Tobacco Related Cancer Deaths

Cancer sites for which the effects of tobacco use has been established include the mouth (ICD 140-145) and pharynx (ICD 146 - 149), oesophagus (ICD 150), lung (ICD 162), larynx (ICD 161), pancreas (ICD 157), cervix (ICD 180), kidney (ICD 189) and bladder (ICD 188). Over the last five years a minimum of 877 patients died from tobacco related cancers (632 male and 245 female) (see Table 24).

TABLE 24
ANNUAL TOBACCO RELATED CANCER DEATHS IN N. IRELAND

	Male			Female		
	Attributable Percentage	**No. of Deaths**	**Tobacco Related**	**Attributable Percentage**	**No. of Deaths**	**Tobacco Related**
Lung	*86%	552	475	69%	243	168
Mouth	84%	23	19	48%	10.6	5
Oesophagus	84%	68	57	48%	48	23
Larynx	84%	18	15	48%	6	3
Bladder	45%	62	28	29%	29	8
Kidney	49%	42	21	7%	29	2
Pancreas	22%	75	17	30%	84	25
Cervix				29%	37	11
			632			**245**

(1) Attributable percentage from The Smoking Epidemic (1988 figures).
(2) Deaths = Annual Average 1989-1993.
* It is now recognised that these earlier figures may be an underestimate of the true proportion of lung cancer deaths due to smoking.

Many of the other major causes of death in N. Ireland are also significantly related to tobacco use, including ischaemic heart disease, cerebro-vascular disease, and many respiratory diseases.

Tobacco related cancer deaths have been increasing in older males and females in N. Ireland over the last twenty-five years, the rate of increase in females over 65 being twice that of similarly aged men. Rates for females under 65 have also been increasing but not those for younger males. Figures 38 and 39 show the percentage of cancer deaths due to tobacco related cancers in N. Ireland between 1969 and 1993. For younger males (aged less than 65 years) no trend was apparent and tobacco related cancers accounted for approximately 41% of all cancer deaths. For older males the percentage increased from about 35% in 1969 at a rate of approximately 0.5% per annum up to the year 1981. After which the percentage fluctuated around a level of 40%. It may be that this heralds the beginning of a downturn in the proportion of deaths due to tobacco in the older age groups. In females under 65 years old the percentage of cancer deaths due to tobacco related cancers rose from approximately 13% in the early 1970's to around 16-17% in the early 1990's. The average annual increase over this period was 1.0% per annum ($p<0.001$). For females over 65 years old the rate of increase was more dramatic, 2.7% per annum ($p<0.0001$) so that in 1993 24% of all cancer deaths in these females were due to tobacco related cancers (compared to approximately 13% in 1969). When deaths due to tobacco related cancers are removed, the upward trend in standardised mortality rates for cancer in older women disappears. Thus much of the increase in cancer deaths in older women is tobacco related.

FIGURE 38
TRENDS IN AGE STANDARDISED MORTALITY RATE (Under 65 Years) FROM TOBACCO RELATED CANCERS - N. IRELAND 1969-93

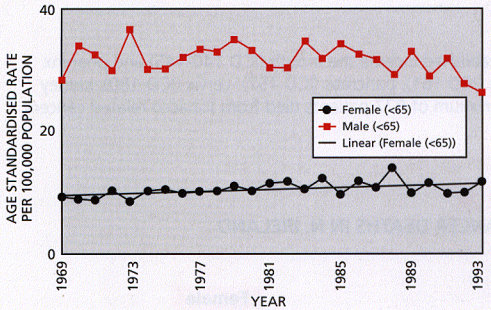
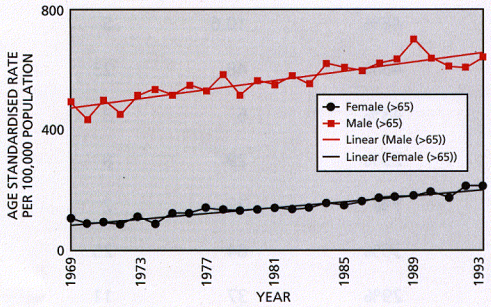


FIGURE 39
TRENDS IN AGE STANDARDISED MORTALITY RATE (Over 65 Years) FROM TOBACCO RELATED CANCERS - N. IRELAND 1969-93



Figures 40 and 41 show the age specific mortality rates from tobacco related cancers from 1969 to 1993. The downward trends in males and females are confirmed in all age groups below 55 years old. Above this age the direction of the trends change and exhibit an increase over the twenty-five year period. The age at which these increases become apparent differs between the sexes. For females a consistent and significant increase occurred for those age groups over 55 years old though the rates for the age group 55-59 at first increased and then decreased between 1969 and 1993. For males a significant elevation in standardised mortality rates was only seen in those aged 65 and over. Between ages 55 and 64 no trend in standardised mortality rates in males was evident, though there was the suggestion of a decline in latter years in the rates for males 55-59 years. It should be noted that rates in those over 65 are about twenty times that in those under 65.

The rate of increase at older age groups is greater for females than for males. Mortality rates from tobacco related cancers in females (65-74 years) increased by an average of 3.6% per annum and for females 75-84 the rate was 2.8% per annum (both these $p<0.0001$). The rate of increase for the equivalently aged males were much more modest at 0.1% and 0.3% per annum respectively.

A comparison of the standardised mortality ratios for tobacco related cancers (under 75 years) for the District Councils in N. Ireland are shown in Map L and M on page 62. The distribution of District Councils with standardised mortality ratios that are higher or lower than the N. Ireland average is quite similar to that for 'all cancers'. However, the differences between District Councils is much more marked for tobacco related cancers, suggesting that much of the overall difference between areas may be due to tobacco related cancers or increased deprivation which tends to be closely correlated. Standardised mortality ratios for Belfast District Council are 53% higher for males and 52% higher for females and those for females in Londonderry are 32% higher than the N. Ireland average. Lower rates are found in more affluent and more rural District Councils.

Comment

Tobacco related cancer deaths have been increasing in older males and females in N. Ireland over the past twenty-five years. Tobacco related cancer rates for females under 65 have been increasing but not for younger males. Most of the increase in cancer deaths in older women is tobacco related. These facts point to major areas for future disease or health gain depending on whether the use of tobacco can be controlled. Tobacco related cancers are higher in the urban areas of Belfast and Derry District Council areas. This pattern is repeated in many countries and has been related to younger ages of starting to smoke, to increased exposure to environmental tobacco smoke and to a much lesser extent environmental pollution.

Smoking is more common in lower socio-economic groups. In N. Ireland there are large pockets of deprivation (a good surrogate indicator for smoking levels in the population) to be found in the cities of Belfast and Londonderry. This may explain much of the geographical pattern seen here. Differences in the smoking levels also explains the geographical pattern seen throughout Europe. In Western Europe smoking is becoming much less popular and the falling smoking prevalence is matched by a corresponding fall in new cases and deaths from lung cancer. In Eastern Europe smoking levels are high and increasing and these countries have been experiencing marked rises in lung cancer.

FIGURE 40
TRENDS IN AGE STANDARDISED MORTALITY RATE (Males) FROM TOBACCO RELATED CANCERS - N. IRELAND 1969-93

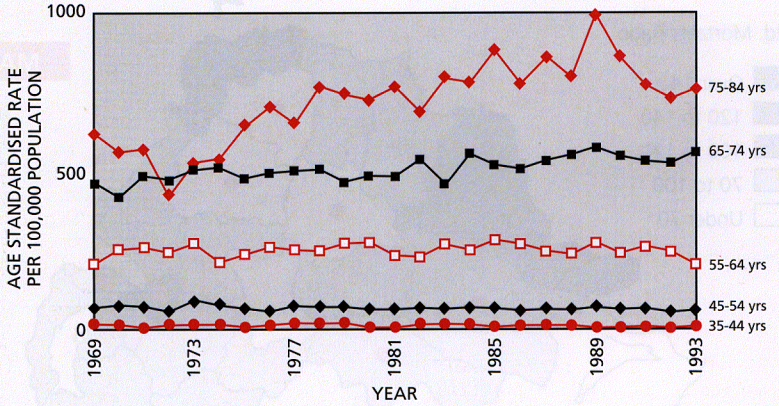
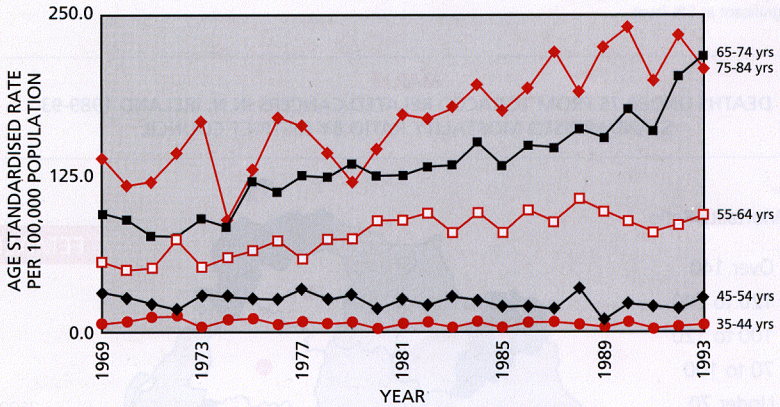


FIGURE 41
TRENDS IN AGE STANDARDISED MORTALITY RATE (Females) FROM TOBACCO RELATED CANCERS - N. IRELAND 1969-93



For Health Gain

The focus for reducing deaths from lung cancer must be on prevention.

Actions to reduce smoking levels include:

- Reducing the numbers who start to smoke by banning advertising, fiscal measures, reducing availability of tobacco products and enhancing health education.
- Helping those who smoke to stop.
- Controlling environmental tobacco smoke will reduce the levels of lung cancer and deaths in N. Ireland.

In Addition

- 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.