

Cancer of the Pleura (ICD-9 163)

Asbestos-related cancers include mesothelioma of the pleura (ICD-9 163), the peritoneum (ICD-9 158.8 and 158.9) and cancer with asbestosis (ICD-9 501). Only cancer of the pleura is discussed here; cancer of the peritoneum and asbestosis were recorded as responsible for 33 and 27 deaths respectively over the 1989-1993 period.

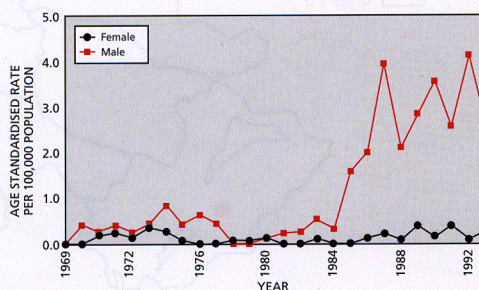
Cancer of the pleura is an uncommon cancer causing less than 2% of cancer deaths in males in N. Ireland and 0.2% of cancer deaths in females. It is however, important as it can be prevented. The three main asbestos related diseases asbestosis, mesothelioma and lung cancer constitute the most serious single group of occupational diseases. Between 1989 and 1993 there were a total of 176 deaths due to cancer of the pleura, approximately 75% of these were in people under 75 years old. During this time there were eight other people who had cancer of the pleura recorded on their death certificate, though not as the primary cause. Four of these had myocardial infarction as the primary cause, another three of the deaths recorded were ascribed to asbestosis and one to lung cancer. In only 60% of mesothelioma deaths registered in the Great Britain Mesothelioma Study had mesothelioma been cited as the primary cause of death. Local knowledge of the likely asbestos exposure may alert clinicians and influence the recording of the primary cause of death.

Death Rates

This disease is always rapidly fatal and so the number of new cases is almost equal to the number of deaths. Survival rates are very poor (typically less than 1 in 10 are still alive within one year of diagnosis). There is usually a long latent period between exposure to asbestos and disease presentation, often between 20-60 years, so the patterns of deaths seen now correspond to asbestos exposure many years ago.⁴

Death rates in males are at least ten times higher than those in females in keeping with the occupational nature of the disease. The slight upward trend shown in females is not significant (see Figure 18).

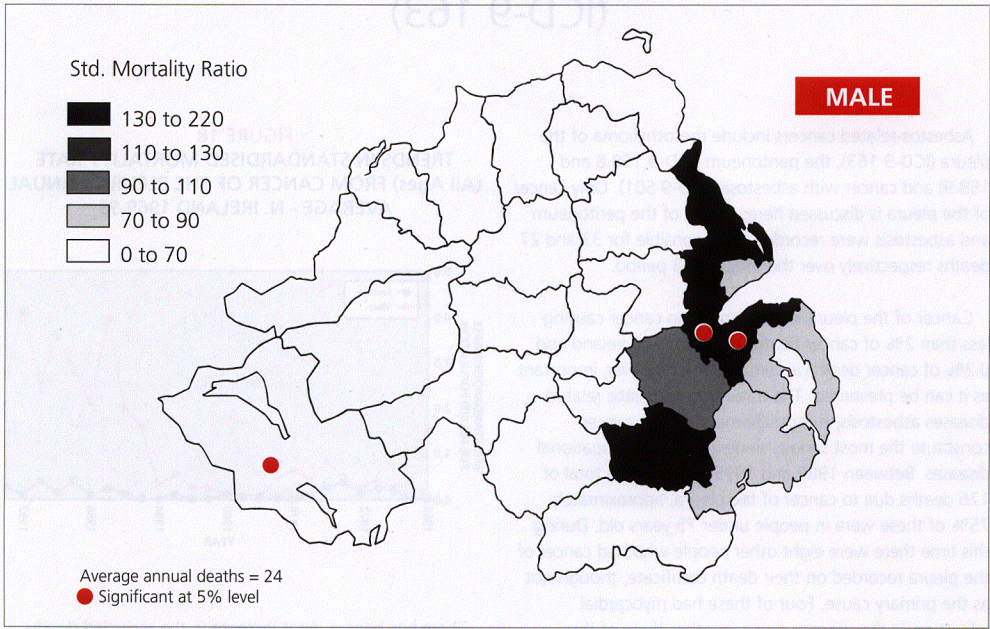
FIGURE 18
TRENDS IN STANDARDISED MORTALITY RATE
(All Ages) FROM CANCER OF THE PLEURA ANNUAL
AVERAGE - N. IRELAND 1969-93



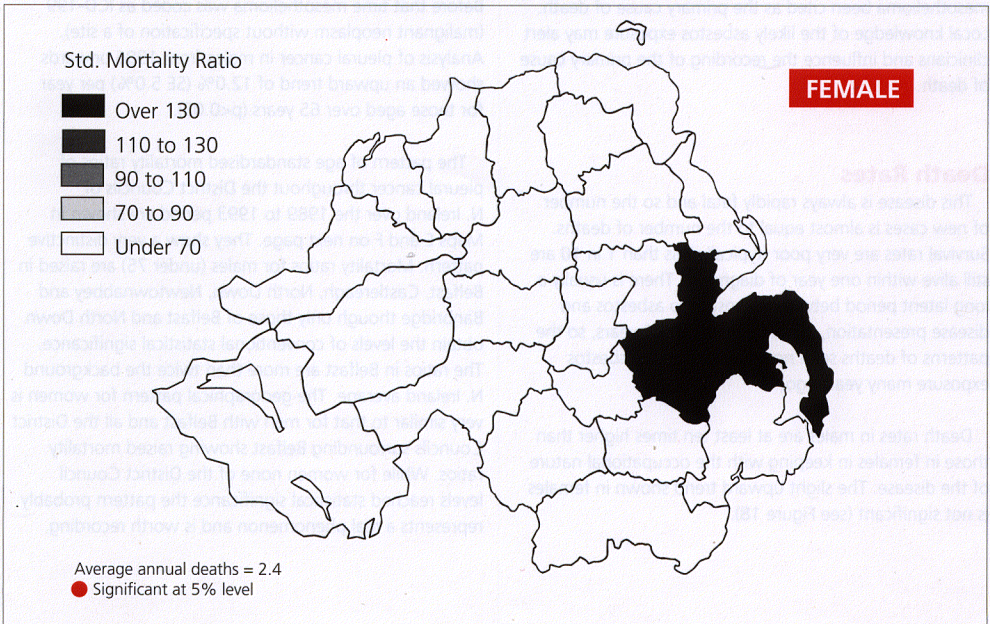
There has been a great increase in the recorded deaths from pleural cancer in males over the last fourteen years. This is undoubtedly due to a change in the practice of coding cause of death introduced in N. Ireland in 1985. Before that time mesothelioma was coded as ICD-199 (malignant neoplasm without specification of a site). Analysis of pleural cancer in males from 1986 onwards showed an upward trend of 12.0% (SE 5.0%) per year for those aged over 65 years ($p < 0.05$).

The pattern of age standardised mortality ratios of pleural cancer throughout the District Councils of N. Ireland over the 1989 to 1993 period are shown in Maps E and F on next page. They show a very distinctive pattern. Mortality ratios for males (under 75) are raised in Belfast, Castlereagh, North Down, Newtownabbey and Banbridge though only those of Belfast and North Down obtain the levels of conventional statistical significance. The ratios in Belfast are more than twice the background N. Ireland average. The geographical pattern for women is very similar to that for men with Belfast and all the District Councils surrounding Belfast showing raised mortality ratios. While for women none of the District Council levels reached statistical significance the pattern probably represents a real phenomenon and is worth recording.

MAP E
DEATHS UNDER 75 FROM CANCER OF THE PLEURA IN N. IRELAND 1989-93
STANDARDISED MORTALITY RATIO BY DISTRICT COUNCIL



MAP F
DEATHS UNDER 75 FROM CANCER OF THE PLEURA IN N. IRELAND 1989-93
STANDARDISED MORTALITY RATIO BY DISTRICT COUNCIL



Pleural cancer standardised mortality rates for those aged 30-74 years for N. Ireland are compared against a group of European countries in Table 12. The rates for males were very much higher than for most western countries and those in females are higher than the equivalent rates for the Republic of Ireland or for England and Wales.

TABLE 12
PLEURAL CANCER DEATH RATES IN
N. IRELAND 1989-93
COMPARED TO OTHER EUROPEAN COUNTRIES

Country	Standardised Death Rate (30-74 years) per 100,000 population	
	Male	Female
England and Wales	2.5	0.4
France	2.5	0.8
Germany	5.6	0.7
Ireland (Republic)	0.3	0.2
Italy	2.2	0.9
N. Ireland	6.2	0.6

Comment

Asbestos-related diseases still cause a large burden of ill health in N. Ireland. It is known that smoking combined with asbestos exposure greatly raises the risk of developing lung cancer. It is possible however that many cases of lung cancer which could be attributed to asbestosis exposure go unrecognised as it is difficult in each individual case to separate the cause. Much of the pattern of disease seen in N. Ireland relates to the presence of ship building in the Province. However a more recent report on the occupational mortality by the OPCS and Health and Safety Executive⁴ showed that other occupations such as carpenters, not employed in the ship building industry, had more than twice the normal population risk of asbestosis related diseases. This may reflect work with asbestos board. Similarly electricians and plumbers may encounter asbestos lagging outside the ship building industry. Conversely, within the ship building industry other workers whose job does not involve them in specific exposure to asbestosis such as professional architects and surveyors suffered excess asbestos related mortality indicating an elevated risk that is a general feature of the industry. Other such industries with an increased overall risk include the manufacture and repair of railway engines and rolling stock and the manufacture of asbestos textiles and work with other construction material containing asbestos.

The geographical distribution of deaths in N. Ireland is in keeping with the ship building industry. The raised death rates in those District Councils a little further from Belfast such as Banbridge may represent a local asbestos risk, but more probably is a result of the net outward migration of people from Belfast to the surrounding areas over the last 20 to 30 years. The distribution of pleural cancers in women has traditionally been explained by non-occupational exposed wives of asbestos workers who clean their husband's dusty and asbestos laden clothes.

For Health Gain

- Employers and employees must remain vigilant to the dangers of asbestos exposure and reduce exposure where possible.
- The recording of the occurrence of diseases associated with asbestos should be enhanced.
- Participation in clinical trials which can advise on the best outcomes should be enhanced.
- The organisation of services should be such as to ensure that those with the disease have the best chance of a good outcome.
- The full range of palliative care services should be available for those with established disease.