The difference in these formulations, though not great, underscores how, when viewed through different lenses, we tend to generate differing though often complementary theories of causation of health and disease in populations. Hence, my suggestion that the experience to date has been somewhat centrifugal. Convergence may yet lie ahead.

References


Childhood cancer and nuclear power plants in Switzerland: a census-based cohort study

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The recent publication by Spycher et al.1 was obviously triggered by concerns over the findings of a previous study in Germany2 that demonstrated a significant increase in risk for childhood leukaemia with diminishing distance from a nuclear power plant. However, neither the discussion nor the public presentation to the media disclosed that a virtually identical result was obtained in the Swiss experience using the same analysis population and an identical mathematical model, as utilized in the German study. Even more puzzling is the fact, that the opposite result, namely a decrease of risk in a regression analysis vs 1/distance, emerges if the birth cohort is used instead of the resident cohort at the time of diagnosis.

As the two populations, separated only by a couple of years, cannot be very much different, questions arise on the robustness of a linear regression analysis using 1/distance as a measure of environmental risk. It would be helpful to describe the difference between the two analysis populations in the proximity to nuclear power plants and to compare the levels of fit analysis to sort out these discrepancies. It may well be that a regression analysis on 1/distance is oversensitive and yields spurious results despite nominal significance.

References
