



Trends in Mortality

Mortality rates for respiratory TB have shown a downward trend in England and Wales since recording began some 150 years ago. A steeper decline in mortality rates occurred following the introduction of effective chemotherapy in the late 1940s (figures 1 and 2).

More recently, trends in mortality from respiratory TB have begun to level off in older age groups. However, a coding change in 1984, which resulted in a 12% increase in the overall number of deaths attributed to respiratory TB and a 20% increase in deaths in the over 75s, may have contributed to this.

In 1990, the number of deaths from respiratory TB in England and Wales reached an all time low of 490 deaths, of which 177 (36%) were attributed to the late effects of respiratory TB.

Trends in notifications

The number of notifications has also fallen dramatically this century: from 81,000 in 1913 to around 4000 per year in 1990. However, in the late eighties the decline in the number of notifications became less marked (figure 3). Nevertheless, over the period 1985 to 1990, notification rates decreased or remained constant in all age/sex groups in England and Wales.

Ethnic group

Survey data show a twenty-fold variation in notification rates by ethnic group, with the highest rates found in those from the Indian subcontinent (figure 4). Within the Indian subcontinent ethnic group, notification rates are lowest amongst those born in the UK and highest in recent immigrants.

Notification rates in other non-white ethnic groups are much lower, but still exceed rates in the white population by a factor of five.

Rates are declining in both the white population and the population of Indian subcontinent ethnic origin (figure 4).

The male to female sex ratio of TB varies by ethnic group. Amongst whites, rates are higher amongst males by a factor of two to one, whilst in the Indian subcontinent ethnic group, rates are slightly higher in females.

Figure 1: Male mortality from respiratory TB by age, England and Wales 1921-90

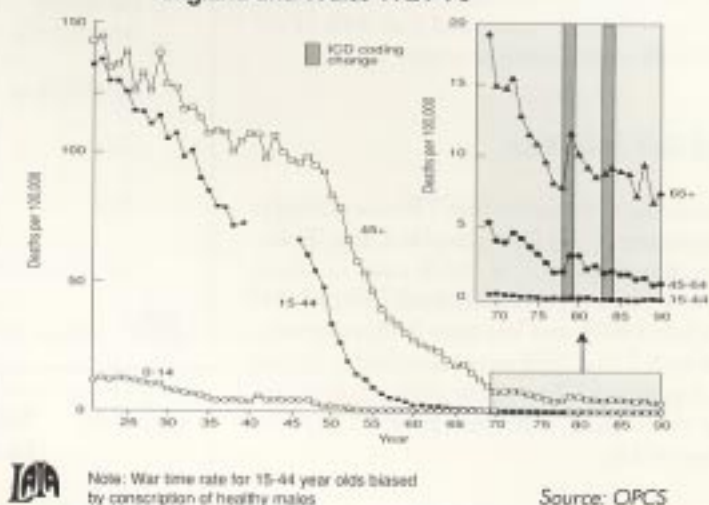


Figure 2: Female mortality from respiratory TB by age, England and Wales 1921-90

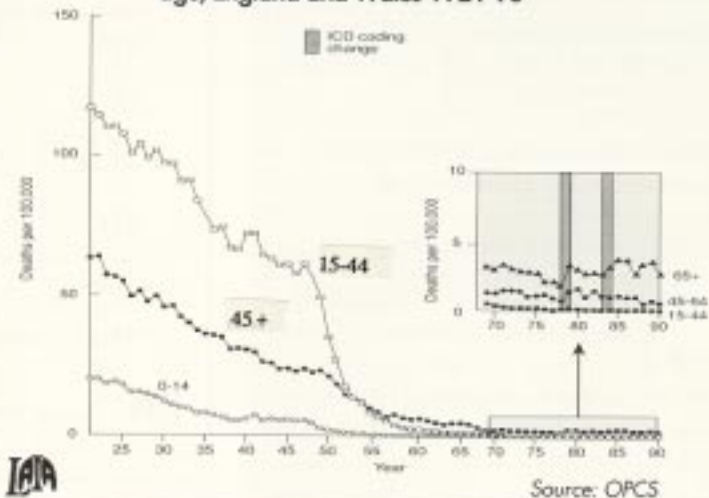
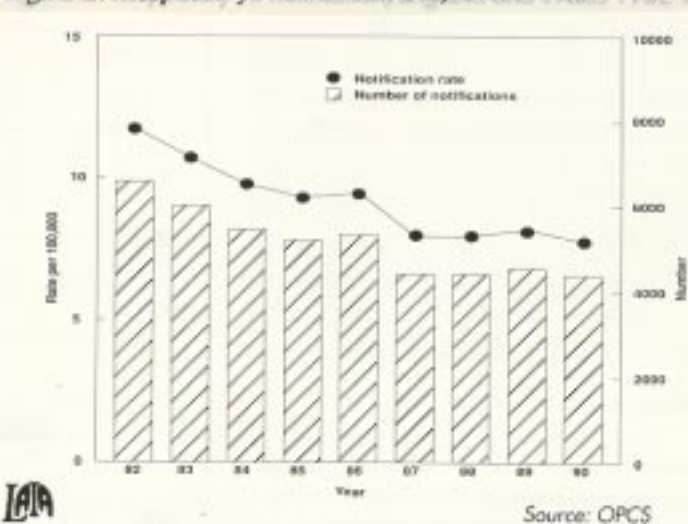


Figure 3: Respiratory TB notifications, Great Britain 1982-90



Incidence rates tend to increase with age in all ethnic groups (figure 5). However, the majority of cases of respiratory TB in the Indian subcontinent population occur in the under 35 age group (59% of Indian subcontinent patients), while the majority of cases in whites occur in the 55+ age group (figure 6). This is because the population from the Indian subcontinent has a younger age profile.

The ratio of respiratory to other forms of TB also varies by ethnic group. In the 1988 MRC survey, 84% of white patients had respiratory disease (including multiple sites) compared with 64% of patients of Indian subcontinent origin.

TB and HIV infection

Worldwide there is concern that TB is increasing as a consequence of AIDS. In England and Wales, however, the proportion of AIDS cases in whom TB occurs is currently relatively small (5% of AIDS cases by July 1990), and less than 0.5% of patients notified with TB in 1988 were identified as having AIDS. A national TB survey in 1993 will be investigating the current contribution of HIV to the incidence of TB.

Summary

- Mortality rates for respiratory TB in England and Wales are level or falling in all age/sex groups.
- The downward trend in notification rates appears to be levelling off.
- Notification rates are highest in the population of Indian subcontinent ethnic origin. Rates in other non-white ethnic groups are much lower.
- 60% of cases of respiratory TB occur in the white population; more than half of these occur in those aged 55 and over.
- A third of cases of respiratory TB occur in the population of Indian subcontinent ethnic origin; more than 80% of these occur in those aged less than 55.
- Notification rates are declining in the white and Indian subcontinent ethnic populations and are stable in other ethnic groups.
- To date, HIV has not had a major impact on the incidence of respiratory TB in the UK.

Acknowledgement

We are grateful to the MRC Cardiothoracic Epidemiology Group for providing unpublished data from the National survey of notifications of tuberculosis in England & Wales in 1988.

Figure 4: Respiratory TB notification rates by ethnic group

Ethnic group	Notification rate* per 100,000		
	1978/79	1983	1988
White	7.9	5.7	3.9
Indian	237	118	86
Pakistani/ Bangladeshi	241	113	66
West Indian	22	23	20
Other	72	30	18
ALL	12.7	9.1	6.4

*Newly notified, previously untreated patients



Source: MRC Cardiothoracic Epidemiology Group, unpublished data

Figure 5: Estimated annual TB notification rates (all sites) by age and ethnic group, England 1988

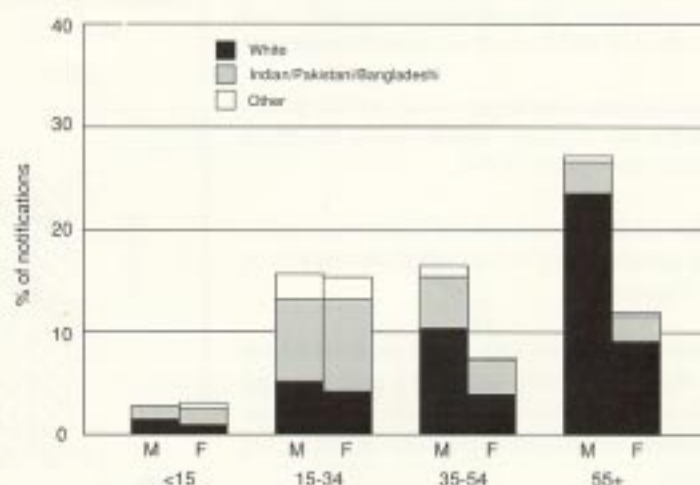
Age	Notification rate* per 100,000		
	White	Indian Subcontinent	West Indian
<15	1.5	26	14
15-34	2.4	162	39
35-54	4.7	152	21
55+	9.4	258	42
Total	4.7	120	29

*Newly notified, previously untreated patients



Source: MRC Cardiothoracic Epidemiology Group, unpublished data

Figure 6: Respiratory TB notifications by ethnic group, age and sex, England and Wales, 1988



Source: MRC Cardiothoracic Epidemiology Group, unpublished data