

# 7

## Lymphoma Lymphoma Lymphoma Lymphoma Lymphoma Lymphoma Lymphoma Lymphoma

### Key findings:

- *Lymphoma ranks fifth among the major cancer sites in new cases diagnosed, and eighth in cancer-related death.*
- *Incidence and mortality rates for men are 25% to 33% higher than for women. The differences are statistically significant.*
- *Lymphoma ranks fourth among cancers in years of life lost. Half those diagnosed are under age 62.*
- *Ireland's female, and total, incidence rates are higher than in the EU.*
- *Ireland's mortality rates are higher than in the EU.*
- *Incidence rates for all Ireland are increasing for men and for both sexes combined.*
- *Mortality rates for all Ireland are increasing for women.*
- *Incidence rates in Northern Ireland are for some years significantly higher than in the Republic of Ireland.*
- *Incidence rates in the Republic of Ireland are increasing while those in Northern Ireland remain unchanged.*
- *No region is found to have significantly more cases or deaths than expected.*
- *Increasing incidence and mortality rates warrant further study.*

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# 7. Lymphoma

## Risks and interventions

- Causes of lymphoma are not well understood although viruses, particularly Epstein-Barr, appear to play a role, and individuals with compromised immune systems are at higher risk.
- Occupational exposure to chemicals may also be a risk factor.
- Because lymphomas comprise a broad array of differing sub-types, treatments and their efficacy vary.

Lymphomas, which are of many types, but often categorized as Hodgkin's and non-Hodgkin's, rank fifth among the major cancers in new cases diagnosed, and eighth in the number of cancer deaths.

On average, over 800 individuals are diagnosed with lymphoma each year. About half that number die from it annually.

### Variation by gender

Incidence and mortality rates for men are between 25% and 33% higher than the rates for women.

For women, however, lymphoma ranks fifth in incidence and seventh in death rates relative to the other major cancer sites; for men it is sixth and eighth.

### International comparisons

Compared to the EU, incidence and mortality rates for women are significantly higher. For men, incidence rates are similar, whilst mortality rates are higher. Ireland's rates are lower or about the same as in the US.

Since this cancer includes subtypes with different survival, comparisons of survival rates can be affected by differences in the proportion of each type. Nonetheless, survival rates in Ireland are similar to those in the EU, but lower than in the US.

table 7.1

## lymphoma incidence and mortality

1998 - 2000 average annual incidence		
all-ireland	cases	age-adjusted rate per 100,000 with 95% ci
male	426	17.2
female	388	13.6
total	814	15.4
european union (1998 only)		
male		16.7
female		10.9
total		13.6
united states (11 seer regions)		
male		23.9
female		16.7
total		20.0

1998 - 2000 average annual mortality		
all-ireland	deaths	age-adjusted rate per 100,000 with 95% ci
male	212	8.8
female	200	6.6
total	413	7.6
european union (1998 only)		
male		7.1
female		4.6
total		5.7
united states (11 seer regions)		
male		9.4
female		6.0
total		7.5

table 7.2

## lymphoma 5-year relative survival (%)

	male		female	
	rate	95% ci	rate	95% ci
ireland	51.4	48.2, 54.7	58.1	55.4, 60.9
europe (eurocare)	52.3	50.9, 53.7	57.8	56.3, 59.3
united states (seer)	57.7	56.7, 58.6	64.8	63.7, 65.8

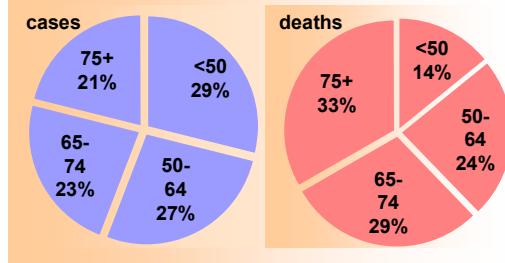
**Age distribution**

While lymphomas affect children more than do the other major cancers, only 3% of the cases are under age 15. About 55% are under age 65, and half are under age 62.

Lymphoma ranks fourth among the major cancers in terms of years of life lost.

Nearly 40% of the people who die from lymphoma are under age 65.

figure 7.1  
lymphoma age at diagnosis and death 1998-2000



**Time trends**

For incidence, men’s rates are increasing on average by 2.6% per year. Women’s rates are generally moving in an upward direction, but the trend is not significant. The combined rates for men and women are increasing by 3% per year.

The increasing death rate for women is significant—and somewhat substantial. On average their rates are increasing by more than 5% per year. For men, the trend is essentially flat.

figure 7.2  
lymphoma incidence rates by sex and year (1994-2000)

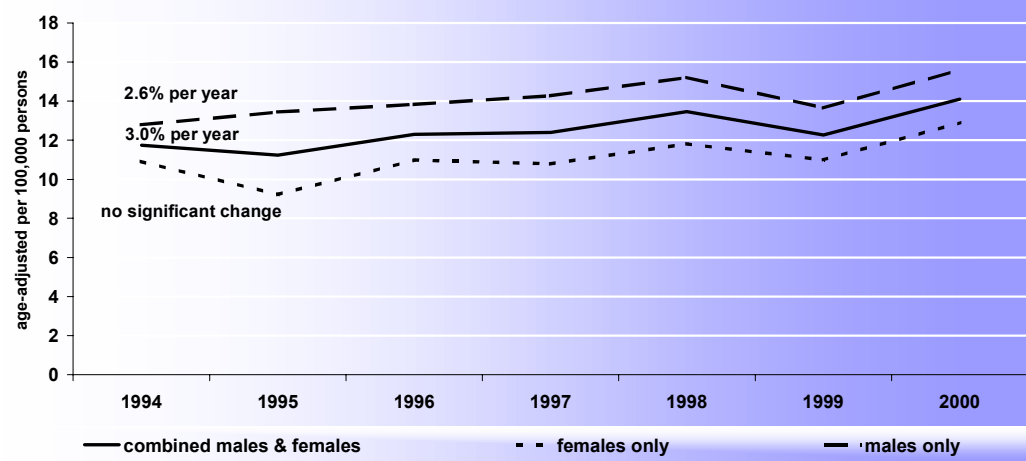
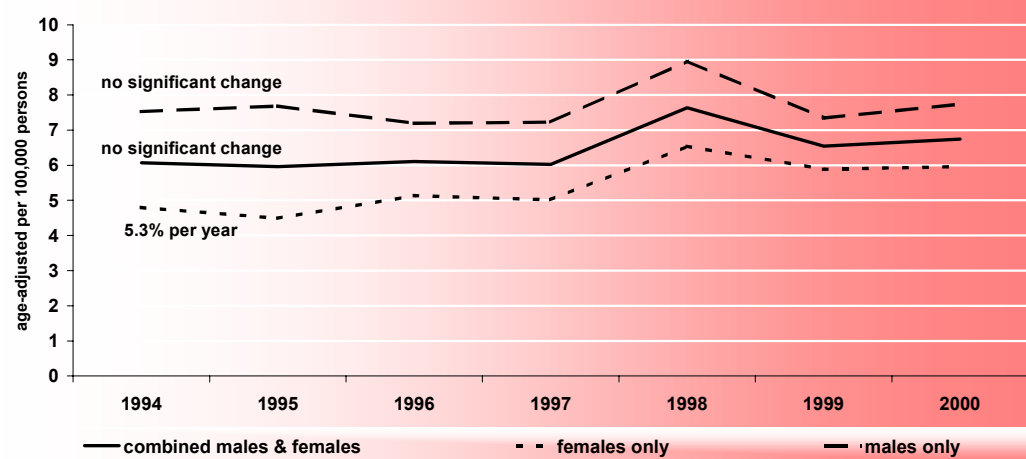
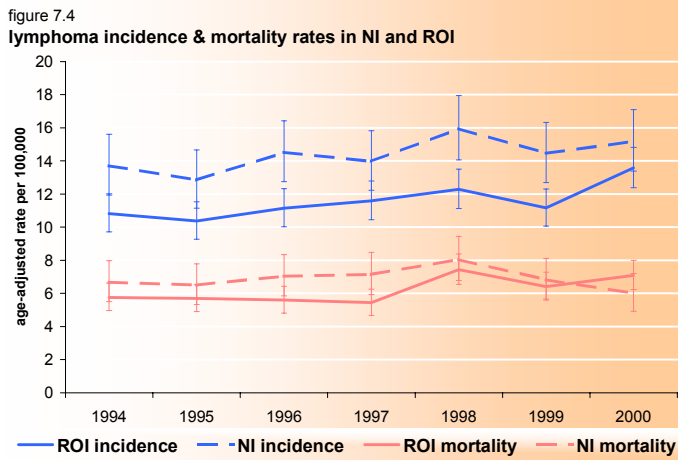


figure 7.3  
lymphoma mortality rates by sex and year (1994-2000)



**Geographic variations**

Year to year, the incidence rates in Northern Ireland (NI) are consistently above the rates in the Republic of Ireland (ROI). For 1996, 1998 and 1999 those differences are significant.



This gap between NI and ROI may be narrowing since the trend in incidence rates in NI is flat while it rising 3.5% per year in ROI.

For mortality, there is no significant difference between the NI and ROI annual rates.

So, too, the mortality rate trends for NI and ROI are essentially flat.

Because of a potential link between lymphoma and certain chemicals, concerns about lymphoma clusters are not uncommon. Among the counties and district councils, however, only one area, Roscommon, had a rate significantly different from the all Ireland rate. For both incidence and mortality, the rates in Roscommon are significantly *lower* than the all Ireland rate. (See figures 7.7 and 7.8)

In ranking the counties and district councils by their incidence rates, those areas in the upper quintile appear to be grouped in the northeast, whilst those in the lower quintile seem randomly dispersed. For mortality rates, counties and district councils in either the upper or lower quintiles show no apparent regional grouping. (See figures 9.5 and 9.6)

Despite the apparent grouping in the northeast of areas in the upper quintile of incidence rates, the spatial scan statistic does not identify any region as having either more or fewer cases or deaths than expected.

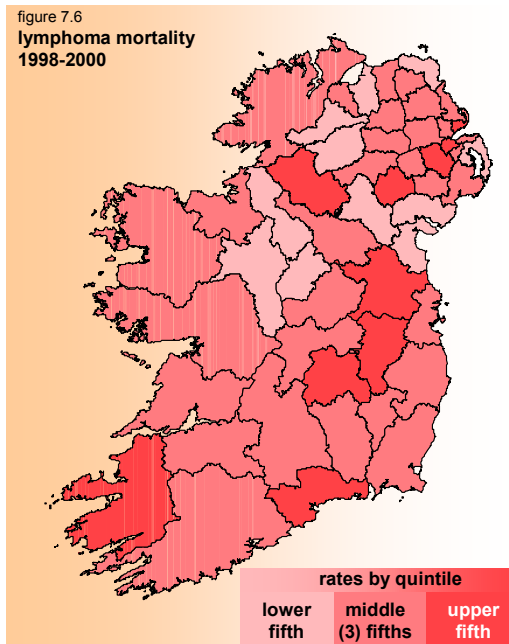
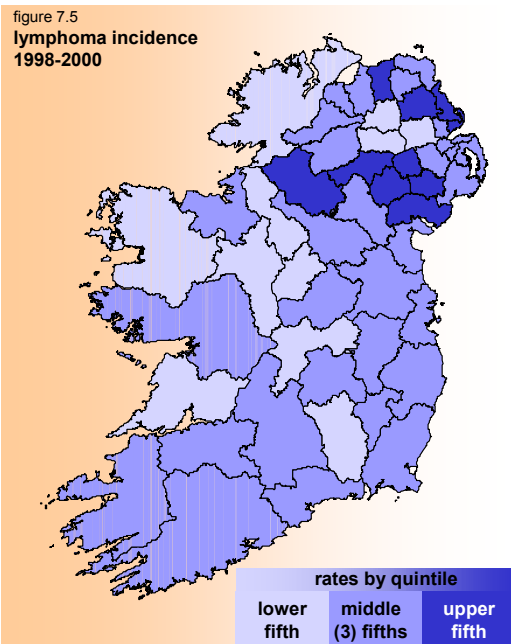


figure 7.7

1998-2000 age-adjusted incidence rates

**lymphoma by county/district council**

with average annual incidence in ( )'s and 95% confidence intervals shown by |—|

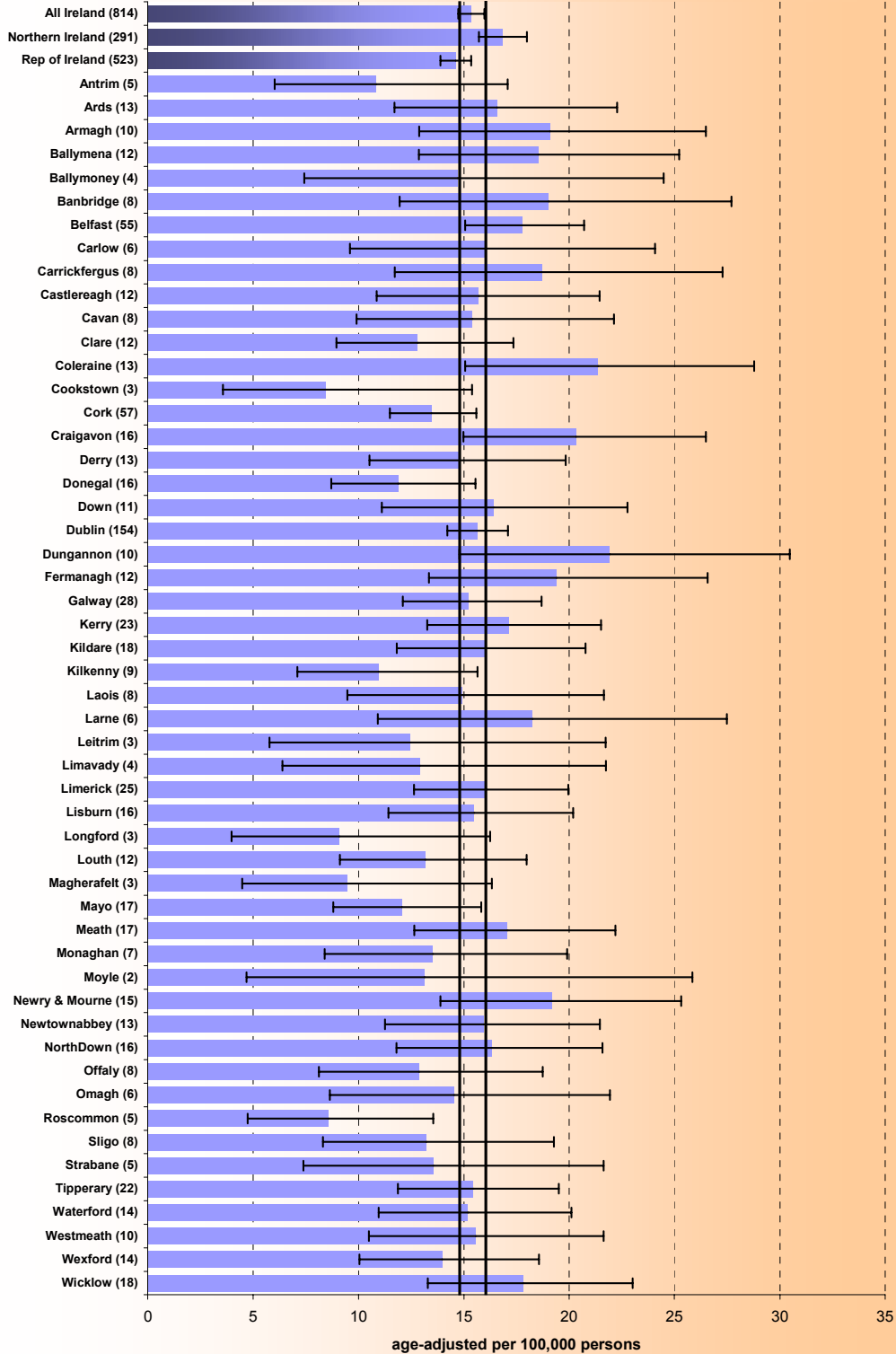


figure 7.8

1998-2000 age-adjusted mortality rates  
lymphoma by county/district council

with average annual deaths in ( )'s and 95% confidence intervals shown by |—|

