

4

Breast cancer (female) Breast cancer (female)
Breast cancer (female) Breast cancer (female)
Breast cancer (female) Breast cancer (female)

Key findings:

- *Breast cancer is the leading cause of cancer and of cancer-related death in women.*
- *Breast cancer ranks third among cancers in years of life lost. Half of the women diagnosed are aged 58 or younger.*
- *Ireland's mortality rate is higher than the EU or US.*
- *Ireland's survival rate is lower than Europe or US.*
- *Mortality rates for all Ireland had been declining but have now levelled off.*
- *The mortality rate for the Republic of Ireland is significantly higher than the rate for all Ireland.*
- *The mortality rate for Northern Ireland is significantly lower than the rate for all Ireland.*
- *Regions in the north have significantly fewer cases and deaths than expected.*
- *Regions in the east have significantly more cases and deaths than expected.*
- *Established screening programmes in Northern Ireland, and the lack of such programmes until recently in the Republic of Ireland may have contributed to the regional differences observed.*

Breast cancer (female) Breast cancer (female)
Breast cancer (female) Breast cancer (female)
Breast cancer (female) Breast cancer (female)
Breast cancer (female) Breast cancer (female)
Breast cancer (female) Breast cancer (female)

4. Breast cancer (female)

Risks and interventions

- Increased risk is associated with a first pregnancy late in life or never being pregnant, obesity, and the use of hormone replacement therapy. Exercise and breast-feeding may reduce risk.
- Mammography screening can detect breast cancer early when it can be more effectively treated.
- Breast cancer can often be cured if detected early

For women, breast cancer is first in new cases diagnosed and first in cancer-related death. On average 2700 women a year are diagnosed with this disease, and over 900 die from it.

International comparisons

Ireland's incidence rate is more than 10% higher than the EU rate. It is, however, only 80% of the US rate.

Ireland's mortality rate is 15% higher than the EU rate. It is over 30% higher than the US rate.

Why our incidence *and* mortality rates are higher than the EU is unclear. High incidence rates are typically associated with intensive screening efforts which can lead to lower mortality rates. Ireland's higher rates for incidence and mortality may be due to our mix of established screening in Northern Ireland, and new or no services elsewhere. Patients' treatment decisions or their quality of care could also play a role, as could differences in behavioural risks or genetic susceptibility.

Nonetheless, Ireland's low incidence and high mortality rates compared to the US does suggest a need for greater screening efforts. In fact, Ireland's significantly low survival rate may be due to more women being diagnosed with late-stage disease—when treatments are less effective—because of this lack of screening.

table 4.1

breast cancer (female) incidence and mortality

1998 - 2000 average annual incidence		
all-ireland	cases	age-adjusted rate per 100,000 with 95% ci
female	2715	102.7
european union (1998 only)		
female		92.0
united states (11 seer regions)		
female		132.1
1998 - 2000 average annual mortality		
all-ireland	deaths	age-adjusted rate per 100,000 with 95% ci
female	923	32.6
european union (1998 only)		
female		28.3
united states (11 seer regions)		
female		24.6

table 4.2

breast cancer (females) 5-year relative survival (%)

	male		female	
	rate	95% ci	rate	95% ci
ireland	----	----	75.6	74.4, 76.8
europa (eurocare)	----	----	76.1	75.6, 76.6
united states (seer)	----	----	86.8	86.4, 87.1

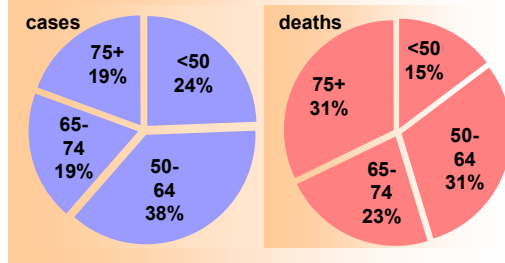
Age distribution

Breast cancer affects middle-aged women more than any other major cancer. Over 60% of the women diagnosed with this disease are under age 65. Half of all women diagnosed are aged 58 or younger.

Breast cancer ranks third among the major sites in years of life lost.

More than 45% of the women who die from breast cancer are under age 65.

figure 4.1
breast cancer (females) age at diagnosis & death 1998-2000



Time trends

Incidence rates for Ireland are increasing by 1.5% per year. Mortality rates had been decreasing by about 4% per year until 1998. They have since levelled off and are now essentially flat.

The modest rise in incidence rates, and the levelling off of mortality rates may add to concerns over the adequacy of existing screening efforts.

figure 4.2
breast cancer incidence rates for females only by year (1994-2000)

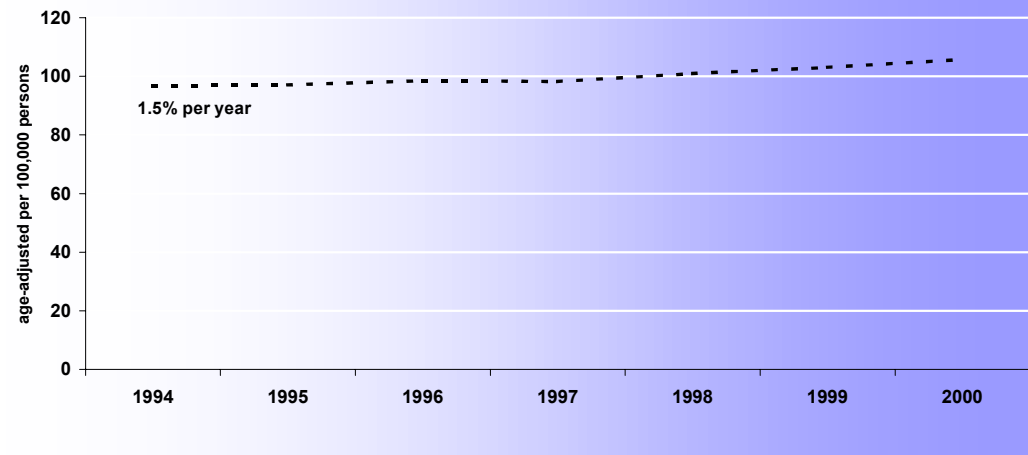
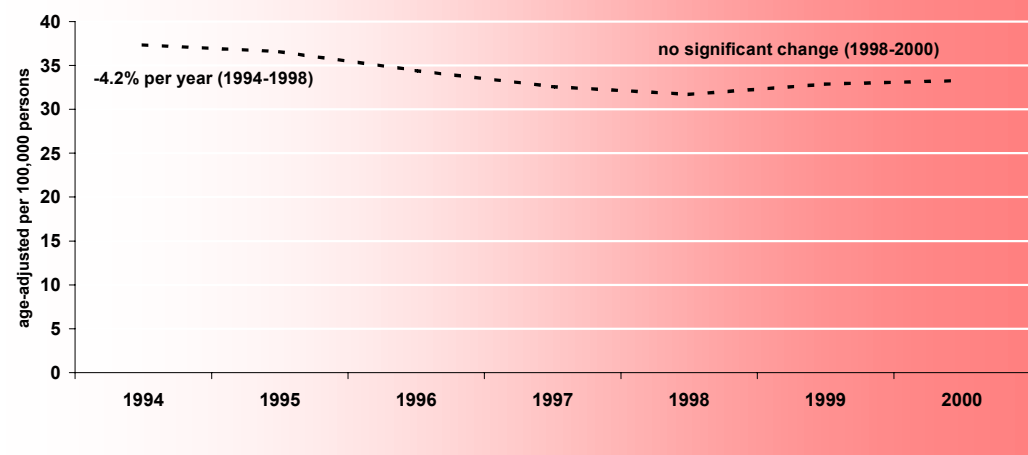
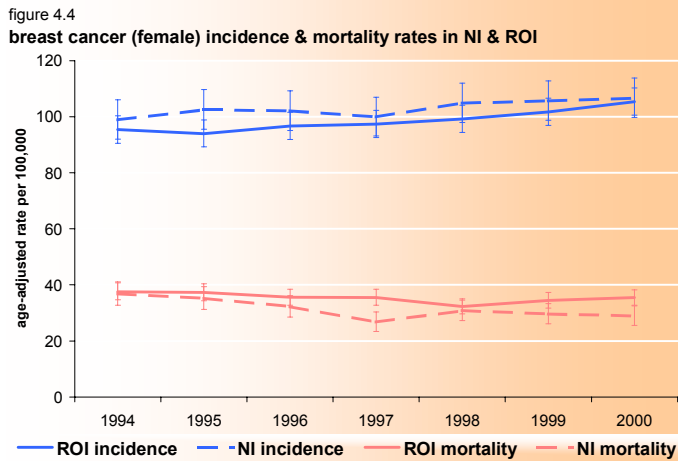


figure 4.3
breast cancer mortality rates for females only by year (1994-2000)



Geographic variations

For each year between 1994 and 2000 the incidence rates in Northern Ireland (NI) and the Republic of Ireland (ROI) have not differed significantly.



The incidence rates are increasing by about 1% per year in NI, and by about 2% per year in ROI.

In NI the mortality rates are decreasing by 4% per year. In ROI there is no change. While significant in 1997 only, the rates in NI are consistently below those in ROI. The screening programme in NI may contribute to the lower rates.

Among the counties and district councils, only Dublin has a significantly high incidence rate. Newly initiated screening services or recent increases in public health screening messages may account for this. No area has a significantly high mortality rate. (See figures 4.7 and 4.8)

Areas in the lower quintile for incidence rates seem dispersed throughout the island. Areas in the upper quintile are mostly in the east. Conversely, areas in the lower quintile for mortality rates seem highly clustered in the north inland region, whereas areas in the upper quintile seem somewhat dispersed. (See figures 4.5 and 4.6)

For incidence, nearly the entire central and western region is identified by the spatial scan statistic as having 10% fewer cases than expected. The south eastern region is found to have 10% more cases than expected. For deaths, the northeast region is seen to have nearly 12% fewer than expected. No region, however, is identified by the spatial scan statistic as having more deaths than expected. (See figures 4.5 and 4.6)

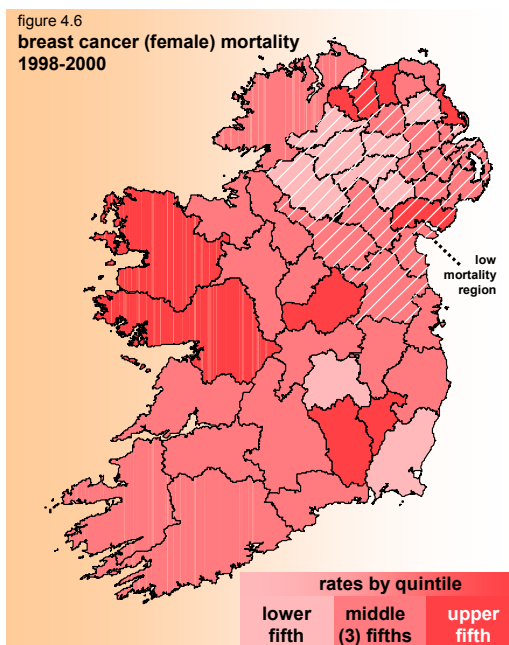
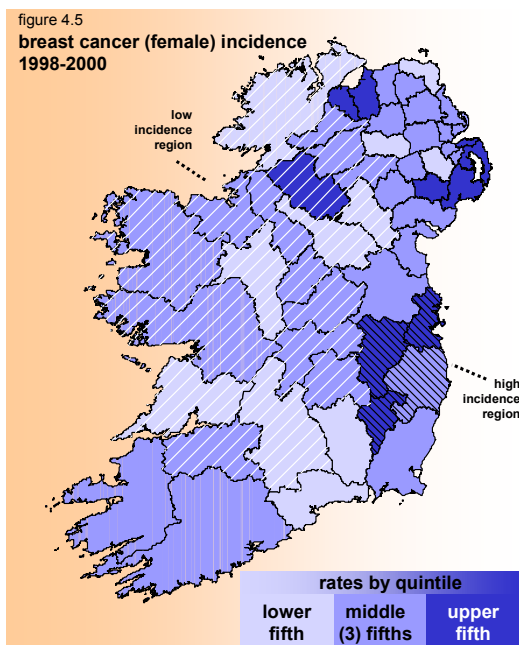


figure 4.7

**1998-2000 age-adjusted incidence rates
breast cancer (female) by county/district council**
with average annual incidence in ()'s and 95% confidence intervals shown by |—|

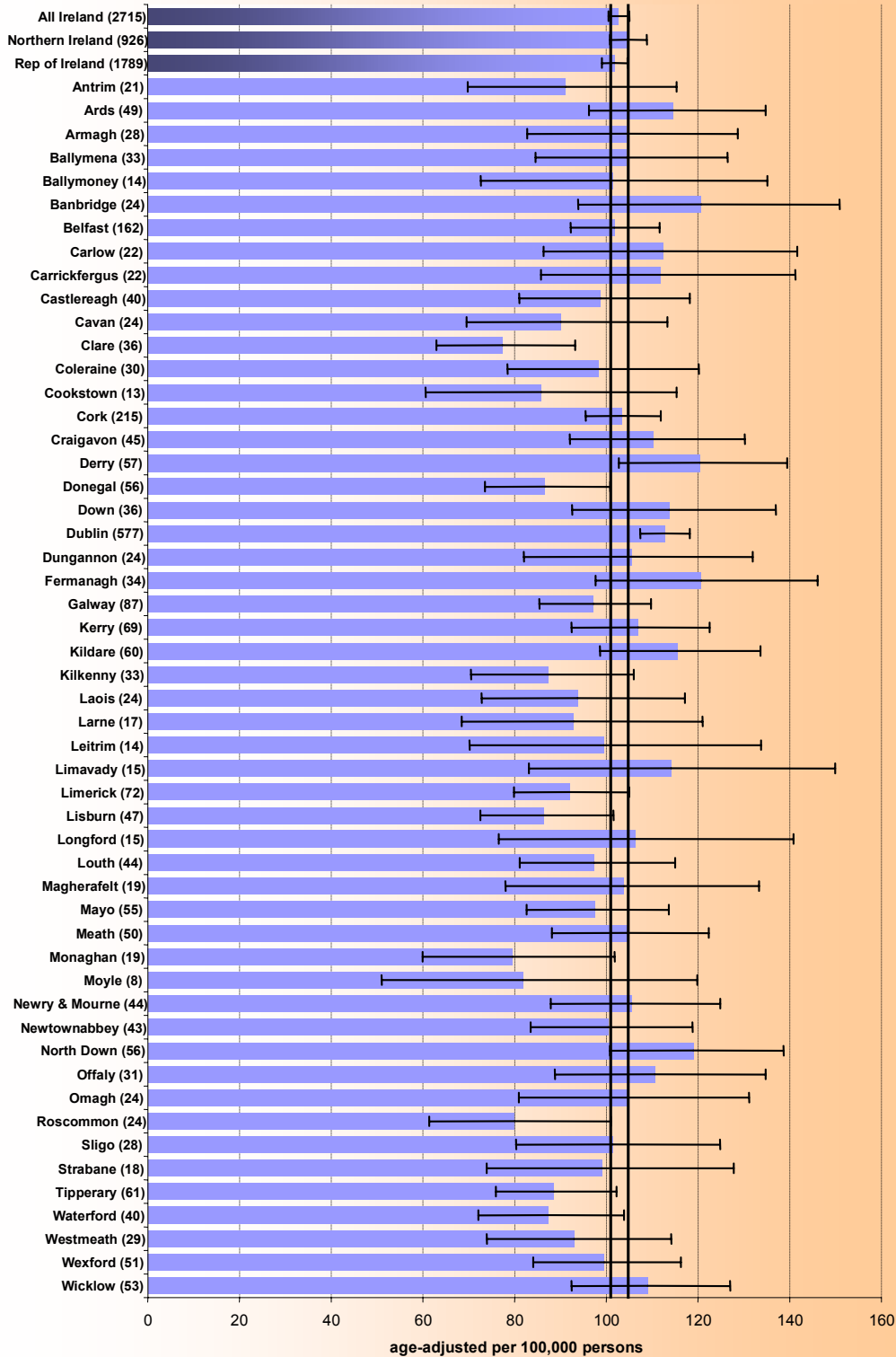


figure 4.8

**1998-2000 age-adjusted mortality rates
breast cancer (female) by county/district council**

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

