Trends in hospital admissions for asthma in Lombardy, Italy, 1976–86

Substantial changes have been registered in death certification rates from asthma over the last few decades, and appreciable rises have been observed in most recent years in several developed countries, including New Zealand, England and Wales, and Italy.1–3 These changes have been related to the introduction and use of newer pharmacological treatments, and the recent upward trends to serious acute side effects of some specific formulations, or to the delay caused by these drugs in seeking appropriate treatment of acute severe asthma.4–10 This would suggest that the upward trends in asthma mortality are not necessarily a consequence of increased incidence and prevalence of the disease, and should not therefore be consistently reflected in other asthma statistics.

To shed further light on the issue, we have considered trends in hospital admissions for asthma between 1976 and 1986 in Lombardy, the most populated Italian region, with approximately nine million inhabitants. Records of hospital admissions for asthma in Lombardy for the period 1976–86 were obtained from the Regional Department of Epidemiology. From these data, and the corresponding estimates of resident population, age specific and age standardised admission rates were derived. Directly standardised rates were based on the European standard population.

Trends in overall age standardised hospital admission rates for asthma between 1976 and 1986 are presented in the figure and contrasted with national mortality rates over the same calendar period. In both sexes, there was no apparent trend in hospital admission rates over the calendar period considered. When age specific rates were considered, however, appreciable rises were observed in childhood (over 40%o, in both sexes), while there was no change in young adults (15–44 years) and noticeable declines in middle and older ages (table).

The interpretation of these trends is not simple, particularly with reference to the different patterns in various age groups, but nonetheless recent trends in admission rates for asthma in Lombardy are substantially different from certified mortality on a national level. Over a comparable calendar period, in fact, overall age