

Incidence of cutaneous malignant melanoma by tumour thickness: do time trend differ between Emilia-Romagna and Sicily?

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Background: Italy exhibits a marked north-south decreasing gradient of incidence of cutaneous malignant melanoma (CMM) and an upward time trend that, in the whole of the country, is steeper for in situ and thin lesions than for thick ones. We contrasted the trends in tumour thickness-specific incidence of CMM in a high-risk region of the north, Emilia-Romagna, versus a low-risk region of the south, Sicily.

Methods: We obtained incidence data for the years 2003-2017 from the cancer registries of Parma, Modena, Ferrara and Romagna (2010 population: men, 1,307,117; women, 1,388,525; total CMM cases: men, 5982; women, 5697) and Catania-Messina-Enna, Siracusa and Ragusa (2010 population: men, 1,391,916; women, 1,486,746; total CMM cases: men, 2234; women, 2112). Rates were age-standardised (Europe 2013). Time trends were assessed with the estimated average annual percent change (EAAPC). Significant EAAPCs are herein indicated by an asterisk.

Results: The proportions of in situ CMM and thin CMMs were greater in Emilia-Romagna (in situ CMM: men 28.9%, women 30.3%; CMM <0.8 thick: men 33.5%; women 37.4%) than in Sicily (in situ CMM: men 13.4%, women 14.2%; CMM <0.8 thick: men 22.8%, women 27.4%). The trend in total incidence of invasive CMM were similar (EAAPC: Emilia-Romagna, men 5.3*, women 3.5*; Sicily, men 4.3*, women 2.9*). In both regions, the increase was steeper for in situ CMM (EAAPC: Emilia-Romagna, men 10.2*, women 6.9*; Sicily, men 19.4*, women 16.3*) and early CMM (EAAPC: thickness <0.8, Emilia-Romagna, men 9.1*, women 5.2*; Sicily, men 5.4*, women 5.0*) than thick CMM (EAAPC: thickness 2.0-4.0, Emilia-Romagna, men 2.5*, women 1.1; Sicily, men 0.7, women -16.8*). In Emilia-Romagna, mortality rate was decreasing in both sexes (men -1.4, women -2.3*). An opposite mortality trend was observed in Sicily (men 2.1*, women 1.9).

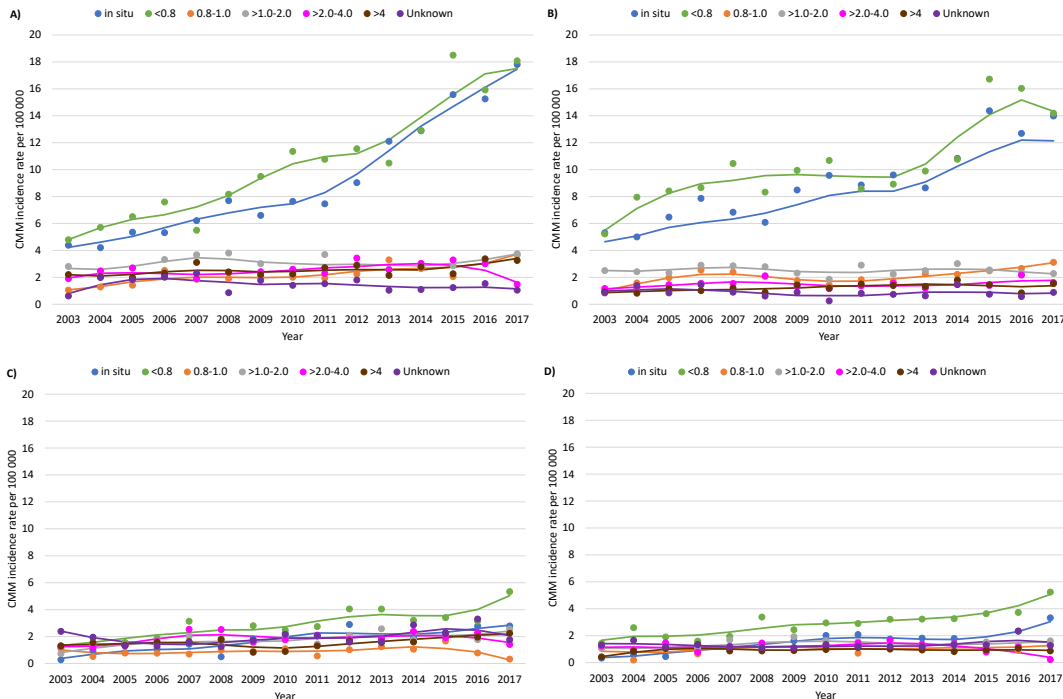


Figure 1: Curves of total annual age-standardised (Europe 2013) incidence rates of in situ and invasive CMM, by region and sex, 2003-2017. A smooth fitted line was added to the observed values (points).

- A) Men, Emilia-Romagna Region,
- B) Women, Emilia-Romagna Region,
- C) Men, Sicily Region,
- D) Women, Sicily Region.

Conclusions: The worse tumour thickness distribution and the persistent upward trend in mortality that are seen in Sicily are compatible with a lower level of social alarm for CMM and, thus, a lower level of diagnostic scrutiny (dermatologic office visit rate and biopsy rate), both due to the still lower incidence rates. However, the observed steep increase in the incidence of in situ and early invasive CMM suggests that a favourable change in the control of the disease is rapidly taking place in Sicily, too. These hypotheses deserve further investigation.

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