

A Summary of Survival of Cancer Patients in Northern Ireland 1993-1996

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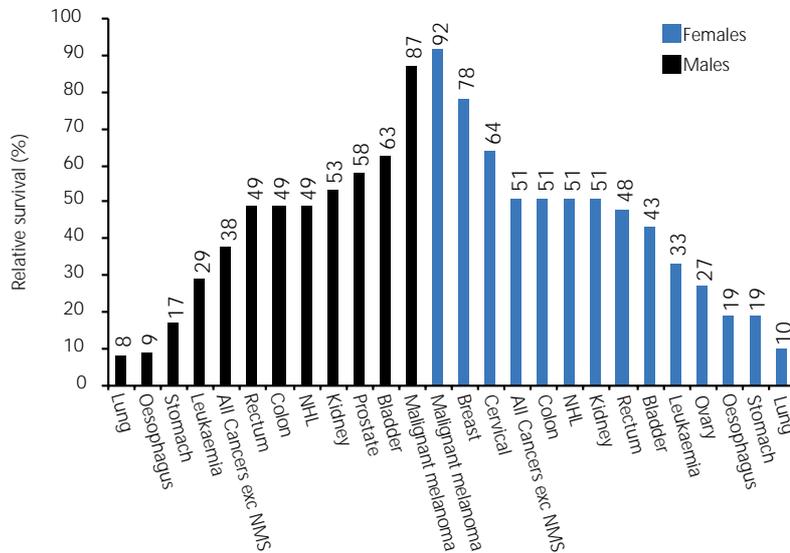
Full report available from N.Ireland Cancer Registry. www.qub.ac.uk/nicr/intro.htm

This Summary details survival of patients aged 15-99 when diagnosed with malignant cancers 1993-96 in Northern Ireland and followed up until 31st December 1999. [Non-Melanoma Skin (NMS) cancers are excluded as survival is excellent (11 deaths for 2,245 patients) and many registries do not collect this data.] Additionally, trends in tumour specific incidence (1993 to 1996) and mortality (1993 to 1999) are described.

Major Findings

- Women have better survival than men
- Younger people have better survival than older people
- Earlier detection improves survival
- Cell type has a significant effect on lung cancer survival
- Excellent survival for malignant melanoma
- Cancer incidence rates in men are falling by 72 cases per year. No change in women
- Death rates in men are falling by 51 deaths per year
- Death rates in women are falling by 24 deaths per year

Five-year relative survival (%) in Northern Ireland adults diagnosed during 1993-1996.



Of the sites examined for men, malignant melanoma and cancers of the bladder, prostate and kidney had five-year Relative Survival Rate (RSR) of 50% or more. Whilst for those sites examined for women, malignant melanoma, breast, cervical, colon, non-Hodgkin's lymphoma and kidney each had five-year RSR of 50% or more. For men, both cancers of the oesophagus and lung had five-year RSR of less than 10%.

Cases, Deaths and Survival for Northern Ireland cancer patients 1993-1996

MALES				CANCER SITE	FEMALES			
SURVIVAL (%)		ANNUAL AVERAGE			ANNUAL AVERAGE		SURVIVAL (%)	
5-Year	1-Year	Deaths 1993-96	New Cases 1993-96		New Cases 1993-96	Deaths 1993-96	1-Year	5-Year
38	56	1845	3126	All Cancers Excluding NMS	3232	1685	66	51
87	97	10	69	Malignant Melanoma	112	18	97	92
-	-	3	8	Breast	828	321	92	78
-	-	-	-	Cervix	83	34	83	64
63	78	63	157	Bladder	70	30	63	43
58	82	203	467	Prostate	-	-	-	-
53	69	42	108	Kidney	62	23	69	51
49	66	62	122	Non-Hodgkin's Lymphoma	113	47	66	51
49	72	225	486	Colorectal	464	218	70	50
-	-	-	-	Ovary	112	92	57	27
29	55	49	87	Leukaemia	61	38	49	33
17	39	116	167	Stomach	102	73	34	19
9	28	81	95	Oesophagus	58	51	33	19
8	23	513	578	Lung	317	267	26	10
79	94	9	31	Childhood Cancers	26	5	92	81

Survival and Gender

Survival overall was significantly better in women than men. This may be explained by men having proportionally more smoking and alcohol related cancers, all of which have poor survival (lung five-year RSR was 8%). Also, the more common female cancers are associated with high survival (breast five-year RSR was 78%). For some individual cancer sites, women had better survival rates than men, e.g. cancer of the oesophagus and lung, whereas, of the sites examined, only cancer of the bladder had significantly better survival for men than women.

Females better RSR than males (% difference one-year RSR)	
All cancers exc. NMS	(10%)
Lung	(3%)
Oesophagus	(5%)

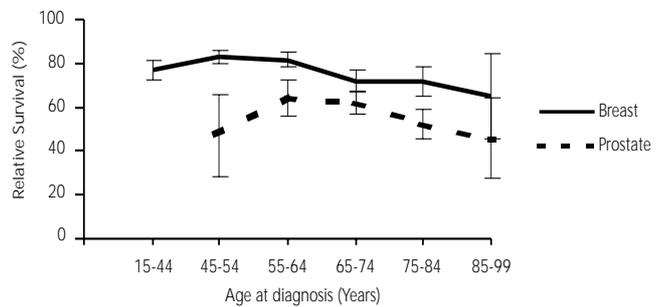
Males better RSR than females (% difference one-year RSR)	
Bladder	(15%)

No difference between survival rates of males and females	
Stomach	
Colorectal	
Malignant Melanoma	
Kidney	
Non-Hodgkin's Lymphoma	
Leukaemia	

Survival and Age

Amongst adults, relative survival is lower for elderly patients than for younger patients for almost all cancers, even when the generally higher mortality amongst the elderly is taken into account. Two exceptions to this general pattern are breast cancer in women and prostate cancer (1). The graph opposite demonstrates the lower five-year RSR for breast cancer patients diagnosed at 44 years and younger, compared with the older patients aged 45 to 64 years. The lower five-year RSR for prostate cancer patients diagnosed at 54 years and younger, compared with the older patients may also be seen. There was no difference between the relative survival rates of the two age groups for malignant melanoma.

Cancer of the female breast and male prostate: five-year relative survival (%) by age at diagnosis



Survival Differences Younger (under 65 years) Vs Older (over 65 years) at one year

The percentage in the table indicates the relative survival advantage of younger compared to older patients at one year

Males (%)	CANCER TYPE	Females (%)
13	All Cancers Exc. NMS	27
12	Oesophagus	28
15	Stomach	No Difference
8	Colorectal	12
No Difference	Rectal	14
10	Lung	No Difference
-	Breast	10
-	Cervix	22% difference over and under 55 years
-	Ovary	27
12% difference over and under 75 years	Prostate	-
10	Bladder	21
No Difference	Kidney	9
21	Non-Hodgkin's Lymphoma	25
26	Leukaemia	No Difference
No Difference	Malignant Melanoma	No Difference

Survival and Stage

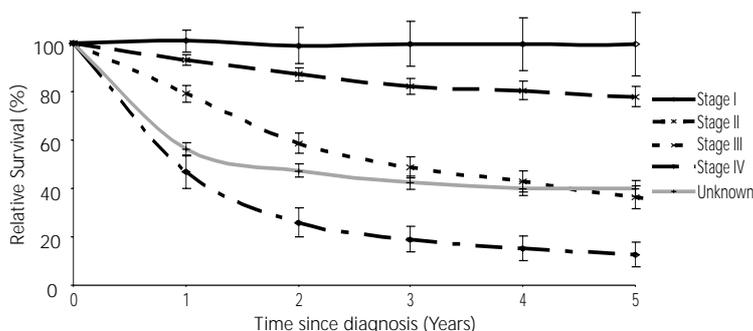
- Earlier Detection Improves Survival**

Limited staging information was available for malignant melanoma, colorectal, breast, ovary and cervix. For each of these sites, survival was found to be best for early stage tumours (stage I is early disease compared with stage IV). For example, the five-year survival rates for stage I, II, III and IV colorectal cancer were 99%, 78%, 36% and 13% respectively.

- Cell type had a significant effect on lung cancer survival**

Cancer of the lung was categorised as being either of type small cell, non-small cell or unknown without microscopic verification. Highest survival was associated with non-small cell type lung cancer, with one-year RSR for men and women being 29% and 32% respectively, compared with 18% and 24% for small cell type lung cancer.

Colorectal cancer survival by stage



National and International Comparisons

Comparisons of relative survival rates between local and European registries (Note the varying periods of diagnosis).

MALES 5-YEAR SURVIVAL (%)						CANCER SITE	FEMALES 5-YEAR SURVIVAL (%)					
Finland 85-89 ²	Denmark 85-89 ²	E&W 91-93 ³	Scotland 91-95 ⁴	ROI 94-98 ⁵	NI 93-96		NI 93-96	ROI 94-98 ⁵	Scotland 91-95 ⁴	E&W 91-93 ³	Denmark 85-89 ²	Finland 85-89 ²
38	32	31*	32	40	38	All Cancers Exc. NMS	51	51	43	45*	47	54
7	2	6	7	12	9	Oesophagus	19	15	8	7	9	9
21	13	10	11	16	17	Stomach	19	21	11	11	15	20
49	40	42	43	47	48	Colorectal	49	51	45	40	43	50
		Colon								Colon		
11	6	5	6	8	8	Lung	10	11	5	5	7	12
78	73	72	81	76	87	Malignant Melanoma	92	81	92	86	84	85
						Breast	78	74	75	74	71	79
						Cervix	64	64	65	64	65	55
						Ovary	27	37	29	29	32	38
62	42	49	56	65	58	Prostate						
70	51	66	71	73	63	Bladder	43	68	62	58	44	65
48	36	41	40	51	53	Kidney	51	55	37	37	33	51
46	46	46	45	50	49	Non-Hodgkin's Lymphoma	51	56	45	48	49	47
37	29	30	31	-	29	Leukaemia	33	-	32	30	27	34

*Figures taken from the Eurocare II Study and relate to England only (6).

Relative survival estimates for Northern Ireland were similar to the Republic of Ireland (except for cancers of the bladder and ovary) and in many cases better than the rest of the UK. However, even though the survival rates for Finland and Denmark were calculated on data from the 1980's, many sites had similar or better survival rates than ours. It is likely that when more current survival rates are computed for these countries, Northern Ireland will lag behind. For example, our survival rates for cancers of the stomach, lung, breast, cervix, prostate, bladder, kidney, colorectum, non-Hodgkin's lymphoma and leukaemia were no better, and in many cases were worse, than those calculated for Denmark and Finland in the 1980s.

Our female five-year RSR for cancer of the oesophagus was at least double that of the rest of the UK, Denmark and Finland. Also, our malignant melanoma survival rates were higher than those of the other registries.

Cancer sites where we had better survival rates than the rest of the UK, were colorectal cancer and cancers of the stomach, breast, lung, and kidney and non-Hodgkin's lymphoma.

The low survival rates in Northern Ireland for ovarian cancer may be due to some registries including borderline malignancies, which would inflate survival rates (not included in our data). Comparisons of bladder cancer survival rates between registries are extremely difficult to evaluate, as there is poor agreement as to what constitutes a fully malignant bladder cancer. Some registries include non-malignant (pTa) tumours and 'in-situ' flat tumours in their analysis. As both these classes have good prognosis, their inclusion will tend to improve survival. This may explain why the RSR of cancer of the bladder in Northern Ireland appears lower than the other registries.

Changing levels in incidence and mortality

- Overall rates of new cases of cancer in men are falling by 72 cases per year, with rates of new cases of colorectal cancer in men falling by 5 cases per year.
- Overall death rates from cancer fell in men by 51 deaths per year, with death rates for lung cancer among men falling by 24 cases per year.
- Levels of bladder cancer are increasing in women by 10 cases per year.
- Death rates from cancer fell in women by 24 deaths per year, with death rates for colorectal cancer in women falling by 8 cases per year and death rates from breast cancer among women falling by 16 cases per year.
- Deaths from non-Hodgkin's lymphoma among women are rising by 8 cases per year.

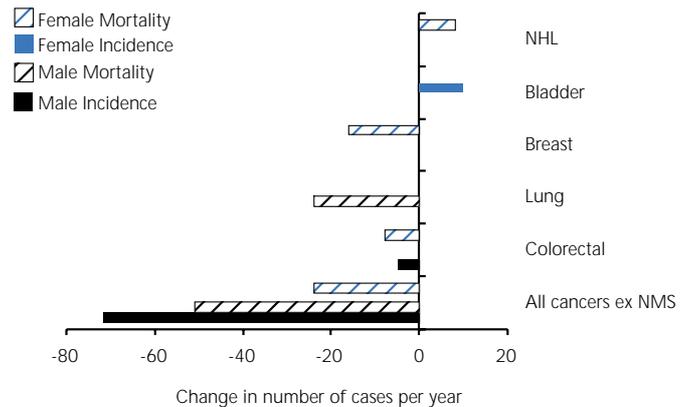
Recommendations

- The lower cancer site specific survival for men requires further investigation.
- All women with breast cancer should have their disease stage, including lymph node status, assessed at diagnosis.
- The absence of an advantage in survival for younger versus older patients in some sites should be investigated e.g. stomach, leukaemia and lung in females, and kidney and rectal cancer in males.
- The reasons for survival differences on an all-Ireland basis should be investigated.

References

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Change in the number of incident cancer cases and cancer mortalities per year



European Code Against Cancer

Certain cancers may be avoided and general health improves if you adopt a healthier lifestyle.

1. Do not smoke.
2. Moderate your consumption of alcoholic drinks.
3. Increase your daily intake of vegetables and fresh fruit.
4. Avoid becoming overweight, increase physical activities and limit your intake of fatty foods.
5. Avoid excessive exposure to the sun.
6. Follow all health and safety instructions on substances which may cause cancer.
7. See a doctor if you notice a lump, a sore which does not heal, a mole which changes, or any abnormal bleeding.
8. See a doctor if you have a persistent problem such as a persistent cough, persistent hoarseness, a change in bowel or urinary habits or an unexplained weight loss.
9. For women: have a cervical smear regularly.
10. For women: check your breasts regularly, and, if possible, undergo mammography if over the age of 50.



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