Thyroid cancer in Belarus
From CHARLES A STILLER

Sirs—The recent paper by Martin C Mahoney and colleagues on thyroid cancer incidence trends in Belarus is potentially of great importance for documenting the evolving pattern of thyroid cancer after Chernobyl and for the understanding of radiation carcinogenesis more generally. Unfortunately, there appear to be severe problems with the data and results as presented. The average populations at risk, calculated from the case numbers and rates in Tables 2 and 3 of the paper by Mahoney and colleagues, are given in Table 1. These figures seem far too low, given that this was a national study on a population of ~10 million (totals for 1997–2001 are given as an example of this). It seems likely that the incidence rates were in fact calculated per million but reported as if they were rates per \(10^5\). There are, however, other less straightforward problems also. The values in the table in bold type are strikingly inconsistent with the rest. In Tables 1 and 3 of the paper, the case numbers and incidence rates (two decimal places) are identical for males, ‘lower exposure’, age 15–34, and age 35–54 in each of the two periods 1992–1996 and 1997–2001, presumably another error. (There is also some confusion as to whether the final two periods are 1992–1996 and 1997–2001, as in paragraph 2 of the methods section and Tables 1 and 2, or 1992–1995 and 1996–2001, as in the subsection Trends in age-adjusted incidence rates of the Methods section and Table 3; I have opted for the former.) Finally, four of the incidence rates in Table 1 of the paper differ from those for the same sex-age-period-exposure group in Table 2 or 3 of the paper, namely those for females, age 0–14, 1992–1996, ‘higher exposure’ and ‘lower exposure’, males, age 35–54, ‘lower exposure’, and females age 35–54, ‘higher exposure’; those for age 0–14 differ by factors of ~6, whereas those for age 35–54 differ by much smaller amounts. In all four instances I have used the rates in Tables 2 and 3 of the paper to derive the respective populations at risk, because only those rates yield the values for the rate ratio given in Table 1 of the paper.

The results presented in the paper as published are impossible to interpret or to quote with any confidence. It would be a great service to all those with an interest in radiation carcinogenesis if the true results of this valuable piece of work could be made available by republishing the paper with all the numbers checked and corrected.

Reference


Editorial note

The authors of the original article were given the opportunity to respond but declined to do so.