

Letter to the Editor

Changes in Breast Cancer Mortality in Italy

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BETWEEN 1950 and 1975, trends in breast cancer mortality among American women appeared related to the changing patterns of age at first birth in subsequent generations of young adult women [1]. More recently, however, small declines in breast cancer mortality were observed among women below the age of 40. This was at variance with predictions from trends in childbearing patterns and the rising incidence of breast cancer and, hence, however indirectly, indicated the possibility of a favourable impact of recent changes in the management of the disease on mortality rates [2].

Similar indications emerged from analyses of breast cancer mortality trends in Italy over the period 1955-1979 [3, 4]. In particular, the age-specific rates in the last calendar quinquennium considered (1975-1979) were downwards below age 50, but upwards at the age of 55 or over (Fig. 1). The application of a log-linear Poisson model with arbitrary constraints on the parameters [5, 6] to disentangle the effects of birth cohort, calendar period of death and age (Fig. 2) produced a cohort curve largely consistent with available information on childbearing patterns [7]. In fact, upward trends in cohort values were observed up to the generation born in 1920 (which was consist-

ent with the reduced average number of births per women from 4.4 for the 1882-1886 generation to 2.4 for the 1922-1926 one [7]), followed by a flattening off for women born between 1920 and 1930 (who were at childbearing age during the 1950s 'baby boom'), and subsequent increases for more recent generations (whose average number of births appreciably declined; unfortunately, information on age at first birth in various cohorts is not readily available [7]).

Period of death values (which reflect the effect of late stage carcinogens, or the impact of changes in the management of the disease [3, 4]) increased up to the early 1970s, and levelled off thereafter. The decline between the 1970-1974 and the 1975-1979 value, estimated from the model, was limited in proportional terms (3%), but statistically significant on account of the large numbers of certified deaths (over 30,000 below age 74 in each 5-year period).

Thus, the pattern of Italian breast cancer death certification trends in the late 1970s, as in America, is compatible with a favourable impact of improved management of mortality rates. Nonetheless, this kind of evidence is obviously too indirect to permit definite inference and simply indicates, in our opinion, the importance of future monitoring of trends in breast cancer rates.

Accepted 29 July 1987.

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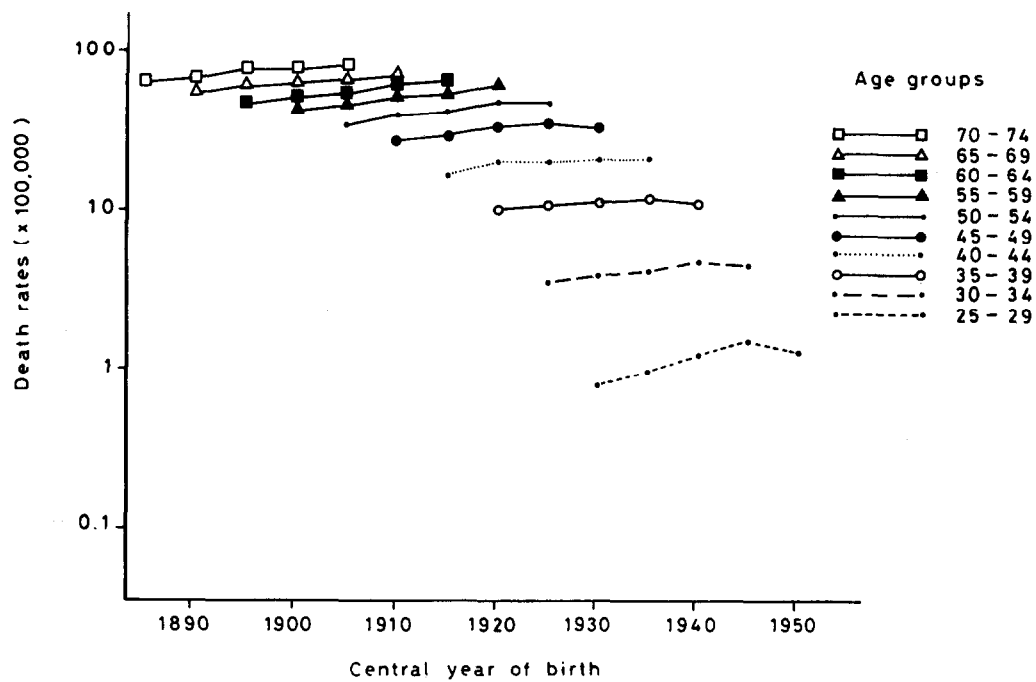


Fig. 1. Trends in age-specific death certification rates from breast cancer in Italian females, 1955-1979, plotted against the central year of birth cohorts.

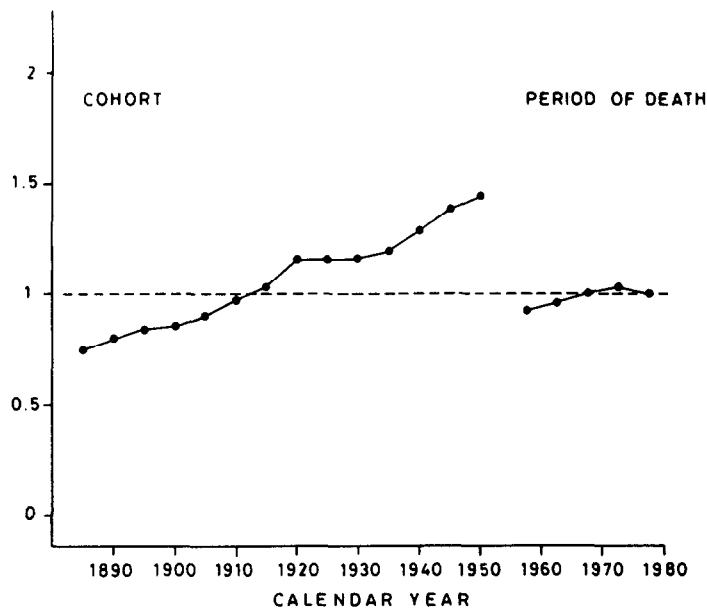


Fig. 2. Cohort and period of death values for breast cancer in females, averaged to unity. Death certification in Italy, 1955-1979, among women aged 25-74.

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