sites	0	0.0%	0.0	0.00	0	0.0%	0.0	0.00	0	0.0%
D03 Melanoma in situ	0	0.0%	0.0	0.00	0	0.0%	0.0	0.00	0	0.0%
D04 Carcinoma in situ of skin	0	0.0%	0.0		1	0.0%	<0.1	<0.01	1	0.0%
D32 Benign neoplasm of meninges	3	0.1%	0.2	0.01	7	0.2%	0.2	0.01	10	0.1%
D33 Benign neoplasm of brain and other parts of CNS	1	0.0%	<0.1	0.00	3	0.1%	0.1	0.01	4	0.0%
D32-D33 Benign neoplasm of meninges, brain & CNS	4	0.1%	0.2	0.01	10	0.2%	0.3	0.02	14	0.2%
D42 Neoplasm of uncertain or unknown behaviour of meninges	0	0.0%	0.0	0.00	0	0.0%	0.0	0.00	0	0.0%
D43 Neoplasm of uncertain or unknown behaviour of brain and CNS	16	0.3%	0.7	0.05	13	0.3%	0.4	0.04	29	0.3%
D42-D43 Neoplasm of uncertain meninges, brain & CNS	16	0.3%	0.7	0.05	13	0.3%	0.4	0.04	29	0.3%
C71-72, D32-33, D42-43 All malignant, benign, uncertain neoplasms of brain and CNS	179	3.8%	8.0	0.64	133	3.2%	5.3	0.43	312	3.5%
D45 Polycythaemia vera*	2	0.0%	0.1	<0.01	0	0.0%	0.0	0.00	2	0.0%
D46 Myelodysplastic syndromes*	43	0.9%	1.9	0.09	27	0.7%	0.8	0.04	70	0.8%
D47 Other neoplasms of uncertain or unknown behaviour of lymphoid, haematopoietic and related tissue*	17	0.4%	0.7	0.04	16	0.4%	0.4	0.01	33	0.4%

*Note: For incidence (Appendix I), D45, D46 and part of D47 are included under C96, but mortality statistics presented by the CSO continue to use strict ICD10 codes.

APPENDIX IV: SUMMARY TABLE OF CANCER PREVALENCE: 1994-2013

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive		alive		alive		alive		alive	
		end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive
C00 Malignant neoplasm of lip	all	275	50	159	70	88	83	61	88	26	96
	female	42	57	33	72	23	92	15	88	6	86
	male	233	49	126	70	65	80	46	89	20	100
	<65 years	68	73	47	83	29	85	21	88	4	80
	65+ years	207	45	112	66	59	82	40	89	22	100
C01 Malignant neoplasm of base of tongue	all	162	35	135	48	92	59	67	64	25	81
	female	43	41	34	54	22	60	17	65	6	86
	male	119	34	101	47	70	58	50	64	19	79
	<65 years	82	37	74	52	51	64	39	65	16	84
	65+ years	80	34	61	45	41	53	28	64	9	75
C02 Malignant neoplasm of other and unspecified parts of tongue	all	473	47	365	61	248	69	172	77	73	89
	female	190	52	153	64	96	69	62	77	29	88
	male	283	45	212	59	152	69	110	77	44	90
	<65 years	246	54	204	70	143	77	94	83	40	93
	65+ years	227	42	161	53	105	59	78	70	33	85
C03 Malignant neoplasm of gum	all	104	45	87	58	62	66	41	76	14	78
	female	51	52	43	65	33	73	21	88	5	83
	male	53	40	44	53	29	59	20	67	9	75
	<65 years	43	54	40	66	31	67	21	68	7	78
	65+ years	61	40	47	53	31	65	20	87	7	78
C04 Malignant neoplasm of floor of mouth	all	190	37	151	54	100	63	75	73	40	89
	female	56	42	43	58	27	63	17	81	7	70
	male	134	35	108	52	73	62	58	71	33	94
	<65 years	92	41	78	59	54	70	42	84	25	96
	65+ years	98	33	73	50	46	55	33	62	15	79
C05 Malignant neoplasm of palate	all	132	44	105	58	62	69	40	77	11	92
	female	58	50	44	60	25	78	14	82	3	100
	male	74	40	61	57	37	64	26	74	8	89
	<65 years	65	52	56	68	37	76	24	83	7	88
	65+ years	67	39	49	50	25	61	16	70	4	100
C06 Malignant neoplasm of other and unspecified parts of mouth	all	196	42	154	56	104	67	67	72	33	89
	female	96	47	76	59	52	67	36	74	19	95
	male	100	38	78	53	52	68	31	71	14	82
	<65 years	93	56	80	68	60	80	37	80	18	95
	65+ years	103	34	74	47	44	55	30	64	15	83
C07 Malignant neoplasm of parotid gland	all	230	45	167	58	105	70	75	82	27	84
	female	105	59	72	73	48	79	31	89	8	89
	male	125	37	95	50	57	64	44	77	19	83
	<65 years	119	73	89	81	61	88	42	96	10	100
	65+ years	111	32	78	44	44	54	33	69	17	77

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive	% alive	alive	% alive	alive	% alive	alive	% alive	alive	% alive
		end 2013		end 2013		end 2013		end 2013		end 2013	
C08 Malignant neoplasm of other and unspecified major salivary glands	all	66	43	44	59	24	59	12	57	6	75
	female	38	52	24	67	12	67	6	67	2	100
	male	28	35	20	51	12	52	6	50	4	67
	<65 years	40	61	26	70	12	75	7	78	3	75
	65+ years	26	30	18	47	12	48	5	42	3	75
C09 Malignant neoplasm of tonsil	all	306	49	257	60	185	71	131	81	55	90
	female	90	60	70	69	48	74	31	86	11	92
	male	216	46	187	57	137	70	100	79	44	90
	<65 years	216	56	193	66	144	77	102	82	45	96
	65+ years	90	38	64	45	41	56	29	76	10	71
C10 Malignant neoplasm of oropharynx	all	67	29	60	43	50	53	44	62	16	67
	female	21	44	19	61	15	71	13	81	5	71
	male	46	25	41	38	35	47	31	56	11	65
	<65 years	38	31	35	47	28	57	23	68	11	73
	65+ years	29	25	25	39	22	48	21	57	5	56
C11 Malignant neoplasm of nasopharynx	all	129	45	87	55	60	68	37	74	14	100
	female	34	57	23	64	15	65	10	67	4	100
	male	95	42	64	52	45	69	27	77	10	100
	<65 years	98	54	70	63	48	75	30	86	12	100
	65+ years	31	29	17	35	12	50	7	47	2	100
C12 Malignant neoplasm of pyriform sinus	all	104	22	89	36	70	55	51	66	20	91
	female	18	21	14	41	11	65	7	78	1	100
	male	86	23	75	36	59	54	44	65	19	91
	<65 years	44	22	42	40	34	57	25	69	8	89
	65+ years	60	22	47	33	36	54	26	63	12	92
C13 Malignant neoplasm of hypopharynx	all	56	21	46	29	35	39	29	53	13	72
	female	22	21	17	33	11	46	10	71	4	100
	male	34	21	29	27	24	36	19	46	9	64
	<65 years	25	28	24	38	18	53	17	68	8	80
	65+ years	31	17	22	23	17	30	12	40	5	63
C14 Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	all	59	22	46	33	35	43	28	56	12	63
	female	16	25	12	35	8	36	6	40	3	50
	male	43	20	34	32	27	45	22	63	9	69
	<65 years	32	26	29	45	21	53	19	63	10	77
	65+ years	27	18	17	22	14	33	9	45	2	33
C01-14 Malignant neoplasm of mouth and pharynx	all	2,274	39	1,793	53	1,232	63	869	72	359	85
	female	838	47	644	60	423	68	281	77	107	86
	male	1,436	36	1,149	49	809	61	588	70	252	84
	<65 years	1,233	48	1,040	62	742	72	522	78	220	90
	65+ years	1,041	33	753	44	490	53	347	64	139	78
C15 Malignant neoplasm of oesophagus	all	999	15	846	23	655	34	510	44	292	72
	female	355	14	289	22	213	32	163	40	91	71
	male	644	15	557	23	442	35	347	46	201	73
	<65 years	326	18	292	28	233	42	179	54	107	83
	65+ years	673	14	554	21	422	31	331	40	185	67

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive end 2013	% alive	alive end 2013	% alive	alive end 2013	% alive	alive end 2013	% alive	alive end 2013	% alive
C16 Malignant neoplasm of stomach	all	1,717	17	1,374	27	1,009	38	742	47	342	68
	female	647	18	492	26	364	37	260	45	128	70
	male	1,070	17	882	27	645	38	482	47	214	67
	<65 years	514	21	440	33	338	45	240	54	120	72
	65+ years	1,203	16	934	25	671	35	502	44	222	65
C17 Malignant neoplasm of small intestine	all	404	39	321	50	237	64	173	70	73	78
	female	158	37	127	48	87	61	65	66	24	80
	male	246	40	194	52	150	66	108	74	49	77
	<65 years	183	51	144	64	106	78	72	83	26	87
	65+ years	221	32	177	42	131	56	101	64	47	73
C18 Malignant neoplasm of colon	all	10,508	40	7,907	53	5,126	64	3,488	72	1,381	85
	female	5,004	41	3,615	53	2,335	65	1,580	72	599	82
	male	5,504	39	4,292	52	2,791	64	1,908	72	782	86
	<65 years	2,536	47	2,156	64	1,532	76	1,092	83	427	93
	65+ years	7,972	38	5,751	49	3,594	60	2,396	68	954	81
C19 Malignant neoplasm of rectosigmoid junction	all	1,188	38	880	52	536	62	336	69	134	79
	female	464	39	328	50	186	59	105	62	39	66
	male	724	38	552	53	350	65	231	72	95	86
	<65 years	325	44	275	59	188	72	122	81	56	97
	65+ years	863	36	605	49	348	58	214	63	78	70
C20 Malignant neoplasm of rectum	all	4,763	41	3,567	56	2,338	70	1,622	79	577	91
	female	1,769	44	1,268	58	799	71	542	78	189	90
	male	2,994	40	2,299	56	1,539	70	1,080	80	388	92
	<65 years	1,489	50	1,276	66	891	78	634	86	205	94
	65+ years	3,274	38	2,291	52	1,447	66	988	75	372	90
C19-20 Malignant neoplasm of rectosigmoid junction & rectum	all	5,951	40	4,447	55	2,874	69	1,958	77	711	89
	female	2,233	43	1,596	56	985	68	647	75	228	85
	male	3,718	39	2,851	55	1,889	69	1,311	78	483	90
	<65 years	1,814	49	1,551	65	1,079	77	756	85	261	95
	65+ years	4,137	38	2,896	51	1,795	64	1,202	73	450	86
C21 Malignant neoplasm of anus and anal canal	all	295	44	239	59	162	68	104	78	42	88
	female	175	46	141	59	99	70	61	81	24	89
	male	120	41	98	58	63	65	43	74	18	86
	<65 years	141	58	116	70	88	82	57	92	23	100
	65+ years	154	36	123	51	74	57	47	66	19	76
C18-20 Malignant neoplasm of colon & rectum	all	16,459	40	12,354	54	8,000	66	5,446	74	2,092	86
	female	7,237	41	5,211	54	3,320	66	2,227	73	827	83
	male	9,222	39	7,143	53	4,680	66	3,219	75	1,265	88
	<65 years	4,350	48	3,707	64	2,611	76	1,848	84	688	93
	65+ years	12,109	38	8,647	50	5,389	62	3,598	69	1,404	83
C18-21 Malignant neoplasm of colon, rrectum & anus	all	16,754	40	12,593	54	8,162	66	5,550	74	2,134	86
	female	7,412	41	5,352	54	3,419	66	2,288	73	851	83
	male	9,342	39	7,241	53	4,743	66	3,262	75	1,283	88
	<65 years	4,491	48	3,823	64	2,699	76	1,905	84	711	94
	65+ years	12,263	38	8,770	50	5,463	62	3,645	69	1,423	83

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive		alive		alive		alive		alive	
		end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive
C22 Malignant neoplasm of liver and intrahepatic bile ducts	all	430	16	387	20	321	29	263	36	130	51
	female	127	14	108	17	89	26	79	35	34	50
	male	303	17	279	22	232	30	184	37	96	51
	<65 years	203	23	181	29	148	38	123	49	60	65
	65+ years	227	12	206	16	173	23	140	29	70	43
C23 Malignant neoplasm of gallbladder	all	92	10	78	16	60	24	50	29	34	53
	female	68	10	56	15	43	24	35	29	25	53
	male	24	9	22	16	17	23	15	31	9	53
	<65 years	28	14	28	22	20	36	14	44	7	78
	65+ years	64	9	50	13	40	21	36	26	27	49
C24 Malignant neoplasm of other and unspecified parts of biliary tract	all	251	15	204	22	158	30	128	39	78	62
	female	107	13	83	19	64	26	52	33	32	53
	male	144	17	121	25	94	35	76	46	46	70
	<65 years	70	21	60	31	49	44	43	61	28	82
	65+ years	181	14	144	20	109	27	85	33	50	54
C25 Malignant neoplasm of pancreas	all	589	7	509	11	422	17	353	24	215	43
	female	293	7	239	11	193	17	163	23	99	42
	male	296	7	270	11	229	18	190	25	116	44
	<65 years	214	11	194	16	161	25	133	34	82	59
	65+ years	375	6	315	9	261	15	220	20	133	37
C26 Malignant neoplasm of other and ill-defined digestive organs	all	34	4	27	8	22	13	18	18	11	31
	female	21	5	15	8	13	14	10	18	6	27
	male	13	4	12	7	9	12	8	19	5	39
	<65 years	14	10	11	15	10	24	10	37	5	56
	65+ years	20	3	16	6	12	9	8	11	6	23
C30 Malignant neoplasm of nasal cavity and middle ear	all	93	45	70	59	48	72	29	83	10	100
	female	47	48	37	67	25	74	16	89	6	100
	male	46	43	33	52	23	70	13	77	4	100
	<65 years	46	60	37	70	27	84	16	94	7	100
	65+ years	47	37	33	50	21	60	13	72	3	100
C31 Malignant neoplasm of accessory sinuses	all	62	26	44	39	26	50	18	58	6	60
	female	29	32	19	50	10	59	10	71	3	75
	male	33	23	25	33	16	46	8	47	3	50
	<65 years	33	36	26	52	17	65	10	71	2	50
	65+ years	29	20	18	29	9	35	8	47	4	67
C32 Malignant neoplasm of larynx	all	1,155	43	873	58	564	70	389	78	153	89
	female	178	43	138	64	89	75	62	78	31	91
	male	977	43	735	57	475	69	327	78	122	88
	<65 years	428	47	363	61	258	72	178	77	54	87
	65+ years	727	41	510	56	306	69	211	78	99	90
C33 Malignant neoplasm of trachea	all	4	7	3	18	3	30	2	33	1	100
	female	1	4	1	13	1	20	-	-		
	male	3	11	2	22	2	40	2	50	1	100
	<65 years	1	6	1	17	1	25	1	33	1	100
	65+ years	3	8	2	18	2	33	1	33		

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive	% alive	alive	% alive	alive	% alive	alive	% alive	alive	% alive
		end 2013		end 2013		end 2013		end 2013		end 2013	
C34 Malignant neoplasm of bronchus and lung	all	4,508	12	3,929	19	3,187	28	2,590	37	1,388	59
	female	2,298	16	2,028	23	1,644	34	1,353	44	711	66
	male	2,210	10	1,901	16	1,543	24	1,237	32	677	54
	<65 years	1,392	14	1,269	22	1,062	35	857	45	466	72
	65+ years	3,116	11	2,660	18	2,125	26	1,733	34	922	55
C33-34 Malignant neoplasm of bronchus, lung or trachea	all	4,512	12	3,932	19	3,190	28	2,592	37	1,389	59
	female	2,299	16	2,029	23	1,645	34	1,353	44	711	66
	male	2,213	10	1,903	16	1,545	24	1,239	32	678	54
	<65 years	1,393	14	1,270	22	1,063	35	858	45	467	72
	65+ years	3,119	11	2,662	18	2,127	26	1,734	34	922	55
C37 Malignant neoplasm of thymus	all	63	50	52	69	38	88	28	97	11	92
	female	26	52	23	77	19	91	15	100	7	100
	male	37	49	29	64	19	86	13	93	4	80
	<65 years	32	58	26	84	19	86	13	100	5	100
	65+ years	31	44	26	59	19	91	15	94	6	86
C38 Malignant neoplasm of heart, mediastinum and pleura	all	37	15	27	22	19	30	14	36	7	78
	female	8	10	6	15	3	15	3	30	1	100
	male	29	17	21	25	16	37	11	38	6	75
	<65 years	29	29	21	38	16	53	12	55	6	86
	65+ years	8	5	6	9	3	9	2	12	1	50
C40 Malignant neoplasm of bone and articular cartilage of limbs	all	225	58	133	70	79	79	53	79	22	100
	female	90	61	51	74	30	86	21	81	7	100
	male	135	57	82	67	49	75	32	78	15	100
	<65 years	188	66	109	78	69	87	45	87	18	100
	65+ years	37	37	24	46	10	48	8	53	4	100
C41 Malignant neoplasm of bone and articular cartilage of other and unspecified sites	all	129	42	84	52	51	59	35	65	12	71
	female	56	41	36	48	19	61	13	65	6	86
	male	73	42	48	56	32	58	22	65	6	60
	<65 years	96	49	63	56	38	61	25	68	9	82
	65+ years	33	29	21	44	13	54	10	59	3	50
C43 Malignant melanoma of skin	all	8,510	71	6,097	80	3,832	87	2,501	91	954	97
	female	5,230	76	3,565	84	2,196	90	1,373	93	497	98
	male	3,280	65	2,532	75	1,636	83	1,128	89	457	96
	<65 years	4,458	83	3,277	89	2,057	94	1,314	96	494	99
	65+ years	4,052	62	2,820	71	1,775	80	1,187	87	460	95
C44 Other malignant neoplasms of skin (non-melanoma skin cancers [NMSC])	all	91,823	69	66,113	83	41,157	91	27,055	95	9,636	98
	female	43,202	72	30,339	85	18,489	92	12,093	96	4,236	99
	male	48,621	68	35,774	82	22,668	90	14,962	94	5,400	98
	<65 years	24,416	94	19,564	97	12,925	99	8,641	99	3,093	100
	65+ years	67,407	63	46,549	79	28,232	88	18,414	93	6,543	98
C45 Mesothelioma	all	53	10	46	13	44	22	37	29	26	63
	female	9	11	9	16	9	30	7	39	2	50
	male	44	10	37	12	35	20	30	27	24	65
	<65 years	22	11	20	20	18	38	14	48	9	90
	65+ years	31	9	26	10	26	17	23	23	17	55

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive	% alive	alive	% alive	alive	% alive	alive	% alive	alive	% alive
		end 2013		end 2013		end 2013		end 2013		end 2013	
C46 Kaposi sarcoma	all	70	59	53	75	32	80	28	85	6	100
	female	7	58	6	67	3	100	2	100		
	male	63	59	47	76	29	78	26	84	6	100
	<65 years	58	60	45	75	28	80	25	83	5	100
	65+ years	12	57	8	73	4	80	3	100	1	100
C47 Malignant neoplasm of peripheral nerves and autonomic nervous system	all	68	47	39	56	16	70	11	73	3	100
	female	31	42	18	47	6	50	3	50	1	100
	male	37	51	21	66	10	91	8	89	2	100
	<65 years	59	54	38	66	16	80	11	92	3	100
	65+ years	9	24	1	8	-	-	-	-		
C48 Malignant neoplasm of retroperitoneum and peritoneum	all	97	29	79	38	59	53	46	58	24	80
	female	60	26	49	31	40	48	32	53	17	81
	male	37	36	30	60	19	68	14	70	7	78
	<65 years	50	39	41	52	26	74	18	82	11	100
	65+ years	47	23	38	30	33	43	28	48	13	68
C49 Malignant neoplasm of other connective and soft tissue	all	838	47	572	58	343	65	231	72	103	84
	female	364	50	248	60	135	63	93	72	40	80
	male	474	45	324	57	208	65	138	72	63	88
	<65 years	483	57	326	67	198	73	133	79	53	86
	65+ years	355	38	246	49	145	55	98	64	50	83
C50 Malignant neoplasm of breast	all	29,828	67	21,230	81	12,720	89	8,097	93	2,882	97
	female	29,622	67	21,058	81	12,597	89	8,004	93	2,844	97
	male	206	57	172	73	123	85	93	91	38	93
	<65 years	15,741	76	12,501	89	7,913	95	5,099	97	1,810	99
	65+ years	14,087	59	8,729	71	4,807	81	2,998	86	1,072	93
C51 Malignant neoplasm of vulva	all	390	48	291	62	179	74	117	80	38	91
	<65 years	164	71	133	83	84	91	57	95	18	100
	65+ years	226	39	158	51	95	63	60	69	20	83
C52 Malignant neoplasm of vagina	all	65	32	47	40	31	53	25	61	11	65
	<65 years	22	35	15	43	12	60	8	67	1	100
	65+ years	43	30	32	39	19	50	17	59	10	63
C53 Malignant neoplasm of cervix uteri	all	2,977	64	2,044	73	1,259	80	765	86	257	95
	<65 years	2,509	70	1,802	78	1,111	85	666	90	213	98
	65+ years	468	44	242	47	148	56	99	69	44	80
C54 Malignant neoplasm of corpus uteri	all	3,873	64	2,735	74	1,740	82	1,130	87	409	94
	<65 years	1,497	76	1,254	84	855	89	579	93	219	98
	65+ years	2,376	59	1,481	68	885	77	551	81	190	89
C55 Malignant neoplasm of uterus, part unspecified	all	157	38	108	49	67	55	40	62	11	65
	<65 years	70	50	53	65	38	75	26	87	6	86
	65+ years	87	33	55	40	29	41	14	40	5	50
C56 Malignant neoplasm of ovary	all	2,027	31	1,418	41	942	53	678	63	250	72
	<65 years	1,146	41	857	56	578	70	416	80	150	93
	65+ years	881	24	561	29	364	38	262	47	100	54
C57 Malignant neoplasm of other and unspecified female genital organs	all	66	38	53	45	35	47	25	56	10	71
	<65 years	35	49	33	64	23	64	19	70	7	88
	65+ years	31	31	20	31	12	31	6	33	3	50

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		alive	% alive	alive	% alive	alive	% alive	alive	% alive	alive	% alive
		end 2013		end 2013		end 2013		end 2013		end 2013	
C58 Malignant neoplasm of placenta	all	24	92	17	94	14	100	9	100	3	100
	<65 years	24	92	17	94	14	100	9	100	3	100
	65+ years	0	0	0	0	0	0	0	0	0	0
C51-52, 55, 57, 58 Other malignant neoplasms: gynaecological	all	702	43	516	55	326	64	216	70	73	79
	<65 years	315	59	251	73	171	80	119	86	35	95
	65+ years	387	35	265	44	155	52	97	57	38	68
C60 Malignant neoplasm of penis	all	245	51	175	66	116	77	82	83	32	97
	<65 years	104	67	81	78	58	87	37	86	14	93
	65+ years	141	44	94	59	58	70	45	80	18	100
C61 Malignant neoplasm of prostate	all	28,431	63	23,952	80	14,868	89	9,540	94	3,140	98
	<65 years	6,563	86	6,341	93	4,898	97	3,438	98	1,296	100
	65+ years	21,868	58	17,611	76	9,970	86	6,102	91	1,844	96
C62 Malignant neoplasm of testis	all	2,575	94	1,616	97	829	97	487	97	153	99
	<65 years	2,492	94	1,584	97	815	97	478	98	150	99
	65+ years	83	76	32	80	14	78	9	82	3	100
C63 Malignant neoplasm of other and unspecified male genital organs	all	29	55	18	72	15	88	10	91	3	100
	<65 years	10	77	7	100	5	100	4	100	2	100
	65+ years	19	48	11	61	10	83	6	86	1	100
C64 Malignant neoplasm of kidney, except renal pelvis	all	3,575	46	2,792	58	1,869	68	1,274	75	476	83
	female	1,359	49	1,034	59	662	69	440	75	161	83
	male	2,216	45	1,758	57	1,207	68	834	75	315	84
	<65 years	1,646	59	1,357	70	946	79	669	85	254	93
	65+ years	1,929	39	1,435	49	923	60	605	66	222	75
C65 Malignant neoplasm of renal pelvis	all	111	41	93	53	74	67	53	71	25	93
	female	45	50	39	63	30	77	19	79	7	100
	male	66	37	54	47	44	61	34	67	18	90
	<65 years	30	54	26	67	19	76	14	82	7	88
	65+ years	81	38	67	49	55	64	39	67	18	95
C66 Malignant neoplasm of ureter	all	107	40	77	49	60	62	43	74	18	90
	female	39	40	25	42	20	56	12	67	4	80
	male	68	40	52	54	40	66	31	78	14	93
	<65 years	30	58	22	73	20	77	11	92	6	100
	65+ years	77	36	55	44	40	56	32	70	12	86
C67 Malignant neoplasm of bladder	all	3,654	40	2,299	51	1,321	60	879	67	332	79
	female	1,100	41	662	49	369	55	257	64	104	78
	male	2,554	39	1,637	52	952	62	622	68	228	80
	<65 years	808	59	567	68	320	74	213	79	80	88
	65+ years	2,846	36	1,732	47	1,001	56	666	63	252	77
C68 Malignant neoplasm of other and unspecified urinary organs	all	33	32	21	44	13	59	11	79	4	100
	female	11	28	9	45	5	50	4	80	2	100
	male	22	35	12	43	8	67	7	78	2	100
	<65 years	7	39	4	44	3	100	3	100	2	100
	65+ years	26	31	17	44	10	53	8	73	2	100

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		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive	% alive	alive	% alive	alive	% alive	alive	% alive	alive	% alive
		end 2013		end 2013		end 2013		end 2013		end 2013	
C69 Malignant neoplasm of eye and adnexa	all	556	60	372	75	224	84	162	91	56	95
	female	257	58	161	73	100	84	70	89	19	95
	male	299	62	211	77	124	84	92	92	37	95
	<65 years	285	76	200	83	133	91	91	95	33	97
	65+ years	271	50	172	68	91	77	71	86	23	92
C70 Malignant neoplasm of meninges	all	80	47	63	61	43	72	22	73	9	82
	female	49	45	38	59	24	69	12	71	5	71
	male	31	50	25	66	19	76	10	77	4	100
	<65 years	31	71	27	87	18	86	10	83	5	100
	65+ years	49	39	36	50	25	64	12	67	4	67
C71 Malignant neoplasm of brain	all	1,167	20	832	26	590	36	443	43	219	66
	female	540	22	382	28	280	39	199	45	101	66
	male	627	19	450	25	310	34	244	42	118	66
	<65 years	966	29	687	38	473	51	344	60	155	82
	65+ years	201	8	145	11	117	17	99	22	64	44
C72 Malignant neoplasm of spinal cord, cranial nerves and other parts of CNS	all	130	60	77	67	54	82	34	81	13	87
	female	74	66	45	71	32	80	18	82	8	80
	male	56	53	32	62	22	85	16	80	5	100
	<65 years	114	70	70	80	47	92	30	88	13	100
	65+ years	16	29	7	26	7	47	4	50	-	-
C71-72 Malignant neoplasm of brain and CNS	all	1,297	22	909	28	644	38	477	45	232	67
	female	614	24	427	30	312	41	217	46	109	67
	male	683	20	482	26	332	35	260	44	123	67
	<65 years	1,080	31	757	40	520	53	374	61	168	84
	65+ years	217	9	152	11	124	17	103	23	64	44
C73 Malignant neoplasm of thyroid gland	all	2,031	79	1,621	87	1,093	90	758	92	280	92
	female	1,557	83	1,233	89	827	92	574	93	197	92
	male	474	68	388	79	266	84	184	89	83	93
	<65 years	1,575	92	1,277	95	872	96	611	97	227	97
	65+ years	456	53	344	66	221	73	147	76	53	75
C74 Malignant neoplasm of adrenal gland	all	129	49	82	59	57	65	37	74	15	94
	female	63	45	40	55	26	61	19	83	11	92
	male	66	52	42	63	31	69	18	67	4	100
	<65 years	107	55	68	64	48	70	30	83	12	100
	65+ years	22	31	14	41	9	47	7	50	3	75
C75 Malignant neoplasm of other endocrine glands and related structures	all	133	62	89	72	50	78	39	95	12	92
	female	64	63	45	74	21	81	17	94	7	100
	male	69	60	44	70	29	76	22	96	5	83
	<65 years	89	70	59	84	37	84	28	97	8	89
	65+ years	44	50	30	56	13	65	11	92	4	100
C76 Malignant neoplasm of other and ill-defined sites	all	88	13	52	21	29	29	25	39	10	59
	female	59	14	35	21	20	30	17	39	8	57
	male	29	12	17	19	9	27	8	38	2	67
	<65 years	53	33	31	48	14	52	12	60	5	100
	65+ years	35	7	21	11	15	21	13	29	5	42

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive		alive		alive		alive		alive	
		end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive
C77 Secondary and unspecified malignant neoplasm of lymph nodes	all	8	29	6	33	6	55	6	67	3	75
	female	3	20	1	11	1	20	1	33	1	100
	male	5	39	5	56	5	83	5	83	2	67
	<65 years	6	55	4	67	4	100	4	100	3	100
	65+ years	2	12	2	17	2	29	2	40	-	-
C80 Malignant neoplasm without specification of site	all	693	6	473	10	356	16	268	20	164	35
	female	314	5	205	9	155	13	117	17	68	32
	male	379	7	268	12	201	19	151	24	96	38
	<65 years	232	9	186	18	143	28	105	33	59	49
	65+ years	461	5	287	8	213	12	163	16	105	31
C81 Hodgkin lymphoma	all	1,605	77	1,012	83	600	87	355	88	118	89
	female	733	78	457	84	273	87	157	87	50	91
	male	872	76	555	83	327	87	198	88	68	87
	<65 years	1,407	87	872	91	524	94	312	95	106	94
	65+ years	198	44	140	54	76	59	43	57	12	60
C82 Follicular [nodular] non-Hodgkin lymphoma	all	1,516	73	1,227	82	784	90	515	94	174	94
	female	799	74	648	83	417	90	284	93	108	95
	male	717	72	579	82	367	90	231	94	66	92
	<65 years	800	82	668	91	435	96	288	98	106	97
	65+ years	716	65	559	74	349	84	227	88	68	88
C83 Diffuse non-Hodgkin lymphoma	all	2,116	50	1,695	60	1,122	68	763	72	295	85
	female	919	51	721	60	475	67	318	72	125	83
	male	1,197	50	974	60	647	69	445	73	170	86
	<65 years	978	63	784	73	510	80	348	83	132	92
	65+ years	1,138	43	911	52	612	60	415	65	163	80
C84 Peripheral and cutaneous T-cell lymphomas	all	461	56	315	61	196	66	125	68	49	80
	female	192	58	119	59	74	66	49	66	21	75
	male	269	55	196	61	122	66	76	69	28	85
	<65 years	253	68	175	73	110	79	69	82	25	86
	65+ years	208	47	140	50	86	54	56	56	24	75
C85 Other and unspecified types of non-Hodgkin lymphoma	all	1,476	38	895	52	492	61	331	69	152	79
	female	743	40	449	54	244	63	159	68	73	77
	male	733	36	446	50	248	59	172	69	79	81
	<65 years	629	49	372	67	204	76	140	86	57	93
	65+ years	847	32	523	45	288	53	191	60	95	73
C82-85 All non-Hodgkin lymphoma	all	5,569	51	4,132	63	2,594	72	1,734	76	670	85
	female	2,653	52	1,937	64	1,210	72	810	77	327	85
	male	2,916	49	2,195	62	1,384	71	924	76	343	86
	<65 years	2,660	64	1,999	77	1,259	84	845	88	320	94
	65+ years	2,909	43	2,133	54	1,335	63	889	68	350	79
C81-85 Lymphoma (total)	all	7,174	55	5,144	66	3,194	74	2,089	78	788	86
	female	3,386	56	2,394	67	1,483	75	967	78	377	85
	male	3,788	54	2,750	65	1,711	73	1,122	78	411	86
	<65 years	4,067	70	2,871	81	1,783	87	1,157	90	426	94
	65+ years	3,107	43	2,273	54	1,411	62	932	67	362	78

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive		alive		alive		alive		alive	
		end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive
C88 Malignant immunoproliferative diseases	all	136	48	117	66	78	85	50	88	15	94
	female	56	51	42	64	27	79	16	76	7	88
	male	80	46	75	68	51	88	34	94	8	100
	<65 years	32	80	30	86	19	95	12	92	2	100
	65+ years	104	43	87	61	59	82	38	86	13	93
C90 Multiple myeloma and malignant plasma cell neoplasms	all	1,253	29	1,097	45	776	61	540	72	220	86
	female	513	27	453	44	298	58	194	67	74	83
	male	740	30	644	46	478	63	346	75	146	87
	<65 years	447	42	395	65	283	80	198	88	75	93
	65+ years	806	24	702	39	493	54	342	65	145	83
C91 Lymphoid leukaemia	all	2,731	54	2,007	70	1,139	81	675	86	174	91
	female	1,063	55	743	71	439	83	252	85	68	92
	male	1,668	53	1,264	70	700	80	423	86	106	90
	<65 years	1,274	73	921	86	561	91	339	93	94	93
	65+ years	1,457	44	1,086	61	578	73	336	79	80	88
C92 Myeloid leukaemia	all	933	32	667	39	418	46	268	51	103	68
	female	435	35	313	42	194	50	126	56	48	69
	male	498	30	354	37	224	43	142	47	55	67
	<65 years	623	49	434	60	260	66	160	71	56	93
	65+ years	310	19	233	24	158	31	108	36	47	51
C93 Monocytic leukaemia	all	15	23	11	28	8	47	5	46	4	80
	female	8	33	5	29	4	36	2	33	1	100
	male	7	17	6	27	4	67	3	60	3	75
	<65 years	13	45	9	53	7	64	4	57	3	75
	65+ years	2	5	2	9	1	17	1	25	1	100
C94 Other leukaemias of specified cell type	all	52	24	40	40	27	69	18	78	7	100
	female	20	25	15	42	8	73	4	67	3	100
	male	32	23	25	39	19	68	14	82	4	100
	<65 years	27	41	22	58	14	74	7	88	1	100
	65+ years	25	16	18	29	13	65	11	73	6	100
C95 Leukaemia of unspecified cell type	all	80	10	45	15	21	15	18	21	11	31
	female	37	10	23	16	11	18	10	26	7	54
	male	43	10	22	13	10	13	8	16	4	18
	<65 years	46	30	29	40	13	41	12	55	8	67
	65+ years	34	5	16	7	8	7	6	9	3	13
C91-95 Leukaemia (total)	all	3,811	42	2,770	55	1,613	64	984	69	299	77
	female	1,563	43	1,099	56	656	66	394	69	127	79
	male	2,248	42	1,671	55	957	63	590	68	172	75
	<65 years	1,983	61	1,415	73	855	80	522	83	162	91
	65+ years	1,828	32	1,355	44	758	53	462	57	137	64
C96 Other and unspecified malignant neoplasms of lymphoid, haematopoietic and related tissue	all	2,128	44	1,658	56	1,044	70	688	76	228	84
	female	983	46	733	59	433	71	267	75	92	86
	male	1,145	42	925	55	611	69	421	77	136	83
	<65 years	753	75	566	83	335	87	220	90	83	94
	65+ years	1,375	36	1,092	49	709	64	468	71	145	80

ICD10 CANCER SITE (PREVALENCE)	diagnosed from	20-year prevalence		10-year prevalence		5-year prevalence		3-year prevalence		1-year prevalence	
		Jan 1994		Jan 2004		Jan 2009		Jan 2011		Jan 2013	
		alive		alive		alive		alive		alive	
		end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive	end 2013	% alive
D32-33 Benign brain & CNS	all	1,974	74	1,231	80	737	88	470	90	140	91
	female	1,362	74	870	80	519	89	324	90	89	94
	male	612	74	361	80	218	86	146	89	51	86
	<65 years	1,086	91	703	95	434	98	282	99	81	99
	65+ years	888	60	528	67	303	77	188	79	59	82
D42-43 Neoplasm of uncertain meninges, brain & CNS	all	604	84	433	87	292	90	184	92	65	96
	female	289	83	220	87	151	90	96	91	30	91
	male	315	85	213	88	141	91	88	92	35	100
	<65 years	517	89	365	93	243	96	152	97	55	100
	65+ years	87	61	68	66	49	70	32	73	10	77
C71-72, D32-33, D42-43 Malignant, benign or uncertain neoplasms of the brain and CNS	all	3,875	41	2,573	48	1,673	58	1,131	63	437	77
	female	2,265	48	1,517	55	982	65	637	68	228	78
	male	1,610	35	1,056	41	691	51	494	58	209	76
	<65 years	2,683	51	1,825	60	1,197	71	808	77	304	90
	65+ years	1,192	29	748	33	476	40	323	44	133	58